2 System Error Codes

Introduction

Understand System Error Codes

System error codes are generally used to report internal system errors. The following pages contain a list of system error codes and their respective descriptions and recommended corrective actions. Try only one recommended action at a time, in the order that they appear, and check whether the error code has disappeared.

Reporting a system error to HP support

If you have an error code that you cannot resolve, then report the error to the HP Response Center or the nearest HP Support Office. When reporting the error, have the following information ready:

NOTE: If you fail to provide any of the following information, HP Support cannot help you properly. Make sure you take time to gather all of this information.

- Model and Serial Number of the product, this can be found in the Diagnostics menu, scroll to Unit Information.

- Which firmware revision the unit is using. this can be found in the Diagnostics menu, scroll to Unit Information.

- The complete error number, this information can be found in the Product/Printer Information Area.

- The Service Configuration Print. To print this press [icon] , then [icon] go to **'Internal Prints>Service Information Prints'**.

- The Current configuration sheet. To print this press [icon] , then [icon] go to **'Internal Prints>Service Information Prints'**.

- Which software application the customer is using.

- The internal error code, file, and line fields found on the Internal Error Screens available Press on the bottom right area of the touchscreen (same place where the cancel icon is usually displayed).

> **NOTE:** The file and line fields are important to identify the source of the problem because the same internal Error Code can be reported in different files and line. In the File field, supply only the last part of the value (from last slash "/" to the end of the line). For example: for a file: /ae/..../elektra/hal/motors/ControlledMotor/Elektra/ControlledMotorElektra.cpp you'll only need to provide the "ControlledMotorElektra.cpp" part to HP support.

> **TIP:** When investigating a system error, you are recommended to use the diagnostic package to further understand the problem. To obtain the diagnostic package (which takes a few minutes), see Appendix C: Obtaining the product log and the diagnostics package on page 122.

Product logs

It is possible to view all the activities the printer performs collected in a log file. To further understand a system error code, it is useful to have a log showing what the printer was doing at the time when the system error occurred.

To get product logs, see Appendix C: Obtaining the product log and the diagnostics package on page 122.

What to do if the Touch Control Panel is blank

The LEDs of the formatter (visible through the cover) and the power supply can help you troubleshoot a problem if the Touch Control Panel is blank.

The following image shows the Power Supply LED, looking through the cover.

The following image shows the Formatter LEDs, which should be marked **I**, **II** and **III**.

Follow these steps to troubleshoot the issue.

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the Touch Screen Panel interface cable is not damaged and is correctly connected between the Engine PCA and the Touch Control Panel.

3. Check that the connections between the Formatter and the Engine PCA are not damaged and are correctly connected.

4. Use the following table to interpret the LEDs and find the source of the problem. Remember that you should read these LEDs when you push the **Power** button.

   Some combinations may require the replacement of two or more components. In this case, always replace one component at a time. Test the product to see if the problem has disappeared (check the LEDs again). If the same LED sequence continues, replace the next component indicated in the table.

	Power supply LED	Formatter I LED	Formatter II LED	Formatter III LED	Touch Control Panel status	Part to change
1	Off	Off	Off	Off	Off	Power supply, see Power Supply Unit on page 466
2	On	Off	Off	Off	Off	Engine PCA, see EE Box on page 370.
3	On	On	Off	Off	n/a	Reseat the Formatter, if this does not solve the issue, replace the Formatter, see Formatter on page 381.

	Power supply LED	Formatter I LED	Formatter II LED	Formatter III LED	Touch Control Panel status	Part to change
4	On	*Flashing*	Off	Off	n/a	1. Reseat the Formatter. 2. Hard Disk Drive, see Hard Disk Drive on page 389. 3. Formatter cannot unlock the hard disk due to a password issue. This will happen if you try to install an encrypted hard disk with a unique ATA password in a different printer than the one you installed it first. Remember to replace both formatter and hard disk in case of a Revision B printer.
5	On	On	*Flashing*	Off	n/a	1. Reseat the Formatter. 2. Hard Disk Drive, see Hard Disk Drive on page 389.
6	On	On	On	Off	n/a	1. Formatter, see Formatter on page 381. 2. Engine PCA, see EE Box on page 370.
7	On	On	On	*Flashing*	n/a	Engine PCA, see EE Box on page 370.
8	On	*Flashing*	On	On	Off	Check the cables, if they are ok replace the interconnect PCA, see Interconnect PCA on page 411.
9	On	Off	On	on	Off	1. Check the USB cable of the Touch Control Panel, if the cable is ok, replace the Touch Control Panel, see Touch Control Panel on page 547. 2. Replace the Interconnect PCA, see Interconnect PCA on page 411.
10	On	Off	Off	*Flashing*	Off	1. Check the Power cable of the Touch Control Panel, if the cable is ok, replace the Touch Control Panel, see Touch Control Panel on page 547. 2. Replace the Interconnect PCA, see Interconnect PCA on page 411.
11	On	Off	*Flashing*	*Flashing*	Off	1. Issue with the firmware, upgrade the product to the latest firmware, or reinstall the firmware. 2. Replace the Touch Control Panel, see Touch Control Panel on page 547
12	On	On	On	On	Touch Control Panel light on	All LEDs on for a few seconds is the normal part of the initialization of the product. If however the LEDs stay on, this would indicate a greater problem, communicated via a system error code on the Touch Control Panel.
13	On	On	On	On	Off	Replace the Touch Control Panel on page 547.

If the printer freezes while initializing, the following explanation can help you understand at which point of the initialization process it stopped and what could be the cause of the problem:

- **1%**: This is equivalent to a system error 08:11, perform the troubleshooting procedure for 08:11. If there is a communication failure between the Touch Control Panel and the Engine PCA, the following message will display "Time out initialization". If the communication is lost for more than 24 seconds, the system error 08:04 might display. In this case, perform the troubleshooting procedure for 08:04.

- **2-20%**: Initializing Touch Control Panel. If the printer freezes between these two percentages, replace the Touch Control Panel see Touch Control Panel on page 547

- **20%**: Linux Operating system starts up. From this point on, other parts of the printer besides the Touch Control Panel could be causing the problem.

- **32%**: Communication between the Touch Control Panel and the printer is checked again. If the connection fails it might show system error 08:04 but it might be hidden and just freeze. NVM is also initialized at this point. If the printer freezes at this point, check the HDD, Encoder PCA and Touch Control Panel, and follow the troubleshooting for system error 08:04.

- **34%**: Initializing printer I/O. If the printer freezes at this point, try starting up without any external connections (USB/network). Usage counters are initialized. Replace HDD, see Hard Disk Drive on page 389 and Formatter see Formatter on page 381.

- **94%**: Initializing printer processes: mechanical movements, sensors, scan axis, web server. Start the printer without printheads, supplies and external connections. Parts to be replaced are multiple at this point, please check what the printer is doing just before it freezes to get more information about what could be failing.

Troubleshooting system Error 08:11 using LEDs of the Formatter

Formatter LED 1	Formatter LED 2	Formatter LED 3	Action for technician
On	Off	Off	**1.** Reseat the Formatter.
			2. Replace the Formatter, see Formatter on page 381
			3. Check the connections of USB cable from Engine to Interconnect PCAs.
			4. Replace the Engine PCA, see EE Box on page 370
Flashing	Off	Off	**1.** Reseat the Formatter.
On	Flashing	Off	**2.** Replace the Hard Disk, see Hard Disk Drive on page 389
			3. Check the connections of USB cable from Engine PCA to Interconnect PCA.
			4. Replace the Interconnect PCA, see Interconnect PCA on page 411
On	On	Off	**1.** Reseat the Formatter, see note below.
			2. Check the connections of USB cable from Engine to Interconnect PCAs.
			3. Replace the Formatter, see Formatter on page 381 and Engine PCA, see EE Box on page 370
			4. Replace the Touch Control Panel, see Touch Control Panel on page 547
On	On	Flashing	**1.** Reseat the Formatter, see note below.
			2. Replace the Engine PCA, see EE Box on page 370
			3. Check the connections of USB cable from Engine to Interconnect PCAs.
			4. Replace the Interconnect , see Interconnect PCA on page 411
On	On	On	**1.** Upgrade the firmware.
			2. Replace the Hard Disk Drive, see Hard Disk Drive on page 389
			3. Check the connections of USB cable from Engine to Interconnect PCAs.
			4. Replace the Interconnect PCA, see Interconnect PCA on page 411

NOTE: Reseat the printer's formatter by loosening the formatter screws, disconnect and reconnect the formatter, and tighten the screws again.

NOTE: For Revision B printers the Formatter and Hard Disk are replaced as a single part,

Continuable and Non-Continuable Error Codes

Some of the Error Codes are continuable, which means you can press **OK** on the Touch Screen Panel and continue working with the product. Non-Continuable Error Codes do not allow you to continue working with the product, in this case power the product OFF and ON again and see if the System Error disappears. If the Error Code reappears, then the product requires an on-site visit in order to resolve the problem.

System Error Code Brief Descriptions

Reading a System Error Code

System Error Codes explain which component/system is failing and what action should be taken to resolve the problem.

System Error Codes are displayed directly on the Touch Control Panel (but can also be seen on the Information Page) and have been defined in the format **XX.YZ**. or **XX.n:YZ.m**.

- **XX**: Subsystem or process (2 digits).

- **n**: Subsystem or process index (if more than one used in the product) – optional.

  – e.g. Identify the Ink Supply (color and number).

- **Y**: Who should perform the action (1 digit) – (0 for User or 1 for Service Engineer).

- **Z**: Action to perform (1 digit).

System Error Code Table

The following table explains the **XX** part of the System Error Code or Warning:

Code	Component/System
01.0	Engine PCA/Electronics module
02.1	Carriage PCA
03	Power supply
06	Formatter
08	Formatter/Touch Control Panel
09	Scanner (MFP only)
11	Trailing cable
21	Service station
22	Ink supply station
24	Tube assembly (IDS)
26.n	Ink Cartridge (color = n)
27	Printhead error

Code	Component/System
38	Output Tray
39	Roll switches
41	Paper-axis motor
42	Scan-axis motor
44	Aerosol fan
45	Rewinder
47	Star wheel motor
48	PPS mechanism
51	Top Cover Sensor
52	Drop detector
55	Line sensor
56	Drive roller analog encoder sensor
59	Electrical system
60	Initialization
61	Print queue
63	Input/output through LAN card
64	Input/output through USB port
65	Input/output (not known what port)
68	Loss of engine counters tracking
71	Memory management
72	Calibration
73	Servo
74	Firmware upgrade
74.1	Media Profile Update
75	Preventive Maintenance Kits
76	Disk Full
78	Media settings
79	Firmware
81	Media advance
84	Roll Feed
86	Paper path

Code	Component/System
87	Scan axis
93	Ink Pumping

Corrective Actions Table

The following table explains the YZ part of the System Error Code or Warning:

Code	Recovery Action	Response
00	Replace	Possible for customer to perform action
01	Reseat/Reconnect/Clean/Adjust (manually)	
02	Calibrate/Adjust (using Automatic Process)	
03	Power off and restart the product	
04	Upgrade System Firmware	
05	Upgrade Driver or Computer Software	
06	Add Accessory	
07	Escalate	
08	Send Plot Again	
09	Wrong Part Installed	
10	Replace	HP qualified personnel assistance required
11	Reseat/Reconnect/Clean/Adjust (manually)	
12	Calibrate/Adjust (using Automatic Process)	
13	Power off	
14	Upgrade System Firmware	
15	Upgrade Driver or Computer Software	
16	Add Accessory	
17	Escalate	
18	Send Plot Again	
19	Wrong Part Installed	

System Error Codes—Full Descriptions

This sections describes each of the system error codes and warnings that could be encountered while using the product and provides the repaperl action required to solve the problem detected.

