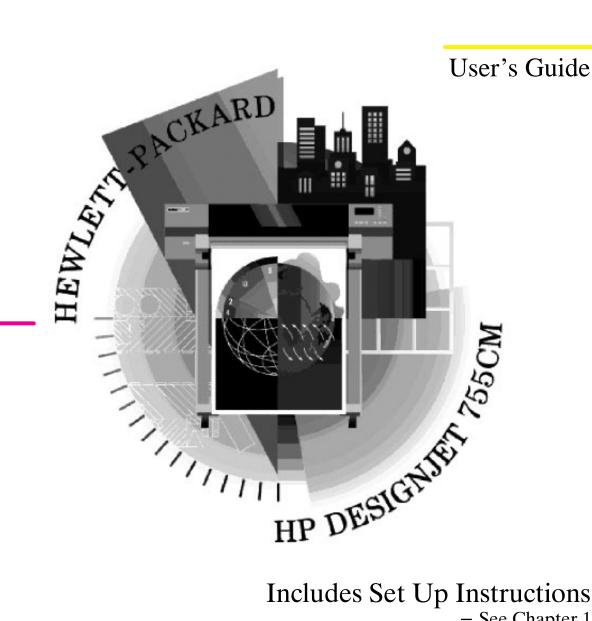


# HP DesignJet 755CM Printer



Includes Set Up Instructions – See Chapter 1

Manual part number C3198-90091 First edition, September 1996 Printed in Europe

# Customer re-order number C3198-60051

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#### Safety Symbols



The product is marked with this symbol when it is necessary for you to refer to the instruction manual in order to protect against damage to the product.



Hazardous voltage symbol.

#### WARNING

The Warning symbol calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury. Do not proceed beyond a Warning symbol until the indicated conditions are fully understood and met.

#### CAUTION

The Caution symbol calls attention to an operating procedure, practice, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product. Do not proceed beyond a Caution symbol until the indicated conditions are fully understood and met.

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#### **Obtaining Service During Warranty Period**

If your hardware should fail during the warranty period, read the "Troubleshooting" section in this guide, then contact your local Hewlett-Packard Sales and Support Office or an Authorized HP Personal Computer Dealer Repair Center and arrange for on-site repair of the product. Retain proof of purchase in order to obtain warranty service.

If a service call is prompted by the "Maintenance advised" message (see page 8-3), it is not covered under this warranty.

#### After the Warranty Period

If your hardware should fail after the warranty period, read the problem solving sections in this guide, then contact an Authorized HP Personal Computer Dealer Repair Center or call an HP Sales and Support Office for details of the services available. If you have an HP Maintenance Agreement, request service under your agreement.

#### About this edition

Edition dates are as follows:

1st edition, September 1996

New editions are complete revisions of the manual. Change sheets, which may be issued between editions, contain additional information. The dates on the title page change only when a new edition is published. Minor corrections that do not affect the function of the product may be made at reprint without a change to the print date.

Many product updates and fixes do not require manual changes and, conversely, manual corrections may be done without accompanying product changes. Therefore, do not expect a one to one correspondence between product updates and manual revisions.



C3198-90091 English

# User's Guide

# HP DesignJet 755CM Printer C3198B

# **Finding Information**

#### This User's Guide Contains:

• A comprehensive explanation of all the printer's features.

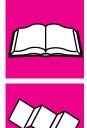
#### The Quick Reference Guide Contains:

• Some information that you are most likely to need on a day-to-day basis. For example, the front-panel menu structure and media-type selections. It is stored in the pocket at the back of the printer.

Where in this to find the most commonly	
To find how to	go to
Install the printer	► chapter 1
Connect the printer	▶ page 1-24
Choose media	▶ page 3-2
Load media	▶ page 3-9
Replace the cartridges	▶ page 3-25
See the printer's current configuration	▶ pages 7-2 and 7-3
Clear a media jam	▶ page 9-8
Solve print quality problems	▶ page 9-16
Interpret a front-panel message	▶ page 10-2
Order accessories	▶ page 11-13
To find any other information	go to the index at the back of this manual.

On page D-1 at the back of this manual, you will find a **Documentation Map**, listing useful documents to help with:

- Setting Up and Using the Printer
- Using Application Software
- Getting Support
- Programmer's Reference.



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**Documentation Map** 

Please Give Us Your Feedback (Removable)

### Welcome

#### A Five-Minute Guide To Your Printer's Main Features

The HP DesignJet 755CM printer is an E/A0 size large-format inkjet printer which can print in color or monochrome.



#### Colors

Your printer uses a set of *four disposable print cartridges* containing yellow, cyan, magenta and black inks. All other supported colors are generated from these four, up to a total of over 16 million different colors for all your needs. Two sets of four cartridges are supplied with the printer. From time to time, you will need to replace them.

Also supplied with the printer is an HP Color Management Kit, which includes software and documentation to help you print the colors you expect on your HP DesignJet 755CM printer. The software in this kit includes various color profiles: PANTONE<sup>®</sup> process color simulation tables, Adobe<sup>™</sup> PhotoShop<sup>™</sup> profiles, and Adobe PageMaker<sup>™</sup> profiles.

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#### **Print Quality**

Print resolution can be in true 300 dots per inch or addressable 600 dots per inch depending on the print quality you have selected. You can choose between three levels of print quality – Best, Normal, or Fast – either from your software or from the printer's front panel.



#### Media

You can print on rolls or sheets up to E/A0 size.

A large variety of *media types* are supported:

- High-gloss photo paper\*
- Semi-gloss photo paper\*
- High-gloss film\*
- Matte and clear film
- Coated paper
- Heavy coated paper (one roll is supplied with the printer)
- Opaque bond
- Translucent bond
- Natural tracing paper
- Vellum.

\*One roll of one of these glossy media types is supplied with the printer. In addition, a small sample of several of the above is supplied.



#### **User Interface**

The printer's front panel includes an easy-to-use interface with a two-line display, giving you access to a comprehensive set of printer functions and to a number of useful internal prints.

	Page format
I	Size

This manual includes a short tutorial to teach you how to navigate around the menus. Wherever a front-panel feature is explained in this manual, a simple graphic shows you how to access that feature in the front-panel menus.



#### **Software Applications and Drivers**

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

Three types of drivers are supplied with your printer:

- HP DesignJet PostScript<sup>®</sup> drivers for Macintosh<sup>®</sup> (QuickDraw<sup>™</sup> and QuickDraw GX) and Microsoft<sup>®</sup> Windows<sup>™</sup> applications,
- HP driver for users of Microsoft Windows applications,
- HP drivers for AutoCAD<sup>™</sup> users.

These drivers come with printed and on line documentation to help you install and configure them correctly. If you are printing using one of these drivers, then refer to *the driver's* documentation, as well as this manual, for advice on the use of this printer.

Generally, software applications include their own drivers too. With this printer we have provided free of charge a set of Software Application Notes for the most popular applications. If you find your own application in these notes, we recommend that you use the information they contain as an overall guide to configuring the software for your printer.

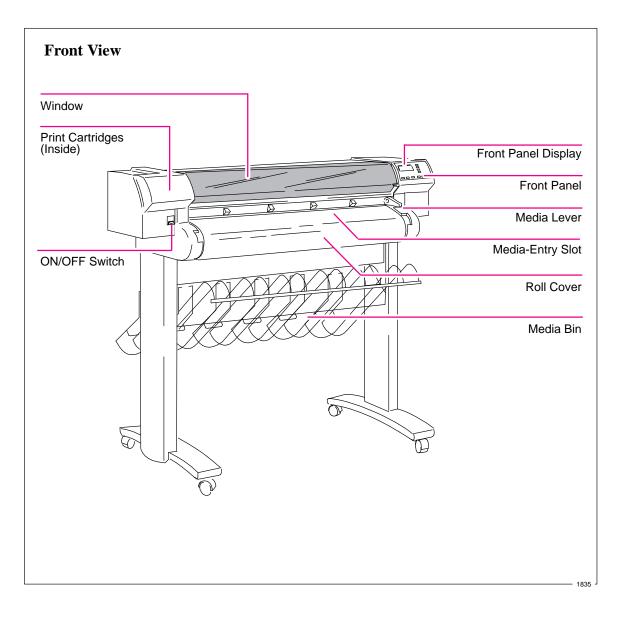
Applies *only* to PostScript files

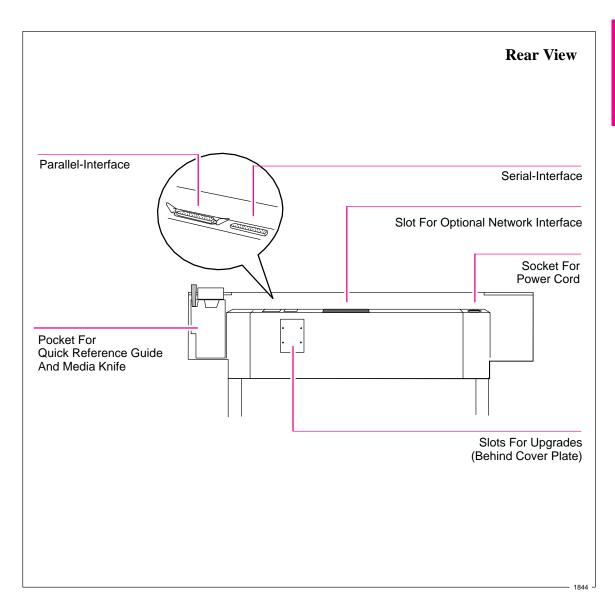
Does *not* apply to PostScript files The printer behaves differently when it receives a PostScript<sup>1</sup> file than when it receives a file in another "language" (HP-GL, HP-GL2, or RTL). For example, the printer's ability to scale images applies *only* to PostScript files, while its ability to queue files does *not* apply to PostScript files. Therefore you will see the two symbols on the left used now and then in this manual.

**IMPORTANT.** The printer does not support PostScript files created in Chinese, Korean and Taiwanese software applications.

If you don't know whether your application sends PostScript files to a printer, consult your software documentation.

<sup>&</sup>lt;sup>1</sup> Here, and 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 PC.







#### Connections

Your printer comes with an HP JetDirect network interface card, for LAN connections, as well as serial and parallel interfaces for a direct connection to your computer.



#### Memory

Your printer comes with a memory of 75 Megabytes (3 Megabytes of internal memory and 72 Megabytes of usable memory). No expansion is possible. For further details of the memory specification, see page 9-22.

# 1

Fast Track		
Set Up Checklist		
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# Setting Up the Printer

Installation, Connection, and Configuration

Setting Up the Printer Fast Track



### Fast Track

#### If You Meet All the Following Requirements:

- You want English as the language of the front-panel display and of the printer's sample prints.
- You are experienced at installing printers.
- You are going to use roll media and print in color.
- You know whether to connect the printer directly to your computer or to a network and whether to use the serial or parallel interface, and you already have the right cable.
- (Serial interface users) Your computer's RS-232-C settings are 9600 baud, no parity, 8 data bits and 1 stop bit.

... Just Follow the Six Steps on this Page, and Skip the Rest of this Chapter.

- 1 Connect the power cord and switch on.
- 2 Load the roll of media supplied, following the instructions on the label inside the printer's roll cover. Watch the front-panel display for further instructions.
- **3** Press **Access Cartridges**, open the printer's window, remove the tape from the four cartridges and load them into the carriage on the left side of the printer.
- 4 Close the window and let the printer run its automatic cartridge-alignment procedure.
- 5 Switch off the printer and your computer, connect the interface cable, and then switch them on again.
- 6 Choose your driver disk(s) and color profile disk(s), read the instructions on the label, and follow any printed instructions accompanying the disks. For many Macintosh, Microsoft Windows or AutoCAD applications, the driver is shipped with the printer. For other applications, see page 1-35 for advice, and, if necessary, contact your software vendor.

#### That's All!



# Set Up Checklist

You should already have unpacked and assembled the printer, following the Assembly Instructions in the box. Now you can set up the printer, using the checklist below as you complete each task explained in this chapter.

Task		Done? (⊬)
1	Check that you have all the items required.	
2	Switch on and change the language from English (optional).	
3	Load media.	
4	Load the print cartridges.	
5	Print the demonstration print (Optional).	
6	Connect the printer to your computer.	
7	Configure the interface (Serial interface users only).	
8	Set up your software.	
9	Print a test file.	

# Task 1: Check that You Have All the Items Required

#### Supplied

1 You need the following items, which were supplied with the printer.

#### • Power cord

The power cord supplied with your printer should meet the plug requirements for your area. However, different power cords (international options) are available. If necessary, contact your dealer or HP Sales and Support Office.

- A roll of HP glossy paper
  - A roll of HP Heavyweight Coated Paper
  - Eight print cartridges:
    - Two yellow
    - Two cyan
    - Two magenta
    - Two black

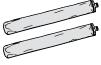




The following software packs were supplied with the printer. Whether you need them depends on which application(s) you intend to use.

- HP DesignJet PostScript Drivers for Macintosh
- HP DesignJet PostScript Driver for Microsoft Windows
- HP Plotter Drivers for AutoCAD
- HP Driver for Microsoft Windows
- HP Color Management Kit





2 Inspect the printer itself and the above accessories. If you received any item in a damaged condition, notify the dealer or HP Sales and Support Office where you purchased the printer, and file a claim with the carrier.

#### Not supplied



**3** You will also need the following items, which were not supplied with the printer.

#### • Interface cable

For details of suitable cables, see page 11-8.

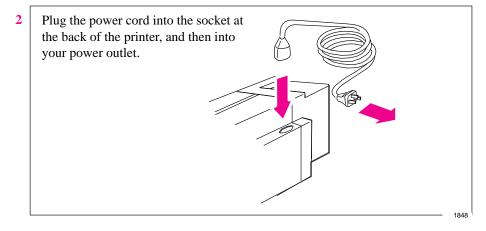
Setting Up the Printer Task 2: Switch On and (Optional) Change the Language from English

### Task 2: Switch On and Change the Language From English (Optional)

The printer's front-panel menus and all the printer's sample files are available in the following languages<sup>1</sup>: English, French, German, Italian, Japanese, Portuguese, and Spanish. By default, the language is English.

# WARNING Be sure that the power cord supplied with your printer matches your ac power connection requirements. Use only three-wire (earth-grounded) power cords with this printer.

1 Make sure that the power switch on the front of the printer is OFF.



#### If English OK or if you have already

changed the

language

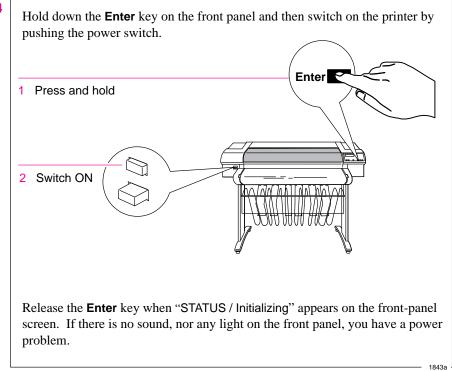
Switch on the printer by pushing the power switch. Then go to Step 5.

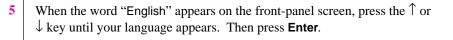
If there is no sound, nor any light on the front panel, you have a power problem.

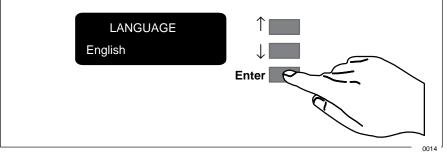
<sup>1</sup> The physical front-panel overlay is also available in Chinese and Korean.

3

If English not OK 4 or if you want to change the language







Setting Up the Printer Task 3: Load Media

# Task 3: Load Media

For advice on the availability and use of different media types, see the section starting on page 3-2.

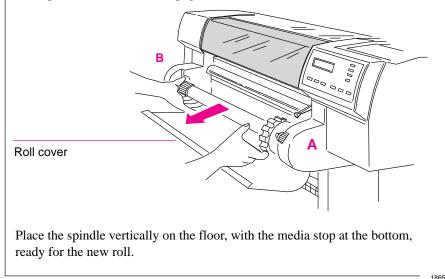
**IMPORTANT** Because the next task is to load the cartridges and carry out the automatic cartridge alignment procedure, you *must* load *opaque* media at this stage – for example, coated paper – as this is needed for the alignment procedure. Either of the rolls supplied with the printer is suitable.

To load roll media, start with step 1 below.

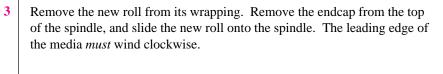
To load sheet media, go to page 1-15.

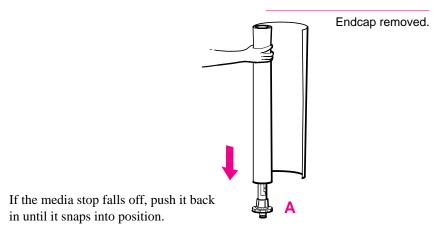
#### To Load a Roll

- 1 Make sure the printer wheels are locked (the brake levers pressed down) to prevent the printer from moving.
- 2 Open the roll cover and remove the empty spindle by pulling firmly on each end. The two ends are different: end A has a media stop and end B a smaller endcap, as shown on the next page.



