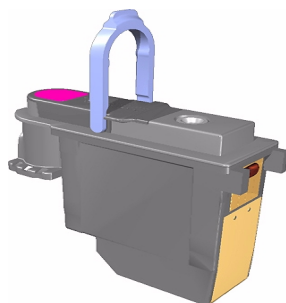

Ink Supplies Troubleshooting

3

What are the Ink Supplies?	3-2
Ink Cartridges	3-2
Printheads	3-3
Identifying the Components	3-3
General Information About the Ink Supplies	3-4
Some General Precautions When Handling the Ink Supplies	3-5
When Should You Replace the Ink Cartridges?	3-6
When Should You Replace the Printheads?	3-7
Obtaining Ink Cartridge Information	3-9
Obtaining Printhead Information	3-10
Ink Cartridge Status Messages	3-12
Ink Cartridge Status While Replacing	3-12
Printhead Status Messages	3-13
Printhead History Utility	3-14
Accessing the Printhead History Utility	3-14
Is the Printer Causing Repetitive Printhead Problems?	3-16
Is the User Replacing the Printheads too Early?	3-18
Troubleshooting Repetitive Ink Cartridge Messages	3-20
Troubleshooting Repetitive Printhead Error Messages	3-21
Printhead Error Codes	3-22
Summary of Solving Ink Supplies Problems	3-23

What are the Ink Supplies?

For each of the four ink colors used in the Printer, there are two separate components: the Printhead and the Ink Cartridge. Both components are coded with an HP selection number to identify the correct replacement supplies.



Printhead



Ink Cartridge
69cc

Ink Cartridges

The Ink Cartridges for the HP DesignJet 500 and 800 Series Printers require no maintenance or cleaning. As long as each Ink Cartridge is inserted correctly into its slot, the ink will flow to the Printheads.

The Ink Cartridges are number coded as follows:

- **HP No.10** for the Black Ink Cartridge.
- **HP No.82** for the Cyan, Magenta and Yellow Ink Cartridges.

NOTE

It is also possible to use HP No.11 Ink Cartridges for the Cyan, Magenta and Yellow colors. The HP No.11 Ink Cartridges contain 33cc of ink.

The front panel displays the status of the Ink Cartridge. With the front panel, detailed information can be checked on the Ink Cartridges, see page Page 3-9, *Obtaining Ink Cartridge Information*.

Printheads

The Printheads are extremely durable and do not need to be replaced every time an Ink Cartridge is replaced. They are independent of the Ink Cartridges and will continue giving excellent image quality results even if the Ink Cartridges are low on ink. In order to know when to replace a Printhead, see page Page 3-7, *When Should You Replace the Printheads?*

The Printheads are number coded **HP No.11** for ALL colors.

If you notice a decline in print quality such as lines or dots missing from text / graphics, go to page Page 6-4, *Performing the Troubleshooting Procedure*.

Identifying the Components

The following illustration will help you identify the components of the ink supplies.



General Information About the Ink Supplies

For optimum results from the printer and modular ink delivery system always follow these guidelines when handling the ink supplies:

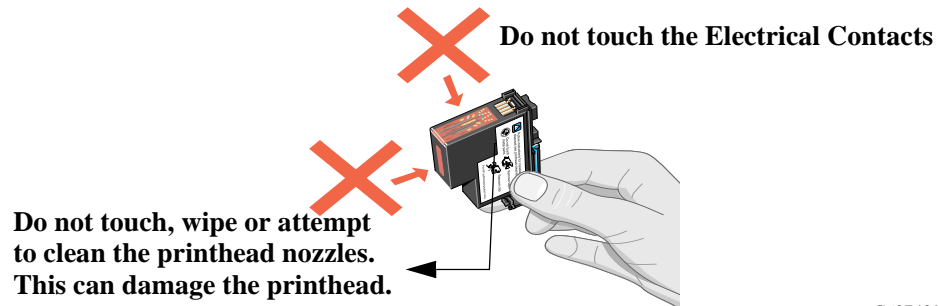
- Always install the Ink Cartridges and Printheads before the expiration date, which is on the packaging.
- Install Ink Cartridges and Printheads in their color-coded slots.
- Follow the instructions on the front panel of the Printer during installation.
- Avoid unnecessary removal of the Ink Cartridges and Printheads.
- When turning off the Printer always use the power Off button located on the left hand side of the Printer. The Printheads are then stored correctly which prevents them from drying out.
- The Ink Cartridges should never be removed while the Printer is printing. They should only be removed when the Printer is ready for you to replace them. The front panel will guide you through the removal and installation procedure. See page Page 3-6, *When Should You Replace the Ink Cartridges?*

Some General Precautions When Handling the Ink Supplies

CAUTION



Do not touch, wipe or attempt to clean the Printhead nozzles. This can damage the Printhead.



