
Service Tests and Utilities

4

Introduction	4-2
Diagnostics - Self Test	4-2
The Printer hangs and nothing else happens	4-3
Error Memory Config:X	4-3
Error Memory Test	4-3
Power Supply Error #1	4-3
BootROM checksum failed	4-3
Boot Failed:1f500XX	4-4
Boot FAILED	4-4
BOOTROM ERROR:	4-4
COMPONENT MISMATCH:	4-4
Service Tests (Diagnostics)	4-6
Entering the Service Tests Menu	4-7
Scan Axis Test	4-10
Media Axis Test	4-12
Service Utilities	4-14
Entering the Service Utilities Menu	4-15
Turn DRIVE ROLLER	4-18
Prime TUBES	4-19
Altitude Setup	4-23
EEROM Setup	4-24
Reset Life Counters	4-29
Backup EEROM	4-31
Image Quality Warning	4-33
Diagnostic Print	4-34

Introduction

This chapter explains how to use the built-in Service Tests and Service Utilities and what to do if any of the Service Tests fail. If possible, always perform a Service Test on the component that you are about to replace, just to make sure that is the component that has failed. If the test on that component passes, there is no need to replace it.

Phone Support

PHONE SUPPORT

In certain circumstances, a Call Agent can try and troubleshoot the Printer by requesting the Customer to perform a Service Test or Utility via the phone. Using this process, it can be determined whether the Printer requires any on-site maintenance. In Phone Support the user will have access to a limited number of Service Tests or Utilities.

Diagnostics - Self Test

Initialization Sequences

Whenever the Printer is switched ON, it automatically performs a series of internal self tests and mechanical initialization sequences. If any of the parts fail, an error code will appear. Below is a description of the initialization sequence, describing front panel messages and the sequence of the Print Quality LEDs, the error messages and error codes that may appear, and the corrective action.

NOTE

Because of the speed at which the initialization sequence is performed, some of the steps described in the initialization process may not be visible unless they are interrupted by an error code.

NOTE

Before troubleshooting error codes try the following:

- **Check that the BootROM DIMM, the DRAM DIMM's and the Hard Disk Drive are correctly installed.**
 - **Try powering the Printer Off and On to see if the error code disappears.**
-

WARNING

Only replace one component at a time and check if the error has gone before replacing another component. If the error is still present after replacing a component, remember to REINSTALL the component that was first removed before replacing another component.




Self Diagnostics - Initialization Sequence

LED's	Front Panel Message	Printer Error - Error Message/Code	Corrective Action
<ul style="list-style-type: none"> ● Max. Quality ● Productivity ● Max. Speed 		The Printer hangs and nothing else happens	Install the BootROM or replace it if already installed ⇒ Page 8-75.
	Self Test Please Wait	Error Memory Config:X (sometimes only the error code is displayed)	If X = 7 reseal the DRAM DIMM's, otherwise replace the DRAM DIMM's ⇒ Page 8-75.
<ul style="list-style-type: none"> ○ Max. Quality ○ Productivity ● Max. Speed 		Error Memory Test	Replace the DRAM DIMM's ⇒ Page 8-75.
<ul style="list-style-type: none"> ● Max. Quality ● Productivity ● Max. Speed 	End Self Test		
<ul style="list-style-type: none"> ○ Max. Quality ● Productivity ● Max. Speed 	Initializing	Power Supply Error #1 Contact HP Representative	The Trailing Cable is not connected correctly. Reconnect the Trailing Cable ⇒ Page 8-36.
	Initializing IO devs	BootROM checksum failed	Replace the BootROM ⇒ Page 8-75.

Self Diagnostics - Initialization Sequence

LED's	Front Panel Message	Printer Error - Error Message/Code	Corrective Action
<div>○ Max. Quality</div> <div>● Productivity</div> <div>● Max. Speed</div>	Spinning up disk	Boot Failed:1f500XX This is an error related to the Hard Disk Drive, either the connections are bad or the Hard Disk Drive or the Main PCA are defective.	<div>■ Unplug the Printer, remove the HDD cover and check that the two cables (a flat one and the power cable) are connected. Also check that the flat cable connector is clipped in correctly. If the problem persists, replace the Hard Disk Drive ⇒ Page 8-72.</div> <div>■ If the problem continues, check that the Green and Orange LED's on the Main PCA are ON. If they are not ON, probably the PWS or its connections are defective. If the two LED's are ON and the error continues, replace the Main PCA ⇒ Page 8-79.</div>
	Spinning up disk...OK		
<div>○ Max. Quality</div> <div>● Productivity</div> <div>● Max. Speed</div>	Loading firmware.fmw	Boot FAILED	Download the Firmware file to the Printer ⇒ Page 9-12.
	Initializing		
<div>● Max. Quality</div> <div>○ Productivity</div> <div>● Max. Speed</div>	Initializing L2C		
	Initializing CLK		
	Initializing IO		
		BOOTROM ERROR: Current Version:XXX Necessary Version:XXX Replace and Restart	The BootROM version and the Firmware version do not match. Download the BootROM version indicated by the "Necessary Version" message.
		COMPONENT MISMATCH: You are running a XXX printer with a XXX disk Insert XXX disk and restart.	The Hard Disk Drive, or the Firmware on the Hard Disk Drive, does not match the BootROM Printer Model. For RTL Printers (Part No. C6090A and C6095A - see label on the Back Cover): Make sure RTL Hard Disk Drives and Firmware are used. For Part Numbers see Page 7-1. For Postscript Printers (Part No. C6091A and C6096A - see label on the Back Cover): Make sure Postscript Hard Disk Drives and Firmware are used. For Part Numbers see Page 7-1.

Self Diagnostics - Initialization Sequence

LED's	Front Panel Message	Printer Error - Error Message/Code	Corrective Action
 Max. Quality  Productivity  Max. Speed	Initializing Please Wait Code rev:XXXXXX BootROM:XXXXX RAM present:XXX MB Hard Disk:XXXX MB PS Code rev:XXXXX		
	Ready or Ready for Media		

Service Tests (Diagnostics)

The following is a list of all internal Service Tests available in the Printer. Instructions for entering the Service Tests menu are given on Page 4-7.

1. Scan Axis Test ⇒ Page 4-10

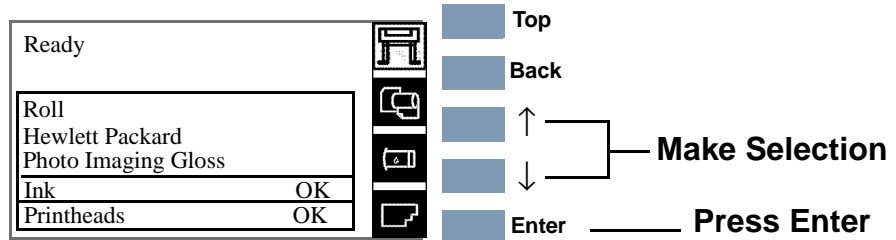
The purpose of this Service Test is to verify the correct functioning of parts relating to Carriage movement along the Printer axis.

2. Media Axis Test ⇒ Page 4-12

The purpose of this Service Test is to verify the correct functioning of parts relating to Media movement through the Printer.