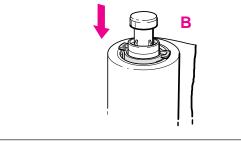
1-8



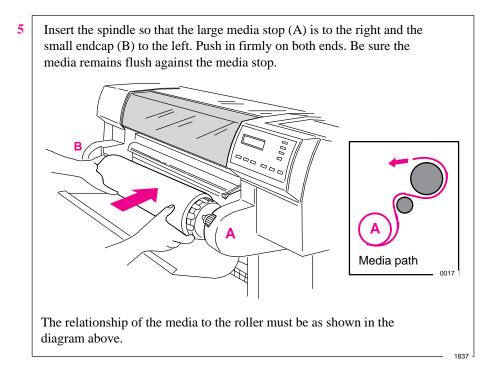


SETUP

4 Push the endcap back in, making sure that the tabs are flush against the ends of the roll. Push it far enough to be firm, but do not use excessive force as this may break the tabs.



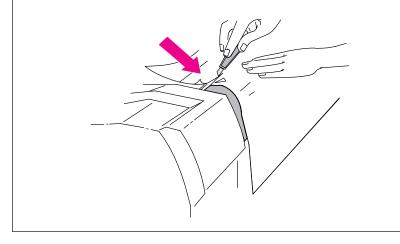
Setting Up the Printer Task 3: Load Media



6 Check the leading edge as it unwinds from the spool. If it is uneven, trim it as explained in step 7. Otherwise go to step 8.

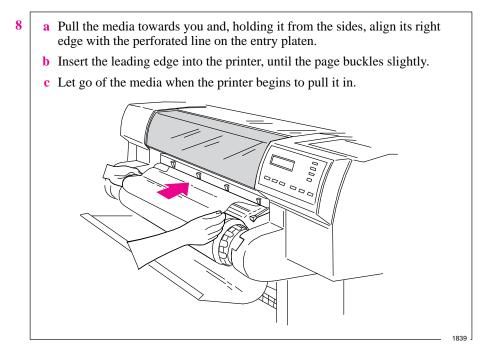
# **WARNING** The media cutting knife used in the next step is sharp. Be sure the printer's wheels are locked. Keep fingers clear of the cutting path. Keep media cutting knife away from children.

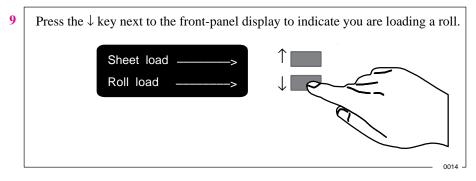
- 7 Trim the leading edge of the media roll:
  - a Pull the media over the top of the machine and lay it over the cutting track.
  - **b** Use the media cutting knife in the pocket located at the back of the printer to cut off the first few inches of the media.
  - c Retract the blade and return the media cutting knife to its pocket.



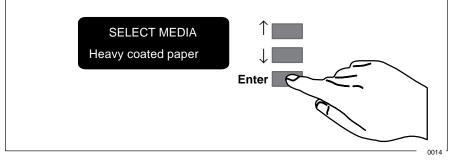
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Setting Up the Printer Task 3: Load Media





Press the  $\uparrow$  or  $\downarrow$  key until the display shows the type of media you are loading (for example, if you are using the roll of HP Heavyweight Coated Paper supplied with the printer, scroll to Heavy coated paper) and then press the **Enter** key.

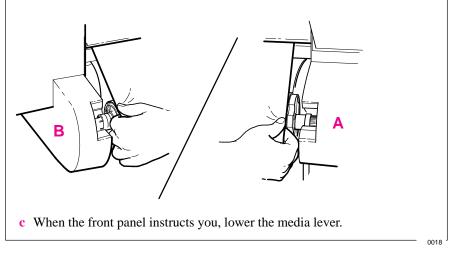


**a** When the front panel instructs you, lift the media lever.

10

11

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

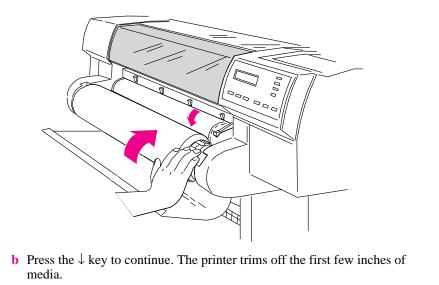


Setting Up the Printer

#### Task 3: Load Media

12

**a** When the printer instructs you to close the roll cover, rewind the media stop in the direction shown by the large arrow below, to take up any slack in the roll. Make sure that the leading edge of the media is outside the roll cover, and then close the cover.

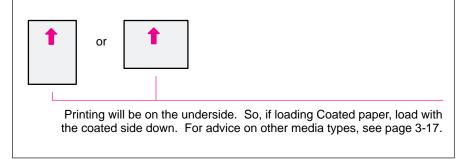


1840

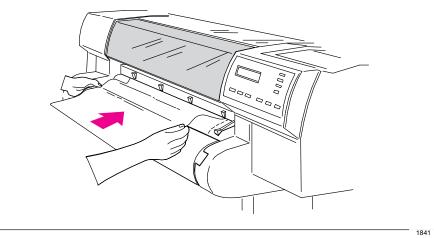
**c** The roll media is now loaded and ready for printing.

2

You can load a sheet in either portrait or landscape orientation. (Your choice of orientation is significant when sending a file from your software, but for the moment it doesn't matter.)

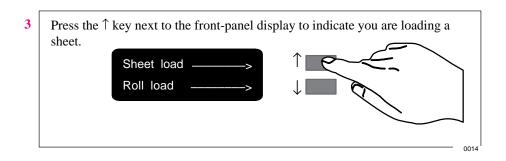


- 1 Make sure the media lever is down and the roll cover is closed.
  - **a** Holding the media from the sides, align the right edge with the perforated line on the entry platen.
    - **b** Insert the media until it buckles slightly, that is, push all the way to the media stops. Let go of the media when the printer begins to pull it in.

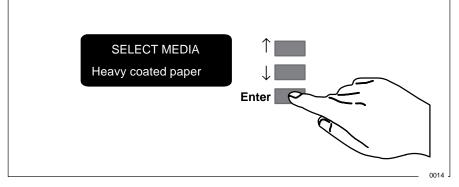


Setting Up the Printer Task 3: Load Media

4



Press the  $\uparrow$  or  $\downarrow$  key until the display shows the type of media you are loading (if you are using heavyweight coated paper, scroll to Heavy coated paper), and then press the **Enter** key.



5 The printer moves the sheet in and out to check its size and alignment, and then advances it to the start of the page. When sheet loading is complete, STATUS / Ready is displayed.

If you have persistent difficulty loading media, this may indicate poorly cut media – see page 3-20 for advice.

# **Task 4: Load the Print Cartridges**

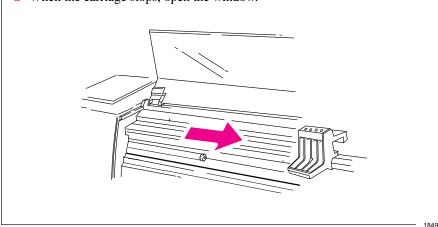
Eight cartridges are supplied with your printer: two each of yellow, cyan, magenta and black. The printer will operate successfully in monochrome with just the black cartridge loaded (except on glossy media), but these instructions assume that you are loading *all four* cartridges.

# Cartridge types **IMPORTANT** Your printer is designed to operate only with the four cartridge types whose part numbers are listed on page 11-15, and samples of which are supplied with the printer.

WARNINGDo not touch the stainless steel strip that runs the length of the printer behind<br/>the cartridge carriage; its edge is very sharp. Keep hair, jewelry, clothing,<br/>and foreign objects away from the printer mechanisms.

- **a** Press the **Access Cartridges** key and wait for the cartridge carriage to come to a complete stop next to the front panel.
  - **b** When the carriage stops, open the window.

1



## Setting Up the Printer Task 4: Load the Print Cartridges

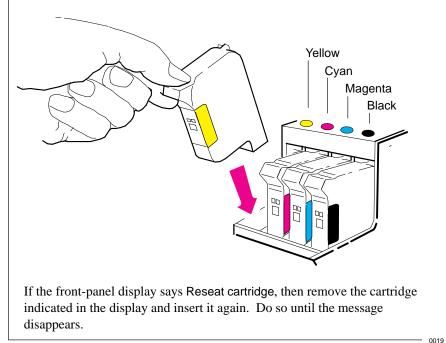
	put the correct cartridge in the correct stall. <i>For users with color-vision deficiencies:</i> You can identify the colors of the cartridges by the part numbers on the boxes – see page 11-15. The sequence of the stalls is, from left to right, yellow, cyan, magenta and black.			
CAUTION	It is essential to load the cartridges <i>with the printer switched ON</i> , otherwise you will get poor print quality, and the reliability of your cartridges will be impaired.			
	It is essential to load the cartridges <i>in the correct stalls</i> , otherwise not only will your colors be wrong, but also print quality may be impacted.			
WARNING	Keep new and used print cartridges out of the reach of children.			

2 Notice that each stall in the empty carriage has a dot indicating the color: you *must* 

- 3 For each cartridge:
  - **a** Take the cartridge out of its box.
  - **b** Remove the colored protective tape and tab from the cartridge's nozzles.



- **c** Match the color of the cartridge's label with the color of the dot above the stall.
- **d** Insert the cartridge in the correct stall. Press down lightly and push the cartridge away from you until it snaps into place.



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Setting Up the Printer Task 4: Load the Print Cartridges

4 When all four cartridges are successfully installed, the printer automatically runs the cartridge-alignment procedure. When the front-panel displays STATUS / Ready, the procedure is complete. You can throw away the small print produced during the cartridge alignment procedure.

To make your cartridges last as long as possible, you should not remove them once they are installed, except to replace them.

**CAUTION** Now that the cartridges are loaded, *never* turn the printer upside down, or ink will spill.

## Task 5: Print a Demonstration File (Optional)

Before you connect your printer to a computer, it is a good idea to print one of the internal sample files. This ensures that the printer itself is operating properly.

1 If media is not already loaded, load a roll or a sheet, as explained earlier in task 3. For advice on the availability and use of different media types, see the section starting on page 3-2.

Setting Up the Printer Task 5: (Optional) Print a Demo

2

On the front-panel display, go to Demos, as shown below.			
STATUS Ready Press Enter			
SHORT MENUS Queueing & Nesting → Press ↓			
SHORT MENUS Demos → Press <b>Enter</b>			
DEMOS Palette	Palette prints the <b>Palette</b> <b>Demo</b> , which is explained on page 5-5.		
Press <b>Enter</b> to choose this or $\downarrow$	to get to the next option		
DEMOS PostScript	PostScript prints a PostScript demo stored in the printer's firmware.		
Press <b>Enter</b> to choose this or $\downarrow$ to get to the next option			
DEMOS Samples	Samples prints a CAD demo stored in the printer's firmware.		
Press <b>Enter</b> to choose this or $\downarrow$ to get to the next option			
DEMOS Menu	Menu prints a menu tree of the entire front-panel menu structure.		
Press Enter			
If when you choose PostScript or Samples, a further menu is displayed with a choice of demos, select the one you require, by pressing $\uparrow$ or $\downarrow$ , and then press <b>Enter</b> .			

- **3** The **Receiving** light flashes while the file is being processed, and then the printer starts printing. After it has finished:
  - On roll media, the printer waits for the ink to dry, if necessary, and drops the page into the media bin.
  - On sheet media, wait until the ink is dry, if necessary (see the front-panel display for an ink-drying message), and then gently pull the sheet from the printer. On HP Coated Paper, you don't need to wait at all.
- 4 Examine the print, with the following questions particularly in mind:
  - Are the lines clean and complete?
  - Are the area fills smooth?
  - Is the color of good quality?

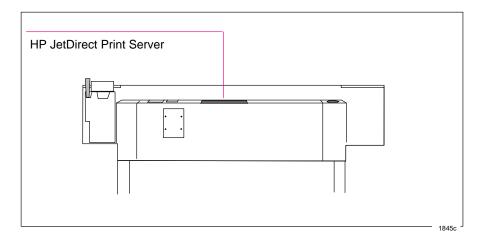
Unless you changed it, the print-quality setting on the front panel was Best. If you have any concerns about the print quality of the sample files, use the troubleshooting advice starting on page 9-16.

## **Task 6: Connect the Printer to Your Computer**

For UNIX systems, see also the tips starting on page 1-37.

## If You are Connecting the Printer Directly To a Network

Your can connect your printer directly to a Local Area Network using its **HP JetDirect Print Server**. Depending on your needs, you may want to use the network interface *instead of, or in addition to,* the parallel and serial interfaces.



For information concerning your HP JetDirect Print Server, see the *HP JetDirect Print Server Software Installation Guide*, supplied with this printer.

## If You are Connecting the Printer Directly to Your Computer

1 Decide whether to use the parallel or serial interface.

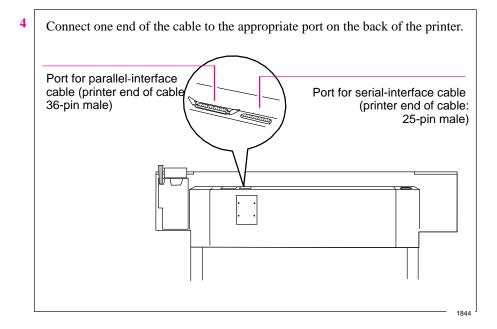
If your computer and your application software support it, use the parallel interface, as it is faster. You can connect both the parallel and the serial interface simultaneously if you wish: the printer uses the interface that first receives data.

2 Choose an interface cable.

A list of recommended HP cables for various computers starts on page 11-8.

# **AD OLPS ES** To achieve the best performance from your printer, we recommend you only use genuine *Hewlett-Packard* interface cables, whose reliability and performance have been thoroughly tested to give trouble-free performance.

3 Switch OFF the printer and then the computer.



- **5** Connect the other end of the cable to your computer. For help on choosing the correct port on the computer, refer to your computer documentation.
- 6 Switch ON the computer and then the printer.

## Task 7: Configure the Interface (Serial Interface Users Only)

The following table shows the settings available for the printer's serial interface parameters, the factory defaults and the most likely requirements for different computers.

		Like	Likely requirement for	
Parameter	Available settings	Macintosh	PC	Unix
Baud rate	1200			
	2400			
	4800			
	9600	(2)	9600	9600
	19200			
	38400			
Parity <sup>1</sup>	None (0)	(2)	None	None
	Even			
	Odd			
Italics = factory default				
Parity of None = 8 data bits, 1 stop bit Parity of Even or Odd = 7 data bits, 1 stop bit				
<sup>2</sup> Consult your software documentation.				

The settings on the printer must match those of the computer and software sending the data. Use their documentation to find the requirements. If in doubt, try with the above suggestions. If the printer's defaults already match the requirements, then you can skip the rest of this task.

## To Change the Printer's Serial Interface Settings

Through the front-panel display, you can create and save two sets of configurations for the serial interface, called Configurations A and B. By default they are set to the factory defaults shown in the table on page 1-26. The factory default configuration is always available as well, giving you up to three stored configurations to choose from.

The instructions that follow explain how to specify and apply Configuration A. Configuration B can be specified in the same way. To restore the factory default configuration see page 7-6.

Setting Up the Printer Task 7: (Serial Interface Users Only) Configure the Interface

On the front-panel display, change	the Menu mode from Short to Full.
STATUS Ready Press Enter	
SHORT MENUS Queueing & Nesting → Press ↓	If FULL MENUS is displayed instead of SHORT MENUS, you can skip this step and go to step 2.
SHORT MENUS Demos → Press ↓	
UTILITIES Menu mode=Short → Press <b>Enter</b>	
MENU MODE Short* Press↓	
MENU MODE Full	
Press Enter UTILITIES Menu mode=Full → Press <b>Previous</b>	
FULL MENUS Utilities →	

1

2	<sup>2</sup> Get to the routine for defining a new serial configuration.		
	FULL MENUS Utilities Press ↓		
	FULL MENUS I/O setup → Press <b>Enter</b>		
	I/O SETUP Modular → Press ↓		
	I/O SETUP RS-232-C →		
	Press Enter		
	RS–232–C Config=Factory →		
	Press ↓		
	RS-232-C SETUP Define config		
	Press Enter		
	DEFINE CONFIG Config A →		
	Press Enter		
	CONFIG A Baudrate=9600		

Setting Up the Printer Task 7: (Serial Interface Users Only) Configure the Interface

Configure the serial interface to match	your software configuration.
CONFIG A Baudrate=9600 →	This example changes the configuration to 19200 Baud and Even parity.
Press Enter	
BAUDRATE	
9600*	
Press ↑	
BAUDRATE	
19200	
Press Enter	
CONFIG A	
Baudrate=19200 →	
Press↓	
CONFIG A	
parity=None(0) $\rightarrow$	
Press Enter	
PARITY	
none(0)*	
Press ↓	
PARITY	
Even	
Press Enter	
CONFIG A	
Parity=Even →	RS-232-C
Press <b>Previous</b> until you return t	Config=Factory →

3

Setting Up the Printer Task 7: (Serial Interface Users Only) Configure the Interface

4	Switch to the new configuration.	
	RS-232-C	
	Config=Factory →	
	Press Enter	
	CONFIG	
	Factory*	
	Press ↓	
	CONFIG	
	Config A	
	Press Enter	
	RS-232-C	
	Config=A →	
	Press Previous until you return to	STATUS Ready

Setting Up the Printer Task 8: Set Up Your Software

## Task 8: Set Up Your Software

This section gives a **simple overview** of the software-configuration tasks you need to perform and is designed for those users unfamiliar with this type of task. It also points to documents containing detailed, application-specific advice.

More experienced users may prefer to go straight to those documents.

For UNIX systems, see also the tips starting on page 1-37.

#### **Basic Terminology**

Application software Application software means the software from which you intend to send files to your printer – for example, a graphics package, a desktop publishing system, a CAD system, etc.