> **NOTE:** Replace one component at a time and check whether the error has gone before replacing another component. Using this procedure you will be able to determine exactly which component failed.

System Error:	**01.0:YZ**
Problem Description:	Communication with Engine PCA failed
Corrective action:	Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Remove the Formatter and reinsert it again. Ensure that it connects properly in the Engine PCA connector.

   - Replace the Engine PCA. See EE Box on page 370.

   - Replace the Formatter. See Formatter on page 381.

   > **NOTE:** For Revision B printers the Formatter and Hard Disk are replaced as a single part,

System Error:	**01.1:YZ**
Problem Description:	Error in the Engine PCA
Corrective action:	Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Replace the Engine PCA. See EE Box on page 370.

3. Replace the Formatter. See Formatter on page 381.

   > **NOTE:** For Revision B printers the Formatter and Hard Disk are replaced as a single part,

System Error:	**01.2:YZ**

Problem Description: Failure communicating with an Ink Supply

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Perform the Ink Delivery System diagnostic test. See Ink Delivery System (IDS) Test on page 153.

   – If the test finds that the ink supply is defective, replace it.

   – If the test does not find any errors, remove all the ink supplies from the ISS and reboot the product.

3. Install the ink cartridges with the product booted in normal mode. Use the replacement option available from the Touch Control Panel and install the cartridges one by one. If an error appears after installing a supply, the last supply you installed is defective. Replace it.

4. Check that the cables between the Left Ink Supply Station and the Engine PCA are not damaged and are correctly connected. In case of any damage replace the cables; see Connecting the Data Harness and ISS Harness Cable on page 302

5. Replace the Left Ink Supply Station. See Left Ink Supply Station on page 395.

6. Replace the Engine PCA. See EE Box on page 370.

System Error: 02.1:YZ

Problem Description: Problem with the Carriage PCA

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the Trailing Cable is not damaged. Check that the Trailing Cable is correctly connected between the Engine PCA and Carriage PCA.

3. Replace the Carriage PCA. See Carriage PCA on page 334.

4. Replace the Trailing Cable and Carriage PCA Covers.

5. Replace the Engine PCA. See EE Box on page 370.

System Error: 03:YZ

Problem Description: Problem with Power Supply Unit

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Replace the Power Supply Unit (PSU). See Power Supply Unit on page 466

System Error: 03.0:10

Problem Description: Battery of Real Time Clock ran down

Corrective action: Replace the battery. See Real-time Clock Battery on page 468.

System Error: 06:YZ

Problem Description: Failure reading/writing NVM in Hard disk

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Replace the Hard Disk. See Hard Disk Drive on page 389.

    NOTE: For Revision B printers the Formatter and Hard Disk are replaced as a single part,

System Error: 07:10

Problem Description: Interconnect Board or Power cable has failed

Corrective action: Try the following:

1. Check the condition and connections of the Power Cable, replace if necessary.

2. Replace the Interconnect Board, , see Interconnect PCA on page 411.

System Error: 07.01:11

Problem Description: DelSol3 ASIC not found or not responding

Corrective action: Try the following:

▲ Check the condition and connections of the Interconnect data and power cable, replace if necessary, , see Interconnect PCA on page 411.

System Error: 07.02:11

Problem Description: USB Cable not connected

Corrective action: Try the following:

▲ Check the condition and connections of the USB cable, replace if necessary.

System Error: 07.03:10

Problem Description: USB Hub not found

Corrective action: Try the following:

1. Make sure Interconnect board connector labeled 'INPUT HUB' is properly connected.

2. Make sure Wukong board connector labeled JUSB2 is properly connected to the cable coming from Interconnect board.

3. If failure continues, troubleshoot the error by changing the USB cable from Engine PCA to Interconnect, if the error follows to the changed part the USB cable is faulty, if it does not, the part is faulty.

4. Replace the Interconnect PCA, see Interconnect PCA on page 411.

5. Replace the Formatter Board see Formatter on page 381

    NOTE: For Revision B printers the Formatter and Hard Disk are replaced as a single part,

6. Replace the Engine PCA see EE Box on page 370

System Error: 07.03:11

Problem Description: USB Scanner connected to incorrect port

Corrective action: Ensure that the USB cable from the Scanner to the Interconnect board is connected at the connection labeled 'SCANNER' and not 'HOST CON'

System Error: 08:04

Problem Description: Touch Control Panel communication to the product functions at the initialization, but during normal working the communication is lost.

Corrective action: Try the following:

1. Reseat printer's formatter (do this by loosening the formatter screws, disconnect and reconnect the formatter, and tighten the screws again).

2. Replace the Formatter Board see Formatter on page 381

    NOTE: For Revision B printers the Formatter and Hard Disk are replaced as a single part,

3. Perform an Emergency FW Upgrade using a USB flash drive, see Appendix B: Emergency firmware upgrade with USB flash drive on page 121.

4. Check connections of USB cable from Engine PCA to Interconnect PCAs.

5. Replace the HDD, see Hard Disk Drive on page 389

    NOTE: For Revision B printers the Formatter and Hard Disk are replaced as a single part,

6. Replace the Interconnect PCA, see Interconnect PCA on page 411.

7. Replace the Touch Control Panel, see Touch Control Panel on page 547

8. Check the event log at the EWS support pages to see if there is another SE (for instance 07:10) and troubleshoot the problem more accurately.Appendix C: Obtaining the product log and the diagnostics package on page 122

System Error: 08:08

Problem Description: A feature on the Touch Control Panel hangs or will not function (copy,scan etc)

Corrective action: Try the following:

1. Turn off the product and turn on again, and check to see if the error remains.

2. Upgrade the firmware For more information, see Appendix B: Emergency firmware upgrade with USB flash drive on page 121

3. Escalate the issue.

System Error: 08:11

Problem Description: No communication between the product and the Touch Control Panel

Corrective action: Try the following:

1. Ask the customer to power off the printer, wait one minute and power it on.

2. Reseat printer's formatter (do this by loosening the formatter screws, disconnect and reconnect the formatter, and tighten the screws again).

3. Upgrade the firmware, see Appendix B: Emergency firmware upgrade with USB flash drive on page 121

4. Refer to the table used to troubleshooting system error 08:11 using the LEDS, see Troubleshooting system Error 08:11 using LEDs of the Formatter on page 76.

5. Replace the Formatter Board see Formatter on page 381

   NOTE: For Revision B printers the Formatter and Hard Disk are replaced as a single part,

6. Check the condition of the USB cable, check it is not damaged or incorrectly connected. Reconnect USB cable (from Engine PCA to the Interconnect PCA or from Interconnect PCA to the Touch Control Panel. Replace cables if needed or unsure.

7. Replace the Interconnect PCA see Interconnect PCA on page 411.

8. Replace the Touch Control Panel see Touch Control Panel on page 547.

9. Replace the Engine PCA see EE Box on page 370.

10. Check the event log at the EWS support pages to see if there is another SE (for instance 07:10) and troubleshoot the problem more accurately.

11. Get the extended diagnostics package and escalate the case for more help.

System Error: 08:01:11

Problem Description: Touch Control Panel USB Cable fails

Corrective action: Try the following:

1. Check the condition and connections of the Touch Control Panel USB cable, replace if necessary.

2. If the error continues, replace the Touch Control Panel Touch Control Panel on page 547

System Error: 09:01

Problem Description: Media jam in Scanner

Corrective action: Try the following:

1. Turn off the product using the Power key at the front, then also turn off the power switch at the rear and disconnect the power cable.

2. There is a small lever at the rear left of the scanner. Slide the lever to the right and open the scanner cover.

3. Solve the media jam.

4. Check and clean the pressure rollers.

5. Close the scanner cover and gently push it down to lock it into place.

6. Reconnect the product's power cable; turn on the power switch at the rear, and turn on the product using the Power key. If no paper is seen:

   a. Open the scanner cover. Underneath you should see red flashing lights, then green, then blue.

   b. In the center of the scanner cover, between the flashing lights, you will find 4 small sensors labeled as R, G, B and L. Put your fingers over the R, G and B sensors simultaneously and the scanner motor should advance.

   c. If there is no response from the scanner motor, replace the Engine PCA, see EE Box on page 370 or Stepper motor see Scanner Motor Assembly (MFP only) on page 544.

System Error: **09:02**

Problem Description: Scanner not calibrated

Corrective action: Calibrate the Scanner Calibrate the Scanner on page 234

System Error: **09:03**

Problem Description: File I/O Error

Corrective action:

1. Reboot Product.

2. Upgrade the firmware with the latest firmware, for more information, see Appendix B: Emergency firmware upgrade with USB flash drive on page 121

3. Go to **Jobs** > **Options** > **Delete all queue scan jobs**

4. Make sure the hard disk that is installed in the printer is the correct one for the product you are repairing.

5. Check and clean scanner elements.

6. Calibrate the Scanner Calibrate the Scanner on page 234

7. In some corner cases, the issue could be related to media movement. Replace Media Sensors Scanner Exit Media Sensors (MFP only) on page 539.

System Error:	**09:04**
Problem Description:	Contex Library failed to load
Corrective action:	1. Reboot the Product
	2. Upgrade the firmware For more information, see <u>Appendix B: Emergency firmware upgrade with USB flash drive on page 121</u>

System Error:	**09.01:10**
Problem Description:	Scanner Motor is failing
Corrective action:	Try the following:

1. Reboot the printer.

2. If system error persists, upgrade with the last firmware version. Appendix B: Emergency firmware upgrade with USB flash drive, see <u>Appendix B: Emergency firmware upgrade with USB flash drive on page 121</u>.

3. Open the scanner cover. Underneath you will see red flashing lights, then green, then blue.

4. In the center of the scanner cover, between the flashing lights, you will find 4 small sensors labeled as R, G, B and L. Put your fingers over the R, G and B sensors simultaneously and the scanner motor should advance.

5. If there is no response from the scanner motor, replace the Engine PCA, see <u>EE Box on page 370</u> or Stepper motor see <u>Scanner Motor Assembly (MFP only) on page 544</u>.

