

Introduction

- [The User's Reference Guide](#)

This section explains how to use this guide.

- [Introduction To Your Printer](#)

This section explains some of the functionality of the printer and its features.

- [Printer with Take-Up Reel](#)

A front view of the HP Designjet 5000PS.

- [Printer with Bin Assembly](#)

A front view of the HP Designjet 5000.



The User's Reference Guide

[Overview](#)

This is a general overview on how to use this User's Reference Guide and its structure.

[The "Tabs"](#)

An explanation of the tabs found at the top of each page.

[The "Buttons"](#)

An explanation of what the navigation buttons do along the side of the page.

[Animation](#)

Explains how to start the animations included in this User's Reference Guide.



Overview

This User's Reference Guide explains in detail how to use the HP Designjet 5000PS and the HP Designjet 5000 Printers.

This guide is designed as a detailed reference guide to your printer. For more day-to-day guidance you can refer to the *Pocket Guide*. This can be found at the back of the printer.

How to Navigate

The “Tabs”

There are seven “Tabs” at the top of this guide. Each tab contains information for the printer. The first page of every tab will explain what information you can expect to find and where to obtain related information.

The “Sections”

Underneath the tabs are sections. The sections here, for example, are: The User's Reference Guide, Introduction To Your Printer, Printer with Take Up Reel and Printer with Bin Assembly.

The “Buttons”

To Navigate around the User's Reference Guide use the buttons on either side of the screen.

The Home button

This button will take you back to the main menu.



Back Button

Click on this button and it will take you to the previous screen page.



Forward Button

Click on this button and it will take you to the next screen page.



Print Button

Click on this button and it will take you to the print option.



Quit Button

Click on this button and it will take you out of this application.



Return Button

Click on this button and it will return you back to where you were before.



Animation

When it is possible, an animation will actually show you how to perform the procedures. Click on this button to start the animation, you can also click in the screen to start the animation.



Related Topics:

The *Setup Instructions* contain:

Step-by-step information on how to prepare your printer for use.

The *Pocket Guide* contains:

Information that you are most likely to need for printer operation on a day-by-day basis, such as loading paper or replacing ink supplies.

Web Page

Also you can visit us on our web page:

www.hp.com/go/designjet

Throughout this User's Reference Guide any information that is only relevant to a particular model of printer is shown in a box like this.



Introduction To Your Printer

[Your Printer's Main Features](#)

Overview of the printers features and benefits.

[The HP No. 81 and HP No. 83 Supplies](#)

An explanation of the HP No. 81 and HP No. 83 Supplies which can be installed in your printer.

[Print Resolution](#)

This is an overview of what print resolution you can expect to attain from your printer.

[User Interface](#)

An overview of what interface you have with the printer.

[Media](#)

This is a list of the media that your printer is designed to use.

[HP Designjet WebAccess](#)

An overview of the WebAccess tool that you have with your printer.

[Connections](#)

The connections you have with your printer.

[Memory](#)

This section tells you what memory you have already installed in the printer.

[Applications and Drivers](#)

This section tells you which applications are supported by your printer. Also, which drivers come with your printer.

[Switching Your Printer On and Off](#)

Switch of your printer using the power switch located at the back of the printer.



Your Printer's Main Features

Your printer is a color inkjet printer designed for printing high-quality, maps and images. Some major features of the printer are shown below:

- Your HP Designjet Printer is able to attain Production speeds of 569ft²/hour using Coated Media with the Max. Speed setting.
- Ultimate Photo Quality using six inks and HP Color Layering Technology.
- Unattended printing using big 680cc ink cartridges.
- High productivity features such as Queueing and Nesting, Job Previewing using the [HP Designjet WebAccess](#) web server.
- Exact ink and media usage information available via the HP Designjet WebAccess web server.
- Great Media and Ink flexibility for any Indoor and Outdoor application.
- HP No. 81 Dye Based Ink for indoor use.
- HP No. 83 UV Ink for outdoor use.
- Accurate and consistent color reproduction features:
 - Automatic Pantone Calibration™,
 - Press emulations,
 - ICC profiles for Macintosh and Windows,
 - RGB Calibration and more.
 - Automatic Closed Loop Color calibration.



The HP No. 81 and HP No. 83 Supplies

The HP No. 81 and HP No. 83 supplies are designed to work together with your HP Designjet 5000PS or 5000 printer. The type of supplies you receive with your printer depends on the type of ink system you specified; normal dye based ink or pigment-based UV ink. The components of the normal dye based ink are called the HP No. 81 Supplies and the component of the pigment-based UV ink are called the HP No. 83 UV Ink Supplies.

HP No. 81 Ink Supplies (Dye based)

The HP No. 81 Ink Supplies also referred to as Imaging Ink, they are designed to deliver sharp brilliant images with ultimate image quality performance.

HP No. 83 Ink Supplies (UV)

The HP No. 83 ink supplies also referred to as UV Pigmented Inks, they are designed to deliver bright and colorful outdoor light fast signs and posters that are resistant to ultra violet light.

Each 600-dpi thermal inkjet **printhead** applies thousands of ink droplets onto the paper. The printer automatically refills the printhead as it prints, enabling continuous uninterrupted printing. The ink is supplied to each printhead from a separate large capacity **ink cartridge**. The colors are Light Cyan, Light Magenta, Yellow, Cyan, Magenta and Black.

The printer uses **printhead cleaners** to clean and maintain the printheads, to ensure best possible image quality, and to seal the printheads when they are not in use to ensure long life.

Printhead life is warranted to 700ml of ink consumed. However, on average the anticipated life expectancy of the printheads is two or three times this. This is provided that the printhead is used under normal operating conditions (using HP ink cartridges only) and its "install before date" has not lapsed. However results vary depending on the print mode setting you use.

The Components

Both ink systems consist of three components: printheads with their printhead cleaners and the ink cartridges. The printer uses six of each.



Print Resolution

You can choose between three levels of print mode: Max. Quality, Productivity or Max. Speed from your software or from the printer's front-panel.

Print resolution for Max. Quality print mode is 600 x 600 dots per inch, or 1200 x 600 dots per inch on Glossy media if you use the Enhanced resolution setting.

Print resolution for Productivity print mode and Max. Speed print mode is 300 x 300 dots per inch, or 600 x 600 dots per inch if you use the Enhanced resolution setting.

Use **Max. Speed** to get draft copies of your prints at maximum throughput. **Productivity** is optimized so that you get great image quality with the quickest throughput. Select **Max. Quality** if you want to get the best quality for images and renderings.

User Interface

The Front-Panel

The printer's front-panel includes an easy-to-use interface with a display, giving you access to a comprehensive set of printer functions and to a number of useful internal prints. See [Navigation](#), for a short tutorial to teach you how to navigate through the menus and a description of internal prints.



Media

The following paper types are supported for your printer and the HP No. 81/HP No. 83 Ink Supplies:

- HP Coated Paper
- HP Heavyweight Coated Paper
- HP Banners with Tyvek™
- Photo Imaging Gloss
- Photo Imaging Satin
- HP Paper Based Semi-Gloss
- HP Studio Canvas
- HP Colorfast Adhesive Vinyl
- Colorlucent Backlit UV
- HP Satin Poster Paper

For detailed information on Hewlett-Packard Media, see [Physical Characteristics of Media Types](#).

HP Designjet WebAccess

WebAccess reports in detail on the status and history of your printer, and in some cases allows you to change the printer status.

To Use WebAccess

Start your Web browser and give the address of your printer, as follows:

http://<address>/

where <address> is 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. The following facilities are provided by the menu on the left side of the HP Designjet WebAccess window.



Pending shows a list of jobs waiting to be printed or currently being printed.

Stored shows a list of jobs already printed.

Accounting shows a list of jobs already printed, with statistics.

Supplies shows the status of the ink cartridges, printheads, cleaners, and paper.

Usage shows statistics about the printer.

Configuration details the printer's configuration.

User password enables you to change your HP Designjet WebAccess password. The password can be used to restrict job management permissions and change the number of logged jobs for accounting. If a password is set, you will be asked to enter it when you try to access the 'User password' page. Once you have reached this page, you are allowed to change the password.

If you forget your password, use the 'Reset WebAccess password' on the printer's front-panel to reset it.

About the printer shows a page that contains the printer's Pocket Guide in PDF format. In the Pending and Stored windows, additional facilities are provided by icons near the top of the window.

5000PS

If you request a Preview from a Pending or Stored window, the same icons are displayed in the preview window that were displayed in the parent window.

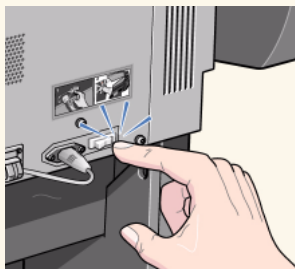


Connections

Your printer comes with the HP JetDirect 610N10/100 Base-TX Print Server for network connections, as well as a parallel interface for a direct connection to your computer. It is highly recommended that you use a network connection, this will enable you to obtain much quicker data transfer speeds. See the *Setup Instructions* for information on connecting your printer to a computer or network.

Switching Your Printer On and Off

When you are not using your printer for any length of time switch **Off** the printer using the power switch at the back of the printer.



Memory

The following table shows the memory size and hard disk size for the different models of HP Designjet 5000 printers.

Printer Type	Size	Memory (DRAM)	Hard Disk
HP Designjet 5000	42 inch / 1.07m	128 Mbyte ^a	5 Gb Hard Disk
HP Designjet 5000PS			
HP Designjet 5000	60 inch / 1.52m	192 Mbyte	20 Gb Hard Disk
HP Designjet 5000PS			

a. You can expand this memory by installing additional 64-MB or 128 MB. For part numbers see [Hardware](#)



Applications and Drivers

To make sure that your printer prints exactly what you were expecting—in terms of size, position, orientation, color and quality—use the correct driver for the combination of your application software and your printer, and make sure that it is configured correctly.

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Your printer comes supplied with:

- PostScript® drivers for Macintosh®
- PostScript® drivers for Microsoft® Windows™ 9x/NT 4.0/2000
- HP Designjet HPGL/2 Raster driver for Windows
- HP developed drivers for AUTOCAD.

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Your printer comes supplied with:

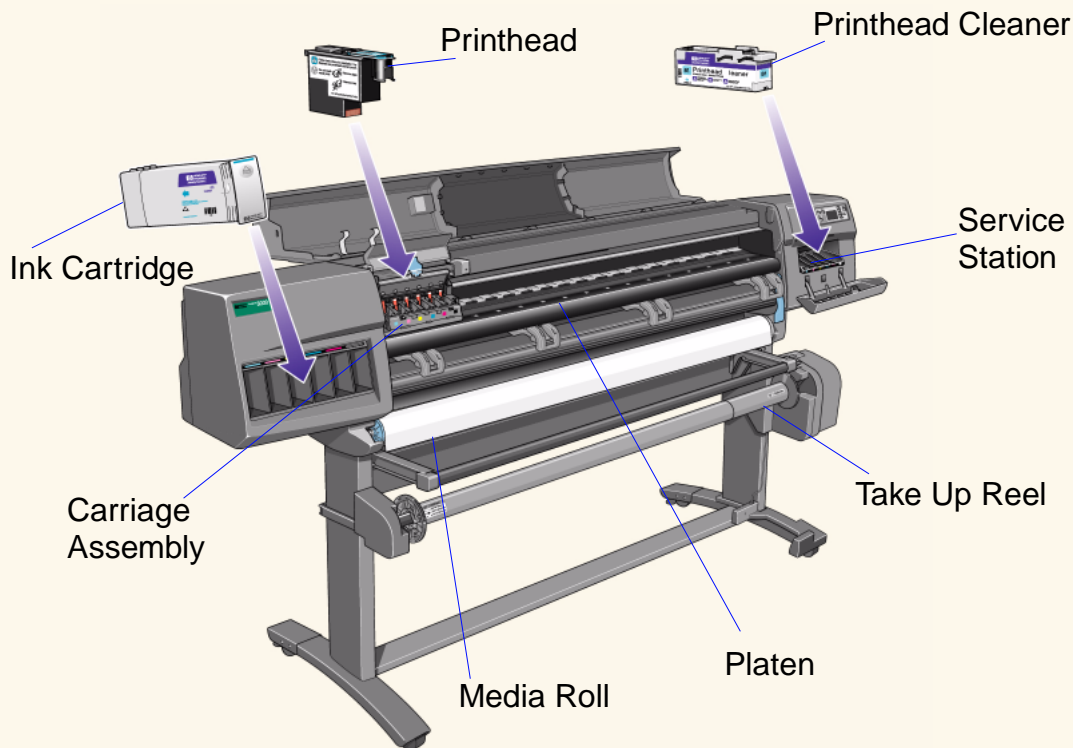
- HP Designjet HPGL/2 Raster driver for Windows
- HP developed drivers for AUTOCAD.

Some printer functions behave differently when the printer receives a PostScript file as opposed to files formatted in other printer languages (HP-GL/2 or RTL). Throughout this manual, references to “PostScript files” mean files sent to the printer using the HP Designjet PostScript driver supplied with the printer and installed by you on your Macintosh or Windows PC.

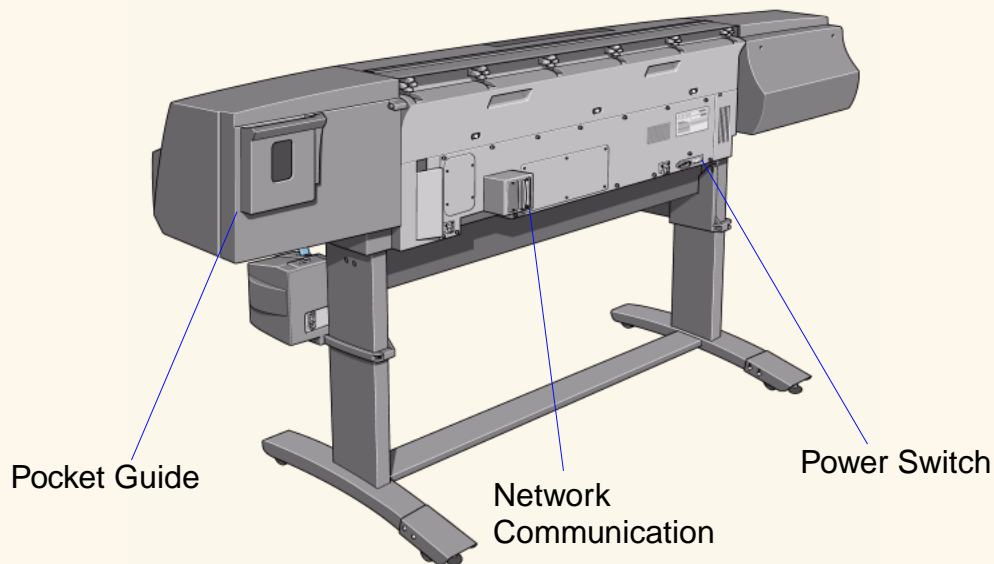
If AutoCAD drivers are available for the specific AutoCAD release you are using, it is strongly recommended that you install them to print from AutoCAD.



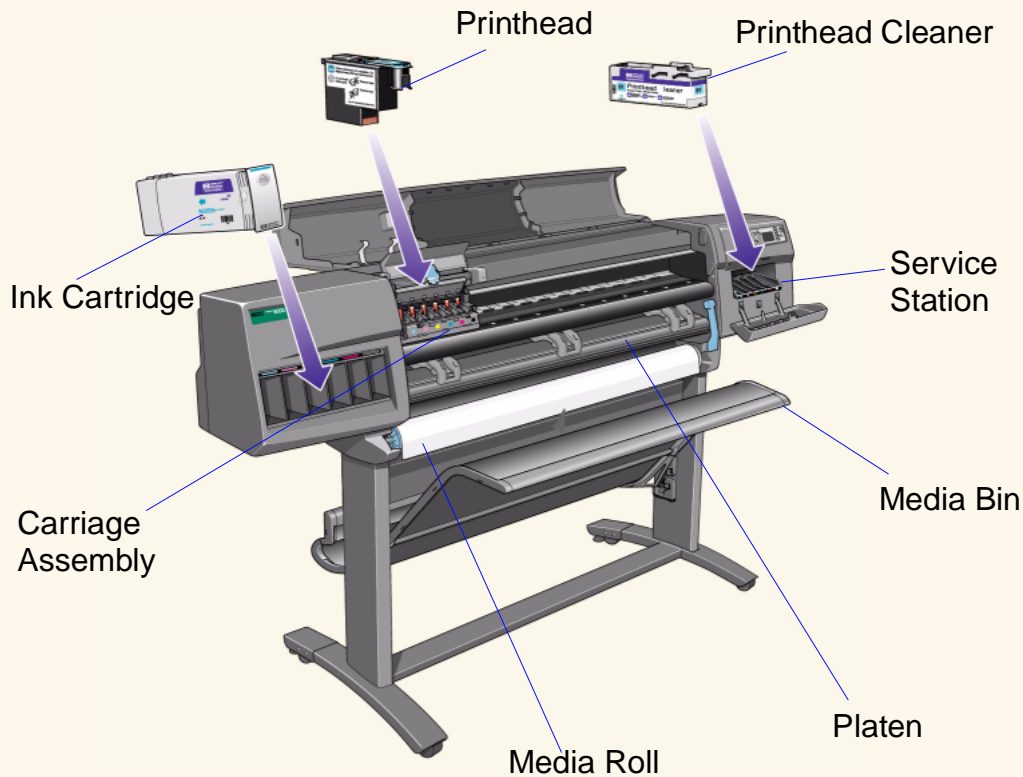
Printer with Take-Up Reel



Rear View



Printer with Bin Assembly



Media & Ink

The HP Designjet 5000PS Printer and HP Designjet 5000 Printer use a variety of media. The recommended media is engineered for use with your printer and your printer's ink system to give you the best results.

The Media & Ink tab contains seven sections:

- [Media](#)

Choosing the correct media type for your needs is an essential step in ensuring good image quality. This section explains how to choose the correct media type from the list of HP Supported Types of Media.

- [Roll Media](#)

This section explains how to load and unload a roll of media.

- [Sheet Media](#)

This section explains how to load and unload a sheet of media.

- [The Ink System](#)

This section gives you an overview of the printer's ink system.

- [The Ink Cartridge](#)

This section shows you how to replace an ink cartridge.

- [The Printhead](#)

This section shows you how to replace a printhead. Whenever you remove a printhead and replace it with a new printhead, you must also replace the corresponding printhead cleaner.

- [The Printhead Cleaner](#)

This section shows you how to replace a printhead cleaner.



Media

[Choosing Media](#)

Your printer supports several types of media. Choosing the correct media type for your needs is an essential step in ensuring good image quality.

[Physical Characteristics of Media Types](#)

Each media has its own physical characteristics. Shown in this section are the **HP Supported Types of Media** with their characteristics.

[Print Speeds and Print Mode Selection](#)

Some typical printing times with a selection of HP supported types of media.

[Printable Area](#)

The figures for all the printable areas for selected media.

[Media Profile Downloading](#)

From time to time new media types will become available and the printer will not have their media profiles. You must obtain the profiles and add them to the printer's software.

[Roll/Sheet Media Information](#)

To obtain information about your roll or sheet of media you have loaded in the printer, follow the procedure which is detailed in this section.

[Drying Time Settings](#)

The drying time settings are described in this section.

[Drying Times with HP Tested Media](#)

Some selected types of media with their drying times.



Choosing Media

Your printer supports several types of media. Choosing the correct media type for your needs is an essential step in ensuring good image quality. For best printing results, use only genuine Hewlett-Packard media, whose reliability and performance have been developed and thoroughly tested. All HP printing components (printer, ink system, and media) have been designed to work together to give trouble-free performance and optimal image quality.

For information on Hewlett-Packard media, see [Physical Characteristics of Media Types](#).

Some Important Points about Media Types

- This printer supports many types of media. However, the quality of some images may be reduced if you do not use the correct media for your image. See [Print Speeds and Print Mode Selection](#).
- Whenever you load a roll or a sheet, the printer's front-panel display prompts you to specify the media type you are loading. It is absolutely essential to specify this correctly for good image quality. The table on [Physical Characteristics of Media Types](#), gives you all the information you need. If media is already loaded and you are unsure which

media type was specified, go to the roll /sheet menu icon and press Enter, see [Roll/Sheet Media Information](#).

- Make sure the appropriate print-quality setting (Max. Quality, Productivity or Max.Speed) is selected. You can set the print quality either from your software or from the printer's front panel. Software driver settings override any print-quality settings made on the front panel. The combination of media type and print-quality settings tells the printer how to place the ink on the media—for example, the ink density, half toning method, and number of passes of the printheads. For more details, see the table on [Print Speeds and Print Mode Selection](#).
- Some media is designed to be printed on both sides. Further information is available via the Technical Support section of your printer's WebAccess tool.



Physical Characteristics of Media Types

The following table lists the physical characteristics of the supported HP Premium Printing Materials.

NOTE: Always print on the image side which has the special coating; the image side always faces outward on roll products from HP.

NOTE: From time to time new media types will become available and the printer will not have their media profiles. You must obtain the profiles and add them to the printer's software using the **System Maintenance Application**. Refer to [Media Profile Downloading](#).

Displayed on the Front-panel	Grammage/ Thickness	Ink System	Length	Available Widths in Inches	Available Widths in Millimeters
Coated Paper	26lb. (98g/m ²)	Dye	150ft (45m)	24, 36, 42, 54	610, 914, 1067, 1372
			300ft (91m)	36	914
HW Coated (Economy) & HW Coated Paper	35lb (130g/m ²)	Dye & UV	100ft (30m)	24, 36, 42, 54, 60,	610, 914, 1067, 1372, 1524
Photo Imaging Gloss	7 mil (178g/m ²)	Dye	100ft (30m)	36, 42, 60,	914, 1067, 1524
Photo Imaging Satin	7 mil (178g/m ²)	Dye	100ft (30m)	36, 42, 60	914, 1067, 1524

[Continued](#)

Displayed on the Front-panel	Grammage/ Thickness	Ink System	Length	Available Widths in Inches	Available Widths in Millimeters
Paper Semi-Gloss (see note below)	6 mil (160g/m ²)	Dye	100ft (30m)	24, 36, 42, 54	610, 914, 1067, 1372
Banners with Tyvek™	10 mil (140g/m ²)	UV	50ft (15m)	24, 36, 54	610, 914, 1372
Colorlucent Backlit UV	6 mil (200g/m ²)	UV	100ft (30m)	36, 54, 60	
Studio Canvas	20 mil (368g/m ²)	Dye & UV	35ft (10m)	36, 54	914, 1372
Colorfast Vinyl	6 mil (328g/m ²)	Dye & UV	40ft (12m)	36, 54	914, 1372
Poster Paper ¹	5.5 mil (162g/m ²)	Dye	100ft (30m)	36	914

1. Excellent for two-sided printing



Print Speeds and Print Mode Selection

The print times shown below are for the HP Designjet 5000PS 60 inch/1.57m Printer.

Print Mode	Coated Paper	Heavyweight Coated Paper Economy	Heavyweight Coated Paper	Glossy Media
Max. Speed	569 ft ² /hour 52.86 m ² /hour	288 ft ² /hour 26.76 m ² /hour	288 ft ² /hour 26.76 m ² /hour	100 ft ² /hour 9.29 m ² /hour
Productivity	100 ft ² /hour 9.29 m ² /hour	100 ft ² /hour 9.29 m ² /hour	76 ft ² /hour 7.06 m ² /hour	76 ft ² /hour 7.06 m ² /hour
Max. Quality	76 ft ² /hour 7.06 m ² /hour	76 ft ² /hour 7.06 m ² /hour	60 ft ² /hour 5.57m ² /hour	60 ft ² /hour 5.57m ² /hour

NOTE: The Max. Speed that can be attained on Glossy media and some other types of media could be determined by the amount of drying time required.

NOTE: From time to time new media types will become available and the printer will not have their media profiles. You must obtain the profiles and add them to the printer's software using the **System Maintenance Application**. Refer to [Media Profile Downloading](#).

Heavyweight Coated Paper

In the front panel there are two types of Heavyweight Coated Paper.

- Heavyweight Coated Paper Economy is optimized for efficiency in terms of speed and ink usage.
- Heavyweight Coated Paper is optimized for the best image quality.



Printable Area


Printable area = media size minus normal margins		Printing Area (Width x Height) by Orientation of Image			
Media Size		landscape (inches)	portrait (inches)	landscape (mm)	portrait (mm)
ANSI media	C	21.46 x 15.36	16.46 x 20.36	545 x 390	241 x 517
	D	33.46 x 20.36	21.46 x 32.36	845 x 517	545 x 821
	E	43.46 x 32.36	33.46 x 42.36	1100 x 821	850 x 517
ISO media	A2	22.86 x 14.86	15.96 x 21.76	580 x 377	405 x 553
	A1	32.56 x 21.76	22.86 x 31.46	827 x 552	580 x 799
	A0	46.26 x 31.46	32.56 x 45.16	1175 x 799	827 x 1147



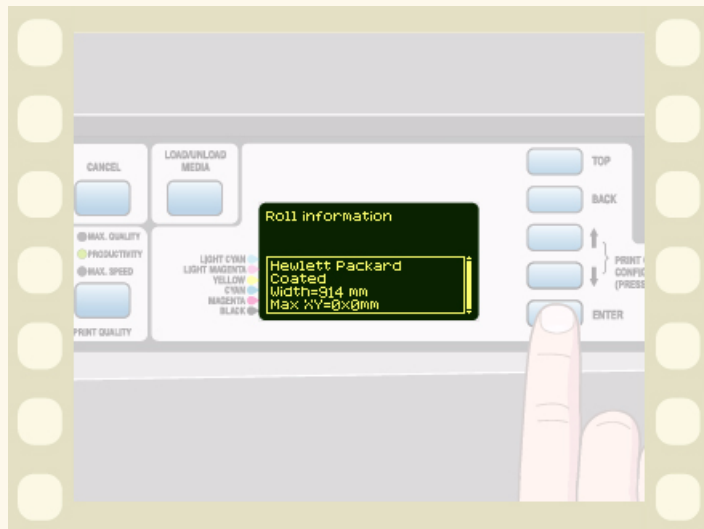
Roll/Sheet Media Information

The information supplied in this screen is:

- Manufacturer's name
- Type of media that you have selected
- Total width of the roll of media in millimeters
- Maximum printable area that the media has to print on.
- The media profile revision
- For detailed instructions on how to load a roll of media see [Installing Roll Media into the Printer](#)

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



Media Profile Downloading

Each supported media has its own characteristics; refer to [Physical Characteristics of Media Types](#). For optimum image quality the printer changes the way it prints onto each different media. Some may need more ink and some may require a longer drying time for example. So the printer must be given a description of how each media should be printed upon. This description is called the “Media Profile”. Existing media profiles for your printer’s media are already installed in the printers’ software.