Drivers Your application software needs to know to which type of printer it is sending information. This knowledge, and other configuration information, is held in a "driver." The driver is a piece of software that handles communications between your application software and your printer.

To make sure that your printer prints exactly what you expect – in terms of size, position, orientation, color and quality – use the correct driver for the combination of your application software and your printer.

## Typical Checklist of Tasks to Set Up Your Software

**1** Identify which driver you need.

Some are supplied with this printer, as listed in the table on page 1-34. Others are supplied with your application software.

- 2 If necessary, install the driver on your computer.
- 3 Add this printer to the device list in the software (Done as part of the installation routine with the PostScript driver.)

This list may be accessed, for example, through Printer type (in Macintosh applications), Printer setup (in Microsoft Windows applications) or CONFIG / Add a Printer (in AutoCAD). In most cases, you don't need to add the printer for each individual software application, but, for example, just once for all Microsoft Windows applications.

4 Install any extra color management software on your computer.

For example, you may want to install the software in the Color Management Kit supplied with this printer, in order to be able to print simulations of PANTONE colors. How to do this is explained in the documentation included in the kit.

5 Configure the driver and any color management software.

This usually involves a series of dialog boxes where you can specify such items as default media type, print quality etc.

**IMPORTANT** In most cases these settings will override any settings you make on the front panel of the printer.

#### Software and Accessories Supplied with This Printer

Use the information in the table below to decide if you need to install and set up any of the software supplied with this printer.

Item	For use on	Installation and Setup
HP JetDirect	Macintosh	Hardware pre-installed in your printer.
Print Server	Unix	Set up the software, as instructed in the
	PC	HP JetDirect documentation.
HP DesignJet	Macintosh	Firmware pre-installed in your printer.
PostScript Drivers <sup>1</sup>	PC	Install the software on your computer.
		Set up the software, as instructed in the documentation supplied.
HP Driver for Microsoft	PC	Install the software on your computer.
Windows 95 and 3.1 Applications <sup>1</sup>		Set up the software, as instructed in the driver documentation.
HP Drivers for	PC	Install the software on your computer.
AutoCAD <sup>1</sup>		Set up the software, as instructed in the driver documentation.
Color Management	Macintosh	Install the profiles on your computer.
Kit	PC	Set up the software, as instructed in the Color Management Kit documentation.
<sup>1</sup> These items are updated from time to time. For details of which software versions are supported, see the documentation included with them.		

#### Note for users of Microsoft Windows applications

In most cases, you can use either of the following two drivers:

- HP Driver for Microsoft Windows
- HP DesignJet PostScript Driver for Microsoft Windows

If your files include embedded EPS (encapsulated PostScript) images, use the PostScript driver. To use one, you do not need to install the other as well, but you can install both if you wish.

## **Other Applications**

If you are going to use applications other than AutoCAD, Microsoft Windows or Macintosh applications, first check any Software Application Notes supplied with this printer, to see if the application is covered there. If not, here is some general advice.

The device list in your software may not be up to date with the latest printers available. If the HP DesignJet 755CM is not quoted by name in your application's device list, select an alternative printer as follows:

This table does not apply to PostScript files.

Preference	Device	Comments	
1	HP DesignJet 750C		
2	HP DesignJet 350C or HP DesignJet 330		
3	HP DesignJet 250C or HP DesignJet 230		
4	HP DesignJet 220		
5	HP DesignJet 650C	With a preference for C2858B/C2859B rather than C2958A/C2859A	
6	HP DesignJet 200		
7	HP DesignJet 600 or HP DesignJet		
8	HP-GL/2 Device	or a similar option including a reference to HP-GL/2	
9	HP 7600		
10	HP 7595B DraftMaster SX or HP 7596B DraftMaster RX or HP 7599A DraftMaster MX or HP 7595C DraftMaster SX Plus or HP 7596C DraftMaster RX Plus or HP 7599B DraftMaster MX Plus		
11	HP 7586B	If you choose these devices you may not be able to use your plotter's	
12	HP 7580 or HP 7585	parallel connection – depending on the application software.	
The devices in the gray boxes support only HP-GL. The others all support HP-GL/2 and HP-GL.			



Setting Up the Printer Task 9: Print a Test File

## Task 9: Print a Test File

The sample files explained in task 5 simply verify the operation of the printer itself. Having connected the printer to your computer and configured the drivers or other software for your requirements, you should now be in a position to send a test using one of your own files.

Among the points you should be looking out for are:

- Did the **Receiving** light on the front panel come on?
- Do you see any error message on the front-panel display?
- Does the image appear in the size, orientation and position on the sheet that you expected?
- Is any of the image clipped?
- Are the lines of the correct width?
- Are the colors an exact representation of what you expected?

If you find any problem at all, start by consulting chapter 9 of this manual, "Troubleshooting." There you will find advice on many different types of problems, from obtaining no output at all, to tracking down the reason for a specific print-quality issue. In case you do not solve your problem with the information supplied there, chapter 9 also contains advice on where else to turn for help.

## **Extra Tips for UNIX Users**

## **PostScript Applications**

The Adobe PostScript drivers supplied with this printer are for Macintosh and Microsoft Windows applications only, and *not* for UNIX applications. Most UNIX applications that output PostScript files include their own embedded PostScript driver. If you have any queries about whether your application supports this printer, or have any output problems that may be linked to a UNIX PostScript driver, first check your software documentation and, if necessary, contact your software vendor for advice.

## Which Interface?

You can connect the printer to your workstation in one of two ways:

- Via the UNIX print-spooling system, using any of the interfaces: network, parallel or serial
- Directly using the serial interface
- Recommendations The *print-spooling system* is recommended, so that printing takes place in the background while you continue using your application. A *network interface* is also recommended, as it will give you not only more flexibility in locating the printer, but also the possibility of network integration and centralized printer configurations using BOOTP (Bootstrap Protocol) and TFTP (Trivial File Transfer Protocol).

If you choose the *parallel interface*, you may need a parallel-interface card for your workstation. Contact your workstation supplier for details.

Setting Up the Printer Extra Tips for UNIX Users

### **Print Spooler Configuration Examples**

## Example 1: Configuring the SunOS 4.1.3 print spooler for Sun SPARCstations (parallel interface)

In order to perform the following steps you must be superuser.

1 Create a directory for print spooling. All application users need read and write permission for this directory. For example, from the command line of a shell, type:

mkdir /usr/spool/cad chmod 777 /usr/spool/cad

2 Edit the /etc/printcap file to set up the printer configuration. You must assign a name to each printer managed by the print spooler. Refer to the example below if you need help completing this step.

Add the following lines to your /etc/printcap file. The example assumes:

- your printer is named djet,
- the device name of your parallel port is /dev/bpp0, and
- your spool directory is called /usr/spool/cad.

# Entry for an HP printer on a parallel port djet:\

:mx#0:sf:sh:\ :lp=/dev/bpp0:\ :sd=/usr/spool/cad:\ :lf=/usr/adm/lpd-errs:

## Example 2: Configuring the SunOS 4.1.3 print spooler for Sun SPARCstations (serial interface)

In order to perform the following steps you must be superuser.

1 Create a directory for print spooling. All application users need read and write permissions for this directory. For example, from the command line of a shell, type:

mkdir /usr/spool/cad chmod 777 /usr/spool/cad

- 2 Edit the /etc/printcap file to set up the printer configuration. You must assign a name to each printer managed by the print spooler. Refer to the example below if you need help completing this step.
- **3** Add the following lines to your /etc/printcap file. The example assumes:
  - your printer is named djet, and
  - your printer is connected to the device named /dev/ttya (usually the first serial port on the workstation), and
  - the spooling directory you created in step 1 is called /usr/spool/cad.

# Entry for an HP printer on a serial port djet:\

:lp=/dev/ttya:sd=/usr/spool/cad:br#9600:\
:lf=/usr/adm/lpd-errs:\
:sf:sh:mx#0:xc#0177777:xs#040040:fc#050:\
:ms=-evenp:

4 Make sure the printer's baud rate is 9600 and parity is even.

## Example 3: Configuring the SunOS 4.1.3 print spooler for Sun SPARCstations (network interface with HP JetDirect)

See the Configuration Guide shipped with the HP JetDirect Network Interface.

Setting Up the Printer Extra Tips for UNIX Users

#### Example 4: Configuring the Solaris 2.x print spooler for Sun SPARCstations

In order to perform the following steps you must be a superuser or belong to the special sysadmin (GID=14) group. If you are using the NIS+ name service, you may need NIS+ permissions to modify the printer table. Refer to your Sun documentation for details.

1 Create a directory for print spooling. All application users need read and write permission for this directory, so you must be a superuser to perform this step. For example, from the command line of a shell, type:

mkdir /usr/spool/cad chmod 777 /usr/spool/cad

2 Start the Administration Tool utility (from OpenWindows<sup>™</sup>).

% /bin/admintool

- **3** Load the Printer Manager window, and, from the Add Printer edit menu, select Add Local Printer.
- 4 In the Add Local Printer dialog box:

Item	Select
Printer Name:	For example, HP DesignJet 755CM
Printer Type:	Other, and set it to Unknown.
File Contents:	Any.
Banner:	Not required.

For full details on how to use the Printer Manager option of admintool, consult your Sun documentation.

- 5 Exit admintool.
- 6 For serial connections:
  - a Make sure the printer's baud rate is 9600 and parity is even.
  - **b** From the command line of a shell, as superuser, enter the following:

```
Ipadmin -- p pname -- o "stty='9600 evenp -- cstopb ixon ixoff"
```

where *pname* is the same as Printer Name in step 4. It is assumed that /usr/sbin is in the superuser's path.

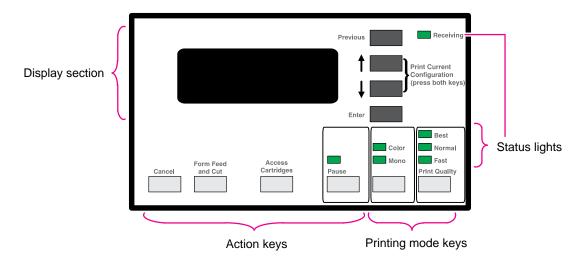
## 2

# Learning How To Use the Front Panel Display

Tutorial

Learning How To Use the Front-Panel Display The Front Panel

## **The Front Panel**

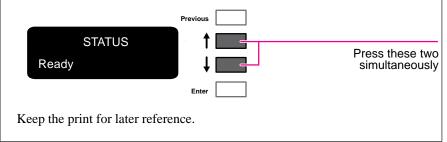


The front panel of the HP DesignJet 755CM printer is shown below:

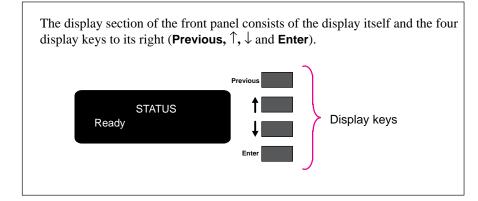
The purpose of this tutorial is to explain the use of the display section. The other sections and their use are described later in this manual.

The display section is used primarily for setting the printer's configuration, so, before the tutorial, print the *current* configuration You can return to this afterwards.

- 1 Make sure that media is loaded. See page 3-9 for loading information.
- 2 Print the **Current Configuration** print, by pressing the ↑ and ↓ keys simultaneously.

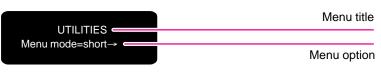


## **The Display Section**



The display can show two lines of text and is used for displaying:

• Menus, for example:



In this case, you can use the display keys to navigate the menu system and select menu options.

• Messages, for example:



These messages may concern machine status, actions required or errors.

In this case, you can use the display keys to respond to messages. See chapter 10, "Front panel messages" for more information. Learning How To Use the Front-Panel Display Printing the Menus Print

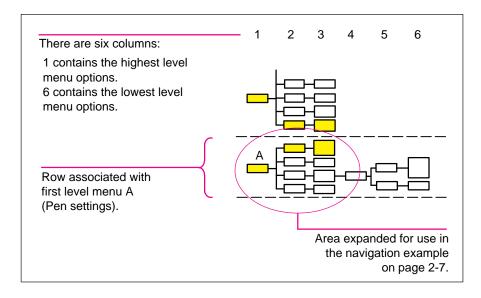
## **Printing the Menus Print**

You can see the complete menu structure available on the printer by printing the Front-Panel Menus print. To help understand the menu structure and its navigation, print it now:

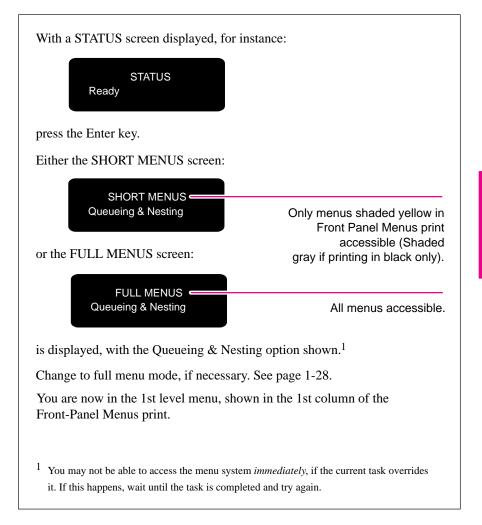
- 1 Check that media is loaded. See page 3-9 for loading information.
- 2 Select the Menu option from the DEMOS menu, as described in chapter 1, task 5 The Front-Panel Menus print will be printed.

#### **Description of the Menus Print**

Look at the Front-Panel Menus print . It shows the full menu structure. Here is a sample section of it (concerned with pen settings):



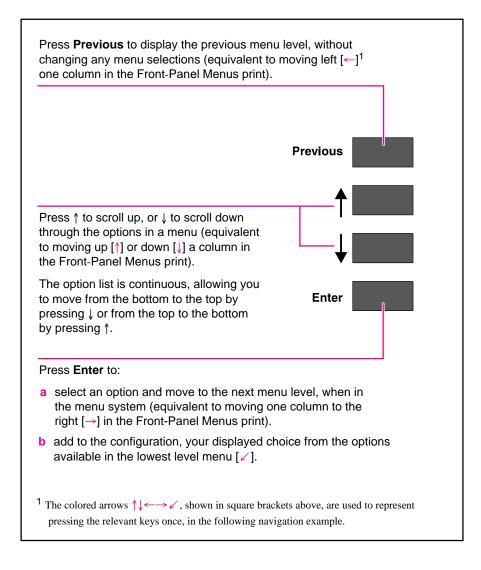
## **Entering the Menu System**



Learning How To Use the Front-Panel Display Navigating the Menu System

## Navigating the Menu System

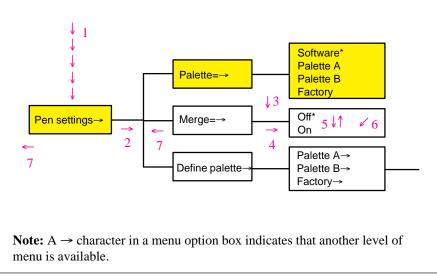
Once in the 1st-level menu, you navigate the system using the display keys.



Use this example to practice navigating the menu system. It assumes that you have entered the menu system from the STATUS screen and wish to change the Merge setting in Pen settings. The colored arrows on the excerpt of the Front-Panel Menus print below correspond to the numbered instructions.

- 1 Press the  $\downarrow$  key five times to display the Pen settings option.
- 2 Press the **Enter** key to select the option and move to the Pen settings second-level menu. The Palette option is displayed.
- 3 Press the  $\downarrow$  key once to display the Merge option.
- 4 Press the **Enter** key to select the option and move to the Merge third-level menu. The option currently selected is displayed with a \*.
- 5 Change the displayed option by pressing the  $\downarrow$  or the  $\uparrow$  key.
- 6 Press the **Enter** key to set Merge equal to the new displayed value. You will be returned to the Merge second-level menu.
- 7 To exit the menu system, press the **Previous** key twice.

If you now re–enter the menu system and repeat steps 1 to 4, you will see the option that you selected displayed with a \*.

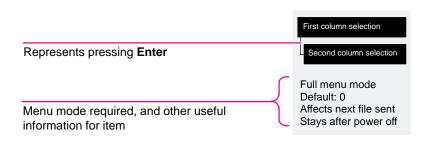


Learning How To Use the Front-Panel Display Navigating the Menu System

#### Menu Graphics Used in This Manual

At the end of this chapter, there are some examples of navigating the menu system, showing all the menu displays available. In the rest of this manual, when you need to use the menu system, a simple menu graphic will appear in the left margin giving a concise explanation of how to navigate to the exact place.

The graphics look similar to this, but further levels may be shown:



## **Other Types of Screen**

Other screens, such as those displayed for selecting media type during media loading:

SELECT MEDIA Coated paper	
or for changing the language:	
LANGUAGE English	
are in fact further examples of selec	tion menus wl

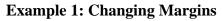
are in fact further examples of selection menus which are not part of the main menu system. These behave in the same way as other menus, in that you can scroll through the options using the  $\downarrow$  and  $\uparrow$  keys and select a displayed option using the **Enter** key.