Entering the Service Tests Menu

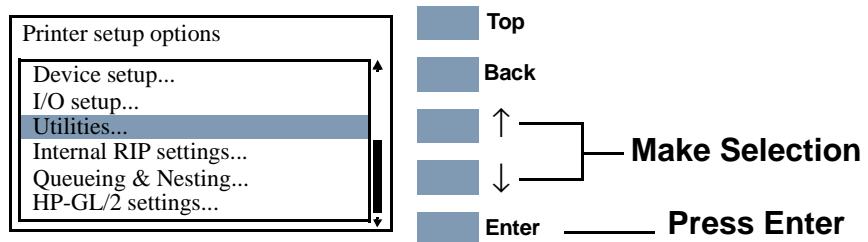
1. Once the message "Ready" is displayed on the front-panel, scroll to the "Printer Setup Options" icon and press the **Enter** key.



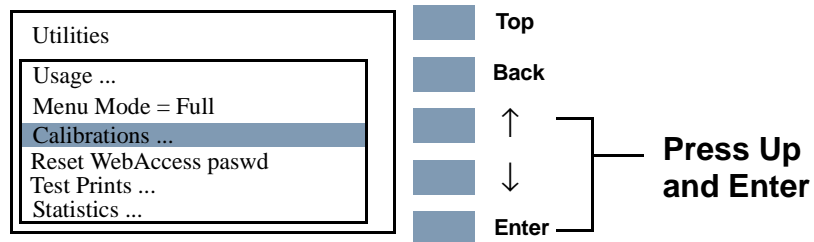
ON-SITE REPAIR

For On-Site Engineers accessing the complete list of Service Tests

- a. Once inside the "Printer Setup Options" menu, use the **Arrow** keys to scroll to the "Utilities" menu and press the **Enter** key.



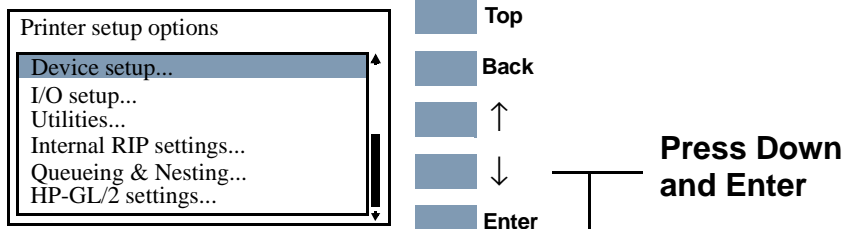
- b. Once inside the "Utilities" Menu, press the following key combination to access the complete list of Service Test menus.



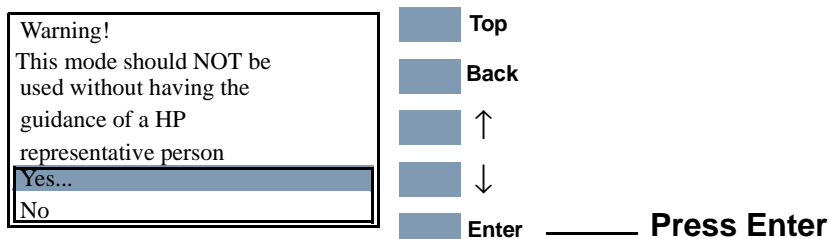
PHONE SUPPORT

For Call Agents requesting the User to access a limited number of Service Tests

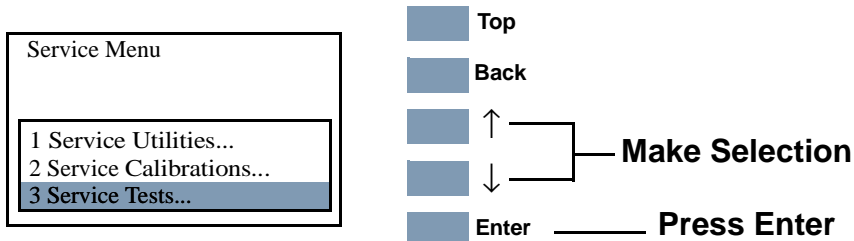
- a Once inside the "Printer Setup Options" menu and the "Device setup" menu is highlighted, press the following key combination:



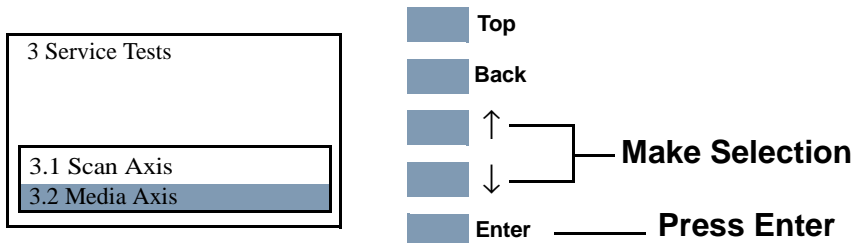
- 2 The message below is displayed. Select **Yes** to continue.



3. You are now in the Service Menu. Use the **Arrow** keys to scroll to the "3 Service Tests" menu and press the **Enter** key.

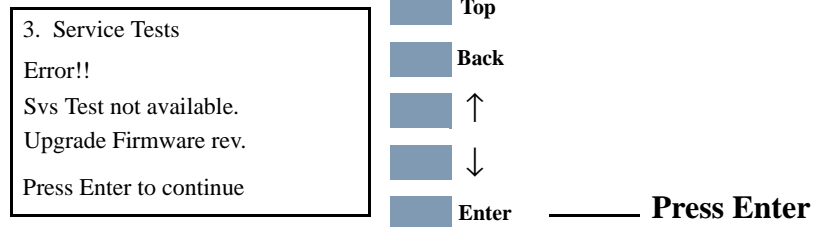


4. Use the **Arrow** keys to scroll through the "Service Tests" selections.



5. Press the **Enter** key to begin a specific operation when the required Service Test is highlighted.

If your Firmware does not support Service Tests, the following message is displayed. You should press **Enter** to exit. If you need the Service Tests, download the latest Firmware and repeat the whole procedure to enter the Service Tests menu.



NOTE If the Printer is not used for 3 minutes, the Printer exits the Service Tests Menu and you must repeat the above steps to enter Service Tests again.

NOTE In some cases a quick press of a button may not be recognized by the Printer. When pressing a button, be sure to press it deliberately and all the way to the bottom of its travel.

NOTE If the Printer hangs up during an operation, switch the Printer OFF and restart from step 1.

PHONE SUPPORT

Scan Axis Test

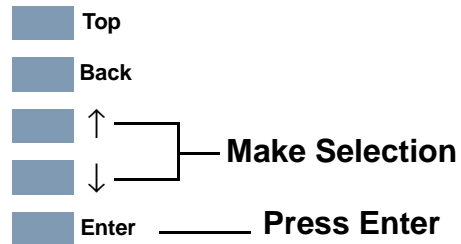
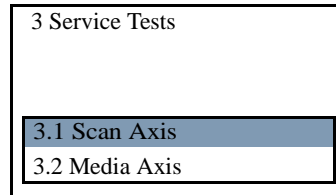
The purpose of this test is to verify:

- Carriage movement along the Printer axis.
- Scan-Axis motor.

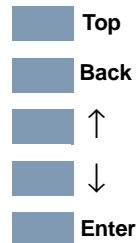
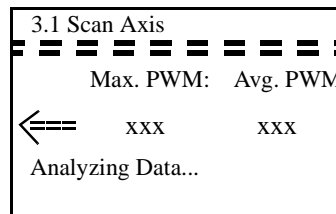
This test measures the maximum and the average current required to move the Scan Axis parts in order to verify if parts are moving freely or not.