C6074297a

Handle the Ink Supplies with care. In particular the Printhead, which is a high precision device, must be handled very carefully.

- Do not touch the Printhead nozzles.
- Do not touch the Electrical contacts on the Printhead.
- Do not put the Printhead down on the nozzles.
- Do not be rough when handling the Printheads. Always set them down gently.
- Do not drop the Printheads.
- Proper handling will assure optimum performance throughout the Printhead life.
- Do not touch the end of the Ink Cartridge which is inserted into the Printer as there may be a small amount of ink on the connection.
- Avoid storing partially used Ink Cartridges on their ends.

When Should You Replace the Ink Cartridges?

When to change the Ink Cartridges is mostly determined by you with guidance from the front panel. In conjunction with the messages displayed in the front panel and the message explanations in this chapter, you will be able to choose for yourself when is the right time to change the Ink Cartridges.

The printer will also display the ink level and will tell you when the Ink Cartridge is almost empty. This means you have constantly updated information about the Ink Cartridges.

There are 3 circumstances when you need to replace the Ink Cartridges which are explained as follows:

- **Ink Cartridge Error message.** When this message appears, the Ink Cartridge has experienced a problem and should be replaced. If this message appears repetitively, refer to Page 3-20, *Troubleshooting Repetitive Ink Cartridge Messages*.



- **Out of Ink message.** When this message appears, the Ink Cartridge is out of ink and should be replaced. If this message appears repetitively, refer to Page 3-20, *Troubleshooting Repetitive Ink Cartridge Messages*.



- **Expiration message.** When this message appears, the Printer is warning you that the Ink Cartridge is close to the expiration date. Once the expiration date has been reached, the Printer will stop working and you will need to install a new Ink Cartridge in order to proceed. If this message appears repetitively, refer to Page 3-20, *Troubleshooting Repetitive Ink Cartridge Messages*.



When Should You Replace the Printheads?

In a normal situation, the Printhead should **ONLY** ever be replaced when advised by the Printer. If Print Quality is poor, the first step should **ALWAYS** be to perform the **Troubleshooting** procedure (Refer to Page 6-4) which will determine whether the Printhead needs replacing or not after performing various levels of recovery actions.

The minimum life expectancy of the Printhead is anticipated to be 530cc for the Black Printhead and 200cc for the Color Printheads, provided that the Printhead is used under normal operating conditions (using HP Ink Cartridges only) and its “install before date” has not lapsed. However results vary depending on the print quality setting being used.

There are 3 circumstances when you need to replace the Printheads which are explained as follows:

- **Printhead Error message.** When this message appears, the Printer has determined that one of the Printheads has experienced a problem and should be replaced. If this message appears repetitively, refer to Page 3-21, *Troubleshooting Repetitive Printhead Error Messages*.



- **Printhead Error (unknown) message.** When this message appears, one of the Printheads has experienced a problem but the Printer does not know which one it is.



In order to identify and replace the failing Printhead, try the following:

- 1 Select replace Printheads from the front panel.
- 2 Open the Carriage cover and remove **ALL** the Printheads.

- 3 Reinsert the Cyan Printhead only and close the Carriage cover and the Window.
 - 4 Check the front panel - if the status of the Cyan Printhead is **X** or **?** then the conclusion is that the Cyan Printhead is faulty and must be replaced. If the status of the Cyan Printhead is OK the conclusion is that the Cyan Printhead is working correctly. Repeat the process from **step 1** for the other Printheads to identify which one is failing.
- **Printhead Warning message.** When this message appears (normally appears when you check the status of the Printheads by selecting the **Ink Menu**), the Printer has determined that one of the Printheads has worn out and should be replaced.



The Printer normally determines this when:

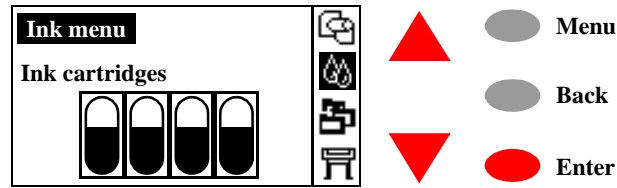
- 1 The Printhead Alignment fails due to a faulty Printhead and the Printer tries to recover the Printhead (upto 3 times) but is not successful after the 4th attempt at the Printhead Alignment (or if the recovery process or the Printhead Alignments are cancelled).
- 2 The Troubleshooting process is performed but the Printer cannot recover the failing Printhead even after performing the maximum recovery action.

