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pocket guide

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More Information…

You can find more about the following topics in the User's Reference Guide, which is on the *Using Your Printer CD:*

- Media Types and Characteristics
- Animations on Loading Media & Installing Ink Supplies
- More about solving problems
- Page Formatting
- Printer Configuration and Maintenance
- Functional Specifications
- A Glossary of terms and a comprehensive Index

There is also more information available from the following sources:

- The HP Designjet WebAccess tool, for information about your printer status, technical support, on-line documentation etc.
- HP Designjet Online: www.hp.com/go/designjet. For latest product information including on-line documentation.
- The Setup Instructions which came with your printer

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Use the Front-Panel

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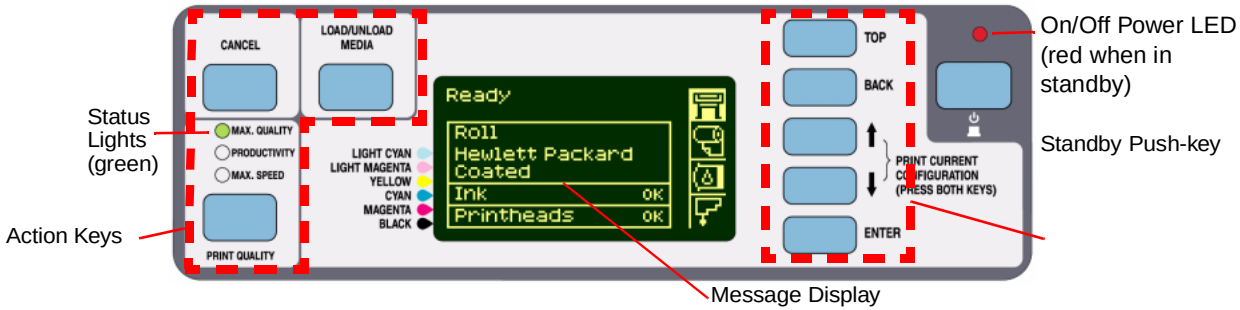
Functional Areas

The front-panel of the printer is made up of the following functional areas:

- A message display screen
- Navigation Keys
- Action keys and associated Status Lights, on the left
- Standby key and status light.



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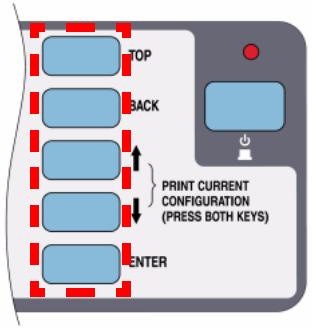
The Navigation Keys

The right side of the front-panel is the where the navigation keys are located. The navigation keys are **Top, Back**, ↑, ↓ and **Enter.**

You use these keys to navigate through the menu system and to select menu icons and menus, see *Front-Panel Menus, on page 14*. You can also use the navigation keys to respond to messages see page ***5,*** in section ***Front-Panel Messages*** on the reverse of this guide, for detailed descriptions for errors and status messages.



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Display Screens

The display in the front-panel displays a variety of information. When one of the four menus is highlight the front-panel displays the following information:

Printer setup menu

The Setup Menu icon looks like this

If the Printer Setup menu is selected, there is brief and overall description on the status of the consumable. If there is no media loaded, then there is a message describing the first step to loading media.

If you press **Enter** now, you will go to the Setup Menu. See *Front-Panel Menus, on page 14*

Media Menu

The Media Menu icon looks like this

If the Media menu is selected, and there is media loaded, the front-panel displays information on the media you have loaded.

If you press **Enter** now, you will go

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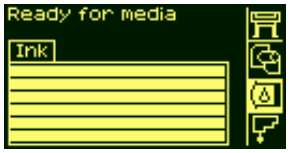
to the Media Menu, see *Consumable Menu - Media Menu, on page 23*

Ink Cartridge Icon

The Ink Cartridge Menu icon looks like this:

If the Ink Cartridge menu is selected, the status of each of the ink cartridges is shown. If there is a problem with one or more of the ink cartridges, the front-panel will display an action message or a error code, see page ***5,*** in section ***Front-Panel Messages*** on the reverse of this guide for more details.



If you press **Enter** now, you will go to the Ink Cartridge Menu, see *Consumable Menu - Ink Cartridge Menu, on page 24*.

Printhead icon

The Printhead Menu icon looks like this

If the Printhead menu is selected, the front-panel displays the status of each of the printheads. If there is a problem with one or more of the printheads, the front-panel will display an action message or a error code see page ***5,*** in section ***Front-Panel Messages*** on the reverse of this guide for more details.

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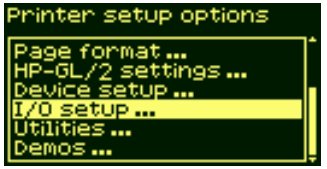
If you press **Enter** now, you will go to the Printhead Menu, see *Consumable Menu - Printhead Menu, on page 25*.

Menus

To configure the printer use the menus to select and change the settings. Use the up and down keys to navigate and press the **Enter** key to select the options.



Procedure information

The front-panel display can help you through the various procedures you have to perform, loading media for example:

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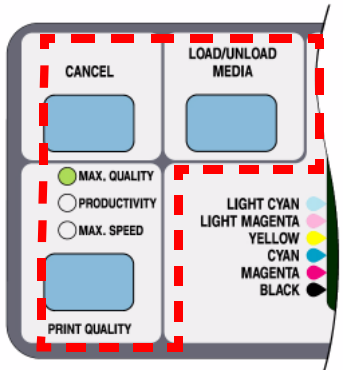
Action Keys

The action portion of the front-panel consists of:

- Cancel
- Load/Unload Media
- Print Quality Mode

The action keys let you:

- Stop printing and media loading while they are in progress, cancel dry time, cancel nest waiting. (CANCEL key) see *Cancelling a Page, on page 141*.
- Load and unload media (LOAD/UNLOAD key) see *Loading the New Roll of Media, on page 42*.
- Select the print mode (Max Quality, Productivity and Max. Speed). A green light indicates the setting you have selected. See *Print Mode Selection, on page 8*



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Print Mode Selection

- Choose **Max. Speed** for maximum productivity. Ideal for checking prints, when image quality is not the most important.
- Choose **Productivity** to get a good combination of print quality and productivity.
- Choose **Max. Quality** to get the highest possible image quality with Glossy media.

You can print images in different settings to see which gives the best combination of throughput and quality for your application. The resolution at which your print will be printed is summarized in the table below.

NOTE: Printing in Max. Quality mode with enhanced resolution setting to ON is available with Glossy media only.

Print quality setting	Default Resolution	Resolution with Enhanced resolution setting to **ON**
Max. Speed	300 x 300	600 x 600
Productivity	300 x 300	600x 600
Max. Quality	600 x 600	1200 x 600

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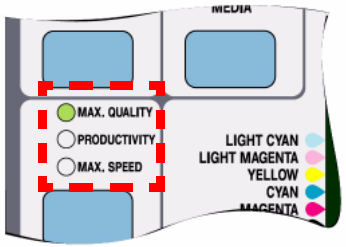
Status Lights

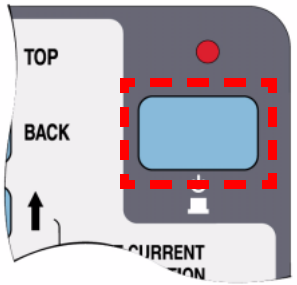
The green status lights indicates what setting is currently active in the front-panel.

NOTE: In most cases, settings in your application software or printer driver will override the settings you make on the front-panel of the printer.



Standby key

The printer has a standby mode where, after a period of inactivity, the printer goes into a sleep mode (low-power usage mode). This is indicated by the front-panel display and status indicators turning off. The indicator light on the front-panel is on when the printer is in standby mode. The printer “wakes up” whenever you press the **Standby** key on the printer or there is any I/O activity, such as receipt of a file.



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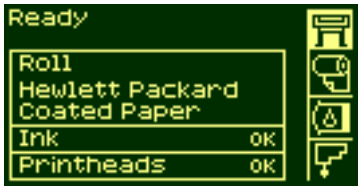
Internal Prints

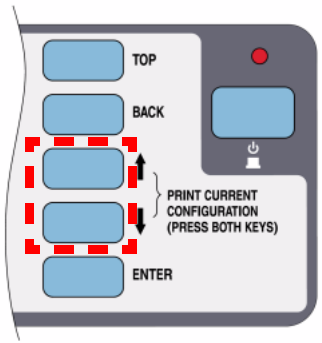
Print the Configuration

To request a “Current Configuration Print” from the front-panel:

1. Make sure that media is loaded, either roll media or sheet.
2. Press the **TOP** key to select the main menu on the front-panel.
3. Make sure that the front-panel displays the **Ready** message.



4. Press the ↑ and ↓ keys on the front-panel simultaneously to print the Current Configuration Print.
5. The front-panel displays the message **Receiving** while the file is being processed, and then **Printing** as the printer starts printing.



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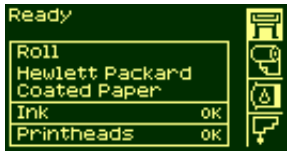
Menu Print

You can see the complete menu structure available on the printer by printing the Front Panel Menu print or see page *Front-Panel Menus, on page 14*. Use it to help you to navigate the menus.

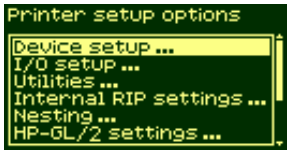
NOTE: The Menu print is printed in the size specified in the Page Format → Size settings in the front-panel. However if sheet media is loaded, it will automatically shrink to fit. Make sure this setting specifies the size you want before printing.

1. Make sure that media is loaded.

2. Make sure the front-panel displays the printer setup menu icon. If it does press the **Top** key front-panel to select it. Press the **Enter** key.



3. The front-panel will now display the printer setup options:



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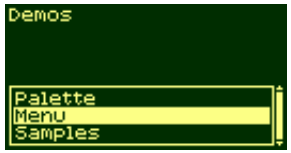
4. Press ↓ key until “Demos” is selected. Press the **Enter** key.

5. Press ↓ or ↑ key until “Menu” is displayed. Press the **Enter** key.



6. The front-panel will now display the message “Receiving” while the file is being processed, and then the printer starts printing the Front-Panel Menus print.

Other Internal Prints

There are several internal prints available in the printer. The prints are listed below:

Configuration Print

The Configuration print shows the current settings for all the printer’s features.

Printer Usage Information print

The Printer Usage Information print shows the status of the printer’s usage counters. This information includes the total number of prints, number of prints per print mode, and total amount of ink used per color. The counts in this report are estimates.

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Print Quality Image

The Print Quality Print can be used to help diagnose whether the printer has image quality problems, and if problems exist, help determine the cause of image quality problems see page ***31,*** in section ***Image Quality*** on the reverse of this guide.

Service Configuration

The Service Configuration print provides information needed for the service engineer, such as the internal current configuration, operating conditions (temperature and humidity), ink levels, and other statistics about printer usage.

HP-GL/2 Palette

The HP-GL/2 Palette print shows the color or grayscale definitions in the currently-selected color palette. See the ‘Using Your Printer CD’.

Demo Prints

These are prints showing the capabilities of the printer.

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Front-Panel Menus

Key:

1. The items in yellow shaded boxes always appear on the Front Panel.
2. The items in the white boxes appear in the front-panel only when the **Utilities - >Menu mode** is set to **Full**. Full is the default.
3. The items in the blue boxes appear in the front-panel only when the TUR is installed and loaded with media.
4. The items in the green boxes appear in the front-panel only when the TUR is installed and NOT loaded with media or when the TUR is not installed.
5. The items marked with (@) require PostScript drivers.

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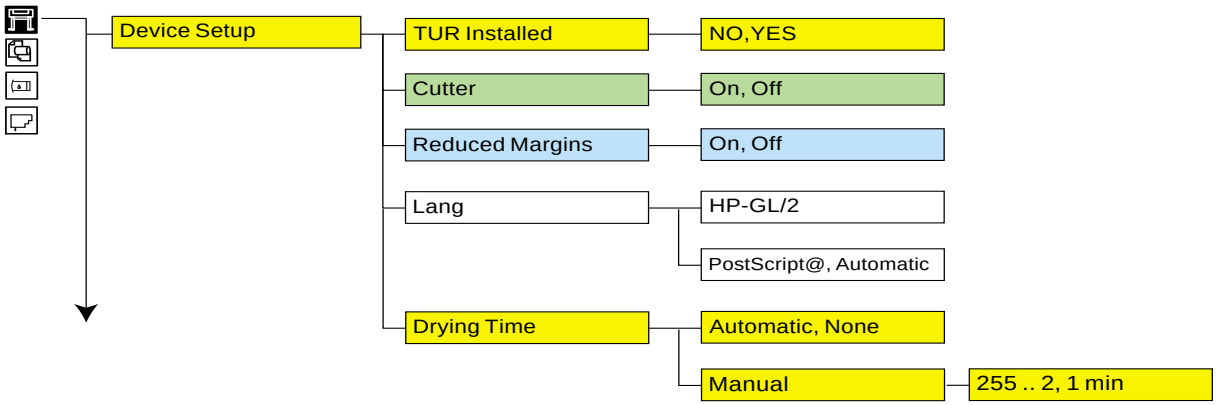
Setup Menu - Device Setup



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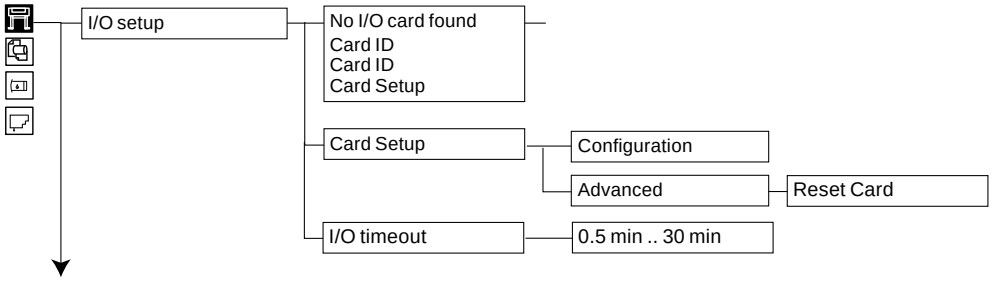
Setup Menu - I/O Setup



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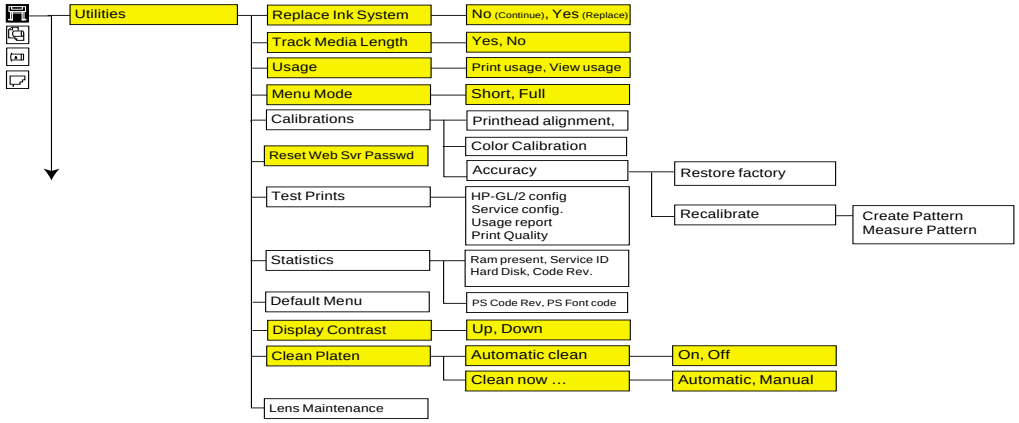
Setup Menu - Utilities



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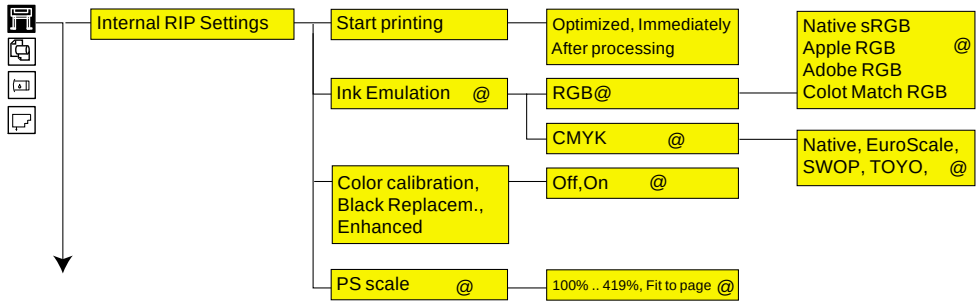
Setup Menu - Internal RIP Settings



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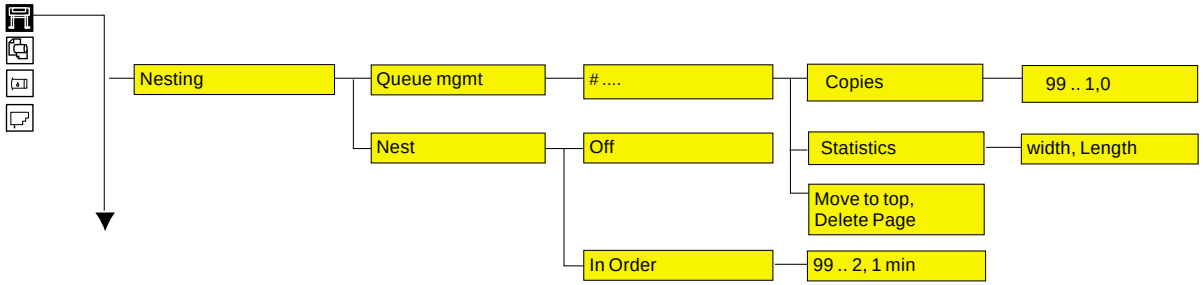
Setup Menu - Nesting



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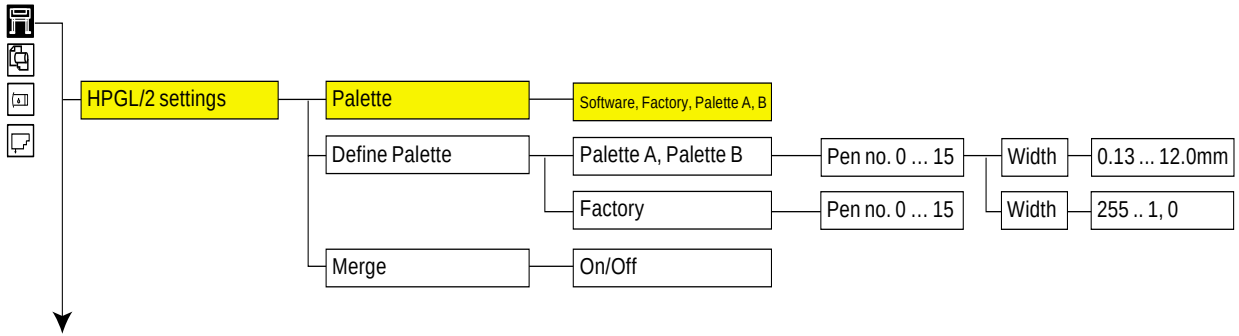
Setup Menu - HP-GL/2 Setting



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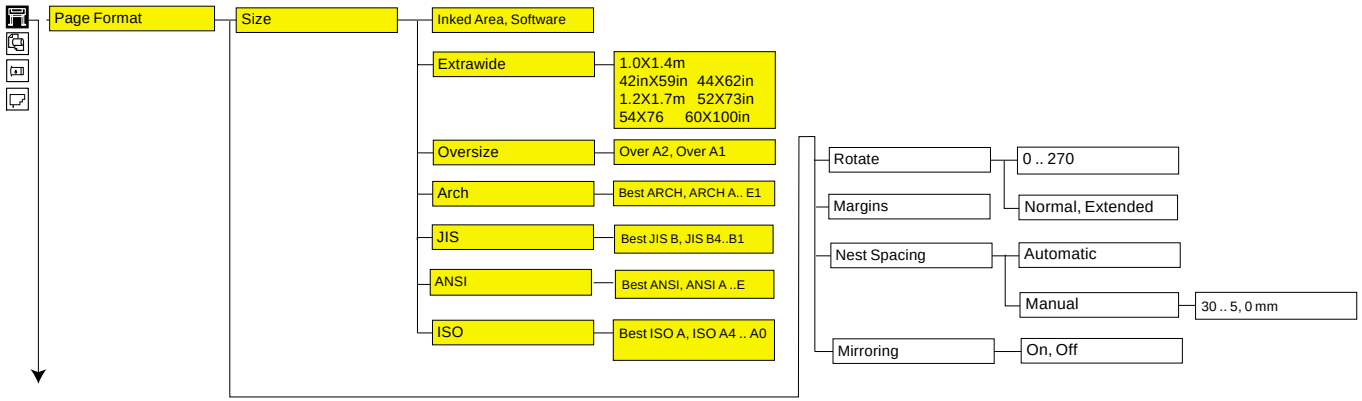
Setup Menu - Page Format



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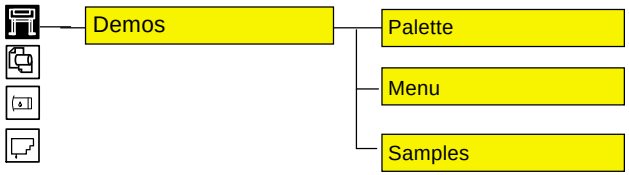
Setup Menu - Demos



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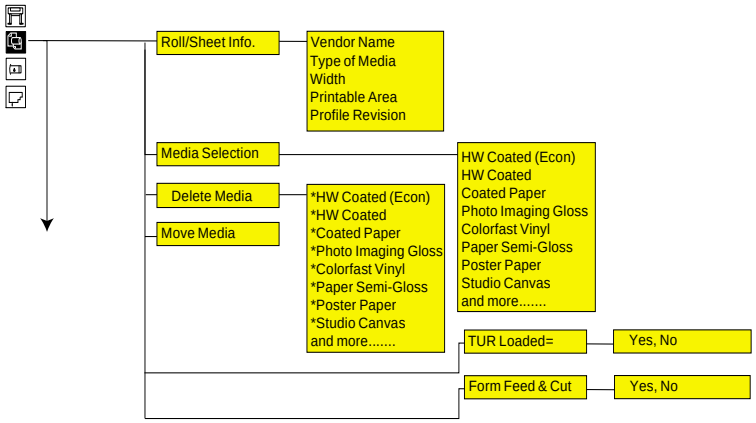
Consumable Menu - Media Menu



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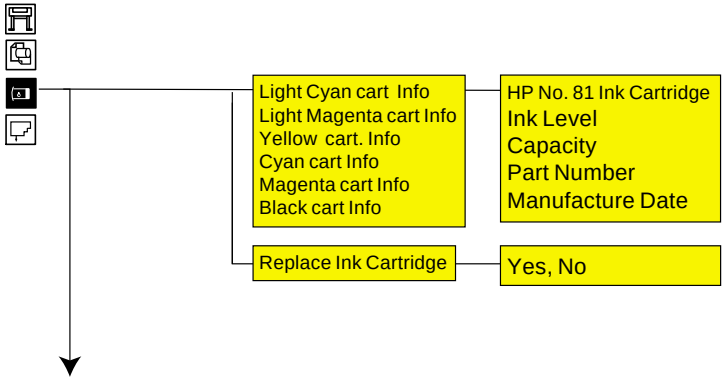
Consumable Menu - Ink Cartridge Menu



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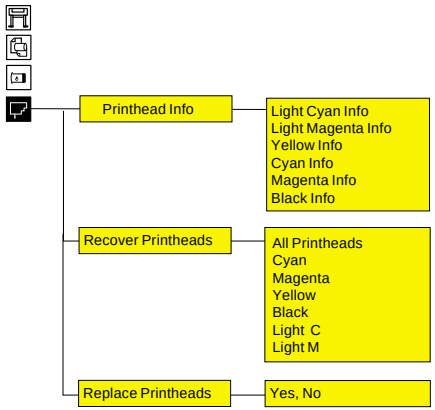
Consumable Menu - Printhead Menu



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Navigation

Using the Navigation Keys

Once in the first-level menu, you can navigate the menu system using the display keys.

Press the **Top key** to go back to the top (1st) level. This will bring you to the setup menu icon See *Entering Setup Menu, on page 27*

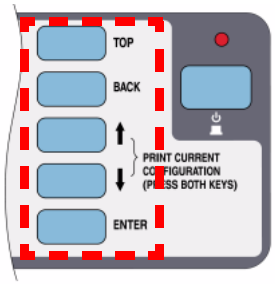
Press the **Back** key to display the previous menu level, without changing any menu selections

Press ↑ to scroll up, or ↓ to scroll down though the menus.

Press the **Enter** key to:

a Select a menu and move to the next menu level, when in the menu system

b Change the printer's configuration to the highlighted menu item indicated with a √ symbol.



The … characters in a menu box indicate that another level of menu is available.

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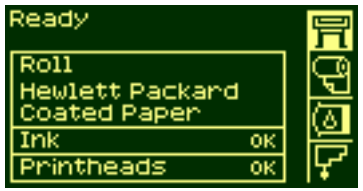
Entering Setup Menu

1. Make sure the front-panel displays the printer Setup Menu Icon. If it does not, press the **Top** key.



2. Press the **Enter** key to enter the printer setup menu. The front-panel will now display the printer setup menus:

Note: If the short menu is selected, the I/O setup menu will not be available.

To see how to change from the full menu to the short menu, see *Navigation Examples, on page 28*.

3. Now you are in the printer setup menus you can change the settings of your printer.

4. To exit the menu system, press the **Top** key.

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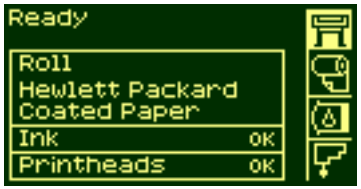
Navigation Examples

Changing Menu Mode

The front-panel displays two types of menu. One is the short menu. This menu only contains the settings for everyday use of the printer. The other menu is the full menu mode which contains all of the menus.