Perform the Scan Axis Test as follows:

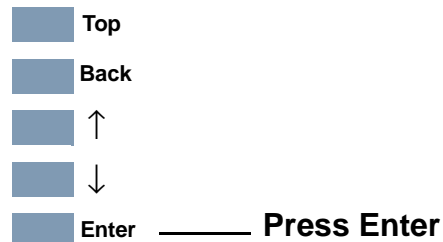
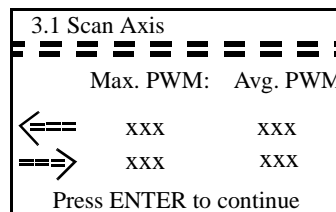
1. In the "3 Service Tests" menu, scroll to "3.1 Scan Axis" and press **Enter**.



2. The test will start and the following message will appear on the front panel as the test is performed.



3. When the test has completed, the Maximum and Average Pulse Modulation Values are displayed for each direction (left and right). Press **Enter** to return to the Service Tests menu.



NOTE

Report the values to the nearest HP Response Center or HP Support Office to determine whether values are within the accepted range.

When reporting the values, have the following information ready:

- **Model and Serial Number of the Printer.**
- **All values reported in the test.**
- **The Service Configuration Print ⇒ Page I-37.**

To check if the values displayed after the test are within the limits, refer to the following table:

	Forwards (<==)	Backwards (==>)
Maximum PWM	225	230
Average PWM	205	200

If values are not within the accepted ranges, turn the Printer OFF and perform the following steps and repeat the test after each one:

1. Clean Slider Rods and Apply Oil along the complete axis of the Slider Rods with the User's Slider Rods Lubrification Kit ⇒ Page 9-8.
2. Check the Encoder Strip and clean it if it is dirty.
3. Replace the Scan-Axis Motor ⇒ Page 8-55.
4. Replace the Tensioner Assembly ⇒ Page 8-42.
5. Check the Carriage Belt for excessive wear. If necessary, replace the Carriage Belt ⇒ Page 8-46.

PHONE SUPPORT

Media Axis Test

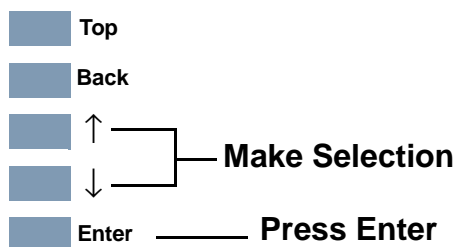
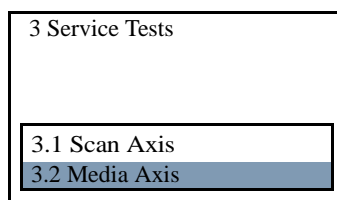
The purpose of this test is to verify:

- Overdrive Roller movement.
- Paper-Axis motor.

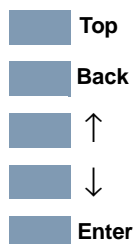
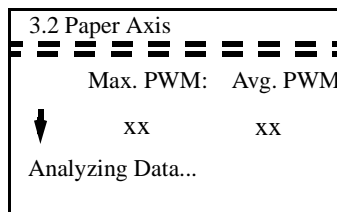
This test measures the current required to move the Media Axis parts in order to verify if parts are moving freely or not.

Perform the Media Axis Test as follows:

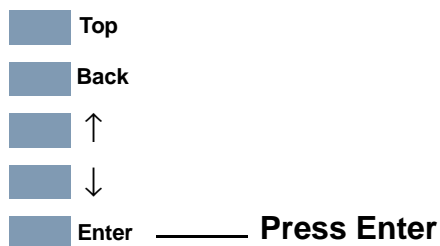
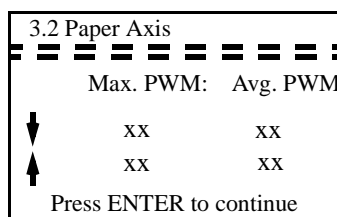
1. In the "3 Service Tests" menu, scroll to "3.2 Media Axis" and press **Enter**.



2. The test will start and the following message will appear on the front panel as the test is performed.



3. When the test has completed the Maximum and the Average Pulse Modulation Values are displayed for each direction (down and up). Press **Enter** to return to the Service Tests menu.



NOTE

Report the values to the nearest HP Response Center or HP Support Office to determine whether values are within the accepted range.

When reporting the values, have the following information ready:

- **Model and Serial Number of the Printer.**
- **All values reported in the test.**
- **The Service Configuration Print ⇒ Page 1-37.**

To check if the values displayed after the test are within the limits, refer to the following table:

	Without Media	With Media
Maximum PWM	Between 66 and 93	Between 65 and 100
Average PWM	Between 67 and 85	Between 70 and 90

If values are not within the accepted ranges, power the Printer OFF and perform the following steps and repeat the test after each one:

1. Lift the Media Lever and insert thick media into the paper path to push out any media that may be stuck there.
2. Open the Window and check for any visible obstacles restricting the movement of the Drive Roller. If there is a wrinkled mass of media inside the paper path, lift the Pinch Wheels (using the Media Lever) and clear the obstruction. If you cannot reach the media, remove the Entry Roller ⇒ Page 8-106 to gain better access.
3. Remove the Paper-Axis Motor (⇒ Page 8-100) and check the Drive Roller movement is smooth and if it is not, remove the Center Platen (⇒ Page 8-112) to check for any obstructions.
4. Replace the Paper-Axis Motor ⇒ Page 8-100.

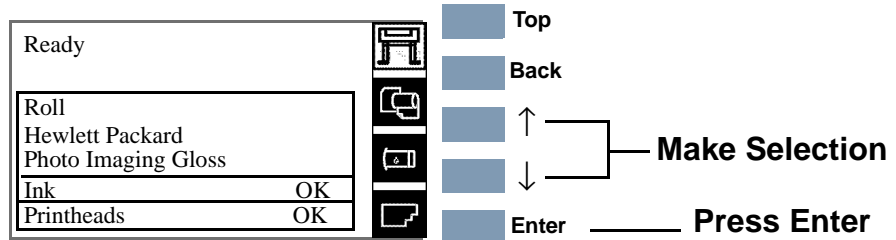
Service Utilities

The following is a list of all internal Service Utilities available in the Printers. Instructions for entering the Service Utilities menu are given on Page 4-15.

1. Turn DRIVE ROLLER ⇒ Page 4-18
The purpose of this Service Utility is to facilitate the cleaning of the Drive Roller and the Overdrive.
2. Prime TUBES ⇒ Page 4-19
The purpose of this Service Utility is to prime the Tubes when a new Tubes System has been installed or automatic priming was not completed.
3. Altitude Setup ⇒ Page 4-23
This Service Utility allows the operating altitude to be set for the Printer.
4. EEROM Setup ⇒ Page 4-24
The purpose of this Service Utility is to set the Printer Model, the Serial Number and Japanese Fonts.
5. Reset Life Counters ⇒ Page 4-29
The purpose of this Service Utility is to reset the preventive maintenance counters when parts have been replaced.
6. Backup EEROM ⇒ Page 4-31
The purpose of this Service Utility is to restore the EEROM content when the Main PCA or Hard Disk Drive are replaced.
7. Image Quality Warning ⇒ Page 4-33
This Service Utility allows you to turn the Image Quality Warning message On or Off.
8. Diagnostic Print ⇒ Page 4-34
This Service Utility allows you to print a Diagnostic print that will help you to troubleshoot image quality problems and verify printhead nozzle status.