NOTE

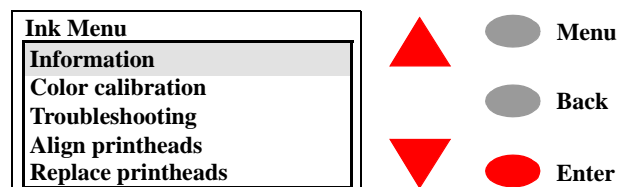
The user can continue using the Printer even with the Printhead Warning message but will not get the maximum Print Quality that the Printer is designed to provide, unless he replaces the worn out Printhead.

Obtaining Ink Cartridge Information

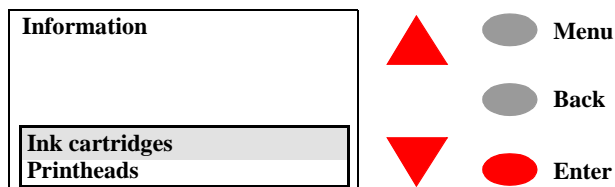
- 1 To get information on the Ink Cartridges press the ↑ or ↓ key until the front panel displays the **Ink Menu**. Press the **Enter** key.



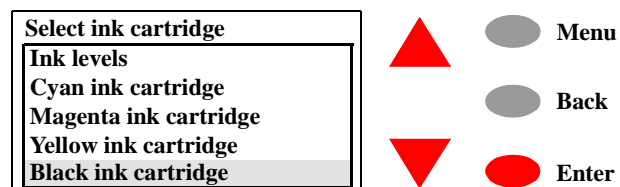
- 2 Press the ↑ or ↓ key until the front panel highlights **Information**. Press the **Enter** key.



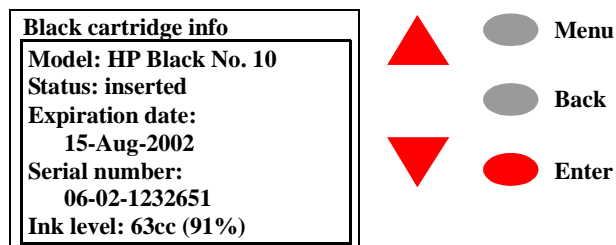
- 3 Press the ↑ or ↓ key until the front panel highlights **Ink cartridges**. Press the **Enter** key.



- 4 Press the ↑ or ↓ key until the front panel highlights the color that you want to see information on. Press the **Enter** key.



- 5 The front panel displays information on the selected Ink Cartridge.

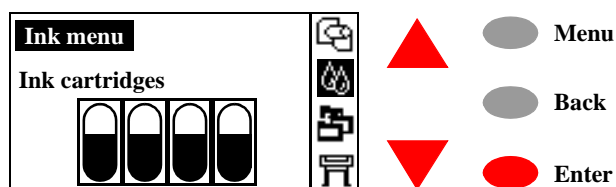


The information displayed is:

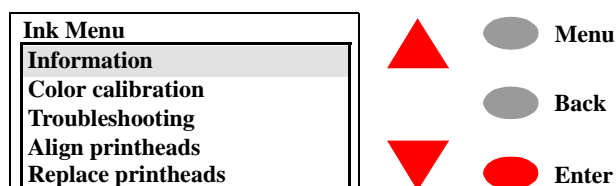
- The model of the Ink Cartridge (No.10 for Black and No.82 for the Colors is recommended).
- Status of the Ink Cartridge.
- The warranty expiration date of the Ink Cartridge.
- The Serial Number of the Ink Cartridge.
- The amount of ink remaining in the Ink cartridge (the error of the ink level can be as much as + or - 25% according to the specifications of the Printer).

Obtaining Printhead Information

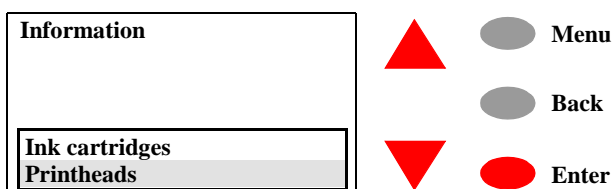
- 1 To get information on the Printheads press the ↑ or ↓ key until the front panel displays the **Ink Menu**. Press the **Enter** key.