However, from time to time new media types will become available and the printer will not have their media profiles. You must obtain the profiles and add them to the printer.

Using Hewlett-Packard provided media profiles for your media assures optimal color reproduction from your printer. These profiles can be obtained from <http://www.hp.com/go/designjet>.

Click on the CD icon for drivers and select “Printing Material”. This will lead you to the drivers and profiles for your particular printer. Follow the on-screen instructions.

In addition to the HP range there are other manufacturers of media that HP recommend for use with your printer. The media profiles for these can also be downloaded from the Internet or CD-ROM.

Open System Maintenance Application

When you have the media profile(s) downloaded to your PC or Apple Macintosh, open the HP application: “**System Maintenance Application**”.

Select the media profile download option and follow the on-screen commands.

This program takes the media profile which you previously downloaded from the web page and installs it onto the printer’s software. The System Maintenance Application is supplied on a CD-ROM which is delivered with your printer.



Drying Time Settings

With some media types and environmental conditions the ink needs some time to dry before the media is unloaded. If you experience ink drying problems with your printed image, try changing the drying time to Automatic. See [Changing the Drying Time](#) for an animation to show you how to change setting in the front panel.

None (Default)

With this setting, when the printer has finished printing an image the media will be released from the printer. It is the quickest settings, but you must handle the printed image with care, the image may not necessarily be ready for use.

Manual

In some cases with this setting the drying time may not be sufficient, the ink may not be dry, so care is needed when handling the media. This setting is changeable by you through the front panel. See [Changing the Drying Time](#)

Automatic

The printer automatically determines the appropriate drying time, based on the type of media you have selected and the current temperature and humidity. If there is any drying time, a “drying time to go” countdown will be displayed on the front panel.



Drying Times with HP Tested Media

Below is a table showing the typical drying times to handle the media for some selected HP tested media at approximately 23°C with 50% relative humidity.

HP Tested Media type	Drying Time in minutes	
	Max. Image Quality	Productivity/ Max. Speed
HP Photo Imaging Gloss	4	2
HP Paper-Based Semi-Gloss	6	5
HP Studio Canvas	9	5
HP Heavyweight Coated	1	1
HP Colorfast Adhesive Vinyl	1	1
HP Poster Paper	1	1
HP Colorlucent Backlit UV	40	9
HP Duraimaging UV	1	1
HP Banners with TYVEK®	1	1
3M® Changeable Opaque Imaging Media	5	4



Types of Media and Application

Use this table to guide you when choosing your media and selecting the print quality setting (Max Speed, Productivity, Max. Quality). As a guide remember:

- Use Max.Speed to get draft copies of your prints at maximum throughput.

- Productivity is optimized so that you get the excellent quality with the fastest throughput.
- Select Max. Quality if you want to get the best quality for images and renderings.

Product Name	Application	Media Description
HP Photo Imaging Gloss HP Photo Imaging Satin Front Panel Name: HP Photo Imaging Gloss HP Photo Imaging Satin	Photographic images and graphics, high-end, point-of-purchase & retail signs, trade show exhibits, indoor promotional and display, industrial design illustrations, MCAD renderings, Maps & GIS display.	Exceptional lightfastness with dye inks, maximum color gamut, brilliant images with sharp lines
HP Studio Canvas Front Panel Name: HP Studio Canvas	Photographic reproductions, fine art reproductions, heavy duty indoor signs, banners.	Accurate color matching, excellent lightfastness, dense, black and color images.
HP Banners with Tyvek™ Front Panel Name: Banners with Tyvek	Durable in door and outdoor banners, trade-show graphics, window displays, murals, backdrops and theatrical sets	Light-fast, water-resistant, no lamination required, grommitable, you can sew with it and its drapable.

[Continued](#)

Product Name	Application	Media Description
HP Colorfast Adhesive Vinyl Front Panel Name: HP Colorfast Vinyl	Promotional signs, low-cost indoor posters, short term, indoor signs.	Accurate color matching, dense, black images, accurate spot colors, low cost per copy.
HP Coated Paper Front-Panel Name: HP Coated Paper	Proofs, layouts, low-cost indoor posters, short-term, indoor signs, color line drawings, color maps.	Accurate color matching, low cost per copy, dense, black images, accurate spot colors, fine lines.

[Continued](#)

Product Name	Application	Media Description
HP Paper Based Semi-Gloss Front-Panel Name: HP Paper Based Semi-Gloss	Photographic presentations, point-of-purchase signs, drop-in signs, ceiling-hanging banners.	Low-cost alternative to photo paper, economical photo quality
HP Satin Poster Paper Front-Panel Name: HP Poster Paper	Indoor short-term point-of-purchase displays, ceiling-hanging banners.	High-volume print production, low-cost poster paper for frequent print replacement, laminateable for longer-term sign.
HP Heavyweight Coated Paper Front-Panel Name: HP HW Coated Paper	Proofs, layouts, low-cost indoor posters, short term, indoor signs, color line drawings, color maps.	Heavier paper, accurate color matching, low cost per copy, dense, black images, accurate spot colors, low cost per copy, fine lines.



Handling Your Media

- Handle film and glossy media by the edges or wear cotton gloves. Skin oils can be transferred to the media leaving finger print marks.
- Although the ink systems supplied with this printer have good lightfastness, colors will eventually fade or change if exposed to sunlight over a long period of time.
- Rewrap partially used rolls if they are not being used and do not stack rolls.
- Always keep unused rolls wrapped in the plastic wrap to prevent discoloration.
- Keep the media tightly wound on the roll throughout the loading and unloading procedures. If the media starts to unwind, it can become difficult to handle.



Roll Media

[Loading Roll Media Guidelines](#)

Hints and tips on loading the media. Including how to install three inch adapters.

[Installing Roll Media into the Printer](#)

This section shows you how to:

- Install media onto a spindle.
- Install the roll of media in the correct orientation into the printer.

[Trimming the Media](#)

Before loading media into the printer, make sure the edge is straight. The animation shows you how to trim manually the media.

[Loading Roll Media](#)

This section shows you how to load media into the printer and the Take Up Reel.

[Printing of Both Sides of the Media](#)

This section shows you how to print on both sides of the media.

[Unload Media from Take Up Reel](#)

This section shows you how to unload the media from the Take Up Reel.

[Unloading Roll Media](#)

This section shows you how to unload the media from the printers' internal media path.

[Change the Core Tube](#)

This section shows you how to unload the media from the core tube. The core tube is the tube which the Take Up Reel winds media onto as it prints.

[Media Length Tracking](#)

This section describes how to turn on and off the media length tracking function.



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).

Into the Printer

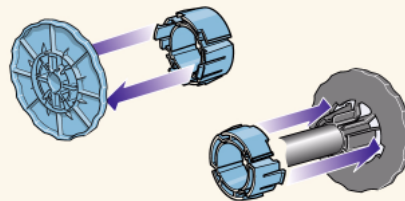
In the initial stages of loading media you may want to open the window, but this is optional. If you are an experienced user for example, you can leave the window closed, thus saving time.

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



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](#)

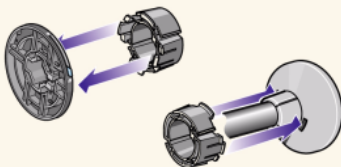
[Continued](#)



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. See below.



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 [Ordering Accessories](#).

Help with Loading

When loading media there is information available from:

- The *Pocket Guide* installed at the back of the printer.
- The labels located on the printer and on the spindles.
- The front panel which will guide you through all the procedures step-by-step.




Installing Roll Media into the Printer

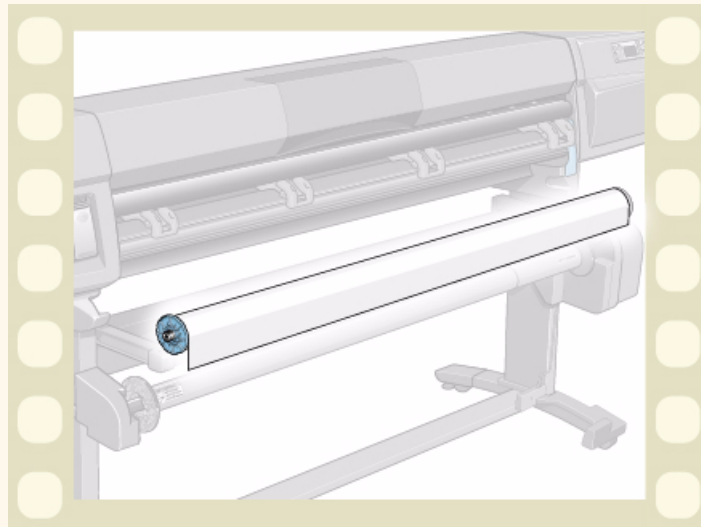
This procedure shows you how to load media onto the spindle and into the printer's spindle hubs.

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

NOTE: The media roll may be very wide, rest the spindle horizontally on a table and load the media on the table.

NOTE: The media should hang down from the roll exactly as shown.

Click on this  icon to run the animation sequence.



A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.




Trimming the Media

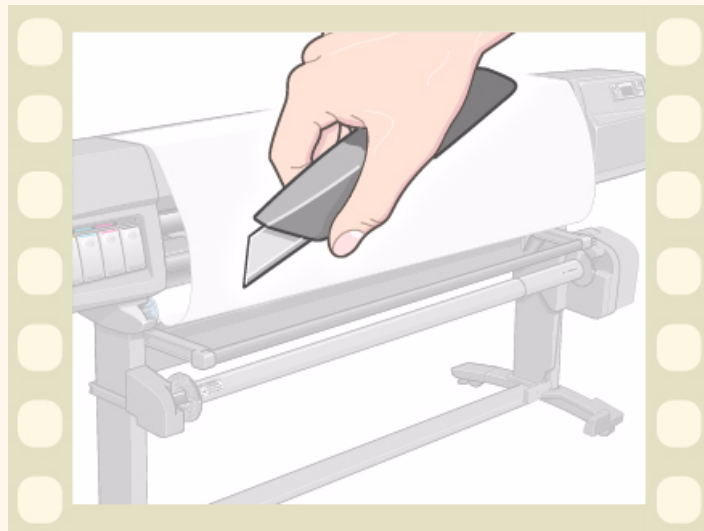
WARNING

The knife used in the animation is sharp. Keep fingers clear of the cutting path. Keep the knife away from children.

NOTE: You can also trim the media automatically when you have loaded the media. Go to the Media Setup Menu/Form Feed & Cut.

Click on this  icon to run the animation sequence.

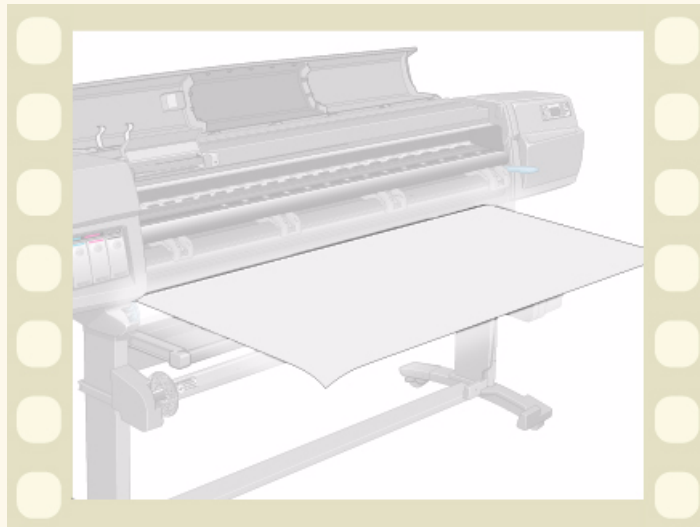
A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



Loading Roll Media

This procedure shows you how to install media onto the printer. It includes references to the Take Up Reel.

- Front panel messages which are only applicable if you have a Take Up Reel installed **are highlighted in green**.
- If your printer is the HP Designjet 42inch/ 1.07m the Take Up Reel is an optional accessory. See [Ordering Accessories](#).
- To start this procedure you need to have a roll of media installed on to the printer spindle. See [Installing Roll Media into the Printer](#).
- The animation shows the Media Length tracking function turned On. To switch Off the tracking, see [Media Length Tracking](#).

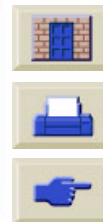


Read [Loading Roll Media Guidelines](#) and then click on this




icon to run the animation sequence.

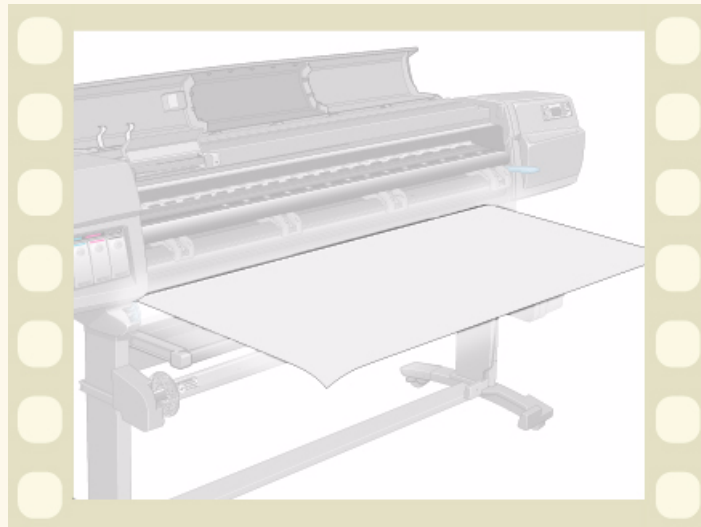
A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



Printing of Both Sides of the Media


This procedure shows you how to install media so you can print on both sides.

Click on this  icon to run the animation sequence.

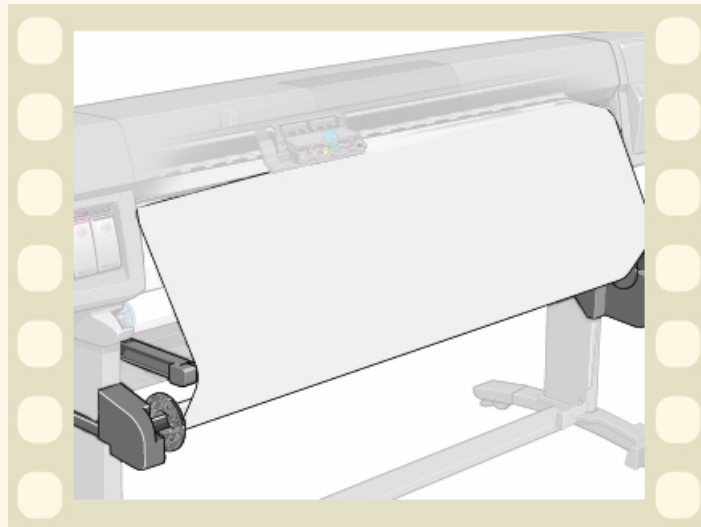


Unload Media from Take Up Reel

NOTE: Ensure that the ink is dry.

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.




Unloading Roll Media

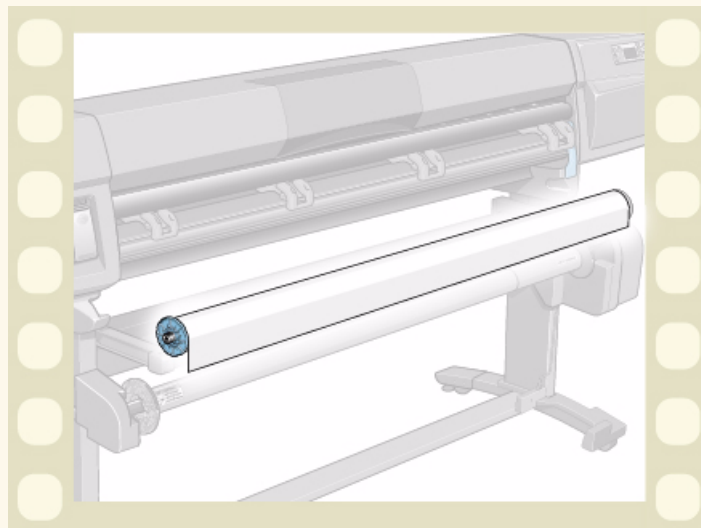
If you have a Take Up Reel

You must first unload media from the Take Up Reel before performing this procedure. See [Unload Media from Take Up Reel](#).


If media length tracking is switched On, the printer will first print the remaining media onto the roll before the printer unloads.

Click on this  icon to run the animation sequence.

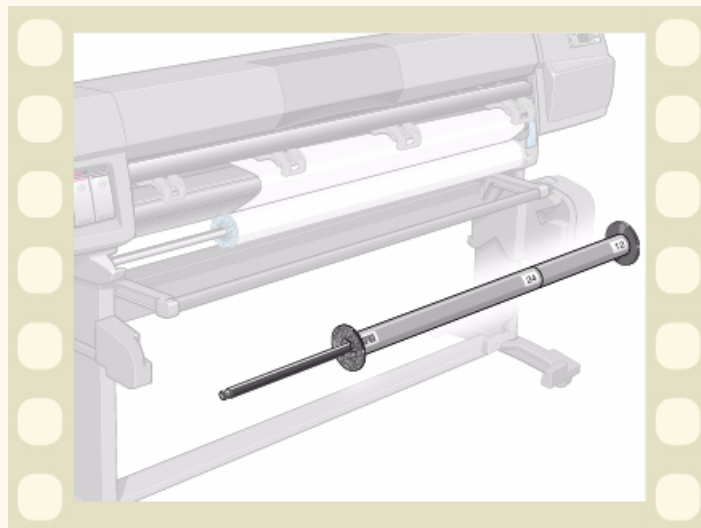
A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



Change the Core Tube

Click on this  icon to run the animation sequence.


A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



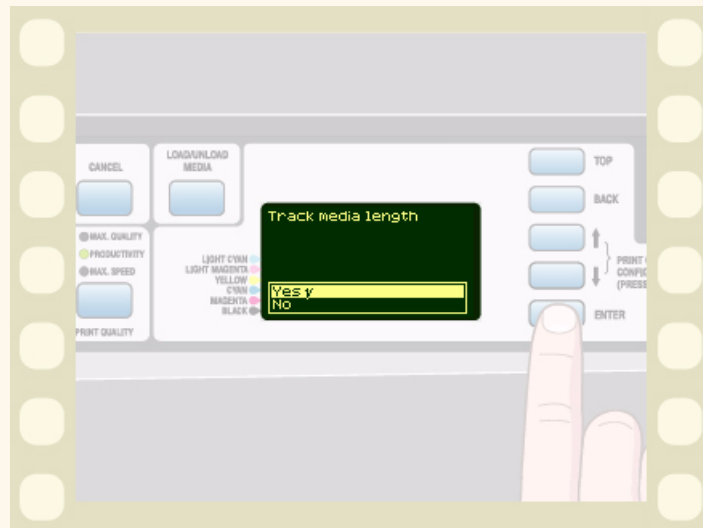
Media Length Tracking

Media length tracking is a function which enables the printer to keep track of how much media remains on the roll.

The remaining length is displayed on the front panel and printed on the end of the roll whenever you unload the roll.

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



Sheet Media

This section contains animations on how to load and unload sheet media into your printer.

NOTE: The minimum size you can load is a A2/C size sheet in portrait orientation. To ensure this size of media loads correctly make sure it's leading edge is as close as possible to the pinch wheels during loading.

[Loading Sheet Media](#)

[Unloading Sheet Media](#)



Loading Sheet Media

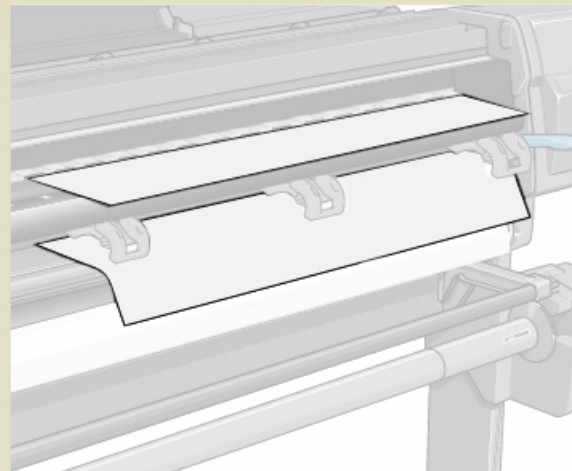
The minimum size you can load is a A2/C size sheet in portrait orientation.

Click on this




icon to run the animation sequence.

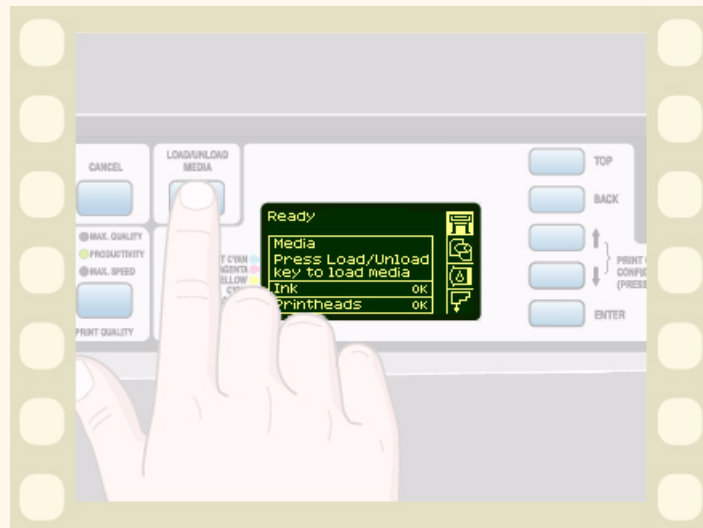
A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



Unloading Sheet Media

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



The Ink System

The HP No. 81 and HP No. 83 Supplies are designed to work together with your HP Designjet 5000PS or 5000 printer.

The supplies comprise of three components: printheads, with their printhead cleaners, and the ink cartridges.

[What are the Supplies?](#)

This section describes the ink components of your printer.

[Component Identification](#)

This section shows you what the components look like and where each one is installed in the printer.

[Precautions](#)

A list of precautions and guidelines to follow when using the supplies.

[When to Replace](#)

When to change your HP No. 81 or HP No. 83 supplies is mostly determined by you with guidance from the front panel.

[Switching Ink Types](#)

If you have purchased the optional [HP Ink Upgrade Kit](#) you can switch the between dye based ink system or the pigment-based UV ink system whenever you like.



What are the Supplies?

For each of the six ink colors used in the printer, there are three separate components. The printhead and the printhead cleaner are supplied together, the ink cartridge is supplied separately. Two types of ink supplies are available, dye based ink and pigment-based UV ink. The components of the normal dye based ink are called the HP No. 81 Supplies and the components of the pigment-based UV ink are called the [HP No. 83 UV Ink Supplies](#). The ink supplies are coded with an HP No. 81/HP No. 83 selection number to help you reorder the correct replacement supplies. They also each have a distinctive icon to aid identification. See [Identifying Ink Supplies](#)

Ink Cartridges

The ink cartridges for your printer require no maintenance or cleaning. As long as each ink cartridge is inserted correctly into its slot, the ink will flow to the printheads. Because the printheads control the amount of ink transferred to the page, you will continue to see high-quality printing results, even when the ink levels are getting low.

The front panel notifies you when an ink cartridge's ink level is low. You can also check the ink levels of all the ink cartridges to determine if an ink cartridge needs to be

replaced, see [Ink Cartridge Statistics](#). If the ink cartridge is empty, the printer stops printing. See [The Ink System](#).

Printheads

The printheads are extremely durable and do not need to be replaced every time an ink cartridge is replaced. They are independent of the ink cartridges and will continue giving excellent image quality results even if the ink cartridges are low in ink. See [The Ink System](#). If you notice a decline in print quality, refer to [Image Quality Problems](#) located in the "Solutions" tab.

Printhead Cleaners

The printhead cleaners keep the printheads in good condition and they prevent them from being damaged when the printer is not active. They service the printhead, making sure it is always ready to be used and prevent them from drying out when not in use.

Printhead cleaners come with the printheads when you purchase them. When you replace a printhead always replace the printhead cleaner. Leaving the old printhead cleaner in the printer will shorten the new printhead's life and possibly damage the printer.



HP No. 83 UV Ink Supplies

HP No. 83 UV ink supplies are the pigment-based printheads, cleaners and ink cartridges for the HP Designjet 5000 Series printers. Like the HP No. 81 Dye ink supplies, the HP No. 83 UV ink supplies feature HP's JetExpress printhead technology, smart chips and six colors, with the same speed, performance and image quality advantages of these technologies. The difference is that they are pigment-based and therefore can be weather-durable outdoors and fade-resistant indoors for extended periods when used with selected printing material.

HP Ink Upgrade Kit

There is an accessory available from your Hewlett-Packard dealer see [HP Ink Upgrade Kit](#). This is accessory is needed to switch from one ink system to the other.

HP Printhead Storage Container

There is a Storage container available from your Hewlett-Packard dealer see [HP Printhead Storage Container](#). This is to store partially used ink system components when switching between ink systems.