Entering the Service Utilities Menu

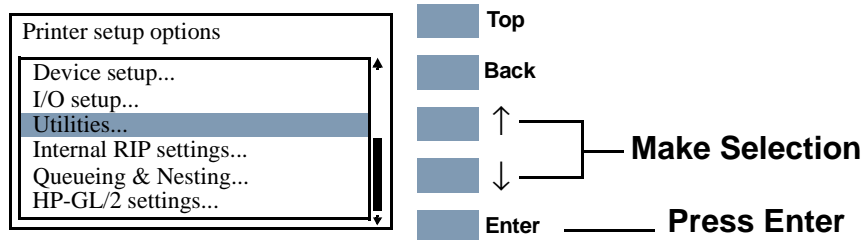
1. Once the message "Ready" is displayed on the front-panel, scroll to the "Printer Setup Options" icon and press the **Enter** key.



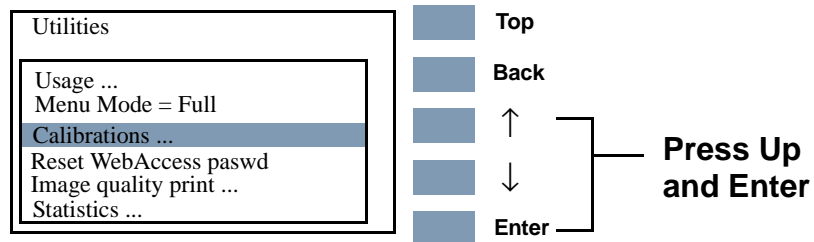
ON-SITE REPAIR

For On-Site Engineers accessing the complete list of Service Utilities

- a. Once inside the "Printer Setup Options" menu, use the **Arrow** keys to scroll to the "Utilities" menu and press the **Enter** key.



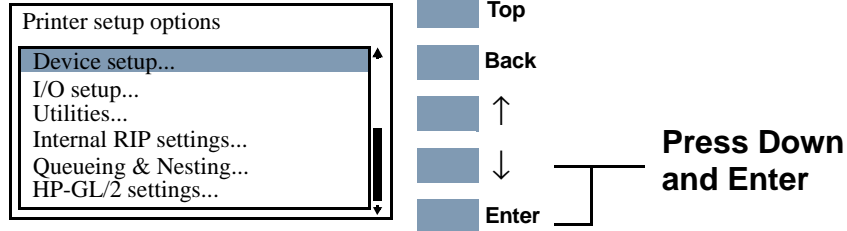
- b. Once inside the "Utilities" Menu, press the following key combination to access the complete list of Service Utilities.



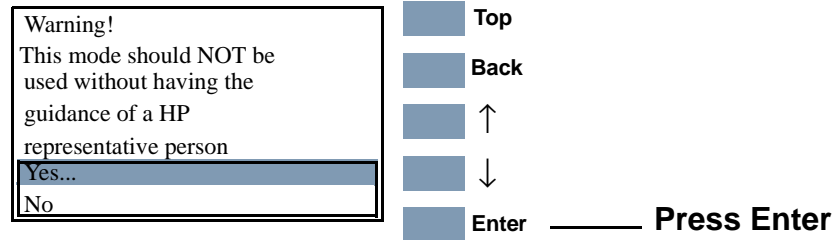
PHONE SUPPORT

For Call Agents requesting the User to access a limited number of Service Utilities

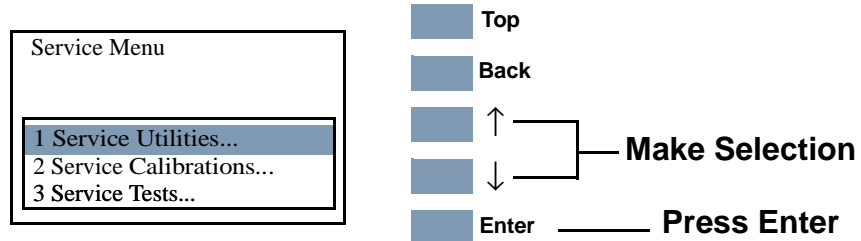
- a Once inside the "Printer Setup Options" menu and the "Device setup" menu is highlighted, press the following key combination.



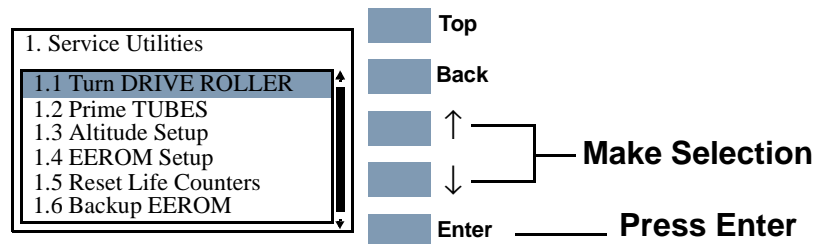
- 2 The message below is displayed. Select **Yes** to continue.



3. You are now in the **Service Menu**. Use the **Arrow** keys to scroll to the "Service Utilities" menu and press the **Enter** key.



4. Use the **Arrow** keys to scroll through the "Service Utilities" selections.



5. Press the **Enter** key to begin a specific operation when the required Service Utility is highlighted.

NOTE

If the Printer is not used for 3 minutes, the Printer exits the Service Utilities Menu and you must repeat the above steps to enter Service Utilities again.

NOTE

In some cases a quick press of a button may not be recognized by the Printer. When pressing a button, be sure to press it deliberately and all the way to the bottom of its travel.

NOTE

If the Printer hangs up during an operation, switch the Printer OFF and restart from step 1.

PHONE SUPPORT

Turn DRIVE ROLLER

The purpose of this Service Utility is to rotate the Overdrive, Drive Roller and Roller Mark in order to clean them.

NOTE

Remove the media before performing this operation. If media is detected, the message below is displayed.

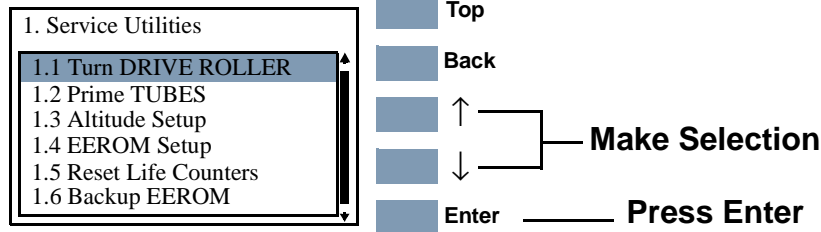
1.1 Turn DRIVE ROLLER

Please remove media completely

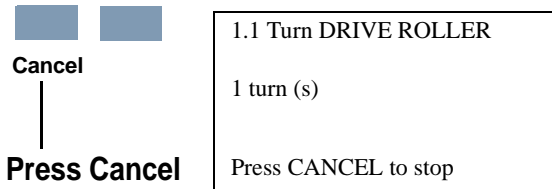
Press ENTER to continue

Perform the Turn DRIVE ROLLER utility as follows:

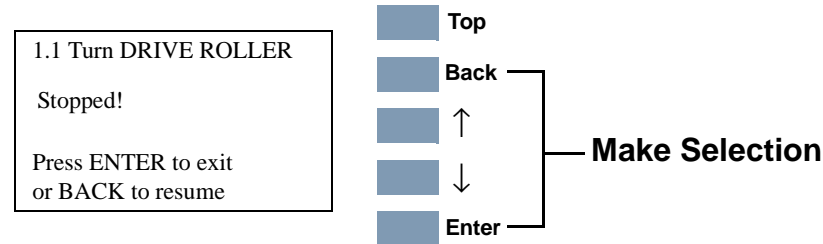
1. Lift the Window on the printer and deactivate the Window Sensor by inserting a pencil in the Sensor slot on the top of the Right Trim.
2. In the Service Utilities submenu, scroll to "Turn DRIVE ROLLER" and press **Enter**.