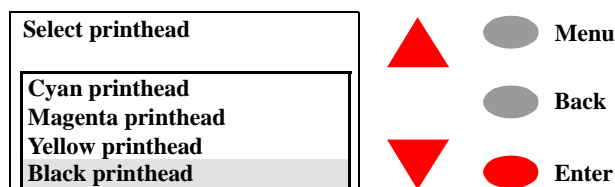
- 2 Press the ↑ or ↓ key until the front panel highlights **Information**. Press the **Enter** key.



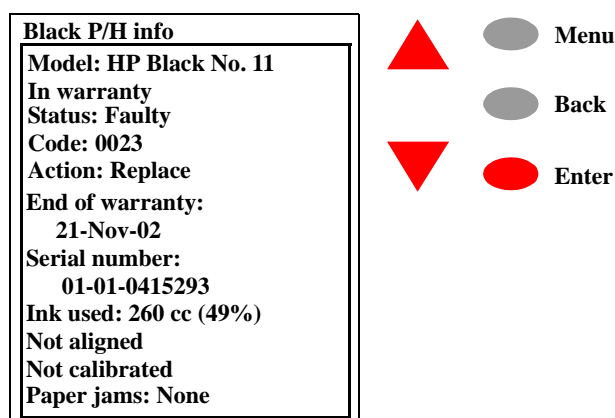
- 3 Press the ↑ or ↓ key until the front panel highlights **Printheads**. Press the **Enter** key.



- 4 Press the ↑ or ↓ key until the front panel highlights the color that you want to see information on. Press the **Enter** key.



- 5 The front panel displays information on the selected Printhead.



The information displayed is:

- The Model of the Printhead (HP No.11 is recommended).
- Whether the Printhead is In Warranty or Out of Warranty.
- Status of the Printhead (whether it is inserted, faulty, worn out or unknown).
- Printhead Error Code (if Printhead is faulty) - Refer to Page 3-22.
- The action required depending on the status of the Printhead.
- The end of warranty date of the Printhead.
- The Serial Number of the Printhead.
- How much ink has been consumed by the printhead. **Note:** It is possible for a Printhead to consume more than one Ink Cartridge. Also the % indicates the percentage over the expected life of the Printhead BUT a Printhead may last more than 100%.
- Whether the Printhead Alignment has been performed since the last Printhead replacement.
- Whether Color Calibration has been performed since the last Printhead replacement.
- Whether a Paper Jam was ever detected while this particular Printhead was installed.

Ink Cartridge Status Messages

Status Bars

The front panel displays four vertical bars. These bars represent how much ink is remaining in the Ink Cartridges: as ink is used up the bars get shorter in length. To see how much ink you have remaining, see page *Page 3-9, Obtaining Ink Cartridge Information*.

Ink Cartridge Status While Replacing

There are two circumstances under which you may need to replace an Ink Cartridge:

- The Printer has detected that the Ink Cartridge is empty or faulty.
- You decide to replace the Ink Cartridge.

If the printer detects that an Ink Cartridge needs replacing, you will see the message:



with six icons (explained below), referring from left to right to the Cyan (●), Black (●), Magenta (●) and Yellow (●) Ink Cartridges.

The icons may be any of the following:



The Ink Cartridge is **OK**; the approximate level of the ink is indicated - a full cartridge has the whole interior black;



Flashing; the Ink Cartridge is **missing**, and the correct one must be inserted;



Flashing exclamation mark; the Ink Cartridge is **low on ink**, and needs replacing at the earliest opportunity; For some types of Prints (like line drawings) the Ink Cartridge may still last much longer.



Flashing pump; the Ink Cartridge is **out of ink**, and must be replaced before any further printing can be done;



Flashing cross; the wrong Ink Cartridge is installed, and must be replaced before any further printing can be done.



Sand Clock; the Ink Cartridge will expire in X amount of days. The X is displayed at the top of the screen.

Printhead Status Messages

There are two circumstances under which you may need to replace a Printhead:

- The Printer has detected that the Printhead is faulty or is of the wrong model type.
- During the Printhead Alignment or **Troubleshooting** procedure the Printhead could not be recovered and the customer thinks that the Print Quality is not good enough.

Also, you should remove the Printheads if the Printer needs to be transported to another location.

If the Printer detects that a Printhead needs replacing, you will see the message:



with five icons (explained below), referring from left to right to the Cyan (●), Black (●), Magenta (●) and Yellow (●) Printheads.

The icons may be any of the following:

The Printhead is **OK**;



Empty box flashing; the Printhead is **missing**, and the correct one must be inserted;



Flashing cross; the Printhead is **faulty** or is of the **wrong model type**; Reseat the Printhead and check if the problem is resolved. If not, replace the Printhead.



