7 Troubleshooting

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Pre-troubleshooting checklist

Before troubleshooting any specific printer problem, make sure that the following conditions are met:

- Remove the printer from the network before beginning troubleshooting to make sure that the failure is not associated with the network. For HP Color LaserJet 8550 MFP printers, compare printed pages to copied pages to determine whether the problem is a print engine problem or a copy problem. Use the HP Color LaserJet 8550 MFP printer service manual to troubleshoot copy module and document feeder problems.
- The printer driver is correct for the printer installed.
- The printer is being powered off with the power button, not by the power cable, so that cooling fans run through their entire cycle.
- Overdue maintenance is performed before troubleshooting.
- The maintenance units are within their rated life.

Note

The customer is responsible for ensuring that the items included in the consumable kits are in good condition.

- The printer has been maintained on a regular basis as described in chapter 4. Note the location of spilled or accumulated toner before troubleshooting. Toner contamination might indicate ventilation or printer environment problems.
- The toner catch tray is not overfull. Empty the toner catch tray, if necessary, and identify the source of excessive waste toner.
- The customer is using supported media.
- The operating environment is within the specified parameters listed in chapter 1 of this manual.
- The printer is not exposed to ammonia gas such as that produced by diazo copiers or office cleaning materials.
- The printer is never exposed to direct sunlight.
- The media are stored correctly and within environmental limits.
- The printer is installed on a solid, level surface.
- The line voltage does not vary more than 20% from the nominal rated value specified on the Power Rating Label. Suspect this problem if large motors are used near the printer such that they might cause temporary voltage changes.
- Any non-HP components (toner, memory boards, and EIO cards) are removed from the printer.
- Printer hardware or software configuration has not changed, or the problem is not associated with any specific software. Refer customers to their software vendor for software-related problems.

Printer message troubleshooting

This section contains explanations and recommended actions for messages that appear on the printer control panel.

- **Numbered messages** — table 41 (beginning on this page)
- **Unnumbered messages (in alphabetical order)** — table 42 (beginning on page 388)

Note The action field for each control panel message describes the steps to resolve the message. Each step is a self-contained resolution for the message; however, the steps should be followed in order.

Table 41. Numbered printer messages

********************* **Description:** Displayed during startup as the individual tasks begin initializing and during a low-level self-test. (A character other than "*" indicates an error has occurred.)	**Event log message:** None **Action:** No action is required.
13.00.00 (event log message) Paper jam	See CLEAR PAPER JAM in table 42 on page 394.
13.00.03 (event log message) Fusing delivery paper delay jam	See CLEAR FUSER JAM LOWER LEFT DOOR in table 42 on page 390.
13.00.04 (event log message) Fusing delivery stationary jam	See CLEAR FUSER JAM LOWER LEFT DOOR in table 42 on page 390.
13.00.05 (event log message) Delivery paper delay jam	See CLEAR OUTPUT JAM UPPER LEFT DOOR in table 42 on page 393.
13.00.06 (event log message) Delivery stationary jam	See CLEAR OUTPUT JAM UPPER LEFT DOOR in table 42 on page 393.

Table 41. Numbered printer messages (continued)

13.00.07 (event log message) Two-sided turnaround paper late jam	See CLEAR DUPLEX JAM LOWER LEFT DOOR in table 42 on page 390.
13.00.08 (event log message) Two-sided turnaround paper stopped jam	See CLEAR DUPLEX JAM LOWER LEFT DOOR in table 42 on page 390.
13.00.09 (event log message) Two-sided path paper late jam	See CLEAR DUPLEX JAM LOWER LEFT DOOR in table 42 on page 390.
13.00.10 (event log message) Transfer jam	See CLEAR TRANSFER JAM in table 42 on page 394.
13.00.11 (event log message) Tray 1 jam	See CLEAR UNEXPECTED PAPER SIZE JAM THEN LOAD TRAY 1 <type><size> in table 42 on page 394.
13.11.11 (event log message) Time-out at paper entry sensor (PS31)	See CLEAR INPUT DEVICE JAM in table 42 on page 390.
13.11.1B (event log message) Time-out at paper exit sensor (PS32)	See CLEAR INPUT DEVICE JAM in table 42 on page 390.
13.11.21 (event log message) Page stays too long at paper entry sensor (PS31)	See CLEAR INPUT DEVICE JAM in table 42 on page 391.
13.11.2B (event log message) Page stays too long at paper exit sensor (PS32)	See CLEAR INPUT DEVICE JAM in table 42 on page 391.
13.11.31 (event log message) At power on, paper entry sensor (PS31) in VTU is active.	See CLEAR INPUT DEVICE JAM in table 42 on page 391.
13.11.3B (event log message) At power on, paper exit sensor (PS32) in VTU is active.	See CLEAR INPUT DEVICE JAM in table 42 on page 391.

Table 41. Numbered printer messages (continued)

13.22.01, 13.22.02 (event log messages) Multi-bin mailbox jam	See CLEAR MAILBOX JAM in table 42 on page 392.
13.22.03 (event log message) Multi-bin mailbox jam	See CLEAR MAILBOX JAM in table 42 on page 392.
13.22.04 (event log message) Multi-bin mailbox jam	See CLEAR MAILBOX JAM in table 42 on page 393.
13.22.05 (event log message) Multi-bin mailbox jam	See CLEAR MAILBOX JAM in table 42 on page 393.
20 INSUFFICIENT MEMORY	**Event log message:** 20.00.00
Description: More data has been received from the computer than fits in the printer's internal memory.	**Action:** No action is required. Only the amount of data that fits in the printer's internal memory is printed. If this error occurs frequently or if large or complex print jobs are often sent to the printer, add more memory to the printer. The optimum amount of memory is 128 MB.
22 EIO <n> BUFFER OVERFLOW	**Event log message:** 22.00.01
Description: The EIO buffer has overflowed during a busy state. This might happen if several complex jobs are sent simultaneously via the network and are larger than the overflow will allow. **<n> = EIO slot number:** 1 = Bottom EIO slot 2 = Top EIO slot	**Action:** No action is required. The current data in the print buffer will be lost.
22 PARALLEL I/O BUFFER OVERFLOW	**Event log message:** 22.00.01
Description: Indicates the parallel buffer has overflowed. This might happen if several complex jobs are sent simultaneously via the parallel port and are larger than the overflow will allow.	**Action:** No action is required. The current data in the print buffer will be lost.

Table 41. Numbered printer messages (continued)

30.00.01 (event log message) Hard disk internal self-test routine failure detection	See DISK DEVICE FAILURE in table 42 on page 396.
40.<n> HP EIO ERROR **Description:** An EIO accessory connection has been abnormally broken while transferring data from the computer to the printer. **<n> = EIO slot number** 1 = Bottom EIO slot 2 = Top EIO slot	**Event log message:** 40.00.00 **Action:** **1** Press Go. **2** Print an EIO configuration page to verify that the EIO accessories are installed properly. **3** Check that all cables are connected to the EIO ports and that the EIO accessory is seated properly. **4** Turn the printer off and on to reset it. **5** If possible, print to another network printer to verify the network is working properly. All data in the print buffer will be lost.
40.00.01 (event log message) An EIO accessory is initializing.	See EIO <n> INITIALIZING in table 42 on page 397.
13.11.31 (event log message) At power on, paper entry sensor (PS31) in VTU is active.	See CLEAR INPUT DEVICE JAM in table 42 on page 391.
41.2 PRINTER ERROR **Description:** Indicates that a beam detect laser scanner error has occurred on the previous page. The page will reprint and continue.	**Event log message:** 41.00.02 **Action:** **1** Open and close the front door of the printer to remove any remaining pages from the printer. **2** Turn the printer off and on to reset the printer. **3** Reconnect connector J1001 on the laser driver PCA and connector J205 on the controller board. **4** Reconnect connector J2 on beam detect PCA, relay connector J40, and connector J211 on the controller board. **5** If the problem persists, replace the laser/scanner unit. **6** If, after replacing the laser/scanner unit, the problem persists, replace the controller board.

Table 41. Numbered printer messages (continued)

41.3 UNEXPECTED PAPER SIZE LOAD TRAY 1 <width> <length>

Event log message: 41.00.03

Description:
Tray 1 is configured for a specific media size, but the printer detects a different size being fed from tray 1. For example, the printer was expecting a letter-sized page but detected that an 11-by-17 inch-sized page was fed instead.

<width> = Media width specified in the printer driver or application
<length> = Media length specified in the printer driver or application

Action:

1. Verify the correct size media (width and length) are loaded in tray 1.
2. Verify the paper guides are set correctly.
3. Load the requested size media in tray 1. Or, press Go to print on the default size.
4. Verify that the media width sensor on the paper guides are working properly.
5. Reconnect connector J1701 on the tray 1 width detection PCA, relay connector J33, and connector J208 on the controller board.
6. Replace the tray 1 pick-up assembly.

41.5 UNEXPECTED PAPER TYPE LOAD TRAY <x> <type> <size>

Event log message: 41.00.05

Description:
The printer was expecting one type of medium to be fed from an input tray and a different type was fed. For example, the printer was expecting transparencies and plain paper was fed.

<x> = Input tray number (2, 3, or 4)
<type> = Media type specified in the printer driver or application
<size> = Media size specified in the printer driver or application

Note: The size error in this message applies only to tray 1.

Action:

1. Open and close the front door to remove the page from the printer.
2. Verify that the correct media are loaded in the input tray and the printer control panel is configured correctly.
3. Clean the detection windows of OHT sensors 1 and 2.
4. Reconnect connectors J1801 and J1802 of OHT sensors 1 and 2, connector J214 on the controller board, and relay connector J17.
5. Replace OHT sensors 1 and 2.
6. Replace the controller board.

Table 41. Numbered printer messages (continued)

49.<xxxx> ERROR CYCLE POWER	**Event log message:** 49.<xxxx>
Description: Indicates that a software or data communications error has occurred, or corrupt data was sent to the printer. This can be caused during times of high network traffic or by incomplete or out-of-bounds print data. This error can also occur because of defective EIO devices.	**Action:** **1** Verify that all cables are connected. **2** Turn the printer off and on to reset the printer. **3** Remove all EIO cards and reinstall them to ensure they are seated correctly. **4** If using a parallel connection, verify that the cable is IEEE-1284 compliant. **5** If the error occurs frequently, try adding more memory.
50.1 FUSER ERROR CYCLE POWER	**Event log message:** 50.00.01
Description: Indicates that a low temperature error has occurred in the fuser.	**Action:** **1** Verify the fuser is completely seated inside the printer. **2** Turn the printer off and on to reset the printer. **3** Turn the printer off and remove the fuser. Measure the resistance across fuser connectors J26F-A4 (FXTHU) and J26F-A3 (GND). If it is not in the range of 250 kOhms to 600 kOhms (room temperature), check the wiring from the connector J222 on the controller board up to the upper thermistor. If the wiring is normal, replace the fuser kit. **4** Reconnect connector J222 on the controller board and connector J26 on the fuser. **5** Replace the fuser kit. **6** Replace the power supply.
50.2 FUSER ERROR CYCLE POWER	**Event log message:** 50.00.02
Description: Indicates that a warmup error has occurred in the fuser.	**Action:** **1** Turn the printer off and on to reset the printer. **2** Verify the fuser is completely seated inside the printer. **3** Check for media jams in the fuser. **4** Replace the fuser kit.

Table 41. Numbered printer messages (continued)

50.3 FUSER ERROR CYCLE POWER **Description:** Indicates that a high temperature error has occurred in the fuser. This error is saved in the controller board by an electrical charge in capacitor C259.	**Event log message:** 50.00.03 **Action:** **1** Turn the printer off and on to reset the printer. **2** Turn the printer off and unplug it. Place a flat blade of a screwdriver between the two wires of C259 to short out the capacitor and clear the memory. **3** Replace the fuser kit. **4** Replace the power supply. **5** Replace the controller board.
50.4 FUSER ERROR CYCLE POWER **Description:** Indicates that a fuser drive or power unit error has occurred in the fuser.	**Event log message:** 50.00.04 **Action:** **1** Turn the printer off and on to reset the printer. **2** Verify the fuser is completely seated inside the printer. **3** Replace the fuser kit. **4** Replace the power supply. **5** Replace the controller board.
50.00.05 (event log message) An incompatible fuser is installed.	See INCORRECT FUSER LOWER LEFT DOOR in table 42 on page 399.
50.6 FUSER ERROR CYCLE POWER **Description:** Indicates that a heater error has occurred in the fuser.	**Event log message:** 50.00.06 **Action:** **1** Turn the printer off and on to reset the printer. **2** Verify the fuser is completely seated inside the printer. **3** Reconnect connector J222 on the controller board, connector J26 on the fuser, and connector J101 on the power supply. **4** Replace the fuser kit. **5** Replace the power supply. **6** Replace the controller board.

Table 41. Numbered printer messages (continued)

51 LASER ERROR CYCLE POWER	**Event log message:** 51.00.01
Description: Indicates that a laser malfunction has occurred.	**Action:** **1** Turn the printer off and on to reset the printer. **2** Reconnect connector J1001 on the laser driver PCA and connector J205 on the controller board. **3** Reconnect connector J2 on the beam detect PCA, relay connector J40, and connector J211 on the controller board. **4** If the problem persists, replace the laser/scanner unit. **5** If, after replacing the laser/scanner unit, the problem persists, replace the controller board.
52 SCANNER ERROR CYCLE POWER	**Event log message:** 52.00.00
Description: Indicates that the scanner motor is not turning properly.	**Action:** **1** Turn the printer off and on to reset the printer. **2** Reconnect connector J901 on the scanner motor PCA, relay connector J40, and connector J211 on the controller board. **3** Measure the voltage across connector J647-B11 (+24UH) and J647-4 (GND) on the main relay PCA after the printer is turned on. If the voltage is not 24 V, replace the power supply. **4** Measure the voltage across connector J211-7 (SCND) and J211-6 (GND) on the controller board after the printer is turned on. If the voltage changes from 0 V to 17 V or more, replace the laser/scanner unit. **5** Replace the laser/scanner unit. **6** Replace the controller board.

Table 41. Numbered printer messages (continued)

53.<x><y>.<zz> ERROR DIMM SLOT <n>

Event log message: 53.<x><y>.<zz>

Description:
Indicates that a memory error occurred during the configuration and validation of DIMM memory.

<x> = Hardware type:
0 = ROM
1 = RAM
2 = Font DIMM*

<y> = Hardware device:
0 = Onboard ROM/RAM
1 = DIMM slot 1
2 = DIMM slot 2
3 = DIMM slot 3
4 = DIMM slot 4
5 = DIMM slot 5
6 = DIMM slot 6
7 = DIMM slot 7
8 = DIMM slot 8

<zz> = Error:
00 = Unsupported memory
01 = Unrecognized memory
02 = Unsupported memory size
03 = Failed RAM test
04 = Exceeded maximum RAM size
05 = Exceeded maximum ROM size
06 = Invalid DIMM speed; check DRAM
07 = DIMM is reporting incorrect checksums
10 = DIMM address
11 = PDC XROM out of bounds
12 = Could not make temporary mapping
13 = Invalid RAM type
14 = DIMM not paired properly
15 = Bad firmware upgrade DIMM checksum
16 = More than one set of firmware upgrade DIMMs
17 = Not enough DRAM to run

<n> = EIO slot number:
1 = Bottom EIO slot
2 = Top EIO slot

Action:

1. Verify that the DIMM board is installed correctly and the DIMMs are configured correctly. DRAM DIMMs must be installed in synchronous pairs in adjacent slots, with the same size and speed in both slots. Only SDRAM is supported.
2. Turn the printer off and on to reset the printer.
3. Remove and replace the DIMM that caused the error.

For more information about installing DIMMs, see page 106.

*The HP Color LaserJet 8550 printer supports font DIMMs; the HP Color LaserJet 8500 printer does not support font DIMMs.

Table 41. Numbered printer messages (continued)

54.1 TEMPERATURE SENSOR ERROR CYCLE POWER

Event log message: 54.00.01

Description:
Indicates that the temperature/humidity sensor in the printer has malfunctioned. The temperature/humidity sensor is located below tray 2.

Action:

1. Reconnect connector J801 and relay connector J55 on the temperature/humidity sensor, and connector J206 on the controller board.
2. Replace the cassette crossmember assembly which includes the temperature/humidity sensor.
3. Replace the controller board.

54.2 CAROUSEL ERROR CYCLE POWER

Event log message: 54.00.02

Description:
Indicates that the color toner carousel is not working correctly. This could be caused by an obstruction in the carousel path, such as a loose shutter or disengaged toner cartridge.

Action:

1. Turn the printer off and on to reset the printer.
2. Open the carousel door and waste toner tray. Look for an obstruction, such as a toner cartridge shutter catching on the waste toner tray. Verify the toner lock lever is fully locked. If the message does not clear after closing the doors, turn the printer off and on to reset the printer.
3. Clean the carousel position sensor (PS3) with compressed air. If the problem persists, replace the sensor.
4. Reconnect connector J701 on carousel motor PCA; connectors J641, J642, J644, and J648 on the main relay PCA; connector J672 on the subrelay PCA; and connector J102 on the power supply.
5. Check operation of the carousel stopper arm. Replace the carousel stopper solenoid.
6. Check electrical continuity between connector J641-1 (+24 VB) and J642-3 (PMP) on the main relay PCA when the door switch (SW641) is turned on. If there is no electrical continuity, replace the main relay PCA.
7. Check electrical continuity between connector J644-1 (PBK) and J644-2 (PMP) on the main relay PCA when the door switch (SW644) is turned on. If there is no electrical continuity, replace the black toner cartridge on/off switch.

Table 41. Numbered printer messages (continued)

(54.2 CAROUSEL ERROR CYCLE POWER, continued)	**8** Check electrical continuity between connector J642-1 (PYMC) and J642-2 (PBK) on the subrelay PCA when the door switch (SW673) is turned on. If there is no electrical continuity, replace the toner cartridge cover switch in the subrelay PCA. **9** Check electrical continuity between connector J642-1 (PYMC) and J648-1 (+24 VAR) on the main relay PCA when the door switch (SW642) is turned on. If there is no electrical continuity, replace the main relay PCA. **10** Measure the voltage across connector J648-1 (+24 VAR) and J648-3 (GND) on the main relay PCA after the printer is turned on. If the voltage is not 24 V, replace the main relay PCA. **11** Reconnect connectors J704 and J706 on the carousel motor PCA, and connector J220 on the controller board. **12** Reconnect connector J43 on the carousel position sensor, relay connector J42 and connector J207 on the controller board. **13** Measure the voltage across connector J220-A6 (RLSROT) and J220-B5 (GND) on the controller board after the printer is turned on. If the voltage changes to about 3.5 V from 0 V, replace the carousel motor PCA. **14** Replace the carousel motor (M1). **15** Replace the controller board.
54.00.03 (event log message)	See DUPLEX ERROR CHECK DUPLEXER in table 42 on page 397.
54.3 CALIBRATION WARNING PRESS GO TO CONTINUE **Description:** The process marks in the density sensing pattern are corrupted (see chapter 5 for more information).	**Event log message:** 54.00.03 **Action:** **1** Press Go. **2** Print a configuration page and troubleshoot as an image-quality problem. **3** Check the transfer guide for cracks and replace the transfer guide as needed.

Table 41. Numbered printer messages (continued)

54.4 WASTE TONER SENSOR ERROR CYCLE POWER **Description:** The waste toner sensor has failed. Printing cannot continue.	**Event log message:** 54.00.04 **Action:** **1** Replace the waste toner sensor assembly. **2** Replace the imaging drum.
54.00.05 (event log message) Sensor abnormality.	See CLEAN DENSITY SENSOR CYCLE POWER in table 42 on page 389.
54.00.06 (event log message) Out of range cyan.	See CLEAN DENSITY SENSOR CYCLE POWER in table 42 on page 389.
54.00.07 (event log message) Out of range magenta.	See CLEAN DENSITY SENSOR CYCLE POWER in table 42 on page 389.
54.00.08 (event log message) Out of range yellow.	See CLEAN DENSITY SENSOR CYCLE POWER in table 42 on page 389.
54.00.09 (event log message) Out of range black.	See CLEAN DENSITY SENSOR CYCLE POWER in table 42 on page 389.
55 PRINTER ERROR CYCLE POWER **Description:** Indicates a printer command error. The commands cannot be exchanged between the printer and its controller.	**Event log message:** 55.00.01 **Action:** **1** Turn the printer off and on to reset the printer. **2** Verify the controller board is fully seated.
56.1 ERROR CYCLE POWER **Description:** Indicates an input feed error (such as requesting to feed transparencies through the duplexer), or that the input tray is not installed.	**Event log message:** 56.01.01 **Action:** **1** If the input tray you are trying to print from is not installed, install the input tray. **2** Turn the printer off and on to reset the printer.
56.2 ERROR CYCLE POWER **Description:** Indicates an illegal output error. For example, the multi-bin mailbox is not installed and it was selected as the output destination, or there are transparencies in the duplexer.	**Event log message:** 56.00.02 **Action:** **1** Open the printer and remove media from the paper path. **2** Verify that the media type is set in the printer control panel. **3** Turn the printer off and on to reset the printer.

Table 41. Numbered printer messages (continued)

57.1 FAN FAILURE

Description:
One of the cooling fans failed or is obstructed.

1 = Fan 1 (FM 1)

Event log message: 57.00.01

Action:

Caution: Turn the printer off and do not operate the printer in this condition or it can be seriously damaged.

1 Turn the printer off and on to reset it.

2 Reconnect connectors J702 and J706 on the carousel motor PCA, and connector J220 on the controller board.

3 Reconnect connector J701 on the carousel motor PCA, connectors J648 and J641 on the main relay PCA, and connector J102 on the DC power supply.

4 Measure the voltage across J702-3 (FAN1ON) and J701-2 (GND) on the carousel motor PCA after the printer is turned on. If the voltage changes from 0 V to 24 V, replace fan 1.

5 Measure the voltage across connector J701-1 (+24 VB) and J701-2 (GND) on the carousel motor PCA after the printer is turned on. If the voltage is about 24 V, replace the carousel motor.

6 Measure the voltage across connector J641-1 (+24 VB) and J641-4 (GND) on the main relay PCA after the printer is turned on. If the voltage is not 24 V, replace the main relay PCA.

7 Check the AC power supply.

8 If the problem is not rectified after the printer is turned off and on again, find the cause of activation of the overcurrent/overvoltage detection circuit in the power supply. Wait more than two minutes before turning the power back on.

9 Replace the power supply.

Table 41. Numbered printer messages (continued)

57.2 FAN FAILURE

Description:
One of the cooling fans failed or is obstructed.

2 = Fan 2 (FM 2)

Event log message: 57.00.02

Action:

Caution: Turn the printer off and do not operate the printer in this condition or it can be seriously damaged.

1 Turn the printer off and on to reset it.

2 Reconnect connectors J703 and J706 on the carousel motor PCA and connector J220 on the controller board.

3 Reconnect connector J701 on the carousel motor PCA, connector J648 on the main relay PCA, and connector J102 on the DC power supply.

4 Measure the voltage across connector J703-3 (FAN2ON) and J703-1 (GND) on the carousel motor PCA after the printer is turned on. If the voltage changes from 0 V to 24 V, replace fan 2.

5 Measure the voltage across connector J701-1 (+24 VB) and J701-2 (GND) on the carousel motor PCA after the printer is turned on. If the voltage is about 24 V, replace the carousel motor.

6 Measure the voltage across connector J641-1 (+24 VB) and J641-4 (GND) on the main relay PCA after the printer is turned on. If the voltage is 24 V, replace the main relay PCA.

7 Check the AC power supply.

8 If the problem is not rectified after the printer is turned off and on again, find the cause of activation of the overcurrent/overvoltage detection circuit in the power supply. Wait more than two minutes before turning the printer back on.

9 Replace the power supply.

Table 41. Numbered printer messages (continued)

57.3 FAN FAILURE

Event log message: 57.00.03

Description:
One of the cooling fans failed.

3 = Fan 3 (FM 3)

Action:

Caution: Turn the printer off and do not operate the printer in this condition or it can be seriously damaged.

1. Turn the printer off and on to reset it.
2. Reconnect connectors J645 and J647 on the main relay PCA, J18 and J74 relay connectors, and connector J227 on the controller board.
3. Reconnect connector J641 on the main relay PCA, and connector J102 on the power supply.
4. Measure the voltage across J645-3 (FAN3ON) and J645-1 (GND) on the main relay PCA after the printer is turned on. If the voltage changes from 0 V to 24 V, replace fan 3.
5. Measure the voltage across connector J641-1 (+24 VB) and J641-4 (GND) on the main relay PCA after the printer is turned on. If the voltage is not 24 V, replace the main relay PCA.
6. Measure the voltage across connector J641-1 (-24 VB) and J641-4 (GND) on the main relay PCA after the printer is turned on. If the voltage is not 24 V, replace the main relay PCA.
7. Check the AC power supply.
8. If the problem is not rectified after the printer is turned off and on again, find the cause of activation of the overcurrent/overvoltage detection circuit in the power supply. Wait more than two minutes before turning the printer back on.
9. Replace the controller board.

58.1 ERROR CYCLE POWER

Event log message: 58.00.01

Description:
Indicates that the paper diverter inside the right upper door is out of position, causing an error feeding media from tray 1.

Action:

1. Open the right upper door and check for a media jam or misfed media.
2. Turn the printer off and on to reset the printer.

Table 41. Numbered printer messages (continued)

59.<x> MOTOR ERROR CYCLE POWER

Event log message: 59.00.0<x>

Description:
Indicates that the main motor (M4) is not working properly.

<x> = Description:
0 = General error
1 = Startup error
2 = Rotation error

Action:

1. Turn the printer off and on to reset the printer.
2. Reconnect connector J219 and relay connector J1 on the controller board.
3. Replace the main motor (M4).
4. Reconnect connectors J641 to J643 and J647 on the main relay PCA, connectors J671 and J673 on the subrelay PCA, connector J102 on the power supply, and connector J227 on the controller board.
5. Check electrical continuity between connector J641-1 (+24 VB) and J642-3 (PMP) on the main relay PCA when the door switch (SW641) is turned on. If there is no electrical continuity, replace the main relay PCA.
6. Check electrical continuity between connector J671-2 (PMP) and J671-2 (PFUPR) on the subrelay PCA when the door switch (SW671) is turned on. If there is no electrical continuity, replace the subrelay PCA.
7. Measure the voltage across connector J647-B11 (+24 UH) and J647-4 (GND) on the main relay PCA after the printer is turned on. If the voltage is not 24 V, replace the main relay PCA.
8. Replace the controller board.

62.<x> SERVICE CYCLE POWER

Event log message: 62.00.0<x>

Description:
Indicates that a problem exists with the internal memory.

<x> = Description:
0 = Internal ROM or RAM
1-8 = DIMM slots 1-8

Action:

1. Turn the printer off and on to reset the printer.
2. Perform DRAM DIMM test from the formatter diagnostics in the Service Menu.
3. If the problem persists, replace the bad DIMM.

63 SERVICE CYCLE POWER

Event log message: 63.00.00

Description:
Indicates that the internal RAM memory test failed.

Action:

1. Turn the printer off and on to reset the printer.
2. Perform DRAM DIMM test from the formatter diagnostics in the Service Menu.
3. If the problem persists, replace the bad DIMM.

Table 41. Numbered printer messages (continued)

64 PRINTER ERROR CYCLE POWER **Description:** Indicates a scan buffer error.	**Event log message:** 64.00.00 **Action:** Turn the printer off and on to reset the printer.
65 PRINTER ERROR CYCLE POWER **Description:** Indicates a DRAM controller error.	**Event log message:** 65.00.00 **Action:** **1** Turn the printer off and on to reset the printer. **2** Perform DRAM DIMM test from the formatter diagnostics in the Service Menu. **3** If the problem persists, replace the bad DIMM.
66.<x>0.<yy> C-LINK COMM ERROR CHECK CABLES AND CYCLE POWER **Description:** Indicates a communication error between the 2,000-sheet input unit or the multi-bin mailbox and the printer. <x> = Device number in the link <yy> = Error code from the optional device	**Event log message:** None **Action:** **1** Verify that the C-link and power cables are connected. **2** Turn the printer off and on to reset the printer.
66.11.01 INPUT DEVICE FAILURE CHECK CABLES AND CYCLE POWER **Description:** Indicates a 2,000-sheet input unit lifting motor error.	**Event log message:** 66.11.01 **Action:** **1** Verify that the c-link and power cables are connected. **2** Turn the printer off and on to reset the printer. **3** Verify that there are no objects or paper stored in the left side of the tray. **4** Verify that the lifting plate moves freely by hand. **5** Verify that the paper size plates are installed correctly, and that they are not bent. **6** Replace the paper deck drive assembly bushing. **7** Replace the paper deck drive assembly. **8** Replace the paper tray (tray 4) for the 2,000-sheet input unit.

Table 41. Numbered printer messages (continued)

66.11.02 INPUT DEVICE FAILURE CHECK CABLES AND CYCLE POWER **Description:** Indicates a 2,000-sheet input unit feed motor error.	**Event log message:** 66.11.02 **Action:** **1** Verify that the c-link and power cables are connected. **2** Turn the printer off and on to reset the printer. **3** Verify that there are no objects in the left side of the tray. **4** Verify that the paper tray raised sensor (PS34) is working properly (perform a sensor test). **5** Check for proper installation of the pick-up roller. **6** Check the pick-up assembly and the paper deck drive assembly cabling. **7** Replace the pick-up assembly. **8** Replace the paper deck drive assembly.
66.11.03 INPUT DEVICE FAILURE CHECK CABLES AND CYCLE POWER **Description:** Indicates a 2,000-sheet input unit lifting and feed motor error.	**Event log message:** 66.11.03 **Action:** **1** Verify that the c-link and power cables are connected. **2** Turn the printer off and on to reset the printer. **3** Verify that there are no objects in the left side of the tray. **4** Verify that the lifting plate moves freely by hand. **5** Verify that the paper size plates are installed correctly, and that they are not bent. **6** Replace the paper deck drive assembly bushing. **7** Replace the paper deck drive assembly. **8** Check that the paper tray raised sensor (PS34) is working properly (perform a sensor test). **9** Check for proper installation of the pick-up roller. **10** Check pick-up assembly cabling. **11** Replace the pick-up assembly.

Table 41. Numbered printer messages (continued)

66.22.08 OUTPUT DEVICE FAILURE CHECK CABLES AND CYCLE POWER	**Event log message:** 66.22.08
Description: Indicates a multi-bin mailbox flipper motor error.	**Action:** **1** Verify that the c-link and power cables are connected. **2** Turn the printer off and on to reset the printer. **3** Check for jams in the flipper assembly area. **4** Replace the flipper assembly. **5** Replace the multi-bin mailbox controller board PCA.
66.22.09 OUTPUT DEVICE FAILURE CHECK CABLES AND CYCLE POWER	**Event log message:** 66.22.09
Description: Indicates a multi-bin mailbox external memory error.	**Action:** **1** Verify that the c-link and power cables are connected. **2** Turn the printer off and on to reset the printer. **3** Replace the multi-bin mailbox controller board PCA.
66.22.<xx> OUTPUT DEVICE FAILURE CHECK CABLES AND CYCLE POWER	**Event log message:** 66.22.<xx>
Description: Indicates a multi-bin mailbox error. <xx> = Error code from the optional device	**Action:** **1** Verify that the c-link and power cables are connected. **2** Turn the printer off and on to reset the printer. **3** Replace the C-link cables. **4** Replace the multi-bin mailbox controller board PCA.
67.<x> ERROR POWER CYCLE	**Event log message:** 67.00.0<x>
Description: Indicates an electronic controller error. **<x> = Description:** 1 = Controller board error 2 = Controller board IC malfunction 3 = Internal communication malfunction	**Action:** **1** Turn the printer off and on to reset the printer. **2** Replace the controller board.

Table 41. Numbered printer messages (continued)

68 NVRAM ERROR SETTINGS CHANGED **Description:** Indicates that a recoverable error has been detected in the NVRAM. Values for some NVRAM settings were found to be illegitimate in form and were set back to their default value.	**Event log message:** 68.00.00 **Action:** **1** Verify the printer control panel settings. One or more fields have been reset to their factory defaults during the error recovery. **2** Perform a factory defaults reset (see page 92). **3** Perform a cold reset (see page 431).
68 NVRAM FULL SETTINGS LOST **Description:** Indicates that the NVRAM is full, and the printer is unable to write new data to the NVRAM.	**Event log message:** 68.00.01 **Action:** Verify the printer control panel settings. One or more fields might have been reset to their factory defaults during error recovery. The next time the printer is turned off and on, NVRAM will be cleared and all factory defaults will be restored.
79 SERVICE <xxxx> CYCLE POWER **Description:** The firmware has detected a hardware failure within the formatter. This failure can be caused by defective EIO devices and communication ports **<xxxx> Description** 01<xx> = IO ASIC register error 02<xx> = Video ASIC register error 03<xx> = IDE ASIC register error	**Event log message:** 79.<xxxx> **Action:** **1** Turn the printer off. Disconnect all communication cables and EIO cards. Turn the printer back on. **2** Run extended formatter diagnostics from the Service Mode Menu to troubleshoot the failure. **3** If the problem persists without the communications connected, replace the formatter board.
8<n>.<xxx> (event log message) EIO card error	See EIO <n> NOT FUNCTIONAL in table 42 on page 398.

Table 42. Unnumbered printer messages

ACCESS DENIED	**Event log message:** None
Description: A user has attempted to select a menu value while printer control panel locking is enabled.	**Action:** See the system administrator for access to the printer control panel. If it is necessary to override the password, perform a cold reset. See page 431 for information about performing a cold reset.
CALIBRATING	**Event log message:** None
Description: The printer is adjusting the print density (see page 160 for more information).	**Action:** No action is required. If the printer does not return to Ready, turn the printer off and on to reset the printer. **Note:** It might take five to six minutes for the printer to complete the calibration.
CANCELING JOB	**Event log message:** None
Description: The printer is canceling the current print job.	**Action:** No action is required. If the printer does not return to Ready, turn the printer off and on to reset the printer.
CHECK CONTROL PANEL SETTINGS	**Event log message:** None
Description: Indicates that the page might not be printing because the control panel setting for media type and/or size does not match the media in the tray.	**Action:** See page 104 for information about configuring media type and size for each input tray.
CHECK TRAY 1 PAPER GUIDES	**Event log message:** None
Description: The width of the guides does not match the size of the media selected for the print job.	**Action:** Adjust the media width guides to the edge of the page. Ensure the media size selected for the print job is the same as the size of media loaded in tray 1.

Table 42. Unnumbered printer messages (continued)

CLEAN DENSITY SENSOR CYCLE POWER	**Event log message:** 54.00.0<x> **<x> = Description:** 5 = Sensor abnormality 6 = Out of range cyan 7 = Out of range magenta 8 = Out of range yellow 9 = Out of range black
Description: The process marks in the density sensing pattern are corrupted (see chapter 5 for more information).	**Action:** **1** Press Go. **2** Print a configuration page and troubleshoot as an image-quality problem. **3** Check the transfer guide for cracks and replace the transfer guide as needed.
CLEAR DUPLEX JAM LOWER LEFT DOOR	**Event log message:** 13.00.0<x> **<x> = Description:** 7 = Two-sided turnaround paper late jam 8 = Two-sided turnaround paper stopped jam 9 = Two-sided path paper late jam
Description: The printer senses a media jam in the duplexer.	**Action:** **1** Open the left lower cover, remove the duplexer, remove the jammed media, reinstall the duplexer, and close the left lower cover. **2** The fusing assembly and diverter assemblies can also cause duplex printing problems. Verify their operation. **3** Open the left lower cover and defeat the delivery cover interlock. Toggle the sensors at the paper exit and entrance. While running the sensor monitor test from the Service Mode Menu, verify sensors that 8 and 9 on the printer control panel indicate 1 (on) when toggled. **Note:** This procedure will not work if the left lower cover interlock is not defeated. **4** Replace the duplexer.

Table 42. Unnumbered printer messages (continued)

CLEAR FUSER JAM LOWER LEFT DOOR **Description:** The printer senses a media jam in the fuser area. The printer expected a page to come through the fuser, but the paper has not toggled PS1903, or PS1903 has been toggled an extended amount of time. If media jam frequently in the fuser area when duplexing 11-by-17 media or A3-sized media, the duplexer feed roller might have become slick. See the section about paper path tests under “Aids to Troubleshooting.” See table 44 on page 436 for an explanation of paper jam detection details.	**Event log message:** 13.00.0<x> **<x> = Description:** 3 = Fusing delivery paper delay jam 4 = Fusing delivery stationary jam **Action:** **WARNING!** Do not touch the fuser; it could be very hot and could cause burns. **1** Open the left lower cover, remove the jammed media, and close the left lower cover. **2** On the left side of the fuser, check the fuser exit flag and the reflective absorptive sticker that the sensor (PS1903) uses. **3** Perform the sensor monitor test in the Service Mode Menu. Toggle PS1903 and check to make sure that sensor 2 on the printer control panel indicates 1 (on) when toggled.
CLEAR INPUT DEVICE JAM **Description:** There is a jam in the 2,000-sheet input tray. Review “Media requirements” in Chapter 1 of this manual. Check the control panel settings for media type. See the section about paper path tests under “Aids to Troubleshooting.”	**Event log message:** 13.11.1<x> **<x> Description:** 1 = Time-out at paper entry sensor (PS31) B = Time-out at paper exit sensor (PS32 **Action:** **1** Open the VTU and remove any media. **2** Verify that the paper entry sensor (PS31) moves freely. **3** Verify that the feed, separation, and pickup rollers are properly seated. **4** If the problem persists, open the VTU and override the VTU closed sensor (PS35). Perform a paper path test feeding from the 2,000-sheet input unit, and verify that the feed rollers are advancing the paper. If rollers do not rotate, verify the connections at the pickup assembly and the controller PCA in the 2,000-sheet input unit. **5** If the rollers rotate and drop down but do not advance the paper, replace the feed and separation rollers using the maintenance kit. **6** If the rollers do not rotate or do not drop down, replace the pickup assembly. **7** If the problem persists, replace the VTU, which includes PS31.

Table 42. Unnumbered printer messages (continued)

CLEAR INPUT DEVICE JAM (continued)	**Event log message:** 13.11.2<x> **<x> Description:** 1 = Page stays too long at paper entry sensor (PS31) B = Page stays too long at paper exit sensor (PS32) **Action:** **1** Open the VTU and remove any media. **2** Verify that the paper entry sensor (PS31) moves freely. **3** Verify that the feed, separation, and pickup rollers are properly seated. **4** If the problem persists, open the VTU and override the VTU closed sensor (PS35). Perform a paper path test feeding from the 2,000-sheet input unit, and verify that the feed rollers are advancing the paper. If rollers do not rotate, verify the connections at the pickup assembly and the controller PCA in the 2,000-sheet input unit. **5** If the rollers rotate and drop down but do not advance the paper, replace the feed and separation rollers using the maintenance kit. **6** If the rollers do not rotate or do not drop down, replace the pickup assembly. **7** If the problem persists, replace the VTU, which includes PS31.
	Event log message: 13.11.3<x> **<x> Description:** 1 = At power on, paper entry sensor (PS31) in VTU is active B = At power on, paper exit sensor (PS32) in VTU is active **Action:** **1** Open the VTU and remove any media. **2** Verify that PS31 and PS32 in the VTU move freely. **3** If either PS31 or PS32 are damaged, replace the VTU.

Table 42. Unnumbered printer messages (continued)

CLEAR INPUT JAM **Description:** The printer senses a media jam in the transfer or registration area, in an input tray, or in the duplexer.	**Event log message:** None **Action:** **1** Open the front door, press the white button on the lower (green) lever, and swing the lever to the right. Open the right upper door, remove the transfer drum, and remove the jammed media from under the metal paper guide. Reinstall the transfer drum, and close the right upper door. Swing the lower (green) lever to the left, and close the front door. **2** Open each input tray, remove any jammed media, and close the input tray. **3** Open the left lower cover, remove the duplexer, remove the jammed media, reinstall the duplexer, and close the left lower cover. **4** Check the entire paper path.
CLEAR MAILBOX JAM **Description:** The printer senses a media jam in the multi-bin mailbox.	**Event log message:** 13.22.01, 13.22.02 **Action:** **1** Open the jam access door and remove any media. **2** Verify that the left (face-up) output bin full sensor (PSFaceFull) flag moves freely. **3** Verify that the flipper shaft is in place. **4** Replace the flipper assembly. **5** Replace the multi-bin mailbox controller board PCA. **Event log message:** 13.22.03 **Action:** **1** Check for a jam at the double-belt system and delivery head assembly. **2** Ensure free movement of the double belt (both belts). **3** Ensure parallel position of the double belt system. **4** Verify that the metallic tape is in place and in good condition. **5** Replace the transport belt motor (M5). **6** Replace the multi-bin mailbox controller board PCA. **7** Replace the delivery head assembly.

Table 42. Unnumbered printer messages (continued)

(CLEAR MAILBOX JAM, continued)	**Event log message:** 13.22.04 **Action:** **1** Check for a jam in the delivery head assembly. **2** Ensure free movement in (PSExit1) sensor flags on the delivery head assembly. **3** Verify that the delivery roller fingers are over the ejector rollers on the delivery head assembly. **4** Replace the flat ribbon cable that connects to the delivery head assembly to the controller board PCA. **5** Replace the multi-bin mailbox controller board PCA. **6** Replace the delivery head assembly.
	Event log message: 13.22.05 **Action:** **1** Check for a jam in the delivery head assembly. **2** Ensure free movement in (PSExit2) sensor flags on the delivery head assembly. **3** Verify that the delivery roller fingers are over the ejector rollers on the delivery head assembly. **4** Replace the flat ribbon cable that connects to the delivery head assembly to the controller board PCA. **5** Replace the multi-bin mailbox controller board PCA. **6** Replace the delivery head assembly.
CLEAR OUTPUT JAM UPPER LEFT DOOR **Description:** The printer senses a media jam in the top (face-down) output bin. This message might be caused by the paper not reaching PS11 or by paper toggling PS11 for an extended period of time. See table 44 on page 436 for an explanation of paper jam detection details.	**Event log message:** 13.00.0<x> **<x> = Description:** 5 = Delivery paper delay jam 6 = Delivery stationary jam **Action:** **1** Open the left upper door, remove the jammed media, and close the left upper door. **2** Verify that PS30, PS10, PS11, and PS3 sensors and the surrounding area are clean. **3** Perform sensor monitor test in the Service Mode Menu to verify all paper path sensors are functioning properly or to locate the jam.

Table 42. Unnumbered printer messages (continued)

CLEAR PAPER JAM **Description:** The printer senses a media jam. Because this is a generic media jam message, the media might be at any point in the paper path.	**Event log message:** 13.00.00 **Action:** **1** Open and shut the front door of the printer to clear any media from the printer. Be sure to check the fuser area because media can get wrapped around the fuser and be difficult to find. **2** Check all areas of the printer for jammed media because the printer is unable to determine the location of the media jam. **3** Perform sensor monitor test in the Service Mode Menu to verify all paper path sensors are functioning properly or to locate the paper jam.
CLEAR TRANSFER JAM **Description:** The printer senses a media jam in the transfer drum area when media has not reached PS5. In some cases the media might wrap around the transfer drum and become lodged near the imaging drum. See table 44 on page 436 for an explanation of paper jam detection sensors.	**Event log message:** 13.00.10 **Action:** Open the right upper door and the front door. Remove the transfer drum. Rotate the green lever at the front of the printer while removing the jammed media. Reinstall the transfer drum and close the front door and the right upper door.
CLEAR TRAY 4 JAM **Description:** The printer senses a media jam in tray 4.	**Event log message:** None **Action:** Open tray 4 and the VTU, remove the jammed media, and close both.
CLEAR UNEXPECTED PAPER SIZE JAM THEN LOAD TRAY 1 <type> <size> **Description:** The printer senses a media jam in tray 1, or the media fed are longer than what was expected. <type> = Media type specified in the printer driver or application <size> = Media size specified in the printer driver or application The <type> and <size> can be the default media type and size if an automatic paper override has occurred or if Go was pressed during a mount request.	**Event log message:** 13.00.11 **Action:** **1** Open the right upper door and remove the jammed media. **2** Load the media type and size indicated on the printer control panel.

Table 42. Unnumbered printer messages (continued)

CLEARING PAPER **FROM PRINTER**	**Event log message:** None
Description: The printer is attempting to remove unusable media (such as a misfed page or media damaged in a media jam).	**Action:** No action is required.
CLOSE **<location> DOOR**	**Event log message:** None
Description: The printer senses that one of the doors is not closed properly. <location> = A printer door	**Action:** **1** Close the door indicated in the message. **2** Check the function of the door interlocks (see page 425 for interlock locations).
COLD RESET	**Event log message:** None
Description: The printer has recognized the key sequence for performing a cold reset. The printer will reset to the factory default settings. **Note:** Before performing a cold reset, print a configuration page as a reference for resetting the printer settings. See page 415 for information about printing a configuration page.	**Action:** No action is required. For more information about factory default settings, see the menu maps beginning on page 82. See page 431 for more information about performing a cold reset.
CONFIG LANGUAGE	**Event log message:** None
Description: The printer has recognized the key sequence for selecting the display language.	**Action:** Wait for the display language options to appear and select the appropriate language. For more information about selecting the display language, see page 97.
CONTINUOUS TEST **PRESS CANCEL JOB**	**Event log message:** None
Description: A continuous configuration page is printing.	**Action:** Press CANCEL JOB to exit the configuration page printout mode. If the printer is in the process of printing when CANCEL JOB is pressed, the printer finishes printing the buffered pages before returning online.
DATA RECIEVED **PRESS GO KEY**	**Event log message:** None
Description: The printer has received and processed data. The printer is waiting for a formfeed.	**Action:** Press GO.

Table 42. Unnumbered printer messages (continued)

DISK DEVICE FAILURE

Event log message: 30.00.01

Description:
The printer hard disk's internal self-test routine has been invoked to read minimum and maximum logical block addresses (with no retries) and has detected a failure. If access to the printer hard disk is not required, printer operation can continue.

Action:
Replace the printer hard disk.

DISK FILE OPERATION FAILED

Event log message: None

Description:
The printer has received an illogical PJL command (such as download to nonexistent directory).

Action:
No action is required.

DISK IS FULL

Event log message: None

Description:
The printer hard disk is full.

Action:

1. From the host computer, delete data from the printer hard disk using the printer drivers or a disk management application.
2. To clear *all* data from the printer hard disk, reformat the printer hard disk from the printer control panel. To reformat the printer hard disk:
   a. Press MENU until CONFIGURATION MENU appears on the display.
   b. Press ITEM until INITIALIZE DISK appears on the display.
   c. Press SELECT to reformat the printer hard disk.

DISK IS WRITE PROTECTED

Event log message: None

Description:
A user has attempted to save to the printer hard disk while the printer hard disk is write-protected.

Action:
See the system administrator for access to the printer hard disk.

DRUM ERROR REPLACE DRUM KIT

Event log message: None

Description:
The printer has detected an error in the imaging drum memory device. Printing can continue but will be stopped as soon as the waste toner signal is triggered. Printing behavior is determined by the TONER LOW control panel setting.

See table 20 on page 88 for information about the TONER LOW setting.

Action:

1. Turn the printer off and on to reset the printer.
2. Reconnect connector J209, and relay connectors J47 and J48 on the controller board.
3. Replace the drum kit.

Table 42. Unnumbered printer messages (continued)

DRUM LIFE LOW ORDER DRUM KIT or DRUM LIFE LOW <20% REMAINING	**Event log message:** None
Description: The imaging drum is almost past its specified life. Printing can continue; however, print quality might be degraded.	**Action:** Printing can continue until DRUM LIFE OUT message appears.
DRUM LIFE OUT REPLACE DRUM KIT	**Event log message:** None
Description: The imaging drum is past its specified life or the waste toner cartridge in the imaging drum is full. Printing cannot continue until the drum kit has been replaced.	**Action:** **1** Replace the drum kit. **2** Remove the drum cartridge from the printer, and clean the waste toner sensor window with a dry cloth. **3** Reconnect connector J221 on the controller board, and connectors J631 to J633 and relay connector J71 on the waste toner sensor. **4** Reconnect connector J209, and relay connectors J47 and J48 on the controller board. **5** Replace the drum cartridge. **6** Replace the waste toner sensor.
DUPLEX ERROR CHECK DUPLEXER	**Event log message:** 54.00.03
Description: The printer has detected an error in the duplexer.	**Action:** **1** Open the left lower cover, press the green tab on the right side of the duplexer, and pull the duplexer out of the printer. Check for and remove any jammed media from the duplexer. Reinstall the duplexer. **2** Turn the printer off and on to reset the printer. **3** Replace the duplexer.
EIO <n> INITIALIZING	**Event log message:** 40.00.01
Description: An EIO accessory is initializing. **<n> = EIO slot number:** 1 = Bottom EIO slot 2 = Top EIO slot	**Action:** No action is required.

Table 42. Unnumbered printer messages (continued)

EIO <n> NOT FUNCTIONAL **Description:** Indicates an EIO card error, but printing can continue. The configuration page will indicate that EIO <n> is not supported. **<n> = EIO slot number:** 1 = Bottom EIO slot 2 = Top EIO slot	**Event log message:** 8<n>.<xxx> <xxx> = Failure code **Action:** **1** Turn the printer off and on to reset the printer. **2** Replace the offending EIO accessory.
ENGINE TEST **Description:** The printer is running an internal test to verify operation. When the printer is finished, the printer returns to the ready state but remains offline.	**Event log message:** None **Action:** Press GO to bring the printer online.
FACE UP OUTPUT BIN FULL **Description:** The top output bin on the multi-bin mailbox is full.	**Event log message:** None **Action:** **1** Remove all media from the top output bin in the multi-bin mailbox to continue printing. **2** Check the functionality of the Bin Full flag.
FUSER LIFE LOW REPLACE KIT **Description:** The fuser and paper rollers are almost past their specified life. The fuser kit has approximately 1,000 pages until the end-of-life warning appears.	**Event log message:** None **Action:** Although printing can continue, the fuser kit should be replaced for optimum printer operation. Replace the fuser kit and reset the fuser counter by pressing SELECT before attempting to print (or use the RESETS menu on the printer control panel).
FUSER LIFE OUT REPLACE KIT **Description:** The fuser and paper rollers are past their specified life. If TONER LOW is set to CONTINUE in the Configuration Menu, printing can continue with degraded print quality. Otherwise printing will be halted.	**Event log message:** None **Action:** Replace the fuser kit and reset the fuser counter by pressing SELECT before attempting to print (or use the RESETS menu on the printer control panel). See table 20 on page 88 for information about the TONER LOW setting.

Table 42. Unnumbered printer messages (continued)

INCORRECT FUSER LOWER LEFT DOOR	**Event log message:** 50.00.05
Description: The printer has detected that an incompatible fuser (possibly the wrong voltage of fuser for the printer) has been installed.	**Action:** **1** Remove the fuser and install the fuser specified for use with this printer. Printing cannot continue until the correct fuser is installed in the printer. For information about ordering a fuser kit, see page 511. **2** Reconnect connector J222 on the controller board and connector J26 on the fuser. **3** Replace the controller board.
INPUT DEVICE PAPER PATH OPEN	**Event log message:** None
Description: The VTU on the 2,000-sheet input unit is open.	**Action:** Close the VTU.
INSTALL <color>	**Event log message:** None
Description: The toner cartridge is not installed, not correctly installed in the printer, or not being detected by the cartridge sensor. <Color> = Cyan, magenta, yellow, or black **Caution:** Use the blue button to rotate the carousel to prevent damage to the printer.	**Action:** **1** Insert the cartridge or make sure the installed cartridge is correctly seated in the printer. **Note:** The color toner carousel will not rotate unless the following conditions are met: • The blue toner lever is locked. • The clear door is closed. • The imaging drum is installed. • The black toner cartridge is installed completely, including removing the orange seal from the black toner cartridge and swinging the upper (blue) lever to the left. • The right upper door is closed. **2** Turn the printer off and on to reset the printer. **3** If the cartridge is installed correctly, check that the sensor PS1901C is functioning properly. **4** Clean the sensor with a toner wipe. **5** Reconnect connector J221 on the controller board, and connector J621 and relay connector J70 on the remaining color toner sensor.

Table 42. Unnumbered printer messages (continued)

(INSTALL <color>, continued)	**6** Make sure that the black toner cartridge is installed. • Install the black toner cartridge if it is not installed. • If the black toner cartridge is already installed, turn the printer off, reinstall the black toner cartridge, and turn the printer on again. **7** Reconnect connectors J641 and J644 on the main relay PCA, and connector J102 on the power supply. **8** Reconnect connector J227 on the controller board, and connector J647 on the main relay PCA. **9** Check electrical continuity between connector J644-1 (PBK) and J644-2 (PMP) when the door switch (SW644) is turned on. If there is no electrical continuity, replace the black toner cartridge on/off switch. **10** Check the upper (blue) lever (black toner cartridge lever) on the printer. Move the lever to the left. Replace the lever if it is cracked. **11** Replace the black toner cartridge if it is deformed or damaged. **12** Replace the remaining color toner sensor. **13** Replace the controller board.
INSTALL FUSER LOWER LEFT DOOR **Description:** The printer has detected that the fuser is not installed.	**Event log message:** None **Action:** **1** Install the fuser and verify that it is working correctly. **2** Reconnect connector J26 on the fuser. **3** Reconnect connector J222 on the controller board. **4** Replace the controller board.