3. Once the utility starts, the Drive Roller will begin to turn slowly and the following message will be displayed. Everytime the Drive Roller completes a turn, the counter will increase by one.



4. If you want to stop the Drive Roller from turning, press **Cancel** and the following message will appear on the front panel. Press **Enter** if you want to return to the Service Utility menu or press **Back** if you want to continue turning the Drive Roller.



PHONE SUPPORT

Prime TUBES

The purpose of this Service Utility is to prime the Tubes when a new Tubes System has been installed or automatic priming was not completed.

NOTE

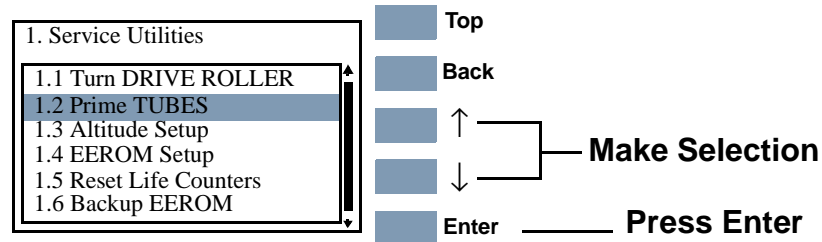
If you are using this Service Utility because automatic priming has failed, you will need to remove the Setup Printheads used and insert new Setup Printheads.

NOTE

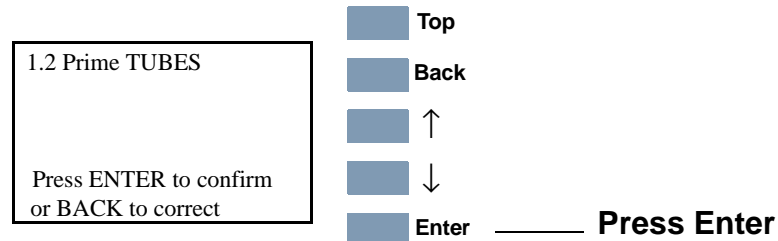
Check there is enough ink remaining in the Ink Cartridges before starting to prime the tubes; if the ink level is **LOW** or **VERY LOW**, replace the Ink Cartridges.

Prime the TUBES as follows:

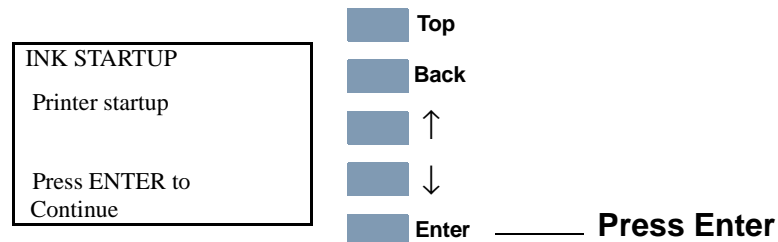
1. In the Service Utilities submenu, scroll to "1.2 Prime TUBES" and press **Enter**.



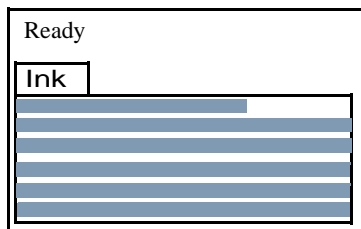
2. The following message will be displayed. Press **Enter** to confirm.



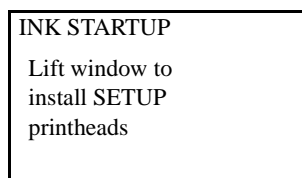
3. The Printer will begin to startup and in order to continue, press **Enter**.



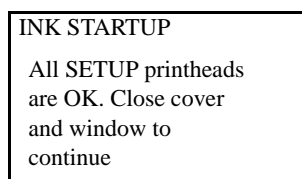
4. The following message will be displayed on the front panel while the printer verifies the Ink Cartridges:.



5. When the following message is displayed, lift the Window and remove ALL the Printheads from the Carriage. Install the Setup Printheads into the Carriage.



6. Once all the Setup Printheads are installed, the following message will appear on the front panel. Close the Carriage Cover and close the Window.



7. The following messages will be displayed on the front panel while the Printer accesses and then stores the Printheads.



- 8.** The Printer will then begin to prime the Tubes System.

INK STARTUP

Initializing printer
Please wait. xx sec

- 9.** Once the Tubes System is purged, the following message will be displayed. Lift the Window and remove ALL the Setup Printheads from the Carriage and install the previously removed printing Printheads into the Carriage.

INK STARTUP

Lift window to
replace SETUP
printheads

- 10.** Once all the Printheads are installed, the following message will appear on the front panel. Close the carriage cover and close the window.

INK STARTUP

All printheads
are OK. Close cover
and window to
continue

- 11.** Open the Right Door and make sure the Printhead Cleaners are installed in the Service Station.

INK STARTUP

Open right cover
and install printhead
cleaners

12. If media is not loaded, the following message appears on the front panel and you must load media into the Printer.

INK STARTUP

Load paper for
calibration

13. The Printer will start to print the Printhead Alignment Pattern and the following message will be displayed on the front panel:

INK STARTUP

Aligning printheads






Approximate
time remaining
x min xx sec

14. Once the Printhead Alignment is completed, the following message will be displayed on the front panel. Press **Enter** to continue:

INK STARTUP

Printer startup
has finished

Press ENTER to
Continue


 **Back**
 ↑
 ↓
 **Enter** **Press Enter**

PHONE SUPPORT

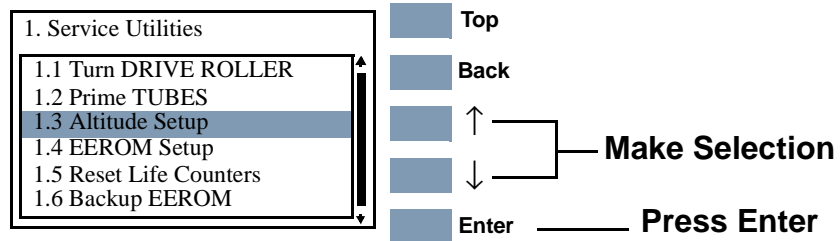
Altitude Setup

This Service Utility allows the operating altitude to be set for the Printer for particular operating conditions when media load problems occur.

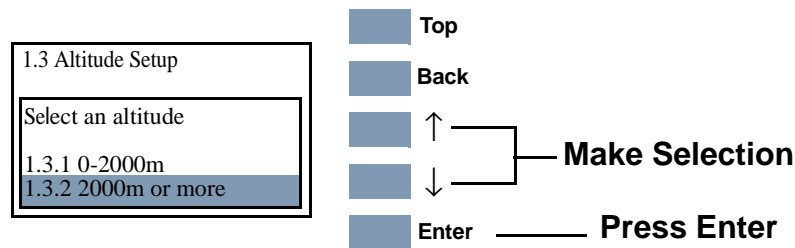
NOTE

This utility is required exclusively for Printer operating altitudes over 2000 m.