1. Make sure the front-panel displays the printer Setup Menu Icon. If it does not, press the **Top** key. Then Press the **Enter** key.



2. The front-panel will now display the printer setup options:

3. Press the ↓ key until “Utilities” is selected. Press **Enter** key.

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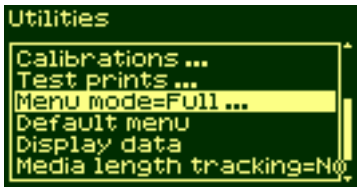
4. Press the ↓ key until “Menu mode” is selected. Press **Enter** key.



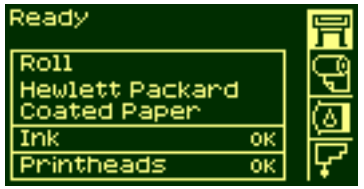
5. Use the ↑ or ↓ key to select the menu mode you want. The selected option will have a √ symbol.

6. To exit the menu system, press the **Top** key.

Changing the Page Size

This example shows how to adjust the page size.

1. Make sure the front-panel displays the printer Setup Menu Icon. If it does not, press the **Top** key. Then Press the **Enter** key.



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2. The front-panel will now display the printer setup options:

3. Press the ↓ key until “Page Format” is selected. Press the **Enter** key.

4. The correct menu is already highlighted. Press the **Enter** key to select “Size=”.

5. Press the ↓ key until “Software” is selected. Press the **Enter** key.

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6. ‘Software’ is now selected.The selection you have made will be indicated by the √ symbol.

7. To exit the menu system, press the **Top** key.

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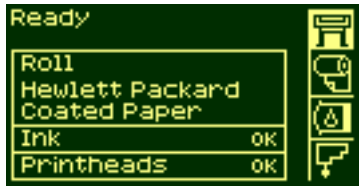
Changing the Drying Time

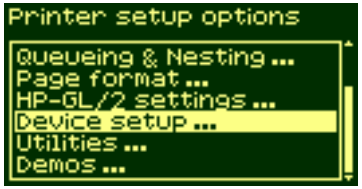
This example adjusts the drying time, a setting used to suit special printing conditions. See the ‘Using Your Printer CD’ for more details.

1. Make sure the front-panel displays the printer Setup Menu Icon. If it does not, press the **Top** key. Then Press the **Enter** key.



2. The front-panel will now display the printer setup options:

3. Press the ↓ key until the “Device setup” menu is selected. Press the **Enter** key.



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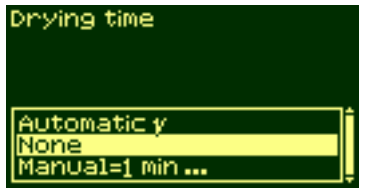
4. Press the ↓ key until the “Drying time=” menu is selected. Press the **Enter** key.

5. Press the ↑ or ↓ key to select “Manual”.



6. Press the **Enter** key to select it as the setting for Drying time.

7. Press the ↑ or ↓ key to select the drying time.

8. To exit the menu system, press the **Top** key.

U S E T H E F R O N T P A N E L

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Restoring the Default Menu

If you are unsure about the settings you have made, or if you prefer to reset the printers' default menu, go to the "Utilities" menu and select "Default menu".

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Loading and Unloading Media

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Loading Roll Media Guidelines

There are three steps to loading media into the printer.

1. Load media onto the media spindle and install the loaded spindle into the printer.
2. Insert the media into the printers' media path and set the media type in the front-panel.
3. Install the media onto the Take Up Reel (if you have one).

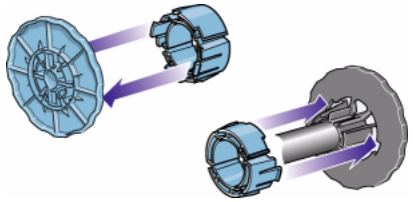
Loading media into the Printer

In the initial stages of loading media you may want to open the window, but this is optional. If you are an experienced user for example, you can leave the window closed, thus saving time.

NOTE: Always start the procedure through the front-panel.

When loading media into the printer check:

- The media is wound onto the spindle tightly.
- Ensure the media spindle is loaded correctly, with the media guides installed firmly onto the spindle.
- If you are using a three-inch cardboard core, make sure the core adaptors supplied with the printer, have been installed. See below



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Loading media onto the spindles

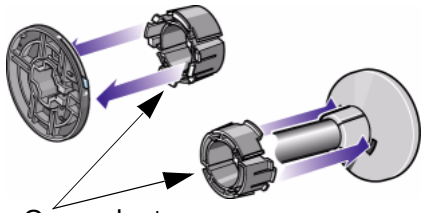
If you are a regular user of different types of media, you can change the media over quicker if you have more than one spindle loaded with media. Perform the following:

- Pre-load the different types of media onto the spindles.
- Remove and replace the spindle with the new type of media.
- Extra spindles are available from HP see ***Ordering Accessories***

Loading media onto the Take Up Reel

When loading media onto the Take Up Reel:

- Check the leading edge as it unwinds from the spool. If it is not evenly cut or if it is skewed, trim the media as shown in the animation.
- Check the media is straight when it is attached to the Take Up Reel, otherwise the media will skew as it is wound onto the core.
- The core tube on the take-up reel **must** be the same width as the media you are using.
- Make sure the take-up core is pushed firmly into both media guides.
- If you need to feed more media from the printer, and the 'Move Media' screen is no longer displayed, go to the media menu and press **Enter**. Then select 'Move Media'.
- If you are using a three-inch cardboard core, make sure the core adaptors supplied with the printer, have been installed.



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The Take Up Reel as an accessory

For the HP Designjet 60inch/1.57m printer the Take Up Reel is supplied as standard. For the HP Designjet 42inch/1.07m printer it is an optional accessory which you can order, see the ‘Using Your Printer CD’.

Help with loading

When loading media there is information available from:

- The pocket guide installed at the back of the printer
- There are labels located on the printer and on the spindles.
- The front-panel will guide you through all the procedures step-by-step.

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Installing a New Roll into the Printer

1. Make sure the printer wheels are locked (the brake lever is pressed down) to prevent the printer from moving.
2. Remove the empty spindle by pulling firmly on each end A and then B as indicated below.

The spindle has a stop at each end to keep the roll in position. The stop at the left-hand end can be removed to mount a new roll, it slides along the spindle to hold rolls of different widths.

3. Remove the removable stop (A) from the left-hand end of the spindle.

4. The media roll may be very long, rest the spindle horizontally on a table and load the media on the table.

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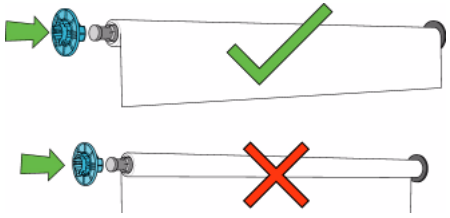
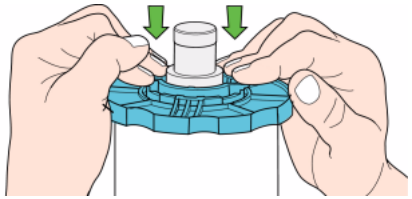
5. Slide the new roll of media on to the spindle. Make sure the orientation of the media is loaded exactly as shown. If it is not, remove the roll, turn it 180 degrees and slide it back on to the spindle.



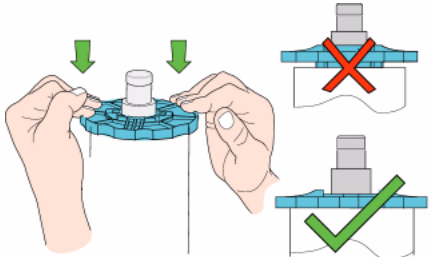
6. Put the removable stop on to the upper end of the spindle, and push it down. Do not use excessive force.



7. Ensure the spindle guide is pushed down as far as it will go.

8. With the movable roll stop on the left, slide the spindle into the printer left and then right as shown by the arrows A and B.

Installing a New Roll into the Printer



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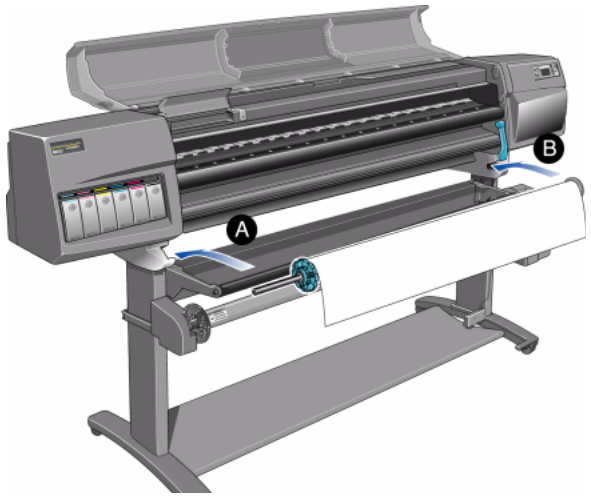
9. The media should hang down from the roll exactly as shown below.



If you are a regular user of different types of media, you can change the media over quicker if you have more than one spindle, perform the following.

a pre-load the different types of media onto the spindles.

b remove and replace the spindle with the new type of media.

NOTE: Extra spindles are available from HP.

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Loading the New Roll of Media

NOTE: To start this procedure you need to have a roll of media installed on to the printer spindle. See *Installing a New Roll into the Printer, on page 39*.

HP Designjet 60 inch (1.52m) only

The following procedure assumes that you have the Take Up Reel installed and turned **On** in the Device Setup menu.

HP Designjet 42 inch (1.07m) only

The following procedure includes references to the Take Up Reel which is an accessory which you can order. See the 'Using Your Printer CD'

1. Check the leading edge as it unwinds from the spool. If it is not cut straight, continue with the next procedure. If the media is cut correctly go to step 3.

WARNING **The knife used in the next step is sharp. Be sure the printer's wheels are locked. Keep fingers clear of the cutting path. Keep the knife away from children.**

2. Trim the leading edge of the media roll only if it is not straight. If the amount of media was printed at the end of the roll, this will be cut if it is trimmed.

a Pull the media over the top of the printer and lay it over the cutting track.

b Use the knife in the pocket located on the back of the printer to cut off the first few inches of the media.

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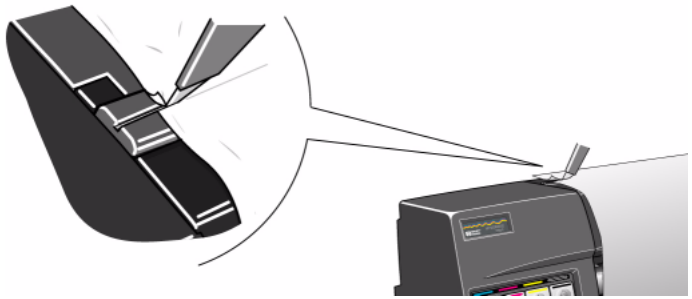
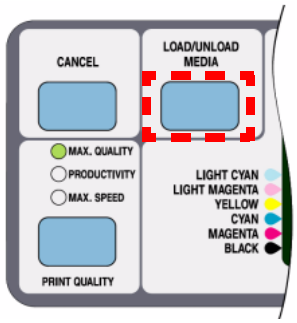
c Retract the blade and return the knife to its pocket.



3. Press the **Top** button to select the main menu on the front-panel.

4 Make sure that the front-panel displays the **Ready for media** message. Shown below is an example of what the front-panel will display with the main screen selected

5. Press the LOAD/UNLOAD MEDIA key on the front-panel.



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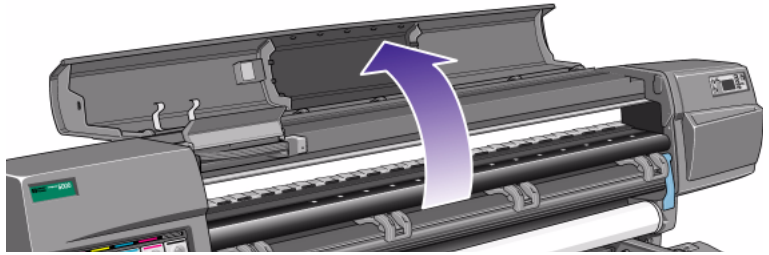
6. The front-panel displays:

7. Select roll and press **Enter**.
8. Open the window (Optional).

NOTE: If you have loaded media before and you are an experienced user, you may want to leave the window down. Media can be loaded with the window up or down.



The front-panel now displays:

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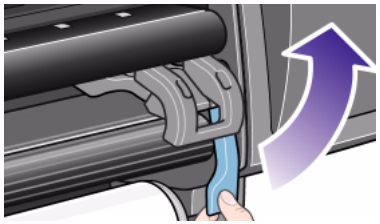
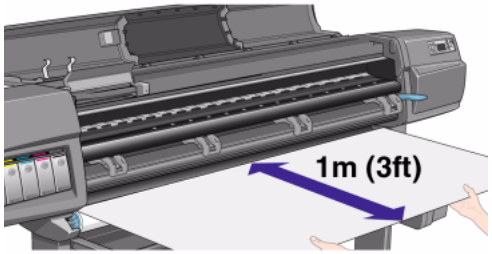
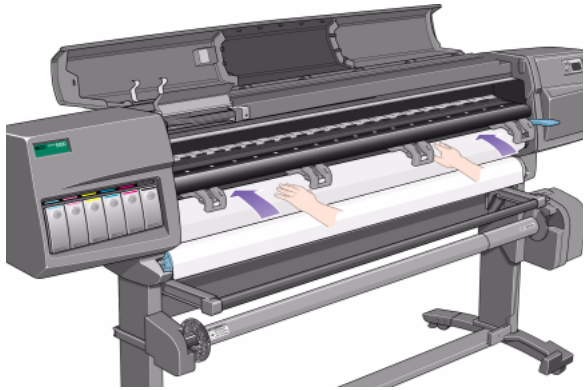
9. Lift the media load lever.



10. Pull out approximately 1m of media (3ft).



11. Carefully insert the roll media edge as shown below.



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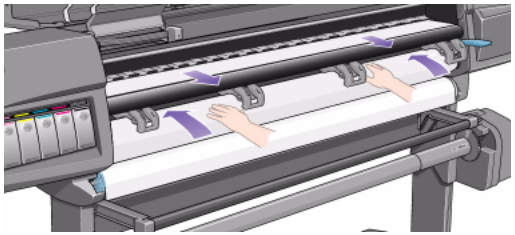
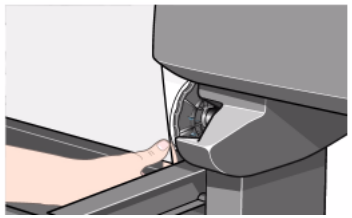
12. Continue inserting the roll media until it emerges from the printer as shown below.

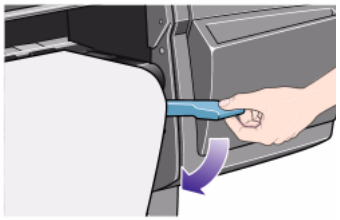


13. The front-panel displays:

14. Take hold of the edges of the media now extending from the exit slot and pull the media toward you until taut. Then align the left and then the right edges of the media, so that they are aligned with the edges of the roll.



15. When the media is correctly aligned with the edges of the roll, lower the lever.



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If the window is open the front-panel displays:

16. Lower the window.

17. The printer checks the media alignment.

HP Designjet 60 inch (1.52m) only

18. If the media is correctly aligned the printer will display:

19. Select “Yes” and press the **Enter** key

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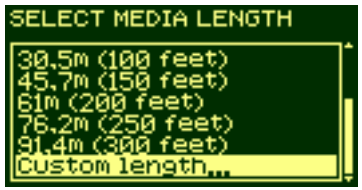
20 The front-panel displays various vendors of media if they have been down loaded. See the ‘Using Your Printer CD’ for more details. Select the vendor of the media you are using. Press the **Enter** key.

21. The front-panel displays various types of media:

22. Select the media type you are using and press the **Enter** key.

23. The front-panel displays various lengths of media.

If you have been using the roll previously, it is unlikely to be a standard length of roll. The remaining length should be printed on the end of the roll (if you have not trimmed it). In this case select ‘Custom Media’.



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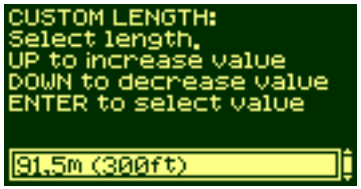
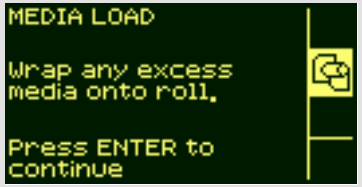
24 Change the screen using the ↑ and ↓ keys to the amount printed on the end of the roll of media. Press the **Enter.** key.



NOTE: To turn on and off the media length tracking function see *Media Length Tracking, on page 71*.

HP Designjet 42 inch (1.07m) only

25. The front-panel displays:



26. Wind the excess media onto the spindle. Use the media stop to turn the roll media in the direction shown.

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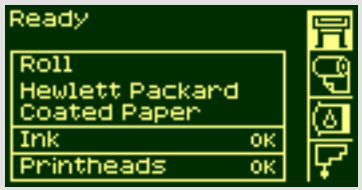
HP Designjet 42 inch (1.07m) only

The front-panel displays the following and is ready to print.



HP Designjet 60 inch (1.52m) only

The printer is ready to load the media onto the Take Up Reel. Follow the procedure in the next section.

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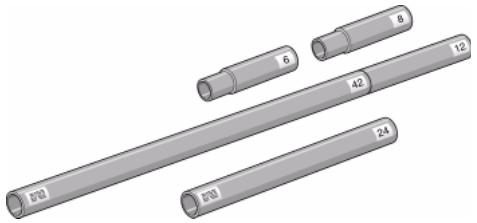
Loading the Media onto the Take Up Reel

The following procedure is only applicable to the HP Designjet 5000 when the Take Up Reel has been installed as an optional accessory. To order the Take Up Reel refer to the ‘Using Your Printer CD’.

The first part of loading media onto the Take Up Reel is attaching the end of the media (by tape) to the Core tube which was supplied with the Take Up Reel. You can also use an empty cardboard tube to replace the plastic Core tube. Both types of core must be the same length as the media you are using.

Plastic tube core

By matching color coded lengths of plastic tube, you can make a core tube for different widths of standard media sizes.



1. Use the ↓ key to move the leading edge of the media down until it is level with the centre of the core tube.

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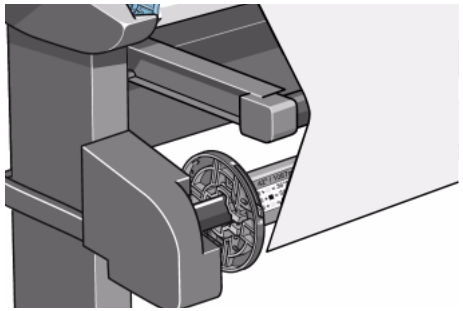
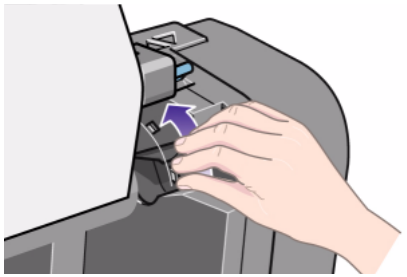
2. Make sure the media passes in front of the deflector, as shown below.



3. Move the adjustment levers on the left and right paper guides to the unlocked position.



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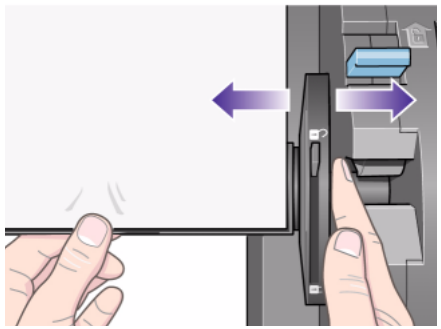
4 The two media guides and core must be positioned on the take-up reel spindle so that the media is in the center, between the media guides. Adjust the position of the core as shown below.



5. When you have adjusted the position of the core, pull the adjustment levers on both media guides to the locked position.

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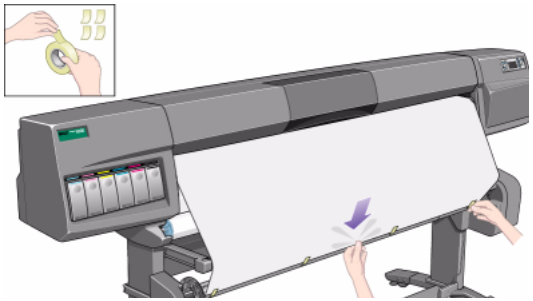
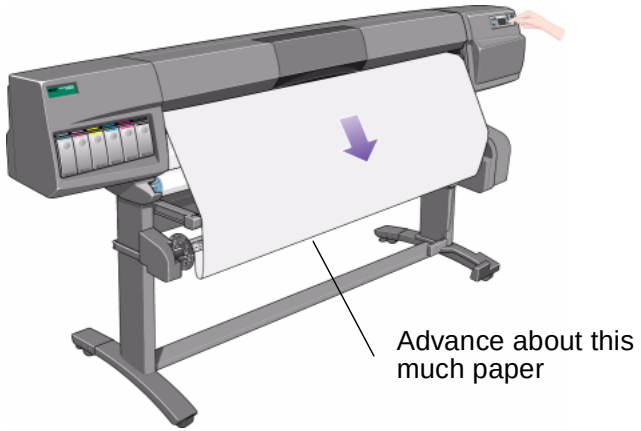
6 Pull the media taut to the position shown below. Do not attempt to pull more media out of the printer; if you need more media, use the front-panel. Use tape to secure the media to the core tube.



NOTE: To avoid the media skewing as it is wound onto the core tube, ensure the media is straight when it is attached.

7. Press the ↓ key on the front-panel to advance the media. Enough media should be advanced so that the media can wrap at least once around the core.



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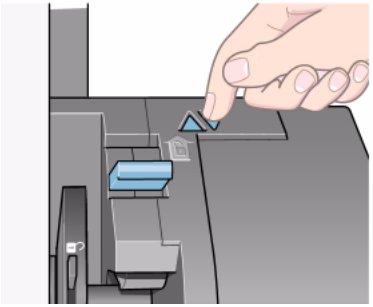
8. **Important:** Press the media wind button on the take-up reel panel indicated below to wind the media once around the core.
9. Press the ↓ button on the front-panel again to advance some more media: enough to enable you to insert the media weight.



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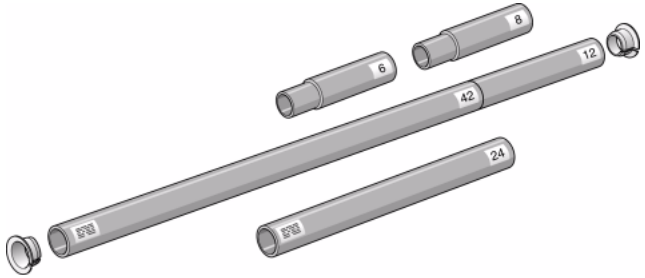
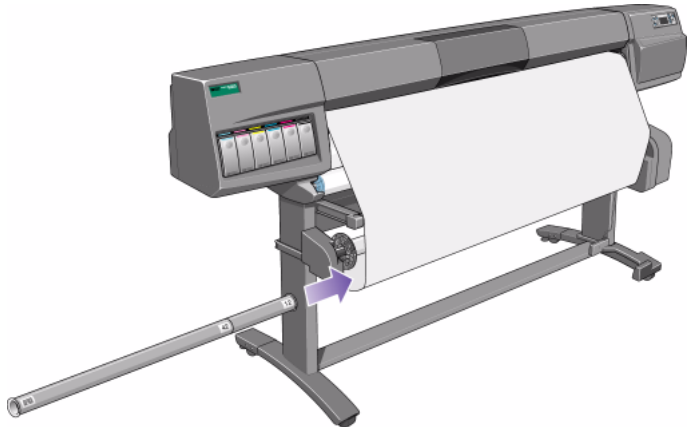
It is important that the media weight is the same width as the media you are using. By matching color coded lengths of plastic tube, you can make a media weight for different widths of standard paper sizes.



10. Carefully insert the media weight. Ensure that the end caps are installed and extend over the edges of the media.

CAUTION **It is important that the media weight is inserted. The take-up reel will not function properly without it.**



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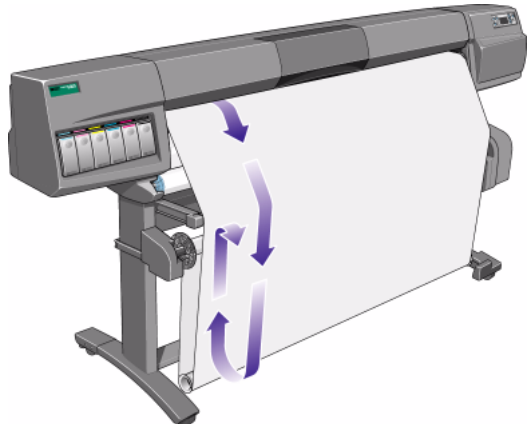
11. Press **Enter** on the printer's front-panel, which will then display the Ready message.

NOTE: When the take-up reel is in operation it is important to ensure that the take-up reel sensor is not blocked.

12. Shown below is how the printer will look when it is in operation. As media is fed from the printer it drops down in a loop and up into the take-up reel spindle.



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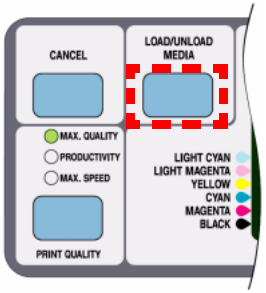
Unloading the Media from the Take-Up Reel

To unload the roll media from the take-up reel, perform the following procedure.