6. Replace the Scanner Controller Board, see <u>Scanner Controller Board (MFP only) on page 542</u>.

7. Check the Scanner Controller board cable connections and replace the cables if required.

8. Replace Media Sensors, see <u>Scanner Exit Media Sensors (MFP only) on page 539</u>

System Error:	**09.02:10**
Problem Description:	CIS A Element is failing
Corrective action:	1. Replace CIS A Element <u>CIS Element (MFP only) on page 538</u>

2. Clean the scanner of dust and dirt and perform the Scanner Calibration <u>Calibrate the Scanner on page 234</u>

3. If the system error persists, upgrade with last firmware version. For more Information about see <u>Appendix B: Emergency firmware upgrade with USB flash drive on page 121</u>

4. Replace Scanner Controller Board (SCU), see <u>Scanner Controller Board (MFP only) on page 542</u>

System Error:	**09.03:10**

Problem Description:	CIS B Element is failing
Corrective action:	1. Replace CIS B Element <u>CIS Element (MFP only) on page 538</u>
	2. Clean the scanner of dust and dirt and perform the Scanner Calibration <u>Calibrate the Scanner on page 234</u>
	3. If the system error persists, upgrade with last firmware version. For more Information about see <u>Appendix B: Emergency firmware upgrade with USB flash drive on page 121</u>
	4. Replace Scanner Controller Board (SCU), see <u>Scanner Controller Board (MFP only) on page 542</u>

System Error:	09.04:10
Problem Description:	CIS C Element is failing
Corrective action:	1. Replace CIS C Element <u>CIS Element (MFP only) on page 538</u>
	2. Clean the scanner of dust and dirt and perform the Scanner Calibration <u>Calibrate the Scanner on page 234</u>
	3. If the system error persists, upgrade with last firmware version. For more Information about see <u>Appendix B: Emergency firmware upgrade with USB flash drive on page 121</u>
	4. Replace Scanner Controller Board (SCU), see <u>Scanner Controller Board (MFP only) on page 542</u>

System Error:	09.05:10
Problem Description:	CIS D Element is failing
Corrective action:	1. Replace CIS D Element <u>CIS Element (MFP only) on page 538</u>
	2. Clean the scanner of dust and dirt and perform the Scanner Calibration <u>Calibrate the Scanner on page 234</u>
	3. If the system error persists, upgrade with last firmware version. For more Information about see <u>Appendix B: Emergency firmware upgrade with USB flash drive on page 121</u>
	4. Replace Scanner Controller Board (SCU), see <u>Scanner Controller Board (MFP only) on page 542</u>

System Error:	09.06:10
Problem Description:	CIS E Element is failing
Corrective action:	1. Replace CIS E Element <u>CIS Element (MFP only) on page 538</u>
	2. Clean the scanner of dust and dirt and perform the Scanner Calibration <u>Calibrate the Scanner on page 234</u>
	3. If the system error persists, upgrade with last firmware version. For more Information about see <u>Appendix B: Emergency firmware upgrade with USB flash drive on page 121</u>
	4. Replace Scanner Controller Board (SCU), see <u>Scanner Controller Board (MFP only) on page 542</u>

System Error: **09.08:11**

Problem Description: Power cable of the Scanner is failing

Corrective action: Check the condition and connections of the Scanner Power cable, if necessary replace the cable.

System Error: **09.09:11**

Problem Description: USB cable of the Scanner is failing

Corrective action: Check the condition and connections of the Scanner USB cable, if necessary replace the cable.

System Error: **09.10:04**

Problem Description: Scanner is in SAFE MODE

Corrective action: Restart the product, if the problem persists replace the SCU. See Scanner Controller Board (MFP only) on page 542.

System Error: **09.10:10**

Problem Description: Scanner Controller Board (SCU) is failing

Corrective action:
1. Turn off the product (20 sec.) using the Power key at the front, then also turn off the power switch at the rear and disconnect the power cable.

2. Perform the Scanner Calibration Calibrate the Scanner on page 234

3. If the system error persists, upgrade with last firmware version. For more Information about see Appendix B: Emergency firmware upgrade with USB flash drive on page 121

4. Perform File System Check; see File System Check on page 170

5. Perform the Scanner Validation; see Scanner Validation on page 200

6. Replace the Scanner SCU, see Scanner Controller Board (MFP only) on page 542.

7. Check the Scanner USB cable connection and the Power/Reset/Awake cable from the Scanner Controller Board to the Interconnect PCA and replaced if broken

8. Replace Interconnect PCA; see Interconnect PCA on page 411

System Error: **11:YZ**

Problem Description: Trailing Cable does not seem to be detected

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the Trailing Cable is not damaged; replace it if necessary. Check that the Trailing Cable is correctly connected between the Engine PCA and Carriage PCA.

3. Replace the Carriage PCA. See Carriage PCA on page 334.

4. Replace the Engine PCA. See EE Box on page 370.

System Error: **21:YZ**

Problem Description: Failure moving Service Station

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Check the Primer Tubes. Reconnect the power cord and power on the product.

2. Make sure that the Service Station path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Service Station.

3. If the carriage has stopped over the service station, on the right side of the product, check that the cutter is not activated. The cutter may be blocking the carriage over the service station, preventing the service station from performing the movement correctly. The cutter is on the left side of the carriage.

4. Perform the Service Station diagnostic test to troubleshoot the problem further. See Service Station Test on page 160.

5. Replace the Service Station. See Service Station on page 507.

System Error: **21.1:YZ**

Problem Description: Failure moving the Primer Motor of the Service Station

Corrective action: Try the following:

1. Remove the Right Cover and make sure the cables from the Engine PCA to the Service Station are connected and are not damaged. In case of any damage replace the affected cable; see Engine Cables Kit on page 293

2. Perform the Primer Motor diagnostic test (listed under the service station diagnostic test) to troubleshoot the problem further. See Primer motor on page 163.

3. Replace the Service Station. See Service Station on page 507.
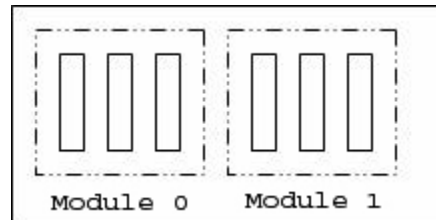

System Error: **21.2:YZ**

Problem Description: Failure testing the length of the Service Station path

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Check the Primer Tubes. Reconnect the power cord and power on the product.

2. Make sure that the Service Station path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Service Station.

3. If the carriage has stopped over the service station, on the right side of the product, check that the cutter is not activated. It may happen that the cutter is blocking the carriage over the service station, preventing the service station from performing the movement correctly. The cutter is on the left side of the carriage.

4. Perform the Service Station diagnostic test to troubleshoot the problem further. See Service Station Test on page 160.

5. Replace the Service Station. See Service Station on page 507.

System Error: **22.0:YZ**

Problem Description: Left Ink Supply Station error, module 0.
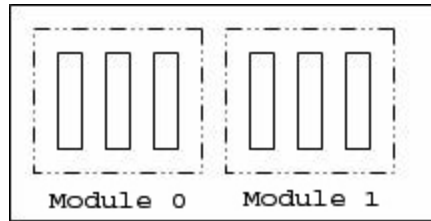

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the cables between the Ink Supply Station and the Engine PCA are not damaged and are properly connected. In case of any damage replace the cable.

3. Perform the Ink Delivery System diagnostic test to troubleshoot the problem further. See Ink Delivery System (IDS) Test on page 153.

4. Replace the Left Ink Supply Station. See Left Ink Supply Station on page 395.

5. Replace the Engine PCA. See EE Box on page 370.

System Error: **22.1:YZ**

Problem Description: Left Ink Supply Station error, module 1

Module 0   Module 1

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the cables between the Ink Supply Station and the Engine PCA are not damaged and are properly connected. In case of any damage replace the cable.

   NOTE: Check the Data Harness and ISS Harness Cable are connected in the right position onto the Engine PCA. These two connectors can be swapped by mistake causing a SE 22.1:10. Check the instructions in Connecting the Data Harness and ISS Harness Cable on page 302

3. Perform the Ink Delivery System diagnostic test to troubleshoot the problem further. See Ink Delivery System (IDS) Test on page 153.

4. Replace the Left Ink Supply Station. See Left Ink Supply Station on page 395.

5. Replace the Engine PCA. See Starwheel Assembly on page 517.

System Error: **24:YZ**

Problem Description: Ink Setup failure

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Insert the new purgers, reconnect the power cord and power on the product.

2. Perform the Ink Delivery System diagnostic test in order to check that the bongos (pushers) go up and down to pressurize ink in the tubes and the Out of Ink sensors work properly. See Ink Delivery System (IDS) Test on page 153.

3. Try purging the Ink Supply Tubes again once the product has been restarted.

4. If the diagnostic test does not find any problem, install new cartridges in the product and try purging the Ink Supply Tubes again. It could be that one of the cartridges is defective.

5. If the problem persists, replace the Ink Supply Tubes. You must bring purgers and ink cartridges. See Ink Supply Tubes & Trailing Cable on page 400.

Warning: **26:01**

Problem Description: Ink supply error found during IDS diagnostic test. In the Touch Control Panel message you will see letters representing the names of the colors of the faulty supplies.

Corrective action: Try the following:

1. Reseat the faulty ink supply and repeat the Ink Delivery System diagnostic test.

2. If the problem persists, replace the faulty ink supply and repeat the Ink Delivery System diagnostic test.

3. If the problem persists, replace the Left Ink Supply Station. See Left Ink Supply Station on page 395.

Warning: 39.1:01

Problem Description: Roll 1 switch failed (standby or resume). Roll 1 has been unloaded.

Corrective action: There is no corrective action. This system warning code only notifies the user that the roll has been unloaded because an unexpected error occurred with Roll 1 in standby or resume operation.

Warning: 39.2:01

Problem Description: Roll 2 switch failed (standby or resume). Roll 2 has been unloaded.

Corrective action: There is no corrective action. This system warning code only notifies the user that the roll has been unloaded because an unexpected error occurred with Roll 2 in standby or resume operation.

System Error: 41:YZ

Problem Description: Electrical fault or current limit in Media-Axis Motor

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check for any visible obstacles restricting the movement of the Media Advance Roller. If there is a wrinkled mass of paper inside the paper path, lift the Pinch wheels (using Media Lever) and clear the obstruction.

3. Perform the Paper Drive diagnostic test to troubleshoot the problem furthe. See Paper Drive Test on page 141.

4. Perform the Rewinder diagnostic test to troubleshoot the problem further. See Rewinder Test on page 151.

5. Check that the Media Advance Drive cable is not damaged and is correctly connected to the Engine PCA.

6. Replace the Media Advance Drive. See Media Advance Drive on page 430.

7. Replace the Engine PCA. See EE Box on page 370.

System Error: **42:YZ**

Problem Description: Electrical problem (fault, current limit, overheating) in Scan-Axis Motor

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check for any visible obstacles restricting the movement of the Carriage Assembly. Remove any obstacle to let the carriage move freely along the whole scan axis. If there is a wrinkled mass of paper inside the paper path, raise the pinch wheels (using the Media Lever) and clear the obstruction.

3. Check that the Scan-Axis Motor cable is not damaged and is correctly connected to the Engine PCA.

4. Replace the Scan-Axis Motor. See Scan-axis Motor on page 503.

5. Replace the Engine PCA. See EE Box on page 370.

System Error: **44:YZ**

Problem Description: Aerosol fan fault

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the Aerosol Fan cable is not damaged and is correctly connected to the Engine PCA w/PSU SV.