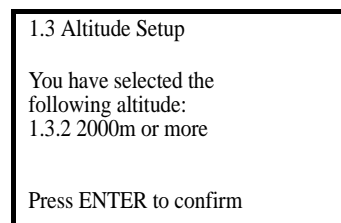
1. In the Service Utilities submenu, scroll to "1.3 Altitude Setup " and press **Enter**.



2. The following options are displayed Use the Arrow keys to make the selection and then press **Enter**:



3. Once the option has been selected, the following confirmation screen is displayed:

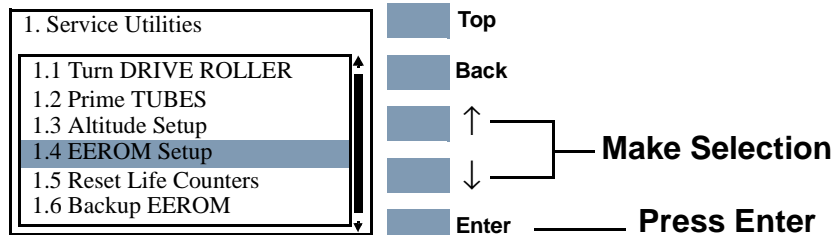


4. Press **Enter** to confirm and exit this utility or press **Back** to return to the altitude settings menu.

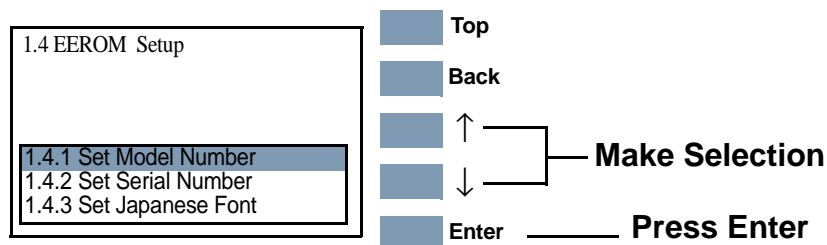
EEROM Setup

The purpose of this Service Utility is to set the Printer Model, the Serial Number and Japanese Fonts. This is required in the following situations:

- The Main PCA and Hard Disk Drive are replaced at the same time (EEROM empty).
 - The Hard Disk Drive and Main PCA are replaced at the same time and the Main PCA has already been used (valid EEROM content); the Printer backs up the data to the Hard Disk Drive storing wrong values for the current Printer.
 - The main PCA EEROM and the Hard Disk Drive EEROM backup are valid at initialization but data is conflicting because they do not come from the same Printer (they have a different Model Number or Serial Number), and the user has performed the Backup EEROM Utility incorrectly (See Page 4-31).
 - Both the Main PCA EEROM and the Hard Disk Drive EEROM backup are corrupt or fail during Printer initialization.
1. In the Service Utilities submenu, scroll to "1.4 EEROM Setup " and press **Enter**.

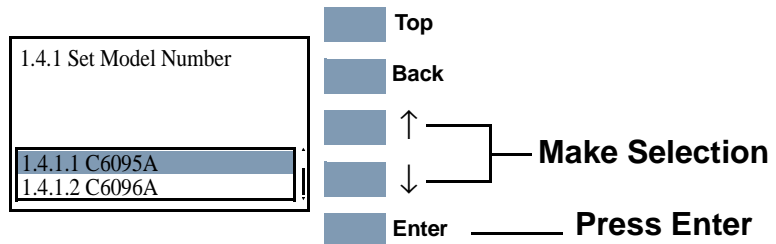


2. The following options are displayed for EEROM setup. Press **Enter** once you have made your selection:

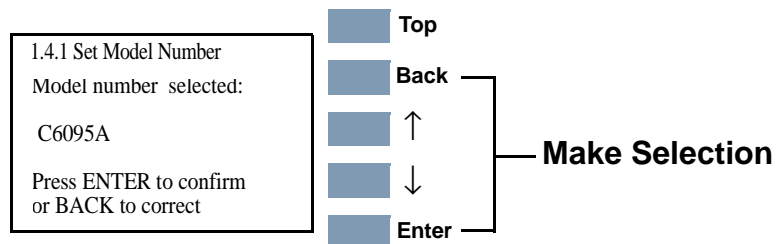


If you want to set the Model Number

- a** If you want to set the Model Number select "1.4.1 Set Model Number" and press the **Enter** key to access the list of possible Model Numbers for the Printer. Select the Model Number using the **Up** and **Down** keys and then press **Enter**.



- b** The following message is displayed. Press **Enter** to confirm and return to the EEROM Setup menu or **Back** to select another Model Number.

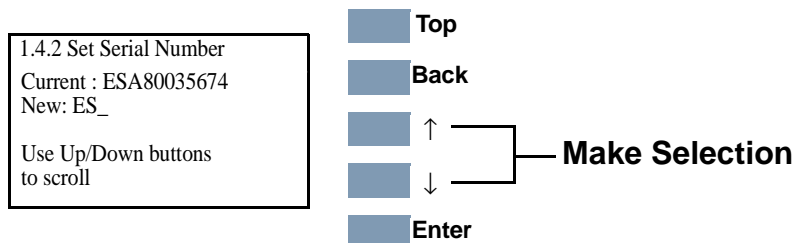


If you want to set the Serial Number

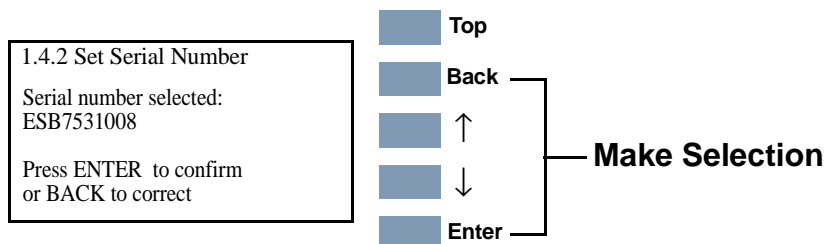
NOTE

The Serial Number in the Current field is only displayed if it is encoded in the EEROM.

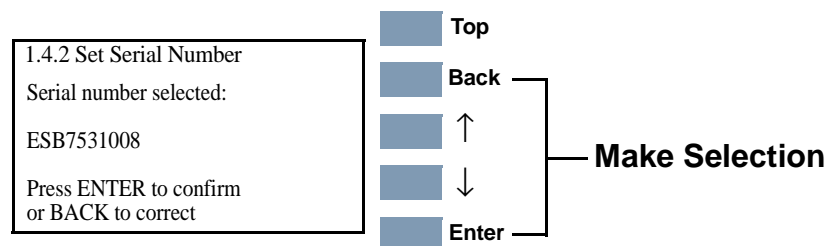
- a Select "1.4.2 Set Serial Number" and press the **Enter** key to view the message below. To define a new serial number use the **Up** and **Down** keys to scroll through a list of characters in the following ranges: **1...10**, **A...F** (hexadecimal format), **ES** or **SG** (site of manufacture), **←** (Backspace). The current parameter is displayed in the New field. To select the current parameter press the **Enter** key. To delete a character previously confirmed using the **Enter** key, select the **←** (Backspace character) from the list.