Table 42. Unnumbered printer messages (continued)

INSTALL IMAGING DRUM OPEN FRONT DOOR

Description:
The printer has detected that the imaging drum is not installed.

Note: All doors must be closed for the printer to detect the imaging drum.

Event log message: None

Action:

1 Install the imaging drum before attempting to print. If the condition persists, take the imaging drum out and reinstall it.

Note: The imaging drum must be installed and the upper lever must be to the left in order for the carousel to rotate.

2 Turn the printer off and on to reset the printer.

3 Replace the drum cartridge.

4 Replace the drum cartridge if the drum cartridge on/off switch guide is deformed.

5 Make sure that the drum cartridge is installed.

- Install the drum cartridge if it is not installed.
- If the drum cartridge is already installed, turn the printer off, reinstall the drum cartridge, and turn the printer on again.

6 Reconnect connectors J641 to J643 and J647 on the main relay PCA, connectors J671 and J673 on the subrelay PCA, connector J102 on the power supply, and connector J227 on the controller board.

7 Check electrical continuity between connector J641-1 (+24 VB) and J642-3 (PMP) on the main relay PCA when the door switch (SW641) is turned on. If there is no electrical continuity, replace the right cover switch on the main relay PCA.

8 Check electrical continuity between connector J671-2 (PMP) and J671-2 (PFUPR) on the subrelay PCA when the door switch (SW671) is turned on. If there is no electrical continuity, replace the delivery cover/front cover switches on the subrelay PCA.

9 Measure the voltage across connector J641-1 (+24 VB) and J641-A1 (GND) on the main relay PCA after the printer is turned on. If the voltage is not 24 V, replace the power supply.

10 Measure the voltage across connector J647-B11 (+24UH) and J647-4 (GND) on the main relay PCA after the printer is turned on. If the voltage is not 24 V, replace the main relay PCA.

Table 42. Unnumbered printer messages (continued)

(INSTALL IMAGING DRUM OPEN FRONT DOOR, continued)	**11** Check the drum cartridge on/off switch lever on the printer. Set the lever at the correct position if it is disconnected. Replace the lever if it is cracked. **12** Reconnect connector J209, and relay connectors J47 and J48 on the controller board. **13** Replace the controller board.
INSTALL TRANSFER DRUM OPEN RIGHT DOOR **Description:** The printer has detected that the transfer drum is not installed. **Note:** All doors must be closed for the printer to detect the transfer drum. If the right upper cover interlock is defeated, this error will occur unless the density sensor is covered with paper.	**Event log message:** None **Action:** **1** Install the transfer drum before attempting to print. **2** Take the transfer drum out and reinstall it. **3** Make sure that the transfer drum is installed. • If the transfer drum is not already installed, install the transfer drum. • If the transfer drum is already installed, turn the printer off, verify the transfer drum is in the correct position, and turn the printer on again. **4** Reconnect connector J1101 on the density sensor PCA, intermediate connectors J75 and J46, and connector J206 on the controller board. **5** Measure the voltage across connector J704-1 (+24 VAR) and GND on the density sensor PCA after the printer is turned on. If the voltage is not approximately 24 V, replace the density sensor PCA. **6** Replace the controller board.
LANGUAGE = <xxxx> **Description:** Displayed during start up. The printer has recognized the key sequence for changing the control panel language. <xxxx> = Printer control panel display language	**Event log message:** None **Action:** No action is required. For more information on changing the printer control panel display language, see page 97.

Table 42. Unnumbered printer messages (continued)

LEFT OUTPUT BIN FULL **Description:** The left (face-up) output bin on the printer is full. **Note:** This message appears only if the optional multi-bin mailbox is installed.	**Event log message:** None **Action:** Remove all media from the left (face-up) output bin of the printer to continue printing.
LOCK TONER LEVER **Description:** The blue lever inside the clear door is not locked.	**Event log message:** None **Action:** **1** Open the front door of the printer, open the clear door, and swing the blue toner lock lever on the carousel to the right. **2** Remove the toner cartridge, and then reinstall it, making sure the cartridge is all the way in the printer. **3** Swing the blue toner lock lever on the carousel to the left until it clicks, and then close the clear and front doors.
MAILBOX COMM ERROR CHECK CABLES CYCLE POWER **Description:** Communication with the multi-bin mailbox has been lost.	**Event log message:** None **Action:** **1** Verify all cables are connected correctly. **2** Turn the printer off and on to reset the printer.
MAILBOX <x> OUTPUT BIN FULL **Description:** A mailbox in the multi-bin mailbox is full. <x> = Mailbox 1 through 8	**Event log message:** None **Action:** Remove all media from the multi-bin mailbox to continue printing.
MAILBOX NOT ATTACHED **Description:** The multi-bin mailbox is not correctly attached to the printer. The printer will print to the top (face-down) output bin when in this state.	**Event log message:** None **Action:** Push the multi-bin mailbox up against printer.

Table 42. Unnumbered printer messages (continued)

MANUALLY FEED **<type> <size>**	**Event log message:** None
Description: The printer is requesting that a sheet of media or an envelope be manually fed. <type> = Media type specified in the printer driver or application <size> = Media size specified in the printer driver or application	**Action:** Load the requested media type and size into tray 1. If the proper media is already loaded into tray 1, press GO to initiate printing.
MEMORY SHORTAGE **PAGE SIMPLIFIED**	**Event log message:** None
Description: The printer is compressing the print job so that all of the job will fit into the available printer memory. The print job's appearance might be altered by the compression of the data.	**Action:** **1** If possible, simplify the print job by lowering the resolution of graphics. **2** Install more printer memory. For more information about printer memory options, see page 511.
NO JOB **TO CANCEL**	**Event log message:** None
Description: CANCEL JOB was pressed and there is no job to cancel.	**Action:** No action is required.
NO JOBS **PENDING**	**Event log message:** None
Description: While in the Proof and Print Menu, ITEM was pressed and there are no pending proof and print jobs.	**Action:** No action is required.
OFFLINE	**Event log message:** None
Description: The printer is offline.	**Action:** Press GO to bring the printer online.

Table 42. Unnumbered printer messages (continued)

OUT OF MEMORY **JOB CLEARED**	**Event log message:** None
Description: The printer personality for the current job could not be run in the available memory. The job was canceled, and no pages were printed.	**Action:** **1** Reprint the job. If the message still appears, turn the printer off and on to reset the printer before sending the print job again. **2** Install more printer memory. For more information about printer memory options, see page 511.
PCL MEMORY FULL **STORED DATA LOST**	**Event log message:** None
Description: The resource save area for the printer personality is full. Fonts downloaded to the printer RAM might have been deleted.	**Action:** Turn the printer off and on to clear the printer RAM.
PJL OPERATIONS **FAILED**	**Event log message:** None
Description: The requested PJL operation could not be completed because the option is unavailable or the PJL data was corrupt.	**Action:** No action is required.
PLEASE WAIT	**Event log message:** None
Description: The printer is in the process of going offline or into the menus.	**Action:** No action is required.
POWERSAVE ON	**Event log message:** None
Description: The printer is in Power Save mode. Power Save settings can be changed on the printer control panel through the Configuration Menu (see page 88).	**Action:** Clear this message by pressing any key. **Note:** This message will also be cleared if a print job is sent to the printer or if an error condition is detected by the printer.

Table 42. Unnumbered printer messages (continued)

PRESS SELECT IF FUSER IS NEW **Description:** The printer has detected that a new fuser might have been installed. **Note:** This message will also occur if the printer is turned off and on and the internal fuser count indicates the fuser is near the end of its life, or the fuser door is opened. The message displays for 10 seconds.	**Event log message:** None **Action:** **1** If the fuser has been replaced, press SELECT to reset the internal counter. If the message clears before pressing SELECT, the value can be reset in the RESETS menu. **2** If the fuser has not been replaced, press GO.
PRESS SELECT IF TRANSFER IS NEW **Description:** The printer has detected that a new transfer drum might have been installed. **Note:** This message will also occur if the printer is turned off and on and the internal transfer count indicates the transfer drum is near the end of its life, or the transfer door is opened. The message displays for 10 seconds.	**Event log message:** None **Action:** **1** If the transfer drum has been replaced, press SELECT to reset the internal counter. If the message clears before pressing SELECT, the value can be reset in the RESETS menu. **2** If the transfer drum has not been replaced, press GO.
PRESS SELECT TO INITIALIZE DISK **Description:** The printer hard disk is new or has been formatted for another file system.	**Event log message:** None **Action:** **1** Press SELECT to reformat the printer hard disk. All data currently on the printer hard disk will be lost. **2** If you don't want to initialize the printer hard disk, wait until the message clears (10 seconds) or press GO, and the disk will not be initialized. This will render the disk non-functional, but the configuration page will show that the disk is installed.

Table 42. Unnumbered printer messages (continued)

PRESS SELECT TO LOSE DISK DATA PRESS GO KEY TO CANCEL	**Event log message:** None
Description: This is a request to confirm initialization of the printer hard disk (see PRESS SELECT TO INITIALIZE DISK above). Initialization will perform a high-level check of the disk and register the disk with the disk manager software.	**Action:** **1** If you want to proceed with initialization, press SELECT. **2** If you don't want to initialize the printer hard disk, wait until the message clears (10 seconds) or press GO and the disk will not be initialized. This will render the disk non-functional, but the configuration page will show that the disk is installed.
PRINTER LANGUAGE NOT AVAILABLE JOB CANCELED	**Event log message:** None
Description: PJL encountered a request for a printer personality that does not exist in the printer. The job was canceled and no pages were printed.	**Action:** No action is required.
PRINTING CONFIGURATION	**Event log message:** None
Description: The printer is printing the configuration page. When the configuration page is printed, the printer returns to an online and ready state.	**Action:** No action is required.
PRINTING DEMONSTRATION	**Event log message:** None
Description: The printer is printing a demonstration page. When the demonstration page is printed, the printer returns to an online and ready state.	**Action:** No action is required.
PRINTING EVENT LOG	**Event log message:** None
Description: The printer is printing the event log. When the event log is printed, the printer returns to an online and ready state.	**Action:** No action is required.

Table 42. Unnumbered printer messages (continued)

PRINTING FILE DIRECTORY **Description:** The printer is printing the disk directory. When the file directory is printed, the printer returns to an online and ready state.	**Event log message:** None **Action:** No action is required.
PRINTING FONT LIST **Description:** The printer is printing the font list. When the font list is printed, the printer returns to an online and ready state.	**Event log message:** None **Action:** No action is required.
PRINTING MENU MAP **Description:** The printer is printing the menu map. When the menu map is printed, the printer returns to an online and ready state.	**Event log message:** None **Action:** No action is required.
PROCESSING COPY <x> OF <y> **Description:** The printer is processing a proof-and-print or mopy-print job. <x> = Number of the copy in process <y> = Total number of copies	**Event log message:** None **Action:** No action is required.
PROCESSING JOB **Description:** The printer is actively processing a print job.	**Event log message:** None **Action:** No action is required.
PROCESSING JOB FROM TRAY <x> **Description:** The printer is actively processing a print job. <x> = Input tray (1, 2, 3, or 4).	**Event log message:** None **Action:** No action is required.

Table 42. Unnumbered printer messages (continued)

PS MEMORY FULL **STORED DATA LOST**	**Event log message:** None
Description: The resource save area for the printer personality is full. Fonts downloaded to the printer RAM might have been deleted.	**Action:** Turn the printer off and on to clear the printer RAM.
READY	**Event log message:** None
Description: The printer is online and ready for data. No status or printer attention messages are pending.	**Action:** No action is required.
RESETTING **ACTIVE IO**	**Event log message:** None
Description: The printer is resetting active I/O ports.	**Action:** No action is required.
RESETTING **ALL IO**	**Event log message:** None
Description: The printer is resetting all I/O ports.	**Action:** No action is required.
RESTORING **FACTORY SETTINGS**	**Event log message:** None
Description: The printer is resetting the printer's factory defaults. The printer is in the process of completing a cold reset. When the reset is completed, the printer returns to the ready state but remains offline.	**Action:** Reset the EIO type and configure the printer before bringing the printer online. For more information on factory defaults and configuring the printer control panel, see page 82.
SEPARATOR **OUTPUT BIN FULL**	**Event log message:** None
Description: The multi-bin mailbox output bins are full.	**Action:** Remove all media from the output bins on the multi-bin mailbox to continue printing.
STACKER **OUTPUT BIN FULL**	**Event log message:** None
Description: The multi-bin mailbox output bins are full.	**Action:** Remove all media from the output bins on the multi-bin mailbox to continue printing.

Table 42. Unnumbered printer messages (continued)

TONER LOW REPLACE <color>	**Event log message:** None
Description: The printer is almost out of the specified toner. The printer remains online and ready to print; however, the print quality might be degraded. <color> = Cyan, magenta, yellow, or black	**Action:** Although printing can continue, the toner cartridge should be replaced for optimum printer operation. **Note:** Do not shake the toner cartridge in attempts to extend the cartridge life. For more information about configuring the printer response to this message, see the description of the TONER LOW setting on page 88.
TONER OUT REPLACE <color>	**Event log message:** None
Description: The printer is out of the specified toner and cannot continue. <color> = Cyan, magenta, yellow, or black	**Action:** **1** Replace the toner cartridge specified. **2** Reconnect connector J226 on the controller board and connector J5001 on high-voltage converter 1 PCA. **3** Check the contact for remaining toner detection on the black toner cartridge and the contact for remaining toner detection on the printer for deformation or damage. • Replace defective parts. (Replace the black toner cartridge if it is defective.) • Check the contacts. If they are disconnected, return them to their correct positions. **4** Replace the high-voltage converter 1 PCA. **5** Replace the controller board.
TOO MANY FILE STORAGE DEVICES REMOVE EITHER DISK	**Event log message:** None
Description: The printer can support only one physical printer hard disk and two have been detected. Printing will not be possible until one of the hard disks has been removed.	**Action:** Turn the printer off and remove the extra printer hard disk. **Note:** The DN model comes with a factory-installed internal hard disk on the formatter board.

Table 42. Unnumbered printer messages (continued)

TOP OUTPUT BIN FULL **Description:** The top (face-down) output bin of the printer is full.	**Event log message:** None **Action:** **1** Remove all media from the top (face-down) output bin on the printer to continue printing. **2** Verify that PS30, PS10, PS11, and PS3 sensors and the surrounding area are clean.
TRANSFER KIT LOW REPLACE KIT **Description:** The transfer drum, transfer belt, cleaning roller, and charcoal filter are almost past their specified life. The transfer kit has approximately 750 color or 1,000 black-and-white images remaining until the printer will signal the end of the kit life.	**Event log message:** None **Action:** Although printing can continue, the transfer kit should be replaced for optimum printer operation. Replace the transfer kit and reset the transfer counter by pressing SELECT before attempting to print (or use the RESETS menu on the printer control panel).
TRANSFER KIT OUT REPLACE KIT **Description:** The transfer drum, transfer belt, cleaning roller, and charcoal filter are past their specified life. If TONER LOW is set to continue, printing can continue with degraded print quality; otherwise printing will be halted.	**Event log message:** None **Action:** Replace the transfer kit and reset the transfer counter by pressing SELECT before attempting to print (or use the RESETS menu on the printer control panel). For more information about configuring the printer response to this message, see the description of the TONER LOW setting on page 88.
TRAY 1 CONTAINS UNKNOWN MEDIA **Description:** Media was stacked in tray 1 for continuous manual feed printing, and the job has been completed. However, media remains in the input tray. The printer considers the input tray not to be configured.	**Event log message:** None **Action:** Configure the media type for tray 1 or remove the remaining media. For more information about configuring the media type, see page 104.

Table 42. Unnumbered printer messages (continued)

TRAY 1 LOAD **<type> <size>**	**Event log message:** None
Description: A user has requested a media size that is not currently installed in tray 1. <type> = Last media type configured for the input tray <size> = Last media size configured for the input tray	**Action:** Load the media type and size specified on the printer control panel display. After tray 1 is loaded, the printer automatically brings itself online. If the correct media type and size are loaded in tray 1 and the media does not feed into the printer, verify that the printer control panel settings for tray 1 (Cassette mode) match the media type and size requested.
TRAY 1 SIZE = <size>	**Event log message:** None
Description: This message is shown when media is placed in tray 1 and the tray is configured for Cassette Mode. <size> = Last media size configured for the input tray	**Action:** **1** Press – VALUE + to view the choices. **2** Press SELECT when the choice you want is shown. **3** Press GO to bring the printer online. If no key is pressed for 30 seconds after the media is detected in the input tray, the displayed size is automatically selected, the message is cleared, and printing begins.
TRAY 4 **COMM ERROR** **CHECK CABLES** **CYCLE POWER**	**Event log message:** None
Description: Communication with the 2,000-sheet input unit has been lost.	**Action:** **1** Verify all cables are connected correctly. **2** Turn the printer off and on to reset the printer.

Table 42. Unnumbered printer messages (continued)

TRAY <x> EMPTY <type> <size> **Description:** An input tray not currently selected has run out of media. <x> = Input tray number (2, 3, or 4) <type> = Last media type configured for the input tray <size> = Last media size configured for the input tray	**Event log message:** None **Action:** **1** Load the media type and size specified on the printer control panel display. **2** Replace the upper/lower cassette lifter (remaining paper sensor lever) if it is damaged or deformed. Also, if the lifter is out of position, set it in its correct position. **3** Reconnect connector J1201 on the pick-up PCA and connector J210 on the controller board. **4** Replace the tray 2 and tray 3 remaining paper sensors 1 and 2. **5** Replace the pick-up PCA. **6** Replace the controller board.
TRAY <x> LIFTING **Description:** The specified input tray is lifting the media into position for printing. <x> = Input tray number (2, 3, or 4)	**Event log message:** None **Action:** No action is required.
TRAY <x> LOAD <type> <size> CHECK CONTROL PANEL SETTING **Description:** A user has requested a media size and type combination that is not currently installed or configured in the printer. This message is also generated when the current input tray runs out of media and no other auto-selectable input trays contain that size and type of media. <x> = Input tray number (1, 2, 3, or 4) <type> = Last media type configured for the input tray <size> = Last media size configured for the input tray	**Event log message:** None **Action:** Load the media type and size specified on the printer control panel display, and configure the media type in the printer control panel. After the requested input tray is loaded, the printer automatically goes online. Pressing Go causes the printer to attempt to print the page on the default type and size media. If the condition persists, check the input tray type and size configuration in the control panel.

Table 42. Unnumbered printer messages (continued)

TRAY <x> NOT FUNCTIONAL **Description:** The installed tray is not supported by the printer. <x> = Input tray number (2, 3, or 4)	**Event log message:** None **Action:** Press GO to continue printing.
TRAY <x> OPEN **Description:** An input tray is open. <x> = Input tray number (2, 3, or 4)	**Event log message:** None **Action:** Close the input tray before resuming printing.
TRAY <x> TYPE = <type> **Description:** This message is shown when media is placed in an input tray. <x> = Input tray number (1, 2, 3, or 4) <type> = Last media type configured for the input tray	**Event log message:** None **Action:** **1** Press – VALUE + to view the choices. **2** Press SELECT when the choice you want is shown. **3** Press GO to bring the printer online. If no key is pressed for 30 seconds after the media is detected in the input tray, the type shown is automatically selected, the message is cleared, and printing begins.
WARMING UP **Description:** The fuser is warming up.	**Event log message:** None **Action:** No action is required.

Aids to troubleshooting

This section describes various tools service personnel can use to diagnose hardware problems.

In addition to the tools described in this section, the service and support CD-ROM included with your service manual contains the user documentation. Use the additional information to supplement the information found in this manual.

Configuration page

Print a configuration page to verify that the printer is set up correctly or to verify information about the printer's configuration. The page includes the following information:

- serial number
- formatter board number
- page counts (use if the controller board is also being replaced)
- transfer kit count for percentage of life remaining
- fuser kit count for percentage of life remaining
- engine settings for verifying that the registration settings are accurate (the last two digits of the engine settings might vary from those found on the sticker)

To print a configuration page

1. Press MENU until INFORMATION MENU appears on the printer control panel display.
2. Press ITEM until PRINT CONFIG PAGE appears on the display.
3. Press SELECT to print the page.

Interpreting a configuration page

The numbers below correspond to the numbered areas on the examples on the following page:

1 **Printer information**—lists the following information:

- printer product number
- serial number
- PCL firmware date code
- PostScript version
- total pages printed during the life of the printer
- number of color pages printed during the life of the printer
- number of black-and-white pages printed during the life of the printer
- number of duplex pages printed during the life of the printer

2 **Installed options**—shows whether options have been installed, such as the printer hard disk, DIMMs, duplexer, multi-bin mailbox, and optional input trays.

3 **Consumables: % of life remaining**—shows the percentage of the maximum rated life remaining for the transfer kit, fuser kit, and drum kit. For HP Color LaserJet 8550 printer models (except for the MFP model), estimates of the amount of toner remaining in each of the four cartridges are also shown.

4 **Memory**—shows the total memory installed in the printer (including the printer hard disk) and the settings that affect how the memory is used.

5 **Paper tray configuration**—lists the types and sizes of media configured for each input tray.

6 **Security**—shows whether the security features have been activated, such as the printer control panel lock, printer control panel password, and printer hard-disk lock. There is also a service information code for service personnel.

7 **Event log**—lists the last three printer events, including media jams, service errors, and other printer actions.

8 **Color adjust**—lists color adjustment halftone settings and the number of pages since the last manual color adjustment.

9 **Duplex registration** (8550 models only)—lists the x- and y-axis coordinates for duplex registration.

10 **HP JetSend** (8550 models only)—lists HP JetSend addresses.

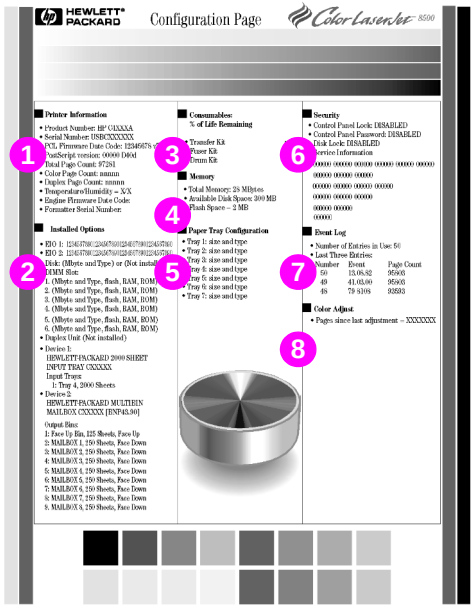


Figure 212. **Example of an HP Color LaserJet 8500 printer configuration page**

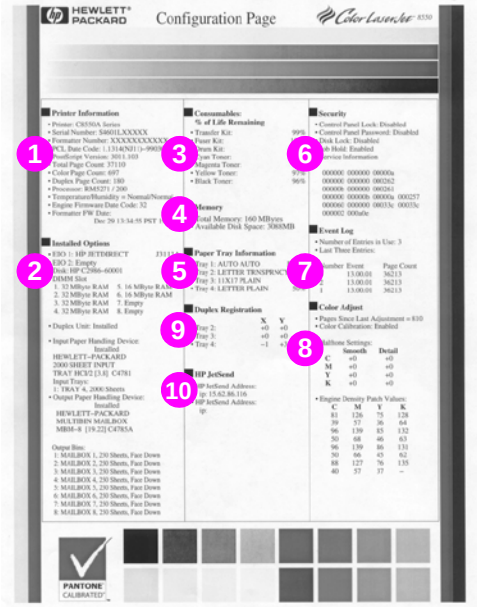


Figure 213. **Example of an HP Color LaserJet 8550 printer configuration page**

Continuous configuration page

Continuous configuration pages can be printed to simulate full color printing in which two pages are developed on the transfer drum per rotation (two-page mode).

Printing a continuous configuration page

1. Press MENU until INFORMATION MENU appears on the printer control panel display.
2. Press ITEM until PRINT CONTINUOUS CONFIG PAGES appears on the display.
3. Press SELECT to print the page.

Note Press CANCEL JOB to stop printing. The printer will print all of the pages in the buffer before stopping.

Demonstration page

Use this page to simulate printing a color image. If the image print quality is in question, a demonstration page should be printed to assure that the problem is not related to software, communications, or file quality.

Printing a demonstration page

1. Press MENU until INFORMATION MENU appears on the printer control panel display.
2. Press ITEM until PRINT LASERJET DEMONSTRATION appears on the display.
3. Press SELECT to print the page.

Event log

Detailed service information is noted in the event log. The following is a list of the types of messages logged in the event log:

- media jam errors
- disk failures
- EIO errors
- catastrophic errors

The last 50 errors are listed, with the most recent error first. Reoccurring events give indications of failing parts or problem areas within the printer. See the printer control panel message descriptions beginning on page 368 for more information on items found in the event log.

Printing the event log

1. Press MENU until INFORMATION MENU appears on the control panel display.
2. Press ITEM until PRINT EVENT LOG appears on the display.
3. Press SELECT to print the page.

Service mode engine diagnostics

Engine diagnostics can be used to perform mechanical tests on the print engine and its related components to help pinpoint components in the printer that need replacement or repair.

WARNING! Take care when you use engine diagnostics — some tests require door interlocks to be defeated, and defeating interlocks can expose potential hazards in the engine. High-voltage supplies and the laser are shut down whenever the printer is in diagnostic mode. However, any defeating of interlocks without entering the engine diagnostic mode results in potential exposure to the laser and high voltages.

Entering the Service Mode Menu

1. From a READY state, press MENU until SERVICE MENU appears.
2. Press ITEM – (the left side of the key) and VALUE – simultaneously.

For a menu map of the Service Mode Menu, see page 93.

Paper path test

The paper path test simulates a page moving through the paper path from input trays 1, 2, and 3 to the output bins. Removing some engine parts (such as the transfer drum) prevents paper from feeding completely. It is possible to select the input and output trays for the test by indicating in the Paper Path Menu which input tray and output bins should be accessed (by selecting ON or OFF). Multiple input trays can be selected, but only a single output can be selected. A page is fed from each input tray to the selected output. If a jam occurs during the test, the test should continue with the next input tray in the list.

CAUTION Jam detection is OFF in this mode and an unattended test might result in damage to the printer.

The pick-up rollers, feed rollers, registration roller, transfer belt press clutch (CL4), cleaning roller press cam and solenoid (SL1), fuser, transfer belt, and output feed roller can be exercised during the paper path test. For safety reasons, the fuser, high-voltage supplies, and scanner are all turned off during testing.

1. From the Service Mode Menu, press MENU until PAPER PATH appears.
2. Press ITEM until REPETITIONS appears.
3. Press – VALUE + to display the number of repetitions (1 to 10).
4. Press SELECT to choose the number of repetitions.
5. Press ITEM until the desired input source appears.
6. Press – VALUE + until ON or OFF appears on the display.
7. Press SELECT.

Note You can select more than one input source for the test.

8. Press ITEM until OUTPUT= appears on the display.
9. Press – VALUE + until TOP OUTPUT BIN or LEFT OUTPUT BIN appears on the display.
10. Press SELECT to choose an output destination.
11. Press ITEM until EXECUTE TEST appears on the display.
12. Press SELECT to perform the paper path test.

Notes To stop the paper path test, press CANCEL JOB.

The transfer drum can be removed with the right upper door open and the right cover interlock defeated (see figure 214 on page 425). However, media might not feed past the transfer area unless 11-by-17 inch or A3-sized media is used.

Developer motor test

Visually and audibly inspect the cartridge motor (M3) and carousel motor (M1) as they rotate during this test. To view the printer components, run the test with the right upper door open and the transfer drum removed and the front cover and right upper door interlocks defeated (see figure 218 on page 427 and figure 214 on page 425). The engine runs this test for a fixed duration and then stops. Multiple repetitions of the test are allowed.

Notes

For safety reasons, the fuser, high-voltage supplies, and scanner are all turned off during testing.

The carousel cannot turn with the imaging drum removed because the supply voltage to the carousel is cut off to avoid a pinch hazard.

1. From the Service Mode Menu, press MENU until DEVELOPER MOTOR appears.
2. Press ITEM until REPETITIONS appears.
3. Press – VALUE + to display the possible number of repetitions.
4. Press SELECT to choose the number of repetitions.
5. Press ITEM until EXECUTE TEST appears on the display.
6. Press SELECT to perform the developer motor test.

Drum motor test

This test activates the drum motor (M2), imaging drum, transfer drum, and imaging drum waste paddle simultaneously. To view the printer components, run the test with the right upper door open, the transfer drum and imaging drum removed, and the right upper door interlock defeated (see figure 214 on page 425). The engine runs this test for a fixed duration and then stops.

Note For safety reasons, the fuser, high-voltage supplies, and scanner are all turned off during testing.

1. From the Service Mode Menu, press MENU until DRUM MOTOR appears.
2. Press ITEM until REPETITIONS appears.
3. Press – VALUE + to display the possible number of repetitions.
4. Press SELECT to choose the number of repetitions.
5. Press ITEM until EXECUTE TEST appears on the display.
6. Press SELECT to perform the drum motor test.

Sensor monitor test

This test allows service personnel to activate and deactivate sensors in the printer to verify that the sensors are working properly.

Note For safety reasons, the fuser, high-voltage supplies, and scanner are all turned off during testing.

1. From the Service Mode Menu, press MENU until SENSOR MONITOR appears.
2. Press ITEM until EXECUTE TEST appears on the display.
3. Press SELECT to perform the sensor monitor test.
4. Determine whether each sensor is working by viewing the test results for each sensor on the printer control panel. A single character in the upper line of the display provides a label for each sensor bit. A 0 (off) or 1(on) is displayed for each sensor bit, indicating whether the sensor is activated or deactivated. See table 43 for an explanation of the test results.

Table 43. Sensor monitor test

Designator	Sensor name
0	Registration roller paper sensor (PS1)
1	Pick-up unit paper sensor (PS17)
2	Separation sensor (PS5)
3	Fusing delivery sensor (PS1903)
4	Top (face-down) output bin delivery sensor (PS11)
5	Tray 1 paper sensor (PS1301)
6	Tray 2 sensor (PS1202) Toggles once. Trays do not lift during test.
7	Tray 3 sensor (PS1201) Toggles once. Trays do not lift during test.
8	Duplex paper sensor (PS24) Paper sensor in the duplexer in the output position (HP Color LaserJet 8550 only)
9	Reverse sensor (PS26) Paper sensor in the duplexer at the reversing position (HP Color LaserJet 8550 only)
A	Bit 0 of temperature/humidity sensor
B	Bit 1 of temperature/humidity sensor The ambient temperature and humidity sensor data are combined into 2 bits showing 4 states of temperature and humidity. 00 = Normal/normal 01 = High/high 10 = Normal/low 11 = Low/low

See figure 57 on page 184 for more information on these sensors.

Exiting the service mode

Exit the service mode by cycling through the menu until EXIT SERVICE MODE is reached, and press SELECT. It is not necessary to turn the printer off and on again unless you have accessed the formatter diagnostics.

Disabling interlocks

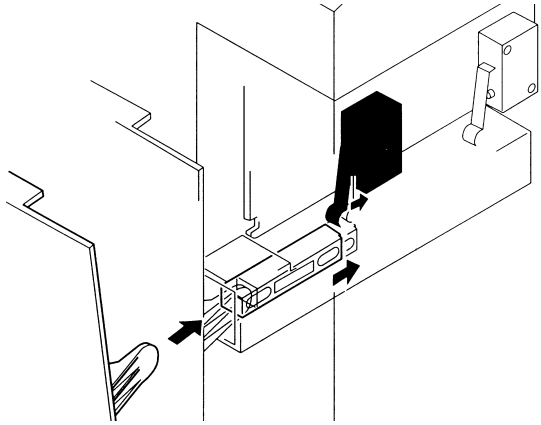


Figure 214. **Right upper cover detection interlock**

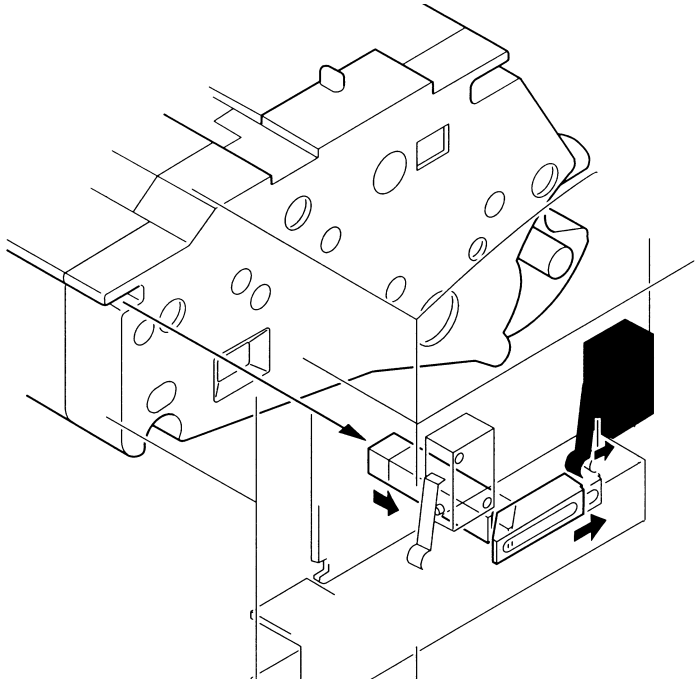


Figure 215. **Drum cartridge detection interlock**

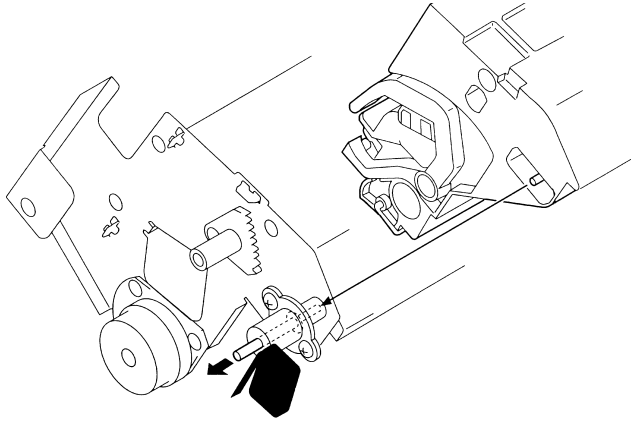


Figure 216. **Black toner cartridge detection interlock**

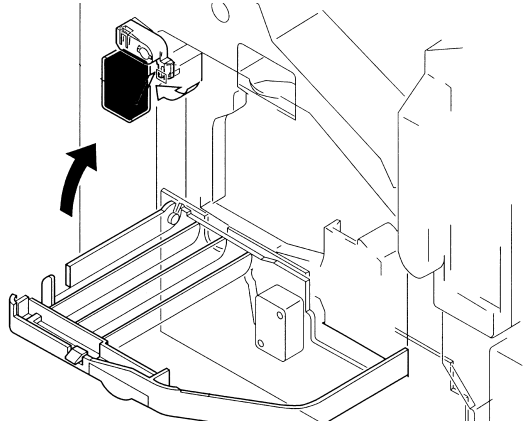


Figure 217. **Toner carousel door detection interlock**

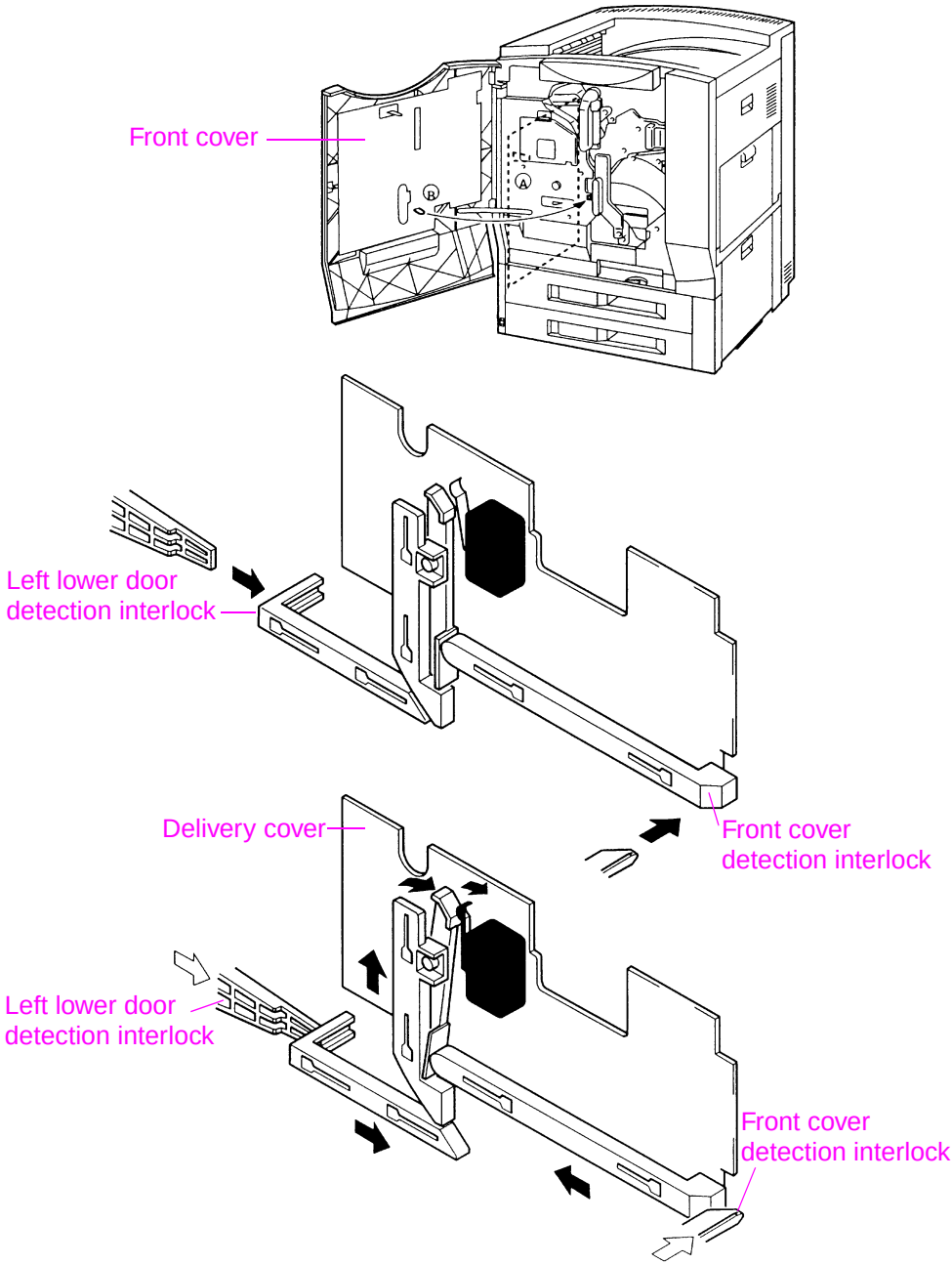


Figure 218. **Front cover/delivery cover detection interlocks**

Laser shutters

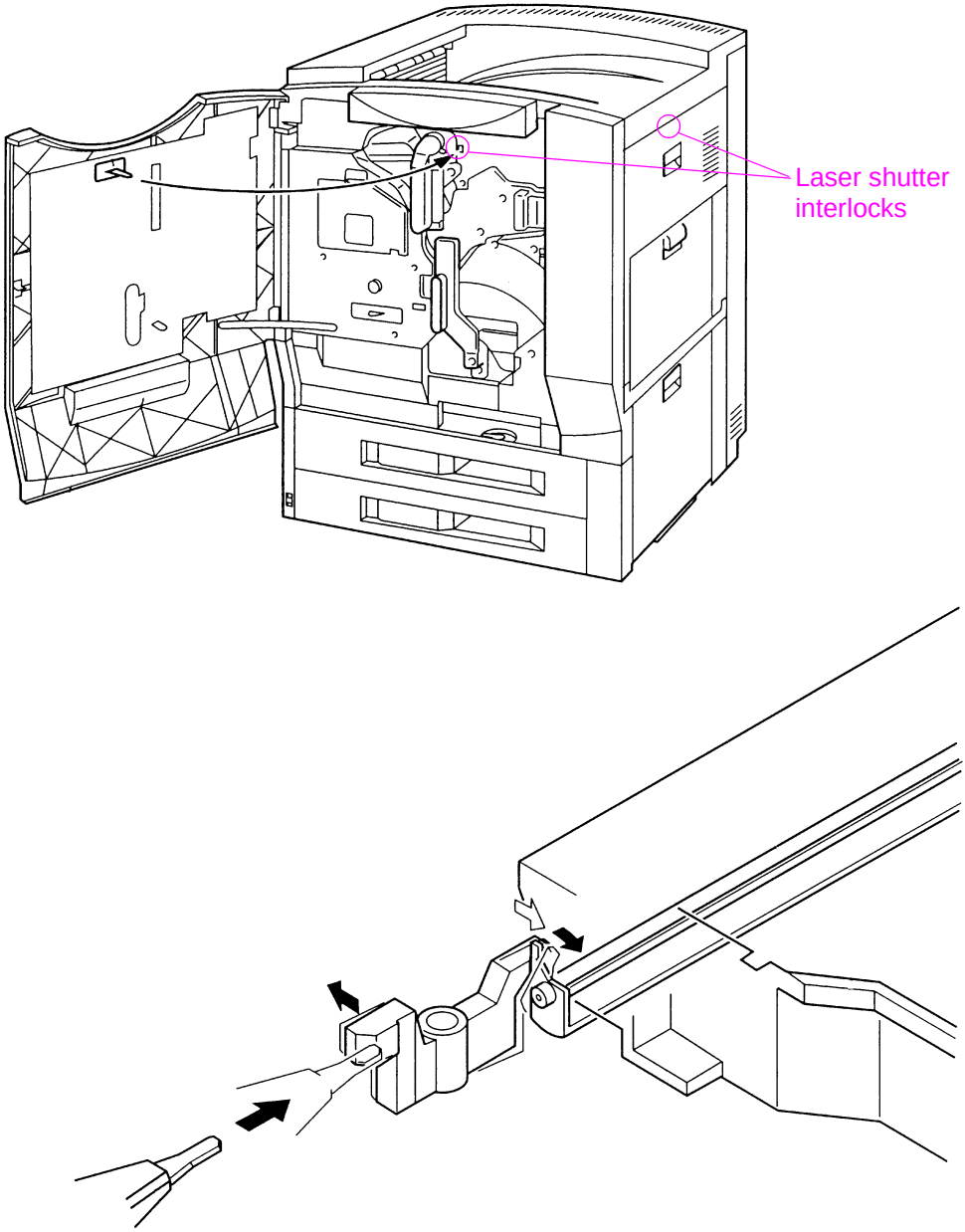


Figure 219. **Laser shutters**

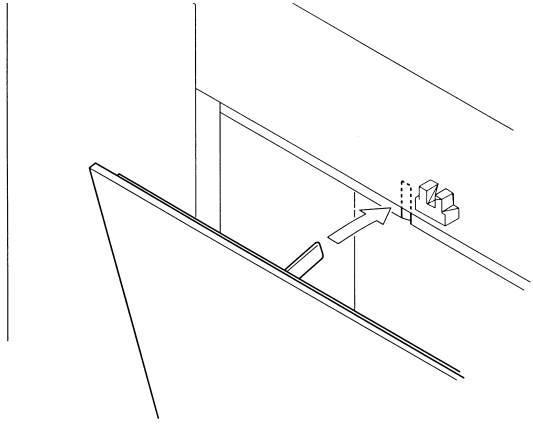


Figure 220. **Left upper cover detection**

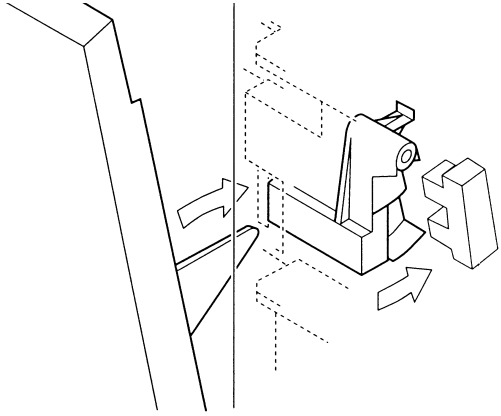


Figure 221. **Right lower cover detection**

Service mode formatter diagnostics

1. From the Service Mode Menu, press MENU until FORMATTER DIAGNOSTICS appears.
2. Press SELECT. WARNING MEMORY LOSS appears on the printer control panel briefly. Then EXECUTE TESTS appears.
3. Press ITEM until one of the following tests appears on the printer control panel:
   - **ROM CRC** — The read-only memory cyclic redundancy check reads the values stored in the firmware ROMs, computes checksum variables based on the read information, and compares the computed checksums with those stored in the ROM.
   - **DRAM DIMMS** — Installed DIMMs are tested to ensure that they are supported by the formatter board and are functioning properly. The time that this test takes to run varies depending on the amount of memory installed. DRAM DIMMs are tested using a pattern test, an address test, and a walking ones test.
   - **IDE ASIC** — This test is performed on the IDE ASIC of the formatter board to ensure read and write integrity. Values are written to the ASIC registers and then read for verification.
   - **DISK** — The disk drive test does the following:
     a instructs the disk drive (if installed) to perform its internal self-test (similar to a power-on test)
     b enters into sleep mode and wakes up again
     c seeks and reads sequential sectors forward for 30 seconds
     d seeks and reads sequential sectors backward for 30 seconds
     e seeks and reads random sectors for 30 seconds
     f performs read and write tests
   - **VX ASIC** — This test is performed on the VX ASIC of the formatter board to ensure read and write integrity. Values are written to the ASIC registers and then read for verification.
4. Press – VALUE + until ON or OFF appears on the display.
5. Press SELECT.
6. Press ITEM until EXECUTE TEST appears on the printer control panel display.
7. Press SELECT.

Note Turn the printer off and on to exit the formatter diagnostics.

Cold reset

The following are effects of performing a cold reset:

- While a cold reset is being performed, all control panel keys are ignored.
- A cold reset changes all user-accessible printer variables stored in NVRAM to their factory defaults except for the following items:
  - page counts
  - fuser life count
  - transfer life count
  - multi-bin mailbox mode
  - display language
- Color adjust values revert to the factory defaults.
- User-accessible EIO values are reset to the factory defaults by a cold reset.
- None of the service mode variables such as the following are affected by a cold reset:
  - serial numbers
  - model name
  - model number
  - registration values
  - cold reset paper size
- The event log is not cleared.

Performing a cold reset

1. Print a configuration page (see page 415) to record the previous printer settings.
2. Turn the printer off.
3. Hold down Go while turning the printer on. Release Go after COLD RESET appears on the printer control panel display.

   COLD RESET (in English) appears on the display for one second to verify that the key sequence has been recognized, followed by the power-on self-test message.

   Once the power-on self-test is finished, the message RESTORING FACTORY SETTINGS displays in English.

Fault log

The fault log is implemented within the formatter diagnostics to record error messages. This log provides service personnel with an account of all errors that occurred while the formatter diagnostics tests were executing. This log is completely separate from the event log. No entries are made in the event log for any diagnostic mode failure.

Error message logging

When a test in formatter diagnostics detects an error, the Attention LED is lit and a message describing the error is added to the fault log. The fault log holds a maximum of 50 entries. When the fault log is full and a new message needs to be added, the oldest message is discarded. The contents of the fault log are erased when the printer is powered off or when the fault log is cleared.

Viewing the fault log

The fault log menu appears as an Item selection only when one or more error messages exist in the log. The fault log menu is entered automatically at the end of a test run if any error messages were recorded. Enter the fault log by using ITEM to view the fault log entry.

Error message format

Each error message has the form:

mm.NAME_t<description>[<data>]

where:

mm	Message number in the fault log, 1 being the oldest message
NAME	Name of the test that found the failure
t	Error number within the test
<description>	Type of failure
<data>	Pertinent data related to the failure

Paper path troubleshooting

General paper path checklist

- Verify the green lever on the fuser is down.
- Check that the post charger cleaner is pushed all the way to the right. Media jams could occur when it is out of place.
- Clean the printer. Toner and paper dust in the paper path inhibit free movement of media through the printer and block the sensors.
- Vary the input and output selections of the printer to determine if the problem is associated with a particular area of the printer.
- Worn separation rollers on the input tray cause last-page multi-feeds. Check the condition of the pick-up rollers and separation rollers when troubleshooting multi-feeds. Bent separation tabs cause misfeeds and multi-feeds. Replace the tray if necessary.
- Defective input tray switches can cause media jams by indicating the wrong size media to the formatter board.
- Scraps of paper left in the paper path can cause intermittent media jams. Always check that the paper path is clear when cleaning the printer and when clearing media jams. Also, remove the fuser and carefully check it for jammed media.
- Reduce curl of black-only transparencies by:
  - placing the transparencies in a presentation sleeve
  - printing to the left (face-up) output bin
- Verify that the media requirements are met (see page 29).

Wrinkled pages

- Verify the green fuser lever is down.
- Verify the media size and type are set correctly in the printer driver and the printer control panel.
- Verify the media meets the specifications listed in the *HP LaserJet Printer Family Paper Specification Guide*.

Sealed envelopes

To prevent envelopes from sealing in the printer, set the envelope size in the printer driver as a custom size. However, setting envelopes as a custom size can cause poor fusing.

Media jams

When troubleshooting media jams, remember that jams are posted as a result of timing errors. That is, media fails to arrive at, or fails to clear, the paper path sensor in the allotted time. The paper path timing is set by the controller board. Stuck or defective sensors cause the paper path timing to post a jam message at power on, as do scraps of paper caught in the paper path.

Use figure 222 to locate the paper path sensors. The media jam message code identifies the sensor that failed to change state in the required time.

Note Check that the paper path sensors are free throughout their full range of travel. All interlock switches must be operational in order for the printer to clear media jam messages.

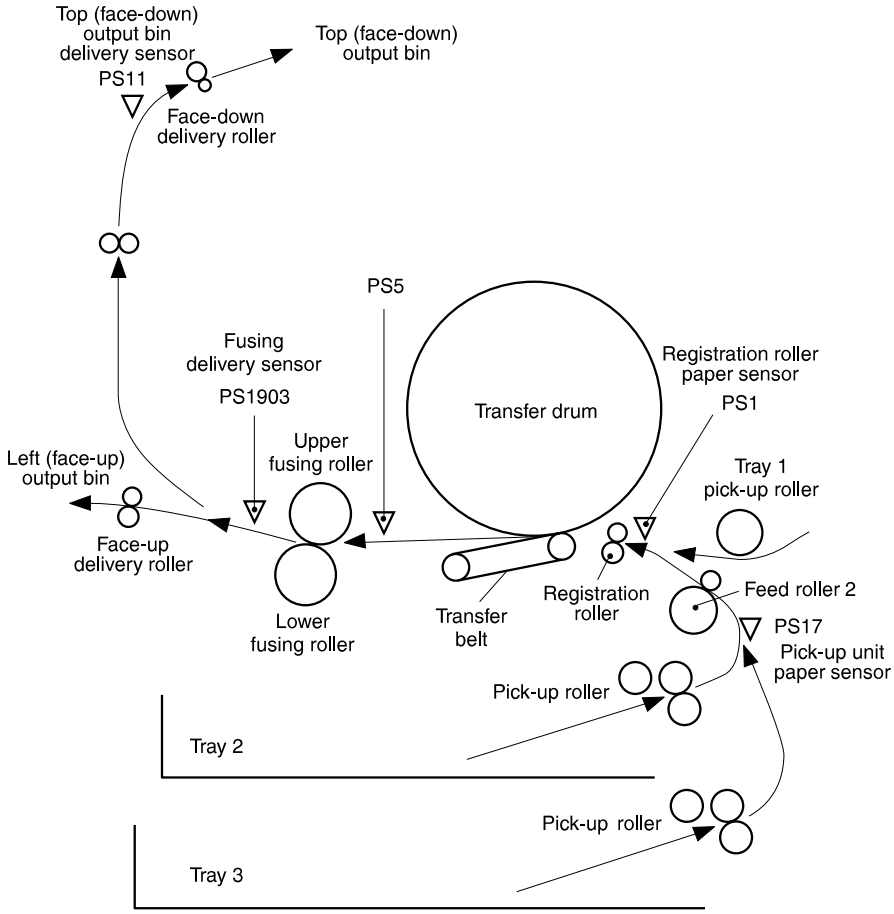


Figure 222. **Printer paper path**

For information about printer and paper handling accessory sensors, see chapter 5.