3. Replace the Aerosol Fan Assembly. See Aerosol Fan Assembly on page 368

4. If the System Error continues, replace the Engine PCA. See EE Box on page 370.

System Error: **45.1:YZ**

Problem Description: An error with the Rewinder 1 System (Upper Rewinder) has been detected.

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Remove the paper from Roll 1. Reconnect the power cord and power on the product.

2. Check that the Rewinder 1 cable is not damaged and is correctly connected to the Engine PCA.

3. Check that the Upper Right Roll Support is correctly attached to and aligned with the Right Cover.

4. Perform the Rewinder diagnostic test to troubleshoot the problem further. See Rewinder Test on page 151.

5. Replace the Upper Right Roll Support. See Roll Support, Upper Right on page 501.

System Error:	**45.2:YZ**
Problem Description:	An error with the Rewinder 2 System (Lower Rewinder) has been detected .
Corrective action:	Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Remove the paper from Roll 2. Reconnect the power cord and power on the product.

2. Check that the Rewinder 2 cable is not damaged and is correctly connected to the Engine PCA.

3. Check that the Lower Right Roll Support is correctly attached to and aligned with the Right Cover.

4. Perform the Rewinder diagnostic test to troubleshoot the problem further. See Rewinder Test on page 151.

5. Replace the Lower Right Roll Support. See Roll Support, Lower Right on page 495.

System Error:	**47:YZ**
Problem Description:	Starwheels motor error
Corrective action:	Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check for any visible obstacles restricting the movement of the Starwheel Assembly, then clear the obstruction.

3. Check that the Starwheel Assembly cable is not damaged and is correctly connected to the Engine PCA.

4. Perform the Scan Axis Starwheel diagnostic test to troubleshoot the problem further.

5. Replace the Starwheel Motor. See Starwheel Motor on page 525.

6. Replace the Engine PCA. See EE Box on page 370.

System Error:	**48:YZ**
Problem Description:	PPS system failure
Corrective action:	Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the Pen to Paper Space (PPS) Solenoid cable is not damaged and is correctly connected to the Engine PCA.

3. Perform the Scan Axis PRS diagnostic test to troubleshoot the problem further.

4. Replace the Pen to Paper Space (PPS) Solenoid. See Pen to Paper Space (PPS) Solenoid on page 449.

5. Replace the Engine PCA. See EE Box on page 370.

System Error: **51:YZ**

Problem Description: Scanner Position Sensor failure

Corrective action: Try the following:

   1. Check that the Scanner Position Sensor cable is not damaged and is correctly connected to the Engine PCA.

   2. Perform the Sensors Test to troubleshoot the problem further. See Sensors Test on page 149.

   3. Replace the Scanner Position Sensor. See Scanner Position Sensor (MFP only) on page 530.

System Error: **52:10**

Problem Description: The product has detected a failure in the Drop Detector.

Corrective action: Try the following:

   1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

   2. Check that the Drop Detector cable is not damaged and is correctly connected to the Engine PCA.

   3. Replace the Drop Detector. See Drop Detector on page 366.

   4. Replace the Engine PCA. See EE Box on page 370.

System Error: **55:YZ**

Problem Description: Problem with the Line Sensor. The product has detected a failure to access the Line Sensor EEPROM.

Corrective action: Try the following:

   1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

   2. Perform the Carriage Test to troubleshoot the problem further. See Carriage Assembly Test on page 145.

   3. Check the Line Sensor connections to the Carriage PCA.

   4. Replace the Line Sensor. See Line Sensor on page 424.

   5. Replace the Carriage PCA. See Carriage PCA on page 334.

System Error: **56:YZ**

Problem Description:	Drive roller analog encoder homing (also known as "zero search") failed.
Corrective action:	Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Perform the Media Path Test to troubleshoot the problem further. See Paper Drive Test on page 141.

3. Replace the Encoder Disk and Encoder Sensor. See Encoder Disk and Encoder Sensor on page 375.

4. Replace the Engine PCA. See EE Box on page 370.

System Error:	59.1:09
Problem Description:	Two electrical parts have been replaced at the same time.
Corrective action:	Replace one part at a time, and restart the product before replacing another.

System Error:	59.2:00
Problem Description:	An unsupported or reused part has been installed.
Corrective action:	Install only new parts recommended by HP for this product.

System Error:	60.1:YZ, 60.2:YZ
Problem Description:	Initialization error
Corrective action:	Try the following:

1. Switch the power off from the back of the product, wait two minutes, then switch it back on again.

2. Check the power cord; try connecting it to another power socket.

3. Check that the product is properly connected in all other respects.

4. Switch the power off from the back of the product; remove the Formatter; reinsert the Formatter; switch the power on again.

5. If the error persists, get the product log (see Appendix C: Obtaining the product log and the diagnostics package on page 122) and contact HP with the file.

System Error:	61:YZ

Problem Description: The file format is incorrect or not supported for the current product configuration and the product cannot process the job.

Corrective action: Try the following:

1. Check if the product supports the file format (formats such as PS, PDF, TIFF and JPEG are supported by PostScript products only).

2. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

3. Check the graphic language setting of the product (refer to the *User's Guide*).

4. Resend the file to the product.

5. Check that the product has the latest firmware version. If not, update the firmware to the latest version.

System Error: 61:04.1

Problem Description: The PostScript fonts seem to be missing.

Corrective action: Perform a firmware upgrade to re-install the fonts.

System Error: 61:08.1

Problem Description: The file cannot be printed because it is password-protected.

Corrective action: Resend the file without password protection.

System Error: 63:01

Problem Description: Cannot retrieve IP addess

Corrective action: Try the following:

1. Connect to another network.

2. Modify the IPv4 configuration.

System Error: 63:YZ

Problem Description: Input/Output problem through the network interface of the Formatter

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord.
    Reconnect the power cord and power on the product.

2. Check that the Network cable is correctly connected to the Formatter.

3. Check that the product has the latest firmware version. If not, update the firmware to the
    latest version.

4. Replace the Formatter. See Formatter on page 381.

    NOTE: For Revision B printers the Formatter and Hard Disk are replaced as a single
    part,

System Error: **64:YZ**

Problem Description: Input/Output problem through the USB Port

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord.
    Reconnect the power cord and power on the product.

2. Check that the USB cable is correctly connected to the product.

3. Check that the product has the latest firmware version. If not, update the firmware to the
    latest version.

4. Replace the Formatter. See Formatter on page 381.

    NOTE: For Revision B printers the Formatter and Hard Disk are replaced as a single
    part,

System Error: **64.1:YZ**

Problem Description: The External Hard Disk accessory does not seem to be connected

Corrective action: Try the following:

1. Switch the power off from the back of the product. Connect the External Hard Disk
    accessory, check that the USB cable is properly connected and power on the product. If
    the External Hard Disk accessory is not available (has been lost or broken), proceed with
    step 2.

2. If the problem persists, power off from the back of the product. Power on the product
    again while pressing the keys **Menu**, **OK** and **Cancel** keys simultaneously until the
    Touch Control Panel asks "product configured to use External Hard Disk. Do you want to
    revert the product to Internal Hard Disk?". Confirm by pressing **OK** (twice). Remove the
    External Hard Disk accessory (if connected). The product will restart.

3. After the product reaches the Ready state, try connecting any other USB device (known to
    work properly) to the product port where the External Hard Disk accessory should be
    connected.

    ● If a message appears on the Touch Control Panel reacting to the USB device just
      connected (such as "Please remove USB device" or "Press on this menu option…"),

press **Cancel** and remove the USB Device. This means that the External Hard Disk accessory is faulty and should be replaced. See .

● If nothing appears on the Touch Control Panel reacting to the USB device just connected, the Formatter is faulty and should be replaced. See .

NOTE: For Revision B printers the Formatter and Hard Disk are replaced as a single part,

System Error:	**65:YZ**
Problem Description:	Memory Driver Internal I/O error, I/O Socket Manager Internal I/O error
Corrective action:	Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the unknown port cable is correctly connected to the product.

3. Check that the product has the latest firmware version. If not, update the firmware to the latest version.

4. Replace the Formatter. See .

5. Replace the Engine PCA. See .

Warning:	**68:YZ**
Problem Description:	Loss of engine counters tracking
Corrective action:	The product will continue to function correctly, but the life counters will not continue counting until you restart the product.

System Error:	**71:03**
Problem Description:	Out of memory
Corrective action:	Restart the product.

Warning:	**71:04**

Problem Description: Out of memory.

The total memory available in the product depends on its configuration. It is reported as HP-GL/2 memory or PS/PDF memory. If the amount of memory that the product needs to process the file is more than the amount available, the product will display this system warning. The amount of memory required for processing the file is known as the 'display list memory':

● The display list memory should not be confused with the file size of the print job. The size of the display list memory depends on several variables such as the resolution, file size and file content.

● The display list memory is not visible to the user, but can be consulted by engineers to troubleshoot out-of-memory issues. See <u>Appendix D: How to check the display list memory for an HP-GL/2 job on page 126</u>

.

● There have been a few cases in which a print job with a relatively small file size has triggered an out-of-memory message. Such print jobs typically have a large number of objects in them or have complex objects such as raster images with gradients or objects with multiple layers.

**Corrective action:**   Try the following:

1. Upgrade the firmware to the latest version available.

2. Decrease the print resolution to 300 dpi.

   NOTE: If the customer does not accept the print quality after reducing the resolution or using Econofast print mode, proceed to the workaround in step 3.

   ● The resolution required by the product to process the file is set by the print mode selected (Best, Normal, Fast). There is a setting available that enables you to decrease the resolution for each print mode to 300 dpi. If this setting is used, the rendering resolution will be reduced, but the output (printing) resolution will remain the default of the selected print mode. There could be an impact on Image Quality because of the reduction in the rendering resolution; this will be especially noticeable in circles and lines with very low inclination.
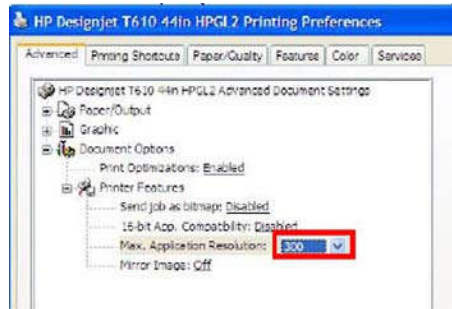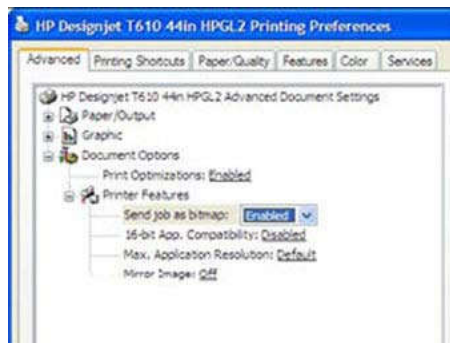
3. Use the 'Econofast' print mode. The rendering resolution will be set by default to 300 dpi. In the Paper/Quality tab of the product properties window, select **Custom options** and press the **Settings** button. In the Custom Print Quality Options window, check the **Economode** box.
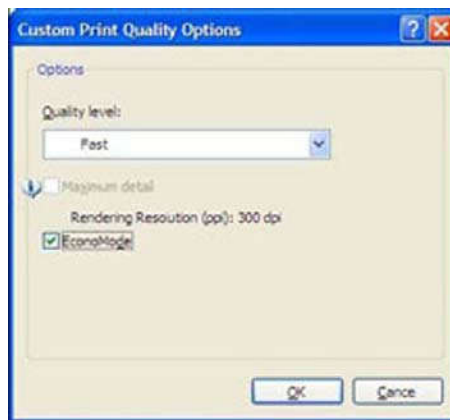
NOTE: If the Out of Memory message still persists, proceed to the next workaround.