Exclamation Mark; the Printer has determined that one of the Printheads has worn out and should be replaced; Replace the Printhead (the user can still decide if the Print Quality is good enough for them).



Question Mark; one of the Printheads has experienced a problem but the Printer does not know which one it is. Refer to Page 3-7 to determine which Printhead has failed.



Printhead History Utility

The Printhead History utility contains information on the last 5 set of Printheads installed in the Printer. The purpose of this information is to:

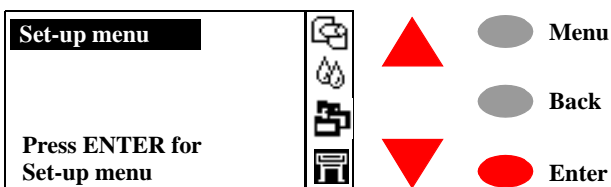
- Determine whether the Printer is causing repetitive problems to the Printheads ⇒ Refer to Page 3-16.
- Determine whether the Customer is replacing the Printheads too early without trying to perform any recovery actions ⇒ Refer to Page 3-18.

The information that is stored for each Printhead is:

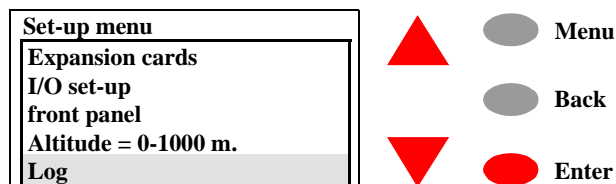
- How much ink was consumed when the Printhead was replaced.
- How long the Printhead was installed in the Printer.
- Whether the Printhead was in or out of warranty when it was removed.
- Whether the Printhead experienced a paper crash.
- Whether the Customer performed the right level of Printhead recovery (**Troubleshooting** procedure) before replacing a Printhead.
- The date when the Printhead was removed from the printer.
- The reported Error Code (if any).

Accessing the Printhead History Utility

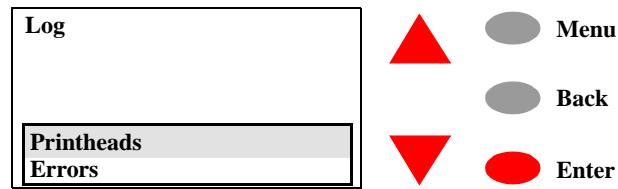
- 1 Press the ↑ or ↓ key until the front panel displays the Setup Menu. Press the **Enter** key.



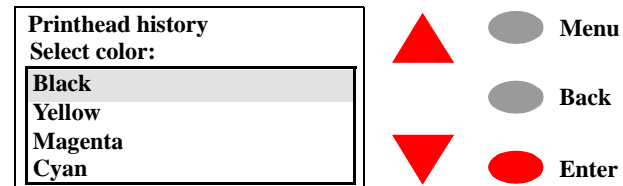
- 2 Press the ↑ or ↓ key until the front panel highlights **Log**. Press the **Enter** key.



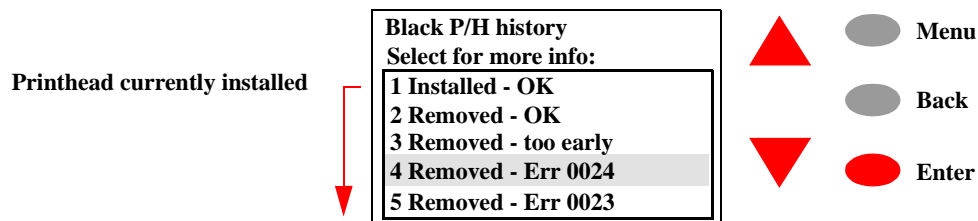
- 3 Press the \uparrow or \downarrow key until the front panel highlights **Printheads**. Press the **Enter** key.



- 4 Press the \uparrow or \downarrow key until the front panel highlights the color that you want to see information on. Press the **Enter** key.



- 5 The front panel displays the history of the last 5 Printheads of the selected color (use the arrow keys to scroll through the complete list). Press the \uparrow or \downarrow key until the front panel highlights the item number that you want to see information on. Press the **Enter** key.



The status displayed for the last 5 Printheads could be any of the following:

- **Installed - OK:** A Printhead is currently installed in the Printer and no error is detected.
- **Installed - Err xxxx:** A Printhead is currently installed in the Printer and an error has been detected. For Printhead error codes, refer to Page 3-22.
- **Installed - Unknown:** The status of the installed Printhead is unknown.
- **Removed - OK:** The Printhead was replaced correctly after the minimum life expectancy of the Printhead was reached, without any error being reported.
- **Removed - too early:** The Printhead was replaced before the

minimum life expectancy of the Printhead was reached and without any error being reported.