Following are possible media jams:

Table 44. Media jam detection

Location of jam	Detected when . . .
Pick-up delay jam 1	The page has not reached the pick-up unit paper sensor (PS17) within about: ● 1.2 seconds after leaving tray 2 ● 1.3 seconds after leaving tray 3
Pick-up delay jam 2	The media does not reach the registration roller paper sensor (PS1) within about: ● 1.9 seconds after leaving tray 2 ● 2.0 seconds after leaving tray 3 ● 1.8 seconds after leaving tray 1
Transfer jam	The separation sensor (PS5) does not detect the media for the specified time or longer within 1.5 to 2.2 seconds after the top of paper signal: ● about 0.1 seconds (normal mode) ● about 0.4 seconds (overhead transparency mode) ● about 0.3 seconds (high-gloss mode)
Fusing delivery paper delay jam	The media has not reached the fusing delivery sensor (PS1903) since the top of paper signal within about: ● 3.2 seconds (normal mode) ● 12.8 seconds (overhead transparency mode) ● 9.6 seconds (high-gloss mode)
Fusing delivery stationary jam	The media has not passed through the fusing delivery sensor (PS1903) after PS1903 detects the leading edge of the media within approximately: ● 2.4 seconds (normal mode/letter-sized media landscape) ● 9.6 seconds (overhead transparency mode/letter-sized media landscape) ● 7.2 seconds (high-gloss mode/letter-sized media landscape) ● 4.2 seconds (normal mode/11-by-17 inch-sized media) ● 17.0 seconds (overhead transparency mode/11-by-17 inch-sized media) ● 12.7 seconds (high-gloss mode/11-by-17 inch-sized media)
Fusing unit paper coil jam	The fusing delivery sensor (PS1903) does not detect the media for the specified time or longer within 0.2 to 1.2 seconds after PS1903 detects the leading edge of the media within approximately: ● 0.8 seconds (normal mode) ● 3.2 seconds (overhead transparency mode) ● 2.4 seconds (high-gloss mode)

Table 44. Media jam detection (continued)

Location of jam	Detected when . . .
Top (face-down) output bin delivery delay media jam	The media has not reached the top (face-down) output bin delivery sensor (PS11) within the specified time after the fusing delivery sensor (PS1903) detects the media: ● about 4.0 seconds (normal mode) ● about 16.0 seconds (overhead transparency mode) ● about 12.0 seconds (high-gloss mode)
Top (face-down) tray delivery stationary jam	The media has not passed through the top (face-down) output bin delivery sensor (PS11) after PS11 detects the media within approximately: ● 2.4 seconds (normal mode/letter-sized media landscape) ● 9.6 seconds (overhead transparency mode/letter-sized media landscape) ● 7.2 seconds (high-gloss mode/letter-sized media landscape) ● 4.2 seconds (normal mode/11-by-17 inch-sized media) ● 17.0 seconds (overhead transparency mode/11-by-17 inch-sized media) ● 12.7 seconds (high-gloss mode/11-by-17 inch-sized media)
Wrong media size feed jam	The controller board detects media size with the registration roller paper sensor (PS1), and it stops the engine if the media size differs more than 15 mm between the specified media size and the actual media size. On the other hand, if the difference is within +7.5 to 15 mm, or -3.7 mm or less, the media is automatically delivered.
Door-open jam	The sensors listed below detect the media when a cover is opened or closed: ● registration paper roller sensor (PS1) ● pick-up unit paper sensor (PS17) ● separation sensor (PS5) ● top (face-down) output bin delivery sensor (PS11) ● fusing delivery sensor (PS1903)
Initial residual jam	The sensors listed below detect the media the specified time after the power switch is turned ON: ● separation sensor (PS5) ● fusing delivery sensor (PS1903)

Image formation troubleshooting

Before beginning image formation troubleshooting:

1. Verify the media type is set correctly in the printer control panel, and that the media type selected in the printer driver matches the media being printed on.
2. Verify that the media meets the specifications listed in the *HP LaserJet Printer Family Paper Specification Guide.* The following media-related items are responsible for many image-formation and print-quality defects:
   - rough paper
   - heavy paper (heavier than 58 lb, or 216 g/m^2 bond)
   - transparencies thicker or thinner than the specified thickness of 5 mil
   - paper that has absorbed moisture from the atmosphere
   - room environment (humidity too high or low)
3. Print a configuration page. The configuration page tests the ability to print each primary and process color. For information about printing a configuration page, see page 415.

   In addition to items listed above, the configuration page does the following:
   - shows that all colors print
   - checks that the room humidity is within specifications
   - shows varying levels of color
   - shows that the formatter board is working properly
4. Print a demonstration page to check the following:
   - image quality
   - half-tones
   - process colors

Understanding color variations

The printed output might not match the computer screen, and the colors printed on successive pages might not match. While color variations are inherent in this printing method, they also might indicate changes in the printing environment, print media, or printer components.

Common causes of color variation

The following list outlines the major causes of color variations between computers, applications, and output devices.

- Half-tone patterns produced on monitors and the types of patterns used in the print jobs are different and might cause apparent differences between the printed output and the screen.
- Different papers have different color, brightness, and gloss, which will affect the color appearance.
- Printed colors with identical CMYK or RGB values but with a different halftone (ColorSmart, text, graphic, or image) might look different when printed. Select the manual color option in the driver and change the halftoning options to vary the shading and quality of the colors.
- The printed output differs from the image on the monitor because the monitor and the print media have different reference values for black and white. The monitor screen has charcoal gray for the black level, and the white on the monitor screen is actually a light blue. Black on the print media is limited only by the fill capability of the printer, and most good-quality paper has a very high white level. In addition, phosphor (used in color monitors) and toner have entirely different spectra characteristics and different color rendering capabilities. Blues generally match better than reds.
- The color of the ambient light changes the perception of color. Fluorescent light emphasizes different colors from incandescent light, and the color range of natural light is broader than any artificial light. When comparing color, choose a standard light source for reference and understand that the perceived color will change as the light changes.
- Long-term color variations occur as the paper ages. Use high-quality paper and protect the paper from sunlight to help minimize discoloration.
- Environmental changes can cause color variation. The development process places a high potential across an air gap to attract toner to the imaging drum. Changes in relative humidity vary the point at which the toner travels to the imaging drum. The

printer has a humidity sensor that adjusts operating parameters as the humidity changes to minimize the effects of environmental changes.

- All consumable components have a finite life span, and as these components reach the end of their useful life, their ability to produce consistent print quality diminishes.
- When printing on transparencies, **OHT** must be selected in the printer driver in order for the colors to be treated properly on the transparencies.

Color selection process

The user selects the color in the application, but the operating system might convert or modify some characteristics of the color before sending the information to the printer driver. The printer driver might also modify color characteristics depending upon the selected output mode.

Any color characteristics not addressed by the printer driver or applications are set to the printer default. The default color might not match the color the user selected.

Some applications (such as Adobe® PageMaker, Illustrator, and Photoshop™) bypass the printer driver altogether. If color information is not sent, the printer has no way of knowing the white point, black point, and chromaticity assumptions used by the application. This mismatch can cause color differences.

Matching screen colors

Matching input, on-screen, and output colors is a very sophisticated process. The input device software and output device each influence the ability to select and produce printed color output. To improve color matching between the printed output and the monitor:

- Turn off any color-matching feature in the software that does not specifically mention ColorSync, ICM, or ICC.
- Calibrate the monitor. One option for monitor calibration is the Colorific software included on the color-productivity CD-ROM.
- If a color management system is being used, make sure the input (monitor) and output (composite) profiles are correct.
- If a color-management system is available, try turning it off or on to see if changing the setting changes the color match.
- Compare monitor and output colors by placing the output in a neutral surrounding 18 to 24 inches (46 to 61 cm) away from the monitor. This will help the eye make the transition from the monitor white point (blue) to the paper white point.

Image orientation

Unless otherwise specified, all references in this section to horizontal or vertical directions of print-quality problems refer to problems found on letter- and A4-sized media. These media sizes are fed into the printer long edge first.

Because media sizes other than letter or A4 are fed into the printer short edge first, the orientations of print quality problems differ from those on letter- or A4-sized media. Print quality problems that appear horizontally on a letter- or A4-sized page when it is held with the short edge up run vertically on other media sizes when the page is held with the short edge up. The same is true for a vertical defect on a letter- or A4- sized page; it will appear as a horizontal defect on other sizes of media.

Figure 223 on the following page shows a print quality problem printed on both a letter- or A4-sized page and the same defect on an 11-by-17 inch or A3-sized page.

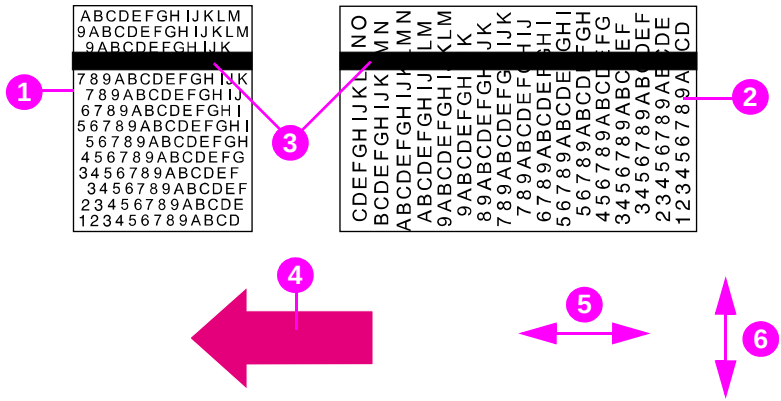


Figure 223. **Image orientation and direction of travel**

1 Letter- or A4-sized media

2 11-by-17 inch or A3-sized media (or any other size of media)

3 Print quality problem (developer streak, in this example)

4 Direction media moves through the printer (process direction)

5 Direction streaks occurs on pages

6 Direction banding occurs on pages

Note PostScript print samples are located on the service and support CD (which is included with your service manual). Print these files by copying them to the parallel port (LPT 1), for example:

```
copy magnta.ps lpt1
```

Image defect examples

Figures 225 through 232 show examples of image defects. Resolutions for these defects follow the illustrations.

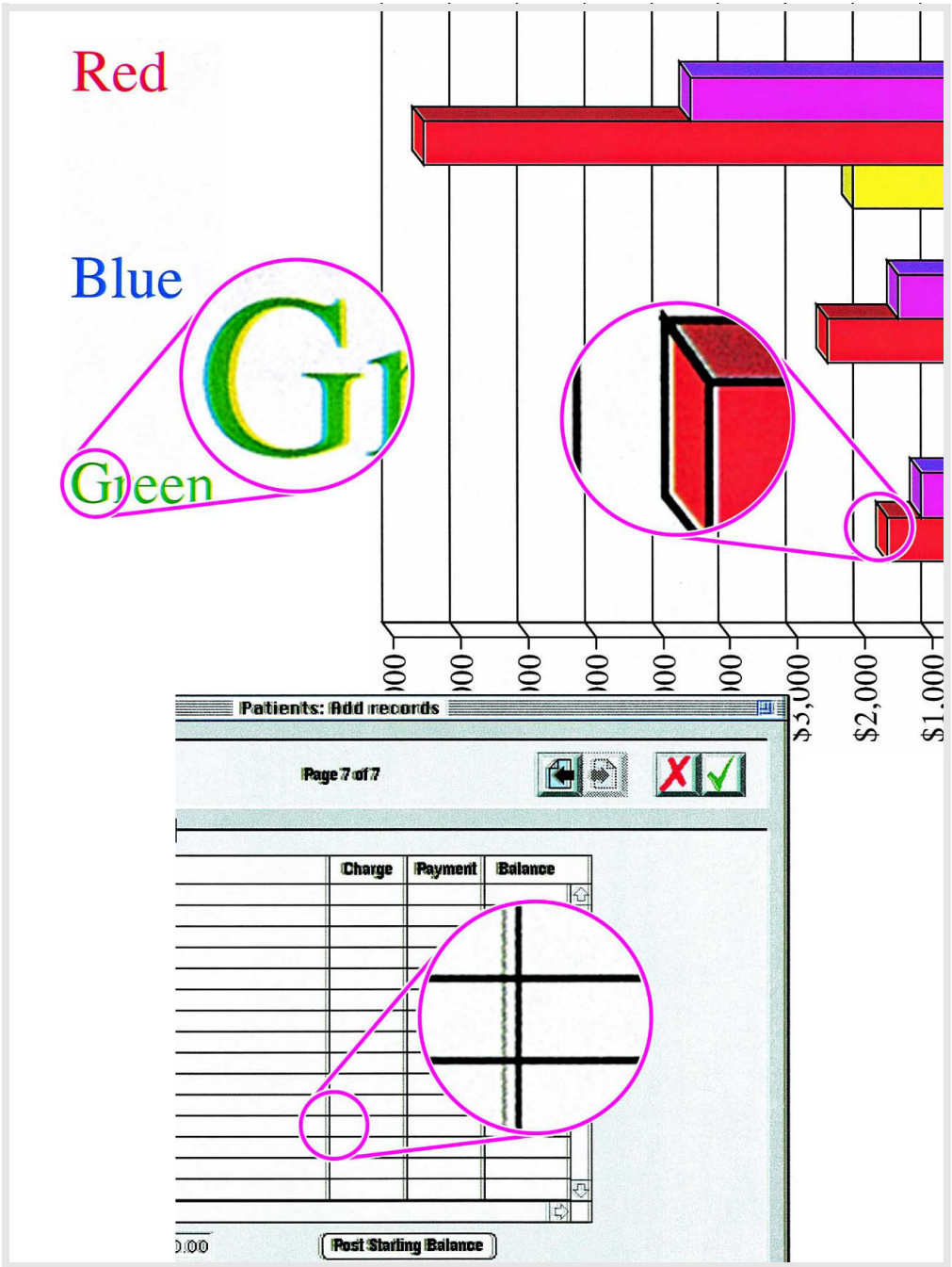


Figure 224. **Color-plane registration**

See page 452 for a resolution to this print defect.

Leading edge

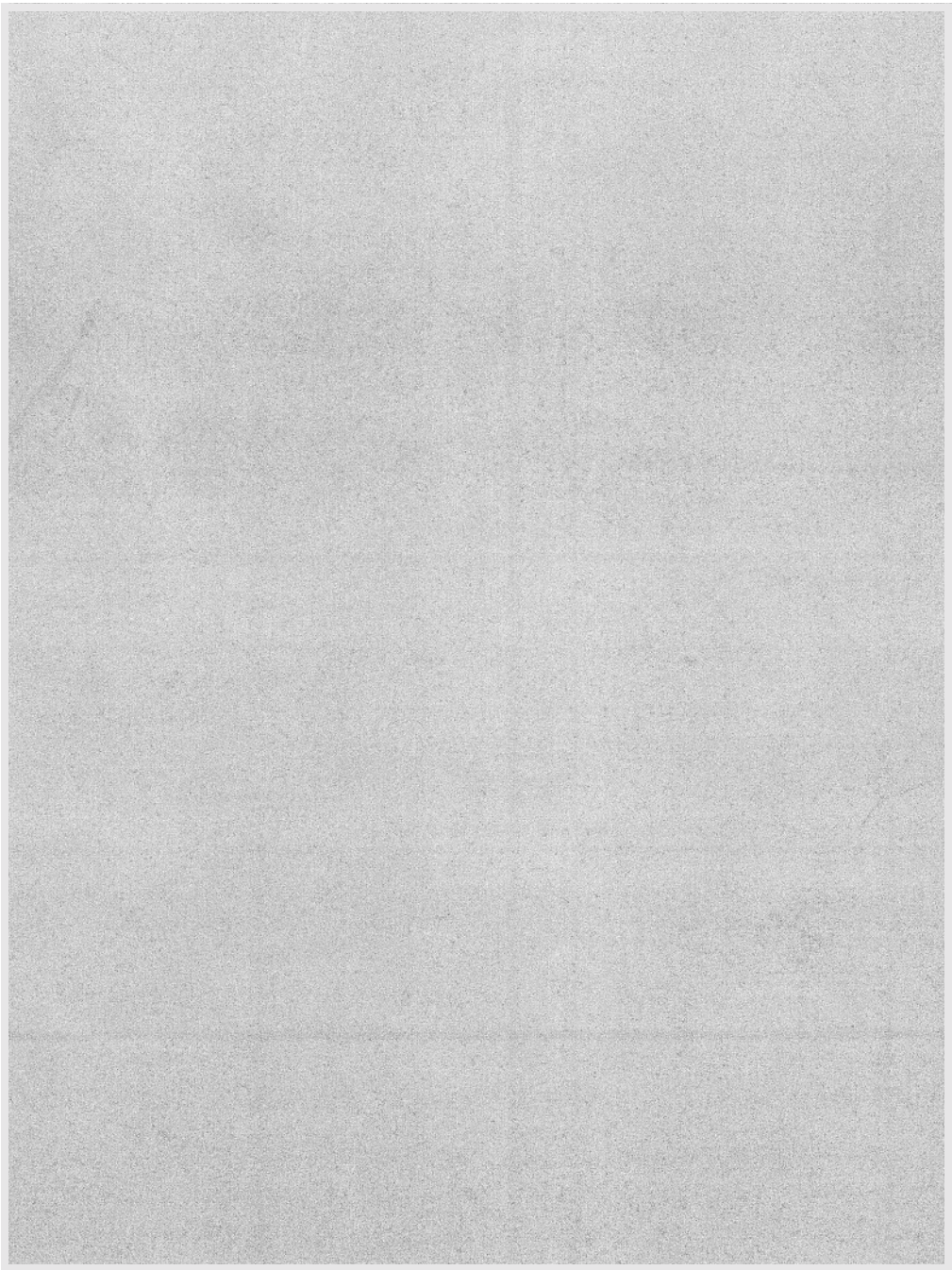


Figure 225. **Developer streak**

See page 453 for a resolution to this print defect.

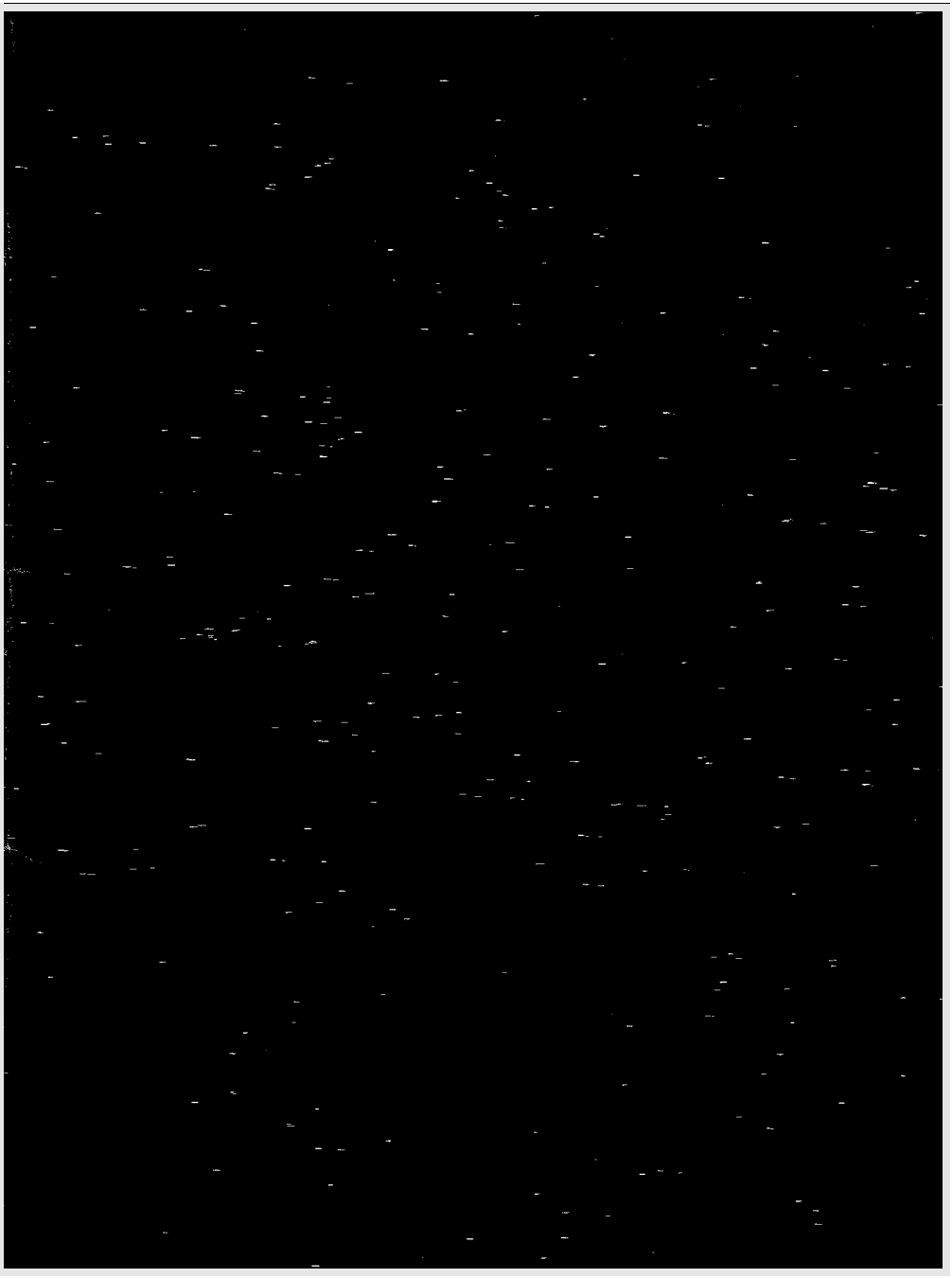


Figure 226. **Rain**

See page 453 for a resolution to this print defect.

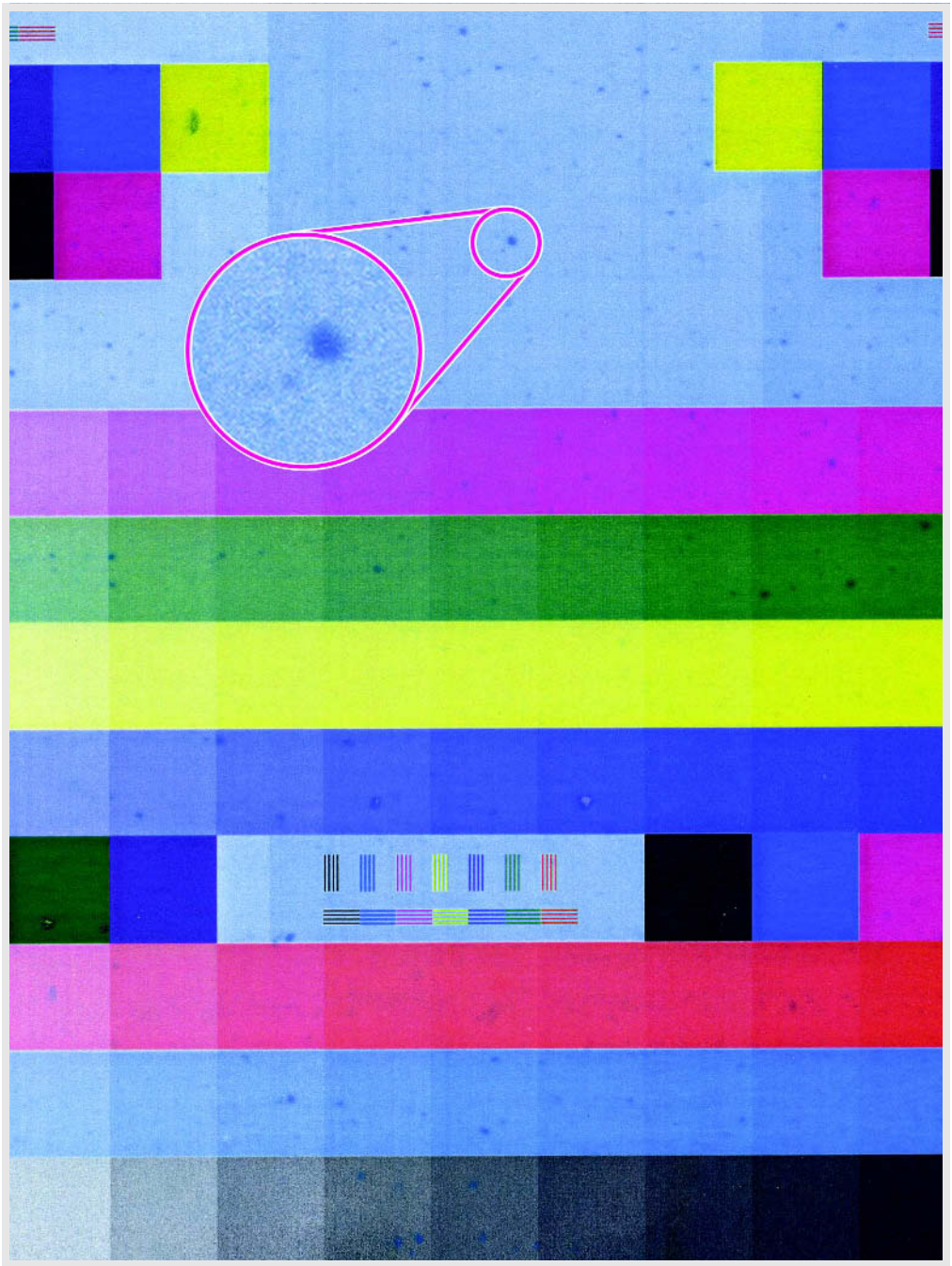


Figure 227. **Toner bubbles**

See page 453 for a resolution to this print defect.

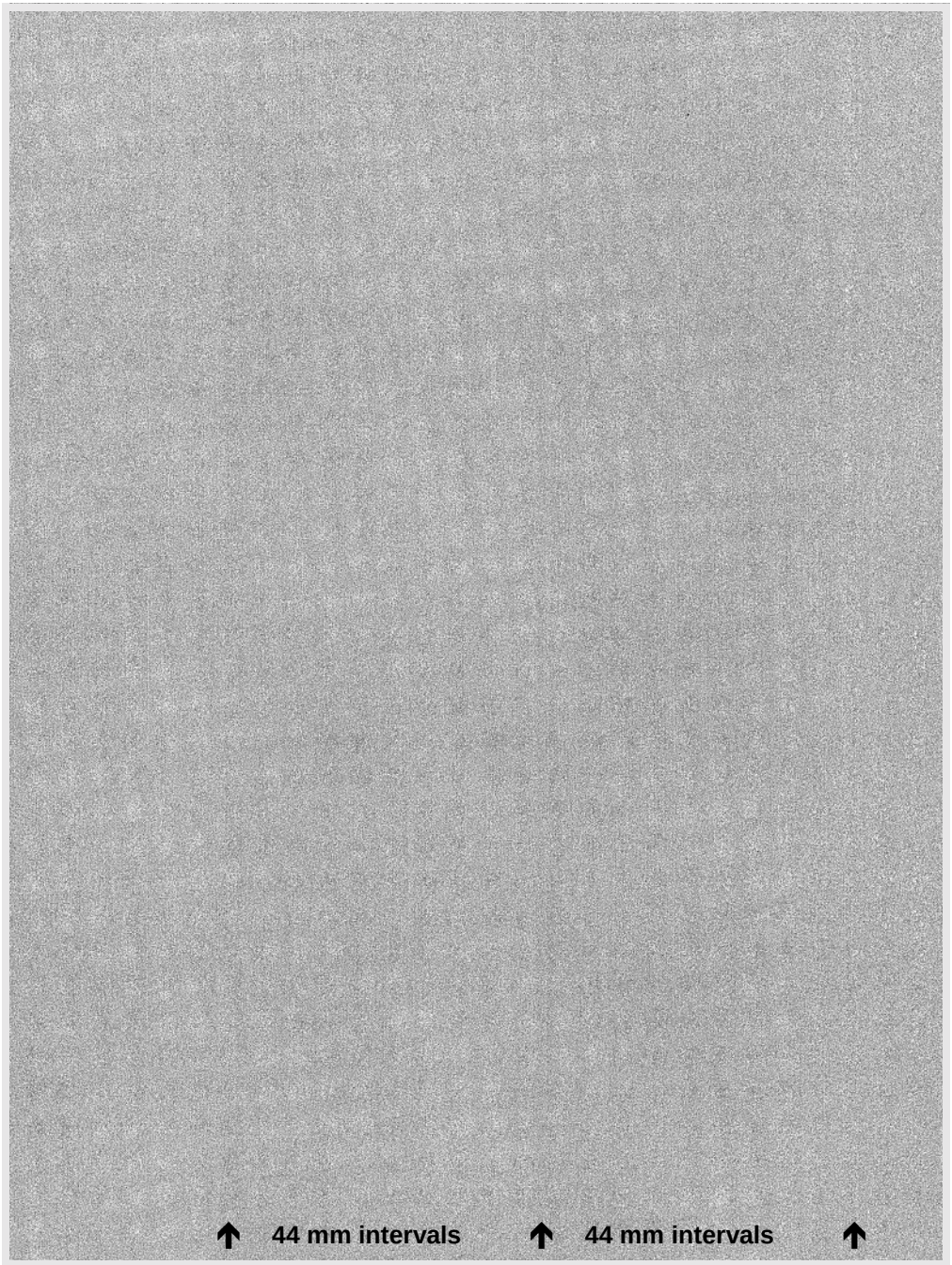
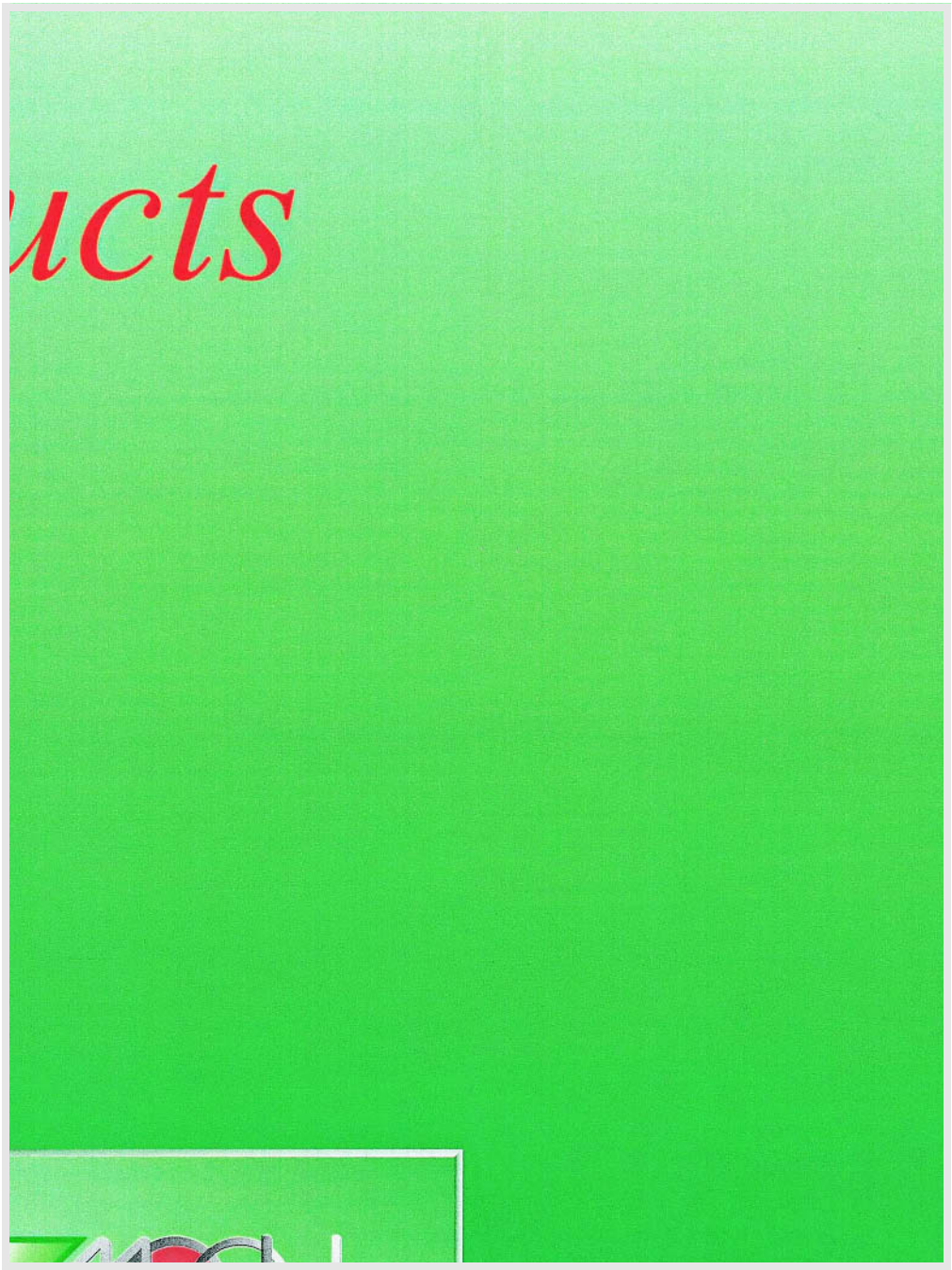


Figure 228. **Charge roller set**

See page 454 for a resolution to this print defect.



Leading edge

Figure 229. **Waves**

See page 454 for a resolution to this print defect.

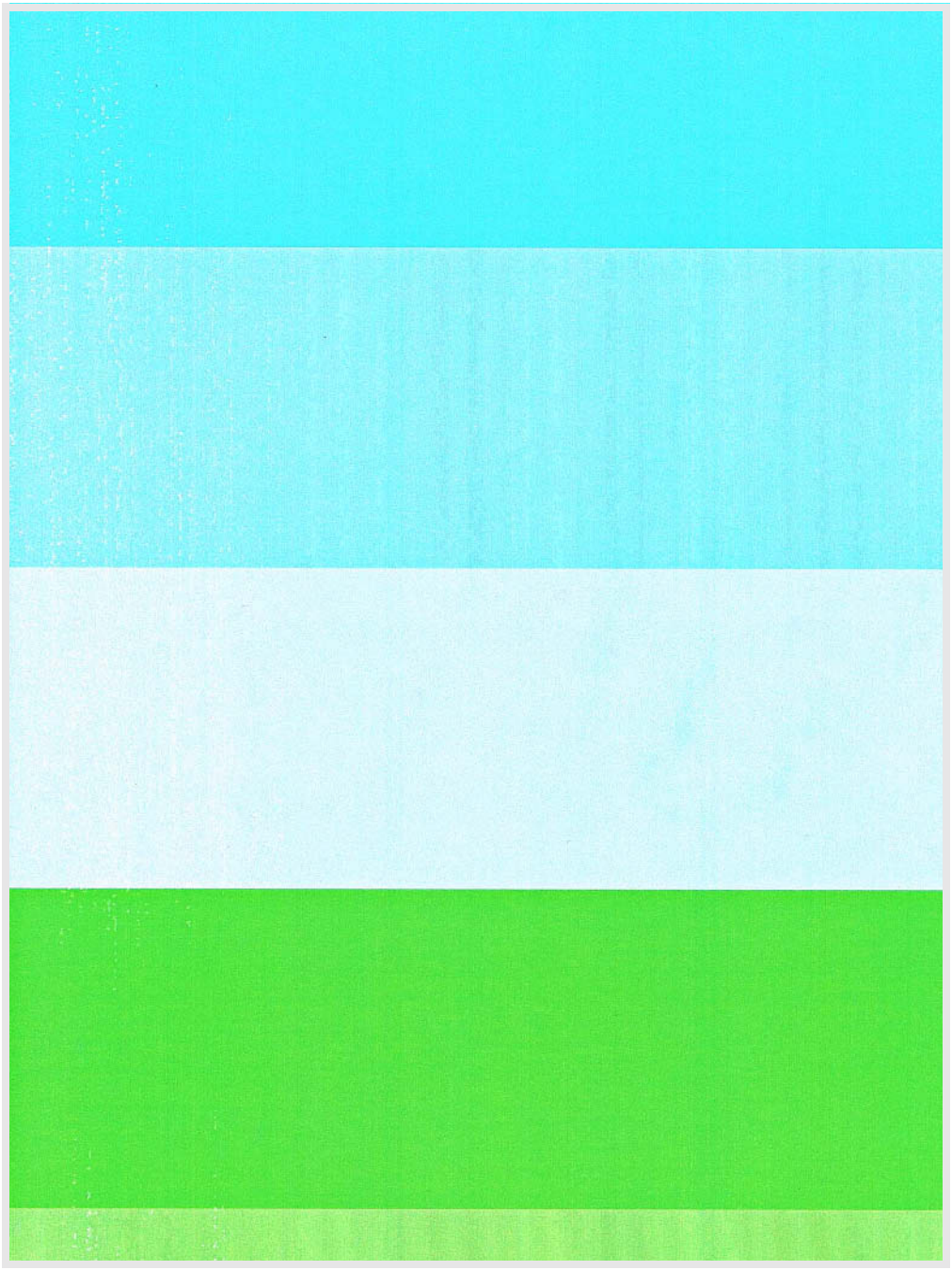


Figure 230. **Missing toner**

See page 454 for a resolution to this print defect.

Figure 231. **Hot offset (glossy paper or transparency)**

See page 455 for a resolution to this print defect.

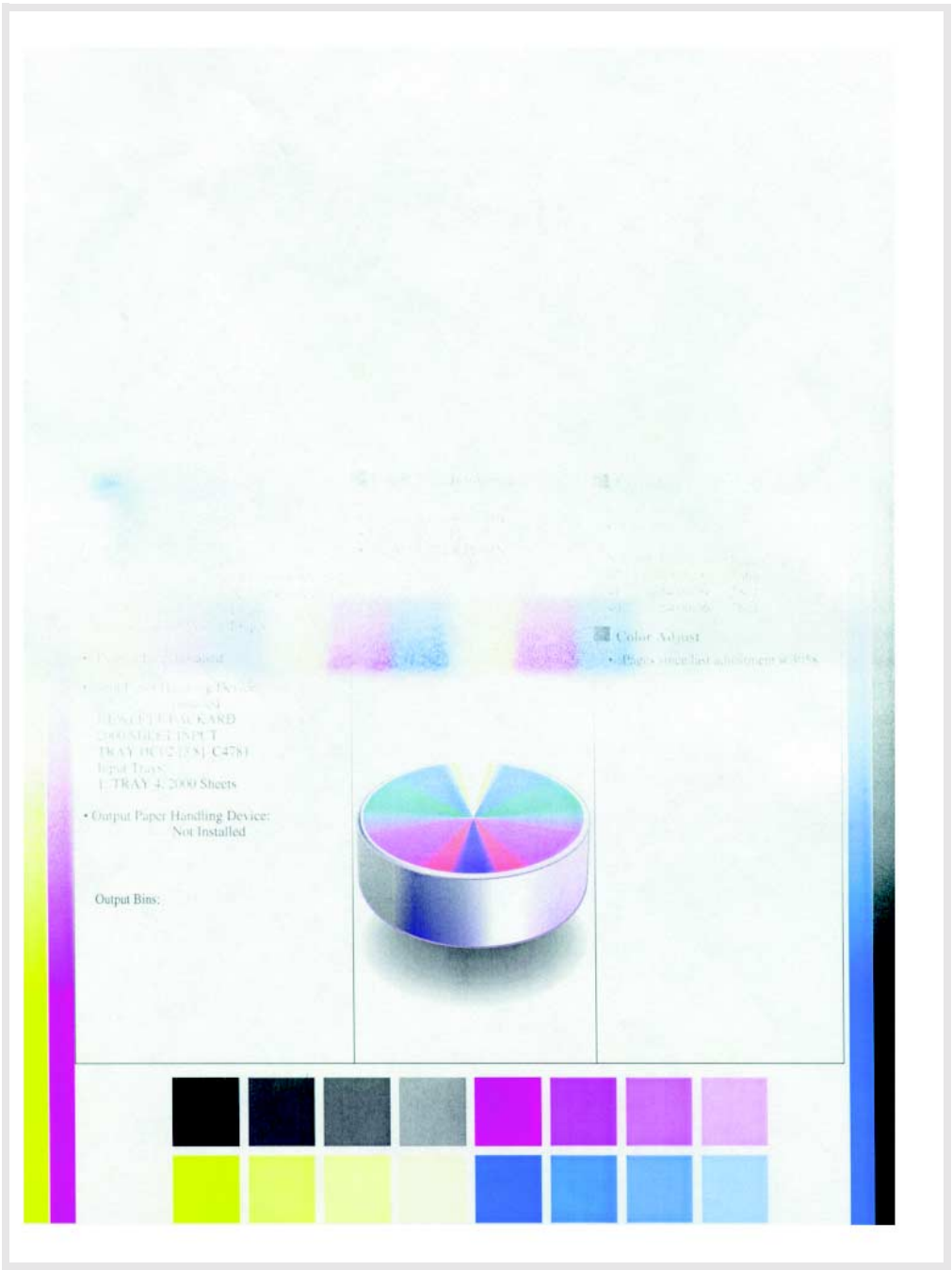


Figure 232. **Fading resulting from broken transfer guide**

See page 455 for a resolution to this print defect.

Color-plane registration

(See figure 224 on page 443 for an example of this print defect.)

Poor color-plane registration is characterized by “bleeding” colors, by apparent gaps in color, and by colors offset from each other or from black. The examples on page 443 show all three types:

- In the upper left, yellow is offset from colors that use yellow.
- In the upper right, colors are offset from black, causing a noticeable gap.
- At the bottom, the double line is caused by black offset from colors.

Use the troubleshooting list below to resolve poor color-plane registration. If the problem still exists after you complete step 1, try step 2. If step 2 fails to solve the problem, try step 3, and so on.

1. Check manufacturing codes on toner cartridges if the problem appears after replacing a color toner cartridge (see "Toner cartridge manufacturing codes" on page 456).
2. Check the green handle (see figure 252 on page 524, reference #6); the locking pins on the back of the handle can break or even can be sheared off if, when the transfer drum is removed, the green handle is not swung all the way to the right.
3. Check the transfer drum guide (see figure 260 on page 540, reference #40) and replace it if it has developed cracks.
4. Check engine settings 1 and 2 in service mode and compare the values to the numbers shown on the engine settings tag (see figure 79 on page 228, callout 3). Correct the settings to match the tag.

Note The last two digits of engine setting 2 might not match; this is normal.

5. Find out if the printer has operated recently in extreme temperature conditions.
6. Replace the transfer drum.

Developer streak

(See figure 225 on page 444 for an example of this print defect.)

Developer streak is characterized by a line of dark or missing toner that stretches from the leading edge to the trailing edge. Replace the toner cartridge corresponding to the color of the developer streak (for example, if the streak is magenta, replace the magenta toner cartridge).

Rain

(See figure 226 on page 445 for an example of this print defect.)

Rain is characterized by small, white, elongated spots in printed areas. Typically, rain begins toward the center of a printed page. Spots are elongated in the print direction.

Rain is caused by particles of color toner scratching the imaging drum in some high-coverage, long-print-job conditions. Once the imaging drum has been damaged, it must be replaced.

Eliminate rain by first checking manufacturer codes on toner cartridges (see "Toner cartridge manufacturing codes" on page 456) and replacing cartridges as needed.

Then, check the imaging drum for pitting or contamination and replace the drum as needed.

Toner bubbles

(See figure 227 on page 446 for an example of this print defect.)

Toner bubbles are characterized by large blotches of color toner on printed pages caused by color toner leaking from cartridges directly onto the transfer drum.

Solve the problem of toner bubbles by checking the manufacturing codes on the toner cartridges (see "Toner cartridge manufacturing codes" on page 456) and replacing cartridges as needed.

Charge roller set

(See figure 228 on page 447 for an example of this print defect.)

Charge roller set print defect, usually only noticeable in lighter halftone colors, is characterized by banding lines at intervals of 44 mm (approximately 1.75 inches). The print defect usually appears immediately after installing a new imaging drum or if the printer has been in storage without power applied for a prolonged period of time.

The conductive rubber charge roller inside the imaging drum cartridge can flatten on one side when the drum sits idle. A charge roller typically returns to a cylindrical shape within 24 hours after installation or after printing approximately 100 pages, so the image defect diminishes with use or time.

Note Do not replace the new imaging drum with another new imaging drum. Doing so can cause the image defect to appear worse. Instead, wait 24 hours or print 100 sheets of a medium-coverage print job.

Waves

(See figure 229 on page 448 for an example of this print defect.)

Waves are characterized by color printing that appears “choppy” in transition from high-coverage to low-coverage areas of the printed page.

Waves can appear late in the life of a color toner cartridge, especially when the cartridge has seen prolonged use at very low coverage; there might still be toner in the cartridge, but it might be “worn out.”

Solve the print defect by replacing the color toner cartridge. For example, if waves appear in magenta or colors that use magenta (reds and blues), replace the magenta cartridge.

Missing toner

(See figure 230 on page 449 for an example of this print defect.)

The “missing toner” print defect is characterized by small speckles, caused by missing toner, that appear usually in lighter colors within two or three centimeters (approximately one inch) of the leading or trailing edge.

To avoid the print defect, use better quality or heavier media. Also try using darker colors and avoiding light colors in these areas.

Hot offset

(See figure 231 on page 450 for an example of this print defect.)

The “hot offset” print defect is characterized by blotches of toner on printed transparencies.

Avoid the print defect by using only thicker transparencies specifically designed for HP Color LaserJet printers.

Fading

(See figure 232 on page 451 for an example of this print defect.)

A broken transfer drum guide (see figure 260 on page 540, reference #40) causes a distinct fading pattern. Print appears normal near one edge (the bottom edge of an A4- or letter-sized portrait-oriented page) and fades to completely missing at the opposite edge. Remnants of the process marks might appear in the middle of the page.

This defect is caused by a broken transfer drum guide. Replace the transfer drum guide.

Toner cartridge manufacturing codes

Heat-stamped on the toner cartridge, opposite the label-end of the cartridge, is a manufacturing code. If a portion of the code does not match the list below, replace the toner cartridge.

Use toner cartridges that contain any of the following manufacturing codes:

- 9I
- 9J
- 9K
- 9L
- any cartridge that begins with the numbers 0 through 6 in place of the 9

Color balance adjustment

CAUTION Adjusting the color balance changes the printer's calibration. Because this procedure adjusts parameters within the printer hardware, it will affect all print jobs.

The printer automatically recalibrates the color settings. However, you can adjust the color manually from the default settings by changing the densities of the four toners (black, cyan, magenta, and yellow). Changing the Detail Half-tone Adjust and Smooth Half-tone Adjust allow you to independently adjust the color of objects on a page that use the smooth and detail half-tones (such as text and graphics). Any settings you change remain in effect until you change them again or restore the factory defaults.

Do not perform the color balance adjustment procedure until all of the following troubleshooting methods have been completed:

- Experiment with the printer driver and application settings to adjust the color output. For more information about application settings, see the online help.
- Clean the density sensor (see page 114).
- Complete the troubleshooting solutions earlier in this chapter for the color printing problem you are experiencing.

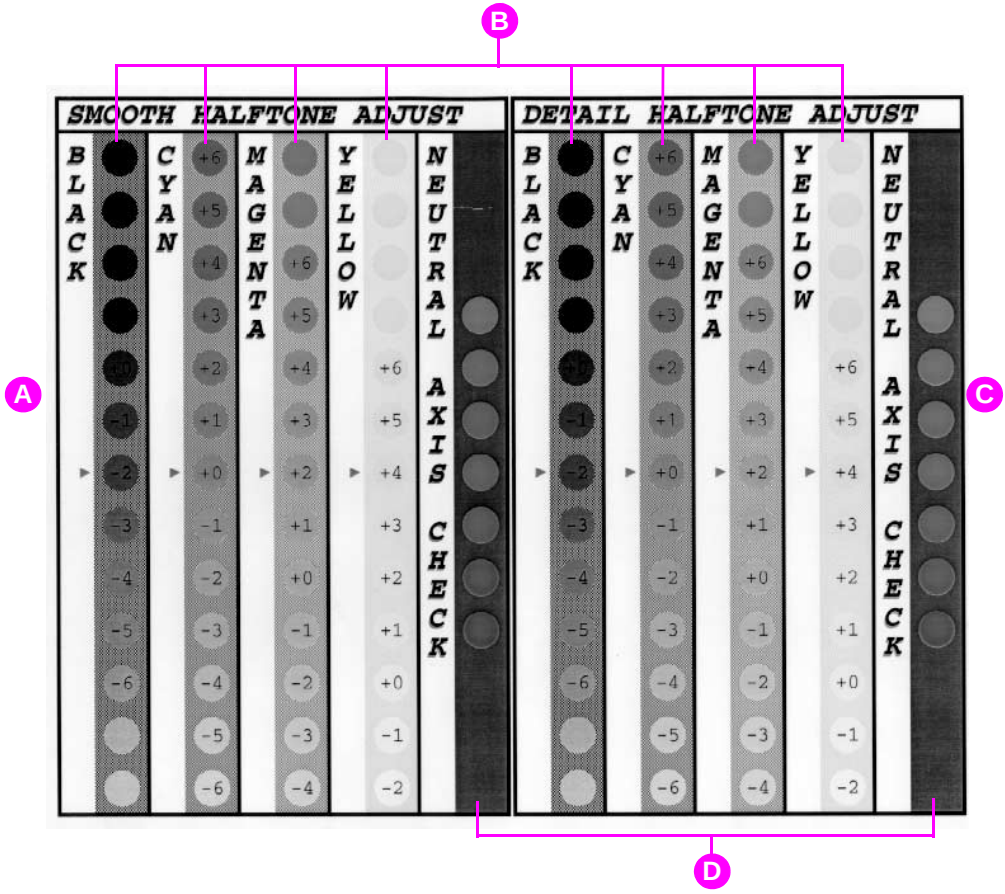


Figure 233. **Color adjust page**

A Smooth Half-tone Adjust section

B Color ramps

C Detail Half-tone Adjust section

D Neutral axis

1 **Print the color adjust page.**

   a Press GO and – VALUE + at the same time. COLOR ADJUST MENU appears on the printer control panel display.

   b Press ITEM until PRINT TEST PAGE appears on the display.

   c Press SELECT to print the color adjust page.

   d Press GO to exit the Color Adjust Menu.

   The color adjust page allows you to adjust the printer's two half-tone screens for each of the four colors (black, cyan, magenta, and yellow), for a total of eight adjustments. Make these adjustments after examining the color adjust page.

   The color adjust page consists of two sections: the Detail Half-tone Adjust section and the Smooth Half-tone Adjust section. Each section shows the adjustment ramps for black, cyan, magenta, and yellow and a neutral axis check ramp, which can be used to verify the adjustment after the correction values have been entered for each of the primary colors. Figure 233 is an example of the color adjust page.

2 **Note the numbers beside the red arrows for later reference.** The color adjust page indicates the last set of saved color settings with a red arrow next to the saved setting. The default for each color is 0 (other possible settings consist of -6 through 6).

3 **Determine the color adjustment numbers for each color in the color ramps.**

   a Examine the color adjust page from a distance of 6 ft (approximately 2 m).

   b Find the circle of each color that most closely matches the background color. It might be necessary to squint slightly to match the colors.

   c Record the number in the circle.

4 **Enter the color adjustment numbers in the printer control panel.**

a Press Go and – Value + at the same time. COLOR ADJUST MENU appears on the display.

b Press Item until the option you want appears on the display. The options are listed below:

- BLACK SMOOTH VALUE =
- CYAN SMOOTH VALUE =
- MAGENTA SMOOTH VALUE =
- YELLOW SMOOTH VALUE =
- BLACK DETAIL VALUE =
- CYAN DETAIL VALUE =
- MAGENTA DETAIL VALUE =
- YELLOW DETAIL VALUE =

c Press – Value + until the number recorded in step 3c appears on the display.

d Press Select to enter the number into the printer memory. An asterisk (*) appears to the right of the selection.

e Repeat steps 4a through 4d to adjust the color screens, as necessary.

5 **Reprint the color adjust page**.

6 **Examine the new color adjust test page and verify that the color adjustment is correct.**

- Verify that each of the color ramps (black, cyan, magenta, and yellow) matches the background for each color and has a red arrow next to the circle. If another circle matches the background more closely, return to step 4 to reset the values on the printer control panel to the number shown in that circle.
- Verify that the circles in the neutral axis areas of the color adjust test page are neutral gray (gray without a color tint), and then verify that one of the circles in the ramp is a color very close to the background. If the circles are not neutral gray, additional corrections to cyan, magenta, or yellow might be necessary. If there is an overall tint of color in the circles, make the adjustments suggested by the following table. However, the most accurate correction is determined by the circles in the individual black, cyan, magenta, and yellow ramps.

Table 45. Neutral axis adjustments

Overall color of circles	Correction if all circles are darker than background	Correction if all circles are lighter than background
Cyan tint	Reduce cyan	Increase magenta and yellow
Magenta tint	Reduce magenta	Increase cyan and yellow
Yellow tint	Reduce yellow	Increase magenta and cyan
Green tint	Reduce yellow and cyan	Increase magenta
Red tint	Reduce yellow and magenta	Increase cyan
Purple or blue tint	Reduce cyan and magenta	Increase yellow

For example, if the circles in the neutral axes show a green tint and the circle appears lighter than the background, the magenta ramp should be examined closely to determine if magenta should be increased.

Note If the color settings are less accurate when you finish the color adjustment than when you started, reset all color values to 0 (zero) in the printer control panel and try the adjustment again.