Identifying Ink Supplies

The appearance of both types of Ink Supplies, HP No. 81 Dye based and HP No. 83 UV is very similar.

To help you easily identify each type of ink supply the each component is marked with one of the following symbols.

HP No. 81 Dye based Ink Supplies Symbol:

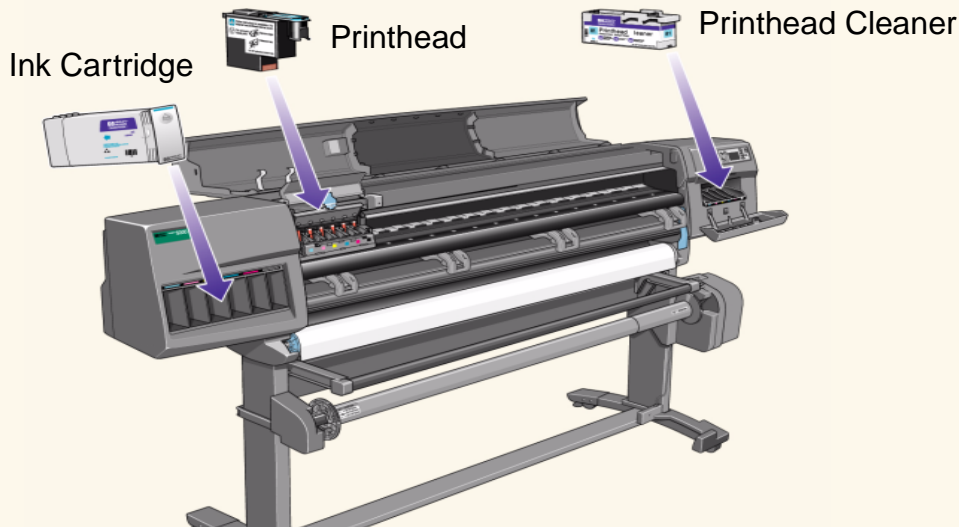


HP No. 83 UV Ink Supplies Symbol:



Component Identification

The following illustration will help you identify the components of the HP No. 81/HP No. 83 supplies and where they are installed in the printer.



- The selection number HP No. 81 or HP No. 83 on the ink cartridges, printheads and printhead cleaners makes it easy for you to find the correct HP printing supplies for your printer. Determine the color of the printhead or ink cartridge you need, then make sure you purchase or order an HP No. 81 or HP No. 83 printhead with printhead cleaner or ink cartridge. Each ink cartridge and printhead with printhead cleaner can be purchased separately from your usual HP retailer. See [Ordering Accessories](#) and [The Ink System](#).



Ink Supply Guidelines

For optimum results from your printer and the ink system, always follow these guidelines when handling the HP supplies:

- Install the ink cartridges, printheads and printhead cleaners before the install by date, which is printed on the packaging.
- Install a new printhead cleaner every time you change a printhead.
- Allow the printer and printhead cleaners to automatically clean the printheads.
- Install ink cartridges, printheads and printhead cleaners in their color-coded slots.
- Follow the instructions on the front panel during installation.
- Avoid unnecessary removal of the ink cartridges and printheads.

- When turning off your printer always use the Power Off button on the front panel. The printheads are then stored correctly which prevents them from drying out.
- The ink cartridges should never be removed while the printer is printing. They should only be removed when the printer is ready for you to replace them. The front panel will guide you through the removal and installation procedure. See [The Ink Cartridge](#).

CAUTION When you first received your printer it was supplied with a set of six setup printheads installed in the printhead carriage. These setup printheads are used for the priming of the tubes in the modular ink delivery system. Do not remove the setup printheads from the carriage without following the procedures in the *Setup Instructions*.



Precautions

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



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

Handle the HP No. 81/HP No. 83 supplies with care. In particular the printhead, which is a high precision device and must be handled carefully.

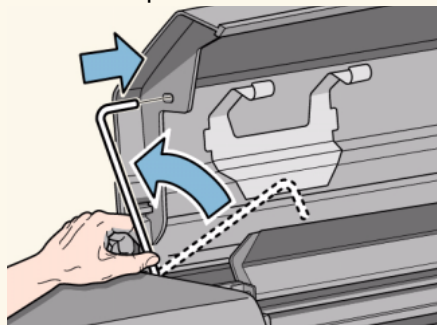
- Do not touch the printhead nozzles.
- Do not put the printhead down on the nozzles.
 - Do not be rough when handling the printheads. Always set them down gently.
 - Do not drop the printheads.
 - Proper handling will assure optimum performance throughout the printhead life.
 - The printhead cleaner should always be

handled and stored upright to avoid a potential spillage of ink.

- Do not touch the end of the ink cartridge which is inserted into the printer as there may be a small amount of ink on the connection.
- Avoid storing partially used ink cartridges on their ends.

Support bar

The support bar at the left side of the printer, shown below, is for use when you are working in a confined space and the window will not open fully so that it rests at the back of the printer.



When to Replace

- When to change your HP No. 81/HP No. 83 supplies is mostly determined by you with guidance from the front panel. In conjunction with the messages displayed in the front panel and the message explanations in [Message Descriptions](#), you will be able to choose for yourself when is the right time (for your particular case) to change the HP No. 81/HP No. 83 supplies.
- The front panel will also display the ink level and will tell you when your ink supply is low, very low or empty. This means you have constantly updated information about your HP No. 81/HP No. 83 supplies.
- Printhead life is warranted to 700ml of ink consumed. However, on average the anticipated life expectancy of the printheads is two or three times this. This is provided that the printhead is used under normal operating conditions (using HP ink cartridges only) and its “install before date” has not lapsed. However results vary depending on the print mode setting you use.
- When you replace the printhead always replace the corresponding printhead cleaner.



Switching Ink Types

Switching between the dye based ink system (HP No. 81) and the pigment-based UV ink system (HP No. 83) involves the following steps:

- [Ink System Removal](#)
- [Ink System Installation](#)
- [Storing Ink Supplies and Ink Tubes](#)



Ink System Removal

Either click on movie icon opposite to run the animation sequence for the complete removal procedure (this takes several minutes) or click on the movie icons below to see the individual procedures.



1. Removal of the ink supplies:
Printheads, Printhead Cleaners and Cartridges.



2. Removal of the ink tubes.



3. [Storing Ink Supplies and Ink Tubes](#)



Ink System Installation

Click on movie icon opposite to run the animation sequence for the complete installation procedure (this takes several minutes) or click on the movie icons below to see the individual procedures.

1. Installation of ink tubes.
2. Installation of the ink supplies for the type of ink tubes installed.
3. [Storing Ink Supplies and Ink Tubes](#)



Storing Ink Supplies and Ink Tubes

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.

1. Click on movie icon opposite to run animation sequence for storing HP No. 81/HP No. 83 Ink Supplies.
2. Click on movie icon opposite to run animation sequence for storing HP No. 81/HP No. 83 Ink Tubes Storage.



The Ink Cartridge

This section contains animations showing you how to obtain ink cartridge information and how to remove and install an ink cartridge. See [Ink Cartridge Error Messages](#) if you have any problems with replacing the ink cartridges.

[Ink Cartridge Statistics](#)

[Ink Cartridge Removal](#)


[Ink Cartridge Installation](#)



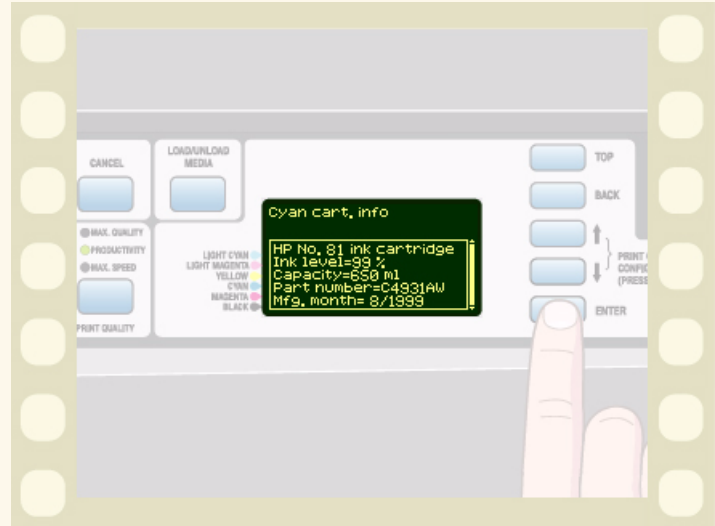
Ink Cartridge Statistics

The information supplied is:

- The manufacturers of the ink cartridge (HP No. 81 or HP No. 83 is recommended).
- The percentage of ink 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.

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



Ink Cartridge Removal

CAUTION

Only remove an ink cartridge if you are replacing it and always use the front panel menu to replace the cartridge as shown.

There are two reasons for 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.

Click on this



icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.




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.

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.

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

NOTE: If the front panel displays an error message see [Ink Cartridge Error Messages](#).

Click on this  icon to run the animation sequence.



A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



The Printhead

When to change your HP No. 81/HP No. 83 supplies is mostly determined by you with guidance from the front panel. In conjunction with the messages displayed in the front panel and the message explanations in [Printhead Status Messages](#).

[Printhead Statistics](#)

[Printhead Removal](#)


[Printhead Installation](#)



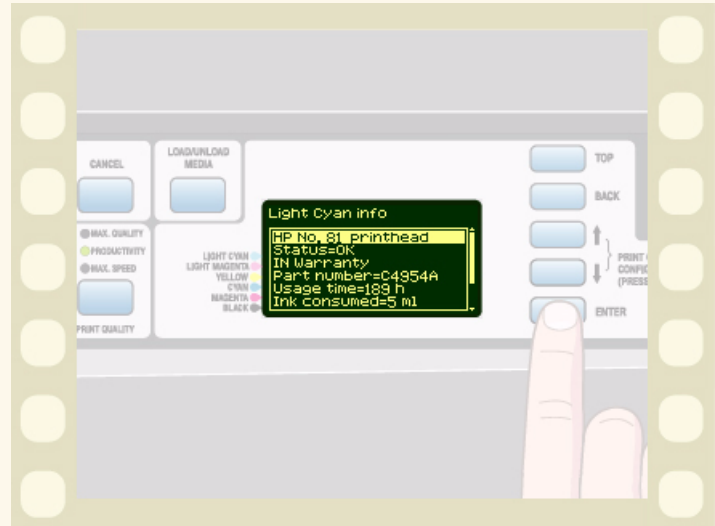
Printhead Statistics

The information supplied is:

- The manufacturer of the ink cartridge (HP No. 81 or HP No. 83 is recommended).
- The status.
- Warranty status.
- Re-order part number.
- The amount of time the printhead has been in the printer and powered on.
- The amount of ink consumed.


Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.

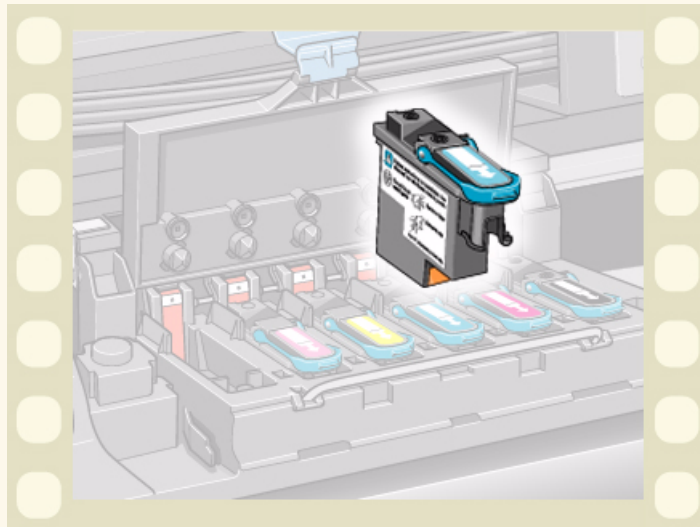


Printhead Removal

Printhead replacement must be performed with the printer switched on at the Power Isolation Switch which is located at the rear of the printer.

Click on this  icon to run the animation sequence.

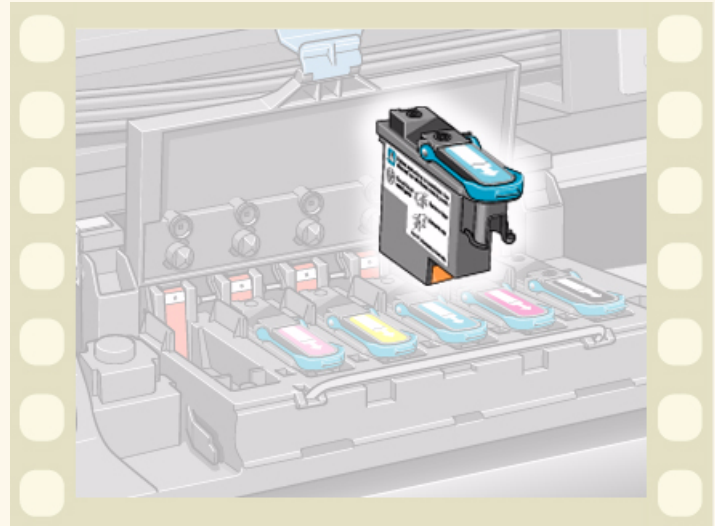
A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.




Printhead Installation

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. Do not confuse the light cyan printhead with the dark cyan position in the carriage.

- Before you replace the printhead, it is recommended that you clean the carriage assembly as shown in [Carriage Interconnect Wiper](#).
- If the front panel displays an error message, see [Printhead Status Messages](#).
- Whenever you install a printhead the printer will automatically perform the alignment procedure.



Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



The Printhead Cleaner

This section contains animations showing you how to remove and install a printhead cleaner.

CAUTION

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

[Printhead Cleaner Removal](#)

[Printhead Cleaner Installation](#)



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.

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.

Click on this



icon to run the animation sequence.



A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.




Printhead Cleaner Installation

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

NOTE: If the front panel displays an error message see [Printhead Cleaner Error Messages](#).

After you replace a printhead and printhead cleaner, the printer will:

- Perform tests on the printhead nozzles to ensure correct operation.
- Align the printheads.

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.

Printhead Alignment

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.



Solutions

The solutions tab contains all the information for solving problems that you may encounter as you use the printer.

The Solutions tab contains seven sections:

- [Solving Problems](#)

This section is an overview of the process of troubleshooting, it also tells you where you can get further information.

- [Image Quality Problems](#)

This section helps you to solve any image quality problems you may be experiencing. It takes you through the troubleshooting procedure step-by-step.

- [Ink Supply Problems](#)

This section guides you when you have problems installing the ink consumable. The ink cartridge, the printhead with its accompanying printhead cleaner. There is also a topic on how to clean the printhead so that you do not damage it and inside the carriage assembly.

- [Media Problems](#)

This section contains information on what to do if you have image smears and/or marks on your media and also what to do if you have a media jam.

- [Image Error](#)

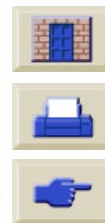
This section contains information on what to do if the image that your printer printed is incorrect, or not what you expected.

- [Other Problems](#)

This section is a section for miscellaneous problems.

- [Getting Help](#)

This section explains what to do if you cannot solve the problem you are having. Also included is how to get in contact with Hewlett-Packard.



Solving Problems

[Troubleshooting](#)

A brief explanation on troubleshooting the printer.

[Help in Solving Problems](#)

included in this section are areas you can go to that will help you solve problems you may encounter.

[Finding the Source of Your Problem](#)

How to get to the root of the problem.



Troubleshooting

Much of the troubleshooting information contained in this section is provided to complement the printer's own internal checking features.

- Fault Tolerant Print Modes.
- Image Quality Consistency.
- Continuous Printing.
- Color Emulation.
- Out of Ink Detection.
- Printhead end of life detection.

Troubleshooting should be an intuitive process with the printer either correcting its own faults or conveying a fault message via the front-panel display, prompting you to take corrective action. You should therefore only need to refer to these procedures if the printer does not correct the problem itself.



Help in Solving Problems

- To find the meaning of front-panel messages, see section [Message Descriptions](#).
- If you know the problem is related to a certain task, first check the relevant section in this manual, for step-by-step procedures. Use this manual's index to find the section. For example, If the problem is related to the quality of your printed images, refer first to the section: [Image Quality Problems](#).
- If the problem could be related to your software driver, and you are using an HP driver, refer to the driver's troubleshooting documentation and the on-line help in your application software.
- If the problem has no obvious cause, refer to [Finding the Source of Your Problem](#).
- If you still cannot solve the problem, see [Getting Help](#).



Finding the Source of Your Problem

1. Look at the front-panel display for messages. See [Message Descriptions](#) for an explanation of front-panel messages.

2. Test the printer:

- Switch the printer off with the power switch at the back of the printer.
- Make sure that the power cord is firmly inserted in the printer and plugged in to an outlet that you know works.
- If the front-panel displays an error message while initializing, make a note of the error message and refer to [Message Descriptions](#).
- Switch the printer On, if the printer reaches the **Ready** status, try and print a **Demo Print**. See [Internal Prints](#). If this prints correctly, the problem is not with the printer. Test your computer hardware and interface.

language setting (in Device setup / Lang) matches the requirements of your software.

- If you have changed your interface, switch the printer off and then on again before trying to print.

- Make sure that you have the correct interface cable between the computer and the printer and that it is firmly connected to the correct ports.
- Check that your printer's graphics



Image Quality Problems

Before attempting the diagnostic procedures contained in this section to solve any print quality problems, it is important to first check that the printer is correctly setup to print what you want. Many problems concerned with print quality can be solved by correcting the way the printer is configured.

[Correcting the Configuration](#)

If you have image quality problems the first place you should go is to check the configuration setup.

[Using the Image Quality Print](#)

The Image Quality Print is a diagnostic print designed to highlight for you the root cause of your image quality problems. Follow the procedures step-by-step.

[Color Accuracy](#)

This section helps you to solve color problems you may have with the printer. More help on this subject is available from the HP web site which you can access with [HP Designjet WebAccess](#).

[Printhead Recovery Procedure](#)

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

[Accuracy Calibration](#)

This procedure details how to re-calibrate your printer for the media you are using. This should not normally be necessary, however if your working under significantly different environmental conditions, use this procedure.

[Aligning the Printheads](#)

The printhead alignment selection causes the printer to align the printheads immediately. If you are having image quality problems and you suspect the root cause to be the printhead(s), use this procedure.

[Calibrating the Color Output](#)

Color calibration improves color consistency between prints, and from one printer to another.



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 [Physical Characteristics of Media Types](#). 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 it in the front-panel and the driver.
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](#) for further configuration help.



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 [Printhead Removal](#) and replace the printhead.

Recovering

If the printhead needs recovering, go to [Printhead Recovery Procedure](#).

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.

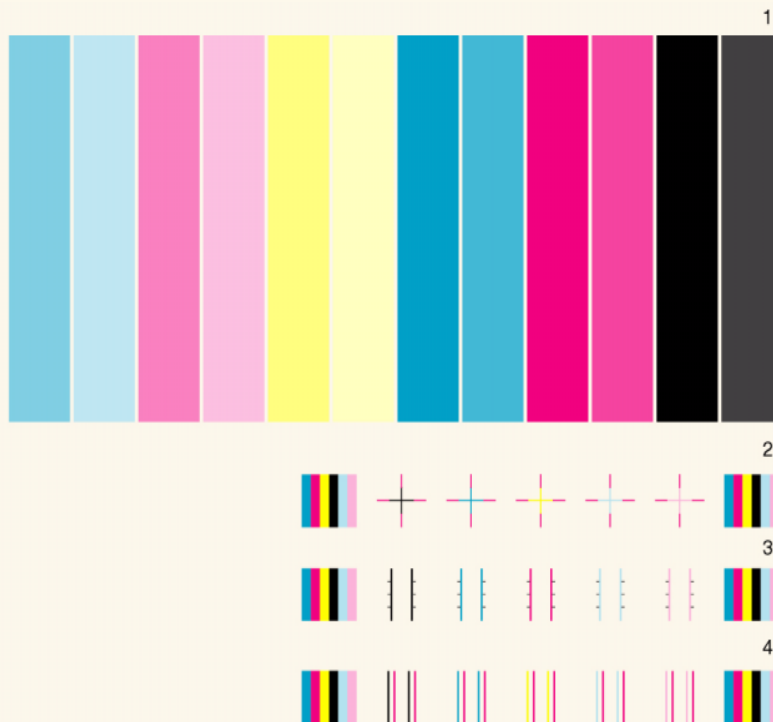


How to Use the Image Quality Print

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, that is, 1 through 4

Shown here is what the Image Quality Print looks like:



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, that is, 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.

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:

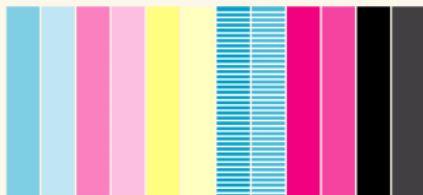
- The printhead(s).
- Media advance.



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, that is, 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](#) if you have not already done so.
2. If there is no improvement in print quality, replace the printhead with a problem.



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 media has not advanced sufficiently.



In high quality modes, 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 bi-directional alignment. Refer to [Test Pattern 3: Bi-directional Alignment](#). If this pattern is OK, go to step 2.
2. Perform the [Accuracy Calibration](#) with the same media you were experiencing unacceptable image quality.
3. If there is no improvement in print quality, contact Hewlett Packard.

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 misaligned colors.



Corrective Action

1. Perform the [Aligning the Printheads](#) with the same media you were experiencing unacceptable image quality.
2. If there is no improvement in print quality, contact Hewlett Packard.

Test Pattern 3: Bi-directional Alignment

If a printer has bi-directional 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](#) 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 or are 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](#) with the same media you were experiencing unacceptable image quality.
2. If there is no improvement in print quality, contact Hewlett-Packard.

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 [Changing the Print Mode](#).
- 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.



Color Accuracy

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

Configuration

Check the color emulation selected in the driver. Make sure the color information is adjusted for the current color setup. See [Color Accuracy Configuration](#).

Printing color with PostScript (HP Designjet 5000PS)

Most graphic design applications can define color using three methods:

- CMYK.
- RGB.
- Pantone.

CMYK Workflows

Traditional workflows define the color in the CMYK space. To obtain optimal results, CMYK must be adapted to the target printer which receives the data, different printers will produce different color from the same CMYK data.

In some situations the CMYK data in your document will not be suited to your printer. Two typical situations are:

- The document was optimized for a certain printer, and now it has to be produced on a different printing device.
- The document is being optimized for a printing press, but it is necessary to produce a check print using a less-expensive printing device.

To process CMYK data which is not intended for the printer, the HP Designjet printers provide color emulation modes. The emulation must be enabled in the PostScript driver, in the “Printer color management” dialog box:

Standard emulations:

- SWOP (United States),
- EuroScale (Europe),
- DIC (Japan) and
- Toyo (Japan).

CMYK data is frequently designed for these standards. If there is no information as to how the CMYK data was defined, these standards are a good assumption.



Custom emulation

This mode can emulate any CMYK printer. You will need the ICC profile for the printer for which the CMYK data is intended. The ICC profile is a standard which defines which color would come out of that printer. The HP Designjet uses this information to produce the same color.

RGB Workflows

RGB is a device-independent definition of color. Being device-independent implies that RGB has to be converted to the printer-centric CMYK data which drives the printer. And this transformation depends on the target printer.

The transformation from RGB to CMYK requires an ICC profile for the printer. The profile describes which CMYK is a good reproduction of a certain RGB. Because the color which comes out of the printer depends on the printer setup—such as the type of paper and the quality level—you must select the ICC profile for the intended printing conditions.

HP Designjet printers come with ICC profiles for multiple types of paper.

Even if RGB is printer-centric, RGB data does not always produce the same color. There are a few frequently used types of RGB color such as sRGB, Apple RGB, Adobe RGB, or ColorMatch RGB. An RGB profile describes what an RGB color looks like.

Your printing application should be set up with the correct ICC profiles for the RGB and CMYK data. Newer applications such as PhotoShop 5 and Illustrator 8 allow you to do this. Your application will use these ICC profiles to convert RGB to CMYK.

If your design application does not support ICC profiles, you don't have control over the conversion from RGB to CMYK. So, always convert data into CMYK before putting it into the application. Make sure that the CMYK has been optimized for the printer which is going to handle the data—see the recommendations in the previous section.

Some applications send unidentified RGB data instead of CMYK. In such case, the printer will carry out the conversion from RGB to CMYK. You must select the type of RGB data in the PostScript driver, in the “Printer color management/RGB emulation” option. For applications such as Adobe PhotoShop which do identify the RGB they are using, this setting will have no effect.



Pantone Workflow

Pantone colors are identified by their name, and the appearance for the color is defined by Pantone. Pantone calibrates HP Designjet printers so that they can produce the best match of a Pantone color.

When an application sends a Pantone color to the printer, it can use two methods

- Pantone colors as spot are defined with their name, so that the printer can select how to best emulate that Pantone color.
- Pantone colors as composite colors are defined with a CMYK value.

Since CMYK values are device-dependent, the CMYK for the Pantone composite color must be adapted to the target printer. Most applications contain CMYK definitions of Pantone colors optimized for the SWOP or EuroScale standards. If the application does not allow selection of this CMYK, and the printer CMYK does not emulate these standards, the output will not match well with the Pantone colors.

If the Pantone colors are defined as spot colors, the HP Designjet printer will produce the best match through the Automatic Pantone Calibration mechanism. If the best CMYK for the Pantone is not known, it is recommended that Pantone colors are defined as spot. Only Pantone Coated colors are reproduced in an HP Designjet.