1. Ensure that the ink is dry.
2. Press the **LOAD/UNLOAD MEDIA** key on the front-panel.



3. The front-panel displays:

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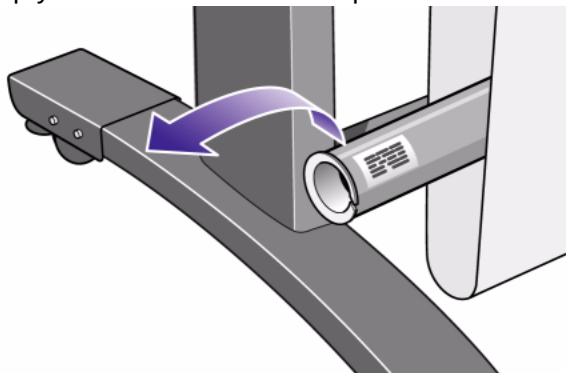
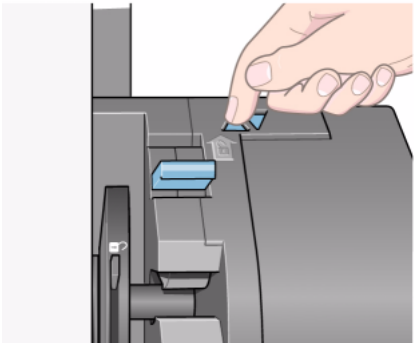
4. **Important:** Remove the media weight as shown below. It may help you to remove the end-caps first.



5. Press the media wind button shown below to wind the media hanging down from the printer onto the take-up reel.



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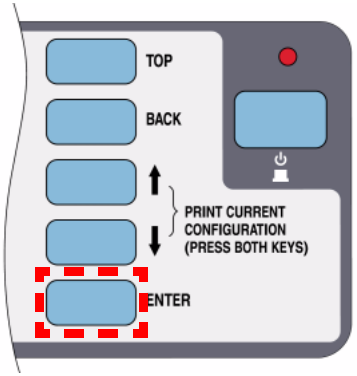
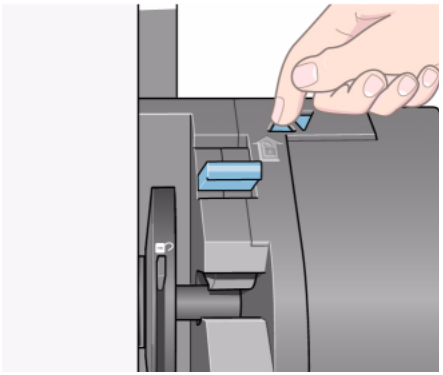
6. Press **Enter** on the printer's front-panel. The printer will now cut the media.



7. Press the media wind button again.



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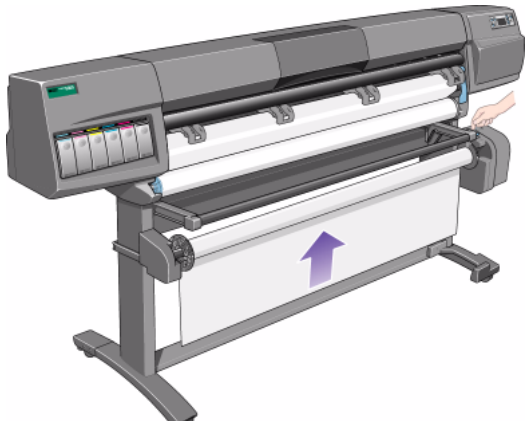
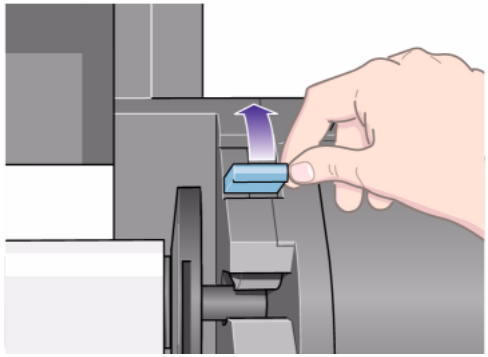
8. The media hanging down will be wound onto the core tube.



Unloading the Media from the Take-Up Reel

9. Slide open the spindle lock on the right-hand side of the take-up reel.



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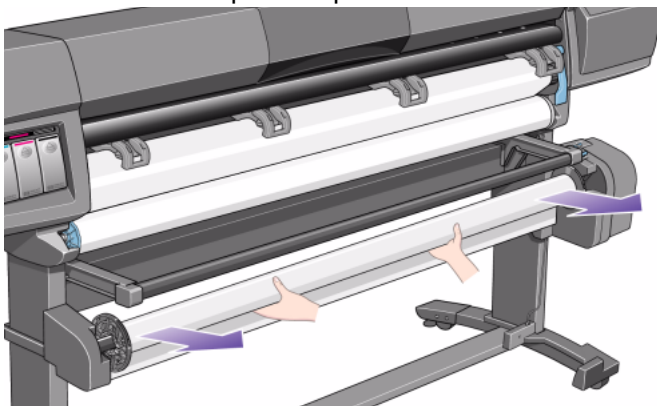
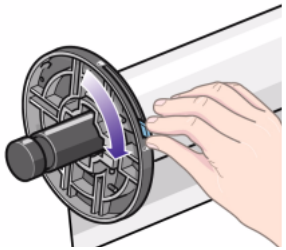
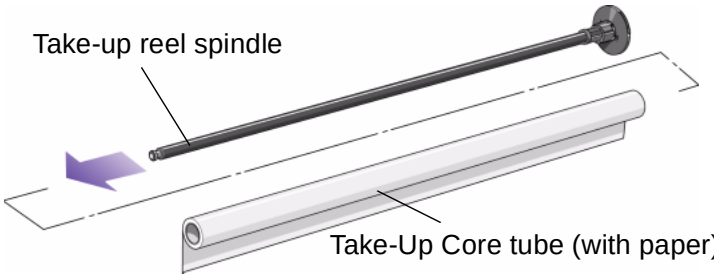
10. Remove the Take-Up Reel spindle.



11. Unlock and remove the left-hand media guide from the take-up reel spindle.

12. Remove the core tube from the spindle.





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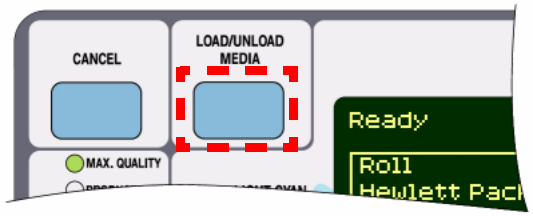
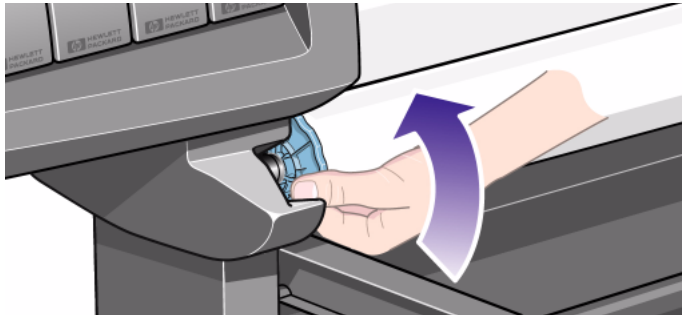
Removing the Roll of Media from the printer

1. Press the Load/Unload Media key on the front-panel.



NOTE: If the media length tracking feature is switched on, the printer will print how much media you have remaining on the roll.

2. The printer will remove the media from the printer.
3. Turn the blue media stop by hand, until the media is fully removed from inside the printers' media path.



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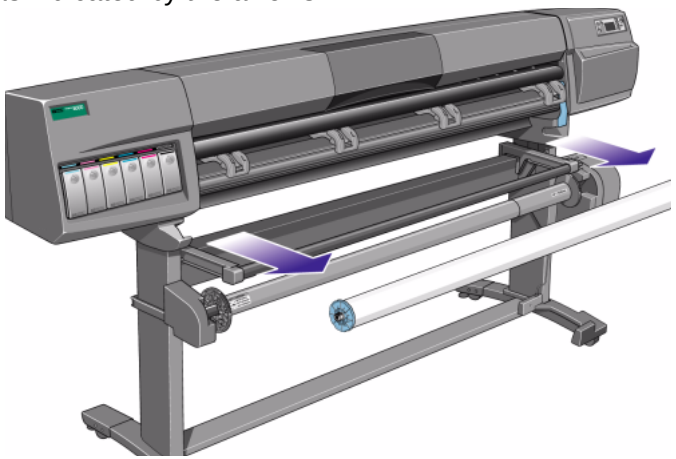
4. Press the **Enter** key.
5. Remove the roll media from the printer by pulling on the roll as indicated by the arrows.



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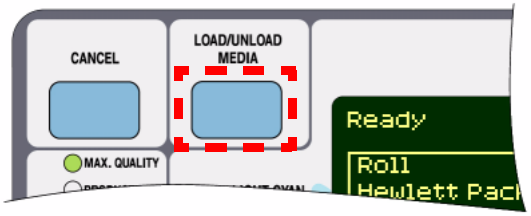
Loading Sheet Media

NOTE: Roll media must be removed from the printer before you can proceed with this procedure.

1. Make sure that the front-panel displays the 'Ready for media' message. Shown here is an example of what the front-panel will display with the main screen selected.

2. Press the **Load/Unload** key on the front-panel.



3. The front-panel displays:

4. Select sheet and press **Enter**.

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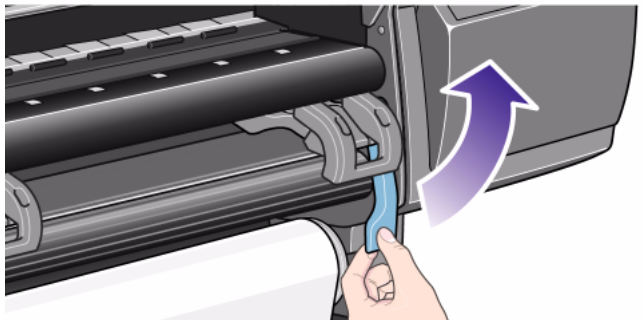
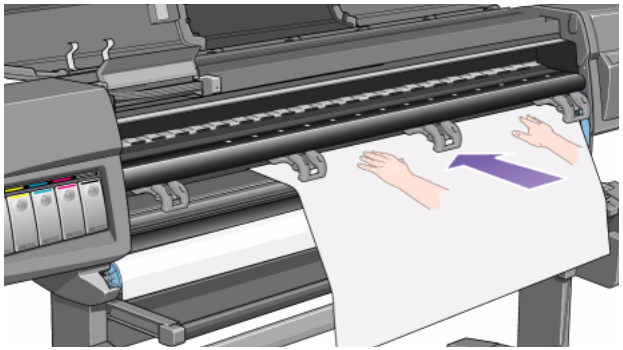
5. The front-panel now displays:

6. Lift the media load lever.



7. The front-panel now displays:

8. Insert the media into the printer as shown below.



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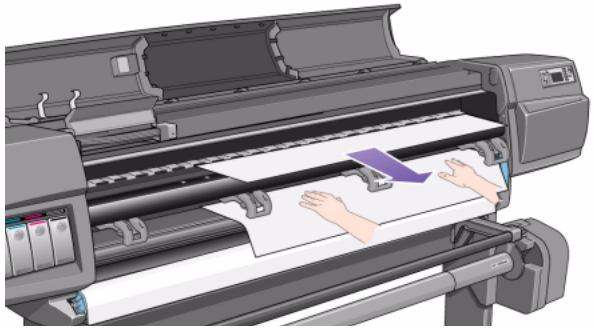
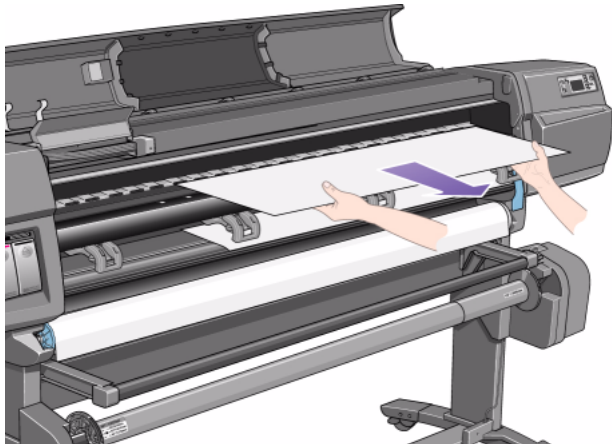
9. Insert the media until the media re-appears from the printer as shown below.



10. Pull the media out from the top.



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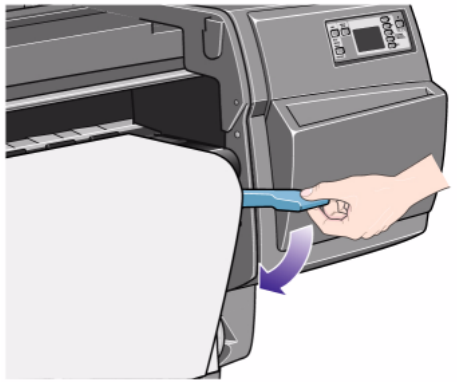
11. Align the media with the line as shown below.

12. Lower the media load lever.



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13. The front-panel will display the following message if the window is open:

14. Lower the window.

15. The front-panel displays various vendors of media. Select the vendor of the media you are using. Press the **Enter** key.

16. The front-panel displays various types of media:

17. Select the media type you are using and press the **Enter** key.

18. The front-panel will now display “Ready” and you can now begin to print.

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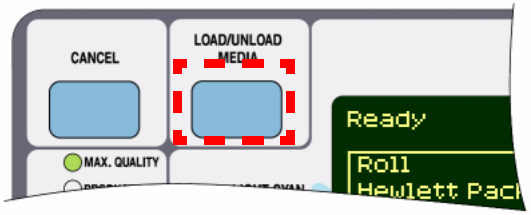
Unloading Sheet Media

To unload a single sheet of media from the printer, press the **Load/Unload Media** key located on the front-panel.



To give the ink time to dry the printer holds the media for some time. (Refer to Drying Time ‘Using Your Printer CD’).

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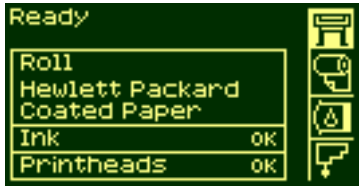
Media Length Tracking

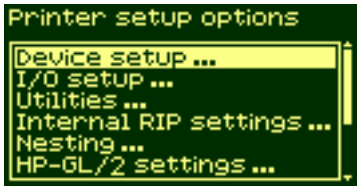
There is a function in the printer which enables the printer to register through the front-panel how much media is left on the roll you are using. This is called the paper length tracking function.

To turn on the function:

1. Go to the printer setup menu and press **Enter**:



2. The front-panel displays:



3. Select “Utilities”.

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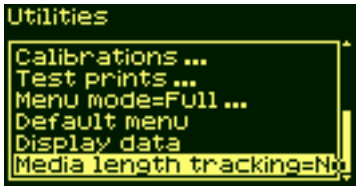
4. Press the **Enter** key. The front-panel displays:

5. Select “Media length tracking”. Press the **Enter** key.



6. The front-panel displays:

7. Select Yes and press the **Enter** key. The front-panel displays:

8. Press the **Top** key to return to the main menu.

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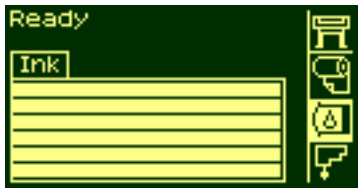
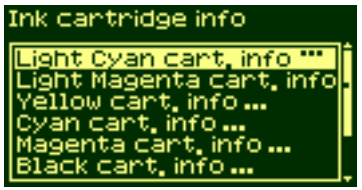
Ink Cartridge Statistics

Use the following procedure to get ink cartridge information:

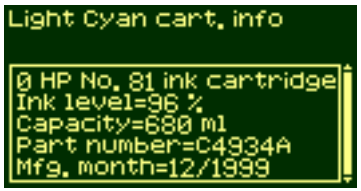
9. Select the media menu icon. Press the **Enter** key.



10. The front-panel displays "Ink information". Press the Enter key.



11. The front-panel displays:



The information supplied is:

- The make of the ink cartridge (HP No.81 or HP No.83 are recommended)
- The percentage of how much ink is remaining
- Original capacity of the ink cartridge in milliliters
- Re-order part number of the ink cartridge
- The month and year that the ink cartridge was manufactured

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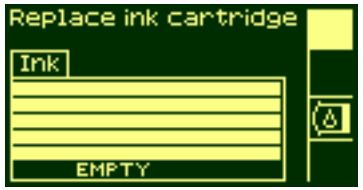
Ink Cartridge Removal

CAUTION **Only remove an ink cartridge if you are replacing it.**

WARNING **Make sure the printer wheels are locked (the brake lever is pressed down) to prevent the printer from moving.**

There are two types of ink cartridge removal.

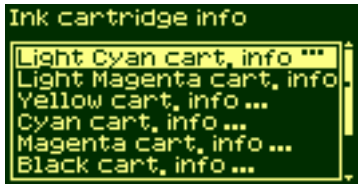
- The ink cartridge is very low and you want to replace the ink cartridge with a full one for unattended printing, with the view to replacing it again and using until empty.



- The ink cartridge is empty and the front-panel tells you to replace the ink cartridge.

1. Select the Ink Cartridges Menu and press **Enter**.

2. The front-panel displays:



3. Press the ↑ and ↓ keys until “Replace Ink cartridge” is selected. Press **Enter.**

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4 Remove the corresponding color ink cartridge by pushing the dimpled recess in the ink cartridge inward and upward, as indicated by the arrow shown below.

5. This releases the ink cartridge, you can then pull it out horizontally.

NOTE: Avoid touching the end of ink cartridge which is inserted into the printer, as there may be ink on the connection.

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Ink Cartridge Installation

NOTE: Each ink cartridge slot has a colored label above it. This should match the colored label on the new ink cartridge.

1. Pick up the new ink cartridge and find the label identifying the ink color. Hold the ink cartridge so that you can see the identifying colored label at the top of the side facing you.
2. Insert the ink cartridge into the ink cartridge slot labelled with the same color.

NOTE: The ink cartridge is designed to prevent you from inserting the wrong ink type or into the wrong color slot. If you have difficulty inserting the ink cartridge, do not attempt to force it. Check again that the color of the ink cartridge matches the color of the ink cartridge slot, also that the colored marker is at the top of the ink cartridge.

3. Slide the ink cartridge into the slot until you feel some resistance and stop.
4. Press firmly using the dimpled recess on the front of the ink cartridge, inwards and then downwards, as indicated by the arrow shown below, until the ink cartridge clicks into place.

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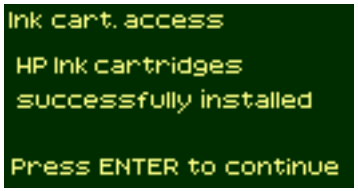
5. The front-panel displays:



6. Press the **Enter** key to continue.

NOTE: Avoid storing partially used ink cartridges on their ends.

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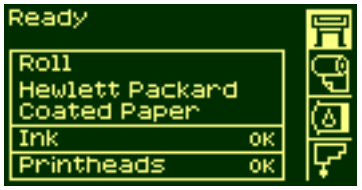
Printhead Statistics

1. To get information on your printheads, press the **Top** key on the front-panel to go to the Setup Menu.



2. Press the ↑ or ↓ key until the front-panel displays the printhead menu icon. Press the **Enter** key**.**

3. Press the ↑ or ↓ key until the front-panel highlights ‘Printhead info …’. 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.

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

The information supplied is:

- Warranty Status
- The make of the printheads (HP No.81 or HP No. 83 are recommended)
- The current status of the printhead
- Re-order part number of the printhead
- The time that the printhead has been operating in the printer
- How much ink has been consumed by the printhead.
- The year and the month that the printhead was manufactured

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Printhead Removal

WARNING **Make sure the printer wheels are locked (the brake lever is pressed down) to prevent the printer from moving.**

Printhead replacement must be performed with the printer switched on at the Power Isolation Switch.

1. Select the Printhead Menu on the front-panel by using the ↑ and ↓ keys, and then press the **ENTER** key.

2. Select the “Replace printhead” option by using the ↑ and ↓ keys, and then and press the **ENTER** key.

3. The printer moves the carriage into the correct position. When this is finished the front-panel displays:

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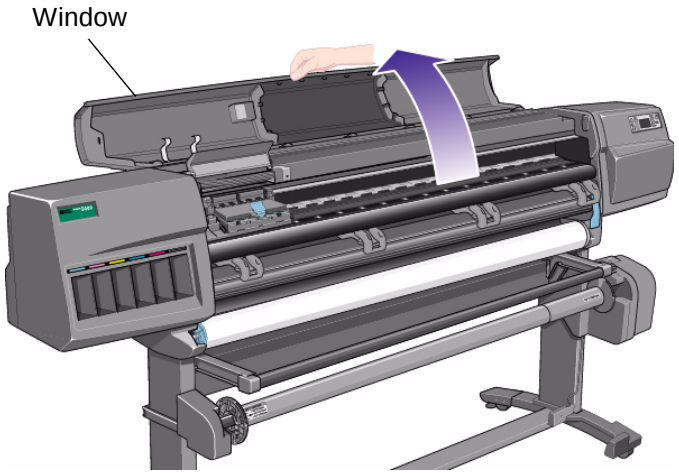
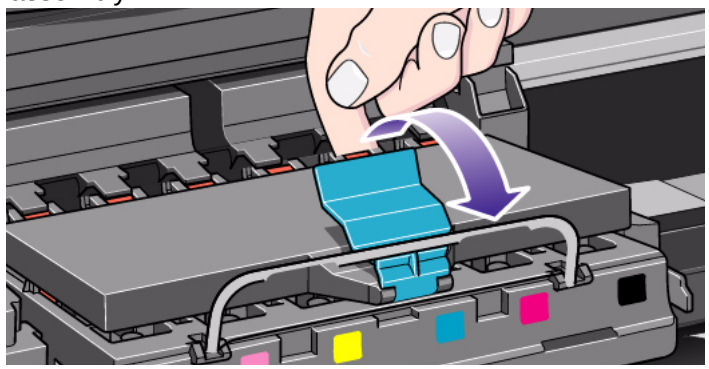
4. Lift the window and locate the Carriage Assembly.



5. Pull up and release the latch on top of the carriage assembly.



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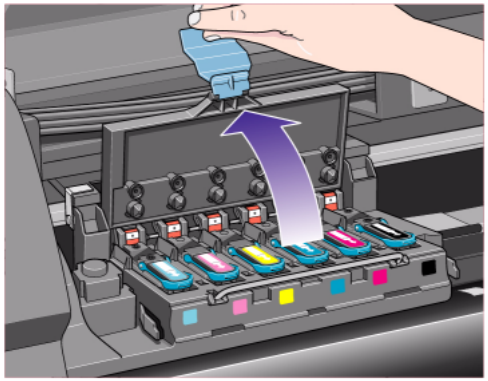
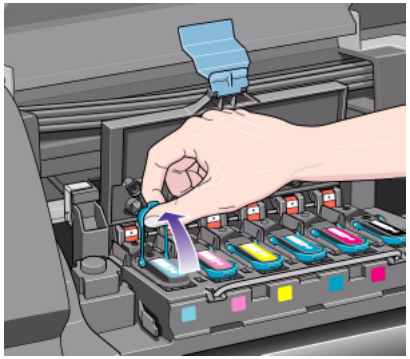
6. Lift up the cover. This will now give you access to the printheads.



7. To remove a printhead, lift up the blue handle.



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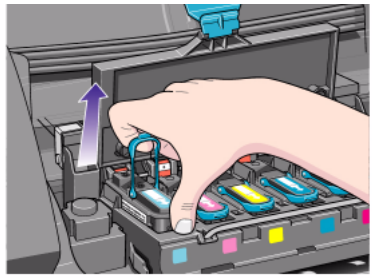
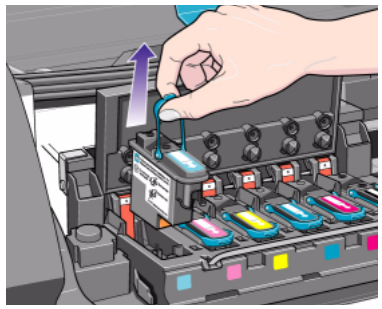
8. Place your index finger through the loop of the blue handle.



9. Gentle pull the blue handle upward until the printhead is released from the carriage assembly.



10. The front-panel displays:

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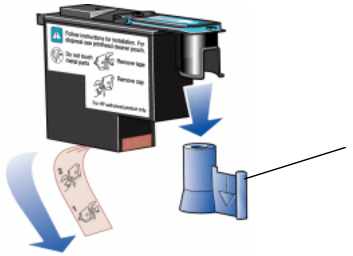
Printhead Installation

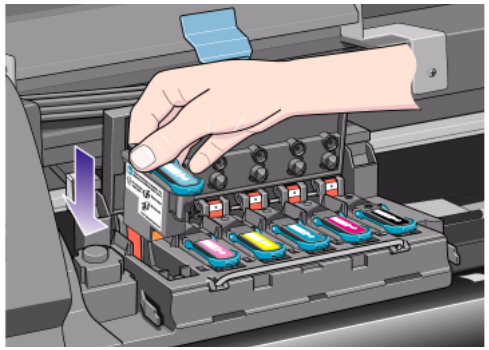
1. If the printhead is new, remove the:

- blue protective cap by pulling down on it.
- clear protective tape from the printhead's nozzles by pulling on the paper tab.



The printhead is designed to prevent you from accidentally inserting it into the wrong position. Check that the colored label on the printhead matches the colored label of the carriage assembly position that the printhead is to be inserted in.