Learning How To Use the Front-Panel Display **Examples** 

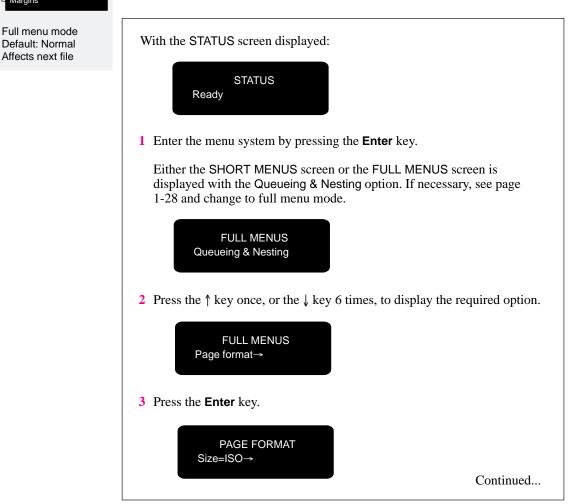
## Examples

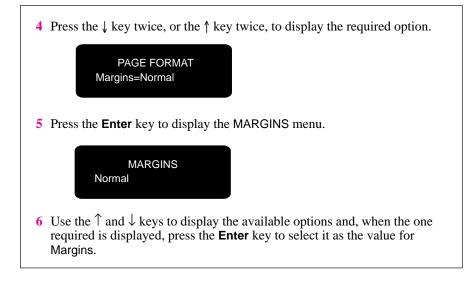
Page format

Margins

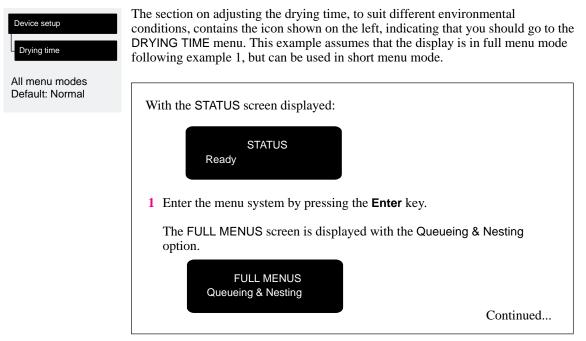


In the section of this manual that describes how to adjust the page margins, the icon on the left is shown, indicating that you should go to the MARGINS menu as follows.

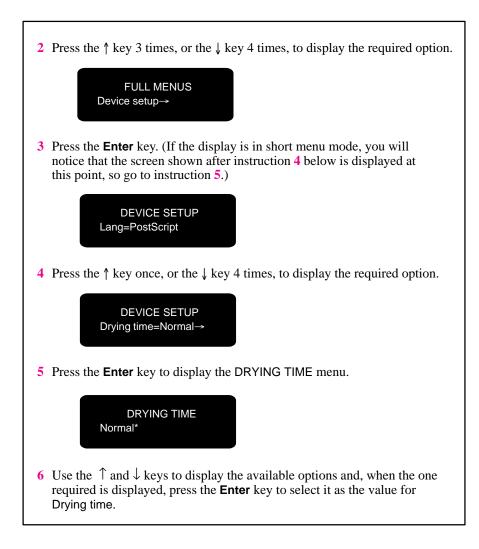




## **Example 2: Changing the Drying Time**



Z FRONT-PANEL TUTORIAL Learning How To Use the Front-Panel Display **Examples** 



## 3

Choosing Media	3-2
Caring For Your Media	3-8
Loading Media	3-9
Unloading Media3	-21
Replacing Cartridges3	-25

## Working With Media and Cartridges

Working with Media and Cartridges Choosing Media

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### **Choosing Media**

Your printer supports many types of paper and other media types. Choosing the best media type for your requirements is the first (and most important) step in ensuring good print quality. It is recommended you only use genuine Hewlett-Packard media, whose reliability and performance have been developed and thoroughly tested to give trouble-free performance and optimal print quality.

For details of Hewlett-Packard media, see page 3-3 and the HP DesignJet Papers and Films catalog supplied with the printer.

#### Five Important Points about Media Types

- When selecting different **opaque paper types**, be aware that you will use significantly less ink printing on coated types than on normal opaque bond.
- Most media types are supported , However the quality of some prints may not be as good if you do not use HP media. For media details, see the table on page 3-5.
- Whenever you load a roll or a sheet, the printer's front-panel display prompts you to specify which **media type** you are loading. It is *absolutely essential* for good print quality to specify this correctly. The table on page 3-3 gives you all the information you need. If media is already loaded and you are unsure which media type was specified, go to Utilities / Statistics in the front panel, as explained on page 7-2.
- You should also be aware of which **print quality** setting (best, normal or fast) you are using. You can set this either from your software or from the printer's front panel (*the software driver setting will override any print quality setting made on the front panel*). The combination of media type and print quality settings automatically tells the printer how to place the ink on the media for example, in terms of ink density and number of passes of the cartridges. For more details, see the tables on page(s) 3-6 and 3-7. There are print quality improvements which can be made using **sharp lines** on the front panel menu or in the Windows driver, this is described on page 5-15.
- Included with this printer is a **HP DesignJet Papers and Films catalog** which gives ordering details for Hewlett-Packard media supplies. To get the latest version of this document, contact your local HP Sales and Support office.

### **Supported Media Types**

Media Type on the Front-Panel Display	Also Known As	Commercial Name of HP Media <sup>1</sup>
Coated paper	Special paper Special inkjet paper	HP Coated Paper for the HP DesignJet 750C Plus and 755CM
	Color inkjet paper Matte paper Presentation	<b>Note:</b> HP Special Inkjet Paper is <i>not</i> supported on the HP DesignJet 755CM printer.
Heavy coated paper	Heavyweight coated paper Heavyweight special paper	HP Coated Heavyweight Paper for the HP DesignJet 750C Plus and 755CM
	Heavyweight inkjet paper Heavyweight color inkjet paper Heavyweight matte paper	<b>Note:</b> HP Heavyweight Special Inkjet Paper is <i>not</i> supported on the HP DesignJet 755CM printer.
Matte film	Matte polyester Poly matte film Mylar	HP Matte Film
Clear film	Translucent film Clear polyester	HP Clear Film
High-gloss photo	High-gloss photo paper High-gloss paper	HP High-Gloss Photo Paper
Semi-gloss photo	Semi-gloss photo paper Semi-gloss paper	HP Semi-Gloss Photo Paper
High-gloss film	High-gloss white film	HP High-Gloss White Film
Opaque bond	Printer paper	HP Opaque Bond
Translucent bond		HP Translucent Bond
Natural tracing paper	Natural tracing paper Tracing paper Extra translucent bond	HP Natural Tracing Paper YHP Tracing Paper
Vellum		HP Vellum
1 From time to time new r	nedia types may become available. Fo	r un-to-date information, please contact

<sup>1</sup> From time to time, new media types may become available. For up-to-date information, please contact your HP dealer or local HP Sales and Support Office.

Physical	Characteristics of I	Media types
----------	----------------------	-------------

Opacity	Matte or	Special coated
-	Glossy	side for printing?
Opaque	Matte	Yes <sup>1</sup>
Opaque	Matte	Yes
Semi-opaque	Matte	Yes
Clear	-	Yes
Opaque	Glossy	Yes
Opaque	Glossy	Yes
Opaque	Glossy	Yes
Opaque	Matte	No
Semi-opaque	Matte	No
Semi-opaque	Matte	No
Semi-opaque	Matte	No
	Opaque Semi-opaque Clear Opaque Opaque Opaque Semi-opaque Semi-opaque Semi-opaque	OpaqueMatteSemi-opaqueMatteClear-OpaqueGlossyOpaqueGlossyOpaqueGlossyOpaqueMatteSemi-opaqueMatteSemi-opaqueMatte

Media Type on the Front-Panel Display	Cost (Relative to Each Other)	Recommended for Color?
Coated paper	Low / moderate	Yes
Heavy coated paper	Moderate	Yes
Matte film	High	Yes
Clear film	High	Yes
High-gloss photo	High	Yes
Semi-gloss photo	High	Yes
High-gloss film	High	Yes
Opaque bond	Low	CAD drawings only <sup>1</sup>
Translucent bond	Low	No
Natural tracing paper	Moderate	CAD drawings only <sup>1</sup>
Vellum	Moderate	HP media only

#### **Cost and Color Support of Media Types**

<sup>1</sup> The limitations using non-coated media for color depends on:

- the amount of filled area in your drawing (the more there is, the less likely that the print quality on opaque bond will be satisfactory),
- the quality of the media.

### **Combinations of Media Type and Print Quality**

The table below shows that some combinations of media type and print quality are not recommended.

Media Type on the Front-Panel Display	Print Quality (Set Either on the Front Panel or In the Software)		
	Fast	Normal	Best
Coated paper	ОК	ОК	ОК
Heavy coated paper	ОК	ОК	ОК
Matte film	ОК	ОК	ОК
Clear film	ОК	ОК	ОК
High-gloss photo	Not recommended	ОК	ОК
Semi-gloss photo	Not recommended	ОК	ОК
High-gloss film	Not recommended	ОК	ОК
Opaque bond	ОК	ОК	ОК
Translucent bond	OK in monochrome only	OK in monochrome only	OK in monochrome only
Natural tracing paper	ОК	ОК	ОК
Vellum	ОК	ОК	ОК

**IMPORTANT.** If you are using an add-on a third-party Raster Image Processor (RIP), in order to create additional print modes on your printer, then the above table may not apply. In this case, consult your RIP vendor for advice on the best settings for your requirements. A clue as to whether you are using a RIP or not is the message on the printer's front panel while it is printing. If the message "STATUS / Printing (special)" appears, then you *are* using a RIP. If the message "STATUS / Printing" appears, then you are probably not using a RIP.

Application	Use	Typical Choice of Media <sup>2</sup>	Probable Choice of Print Quality <sup>3</sup>
Imaging and graphics packages color	Matte	Opaque bond (for drafts) Coated paper Heavy coated paper (for durability)	Fast, Normal or Best Fast, Normal or Best Normal or Best
	Gloss	High-gloss photo Semi-gloss photo High-gloss film	Normal or Best Normal or Best Normal or Best
	Clear film	Clear film	Best
CAD <sup>1</sup> and GIS <sup>1</sup> color	Drafts	Opaque bond Natural tracing paper Vellum Coated paper	Fast or Normal Fast or Normal
	Final versions	Coated paper Heavy coated paper (for durability) Matte film Clear film	Normal or Best Normal or Best Normal or Best Fast or Normal
	Archives	Matte film Clear film	Best Normal
	Overlays	Clear film	Fast or Normal
CAD <sup>1</sup> monochrome	Drafts	Opaque bond Translucent bond Natural tracing paper Vellum	Fast or Normal Fast or Normal Fast or Normal Fast or Normal
	Final versions	Opaque bond Matte film Clear film	Normal or Best Normal or Best Normal or Best
	Archives	Vellum Matte film Clear film	Best Best Best
	Diazo reproductions	Translucent bond Natural tracing paper Vellum Matte film	Normal or Best Normal or Best Normal or Best Normal or Best
<sup>1</sup> CAD = Computer GIS = Geographic Systems	Aided Design al Information or Mapping	<ul> <li><sup>2</sup> Using the generic media types on the front-panel display</li> <li><sup>3</sup> Set either on the front panel or in the software</li> </ul>	

### Typical Media-Type Choices by Application

### **Caring for Your Media**

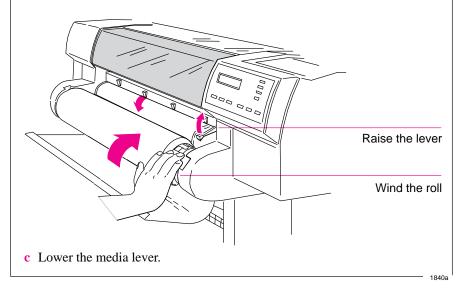
- Handle *film and glossy media* by the edge(s) or wear cotton gloves. Skin oils can interact with ink and cause it to smear.
- Make sure the media bin is installed between the printer's legs. When the printer finishes each print on roll media, it automatically cuts the page and drops it into the bin. Note that mixing page sizes can cause shorter prints to curl and shuffle in the bin.
- Colors will eventually fade or change if exposed to office light or sunlight over a period of time. Therefore:
  - avoid exposing your prints longer than necessary to direct sunlight.
  - ideally, when not using your prints, store them away from any light, for example, in a drawer.



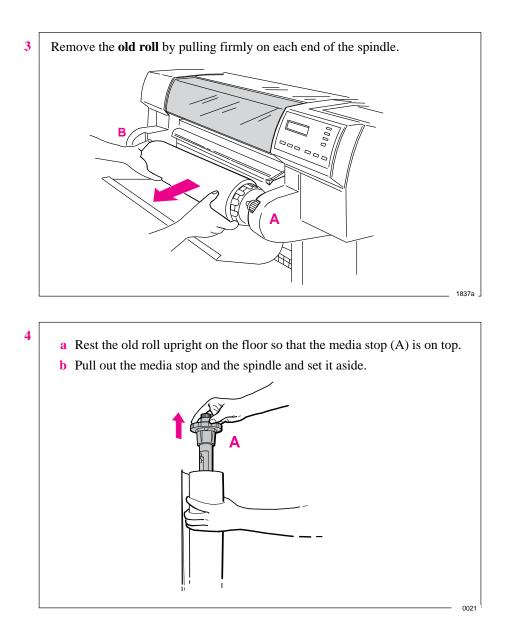
### **Loading Media**

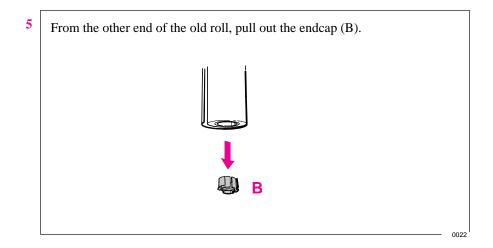
### To Change a Roll

- **1** Be sure the printer wheels are locked (the brake lever pressed down) to prevent the printer from moving.
- <sup>2</sup> *If the old roll is not used up*, then to remove the media from the media path:
  - **a** Raise the media lever to release the media.
  - **b** Open the roll cover and turn the media stop to wind the media out of the printer and onto the roll.

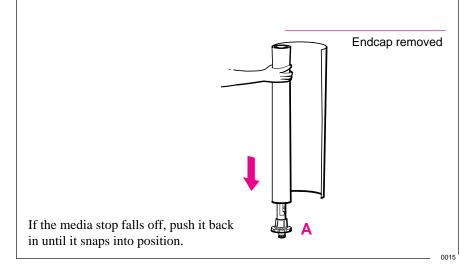


Working with Media and Cartridges Loading Media



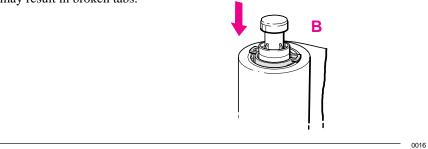


- 6 *If you are not immediately loading another roll of media into the printer*, replace the endcap on the spindle and place the spindle back in the printer. You can skip the rest of these steps.
- 7 a Remove the **new roll** from its wrapping.
  - **b** Turn the spindle upside down, that is, with the media stop at the bottom (and the end cap still removed)
  - c Place the new roll on the spindle, so that the leading edge winds *clockwise*.



Working with Media and Cartridges Loading Media

8 Push the endcap back in, making sure that the tabs are flush against the ends of the roll. Push it far enough to be firm, but do not use excessive force as this may result in broken tabs.

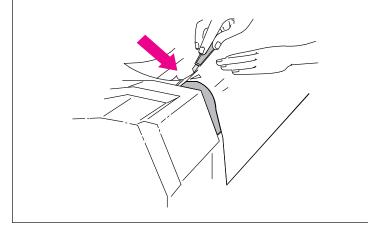


- 9 Insert the spindle so that the media stop (A) is to the right and the endcap (B) to the left. Push in firmly on both ends. Be sure the media remains flush against the media stop.

   Image: Comparison of the information of the infor
- 10 Check the leading edge as it unwinds from the spool. If it is uneven, trim it as explained in step 11. Otherwise go to step 12.

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

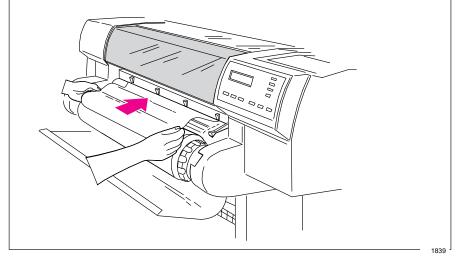
- 11 To trim the leading edge of the media roll:
  - **a** Pull the media over the top of the printer and lay it over the cutting track.
  - **b** Use the media cutting knife in the pocket located at the back of the printer to cut off the first few inches of the media.
  - c Retract the blade and return the media cutting knife to its pocket.

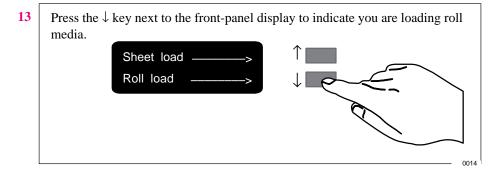


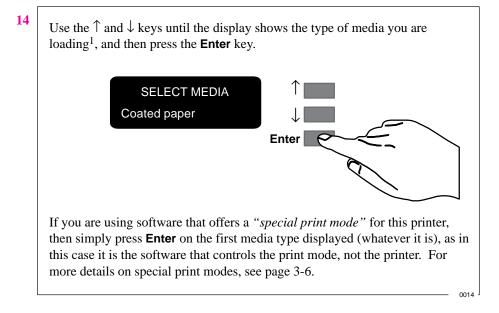
1838

12

- **a** Pull the media up and, holding it from the sides, align its right edge with the perforated line on the entry platen.
  - **b** Insert the leading edge into the printer, until the page buckles slightly.
  - c Release the media when the printer begins to pull it in.