Using ICC Profiles

The International Color Consortium (ICC) color profiles that are provided with the HP Designjet 5000PS are identical to the color profiles that the internal PS RIP uses, although the latter converts them to PostScript Color Rendering Dictionaries internally. To use the ICC profiles outside of the internal PS RIP, the application and the driver must be configured correctly for good results. Make sure the ICC profile for the correct printer model (DJ 5000PS), ink type (imaging or UV), media, and print quality is selected in your application, and that it is being used to convert RGB or CIELab images to CMYK. Choose the correct rendering intent for your type of job: Perceptual for photographic type images, Colorimetric for logos and proofing, and Saturation for computer graphics type images. Make sure the application is sending device CMYK colors to the printer, not calibrated color. For instance when printing from PhotoShop 5.x, select the profile and



rendering intent in the CMYK setup, select “CMYK” as the output color space, and un-select the “Postscript Color Management” check box. In the printer driver, make sure that Automatic Black Replacement is disabled <insert reference>, and that no CMYK emulations are being used <insert reference>. If all of these conditions are met, the results of using a provided ICC profile externally or internally will be very similar.

Creating ICC Profiles

If you want to create your own ICC profiles for use with the HP Designjet 5000PS (using any of the commercially available profiling software packages), the most important thing is to make sure that you use exactly

the same configuration of application(s) and driver to print and measure the calibration target(s) as you will use later on when applying the profile. HP recommends using Native mode without Automatic Black Replacement, making sure that the application is sending device CMYK colors without any further

conversions being applied. Black generation is one of the most important aspects of printer profile generation, but differs considerable from one profiling tool to another. If possible, HP recommends

using the following black generation parameters for the HP Designjet 5000PS: K ink start 35%; maximum K ink 100%; GCR type curve; total area coverage 280%.

Good results can also be obtained with other settings, depending on the profiling software used. Six ink printers with light Cyan and light

Magenta colorants in general require the start of K ink to be delayed compared to traditional four color printers, in order to avoid the grainy appearance caused by black dots in highlights and midtones. Automatic Black Replacement will do this for colors defined as device CMYK, but should not be used in conjunction with a profile that is itself already defining K ink start and other black generation parameters. When using the internal profiles with ABR enabled, the internal PS RIP will not apply ABR to colors generated by the profile (defined by the application as RGB or CIE Lab), but will apply ABR to colors defined by the application as device CMYK. For externally applied profiles the internal RIP cannot make this distinction, hence ABR should be disabled in this case.



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](#)
- If the environmental conditions you are printing in change rapidly, you may see changes in color consistency. By reducing the time the print stays in extreme environmental conditions after being printed (especially very high humidity) you can reduce color consistency problems.

Long Term Color Bleeding (Glossy Papers)

If you see the colors are bleeding into the paper, that is, 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.
- or
- Do not cover or stack the printed images after printing.



Color Accuracy Configuration

The configurations of the printer, the driver, and 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. See Physical Characteristics of Media Types .
	Ink Emulation Mode RGB CMYK (PS 5000PS only)	■ Set the type of colors that your software generates.
	Calibrating the Color Output	■ Set to ON.
Non-HP drivers (external software or hardware 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.



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 [HP Designjet WebAccess](#) to go there.
- On-line documentation in the drivers shipped with your printer.

Non-PostScript


NOTE: Additionally, remember that for 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 section starting on [Pen Widths and Colors in the Internal Palettes](#).



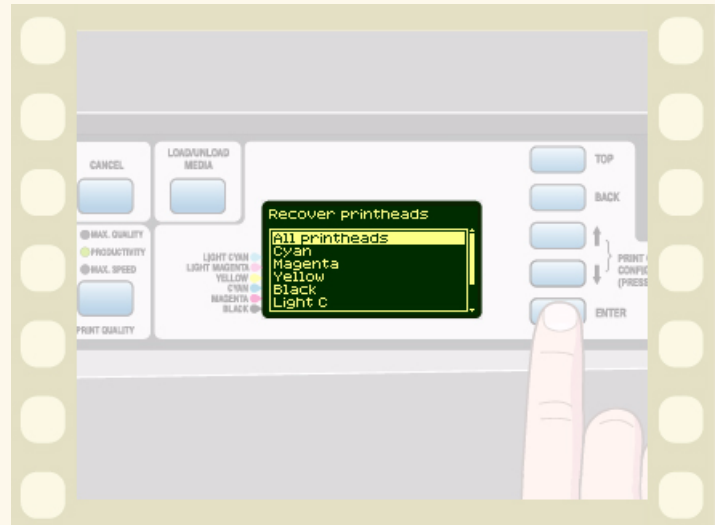
Printhead Recovery Procedure

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

If you are not sure which printhead to recover select **"All Printheads"**.


Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.

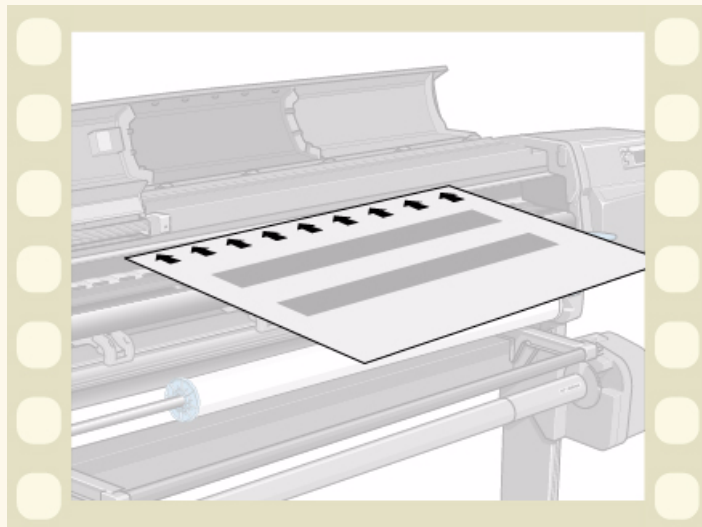


Accuracy Calibration

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 recalibrate the printer as explained here. The printer's environmental specifications are given on [Environmental Specifications](#). You may also need to recalibrate the printer if you have image quality problems. Before recalibrating the printer, you should always use the Image Quality Print to verify that you do actually have image quality problems caused by media advance problems.

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



To Restore the Factory's Calibration


NOTE: If you notice that after the calibration the results are worse than before, return the setting of the media back to the original setting. Go to Utilities/Calibrations/Accuracy/Restore Factory.



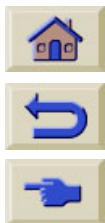
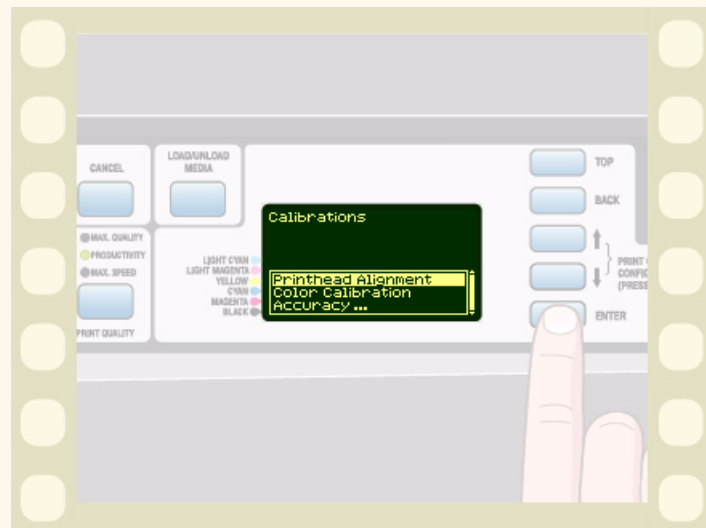
Aligning the Printheads

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 (24 inches).

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 [Image Quality Problems](#).

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



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, for each newly introduced media type that has not previously been calibrated for the current set of printheads. This can be turned off 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 [Internal RIP Settings Menu](#) to see the menu.



Ink Supply Problems

[Problems Inserting the Ink Supplies](#)

[Carriage Interconnect Wiper](#)

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 in [Message Descriptions](#).



Problems Inserting the Ink Supplies

Problems Reseating 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](#).
- Replace the printhead with a new one.

Problems Inserting the Ink Cartridge

1. Ensure that you have the correct HP No.81 or HP No.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.

Problems Inserting the Printhead

1. Ensure that you have the correct HP No.81 or HP No.83 printhead.
2. Ensure that you have removed the protective cap from the printhead.
3. Ensure that the printhead is the correct color for that slot.
4. Ensure that the printhead is the correct orientation.

See the section [Printhead Installation](#) for details.

Problems Inserting the Printhead Cleaner

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

See [Printhead Cleaner Installation](#) for details

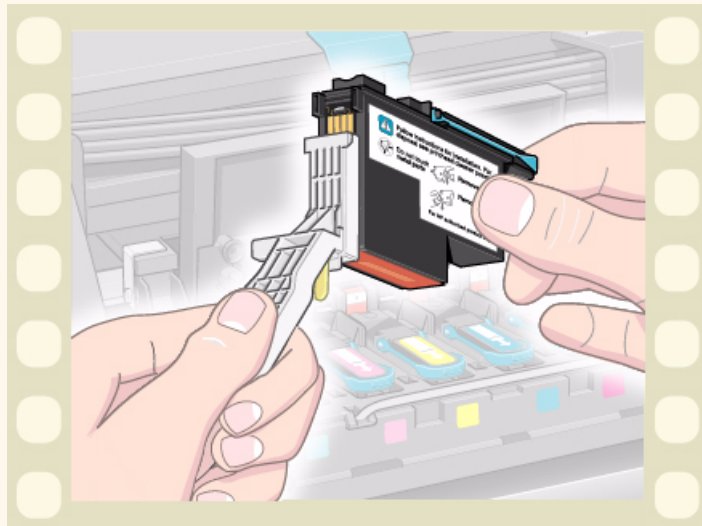



Carriage Interconnect Wiper

Whenever you replace the printhead, check the empty slots to see if the carriage interconnect needs cleaning. In 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.

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



Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it's remote from your computer.

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

NOTE: After waiting a few moments to allow both connectors to dry, replace the printhead into the carriage assembly [Printhead Installation](#).



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Media

Always make sure that you are using the appropriate media for your image and that it is consistent with your software application. To ensure color accuracy and print-quality performance of the printer, use only media types that have been certified for your printer. Use of non-HP media or HP media not certified for your printer may significantly reduce the color and print quality of your images. For details of HP media, see [Physical Characteristics of Media Types](#).

procedures. If the media starts to unwind, it can become difficult to handle.

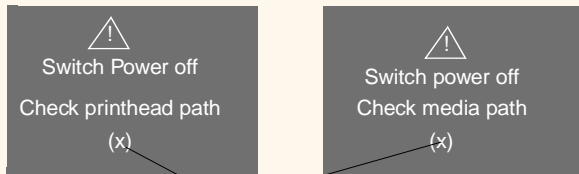
Handling Your Media

- Handle film and glossy media by the edges or wear cotton gloves. Skin oils can be transferred to the media leaving finger print marks.
- Although the ink systems supplied with this printer have good light fastness, colors will eventually fade or change if exposed to sunlight over a long period of time.
- Rewrap partially used rolls if they are not being used and do not stack rolls.
- Always keep unused rolls wrapped in the plastic wrap to prevent discoloration.
- Keep the media tightly wound on the roll throughout the loading and unloading



Clearing a Media Jam

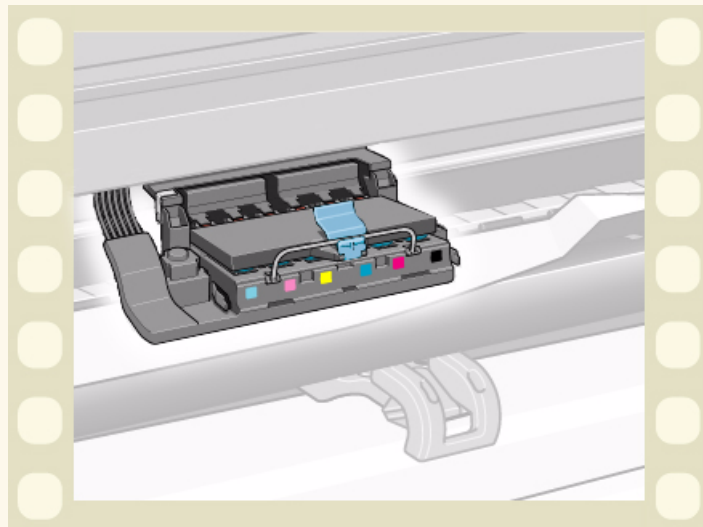
The “Switch Power Off” message is usually shown when there is a media jam.




Internal error code

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](#) procedure.
- A jam that prevents the media from advancing into the printer correctly. This is called a Media Path Jam. See [Check Media Path](#).



Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.

[Continued.](#)



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 [Trimming the Media](#).
7. Reload the media see [Loading Roll Media](#).
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](#)" procedure.

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.



Ink Marks on the Media

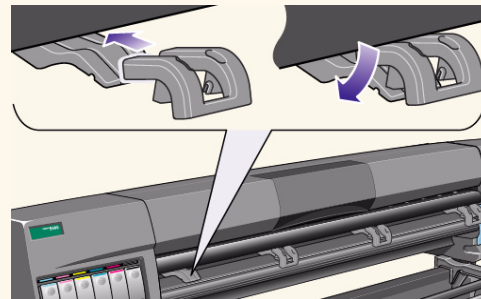
Media Extensions

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 right**). 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>



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](#).

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 [Drying Time Settings](#).

Marks 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.

Marks 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 [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 Coated Paper Economy through the front-panel.
- Use extended margins see [Adjusting Margins](#), 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.

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.

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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The Image is Incomplete

If the Print is Completely Blank

- If the front-panel graphics language setting is Automatic (the default), try the other settings: (PostScript for a PostScript file, HP-GL/2 for an HP-GL/2 file, etc.), and send the file again.

If the Output Contains Only a Partial Print

- Did you press **Cancel** before all the data was received by the printer? If so, you have ended the data transmission and will have to print the page again.
- The I/O Setup / I/O Time-out setting may be too short. From the front-panel menu you can increase the I/O Time-out setting to a longer period and then send the print again.
- There may be a communications problem between your computer and the printer. Check your interface cable.
- Check to make sure that your software settings are correct for your current page size (e.g., long-axis prints).
- If you are using network software, make sure it has not timed out.

If the Image is Clipped

- This normally indicates a discrepancy between the actual printing area on the loaded media and the printing area as understood by your software. For general advice on printing areas and page size, see [Page Format](#).
- Check the actual printing area for the media size you have loaded.
printing area = media size – margins.
For media size and margins, see [Printable Area](#).
- Check what your software understands to be the printing area (which it may call “printable area” or “imagable area”). For example, some software applications assume standard printing areas that are larger than those used in this printer.
- Check that the orientation of the media is the same as that assumed by your software. The front-panel Page format / Rotate option changes both the orientation of a print and, the orientation of the page. It is possible that a rotated image on roll media may be slightly clipped in order to retain the correct page size, as explained on [Page Size and Clipped Images](#).
- You may have asked to rotate the page from portrait to landscape on media that



is not wide enough.

- If necessary, change the printing area in your software.

A Long-Axis Print Is Clipped

- Does your software support long-axis prints?
- Have you specified an appropriate media size in your software?
- Unless it is a PostScript file, make sure that the printer's Page format / Size is set to Inked area.



Printed Image Incorrect

The Image is in One Portion of the Printing Area

- Is the page size configured in the software too small?
- Ensure that your software doesn't believe the image to be in one quadrant of the page.

Otherwise, this indicates an incompatibility between the software and the printer:

- Is your software configured for this printer? For general advice, see the **Setup Instructions**. For advice specific to your software, see the documentation supplied with the driver.
- If you still haven't found the solution, try changing the printer's Graphics Language setting on the front-panel (Device setup / Lang).

The Image is Unexpectedly Rotated

- Check the front-panel Page format / Rotate setting.
- For non-PostScript files: If Nesting is ON, pages may be automatically rotated to save media. See [Rotating an Image](#)

- For an explanation of rotation for PostScript files, see [Rotating an Image](#).

The Print is a Mirror Image of the Original

- Check the front-panel Page format / Mirroring.

The Print is Distorted or Unintelligible

- The interface cable between your computer and the printer could be faulty. Try another cable to see if the problem is corrected.
- If you have connected your computer to the parallel port on the printer, make sure you are using a genuine HP parallel interface cable.
- If the front-panel graphics language setting is Automatic (the default), try the other settings: (PostScript for a PostScript file, HP-GL/2 for an HP-GL/2 file etc.) and send the file again.
- Depending on the software, drivers and RIPs you are using with your printer, there will be different solutions to solving this problem. Refer to the Vendor's User Documentation for details.



One Image Overlays Another on the Same Sheet

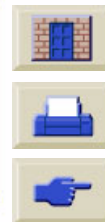
- The I/O Setup / I/O Time-out setting may be too long. From the front-panel menu decrease the setting and print again.

Pen Settings Seem to have No Effect

- Either: you have changed them in Pen settings / Define palette but forgotten to select that palette in Pen settings / Palette.
- Or: you expected the software-driven pen settings but in the front-panel Pen settings / Palette is not set to Software.
- Or: you changed the setting in the front-panel but this has been ignored by the printer because the driver setting has not been changed.

If Page Format or Rotate does not Work

- The printer cannot rotate raster images (except for PostScript files). If your non-PostScript file contains raster data (typically, images with heavy area fill and shading that you have scanned into your software) you will not be able to rotate the print.
- Your driver does not allow this to happen.



Other Sources of Information

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 see [HP Designjet WebAccess](#).



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[The Printer does not Print](#)

[The Printer Seems Slower](#)



Communication Problems

Symptoms are:

- The front-panel display does not show the 'Receiving' message when you have sent an image to the printer.
- Your computer displays an error message when you are trying to print.
- Your computer or printer "hangs" (stays idle) while communication is taking place.
- Your printed output shows random or inexplicable errors (misplaced lines, partial graphics etc.)

How to Solve the Problem:

- Have you selected the correct printer in your software?
- Does the printer work correctly when printing from other software?
- Very large prints may take some time to receive, process and print.
- If the printer is connected to a network, try using it when connected directly to your computer through a parallel cable.
- If your printer is connected to your computer through any other

intermediate devices, such as switch boxes, buffer boxes, cable adapters, cable converters, etc., try using it when connected directly to your computer.

- Try another interface cable. For details of supported cables, see [Interface Specifications](#).
- Make sure the graphic language setting is set to the correct setting see [Changing the Graphics Language](#).

File Size and Memory Usage

There is no direct relationship between file size on your computer and memory used in the printer to print the file. In fact, because of file compression (and general complexity) it is often impossible to estimate how much memory will be used. This means that some large prints will print fine, but smaller prints may not and you will have to add more memory to your printer.



The Printer does not Print

- You may have a power problem. If there is no activity at all from the printer, the front-panel does not respond, check that the power cable is connected correctly and that there is power available at the socket.
- If you are using a Macintosh and the print job does not print, ensure the printer language is set to Postscript or Automatic.
- You may have a problem with your application driver. Is your software configured for this printer? For general advice, see the *Setup instructions*. For advice specific to your software, see the documentation supplied with the driver.

If you have connected your computer to the printer's parallel port and tried to print a binary-encoded PostScript file it will not print. The parallel port will only accept ASCII-encoded PostScript print files. The front-panel will display the message "Error processing job / Flushing rest of job". Connect your computer to the JetDirect Print Server and send the print file again.

You could also connect your computer via the LAN connection of your printer

and send the binary encoded PostScript print file again.

- You are trying to send binary encoded data through the TCP/IP network to your printer. Select PS Encoding > Binary from the Internal RIP Settings menu and send the file again.
- If you continue to have problems, see [Getting Help](#).



The Printer Seems Slower

- Did you specify Max Quality print level on the front-panel? Max Quality prints take longer.
- Did you specify the right media type when loading the media? For details of front-panel media types, see [Physical Characteristics of Media Types](#). To find out the printer's current media type setting see [Roll/Sheet Media Information](#).
- If you have Enhanced resolution set to **On** this could slow the printer down.
- Are you using the printer with the Appletalk serial port on Macintosh? It is normal for the Appletalk port to be slow. Consider using the Ethertalk interface to connect your printer to your Macintosh.
- Did you specify a Manual Dry Time in the front-panel. Change the dry time to Automatic see [Drying Time Settings](#).



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About HP Customer Care

As your strategic support partner, we make it our business to help keep your business running smoothly. HP Customer Care offers award-winning support to ensure you get the most from your HP Designjet.

HP Customer Care provides comprehensive, proven support expertise and leverages new technologies to give customers unique end-to-end support. Services include setup and installation, troubleshooting tools, warranty upgrades, repair and exchange services, phone and Web support, software updates, and self-maintenance services. To find out more about HP Customer Care, please visit us at:

www.hp.com/go/support

What to Do Before You Call

- Review the troubleshooting suggestions in this section.
- In the relevant driver documentation supplied with this printer (for users sending PostScript files or those using Microsoft Windows).
- If you have installed third party software drivers and RIPs refer to that user documentation.
- If the problem appears to be related to your software application, first contact your software vendor.
- If you still have difficulty, refer to the HP Support Services booklet shipped with this printer. This document contains a comprehensive list of various support services available to help solve printer problems.
- If you do call one of the Hewlett-Packard offices, please have the following information available to help us answer your questions more quickly:
- The printer you are using (the product number and the serial number, found on the label at the back of the printer).
- The Service ID number, go to Utilities>Statistics>Service ID.



- If there is an Error Code on the front-panel, note this down refer to [Message Descriptions](#).
- The computer you are using.
- Any special equipment or software you are using (for example, spoolers, networks, switch-boxes, modems, or special software drivers).
- The cable you are using (by part number) and where you purchased it.
- The type of interface used on your printer (parallel, or network).
- The software name and version you are currently using.
- If the problem is a system error it will have a error number; record the error number and have it ready. See [File Size and Memory Usage](#).
- If possible print out the following reports. See [Internal Prints](#) and FAX them to the support center helping you:
 - Usage report
 - Service print.
 - Current Configuration



HP Designjet Online

Direct access to HP and the information you want, when you need it. Register now!

<http://www.hp.com/go/designjet>

HP Designjet Online is a free, web-based “user club” exclusive to HP Designjet users. Having registered, the user has unrestricted access to a range of useful services, the emphasis being on “useful”, as this is definitely *not* a sales-oriented site.

Communication from HP to users includes:

- a quarterly newsletter focussing on usage tips, technical briefings and examples of HP Designjet applications around the world;
- full information on worldwide HP Customer Care contacts;
- an on-line *HP Designjet Diagnosis* troubleshooting tool;
- a calendar of HP Designjet-related events and programs;

- on-line access to training videos and selected user documents;

- and immediate information on new products.

Communication from the users to HP includes:

- feedback on HP Designjet features;
- automatic contact with HP Customer Care from the troubleshooting tool, for HP to follow up;
- and the chance to ask technical questions on large-format printing to industry experts.

And finally, communication from user to user includes the chance to win prizes by submitting HP Designjet success stories, as well as a user-to-user discussion forum where users can share best practices and ask for advice from their fellow professionals.

HP Designjet Online is available in English, German, French, Italian, Spanish and Portuguese.



Front-Panel

The printer's front-panel is an easy-to-use interface. It gives you access to a comprehensive set of printer functions and to a number of useful internal prints. There is also Information on your ink consumable items which is continually updated.

The front-panel tab contains six sections:

- [The Front-Panel](#)

This section explains the various sections of the front-panel and what the keys are for.

- [Internal Prints](#)

This section contains information on the internal prints that are available through the front-panel.

- [Setup Menus](#)

This section shows you how the setup menus to help you navigate.

- [Consumable Menus](#)

This section shows you the consumable menu to help you navigate.

- [Navigation](#)

This section explains how to navigate through the various menu levels in the front-panel. There are some examples showing you exactly how you can change some selected settings.

- [Message Descriptions](#)

This section tells you how to interpret the ink system error codes that the front-panel displays. There is also a list of all front-panel messages, with a brief description of the procedures you must perform.



The Front-Panel

The front-panel keys are explained in this section with the four menus. Each menu can be accessed by pressing the **Enter** key.

[Functional Areas](#)

[The Navigation Keys](#)

[Menu Icon Selection](#)

[Action Keys](#)

[Status Lights](#)

[Standby](#)

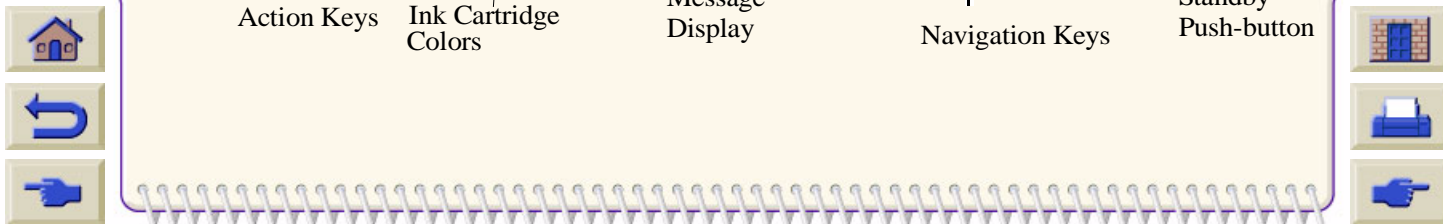
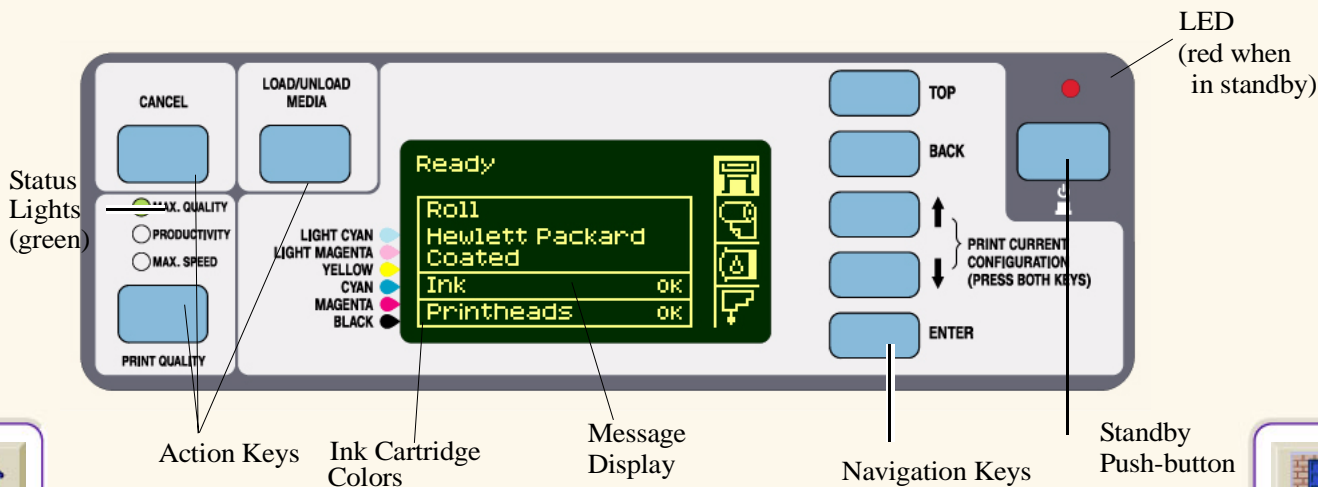


Functional Areas

The printer's front-panel includes an easy-to-use interface with a display, giving you access to a comprehensive set of printer functions and to a number of useful internal prints. Information on your ink consumable items can be found as well as continually updated information on their status.