2. Insert the new printhead into the correct carriage assembly position.



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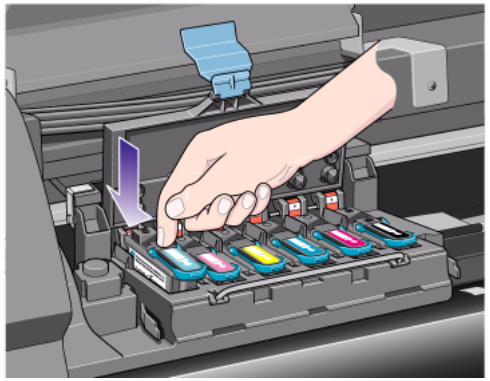
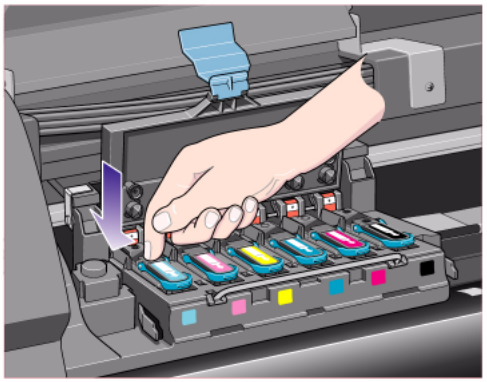
3. Push down in the direction indicated by the arrow shown below.



4. When installing the new printhead there may be some resistance, so you need to press it down firmly but smoothly.



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5. Insert **all** the printheads and close the cover. Only when **all** the printheads have been inserted correctly and accepted by the printer, will the printer “BEEP”.

NOTE: If the printer does not “beep” when you insert the printhead and the “Reseat” or “Failed” message appears on the front-panel, the printhead may need to be reseated.

6. After replacing the printheads successfully the front-panel will prompt you to close the cover on the carriage and lower the window.

7. After closing the cover over the printheads and closing the window the front-panel displays:

8. Now replace a new printhead cleaner see the next page for details.

CAUTION

Leaving the old printhead cleaner in the printer will shorten the new printhead’s life and possibly damage the printer.

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Printhead Cleaner Removal

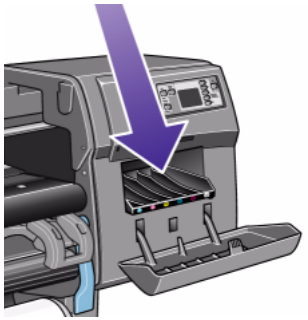
When removing the printhead cleaners:

- Be careful not to get ink on your hands. There may be ink on, around and inside the replaced printhead cleaner.
- Do not lay the replaced printhead cleaner on its side or turn it upside down, as ink may leak out.
- Always handle and store the replaced printhead cleaner upright to avoid spilling any ink.

WARNING **Make sure the printer wheels are locked (the brake lever is pressed down) to prevent the printer from moving.**

1. After replacing a printhead the front-panel will prompt you to replace the printhead cleaner.

2. The printhead cleaners are located in slots, underneath the front-panel, at the front of the printer.



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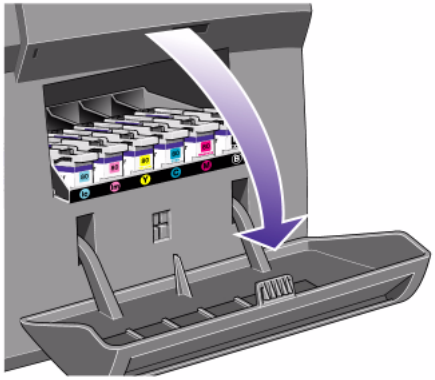
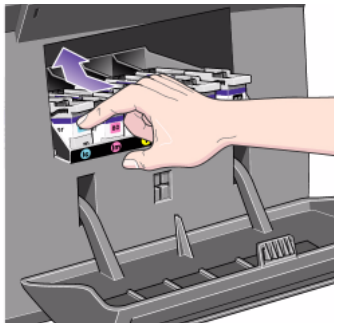
3. Open the service station door to access the printhead cleaners.



4. When the door has been opened the front-panel displays:

5. Each printhead cleaner has a handle on the front. To remove, press inward and upward as indicated by the arrow shown here, until the printhead cleaner is released.



MAINTAIN THE INK SYSTEM

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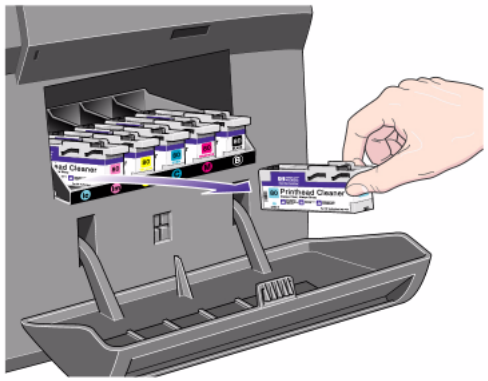
6. Lift the printhead cleaner up to remove it from the slots and slide the printhead cleaner out horizontally as shown below.



CAUTION

When replacing a printhead always replace the corresponding printhead cleaner. Leaving the old printhead cleaner in the printer will seriously shorten the new printhead's life and possibly damage the printer.

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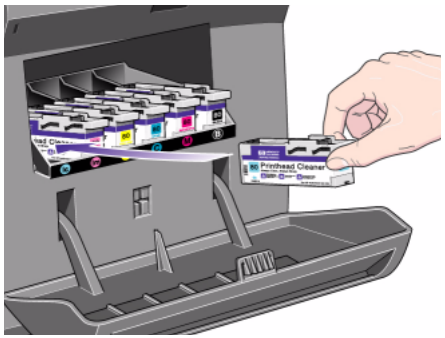
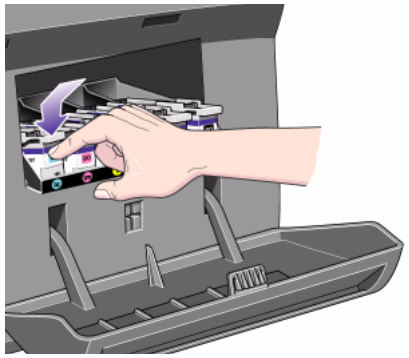
Printhead Cleaner Installation

The plastic bag in which the new printhead cleaner comes in can be used to dispose of the old printhead and printhead cleaner.

1. Insert each printhead cleaner into the correct color slot location, in the service station, in the direction indicated by the arrow shown here.



2. When the printhead cleaner has been pushed all the way in, press inwards and downwards as indicated by the arrow shown here, until it clicks into place. The front-panel will not register the new printhead cleaner until the right hand door is closed.



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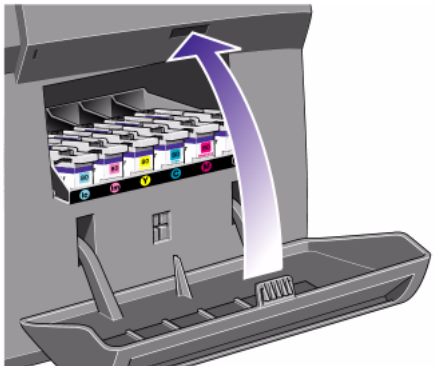
3. When you have inserted the printhead cleaner(s) into the printer, close the door.



NOTE: The printer needs all the ink cartridges, printheads and printhead cleaners installed before it can continue.

4. If paper is not loaded, the front-panel will instruct you to load the paper.

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After Replacing a Printhead and Printhead Cleaner

The alignment procedure requires an A1 or D-size paper width.

When the front-panel displays Ready, you are ready to print.

NOTE: Make sure the printer window and the right door are closed after you replace the HP supplies. The printer will not print while these are open.

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Change the Ink System

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Ink System Installation, 113

Troubleshooting, 130

Troubleshooting, 130

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Ink System Removal

About the Ink System

The ink system tubes must be handled with care.

When changing from one ink system to another you must replace the whole ink system from one type to the other (Ink Tubes, Printheads, Printhead Cleaners and Ink Cartridges).

Make sure all the components of the ink system you are going to install have the same identification symbol.

WARNING

Make sure the printer wheels are locked (the brake lever is pressed down on each wheel) to prevent the printer from moving.

Ink System Removal Animation

NOTE: Before starting the procedure for removing the Ink System it is highly recommended that you first view the animation of this procedure provided on the HP Designjet 5000/5000PS Using Your Printer CD.

Use the following procedure to run the Ink System Removal animation:

1. Insert the HP Designjet 5000/5000PS Using Your Printer CD-ROM in the computer's CD-ROM drive
2. From the welcome screen select “How do I Switch Ink Types”.
3. Press the go to topic button to display the correct topic in the HP Designjet 5000/5000PS User’s Guide.
4. Click on the Remove Ink System hypertext link and then click on the animation icon to run the animation for Ink System Removal.

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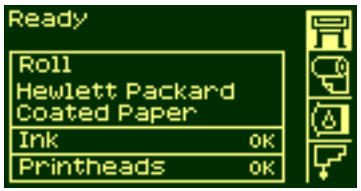
Removing the Ink Supplies

Use the following procedure to remove the ink supplies from your printer.

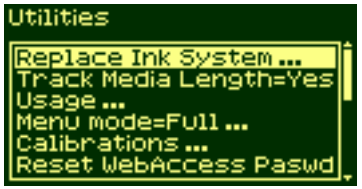
1. Press the TOP key on the front-panel to go to the main menu.

2. Select the Printer Setup Menu on the front-panel by using the ↑ and ↓ keys, and then press the **ENTER** key.



3. From the Printer setup options select “Utilities” and press the **ENTER** key.

4. From the Utilities menu select the “Replace Ink System” option and press the **ENTER** key.



5. Select **YES** to replace the ink system.

6. The printer moves the carriage into the correct position. When this is finished the front-panel displays:

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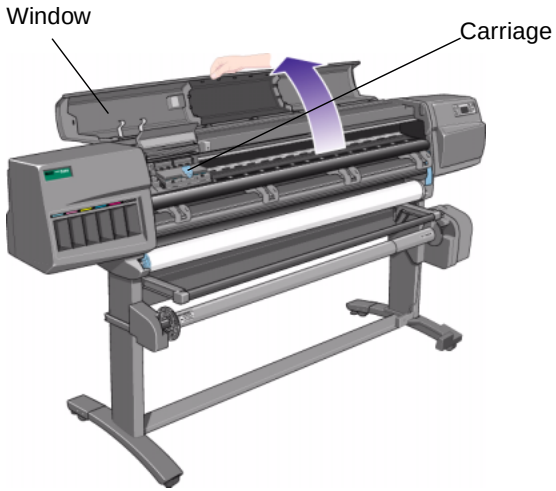
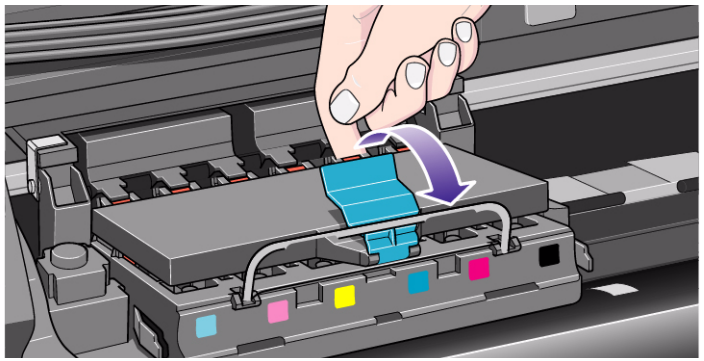
7. Lift the window and locate the carriage assembly



8. Pull up and release the latch on top of the carriage assembly.



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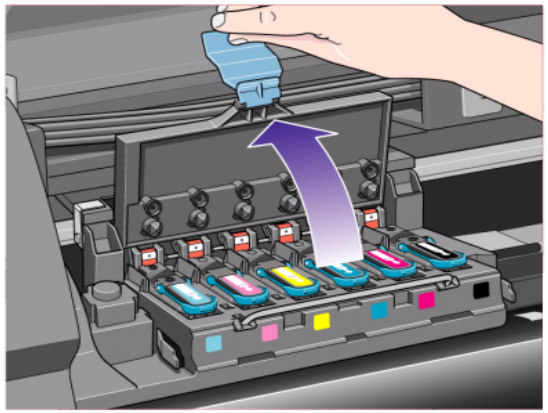
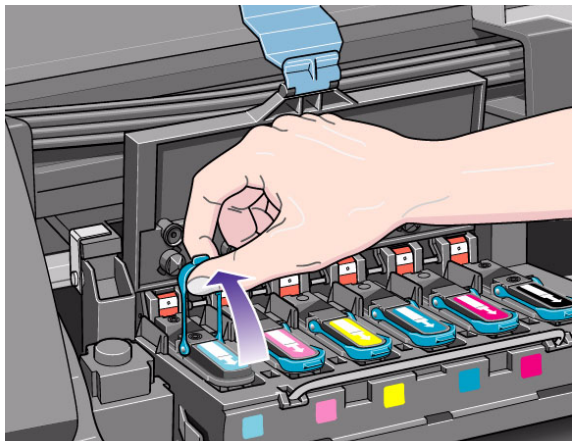
9. Lift up the cover. This will now give you access to the printheads.



10. To remove a printhead, lift up the blue handle.



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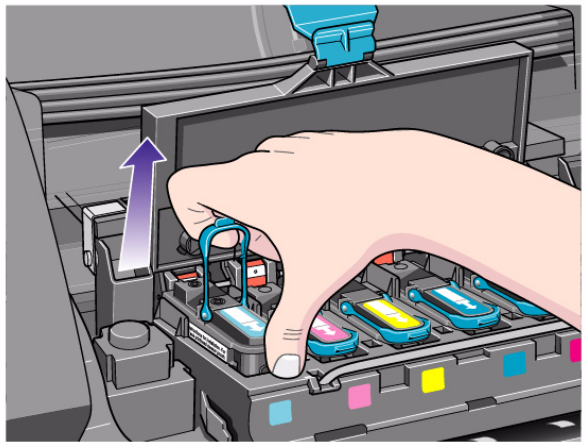
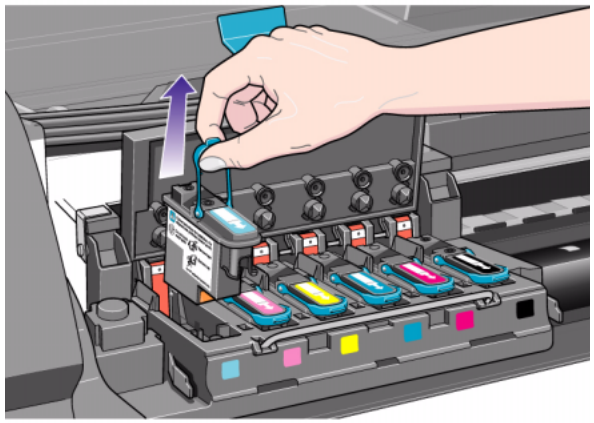
11. Place your index finger through the loop of the blue handle.



12. Gently pull the blue handle upward until the printhead is released from the carriage assembly.



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13. When you remove the light cyan printhead the display changes from REMOVE to OK.

14. Repeat steps 10 through 12 for the other five printheads.

NOTE: Put the removed printheads in a safe place until you can store them in the HP Printhead Storage container. You will not be able to do this until you have installed the supplies that are already in the container into the printer.

15. When all the printheads have been removed the front-panel displays:

16. Close the cover on the carriage and close the window to continue.

17. The front-panel displays:

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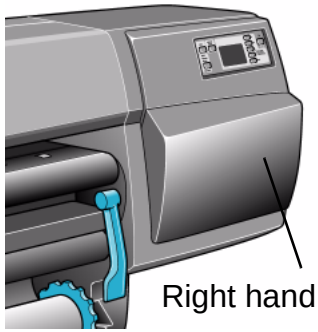
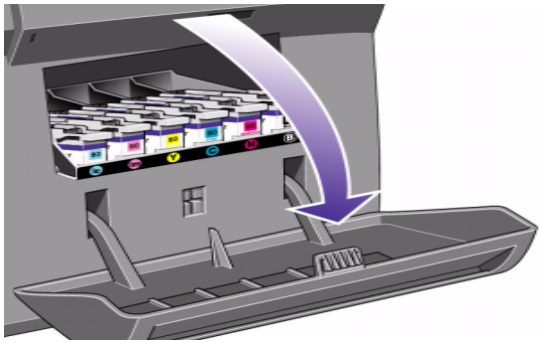
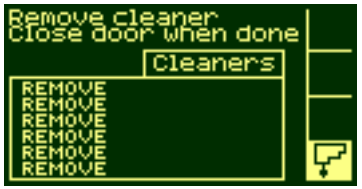
18. The printhead cleaners are located in the slots, behind the right hand door, at the front of the printer.



19. Open the right hand door to access the printhead cleaners.



20. When the door has been opened the front-panel displays:



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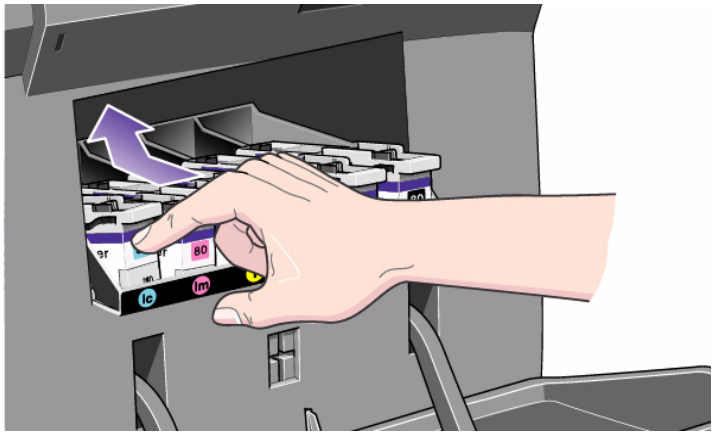
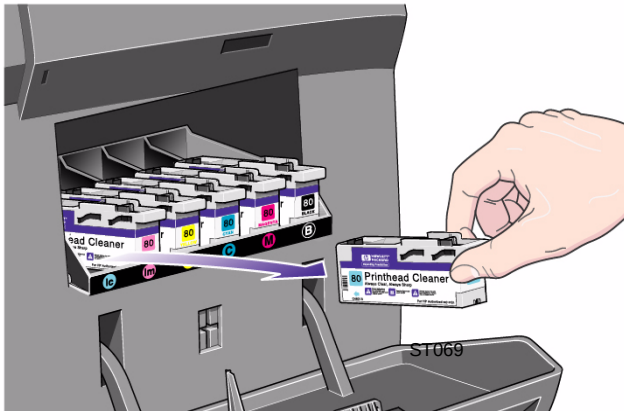
21. Each printhead cleaner has a handle on the front. To remove, press inward and upward as indicated by the arrow shown below, until the printhead cleaner is released.



22. Lift the printhead cleaner up to remove it from the slots and slide the printhead cleaner out horizontally as shown below.



NOTE: Put the removed printhead cleaners in a safe place until you can store them in the HP Printhead Storage container. You will not be able to do this until you have installed the supplies that are already in the container into the printer.

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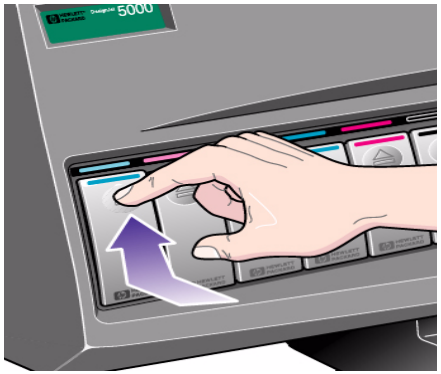
23. When all the printhead cleaners have been removed close the right hand door.

24. The printer checks that all the printhead cleaners have been removed, after this the front-panel displays:

25. Remove the ink cartridges by pushing the dimpled recess in the ink cartridge inward and upward, as indicated by the arrow shown below.



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26. This releases the ink cartridge, you can then pull it out horizontally.

27. Ensure you remove ***all*** of the ink cartridges.

CAUTION **Wait. At this point in the procedure the printer prepares for an Ink System change.**

28. Wait until the printer prompts you with message prompting you to power down the printer.

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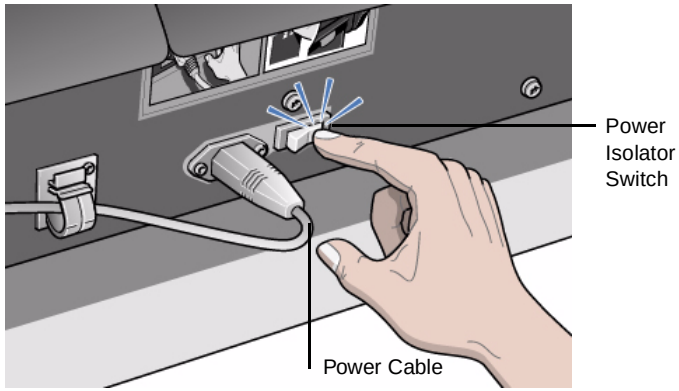
Removing the Ink Tubes

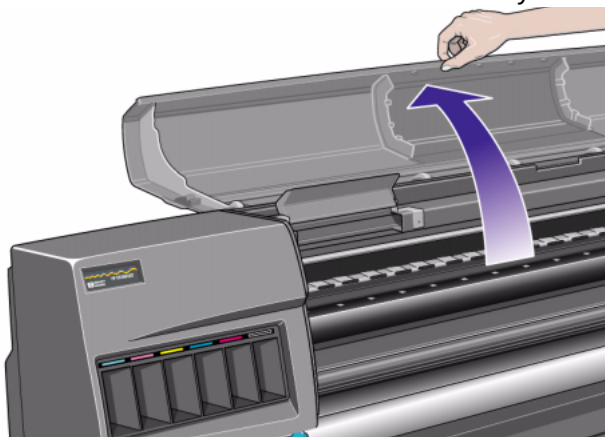
Use the following procedure to remove the ink tubes from your printer.

1. Switch the printer **off** using the On/Off switch at the back of the printer. However leave the power cord plugged in.



2. Open the window completely.

NOTE: Do not use the support bar to hold the window open because it will make the Ink Tubes removal very difficult



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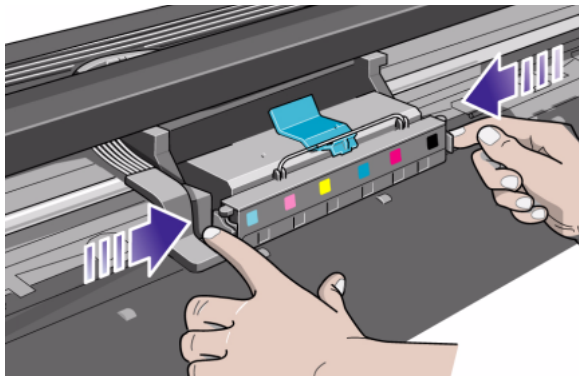
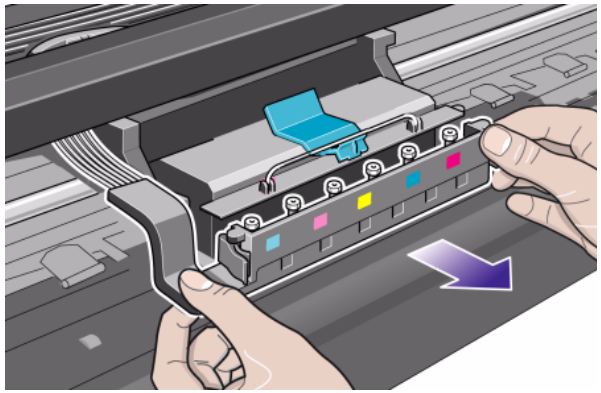
3. Push in the two retaining clips either side of the printhead tube connector.



4. Pull the printhead tube connector towards you.



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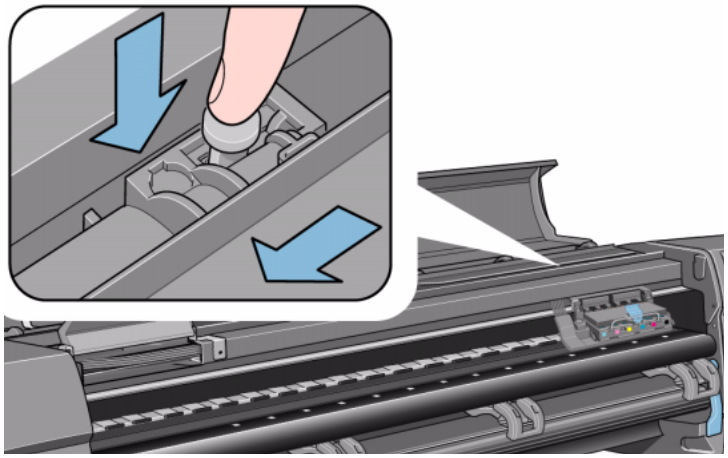
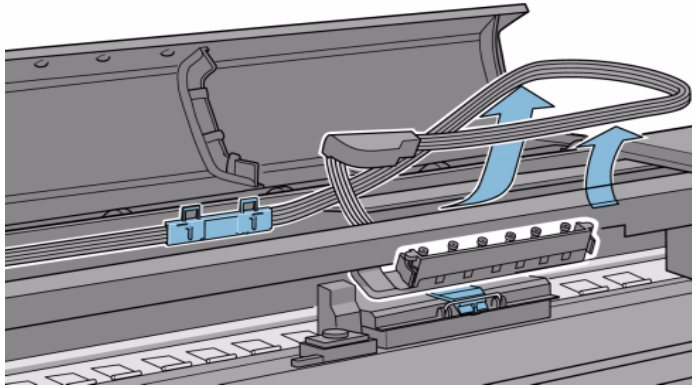
5. Push down on the gray button and slide it to the left to release the clip securing the tubes to the carriage as shown below in the top view of the printer.