Repetitive defects troubleshooting

Repetitive defects are defects that occur in the same vertical position on the page, but not necessarily on every page. Most repetitive defects are caused by problems with one of the following, and are indicated by the positioning of the defect on the page:

- developer roller (at 38 mm)
- charging roller (at 44 mm)—see additional information under “Charge roller set” on page 454.
- cleaning roller (at 56 mm)
- developer DSD wheels (at 65 mm)
- transfer roller (at 66 mm)
- transfer drum (occurs once per 11-by-17 inch or A3-sized page, or every other letter- or A4-sized page)
- fuser (at 150.5 mm)
- imaging drum (at 195 mm)
- transfer belt (at 222 mm)

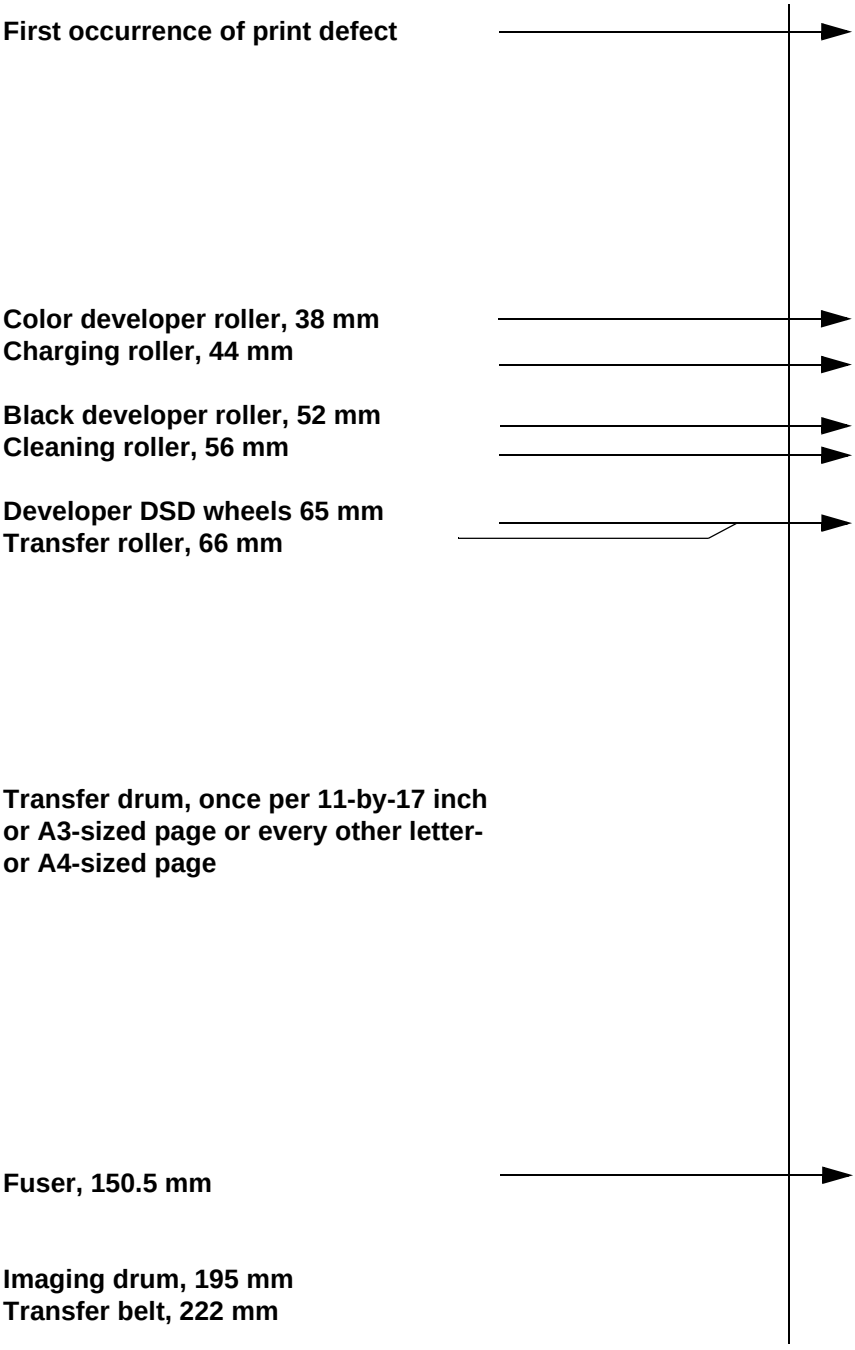


Figure 234. Repetitive defect ruler

Color developer roller

Symptoms: Print defect occurring every 38 mm.

Cause: Dirty or damaged developer roller.

Actions: Replace the toner cartridge.

Charging roller

Symptoms: Print defect occurring every 44 mm.

Cause: Dirty or damaged charging roller.

Actions: Replace the imaging drum.

Black developer roller

Symptoms: Print defect occurring every 38 mm.

Cause: Dirty or damaged developer roller.

Actions: Replace the toner cartridge.

Cleaning roller

Symptoms: Print defects occurring every 56 mm.

Cause: Dirty or damaged cleaning roller.

Actions: Clean the cleaning roller with a hand wipe. If cleaning does not resolve the defect, replace the cleaning roller.

Developer DSD wheels

Symptoms: Print defect occurring every 65 mm.

Cause: Dirty or damaged developer DSD wheels. These wheels are located on the outer ends of the color toner cartridge and appear as a black bushing.

Actions: Replace the toner cartridge of the color producing the repetitive defect.

Transfer roller

Symptoms: Print defect occurring every 66 mm.

Cause: Dirty or damaged transfer roller.

Actions: Clean the transfer roller with isopropyl alcohol and a hand wipe. If cleaning does not resolve the defect, replace the transfer belt.

Transfer drum

Symptoms: Print defect occurring once per page on 11-by-17-inch- or A3-sized media, or on every other letter- or A4- sized page.

Cause: Dirty or damaged transfer drum.

Actions: Clean the transfer drum (see below). If the defect is not resolved by cleaning, replace the transfer drum.

Cleaning the transfer drum

Many, but not all, repetitive defects can be removed using the following procedures. Defects that appear as light spots in dark areas of print are more likely to be corrected by this procedure than dark spots in unprinted areas.

CAUTION If the procedures are performed incorrectly or without proper care, the transfer drum can be permanently damaged.

This procedure requires the following items:

- a print sample showing the repetitive defect
- a clean, flat surface on which to work
- a hand wipe

CAUTION You can also use a dry, clean, soft, lint-free cloth, such as cheesecloth, to clean the transfer drum. To prevent scratches on the drum, do not use any paper products (such as tissue or paper towels) to clean the drum.

1 Turn the printer off and open the front door.

2 Press the button and swing the lower lever to the right.

3 Open the right upper door, and remove the transfer drum.

4 Using the print sample as a reference, inspect the transfer drum for a spot or speck that might be causing the repetitive defects.

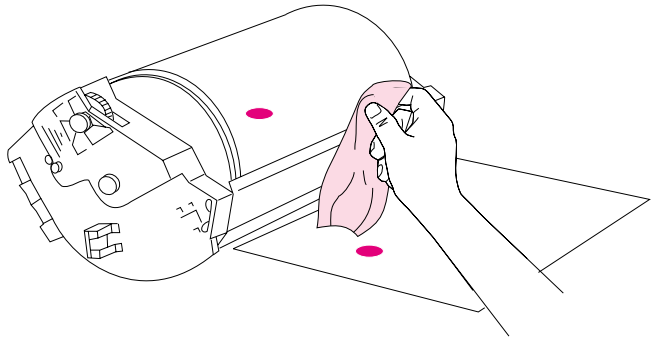


Figure 235. Cleaning the transfer drum

CAUTION Do not clean the transfer drum using force. Do not use any water-based cleaners or alcohol. These actions can permanently damage the transfer drum.

5 Gently rub the spot or speck with a hand wipe.

Note Do not use isopropyl alcohol to clean the transfer drum.

6 Reinstall the transfer drum.

7 Swing the lower lever to the left making sure it clicks into place.

8 Close the right upper and front doors, and turn the printer on.

9 Reprint the print job. If cleaning does not eliminate the repetitive defect, replace the transfer drum.

Fuser

Symptoms: Print defects occurring at about 150.5 mm. The defects will be most visible on overhead transparencies.

Cause: Defect on the upper fuser roller.

Actions:

1. Power the printer off, allow 30 minutes for the fuser to cool, and remove the fuser.
2. Turn the fuser gears and inspect the surface of the upper fusing roller. If the roller has surface defects, replace the fuser assembly.

Imaging drum

Symptoms: Print defects occurring every 195 mm.

Causes:

- Damage such as scratches or dents on the imaging drum. These usually appear as dark or light marks on the page.
- Paper dust adhering to the imaging drum. These usually appear as white marks in the dark printed areas of the page.
- Exposure of portions of the imaging drum to light. This causes dark sections in the printed output. The life of the imaging drum is shortened by exposure to strong light.

Actions:

- Print at least four configuration pages to determine if the defect repeats in the same vertical orientation.
- Inspect the imaging drum for scratches, dents, or other damage. Replace if needed.
- If the problem is dust, remove the dust with 70% isopropyl alcohol applied with a hand wipe. Try this *only* if the print defect is unacceptable and the only other alternative is replacing the imaging drum.
- Defects caused by exposure to light might clear up over time. If severe, replace the imaging drum.

CAUTION Do not expose the imaging drum to direct sunlight, and be careful not to scratch or get fingerprints on the drum surface during cleaning.

Transfer belt

Symptoms: Print defects occurring every 222 mm.

Cause: Defects on the transfer belt surface.

Actions: Remove the transfer belt and inspect the entire belt surface. Use the transfer belt gears to rotate the belt through its travel.

2,000-sheet input unit troubleshooting

This section provides a systematic approach to identifying the causes of malfunctions and errors in the 2,000-sheet input unit.

Ways to troubleshoot the unit

In general, there are three possible sources of malfunction:

- the 2,000-sheet input unit itself
- printer electronics
- the C-link cable that connects the unit and the printer

Begin troubleshooting

1. Print or display the error log. Evaluate the error log for any specific error trends in the last 10,000 printed pages.
2. Print a configuration page to verify the proper installation of the paper-handling accessories.
   - If any of the installed accessories are not shown on the configuration page, check the corresponding cable connections.
   - Verify that the C-link cable is correctly connected and functional.
   - Verify that DC power is available to the paper-handling accessories.
3. If necessary, use one of the following diagnostic tools to isolate the problem:
   - **Status LED on the front of the unit**—Indicates the status of the unit (see page 470).
   - **Service LED inside the back cover**—The pattern of flashing (long and short) isolates the problem (see page 471).
   - **Standalone running test**—Tests whether the unit itself is functioning properly (see page 473).
   - **Motor test**—Checks the motor to see if it is working properly (see page 474).
   - **Sensor tests**—Checks the sensors to see if they are working properly (see page 475).

Status LED descriptions

The status light on the front of the unit provides status information.

Table 46. Status LED on the 2,000-sheet input unit

State	Description	Resolution
Solid green	The unit is on and ready.	None required.
Solid amber	The unit is experiencing a hardware malfunction.	Isolate the problem using one of the other procedures described in this section.
Flashing amber	The unit has a media jam or a page needs to be removed from the 2,000-sheet input unit, even if the page is not jammed.	Clear the jam or remove the page.
	The VTU might be open.	Close the door.
Off	The printer might be in Power Save mode.	Press GO.
	The unit is not receiving power.	Check the power supply and the power cables.

Service LED descriptions

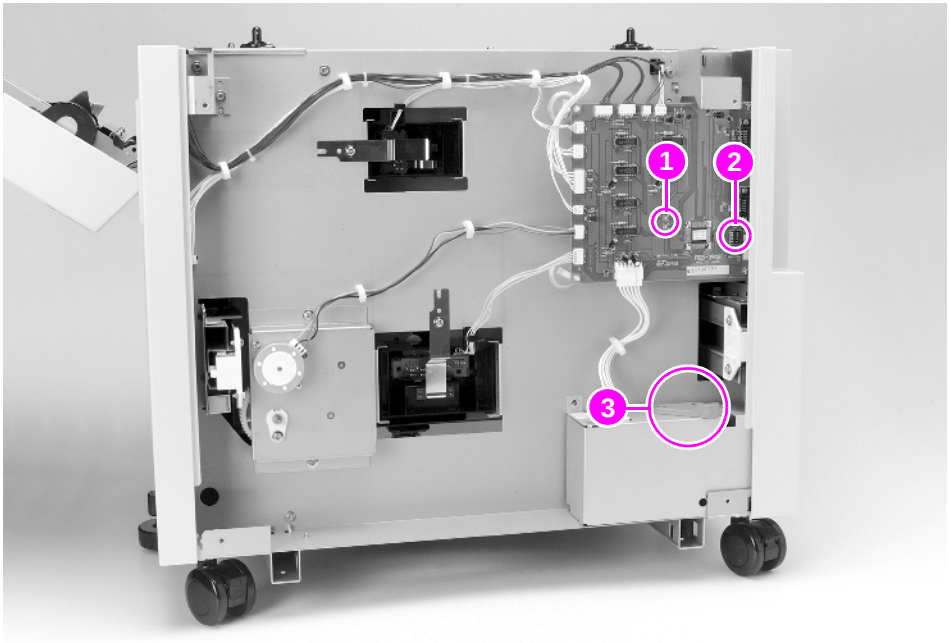


Figure 236. **Rear view of 2,000-sheet input unit**

1 Service LEDs

2 DIP switches

3 Power supply

Note Be sure to turn the power supply off and set all DIP switches to the off position when you finish the test, or the unit will not work.

The DIP switch is ON if it is to the right. The DIP switch is OFF if it is to the left.

Note To go from one test to another or to change the DIP switch settings, turn the power supply on the 2,000-sheet input unit to operational mode. Reset the DIP switches on the controller PCA, and then switch the power supply back to diagnostic mode to enable the new diagnostic test.

Service LED interpretation

If the 2,000-sheet input unit is working properly, it will pick up paper from tray 4 and expel it; the bottom service LED will flash regularly every 0.5 seconds.

Table 47. Patterns of LED flashing (2-second pause between each pattern)

Long (1 sec)	Short (0.3 sec)	Description	Recommended action
3	1	Lifter malfunction	Verify that the tray lifts freely by lifting it by hand. Verify that the paper size plates are installed correctly (in the same corresponding slots) and are not bent. If neither of these is the problem, replace tray 4.
2	1	Registration sensor delay jam	The media does not reach the sensor. Open the VTU door and remove the media. Replace the paper feed (VTU) assembly or the paper pick-up assembly.
2	2	Registration sensor stationary jam/initial jam	Open the VTU door and remove the media. Check the sensors and replace the corresponding field replaceable unit.
2	3	Jam sensor delay jam	The media did not reach the sensor. Open the VTU door and remove the media. Replace the paper feed (VTU) assembly or the paper pick-up assembly.
2	4	Jam sensor stationary jam/initial jam	Open the VTU door and remove the media.
1	1	VTU door is open	Close the door.
1	2	Tray 4 is open Wrong paper size loaded	Close the tray. Load the correct size of paper or check sensors.
1	3	No paper in tray 4	Load paper or check sensors.

Note If the LEDs do not turn on, replace the paper deck PCA or the power supply.

DIP switch settings

The following table shows the position of the DIP switches to run each of the 2,000-sheet input unit diagnostic tests.

Table 48. DIP switch settings for troubleshooting test procedures

DIP switch	Normal setting	Motor test	Standalone running test	Sensor test
1	Off	On	On	Off
2	Off	On	Off	Off
3	Off	Off	Off	On
4	Off	On	On	On

Standalone running test

This test verifies that the 2,000-sheet input unit is functioning properly. For this test, use the service LEDs. (See page 472 for an interpretation of the service LED patterns.)

CAUTION To prevent excessive media jams during this test, feed only six to eight pages.

1. Ensure that paper is in the tray.
2. Set the DIP switches on the 2,000-sheet input unit's controller PCA for the standalone running test. (See page 473 for an explanation of the settings.)
3. Use the switch that is located on the unit's power supply to switch to diagnostic mode.
   - If the unit does not work, there is no paper movement and the lower service LED flashes in a pattern that indicates the problem. (See page 472 for an interpretation of the service LED patterns.)
4. To stop the test, turn the power supply switch back to operational mode and set the DIP switches on the controller PCA to the off position. Open the VTU and remove any media from the paper path.

Motor test

This test verifies that the three motors on the 2,000-sheet input unit are functioning properly.

1. Remove the back cover from the 2,000-sheet input unit (see page 300).
2. Open tray 4 and the vertical transfer unit (VTU).
3. Set the DIP switches on the 2,000-sheet input unit's controller PCA for the motor test. (See page 473 for an explanation of the settings.)
4. Use the switch that is located on the unit's power supply to switch to diagnostic mode.
   - If the motors are working properly, they rotate continuously.
   - If the motors do not rotate, replace the corresponding field replaceable unit: the paper pick-up assembly, the VTU, or the paper deck drive assembly.
5. To stop the test, turn the switch on the power supply back to operational mode and reset the DIP switches on the controller PCA to the off position.

Sensor test

This test verifies that the sensors on the 2,000-sheet input unit are functioning properly.

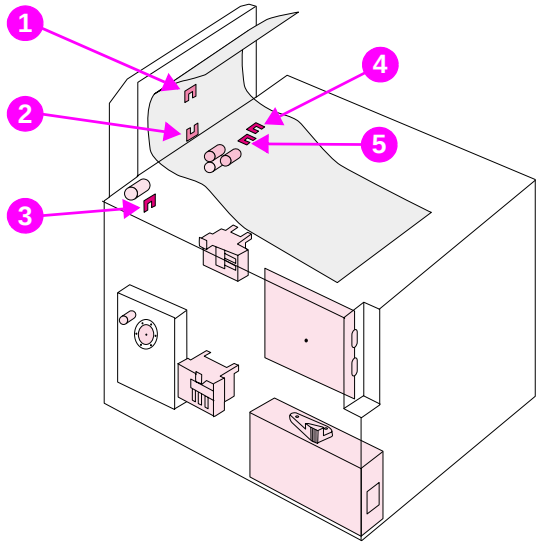


Figure 237. **Location of sensors in the 2,000-sheet input unit**

1 Paper exit sensor (PS32)

2 Paper entry sensor (PS31)

3 VTU closed sensor (PS35)

4 Paper tray raised sensor (PS34)

5 Paper tray empty sensor (PS33)

To perform the test

1 Set the DIP switches on the 2,000-sheet input unit's controller PCA for the sensor test. (See page 473 for an explanation of the settings.)

2 For each paper sensor:

   a Open the paper tray and the VTU on the 2,000-sheet input unit.

   b Remove the metal spring that holds the sensor unit in place (secured by 1 screw) (see figure 161, callout 2, and figure 163, callout 2).

   c Pull out the sensor unit.

3 Use the switch that is located on the unit's power supply to switch to diagnostic mode.

4 Manually activate the sensor.

   - When you activate the sensor, the bottom service LED on the controller PCA comes on. When you release the sensor, the LED goes off.
   - If the LED does not come on, there is a problem with the sensor. Replace the corresponding field replaceable unit.

5 To stop the test, turn the power supply switch back to operational mode and set the DIP switches on the controller PCA to the off position.

Multi-bin mailbox troubleshooting

The multi-bin mailbox standalone diagnostic tool is a troubleshooting aid that verifies how the multi-bin mailbox functions alone. The tests are designed to be used without C-link commands from the EPH controller on the printer.

Switching the multi-bin mailbox to test mode

1. Turn the printer off and remove the multi-bin mailbox from the printer.
2. Move the multi-bin mailbox power supply switch to test mode (callout 1).

Note Reset the power supply switch to normal mode when you finish running diagnostic tests; otherwise, the multi-bin mailbox will not work.

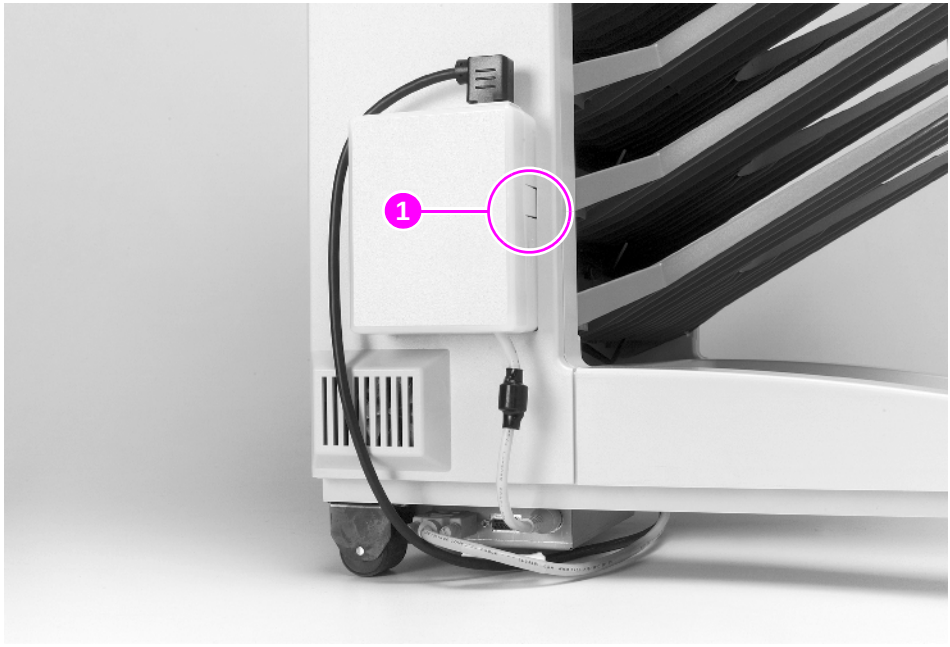


Figure 238. Multi-bin mailbox power supply test mode switch

Power-up sequence test

1. Push in and hold the multi-bin mailbox interlock switch. The multi-bin mailbox begins a power-up test.
   - All the motors in the multi-bin mailbox start working, and the delivery head assembly moves up and down the multi-bin mailbox twice, scanning to determine that all the output paper bins are properly installed.
   - At the end of the power-up test, the flipper motor remains working and waiting for feeding paper.
2. Check the user status LED on the front and the three service LEDs on the back side of the multi-bin mailbox. If the power-up test is successful, the user status LED remains green and the middle service LED shows solid red. The other two service LEDs remain off.
3. If the service LEDs are blinking in a pattern, indicating an error code, a problem exists (table 49 on page 479 lists the error codes indicated by the blinking pattern).

Paper path test

Note Use only supported media types for the paper path test.

1. Manually feed paper through the input paper guide.
   - The paper passes across the flipper assembly and moves down to the bottom paper bin through the transport belt system via the delivery head assembly.
2. Feed several pages, one at a time, through the input paper guide. If the paper path test is successful, reinstall the multi-bin mailbox.
3. If a problem exists, the service LEDs blink in a pattern, indicating an error code (table 49 on page 479 lists the error codes indicated by the blinking pattern).

Multi-bin mailbox LED descriptions

The multi-bin mailbox features a user status LED and three service LEDs.

- The user status LED is a single LED that is located on the front cover of the multi-bin mailbox at the top. The user LED provides information about the power-on status and about the attachment to and alignment of the accessory with the printer.
- The three service LEDs are near the center of the multi-bin mailbox back cover. The service LEDs blink independently of each other, indicating the status of the multi-bin mailbox.

LED status interpretation

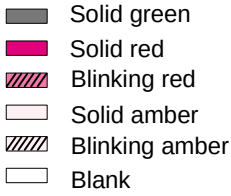


Table 49. Status LEDs on the multi-bin mailbox

User LED	Service LEDs	Message description	Recommended action
		**Multi-bin mailbox ready** The multi-bin mailbox was successfully connected and initialized by the printer.	● No action required.
		**Power Save mode** The multi-bin mailbox is in Power Save mode.	● No action required.
		**Test mode** The multi-bin mailbox is in test mode.	● Run the power-on test. ● Run the paper path test.

Table 49. Status LEDs on the multi-bin mailbox (continued)

User LED	Service LEDs	Message description	Recommended action
		**Multi-bin mailbox unlatched from the printer** The multi-bin mailbox is not properly attached to the printer.	• Check alignment of the multi-bin mailbox. • Check the attachment clips. • Check adjustable casters. • Check the interlock switch.
		**Flipper error** During the flipper calibration, an abnormal reference voltage was encountered.	• Check for media jam in the flipper assembly area. • Check cable connections. • Replace flipper assembly. • Replace the multi-bin mailbox controller PCA.
		**Face-up bin is too full** The face-up bin is too full.	• Remove media from the face-up bin. • Check for jammed sensor flag. • Replace the flipper assembly. • Check for proper cable connection.
		**Jam in flipper area** Time-out condition at the entry area.	• Open jam access door and check for media jam or out-of-place flipper assembly shaft. • Check for jammed paper sensor. • Replace the flipper assembly. • Replace the multi-bin mailbox controller PCA.
		**Jam in belt** Time-out condition in the transport belt.	• Check for media jam in the transport belt system/delivery head assembly. • Ensure free movement of the transport belt (both belts). • Ensure that belts are parallel in the transport belt system. • Check that the metal tape is in place and in good condition. • Replace the transport belt motor. • Replace the multi-bin mailbox controller PCA. • Replace the delivery head assembly.
		**Sliders problem at the head assembly** The sliders do not activate the slider photosensor.	• Check for media jam in the delivery head assembly. • Check that all paper bins are seated correctly. • Replace the delivery head assembly.

Table 49. Status LEDs on the multi-bin mailbox (continued)

User LED	Service LEDs	Message description	Recommended action
		**External memory error** Multi-bin mailbox NVRAM damaged.	• Replace the multi-bin mailbox controller PCA.
		**Jam in delivery head assembly** Time-out condition in the PSExit1 sensor.	• Check for media jam in the delivery head assembly. • Check for free movement in both PSExit1 and PSExit2 sensors on the delivery head assembly. • Check that the fingers are over the ejector rollers on the delivery head assembly. • Replace the flat ribbon cable that connects to the delivery head assembly. • Replace the delivery head assembly. • Replace the multi-bin mailbox controller PCA.
		**Jam in the delivery head position system** The elevator motor detects an invalid window when scanning.	• Check that the blind cover and scan bar are installed properly. • Check for media jam in the delivery head assembly. • Check for free movement of the delivery head assembly. • Check that all paper bins are seated correctly. • Check that paper bins and blind cover are not broken. • Replace the delivery head motor. • Replace the delivery head assembly. • Replace the multi-bin mailbox controller PCA.
		**Wrong page request** Page request received with invalid output bin or invalid paper size information.	• Check the bin destination. • Check the paper size configuration. • Power up the system.

Calibrating the staple position

Note Recalibrate the staple position **only** if the accumulator assembly, the carriage assembly, or the controller PCA is replaced. NVRAM located in the controller PCA keeps in memory the configured compensation values for the staple position. When the device is in service mode, you can gain access to the flexible calibration menu.

To calibrate the staple position

1. Turn the printer off.
2. Enter service mode (see “To set the device in service mode” later in this chapter). As the device powers on, the NVRAM receives the calibration values.
3. After successful power on, exit service mode (see “To exit service mode” later in this chapter).
4. Turn the printer on and wait until `Ready` appears on the control panel display. The user LED, located at the top of the front cover, should blink green.
5. Press MENU until `Configuration of Stkr` appears on the control panel display.
6. Press ITEM until `Default of Staples` appears.
7. Press – VALUE + until `One Staple` appears.
8. Press SELECT.
9. Press MENU until `Information Menu` appears.
10. Press ITEM until `Print Paper Path Test` appears.
11. Print a ten-page job to the stapler bin (optional bin 1).
12. Check the staple position of the 10-page print job against the staple position in figure 239 on page 483.
    - If the positions are not comparable, then the device should be recalibrated; continue with step 13 below.
    - If the positions match or are close to a match, the device does not require recalibration; proceed to step 18.
13. Press MENU until `Configuration of Stkr` appears.
14. Press ITEM until `X Compensation/Y Compensation` appears.

15 Press – VALUE + to set the correct compensation (in millimeters).

16 Press SELECT.

17 Repeat steps 9 through 16 until you are comfortable with the staple position.

18 Press MENU until `Configuration of Stkr` appears.

19 Press ITEM until `Calibra Values` appears.

20 Press – VALUE + until `Set` appears.

21 Press SELECT.

22 Press GO.

If you set compensation values, the printer should return to Ready automatically and the user LED should return to the solid green status.

Because you set calibration values, the printer should not allow access to the compensation values in service mode.

If you did not set compensation values, repeat steps 1 through 4 and steps 18 through 22.

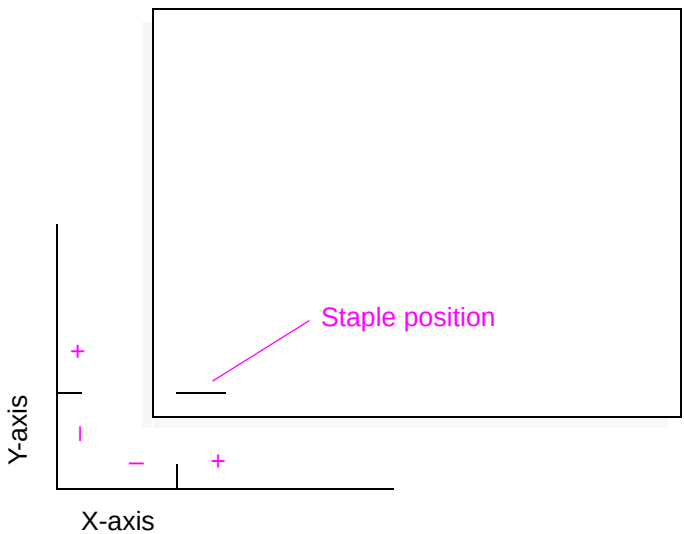


Figure 239. Staple position

Troubleshooting tools

Paper path test

Using the information from the event log, you can verify a specific printer paper path with the paper path test. The paper path test menu allows you to select the paper source and the output destination.

Note See Chapter 5, Theory of Operation, for graphic representations of the paper path.

To perform a paper path test

1. Press MENU until `Information Menu` appears on the control panel display.
2. Press ITEM until `Print Paper Path Test` appears and then press SELECT.
3. Press – VALUE + to choose the correct input tray and then press SELECT.
4. Press – VALUE + to choose the correct destination and then press SELECT.
5. Press – VALUE + to choose the correct duplex mode and then press SELECT.
6. Press – VALUE + to choose the number of copies and then press SELECT.

To stop the paper path test, press CANCEL JOB on the control panel.

Timing

The figure below shows timeouts related to jam declarations. The number in parentheses is the jam's error log code.

Note Jam codes used in the drawing and in the explanation are in hexadecimal representation.

The time is the maximum time allowed between two events. The figure shows the flow of a normal sheet, from entry to the accumulator/offset module.

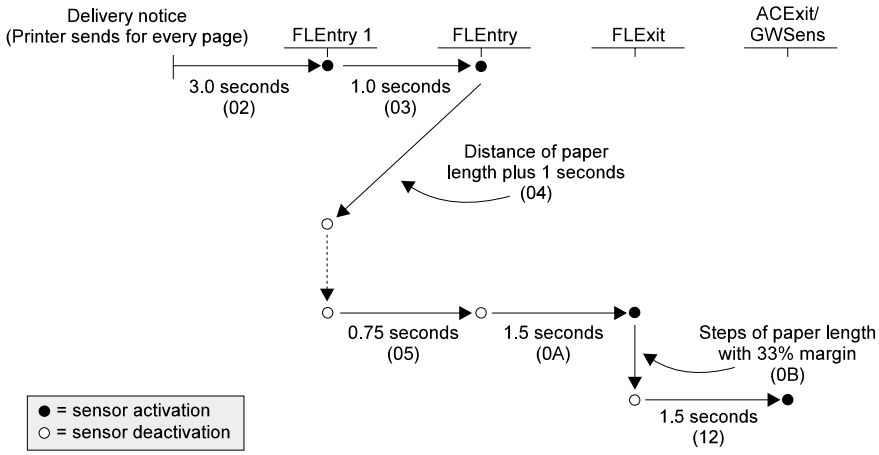


Figure 240. Device timing

The printer sends a delivery notice for each sheet. When the device detects the signal, a timeout of three seconds begins.

FLEntry 1 sensor and FLEntry sensor

If the sheet does not arrive to the FLEntry 1 sensor within three seconds, the device declares a jam 02.

When the sheet arrives at the FLEntry 1 sensor, which means that the sheet is being pushed by the printer and pulled by the device, the timer is reset to timeout in one second. If the sheet does not arrive at FLEntry sensor in one second, the device declares a jam 03.

Next, the FLEntry 1 sensor is deactivated. Because this event depends on the media length and the printer speed, it is independent of time. The device counts steps in the receiving stepper motor. With the proper relation of steps to length, the device knows when the sheet leaves the printer rollers. At that time, the device switches to high speed and begins a timeout of one second. If the sheet fails to leave the FLEntry 1 sensor in one second, the device declares a jam 04.

Once FLEntry 1 is deactivated, a timeout of .75 seconds begins to the next event—deactivation of the FLEntry sensor. If the FLEntry sensor is not deactivated, the device declares a jam 05. If the FLEntry sensor is deactivated, a timeout of 1.5 seconds begins for activation of the FLExit sensor.

FLExit sensor

If the FLExit sensor is not activated within the timeout, the device declares a jam 0A.

FLExit sensor deactivation depends on the internal paper path speed and the media length. The device declares a jam when internal step counter exceeds 133% of number of steps that represent the media length.

If the FLExit sensor is not deactivated, which can occur when sheet stops in the paper path because of an obstruction or slipping, the device declares a jam 0B.

When the FLExit sensor is deactivated correctly, a timeout of 1.5 seconds begins for activation of the registration wheel's sensor.

GWSens sensor/Exit sensor

If the GWSens sensor (in the stapler/stacker) or the Exit sensor (on the stacker) is not activated within the timeout, the device declares a jam 12.

Standalone diagnostic tool

The standalone diagnostic routines differ between the 3,000-sheet stapler/stacker and the 3,000-sheet stacker.

The standalone diagnostic tool tests the device's motors and functionality without the C-link commands from the printer.

The device has a user LED and a set of service LEDs.

- User LED—the single LED located at the top of the front cover provides information about the power-on status and attachment/alignment to the printer.
- Service LEDs (see figure 203 on page 353, callout 3)—three LEDs (green, yellow, and red) located near the bottom of the controller PCA, toward the back of the device, provide additional technical information about the device.

Note To interpret the LED patterns, see the tables later in this chapter.

When service mode is entered, the stapler/stacker performs a power-up sequence. While in service mode, the stapler test/stacker test, stacker bin test, face-up bin full sensor test, and stacker bin full test can be performed.

To set the device in service mode

Note Make sure the printer is turned off before performing this test. If the printer is on when service mode is enabled, some C-link signals might affect the test performance.

1. Unplug the C-link cable that connects the device to the printer.
2. Unplug the power cable that connects the device to the printer and plug the power cable directly into a grounded power source.
3. Remove the controller PCA cover (see page 342 for removal and replacement procedures).
4. Slide the service mode switch on the controller PCA to the “ON” position (toward you).
5. Press and hold in the interlock switch.

To exit service mode

1. Release the interlock switch and slide the service mode switch on the controller PCA back to the normal position.
2. Reinstall the controller PCA cover and C-link and power cables.

Note The user LED blinks green when the printer is turned on after setting and exiting service mode. Perform steps 18 through 22 under “Calibrating the staple position” earlier in this chapter to return to normal operation.

Stapler test/stacker test

For the stapler test/stacker test, use letter- or A4-sized paper. Feed the paper straight, centered, and slowly to avoid skews and jams. If a jam occurs, release the interlock switch and depress it again to reset the device.

Note Any stapler settings or offset settings configured at the printer control panel are ignored during the stapler test/stacker test.

1. Feed two sheets of paper into the paper input area. The sheets are sent to the face-up bin.
2. Feed two sheets at a time into the paper input area.
   - **In the 3,000-sheet stapler/stacker,** the sheets are stapled as shown below and sent to the stacker bin:

     next two sheets: no staples

     next two sheets: 1 staple

     next two sheets: 2 staples

     next two sheets: 3 staples

     next two sheets: 6 staples

     next two sheets: 1 staple, angled at 40°

     next two sheets restart the cycle: to the face-up bin

   - **In the 3,000-sheet stacker,** the sheets are routed as follows:

     next two sheets: to the stacker bin, offset in one direction

     next two sheets: to the face-up bin

     next two sheets: to the stacker bin, offset in the opposite direction

     next two sheets restart the cycle: to the face-up bin

Stacker bin test

Block the upper optical sensor and observe the movement of the stacker bin.

Face-up bin full sensor test

Lift and hold up the bin-full flag until the user LED blinks amber. The user LED should blink amber within a few seconds.

Stacker Bin Full Sensor Test

Block the upper optical sensor until the stacker bin reaches the bottom of its motion, triggering the stacker bin full sensor; the user LED should blink amber.

Service LED flashing patterns

The blinking of the service LEDs will be 0.5 second on and 0.5 second off during the coding sequence. After a two-second delay the sequence will be repeated.

Table 50. Service LED flashing patterns

LED	Meaning	LED blinking pattern (number of blinks)
Solid green	Device OK	
Blinking green	Device detached from the printer	Continuous blinking
Blinking yellow	Staple jam	1
	Jam in flipper	2
	Jam in paper path	3
	Jam in accumulator	4
	Jam in carriage	5
Blinking red	Stapler malfunction	1
	Flipper malfunction	2
	Malfunction in paper path	3
	Accumulator/offset module malfunction	4
	Carriage malfunction	5
	Controller PCA malfunction	6

User LED status interpretation

The blinking of the user LED is continuous.

Table 51. User LED status interpretation

Color	Solid/blinking	Meaning
Off	N/A	Printer in powersave mode or device not receiving power
Green	Solid	Device is on and ready
Green	Blinking	Device is in service mode
Amber	Solid	Device has a hardware malfunction
Amber	Blinking	Device is not correctly attached to printer, one or more bins are full, or device has a paper jam or a staple jam

Printer messages

Control panel messages and errors

Be sure to read the exact text of the control panel message, including the error message number and the text, in order to locate the error message in the tables.

The printer has enhanced information in the control panel.

Printer messages shown on the control panel display provide five categories of information. Each message category is assigned a priority. If more than one condition occurs at the same time, the highest priority message is shown. When it has been cleared, the next priority message will be shown, and so on. The messages and their priorities are:

- Printer status
- Warning messages
- Error messages
- Critical error messages
- External paper-handling device messages

Control panel and event log message format

The format of control panel messages is:

- 13.xy—paper jam in input/output device
- Input/output device condition—xy.zz
- 66.xy.zz—input/output device failure

The format of event log messages is:

- 13.xy zz—input/output device paper jam
- 65.xy.zz—input/output device condition
- 66.xy.zz—input/output device hardware malfunction

For both the control panel and event log messages:

- x is the C-link device number in the daisy chain:

  0 Paper handling controller

  1 First C-link device

  2 Second C-link device

  3 Third C-link device

  4 Fourth C-link device

  5 Fifth C-link device

- y is the C-link device type:

  0 Paper handling controller

  1 Input device

  2 Output device

  3 Finishing device

  4 Other supported device (not in use)

  5 Other supported device (not in use)

- zz is the error code. See the error message tables later in this chapter for more information.

Shown below are examples of control panel messages with their corresponding event log messages and meanings. Recommended actions are not shown; see the error message tables later in this chapter for recommended actions.

Control panel message	Event log	Meaning
13.11 Paper Jam in Input Device	13.11.1B	A jam occurred in the first C-link device configured. It is an input device (2,000-sheet Input Tray or 2 x 500-sheet Input Tray) with an error code 1B. This is normally a timeout at an entry or exit sensor.
66.22.09 Output Device Failure	66.22.09	A hardware malfunction occurred in the second C-link device configured. It is an output device (Mailbox) with an error code 09. This is an external memory error.

Note Print a configuration page to properly identify the input or output device configured. Notice that the error format only identifies the C-link device number and the device type; it does not identify which input or output device is used in the system.

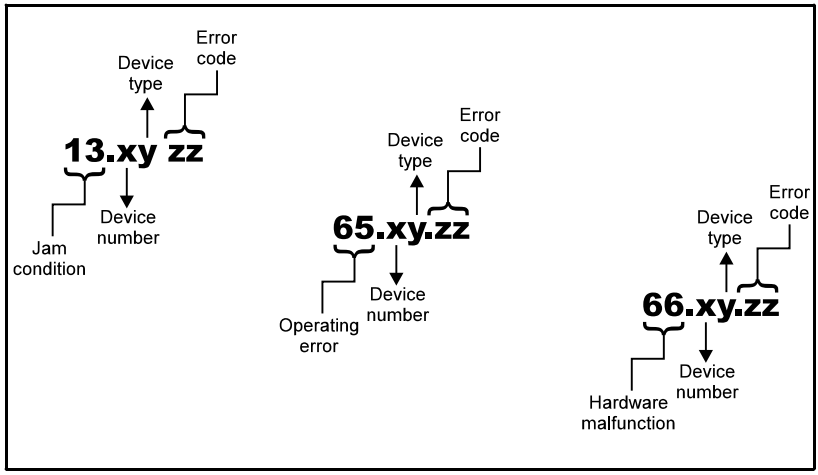


Figure 241. Error format for paper handling

HP 3,000-sheet stapler/stacker error messages

Operating errors

Table 52. Operating errors in the stapler/stacker

Control panel messages	Event log error message	User LED	Service LED	Description	Recommended action
• Output bin full • Clear paper from face up	N/A	Blinking amber (print job or mopy in progress)	N/A	Face up bin is full; 125 sheets have been collected in the face-up bin.	Remove paper from the face-up bin.
• Output bin full • Clear paper from optional bin 1	N/A	Blinking amber (print job or mopy in progress)	N/A	Stapler bin is full; 3,000 sheets have been collected in the stapler bin. -Or- More than 1,500 sheets of 11-by-17 inch or A3-sized paper have been collected in the stapler bin.	Remove paper from the stapler bin.
Stapler low on staples	N/A	N/A	N/A	Only 20 to 50 staples remain.	Refill the stapler.
• Check stapler device • Clear jammed staple	N/A	Blinking amber	Blinking yellow *(one blink)*	A staple is jammed in the stapler.	Clear the jammed staple.
Stapler out of staples	N/A	N/A	N/A	The cartridge is out of staples.	Refill the stapler.
Too many pages in job to staple	N/A	N/A	N/A	The maximum height of stack to be stapled has been exceeded. Print job is completed, but not stapled.	Do not configure the equipment to staple stacks that are thicker than the maximum height allowed; follow the guidelines listed in the user's guide.

Open Doors

Table 53. Open doors in the stapler/stacker

Control panel messages	Event log error message	User LED	Service LED	Description	Recommended action
Stkr: Attach to printer	N/A	Blinking amber	Blinking green	The device is detached from the printer.	Attach the device to the printer and verify that the user LED is green.
Stkr: Close stapler door	N/A	Blinking amber	Blinking green	The stapler door is open.	Close the stapler door.

Jams

Table 54. Jams in the stapler/stacker

Control panel messages	Event log error message	User LED	Service LED	Description	Recommended action
Stkr: Detach and Clear Jam	13.13 01 or 13.23 01	Blinking amber	Blinking yellow *(two blinks)*	When powering on or after clearing a jam, a jam is present at the flipper entry area.	• Clear the jam. • Power cycle the the printer and the computer, if necessary. • If the problem persists, replace the flipper assembly.
	13.13 02 or 13.23 02	Blinking amber	Blinking yellow *(two blinks)*	Media never reached the flipper entry sensors.	• Clear the jam. • Power cycle the printer and the computer, if necessary. • If the problem persists, replace the flipper assembly.
	13.13 03 or 13.23 03	Blinking amber	Blinking yellow *(two blinks)*	Media jammed at flipper entry sensor.	• Clear the jam. • Power cycle the printer and the computer, if necessary. • If the problem persists, replace the flipper assembly.

Table 54. Jams in the stapler/stacker

Control panel messages	Event log error message	User LED	Service LED	Description	Recommended action
Stkr: Detach and Clear Jam (continued)	13.13 04 or 13.23 04	Blinking amber	Blinking yellow *(two blinks)*	Media jammed in the flipper area.	• Clear the jam. • Power cycle the printer and the computer, if necessary. • If the problem persists, replace the flipper assembly.
	13.13 05 or 13.23 05	Blinking amber	Blinking yellow *(two blinks)*	Media jammed in the flipper area.	• Clear the jam. • Power cycle the printer and the computer, if necessary. • If the problem persists, replace the flipper assembly.
	13.13 06 or 13.23 06	Blinking amber	Blinking yellow *(two blinks)*	Self-adjustment routine incomplete.	• Check for mechanical interferences in the flipper's rollers area. • If the problem persists, replace the flipper assembly.
	13.13 09 or 13.23 09	Blinking amber	Blinking yellow *(three blinks)*	When powering on or after clearing a jam, a jam is present in the paper path.	• Clear the jam. • Power cycle the printer and computer, if necessary. • If the problem persists, replace the flipper assembly.

Table 54. Jams in the stapler/stacker

Control panel messages	Event log error message	User LED	Service LED	Description	Recommended action
Stkr: Detach and Clear Jam (continued)	13.13 0A or 13.23 0A	Blinking amber	Blinking yellow *(three blinks)*	Media jammed when flipping and not reaching the exit sensor.	• Clear the jam. • Power cycle the printer and the computer, if necessary. • If the problem persists, replace the flipper assembly.
	13.13 0B or 13.23 0B	Blinking amber	Blinking yellow *(three blinks)*	Media jammed when entering the accumulator.	• Clear the jam. Make sure you remove all shreds of media from the path. • Power cycle the printer and the computer, if necessary. • If the problem persists, replace the flipper assembly.
	13.13 11 or 13.23 11	Blinking amber	Blinking yellow *(four blinks)*	When powering on or after clearing a jam, a jam is present in the accumulator assembly.	• Clear the jam. • Power cycle the printer and the computer, if necessary. • Replace the accumulator assembly.
	13.13 12 or 13.23 12	Blinking amber	Blinking yellow *(four blinks)*	Media jammed in the paper path between the flipper and the accumulator.	• Clear the jam. • Power cycle the printer and the computer, if necessary. • Replace the accumulator assembly.

Table 54. Jams in the stapler/stacker

Control panel messages	Event log error message	User LED	Service LED	Description	Recommended action
`Stkr: Detach and Clear Jam` (continued)	13.13 13 or 13.23 13	Blinking amber	Blinking yellow *(four blinks)*	A jam occurred when trying to eject a print job or mopy.	• Clear the jam. • Power cycle the printer and the computer, if necessary. • Replace the accumulator assembly.
`Stkr: Detach and clear staple jam`	13.13 19 or 13.23 19	Blinking amber	Blinking yellow *(five blinks)*	Media jammed between the carriage and the stack of paper to be stapled.	• Clear the jam. • Power cycle the printer and the computer. • Verify unit calibration (Y compensation). • Replace the stapler assembly.

Hardware malfunctions

Table 55. Hardware malfunctions in the stapler/stacker

Control panel messages	Event log error message	User LED	Service LED	Description	Recommended action
• `Stkr: Call Service` • `Stkr: Error 04` • `66.13.17` or `66.23.17 Output device failure`	66.13.17 or 66.23.17	Solid amber	Blinking red *(four blinks)*	The accumulator assembly malfunctioned. -Or- The DC motor retainer or sensor is damaged.	• Replace the accumulator assembly. • If the problem persists, replace the controller PCA.

Table 55. Hardware malfunctions in the stapler/stacker

Control panel messages	Event log error message	User LED	Service LED	Description	Recommended action
• Stkr: Call Service • Stkr: Error 04 • 66.13.18 or 66.23.18 Output device failure	66.13.18 or 66.23.18	Solid amber	Blinking red *(four blinks)*	The accumulator assembly malfunctioned. -Or- The bearing bracket or gear wheel sensor is damaged.	• Replace the accumulator assembly. • If the problem persists, replace the controller PCA.
• Stkr: Call Service • Stkr: Error 05 • 66.13.25 or 66.23.25 Output device failure	66.13.25 or 66.23.25	Solid amber	Blinking red *(five blinks)*	The stapler is damaged.	• Replace the stapler. • Replace the controller PCA.
• Stkr: Call Service • Stkr: Error 06 • 66.13.33 or 66.23.33 Output device failure	66.13.33 or 66.23.33	Solid amber	Blinking red *(six blinks)*	The controller PCA is damaged. -Or- There is a RAM error.	• Power cycle the printer and the computer. • If the problem persists, replace the controller PCA.
• Stkr: Call Service • Stkr: Error 06 • 66.13.34 or 66.23.34 Output device failure	66.13.34 or 66.23.34	Solid amber	Blinking red *(six blinks)*	The controller PCA is damaged. -Or- There is an EEPROM error.	• Power cycle the printer and the computer. • If the problem persists, replace the controller PCA.

Table 55. Hardware malfunctions in the stapler/stacker

Control panel messages	Event log error message	User LED	Service LED	Description	Recommended action
• Stkr: Call Service • Stkr: Error 06 • 66.13.35 or 66.23.35 Output device failure	66.13.35 or 66.23.35	Solid amber	Blinking red *(six blinks)*	The controller PCA is damaged. -Or- ROM has been corrupted.	• Power cycle the printer and the computer. • If the problem persists, replace the controller PCA.
• Stkr: Call Service • Stkr: Error 06 • 66.13.36 or 66.23.36 Output device failure	66.13.36 or 66.23.36	Solid amber	Blinking red *(six blinks)*	The controller PCA is damaged. -Or- The C-link register is damaged.	• Power cycle the printer and the computer. • If the problem persists, replace the controller PCA.
• Stkr: Call Service • Stkr: Error 06 • 66.13.37 or 66.23.37 Output device failure	66.13.37 or 66.23.37	Solid amber	Blinking red *(six blinks)*	The controller PCA is damaged. -Or- The DAC (digital-to-analog converter) is damaged.	• Power cycle the printer and the computer. • Replace the controller PCA. • Replace the flipper assembly.

Communications troubleshooting

HP network interface support

Unless you have experience with the particular network under repair, seek the help of a qualified network professional before changing any network configuration settings.

If the printer is configured with an HP network interface card (such as an HP JetDirect product), the Response Center is available to help with any problems. Additional information is available from the *HP JetDirect Printer Software Installation Guide* (see page 514 for ordering information).

CAUTION Network interface cards are not directly interchangeable. Do not exchange interface cards without understanding and performing the configuration process for each of the exchanged cards and the network.

Third-party network interface support

If a problem is associated with a third-party network interface card, refer to the documentation that came with the card and the vendor support organization for help in troubleshooting.

Diagrams

This section contains general circuit (wiring) diagrams.