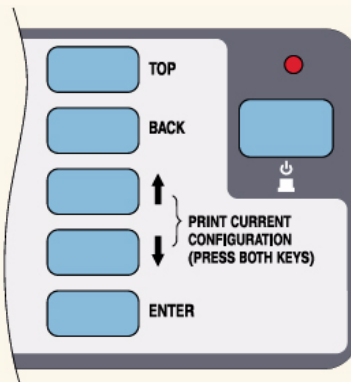
The front-panel of the printer is made up of the following functional areas:

- A message display screen
- Navigation Keys
- Action keys and associated Status Lights, on the left
- On/off button and status light.



The Navigation Keys

The right side of the front-panel is the where all 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 [Setup Menus](#) and [Consumable Menus](#). You also use the navigation keys to respond to messages. see [Message Descriptions](#), for detailed descriptions for error and status messages.



Menu Icon Selection

The front-panel has four menus, you select them using the ↑ and ↓ keys on the front-panel. When one of the four menus is highlight the front-panel displays the following information.

Printer Setup Menu

The Printer Setup Icon looks like this:



If the Printer Setup menu is selected, there is brief and overall description on the status of the ink consumable items. 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 Printer Setup Menu, see [Setup Menus](#).



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 to the Media Menu, see [Consumable Menus](#).

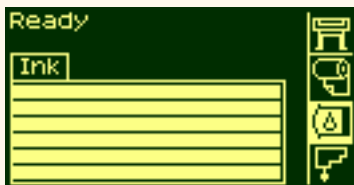


Ink Cartridge Menu

The Ink Cartridge 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 [Message Descriptions](#) for more details. If you press **Enter** now, you will go to the Ink Cartridge Menu, see [Consumable Menus](#).



Printhead Menu

The Printhead Menu icon looks like this:



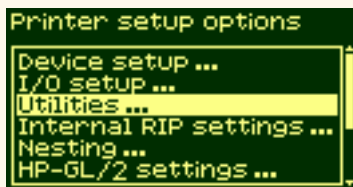
If the Printhead menu is selected, the front-panel displays the status of each of the printheads. If there is a problem with one or more of the printheads, the front-panel will display an action message or a error code see [Message Descriptions](#) for more details. If you press **Enter** now, you will go to the Printhead Menu, see [Consumable Menus](#).



Displays

Menus

To configure the printer use the menus to select and change the settings. Use the ↑ and ↓ keys to navigate and 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:



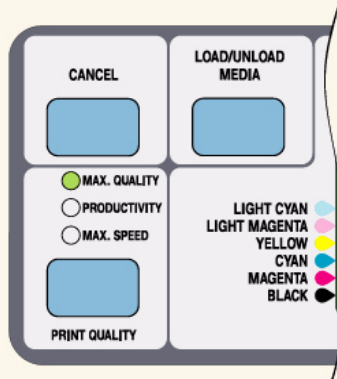
Action Keys

The action portion of the front-panel consists of:

- Cancel
- Load/Unload Media
- Print Quality Mode.

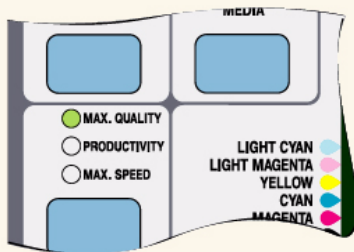
The action keys let you:

- Stop printing and media loading while they are in progress, cancel dry time, cancel nest waiting. (CANCEL key).
- Load and unload media (LOAD/UNLOAD key).
- Select the print mode (Max Quality, Productivity and Max. Speed). A green light indicates the setting you have selected.



Status Lights

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

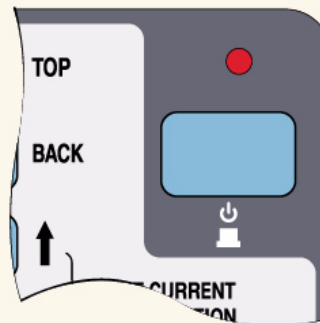


NOTE: In most cases, settings in your application software or printer driver will override the settings you make on the front-panel of the printer.

Standby

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 **Standby** switch is on when the printer is in standby mode. The printer “wakes up” whenever you press the **Standby** switch on the printer or there is any I/O activity such as receipt of a file.

**Standby
on/off button**



Setup Menus

[I/O Setup Menu](#)

[Device Setup Menu](#)

[Utilities Menu](#)

[Internal RIP Settings Menu](#)

[Queuing and Nesting Menu](#)

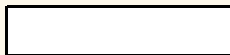
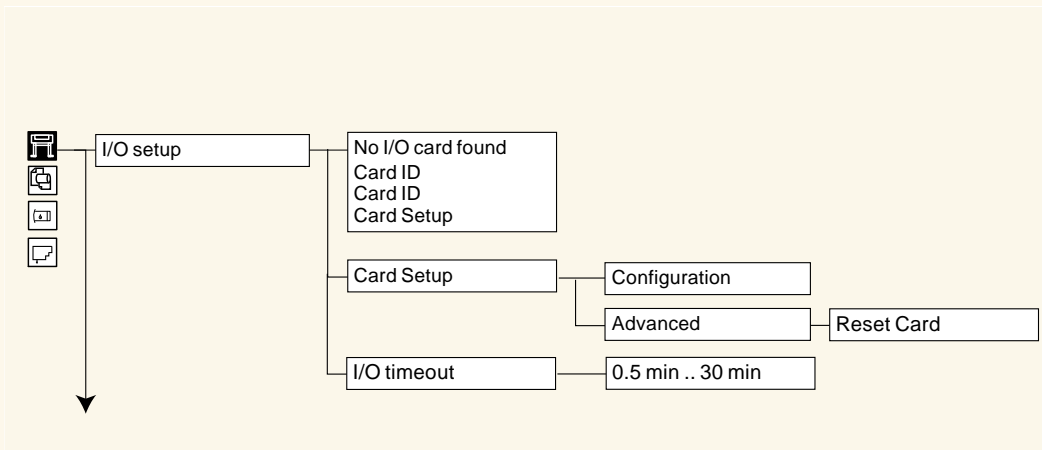
[HP-GL/2 Settings Menu](#)

[Page Format Menu](#)

[Demos Menu](#)



I/O Setup Menu



Only Appear in
Full Menu Mode



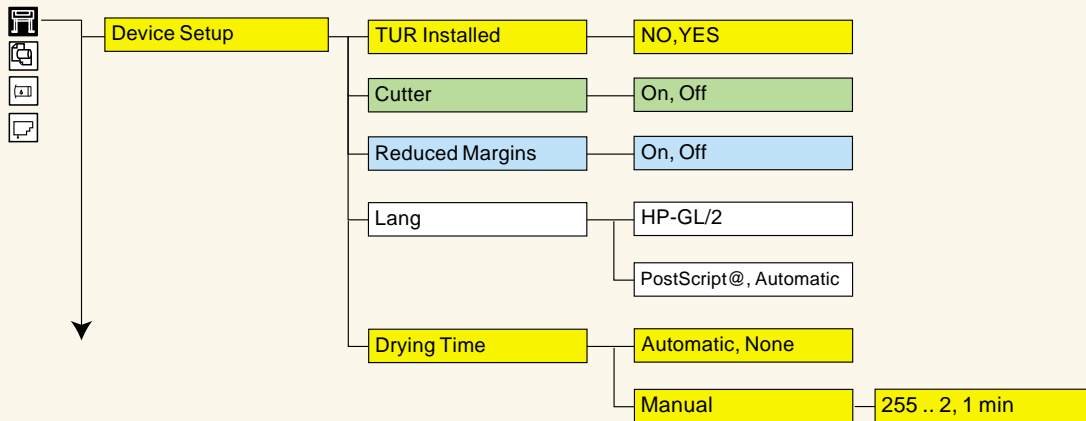
Always Appear

@

PostScript Only



Device Setup Menu



Only Appear in
Full Menu Mode



Always Appear



Only Appear if TUR
is Not Loaded

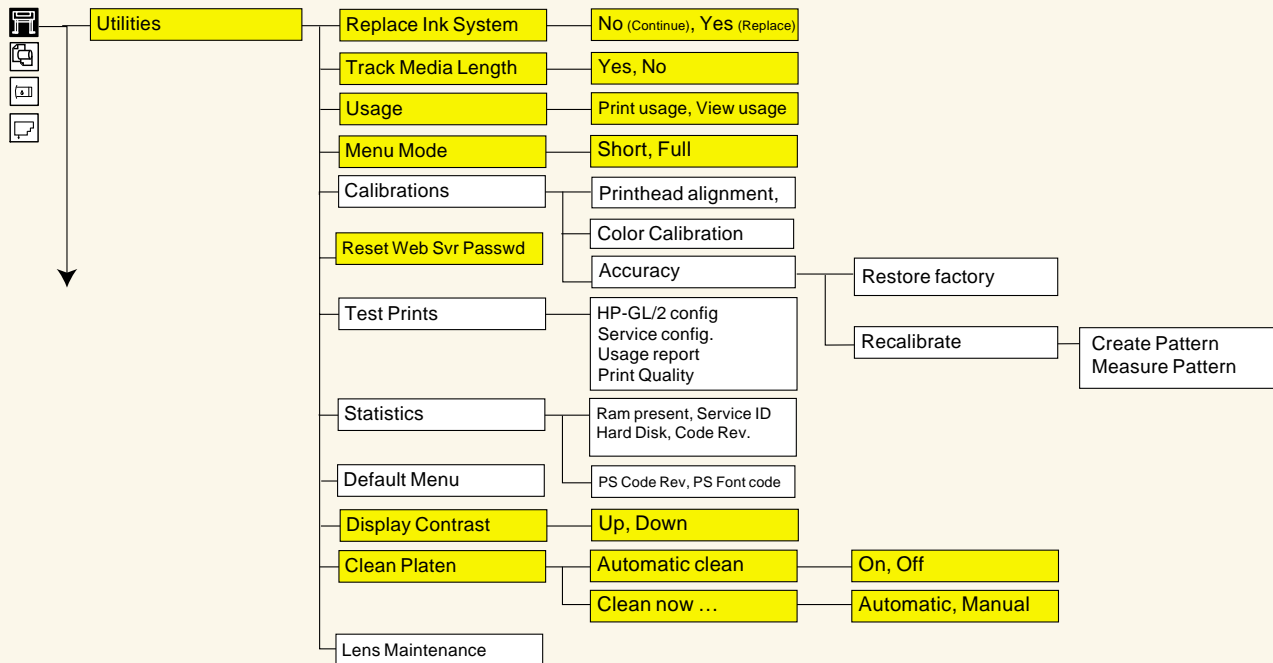


Only Appear if TUR is
installed and Loaded

@ PostScript Only



Utilities Menu



Only Appear in
Full Menu Mode



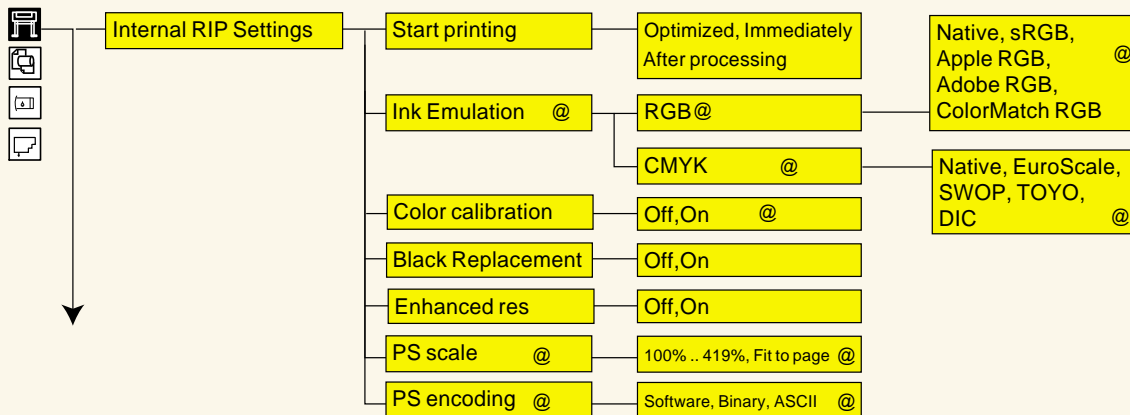
Always Appear

@

PostScript Only



Internal RIP Settings Menu



Only Appear in
Full Menu Mode



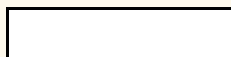
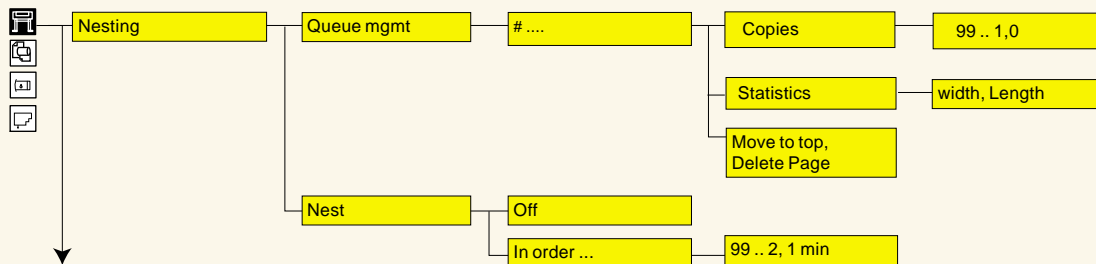
Always Appear

@

PostScript Only



Queuing and Nesting Menu



Only Appear in
Full Menu Mode



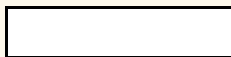
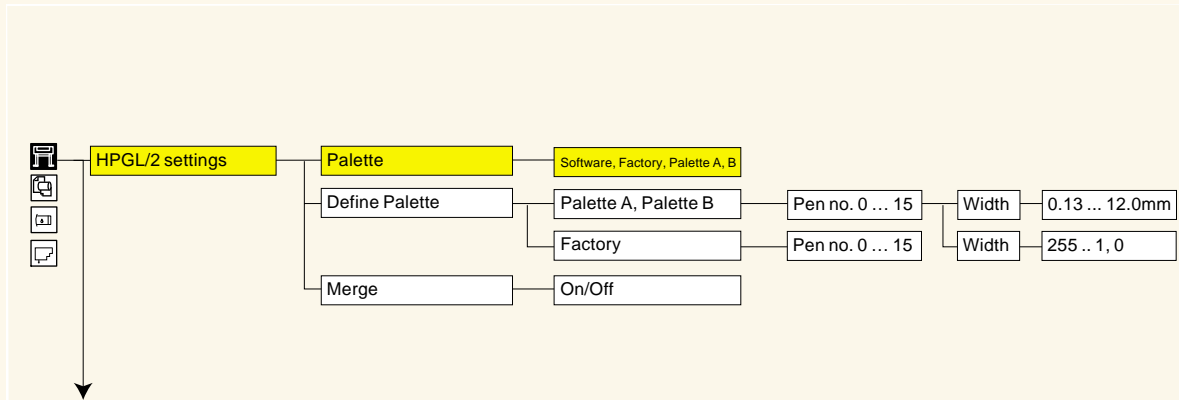
Always Appear

@

PostScript Only



HP-GL/2 Settings Menu



Only Appear in
Full Menu Mode



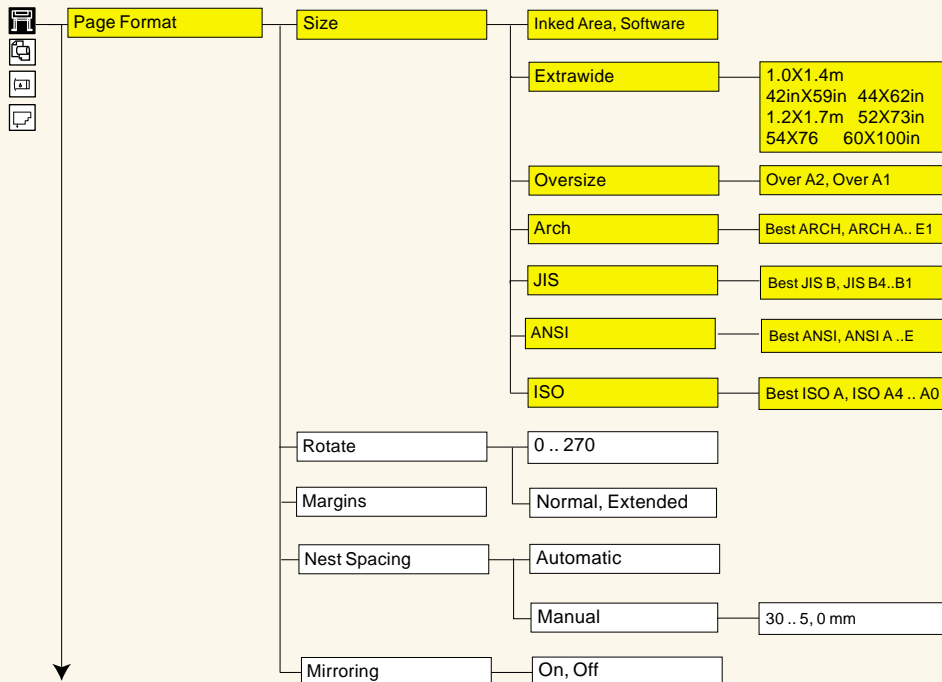
Always Appear

@

PostScript Only



Page Format Menu



Only Appear in
Full Menu Mode



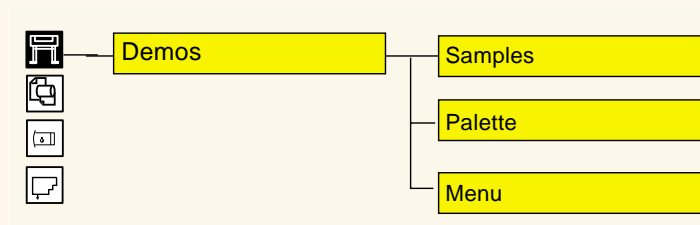
Always Appear

@

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Demos Menu



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Always Appear

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Media Menu



Roll/Sheet Info.

Vendor Name
Type of Media
Width
Printable Area
Profile Revision

Media Selection

HW Coated (Economy)
HW Coated
Coated Paper
Photo Imaging Gloss
Colorfast Vinyl
Paper Semi-Gloss
Poster Paper
Studio Canvas
and more.....

Delete Media

Move Media

*HW Coated (Economy)
*HW Coated
*Coated Paper
*Photo Imaging Gloss
*Colorfast Vinyl
*Paper Semi-Gloss
*Poster Paper
*Studio Canvas
and more.....

TUR Loaded=

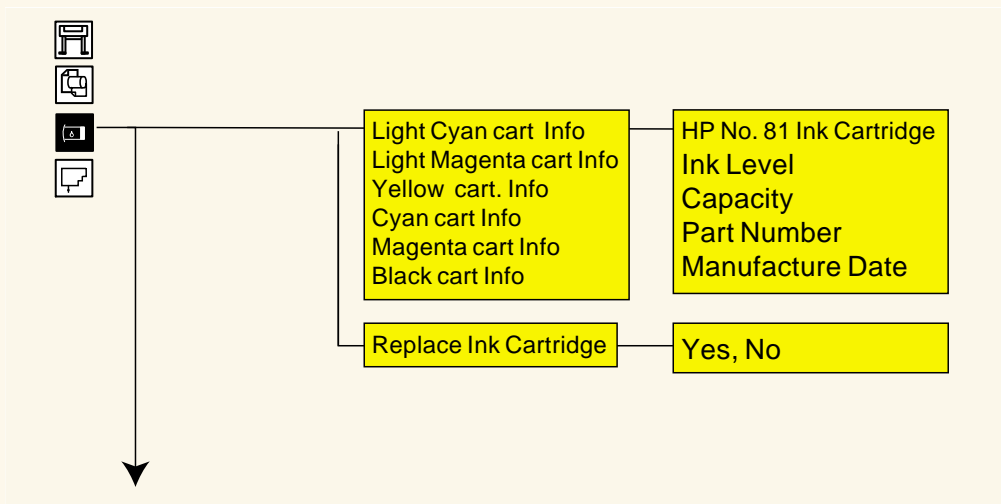
Yes, No

Form Feed & Cut

Yes, No



Ink Cartridge Menu



Printhead Menu



Printhead Info

Light Cyan Info
Light Magenta Info
Yellow Info
Cyan Info
Magenta Info
Black Info

Recover Printheads

All Printheads
Cyan
Magenta
Yellow
Black
Light C
Light M

Replace Printheads

Yes, No



Internal Prints

In the front-panel menus there are internal prints which you can use to check the configuration settings of the printer or use as a troubleshooting guide.

[Print the Configuration](#)

[Menu Print](#)

[Other Internal Prints](#)



Print the Configuration

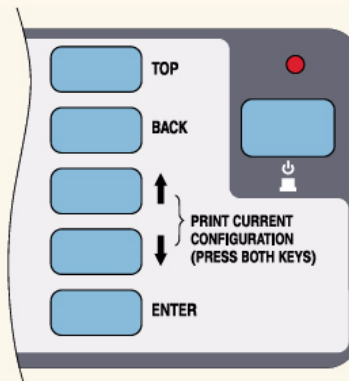
To request a “Current Configuration Print” from the front-panel:

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



4. The printer will display the Receiving message shortly. It may take a few moments.

5. Press the ↑ and ↓ keys on the front-panel simultaneously to print the Current Configuration Print.



6. The front-panel displays the message **Receiving** while the file is being processed, and then **Printing** as the printer starts printing.



Menu Print

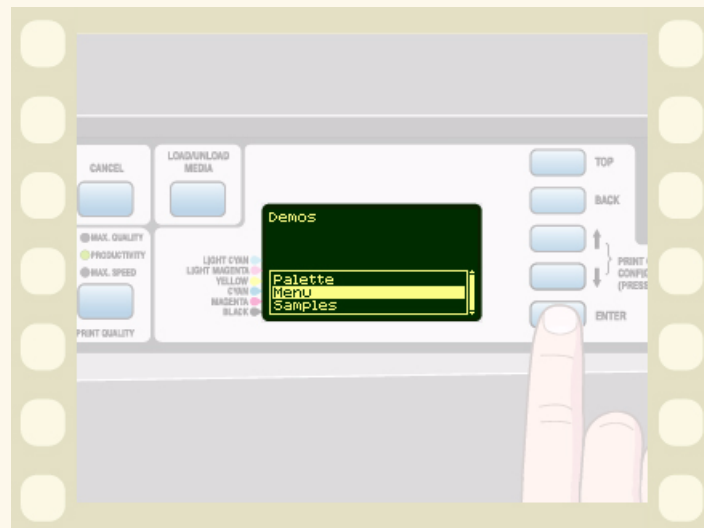
You can see the complete menu structure available on the printer by printing the front-panel Menu print or see [Setup Menus](#). Use it to help you to navigate the menus.

Click on this



icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



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. See [Print the Configuration](#).

Printer Usage Information

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 by media type, number of prints per print mode, and total amount of ink used per color. The counts in this report are estimates. This information is also available in the front-panel in a shortened version. Go to the Setup menu/Utilities/Printer Usage/View Usage.

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 [Image Quality Problems](#).

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 [Image Appearance](#).

Samples

These are prints showing the capabilities of the printer.



Navigation

You use the front-panel to navigate around the menu structure. Included in this section is how to use the Navigation keys and some examples of navigating the menu structure.

[Using the Navigation Keys](#)

[Selecting the Ink Emulation Mode](#)

[Changing the Page Size](#)

[Changing the Drying Time](#)

[Restoring the Default Menu](#)



Using the Navigation Keys

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

Press the **Top** to go back to the top (1st) level. This will bring you to the [Setup Menus](#) icon without changing any menu selections.

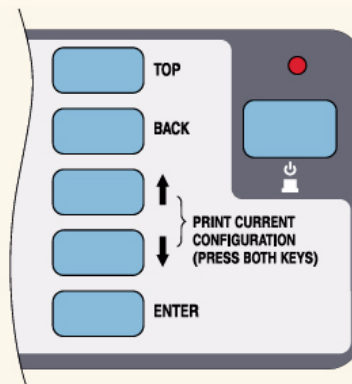
Press the **Back** key to display the previous menu level, without changing any menu selections.

Press \uparrow to scroll up, or \downarrow 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 \surd symbol.