4. Out of Memory issues can always be solved if the processing of the job can be performed before reaching the product. This can be done by selecting 'Send Job as Bitmap'. The main processing of the print job will then be performed by the computer. This form of printing is recommended when the print job contains raster images, and mixed plots with raster images and lines, because the process of turning a print job made of raster images to vector images leads to a significant increase in the display list memory.

Warning: 72.02:09

Problem Description: Generic firmware Error

Corrective action:
1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the product has the latest firmware version. If not, update the firmware to the latest version Appendix B: Emergency firmware upgrade with USB flash drive on page 121

   NOTE: If you see system error 79:04, see Appendix A: How to troubleshoot SE 79:04 on page 109.

   NOTE: A firmware upgrade will not always solve the problem. The best way to solve this problem is to report the error to HP correctly. Make sure that you supply all the information accessed by pressing on the bottom right area of the touchscreen (same place where the cancel icon usually shows), while viewing the system error screen, or preferably provide the product log and diagnostic package to HP. Refer to Understand System Error Codes on page 71 and Appendix C: Obtaining the product log and the diagnostics package on page 122.

Warning: **72.02:YZ**

Problem Description: A service calibration should be performed.

Corrective action: To find out which service calibration to perform, print the calibration status. At the Touch Control Panel, select the Internal Prints icon, then **Service information** > **Print calibration status**. Perform whichever calibration is needed.

Warning: **74:YZ**

Problem Description: Error uploading firmware update file

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Make sure the connection between the computer and the product is functioning properly.

3. Try to update the firmware again.

Warning: **74.1:YZ**

Problem Description: Error uploading paper profile update file

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Make sure the connection between the computer and the product is functioning properly.

3. Try to upload the paper profile update file again.

4. Make sure the version of the paper profile update file is compatible with the firmware version the product is using. You can check this on the same Web page where you downloaded the paper profile update.

System Error: **74.08:04**

Problem Description: Problem with the firmware upgrade process

Corrective action:

1. Reboot the Product

2. Try to upgrade the firmware again, for more information, see Appendix B: Emergency firmware upgrade with USB flash drive on page 121

3. Download again the firmware file from the source, as the original may be corrupted.

4. Replace the Touch Control Panel see Touch Control Panel on page 547

System Error: **75.21:YZ**

Problem Description: The spittoons (Left Spittoon, Service Station) have reached 80% capacity.

Corrective action: Use Preventive Maintenance Kit #2 to replace the Left Spittoon and Service Station.

System Error: **75.22:YZ**

Problem Description: The spittoons (Left Spittoon, Service Station) are full.

Corrective action: Use Preventive Maintenance Kit #2 to replace the Left Spittoon and Service Station.

System Error: **76:YZ**

Problem Description: Hard disk drive is full.

Corrective action: Remove any unnecessary files from the hard disk using the Embedded Web Server. If the problem persists, run the Hard Disk Recovery Utility (see Hard Disk Recovery Utility on page 191).

System Error: **78:08**

Problem Description: The job received cannot be printed without borders on this paper.

Corrective action: Use a paper that supports borderless printing.

          NOTE: This system error code does **not** require service help. It should be resolved by the customer.

System Error: **78.1:YZ**

Problem Description: Media settings area missing in paper settings file

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the product has the latest firmware version. If not, update the firmware to the latest version.

System Error: **79:YZ**

Problem Description: Generic firmware error

Corrective action: Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Check that the product has the latest firmware version. If not, update the firmware to the latest version.

     NOTE: If you see system error 79:04, see Appendix A: How to troubleshoot SE 79:04 on page 109.

     NOTE: A firmware upgrade will not always solve the problem. The best way to solve this problem is to report the error to HP correctly. Make sure that you supply all the information accessed by pressing on the bottom right area of the touchscreen (same place where the cancel icon usually shows), or preferably provide the product log and diagnostic package to HP. See Understand System Error Codes on page 71 and Appendix C: Obtaining the product log and the diagnostics package on page 122.

System Error: **81:01**

Problem Description: Paper axis error—the copier will restart and run a diagnostic test

Corrective action: None

System   **81:YZ**
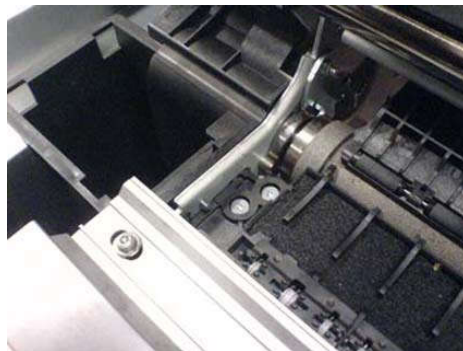**Error:**

Initial checks: This error can occur because the product has been dropped during transportation, causing structural damage. Before continuing with the 81:YZ troubleshooting, first look for structural damage.

To identify the structural damage, look for the following three things:

- Consistent 81:YZ error codes.

- Platen fingers rubbing on the roller surface, leaving black marks on the roller.
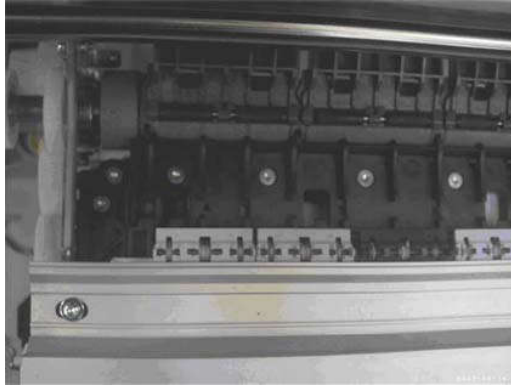
- A gap on the platen beam. If there's any gap in Z (vertical direction) between the plastic feature of the platen and the metal side plate, then the chassis is damaged and the unit cannot be repaired.

Problem Description: Problem with paper advance. This source of error could come from an error in any of the following systems: paper motor, disk encoder, cables or main electronics.

Corrective action: Try the following:

1. Check for any visible obstacles restricting the movement of the Drive Roller. If there is a wrinkled mass of paper inside the paper path, lift the Pinchwheels (using the Media Lever) and clear the obstruction.

2. Perform the Media Drive diagnostic test to troubleshoot the problem further. See Paper Drive Test on page 141.

3. Perform the Rewinder diagnostic test to troubleshoot the problem further. See Rewinder Test on page 151.

4. Check the connections on the Engine PCA; the Media Advance Drive is connected to the connector labeled Paper Motor.

5. Adjust the encoder disc and motor mount configuration using the Media Advance Drive installation instructions. See Media Advance Drive on page 430.

6. Replace the Media Advance Drive. See Media Advance Drive on page 430.

System Error:	**86:01**
Problem Description:	Scan axis error—the copier will restart and run a diagnostic test
Corrective action:	None

System Error:	**86:11**
Problem Description:	Scan Axis movement requires too much force or energy.
Corrective action:	Try the following:

1. Check that the cutter disengages correctly.

2. Lubricate the scan axis.

3. Use Preventive Maintenance Kit 1.

System Error:	**87:YZ**
Problem Description:	Problem with the Carriage Encoder Sensor readings
Corrective action:	Try the following:

1. Check that the encoder sensor is correctly connected to the Carriage PCA.

2. Make sure the Encoder Strip is not broken or damaged. If necessary, replace it. See Encoder Strip, spring and attachment nut on page 378.

3. Make sure that the Encoder Strip is clean. If it is dirty, clean it, paying special attention to the area near the Service Station. See Cleaning the Encoder Strip on page 558.

4. Clean the Encoder Sensor.

5. Replace the Encoder Sensor.

6. Replace the Carriage PCA. See Carriage PCA on page 334.

7. Replace the Trailing Cables. See Ink Supply Tubes & Trailing Cable on page 400.

System Error:	**87.01**
Problem Description:	Problem finding the Scan-axis encoder reading
Corrective action:	Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Make sure that the encoder strip is clean. If the encoder strip is dirty, clean it, paying special attention to the area near the Service Station. See Cleaning the Encoder Strip on page 558.

3. Clean the encoder sensor.

4. Replace the Encoder Sensor.

System Error:	**93:YZ**
Problem Description:	Unable to pressurize the Ink Delivery System
Corrective action:	Try the following:

1. Switch the power off from the back of the product and disconnect the power cord. Reconnect the power cord and power on the product.

2. Perform the Ink Delivery System diagnostic test to further troubleshoot the problem. See Ink Delivery System (IDS) Test on page 153.

3. Check that the cables between the Ink Supply Station and the Engine PCA are not damaged and are properly connected. In case of any damage replace the cable.

4. Replace the Left Ink Supply Station, depending on the results of the diagnostic test. See Left Ink Supply Station on page 395.

5. Replace the Engine PCA. See EE Box on page 370.

Appendix A: How to troubleshoot SE 79:04

Introduction

The system error 79:04 is a generic firmware error (equivalent to a blue screen in windows). It's the system error that the product will display when an unknown exception occurs that cannot be identified as relating to any specific subsystem of the product.

Since this is a generic error, there can be multiple causes behind it. This document will cover the most probable causes behind a system error 79:04 and will recommend the most efficient troubleshooting steps to resolve customer issues.

It is important to mention that, although 79:04 system errors can be caused by a hardware malfunction, the vast majority of 79:04 system errors are pure software or firmware issues. Before doing anything else, you are recommended to try the following general-purpose solutions.

1. Update the product's firmware to the very latest available firmware version, even if the product appears to be running the latest firmware already.

2. Restore the factory settings from the Touch Screen Panel's Setup menu.

If these do not solve the problem, continue reading about other possible solutions below.

Possible causes

Since the 79:04 system error is a generic error, the number of possible causes behind it is large. The majority can be grouped, however, into the following groups.

Job related SE79:04

A specific print job that is not correctly formatted for the product or that is not correctly processed by it can trigger a 79:04 system error.

The incorrect format or processing can come from two sources:

- Incorrect commands in the job itself. For example, a PS job with some commands that do not have the correct PS format.

- Issues applying to the settings in the job

Possible symptoms

79:04 caused by a print job always have the same symptoms:

1. The job is received by the product and starts to process.

2. In the middle of the processing, the product stops and displays 79:04.

3. The product will display the 79:04 system error again after reboot. This is due to the fact that the product will try to reprint the job, which is pending in the queue, after reboot.