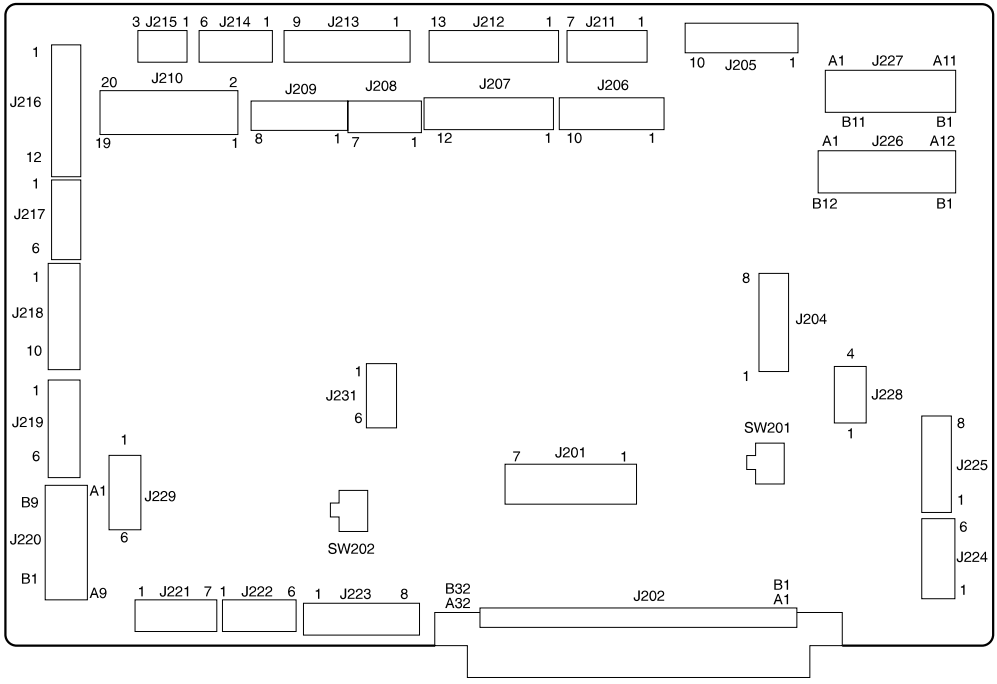


Figure 242. Connectors on the controller board

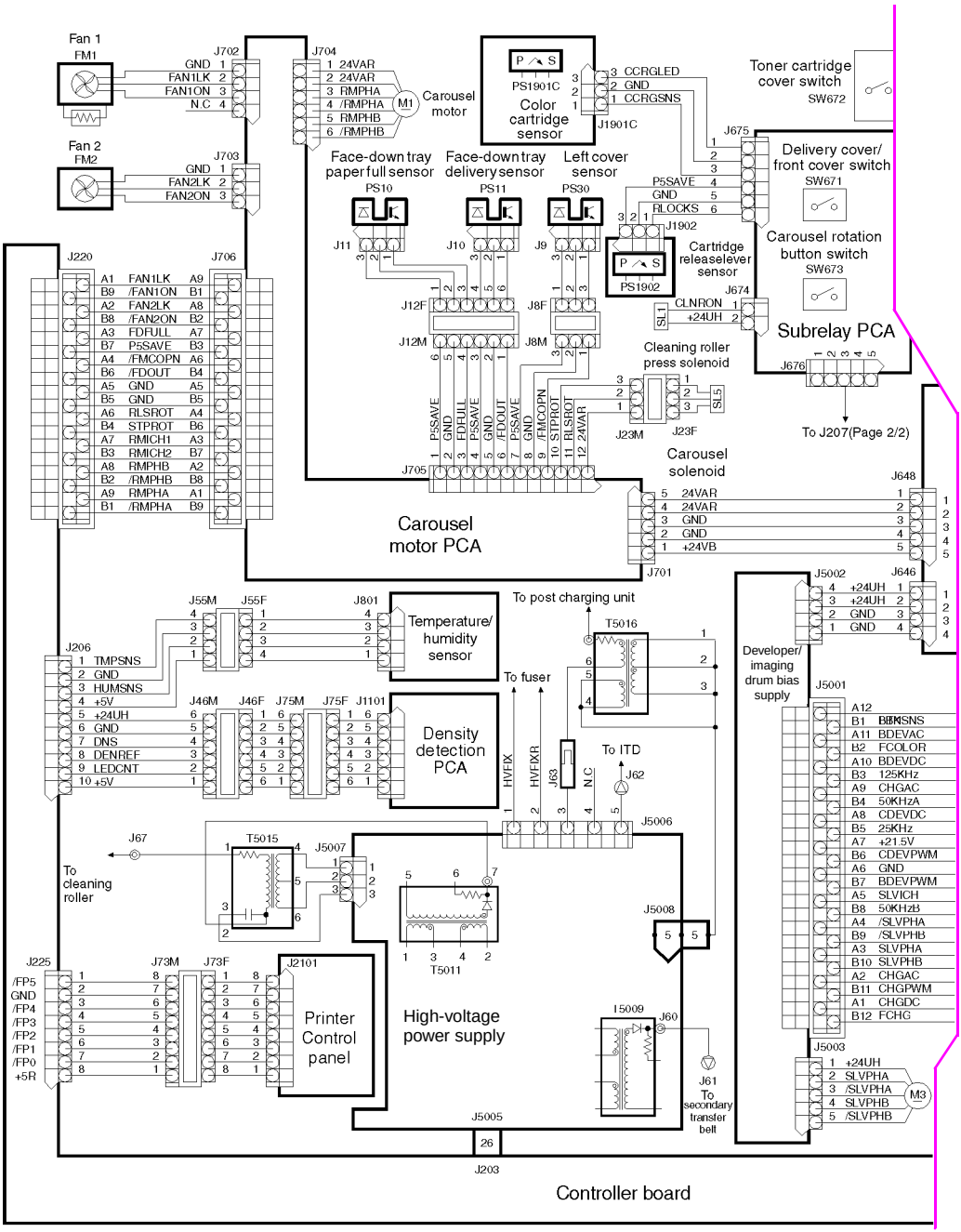


Figure 243. **General printer circuit diagram (1 of 4)**

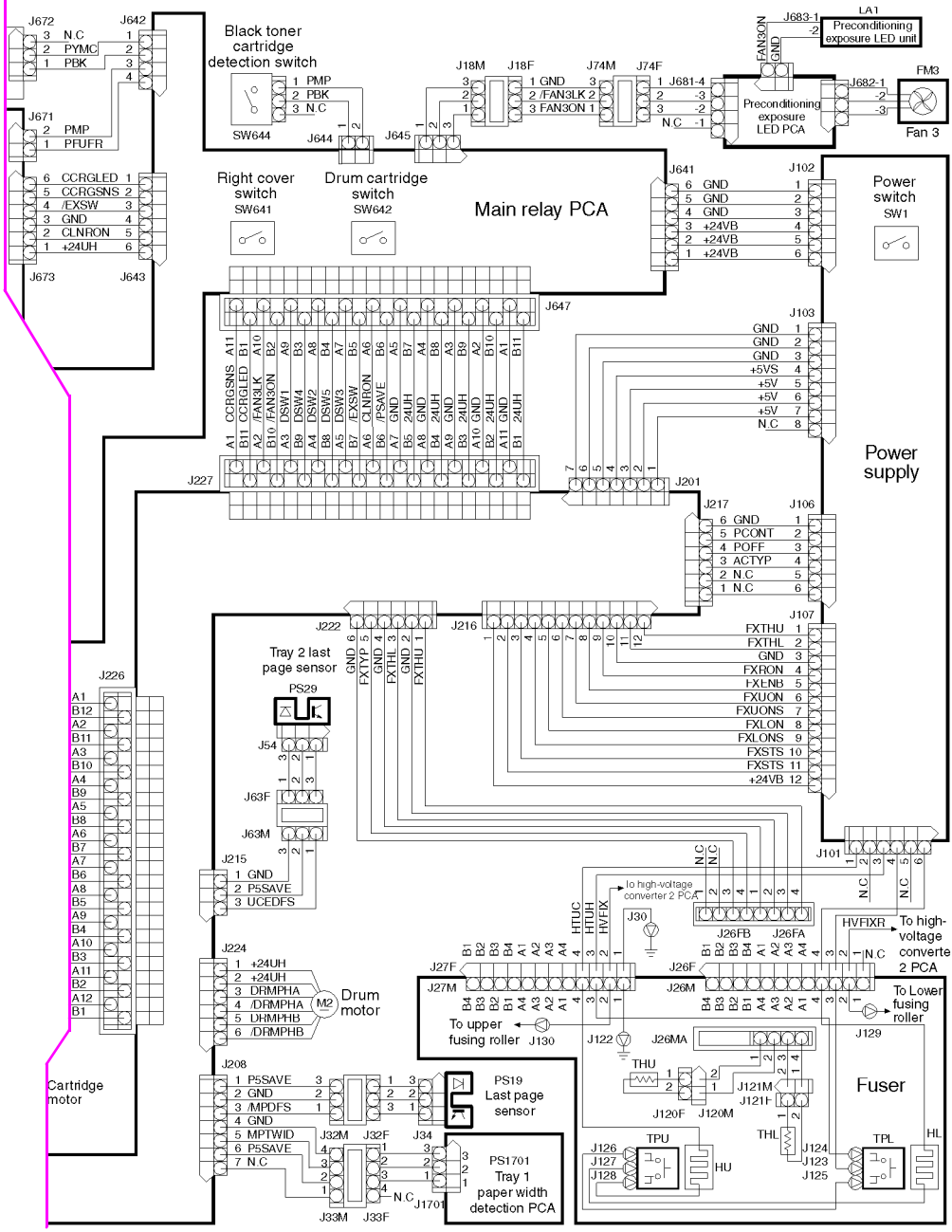


Figure 244. General printer circuit diagram (2 of 4)

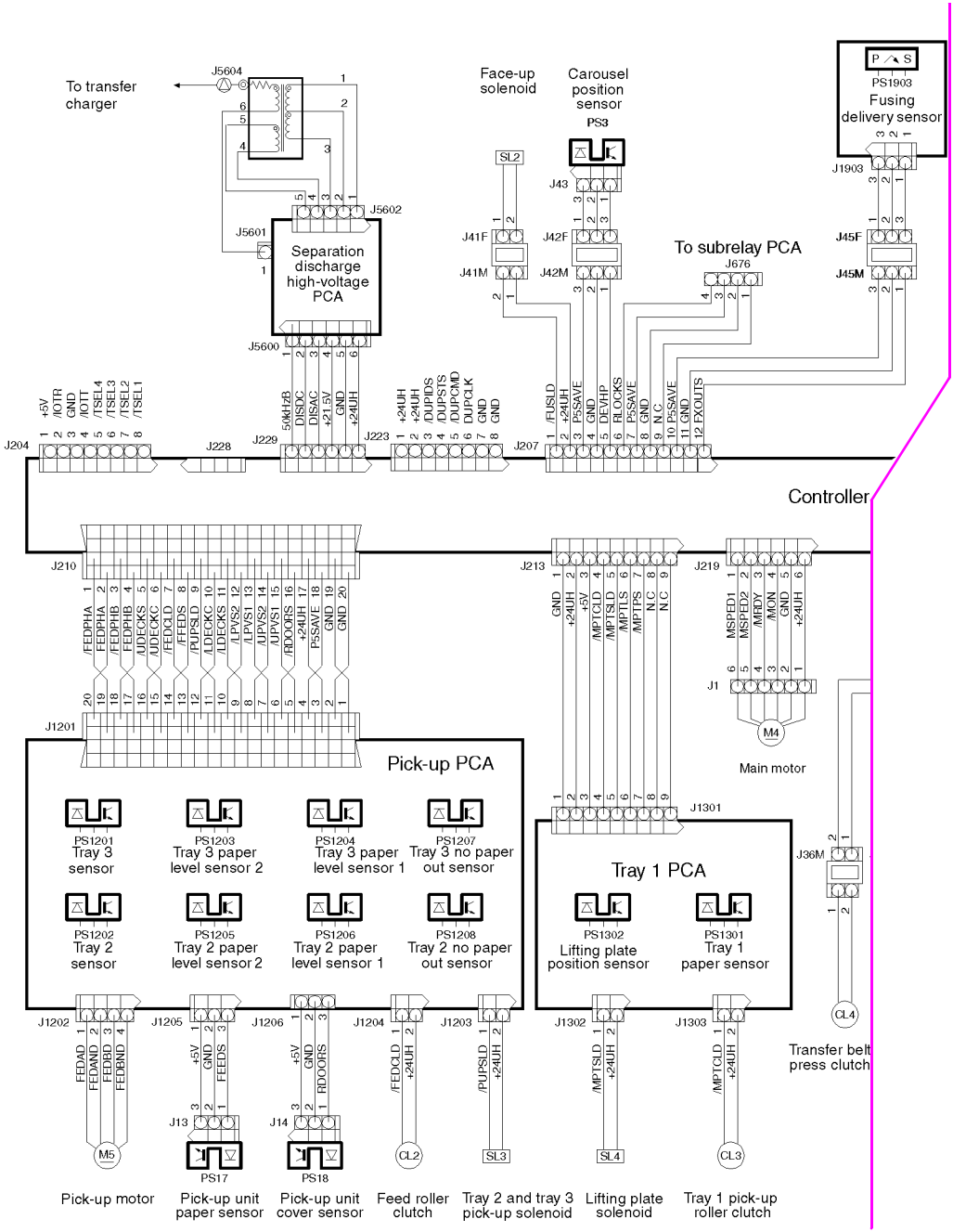


Figure 245. General printer circuit diagram (3 of 4)

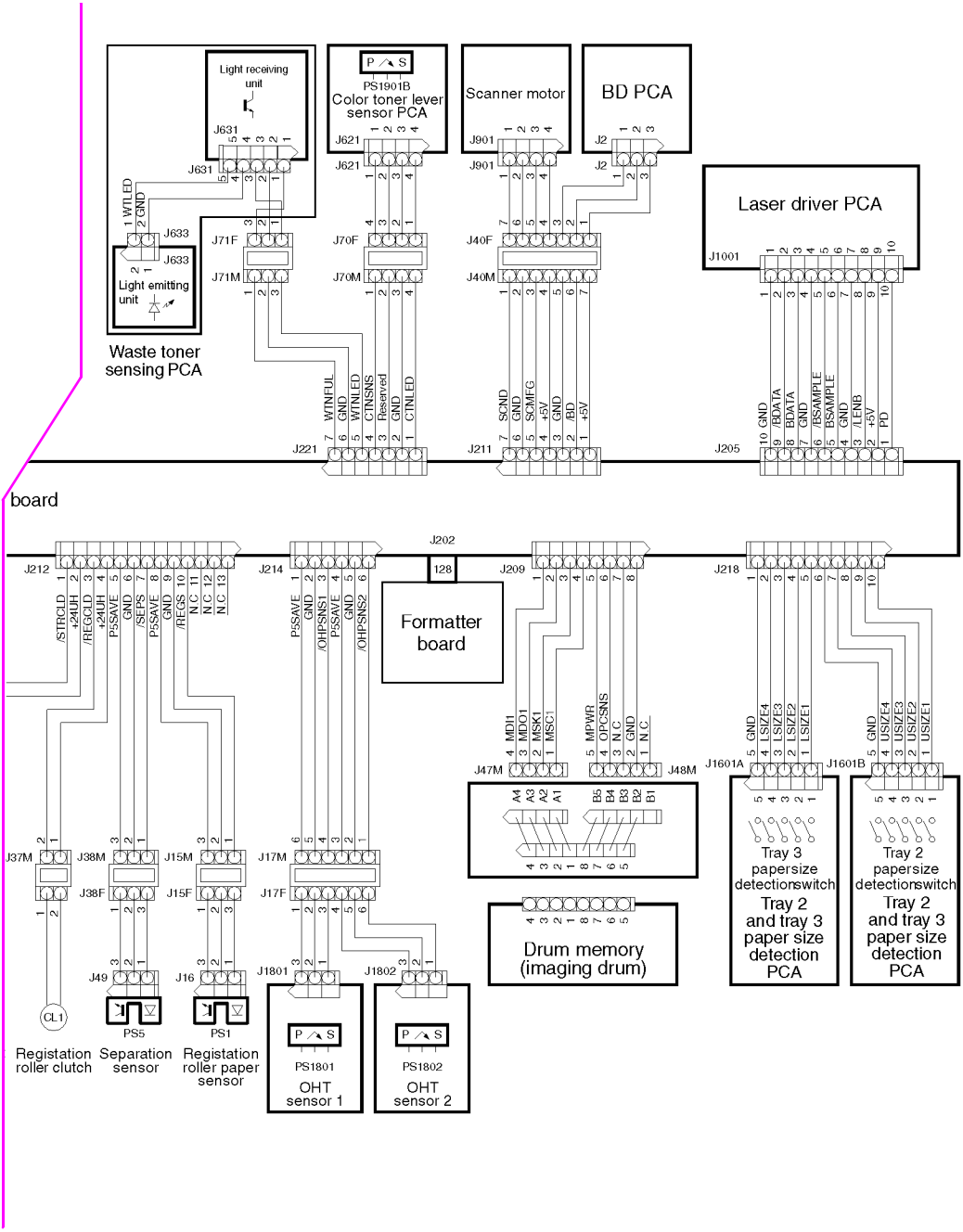


Figure 246. General printer circuit diagram (4 of 4)

8 Parts and diagrams

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Overview

The figures in this chapter illustrate the major assemblies in the printer and their component parts. A table (materials list) follows each exploded assembly diagram. Each table lists a reference number to the illustration, part number, quantity, and description for each part.

Note When looking for a part number, pay careful attention to any voltage listed in the description column to ensure that the part number selected is for the correct printer model.

Ordering parts

All standard part numbers are stocked and can be ordered from Support Materials Organization (SMO) or Support Materials Europe (SME). For information on contacting SMO or SME, see page 62.

Note Parts that have no reference number or no part number are not field replaceable and cannot be ordered.

Consumables, options, and accessories

The items listed in table 56 are available through your local authorized HP dealer. To find a dealer near you (or if your local dealer is temporarily out of stock), call the HP Customer Information Center at (1) (800) 752-0900.

Note Order two sets of DIMMs if upgrading the printer memory; order one set of DIMMs if replacing memory.

Table 56. Accessories and consumables

	Part number	Description
Memory	C2986-60006	Hard disk, internal, 3.2 GB
	C7842A	8-MB synchronous DIMM **NOTE:** For all DIMM products, you must install DRAM DIMMs in synchronized pairs—for example, two 4-MB DIMMs.
	C7843A	16-MB synchronous DIMM
	C7845A	32-MB synchronous DIMM
	C7846A	64-MB synchronous DIMM
EIO accessories	C2985A	EIO hard disk
	J3110A	Ethernet 10Base-T
	J3111A	Ethernet combo (10Base-T, BNC, and LocalTalk)
	J3112A	Token Ring
	J3113A	10/100Base-TX
Paper handling accessories	C4782-60501	Duplexer (product number C4782A)
	C4782-69501	Exchange duplexer
	C4785-60534	Multi-bin mailbox (product number C4785A) **NOTE:** You must have a 2,000-sheet input unit in order to install a multi-bin mailbox.
	C4785-69519	Exchange multi-bin mailbox
	C4788A	3,000-sheet stapler/stacker
	C4779A	3,000-sheet stacker
	C7837A	Automatic document feeder
	C7839A	1,000-sheet input paper deck
	R98-1005-000CN	500-sheet tray 2

Table 56. Accessories and consumables (continued)

	Part number	Description
Consumables	C4149A	Black toner cartridge
	C4150A	Cyan toner cartridge
	C4151A	Magenta toner cartridge
	C4152A	Yellow toner cartridge
	C4153A	Drum kit Imaging drum Two air filters Hand wipe
	C4154A	Transfer kit Transfer drum Transfer belt Cleaning roller Charcoal filter Hand wipe
	C4155A	110-volt fuser kit Fuser Six paper rollers Hand wipe
	C4156A	220-volt fuser kit Fuser Six paper rollers Hand wipe
Cables	92215S	Macintosh DIN-8 printer cable
	92215N	HP LocalTalk cable kit
	C2946A	IEEE-1284 compliant parallel cable of 3 m (approximately 10 ft) with 25-pin male/micro 36-pin male “C” size connector
	C4781-60504	C-link cable (from formatter board to the 2,000-sheet input unit)
Media	C2934A	HP Color LaserJet transparencies (letter-sized), 50 sheets
	C2936A	HP Color LaserJet transparencies (A4-sized), 50 sheets
	C4179A	HP Color LaserJet soft gloss paper (letter-sized), 200 sheets
	C4179B	HP Color LaserJet soft gloss paper (A4-sized), 200 sheets

Table 56. Accessories and consumables (continued)

	Part number	Description
Reference materials	5021-8956	*HP LaserJet Printer Family Paper Specification Guide*
	5021-0337	PCL/PJL Technical Reference Package
	5091-6456	*HP Peripherals Connectivity Solutions Guide*
	5966-5171	*HP JetDirect Software Installation Guide* (English)
	C3989-60115	*HP Color LaserJet 8500, 8500N, 8500 DN Service and Support CD-ROM*
	C3983-67902	*HP Color LaserJet 8500, 8500N, 8500 DN Self-Paced Training Kit (NTSC)*
	C3893-67903	*HP Color LaserJet 8500, 8500N, 8500 DN Self-Paced Training Kit (PAL)*
	C3983-90919	*HP Color LaserJet 8500, 8500 N, 8500 DN Quick Reference Guide* (English)
	C7096-90904	*HP Color LaserJet 8550, 8550 N, 8550 DN, 8550 GN, 8550 MFP Quick Reference Guide* (English)
	C3989-90901	*HP Color LaserJet 8500, 8500 N, 8500 DN Getting Started Guide* (English)
	C7096-90923	*HP Color LaserJet 8550, 8550 N, 8550 DN, 8550 GN, 8550 MFP Getting Started Guide* (English)
	C3989-90937	*HP Color LaserJet 8500, 8500 N, 8500 DN User's Guide* (English)

Miscellaneous parts

Table 57. Miscellaneous parts

Part number	Description
C3983-40001	Control panel overlay, English, 8500 models
C3983-40002	Control panel overlay, Traditional Chinese, 8500 models
C3983-40003	Control panel overlay, Korean, 8500 models
C3983-40004	Control panel overlay, Simplified Chinese, 8500 models
C3983-40005	Control panel overlay, Portuguese, 8500 models
C3983-40006	Control panel overlay, French, 8500 models
C3983-40007	Control panel overlay, German, 8500 models
C3983-40008	Control panel overlay, Spanish, 8500 models
C3983-40009	Control panel overlay, Dutch, 8500 models
C3983-40010	Control panel overlay, Norwegian, 8500 models
C3983-40011	Control panel overlay, Swedish, 8500 models

Table 57. Miscellaneous parts (continued)

Part number	Description
C3983-40012	Control panel overlay, Finnish, 8500 models
C3983-40013	Control panel overlay, Danish, 8500 models
C3983-40014	Control panel overlay, Italian, 8500 models
C3983-40015	Control panel overlay, Russian, 8500 models
C3983-40016	Control panel overlay, Czech, 8500 models
C3983-67905	Formatter assembly
C4781-60500	Power box
C4785-60513	Multi-bin mailbox, repackaging kit
C4785-60531	Multi-bin mailbox, short C-link cable adapter
C4787-60503	Multi-bin mailbox, shipping lock kit
C7096-40001	Control panel overlay, Turkish, 8550 models
C7096-40002	Control panel overlay, Polish, 8550 models
C7096-40003	Control panel overlay, Hungarian, 8550 models
C7096-40004	Control panel overlay, English, 8550 models
C7096-40005	Control panel overlay, Traditional Chinese, 8550 models
C7096-40006	Control panel overlay, Korean, 8550 models
C7096-40007	Control panel overlay, Simplified Chinese, 8550 models
C7096-40008	Control panel overlay, Portuguese, 8550 models
C7096-40009	Control panel overlay, French, 8550 models
C7096-40010	Control panel overlay, German, 8550 models
C7096-40011	Control panel overlay, Spanish, 8550 models
C7096-40012	Control panel overlay, Dutch, 8550 models
C7096-40013	Control panel overlay, Norwegian, 8550 models
C7096-40014	Control panel overlay, Swedish, 8550 models
C7096-40015	Control panel overlay, Finnish, 8550 models
C7096-40016	Control panel overlay, Danish, 8550 models
C7096-40017	Control panel overlay, Italian, 8550 models
C7096-40018	Control panel overlay, Russian, 8550 models
C7096-40019	Control panel overlay, Czech, 8550 models
J3113-61003	PCA, 10/100Base-T
RY7-5044-000CN	Screw kit (2,000-sheet input unit)

Table 57. Miscellaneous parts (continued)

Part number	Description
XA9-0836-000CN	Screw, TP, M3 x 6, quantity=10
XA9-0926-000CN	Screw, TP, M4 x 8, quantity=10
XA9-0940-000CN	Screw, w/washer, M4 x 12, quantity=4
XA9-0951-000CN	Screw, w/washer, M3 x 8, quantity=10

Illustrations and parts lists

The following illustrations and their assorted parts tables list the field replaceable units (FRUs) for this printer. At the end of this chapter are two cross-reference tables of all of the parts listed in this chapter: table 91 on page 574 lists the parts in numerical order by part number, and table 92 on page 587 lists the parts in alphabetical order. Both tables are cross-referenced to the appropriate figure and reference number in this chapter.

Compatible parts

The table below lists parts that have changed from HP Color LaserJet 8500 printers to HP Color LaserJet 8550 printers. These parts are forward and backward compatible. Formatters, however, are not interchangeable between models of printers.

Part	HP CLJ 8500 part #	HP CLJ 8550 part #
PCA, controller board	RG5-3037-000CN	RG5-3037-120CN
Developer/imaging drum bias supply	RG5-3026-000CN	RG5-3026-030CN
High-voltage power supply	RG5-3943-000CN	RG5-3943-000CN
Density sensor assembly	RG5-3057-000CN	RG5-3057-000CN
PCA, carousel motor (M1)	RG5-3084-000CN	RG5-3084-020CN

Major assembly locations

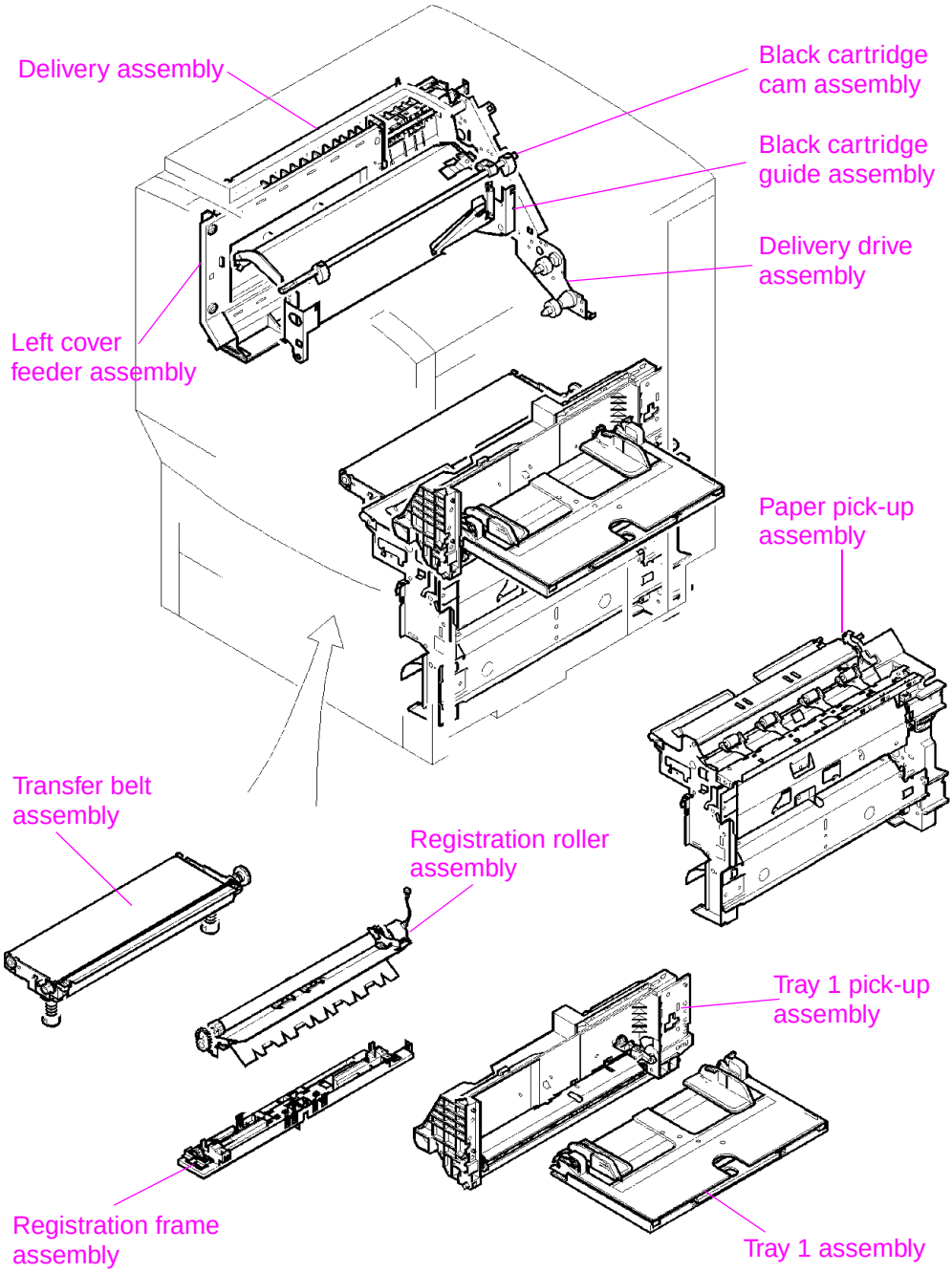

Figure 247. **Major assembly locations (1 of 2)**

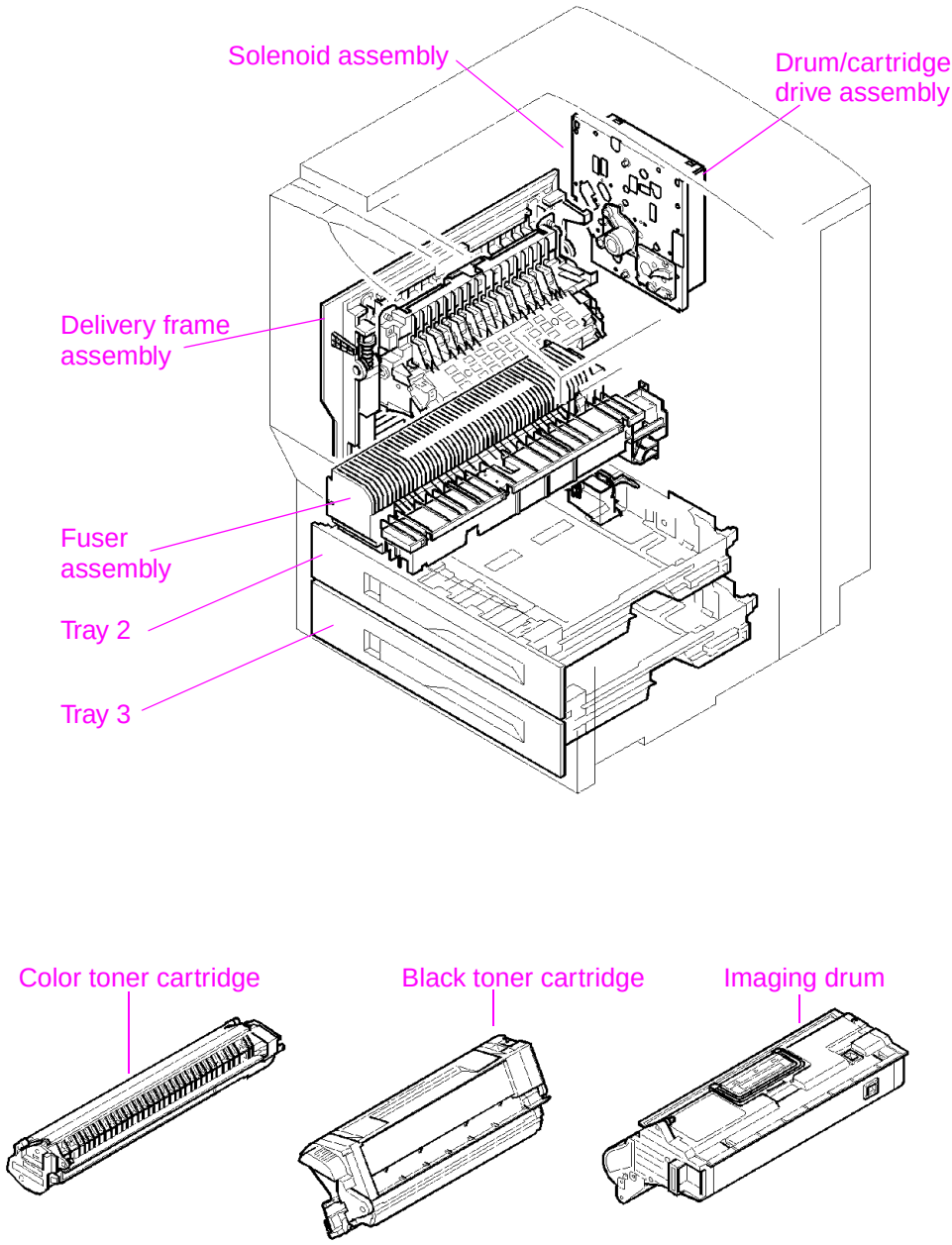

Figure 248. **Major assembly locations (2 of 2)**

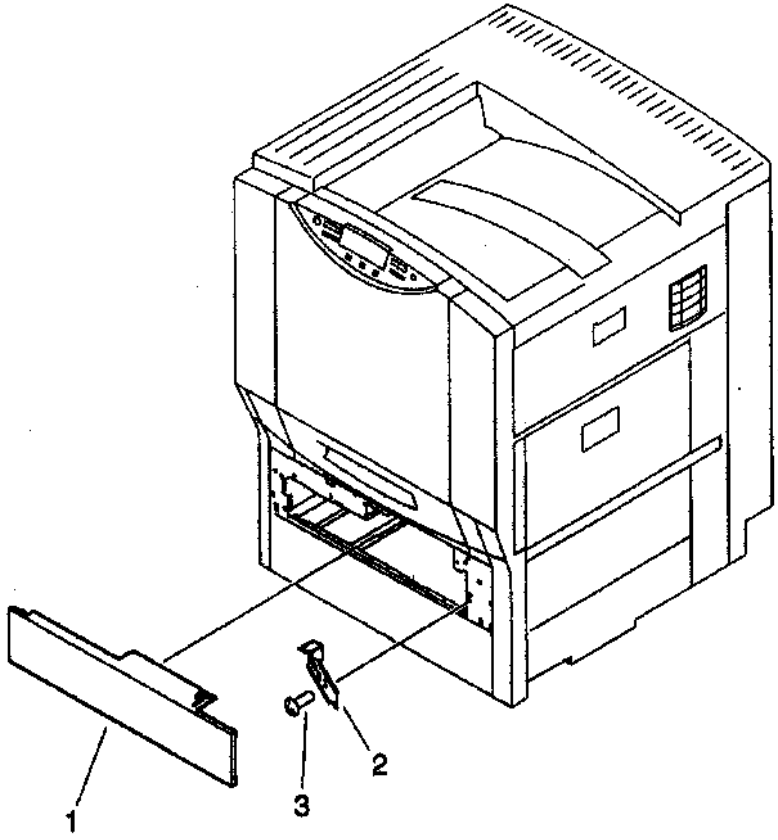

Figure 249. **Printer covers and doors (1 of 4)—Filler panel for tray 2 (HP Color LaserJet 8550 base model only)**

Table 58. Printer covers and doors (1 of 4)—Filler panel for tray 2

Ref.	Description	Part number	Qty.
1	Filler panel for tray 2	RB2-0207-000CN	1
2	Filler panel bracket for tray 2	RB2-0208-000CN	1
3	Screw, filler panel bracket, M4X8	XA9-0926-000CN	1

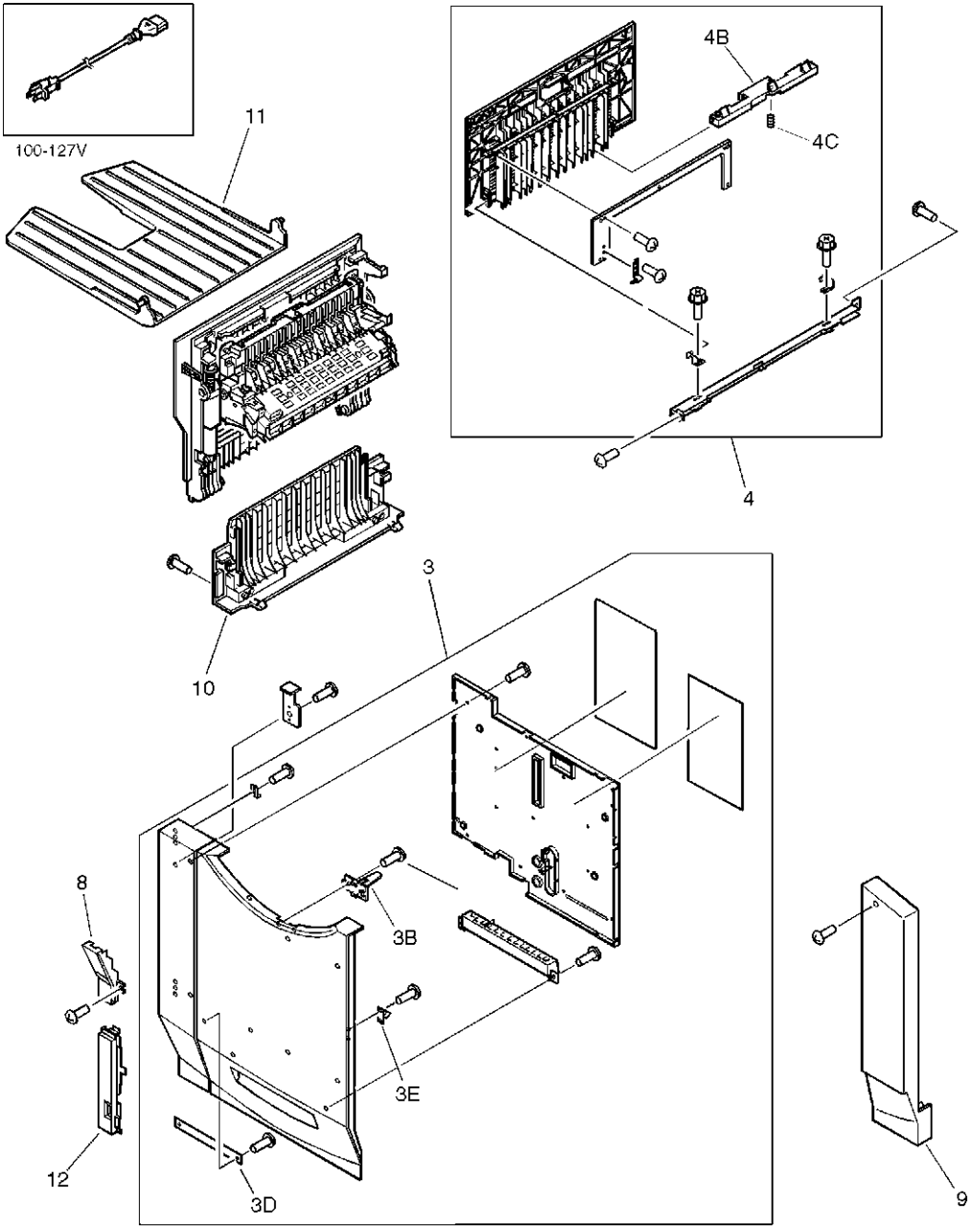

Figure 250. **Printer covers and doors (2 of 4)**

Table 59. Printer doors and covers (2 of 4)

Ref.	Description	Part number	Qty.
3	Cover assembly, front	RG0-0112-000CN	1
3B	Lever, shutter	RA0-0008-000CN	1
3D	Strap, front door support	RB1-4497-000CN	1
3E	Latch, roller action	RB1-5153-000CN	1
4	Cover assembly, left upper	RG0-0113-000CN	1
4B	Lever, left upper door	RB1-6485-000CN	1
4C	Spring, left upper door lever	RB1-6486-000CN	1
8	Cover, hinge	RA0-0068-000CN	1
9	Cover, front right	RA0-0069-000CN	1
10	Cover, left lower	RB1-6480-000CN	1
11	Tray, face-up	RB1-6491-000CN	1
12	Cover, power switch	RB1-6492-000CN	1
	Filler panel for tray 2	RB2-0207-000CN	1
	Filler panel bracket for tray 2	RB2-0208-000CN	1
	Filler panel bracket screw for tray 2	XA9-0926-000CN	1

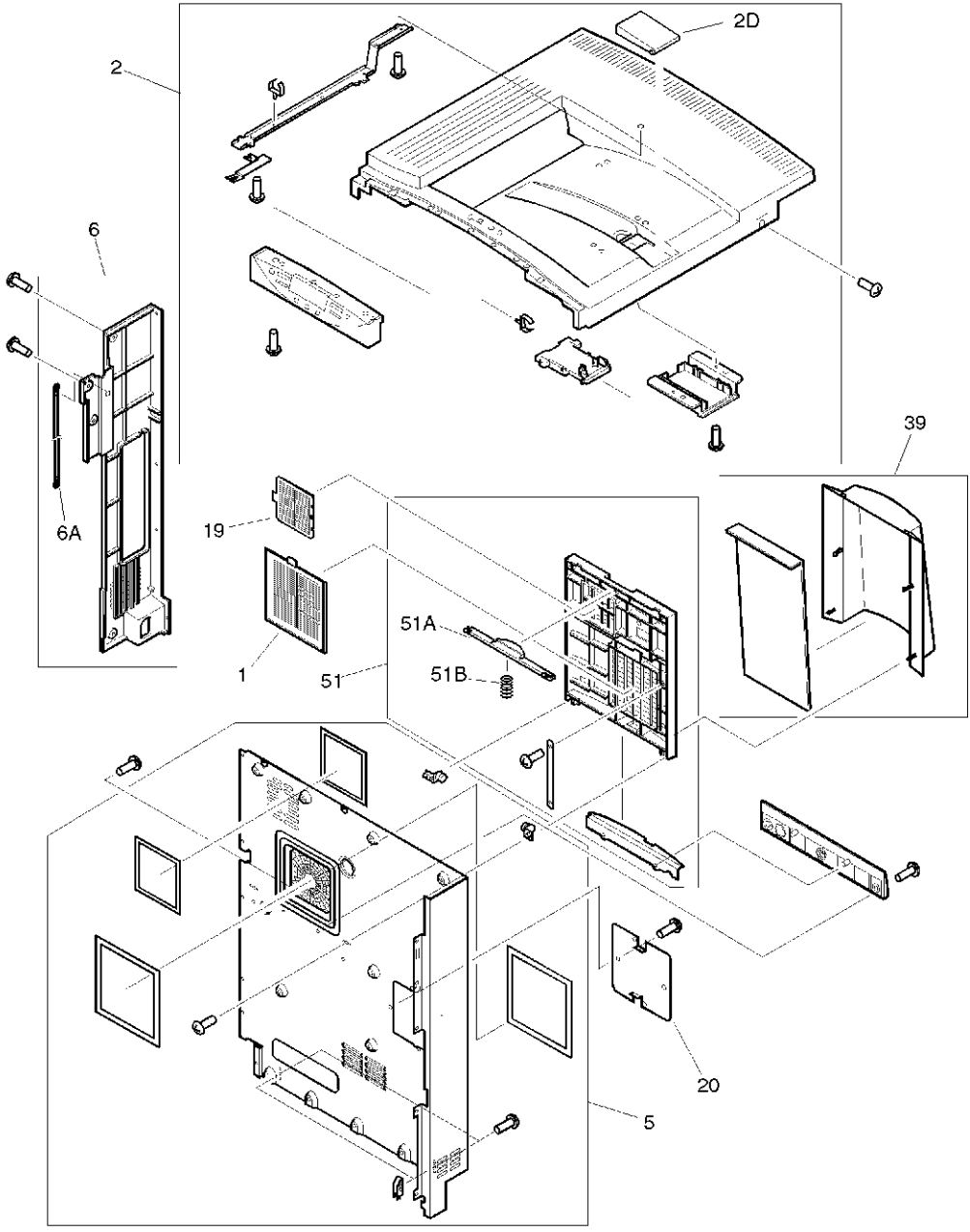

Figure 251. **Printer covers and doors (3 of 4)**

Table 60. Printer doors and covers (3 of 4)

Ref.	Description	Part number	Qty.
1	Filter, large air	RB1-9807-000CN	1
2	Cover assembly, top	RG0-0111-000CN	1
2	Cover assembly, top (HP CLJ 8550 MFP only) **Note** This cover is the molded plastic ONLY; electronics are not attached. The cover allows for attachment of the copy module frame.		1
2D	Stop, flip-up media	RA0-0073-000CN	1
5	Cover assembly, rear	RG0-0115-000CN	1
6	Cover, left rear	RA0-0065-000CN	1
6A	Stopper, open/close	RB1-6484-000CN	1
19	Filter, small air	RB1-9808-000CN	1
20	Cover, auxiliary	RA0-0078-000CN	1
39	Cover, fan	RF0-0012-000CN	1
51	Cover, rear fan housing	RG0-0017-000CN	1
51A	Support, cover	RA0-0079-000CN	1
51B	Spring, compression	RS5-2719-000CN	1

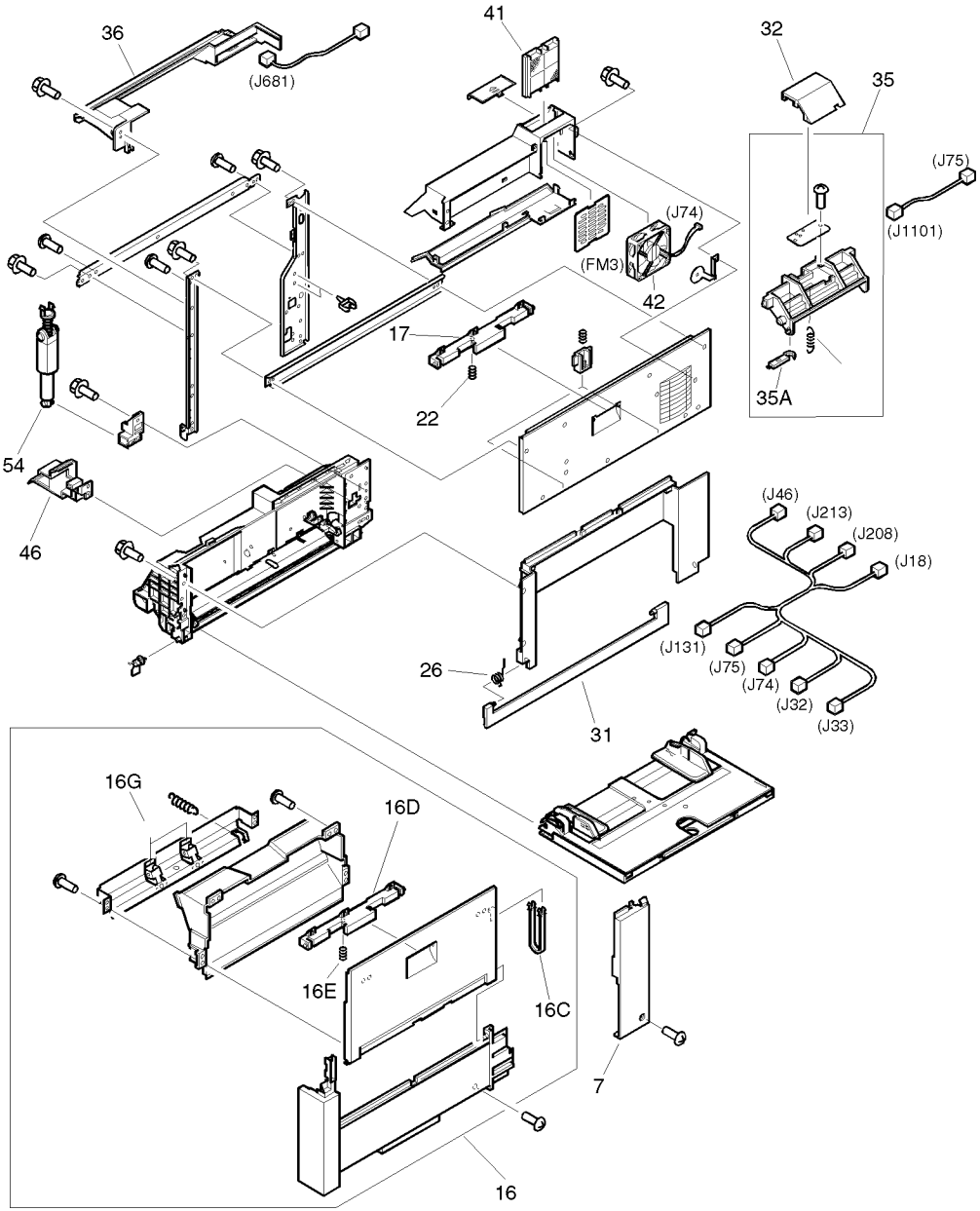

Figure 252. **Printer covers and doors (4 of 4)**

Table 61. Printer covers and doors (4 of 4)

Ref.	Description	Part number	Qty.
7	Cover, right rear	RA0-0067-000CN	1
16	Cover assembly, right lower	RG5-3096-000CN	1
16C	Stopper, open/close	RB1-6484-000CN	1
16D	Lever, right lower cover	RB1-6485-000CN	1
16E	Spring, compression	RB1-6486-000CN	1
16G	Roller, paper	RB1-6488-000CN	2
17	Lever, right upper door	RB1-6485-000CN	1
22	Spring, right lower door lever	RB1-6486-000CN	1
26	Spring, torsion	RB1-9798-000CN	1
31	Cover, right subassembly	RF5-1995-000CN	1
32	Cover, density sensor	RB1-9537-000CN	1
35	Density sensor assembly	RG5-3057-000CN	1
35A	Brush, cleaning	RB1-9617-000CN	1
36	Preconditioning exposure LED assembly	RG5-3980-000CN	1
41	Filter, charcoal	RB1-9836-000CN	1
42	Fan 3 (FM3)	RH7-1393-000CN	1
46	Cover, tray 1 side gear	RB1-9547-000CN	1
54	Hinge, stopper (tray 1 delivery assembly)	RG5-3962-000CN	1

Internal cover assembly

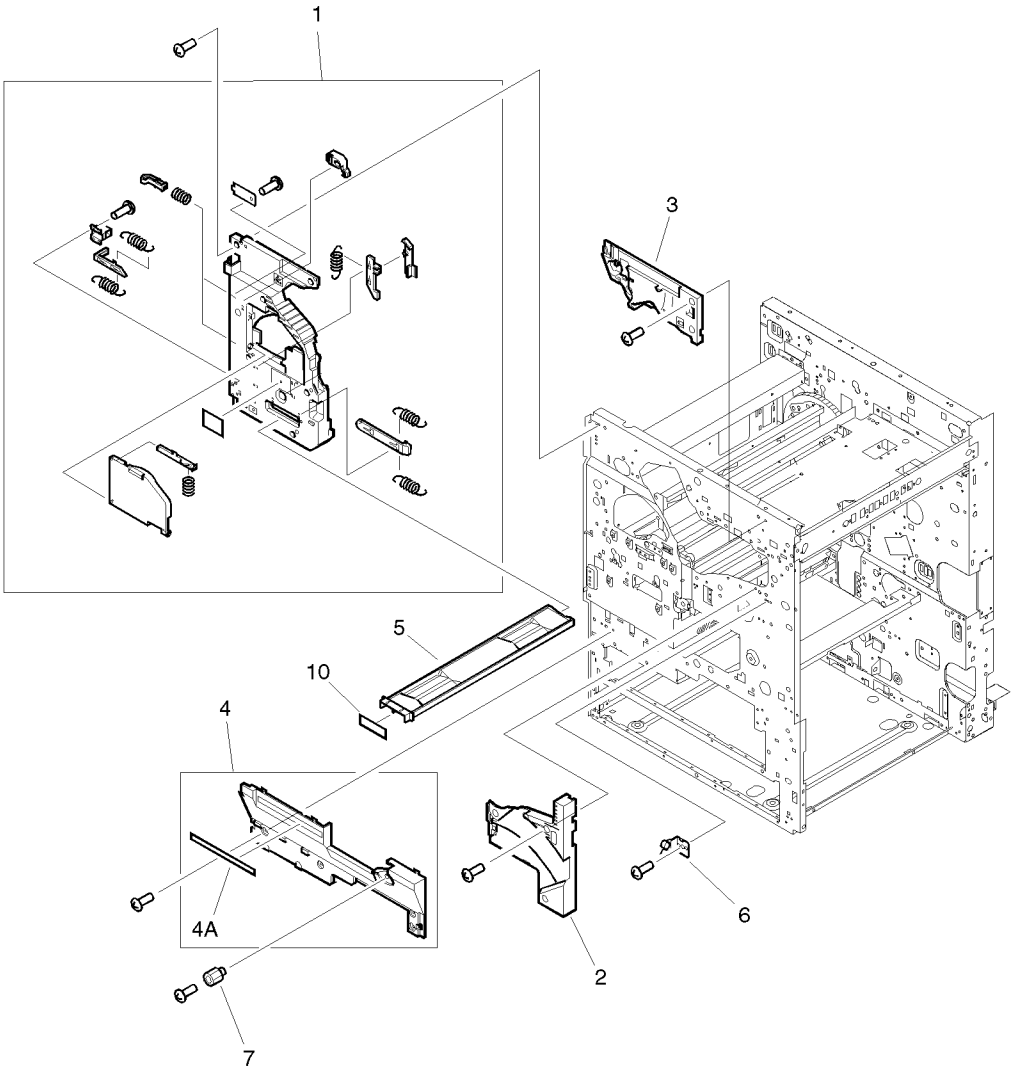

Figure 253. **Internal cover assembly**

Table 62. Internal cover assembly parts

Ref.	Description	Part number	Qty.
1	Cover assembly, inner left	RG0-0104-000CN	1
2	Cover, inner 2	RA0-0026-000CN	1
3	Cover, inner 3	RA0-0027-000CN	1
4	Cover, inner 4	RF0-0013-000CN	1
4A	Label, “CAUTION”	RS5-8380-000CN	1
5	Waste toner tray	RB1-9804-000CN	1
6	Latch, roller action	RF0-0003-000CN	1
7	Media jam knob	RB1-9928-000CN	1
10	Cover, waste toner tray	RA0-0083-000CN	1

Internal components

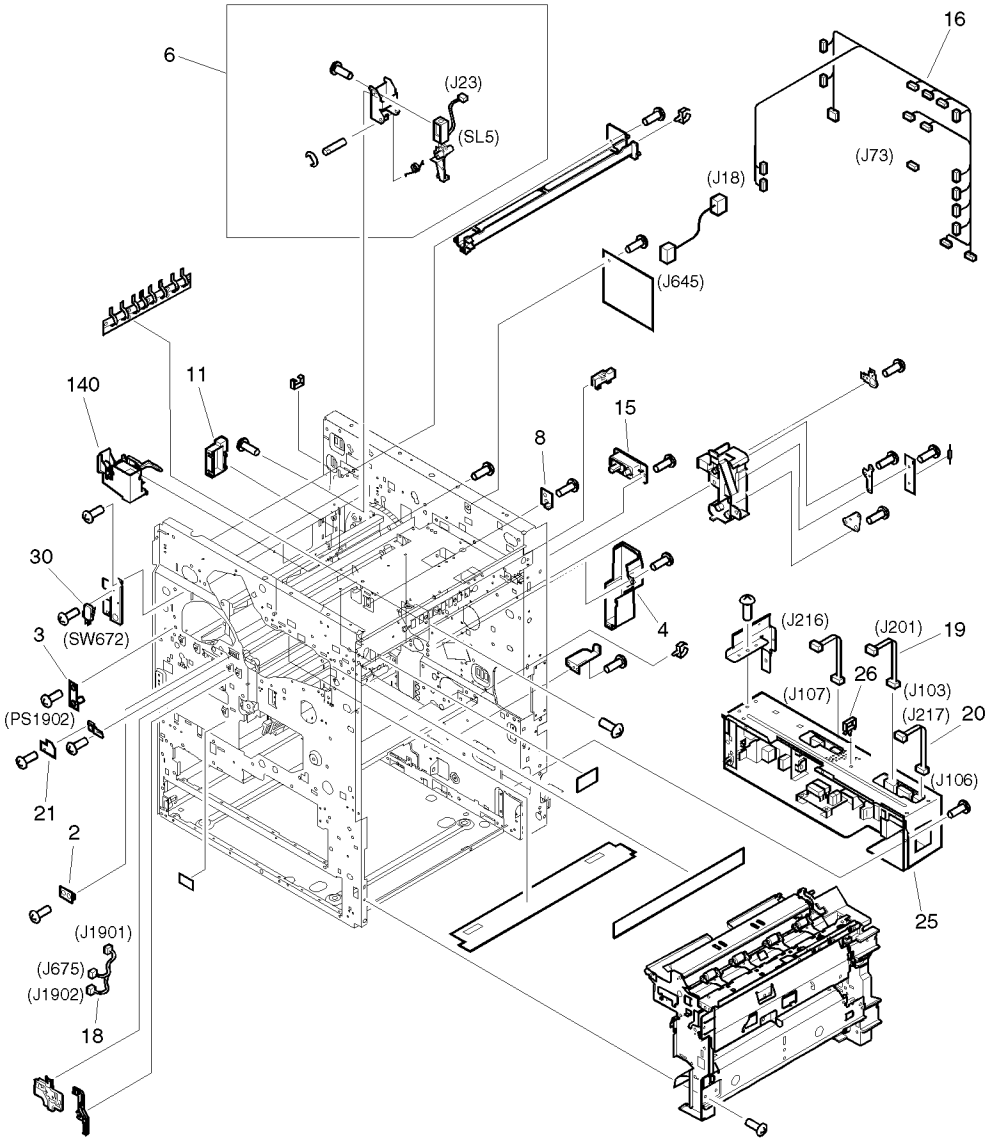

Figure 254. **Internal components (1 of 6)**

Table 63. Internal components parts (1 of 6)