- b When the last digit has been entered, the message below is displayed. Press **Enter** to confirm the number and return to the EEROM Setup utility or **Back** to modify the number.



- c If you decided to press **Back**, the utility will return to the Serial Number selection menu and the last digit of the Serial Number will be automatically deleted.



If you want to set the Japanese Fonts

NOTE

If the customer is not using any internal Japanese PS Fonts, then this Service Utility is not necessary.

NOTE

If the Printer is NOT a HP DesignJet 5000PS (model no. C6091A or C6096A), this utility is not available and the message below will be displayed. Press Back to return to the EEROM menu.

1.4.2 Set Japanese Fonts
Font type not available
for this model of printer

Press BACK to return
to menu

Top
Back ——— Press Back
↑
↓
Enter

NOTE

If the printer is a HP DesignJet 5000PS, but the Hard Disk Drive does not contain any Japanese Fonts, then the message below will be displayed. Press Back to return to the EEROM menu.

1.4.2 Set Japanese Fonts
Only Roman fonts
available. Font type can
NOT be changed

Press BACK to return
to menu

Top
Back ——— Press Back
↑
↓
Enter

- a Select "1.4.3 Set Japanese Font" and press the **Enter** key. The message below will be displayed. Select **Yes** to load the Japanese fonts to the hard disk. Select **No (Cancel)** to return to the EEROM Setup utility.

1.4.2 Set Japanese Fonts
Set default font type
to Japanese?

Yes
No (Cancel)

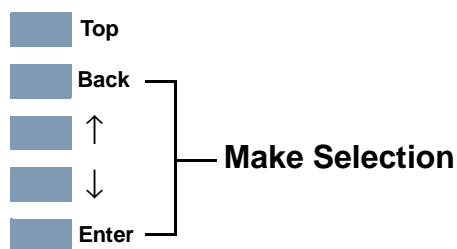
Top
Back
↑
↓
Enter ——— Press Enter

- b** If you select **Yes** the message below will be displayed. Press **Enter** to complete loading and return to the EEROM Setup utility or press **Back** to return to the previous message.

1.4.2 Set Japanese Fonts

You have set the
default font type to
Japanese

Press ENTER to confirm or
BACK to correct



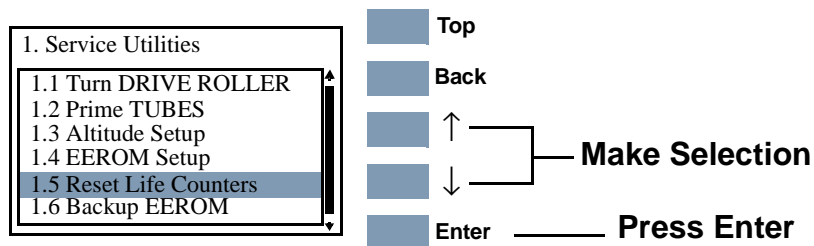
Reset Life Counters

The purpose of this Service Utility is to reset the preventive maintenance counters when parts have been replaced. When you reset a preventive maintenance counter for a part, the Printer will stop displaying the maintenance warning or stop message for the part.

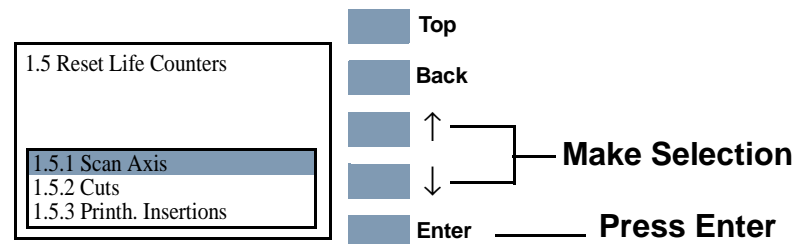
NOTE

You should only reset the life counter for a certain component when it has been replaced by a new one. Never reset the life counter for a component when it has not been replaced.

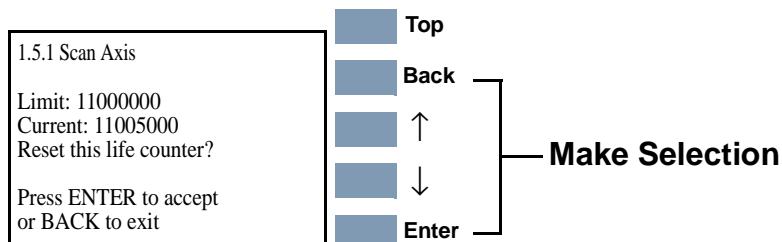
1. In the Service Utilities submenu, scroll to "1.5 Reset Life Counters" and press **Enter**.



2. The following options are displayed for Reset Life Counters. Press **Enter** once you have made your selection.

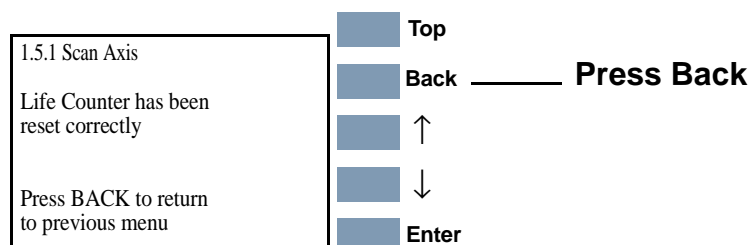


3. A message confirming the selection is displayed. Press **Enter** to confirm the reset of the life counter or **Back** to cancel.



The front panel message displays the following information:

- Color (Printhead Insertions only); the Printhead color for which the counter is being reset.
 - Limit; the number of cycles when the part requires replacing.
 - Current; the current number of usage cycles for the part.
4. When you reset the Life Counter, the following message is displayed:



Backup EEROM

This Service Utility is used to restore the contents of the EEROM when a service engineer has replaced the Main PCA or the Hard Disk Drive. If the Main PCA is replaced the EEROM content, backed up on the hard disk, is restored to the Main PCA and if the Hard Disk Drive is replaced the EEROM content is saved to the new Hard Disk Drive.

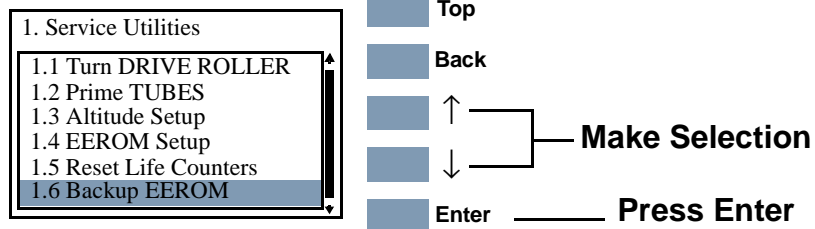
WARNING

Before using this utility, make sure that you are using Firmware version A.02.xx. If NOT, make sure that you upgrade the Firmware version to A.02.xx BEFORE using this utility.

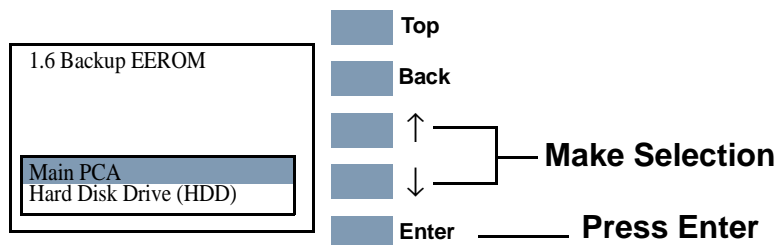
NOTE

If both the Hard Disk Drive and the Main PCA are replaced, on Printer start-up a continuable system error is displayed and you must perform all ALL the Calibrations as well as the EEROM Setup Service Utility (See Page 4-24).