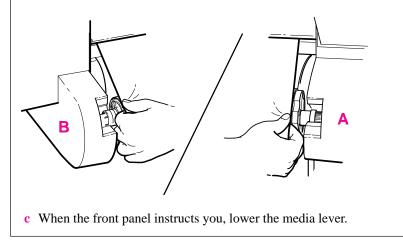




**a** When the front panel instructs you, lift the media lever.

15

**b** Take hold of the edge(s) of the media now extending from the exit slot and pull the media toward you until taut. Then align the left and right edges of the media, so that they are flush with the edges of the roll.



0018

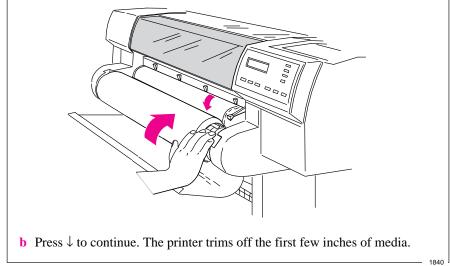
MEDIAAND CARTRIDGES

<sup>1</sup> For advice on media types, see page 3-2.

#### **Loading Media**



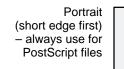
**a** When the printer instructs you to close the roll cover, rewind the media stop in the direction shown by the large arrow below, to take up any slack in the roll. Make sure the leading edge of the media is outside the roll cover, and then close the cover.



### To Load a Sheet

#### Which way round?

You can load a sheet in either portrait or landscape orientation. Unless using the Rotate option (see page 4-8), load the sheet in the same orientation as you have specified in your software. If printing a PostScript file, always load the sheet with the short edge first, even if your drawing is landscape.





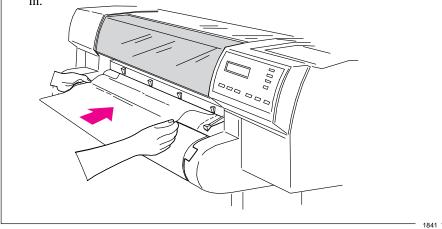
Landscape (long edge first)

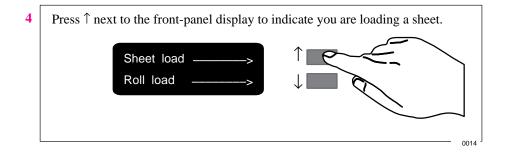
Which way up? As you load the sheet, it is the *under side* on which the printer will print. With most media types, the two sides are different and so it is important to load the sheet correctly. Refer to the table below.

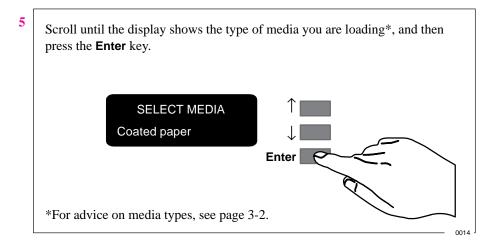
Media Type	Media-Loading Tips
Coated paper	Load with the coated side down.
Heavy coated paper	On HP Coated Paper and Heavyweight Coated Paper, look for the small notch in the corner:
	<ul> <li>When loading in a portrait orientation, make sure the notch is on the right side of the leading edge.</li> </ul>
	<ul> <li>When loading in a landscape orientation, make sure the notch is on the left side of the leading edge.</li> </ul>
Matte film	Load with the matte side down.
Clear film	Load with the rougher side down.
High-gloss photo paper	Load with the glossy side down.
Semi-gloss photo paper	
High-gloss film	
Opaque bond	Both sides are the same. If the sheet is curled,
Translucent bond	load with the curl <i>up</i> .
Natural tracing paper	
Vellum	

Working with Media and Cartridges Loading Media

- 1 If you need to, unload any roll media (see page 3-9) so that the printing area is clear.
- 2 Make sure the media lever is down and the roll cover is closed.
- **a** Holding the media from the sides, align the right edge with the perforated line on the entry platen.
  - **b** Insert the media until it buckles slightly. That is, *push all the way to the media stops*. Let go of the media when the printer begins to pull it in.







6 The printer moves the sheet in and out to check its size and alignment, then advances it to the start of the page. When sheet loading is complete, the "STATUS / Ready" message is displayed.

Working with Media and Cartridges Loading Media

#### **Compensating for Badly Cut Media**

You can only use this feature when sheet media is selected on the front panel.

If the media is persistently difficult to load, it could be an indication that it has been badly cut. That is, it has been cut unevenly with the media width on the leading edge different to the width of the trailing edge. A front-panel option called **Skew tolerance** helps you compensate for the shape of some poorly cut media. When you properly load the leading edge of poorly cut media along the perforated line on the platen, you may notice the trailing edge displaces from the line by a small distance and the printer will not accept the media. The printer can accept poorly cut media that displaces less than 1.0 cm from the perforated line.

Media that is cut properly should not need the help of the skew tolerance feature. In fact, *using this feature for properly cut media increases the risk of skewing your print on the page*.

#### **To Adjust Skew Tolerance**

Skew Tolerance in Front Panel	Maximum Acceptable Skew of Loaded Sheet	
Off	0.4 cm	
On	1.0 cm	

Full menu mode Default: Off Resets after power off

Device setup

Skew tolerance



### **Unloading Media**

### **Drying Time**

On some media types, the ink needs to dry before the media is unloaded. For roll media, the printer automatically allows the appropriate drying time before cutting the page and dropping it into the media bin. For sheet media, you should wait for the times shown in the table below before unloading the media.

Typical Drying Times (minutes)				
	Print Quality			
Media Type on the Front-Panel Display	Fast	Normal or Best		
Coated paper	0	0.25		
Coated heavy paper	0	0.25		
Matte film		2.0		
Clear film		2.0		
High-gloss photo	Not	4.0		
Semi-gloss photo	recommended	4.0		
High-gloss film		2.0		
Opaque bond	0.5	1.0		
Translucent bond	0.5	1.0		
Natural Tracing paper	0.5	1.0		
Vellum	1.0	4.0		

In the table above you will see that some media types can be unloaded immediately.

### **To Adjust Drying Time**

Device setup

Drying time

All menu modes Default: Normal You can make a global adjustment to the printer's automatic drying times through the front-panel menus.

Drying time in front panel	Result
None*	None (printer cuts page without delay).
Less	Adjusted for the driest expected environmental conditions.
Normal	As in the table on page 3-21.
More	Adjusted for the most humid expected environmental conditions.
* Not recommended if you are using roll media and leaving the printer unattended, as t may smear when the pages are dropped into the media bin.	

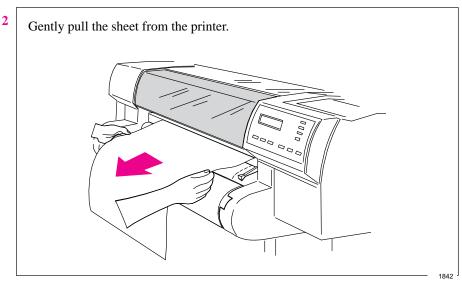
So if you are operating your printer in an extremely dry environment, choose Less; in an extremely humid environment, choose More. For environmental specifications, see page 11-4.

**IMPORTANT.** Adjusting drying times purely to speed up the printer is not recommended as the quality of your print can be impaired.



### To Unload a Sheet After Printing

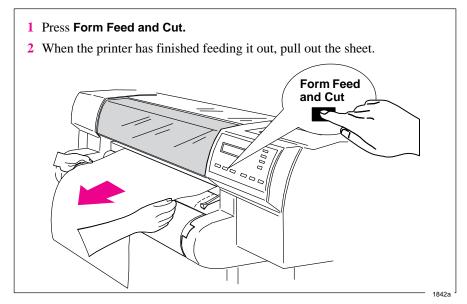
1 Wait until the appropriate drying time has passed (see table on previous page -no drying time is necessary for some media types).



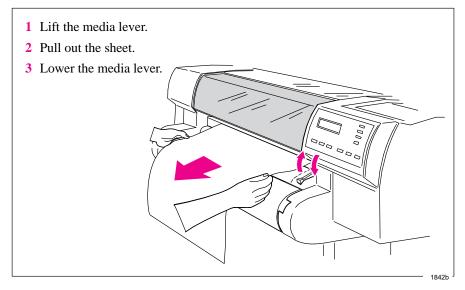
Working with Media and Cartridges Unloading Media

### To Remove an Unused Sheet

Either ...









### **Replacing Cartridges**

### When to Replace Cartridges

Replace the cartridges in the following three circumstances.

1 When the printer prompts you to replace one or more cartridges (by displaying Service cartridges on the front panel)

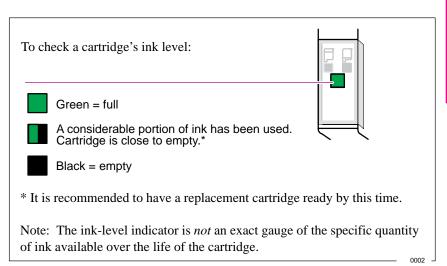
Device setup	

Cartridge check

Full menu mode Default: On The printer automatically checks before and after every print that the cartridges are seated correctly and that the nozzles are working, this is called automatic checking. You can switch off the automatic checking using the front panel menus.

Note that automatic cartridge checking does not check the ink levels.

2 When either poor print quality or the ink-level indicator on the cartridge indicates that the cartridge is out of ink.



3 When you are troubleshooting print quality problems. See Chapter 9, page 9-16.

MEDIAAND CARTRIDGES Working with Media and Cartridges Replacing Cartridges

### **Before Replacing Cartridges**

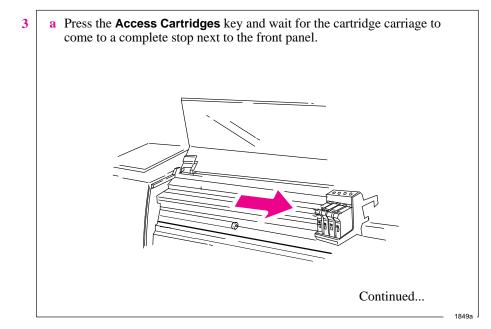
Four important points:

	1 Your printer is designed to operate <i>only</i> with the four cartridge types whose specific part numbers are listed on page 11-15. Except on glossy media types, the printer will operate successfully in monochrome with just the black cartridge loaded, although the Best print quality may not be as good as if all cartridges were loaded. Otherwise, all four <i>must</i> be loaded.
	2 Every time you replace, or even adjust, a cartridge, the printer afterwards runs an automatic alignment procedure, for which it needs an opaque media type, for example opaque bond (regular printer paper) or coated paper. So <i>make sure that either a roll or a sheet of the appropriate media is loaded before you replace a cartridge</i> . If the automatic cartridge alignment procedure is not run on a suitable media type, print quality will be affected.
	<b>3</b> Once the cartridges have been installed they should not be removed, except to replace them. This will ensure the best lifetime for your cartridges.
	4 Make sure you are aware of the general warnings and caution below.
	the cartridge carriage; its edge is very sharp. Keep hair, jewelry, clothing, and foreign objects away from the printer mechanisms. Keep new and used
CAUTION	the cartridge carriage; its edge is very sharp. Keep hair, jewelry, clothing, and foreign objects away from the printer mechanisms. Keep new and used
	<ul> <li>the cartridge carriage; its edge is very sharp. Keep hair, jewelry, clothing, and foreign objects away from the printer mechanisms. Keep new and used</li> <li>print cartridges out of the reach of children.</li> <li>Only touch the plastic parts of the cartridge. Do not touch, wipe, or attempt to clean the cartridge nozzles or contacts as they can become clogged or</li> </ul>

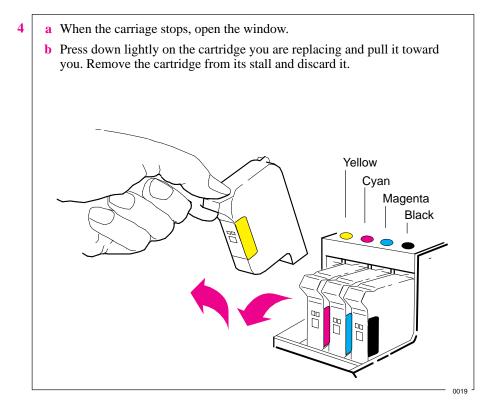
### To Replace One or More Cartridges

If you are responding to a Service cartridges request, go straight to step 4.

- 1 Start with the printer switched ON.
- 2 Make sure the front-panel display reads STATUS / Ready (not STATUS / Ready for media).



**3** MEDIAAND CARTRIDGES Working with Media and Cartridges Replacing Cartridges



5 Notice that each stall in the carriage has a dot indicating the color: when loading the new cartridge you *must* put the correct cartridge in the correct stall.

*For users with color-vision deficiencies:* You can identify the colors of the cartridges by the part numbers on the boxes – see page 11-15. The sequence of the stalls is, from left to right, yellow, cyan, magenta and black.

**CAUTION** It is absolutely essential to load the cartridges *with the printer switched ON*, otherwise you will get poor print quality and the reliability of your cartridges will be impaired.

It is absolutely essential to load the cartridges *in the correct stalls*, otherwise not only will your colors be wrong, but also print quality may be impacted.

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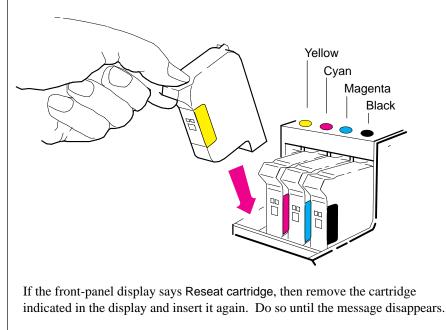
- For each cartridge in the set that needs to be replaced:
  - **a** Take the new cartridge out of its box.

6

**b** Remove the colored protective tape and tab from the cartridge's nozzles.



- **c** Match the color of the cartridge's label with the color of the dot above the stall.
- **d** Insert the cartridge in the correct stall. Press down lightly and push the cartridge away from you until it snaps into place.



MEDIAAND CARTRIDGES

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Working with Media and Cartridges Replacing Cartridges

7 When you have finished installing the cartridges, the printer runs the automatic cartridge-alignment procedure. When the front-panel displays STATUS / Ready, the procedure is complete. You can throw away the small print produced during the alignment procedure.

### 4

Page Size	4-2
Adjusting the Margins (Roll Media Only)	4-7
Rotating a Drawing	4-8
Printing a Mirror Image4	-12
Changing the Scale of a Printed Image4	-13



## Controlling the Page Format

Page Size, Margins and Other Controls

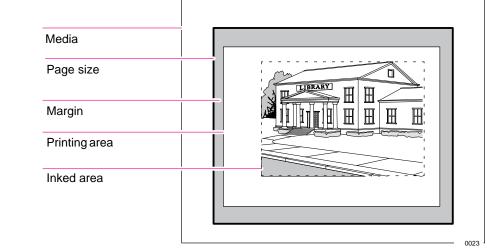
Controlling the Page Format
Page Size



Terminology

### Page Size

This chapter explains how to make sure that the printer produces your print in the page size you want.



Page size	This can be specified from the front panel or in the software, where it may be called "Page Size", "Media Size", "Paper Size" etc., and where the options include, for example, ISO A3, ANSI Letter, Architectural E and Custom. If the drivers setting is "default", the front panel setting is used. Any other software setting overrides the front panel setting, unless the latter is lnked area and you are sending a PostScript file: in this case the front panel setting takes precedence.	
Margins	These are specific to the printer and are normally 17 mm on the leading and trailing edges and 5 mm on the sides. Except with PostScript files, the 17 mm be adjusted for roll media, as explained on page 11-2.	
Printing area	This is the page size minus the margins. For a table showing the printing areas f standard media sizes, see page 11-6.	
Inked area	This is the smallest rectangle that contains the entire drawing, while maintaining its relative dimensions.	

### Do You Need to Adjust the Page Size in the Front Panel?

#### PostScript files

The answer is normally no, because the page size you have selected in your 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 you are using the Scale feature. See page 4-14.
- When you are *not* using one of the HP DesignJet PostScript drivers supplied with your printer; for example, if you are sending a PostScript file from a UNIX application.
- When you want to save media by printing only the inked area of your print, plus the margins. In this case set Page format / Size to Inked area.

#### Non-PostScript files

Depending on the driver you are using, you may not need to change the page size in the front panel. The default setting of the printer looks to your software for the page size settings: 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 Page format / Size to Inked area.

- **Note:** 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.

PS

Controlling the Page Format Page Size

#### To Adjust the Page Size in the Front Panel

#### PostScript files

**PS** 

Unless you are using the front-panel Scale option (see page 4-13), the front-panel page-size setting has 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 Scale option, then the printer uses the page size set in the printer's front panel. If this is set to Inked area, Software, or a "Best ..." option, then it takes the page *width* from this, and calculates the page *length* as 1.5 times the width. If this is set to a discrete size, it uses the specified page size.