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




Selecting the Ink Emulation Mode

In this example, you will change the Ink Emulation Mode. For an explanation of this topic see [Ink Emulation Mode](#).

Make sure the front-panel displays the printer setup menu icon. If it does not press the **Top** key.

The selection you have made will be indicated by the ✓ symbol.

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.




Changing the Page Size

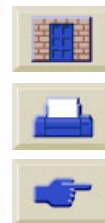
This example shows how to adjust the page size.

Make sure the front-panel displays the printer setup menu icon. If it does not press the **Top** key.

The selection you have made will be indicated by the ✓ symbol.

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.




Changing the Drying Time

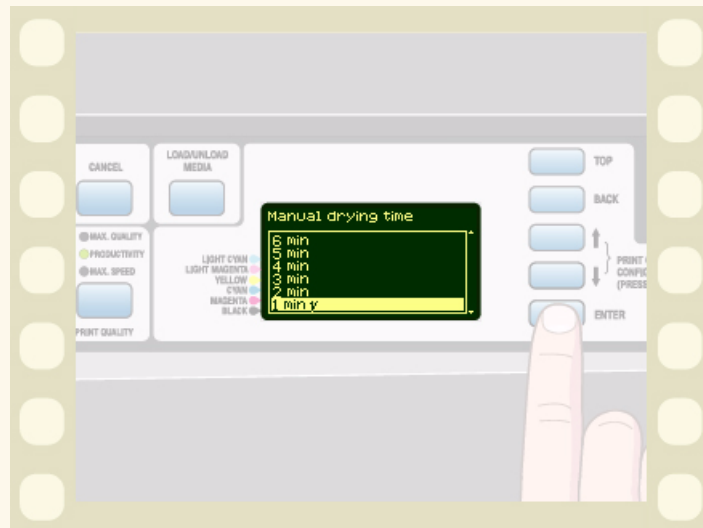
This example adjusts the drying time, a setting used to suit special printing conditions. See [Drying Time Settings](#) for more details.

Make sure the front-panel displays the printer setup menu icon. If it does not press the **Top** key.

The selection you have made will be indicated by the ✓ symbol.

Click on this  icon to run the animation sequence.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



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".



Message Descriptions

[Status Code Interpretation](#)

[Consumable in Warranty](#)

[Status Codes](#)

[Front-Panel Messages](#)

[Printhead Status Messages](#)

[Ink Cartridge Error Messages](#)

[Printhead Cleaner Error Messages](#)

[System Error Messages](#)



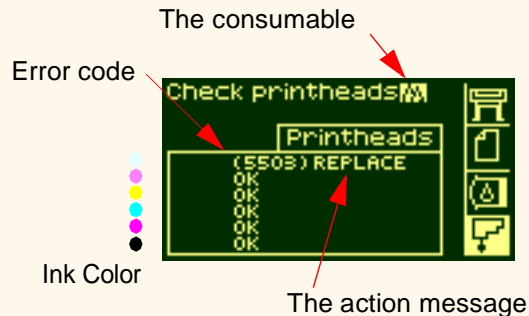
Status Code Interpretation

The Status code describes the status of the ink consumable. The **third** and **fourth** placed numbers in the status code are the [Status Numbers](#).



In the example shown above, 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.

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



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 [Printhead Statistics](#).

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



Status Codes

The tables in [Printhead Status Messages](#) for example, show the status numbers with the action message 'reset' or 'replace' next to them. Perform the Action message first 'recover', reset or 'replace', if this does not solve the problem, refer to the status numbers in the table and perform the relevant procedures.



Front-Panel Messages

Status	Description	Procedure
A factory media can not be deleted.	You cannot delete this media because it is one of the HP supported types of media that was added at the factory.	See Media Profile Downloading for details of the down loading media profiles 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 may be 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 by XXXX.	1. Press the Enter to continue. you can continue to print, but if you have problems contact your HP representative.



Status	Description	Procedure
Cancelling firmware upgrade. Please wait.	You are downloading new firmware and the action has been cancelled.	This may be because the firmware/software you are attempting to download is older than the version you already have, or the version is not compatible with your printer. See Upgrading Your Printer .
Delete media profile?	You are about to delete the media profile that you have in the printer for a specific media.	See Media Profile Downloading for details of the downloading media profiles 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 see Lens Maintenance
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.	Check that the PostScript driver is correctly configured. Refer to the PostScript driver documentation for the driver you are using.



Status	Description	Procedure
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.
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 your printer it is important that you use genuine Hewlett-Packard components.	Select 'Yes' and replace with genuine HP components See Ordering Accessories .
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 Standby
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 Drying Time Settings



Status	Description	Procedure
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.
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 Carriage Interconnect Wiper
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 Installation
Insert printhead	This message is prompting you to insert a printhead into the carriage assembly	See Printhead Installation



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
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 <i>Setup Instructions</i> 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 Roll Media .
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 Roll Media
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



Status	Description	Procedure
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
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 Functional Specifications
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 Roll Media
Misposition	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 Roll Media
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 Media Profile Downloading for details of the down loading media profiles procedure. If this is not successful, switch the printer On and then Off again.



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 see Service Preventative Maintenance
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.
Printing Low memory	The printer previously compressed a print file while it was receiving and it is now expanding the file.	Printing will continue after expanding the data but it will be slower than usual.
Processing	The printer has received a print file and is processing the information before commencing printing.	



Status	Description	Procedure
Receiving	The printer is receiving a file.	If you have problems printing, see the Solutions tab.
Receiving Low memory	While receiving a print file, the printer's memory has become low.	The printer will compress the file while it continues to receive the data.
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 Printhead Recovery Procedure for an animation on how to perform this procedure.
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
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
Replace	The printer is informing you that there is a printhead that needs replacement.	See Printhead Status Messages



Status	Description	Procedure
Replace cleaner	The printer is designed so that when you replace a printhead you must also replace the printhead cleaner. See Component Identification for the location	See Printhead Cleaner Removal for an animation on how to perform this procedure.
Replace ink cartridge	This is an ink cartridge removal instruction.	For more an animation showing the Cartridge removal procedure see Ink Cartridge Removal
Reset Web Passwd	When this is displayed you are resetting your password for access to the WebAccess tool. See HP Designjet WebAccess .	
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'.



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 Roll Media
Sheet required for calibration	The printer is prompting you to load media into the printer before it can perform a calibration.	To see an animation on the loading procedure see Loading Roll Media
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. See Switching Your Printer On and Off
Switch power off Check media path	There is a media jam in the printer.	Clearing a Media Jam
Switch power off Check printhead path	There is a media jam in the printer.	Switch the printer off and clear the blockage. see Clearing a Media Jam



Status	Description	Procedure
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 printer see System Error Messages .
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 see Ordering Accessories
Waiting for nest	The printer is in the process of nesting.	See Nesting Pages for an explanation of nesting.



Status	Description	Procedure
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
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.
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 HP Designjet WebAccess
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.



Printhead Status Messages

Status Numbers XX ranges ¹ 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 Carriage Interconnect Wiper . 3. Replace the printhead.
XX10 Reseat	There is an electrical failure	

1. See [Status Code Interpretation](#)



Status Numbers XX ranges from 00 - 55	Printhead Message Description	Procedure
XX03 Replace	Printhead smartchip 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)
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.



Status Numbers XX ranges from 00 - 55	Printhead Message Description	Procedure
XX12 Replace	The printer detects that the printhead does not match the rest of the ink consumable items.	Ensure that all the ink consumable items are HP No. 81/83
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 smartchip detects an unsupported manufacturer.	



**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 press **Enter**.



Status Numbers XX ranges from 00 - 55	Printhead Message Description	Procedure
XX20 Recover	The printhead is losing 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 Using the Image Quality Print . 2. If after you have performed the recovery procedure, the image quality is still not acceptable, see Correcting the Configuration



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.
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



Status Numbers XX ranges from 60 - 85	Ink Cartridge Message Description	Procedure
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.



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	



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.



Printer Options

The printer has many options. You can use them to ensure that the image that you print has the look and the appearance that you want. The printer settings can be selected from either the front-panel or the driver. In most cases it is the driver settings that will override the front-panel settings.

The WebAccess is another option you have for selecting options that the printer has.

The Printer Options tab contains five sections:

- [Page Format](#)

This section deals with the formatting of the image. How to use the settings to obtain the formatting that you want and how the image is orientated on the media.

- [Image Appearance](#)

This section explains how you can control the overall appearance of your prints. How to change the color palettes, the way that lines cross each other on the media. This section also explains the print mode settings that your printer has, their differences and some recommendations of when to use them.

- [Page Size in the Front-Panel](#)

This section explains how to change the page size settings in the front-panel and why you may want to use this feature.

- [Print Management](#)

This section explains how to best manage the work that the printer is doing. How to change the drying time, how to change the order of the queue for a particular job. What nesting is and how it will help you to save media.

- [Printer Configuration](#)

This section explains how to change the various default configuration settings.

Related Topics not in this tab

For details of the Options you have for media see [Choosing Media](#) in the **Media & Ink section**.

To order Accessories and components see [Ordering Accessories](#) in the **Other** section.



Page Format

[Page Description](#)

[Adjusting Margins](#)

[Reduced Margins](#)

[Rotating an Image](#)

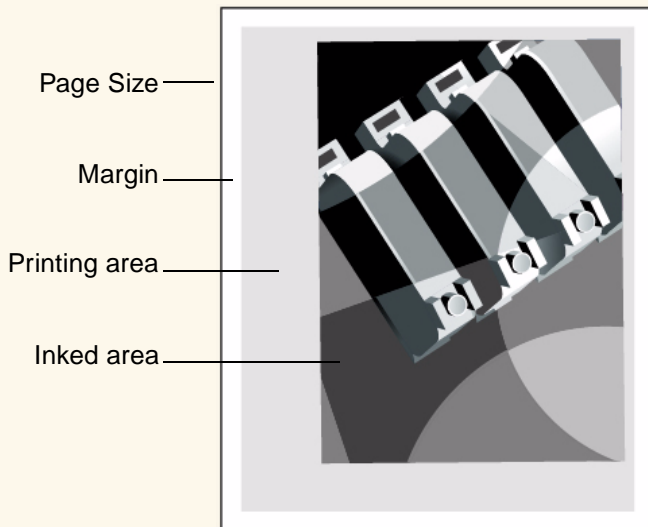
[Printing a Mirror Image](#)

[Scaling the Image](#)



Page Description

The page description has four main areas, these are described below:



Page size

Page size can be specified from the front-panel or in the software. It may be called “Page Size”, “Media Size”, “Paper Size”, etc., Options can include, ISO A3, ANSI Letter,

Custom and more. If your software does not define the page size in the print file, the front-panel setting is used. Otherwise, the software setting overrides the front-panel setting.

NOTE: There is one exception to the above. If the front-panel setting is Inked area and you are sending a file, the front-panel setting is used. See [Inked area](#).

Margins

For a roll of paper the “**normal**” setting for side margins is 7mm and the “**extended**” setting is 15mm. See [Adjusting Margins](#).

Printing area

Printing area is the page size minus the margins. For a table showing the printing areas for standard paper sizes. See [Printable Area](#).

Inked area

Inked area is the smallest rectangle that contains the entire image.



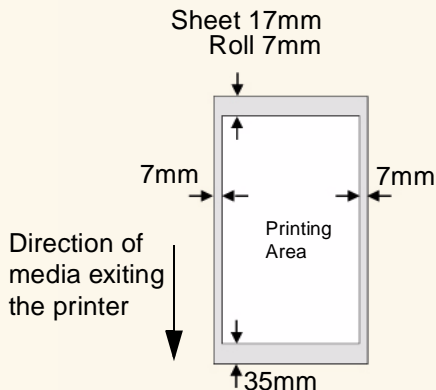
Adjusting Margins

The default settings for margins are set to ensure the maximum printable area on your paper. The two side margins are 7.0 mm. The margin settings for the trailing edges of the paper change, depending whether you are using roll or sheet paper, as shown in the illustrations below. It is important when working with images which

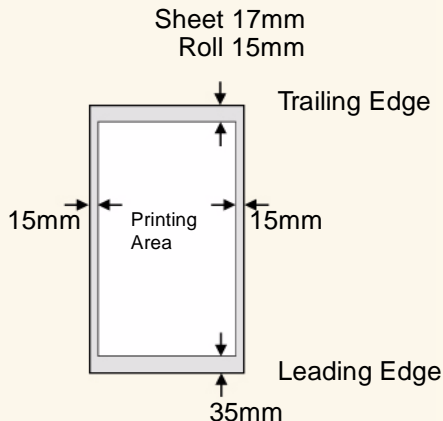
demand a lot of ink that you use the correct paper with the correct margins, in this case use the normal margins.

When you send continuous run print jobs to the printer you can use [Reduced Margins](#) (leading and trailing edges) to save media.

Normal Margins



Extended Margins



7 mm = 0.28in
15 mm = 0.59in
35 mm = 1.38in



Reduced Margins

Reduced margins allow you to save media when you send continuous run print jobs to an HP Designjet 5000 series printer with a Take Up Reel (TUR) installed and loaded with roll media.

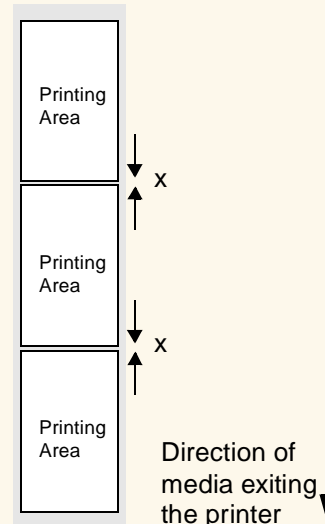
The distance of the reduced margins between the trailing and leading edges of consecutive prints in a continuous print jobs depends on which Margin setting has been selected in the Page Setup menu. Two options are available, Normal or Extended (see [Adjusting Margins](#)). With Normal margins set the distance is 7 mm (0.28in) and with Extended Margins set is 15 mm (0.59in).

Using reduced margins does not change the two side margins.

To use reduced margins with roll media loaded on the TUR, select the **Reduced margins** option from the **Device Setup** menu.

NOTE: The Reduced margins option is only available from the Device Setup menu if the TUR is installed and it is loaded with roll media.

Trailing Edge



Leading Edge

Using Reduced Margins with:

- Normal Margins set: $x = 7 \text{ mm (0.28in)}$
- Extended Margins set: $x = 15 \text{ mm (0.59in)}$

Rotating an Image

Rotating a job using the HP PostScript driver supplied with the 5000PS

By default the jobs generated by any of the PostScript drivers provided with the 5000PS are printed in portrait, even if the image viewed in your application is in landscape orientation. In order to save paper you need to rotate the job through the Postscript driver interface.

Rotating a job is controlled by a setting in the PostScript driver, it can be enabled or disabled. When you enable the rotation feature both the page and the image are rotated 90 degrees counterclockwise.

Note that the HP driver will over-ride the setting in the front-panel.

NOTE: Consult the PostScript driver documentation to find out where you set the rotation feature.

Page size and the rotation

Note that when you rotate a job the page size is enlarged to avoid clipping, because the trailing and leading margins are not the same size as the side margins.

When rotating, the amount of media used is enlarged to ensure that the drawing is not clipped.

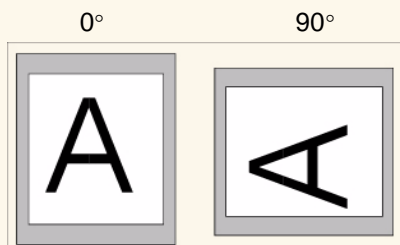
Rotating a job using a third party PostScript driver

If you are using a third party PostScript driver, you can rotate the image using the rotate setting in the front-panel (Page Format/rotate). For more information consult the documentation of the third party driver.



What On the Page is Rotated?

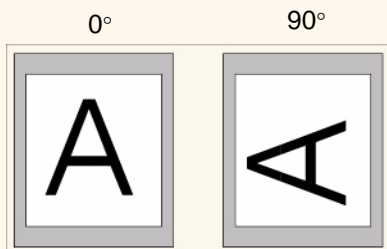
If the page size is specified in either the front-panel or the application that the image was made in, then the page and the image are rotated, as shown below.



Possibility of Clipped Images with Rotated Images

With either roll or sheet paper, if you rotate an image to landscape whose original orientation was portrait, the paper may not be wide enough for the image, and it may be clipped. For example, rotating a portrait D/A1-size image on D/A1-size paper by 90 degrees will probably result in a clipped image. If you are using the Jet Browser, the preview screen will confirm this with a warning triangle.

However if the page size is unspecified, the page is not rotated, only the image.



To set the rotation in the front-panel select
Page Format/Rotate.



Printing a Mirror Image

If you are using clear imaging paper, sometimes called backlit, you may want to print a mirror image of your print, so that when the paper is lit from behind it is in the correct orientation. This can be done from the front-panel, without changing the image in your software.

Mirror Off



Mirror On



Scaling the Image

5000PS

With a PostScript file, you can enlarge your printed image from the printer's front-panel by using the PS scale option, accessed from the Internal RIP Settings menu.

The PS scale feature is useful:

- If your software does not support large formats.
- If your file is too large for the printer's memory, and you reduce the page size in your software and then scale it up again using the front-panel option.

To scale your ANSI A PostScript file to:

	ANSI B	ANSI C	Arch C	ANSI D	Arch D	Arch E1	ANSI E	Arch E
Use...	129%	200%	210%	258%	282%	352%	400%	419%

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To scale your ISO A4 PostScript file to:

	ISO A3	ISO/JIS A2	OS A2	ISO/JIS A1	OS A1	ISO/JIS A0
Use...	129%	200%	210%	258%	352%	400%



5000PS

The “**Fit to page**” setting adjusts the image size to the page size selected for your printer. For example, If you have selected ISO A2 as the page size and you print an A4-size image, it will be enlarged to fit the A2 page. If ISO A3 page size is selected, the printer would reduce a larger image to fit the A3 size. If you are printing to cut sheet media, you must ensure that the image can actually fit onto the page, otherwise clipping will occur.



Image Appearance

These next few pages explain how you can control the overall appearance of your prints. How to change the color palettes, the way that lines cross each other on the media. This section also explains the print mode settings that your printer has, their differences and some recommendations of when to use them.

[Front-Panel Image Options](#)

[Printing Images in Grayscale](#)

[Print Speeds and Print Mode Selection](#)

[Print Mode Settings](#)

[Changing the Print Mode](#)



Front-Panel Image Options

These next few pages deal with the ways you can control the overall appearance of your prints from the front-panel in terms of:

- pen width
- pen color
- treatment of overlapping lines
- overall print quality and resolution.

Some front-panel selections affect the next file or job you send from your computer, but not pages already in the printer's queue. If this is the case, it is stated in the relevant part of this section.

Some of the controls are available using the front-panel menus (for example) pen width, pen color, overlapping lines). Print mode options are controlled from the front-panel.

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Unless you have specifically indicated in your software that the printer's front-panel settings are to be used, (for example, Printer's default Setting in a Macintosh Print Options window), the software settings for a PostScript file override the printer front-panel settings described in this section.

Why Use the Front-Panel?

By default, the printer looks to your software to provide information on all the above attributes. However, your driver or application may not provide these controls or you may want to experiment with various effects, or try a temporary change without the need to change your images or your driver settings.

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Some of these settings do not affect the output generated when printing from most of the applications under Windows when using a HP-GL/2 driver.



Pen Widths and Colors in the Internal Palettes

The “pens” discussed throughout this section are the conceptual pens in a software palette, rather than the printer’s physical printheads.

HP Designjet 5000PS

These settings have no effect on PostScript files.

The printer has three pen palettes:

- Factory
- Palette A
- Palette B.

The factory palette cannot be changed. You can, however, change the line width and color settings for each pen in the remaining two palettes (palette A and palette B). Initially, all three palettes are identical. Each palette has 16 pens which can include pens of different widths and any combination of the printer’s predefined 256 colors.

To Select a Palette

To select a palette through the front-panel menu, go to the Define Palette selection under HP-GL/2 SETTINGS and choose the palette you want.

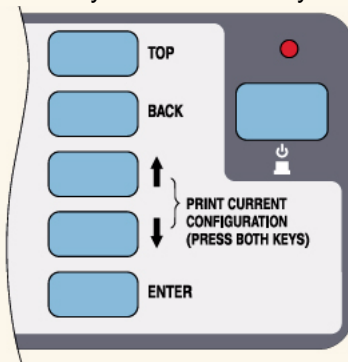
The following table describes the palette choices.

Palette	Comments
Software	The printer looks to your software for pen settings and ignores all three internal palettes.
Palette A	The printer assigns the attributes defined in Palette A to the pens defined in your software as 0 through 15.
Palette B	The printer assigns the attributes defined in Palette B to the pens defined in your software as 0 through 15.
Factory	The printer assigns the attributes defined in the Factory Palette to the pens defined in your software as 0 through 15.



Viewing Current Configuration Settings

1. Make sure either a roll or a sheet of paper is loaded.
2. Print the Current Configuration Print, by pressing the ↑ and ↓ keys simultaneously.



3. Notice on the Current Configuration Print that the 16 pens are numbered 0 through 15 and the 256 colors are numbered 0 through 255. These colors are specified in the Palette Print, as explained in the following sections.



Viewing the Colors Available For a Palette

Go to the /Demos/Palette.

In the Palette print, there are 256 squares, numbered 0 through 255, each showing one of the colors available for selection in the printer's internal palettes. The example below is color 7 (cyan), which is assigned to pen 7 in the factory's default palette.

Note that RGB and CMYK - plus white - are assigned by default to pens 0 through 7, and that eight grayscales are included in the 256 colors.

The 256 colors shown in the Palette Print are not the only colors you can print with your printer! Using your software, you can create many more colors and, as long as you are using the correct driver, the printer will reproduce these colors by an appropriate mix of inks from its CMYK ink cartridges. The Palette Print merely shows the 256 colors available for use in the printer's internal palettes, should you choose to use them.

Pen number in factory default palette, and initially therefore in all three palettes. 0 through 15.

7



Color number. 0 through 255.

7

0,255,255

RGB composition, scaled to 255 = 100%. In this example, it is 0% red + 100% green + 100% blue, which is cyan.



Change the Palette Settings

You cannot change the Factory palette, but you can define Palettes A and B to be whatever you choose.

Item	Available Options	Defaults
Palettes	Factory, A, B.	Factory
Pens	0 through 15.	
Widths (mm)	0.13, 0.18, 0.25, 0.35, 0.50, 0.65, 0.70, 0.80, 0.90, 1.00, 1.40, 2.00, 3.00, 5.00, 8.00, 12.00. Note that 0.13 mm is a one-pixel line width at 300 dpi and three-pixels line width at 600 dpi	0.35mm
Colors	0 through 255.	As specified on the Palette Print.

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These settings have no effect on PostScript files.



The following steps show how to define Palette A:

1. In the front-panel menu, go to the Define Palette selection and choose Palette A.
2. Scroll to the pen number you want to change and press **Enter**.
3. The current width assigned to this pen is displayed, for example Width=0.35mm. If you want to change it:
 - a. Press **Enter**.
 - b. Scroll to the width you want
 - c. Then press **Enter** again.
 - d. Press Back to get to the previous menu: Color/Width

Otherwise, scroll to Color.

4. The current color assigned to the pen is displayed, for example Color=110. If you want to change it:
 - a. Press **Enter**.

- b. Scroll to the color you want.
 - c. Then press **Enter** again.
 - d. Press Back to get to the previous menu

5. When both width and color are correct, press Back.
6. Scroll to the next pen number you want to change, press **Enter** and then repeat steps 3 through 5 again.
7. When all pen definitions are correct, press Top to exit the menus.

IMPORTANT

The palette you have just defined will take effect only when you select it to be the current palette, as explained on [To Select a Palette](#).



Changing the Treatment of Overlapping Lines (Merge)

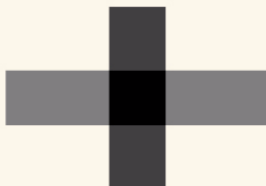
The Merge setting controls the overlapping lines in an image. There are two settings, Off and On. The following illustration shows the effect of each setting.

Merge off (Default)

A subsequent line hides a previous line where they overlap.

**Merge on**

Overlapping lines and area fills are merged.



You can set the merge setting from your software in some applications. Settings in your software override the front-panel settings.

5000PS

Merge settings have no effect on PostScript files.



Printing Images in Grayscale

There are times when you may want to print a color image in grayscale because it is faster. Examples of this are:

- You want a draft where color is not important, for example to check that the image is not going to be clipped.
- You want a version for photocopying in black and white.

Grayscale printing renders colors as grayscales rather than all colors as black. If you want all colors to be printed as black, then you should set all your colors to black in your software. For example, if supported in your software, use a pen number that is 100% black.

Alternatively, you could make one of the printer's internal palettes (A or B) all black, and then select this as the current palette (see [Pen Widths and Colors in the Internal Palettes](#) in this section for an explanation of palettes).

NOTE: You cannot change the color/grayscale setting for pages already in the printer's queue.

NOTE: HP-GL/2 drivers may override this setting.

5000PS

The Palette Settings do not affect PostScript files.



Print Speeds and Print Mode Selection

The print times shown below are for the HP Designjet 5000PS 60 inch/1.57m Printer.

Print Mode	Coated Paper	Heavyweight Coated Paper Economy	Heavyweight coated Paper	Glossy Media
Max. Speed	569 ft ² /hour 52.86 m ² /hour	288 ft ² /hour 26.76 m ² /hour	288 ft ² /hour 26.76 m ² /hour	100 ft ² /hour 9.29 m ² /hour
Productivity	100 ft ² /hour 9.29 m ² /hour	100 ft ² /hour 9.29 m ² /hour	76 ft ² /hour 7.06 m ² /hour	76 ft ² /hour 7.06 m ² /hour
Max. Quality	76 ft ² /hour 7.06 m ² /hour	76 ft ² /hour 7.06 m ² /hour	60 ft ² /hour 5.57m ² /hour	60 ft ² /hour 5.57m ² /hour

NOTE: The Max. Speed that can be attained on Glossy media and some other types of media could be determined by the amount of drying time required.