4. After the second reboot, the product will start up normally

5. If the same job is sent again, it will always produce a 79:04 system error

These types of 79:04 system errors are normally caused by jobs that have been generated by 3rd party applications (RIPs, 3rd party drivers, files exported by an application to PS, PDF, HP-GL/2, RTL, … or any other format supported by the product). Jobs generated by HP drivers will not normally generate 79:04 system errors, since the output that our drivers generate is very controlled and has been designed taking into consideration the characteristics of our product's language interpreters.

There is an exception to this general rule: there are certain applications that can generate their own PS code (Adobe PhotoShop, Adobe Illustrator, Adobe Acrobat, Corel Draw, Freehand, QuarkXpress, …). When used with a PS driver, these applications generate the output PS themselves, instead of using the driver's rendering capabilities. This is known as PostScript pass-through. So, when using an HP PostScript driver together with an application that has PS passthrough capabilities, the PS code that comes into the product has not been rendered by the HP driver, and, should the source file contain any PS commands that are not correctly processed by the product, a 79:04 system error could occur even though an HP driver is being used.

Solutions and workarounds

When a job consistently generates a 79:04 system error, it is either because of a issue in the product's firmware or because of a defect in the job itself (when it has been generated by 3rd party SW). In order to identify the cause and find out a solution, these issues should always be impaperlely escalated to the GBU through the GCC.

Also, there are some workarounds and short-term solutions that can be tested in order to get the customer up and running in the shortest possible time:

1. Send the job using a variety of different settings. Many times, the issue is caused by a combination of the job contents combined with some specific setting(s).

2. If the customer is sending the file directly to the product, try using the HP driver instead.

3. If the issue is occurring when printing through the HP PostScript driver from an application with PS passthrough, try changing the options in the application so that it prints PS as raster (the option is typically located in the "Advanced" options of the application's printing dialog).

4. In some cases, there may be an unfortunate interaction between the particular job and the I/O connection used to send that job to the product. Try sending the same job using a print queue that uses a different type of connection. For example, use a network connection instead of USB, or use the LPD network printing protocol instead of port 9100.

Data related SE79:04

HP Designjet products have Hard Disks and non-volatile memories that contain databases and files that can be modified with user data. Some examples include:

● The product's queue

● The hard drive partitions that contain user jobs

- The database that stores the product settings

- The database that stores accounting information

Some of this data is accessed by the product at start-up, and some others are accessed as needed.

If any of this fields contains corrupt data or data with characters or values that cannot be correctly processed by the product, a 79:04 system error may occur.

Possible symptoms

There are two different types of symptoms for data related 79:04 system errors:

1. When the corrupt data is accessed during start-up:

    a. The product will display a 79:04 during the start up process

    b. Switching the product off and on again will not solve the issue. The product will continue displaying the 79:04 system error until the corrupt data has been cleared through a service procedure

2. When the corrupt data is accessed during normal product operation:

    a. The product will start up normally

    b. When the data is accessed (for example while printing, while navigating the queue or when changing some settings), the product displays a 79:04 system error

    c. The product can reboot normally

    d. When the data is accessed again (typically, under the same conditions as in step "b"), the 79:04 system error is displayed again

Solutions and workarounds

Many times, data-related 79:04 errors are resolved by means of hardware intervention. Since data are stored in physical components (RAM, EEROM and Hard Disk), replacing these components with new ones that are empty usually solves the problem. However, there are quicker and more effective solutions to these types of errors:

1. Clear all information that has been introduced by the user using the standard tools available in the product.

    a. Delete all jobs from the queue (from the Touch Control Panel or the EWS).

    b. Reset to factory defaults to clear the user's configurations and calibrations.

    c. Delete any non-standard paper preset in the product (both the ones that have been created by the user and the ones that have been installed as OMES profiles through the EWS or the HP product Utility).

2. If step 1 did not resolve the issue, you can use Service Tools to clear additional information that could be causing the issue.

    a. Start the product in Diagnostics Boot Mode.

    b. Perform an EEROM reset.

3. If step 2 did not resolve the issue, it is possible to run a recovery of the hard disk.

   a. Start the product in Diagnostics Boot Mode.

   b. Perform a Hard Disk Recovery. This will erase data from the hard disk and reinstall the current firmware. It may take up to half an hour.

4. If step 3 did not resolve the issue, you can check the hard disk's file system.

   a. Start the product in Diagnostics Boot Mode.

   b. Perform a File System Check. This will fix any error in the file system structure. It may take a few minutes, or up to an hour, depending on the state of the hard disk.

Important note:

It is possible that the corrupt data came to be in the product as a consequence of some activity in the customer's workflow. In this case, it is possible that the issue will happen again. In these cases, it is very important to understand the sequence of events in the customer's workflow that led to the error occurring. Once the error can be traced in the customer's workflow, escalate the issue to the GBU (through the GCC). This is done to implement any changes in the product's firmware that can prevent these issues occurring again.

Network related SE79:04

Most HP Designjet products have built-in networking capabilities. Network settings can be set manually, but in the majority of cases, they are obtained automatically from the product. These settings include many different fields, such as IP address and subnet mask, available gateways, host and domain names, etc.

In some cases, there can be issues in the firmware that can cause a certain value in one of these fields to be interpreted incorrectly, and this can lead to a 79:04 system error.

Symptoms

There is no single set of symptoms that can absolutely pinpoint a network related 79:04 system error. However, the following guidelines can be applied:

● It can happen when the product starts up or when accessing the Network Configuration section of the Touch Control Panel or Embedded Web Server. It can also occur apparently randomly when the product is connected to the network. It can also occur any time a particular network action is performed, for example when print jobs are sent to the product, or when connecting to the Embedded Web Server.

● In all these cases, repeating the action after restarting the product with the LAN cable disconnected does not cause the 79:04 error to occur.

Solutions and workarounds

In the majority of cases, these issues are due to an issue in the product's firmware. As soon as the conditions in which the issue happens are understood, it should be escalated to the GBU through the GCC.

At the same time, the following short-term solutions and workarounds can help the customer to get up and running in the shortest possible time:

1. Disconnect the network cable in order to restart the product and change network settings.

2. Try resetting the embedded networking settings or Jetdirect settings. See Connectivity troubleshooting on page 66.

3. In the Network configuration menu in the Touch Control Panel, disable any protocols that you are not using, including IPv6, IPSec, SNMP and WebServices.

> **NOTE:** Disabling SNMP or WebServices means that customers may not be able to see product status information; and s and Mac OS print-queue installers will require the user to specify the product's IP address and product model manually.

4. If the above steps do not work, try using a different type of print queue. For example, if the problems occur when printing to a Port 9100 Socket print queue, try using the LDP protocol instead, or USB. To do this, create a new print queue of the type required and try printing using the new queue instead.

5. If the above steps do not work and the customer is using the product's embedded LAN connection, try using an accessory Jetdirect card instead. Similarly, if the customer is having problems using an EIO Jetdirect card, try disconnecting the Jetdirect card and using the embedded networking.

In most cases, network problems that seem to occur randomly (when the product is not being sent print jobs) are caused by an interaction between some other devices in the customer's network and the product. Isolating the product from other devices in the network as much as possible by connecting the product to a private network or a different network subnet may help the customer continue working until the root cause of the problem is understood and solved.

User Interaction related SE79:04

In some cases the product may not react as expected when a certain set of conditions coincide. In these cases, if the product doesn't know how to react, it may simple display a 79:04 system error and force a reboot. Some examples (not real) that can help to illustrate this:

● An error occurs when a job is cancelled when it is at the "Finishing print" state and when the queue is disabled

● An error occurs if the Scanner is opened while the product is checking the printheads

These errors will most likely only happen in very specific corner cases that have not been identified during the development or the qualification of the product, so normally, they do not severely impact the customer, as they do not affect their regular working flows.

Symptoms

The symptoms here are as numerous as the number of possible interactions between the user and the product. In any case, it's possible to identify the steps that caused the error to occur and avoid them as the steps will always be the same with no variance.

Important: An major element in determining the error is what the state the product was in at the time the error was displayed. Actions the user has made when the product is drying for example can produce an error, whereas the same action when the product is doing something else (or is idle) may not produce any errors.

Solutions and workarounds

The recommended action plan in these cases is to identify the previous steps that caused the error and:

1. Escalate the issue to the GBU through the GCC in order to have it corrected in the firmware.

2. Recommend to the customer that they try to avoid the same steps to prevent the issue

3. If the conditions that cause the error are in the customer's regular workflow, try to identify a different way of achieving the same result out of the product.

Random SE79:04: Concurrence issues and memory leaks

Some 79:04 errors happen randomly when the product is being heavily used. However, it's impossible to find a single set of conditions that reproduce the problem. It just happens from time to time, without a defined pattern.

These random 79:04 can have two different types of root causes:

- Memory leaks: before a program is executed, it allocates the memory it will need. After the execution is complete, the allocated memory is freed to be used by other programs. If the allocation or the release of the memory are not properly programmed, every time the program is executed some memory will be incorrectly labeled (either as used or as free). This is known as a memory leak. When a program with a memory leak is executed a lot, the memory becomes progressively full (since it is not properly freed). When the leak becomes too big, the product is left 'out of memory' to execute new processes and a 79:04 is triggered

- Concurrence issues: there are certain resources that can be accessed by multiple programs or by multiple executions of the same program (what is known as multiple threads). Access to these resources must be correctly controlled to prevent unexpected behavior. Issues caused by an incorrect control of these resources are concurrence issues.

In the following you have a simple example: let's imagine that there is a counter that controls the communication between the Jetdirect card and the product's firmware. Whenever a new packet of information is sent by the Jetdirect card to the product, the counter increases. When the product receives the packet and processes it correctly, the counter decreases. Another process checks the counter from time to time to see its value and take conclusions from it. If the counter is near 0, it means that the product is processing correctly, and if it grows too big, it may mean that there is a bottleneck somewhere and maybe the Jetdirect card throughput is decreased to control its speed to the product. However, if the access to this counter is not properly controlled, undesirable effects may happen: in a real environment, a Jetdirect card processes thousands of information packets per second, so this counter is updated frequently, both by the Jetdirect and the product. If at a certain point the Jetdirect and the product try to access the counter at the same time and the code is not prepare to handle this, it may happen that the Jetdirect cannot increase the counter because the product is writing to it, and what's worse, that it does not realize this fact. If this happens a few times each second, it may happen that the counter is decreasing faster than it's increasing and that at a certain point it has a negative value. And then, what will the process that is checking this counter do? Most likely, the process will not be prepared to react to a negative value and will launch an exception that will trigger a 79:04 system error.

Symptoms

This type of 79:04 always occurs in heavy load conditions, so the symptoms will always be similar to this pattern:

- A product that is being heavily used (printing a project or in a reprographics environment) produces 79:04 errors randomly, forcing the user to reboot.

- After rebooting, the product can be used without any issues for an extended period of time, but if the workload is consistently high, a random error will occur again.

- The error can never be associated with a specific file. The file that was being printed when the error occurred the last time can be printed without issues after reboot. And a file that has been printed without issues several times can trigger the error in the future.