### ≫

Page format

Non-PostScript files

	)	
T	_	
l	Size	

All menu modes Default: Software

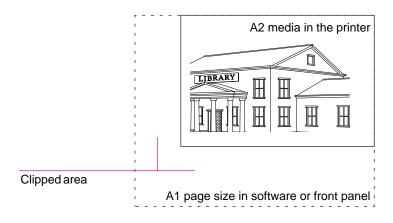
Size in Front Panel		Comments
Software		The printer looks to the print you have sent for a page size instruction. If it is present the printer uses this. If not, the printed page size is the inked area plus margins.
Inked area	1	The printed page size is the inked area plus margins. For a definition of "inked area", see page 4-2.
ISO	O Best ISO A "Best" options	"Best" options
	ISO A0/1/2/3/4	The printer chooses the smallest page size (from the A-series: A4, A3 etc.) that will hold the inked area of the print. For example, if the inked area of the print is between A3 and A4, the printer chooses A3 as the page size.
ANSI	Best ANSI	
	ANSI E/D/C/B/A	
JIS	Best JIS B	Discrete options ISO A0/1/2/3/4 ANSI E/D/C/B/A JIS B1/2/3/4 ARCH E1/E/D/C/B/A Over A1/2 The printed page size is exactly the size you specify. The largest discrete page size you
	JIS B1/2/3/4	
ARCH	Best ARCH	
	ARCH E1/E/D/C/B/A	
Oversize	(No "Best" option)	
C	Over A1/A2	can specify is E/A0.

If you need to adjust the page size from the front panel, do so *before sending the file from your computer*, as the printer determines the size of a print at the time it is received from your application.

Controlling the Page Format Page Size

#### Page Size and Clipped Images

If you specify in your software a page size that is larger than the media size loaded in the printer, the printer will still print what it can, but may clip your image.

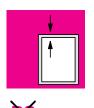




#### Page Size and Nesting (Roll Media Only)

Nesting means placing two or more pages side-by-side on a roll to save wasting media. There are certain cases when your prints will not be nested, for a complete explanation of nesting see page 6-9.

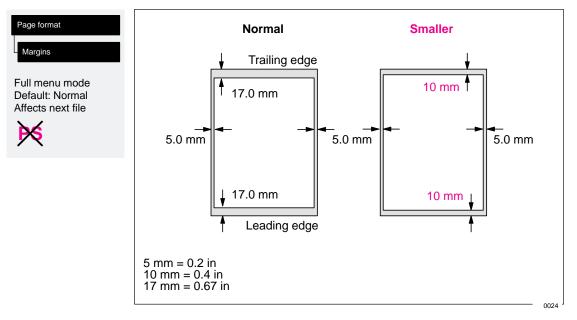
If you have queueing and nesting switched on, the printer will use the page size to determine which pages are nested and whether the pages can be automatically rotated when nesting.



### Adjusting the Margins (Roll Media Only)

Besides nesting and setting the page size, you can also change the margin settings and expand the printing area of the page, therefore reducing the amount of media waste. The two side margins are 5.0 mm. By automatic setting of the printer's margin is 17 mm on the leading and trailing edges of the media. By reducing the margins to 10 mm on the leading and trailing edges of the media, you can use 14 mm more printing area along that axis. The adjustment is available in the front panel.

With PostScript files, the margins are always "Normal".



4 PAGE FORMAT

### Margins and Automatic Cutting

**IMPORTANT.** When **Margins** is set to **Smaller**, the printer waits for the print to dry and the next file to begin printing before cutting the page from the roll. If you press **Form Feed and Cut**, the printer immediately cuts off the current page. When the next file begins, the printer cuts again to give this page the narrow margin.

Controlling the Page Format Rotating a Drawing



## **Rotating a Drawing**

### **Rotating a Drawing from the Front Panel**

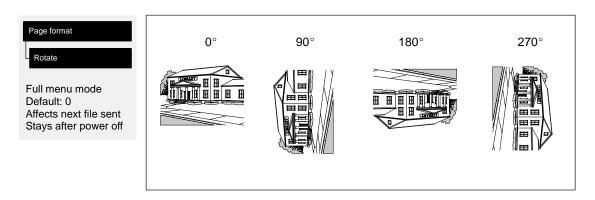
Your Drawings can only be rotated from the Page format / Rotate option in the front panel if:

- Queueing and Nesting are off (see page 6-9), and if
- the file is either a PostScript file or contains no raster data.

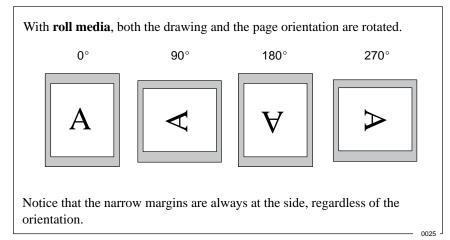
If you are using the non-PostScript Microsoft Windows driver supplied with this printer, your files *do* contain raster data and therefore you *cannot* use this Rotate option. The normal line drawings of most CAD software do *not* contain raster data, and therefore you *can* use this Rotate option.

### To Rotate a Drawing from the Front Panel

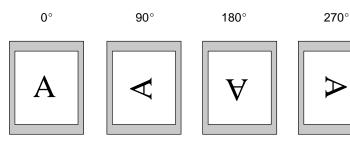
Except in the circumstances stated above, you can rotate a drawing from the printer's front panel, without changing the drawing in your software. The options are 90, 180 or 270 degrees relative to the drawing's orientation in your software. The rotation is *counterclockwise*, as shown below.



### **Exactly What is Rotated?**



With **sheet media**, the drawing is rotated, but the page orientation specified in your software is retained. (You should always load sheet media in the orientation you have specified in the software.)



The front panel's **Rotate** feature has no impact on a PostScript file printed on sheet media.



0026

Controlling the Page Format Rotating a Drawing

### How Does Rotate Interact with Your Software?

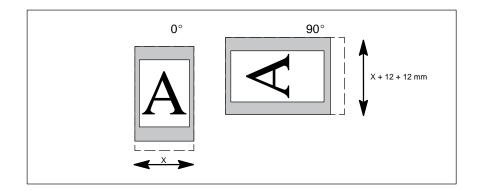
#### For PostScript files

**PS** 

- On sheet media, the front-panel Rotate feature has no impact.
- On roll media the front-panel Rotate feature does work: you may want to use it to save wasting media, by printing the page in landscape orientation, that is, with the short edge parallel to the media path. When rotated by 90° or 270° the page size is enlarged by 17-5 = 12 mm, i.e.

[leading and trailing edges] – [side margins] = 12 mm

at the top and bottom. This is to prevent the larger margins resulting from the rotation encroaching on the image.



#### For Non-PostScript Files

The printer *adds* the rotation setting to any rotation angle you specify in your software. For example:

- For software applications which, like the printer, rotate *counter-clockwise* (for example, CorelDRAW!) the result is the *sum*. For example, if your software specifies 180 degrees rotation, and you set Rotate in the front panel to 90, your drawing's final rotation will be 270 degrees.
- For software applications which rotate *clockwise* (for example, AutoCAD) the result is the *difference*. For example, if your software specifies 90 degrees rotation, and you set Rotate in the front panel to 90, there will be no rotation.

For further information on the Rotate feature see page 9-21 in the Troubleshooting chapter which details some of the most common problems.

#### Possibility of clipped images with rotated non-PostScript files

With either roll or sheet media, if you rotate a portrait drawing, it is possible that the media is not wide enough for the drawing, and so it may be clipped. For example, rotating by 90 degrees a portrait E/A0-size drawing on E/A0-size media will probably result in a clipped image.

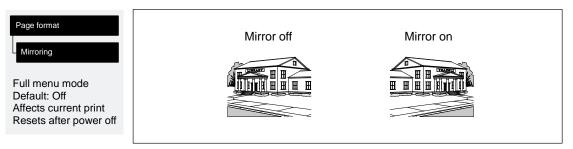


Controlling the Page Format Printing a Mirror Image



# **Printing a Mirror Image**

You can print a mirror image of the drawing from the printer's front panel, without changing the drawing in your software.



*Do not* change the setting during a print, as the change becomes effective immediately; that is, if you change the setting in the middle of the current print, the remaining data is printed in the mirrored orientation.

	/	
×	X	

# **Changing the Scale of a Printed Image**

With a PostScript file, you can enlarge your printed image from the printer's front panel by using the Scale option, accessed from the Device setup menu, as shown in the menu graphic, below left. Notice that, in order to use this feature, you have to switch the front-panel graphics language setting from Automatic (the default) to PostScript. If you regularly send non-PostScript files to your printer as well as PostScript files, it is a good idea to switch this back to Automatic after using the Scale feature.

The Scale feature is useful:

- If your software does not support large formats.
- If your file is too large for the printer's memory, and therefore you try reducing the page size in your software and then scaling it up again using this 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%

#### To scale your ISO A4 PostScript file to...

	ISO	ISO/JIS	OS	ISO/JIS	OS	ISO/JIS	OS
	A3	A2	A2	A1	A1	A0	A0
Use	141%	200%	210%	282%	352%	400%	419%

The scaling factors are cumulative with software settings. Whatever scale you choose will be used for PostScript files until you choose another scale, *even if you change the graphics language from PostScript and back again.* 

# Device setup Lang PostScript Scale

Full menu mode only

### PS

Controlling the Page Format Changing the Scale of a Printed Image

### **Scale and Page Size**

If you use this Scale option, the printer ignores the page size you set in your software and instead uses the page size set in the printer's front panel (see page 4-4).

# 5

Ways to Control the Print's Appearance
Changing Pen Widths and Colors Using the
Printer's Internal Palettes
Changing the Treatment of Overlapping Lines
(Merge Feature)
(Merge Feature)

# Controlling a Print's Overall Appearance

# Ways to Control the Prints' Appearance

**Note.** The "pens" discussed throughout this chapter are the "conceptual" pens in a software palette, rather than the printer's physical print cartridges.

This chapter discusses the ways you can control the overall appearance of your prints from the front panel in terms of:

- pen width
- pen color
- the treatment of overlapping lines
- overall lightness/darkness
- rendering color drawings in monochrome
- overall print quality and resolution.

Some of these front-panel items take effect only on the next file you send from your computer, that is, they do not affect any pages already in the printer's queue. If this is the case, it is stated in the relevant part of this chapter.

Some of the controls are available using the front-panel menus (pen width, pen color, overlapping lines and lightness). Print quality and color/monochrome print options are controlled from the front-panel keys. This chapter explains them in the sequence of the list at the top of this page.

### Why Change the Appearance of the Print Using the Front Panel Rather Than from Your Software?

By default, the printer looks to your software to provide information on all the above attributes. However, you may want to experiment with various effects, or try a temporary change, without the need to change your drawing or your driver settings.

Unless you have specifically indicated in your software that the printer's settings are to be used (by choosing, for example, Printer's Current Setting in a Macintosh Print Options window), the software settings for a PostScript file override all the printer front-panel features described in this chapter. Controlling a Print's Overall Appearance Changing Pen Widths and Colors Using the Printer's Internal Palettes



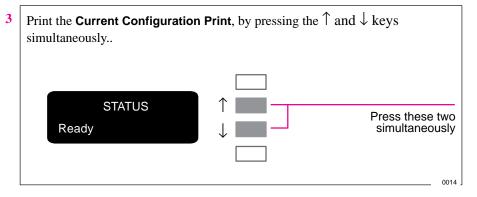
# **Changing Pen Widths and Colors Using the Printer's Internal Palettes**

The printer has three pen palettes. The factory palette cannot be changed. You can, however, change the line width and color settings for each pen in the remaining two palettes (called *palette A* and *palette B*). Initially, all three palettes are identical. Each palette has 16 pens<sup>1</sup> which can include pens of different widths and any combination of the printer's internal 256 colors.

These internal palettes have no effect on PostScript files.

### **To See the Current Palette Settings**

- 1 Make sure either a roll or a sheet of media is loaded.
- 2 Make sure that the front-panel Color/Mono switch is set to **Color**.



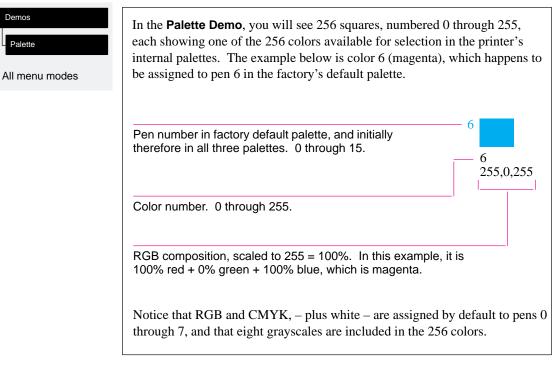
Notice on the Current Configuration Print that the 16 pens are numbered 0 through 15 and the 256 colors are numbered 0 through 255. These colors are specified in the Palette Print, as now explained.

<sup>&</sup>lt;sup>1</sup> We are discussing "conceptual" pens here.

### To See the Colors Available For a Palette

1 Make sure that the front-panel Color/Mono switch is set to Color.

2 To print the Palette Demo, go to the Demos menu and choose Palette.



The 256 colors shown in the Palette Demo 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 cartridges. The Palette Demo merely shows the 256 colors available for use in the printer's internal palettes, should you choose to use them.

Changing Pen Widths and Colors Using the Printer's Internal Palettes

### **To Change the Palette Settings**

There are three palettes: Factory, Palette A and Palette B. You cannot change the Factory palette, but you can define Palettes A and B to be whatever you choose.



ltem	Available Options
Palettes	Factory, A, B.
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 and renders some colors as a dot pattern.
Colors	0 through 255.
	As specified on the Palette Print.

The steps below explain how to define Palette A.

- 1 In the front-panel display, go to the Define Palette routine 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, press **Enter**, scroll to the width you want and then press **Enter** again. Otherwise, scroll to Color.
- 4 The current color assigned to the pen is displayed, for example Color=110. If you want to change it, press **Enter**, scroll to the color you want and then press **Enter** again.
- 5 When both width and color are correct, press **Previous**.
- 6 Scroll to the next pen number you want to change, press **Enter** and do steps 3 through 5 again.
- 7 When all pen definitions are correct, press **Previous** until you have exited the menus.

**IMPORTANT.** The palette you have just defined will take effect only when you select it to be the current palette, as explained next.

### To Change the Selection of the Current Palette

Pen settings	
Palette	

All menu modes Default: Software



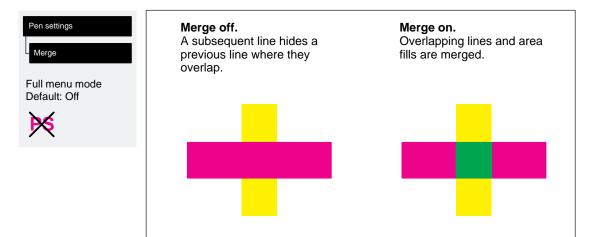
Palette	Comments
Software	The printer looks to your software for pen settings and ignores all three internal palettes.
Palette A	The printer assigns the attributes defined in Palette A to the pens defined in your software as 0 through 15.
Palette B	The printer assigns the attributes defined in Palette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

Controlling a Print's Overall Appearance Changing the Treatment of Overlapping Lines (Merge Feature)



## **Changing the Treatment of Overlapping Lines** (**Merge Feature**)

There are two alternative settings for controlling overlapping lines. The feature is called **Merge**. This feature has no effect on PostScript files.



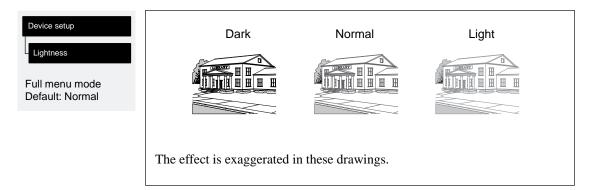
You can set this feature from your software in some applications, for example in AutoCAD.



# **Changing the Overall Lightness/Darkness of a Print**

You can change the overall lightness/darkness of a print by adjusting the amount of ink used in your prints.

The feature is called **Lightness** and affects both grayscales and colors.



As this is a simple way to change the appearance of your print, you can achieve better results if you use your software for different effects. However, some examples of situations where you may find the feature useful are:

- Where a tracing paper produces better print quality when the printer uses a smaller volume of ink.
- Where a small variation in the amount of ink used produces a significant change in the apparent darkness or color saturation of an image.
- Where you want to reduce the drying time required: for example, for glossy media in extremely humid conditions. (If you need to make a global change to drying times for extreme environmental conditions, refer to page 3-22.)

Controlling a Print's Overall Appearance Printing Color Drawings in Monochrome



# **Printing Color Drawings in Monochrome**

Examples of why you may want to print a color drawing in monochrome are:

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

Four important points:

- The monochrome print will render colors as *grayscales* rather than all as black. If you want all colors to be printed as *black*, then you should set all your colors to black in your software. This is most easily achieved in CAD software by using a pen number that is 100% black. Alternatively (except for PostScript files), you could make one of the printer's internal palettes (A or B) all black, and then select this as the current palette (see earlier in this chapter for an explanation of palettes).
- With monochrome printing, you have the option to choose between true 300 and true 600 dpi resolution (see page 5-12). This option does not apply to glossy media types, on which the resolution is always 300 dpi.
- If you send a monochrome drawing with this front-panel option set to Color, the print resolution is 300 dpi, regardless of your Print Quality setting.
- You cannot change the color/monochrome setting for pages already in the printer's queue.

Affects next file sent

### **To Switch Between Color and Monochrome**

- 1 Use the front-panel key shown below to toggle between color and monochrome.
  Color
  Mono
  Image: Color
  Image: Color<
- 2 Send the file from your computer.

The setting also impacts the printer's internal demos.

## Affects next print sent Choosing an Appropriate Print Quality



You can set the overall print quality from the front panel. The main effects of your print quality setting are shown in the table below.

Print Quality Setting	Fast	Normal	Best
Speed			
Ink Used			

General tips

By choosing Fast, you will get draft-quality output in the shortest time. By choosing Normal, and a suitable media type, you will get high-quality output in a reasonable time. By choosing Best, you will get the highest possible quality for the media type, but the printing time will be longer.