NOTE: From time to time new media types will become available and the printer will not have their media profiles. You must obtain the profiles and add them to the printer's software using the **System Maintenance Program**. Refer to [Media Profile Downloading](#).

Heavyweight Coated Paper

In the front-panel there are two types of Heavyweight Coated Paper.

- **Heavyweight Coated Paper Economy** is optimized for efficiency in terms of speed and ink usage.
- Heavyweight Coated Paper is optimized for the best image quality.



Print Mode Settings

You can set the overall print quality from the front-panel. In general:

- 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



Changing the Print Mode

Use the front-panel Print Mode key to toggle between the three print quality settings.

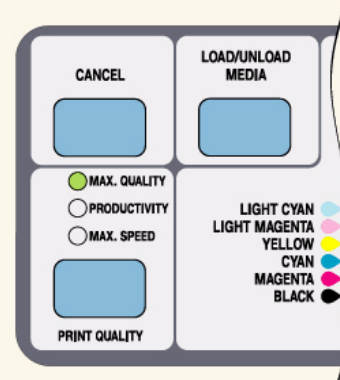
Any software driver will override the front-panel setting (but it will not change the LED). Use your driver for setting the print quality of images sent from your computer. Use the front-panel to set the print quality for internal prints.

HP 5000 Only

If your software raster imaging processor (RIP) system has print quality settings, select your print mode from the RIP. It will override the front-panel settings.

See [Print Speeds and Print Mode Selection](#) for more information about appropriate combinations of paper type and print modes.

NOTE: You cannot change the print mode setting for pages being received or already in the printer's internal queue.



Page Size in the Front-Panel

[Adjustments to the Page Size](#)

[PostScript Files](#)

[Non-PostScript Files](#)

[Page Size and Clipped Images](#)

[Page Size and Nesting](#)



Adjustments to the Page Size

You do not normally need to adjust the page size through the front-panel, because the page size you have selected in your HP driver overrides the page size selected in the printer. However, some of the circumstances in which you may want to change the default setting are when the driver you are using does not over-ride the front-panel settings:

5000PS

- When you are using the PS Scale→Fit to page feature. See [Scaling the Image](#).
 - When you are not using one of the HP drivers supplied with your printer; for example, if you are sending a PostScript file from a UNIX application.
 - When you want to save paper by printing only the inked area of your print, plus the margins. In this case set Page format / Size to Inked area.
-
- Depending on the driver you are using, you may not need to change the page size in the front-panel. The default Size setting (Software) in the Page Format menu causes the printer to look for the page size information in the print file: if it is there, the

printer uses it.

However, some of the circumstances in which you may want to change the default setting are:

- If you want to print the inked area only, but the driver you are using does not specify “Inked area”.

In this case, set the Size setting in the Page format menu to Inked area.

If you can select Inked area from your driver, any selection you have made in the front-panel menu will be overridden by the settings in the driver.

- When the prints you are creating need to be of a specific standard (for example, ISO or ANSI), but the actual size within that standard is not important. For example, your page size may need to conform to a standard ISO page size, but it does not matter whether the final page size is ISO A4 or ISO A3.

In this case, set Page format / Size to ISO → Best... or ANSI → Best... etc. The printer uses the smallest standard size into which the inked area will fit.



PostScript Files

Unless you are using the front-panel PS Scale→Fit to page option (see [Scaling the Image](#)), the front-panel page-size settings have no effect on PostScript files that already contain page-size information, which includes all PostScript files sent using one of the HP Designjet PostScript drivers supplied with this printer.

If you are using the front-panel PS Scale→Fit to page option, then the printer uses the page size set in the printer's front-panel as follows:

- If the page size is set to a discrete size, it uses the specified page size.
- If the page size is set to Software, the printer calculates the page width as the width of the loaded paper, and the page length as 1.5 times the width of the loaded paper.
- If the page size is set to Inked area, the printer calculates the page width as the width of the loaded paper and the page length as the height of the inked area plus the top and bottom margins of the page.
- If the page size is set to a “Best...” option, the printer calculates the page length as 1.5 times the page width.



Non-PostScript Files

The Size option lets you select the page size of your print. The options are described in the following table. If you need to adjust the page size from the front-panel, do so before sending the file from your computer. The printer determines the size of a print at the time it is received from your application. Settings will be overridden by your driver or application.

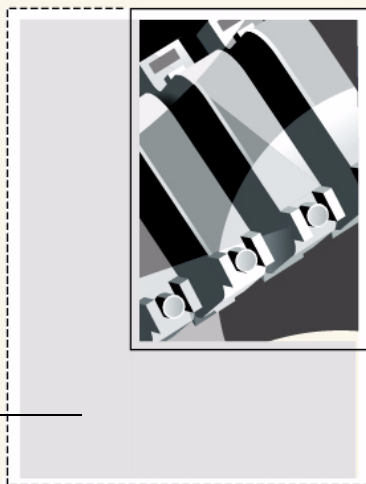
Page format Size=	Comments
Inked Area	The printed page size is the Inked area plus margins. NOTE: This option is not available for cut sheet media.
Software	The printer uses the page size from printer software. If there is no defined page size, the printed page size is the inked area plus margins.
Best ^a ISO A, ISO A0/A1/A2/A3/A4	The printed page size is exactly the size you specify.
Best ^a ANSI, ANSI E/D/C/B/A	
Best ^a JIS B, JIS B1/B2/B3/B4	
Best ^a ARCH, ARCH E1/E/D/C/B/A	
Oversize A1/A2	
Extra Wide 1M x 1.4M, 42 in x 59in	a. The printer chooses the smallest page size from the corresponding discrete options that will hold the inked area of the print. For example, if Best ISO A is selected and the inked area of the print is between A3 and A4, the printer chooses A3 as the page size.



Page Size and Clipped Images

If you specify in your software a page size that is larger than the paper size loaded in the printer, the printer will still print what it can, but may clip your image. If you are using the Jet Browser the preview will tell you that the image is clipped.

A2 paper in printer



Clipped
Area

A1 page size in software or front-panel

Page Size and Nesting

Roll Paper Only

Nesting means placing two or more pages side-by-side on a roll to save paper. There are certain cases when your prints can not be nested. For a complete explanation of nesting, see [Nesting Pages](#).

If you have nesting switched on, the printer will use the page size to determine which pages are nested and whether the pages can be automatically rotated when nesting. See [Automatic Rotation only with HP-GL/2 Files](#), for information about which pages can be automatically rotated.



Print Management

This section explains how to best manage the work that the printer is doing. How to change the drying time, how to change the order of the queue for a particular job. What nesting is and how it will help you to save media.

[Pages Printing or Drying](#)

[Cancelling the Drying Time](#)

[Managing the Queue](#)

[Nesting Pages](#)

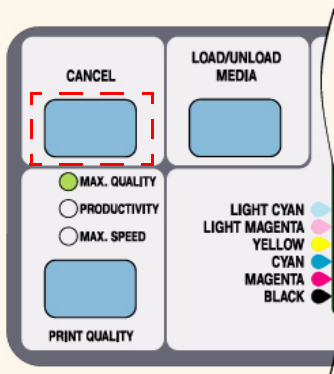


Pages Printing or Drying

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

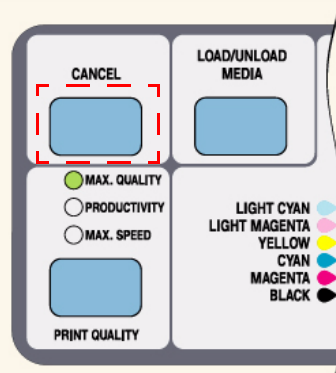
1. Press Cancel on the front-panel.



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.



CAUTION Use with caution when performing this procedure as an image which has had insufficient time to dry can cause image quality problems.

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. Remember that file size and memory usage are not the same thing, as explained on

[File Size and Memory Usage](#).

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.



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 [I/O Time-out Setting](#).
- 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?](#)
- 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

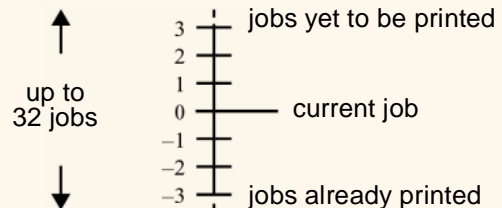
In Queueing & Nesting, you can scroll through the pages in the queue.

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.



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.

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](#)) 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.

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?](#)) 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



Making Copies of a Job in the Queue

Note that, if Rotate see [Rotating an Image](#) was on when you sent the file, every copy will be rotated.

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).
	Several	Use Copies (see below) and then use Move to top (see Prioritizing a Job in the Queue).
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.

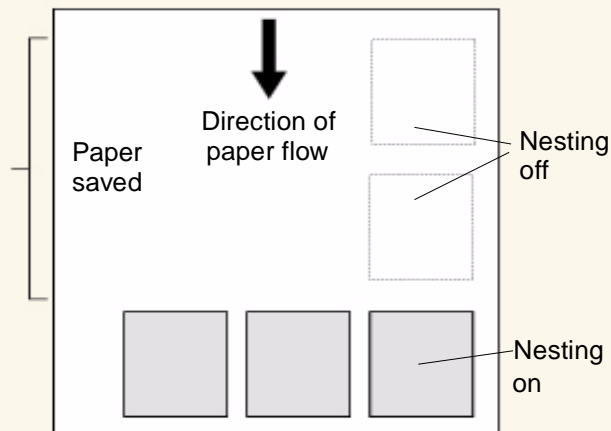
The setting you specify in this option overrides any value set by your software.



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.

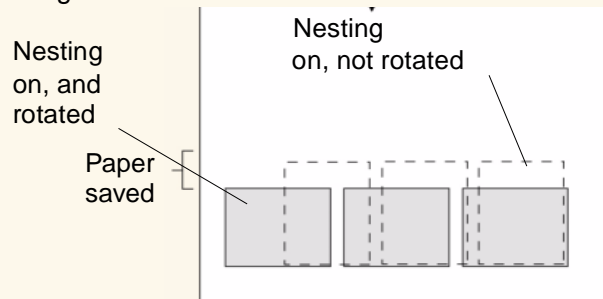


Automatic Rotation only with HP-GL/2 Files

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.



Refer to [Which Pages Qualify for Nesting?](#)



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' Options](#) setting.

- Color or grayscale. Either all are color or all are grayscale. Grayscale may include a color page rendered in grayscales see [Printing Images in Grayscale](#).
- All pages must have the same print quality setting (Max. Quality, Productivity, Max. Speed).
- For HP-GL/2 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.



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. The 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.



Printer Configuration

Your printer is delivered to you already configured and for everyday usage you should not normally need to alter the configuration of the printer. There are times however when you will want to change the default settings, to improve throughput or upgrade the printer with more memory.

[Front-Panel Configuration](#)

[Configuration Print](#)

[Changing the Graphics Language](#)

[Network Interface Settings](#)

[I/O Time-out Setting](#)

[Upgrading Your Printer](#)

[Ink Emulation Mode](#)



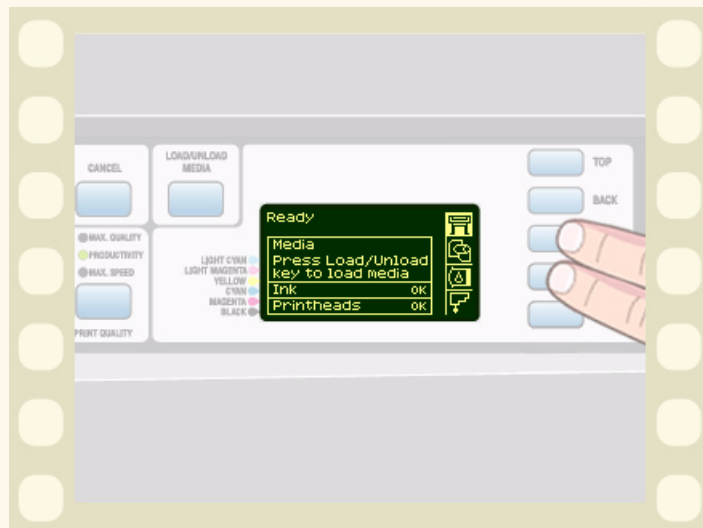
Front-Panel Configuration

Click here to see how to print the Front-panel Configuration.



NOTE: Make sure either a roll or a sheet of paper is loaded.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



Configuration Print

The table below shows you the details that the configuration print contains.

Item	Comments
Media	Media Format: Tells you if sheet media is loaded or roll media. Media: Tells you what type of media is loaded, see Physical Characteristics of Media Types .
Ink Systems	This gives information on the status of the HP81/83 Ink Systems, how much ink is left, the status on the printhead etc.
Nesting	The current nesting settings in the front-panel menu.
Page Format	Tells you information on the margins, media size in the front-panel, mirroring status, the rotation setting, scaling selected.

[Continued](#)

Item	Comments
HP-GL/2 settings	Current Palette and Merge settings.
Statistics	The code revision, DRAM present, information on the Hard disk, PostScript code rev. PostScript Font rev. what language the printer is set to, e.g. English.
I/O setup	Network card info (if installed): DNS name Applicable name IP address Hardware address
Device setup	Information on the graphics languages, drying time settings, cutter settings, Take Up Reel settings.
Image quality	What the current settings are for Ink emulation, Color calibration, Automatic black replacement.



Changing the Graphics Language

Your software application communicates with the printer by a graphics language. The printer's default language setting, called Automatic, it works for most software applications. In Automatic mode, the printer determines which type of file it is receiving i.e. PostScript or HP-GL/2, and prints it. Unless you are

troubleshooting any of the problems listed under Comments in the table below, you should not need to change this default.

To Change the Graphics Language Setting

To change the graphics language setting, go to the Device setup/Lang menu. There are five selections, as follows:

Language	Comments
Automatic	Choose Automatic to let the printer determine which type of file it is receiving. This setting works for most software applications.
HP-GL/2	Choose this setting if you are not working with PostScript files and: <ul style="list-style-type: none">■ you have experienced image position problems.■ you have experienced timing problems.
PostScript	Choose PostScript if you are printing only PostScript files and your PostScript jobs do not include PJP language switching commands.

Graphics Language and Networks

For system administrators



If you are using the printer with a network spooler, consider having your system administrator modify the spooler to insert automatically the PJP language-switching commands at the beginning and end of each file. This allows the printer to switch automatically into the correct graphics language for your current print and returns the printer to the front-panel graphics language setting for subsequent prints. For information on ordering PJP reference information, see [Ordering Accessories](#)

PostScript: The HP PostScript printer driver for Windows provided with your printer, adds the PJP language-switching commands to your output file, allowing the printer to switch graphics languages automatically.

NOTE: When using a Macintosh you should select the Automatic or Postscript setting, otherwise you will not be able to connect to the printer.

NOTE: If you are working with a multi-language environment select Automatic.

Network Interface Settings

With a network interface (such as the HP JetDirect Print Server), refer to your network interface documentation for advice on any front-panel configuration. The front-panel menu is I/O Setup / Card Setup/Configuration.

I/O Time-out Setting

Some software applications do not write a file terminator at the end of a file. In this case, the printer does not know when the file is complete and will wait for more data until the end of the "I/O Time-out" period. By default, this period is 30 minutes. You can change the time-out setting in the front-panel menu to as little as 30 seconds.

PostScript Encoding

The PostScript Encoding settings allow you to send binary encoded PostScript data through the TCP/IP network.

NOTE: If you send files from your computer via the parallel port set this option to software.



Ink Emulation Mode

In your driver which was supplied with your printer, there are settings which you can use to emulate the color behavior of offset printing presses as well as the usual RGB monitors. To get accurate color for your proof, select the CMYK color emulation mode which matches your offset printing standards. The selections are:

5000PS only

CMYK Ink Emulation

- Native - No CMYK emulation
- SWOP - U.S. Specification for Web Offset Printing
- TOYO - Japanese standard for offset press
- EuroScale - European standard for offset press.
- DIC - DAINIPPON Ink Company

NOTE: These settings have no effect if the application is defining its own CMYK space, known as calibrated CMYK or CIEBasedDEFG in PostScript terminology.

RGB Ink Emulation

- Native - RGB ink emulation
- sRGB
- Apple RGB
- Adobe RGB
- Colormatch RGB

NOTE: These settings have no effect if the application is defining its own RGB space, known as calibrated RGB or CIEBasedABC in PostScript terminology.



Upgrading Your Printer

System Software

“System software” is the name given to a type of software which runs the functions of your printer.

System Software downloading

From time to time there will be software upgrades available from Hewlett-Packard. System Software upgrades increase your printers functionality and enhances the features that your printer already possess. Firmware can be downloaded from the Internet.

For the latest firmware, go to <http://www.hp.com/go/designjet>. Follow the on-screen directions.

When you have the files downloaded from the Internet, you must add them to the printer using the **System Maintenance Application**.

System Maintenance Application

When you have the system software files downloaded to your PC or Mac, open the HP application: “**System Maintenance Application**”.

Select the System Software option and follow the on-screen commands.

This program scans the files you have downloaded and checks them to make sure that they are the latest upgrades and that you need them. If you do, the program installs them onto the printer's software. The System Maintenance Application is supplied on a CD-ROM which is delivered with your printer.



Other

The other tab contains miscellaneous information for your printer.

The Other tab contains five sections:

- [Maintaining the Printer](#)

Keeping your printer maintained helps to keep your printer trouble-free. This section details the procedures for keeping your printer maintained, there are cleaning procedures and tips to avoid ink deposits building up on your printer platen

- [Specifications](#)

This section includes all of the technical information on your printer.

- [Ordering Accessories](#)

When you need to order new components for your printer you will need to know the part numbers, contained here are all the part numbers for the consumable items and accessories.

- [Online Help](#)

This section describes the help that is available to you through the internet.

- [Glossary](#)

This is an explanation of the technical terms and acronyms used in the document.



Maintaining the Printer

This section contains information on taking care of your printer.

[Service Preventative Maintenance](#)

[User Maintenance Kit](#)

[Cleaning the Platen](#)

[Carriage Interconnect Wiper](#)

[Lens Maintenance](#)

[Slider Rods Lubrication Kit](#)

[Roller Lubrication Kit](#)

[Cleaning the Printer Exterior](#)

[Storing and Moving Your Printer](#)



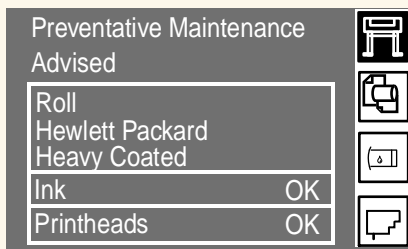
Service Preventative Maintenance

Service Preventative Maintenance Kit

During the life of your printer, components that are used constantly can wear out with time and use.

To avoid these components being so worn that the printer breaks down, the printer keeps track of the number of cycles the printer carriage makes across the axis of the printer. The number of cycles can be seen by going to Printer Setup/Utilities/Statistics.

The printer uses this number to advise you of the need for preventive maintenance, and displays the message shown below:



recommended that you call your HP representative and arrange for a preventative maintenance on-site visit. The service engineer can then replace the worn parts, this will ensure the life of the printer for a further period.

The benefits of arranging a service engineer visit when the front-panel displays this message are two fold:

1. The printer components can be replaced at a time which is convenient for you and so will not disturb your daily work flow.
2. When the service engineer performs a preventative maintenance visit he will replace several parts at once. This will prevent the necessity of repeat visits and more printer “down time”.

This message means that the components are nearing their end-of-life. You can continue printing for quite some time, depending on your use of the printer. However it is strongly



User Maintenance Kit

The printer uses liquid ink and this can form a mist inside the printer, the mist settles on the printer components and after a while, depending of the amount of use the printer has, ink deposits form inside the printer. To avoid potential problems you can order a kit with all the parts that you need to clean the printer with. The kit contains:

- Lens covers Kit
- Carriage Interconnect Wiper Kit
- Carriage Rods Lubrication kit
- Roller Lubrication kit
- Platen cleaning instructions

Use the contents of this kit to perform the following maintenance procedures and the frequency shown:


Recommended Cleaning Frequency	Procedure
When the front-panel displays 'Lens Maintenance Advice'	Refer to Lens Maintenance
Every 3 Million Cycles or every year which ever comes first. NOTE: The number of cycles can be seen by going to Printer Setup/Utilities/Statistics.	Slider Rods Lubrication Kit
Every printhead replacement or when solving a printhead problem see Printhead Status Messages	Carriage Interconnect Wiper
Use this kit if the rollers on the platen are making a squeaking noise due to the fact they need lubrication.	Roller Lubrication Kit
Depends on the intensity of usage, whenever you notice ink smears on the back of the media or before changing to a larger media size.	Cleaning the Platen



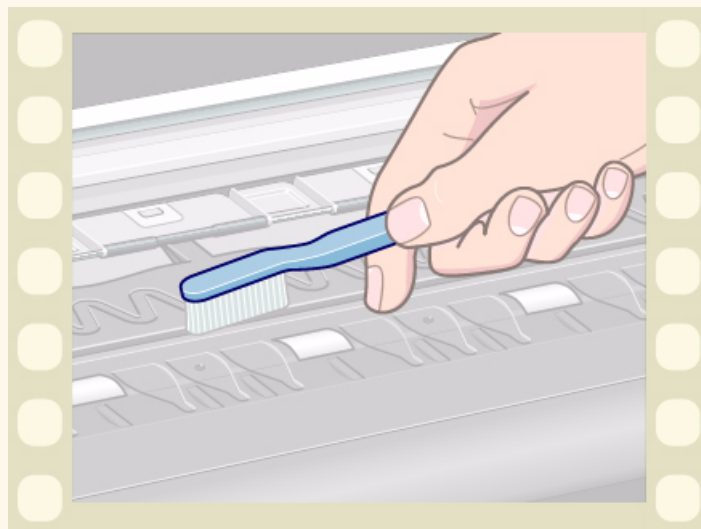
Cleaning the Platen

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.

See the [User Maintenance Kit](#) for the frequency for this procedure.

Click on this  icon to run an animation sequence of the manual cleaning procedure.

A [printable version](#) of the sequence is also available so that you can take the key illustrations to the printer, if it is remote from your computer.



[Instructions continued on next page](#)



Automatic Platen Cleaning

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.

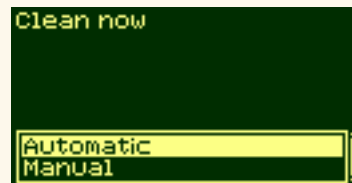
Every time you load media

To trigger the automatic cleaning process to be performed every time you load media, set:
Utilities/Clean Platen/Automatic clean=On.



On demand

To manual trigger the automatic cleaning process to be performed on demand, set:
Utilities/Clean Platen/Clean now.../Automatic.



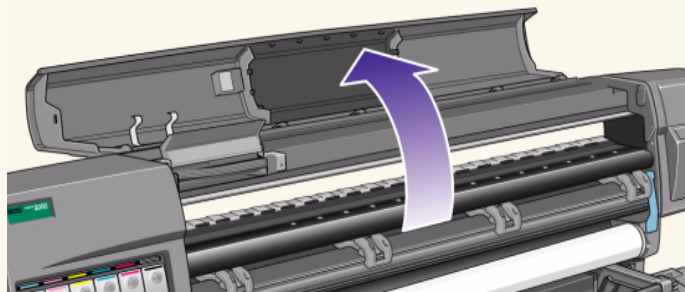
[Instructions continued on next page](#)

Manual Platen Cleaning

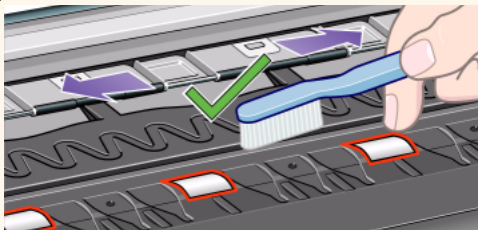
Detailed here is the process for the Manual Platen Cleaning.

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

1. Open the window.



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

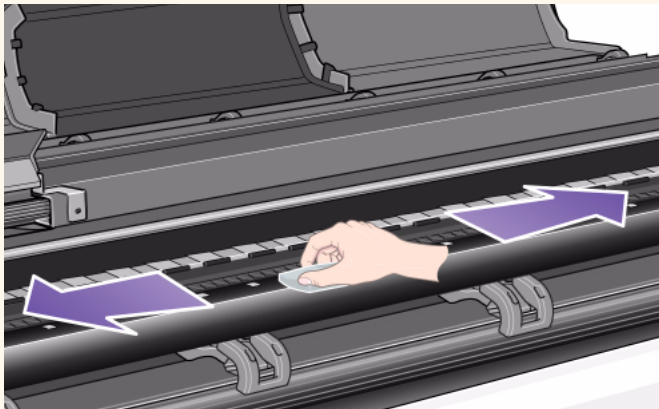


3. Also with the dry brush remove the ink deposits from the platen surface.



[Instructions continued on next page](#)

- 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 Isopropyl alcohol to dampen the cloth.

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



[Instructions continued on next page](#)

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.



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.



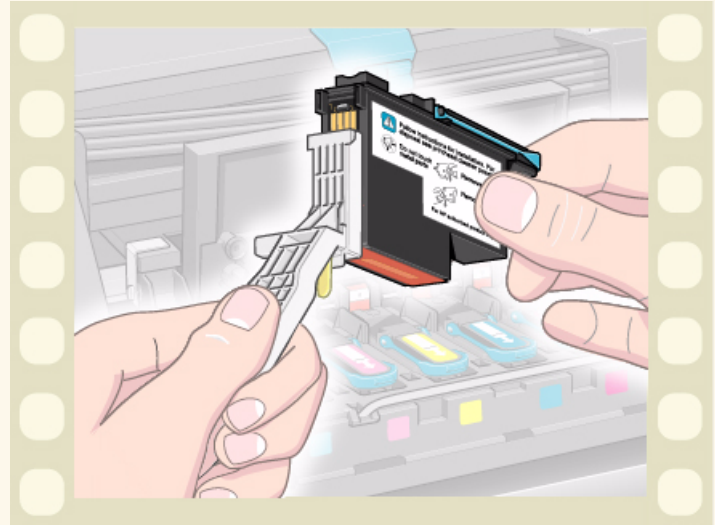
Carriage Interconnect Wiper

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.