6. Pull the printhead tube connector between the two tube guides.



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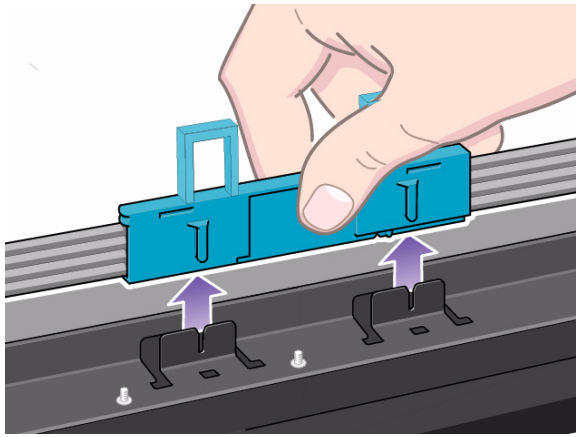
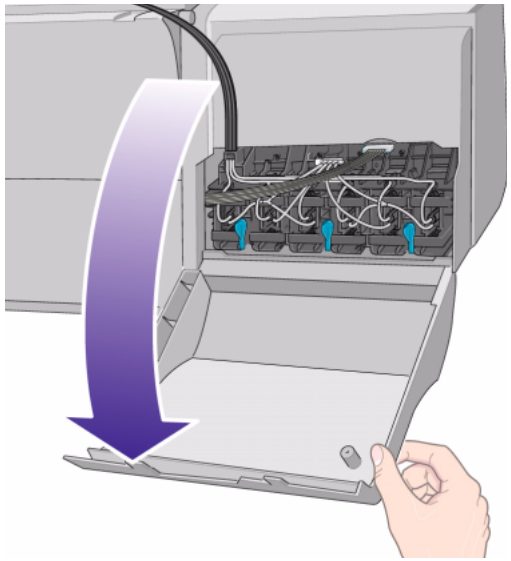
7. Release the retaining clip by pulling it away from holding brackets.



NOTE: Working from the rear of the printer.

8. Open the door at the back of the left hand cover.



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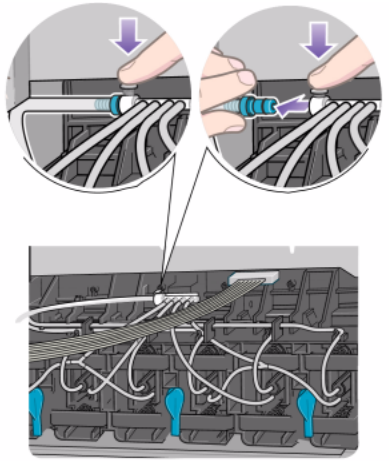
9. Remove the air tube from the rear of the ink cartridge tube connector by pushing down on the button and pulling the tube away to the side.

CAUTION **: Do not attempt to disconnect any of the other tubes on the ink cartridge connector**



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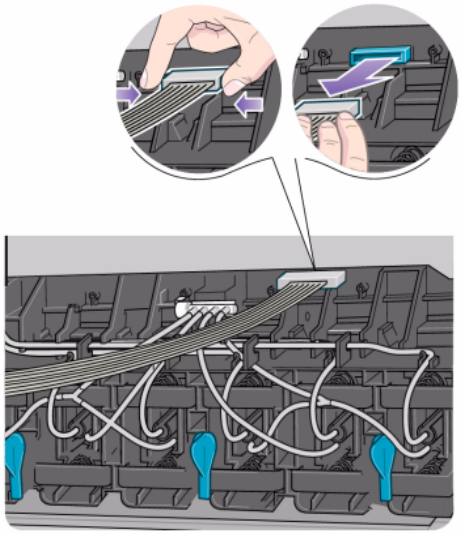
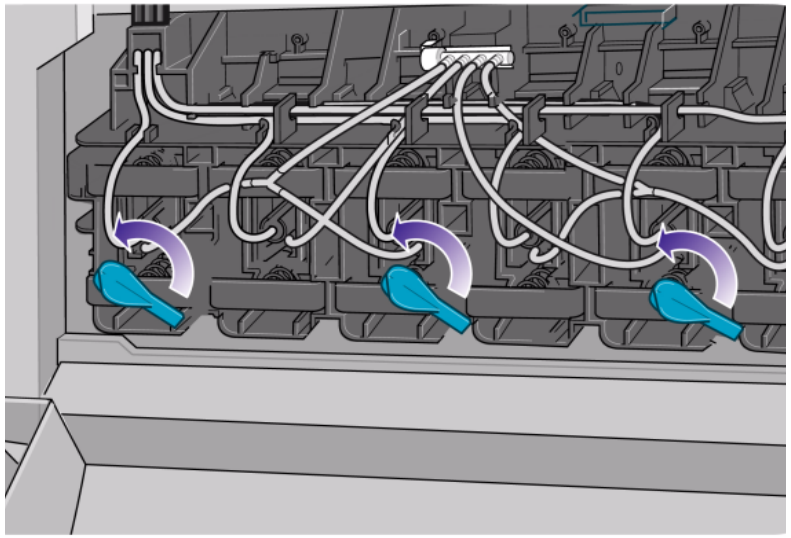
10. Remove the electrical connector from the rear of the ink cartridge tube connector.



11. Rotate the three latches at the rear of the ink cartridge tube connector. This will release the complete assembly.



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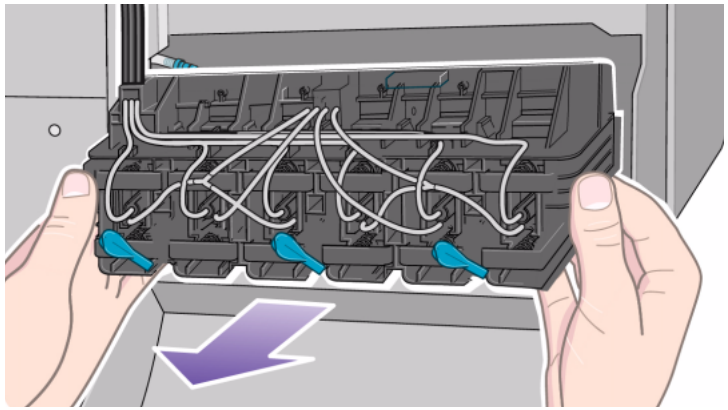
12. Remove the ink cartridge tube connector from the rear of the left hand side.



13. The complete assembly can now be removed from the printer.

NOTE: Carefully place the removed tubes in the open window until you can store them in the HP Ink Tubes Container. You will not be able to do this until you have ink tubes that are already in the container into the printer.

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Ink System Installation

Ink System Installation Animation

NOTE: Before starting the procedure for installing the Ink System it is highly recommended that you first view the animation of this procedure provided on the HP Designjet 5000/5000PS Using Your Printer CD.

Use the following procedure to run the Ink System Installation animation:

1. Insert the HP Designjet 5000/5000PS Using Your Printer CD-ROM in the computer's CD-ROM drive
2. From the welcome screen select “How do I Switch Ink Types”.
3. Press the go to topic button to display the correct topic in the HP Designjet 5000/5000PS User’s Guide.
4. Click on the Remove Ink System hypertext link and then click on the animation icon to run the animation for Ink System Removal.

Installing the Ink Tubes

The installation of the ink system into the printer is the same the removal procedure in reverse order, start at the ink cartridge tube connector and work your way along the tubes. Listed below are some notes to help you when installing the tubes.

- Take care that you do not damage the tubes while installing them. Do not bend or twist the tubes excessively.
- If you are installing tubes that have already been used, be careful because they are filled with ink.
- Install the tubes first at the back of the printer then work your way to the carriage.

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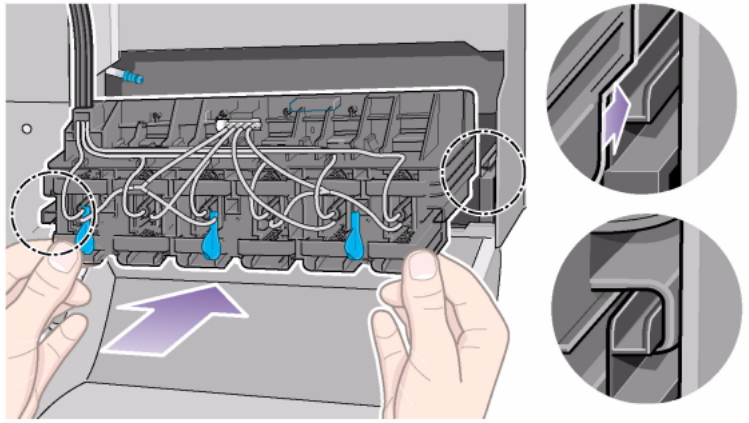
- If you are installing tubes that have already been used, they must be the same ink type as the printheads, printhead cleaners and the ink cartridges you are also installing. All the components must have the same identification symbol.

Use the following procedure to install the Ink Tubes.

1. Carefully lift the ink tubes out of the HP Ink Tubes Container (see *Troubleshooting, on page 130*).
2. Install the ink cartridge tube connector into the rear of the left hand side.

CAUTION **Make sure it is correctly seated on its guides.**



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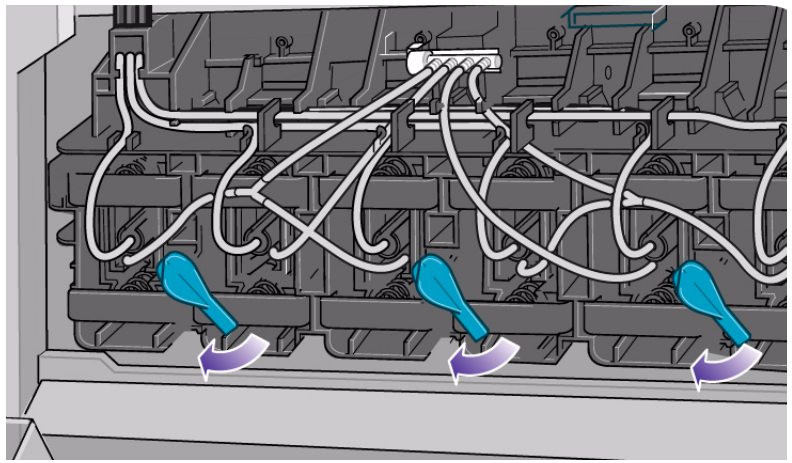
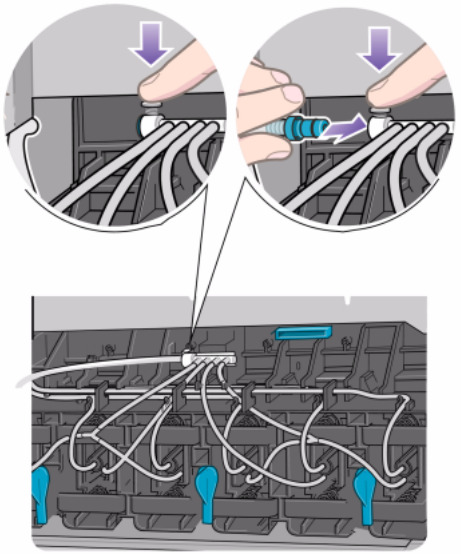
3. Rotate the three latches at the rear of the ink cartridge tube connector. This will lock the complete assembly into place.



4. Connect the air tube to the rear of the ink cartridge tube connector by pushing down on the latch and inserting the tube.



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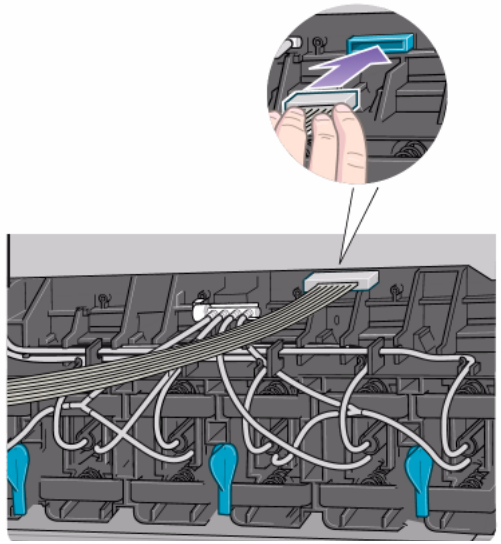
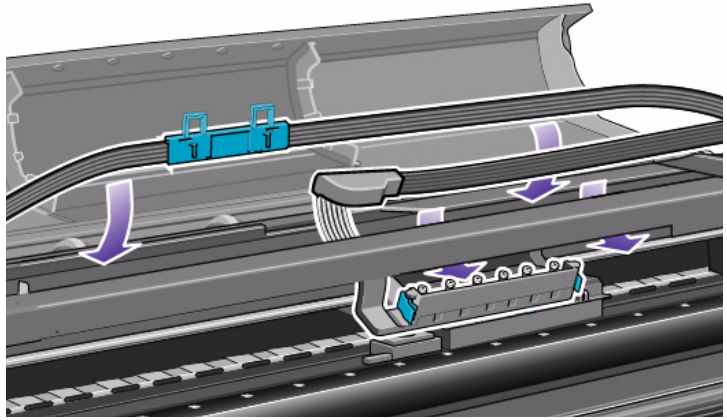
5. Connect the electrical connector into the rear of the ink cartridge tube connector.



6. Install the ink system tubes between the two tube guides.

CAUTION **Do not install the tubes twisted or you could damage your printer.**



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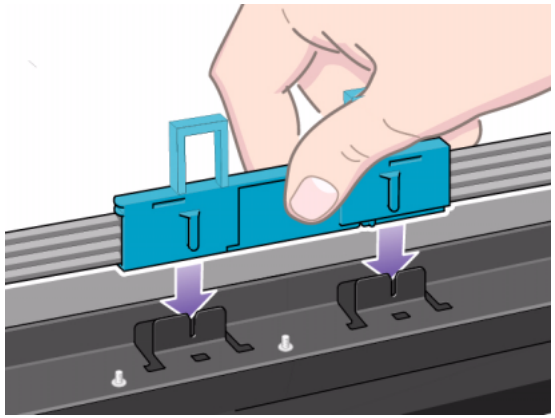
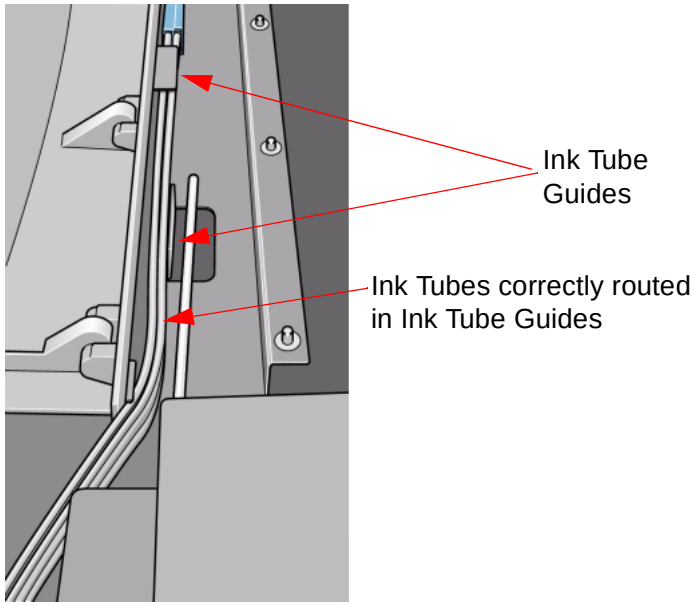
7. Install the tubes retaining clip by pushing it onto the holding brackets shown below.



8. Carefully adjust the routing of the ink tubes to ensure they are correctly positioned in the tube guide.



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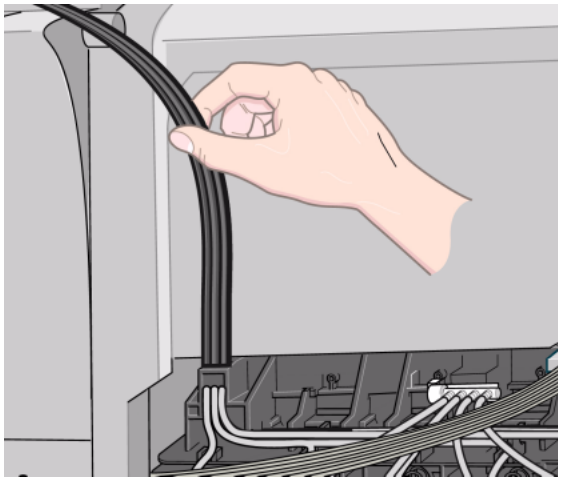
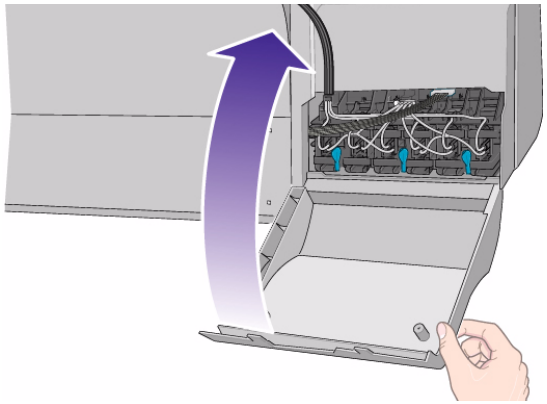
9. Route the tubes over the top of the printer.



10. Close the door at the back of the left hand cover.



CAUTION **It is very important to the correct operation of the printer that the tubes are not twisted and are correctly positioned in the tube guides. The tubes must be installed so that they do not interfere with the path of the carriage.**

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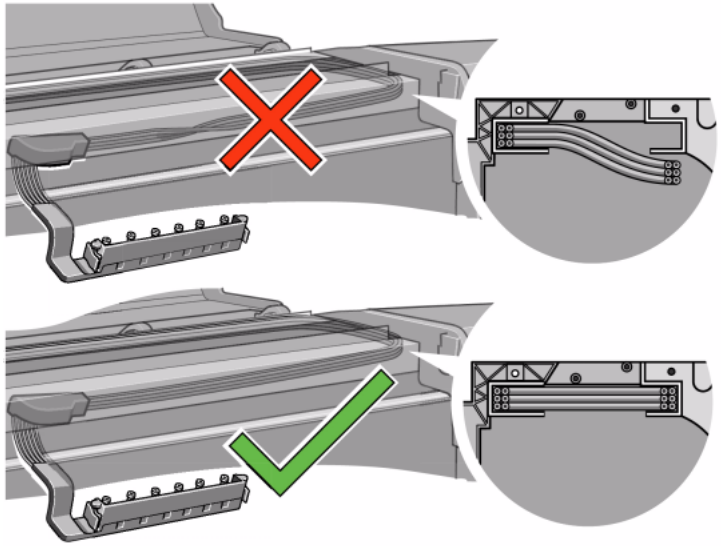
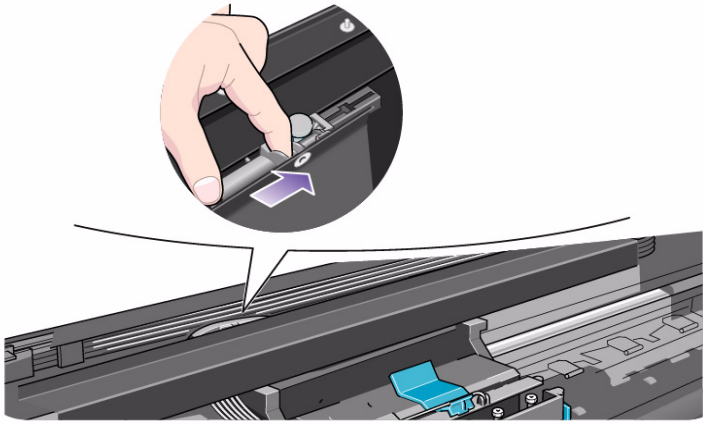


11. Install the tubes to the carriage as shown below.

Slide the assembly to the right
until it is locked to the
the carriage



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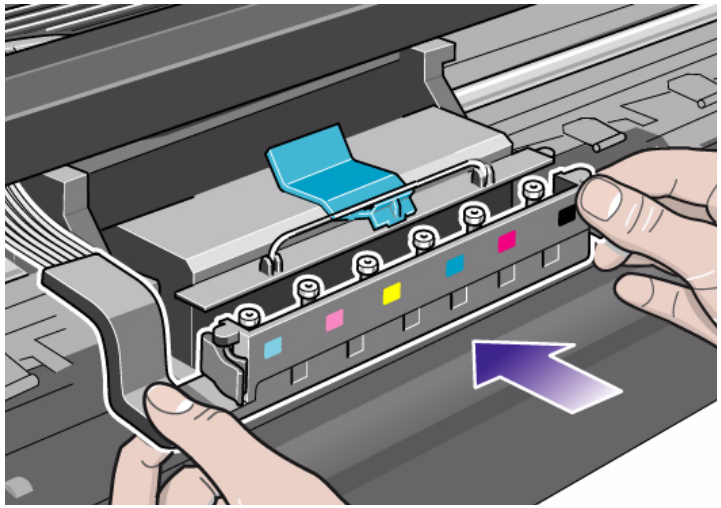
12. Install the printhead tube connector onto the carriage assembly.



13. Carefully place the previously removed ink tubes in the HP Ink Tubes container (see *Using the Printheads and Ink Tubes Containers, on page 135*).

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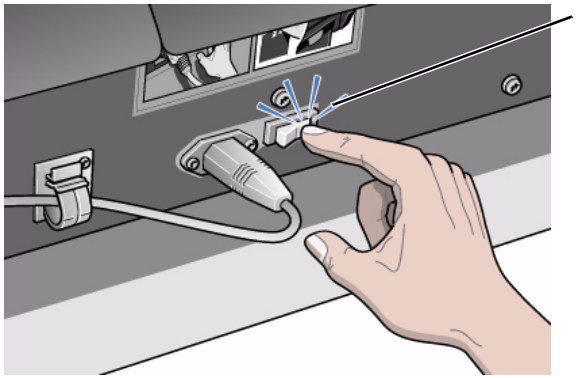
Turning on after the ink system has been replaced

The Printheads and Printhead Cleaners you are going to install are all in the HP Printhead Storage container (see *Troubleshooting, on page 130*).

1. Ensure that the window is closed.

2. Switch the power isolator switch at the back of the printer to the **on** position.



NOTE: If the front-panel displays a warning message after the printer has completed its initialization process refer to Troubleshooting (on page 130) to solve the problem.

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3. The front-panel displays:

4. Use the ↑ and ↓ keys to select the Printhead Menu, and then press the **ENTER** key.

5. The front-panel displays:

6. Select the “Replace printhead” option by using the ↑ and ↓ keys, and then and press the **ENTER** key.

7. The printer moves the carriage into the correct position. When this is finished the front-panel displays:

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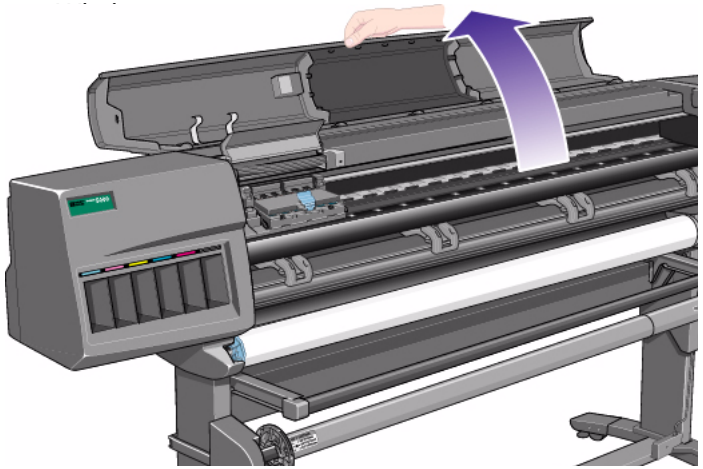
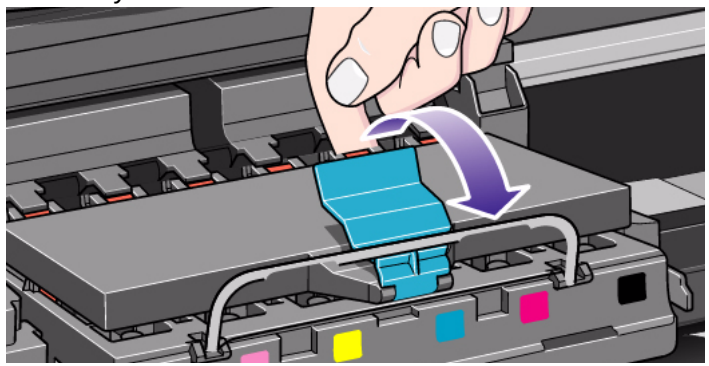
8. Lift the window and locate the Carriage Assembly.



9. Pull up and release the latch on top of the carriage assembly.



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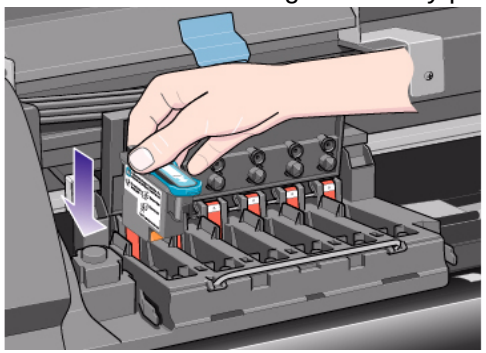
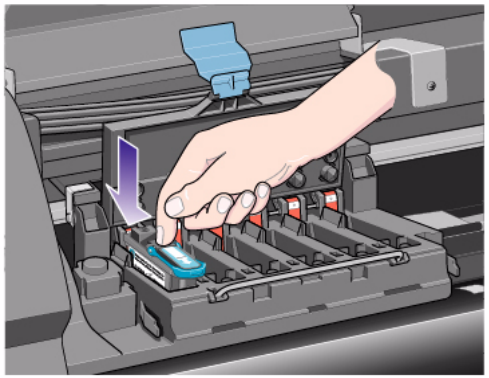
10. Insert the printhead from the HP Printhead Storage container into the correct carriage assembly position.