However, your printer's output speed, quality and particularly its resolution, also varies according to:

- Whether Sharp lines is set to Auto, On or Off (see page 5-15) on the front panel or in your software.
- The specification option when you loaded the media (see page 3-3)

Print Quality Setting	Resolution in dpi	
	Monochrome	Color
Fast	300 x 300	300 x 300
Normal	$600 \ge 600^1$	300 x 300
Best	$600 \ge 600^1$	$600 \ge 600^2$

The resolution at which your print will be printed is summarized in the table below.

<sup>1</sup> Or 300 x 300, depending on your driver resolution setting or the software application you have used.

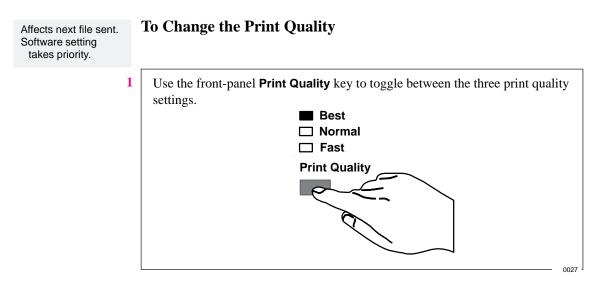
 $^2$  Addressable dpi with Sharp lines On, using opaque bond, coated paper and matte film only. This resolution depends on the type of image created in your software application.

Recommended combinations of print quality and media type are given in the table on page 3-6.

To get the very best print quality for images and drawings from graphics packages (other than CAD drawings or other line drawings):

- When loading the paper, specify "Heavy coated paper" on the front panel, rather than "Coated paper".
- Set Print Quality to "Best".

Controlling a Print's Overall Appearance Choosing an Appropriate Print Quality



2 Send the file from your computer.

The setting also impacts the printer's internal demos.

You cannot change the print quality setting for pages already in the printer's queue.

#### Device setup

Sharp lines

Full menu mode Default: Auto



### **Improving Line Quality and Graphics Detail**

The Sharp lines option refines the print quality of line drawings by *smoothing* the fine gradations along the angles and curves of the printed image. This enhancement produces:

- Crisper lines.
- Finer detail.
- Line drawings with a 'sharp' appearance.

Only prints that have color content are affected by the Sharp lines option to produce addressable 600 dpi resolution. Monochrome images are not affected by the Sharp lines option as these are produced in true 300 or 600 dpi resolution, depending on the print quality that you have selected.

The Sharp lines option has has three settings, Auto, Off and On, and can be set either through the front-panel menu or HP supported Windows drivers. The factory default setting is Auto.

With Sharp lines set to Auto you will always get best quality color prints, except when you send the following files:

- Mixed lines and scanned color images.
- Mixed lines and color photographs.
- CorelDRAW! (with color images).

For these files it is recommended that the Sharp lines default setting is changed, depending on your preference for image or line quality:

- Select On if you have a file which contains line and color images and you want the lines to be printed in Best quality, even if there is possible degradation to the quality of the color image.
- Select Off if you have a file which contains line and color images and you want to optimize the quality of the color images.
- Select Off if the print is a complex vector file, such as a CorelDRAW! The print quality will be optimized for these circumstances.
- Select Off if the output speed of the printer is more important than Best quality.

For further information on Sharp lines see Troubleshooting, page 9-15.

# **Important** With the Sharp lines set to Auto or On in the front-panel menu, the printer may not always produce an addressable 600 dpi print. This may be because:

- You have not selected Best on the front-panel **Print Quality** key, refer to page 5-14.
- You are using media other than Coated paper, Opaque bond or Matte film.
- Your application-software driver is overriding the front-panel selection.
- You are printing a color raster image or a line drawing combined with a color raster image.

# 6

Managing Pages Being Printed or Drying	6-2
Managing Pages Not Yet Printed (The Queue)	6-4
Avoiding Media Waste by Nesting Pages (Roll Media Only)	6-9

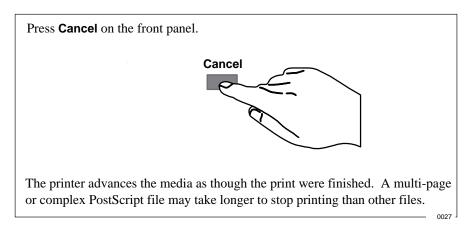
# Managing Your Prints

Managing Your Prints Managing Pages Currently Being Printed or Drying



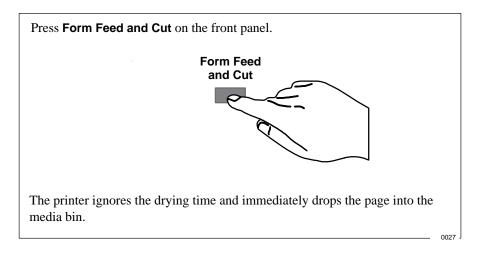
## **Managing Pages Currently Being Printed or Drying**

To Cancel a Page



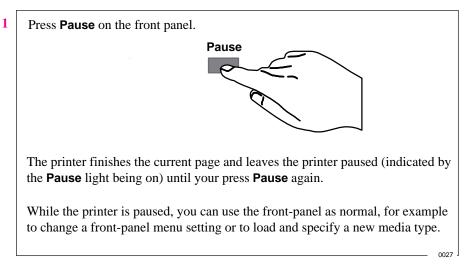
If queueing is on and there are no more pages in the queue, the cancelled page is placed in the queue and you can reprint it as explained on page 6-8. If, in addition to cancelling the page, you want to delete it from the queue, see page 6-7.

### To Cut a Page Before Drying Is Complete (Roll Media Only)



### To Pause while Printing a Series of Pages

You can pause between two pages already sent from your computer, for example to change the media type or replace the cartridges.



2 To resume printing, press **Pause** again.

Managing Your Prints Managing Pages Not Yet Printed (The Queue)

# **Managing Pages Not Yet Printed (The Queue)**

The normal sequence of events is:

- 1 You send a file from your computer (or choose one of the internal sample pages from the Demos menu).
- 2 The printer's Receiving light flashes while it receives and processes the data.
- **3** The printer starts printing or, if queueing is on, places it in the queue until its turn comes round.

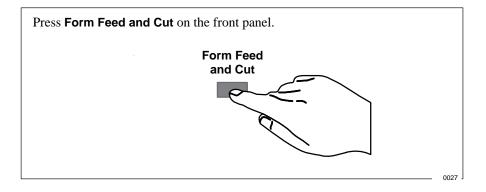
**IMPORTANT.** If you send a PostScript file, you will automatically empty the queue, as PostScript files cannot be queued.

### To Start Printing a File That is Waiting for a Timeout

If all is in order (media loaded, cartridges loaded, no file error), there are still two 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 timeout period before assuming it is complete. See page 7-9.
- Nesting may be on and the printer is waiting for the specified Nest wait timeout period before calculating the appropriate nests. See page 6-11.

In either case, if you want to override the timeout period and start printing:



### What is the Queue?

Your printer can store files in a queue at the same time as printing the current file. It stores them by *page*, though if you send only single-page files, you can regard these as files. The size of the queue is limited by the number of pages (maximum 32) and the total memory occupied by the queue (67 MB standard memory, being 71 MB less 4 MB main memory). Remember that file size and memory usage are not the same thing, as explained on page 9-22. However, it is clear that the larger are your files, the fewer you can store in the queue.

Queueing & Nesting	With queueing turned ON:
- Queue	• You can send one or more pages to the printer without waiting for the current page to finish.
Full menu mode Default: On	• You can manipulate the pages in the queue, for example prioritizing them and reprinting them.

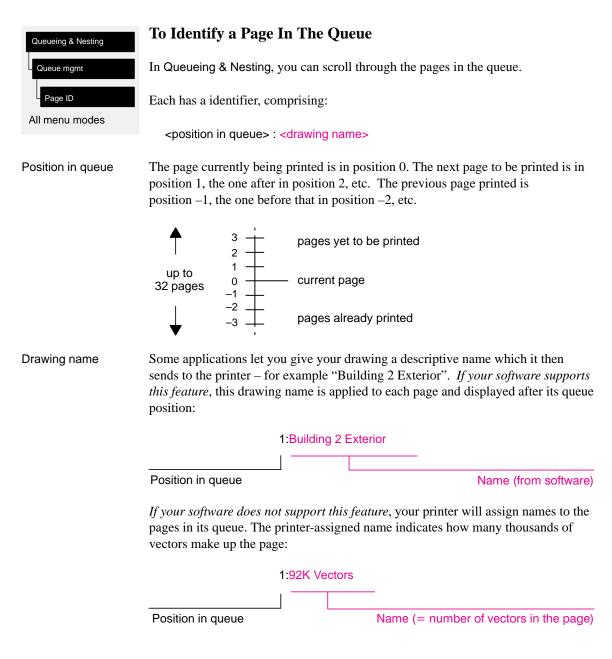
• You can use nesting, the printer's media-saving feature (see page 6-9).

With queueing turned OFF:

- The printer will not accept a file sent from the computer until the current page has finished printing and the printer is ready.
- You cannot use nesting (see page 6-9).

If you turn queueing off while pages are still in the queue, they will be printed and – if nesting is on – nested, until the queue is empty.

Managing Your Prints Managing Pages Not Yet Printed (The Queue)



Note that this is not an indication of the amount of memory the page requires. For that, see page 9-22.

### To See the Size of a Page In the Queue



All menu modes

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

### To Prioritize a Page in the Queue

Move to top.

#### Page ID

#### Move to top

All menu modes

If nesting is turned on (see page 6-9), the prioritized page may still be nested with others. If you really want this page 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.

To make any page in the queue the next one to be printed, select it and choose

### To Delete a Page From The Queue



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

To remove a page that has not yet been printed, simply identify it by it's position in the queue (see page 6-6) and delete it, by choosing Delete page.

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

### To Make Copies of a Page in The Queue

Has the page already been printed?	Do you want one copy or several?	What to do
Yes	One	Use Move to top (see page 6-7).
	Several	Use Copies (see below) and then use Move to top (see page 6-7).
No	One	Use Copies (see below).
	Several	

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

Page ID

Copies

All menu modes Default: 1 Having selected the page and chosen Copies, use the scrolling keys to specify the number of copies required, and press **Enter**. The number you enter is the actual number of pages to be printed; for example, choosing 2 for a page not yet printed means you will get the one original and one copy. The maximum is 99.

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

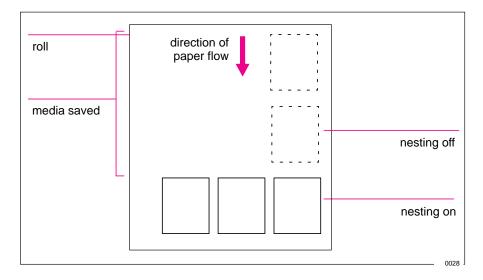
Note that, if Rotate (see page 4-8) was on when you sent the file, every copy will be rotated too.

**P**S

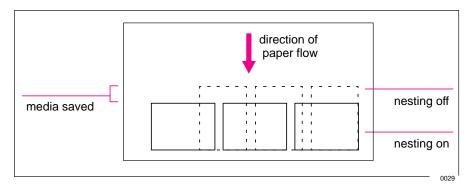
## Avoiding Media Waste by Nesting Pages (Roll Media Only)

### What is Nesting?

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



The printer may automatically rotate a page in nesting (see page 6-10). It may do this even with a single page.



6 PRINT MANAGMENT

### When Does the Printer Try to Nest Pages?

When all the following are true:

- The printer is loaded with roll media rather than sheet media.
- In the front-panel menus, Queue is ON (the default). See page 6-5.
- In the front-panel menus, Nest is ON (that is, set to either Optimal or In order). See page 6-11.

### Which Pages Qualify for Nesting?

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

Color or monochrome

Either all are color or all are monochrome. Remember that monochrome may include a color page rendered in grayscales by use of the front-panel Color/ Mono key – see page 5-10.

• Print resolution

Either all are 300 dpi or all are 600 dpi – see page 5-13.

### Which Pages May be Rotated?

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

If you are using the Microsoft Windows driver supplied with this printer, your files *do* contain raster data and therefore the pages will *not* be rotated in nesting. The normal line drawings of most CAD software do *not* contain raster data, and therefore *may* be rotated in nesting.

Queueing & Nesting	
Nest	

All menu modes Default: Off



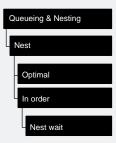
Nest Setting Selected	Printer's Response
Off	The printer will not nest pages.
Optimal	Choose this if you want to use the least amount of media.
	The printer will search all through the queue for suitable pages. It will nest the pages according to an algorithm that, for most combinations of page sizes, saves the most media. The resulting nesting pattern may still vary, depending on the size of the first page.
In order	Choose this if the speed with which you receive your prints is most important.
	The printer will try to nest pages in their queue sequence. If it comes across an incompatible page, it will stop searching and print any nest it has already created.

### To Turn Nesting On or Off and Choose the Nesting Method

### What Happens to Nesting if you Turn Queueing Off?

Turning queueing off does not turn nesting off for pages already in the queue. The printer prints all the pages in the queue before accepting any more files. As soon as you turn queueing off, the nesting setting also changes to *off*. When queueing is turned on again, the printer restores nesting to its previous setting.

### How Long Does the Printer Wait for Another File?



All menu modes Default: 2 minutes 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 (as shown opposite). The available range is 1 through to 99 minutes.

Managing Your Prints Avoiding Media Waste By Nesting Pages (Roll Media Only)

### Getting the Best from Nesting (Nesting and Margins)

What the printer may do	In order to "squeeze in" one more page, the printer may reduce the right margin of the right-most page by up to 3 mm (0.08 in). This is done only if:
	• your Page format / Size is set either to a Best option or to a discrete standard size, and if
	• the roll of media loaded is slightly narrower than a standard size.
What you can do	You can reduce the side margins too, for every page, as explained on page 4-7. In order to give the printer the best chance of nesting the most pages, we recommend that you set Page format / Margins to Smaller.
	Nesting and the Rotate Feature

Since nesting may automatically rotate pages, the front panel's Page format / Rotate setting is ignored as long as nesting is on.

# 7

To See the Current Overall Configuration of the Printer7-	2
To See the Current Configuration of the Front-Panel Settings . 7-	3
To Change the Front-Panel Settings	4
Recalibrating the Printer for Accuracy	5
Changing the Graphics Language Setting for a Different	
Application	7
Changing the Interface Settings	9
To Change The I/O Timeout Setting	9

# **Reconfiguring Your Printer**

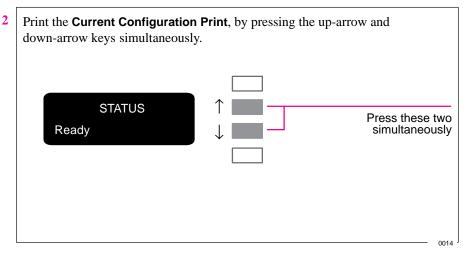
Reconfiguration and Recalibration

#### To See the Current Overall Configuration of the Printer

Utilities	Item	Comments		
Statistics Full menu mode only	Max X Max Y	These two figures, in millimeters, give the size of the current printing area, that is, the area in which the printer will print the next page unless it is changed. Normally each file received sets these dimensions with its Page Size command. You can impact it by:		
		• the current front-panel setting for Page format / Size.		
		<ul> <li>the media size currently loaded.</li> </ul>		
		Remember:		
		<ul> <li>Printing area = page size minus margins.</li> </ul>		
		<ul> <li>X represents the vertical (paper path) axis.</li> </ul>		
		<ul> <li>Y represents the horizontal (carriage path) axis.</li> </ul>		
	Code rev	This is the revision number of the printer's internal code.		
	RAM present	This is the size, in megabytes, of the printer's main standard memory, plus the amount of memory reserved for printing.		
		• This does not correspond directly to the size of your files on the computer, as explained on page 9-22.		
		• This is the total RAM, not the RAM currently free.		
	Media	This is the media type which the printer thinks is currently loaded (or was last loaded), on the basis of what you specified when you loaded it. For an explanation of media types, see page 3-3.		
		In this display, the following abbreviations are used:		
		<ul> <li>Translucent = Translucent bond</li> </ul>		
		<ul> <li>High-gl photo = High-gloss photo paper</li> </ul>		
		<ul> <li>Semi-gl photo = Semi-gloss photo paper</li> </ul>		
		<ul> <li>High-gl film = High-gloss film</li> </ul>		
		<ul> <li>Nat. tracing = Natural tracing paper</li> </ul>		
	ROM SIMM	This tells you if a ROM SIMM is installed in the printer, for example PostScript.		

#### To See the Current Configuration of the Front-Panel Settings

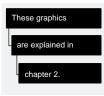
1 Make sure either a roll or a sheet of media is loaded.



The **Current Configuration Print** lists in an easy-to-read format all the items available in the front-panel menus, together with their current settings (in red italics). Note that some of the items don't appear in the front-panel display unless you have set Utilities / Menu mode to Full (the default is Short, so that they *don't* appear). See the legend at the bottom of the print for details.

NOTE. Don't confuse the **Current Configuration Print** with the **Service Configuration Print**, which you can print by selecting Utilities / Service config. Apart from its use in calibrating the printer, as explained on page 7-5, the **Service Configuration Print** is likely to be needed only by a service engineer. Reconfiguring Your Printer To Change the Front-Panel Settings

#### **To Change the Front-Panel Settings**



Chapter 2 of this manual explains how to use the front-panel display, including how to change any of the settings. It also explains the small menu graphics that appear in the left margins of this manual whenever a particular menu item is explained.