- **Removed - Unknown:** The status of the replaced Printhead was unknown.
- **Removed - Err xxxx:** The printhead was replaced after being marked with an error code. For Printhead Error Codes, refer to Page 3-22.

6 The front panel displays information on the selected item.

PH Info - Black #4
Ink used: 260 cc (49%)
Usage time: 135 days
P/H cleaning: 0
Error code: 0025
Removal date: 20-Sep-01

The information displayed is:

- The amount of ink the Printhead has consumed.
- The number of days the Printhead has been installed in the Printer.
- A code indicating whether Printhead recovery (**Troubleshooting** procedure) has been performed or not:
 - **0** indicates that the Printhead recovery was **never** performed.
 - **1** indicates that a Level 1 (soft) recovery was performed.
 - **2** indicates that a Level 2 (medium) recovery was performed.
 - **3** indicates that a Level 3 (hard) recovery was performed. **3** is the maximum recovery level that the Printer can perform before asking the customer to replace the Printhead.
- The reported Error Code (if any).
- The date the Printhead was removed from the Printer.

Is the Printer Causing Repetitive Printhead Problems?

The minimum life expectancy of the Printheads is 530cc for the Black Printhead and 200cc for the Color Printheads. If Print Quality is poor **before** the minimum life expectancy of the Printhead has been reached, the **Troubleshooting** procedure should be performed (Refer to Page 6-4) which will determine whether the Printhead needs replacing or not after performing various levels of recovery actions. After performing a recovery action, the Printhead will be encoded with either **1**, **2** or **3** (depending on the strength of the recovery action performed).

Now, if a Printhead is removed (even after Level 3 recovery has been performed) and the minimum life expectancy has **not been** reached, the Printhead will be marked "Removed - too early".

If a customer complains about having to replace the Printheads frequently **before** the minimum life expectancy has been reached, using the information obtained with the Printhead History Utility you can determine if the Printer is causing repetitive problems to the Printheads as follows:

- 1 Enter the Printhead History Utility and Select the color of the Printhead that is experiencing the replacement problem. In the following example, Printheads 2, 3 and 4 were removed too early:

Black P/H history	
Select for more info:	
1	Installed - OK
2	Removed - too early
3	Removed - too early
4	Removed - too early
5	Removed - Err 0025

These 3 Printheads were removed from the Printer before the minimum life expectancy was reached.

- 2 In order to check if the recovery process (**Troubleshooting** procedure) was performed on each Printhead, select the Printhead and press the **Enter** key.

Black P/H history	
Select for more info:	
1	Installed - OK
2	Removed - too early
3	Removed - too early
4	Removed - too early
5	Removed - Err 0256

PH Info - Black #2	
Ink used:	260 cc (49%)
Usage time:	135 days
P/H cleaning:	3
Error code:	
Removal date:	20-Feb-02

PH Info - Black #3	
Ink used:	355 cc (67%)
Usage time:	201 days
P/H cleaning:	3
Error code:	
Removal date:	20-Sep-01

PH Info - Black #4	
Ink used:	127 cc (24%)
Usage time:	65 days
P/H cleaning:	3
Error code:	
Removal date:	24-Nov-00

Summary

If 3 or more Printheads have been removed too early and the P/H cleaning code for all of them is 3 then try the troubleshooting steps on the following page.

As you can see in the above example, all the Printheads were removed **before** the minimum life expectancy was reached (Ink

used is below 100%) and the maximum recovery action was also performed (P/H cleaning code is **3**). Therefore the conclusion is that the Printer is causing the Printheads to fail. In this situation, to resolve the problem, try the following:

- 1 Check the amount of ink used by the Printhead (Page 3-10, *Obtaining Printhead Information*). If the amount of ink used by the Printhead is less than 1 Ink Cartridge (69 cc), then replace the Ink Cartridge for that color.
- 2 Check if the Ink Supply Station is faulty by performing the Ink Supply Station test ⇒ Page 4-6. If the test fails, replace the Ink Supply Station ⇒ Page 8-48.
- 3 Use the printer Information utility to check the usage of the Service Station ⇒ Page 4-27. If the usage of the Service Station is close to 100% then replace the Service Station ⇒ Page 8-52.
- 4 Check if the Ink Supply Tubes are faulty by installing new Start-up Printheads into the Carriage and see if ink flows to them (you will need to perform the Prime Tubes Utility ⇒ Page 4-24). If the ink **DOES NOT** flow to the Start-up Printheads, replace the Ink Supply Tubes ⇒ Page 8-60.