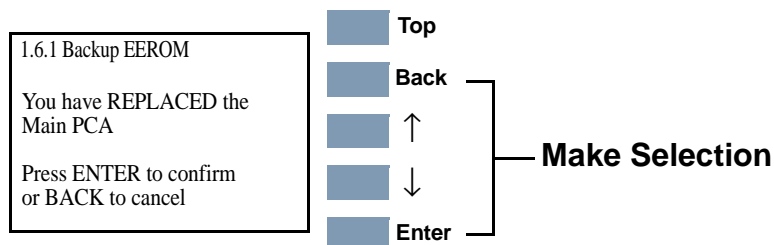
1. In the Service Utilities submenu, scroll to "1.6 Backup EEROM" and press **Enter**.



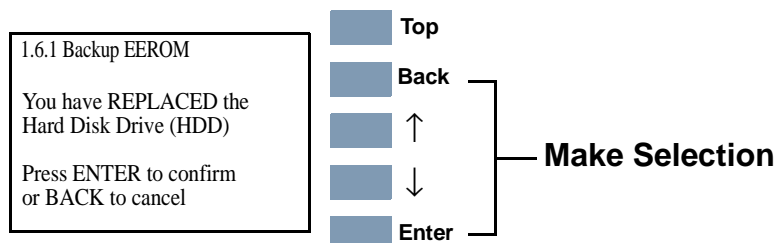
2. Select the part that has been replaced and press **Enter**:



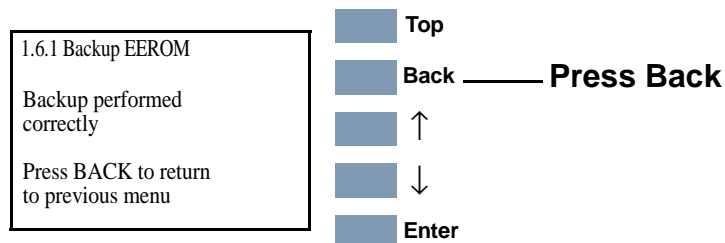
3. If you select "Main PCA" a message confirming the selection is displayed. Press **Enter** to confirm and exit this utility or press **Back** to cancel.



4. If you select "Hard Disk Drive (HDD)" a message confirming selection is displayed. Press **Enter** to confirm and exit this utility or press **Back** to cancel.



5. Press **Back** to return to the Service Utilities menu.

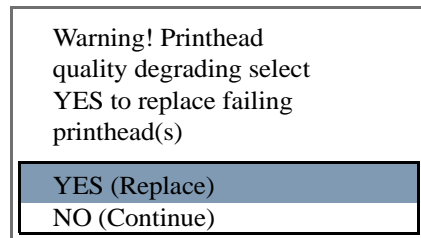


PHONE SUPPORT

Image Quality Warning

This Service Utility is used to turn the Image Quality Warning On or Off.

If the printer is about to print a job and Printhead health status means that a Printhead is not usable, the front panel will display a warning:



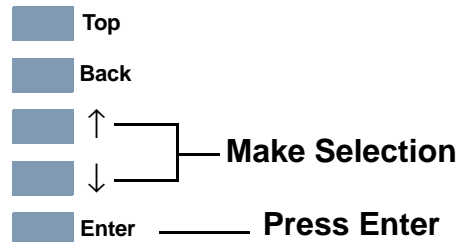
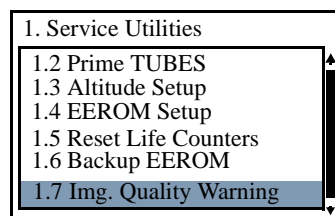
You can still print without the failed Printhead but each time you send a print job to the Printer, this warning is displayed. If you set the Image Quality Warning to **Off**, this message will not be displayed.

WARNING

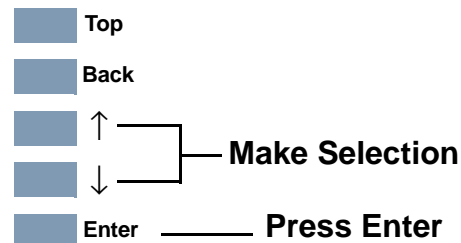
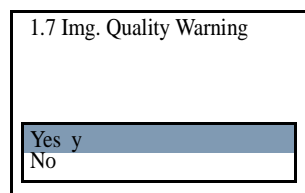
If you use degraded Printheads, the print quality may be affected, particularly in Max. Quality print mode. The image is printed WITHOUT using the failed Printhead i.e. without using that color.

To change the Image Quality Warning setting:

1. In the Service Utilities submenu, scroll to "1.7 Img. Quality Warning" and press **Enter**.



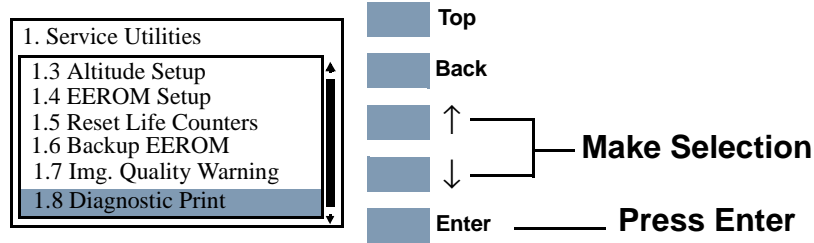
2. The following message is displayed. Select **Yes** or **No** and press **Enter** to confirm.



Diagnostic Print

This Service Utility allows you to print a Diagnostic print that will help you to troubleshoot image quality problems and verify printhead nozzle status.

1. In the Service Utilities submenu, scroll to "1.8 Diagnostic Print" and press **Enter**.



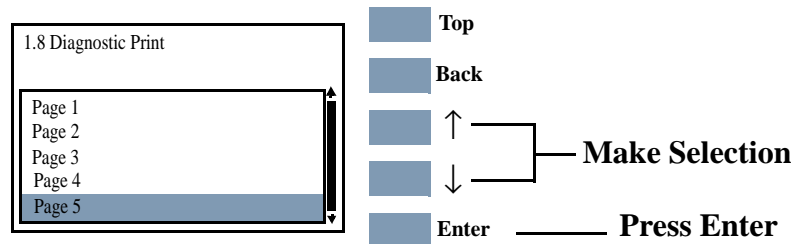
NOTE

For Firmware Versions earlier than A.02.xx, the Printer will start to print the Diagnostic Print immediately after selecting.

NOTE

For Firmware Version A.02.xx, the Printer DOES NOT print the complete Diagnostic Print. Instead you must select which part of the Diagnostic Print that you need.

- 2 Use the **Arrow** keys to select the page that you need and press **Enter** to print it.



- **Page 1** - Checks for banding in the Primary Colors.
- **Page 2** - Checks the Color to Color Alignment.
- **Page 3** - Check the Bidirectional Alignment.
- **Page 4** - Check for Vertical Line Straightness.
- **Page 5** - Performs the Nozzle Test.

For information on how to use the Diagnostic Print, refer to "How to Use the Diagnostic Print" on page 6-4.