- This error is very dependant of the workflow the customer has. The most common user workflows have been extensively tested both by HP and by our beta sites, so it is highly unlikely to see random 79:04 issues in these cases. These random issues tend to occur in very specific corner cases, and cannot be reproduced unless the exact conditions of the workflow are replicated. They normally happen when sending files generated by external applications (RIPs, 3rd party drivers, etc.)

Workarounds and solutions

Random 79:04 errors are, by far, the most complex ones to diagnose and to fix. The only solutions available in these cases are:

1. Run the Hard Disk Recovery utility (see Hard Disk Recovery Utility on page 191).

2. Identify the root cause (either in the files or in the firmware) and fix it in the code, which requires the intervention of the GBU.

3. Test any options available to modify the customer's workflow and see if any combination of them solves the issue.

In both cases, a profound understanding of the customer's workflow is necessary. In particular, the information that is needed is:

- Product Touch Control Panel settings

- Application that is being used; RIP or driver that is being used

- Application/RIP/Driver settings

- Type of output files this application, RIP or driver is generating

- Some sample files that are representative of what the customer is using

- Operating System

- Method of connection to the product

- A description of the normal flow when the issue occurs and the typical frequency of occurrence (for instance, once every hour when sending several files non-stop, each of them with multiple copies)

You are recommended to use the Diagnostics Package to obtain this kind of information.

With this information, the environment can be replicated in order to try to find workarounds. This is also the information that will be needed at the GBU to investigate and fix the root cause of this issue once it is escalated.

Hardware related SE79:04

Hardware is, by far, the least likely cause of a 79:04 system error. Replacing hardware components does not normally fix the issue and increases the total turn around time in finding a workable solution.

In some cases, a failure in a component in the product's electronics may cause a 79:04 system error, since the product's electronics are involved in the execution of the firmware and the processing of jobs. It needs to be noted, however, that hardware failures in the electronics tend to produce specific system errors that point directly to the component that is failing.

Some hardware problems that could cause the 79:04 error are:

● Defective clusters in the Hard Disk drive. If these clusters are used to execute the firmware or to process a job, they may produce a 79:04. It needs to be noted however, that most 79:04 errors that are resolved by an HDD replacement are in fact, data related 79:04 that could have been solved more efficiently and quickly following the other steps.

● Defective memory segments. If the RAM memory has some defective segments, a 79:04 may occur when these segments are used.

● Intermittent defects in the electronic components that are involved in the processing of a job: Carriage PCA, Trailing cable, Formatter and Engine PCA. This is a highly unlikely cause, since defects in these components will produce subsystem specific errors.

Symptoms

There's no single set of symptoms behind hardware related 79:04 system errors. The most usual ones, however are:

● 79:04 during start up. Rebooting the product may or may not solve the problem

● 79:04 while processing or printing a job. Rebooting the product and printing the same job does not always produce the error.

Solutions and workarounds

In the following procedure perform each step as it appears in the list and only move on to the next step once you are sure the 79:04 error has not been cleared:

1. Reboot the product in Diagnostics Boot mode and execute the service tests to validate the functionality of all the electronics components

   ● Perform the troubleshooting for "data related 79:04" system errors, refer to Appendix A: How to troubleshoot SE 79:04 on page 109

2. Replace the memory

3. Replace the HDD Hard Disk Drive on page 389

4. Escalate the issue before replacing any additional parts.

Troubleshooting based on symptoms

This section will describe which troubleshooting steps to perform for a 79:04 system error based on the symptoms of the issue. Perform each step as it appears in the list and only move on to the next step once you are sure the 79:04 error has not been cleared:

Touch Control Panel displays 79:04 at Start-up

1. Reboot the product twice. If the System error has been caused by a job because its in an incorrect format, rebooting twice will clear the error (the first time after reboot, the product will attempt to print the job again, and this will cause the error to reoccur). If rebooting the product twice solves the issue, then it is an issue related to the job and you should refer to the section on a Job Related SE79:04.

2. Upgrade the product's firmware. Even if the currently installed firmware version is the latest one, re-install it. Since the product cannot start normally, you will need to upgrade the firmware while booting the product in Diagnostics Boot Mode. For this, a special file and a special upgrade process will be needed. For more information, see Appendix B: Emergency firmware upgrade with USB flash drive on page 121 .

3. Disconnect the network cable and restart the product. If this solves the problem, then it is a network related 79:04 and you should follow the guidelines for this type of 79:04.

4. Remove all cartridges, printheads and printhead cleaners (if available). Unload the paper. Restart the product. If the product can start normally, insert the consumables one by one until you isolate the one that is causing the error. Do **not** insert any of the replaced consumables in another product

5. Restart the product in Diagnostics Boot Mode and perform the "Electronics test". If an electronic component is identified as faulty, replace it.

   - Restart the product in Diagnostics Boot Mode and Reset the EEROM. If the issue is solved by this, this is a data related 79:04 system error and you should follow the guidelines, refer to Appendix A: How to troubleshoot SE 79:04 on page 109.

6. If the unit has been used for some time and suddenly has started to show this behavior, replace the Hard Disk Drive.

7. If the issue is new and the issue happens since the first boot, do **not** replace the HDD.

8. If none of the previous steps solved the issue, escalate the issue with specific information, refer to Reporting a system error to HP support on page 71

   - Unit information: S/N, P/N, accessories

   - Conditions where the problem occurs and conditions prior to the first occurrence of the problem

   - The results of the previous 8 steps

   - The System Error detailed information (this can be obtained by pressing on the bottom right area of the touchscreen (same place where the cancel icon usually shows).

   - The product logs. In order to obtain the product logs, see Appendix C: Obtaining the product log and the diagnostics package on page 122.

Touch Control Panel displays 79:04 during product operation – not while sending jobs

1. Reboot the product.

2. Upgrade the product's firmware. Even if the currently installed firmware version is the latest one, re-install it.

3. Reset the product to factory defaults, EEROM Reset Utility on page 167

4. In order to narrow the scope of the issue, try the following:

    a. Disable the queue

    b. Disable any unused network protocols

    c. Disable SNMP and WebServices (if they are available in the product)

    d. Disable "Sleep mode" from the Service Utilities menu

    e. Delete any Paper Presets that you may have uploaded or created using the product's Spectrophotometer

5. Restart the product in Diagnostics Boot Mode and perform the "Electronics test". If an electronic component is identified as faulty, replace it.

6. Format the Hard Disk drive. To do so, you will need to start the product normally, enter the Service Utilities menu and then the Secure Disk Erase option. Set the Erase method to "Fast Erase" and then perform the disk erase process, refer to Disk Wipe DoD 5220.220M on page 188. This will take 45-75 minutes and will erase all user information from the disk, resolving any issue caused by corrupt data. After the erase process, a firmware update will be required. If this solves the issue, this is a data related 79:04 system error and you should follow the guidelines for this type of error.

7. Try to identify the combination of settings or actions that led to the system error and try to reach the same result with a different combination. Escalate the issue to fix the original problem.

8. If none of the previous steps could solve the issue, escalate it with specific information, refer to Reporting a system error to HP support on page 71.

Touch Control Panel displays 79:04 while printing

While printing a single job

The error happens after a single job is sent. It's easy to identify which job has produced the error, since every time that this same job is sent, the error is displayed.

1. Reboot the product twice (after the first reboot, the product will show the 79:04 system error again, since the product will attempt to reprint the last job in the queue, which is the one that caused the issue)

2. If you are using an HP driver, update the driver to the latest version

3. Upgrade the product's firmware. Even if the currently installed firmware version is the latest one, re-install it. Send the job using different print settings. The following ones can be helpful:

a. Try sending the job without selecting a paper profile in the driver

b. Try changing the Image Quality settings

c. If you are using the HP-GL/2 driver, try the option "Send job as bitmap"

d. If you are using the PS driver, try using the HP-GL/2 driver instead

e. If you are using the PS driver from an Adobe application (or any other application that can handle PS), try changing the application's print settings so that the PS is generated as Raster.

4. Try the following Touch Control Panel settings:

a. Change the Print Language option in the Touch Control Panel from "Automatic" (which is the default setting) to the language that is being printed (PS, HP-GL/2, …)

b. Queue = OFF

c. Start Printing = After processing

d. For PS SKUs, try changing the encoding setting ("Automatic" by default) to Binary or ASCII

5. If you are using a 3rd party application that does not print through the HP driver, try modifying the printing workflow by:

a. Using an HP driver

b. Changing the settings in the application's printing dialog

6. If you are using an accessory Jetdirect card, try using the internal network connector or USB (if available).

7. Escalate the issue, providing specific information, refer to .

Random 79:04 during continuous printing

The error does not happen with a single job. It happens randomly during continuous printing, normally while the product is managing a heavy load (printing a project or in a reprographics environment).

This type of error is caused either by memory leaks or by concurrence issues in the product's firmware. They normally happen in non common environments where these memory leaks or concurrence issues that have not been detected during qualification have occurred. These issues cause the product to crash at a completely random moment during printing, and are not associated to a specific job.

Because of this, troubleshooting these issues is normally quite complex.

1. Reboot the product twice (after the first reboot, the product will show the 79:04 system error again, since the product will attempt to reprint the last job in the queue). If after the second reboot the issue continues occurring randomly, continue troubleshooting.

2. If you are using an HP driver, update the driver to the latest version

3. Upgrade the product's firmware. Even if the currently installed firmware version is the latest one, re-install it.

4. Try restoring the factory default settings from the product's Touch Control Panel.

5. Try the following changes in the workflow:

    a. Change the Print Language option in the Touch Control Panel from "Automatic" (which is the default setting) to the language that is being printed (PS, HP-GL/2, …)

    b. Queue = OFF

    c. Start Printing = After processing

    d. For PS SKUs, try changing the encoding setting ("Automatic" by default) to Binary or ASCII

    e. If you are using the HP-GL/2 driver, try sending the job as a bitmap

6. If you are using a 3rd party application that does not print through the HP driver, try modifying the printing workflow by:

    a. Using an HP driver

    b. Changing the settings in the application's printing dialog

7. Escalate the issue with specific information, refer to

Appendix B: Emergency firmware upgrade with USB flash drive

When it is not possible to perform a firmware upgrade using the normal procedures (for instance, in case of a System Error and the Embedded Web Server is unavailable), it is possible to perform an emergency firmware upgrade using a USB flash drive. Follow the next steps:

1. Copy a valid FMW firmware file onto a USB flash drive. This file is provided in Designjet Online. Remove all other contents in the flash drive.

2. Turn off the product.

3. Connect the USB flash drive to the USB host port on the formatter.

4. Turn on the product and follow the instruction on the Touch Control Panel.

Appendix C: Obtaining the product log and the diagnostics package

The product keeps an internal log of its own actions. When a system error occurs, the product log can help to find the cause and the solution. By default, whenever it restarts, the product deletes the current log and starts a new one, to avoid using a lot of hard disk space. Once the logs have been captured, the information can then be escalated to HP division for analysis.

There are two types of diagnostic package that you can obtain.