Is the User Replacing the Printheads too Early?

In the same way that you can determine if the Printer is causing failures in the Printheads, you can determine if the customer is replacing the Printheads **before** the minimum life expectancy has been reached **without** performing the maximum recovery action (**Troubleshooting** procedure).

If the user replaces the Printhead **without** performing a recovery action, the Printhead will be marked **0**. If the user replaces the Printhead after **only** performing Levels 1 or Level 2 recovery action, the Printhead will be marked **1** or **2**.

If a customer complains about having to replace the Printheads frequently **before** the minimum life expectancy has been reached due to poor print quality, using the information obtained with the Printhead History Utility you can determine if the Customer is replacing the Printheads too early as follows:

- 1 Enter the Printhead History Utility and Select the color of the Printhead that is experiencing the replacement problem. In the

following example, Printheads 2, 3 and 4 were removed too early:

Black P/H history	
Select for more info:	
1	Installed - OK
2	Removed - too early
3	Removed - too early
4	Removed - too early
5	Removed - Err 0025

These 3 Printheads were removed from the Printer before the minimum life expectancy was reached.

- 2 In order to check if the maximum recovery process (**Troubleshooting** procedure) was performed on each Printhead, select the Printhead and press the **Enter** key.

Black P/H history	
Select for more info:	
1	Installed - OK
2	Removed - too early
3	Removed - too early
4	Removed - too early
5	Removed - Err 0025

PH Info - Black #2	
Ink used:	260 cc (49%)
Usage time:	135 days
P/H cleaning:	0
Error code:	
Removal date:	20-Feb-02

PH Info - Black #3	
Ink used:	355 cc (67%)
Usage time:	201 days
P/H cleaning:	0
Error code:	
Removal date:	20-Sep-01

PH Info - Black #4	
Ink used:	127 cc (24%)
Usage time:	65 days
P/H cleaning:	1
Error code:	
Removal date:	24-Nov-00

Summary

If consecutive Printheads are being replaced too early and the P/H cleaning code for all of them is **2** or lower, the customer should be advised to use the **Troubleshooting** procedure before replacing Printheads.

As you can see in the above example, all the Printheads were removed **before** the minimum life expectancy was reached (Ink used is below 100%) and the maximum recovery action **was not** performed (P/H cleaning code is **0**, **1** or **2**). Therefore the conclusion is that the Printer is OK and the problem is that the customer is replacing the Printheads too early. In this case advise the customer to use the **Troubleshooting** procedure (refer to Page 6-4) to determine if Printheads need replacing or not. Emphasize that performing the **Troubleshooting** procedure could recover the Printhead if it is printing badly, therefore the User wouldn't need to buy new Printheads frequently.

Troubleshooting Repetitive Ink Cartridge Messages

When you see the messages shown below, the normal procedure is to replace the Ink Cartridge that has failed, ran out of ink or has expired.



But in certain circumstances, even after replacing the Ink Cartridge, the above messages continue to appear. This could mean that one of the components of the Printer is failing and requires cleaning or replacing. Follow these instructions to troubleshoot each message:

Ink Cartridge Error message.

- 1 Replace the Ink Cartridge that has failed.
- 2 If the message continues to appear, clean the electrical contacts inside the Ink Supply Station (power OFF the Printer first).
- 3 If the message continues to appear after cleaning the Ink Supply Station, replace the Ink cartridge again.
- 4 If the message still continues to appear, replace the Ink Supply Station ⇒ *Page 8-48*.

NOTE

You could also get repetitive Ink Cartridge Error messages if the Ink Cartridge is leaking. In this case try the following:

- 1 Reinsert the failing Ink Cartridge and if the status is OK, you may continue to print. If after reinserting the Ink Cartridge fails again then replace the Ink Cartridge. If the message continues to appear after replacing the Ink Cartridge then replace the Ink Supply Tubes ⇒ *Page 8-60*.

Out of Ink message.

- 1 Replace the Ink Cartridge that has failed.
- 2 If the message continues to appear, replace the Ink Cartridge again. If the new Ink Cartridge is consumed too quickly then the Ink Supply Tubes could be broken in which case replace the Ink Supply Tubes ⇒ *Page 8-60*.
- 3 If the message still continues to appear, perform the Ink Supply Station test ⇒ *Page 4-6*. If the test fails, replace the Ink Supply Station ⇒ *Page 8-48*.