Ref.	Description	Part number	Qty.
2	PCA, photosensor	RG5-3080-000CN	1
3	Plate, duct mount	RF5-2036-000CN	1
4	Duct, rear lower air	RB1-9401-000CN	1
6	Carousel stop assembly	RG5-3053-000CN	1
8	PCA, fusing delivery sensor	RG5-3992-000CN	1
11	Cover, carousel stop	RB1-9789-000CN	1
15	Connector holder assembly	RG5-3031-000CN	1
16	Cable, main	RG5-3097-000CN	1
18	Cable, sensor	RG5-3144-000CN	1
19	Cable, DC power	RG5-3921-000CN	1
20	Cable, power signal	RG5-3922-000CN	1
21	PCA, cartridge release lever	RG5-3961-000CN	1
25	Power supply assembly (110 V) Power supply assembly (220 V)	RH3-2185-000CN RH3-2187-000CN	1
30	Switch, toner cartridge cover (SW672)	WC4-5150-000CN	1
140	Face-up solenoid assembly	RG5-3022-000CN	1

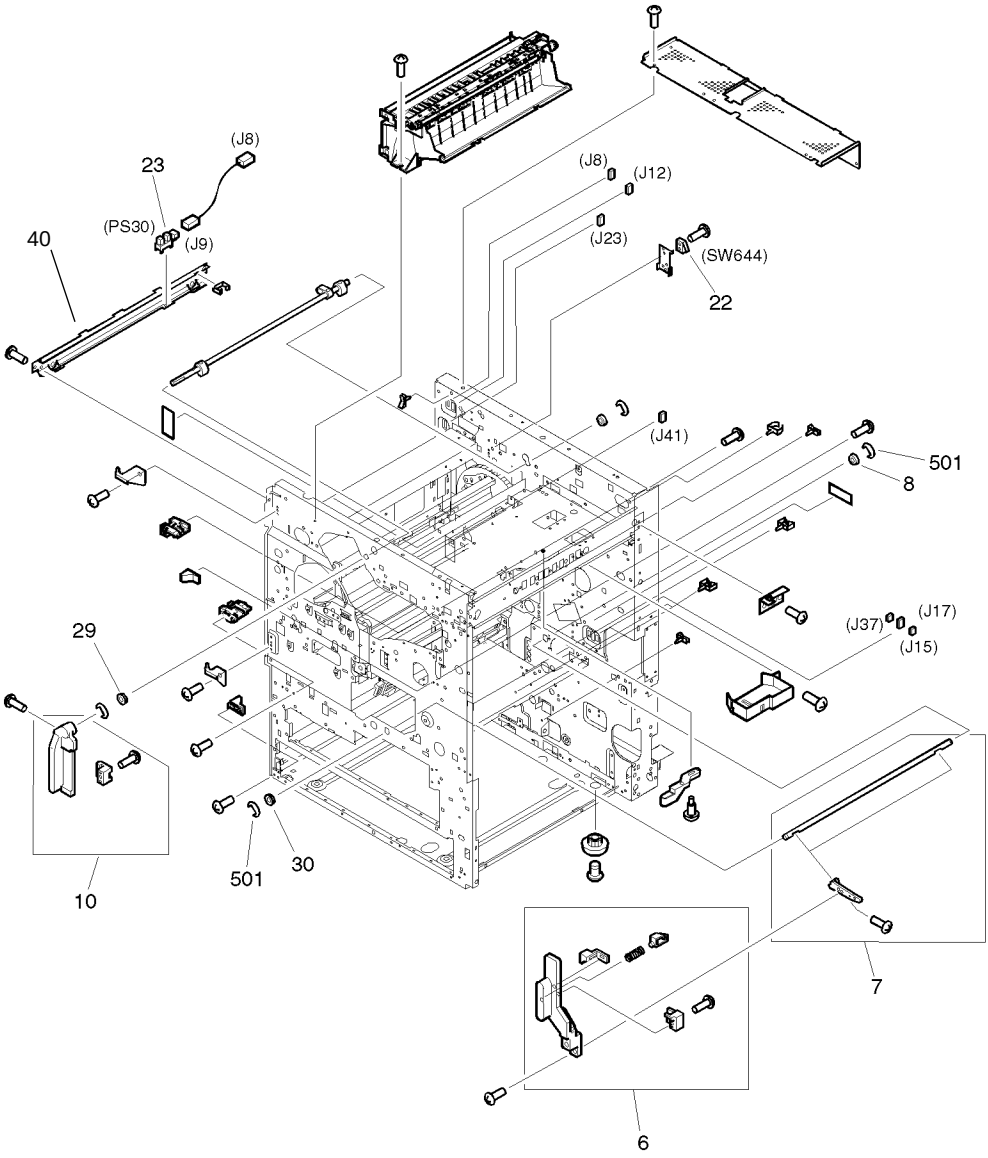

Figure 255. **Internal components (2 of 6)**

Table 64. Internal components parts (2 of 6)

Ref.	Description	Part number	Qty.
6	Lever assembly, transfer drum	RG5-3046-000CN	1
7	Lever assembly, pressure	RG5-3045-000CN	1
8	Bushing	RS5-1119-000CN	1
10	Lever assembly, black cartridge	RG5-3087-000CN	1
22	Switch, black toner cartridge (SW644)	WC4-5136-000CN	1
23	Photo-interrupter, IC, TLP1240	WG8-5210-000CN	1
29	Bushing	RS5-1317-000CN	1
30	Bushing	RS5-1317-000CN	1
40	Crossmember	RB1-0010-000CN	1
501	Ring, E	XD2-1100-642CN	2

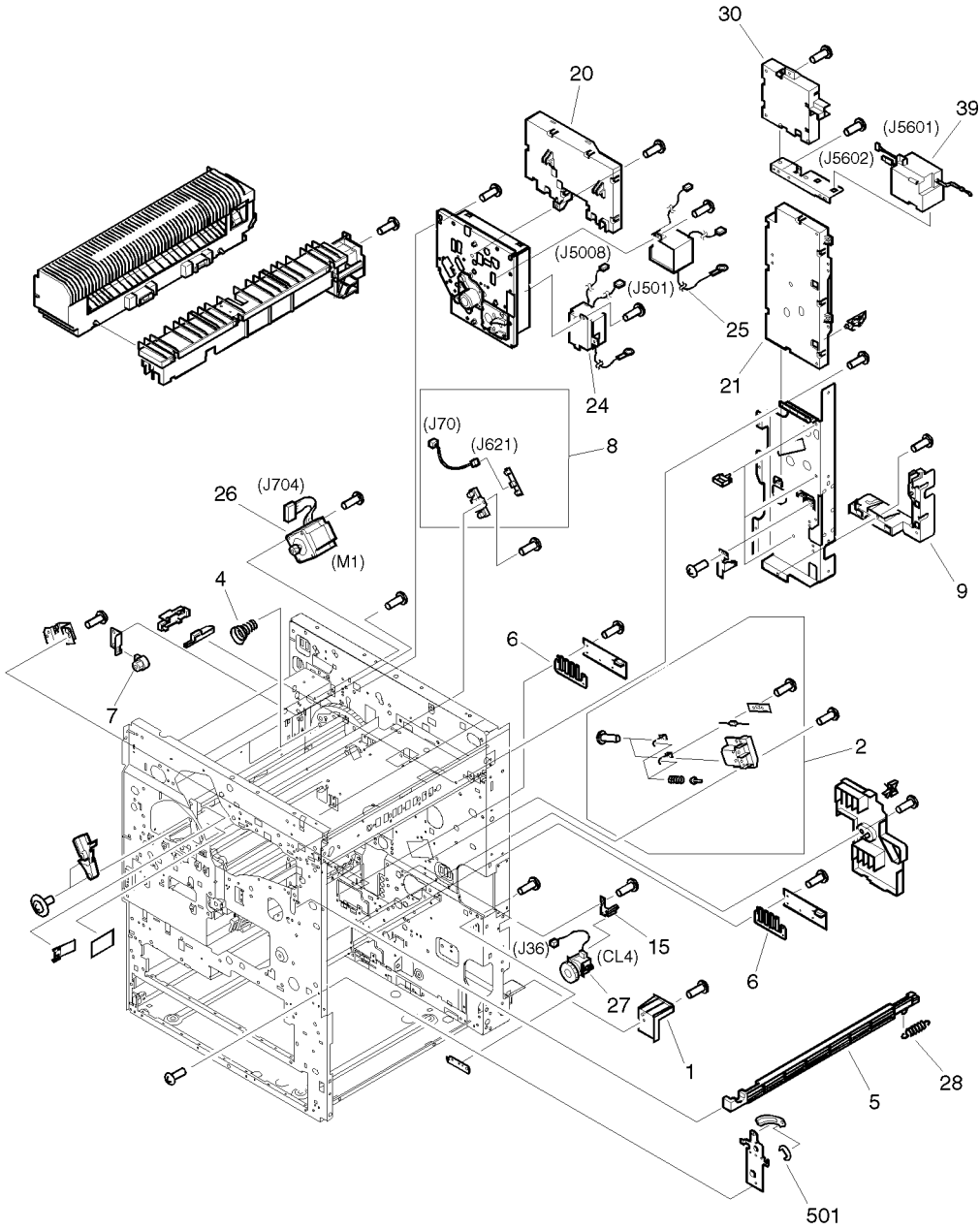

Figure 256. **Internal components (3 of 6)**

Table 65. Internal components parts (3 of 6)

Ref.	Description	Part number	Qty.
1	Cover, right rear lower corner	RA0-0074-000CN	1
2	Transfer drum contact assembly	RG5-3044-000CN	1
4	Spring, compression	RB1-9675-000CN	3
5	Rod, power switch	RB1-6463-000CN	1
6	Spring, leaf	RB1-6909-000CN	1
7	Gear, 11T	RB1-9424-000CN	1
8	Sensor assembly, color toner	RG5-3034-000CN	1
9	Cover, cable	RB1-9805-000CN	1
15	Mount, clutch	RB1-9828-000CN	1
20	Developer/imaging drum bias supply	RG5-3026-030CN	1
21	High-voltage power supply	RG5-3943-000CN	1
24	Post charger HV module	RH3-0211-000CN	1
25	Cleaning roller HV module	RH3-0228-000CN	1
26	Motor, carousel (M1)	RH7-1325-000CN	1
27	Clutch, transfer belt press (CL4)	RH7-5168-000CN	1
28	Spring, tension	RS5-2465-000CN	1
30	Separation discharge high-voltage converter PCA	RG5-3966-000CN	1
39	Separation discharge high-voltage converter	RH3-0234-000CN	1
501	Ring, E	XD2-1100-502CN	2

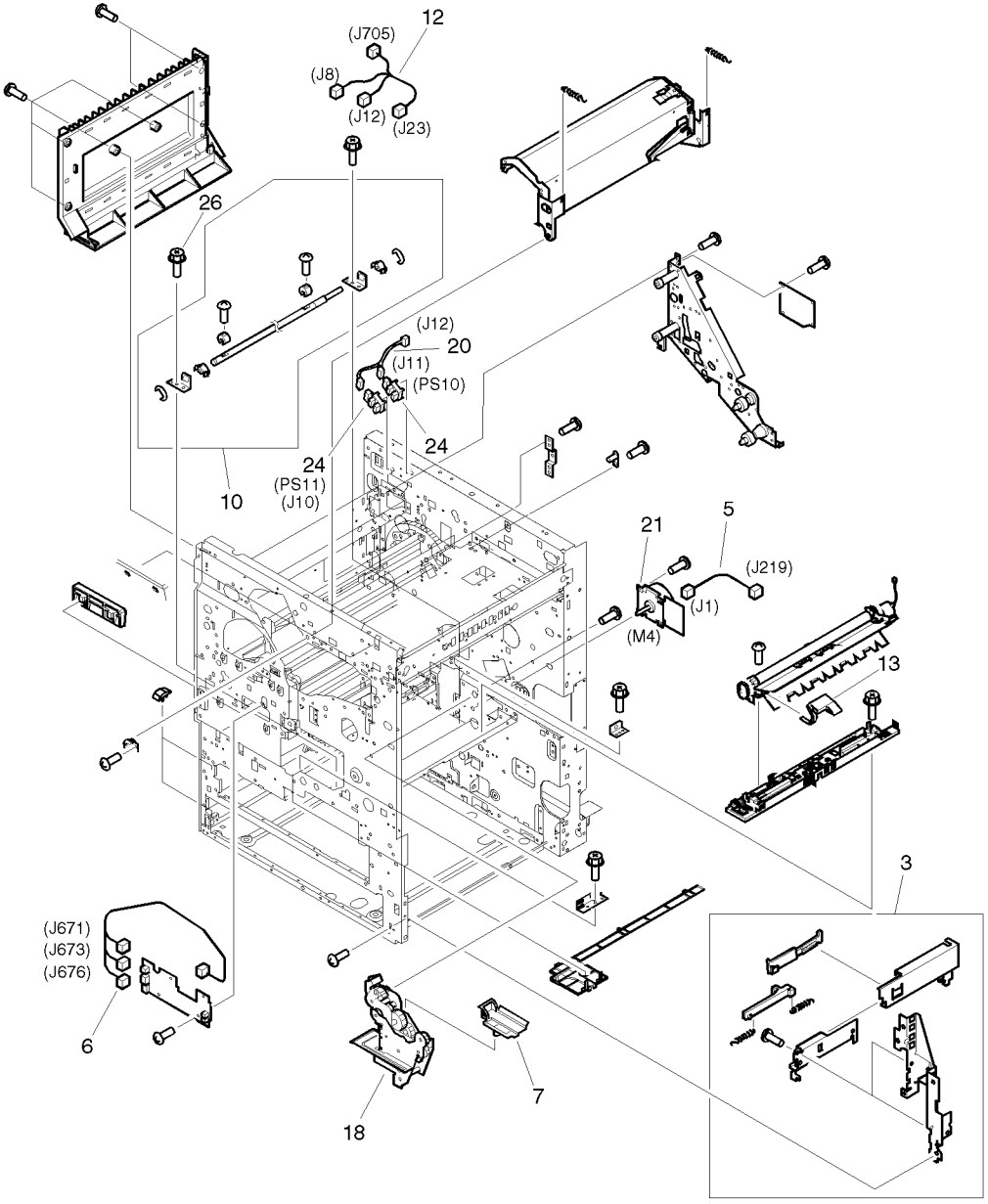

Figure 257. **Internal components (4 of 6)**

Table 66. Internal components parts (4 of 6)

Ref.	Description	Part number	Qty.
3	Tray rail assembly	RG5-1851-000CN	1
5	Cable, main motor	RG5-3942-000CN	1
6	Cable, carousel	RG5-3923-000CN	1
7	Cover, gear	RB1-9403-000CN	1
10	Transfer swing assembly	RG5-3010-000CN	1
12	Cable, delivery connector	RG5-3147-000CN	1
13	Lever, registration roller	RB1-9580-000CN	1
18	Main drive assembly	RG5-3066-000CN	1
20	Cable, delivery	RG5-3104-000CN	1
21	Motor, main (M4)	RH7-1323-000CN	1
24	Photo-interrupter, IC, TLP1241	WG8-5362-000CN	1
26	Screw, RS, M3 x 6	XA9-0849-000CN	10

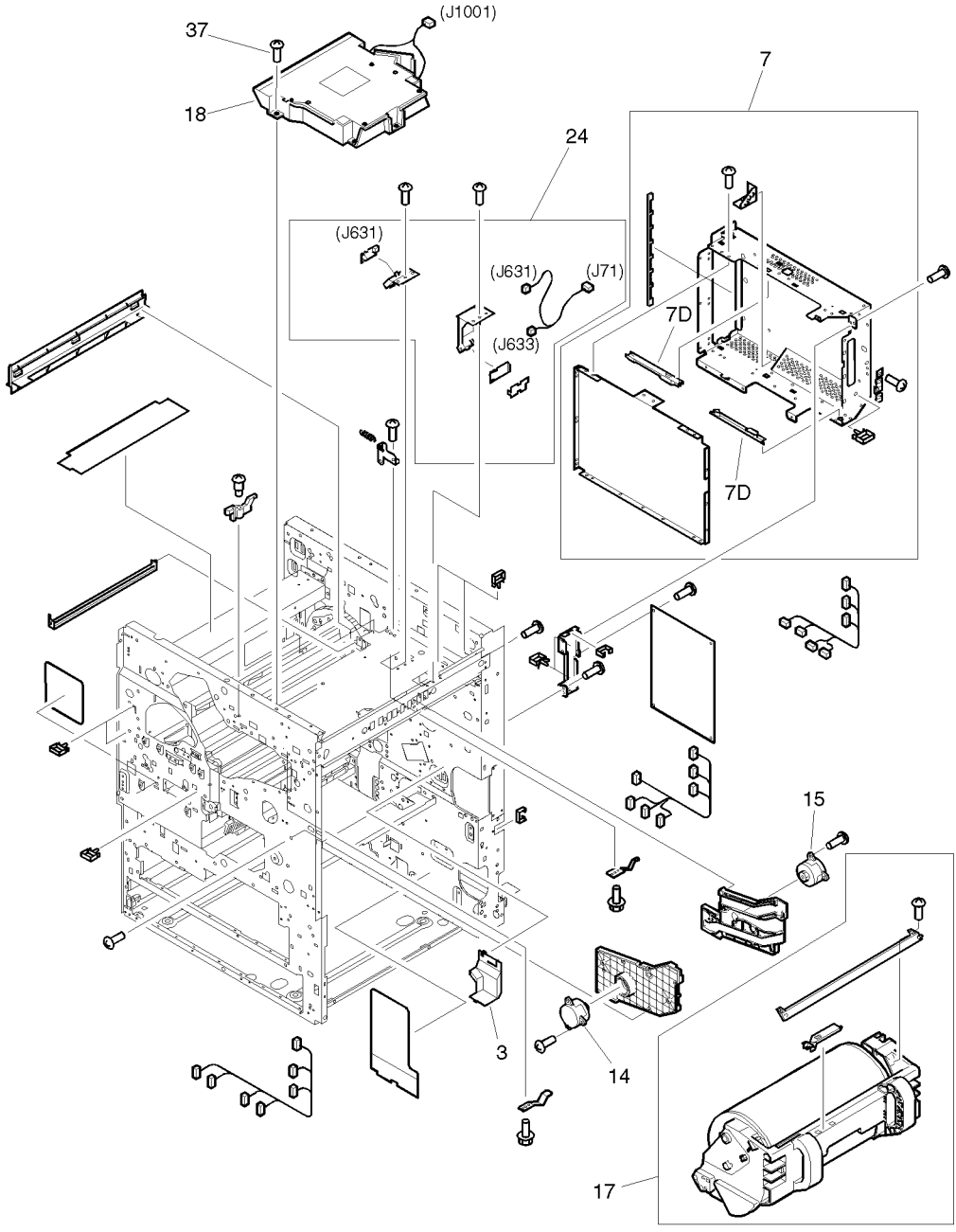

Figure 258. **Internal components (5 of 6)**

Table 67. Internal components parts (5 of 6)

Ref.	Description	Part number	Qty.
3	Cover, cable	RB1-9948-000CN	1
7	Shield case assembly	RG5-3023-000CN	1
7D	Rail, PCA	RB2-0005-000CN	1
14	Gear, 14T	RB1-9955-000CN	1
15	Gear, 14T	RB1-9956-000CN	1
17	Transfer drum	RG5-3039-000CN	1
18	Laser/scanner unit	RG5-3936-000CN	1
24	Sensor assembly, toner waste	RG5-3934-000CN	1
37	Screw, w/washer, M4 x 12	XA9-0940-000CN	4

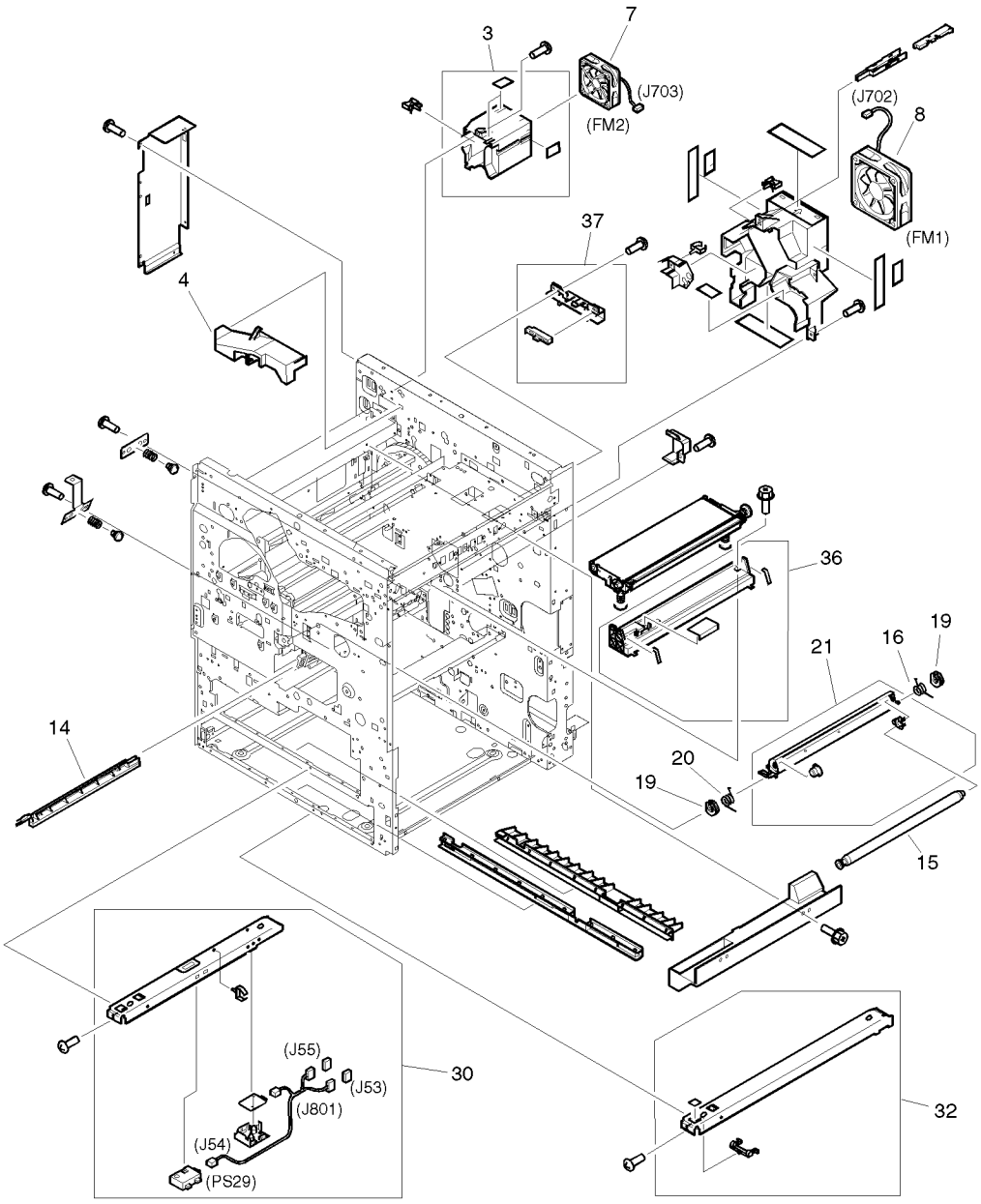

Figure 259. **Internal components (6 of 6)**

Table 68. Internal components parts (6 of 6)

Ref.	Description	Part number	Qty.
3	Holder, fan	RF5-2025-000CN	1
4	Duct	RB1-9682-000CN	1
7	Fan 2 (FM2)	RH7-1373-000CN	1
8	Fan 1 (FM1)	RH7-1330-000CN	1
14	Static charge eliminator assembly	RG5-3973-000CN	1
15	Cleaning roller assembly	RG5-3975-000CN	1
16	Spring, torsion	RS5-2698-000CN	1
19	Bushing	RS5-1319-000CN	2
20	Spring, torsion	RS5-2697-000CN	1
21	Transfer drum cleaner holder assembly	RG5-3111-000CN	1
30	Cassette crossmember assembly	RG5-3089-000CN	1
32	Rail, tray 3	RF5-1396-000CN	1
36	Transfer mount assembly	RG5-3008-000CN	1
37	Sensor slider assembly	RG5-3131-000CN	1

Drum/cartridge drive assembly

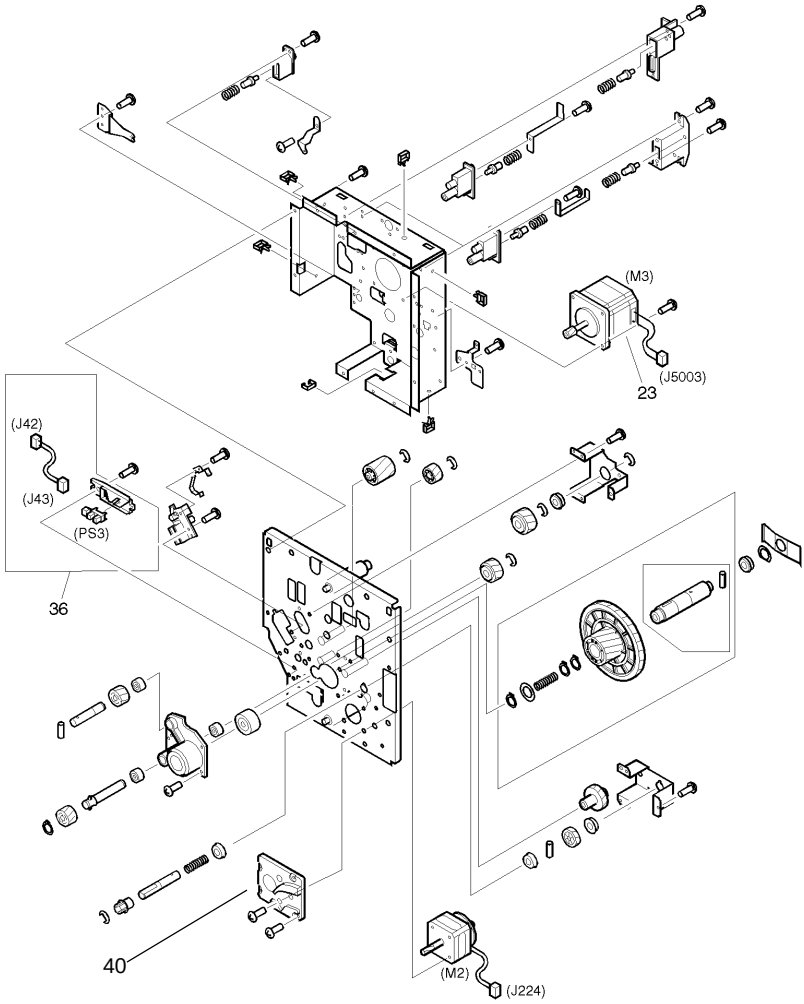

Figure 260. Drum/cartridge drive assembly

Table 69. Drum/cartridge drive assembly parts

Ref.	Description	Part number	Qty.
—	Drum/cartridge drive assembly	RG5-3065-000CN	1
23	Motor, cartridge (M3)	RH7-1328-000CN	1
36	Developing rotary	RG5-3033-000CN	1
40	ITD Guide	RB2-010-000CN	1

Delivery drive assembly

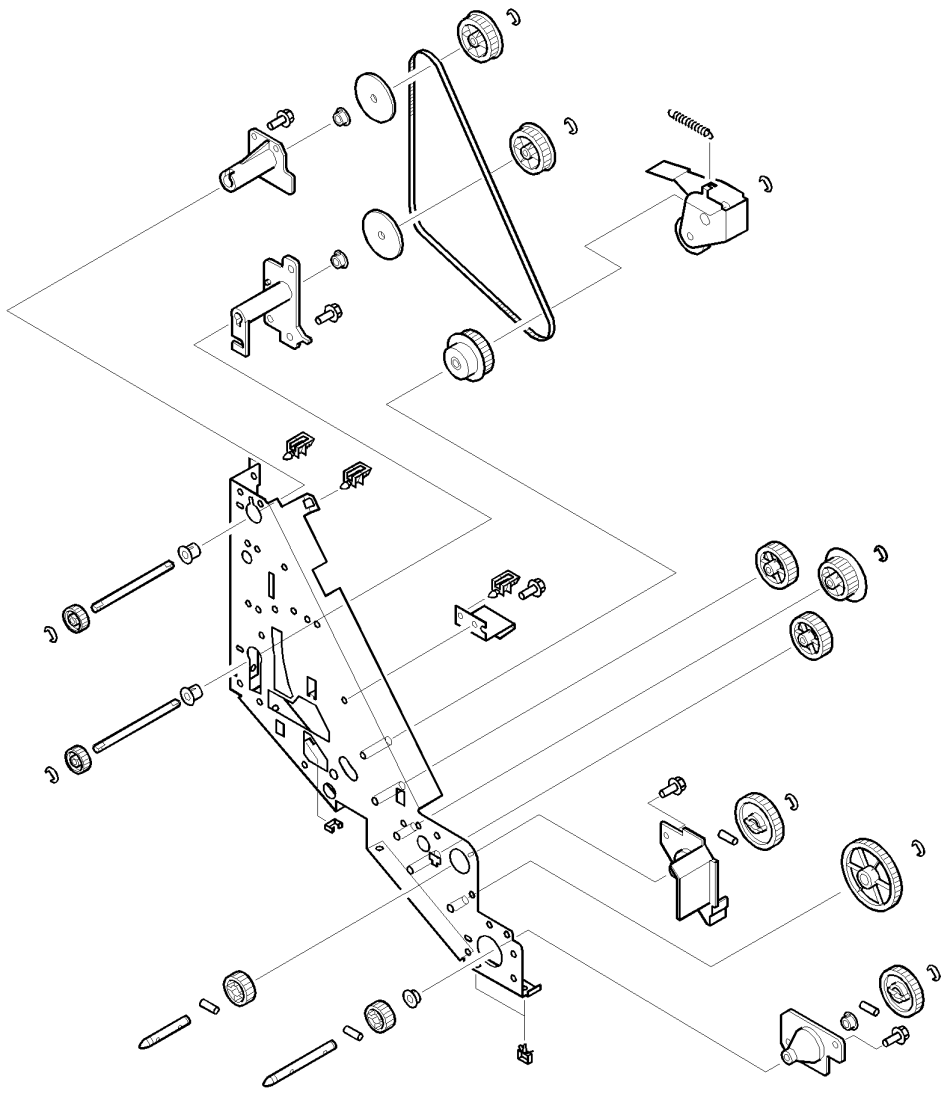

Figure 261. **Delivery drive assembly**

Table 70. Delivery drive assembly parts

Ref.	Description	Part number	Qty.
—	Delivery drive assembly	RG5-3067-000CN	1

Tray 3 assembly

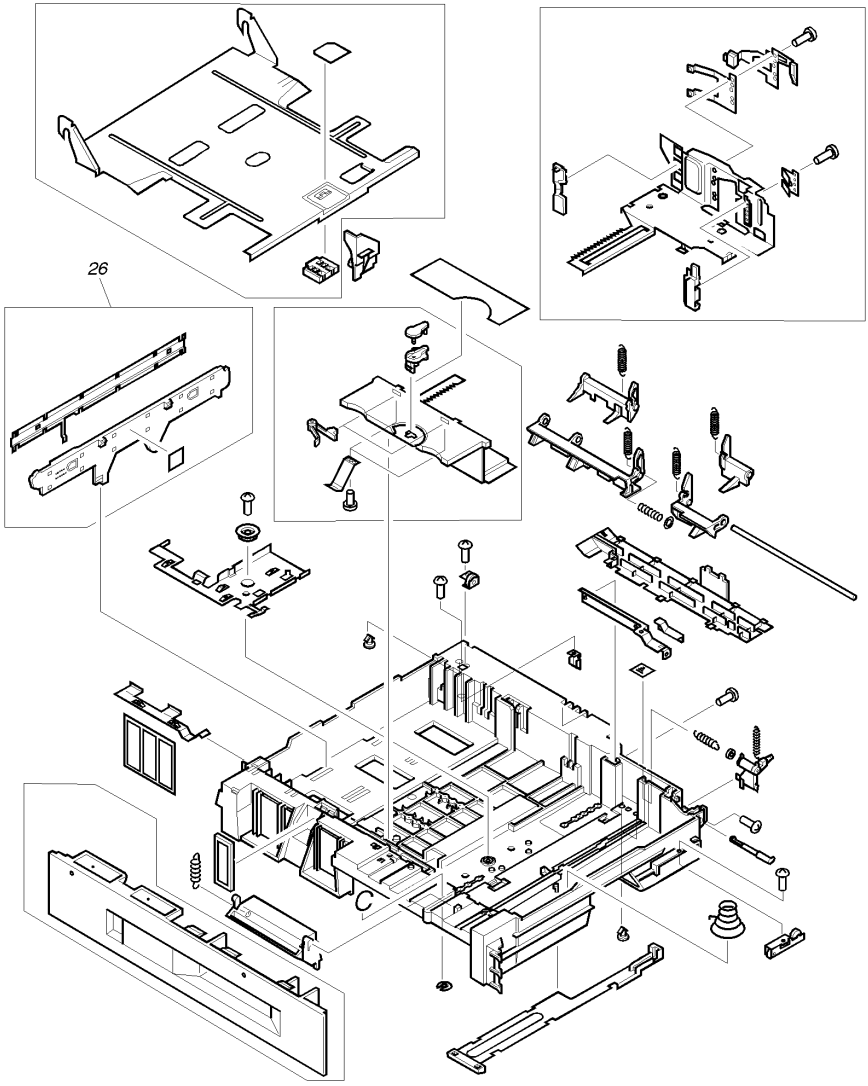

Figure 262. **Tray 3 assembly**

Table 71. Tray 3 assembly parts

Ref.	Description	Part number	Qty.
—	Tray 3	—	1
26	Plate, end	RF5-1484-000CN	1

Tray 2 assembly

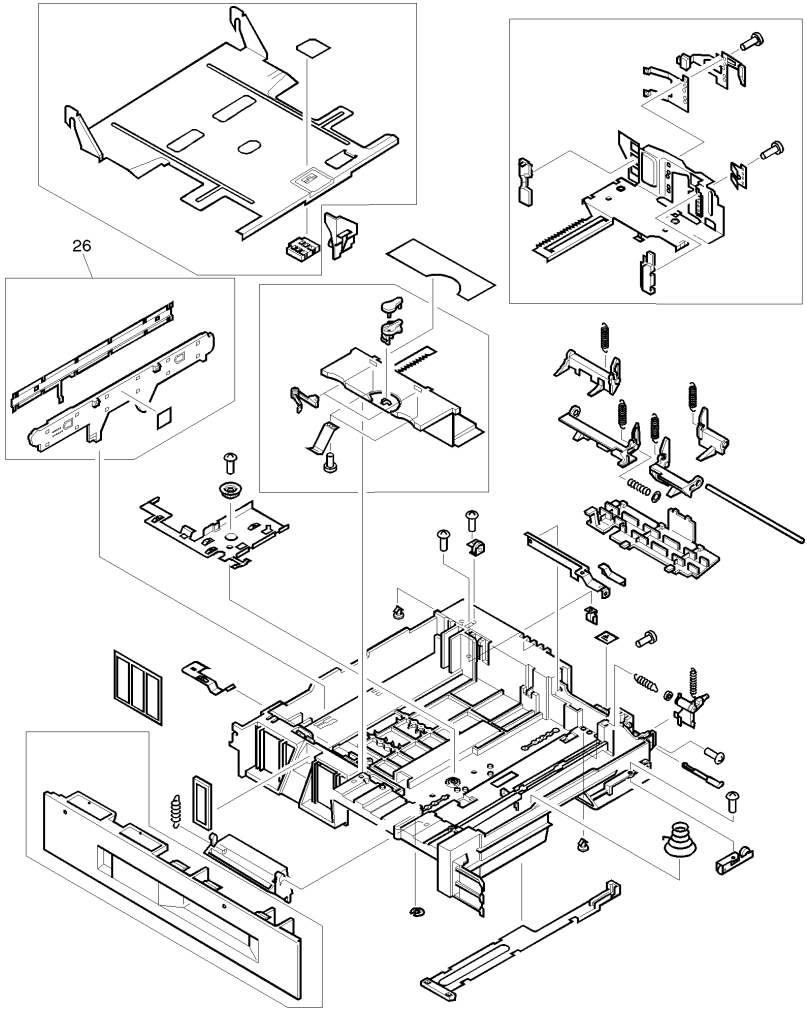

Figure 263. **Tray 2 assembly**

Table 72. Tray 2 assembly

Ref.	Description	Part number	Qty.
—	Tray 2	R98-1005-000CN	1
26	Plate, end	RF5-1484-000CN	1

Paper pick-up assembly

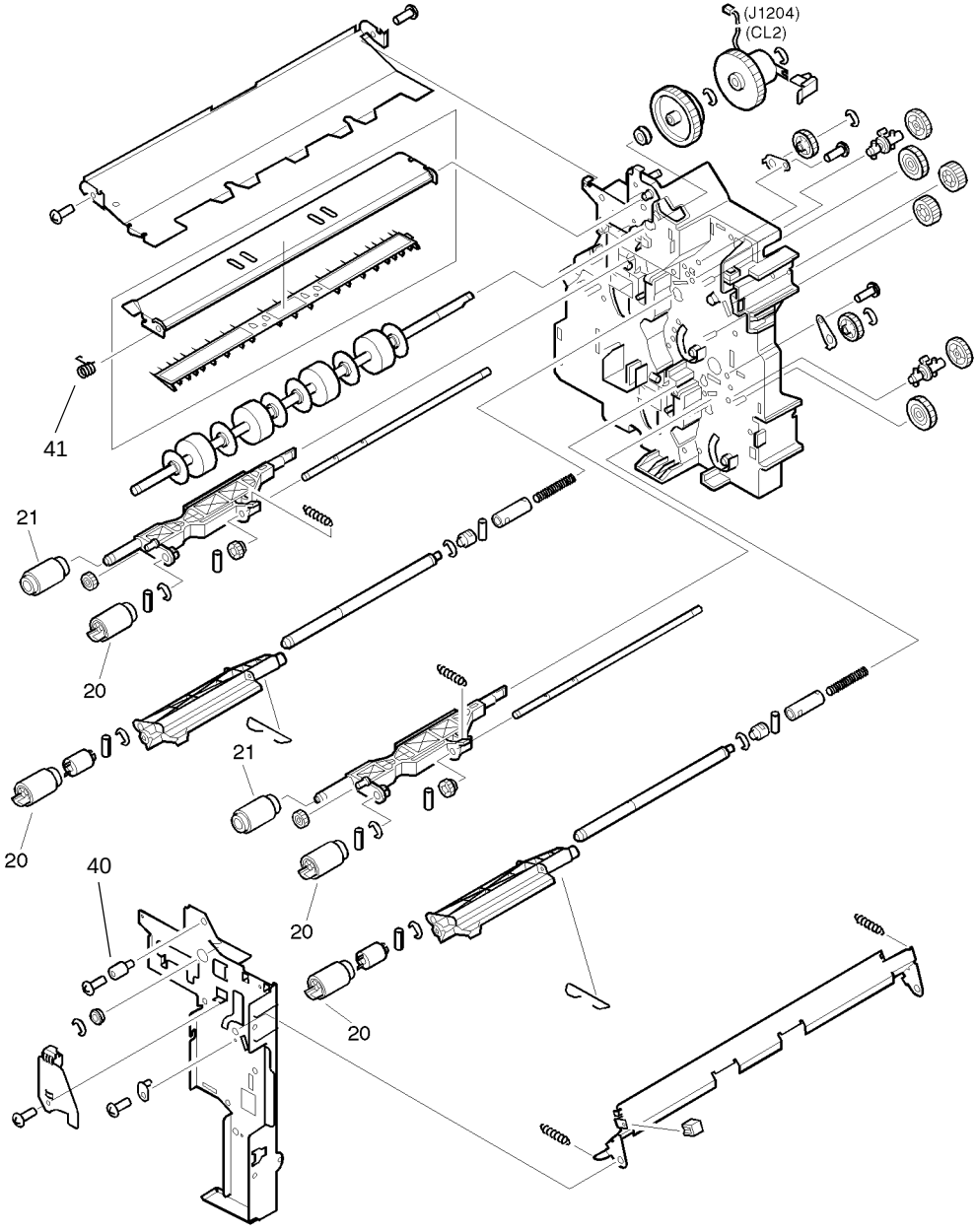

Figure 264. **Paper pick-up assembly (1 of 3)**

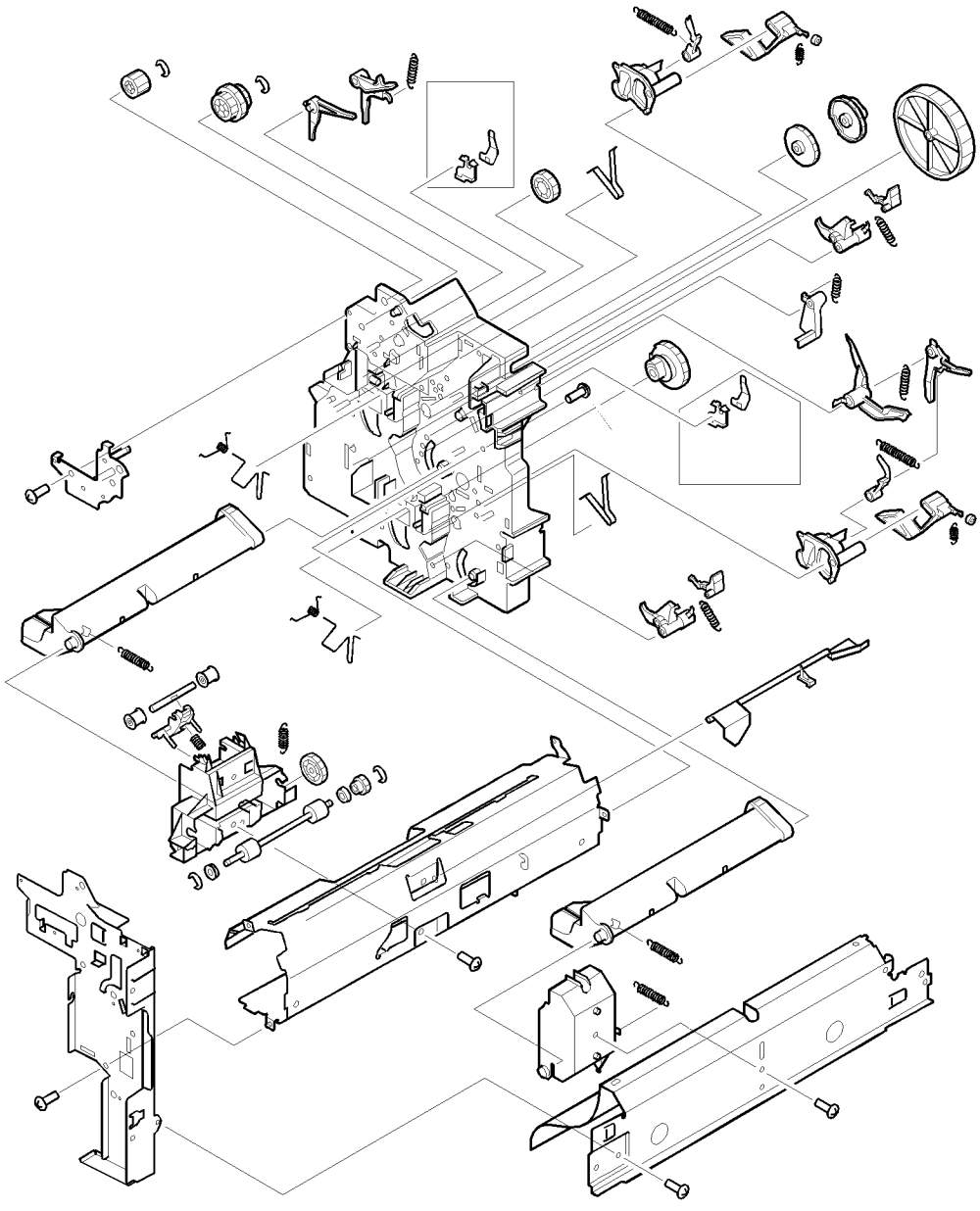

Figure 265. Paper pick-up assembly (2 of 3)

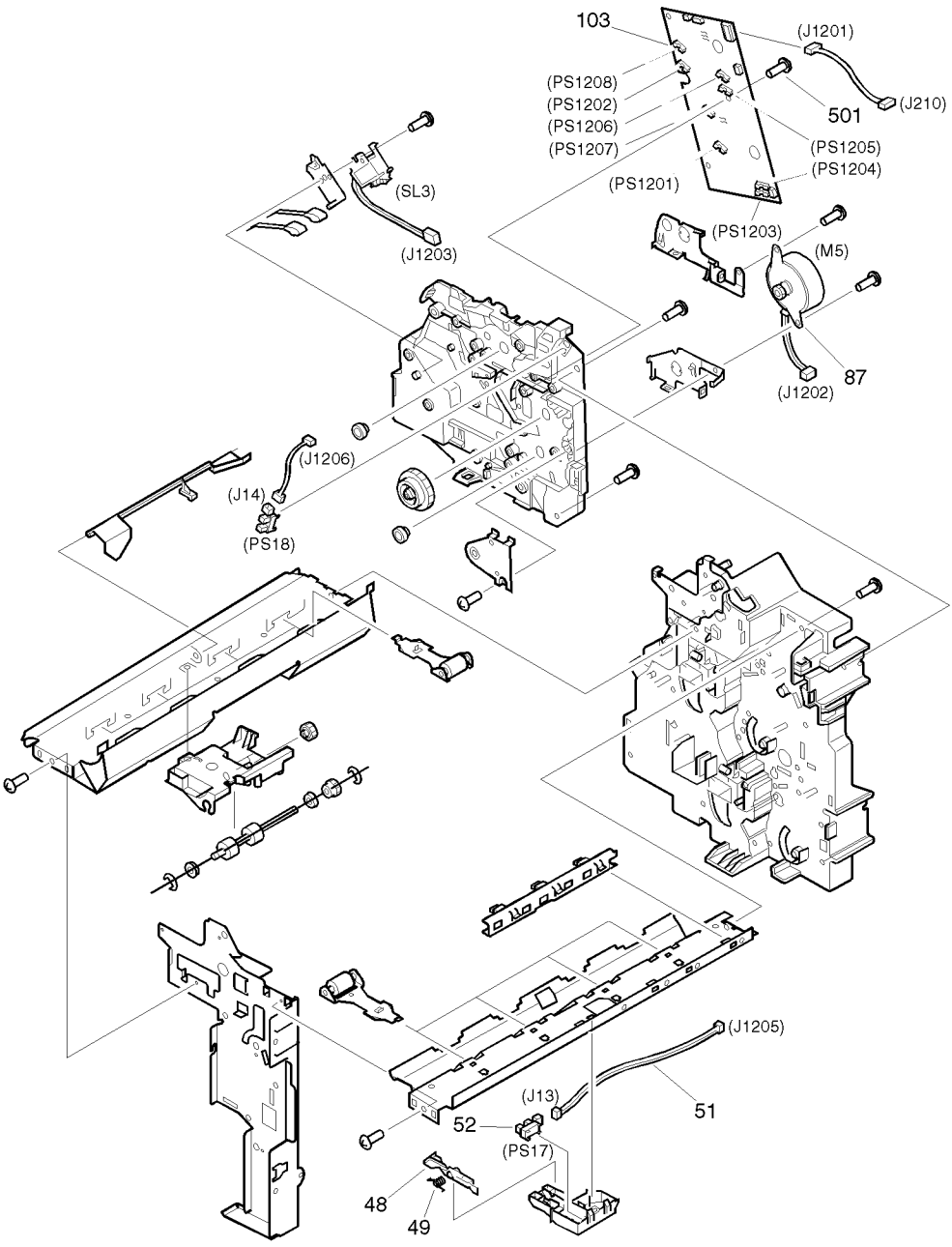

Figure 266. **Paper pick-up assembly (3 of 3)**

Table 73. Paper pick-up assembly parts

Ref.	Description	Part number	Qty.
—	Paper pick-up assembly	RG5-3132-000CN	1
20	Roller, feed	RF5-1834-000CN	1
21	Roller, pick-up	RF5-1835-000CN	2
40	Pin	RB1-0153-000CN	1
41	Torsion spring	RB1-6589-000CN	1
48	Flag, paper sensing	RB1-6557-000CN	1
49	Spring, torsion	RB1-6558-020CN	1
51	Arm, sensor	RG5-1859-000CN	1
52	Photo-interrupter, IC, TLP1230	WG8-0291-000CN	1
87	Motor, pick-up (M5)	RH7-1350-000CN	1
103	PCA, paper pick-up	RG5-1860-000CN	1
501	Screw, tapping, pan head, M4 x 10	XB4-7401-007CN	6

Registration frame assembly

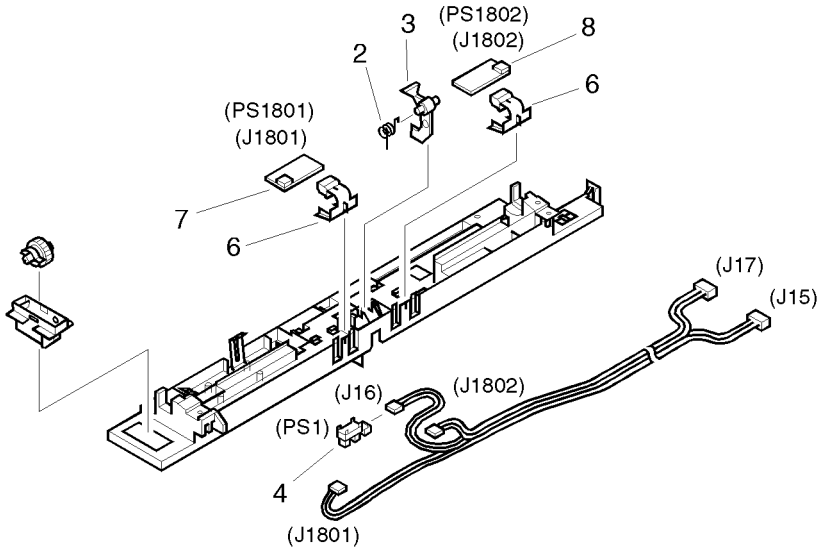

Figure 267. Registration frame assembly

Table 74. Registration frame assembly parts

Ref.	Description	Part number	Qty.
—	Registration frame assembly	RG5-3007-000CN	1
2	Spring, torsion	RB1-6409-000CN	1
3	Arm, sensor	RB1-6417-000CN	1
4	PCA, photo-interrupter, IC, TLP1240	WG8-5210-000CN	1
6	Cover, sensor	RB1-9586-000CN	1
7	PCA, photosensor	RG5-3032-000CN	1
8	PCA, photosensor	RG5-3079-000CN	1