● Diagnostic package (reduced level)

● Extended diagnostic package (full level). Includes the same files than the reduced level package, adding the product internal logs.

Reduced level diagnostic package is always enabled by default, but very frequently you will need to retrieve the extended diagnostic package to be able to check the product logs. Before retrieving the extended diagnostic package or product logs with the methods described next, you need to enable the logs in the product. There are two processes that can be used to enable the logs, through the touch control panel or through the Embedded Web Server.

Enabling the logs in the product through the touch control panel

1. Turn off the product with the Power Key on the left of the Touch Control Panel.

2. Press and release the Power Key to turn on the product.

3. Wait for about 10 seconds until the 6 buttons on the Touch Control Panel come on and then press and release one after another the **RIGHT** -> **HOME** buttons.

4. Wait for the unit to complete the booting process. The logs are now enabled in the product even if the product hangs and shows a system error.

Enabling the logs in the product through the Embedded Web server

1. You can access the Embedded Web Server by typing the IP address of the product in a Web browser. In the **Support** tab, click **Service support** to display the following page.
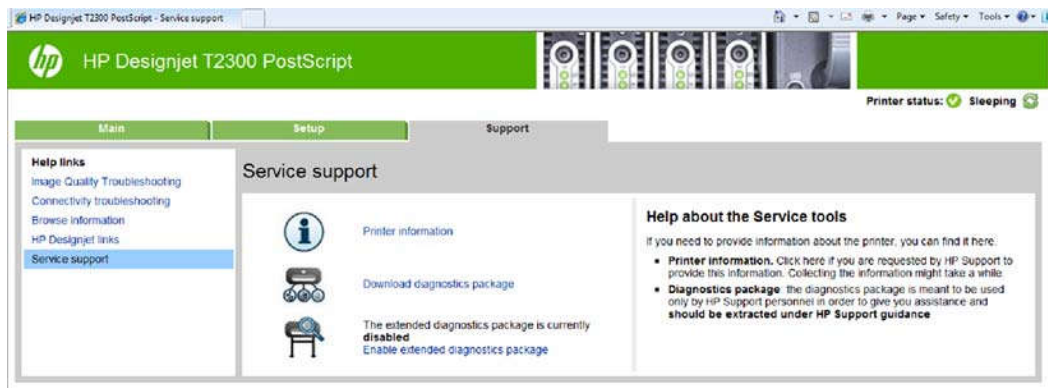
2. To enable the extended diagnostics package, click **Enable the extended diagnostics package**. The product needs to be restarted after enabling or disabling the extended diagnostics package.

Retrieving the diagnostic package

There are two ways of retrieving the diagnostic packages:

● From the Touch Control Panel with a USB flash drive.

● From the Embedded Web Server.

NOTE: If the extended diagnostic package has been activated, it will be the only one available for download with any of the two methods. In order to use the reduced diagnostic package, you must disable the extended diagnostic package first.

When you have obtained the information, it should be attached to the customer case.

Retrieving the diagnostic package through the Touch Control Panel method

This method works only if you have a standard USB flash drive. If you do not have a flash drive, use the Embedded Web Server method.

1. Take a standard USB flash drive, formatted as FAT32.

2. Create an empty file in the USB flash drive (right-click, **New** > **Text Document**) and name it **pdipu_enable.log**. Then insert the USB flash drive into the product. Once the product recognizes the USB, a short beep will be emitted.

3. The product starts to copy the diagnostic package to the USB flash drive. Wait for one or two minutes. You may hear several short beeps for each file copied to the USB flash drive.

4. When you hear one long beep, that means the entire diagnostics package and the product log have been copied to the USB flash drive. You can now remove the drive.

5. It will have created a folder with the name *part number_serial number_time stamp*, and in this folder you'll find one or more files with the extension **trb**. As the name of the folder contains the serial number, you can reuse the flash drive for different products and the information will not be lost.

6. Disable the logs in the product after the diagnostic package has been retrieved. See <u>Disabling the logs in the product through the touch control screen on page 124</u>.

Retrieving the diagnostic package through the Embedded Web server method

1. You can access the Embedded Web Server by typing the IP address of the product in a Web browser. In the Support tab, click Service support to display the following page.
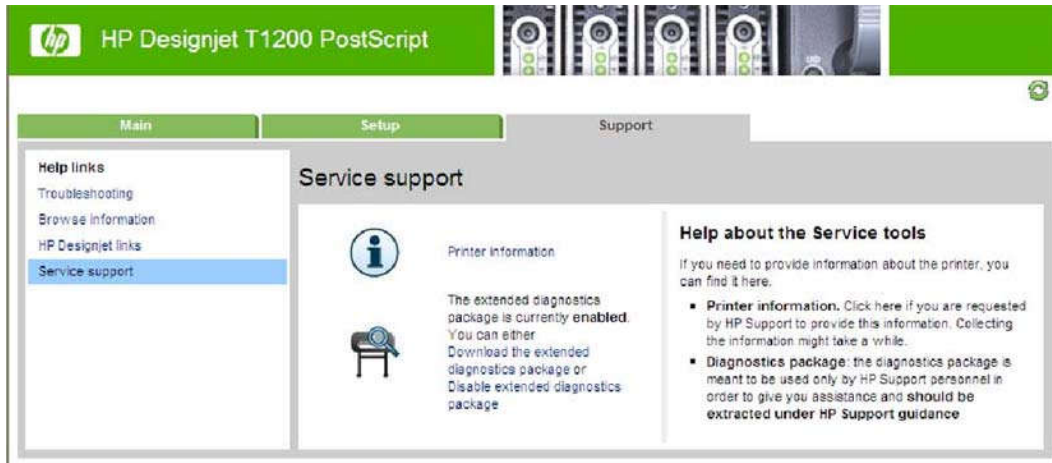
2. You can download the package by clicking **Download diagnostics package** or **Download the extended diagnostics package**, depending if the extended diagnostics package has been activated or not.

3. When you have finishing using the extended diagnostics package, remember to disable it; otherwise it could affect product performance or even cause undesirable side-effects..

Retrieving logs without the diagnostic package

1. Turn off the product with the Power key on the Touch Control Panel.

2. Enable logs, refer to Enabling the logs in the product through the touch control panel on page 122

3. After DO NOT REBOOT is displayed, retrieve at least the current product log from the following 'URL: http:<'IP adress'>hp/device/3432/8828/tmp/. Click the file once to select it, then right-click and select Save target as.

4. The printer.log file contains a log of the product activity since it was last restarted. Typically you will find a file called printer_previous.log, that contains the printer.log as it was before the last restart. Previous logs are compressed and stored in .gz files whose names contain the date and time of the product restart. You may wish to download some of these files as well.

5. Disable the logs in the product (see next).

Disabling the logs in the product through the touch control screen

1. Turn off the product with the Power key on the Touch Control Panel.

2. Press and release the Power Key to switch on the product.

3. Wait for about 10 seconds until the 6 buttons on the Touch Control Panel come on and then press and release one after another the **RIGHT** -> **BACK** buttons

4. Wait for the unit to complete the booting process. The logs are disabled.

5. Disable the logs in the product (see next).

Disabling the logs in the product through the Embedded Web Server

1. You can access the Embedded Web Server by typing the IP address of the product in a Web browser. In the **Support** tab, click **Service support** to display the following page.
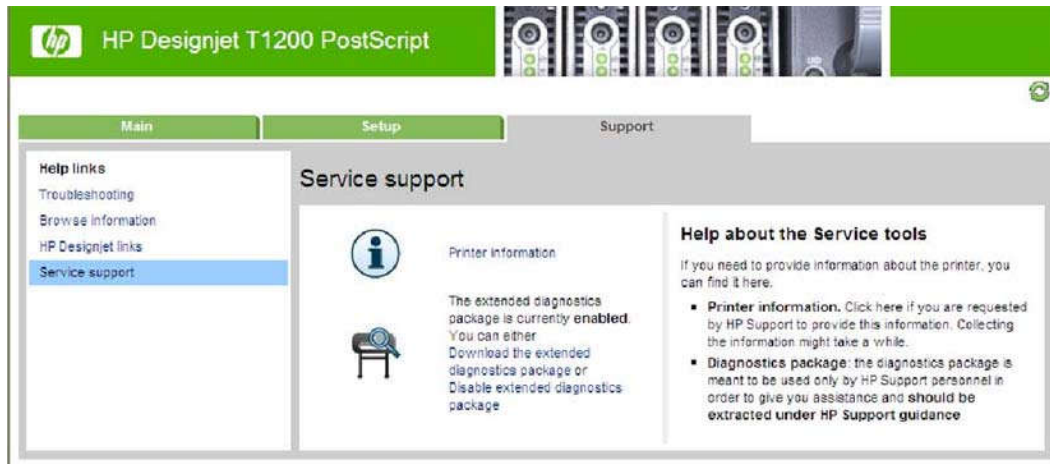
2. Click on Disable extended diagnostics package to disable the logs..

Appendix D: How to check the display list memory for an HP-GL/2 job

The display list memory is the memory the product needs to process an HP-GL/2 file.

If the display list memory that the product needs is greater than the dedicated file processing memory available, the product will show an out-of-memory message SE 71:04.

Table 2-1 Different memory capacities

Printer Series	Virtual memory[1]	Physical memory	Hard drive
T770/T770 HD	2GB/8GB[2]	384/MB/384MB	NA/160GB
T790	8GB	640MB	160GB
T1200/T1200ps	32GB	384MB	160GB
T1300	32GB	640MB	160GB
T2300 eMFP	32GB	640MB	160GB

[1] Dedicated file processing memory is a partition of the internal hard disk that enables file processing. This is the maximum display list memory that an HP-GL/2 job can use.

[2] The HP Designjet T770 can be upgraded to 8GB with the Memory or PostScript Upgrade

Check the display list memory

1. Restart the product, to clear the previous display list.

2. Send the job that you want to check to the product.

   > **TIP:** You don't need to print the job, the print preview is enough.

3. Generate the diagnostic package using the Embedded Web Server (from the **Support** tab, not the extended diagnostic package).

4. Go to http://IP/hp/device/3432/8828/tmp/pdldir.txt and press F5 till the pdldir.txt file is generated.

5. Sum each row (HPG.0, HPG.1, HPG.X, …) to get the display list memory needed for this job.

   - Each HPG vector can hold 2GB.

   - Each row from HPG.0 to HPG.15 is a vector of dedicated file processing memory.

   - For the T770, only the HPG.0 vector is available (maximum 2GB). For the T770 HD, only vectors HPG.0 to HPG.3 are available. For the T1200, vectors HPG.0 to HPG.15 are available (maximum 32GB)

   - Each row shows units in bytes. See the example below.

     Example:

```
total 1480
-rw-rw-rw- 1 root root 10485760 Jan 4 11:09 HPG.0
-rw-rw-rw- 1 root root

0 Jan 4 11:09 HPG.1
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.10
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.11
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.12
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.13
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.14
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.15
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.2
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.3
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.4
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.5
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.6
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.7
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.8
-rw-rw-rw- 1 root root 0 Jan 4 11:09 HPG.9

Display list => HPG.0 10485760 bytes
```