Expiration message.**NOTE**

In order to determine the correct date, the Printer reads the information sent with a print file which includes the current date. The printer will then compare this date to the expiration date on the Ink Cartridge.

- 1 Replace the Ink Cartridge that has reached the expiration date.
- 2 Check the expiration date of the Ink Cartridge, see page Page 3-9, *Obtaining Ink Cartridge Information*. If, for example, today's date is 02-Nov-00 and the expiration date of the Ink Cartridge is 07-Jun-01, then the customer's computer should be checked to see if the correct date is configured.

Troubleshooting Repetitive Printhead Error Messages

When you see the message shown below, the normal procedure is to replace the Printhead that has failed.



But in certain circumstances, even after replacing the Printhead the above message continues to appear. This could mean that one of the components of the Printer is failing and requires cleaning or replacing. Follow these instructions to troubleshoot the message:

Printhead Error message.

- 1 Replace the Printhead that has failed.
- 2 If the message continues to appear, clean the electrical contacts inside the Carriage Assembly (power OFF the Printer first) and the electrical contacts of the Printhead (make sure you use water based solutions only).
- 3 If the message continues to appear after cleaning the Carriage Assembly and the Printhead, replace the Printhead again.
- 4 If the message still continues to appear, replace the Carriage Assembly ⇒ *Page 8-78*.

Printhead Error Codes

Printhead Error Codes consist of 4 digits which explain whether a Printhead is In or Out of Warranty and what problem has caused the Printhead to fail.

The following table explains the **first 2** digits of the Printhead Error Code:

Code	Explanation
00	Black Printhead In Warranty
01	Magenta Printhead In Warranty
02	Cyan Printhead In Warranty
03	Yellow Printhead In Warranty
10	Black Printhead Out of Warranty
11	Magenta Printhead Out of Warranty
12	Cyan Printhead Out of Warranty
13	Yellow Printhead Out of Warranty

The following table explains the **last 2** digits of the Printhead Error Code:

Code	Explanation
01 to 08	Acumen Error - Reseat Printhead, clean Carriage and Printhead flex circuit, replace faulty Printhead.
09	Printhead Thermal Error - Replace faulty Printhead; if the problem continues, replace Carriage Assembly.
10 to 17	Printhead Electrical Error - Clean Carriage and Printhead flex circuit, replace the faulty Printhead, check the other Printheads; if the problem continues, replace Carriage Assembly.
18 to 24	Printhead Thermal Error - Replace faulty Printhead; if the problem continues, replace Carriage Assembly.
30 to 33	Printhead Electrical Error - Clean Carriage and Printhead flex circuit, replace the faulty Printhead, check the other Printheads; if the problem continues, replace Carriage Assembly.
34	Acumen Error - Reseat Printhead, clean Carriage and Printhead flex circuit, replace faulty Printhead.

NOTE

Try the above recommended actions one at a time and check if the problem disappears.

Summary of Solving Ink Supplies Problems

Most of the problems that you could encounter when working with the Ink Supplies are solved with guidance from the front panel.

Problems reseating the Printhead

If you have inserted the printhead into the Carriage Assembly and the Printer rejects it (displays a faulty or missing icon), try the following steps.

NOTE

Check that during the priming process, the Setup Printheads are installed in the Carriage. If the printing Printheads are installed in the carriage during the priming process, they will be rejected and the front panel will show the "Normal printheads found - Open window and replace with SETUP printheads" message.

- Check that you have removed the protective tape from the printhead.
- Insert the Printhead into the Carriage Assembly but this time close the cover using the latch.
- Clean the electrical contacts on both the Printheads and the Carriage Assembly using a damp cloth.
- Replace the Printhead with a new one.

You Cannot Insert the Ink Cartridge Into the Printer

- 1 Ensure that you have the correct HP Ink Cartridge that is suitable for the HP DesignJet 500/800 Series Printer.
- 2 Ensure that the Ink Cartridge is the correct color for that slot.
- 3 Ensure that the Ink Cartridge is in the correct orientation, with the color coded label at the top.

CAUTION

Never clean inside the Ink Cartridge slots.

You Cannot Insert the Printhead Into the Printer

- 1 Ensure that you have the correct HP Printhead that is suitable for the HP DesignJet 500/800 Series Printer.
- 2 Ensure that the printhead is the correct color for that slot.
- 3 Ensure that the printhead is in the correct orientation.
- 4 Ensure that the protective cap is removed from the Printhead.

NOTE

Do not touch, wipe or attempt to clean the Printhead nozzles. This can damage the Printhead and reduce print quality.