For the frequency that this procedure should be performed see [User Maintenance Kit](#).

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



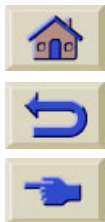
To see how, click here



. A [printable version](#) of the sequence is also available.

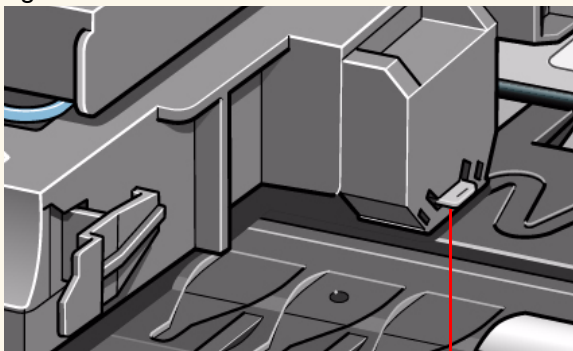
NOTE: Do not touch, wipe or attempt to clean the printhead nozzles. This can damage the printhead and reduce print quality.

NOTE: After waiting a few moments to allow both connectors to dry, replace the printhead into the carriage assembly [Printhead Installation](#).



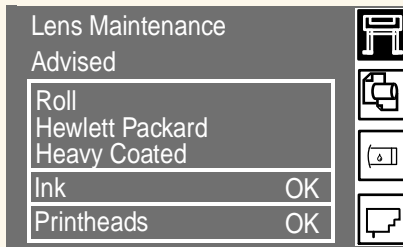
Lens Maintenance

The optical sensor on the printhead carriage has a lens cover to protect it from ink mist and other contaminants. The lens cover is located on the lower right side of the carriage.



Lens Cover

Over time, this lens cover will get dirty and need to be replaced. When the printer detects that the lens cover is dirty, it will display the message:



You should replace the lens cover to prevent any problems with printer operations due to the optical sensor.

Replacement lens covers are provided with your printer and are stored inside the window of the printer. You may replace the lens cover immediately when you see the message or wait until the next time you need to replace a printhead.

NOTE: You can continue to print if Lens Maintenance is displayed, but after awhile the printer will not be able to continue and the front-panel will display a "System Error".



Replacing the Lens Cover

1. Press the **TOP** key and press **Enter**. Go to Utilities/ Lens Maintenance.
2. The printer will display the message:

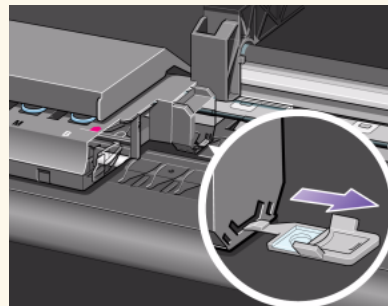
1. Open Window
2. Clean Roller Mark
3. Replace Lens
4. Close window
Press ENTER to continue

NOTE: Do not open the window before the above message is displayed.

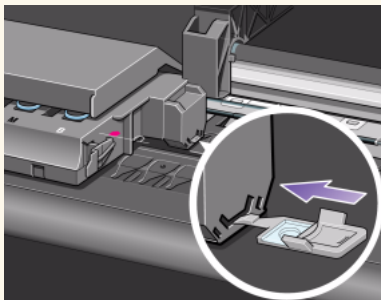
3. You will find a small slotted white plastic insert on the left end of the media roller. With a soft tissue carefully clean the top of the plastic insert.



4. Remove the dirty lens cover from the printhead carriage by pulling it straight out of the slot on the right side of the printhead carriage.



5. Take a new lens cover from inside the window of the printer, lens covers are also available from the [User Maintenance Kit](#).
6. Making sure that you do not touch the glass portion of the lens cover, install the new lens cover into the slot. Make sure the lens cover is firmly in place.



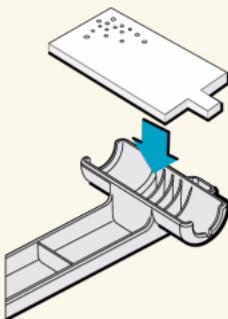
7. Close the printer window and press the **Enter** key.

NOTE: If the “Lens Maintenance Advised” message is displayed after you have replaced the lens cover with a new one, contact your HP representative.

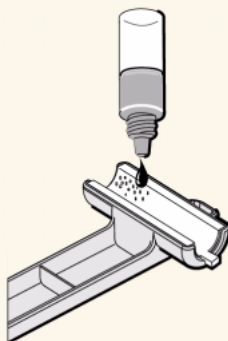


Slider Rods Lubrication Kit

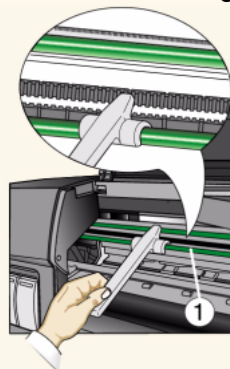
1. Install the pad into the rod wiper.



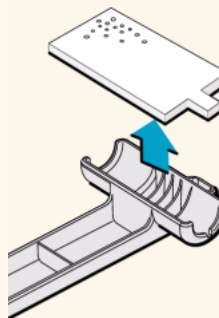
2. Apply oil (30 to 40 drops) onto the pad from the bottle of oil supplied with the kit.



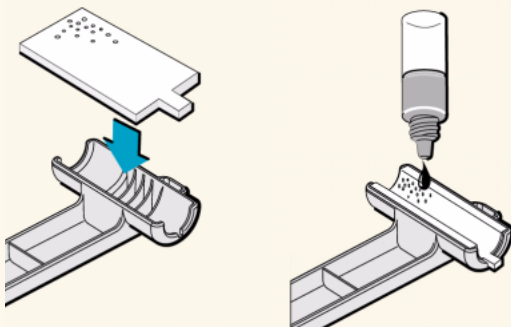
3. Open the window and wipe one of the carriage slider rods from left to right as shown below.



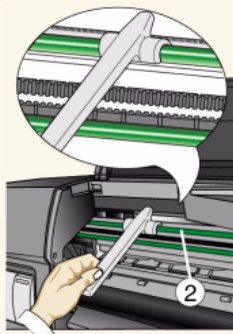
4. Remove the used pad from the rod wiper and discard.



5. Install a new pad and apply oil (30 to 40 drops) onto the pad from the bottle of oil supplied with the kit.
7. Remove the used pad from the wiper and discard.
8. Close the window.



6. Wipe the other carriage slider rod from left to right as shown below.



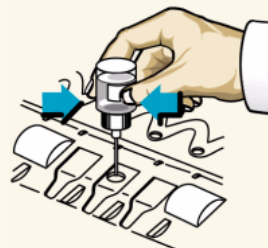
Roller Lubrication Kit

Use this kit if the rollers on the platen are making a squeaking noise due to the fact they need lubrication.

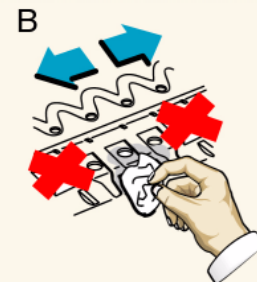
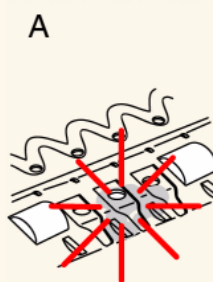
1. Open the window.
2. Using the bottle of oil which is supplied with this kit apply 10 drops of oil into the part of the platen show below:



3. Repeat the process until all of the holes in the platen have had a 10 drops of oil placed in them



4. Be careful not to spill oil onto the platen. If there is excess oil on the platen: wipe it away with the cloth supplied with the kit and close the window.



Cleaning the Printer Exterior

WARNING

To avoid an electric shock, make sure that the printer is switched OFF and unplugged before you clean it. Do not let water get inside the printer.

CAUTION

Do not use abrasive cleaners on the printer.

Cleaning the Printer Exterior

- Clean the outside of the printer as required with a damp sponge or a soft cloth and a mild household cleaner such as non-abrasive liquid soap.



Storing and Moving Your Printer

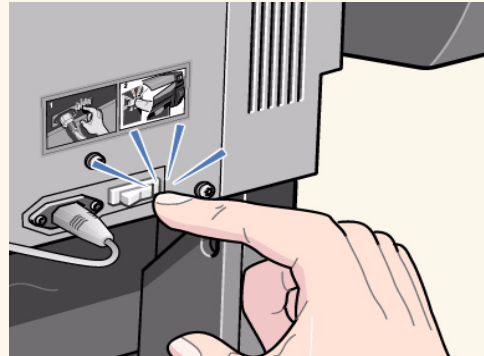
If you need to move your printer or store it for an extended period of time, you need to prepare your printer properly to avoid possible damage to the printer. To prepare your printer, follow the instructions given below:

NOTE: It is important that you do not remove the Ink Cartridges, Printheads and Printhead Cleaners before moving or storing the printer.

1. Make sure:

- No media is loaded
- The printheads are stored in the service station
- The front-panel displays: 'Ready'

2. Switch the power off at the power isolator switch at the back of the printer.



3. Disconnect any cables connected to the printer.
4. Repack the printer in its' original packaging. Refer Repacking Instructions booklet.
5. If you have to move your printer you will need the original packaging. If necessary you can order a kit of the packaging materials. Contact your HP representative and they will supply it to you. If necessary they will repackage the printer for you.



Specifications

[Printer Working Conditions](#)

[Functional Specifications](#)

[Physical Specifications](#)

[Memory Specifications](#)

[Printer Power Specification](#)

[Ecological Specifications](#)

[Environmental Specifications](#)

[Acoustic Specification](#)

[Interface Specifications](#)



Printer Working Conditions

Under cold environmental conditions outside its operating range, the printer will stop. It does this to protect the ink systems inside the printer. If this should happen the printer will display the message “Printing temperature is out of operating range”. Simply ensure the temperature is above 15°C and turn the printer off and on again. For details on the operating temperature see [Environmental Specifications](#).



Functional Specifications

Functional Specifications				
HP No.81 & 83 Supplies	Six colors: cyan, light cyan, magenta, light magenta yellow and black.			
	Printheads: 15.0 kHz	Cyan, light cyan, magenta, light magenta, yellow and black.		
	Printhead Cleaners:	Cyan, light cyan, magenta, light magenta, yellow and black.		
	Ink Cartridges:	Cyan, light cyan, magenta, light magenta, yellow and black each containing 650cc of ink.		
Media sizes	Width (carriage axis)		Length (paper axis)	
	Minimum	Maximum	Minimum	Maximum
Roll	610mm	60 inch/1.52m 42 inch 1.07m	N/A	300ft with light coated media
Sheet	210 mm	E/A0	594mm/22in	1.6m



Functional Specifications**HP Supported Medias**

HP Coated Paper
HP Coated Paper, 300ft
HP Heavyweight Coated Paper
HP Photo Imaging Gloss
HP Photo Imaging Satin
HP Paper Based Semi-Gloss
HP Studio Canvas
HP Colorfast Adhesive Vinyl
HP Banners with Tyvek™
HP Colorlucent Backlit UV
HP Satin Poster Paper

From time to time, new paper types may become available. For up-to-date information, please contact our web site www.hp.com/go/designjet You can then download the latest media profiles software see [Media Profile Downloading](#).

	Print Mode	Default	Enhanced Resolution	
Print resolution	Max. Speed Productivity Max. Quality	300 x 300dpi. 300 x 300 dpi. 600 x 600 dpi	600 x 600 600 x 600 1200 x 600 dpi (Glossy media)	



Functional Specifications

	Roll (normal)	Sheet (normal)	Roll (Extended)	Sheet (Extended)
Margins	Side Margins 7mm Leading edge Margin 35mm Trailing Edge Margin 7mm	Side Margins 7mm Leading edge Margin 35mm Trailing Edge Margin 17mm	Side Margins 15mm Leading edge Margin 35mm Trailing Edge Margin 15mm	Side Margins 15mm Leading edge Margin 35mm Trailing Edge Margin 17mm
Programming languages supported	HP-GL/2 (with kanji level 1 and 2 character sets) HP-RTL PJL, PML Adobe PostScript 3 (supports Asian fonts)			
Accuracy	0.2% of the specified vector length at 23°C (73°F), 50-60% Relative Humidity, on A0 media in Max. Quality or Productivity with HP special polyester film.			



Physical Specifications

Physical Specifications (with Ink installed or Media loaded)

Type	Weight	Length	Depth	Height
42inch /1.07m size printer	100kg	1975mm	675mm	1280mm
60 inch/1.52m size printer	120kg	2433mm	675mm	1280mm

Memory Specifications

Memory Specifications

Printer Type	Size	Memory (DRAM)	Hard Disk
HP 5000	42 inch	128 Mbyte	5 Gb
HP 5000PS			
HP 5000	60 inch	192 Mbyte	20 Gb
HP 5000PS			

Printer Power Specification

Printer Power Specifications	
Source	100-240 V ac \pm 10% autoranging
Frequency	50-60 Hz
Current	4 amp maximum.
Consumption	350 watts maximum.



Ecological Specifications

Ecological Specifications	
Energy efficiency	Compliant with Energy Star Program EPA (US).
Manufacturing process	Free of ozone-depleting chemicals (Montreal Protocol).
Plastics	Free of brominated flame retardants (PBB and PBDE). All housing parts made of the same material: ABS. Parts marked according to ISO 11469 standard.
Metals	Enclosures made of electro-galvanized steel sheet.
Packaging	Cardboard (non-chlorine-bleached) and foam are 100% recyclable. Inks used for printing do not contain heavy metals.
User Documentation	Majority provided in Adobe Acrobat PDF format on CD-ROM
Batteries	Not used.
Recyclability	Modular construction screws easy to find and disassembly done using universal tools.



Environmental Specifications

Environmental Specifications		
Printer Operating Ranges	Printing:	15°C to 35°C (59° F to 95° F) RH 20% to 80%.
	Optimal print quality for coated HP Media	15°C to 30°C (59° F to 86° F) RH 20% to 80%.
Media Operating Ranges	Optimal print quality for other HP Media (glossy, vinyl, etc)	15°C to 30°C (59° F to 86° F) RH 20% to 70%.
	Non Operating Ranges	-20°C to 55°C (-4° F to 131° F)

NOTE: If the printer temperature falls below its minimum operating temperature it may stop to protect its ink systems. See [Printer Working Conditions](#).

NOTE: With some media there may be problems printing at altitudes of 3000m and above.

NOTE: For more media specifications refer to the Media Product Sheet located at www.hp.com/go/designjet.



Acoustic Specification

Acoustic Specifications	
Operating sound pressure	55 dB (A) (From a one-meter bystander position)
Idle sound pressure	<35dB (A) (From a one-meter bystander position)
Operating sound power	70 dB(A)
Idle sound power	<48dB (A)



Interface Specifications

Cable Specifications

Parallel (IEEE-1284 compatible/Centronics) Interface

The connector on the printer is 36-pin female.

Most existing parallel cables support IEEE-1284 compatible communication, but for use with this printer, the cable must meet the specification in this table.

Pin	Wire/Signal Name	Source
1	Strobe	computer
2 ... 9	D0 ... D7 (data lines)	both
10	Ack	printer
11	Busy	printer
12	PError	printer
13	Select (SelectOut)	printer
14	AutoFd	computer
16	GND	
19 ... 30	GND	
31	Init	computer
32	Fault	printer
36	SelectIn	computer

Recommended Cables

The following cable is recommended for optimum performance and electromagnetic compatibility:

Recommended Cable for PCs and Unix Systems			
Interface type (Computer)	HP part number	Cable length	Connector type at computer end of cable
IEEE compatible/Centronics Interface (All)	C2951A	3.0 m	25-pin male



Ordering Accessories

You can order supplies and accessories in the following ways:

- Call your local authorized HP dealer.
- Contact your local HP Sales and Support office.

[Documentation](#)

[Hardware](#)

[Consumable Items](#)



Documentation

Pocket Guide

Language	HP Part Number
English	C6090-90151
Korean	C6090-90152
Taiwanese	C6090-90153
German	C6090-90154
French	C6090-90155
Spanish	C6090-90156
Italian	C6090-90157
Japanese	C6090-90158
Portuguese	C6090-90159
Chinese	C6090-90160
Czech	C6090-90161
Greek	C6090-90162
Hungarian	C6090-90163
Polish	C6090-90164
Russian	C6090-90165
Turkish	C6090-90166
Slovakian	C6090-90167
Slovenian	C6090-90168
Lithuanian	C6090-90169

Using your printer CD

Language	HP Part Number
English	C6090-60221
Korean	C6090-60222
Taiwanese	C6090-60223
German	C6090-60224
French	C6090-60225
Spanish	C6090-60226
Italian	C6090-60227
Japanese	C6090-60228
Portuguese	C6090-60229
Chinese	C6090-60230



Hardware

Item		HP Part Number
Memory Modules	64 MB	C2381A
	128 MB	C2382A
All memory expansion modules are: 4M, 8M or 16M bit x 64 Synchronous Dynamic RAM Unbuffered PC100 3.3V 168pin memory.		
JetDirect EIO	10Base-T	
Network Cards	10 Base2, 10-T, LocalTalk	
	Token Ring	
	10/100Base-TX	



Consumable Items

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HP Ink Supplies

Ink Consumable	Color	HP Ink Supplies Part Numbers	
		HP No 81 Dye Ink	HP No 83 UV Ink
Ink Cartridges	Black	C4930A	C4940A
	Cyan	C4931A	C4941A
	Magenta	C4932A	C4942A
	Yellow	C4933A	C4943A
	Light Cyan	C4934A	C4944A
	Light Magenta	C4935A	C4945A
Printheads and Printhead Cleaners Kit	Black	C4950A	C4960A
	Cyan	C4951A	C4961A
	Magenta	C4952A	C4962A
	Yellow	C4953A	C4963A
	Light Cyan	C4954A	C4964A
	Light Magenta	C4955A	C4965A
Value Pack (Printhead, Printhead Cleaner, Ink Cartridge)	Black	C4990A	C5000A
	Cyan	C4991A	C5001A
	Magenta	C4992A	C5002A
	Yellow	C4993A	C5003A
	Light Cyan	C4994A	C5004A
	Light Magenta	C4995A	C5005A



HP Printing Materials

The following table lists the different types of HP Printing Material available for your printer. New types of HP Printing Materials are always being developed so you should always check at <http://www.hp.com/go/designjet> for the latest list of printing materials.

Media Type	Size				
	24in 610mm	36in 914mm	42in 1067mm	54in 1372mm	60in 1524mm
HP Heavyweight coated paper	C6029C	C6030C	C6569C	C6570C	C6977C
HP Coated Paper 150ft (45m)	C6019B	C6020B	C6559B ^a C6567B ^b	C6560B ^a C6568B ^b	
HP Coated Paper 300ft (91m)		C6980A			
HP Photo Imaging Gloss		C6963A	C6964A		C6965A
HP Colorfast Adhesive Vinyl		C6775A		C6777A	
HP Paper Based Semi-Gloss	C6782A	C6783A		C6785A	
HP Satin Poster Paper		C7011A			
HP Studio Canvas		C6771A		C6773A	
HP Photo Imaging Satin		C6959A	C6960A		C6961A
HP Banners with Tyvek™	C6786A	C6787A		C6789A	
HP Colorlucent Backlit		C6778A		C6779A	C6780A
3M® Changeable Opaque Image Media 45ft (13.5m)		C6760A	C6781A	C6782A	

a.Available in the US, Canada & Latin America.

b.Available in Europe, Asia & Japan

Miscellaneous

Item			HP Designjet 42inch/1.07m	HP Designjet 60inch/1.52m
Spindle Assembly			C2385A	C2386A
HP Designjet 42inch/1.07m Take Up Reel kit			C6087B	
HP Ink Upgrade Kit	To use Dye based Ink	With Ink Supplies ^a	Q1284A	Q1285A
		Without Supplies	C6092A	C6093A
	To use UV based Ink	With Ink Supplies ^b	Q1286A	Q1287A
		Without Supplies ^c	C2377A	C2379A
HP Printhead Storage Container			C2383A	
Repacking Kit			Contact your HP Support representative	
HP Customer Maintenance Kit				

a.Only available in North America

b.Not available in Latin America

c.Only available in Asia Pacific and Latin America



Online Help

www.hp.com/go/designjet

Direct access to HP and the information you want, when you need it. Register now!

HP Designjet Online is a free, web-based “user club” exclusive to HP Designjet users. Having registered, the user has unrestricted access to a range of useful services, the emphasis being on “useful”, as this is definitely not a sales-oriented site.

Communication from HP to users includes:

- a quarterly newsletter focussing on usage tips, technical briefings and examples of HP Designjet applications around the world;
- full information on worldwide HP Customer Care contacts;
- an on-line HP Designjet Diagnosis troubleshooting tool;
- a calendar of HP Designjet-related events and programs;
- on-line access to training videos and selected user documents;
- and immediate information on new products.

Communication from the users to HP includes:

- feedback on HP Designjet features;
- automatic contact with HP Customer Care from the troubleshooting tool, for HP to follow up;
- and the chance to ask technical questions on large-format printing to industry experts.

And finally, communication from user to user includes the chance to win prizes by submitting HP Designjet success stories, as well as a user-to-user discussion forum where users can share best practices and ask for advice from their fellow professionals.

HP Designjet Online is available in English, German, French, Italian, Spanish and Portuguese.



Glossary

ac

Alternating current.

addressable

The printer's internal software changes the placing of the ink on the paper to obtain greater accuracy.

ANSI size

An American standard paper size; e.g. D, E.

application

The software you use to create your drawings.

Carriage Assembly

The carriage assembly is the assembly which travels across the printer platen, it contains the printheads.

Carriage Interconnect

The carriage interconnects are the flexible electrical contacts you see when you remove the printheads from the carriage. They can get ink deposits on them and so may need cleaning.

Centronics

A standard for the parallel interface between computer and device.

clipping

Losing part of a drawing at the edges.

CMYKcm

Cyan, magenta, yellow, black Light Cyan, Light Magenta. The colors of the printer's six inks.

coated paper

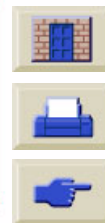
Paper coated on one side for inkjet printing.

Cycles

The number of times the carriage moves from one side of the printer and then back again to the original position.

default

A value or condition that is assumed if no other value or condition is specified.



device

An external item connected to the computer: printer, tape drive, etc. Your HP Designjet is a device.

dpi

Dots per inch, a measure of print resolution.

driver

The software that controls the communication between a computer and a device.

front-panel

The control panel on the right of the printer.

front-panel menus

The structure of options in the front-panel display.

graphics language

A programming language telling a print device how to output graphic data.

grayscale

Shades of grey to represent colors.

high-gloss photo

A glossy, opaque photographic paper.

HP-GL/2

One of Hewlett-Packard's standard graphics languages for plotters and printers. Produces vector data.

I/O Input/output

The transmission of data between a computer and a device.

ink cartridge

The part of the HP No.81/83 supplies which contains all the ink used in the printer. They are installed into the printer on the left side.

inked area

The smallest rectangle that contains all the content of the drawing, while maintaining its relative dimensions.

ISO size

An international standard paper size; e.g. A1, A2, etc.

JIS size

A Japanese standard paper size.

LAN

Local area network.



long-axis printing

Printing a page when the length is longer than a standard page size.

margin

The space around the page added by the printer to separate one page from another and to avoid printing right to the edge of the paper.

MIO Modular input/output

Refers to the printer's network interface.

nesting

Placing two or more pages side-by-side on roll paper to avoid waste.

nozzles

Located underneath the printhead. The nozzles direct the ink onto the page.

palette

A set of logical pens defined by color and width for use in HPGL/2 drawings.

PJL

Printer Job Language. A programming language that controls jobs going to a printer.

PML

Printer Management Language.

parallel interface

A type of interface between computer and device. Generally faster than a serial interface.

PANTONE

The PANTONE MATCHING SYSTEM® is an international standard for color communication in the graphics art industry.

pen

Even though the printer has no physical pens, the lines it draws match the attributes of a pen.

platen

The exterior part of the printer on which the paper rests before going into the printer.

printhead

The printhead is installed into the carriage assembly. It is the part which prints the ink onto the paper.



printhead cleaner

Part of the HP No.81/83 supplies which ensures the printhead is ready for printing at all times, it makes sure the printheads do not dry out when they are not in use. There is one printhead cleaner for each printhead.

printing area

Page size minus margins.

PostScript

A standard page-markup language, commonly used by graphics and desktop publishing software applications.

queueing

Placing each print received by the device into memory for processing with other prints.

raster

A method for defining an image, in terms of dots rather than lines. Raster data typically needs more memory than vector data.

reseating

The action of removing the printhead from the printhead carriage and then inserting it again.

RGB

Red, green and blue. A standard color model.

RIP

Raster Image Processor.

RTL (Raster Transfer Language)

One of Hewlett-Packard's standard graphics languages for plotters and printers. Produces raster data.

ROM DIMM

A physical module containing read-only data, that can be installed in the back of the printer to provide upgrades.

spindle

The rod which holds the roll of paper.

paper-axis

The vertical axis, as you look at the printer from the front in which the paper feed moves.

scan-axis

The horizontal axis, as you look at the printer from the front in which the print carriage moves.



service station

The part of the printer which services the printheads. It keeps the printheads clean and stops them from drying out.

short menu

The setting in the front-panel which allows you to not display parts of the menu structure which you do not want to see.

throughput












The quantity of information processed by the software.








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











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



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