11. Push down in the direction indicated by the arrow shown below.



12. Insert **all** the printheads and close the cover. Only when **all** the printheads have been inserted correctly and accepted by the printer, will the printer “BEEP”.

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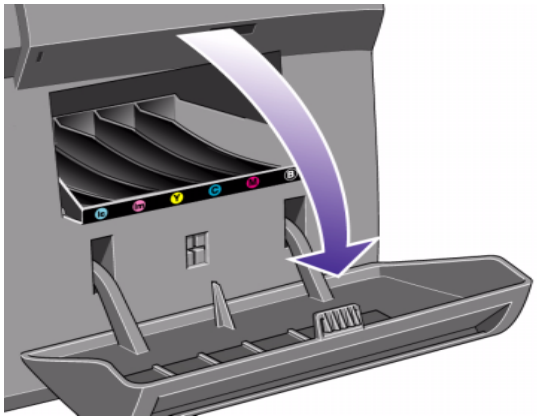
NOTE: If the printer does not “beep” when you insert the printhead and the “Reseat” or “Failed” message appears on the front-panel, the printhead may need to be reseated.

13. After replacing the printheads successfully the front-panel will prompt you to close the cover on the carriage and lower the window.

14. After closing the cover over the printheads and closing the window the front-panel displays:

15. Open the service station door to access the printhead cleaners.



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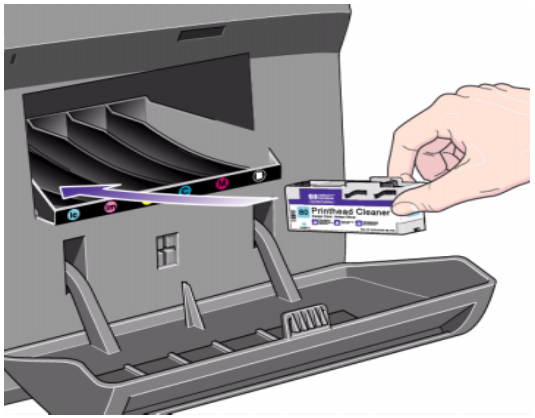
16. When the door has been opened the front-panel displays:

17. Insert each printhead cleaner into the correct color slot location, in the service station, in the direction indicated by the arrow shown below.



18. When the printhead cleaner has been pushed all the way in, press inwards and downwards as indicated by the arrow shown below, until it clicks into place. The front-panel will

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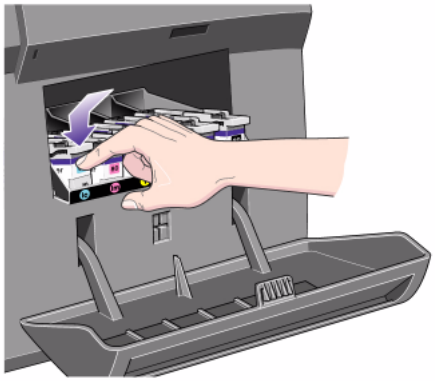
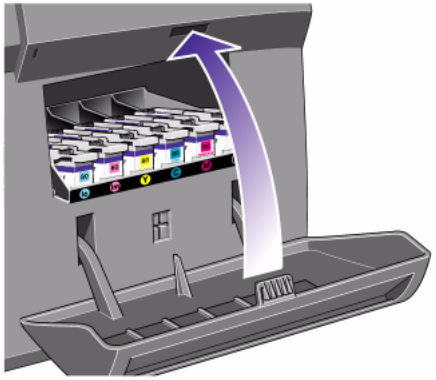
not register the new printhead cleaner until the right hand door is closed.



19. When you have inserted the printhead cleaner(s) into the printer, close the door.



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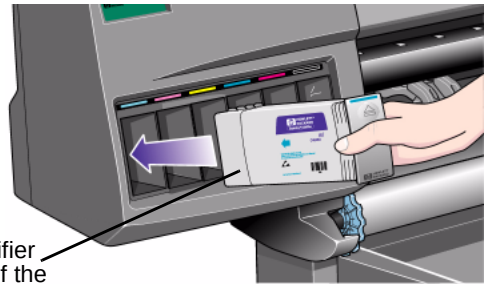
20. When the door has been closed the front-panel prompts you to install the ink cartridges:

21. Pick up the ink cartridge and find the label identifying the ink color. Hold the ink cartridge so that you can see the identifying colored label at the top of the side facing you.

22. Insert the ink cartridge into the ink cartridge slot labelled with the same color.



Color identifier at the top of the Ink Cartridge

NOTE: The ink cartridge is designed to prevent you from inserting the wrong ink type or into the wrong color slot. If you have difficulty inserting the ink cartridge, do not attempt to force it. Check again that the color of the ink cartridge matches the color of the ink cartridge slot, also that the colored marker is at the top of the ink cartridge.

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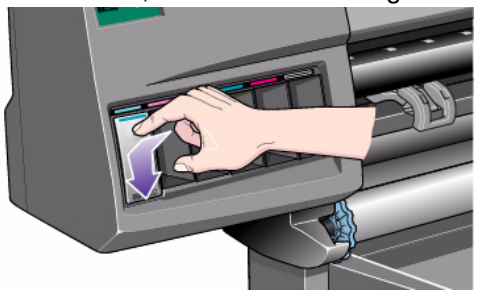
23. Slide the ink cartridge into the slot until you feel some resistance and stop.

24. Press firmly using the dimpled recess on the front of the ink cartridge, inwards and then downwards, as indicated by the arrow shown below, until the ink cartridge clicks into place.



25. Repeat steps 22 to 24 for all the ink cartridges.

26. The front-panel displays:

27. Press the **Enter** key to continue.

28. If paper is not loaded, the front-panel will instruct you to load the paper.

29. Store all the previously removed Printheads and Printhead Cleaners in the HP Printhead Storage container.

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Troubleshooting

This section describes problems you could encounter after changing the ink system and provides details on how solve them.

Problem	Reason and solution
The front panel displays the following message after completing its initialization process: **WARNING** **Switch power off** **Check printhead path**	You have installed the ink tubes twisted, not attached or not correctly positioned in the tube guide. **a** Switch off the printer. **b** Correctly install the ink tubes (see step 6 on page 116). **c** Switch on the printer.
	You have installed ink tubes designed for a 42 inch (1.07m) model HP Designjet 5000 series printer into a 60 inch (1.52m) model. Remove the ink tubes and install the correct size for your printer.
	You have installed ink tubes designed for a 60 inch (1.52m) model HP Designjet 5000 series printer into a 42 inch (1.07m) model. Remove the ink tubes and install the correct size for your printer.

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Problem	Reason and solution
The front panel displays the following message after completing its initialization process: **WARNING** **Incorrect type of Tubes System** **switch power off**	You have not correctly connected the electrical connector to the cartridge connector. **a** Switch off the printer. **b** Connect the electrical connector (see step 5 on page 116). **c** Switch on the printer.
The front panel displays the following message when you try to print: **0a0000 00000002** **Contact HP Representative**	You have not correctly connected air tube to the cartridge connector. **a** Switch off the printer. **b** Connect the air tube (see step 5 on page 116). **c** Switch on the printer.

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Problem	Reason and solution
When you try to insert ink cartridges you keep getting the following message for one or more of the ink cartridges on the front panel: **XX02 Reseat**	You have not locked the three latches at the rear of the ink cartridge tube connector. **a** Switch off the printer. **b** Open the door at the back of the left hand cover. **c** Make sure the ink cartridge tube connector is correctly installed and its three latches are locked (see step 2 on page 114). **d** Close the door at the back of the left hand cover. **e** Switch on the printer. **f** Insert the ink cartridges.

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Problem	Reason and solution
When you try to insert printheads you keep getting the following message for one or more of the printheads on the front panel: **XX02 Reseat**	The printhead tube connector is not correctly connected the carriage assembly. **a** Make sure the printhead tube connector is correctly connected to carriage assembly (see step 12 on page 120). **b** Insert the printheads.
After you have inserted printhead cleaners the front panel displays the following message: **XX05 Replace**	You have inserted the wrong type of printhead cleaners for the type of ink system installed in the printer. Insert the correct type of printhead cleaners.
You cannot insert a printhead into the carriage assembly labelled with the same color.	You are trying to insert the wrong type of printheads for the type of ink system installed in the printer. Insert the correct type of printheads.

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Problem	Reason and solution
You cannot insert an ink cartridges into the ink cartridge slot labelled with the same color.	You are trying to insert the wrong type of ink cartridge for the type of ink system installed in the printer. Insert the correct type of ink cartridge.

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Using the Printheads and Ink Tubes Containers

Whenever you change the Ink System you must store the Ink Tubes and Ink Supplies you have removed from the printer in their respective storage containers. The Ink Cartridges do not have a specific storage container so they should be stored in accordance with instructions given on their packaging.

Ink Supplies

The HP Printhead Storage container is designed to ensure that the Printheads and Printhead Cleaners you have removed from your printer remain in a fully operational state while they are being stored.

Use the following procedure to remove or insert ink supplies in the HP Printhead Storage container.

1. Lift the lid to gain access to the ink supplies.

2. Remove or insert the ink supplies in the same way as you do in the printer.
3. Close the lid.

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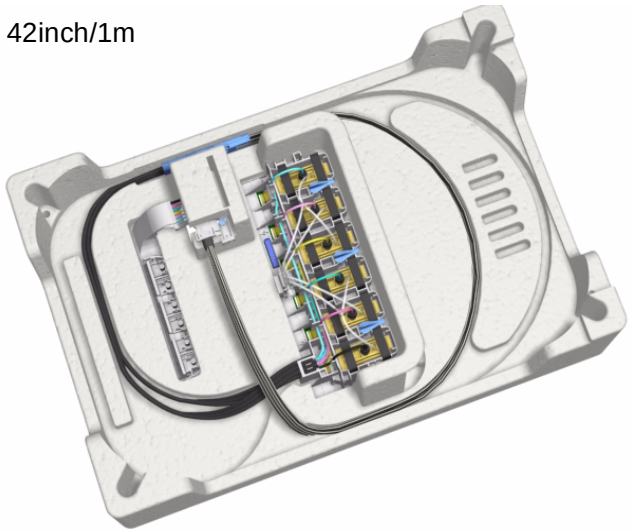
Ink Tubes

The HP ink tubes container is used to store the ink tubes you have removed from the printer. Whenever you remove the ink tubes from the printer you must store them in the HP Ink Tubes container so that ink tubes do not get damaged or twisted.

The following illustrations show the correct routing for the

42inch/1m and 60inch/1.5m ink tubes in the container.

42inch/1m



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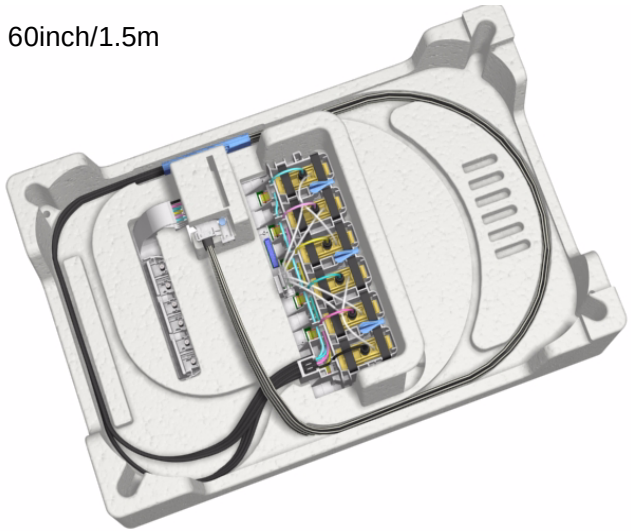
60inch/1.5m



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Manage the Prints

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The ‘Start Printing’ Options, 142
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HP Designjet WebAccess

Among the many things that WebAccess can do is to track and alter the queueing and nesting of your printer.

To use WebAccess,

Start your Web browser and give the address of your printer, as follows:
http://address/
where address is put the IP address of the printer. You can find out the IP address of the printer from the front-panel, as follows:

1. From the Printer setup options, select **IO setup**.
2. From **IO setup**, select **Card ID**.
3. Under **Card ID**, find the line starting with **IP=**. The remainder of that line is the IP address of the printer.

As an alternative to the IP address, you may give the DNS name of the printer. However, you will not be able to find the DNS name in the front-panel; ask your network administrator if you would like to use it.

Each status display is static: it does not automatically update itself as time goes by. To update it, click on the Update icon.

For more details on the HP Designjet WebAccess tool refer to the ‘Using Your Printer CD’ or see the information available when you enter the WebAccess tool.

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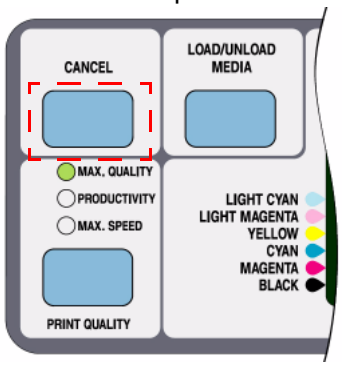
Pages Printing or Drying

The terms job and page used here mean RTL and HP-GL/2 jobs are single page jobs, however a single PostScript job may have more than one page. Where we talk about the print paper, the term page means a single output page.

Cancelling a Page

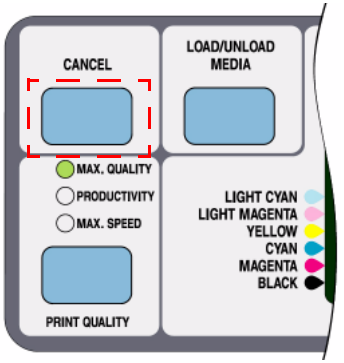
1. Press **Cancel** on the front-panel.



The printer advances the paper as though the print were finished. A multi-page job or a big file may take longer to stop printing than other files.

Cancelling the Drying Time

Press the **Cancel** or **Enter** key on the front-panel.



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Managing the Queue

The information included here only applies if you are using HP drivers.

Jobs and Pages

When you look at the queue either from WebAccess or from the front-panel, the queue is made up of individual ‘jobs’. The jobs in a queue must not be confused with pages in the queue.

What is the Queue?

Your printer can store pages in a queue at the same time as printing the current page. It stores them page by page. If you send only a single-page, you can regard these as files.

The length of the queue depends mainly on the jobs that you have in the queue, however as an approximation you can fit about 30 jobs in A0/E-size in Max. Quality. The queue stores processed output pages, not the input jobs.

The ‘Start Printing’ Options

NOTE: The Start Printing Options do not apply for PostScript jobs.

You can select at what point you want to print the file you have in the printers queue. Go to Internal RIP Settings/Start printing. There are three options you can select:

After Processing

When this is selected the printer waits until the whole file has been processed and then it starts to print. This is the slowest setting but you can achieve the best image quality.

Immediately

This selection prints the file as it is processed. This is the quickest setting, however the printer may stop halfway through a print to process data. This setting is not recommended for complex images with dense color.

Optimized (Default)

This setting calculates the best time to begin printing the file. It is the best mix between the After Processing and Immediately settings.

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Starting to Print a File that is Waiting for a Time-out

If all is in order (paper loaded, all ink components installed, and no file errors), there are still reasons why a file you have sent from your computer may not start printing when expected:

- The print file may lack a proper file terminator and the printer is therefore waiting for the specified I/O time-out period before assuming it is complete. See the ‘Using Your Printer CD’ for more details.
- Nesting may be on and the printer is waiting for the specified nest wait time-out period before calculating the appropriate nests. In this case, the printer display shows the remaining time for the nesting time-out. See *How Long does the Printer Wait for Another File?, on page 148*.
- You may have “wait for preview” selected in you HP Designjet Driver. This is a function you can use to check if the pre-view image is the one you want. You can check the pre-view in the WebAccess tool, then select “Start print”.

Identifying a Job in the Queue

In Queueing & Nesting, you can scroll through the pages in the queue.

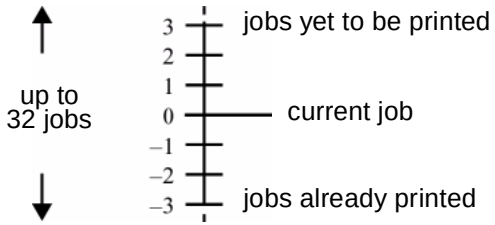
Each has an identifier, comprising:

<position in queue>: <image name>

Position in Queue

The job currently being printed is in position 0. The next job to be printed is in position 1, the one after in position 2, etc.

The previous job printed is in position -1, the one before that in position -2, etc.



You can also check the queue in ***HP Designjet WebAccess*** where you will find more detailed information.

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Viewing the Size of a Page in the Queue

To view the size of any page in the queue, select it and choose Statistics.

Statistic	Comments
Width	The shorter side of the page, in millimeters.
Length	The longer side of the page, in millimeters.

Prioritizing a Job in the Queue

To make any job in the queue the next one to be printed, select it and choose Move to top.

If nesting is turned on, (see *What is Nesting?, on page 146*) the prioritized job may still be nested with others. If you really want this job to be printed next, and on its own on the roll, then first turn nesting off and then use Move to top to move it the top of the queue.

Deleting a Job from the Queue

Under normal circumstances, there is no need to delete a job from the queue after printing it, as it will just “fall off the end” of the queue as more files are sent. However, if you have sent a file in error, and want to avoid any chance of it being reprinted, you can simply delete it, by selecting it and choosing Delete.

To remove a job that has not yet been printed, simply identify it by its position in the queue (see *Position in Queue, on page 143*) and delete it, by choosing Delete.

If the job is currently being printed (its queue position is 0), and you want both to cancel the job and to delete it, first press the **Cancel** key and then delete it from the queue.

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Making Copies of a Job in the Queue

Has the job already been printed?	Do you want one copy or several?	What to do
Yes	One	Use Move to top (see *Prioritizing a Job in the Queue, on page 144*).
	Several	Use Copies (see below) and then use Move to top (see *Prioritizing a Job in the Queue, on page 144*).
No	One	Use Copies (see below).
	Several	Use Copies (see below)

In all cases, the job must be still in the queue.

Having selected the job and chosen **Copies**, use the scrolling keys to specify the number of copies required, and press **Enter**. The number you enter is the actual number of pages to be printed; for example, choosing 2 for a page not yet printed means you will get the one original and one copy. The maximum is 99.

The setting you specify in this option overrides any value set by your software.

Note that, if ‘Rotate’ was On when you sent the file, every copy will be rotated. See the ‘Using Your Printer CD’ for details on rotation.

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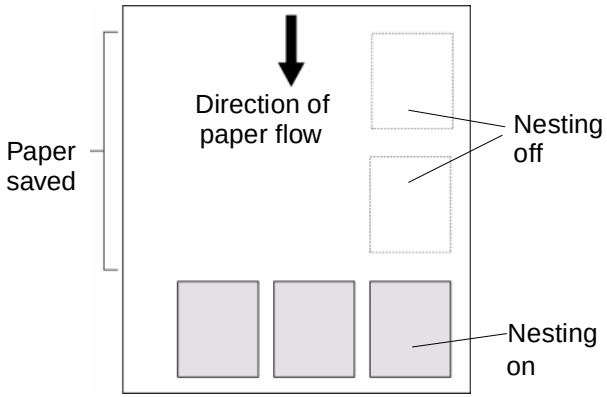
Nesting Pages

What is Nesting?

Nesting means placing pages side-by-side on the paper (rather than one after the other), to avoid wasting paper.



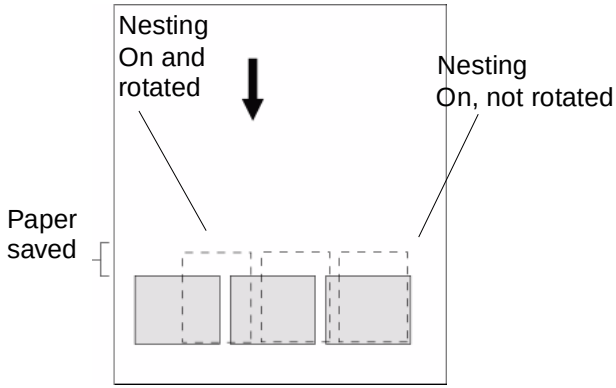
Refer to *Which Pages Qualify for Nesting?, on page 147*

Automatic Rotation only with HP/ GL-2 files

Rotate an Image with nesting on?

The printer may automatically rotate a page in nesting. It may do this even with a single page.

Since nesting may automatically rotate pages, the Rotate setting in the Page format menu is ignored while nesting is on.



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Which Pages Cannot be Rotated?

Apart from obvious physical limitations on the roll, any HP-GL/2 page containing **raster data** will not be rotated.

When Does the Printer Try to Nest Pages?

When all the following are true:

- The printer is loaded with roll paper not sheet paper.
- In the front-panel menus, Nest is ON.

Which Pages Qualify for Nesting?

In order to be in the same nest, the individual pages must be compatible on the following criteria:

NOTE: Selecting Nesting On overrides the Start Printing settings.

- Color or grayscale. Either all are color or all are grayscale. Grayscale may include a color page rendered in grayscales see the ‘Using Your Printer CD’ for more details.
- All pages must have the same print quality setting (Max. Quality, Productivity, Max. Speed).
- For HP-GL/2 only margin sizes must be the same for all pages (normal, extended).
- All pages must be HP-GL/2 or PostScript but not a mixture of the two.
- Equal mirror setting
- The Render Intent must be the same (HP-GL/2 only). PostScript can be mixed.
- Color Space must be the same (HP-GL/2 only). PostScript can be mixed.
- The cutter setting must be the same
- The Enhanced Resolution must be the same.
- The jobs must be the same. If you send an HP GL/2 job to the printer for example and then a Postscript job is sent to the printer, the HP GL/2 job will not be printed and only the PostScript job will print (this also applies the other way around).

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How Long does the Printer Wait for Another File?

So that the printer can make the best nest possible, it waits after a file has been received to check if a subsequent page will nest with it or with pages already in the queue. This waiting period is the nest wait time factory default nest wait time is two minutes. This means that the printer waits for up to two minutes after the last file is received before printing the final nest. You can change this waiting time using the front-panel menu. The available range is 1 to 99 minutes.

While the printer is waiting for nesting to time out, it displays the remaining time in the front-panel display. You can print the nest (cancel the nest wait) by pressing the **Cancel** key.

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pocket guide

the problem is...

hp designjet 5000 series printers

invent

C6090-90151

printed in the European Union

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English

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See the other side of this *Pocket Guide* for information about other documents available with your HP Designjet.

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Front-Panel Messages

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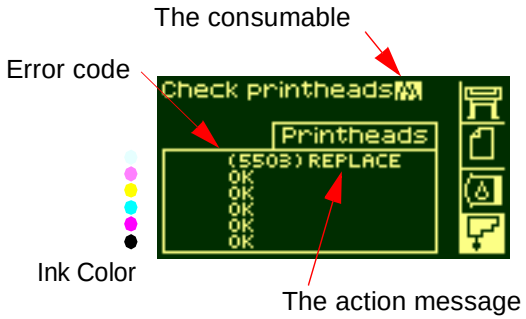
Status code interpretation

The Status code describes the status of the ink consumable. The **third** and **fourth** placed numbers in the status code are the status number, see *Status Numbers, on page 19*.

After the status number there will be a brief action message. If this action message is performed the status should return to normal i.e. OK.

In the example shown here, one or more of the printheads have a replace message displayed.To find out which colored printhead has the error, select the printhead icon. You will see the status of all the printheads at once.



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Consumable in warranty

If you have performed the

- Action message
- Looked up the status codes, and performed the procedures described there

and it has not corrected the error and your consumable is still IN WARRANTY, here is what to do:

Make a note of the whole status code and contact your HP representative. To check if it is in warranty refer to page ***79,*** in section ***Maintain the Ink System*** on the reverse of this guide.

For detailed warranty information refer to the HP Designjet 5000 series legal information Document which came with your printer.

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Status Codes

The tables in *Printhead Status Messages, on page 19* for example, show the status numbers with the message ‘replace’ or “reseat” i.e. next to them. Perform the Action message i.e. ‘replace’, ‘reseat’ or ‘recover’ first, if this does not solve the problem, refer to the status numbers in the table and perform the relevant procedure(s).

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Front Panel Messages

Status	Description	Procedure
Calibrate error	The calibration the printer was performing has failed.	Note down the calibration error code which comes with this message and contact your HP representative.
Calibration cancelled	The printer was performing a calibration and you pressed the cancel key on the front panel.	If the printer was performing a calibration to correct an internal error the correct functioning of the printer maybe affected.
Calibration Error XXXX Press **Enter** to Continue	The printer was calibrating and failed to complete the calibration. The front panel shows an error code, represented here with XXXX.	1. Press the **Enter** to continue. you can continue to print, but if you have problems contact your HP representative.

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Status	Description	Procedure
Edge not found. Reload media.	The line sensor on the carriage cannot see the edge of the media. This maybe because the media is 100% transparent of the lens cover is dirty.	Try load a different media, if the same message is displayed, clean the lens cover refer to the “Using Your Printer CD”
Error processing job Flushing rest of job	There has been an error processing a PostScript image, the rest of the job will be cancelled and the print will be deleted.	
Full ink cartridges needed	The ink system startup must have full cartridges to enable the initialization of the complete ink system.	Remove the ink cartridges and replace with ink cartridges that are full of ink.
Have ink tube replaced or risk printer damage Contact HP	The internal ink system tubes need replacing urgently.	Contact your HP representative to arrange for an on-site visit to perform the maintenance procedure.