Registration roller assembly

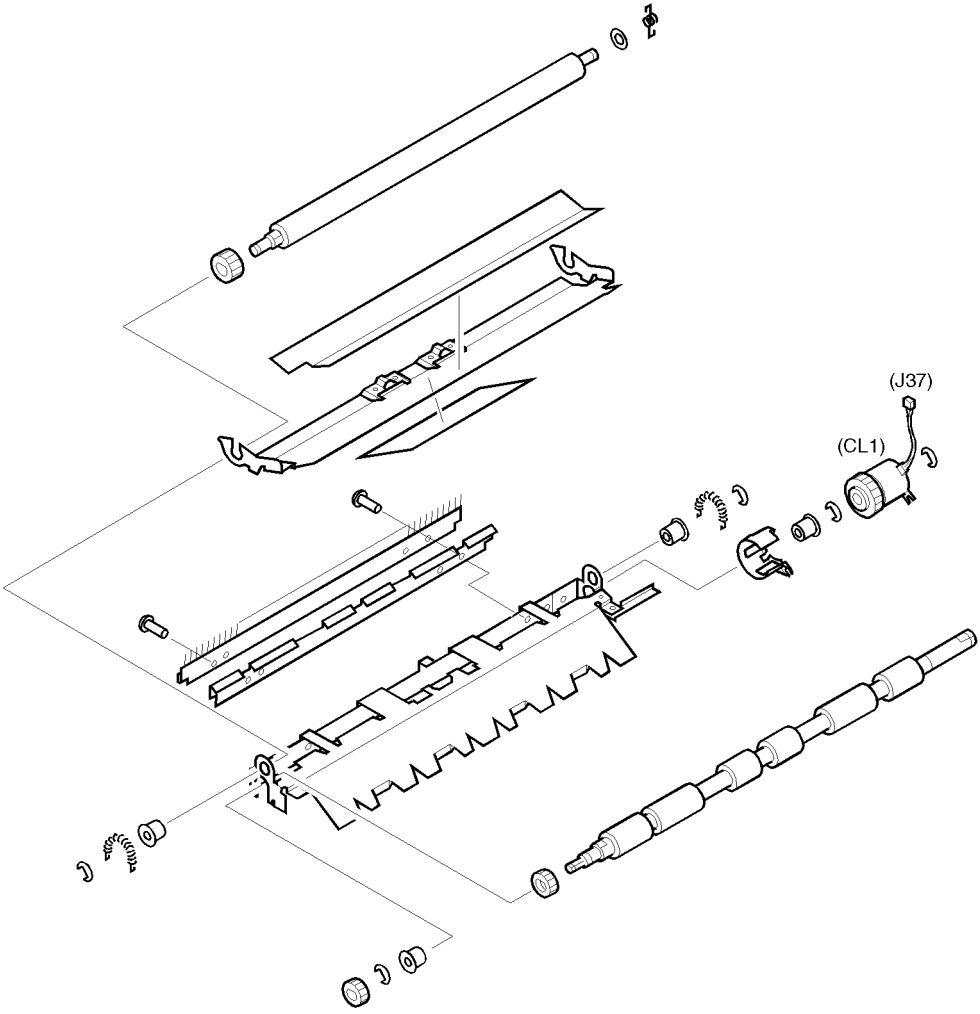

Figure 268. **Registration roller assembly**

Table 75. Registration roller assembly parts

Ref.	Description	Part number	Qty.
—	Registration roller assembly	RG5-3009-000CN	1

Feeder assembly

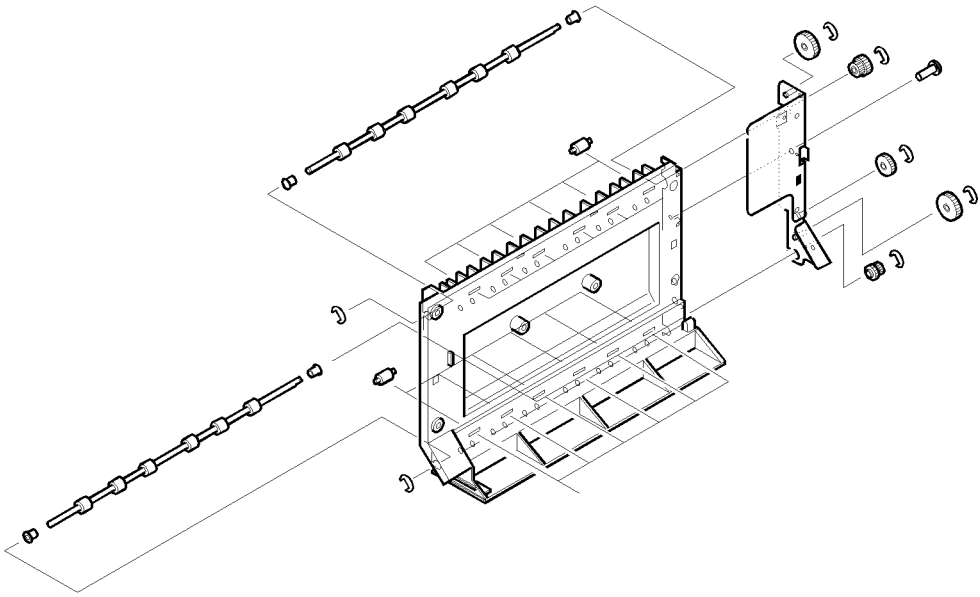

Figure 269. **Feeder assembly**

Table 76. Feeder assembly parts

Ref.	Description	Part number	Qty.
—	Feeder assembly	RG5-3059-000CN	1

Tray 1 pick-up assembly

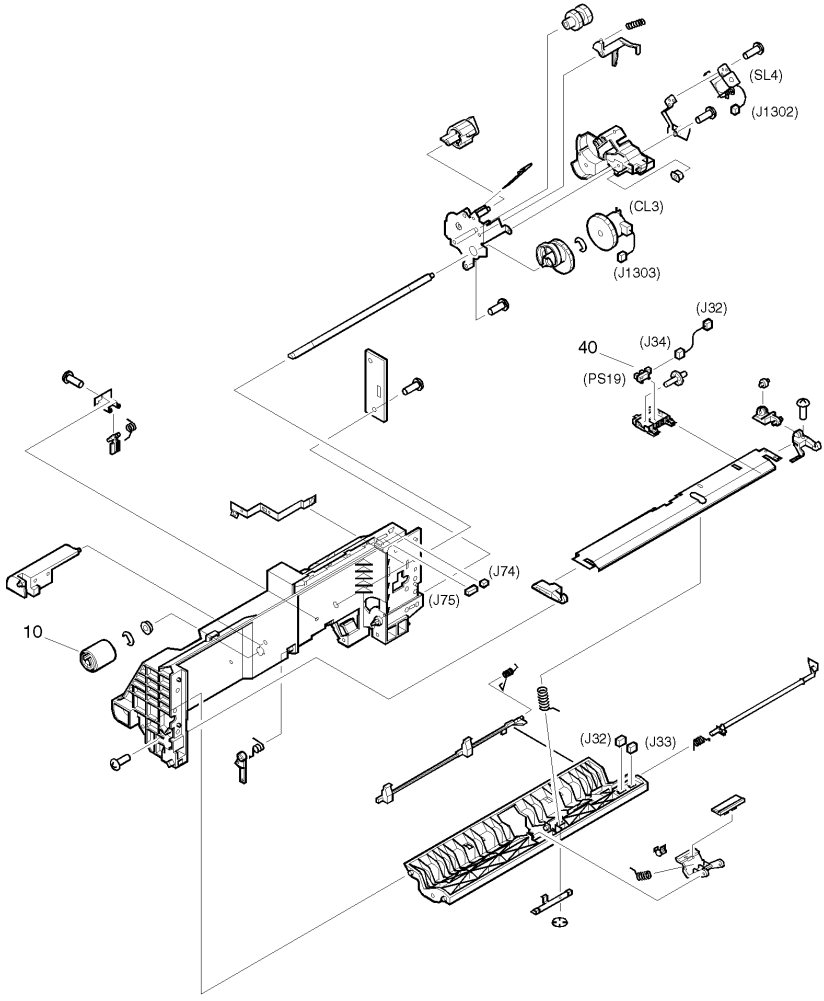

Figure 270. **Tray 1 pick-up assembly**

Table 77. Tray 1 pick-up assembly parts

Ref.	Description	Part number	Qty.
—	Tray 1 pick-up assembly	RG5-3054-000CN	1
10	Roller, tray 1 pick-up	RB1-9526-000CN	1
40	Photo-interrupter, IC, TLP1240	WG8-5210-000CN	1

Tray 1 assembly

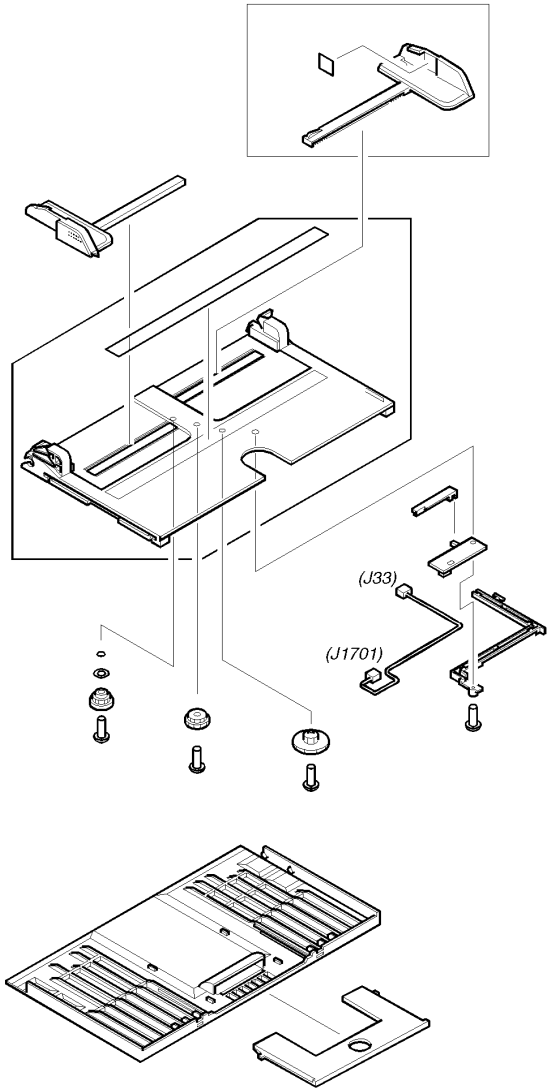

Figure 271. **Tray 1 assembly**

Table 78. Tray 1 assembly parts

Ref.	Description	Part number	Qty.
—	Tray 1 assembly	RG5-3134-000CN	1

Delivery assembly

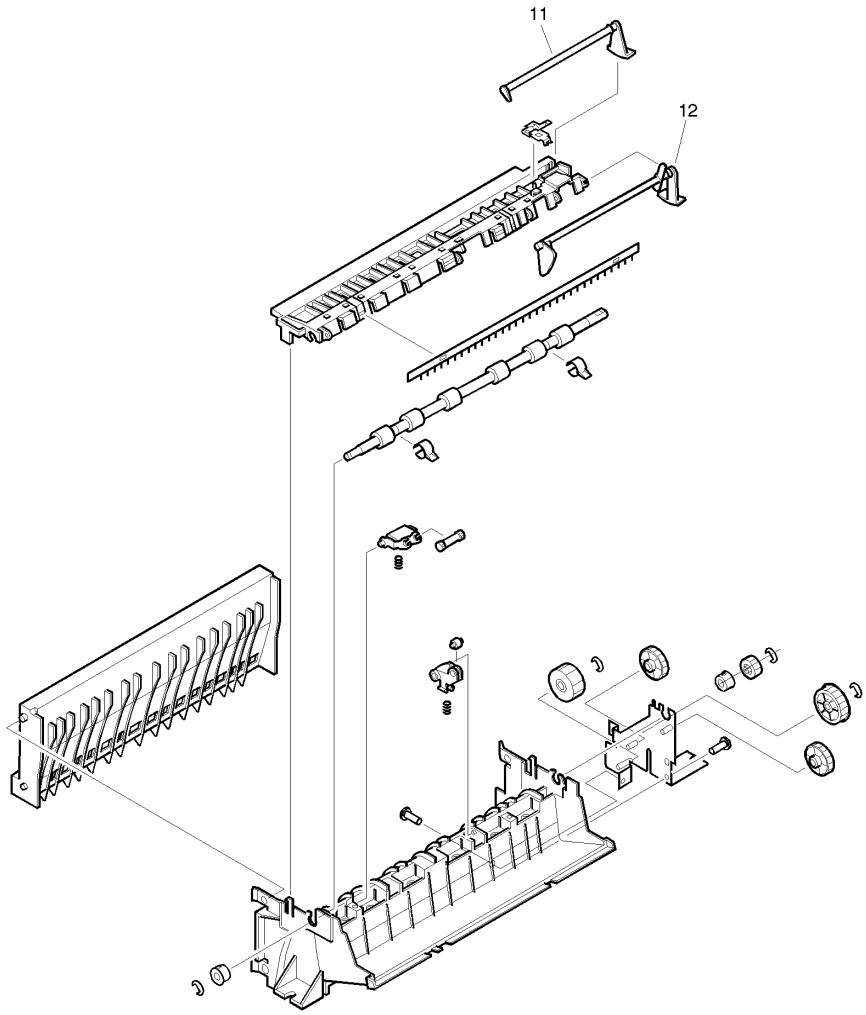

Figure 272. Delivery assembly

Table 79. Delivery assembly parts

Ref.	Description	Part number	Qty.
—	Delivery assembly	RG0-0110-000CN	1
11	Lever, paper sensing	RB1-6692-000CN	1
12	Lever, paper height	RA0-0112-000CN	1

Delivery cover assembly

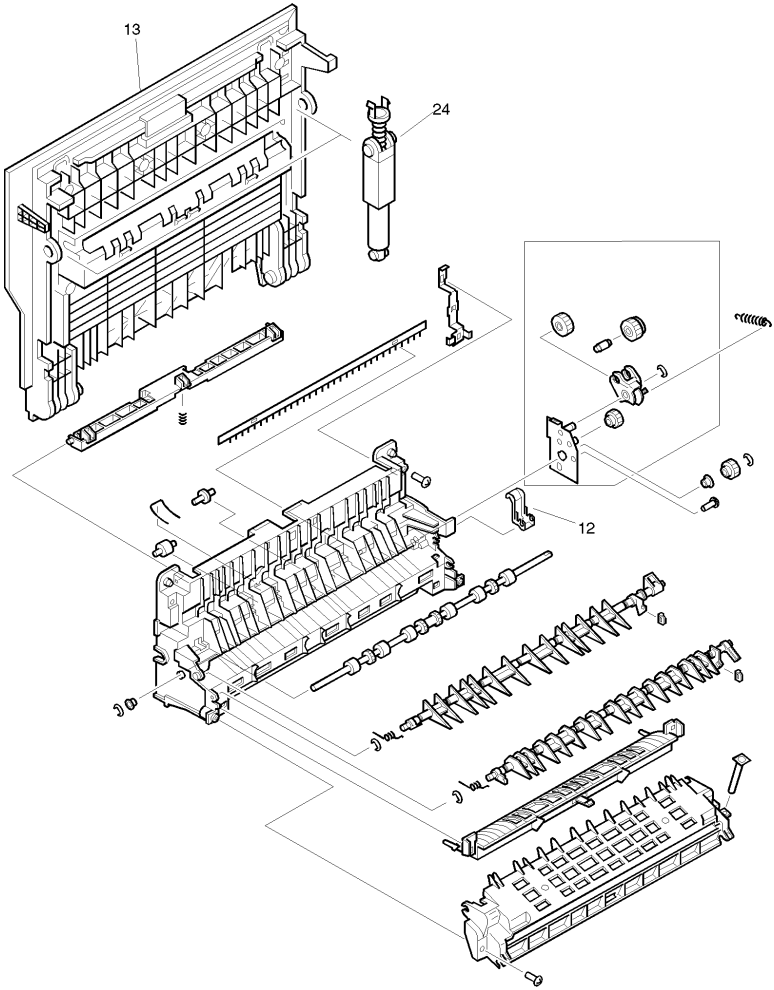

Figure 273. **Delivery cover assembly**

Table 80. Delivery cover assembly parts

Ref.	Description	Part number	Qty.
—	Delivery cover assembly	RG5-3108-000CN	1
12	Holder, flapper	RB1-9751-000CN	1
13	Cover, left upper	RB2-0057-000CN	1
24	Hinge, stopper (delivery)	RF5-2701-000CN	1

Transfer belt assembly

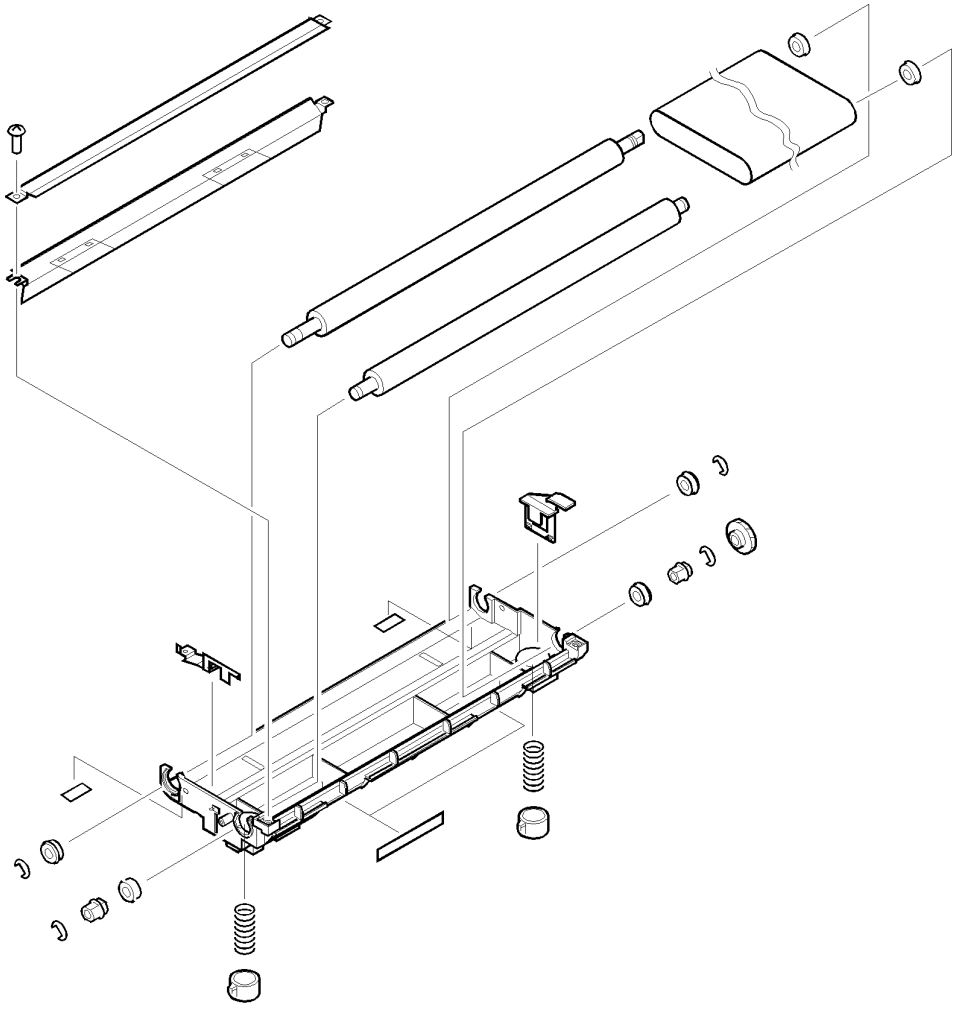

Figure 274. **Transfer belt assembly**

Table 81. Transfer belt assembly parts

Ref.	Description	Part number	Qty.
—	Transfer belt assembly	RG5-3047-000CN	1

Fuser assembly

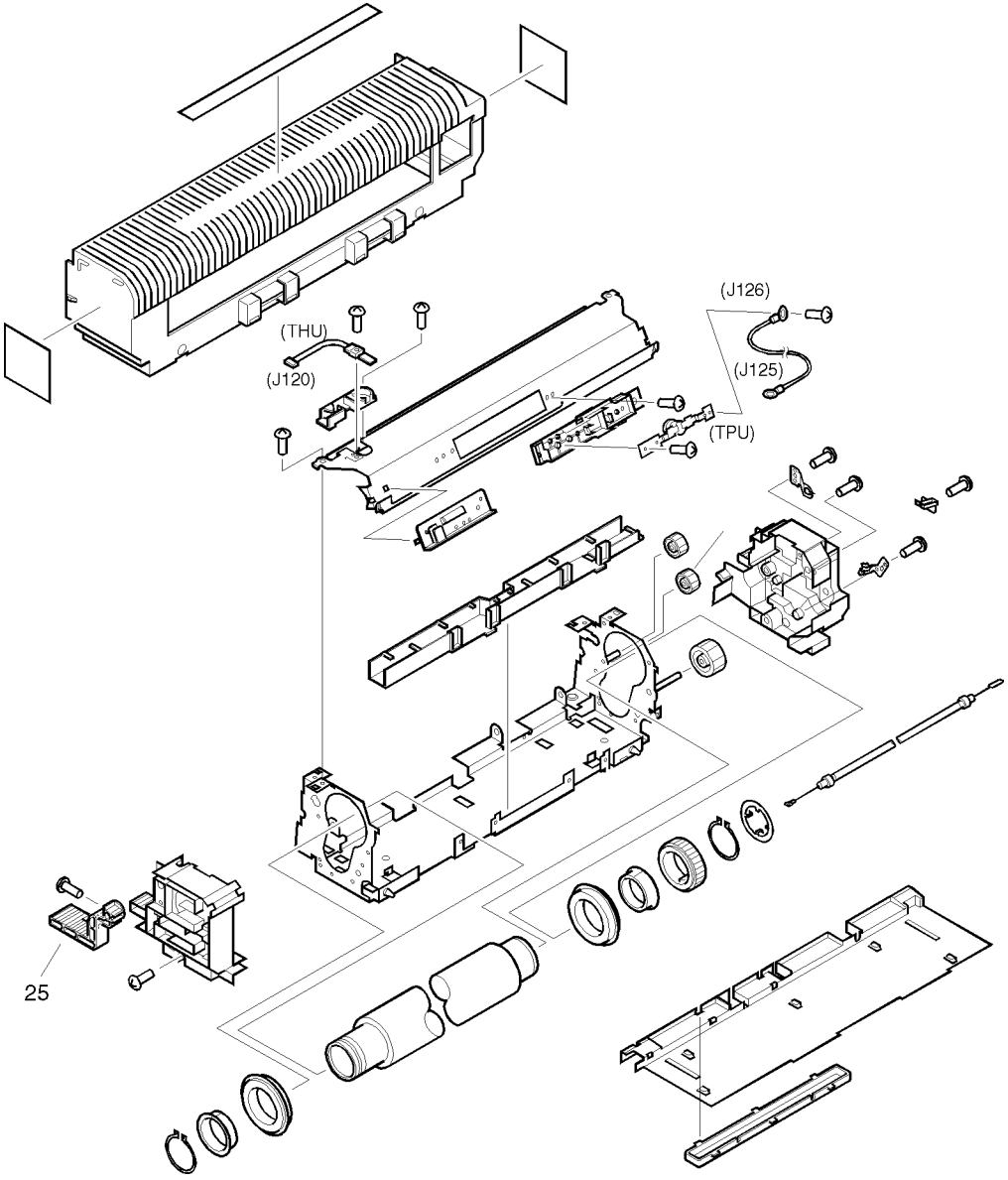

Figure 275. **Fuser assembly (1 of 2)**

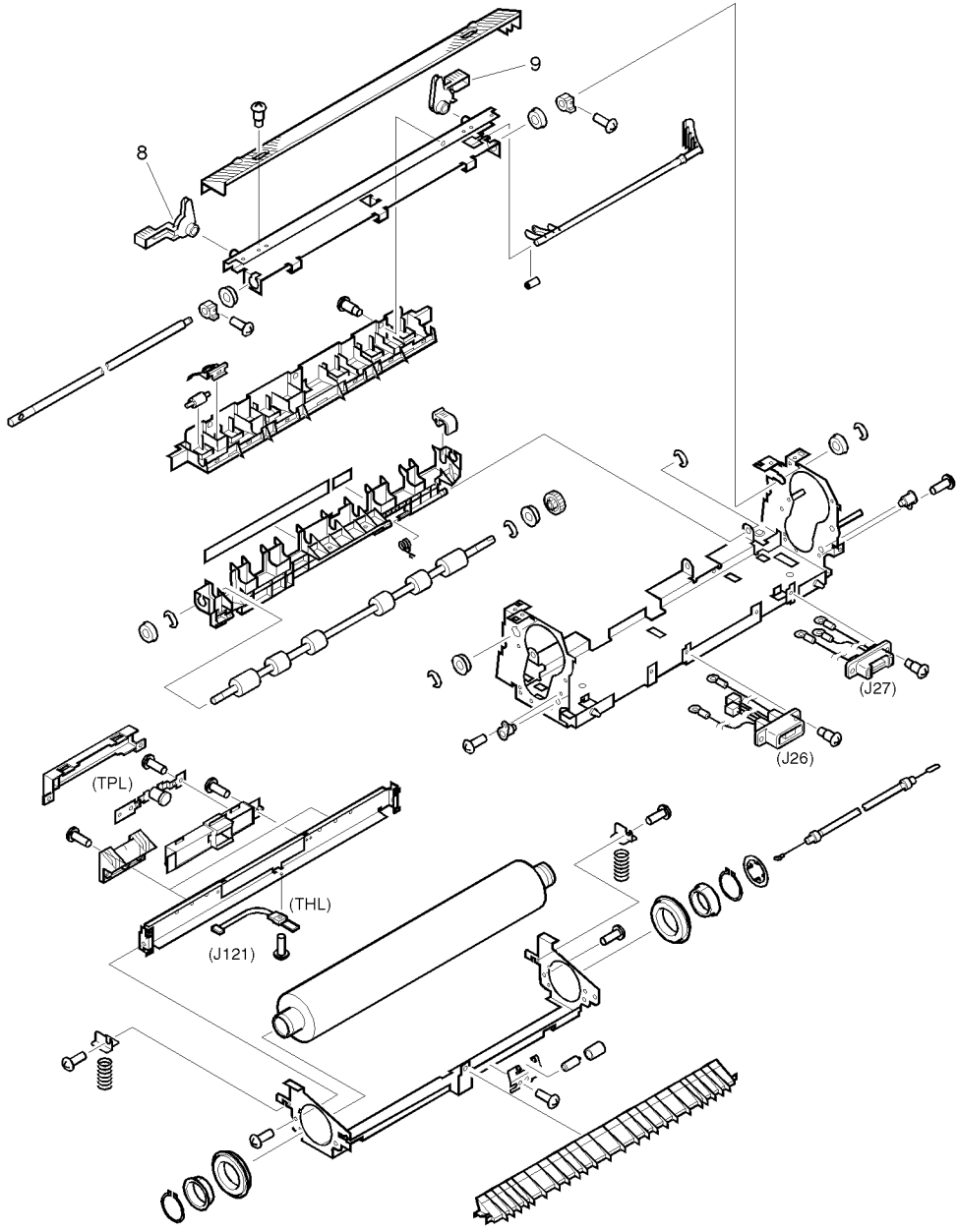

Figure 276. Fuser assembly (2 of 2)

Table 82. Fuser assembly parts

Ref.	Description	Part number	Qty.
—	Fuser assembly (120 V) Fuser assembly (220 V)	RG5-3060-000CN RG5-3061-000CN	1
8	Lever, holding, right	RB1-9704-000CN	1
9	Lever, holding, left	RB1-9705-000CN	1
25	Lever, release	RB1-9748-000CN	1

PCA assemblies

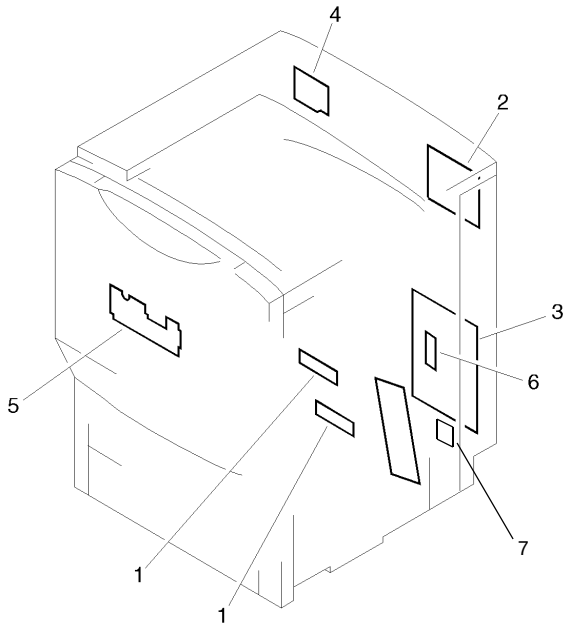

Figure 277. PCA assemblies

Table 83. PCA assembly parts

Ref.	Description	Part number	Qty.
1	PCA, cassette-size sensing	RG5-1845-000CN	1
2	PCA, main relay	RG5-3036-000CN	1
3	PCA, controller board PCA, controller board for HP CLJ 8550 MFP	RG5-3037-000CN FG2-9470-000CN	1
4	PCA, carousel motor (M1)	RG5-3084-020CN	1
5	PCA, subrelay	RG5-3085-000CN	1
6	PCA, tray 1	RG5-1884-000CN	1
7	PCA, ECO-2 assembly (HP CLJ 8550 MPF)	FG6-3597-000CN	
	Interface PCB assembly (HP CLJ 8550 MPF)	FG2-9545-000CN	
	Interface cable (HP CLJ 8550 MPF)	FG2-9479-000CN	
	IOT cable (HP CLJ 8550 MPF)	FG2-9476-000CN	
	ECO-2 cable (HP CLJ 8550 MPF)	FG2-9543-000CN	

2,000-sheet input unit components

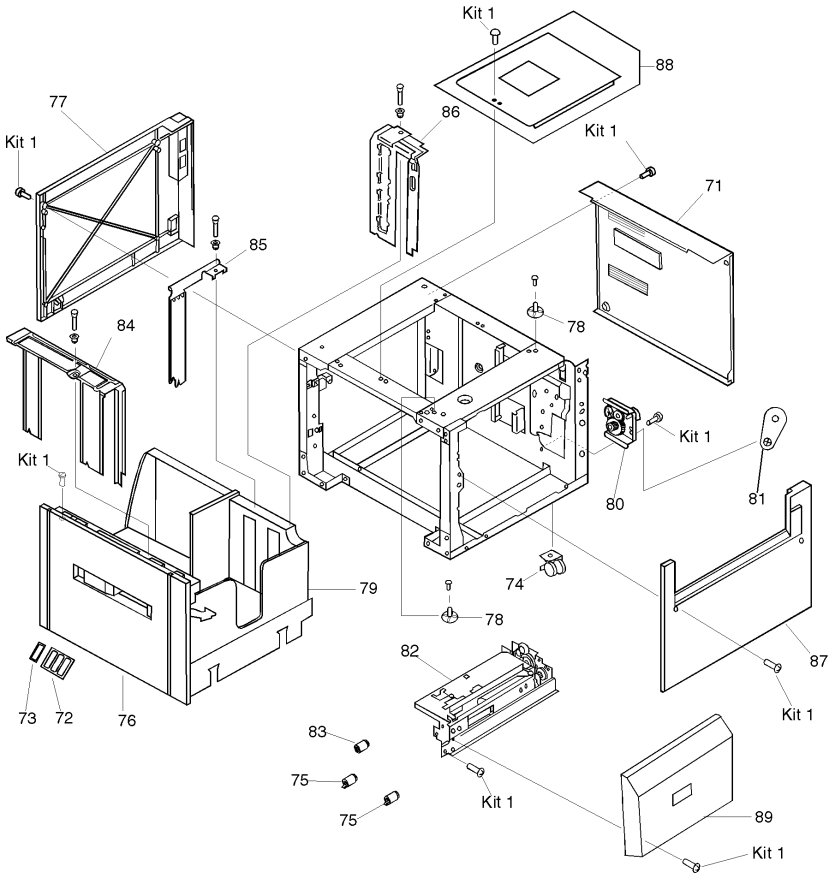

Figure 278. **2,000-sheet input unit covers and doors**

Table 84. 2,000-sheet input unit cover and door parts

Ref.	Description	Part number	Qty.
71	Cover, back	RB2-2519-000CN	1
72	Cassette size labels	RS5-8611-000CN	1
73	Cassette size plate	RB1-6894-000CN	1
74	Casters	XZ9-0442-000CN	4
75	Feed and separation rollers	RF5-1834-000CN	2
76	Cover, front (with LED window)	RF5-2568-000CN	1
77	Cover, left	RF5-2646-000CN	1
78	Locating pin, metal (positioning)	RF5-2556-000CN	3
79	Tray 4	RG5-3845-000CN	1
80	Paper deck drive assembly	RG5-3851-000CN	1
81	Paper deck drive bushing	RS5-1399-000CN	1
82	Paper pick-up assembly	RG5-3843-000CN	1
83	Roller, pick-up	RF5-1835-000CN	1
84	Plate paper limit back	RG5-4201-000CN	1
85	Plate paper limit middle	RG5-3849-000CN	1
86	Plate paper reference front	RF5-3850-000CN	1
87	Cover, rIght	RB1-7832-020CN	1
88	Cover, top (label included)	RG5-2644-000CN	1
89	Vertical transfer unit (VTU)	RG5-3854-000CN	1
Kit 1	Screws kit (2,000-sheet input unit)	RY7-5044-000CN	1

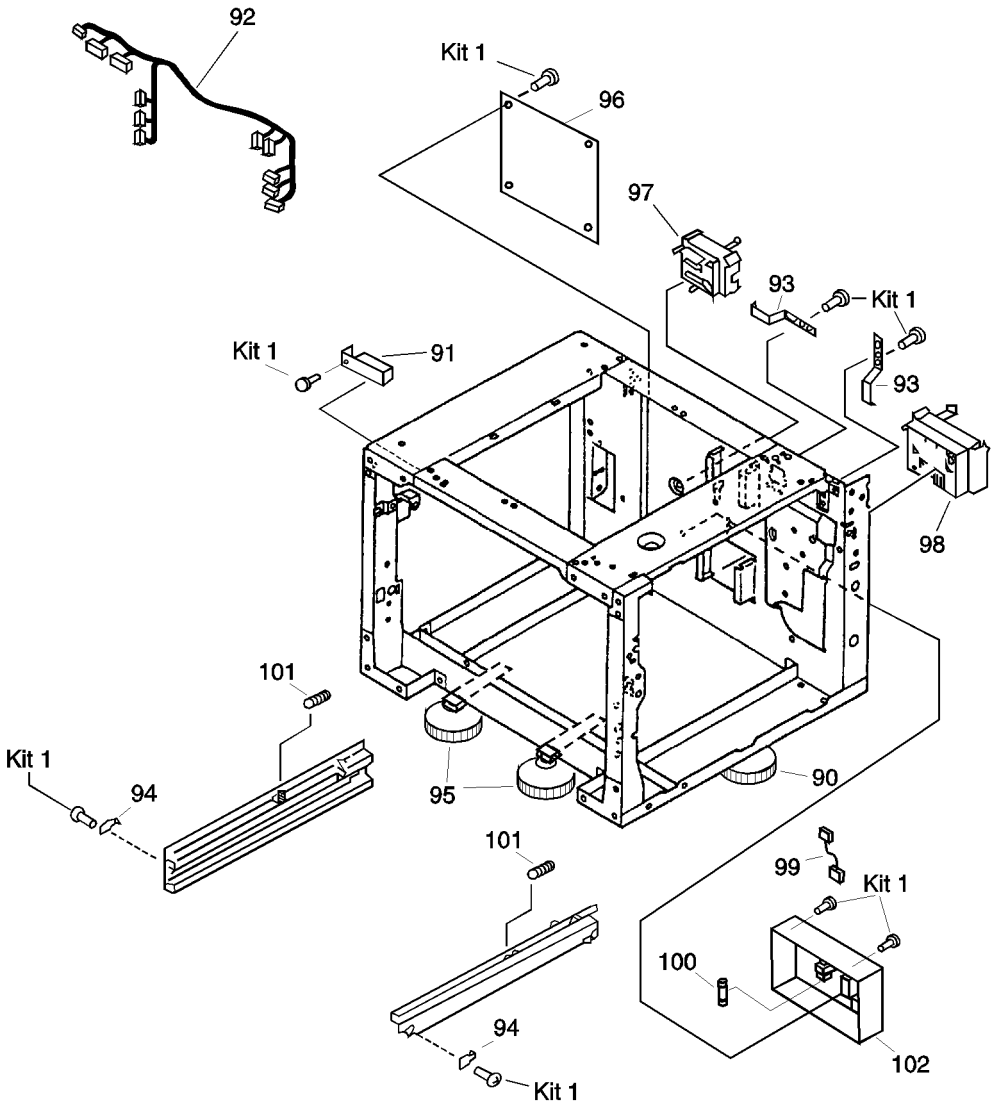

Figure 279. **2,000-sheet input unit internal components**

Table 85. 2,000-sheet input unit internal component parts

Ref.	Description	Part number	Qty.
91	Front LED PCA with holder and cable	RG5-4204-000CN	1
92	Cable, main	RG5-3919-000CN	1
93	Metallic retaining spring (spring leaf)	RB1-7835-000CN	2
94	Metallic retaining tab (plate stop)	RB1-7677-000CN	2
95	Outriggers	RG5-4205-000CN	1
96	Paper deck PCA	RG5-3908-000CN	1
97	Paper quantity sensor PCA assembly	RG5-2166-000CN	1
98	Paper size sensor PCA assembly	RG5-2168-000CN	1
99	Power supply cable	RG5-3909-000CN	1
100	Power supply fuse 250 V, 3.15 A	VD7-1893-151CN	1
101	Spring, tension	RS5-2561-000CN	2
102	Universal power supply assembly	RG5-4021-000CN	1
Kit 1	Screws kit (2,000-sheet input unit)	RY7-5044-000CN	1

Multi-bin mailbox components

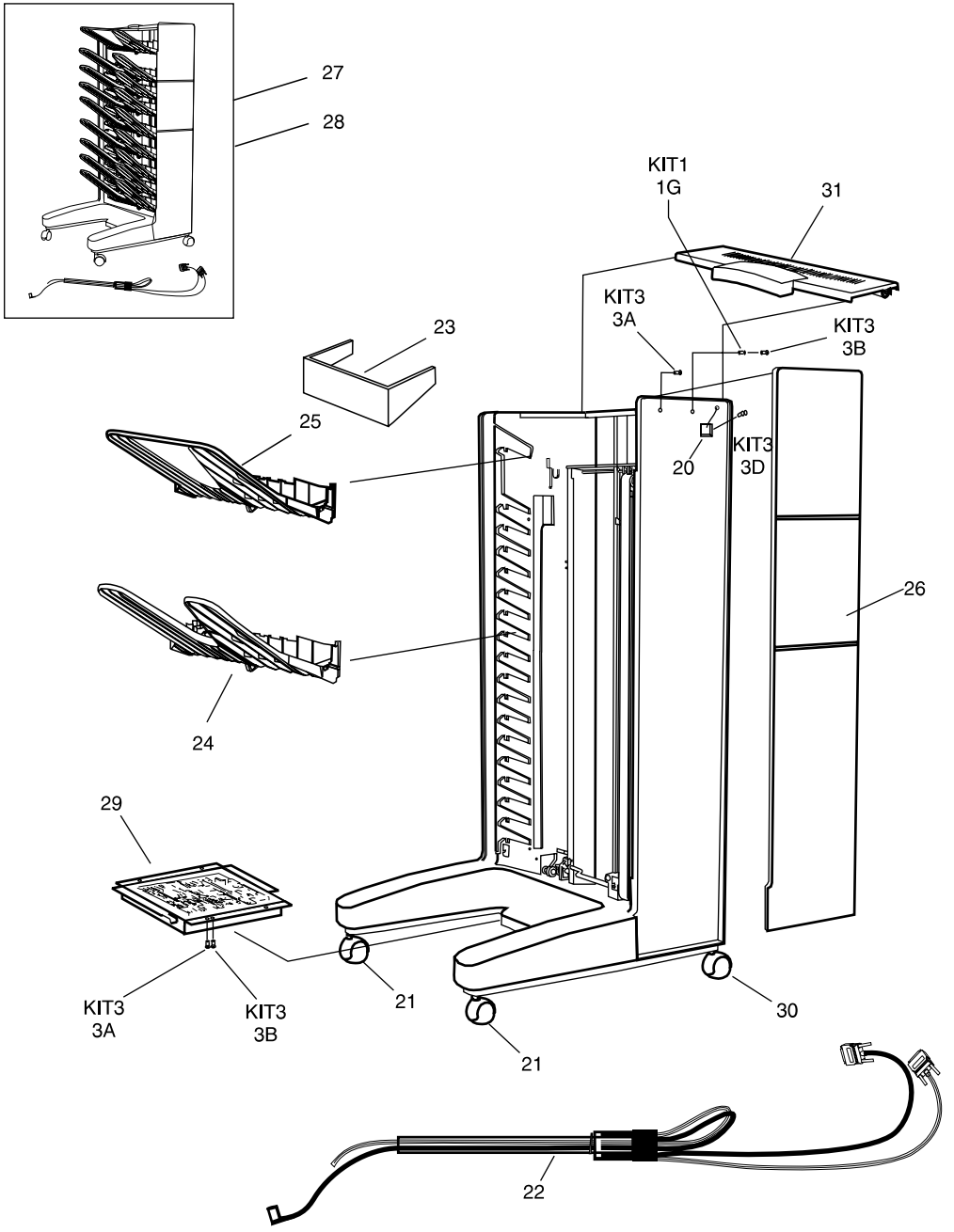

Figure 280. **Multi-bin mailbox components (1 of 3)**

Table 86. Multi-bin mailbox component parts (1 of 3)

Ref.	Description	Part number	Qty.
20	User LED PCA (with cable)	C4785-60515	1
21	Adjustable fixed caster	C4785-60511	2
22	Attachment assembly (rod, bracket, cables)	C4785-60516	1
23	Blind cover	C4785-60503	1
24	Face-down bin	C4785-60502	1
25	Face-up bin	C3764-60505	1
26	Cover, front	C4785-60504	1
27	Exchange multi-bin mailbox assembly **Note:** You must have a 2,000-sheet input unit in order to install a multi-bin mailbox.	C4785-69519	1
28	Multi-bin mailbox assembly (product number C4785A) **Note:** You must have a 2,000-sheet input unit in order to install a multi-bin mailbox.	C4785-60534	1
29	Multi-bin mailbox controller (with metal box)	C4785-60532	1
30	Caster, fixed	C4785-60510	2
31	Cover, top	C3764-60555	1
Kit 1	Plastic parts 1G Spacer plastic	C4785-60519	1
Kit 3	Hardware 3A Screw, Torx 3B Screw, Torx, T20, M4 x 10 3D Screw, Torx, T20, M4 x 12	C4785-60521	1
	Kit of rollers for jam access door	C4785-60526	1

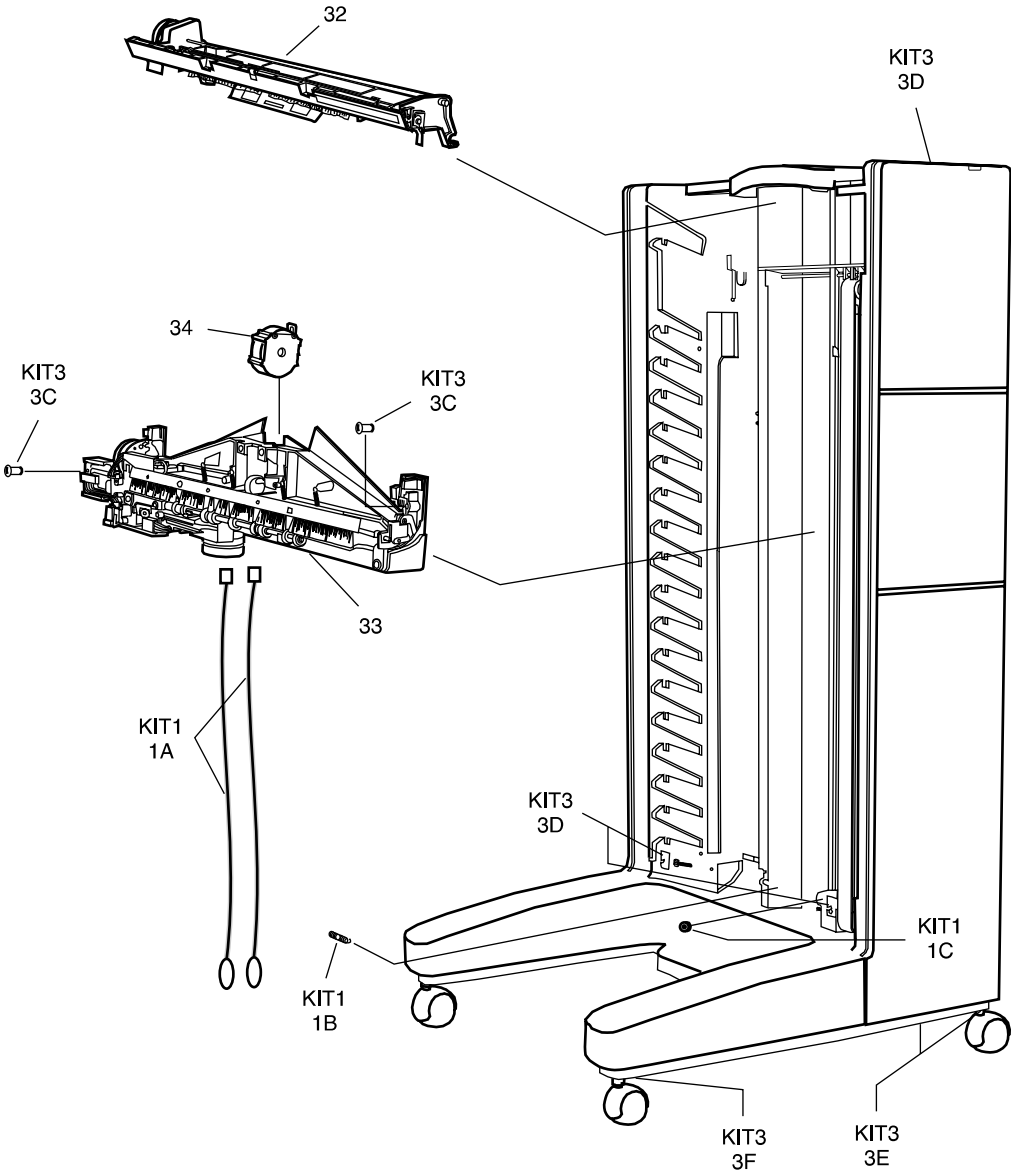

Figure 281. **Multi-bin mailbox components (2 of 3)**

Table 87. Multi-bin mailbox component parts (2 of 3)

Ref.	Description	Part number	Qty.
32	Flipper assembly (with cable “request”)	C4785-60529	1
33	Head assembly (with metallic tape)	C4785-60506	1
34	Metallic tape and housing assembly	C4785-60507	1
Kit 1	Plastic parts 1A Anti-curl string 1B Spring for anti-curl string 1C Pulley, small bottom	C4785-60519	1
Kit 3	Hardware 3C Screw, Torx, Tapping T20, M4 x 10 3D Screw, Torx, T20, M4 x 12 3E Screw, Torx, Tapping T10 3F Screw, Caster	C4785-60521	1

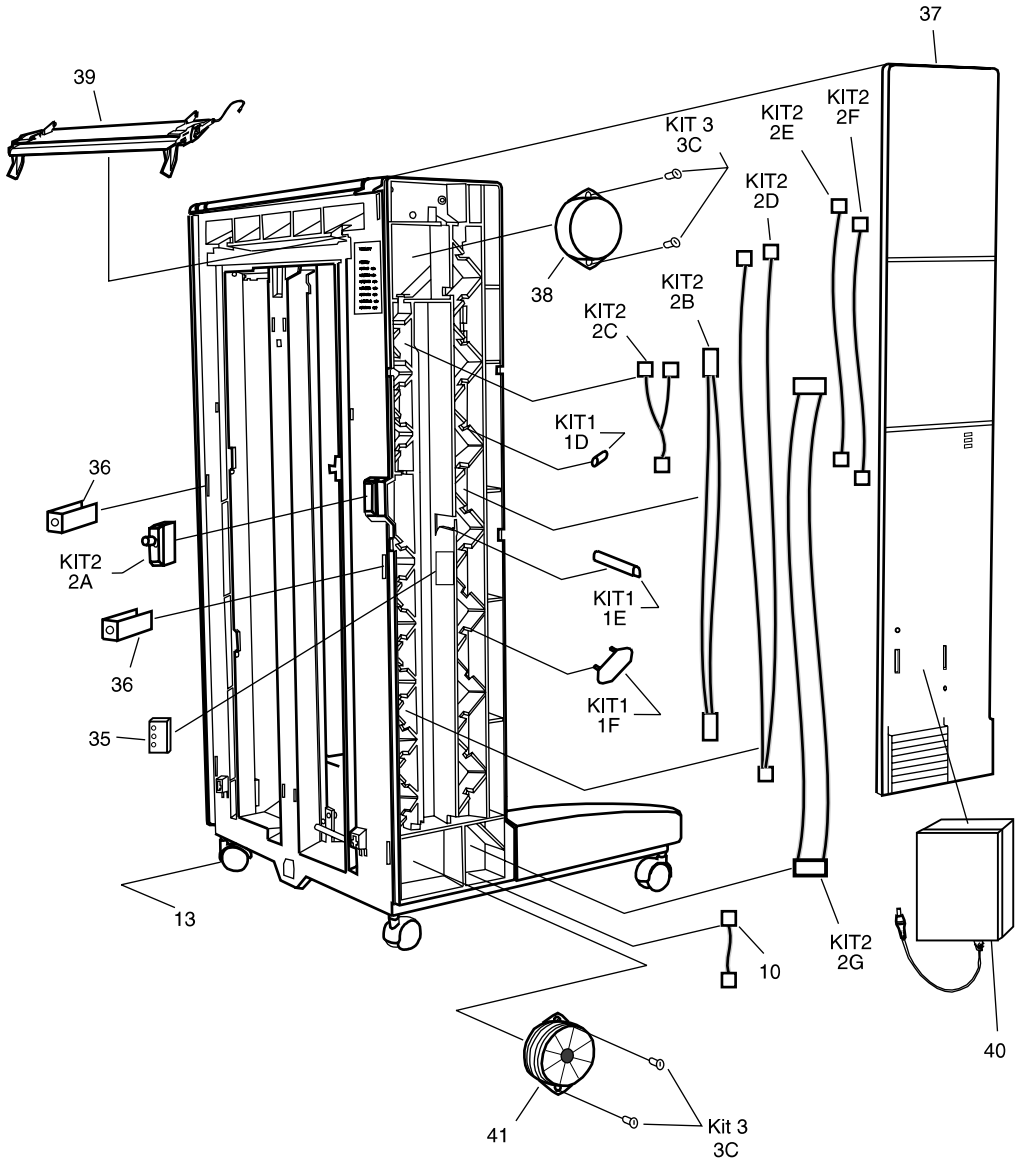

Figure 282. **Multi-bin mailbox components (3 of 3)**

Table 88. Multi-bin mailbox component parts (3 of 3)

Ref.	Description	Part number	Qty.
35	Diagnostic LED PCA (with cable)	C4785-60514	1
36	Attachment clip	C4785-60512	2
37	Back cover	C4785-60505	1
38	Delivery head position motor	C3764-60507	1
39	Input paper guide (nosepiece)	C3764-60561	1
40	Power supply	C4785-60501	1
41	Transport belt motor (with fan)	C4785-60518	1
Kit 1	Plastic parts 1D Cable holder round gasket 1E Flat cable holder edge 1F Flat cable holder	C4785-60519	1
Kit 2	Cables 2A Switch, interlock 2B Delivery head motor cable 2C Flipper sensor controller cable 2D Flipper encoder controller 2E Flipper motor controller 2F ESD cable 2G Delivery head assembly, flat cable	C4785-60520	1
Kit 3	Hardware 3C Screw, Torx, Tapping T20, M4 x 10	C4785-60521	1

3,000-sheet stapler/stacker components

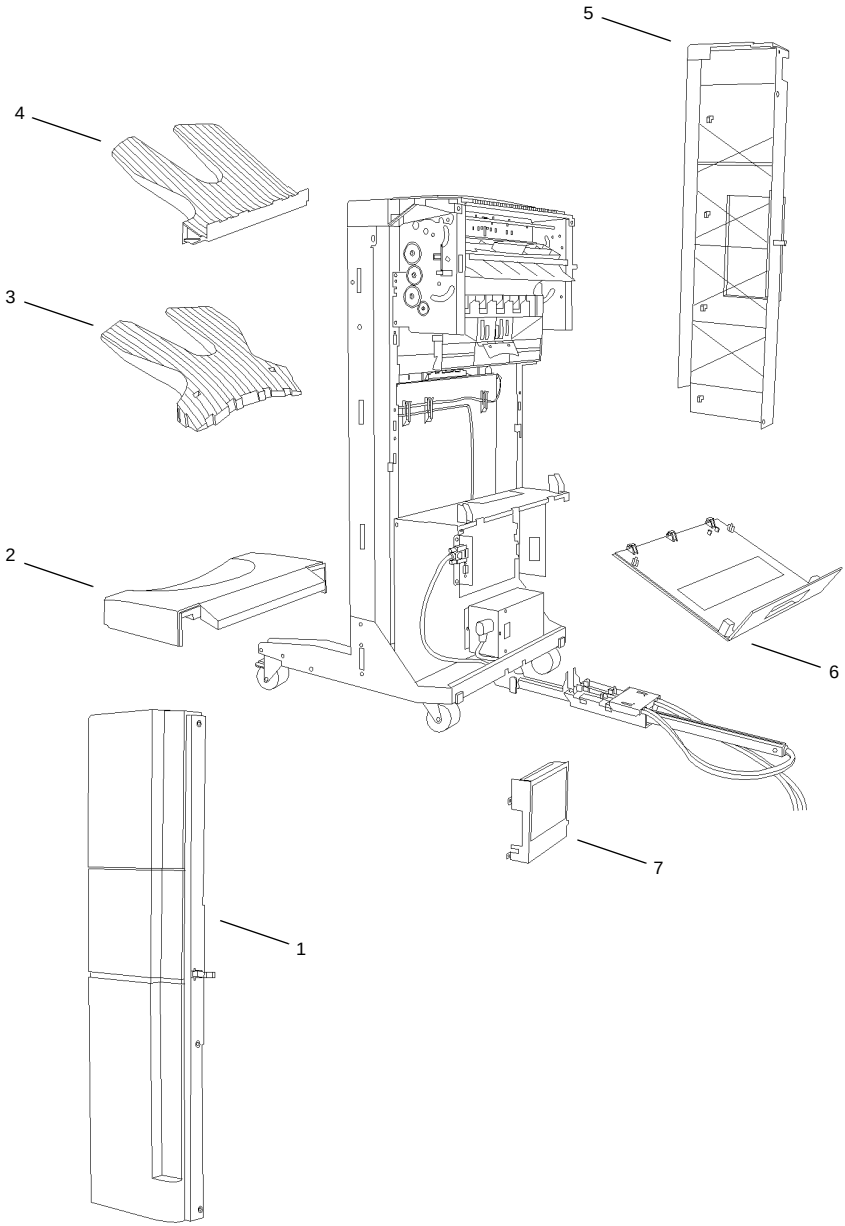

Figure 283. **3,000-sheet stapler/stacker components (1 of 2)**

Table 89. 3,000-sheet stapler/stacker components (1 of 2)