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Status	Description	Procedure
HP is not responsible for damage from use of non-HP ink Select YES to replace	To ensure that you always get excellent image quality from you printer it is important that you use genuine Hewlett-Packard components.	Select ‘Yes’ and replace with genuine HP components See the “Using Your Printer CD”.
Initializing printer Please wait.	The printer needs some time when you first turn the printer on from the power switch.	You can put the printer into Standby Mode this will return to the **Ready** status much quicker. See the *Standby key, on page 9*.
Ink drying, please wait	The media has finished printing but due to certain conditions the image needs time to dry.	To adjust the settings to the drying time see the “Using Your Printer CD”.
Ink tube maintenance advised	The internal ink system tubes need replacing.	At your earliest convenience contact your HP representative to arrange for an on-site visit to perform the maintenance procedure.

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Status	Description	Procedure
Ink tube maintenance required now	The need to change the ink tubes may affect the performance of the printer.	Contact your HP representative to arrange for an on-site visit to perform the maintenance procedure.
Insert	There is no consumable installed	Insert the correct printhead(s) into the carriage assembly. Check the interconnect to see if they need cleaning. See page ***63,*** in section ***The Ink Supply*** on the reverse of this guide.
Insert cleaner	The printhead cleaners are located on the right hand side of the printer.	
Insert ink cartridges	This is an ink cartridge removal instruction.	For more an animation showing the Cartridge install procedure see *Ink Cartridge Removal, on page 75*.
Insert printhead	This message is prompting you to insert a printhead into the carriage assembly	See *Printhead Installation, on page 85*

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Status	Description	Procedure
Lift window to remove printheads	You have selected replace printheads and the front panel is guiding you through the procedure.	To see an animation of the printhead installing procedure see *Printhead Installation, on page 85*
Lift window to replace SETUP printheads	The printer is prompting you to lift the window of the printer so that you can install ‘normal’ printheads into the printer. you must only remove the Setup printheads when you have initialized the printer first.	It is vital to the correct functioning of your printer, that the Setup procedure is performed correctly. Use the Setup instructions which came with your printer to guide you through the steps.
Media loaded incorrectly. Remove media.	The media is mis-positioned or mis-aligned.	Before the printer can continue you must remove the media. See *Loading the New Roll of Media, on page 42*.

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Status	Description	Procedure
Media misaligned. 1_ Lift lever 2_ Align Media with both edges of roll 3_ Lower lever	The printer is helping you with the load roll media procedure.	For an animation on the loading roll procedure see *Loading the New Roll of Media, on page 42*
Media misaligned. 1_ Lift lever 2_ Align right edge with blue line 3_ Lower lever	The media is not being fed into the printer straight.	For guidelines on loading media see *Loading Roll Media Guidelines, on page 36*
Media mispositioned. 1_ Lift lever 2_ Correct position 3_ Lower lever	The roll is mis-positioned in the printer. This may mean the media is too far to the left on the platen	For guidelines on loading media see *Loading Roll Media Guidelines, on page 36*

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Status	Description	Procedure
Media too small	The media you are attempting to load is too small for the printer to use.	For the minimum size of media the printer can use see the “Using Your Printer CD”.
Misalignment	This means that the media has not been fed into the printer straight.	Reload the media making sure that the edges of the media are parallel and that it is straight when you feed it in. Align the media coming out from the printer with the media going into the printer, see *Loading the New Roll of Media, on page 42*.
Mis-position	The media is not positioned correctly in the printer. The media may be too far to the left or the right.	Check you have loaded the media correctly as shown in the procedure *Loading the New Roll of Media, on page 42*.
No media profile available. Unload roll.	The media you are attempting to load does not have a media profile associated with it, so the printer does not know how to print on it.	See the “Using Your Printer CD” for details of the downloading media profiles procedure. If this is not successful, switch the printer On and then Off again.

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Status	Description	Procedure
OK	The ink system is working correctly	None
Preventative maintenance advised	The printer has kept track of the number of cycles your printer has performed. This message means the printer needs maintenance to maintain its performance and to prevent printer down-time in the future.	Contact your local HP representative. Arrange a time, which would be convenient for you and he will service the printer. To find out about preventative Maintenance refer to the “Using Your Printer CD”.
Printer temperature is out of the printer's operating range. Printer cannot function.	Under cold environmental conditions outside its operating range the printer will stop. It does this to protect the ink systems inside the printer.	Simply ensure the temperature is above 15 °C and turn the printer off and on again.
Processing	The printer has received a print file and is processing the information before commencing printing.	

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Status	Description	Procedure
Receiving	The printer is receiving a file.	If you have problems printing refer to the “Using Your Printer CD”.
Recover	There is a problem with one of the printheads you are using. To see exactly what printhead has the problem go to the printhead menu and press **Enter** key.	See ***42,*** in section ***Image Quality*** on the reverse of this guide for details.
Remove ink cartridge by pushing it in and up	This is an ink cartridge removal instruction.	For more an animation showing the Cartridge removal procedure see *Ink Cartridge Removal, on page 75*.
Remove media weight Wind excess media using TUR button Press ENTER	You are unloading media from the printer, you must first remove the media weight from the Take Up Reel before you can complete the procedure.	If you do not want to use the Take Reel you can turn Off the setting by going to Utilities/ TUR installed/No

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Status	Description	Procedure
Replace	The printer is informing you that there is a printhead that needs replacement.	See *Printhead Status Messages, on page 19*
Replace cleaner	The printer is designed so that when you replace a printhead you must also replace the printhead cleaner.	See *Printhead Cleaner Removal, on page 88* for details.
Replace ink cartridge	This is an ink cartridge removal instruction.	For more an animation showing the Cartridge removal procedure see*Ink Cartridge Removal, on page 75*.
Setup	The setup message is displayed when new tubes have been installed into the printer and you have installed the correct setup printheads	When the setting up of the tube system is complete, the front panel will display a message asking you to remove them and replace with ‘normal printheads’.

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Status	Description	Procedure
Sheet misaligned. Lift lever to align with blue line or to remove media.	This means that the media has not been fed into the printer straight.	Reload the media making sure that the edges of the media are parallel and that it is straight when you feed it in. Align the media coming out from the printer with the media going into the printer, see *Loading the New Roll of Media, on page 42*
Sheet required for calibration	The printer is prompting you to load media into the printer before it can perform a calibration.	To see *Loading Sheet Media, on page 65*
Switch power off	The printer is prompting you to isolate the printer from the power supply.	Switch off the printer using the power switch located out the rear of the printer.
Switch power off Check media path	There is a media jam in the printer.	***Clearing a Media Jam***

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Status	Description	Procedure
Switch power off Check printhead path	There is a media jam in the printer.	Switch the printer off and clear the blockage. see ***70,*** in section ***Media Jam*** on the reverse of this guide.
Switch power off Restart printer startup with all Ink cartridges	The ink system startup must have full cartridges installed to enable the initialization of the complete ink system.	Install the ink cartridges as shown in the Setup Instructions which came with your printer.
System error	The printer has a system error.	There are various types of system error, some you can continue printing with and others will disable the printer see *System Error Messages, on page 28*.
Unknown ink cart. Press ENTER = accept	The printer does not recognize the ink cartridge you are attempting to install. It is recommended that you install only genuine HP Ink Cartridges. Image Quality cannot be guaranteed.	To order genuine HP components refer to “Using Your Printer CD”.

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Status	Description	Procedure
Waiting for nest	The printer is in the process of nesting.	See *Nesting Pages, on page 146* for an explanation of nesting.
Warning! Ink cartridges are still functional. If you want to replace any, please select YES	The printer's ink cartridges are working correctly, you should only remove them if you are printing a large image unattended and there is not sufficient ink remaining to finish the image.	For the Cartridge removal procedure see *Ink Cartridge Removal, on page 75*.
Warning! Tubes System has reached its END OF LIFE. Contact HP Representative. Replace Tubes System.	The internal ink system inside your printer has reached its end of life.	Make a note of this display and Contact HP Support describing the situation.

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Status	Description	Procedure
WARNING!!! You are going to reset the WebAccess Passwd.	You have a security setting for the WebAccess tool. This is an optional setting. If you continue with the procedure the password to gain access to WebAccess will be re-set.	This setting is because you have forgotten, or do not know the password for entry into the WebAccess tool. See the “Using Your Printer CD” for more details.
You need to cut this media manually	You have media loaded which the cutter cannot cut because it is too thick or strong.	Use a knife or scissors to cut the media.

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Printhead Status Messages

Status Numbers XX ranges[a] from 00 - 55	Printhead Message Description	Procedure
XX02 Reseat **XX06 Reseat** **XX08 Reseat**	The Printhead may only be badly seated. This means there is a bad electrical connection between the printhead and the printer carriage.	Try these steps below. If the message returns to **OK** after performing the first step, do not continue. 1. Remove the printhead and insert the printhead again. 2. Remove the printhead and clean the interconnect, refer to ***63,*** in section ***The Ink Supply*** on the reverse of this guide. 3. Replace the printhead.
XX10 Reseat	There is an electrical failure	

a.See ***Status code interpretation***

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Status Numbers XX ranges from 00 - 55	Printhead Message Description	Procedure
XX03 Replace	Printhead smart chip failure	Replace printheads
XX04 Replace **XX05 Replace**	You have installed a new tubes system and the printer is priming them: The printer has detected that the Setup printheads are still installed.	Remove the used setup printhead(s) and replace with normal ones.
XX09 Replace	There is an electrical failure	Remove the printhead(s)

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Status Numbers XX ranges from 00 - 55	Printhead Message Description	Procedure
XX11 Replace	If you have installed a new tubes system and the printer is priming them: The printer has detected that “normal” printheads have been installed instead of the correct Setup printheads.	Remove the printhead(s) and replace with Setup printhead(s).
	The printer has detected that you have installed an incorrect type of printhead	Ensure that you have HP No. 81/83 printheads installed.
XX12 Replace	The printer detects that the printhead does not match the rest of the ink system.	Ensure that **all** the ink supplies are HP No. 81/83

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Status Numbers XX ranges from 00 - 55	Printhead Message Description	Procedure
XX13 Replace	The smart chip inside the printhead contains incorrect information. The printer cannot print with this printhead	Replace printhead(s)
XX14 Replace	The printhead has an internal electrical failure.	
XX15 Replace		
XX16 Replace	The printer was printing: Printhead temperature has reached an excessive level. It is possible to continue to print with this printhead, but it may void the printhead warranty if you continue for long periods.	
XX17 Replace		
XX18 Replace	The printhead smart chip detects an unsupported manufacturer.	

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Status Numbers XX ranges from 00 - 55	Printhead Message Description	Procedure
XX21 Replace	The printhead has reached a degradation level that prevents the printer producing acceptable image quality consistently.	1. If the quality of your prints is fine, try a manual recovery and/or re-insertion. After this the printer may detect a recovery and will accept the printhead. 2. If after a recovery the message persists and the quality of your prints is unacceptable, replace the printhead(s) 3. To continue printing contact HP Support.

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Status Numbers XX ranges from 00 - 55	Printhead Message Description	Procedure
XX20 Recover	The printhead is loosing its capability to produce the best image quality consistently. The printhead is still able to produce good image quality. However this is the first symptom of an aging printhead.	If the image quality is acceptable you will not need to take any action. Continue using the printhead until the “Replace” message is displayed. If the image quality is **NOT** acceptable: 1. Try the ***42,*** in section ***Image Quality*** on the reverse of this guide. 2. If after you have performed the recovery procedure the image quality is still not acceptable, see ***74,*** in section on the reverse of this guide

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Ink Cartridge Error Messages

Status Numbers XX ranges from 60 - 85	Ink Cartridge Message Description	Procedure
XX03 Replace	The ink cartridge has an air leak which prevents the ink pumping to the printer.	1. Remove the ink cartridge and re-install. 2. Replace the ink cartridge
XX04 Replace	The smart chip inside the ink cartridge contains incorrect information. The error detected means that you can not continue to use this ink cartridge.	
XX05 Replace	The printer has detected an incorrect ink cartridge	Ensure it is a HP No. 81/83 and that it is installed into the correct position.

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Status Numbers XX ranges from 60 - 85	Ink Cartridge Message Description	Procedure
XX06 Replace	The printer detects that the ink cartridge does not match the rest of the ink system already installed.	Ensure that the printheads and the ink cartridges are HP No. 81/83.
XX08 Unknown	The cartridge smart chip indicates that the ink cartridge installed is not supported by HP.	1. Press **Enter** to continue or: 2. Replace with a genuine HP No. 81/83
XX02 Reseat	The ink cartridge maybe badly seated. An electrical connection is faulty.	1. Remove the ink cartridge and re-insert. 2. Replace the ink cartridge.

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Printhead Cleaner Error Messages

Status Numbers XX ranges from A0 - B5	Printhead Head Cleaner Message Description	Procedure
XX03 Replace	The printhead cleaner installed is not recognized by the printer.	This may mean that the line sensor is dirty, perform the Lens Replacement procedure. Ensure that you have replaced the printhead cleaner together with the printhead. Ensure that all the printhead cleaners installed are genuine HP No. 81/83
XX05 Replace	The printhead detects that the printhead cleaner does not match the rest of the ink system already installed.	
XX06 Replace	The printer detects an incorrect printhead cleaner	

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System Error Messages

What they Mean

System errors are printer malfunctions which mean an on-site visit from a HP representative is necessary. There are three types of messages displayed.

Continuable

You can continue printing, but the printer is not functioning properly, image quality may well be affected. It is strongly recommended that you contact your HP representative, have the message and the system error code ready with you to quote.

Sporadic

Turn the printer Off and then On the printer will clear itself. If this problem persists contact your HP representative.

Non-continuable

The printer will not work and you must contact HP, have the message and the system error code ready with you to quote.

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Image Quality

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Correcting the Configuration

1. To achieve the best performance from your printer, only use **genuine** HP accessories and supplies, whose reliability and performance have been thoroughly tested to give trouble-free performance and best-quality prints. For details of HP media, see User's Reference Guide. You can also look at the web page **http://www.hp.com/go/designJet** for the most up to date information.
2. Make sure that the **type of media** selected in the front-panel is the same type of media loaded into the printer. To check this go to the Roll or Sheet menu in the front-panel and press **Enter**.
3. Make sure that the **print mode** (Max Quality, Productivity, Max. Speed) is correct. Check this is defined in the front-panel and in the driver selection.
4. Select **Max Quality** print mode for maximum print quality.
5. For **Non-HP drivers**, set media settings to match the media type loaded in the printer. See the documentation that came with your software for information.
6. If your image quality problem is **color accuracy** related, go to *Color Accuracy Configuration, on page 40* for further configuration help.

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Using the Image Quality Print

The image quality print helps you determine if you have image quality problems, and if you do, what the cause of the problem is and how to resolve it. The print contains patterns which are designed to highlight any image quality problems.

Before printing and analyzing the Image Quality Print, it is recommended that you check the following:

Printhead Status Check

Check the printhead status in the front-panel, using the and down keys select the printhead icon, the front-panel will then display the printhead status.

Replacing

If the printhead needs replacing, go to ***81,*** in section ***Maintain the Ink System*** on the reverse of this guide and replace the printhead.

Recovering

If the printhead needs recovering, go to *Printhead Recovery Procedure, on page 42*.

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How to Print the Image Quality Print

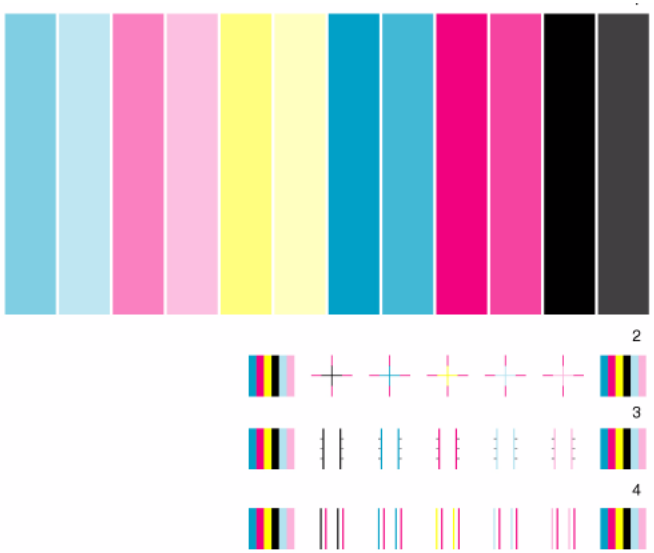
Before you print the Image quality print you must ensure that you have A2 or C size media (or larger) loaded into the printer.

To print the Image Quality Print use the front-panel. Go to Utilities\Test Prints\Print Quality and press the **Enter** key.

How to Use the Image Quality Print

1. Use the same media type and image quality setting as you were using when you discovered the image quality problem.
2. Study each of the test patterns in the order that they are shown i.e. 1 through 4

Shown here is what the image quality print looks like:



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Analyzing the Image Quality Print

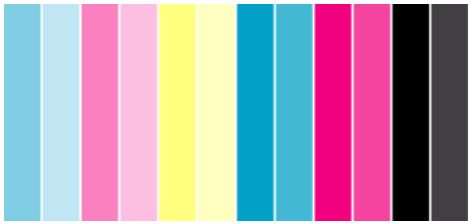
Test Pattern 1: Primary Colors

The purpose of the particular part of the image Quality Print is to test the overall quality of the document with regards to dense colors.

The colored stripes are in the same order as they appear on the printer as if you are facing it i.e. Light Cyan first and Black last.

Each pair of colors is printed by only one printhead. So it's easy to find the root cause of the image quality problem.

This array of colored stripes is designed to check for certain defects with the printer. It should not be used to check for color consistency or accuracy.



If your printer is functioning correctly this part of the print will have no problems. There is no banding in any of the colors.

However, if you do see problems with this print and the image quality is not acceptable, you will need to perform some corrective actions.

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Banding

Banding is when you see repetitive horizontal bands within the printed image. They can appear as light or dark bands.

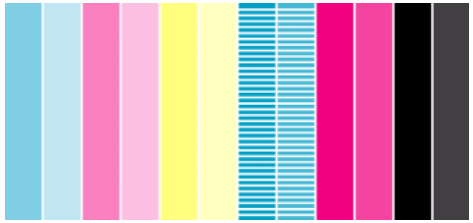
Banding is caused by problems with:

- The printhead(s)
- Media advance

Problems with the Printhead(s)

Banding caused by problems with the printhead(s) will be highlighted in the image quality print because the banding is not in all of the colors, the colored strip that has banding was caused by the same colored printhead. The colored stripes are in the same order as they appear on the printer as if you are facing it i.e. Light Cyan first and Black last.

For example, the image quality print shown below was printed with a printer that has a cyan printhead problem.



Corrective Action

1. Perform the *Printhead Recovery Procedure, on page 42* if you have not already done so
2. If there is no improvement in print quality, replace the problem printhead.

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Problems with Media Advance

If the printer has media advance problems you will see banding in **all** the colors.

For example, the image quality print shown below was printed with a printer that has a media advance problem. **Note**: The bands appear light because the roller has advanced too much. The opposite could also be true, the bands could appear dark because the roller has not advanced sufficiently.

In high quality modes, due to the amount of ink used, media advance problems may not appear as lines of banding, they may appear grainy instead. The banding or graininess will appear in all the colors.

Corrective Action

1. If the image is grainy, this could also be a symptom of problems with the bidirectional alignment. Refer to *Test Pattern 3: Bidirectional alignment, on page 37*. If this pattern is ok, go to step two.
2. Perform the *Accuracy Calibration, on page 44* with the same media you were experiencing unacceptable image quality.
3. If there is no improvement in print quality, contact Hewlett Packard.

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NOTE: It is also possible that this kind of banding was caused because you were using non-HP supported media. The performance can only be guaranteed if you use supported HP media.

Test Pattern 2: Color to color alignment

If the printer has Color-to-color alignment problems then the Image Quality Print in test pattern 2 (shown below) has mis-aligned colors.

Corrective Action

1. Perform the *Aligning the Printheads, on page 46* with the same media you were experiencing unacceptable image quality.
2. If there is no improvement in print quality, contact Hewlett Packard.

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Test Pattern 3: Bidirectional alignment

If a printer has bidirectional alignment problems, lines are not straight and/or fuzzy. The pattern seen below is designed to highlight this kind of problem. Check the lines on this test pattern, if they have any defects like the ones described above perform the corrective action.

Corrective Action

1. Perform the *Aligning the Printheads, on page 46* with the same media you were experiencing unacceptable image quality.
2. If there is no improvement in print quality, contact Hewlett Packard.

Test Pattern 4: Vertical Line Straightness

If a printer has Vertical Line Straightness problems, lines are not straight and/or fuzzy. The pattern seen below is designed to highlight this kind of problem. Check the lines on this test pattern, if they have any defects like the ones described above perform the corrective action.

Corrective Action

1. Perform the *Aligning the Printheads, on page 46* with the same media you were experiencing unacceptable image quality.
2. If there is no improvement in print quality, contact Hewlett Packard.

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No defects found in the Image Quality Print

If the entire image quality print contains no defects and you still experience image quality problems, listed below are some things to check:

- The print mode in the printer is incorrect see page ***8,*** in section ***Use the Front-Panel*** on the reverse of this guide.
- Check the driver you are using to print with, if it is a non-HP driver, go to http://www.hp.com/go/designjet and download the correct HP driver.
- The settings in the Non-HP RIP are incorrect. Refer to the documentation which came with the RIP
- The software applications you are using have the wrong settings.

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Color Accuracy

These are two areas you should review when troubleshooting a color accuracy problem:

Configuration

Check the color emulation selected in the driver (or in the front panel if no driver is being used). Make sure the color information is adjusted for the current color setup. See *Color Accuracy Configuration, on page 40*.

Color Consistency problems

- Some media may discolor or change with age. Check that your media is fresh and has been stored correctly.
- Check to make sure that color calibration is turned on. Refer to *Calibrating the Color Output, on page 45*.
- If the environmental conditions you are printing in change rapidly, you may see changes in the color consistency. By reducing the time the print stays in extreme environmental conditions after being printed (especially very high humidity) you can reduce the color consistency problems.

Long Term Color Bleeding (Glossy Papers)

If you see the colors are bleeding into the paper i.e. the color is soaking into the paper making the lines fuzzy and bleary. This is because of the humidity conditions that you are working under:

- Change the paper that you are printing with.

or

- Remove the printer from the high humidity conditions.
- Do not cover or stack the printed images after printing.

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Color Accuracy Configuration

The configurations of the printer, the driver, and the RIPs define how ink is applied to each type of media. Use the information in the following table to configure your printer and software for best color accuracy.

Location of Setting	Setting Description	Selection
Printer Front-Panel Menu	Media	■ Set to match the media type loaded in the printer.
	Ink Emulation Mode, on page 217. RGB CMYK (PS 5000PS only)	■ Set the type of inks that your software generates.
	Calibrating the Color Output, on page 45	■ Set to ON.
Non-HP drivers (Software RIPS)	Media or equivalent setting	■ Set to match the media type loaded in the printer. See the documentation that came with your software for information.
	Color correction option or equivalent	■ Perform the color correction calibration if one is available.

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Where to Find Additional Information

The means of accurately managing the colors printed by your printer vary with the software application and driver being used. Refer to the following documentation:

- There is a tutorial available from the HP web site, use the WebAccess tool to go there. See the User's Reference Guide.
- The *Software Application Note*s for your application, in the package shipped with your printer.
- On-line documentation in the drivers shipped with your printer.

Non-PostScript

NOTE: Additionally, remember that your printer may be configured to use one of its internal pen palettes instead of your software's palette (which is the default). See the User's Reference Guide.

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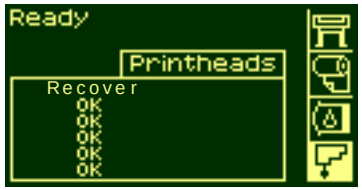
Printhead Recovery Procedure

Recovering the printhead(s) means that the printer automatically cleans and tests the printhead(s).

To recover the printhead perform the following procedure:

1. Using the ↑ or ↓ keys select the printhead icon in the front-panel.



2. Press **Enter.** The front-panel displays:

3. Using the ↑ or ↓ keys select “Recover printheads”.

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4. Press **Enter.** The front-panel displays:

5. Using the ↑ or ↓ keys select the printhead(s) that you need to recover or if you are not sure select **“All Printheads”**

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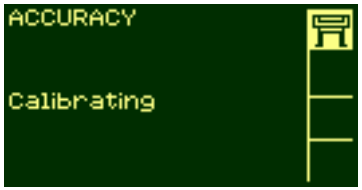
Accuracy Calibration

Your printer was calibrated at the factory to ensure that it operates with the greatest accuracy in normal environmental conditions. If you are operating under significantly different conditions, you should re-calibrate the printer as explained here. The printer's environmental specifications are given in the User's Reference Guide. You may also need to re-calibrate the printer if you have image quality problems.

To re-calibrate the Printer

1. Go to Utilities/Calibration/Calibrate Accuracy

2. Choose Create pattern. The front-panel displays:



3. When the calibration print has finished printing the printer will cut the media.

4. Reload the image just printed into the printer with the arrows in facing downwards, so that the black arrows emerge from the printer facing upwards.

5. Go to re-calibrate again, and choose Measure pattern.

When the printer has finished measuring and has ejected the sheet, the re-calibration procedure is finished. The front-panel will confirm that the printer re-calibrated successfully.

If there is an error with the calibration the front-panel will display an error message and an error code. Make a note of the error code and contact your HP representative.

To Restore the Factory's Calibration

NOTE: If you notice that after the calibration the results are worse than before, return the setting back to the original setting.

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Calibrating the Color Output

Color calibration improves color consistency between prints, and from one printer to another. The printer calibrates the color by printing a ‘calibration strip’ and then scanning the strip with a built-in optical sensor. The printer will then calculate the color correction required, which is then applied to all the subsequent prints.

The Color Calibration is performed whenever a printhead is replaced, and a new media type is introduced that has not been calibrated yet with the new printhead(s). This can be turned of however and a default color correction is used for each of the media that is known.

The menu settings for Color calibration are:

On	The printer uses the calibration the printer has performed before printing a page. The printer performs the calibration whenever you introduce a new media type that has not been calibrated yet with the current set of printheads. A color calibration can also be triggered manually via the Calibrations menu.
Off	The printer uses a default color correction, different for each media type and print quality setting.

Go to Menu Setup/Internal RIP Settings/Color Calibration. Refer to page ***18,*** in section ***Use the Front-Panel*** on the reverse of this guide to see the menu.

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Aligning the Printheads

The printhead alignment selection causes the printer to align the printheads immediately, or if an image is being printed, as soon as the current print job is finished. The alignment procedure requires a minimum media size of A1/D-size (24inches).

The printer will automatically perform an alignment when printheads are replaced. You can use this feature if the print quality print indicates an alignment error. Refer to *Using the Image Quality Print, on page 31*.

To perform the Printhead alignment procedure go to Utilities/ Calibrations/Printhead Alignment.

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Ink Marks on the Media

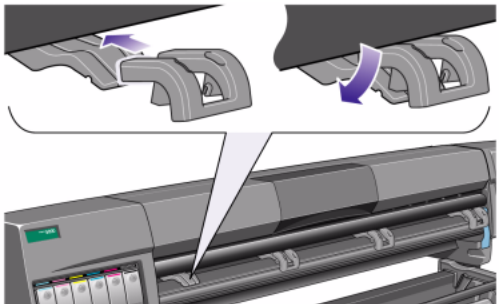
Media Extensions

Printed surface smearing roll:

As the media is printed and the image is coming out from the printer, the natural curl of the media causes it to rub against the roll of media installed in the printer. This causes image smearing.

In addition to this, if the out-coming media sticks against the roll, because the ink is not dry or because of static (some Polyester films get electrostatically charged) it could cause the media to re-feed into the printer.

Make sure that the media extensions are installed onto the printer (**shown below**). The extensions don't reduce the way media is charged, but the increased distance between the roll and the out-coming media, reduces the probability of having both surfaces being attracted (and smears).



NOTE: for detailed printing tips, troubleshooting, printing compatibility and new product information, visit our web site at: http://www.hp.com/go/designjet

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Warped Lines on Media

- The media itself may be warped. This can happen if it has been used or stored in an extreme environment. For all environmental specifications, see Environmental Specifications in the User's Reference Guide.

Blurred Lines (Ink "Bleeds" from Lines)

- Perhaps you have adjusted the drying time in the front-panel menu to speed up the printer output. Set "Drying time" to "Automatic".

For details of drying time adjustments, see the User's Reference Guide.

Marks and/or scratches on glossy paper.

Glossy paper may be extremely sensitive to the bin or anything that it comes into contact with directly after printing. This will depend on the amount of ink printed and the environmental conditions that are present at the time of printing. Avoid any contact with the paper and handle the print with care until quite some time has elapsed.

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Marks and/or scratches on double-sided media.

If you are using double-sided media and there are marks and scratches evident on the media, it may mean the platen needs cleaning. Perform the procedures detailed in the Section Other in the User's Reference Guide for cleaning the platen.

Smears or Scratching on the Image

This problem can appear on paper-based coated media if a lot of ink was printed. The media absorbs the ink quickly and expands. As the printheads move over the paper, the printheads and the paper come into contact with each other and the printed image is smeared.

1. Press the **Cancel** key on the front-panel; if you continue to print, the paper may damage the printheads.
2. Cancel the print job from your computer application.

In order to obtain better results perform the following:

- Use HP recommended media. If the image you are printing has intense color, try using HP Heavyweight Paper (Economy) through the front-panel.
- Use extended margins see the 'Using the Printer CD', or try to increase the print margins by relocating the image in the page from your software applications.
- Ensure that the Media extensions are installed on the printer
- If you are using 'Media Saving Options' from the advanced section of the HP- GL/2 Driver, try disabling one or both the options 'auto rotate' and 'inked area'
- Use the Take Up Reel if you have one installed

If the above fails to solve the problem of smears and scratching, change the media you are using to a non-paper based media such as glossy film.

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Marks on the Reverse of the Media

Marks underneath the media or at the media edges can be caused by accumulated ink deposits on the platen transferring to the media. The ink deposits can be seen mostly in the areas where the edge of your media rests on the platen. The printer routinely removes these ink deposits every time you load roll media. However, depending on your printer usage, this is sometimes not sufficient. There are two procedures for cleaning the platen, Automatic and Manual.

Automatic

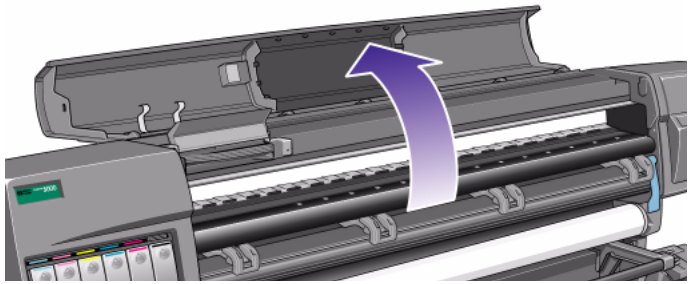
This setting enables you to remove the ink deposits from the platen using the media you have loaded. The printer moves a portion of the media backwards and forwards over the platen. To manually trigger the automatic cleaning process go to Utilities/Clean Platen/Automatic.

Manual

Detailed here is the process for the Manual Platen Cleaning.

NOTE: Ensure that you have unloaded the media before performing these procedures.

1. Open the window.



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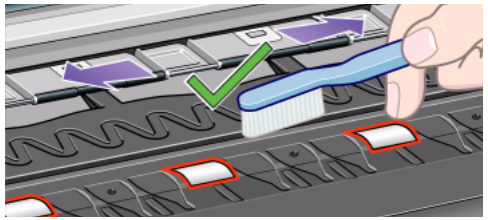
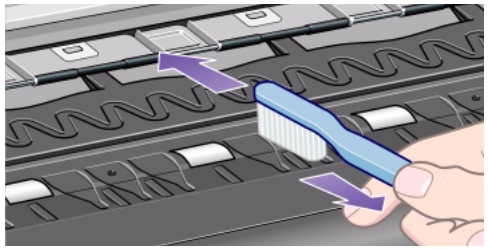
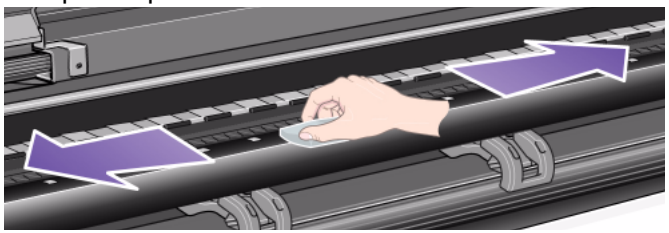
2. With a dry brush, remove the ink deposits from the cutter groove.



3. Also with the dry brush remove the ink deposits from the platen surface.



4. Use a clean slightly damp absorbent lint-free cloth to wipe off the loosened ink deposits from the platen. However, do not wipe the platen wheels with this cloth.



Caution: Do not use commercial cleaners or abrasive cleaners. Do not wet the platen directly because you will leave too much moisture behind.

NOTE: Use Isoproply alcohol to dampen the cloth.

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5. Clean the cutter ramp as shown below with the damp cloth.

6. Clean the exposed part of the wheels as shown below with a slightly-damp absorbent lint-free cloth. It is important that the cloth is not too dirty, otherwise you will leave too much moisture behind and the wheels will not work well.

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To turn the platen wheels so that you can clean the whole circumference, perform the following:

7. Close the window of the printer.

8. Select the Printer setup menu in the front-panel.

9. Select ‘Utilities’ in the Printer setup menu and press the **Enter** key.

10. Select ‘Clean platen’ in the Utilities menu and press the **Enter** key.

11. Select ‘Clean now…’ in the Utilities menu and press the **Enter** key.

12. Select the ‘Manual’ option and press the **Enter** key.

13. Open the printer window.

14. Use the ↓ & ↑ keys to move the wheels through a fifth of a turn.

WARNING **Do not touch the rotating wheels directly with your hands.**

15. Clean the exposed part of the wheels.

16. Repeat steps 14 and 15 three more times to clean the whole circumference of the wheels.

17. Close window to exit.

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The Media cannot be Loaded Successfully

Roll media

- The roll may be loaded the wrong way. The paper should load over the roll toward you.
- The media may be crumpled or warped or may have irregular edges.
- The paper may be loaded at an angle. The right-hand edge must be aligned with the edges of the roll of media.
- Ensure that the paper is wound tightly on the roll.
- Check that the paper is correctly loaded onto the spindle.

Sheet media

- It must be loaded with the right-hand edge against the blue perforated line on the printer.
- Align the sheet media against the trailing edge coming out of the printer.
- The media may be crumpled or warped or may have irregular edges.
- If you are using hand-cut media, the edges may not form a right-angle or they may be rough. Do not use hand-cut media. Use only purchased sheet media.
- Refer to page ***36,*** in section ***Loading and Unloading Media*** on the reverse of this guide.

Prints Do Not Stack Properly in the Media Bin

- The printer may be too close to the end of the roll. The natural curl near the end of the roll can cause stacking problems. Load a new roll or remove prints manually as they are completed.
- If you are mixing prints or nesting sets of several different sizes, you may have stacking problems because of the different sizes of media in the bin.

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Other Sources of Info

If you don't find the solution to the problem here, other sources of help are:

- The documentation supplied with the driver that you are using to manage the output from your software application to the printer.
  For example, the on-line and printed documentation included in the following drivers supplied with your printer:
  - PostScript® drivers for Macintosh®
  - PostScript® drivers for Microsoft® Windows™ 9x/NT 4.0/2000
  - HP Designjet Windows drivers 9x/NT 4.0/2000
  - HP developed drivers for AUTOCAD.
- The HP-GL/2 driver documentation supplied with your application software.
- There is also documentation on the WebAccess tool.
  Refer to *HP Designjet WebAccess, on page 140*.

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The Ink Supply

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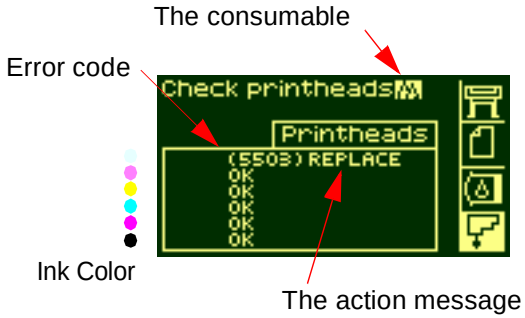
Ink System Error/Status Messages

The HP Designjet Printheads are manufactured to last a long time. However, over time the printheads will degrade and after a while will need to be replaced. The error/status messages are designed to keep you informed of the status of your ink supplies.

The example below shows a printhead with an error.

To find out exactly which printhead has the error, select the printhead icon as shown below.



The front-panel display will change to show the current status of all the printheads.

The Error/Status message has two parts:

- The action message
- The error code

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The action message must be performed first to correct the error, if this is unsuccessful use the error code to try and correct problem. For interpreting the error codes refer to *Status code interpretation, on page 2**.***

There are three action message:

(error code) Replace

The replace message means that you must remove the consumable and replace with a new one. Since the only action that you can do is to remove and replace with a new part or the correct part the error code given is more for use by Hewlett Packard than for troubleshooting purposes. For the removal procedure refer to page ***81,*** in section ***Maintain the Ink System*** on the reverse of this guide.

(error code) Reseat

The reseat message means that the electrical connection between the printhead and the carriage assembly is not good.

1. The printhead needs to be removed and inserted again.
2. If this is not successful the printhead and/or carriage may need to be cleaned refer to *Carriage Interconnect Wiper, on page 63**.***
3. If this is unsuccessful, replace the part.

(error code) Recover

The recover message is shown on the printhead information screen. It is an optional procedure you can perform which you can use if the image quality is unacceptable. If after this the image quality has not improved sufficiently try another recovery. If this has not worked replace the part. For details of how to perform this procedure refer to *Recovery Procedure, on page 60*.

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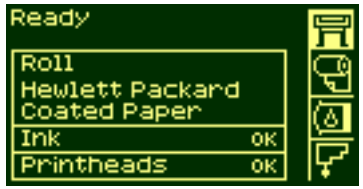
Recovery Procedure

Recovering the printhead(s) means that the printer automatically cleans and tests the printhead(s).

To recover the printhead perform the following procedure:

1. Using the ↑ or ↓ keys select the printhead icon in the front-panel.



2. The front-panel displays:

3. Press **Enter.** The front-panel displays:

4. Using the ↑ or ↓ keys select “Recover printheads”.

5. Press **Enter.** The front-panel displays:

6. Using the ↑ or ↓ keys select the printhead(s) that you need to recover.

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Solving Ink Supply Problems

Most of the problems that you could encounter when working with the HP No.81/83 supplies are solved with guidance from the front-panel. A full list of front messages are supplied, see *Status code interpretation, on page 2*.

Problems re-seating the printhead

If you have inserted the printhead into the printhead carriage assembly and the printer does not “BEEP” perform the following steps.

- 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 printhead carriage assembly using the carriage interconnect wiper procedure refer to *Carriage Interconnect Wiper, on page 63*

- Replace the printhead with a new one.

You Cannot Insert the Ink Cartridge Into the Printer

1. Ensure that you have the correct HP No.81/83 ink cartridge.
2. Ensure that the cartridge is the correct color for that slot.
3. Ensure that the cartridge is the correct orientation, with the color coded label at the top.

CAUTION **Never clean inside the ink cartridge slots.**

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You Cannot Insert the Printhead Into the Printer

1. Ensure that you have the correct HP No.81/83 printhead.
2. Ensure that the printhead is the correct color for that slot.
3. Ensure that the printhead is the correct orientation.

See page ***85,*** in section ***Maintain the Ink System*** on the reverse of this guide for details

Problems Inserting the Printhead Cleaner

1. Ensure that you have the correct HP No.81/83 printhead cleaner.
2. Ensure that the printhead cleaner is the correct color for that slot.
3. Ensure that the printhead cleaner is the correct orientation.

See page ***91,*** in section ***Maintain the Ink System*** on the reverse of this guide for details.

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Carriage Interconnect Wiper

When you replace the printhead, check the empty slots to see if they need cleaning. In some extreme cases it is possible that the printer will not recognize a printhead when it has been installed. This is due to the build-up of ink deposits on the electrical connections between the printhead and the printhead carriage.

Included with your HP Designjet printer, is a Carriage Interconnect Wiper. This must be used for cleaning the electrical interconnects of both the printhead carriage and the printhead.

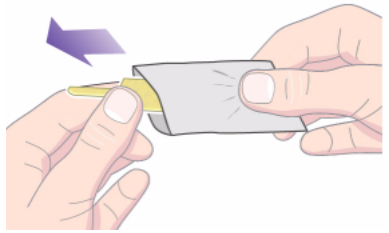
This procedure should be performed every time you replace a printhead.

If the front-panel persistently displays the message **"Reseat**" next to the printhead try performing the procedure shown here.

NOTE: After waiting a few moments to allow both connectors to dry, replace the printhead into the carriage assembly. Use the procedures on page ***81,*** in section ***Maintain the Ink System*** on the reverse of this guide.

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

1. To Clean the Carriage Electrical Interconnect, remove a new pre-moistened replacement sponge from its pouch. A supply of sponges is included in the box with the tool. If all sponges have been used, more can be obtained by contacting your HP customer service representative.



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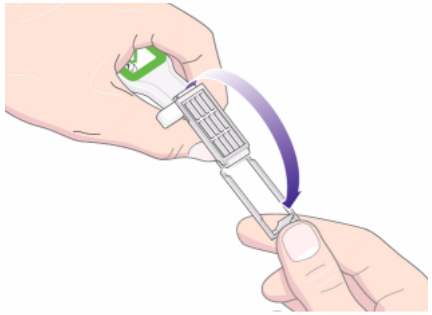
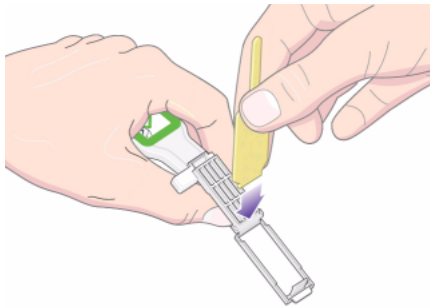
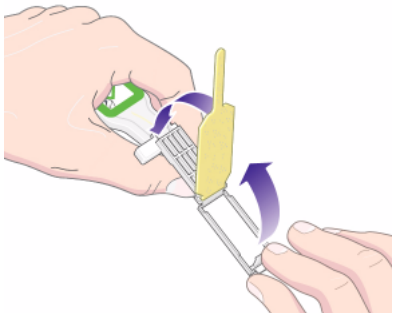
2. Open the carriage interconnect wiper.



3. Load the sponge into the carriage interconnect wiper by positioning the sponge on the face of the carriage interconnect wiper with the shorter tab in the locating slot.



4. Close the carriage interconnect wiper trapping the sponge in place.



5. Open the printhead carriage latch and extract the printhead that has the problem, as indicated on the front-panel. Use the procedures on page ***81,*** in section ***Maintain the Ink System*** on the reverse of this guide.

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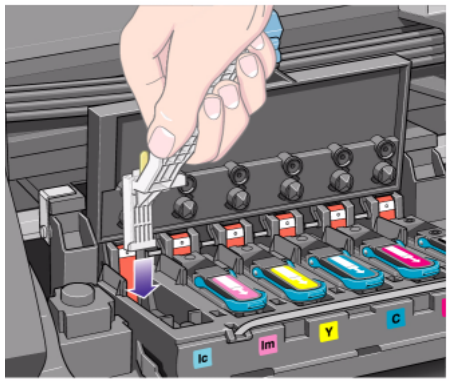
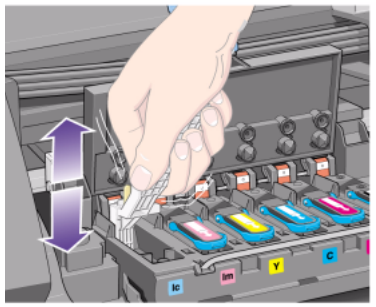
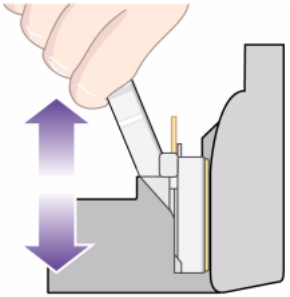
6 Insert the carriage interconnect wiper into the printhead slot at the back. Wipe the electrical contacts by inserting the tool between the electrical connections at the back of the slot and the steel spring with the sponge facing away from you, towards the electrical contacts.



7. Rub the sponge against the contacts with a **light** force along the entire depth of the flex connector as allowed by the mechanical stop on the tool.





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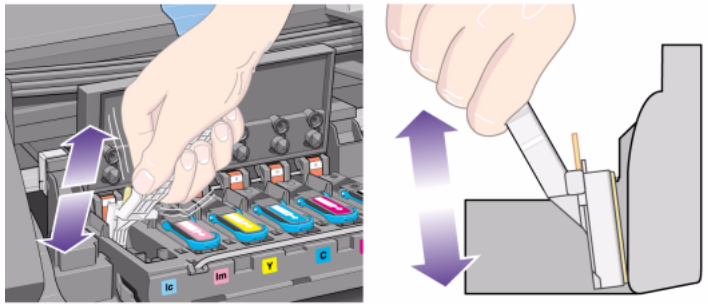
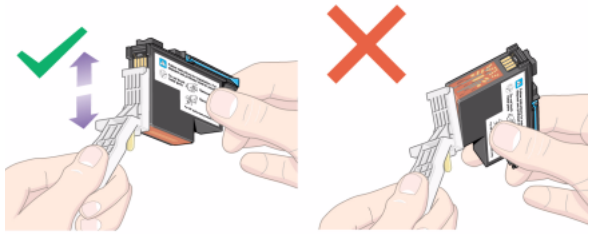
8. Take special care to thoroughly clean all contacts including the ones at the lowest point of the connector.



9. Using the same sponge, clean the electrical contacts on the printhead.

Do not clean here



CAUTION **Do not touch the surface of the printhead containing the nozzles as it may damage them.**

10. After waiting a few moments to allow both connectors to dry, replace the printhead into the printhead carriage as instructed by the *Printhead Installation* procedure.

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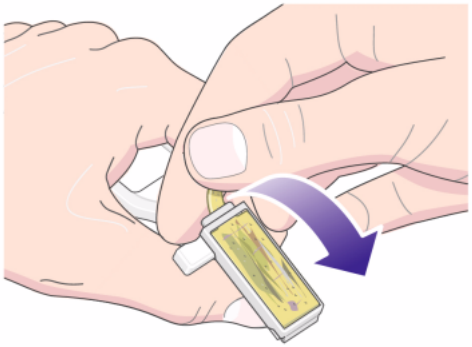
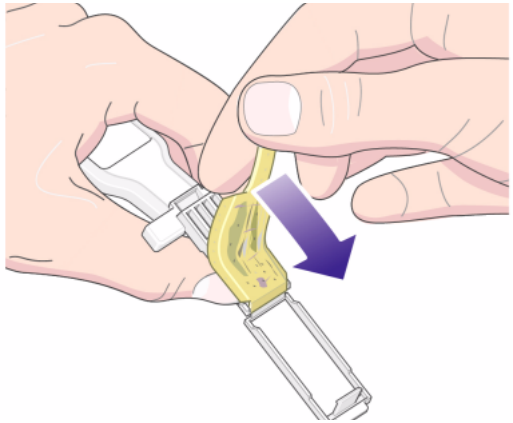
NOTE: If the problem still persists, replace the printhead or call your HP representative.

11. On completion of the cleaning process, open the carriage interconnect wiper by pulling on the sponge tab.



12. Remove the soiled sponge from the carriage interconnect wiper.



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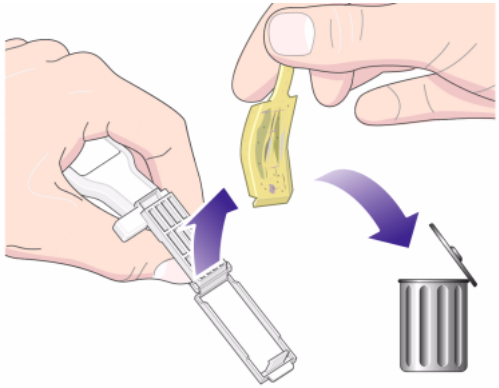
13. Dispose of the soiled sponge in a safe place to prevent the transfer of ink onto hands and clothing.



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Media Jam

Clearing a Media Jam, 70

Check Printhead Path, 71

Check Media Path, 71

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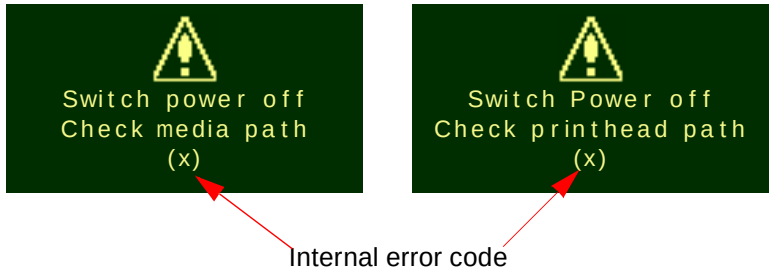
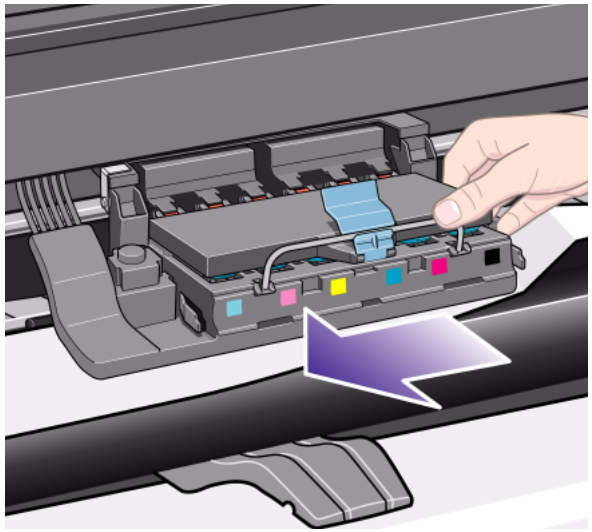
Clearing a Media Jam



The “Switch Power Off” message is usually shown when there is a media jam.

The printer must be cleared before the printer can operate again. There are two types of media jam:

- A jam that prevents the carriage from moving from one side of the printer to the other. This is called Printhead path jam. See *Check Printhead Path, on page 71*.
- A jam that prevents the media from advancing into the printer correctly. This is called a Media Path Jam. See *Check Media Path, on page 71*.



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Check Printhead Path

1. Switch the printer off at the rear of the printer and open the window.
2. Look in the area where the printer was printing at the time of the jam, this is where the media is most likely to be jammed.
3. Lift the media load lever.
4. Carefully remove any of the jammed media which you can lift up and out from the top of the printer.
5. Carefully pull the rest of the roll or sheet down and out of the printer.
6. If you are using a roll of media trim the media with a knife as shown on page ***42,*** in section ***Loading and Unloading Media*** on the reverse of this guide***.***
7. Reload the media see ***42,*** in section ***Loading and Unloading Media*** on the reverse of this guide.
8. Switch the printer On
9. If there is some media left behind in the media path, loading paper can become difficult. This can be cleared by loading a rigid paper type through the printer media path.
10. If you have image quality problems after a paper jam, this could indicate that the printheads have been moved from their correct position in the carriage. To correct this perform the "*Aligning the Printheads, on page 46*".

Check Media Path

1. Switch the printer off at the rear of the printer.
2. Check that the roll of media has not almost finished and is stuck to the empty cardboard core.
3. Load a new roll

Contact Hewlett-Packard

If after performing all of these procedures the front-panel displays the "Switch Power Off" message again, make a note of the message with the error code and contact HP.

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