Ref.	Description	Part number	Qty.
1	Front cover	C4788-60505	1
2	Foot cover	C4788-60525	1
3	Stapler bin (for stapler/stacker) Stacker bin (for stacker)	C4788-60528 C4779-60505	1 1
4	Face-up bin	C4788-60512	1
5	Back cover	C4788-60504	1
6	Stapler door assembly with label (for stapler/stacker) Stacker door assembly (for stacker)	C4788-60507 C4779-60502	1 1
7	Controller PCA cover (with label) (for stapler/stacker) Controller PCA cover (with label) (for stacker)	C4788-60508 C4779-60503	1 1

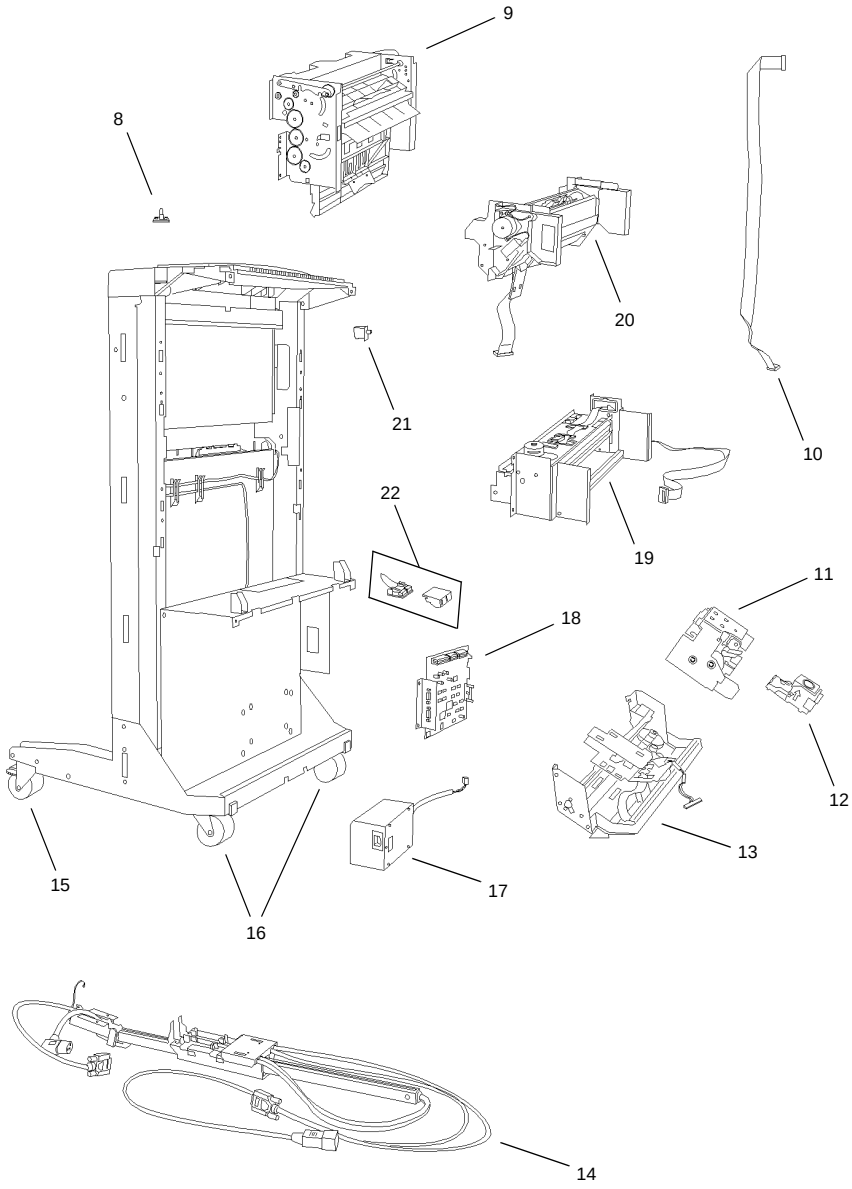

Figure 284. **3,000-sheet stapler/stacker components (2 of 2)**

Table 90. 3,000-sheet stapler/stacker components (2 of 2)

Ref.	Description	Part number	Qty.
8	LED PCA	C4788-60510	1
9	Flipper assembly	C4788-60501	1
10	Flipper ribbon cable	C4788-60524	1
11	Stapler (applies only to stapler/stacker)	C4788-60519	1
12	Stapler refill housing	C4788-60522	1
13	Carriage assembly (applies only to stapler/ stacker)	C4788-60503	1
14	Attachment assembly (rod, bracket, cables)	C4788-60523	1
15	Adjustable caster	C4788-60516	2
16	Stationary caster	C4788-60515	2
17	Power supply	C4788-60511	1
18	Stapler controller PCA (for stapler/stacker) Stacker controller PCA (for stacker)	C4788-60509 C4779-60507	1 1
19	Offset module (for stacker)	C4779-60508	1
20	Accumulator assembly (for stapler/stacker)	C4788-60502	1
21	Interlock	C4788-60514	1
22	Safety switch assembly	C4788-60517	1
	Wings kit (stapler/stacker)	C4788-60521	1
	Paper stacker clip	C4788-60527	1
	Optical sensors kit	C4779-60509	1

Numerical parts list

Table 91. Numerical parts list

Part number	Description	Figure	Ref.
J3113-61003	PCA, 10/100Base-T	—	—
C3983-40016	Control panel overlay, Czech, 8500 models	—	—
C3983-40001	Control panel overlay, English, 8500 models	—	—
C3983-40006	Control panel overlay, French, 8500 models	—	—
C3983-40011	Control panel overlay, Swedish, 8500 models	—	—
C3989-90901	*HP Color LaserJet 8500, 8500 N, 8500 DN Getting Started Guide* (English)	—	—
C4785-60526	Kit of rollers—jam access door (multi-bin mailbox)	280	—
C4785-60507	Metallic tape and housing assembly	281	34
C4785-60501	Power supply	282	40
C4785-60515	User LED PCA (with cable)	280	20
C4788-60504	Back cover	283	5
C4788-60525	Foot cover	283	2
C4788-60510	LED PCA	284	8
C4788-60517	Safety switch assembly	284	22
5021-8956	*HP LaserJet Printer Family Paper Specification Guide*	—	—
5021-0337	PCL/PJL Technical Reference Package	—	—
5091-6456	*HP Peripherals Connectivity Solutions Guide*	—	—
5966-5171	*HP JetDirect Software Installation Guide* (English)	—	—
C7096-40003	Control panel overlay, Hungarian, 8550 models	—	—
C7096-40013	Control panel overlay, Norwegian, 8550 models	—	—
C7096-40008	Control panel overlay, Portuguese, 8550 models	—	—
C7096-40018	Control panel overlay, Russian, 8550 models	—	—
92215N	HP LocalTalk cable kit	—	—
92215S	Macintosh DIN-8 printer cable	—	—

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
C2934A	HP Color LaserJet transparencies (letter-sized), 50 sheets	—	—
C2936A	HP Color LaserJet transparencies (A4-sized), 50 sheets	—	—
C2946A	IEEE-1284 compliant parallel cable of 3 m (approximately 10 ft) with 25-pin male/micro 36-pin male “C” size connector	—	—
C2985A	EIO hard disk	—	—
C2986-60006	Hard disk, internal, 3.2 GB	—	—
C3764-60505	Face-up bin	280	25
C3764-60507	Delivery head position motor	282	38
C3764-60555	Cover, top	280	31
C3764-60561	Input paper guide (nosepiece)	282	39
C3893-67903	*HP Color LaserJet 8500, 8500N, 8500 DN Self-Paced Training Kit (PAL)*	—	—
C3913A	64-MB synchronous DIMM	—	—
C3983-40002	Control panel overlay, Traditional Chinese, 8500 models	—	—
C3983-40003	Control panel overlay, Korean, 8500 models	—	—
C3983-40004	Control panel overlay, Simplified Chinese, 8500 models	—	—
C3983-40005	Control panel overlay, Portuguese, 8500 models	—	—
C3983-40007	Control panel overlay, German, 8500 models	—	—
C3983-40008	Control panel overlay, Spanish, 8500 models	—	—
C3983-40009	Control panel overlay, Dutch, 8500 models	—	—
C3983-40010	Control panel overlay, Norwegian, 8500 models	—	—
C3983-40012	Control panel overlay, Finnish, 8500 models	—	—
C3983-40013	Control panel overlay, Danish, 8500 models	—	—
C3983-40014	Control panel overlay, Italian, 8500 models	—	—
C3983-40015	Control panel overlay, Russian, 8500 models	—	—
C3983-67902	*HP Color LaserJet 8500, 8500N, 8500 DN Self-Paced Training Kit (NTSC)*	—	—
C3983-67905	Formatter assembly	—	—

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
C3983-90919	*HP Color LaserJet 8500, 8500 N, 8500 DN Quick Reference Guide* (English)	—	—
C3989-60115	*HP Color LaserJet 8500, 8500N, 8500 DN Service and Support CD-ROM*	—	—
C3989-90937	*HP Color LaserJet 8500, 8500 N, 8500 DN User's Guide* (English)	—	—
C4149A	Black toner cartridge	—	—
C4150A	Cyan toner cartridge	—	—
C4151A	Magenta toner cartridge	—	—
C4152A	Yellow toner cartridge	—	—
C4153A	Drum kit Imaging drum Two air filters Hand wipe	—	—
C4154A	Transfer kit Transfer drum Transfer belt Cleaning roller Charcoal filter Hand wipe	—	—
C4155A	110-volt fuser kit Fuser Six paper rollers Hand wipe	—	—
C4156A	220-volt fuser kit Fuser Six paper rollers Hand wipe	—	—
C4179A	HP Color LaserJet soft gloss paper (letter-sized), 200 sheets	—	—
C4179B	HP Color LaserJet soft gloss paper (A4-sized), 200 sheets	—	—
C4779-60502	Stacker door assembly (for stacker)	283	6
C4779-60503	Controller PCA cover (with label) (for stacker)	283	7
C4779-60505	Stacker bin (for stacker)	283	3
C4779-60507	Stacker controller PCA (stacker)	284	18
C4779-60508	Offset module (stacker)	284	19
C4779-60509	Optical sensors kit	284	—

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
C4781-60500	Power box	—	—
C4781-60504	C-link cable (from formatter board to the 2,000-sheet input unit)	—	—
C4782-60501	Duplexer (product number C4782A)	—	—
C4782-69501	Exchange duplexer	—	—
C4785-60502	Face-down bin	280	24
C4785-60503	Blind cover	280	23
C4785-60504	Cover, front	280	26
C4785-60505	Cover, back	282	37
C4785-60506	Head assembly (with metallic tape)	281	33
C4785-60510	Fixed casters	280	30
C4785-60511	Adjustable fixed caster	280	21
C4785-60512	Attachment clip	282	36
C4785-60513	Multi-bin mailbox, repackaging kit	—	—
C4785-60514	Diagnostic LED PCA (with cable)	282	35
C4785-60516	Attachment assembly (rod, bracket, cables)	280	22
C4785-60518	Transport belt motor (with fan)	282	41
C4785-60519	Plastic parts 1A Anti-curl string 1B Spring for anti-curl string 1C Pulley, small bottom 1D Cable holder round gasket 1E Flat cable holder edge 1F Flat cable holder 1G Spacer plastic	281	Kit 1
C4785-60520	Cables 2A Switch, interlock 2B Delivery head motor cable 2C Flipper sensor controller cable 2D Flipper encoder controller 2E Flipper motor controller 2F ESD cable 2G Delivery head assembly, flat cable	282	Kit 2

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
C4785-60521	Hardware 3A Screw, Torx 3B Screw, Torx, T20, M4 x 10 3C Screw, Torx, Tapping T20, M4 x 10 3D Screw, Torx, T20, M4 x 12 3E Screw, Torx, Tapping T10 3F Screw, Caster	281	Kit 3
C4785-60529	Flipper assembly (with cable “request”)	281	32
C4785-60531	Multi-bin mailbox, short C-link cable adapter (extension)	—	—
C4785-60532	Multi-bin mailbox controller (with metal box)	280	29
C4785-60534	Multi-bin mailbox assembly (product number C4785A) **Note:** You must have a 2,000-sheet input tray in order to install a multi-bin mailbox.	280	28
C4785-69519	Exchange multi-bin mailbox assembly **NOTE:** You must have a 2,000-sheet input unit in order to install a multi-bin mailbox.	280	27
C4787-60503	Multi-bin mailbox, shipping lock kit	—	—
C4788-60501	Flipper assembly	284	9
C4788-60502	Accumulator assembly (stapler/stacker)	284	20
C4788-60503	Carriage assembly (stapler/stacker)	284	13
C4788-60505	Front cover	283	1
C4788-60507	Stapler door assembly with label (for stapler/stacker)	283	6
C4788-60508	Controller PCA cover (with label) (for stapler/stacker)	283	7
C4788-60509	Stapler controller PCA (stapler/stacker)	284	18
C4788-60511	Power supply	284	17
C4788-60512	Face-up bin	283	4
C4788-60514	Interlock	284	21
C4788-60515	Stationary caster	284	16
C4788-60516	Adjustable caster	284	15
C4788-60519	Stapler (stapler/stacker)	284	11
C4788-60521	Wings kit (stapler/stacker)	284	—
C4788-60522	Stapler refill housing	284	12

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
C4788-60523	Attachment assembly (rod, bracket, cables)	284	14
C4788-60524	Flipper ribbon cable	284	10
C4788-60527	Paper stacker clip	284	—
C4788-60528	Stapler bin (for stapler/stacker)	283	3
C7096-40001	Control panel overlay, Turkish, 8550 models	—	—
C7096-40002	Control panel overlay, Polish, 8550 models	—	—
C7096-40004	Control panel overlay, English, 8550 models	—	—
C7096-40005	Control panel overlay, Traditional Chinese, 8550 models	—	—
C7096-40006	Control panel overlay, Korean, 8550 models	—	—
C7096-40007	Control panel overlay, Simplified Chinese, 8550 models	—	—
C7096-40009	Control panel overlay, French, 8550 models	—	—
C7096-40010	Control panel overlay, German, 8550 models	—	—
C7096-40011	Control panel overlay, Spanish, 8550 models	—	—
C7096-40012	Control panel overlay, Dutch, 8550 models	—	—
C7096-40014	Control panel overlay, Swedish, 8550 models	—	—
C7096-40015	Control panel overlay, Finnish, 8550 models	—	—
C7096-40016	Control panel overlay, Danish, 8550 models	—	—
C7096-40017	Control panel overlay, Italian, 8550 models	—	—
C7096-40019	Control panel overlay, Czech, 8550 models	—	—
C7842A	8-MB synchronous DIMM **NOTE:** For all DIMM products, you must install DRAM DIMMs in synchronized pairs—for example, two 4-MB DIMMs.	—	—
C7843A	16-MB synchronous DIMM	—	—
C7845A	32-MB synchronous DIMM	—	—
C7846A	64-MB synchronous DIMM	—	—
J3110A	Ethernet 10Base-T	—	—
J3111A	Ethernet combo (10Base-T, BNC, and LocalTalk)	—	—
J3112A	Token Ring	—	—
J3113A	10/100Base-TX	—	—
RA0-0008-000CN	Lever, shutter	250	3B

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
RA0-0026-000CN	Cover, inner 2	253	2
RA0-0027-000CN	Cover, inner 3	253	3
RA0-0065-000CN	Cover, left rear	251	6
RA0-0067-000CN	Cover, right rear	252	7
RA0-0068-000CN	Cover, hinge	250	8
RA0-0069-000CN	Cover, front right	250	9
RA0-0073-000CN	Stop, flip-up media	251	2D
RA0-0074-000CN	Cover, right rear lower corner	256	1
RA0-0078-000CN	Cover, auxiliary	251	20
RA0-0079-000CN	Support, cover	251	51A
RA0-0083-000CN	Cover, waste toner tray	253	10
RA0-0112-000CN	Lever, paper height	272	12
RB1-0153-000CN	Pin	264	40
RB1-4497-000CN	Strap, front door support	250	3D
RB1-5153-000CN	Latch, roller action	250	3E
RB1-6409-000CN	Spring, torsion	267	2
RB1-6417-000CN	Arm, sensor	267	3
RB1-6463-000CN	Rod, power switch	256	5
RB1-6480-000CN	Cover, left lower	250	10
RB1-6484-000CN	Stopper, open/close	251, 252	6A, 16C
RB1-6485-000CN	Lever, left upper door	250	4B
RB1-6485-000CN	Lever, right lower cover	252	16D
RB1-6485-000CN	Lever, right upper door	252	17
RB1-6486-000CN	Spring, compression	252	16E
RB1-6486-000CN	Spring, left upper door lever	250	4C
RB1-6486-000CN	Spring, right lower door lever	252	22
RB1-6488-000CN	Roller, paper	252	16G
RB1-6491-000CN	Tray, face-up	250	11
RB1-6492-000CN	Cover, power switch	250	12
RB1-6557-000CN	Flag, paper sensing	264	48
RB1-6558-020CN	Spring, torsion	264	49

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
RB1-6589-000CN	Torsion spring	264	41
RB1-6692-000CN	Lever, paper sensing	272	11
RB1-6894-000CN	Cassette size plate	278	73
RB1-6909-000CN	Spring, leaf	256	6
RB1-7677-000CN	Metallic retaining tab (plate stop)	279	94
RB1-7832-020CN	Cover, right	278	87
RB1-7835-000CN	Metallic retaining spring (spring leaf)	279	93
RB1-9401-000CN	Duct, rear lower air	254	4
RB1-9403-000CN	Cover, gear	257	7
RB1-9424-000CN	Gear, 11T	256	7
RB1-9526-000CN	Roller, tray 1 pick-up	270	10
RB1-9537-000CN	Cover, density sensor	252	32
RB1-9547-000CN	Cover, tray 1 side gear	252	46
RB1-9580-000CN	Lever, registration roller	257	13
RB1-9586-000CN	Cover, sensor	267	6
RB1-9617-000CN	Brush, cleaning	252	35A
RB1-9675-000CN	Spring, compression	256	4
RB1-9682-000CN	Duct	259	4
RB1-9704-000CN	Lever, holding, right	275	8
RB1-9705-000CN	Lever, holding, left	275	9
RB1-9748-000CN	Lever, release	275	25
RB1-9751-000CN	Holder, flapper	273	12
RB1-9789-000CN	Cover, carousel stop	254	11
RB1-9798-000CN	Spring, torsion	252	26
RB1-9800-000CN	Crossmember	255	40
RB1-9804-000CN	Waste toner tray	253	5
RB1-9805-000CN	Cover, cable	256	9
RB1-9807-000CN	Filter, large air	251	1
RB1-9808-000CN	Filter, small air	251	19
RB1-9828-000CN	Mount, clutch	256	15
RB1-9836-000CN	Filter, charcoal	252	41

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
RB1-9928-000CN	Media jam knob	253	7
RB1-9948-000CN	Cover, cable	258	3
RB1-9955-000CN	Gear, 14T	258	14
RB1-9956-000CN	Gear, 14T	258	15
RB2-0005-000CN	Rail, PCA	258	7D
RB2-0010-000CN	ITD guide	260	40
RB2-0057-000CN	Cover, left upper	273	13
RB2-0207-000CN	Filler panel for tray 2	249	1
RB2-0208-000CN	Filler panel bracket for tray 2	249	2
RB2-2519-000CN	Cover, back	278	71
RF0-0003-000CN	Latch, roller action	253	6
RF0-0012-000CN	Cover, fan	251	39
RF0-0013-000CN	Cover, inner 4	253	4
RF5-1396-000CN	Rail, tray 3	259	32
RF5-1484-000CN	Plate, end	262, 263	26
RF5-1834-000CN	Feed and separation rollers	278	75
RF5-1834-000CN	Roller, feed	264	20
RF5-1835-000CN	Roller, pick-up	264, 278	21, 83
RF5-1995-000CN	Cover, right subassembly	252	31
RF5-2025-000CN	Holder, fan	259	3
RF5-2036-000CN	Plate, duct mount	254	3
RF5-2556-000CN	Locating pin, metal (positioning)	278	78
RF5-2568-000CN	Cover, front (with LED window)	278	76
RF5-2646-000CN	Cover, left	278	77
RF5-2701-000CN	Hinge, stopper (delivery)	273	24
RF5-3850-000CN	Plate paper reference front	278	86
RG0-0017-000CN	Cover, rear fan housing	251	51
RG0-0104-000CN	Cover assembly, inner left	253	1
RG0-0110-000CN	Delivery assembly	272	—
RG0-0111-000CN	Cover assembly, top	251	2
RG0-0112-000CN	Cover assembly, front	250	3

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
RG0-0113-000CN	Cover assembly, left upper	250	4
RG0-0115-000CN	Cover assembly, rear	251	5
RG5-1845-000CN	PCA, cassette-size sensing	277	1
RG5-1851-000CN	Tray rail assembly	257	3
RG5-1859-000CN	Arm, sensor	264	51
RG5-1860-000CN	PCA, paper pick-up	264	103
RG5-1884-000CN	PCA, tray 1	277	6
RG5-2166-000CN	Paper quantity sensor PCA assembly	279	97
RG5-2168-000CN	Paper size sensor PCA assembly	279	98
RG5-2644-000CN	Cover, top (label included)	278	88
RG5-3007-000CN	Registration frame assembly	267	—
RG5-3008-000CN	Transfer mount assembly	259	36
RG5-3009-000CN	Registration roller assembly	268	—
RG5-3010-000CN	Transfer swing assembly	257	10
RG5-3022-000CN	Face-up solenoid assembly	254	140
RG5-3023-000CN	Shield case assembly	258	7
RG5-3026-030CN	Developer/imaging drum bias supply	256	20
RG5-3031-000CN	Connector holder assembly	254	15
RG5-3032-000CN	PCA, photosensor	267	7
RG5-3033-000CN	Developing rotary	260	36
RG5-3034-000CN	Sensor assembly, color toner	256	8
RG5-3036-000CN	PCA, main relay	277	2
RG5-3037-000CN	PCA, controller board, 8500 models	277	3
RG5-3037-0120CN	PCA, controller board, 8550 models	277	3
RG5-3039-000CN	Transfer drum	258	17
RG5-3044-000CN	Transfer drum contact assembly	256	2
RG5-3045-000CN	Lever assembly, pressure	255	7
RG5-3046-000CN	Lever assembly, transfer drum	255	6
RG5-3047-000CN	Transfer belt assembly	274	—
RG5-3053-000CN	Carousel stop assembly	254	6
RG5-3054-000CN	Tray 1 pick-up assembly	270	—

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
RG5-3057-000CN	Density sensor assembly	252	35
RG5-3059-000CN	Feeder assembly	269	—
RG5-3060-000CN	Fuser assembly (120 V)	275	—
RG5-3061-000CN	Fuser assembly (220 V)	275	—
RG5-3065-000CN	Drum/cartridge drive assembly	260	—
RG5-3066-000CN	Main drive assembly	257	18
RG5-3067-000CN	Delivery drive assembly	261	—
RG5-3079-000CN	PCA, photosensor	267	8
RG5-3080-000CN	PCA, photosensor	254	2
RG5-3084-020CN	PCA, carousel motor (M1)	277	4
RG5-3085-000CN	PCA, subrelay	277	5
RG5-3087-000CN	Lever assembly, black cartridge	255	10
RG5-3089-000CN	Cassette crossmember assembly	259	30
RG5-3096-000CN	Cover assembly, right lower	252	16
RG5-3097-000CN	Cable, main	254	16
RG5-3104-000CN	Cable, delivery	257	20
RG5-3108-000CN	Delivery cover assembly	273	—
RG5-3111-000CN	Transfer drum cleaner holder assembly	259	21
RG5-3131-000CN	Sensor slider assembly	259	37
RG5-3132-000CN	Paper pick-up assembly	264	—
RG5-3134-000CN	Tray 1 assembly	271	—
RG5-3144-000CN	Cable, sensor	254	18
RG5-3147-000CN	Cable, delivery connector	257	12
RG5-3843-000CN	Paper pick-up assembly	278	82
RG5-3845-000CN	Tray 4	278	79
RG5-3849-000CN	Plate paper limit middle	278	85
RG5-3851-000CN	Paper deck drive assembly	278	80
RG5-3854-000CN	Vertical transfer unit (VTU)	278	89
RG5-3908-000CN	Paper deck PCA	279	96
RG5-3909-000CN	Power supply cable	279	99
RG5-3919-000CN	Cable, main	279	92

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
RG5-3921-000CN	Cable, DC power	254	19
RG5-3922-000CN	Cable, power signal	254	20
RG5-3923-000CN	Cable, carousel	257	6
RG5-3934-000CN	Sensor assembly, toner waste	258	24
RG5-3936-000CN	Laser/scanner unit	258	18
RG5-3942-000CN	Cable, main motor	257	5
RG5-3943-000CN	High-voltage power supply	256	21
RG5-3961-000CN	PCA, cartridge release lever	254	21
RG5-3962-000CN	Hinge, stopper (tray 1 delivery assembly)	252	54
RG5-3966-000CN	Separation discharge high-voltage converter PCA	256	30
RG5-3973-000CN	Static charge eliminator assembly	259	14
RG5-3975-000CN	Cleaning roller assembly	259	15
RG5-3980-000CN	Preconditioning exposure LED assembly	252	36
RG5-3992-000CN	PCA, fusing delivery sensor	254	8
RG5-4021-000CN	Universal power supply assembly	279	102
RG5-4201-000CN	Plate paper limit back	278	84
RG5-4204-000CN	Front LED PCA with holder and cable	279	91
RG5-4205-000CN	Outriggers	279	95
RH3-0211-000CN	Post charger HV module	256	24
RH3-0228-000CN	Cleaning roller HV module	256	25
RH3-0234-000CN	Separation discharge high-voltage converter	256	39
RH3-2185-000CN	Power supply assembly (110 V)	254	25
RH3-2187-000CN	Power supply assembly (220 V)	254	25
RH7-1323-000CN	Motor, main (M4)	257	21
RH7-1325-000CN	Motor, carousel (M1)	256	26
RH7-1328-000CN	Motor, cartridge (M3)	260	23
RH7-1330-000CN	Fan 1 (FM1)	259	8
RH7-1350-000CN	Motor, pick-up (M5)	264	87
RH7-1373-000CN	Fan 2 (FM2)	259	7
RH7-1393-000CN	Fan 3 (FM3)	252	42

Table 91. Numerical parts list (continued)

Part number	Description	Figure	Ref.
RH7-5168-000CN	Clutch, transfer belt press (CL4)	256	27
RS5-1119-000CN	Bushing	255	8
RS5-1317-000CN	Bushing	255	29, 30
RS5-1319-000CN	Bushing	259	19
RS5-1399-000CN	Bushing, paper deck drive	278	81
RS5-2465-000CN	Spring, tension	256	28
RS5-2561-000CN	Spring, tension	279	101
RS5-2697-000CN	Spring, torsion	259	20
RS5-2698-000CN	Spring, torsion	259	16
RS5-2719-000CN	Spring, compression	251	51B
RS5-8380-000CN	Label, “CAUTION”	253	4A
RS5-8611-000CN	Cassette size labels	278	72
RY7-5044-000CN	Screw kit (2,000-sheet input unit)	278, 279	Kit 1
VD7-1893-151CN	Power supply fuse 250 V, 3.15 A	279	100
WC4-5136-000CN	Switch, black toner cartridge (SW644)	255	22
WC4-5150-000CN	Switch, toner cartridge cover (SW672)	254	30
WG8-0291-000CN	Photo-interrupter, IC, TLP1230	264	52
WG8-5210-000CN	Photo-interrupter, IC, TLP1240	255, 267, 270	23, 4, 40
WG8-5362-000CN	Photo-interrupter, IC, TLP1241	257	24
XA9-0836-000CN	Screw, TP, M3 x 6, quantity=10	—	—
XA9-0849-000CN	Screw, RS, M3 x 6	257	26
XA9-0926-000CN	Screw, TP, M4 x 8, filler panel bracket for tray 2	250	3
XA9-0926-000CN	Screw, TP, M4 x 8, quantity=10	—	—
XA9-0926-000CN	Screw, filler panel bracket, M4 x 8	249	3
XA9-0940-000CN	Screw, w/washer, M4 x 12, quantity=4	258	37
XA9-0951-000CN	Screw, w/washer, M3 x 8, quantity=10	—	—
XB4-7401-007CN	Screw, tapping, pan head, M4 x 10	264	501
XD2-1100-502CN	Ring, E	256	501
XD2-1100-642CN	Ring, E	255	501
XZ9-0442-000CN	Casters	278	74

Alphabetical parts list

Table 92. Alphabetical parts list

Description	Part number	Figure	Ref.
10/100Base-TX	J3113A	—	—
110-volt fuser kit Fuser Six paper rollers Hand wipe	C4155A	—	—
16-MB synchronous DIMM	C7843A	—	—
220-volt fuser kit Fuser Six paper rollers Hand wipe	C4156A	—	—
32-MB synchronous DIMM	C7845A	—	—
64-MB synchronous DIMM	C3913A	—	—
64-MB synchronous DIMM	C7846A	—	—
8-MB synchronous DIMM **NOTE:** For all DIMM products, you must install DRAM DIMMs in synchronized pairs—for example, two 4-MB DIMMs.	C7842A	—	—
Accumulator assembly (stapler/stacker)	C4788-60502	284	20
Adjustable caster	C4788-60516	284	15
Adjustable fixed caster	C4785-60511	280	21
Arm, sensor	RB1-6417-000CN	267	3
Arm, sensor	RG5-1859-000CN	264	51
Attachment assembly (rod, bracket, cables)	C4785-60516	280	22
Attachment assembly (rod, bracket, cables)	C4788-60523	284	14
Attachment clip	C4785-60512	282	36
Back cover	C4788-60504	283	5
Black toner cartridge	C4149A	—	—
Blind cover	C4785-60503	280	23
Brush, cleaning	RB1-9617-000CN	252	35A
Bushing	RS5-1119-000CN	255	8
Bushing	RS5-1317-000CN	255	29, 30

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Bushing	RS5-1319-000CN	259	19
Bushing, paper deck drive	RS5-1399-000CN	278	81
Cable, carousel	RG5-3923-000CN	257	6
Cable, DC power	RG5-3921-000CN	254	19
Cable, delivery	RG5-3104-000CN	257	20
Cable, delivery connector	RG5-3147-000CN	257	12
Cable, main	RG5-3097-000CN	254	16
Cable, main	RG5-3919-000CN	279	92
Cable, main motor	RG5-3942-000CN	257	5
Cable, power signal	RG5-3922-000CN	254	20
Cable, sensor	RG5-3144-000CN	254	18
Cables 2A Switch, interlock 2B Delivery head motor cable 2C Flipper sensor controller cable 2D Flipper encoder controller 2E Flipper motor controller 2F ESD cable 2G Delivery head assembly, flat cable	C4785-60520	282	Kit 2
Carousel stop assembly	RG5-3053-000CN	254	6
Carriage assembly (stapler/stacker)	C4788-60503	284	13
Cassette crossmember assembly	RG5-3089-000CN	259	30
Cassette size labels	RS5-8611-000CN	278	72
Cassette size plate	RB1-6894-000CN	278	73
Casters	XZ9-0442-000CN	278	74
Cleaning roller assembly	RG5-3975-000CN	259	15
Cleaning roller HV module	RH3-0228-000CN	256	25
C-link cable (from formatter board to the 2,000-sheet input unit)	C4781-60504	—	—
Clutch, transfer belt press (CL4)	RH7-5168-000CN	256	27
Connector holder assembly	RG5-3031-000CN	254	15
Control panel overlay, Czech, 8500 models	C3983-40016	—	—
Control panel overlay, Czech, 8550 models	C7096-40019	—	—
Control panel overlay, Danish, 8500 models	C3983-40013	—	—

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Control panel overlay, Danish, 8550 models	C7096-40016	—	—
Control panel overlay, Dutch, 8500 models	C3983-40009	—	—
Control panel overlay, Dutch, 8550 models	C7096-40012	—	—
Control panel overlay, English, 8500 models	C3983-40001	—	—
Control panel overlay, English, 8550 models	C7096-40004	—	—
Control panel overlay, Finnish, 8500 models	C3983-40012	—	—
Control panel overlay, Finnish, 8550 models	C7096-40015	—	—
Control panel overlay, French, 8500 models	C3983-40006	—	—
Control panel overlay, French, 8550 models	C7096-40009	—	—
Control panel overlay, German, 8500 models	C3983-40007	—	—
Control panel overlay, German, 8550 models	C7096-40010	—	—
Control panel overlay, Hungarian, 8550 models	C7096-40003	—	—
Control panel overlay, Italian, 8500 models	C3983-40014	—	—
Control panel overlay, Italian, 8550 models	C7096-40017	—	—
Control panel overlay, Korean, 8500 models	C3983-40003	—	—
Control panel overlay, Korean, 8550 models	C7096-40006	—	—
Control panel overlay, Norwegian, 8500 models	C3983-40010	—	—
Control panel overlay, Norwegian, 8550 models	C7096-40013	—	—
Control panel overlay, Polish, 8550 models	C7096-40002	—	—
Control panel overlay, Portuguese, 8500 models	C3983-40005	—	—
Control panel overlay, Portuguese, 8550 models	C7096-40008	—	—
Control panel overlay, Russian, 8500 models	C3983-40015	—	—
Control panel overlay, Russian, 8550 models	C7096-40018	—	—
Control panel overlay, Simplified Chinese, 8500 models	C3983-40004	—	—
Control panel overlay, Simplified Chinese, 8550 models	C7096-40007	—	—
Control panel overlay, Spanish, 8500 models	C3983-40008	—	—
Control panel overlay, Spanish, 8550 models	C7096-40011	—	—
Control panel overlay, Swedish, 8500 models	C3983-40011	—	—
Control panel overlay, Swedish, 8550 models	C7096-40014	—	—

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Control panel overlay, Traditional Chinese, 8500 models	C3983-40002	—	—
Control panel overlay, Traditional Chinese, 8550 models	C7096-40005	—	—
Control panel overlay, Turkish, 8550 models	C7096-40001	—	—
Controller PCA cover (with label) (for stacker)	C4779-60503	283	7
Controller PCA cover (with label) (for stapler/ stacker)	C4788-60508	283	7
Cover assembly, front	RG0-0112-000CN	250	3
Cover assembly, inner left	RG0-0104-000CN	253	1
Cover assembly, left upper	RG0-0113-000CN	250	4
Cover assembly, rear	RG0-0115-000CN	251	5
Cover assembly, right lower	RG5-3096-000CN	252	16
Cover assembly, top	RG0-0111-000CN	251	2
Cover, auxiliary	RA0-0078-000CN	251	20
Cover, back	C4785-60505	282	37
Cover, back	RB2-2519-000CN	278	71
Cover, cable	RB1-9805-000CN	256	9
Cover, cable	RB1-9948-000CN	258	3
Cover, carousel stop	RB1-9789-000CN	254	11
Cover, density sensor	RB1-9537-000CN	252	32
Cover, fan	RF0-0012-000CN	251	39
Cover, front	C4785-60504	280	26
Cover, front (with LED window)	RF5-2568-000CN	278	76
Cover, front right	RA0-0069-000CN	250	9
Cover, gear	RB1-9403-000CN	257	7
Cover, hinge	RA0-0068-000CN	250	8
Cover, inner 2	RA0-0026-000CN	253	2
Cover, inner 3	RA0-0027-000CN	253	3
Cover, inner 4	RF0-0013-000CN	253	4
Cover, left	RF5-2646-000CN	278	77
Cover, left lower	RB1-6480-000CN	250	10

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Cover, left rear	RA0-0065-000CN	251	6
Cover, left upper	RB2-0057-000CN	273	13
Cover, power switch	RB1-6492-000CN	250	12
Cover, rear fan housing	RG0-0017-000CN	251	51
Cover, right	RB1-7832-020CN	278	87
Cover, right rear	RA0-0067-000CN	252	7
Cover, right rear lower corner	RA0-0074-000CN	256	1
Cover, right subassembly	RF5-1995-000CN	252	31
Cover, sensor	RB1-9586-000CN	267	6
Cover, top	C3764-60555	280	31
Cover, top (label included)	RG5-2644-000CN	278	88
Cover, tray 1 side gear	RB1-9547-000CN	252	46
Cover, waste toner tray	RA0-0083-000CN	253	10
Crossmember	RB1-9800-000CN	255	40
Cyan toner cartridge	C4150A	—	—
Delivery assembly	RG0-0110-000CN	272	—
Delivery cover assembly	RG5-3108-000CN	273	—
Delivery drive assembly	RG5-3067-000CN	261	—
Delivery head position motor	C3764-60507	282	38
Density sensor assembly	RG5-3057-000CN	252	35
Developer/imaging drum bias supply	RG5-3026-030CN	256	20
Developing rotary	RG5-3033-000CN	260	36
Diagnostic LED PCA (with cable)	C4785-60514	282	35
Drum kit Imaging drum Two air filters Hand wipe	C4153A	—	—
Drum/cartridge drive assembly	RG5-3065-000CN	260	—
Duct	RB1-9682-000CN	259	4
Duct, rear lower air	RB1-9401-000CN	254	4
Duplexer (product number C4782A)	C4782-60501	—	—
EIO hard disk	C2985A	—	—

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Ethernet 10Base-T	J3110A	—	—
Ethernet combo (10Base-T, BNC, and LocalTalk)	J3111A	—	—
Exchange duplexer	C4782-69501	—	—
Exchange multi-bin mailbox assembly **NOTE:** You must have a 2,000-sheet input unit in order to install a multi-bin mailbox.	C4785-69519	280	27
Face-down bin	C4785-60502	280	24
Face-up bin	C3764-60505	280	25
Face-up bin	C4788-60512	283	4
Face-up solenoid assembly	RG5-3022-000CN	254	140
Fan 1 (FM1)	RH7-1330-000CN	259	8
Fan 2 (FM2)	RH7-1373-000CN	259	7
Fan 3 (FM3)	RH7-1393-000CN	252	42
Feed and separation rollers	RF5-1834-000CN	278	75
Feeder assembly	RG5-3059-000CN	269	—
Filler panel bracket for tray 2	RB2-0208-000CN	249	2
Filler panel for tray 2	RB2-0207-000CN	249	1
Filter, charcoal	RB1-9836-000CN	252	41
Filter, large air	RB1-9807-000CN	251	1
Filter, small air	RB1-9808-000CN	251	19
Fixed casters	C4785-60510	280	30
Flag, paper sensing	RB1-6557-000CN	264	48
Flipper assembly	C4788-60501	284	9
Flipper assembly (with cable “request”)	C4785-60529	281	32
Flipper ribbon cable	C4788-60524	284	10
Foot cover	C4788-60525	283	2
Formatter assembly	C3983-67905	—	—
Front cover	C4788-60505	283	1
Front LED PCA with holder and cable	RG5-4204-000CN	279	91
Fuser assembly (120 V)	RG5-3060-000CN	275	—
Fuser assembly (220 V)	RG5-3061-000CN	275	—
Gear, 11T	RB1-9424-000CN	256	7

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Gear, 14T	RB1-9955-000CN	258	14
Gear, 14T	RB1-9956-000CN	258	15
Hard disk, internal, 3.2 GB	C2986-60006	—	—
Hardware 3A Screw, Torx 3B Screw, Torx, T20, M4 x 10 3C Screw, Torx, Tapping T20, M4 x 10 3D Screw, Torx, T20, M4 x 12 3E Screw, Torx, Tapping T10 3F Screw, Caster	C4785-60521	281	Kit 3
Head assembly (with metallic tape)	C4785-60506	281	33
High-voltage power supply	RG5-3943-000CN	256	21
Hinge, stopper (delivery)	RF5-2701-000CN	273	24
Hinge, stopper (tray 1 delivery assembly)	RG5-3962-000CN	252	54
Holder, fan	RF5-2025-000CN	259	3
Holder, flapper	RB1-9751-000CN	273	12
HP Color LaserJet 8500, 8500 N, 8500 DN Getting Started Guide (English)	C3989-90901	—	—
HP Color LaserJet 8500, 8500 N, 8500 DN Quick Reference Guide (English)	C3983-90919	—	—
HP Color LaserJet 8500, 8500 N, 8500 DN User's Guide (English)	C3989-90937	—	—
HP Color LaserJet 8500, 8500N, 8500 DN Self-Paced Training Kit (NTSC)	C3983-67902	—	—
HP Color LaserJet 8500, 8500N, 8500 DN Self-Paced Training Kit (PAL)	C3893-67903	—	—
HP Color LaserJet 8500, 8500N, 8500 DN Service and Support CD-ROM	C3989-60115	—	—
HP Color LaserJet soft gloss paper (A4-sized), 200 sheets	C4179B	—	—
HP Color LaserJet soft gloss paper (letter-sized), 200 sheets	C4179A	—	—
HP Color LaserJet transparencies (A4-sized), 50 sheets	C2936A	—	—
HP Color LaserJet transparencies (letter-sized), 50 sheets	C2934A	—	—

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
HP JetDirect Software Installation Guide (English)	5966-5171	—	—
HP LaserJet Printer Family Paper Specification Guide	5021-8956	—	—
HP LocalTalk cable kit	92215N	—	—
HP Peripherals Connectivity Solutions Guide	5091-6456	—	—
IEEE-1284 compliant parallel cable of 3 m (approximately 10 ft) with 25-pin male/micro 36-pin male “C” size connector	C2946A	—	—
Input paper guide (nosepiece)	C3764-60561	282	39
Interlock	C4788-60514	284	21
ITD guide	RB2-0010-000CN	260	40
Kit of rollers—jam access door (multi-bin mailbox)	C4785-60526	280	—
Label, “CAUTION”	RS5-8380-000CN	253	4A
Laser/scanner unit	RG5-3936-000CN	258	18
Latch, roller action	RB1-5153-000CN	250	3E
Latch, roller action	RF0-0003-000CN	253	6
LED PCA	C4788-60510	284	8
Lever assembly, black cartridge	RG5-3087-000CN	255	10
Lever assembly, pressure	RG5-3045-000CN	255	7
Lever assembly, transfer drum	RG5-3046-000CN	255	6
Lever, holding, left	RB1-9705-000CN	275	9
Lever, holding, right	RB1-9704-000CN	275	8
Lever, left upper door	RB1-6485-000CN	250	4B
Lever, paper height	RA0-0112-000CN	272	12
Lever, paper sensing	RB1-6692-000CN	272	11
Lever, registration roller	RB1-9580-000CN	257	13
Lever, release	RB1-9748-000CN	275	25
Lever, right lower cover	RB1-6485-000CN	252	16D
Lever, right upper door	RB1-6485-000CN	252	17
Lever, shutter	RA0-0008-000CN	250	3B
Locating pin, metal (positioning)	RF5-2556-000CN	278	78

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Macintosh DIN-8 printer cable	92215S	—	—
Magenta toner cartridge	C4151A	—	—
Main drive assembly	RG5-3066-000CN	257	18
Media jam knob	RB1-9928-000CN	253	7
Metallic retaining spring (spring leaf)	RB1-7835-000CN	279	93
Metallic retaining tab (plate stop)	RB1-7677-000CN	279	94
Metallic tape and housing assembly	C4785-60507	281	34
Motor, carousel (M1)	RH7-1325-000CN	256	26
Motor, cartridge (M3)	RH7-1328-000CN	260	23
Motor, main (M4)	RH7-1323-000CN	257	21
Motor, pick-up (M5)	RH7-1350-000CN	264	87
Mount, clutch	RB1-9828-000CN	256	15
Multi-bin mailbox assembly (product number C4785A) **Note:** You must have a 2,000-sheet input tray in order to install a multi-bin mailbox.	C4785-60534	280	28
Multi-bin mailbox controller (with metal box)	C4785-60532	280	29
Multi-bin mailbox, repackaging kit	C4785-60513	—	—
Multi-bin mailbox, shipping lock kit	C4787-60503	—	—
Multi-bin mailbox, short C-link cable adapter (extension)	C4785-60531	—	—
Offset module (stacker)	C4779-60508	284	19
Optical sensors kit	C4779-60509	284	—
Outriggers	RG5-4205-000CN	279	95
Paper deck drive assembly	RG5-3851-000CN	278	80
Paper deck PCA	RG5-3908-000CN	279	96
Paper pick-up assembly	RG5-3132-000CN	264	—
Paper pick-up assembly	RG5-3843-000CN	278	82
Paper quantity sensor PCA assembly	RG5-2166-000CN	279	97
Paper size sensor PCA assembly	RG5-2168-000CN	279	98
Paper stacker clip	C4788-60527	284	—
PCA, 10/100Base-T	J3113-61003	—	—

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
PCA, carousel motor (M1)	RG5-3084-020CN	277	4
PCA, cartridge release lever	RG5-3961-000CN	254	21
PCA, cassette-size sensing	RG5-1845-000CN	277	1
PCA, controller board, 8500 models	RG5-3037-000CN	277	3
PCA, controller board, 8550 models	RG5-3037-0120CN	277	3
PCA, fusing delivery sensor	RG5-3992-000CN	254	8
PCA, main relay	RG5-3036-000CN	277	2
PCA, paper pick-up	RG5-1860-000CN	264	103
PCA, photosensor	RG5-3079-000CN	267	8
PCA, photosensor	RG5-3080-000CN	254	2
PCA, photosensor	RG5-3032-000CN	267	7
PCA, subrelay	RG5-3085-000CN	277	5
PCA, tray 1	RG5-1884-000CN	277	6
PCL/PJL Technical Reference Package	5021-0337	—	—
Photo-interrupter, IC, TLP1230	WG8-0291-000CN	264	52
Photo-interrupter, IC, TLP1240	WG8-5210-000CN	255, 267, 270	23, 4, 40
Photo-interrupter, IC, TLP1241	WG8-5362-000CN	257	24
Pin	RB1-0153-000CN	264	40
Plastic parts 1A Anti-curl string 1B Spring for anti-curl string 1C Pulley, small bottom 1D Cable holder round gasket 1E Flat cable holder edge 1F Flat cable holder 1G Spacer plastic	C4785-60519	281	Kit 1
Plate paper limit back	RG5-4201-000CN	278	84
Plate paper limit middle	RG5-3849-000CN	278	85
Plate paper reference front	RF5-3850-000CN	278	86
Plate, duct mount	RF5-2036-000CN	254	3
Plate, end	RF5-1484-000CN	262, 263	26
Post charger HV module	RH3-0211-000CN	256	24
Power box	C4781-60500	—	—

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Power supply	C4785-60501	282	40
Power supply	C4788-60511	284	17
Power supply assembly (110 V)	RH3-2185-000CN	254	25
Power supply assembly (220 V)	RH3-2187-000CN	254	25
Power supply cable	RG5-3909-000CN	279	99
Power supply fuse 250 V, 3.15 A	VD7-1893-151CN	279	100
Preconditioning exposure LED assembly	RG5-3980-000CN	252	36
Rail, PCA	RB2-0005-000CN	258	7D
Rail, tray 3	RF5-1396-000CN	259	32
Registration frame assembly	RG5-3007-000CN	267	—
Registration roller assembly	RG5-3009-000CN	268	—
Ring, E	XD2-1100-502CN	256	501
Ring, E	XD2-1100-642CN	255	501
Rod, power switch	RB1-6463-000CN	256	5
Roller, feed	RF5-1834-000CN	264	20
Roller, paper	RB1-6488-000CN	252	16G
Roller, pick-up	RF5-1835-000CN	264, 278	21, 83
Roller, tray 1 pick-up	RB1-9526-000CN	270	10
Safety switch assembly	C4788-60517	284	22
Screw kit (2,000-sheet input unit)	RY7-5044-000CN	278, 279	Kit 1
Screw, RS, M3 x 6	XA9-0849-000CN	257	26
Screw, tapping, pan head, M4 x 10	XB4-7401-007CN	264	501
Screw, TP, M3 x 6, quantity=10	XA9-0836-000CN	—	—
Screw, TP, M4 x 8, filler panel bracket for tray 2	XA9-0926-000CN	249	3
Screw, TP, M4 x 8, quantity=10	XA9-0926-000CN	—	—
Screw, w/washer, M3 x 8, quantity=10	XA9-0951-000CN	—	—
Screw, w/washer, M4 x 12, quantity=4	XA9-0940-000CN	258	37
Sensor assembly, color toner	RG5-3034-000CN	256	8
Sensor assembly, toner waste	RG5-3934-000CN	258	24
Sensor slider assembly	RG5-3131-000CN	259	37
Separation discharge high-voltage converter	RH3-0234-000CN	256	39

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Separation discharge high-voltage converter PCA	RG5-3966-000CN	256	30
Shield case assembly	RG5-3023-000CN	258	7
Spring, compression	RB1-6486-000CN	252	16E
Spring, compression	RB1-9675-000CN	256	4
Spring, compression	RS5-2719-000CN	251	51B
Spring, leaf	RB1-6909-000CN	256	6
Spring, left upper door lever	RB1-6486-000CN	250	4C
Spring, right lower door lever	RB1-6486-000CN	252	22
Spring, tension	RS5-2465-000CN	256	28
Spring, tension	RS5-2561-000CN	279	101
Spring, torsion	RB1-6409-000CN	267	2
Spring, torsion	RB1-6558-020CN	264	49
Spring, torsion	RB1-9798-000CN	252	26
Spring, torsion	RS5-2697-000CN	259	20
Spring, torsion	RS5-2698-000CN	259	16
Stacker bin (for stacker)	C4779-60505	283	3
Stacker controller PCA (stacker)	C4779-60507	284	18
Stacker door assembly (for stacker)	C4779-60502	283	6
Stapler (stapler/stacker)	C4788-60519	284	11
Stapler bin (for stapler/stacker)	C4788-60528	283	3
Stapler controller PCA (stapler/stacker)	C4788-60509	284	18
Stapler door assembly with label (for stapler/stacker)	C4788-60507	283	6
Stapler refill housing	C4788-60522	284	12
Static charge eliminator assembly	RG5-3973-000CN	259	14
Stationary caster	C4788-60515	284	16
Stop, flip-up media	RA0-0073-000CN	251	2D
Stopper, open/close	RB1-6484-000CN	251, 252	6A, 16C
Strap, front door support	RB1-4497-000CN	250	3D
Support, cover	RA0-0079-000CN	251	51A
Switch, black toner cartridge (SW644)	WC4-5136-000CN	255	22

Table 92. Alphabetical parts list (continued)

Description	Part number	Figure	Ref.
Switch, toner cartridge cover (SW672)	WC4-5150-000CN	254	30
Token Ring	J3112A	—	—
Torsion spring	RB1-6589-000CN	264	41
Transfer belt assembly	RG5-3047-000CN	274	—
Transfer drum	RG5-3039-000CN	258	17
Transfer drum cleaner holder assembly	RG5-3111-000CN	259	21
Transfer drum contact assembly	RG5-3044-000CN	256	2
Transfer kit Transfer drum Transfer belt Cleaning roller Charcoal filter Hand wipe	C4154A	—	—
Transfer mount assembly	RG5-3008-000CN	259	36
Transfer swing assembly	RG5-3010-000CN	257	10
Transport belt motor (with fan)	C4785-60518	282	41
Tray 1 assembly	RG5-3134-000CN	271	—
Tray 1 pick-up assembly	RG5-3054-000CN	270	—
Tray 4	RG5-3845-000CN	278	79
Tray rail assembly	RG5-1851-000CN	257	3
Tray, face-up	RB1-6491-000CN	250	11
Universal power supply assembly	RG5-4021-000CN	279	102
User LED PCA (with cable)	C4785-60515	280	20
Vertical transfer unit (VTU)	RG5-3854-000CN	278	89
Waste toner tray	RB1-9804-000CN	253	5
Wings kit (stapler/stacker)	C4788-60521	284	—
Yellow toner cartridge	C4152A	—	—

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