The meanings of all the items in the front-panel menus are explained at the relevant point in this manual. Refer to the index at the back of the manual for the item you want to change.

#### Reconfiguring Your Printer Recalibrating the Printer for Accuracy

#### **Recalibrating the Printer for Accuracy**

#### When to Recalibrate the Printer

Your printer was calibrated at the factory using HP Matte Film, with a thickness of 0.12 mm (0.0048 in);

- at 23°C (73°F),
- with 50-60% relative humidity.

It will operate with greatest accuracy in similar 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 page 11-4. Also, if you are using a non-standard media type, you should first recalibrate the printer for that media type. For supported media types, see page 3-3. You may also need to recalibrate the printer if you have banding problems, see page 9-20.

#### A Quick Guide to Whether Recalibration is Necessary



- Make sure E/A0-size or D/A1-size media is loaded.
- 2 Print the **Service Configuration** print, by choosing the option shown in the menu graphic on the left.
  - Near the top of this print are a pair of Xs. With a ruler measure the distance between them. It should be 500 mm. If significantly different you will need to recalibrate the printer as described on the following page

X \_\_\_\_\_ 500mm \_\_\_\_\_ X

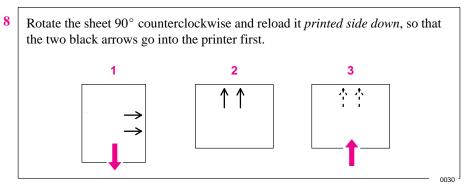
Reconfiguring Your Printer Recalibrating Your Printer for Accuracy

#### **To Recalibrate the Printer**



Full menu mode only

- 1 Choose your media type (*sheet or roll*). If recalibrating for a non-standard media type, use that type. Otherwise HP Matte Film will give greatest accuracy.
- 2 Choose your media size. This must be either E/A0 or D/A1.
- 3 Go to Recalibrate in the front-panel menus, as shown above left.
- 4 Choose Create pattern. The message Calibrating is displayed. If sheet media is loaded, this will be ejected. If roll media is loaded, you are asked to remove it.
- 5 When prompted, load your media, using the normal procedure. If using sheet media, load it in *portrait* orientation, unless you chose D/A1-size media for an E/A0-size printer, in which case load it in landscape orientation.
- 6 When the calibration print is finished, remove it.
- 7 Unload any unprinted media.



- 9 Go to Recalibrate again, and this time choose Measure pattern.
- **10** When the printer has finished measuring and has ejected the sheet, the recalibration routine is finished.

Once created, you can use this calibration sheet to recalibrate the printer's accuracy again later. Store the sheet flat or rolled with the printed side *out*. If the film takes a curl in the wrong direction it can become impossible to reload.

# Utilities To Restore the Factory's Calibration Accuracy From the Accuracy menu, choose Restore factory. That's all. Full menu mode only Formation

# Changing the Graphics Language Setting for a Different Application

Your software application communicates with the printer by a graphics language. The HP DesignJet 755CM printer supports:

- PostScript
- HP-GL/2
- HP-GL (7586B)
- HP RTL

With the printer's default setting, called Automatic, it decides for itself which type of file it is receiving – PostScript, HP-GL/2, HP-GL or RTL – and prints it. Unless you want to change the scale of a PostScript print from the front panel (see page 4-13), or are troubleshooting any of the problems listed under Comments in the table below, then do not change this default.

To Change the Graphics	Language Setting
------------------------	------------------

Device setup	Graphics language	Comments	
Lang	Automatic	This should work successfully for most software applications.	
Full menu mode Default: Automatic	PostScript	This lets you change the scale of a PostScript print from the front panel. See page 4-13.	
	7586, HP-GL/2	This should work successfully for most CAD applications.	
		With this graphics language setting another parameter is available: Terminator. Try changing this setting from Normal (the default) to Special:	
		• if you are using an obsolete HP 7586 (pen plotter) driver, and your prints are incomplete.	
	HP-GL/2	Try this setting:	
		• if you have experienced image position problems.	
		<ul> <li>if you have experienced timing problems.</li> <li>However, if you choose this setting, you don't have access to the Terminator option.</li> </ul>	

Reconfiguring Your Printer Changing the Graphics Language Setting for a Different Application

#### **Graphics Language and Networks**

**Note for system administrator.** If you are using the printer with a network spooler, consider modifying the spooler to insert automatically the PJL 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 PJL reference information, see page 11-13.

#### **Changing the Interface Settings**

Network	With a network interface (such as 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 / Modular / MIO
Serial	With a serial interface, you should have configured it when installing the printer, as explained from page 1-26. However, you may need to reconfigure it:
	• when you connect a new computer to the printer
	• when you output to the printer from a new application
	• if you experience problems with distorted or unintelligible prints
Parallel	With a parallel interface, no front-panel configuration is necessary.
I/O Setup	To Change the Serial Interface Settings
RS-232-C	This task is explained in detail from page 1-26, including a note of the defaults and likely requirements.

#### To Change the I/O Timeout Setting

I/O Setup
I/O timeout
Full menu mode

Some software may not write a proper file terminator at the end of the file. In this case, the printer will not know that the file is complete and will wait for more data until the end of the "I/O Timeout" period. By default, this period is 30 minutes, but you can change it in the menu (indicated on the left) to as little as 30 seconds.

Replacing the Print Cartridges	8-2
Cleaning the Printer	8-2
"Normal" Printer Use	8-3

### Maintaining Your Printer

Cleaning and Service

Maintaining Your Printer Replacing the Print Cartridges and Cleaning the Printer



#### **Replacing the Print Cartridges**

Replaceable print cartridges have been used in your printer, greatly reducing its user maintenance requirements, as these are the components that experience the greatest wear and tear. Under normal use, you will probably find that you have to replace the black cartridge more often than the rest.

For instructions on when and how to replace cartridges, see the section starting on page 3-25.



#### **Cleaning the Printer**

Cleaning is limited to the outside of the machine. Use a damp sponge or a soft cloth and household cleaner.

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.

Any maintenance or repairs beyond this should be done by a qualified service technician.

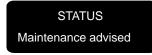
#### "Normal" Printer Use

"Normal" printer use means less than:

- 12 pages per day (if medium-density E/A0 image prints), or
- 20 pages per day (if medium-density E/A0 CAD prints)

If your drawings are smaller than E/A0, the number of pages per day can be higher.

If you use the printer less than this, it is unlikely you will need to get it serviced. If you use the printer more than this, it is possible that, after a period of time, it will need to be serviced. The printer itself keeps an internal count of total pages printed and total passes of the print cartridges. If the front panel periodically displays:



this means that your use of the printer has exceeded one of the following warranty limits:

- either 20,000 pages printed
- or 4,500,000 passes of the cartridge carriage.

*Contact your local HP dealer or HP service engineer to arrange a service.* After the service the message will disappear. If you choose to ignore the message, you may continue to use the printer as normal, but may encounter a number of operational or print-quality problems.

You can check your current count of pages printed and passes of cartridge carriage by printing the **Service Configuration Print**.

Maintaining Your printer "Normal" Printer Use

#### To Print the Service Configuration Print

**1** Make sure media is loaded.

2 In the front-panel menus, choose the option shown on the left.

Full menu mode

Service config

Utilities

### 9

Using the Documentation to Help Solve Problems
Locating the Source of Your Problem
Solving Media-Handling Problems
Solving Print-Cartridge Problems
Clearing a Media Jam
Solving Communication Problems
Solving Problems with Image Position or Content
Solving Print-Quality Problems
Solving Front-Panel Problems
Solving Miscellaneous Problems
Getting Help

# G TROUBLE-SHOOTING

## Troubleshooting

#### **Using the Documentation to Help Solve Problems**

- If you are looking for the meaning of an error message, see chapter 10.
- If you know the problem is related to a certain task, first check the relevant section in this manual, for the step-by-step procedures. Use this manual's index to find the section. For example, if you are having difficulty with your page format, refer to chapter 4, titled: Controlling the Page Format.
- If the problem persists, refer to the appropriate section in *this* chapter. The sections are
  - Solving media-handling problems
  - Clearing a media jam
  - Solving problems with image position or content
  - Solving print-quality problems
  - Solving miscellaneous problems.
- If the problem could be related to your software driver, and you are using an HP driver, refer to the drivers' troubleshooting documentation and the 'On-Line-Help' in your application software.
- If the problem has no obvious cause, read "Locating the source of your problem" on the next page.
- If you still cannot solve the problem, refer to "Getting help" on page 9-25.

#### Locating the Source of the Problem

- 1 Look at the front-panel display for any error message. For an explanation, see chapter 10.
- **2** Test the printer.
  - Switch the printer off. Ensure that the power cord is firmly inserted in the printer and plugged in to an outlet that you know works.
  - Switch the printer on. Print a sample file (see page 1-21). If the printer prints this correctly, the problem is probably not with the printer.
- **3** Test your computer hardware and interface.
  - Ensure that you have the correct interface cable between the computer and the printer and that it is firmly connected to the correct ports (see the sections starting on page 1-24).
  - Check that your printer's graphics language setting (in Device setup / Lang) matches the requirements of your software.
  - Serial interface users only. Check that your printer's serial interface settings (in I/O Setup / RS-232-C) match the requirements of your computer hardware and application software. See page 1-26 for details. Also, if you have changed your interface, switch the printer off and then on again before trying to print.

Troubleshooting Solving Media-Handling Problems

|--|

#### **Solving Media-Handling Problems**

# If the Front Panel Keeps Indicating that Media is Misaligned or Incorrectly Positioned.

Roll media

#### Have you:

- Loaded the roll the wrong way. The media should load over the roll toward you.
- Loaded the media at an angle. The right-hand edge must be *parallel to* the perforated line on the printer.

#### Sheet media

Have you:

- Loaded the media at the wrong side of the entry slot. It must be loaded with the right-hand edge against the perforated line on the printer.
- Loaded the media at an angle. The right-hand edge must be *parallel to* the perforated line on the printer.
- Pushed or held the media back as it is loading. You must hold the media only by the edges and immediately release it when the printer is loading.
- It is also possible that the media itself is crumpled or warped or has irregular edges.
- If you are using hand-cut media, perhaps the edges do not form a right-angle or they are rough. It is not recommended to use media that you have cut yourself; use only purchased sheet media.
- If you cannot make your media's leading edge straight, you can turn on the skew tolerance feature (Device setup / Skew tolerance). See page 3-20, but remember that this feature can skew your print on the page.

#### If Media Crumples When You Load it

- Clear any obstructions in the media path.
- Be sure the leading edge is straight and free of tears. Cut a straight edge with the knife if necessary.
- If your media is curled, and if both sides are the same, load it with the curved (hollow) side towards you (Certain media types for example coated paper have a printing side and a non-printing side and these must be loaded printing side down).
- When loading media, hold each edge and push the media into the printer *evenly* against the stops until a slight buckle develops evenly across the media. Let go as soon as it starts to feed into the printer.
- If you have just moved the printer or your media from an environment with a different humidity level, let the media stabilize for at least 15 minutes before loading it.
- **Roll media only.** Open the roll cover and raise the lever. Unload the leading edge of the roll. Push the media all the way to the right so that it is flush against the media stop on the roll core. Then reload the media.

#### If Prints Do Not Feed Out Properly From the Printer

• Make sure the roll cover is completely closed before you print.

# If The Automatic Cutter Does Not Cut Immediately When a Print Has Finished

- Check the Page format / Margins setting. When this is set to Smaller, the printer waits until the next print begins printing so it can create a 10 mm margin between both prints or nesting sets.
- Press the **Form Feed and Cut** key if you need to cut the media before the ink-drying time has passed or before the next print begins printing. Use caution to avoid smearing the ink.
- Check the ink-drying time and change if necessary (Device setup / Drying time).

#### If the Automatic Cutter Does Not Work

- The automatic cutter is activated only when roll media is loaded.
- Your software application may have disabled the automatic cutter. Refer to your software documentation or contact your software vendor for more information.

#### If Prints Fall on the Floor After Being Cut

- Do not let more than twenty prints accumulate in the bin.
- Be sure you have loaded roll media properly. If loaded incorrectly, the natural curl of the media may cause it to miss the bin and fall to the floor.

#### If a Sheet Is Ejected When You Switch On the Printer

• The printer is undertaking an automatic calibration check. Simply wait for the STATUS / Ready message and then reload the sheet.

#### If Prints Do Not Stack Properly in the Bin

- You 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 printed media is sagging or wrinkling between the bin wires after it is cut and fed out, try placing a sheet of scrap paper in the bin shelf that is at least the size of the print.
- If you are mixing prints or nesting sets of several different sizes, you are more likely to have stacking problems because of the different sizes of media in the bin.



#### **Solving Print-Cartridge Problems**

#### If the Access Cartridges Key Does Not Work

• Make sure the window is closed before you press Access Cartridges.

# If the Printer Runs the Cartridge-Alignment Routine Unexpectedly

- The printer runs the automatic cartridge alignment procedure every time you load, replace or even reseat a cartridge, whether it is a new cartridge or not. Do not remove the cartridges unnecessarily.
- You can stop the alignment by pressing **Cancel**, but the printer will restart the alignment procedure the next time you try to switch it on.

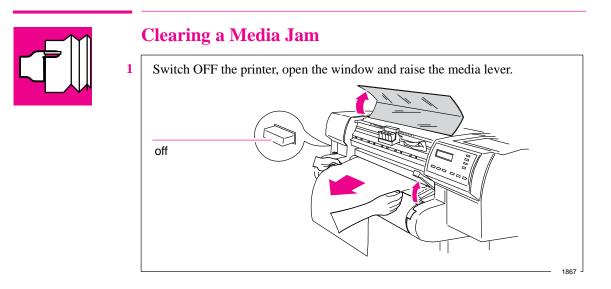
#### If Brand New Cartridges Have Problems

- Check the cartridges to be sure you have removed the protective nozzle tape.
- Try reseating cartridges.

Don't forget that, after you remove or reseat a cartridge, the printer will run its automatic cartridge alignment procedure – see page 3-26.

For troubleshooting other problems with the print cartridges, see the section starting on page 9-16.

Troubleshooting Clearing a Media Jam



# WARNINGDon't touch the stainless steel strip that runs the length of the printer behind<br/>the cartridge carriage; its edge is very sharp. Keep hair, jewelry, clothing,<br/>and foreign objects away from the printer mechanisms.

When moving the cartridge carriage, touch only the black plastic parts.

- 2 Carefully move the cartridge carriage out of the way if possible all the way to the enclosed area on the left or the right. Which way you are able to move it depends on where the media is jammed. If the printer was in the process of cutting media at the time of the jam, the cutter carriage will be attached to the cartridge carriage and will move with it.
- **3** Carefully remove any of the jammed media which you can easily lift *up and out from the top of the printer.*
- 4 Carefully pull the rest of the roll or sheet *down and out of the media entry slot*.
- 5 Lower the window and the lever and switch on the printer. Press the Form Feed and Cut key to eject any pieces of media that are still in the media path.
- 6 Reload the media as normal see page 3-9. Remember that, if it's a roll, you may need to trim the edge.



#### **Solving Communication Problems**

# If There is a Problem Communicating between Your Computer and the Printer

Some symptoms of a communication problem are:

- The front-panel **Receiving** light does not come on.
- The front-panel display does not show STATUS / Receiving.
- 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 drawings etc.)

Items to start checking are:

- Have you selected the correct interface port in your software?
- Does the printer work correctly when receiving files from other software?
- If the printer is connected to a network, try using it when connected directly to your computer.
- If your printer is connected to your computer via 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 page 11-8.

#### **Solving Problems with Image Position or Content**

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 online and printed documentation included in the following drivers supplied with your printer:
  - HP DesignJet PostScript Drivers for Macintosh
  - HP DesignJet PostScript Driver for Microsoft Windows
  - HP Driver for Microsoft Windows
  - HP Printer Drivers for AutoCAD
- The documentation supplied with your application software

#### If the Print Is Completely Blank

- Check the print cartridges to be sure you have removed the protective nozzle tape from all of them. Do not forget that, after you remove or reseat a cartridge, the printer will run its automatic cartridge alignment procedure see page 3-26.
- Cartridges may be out of ink. For an explanation of how to check if a cartridge is out of ink, see page 3-25.
- 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. See page 7-7.





#### If the Output Contains Only a Partial Print

- Did you press **Form Feed and Cut** 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. (You normally don't need to press **Form Feed and Cut** to unload the print.)
- The I/O Setup / I/O Timeout setting may be too short. Increase the setting and print again. See page 7-9.
- The file may be too big for the printer's memory. See the note on page 9-22.
- 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.

See also under "If the image is clipped" on page 9-12.



#### 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 chapter 4.

- Check the actual printing area for the media size you have loaded. printing area = media size minus margins. For media size and margins, see page 11-2. For actual printing areas, see page 11-6.
- Check what your software understands to be the printing area (which it may call "printable area" or "imageable area"). For example, AutoCAD assumes 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 the orientation of a drawing and, on roll media, 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 4-11.
- You may have asked to rotate the page from portrait to landscape on media that is not wide enough, for example a D/A1-size page rotated on a D/A1-size roll.
- If necessary, change the printing area in your software.
- The file may be too big for the printer's memory. This is the case if the front panel displays "Out of memory data was lost". See the note on page 9-22.

#### If 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.





# If the Entire Image Is in One Quadrant of the Correct Printing Area

- Is the page size configured in the software too small?
- Are you sure that your software doesn't believe the drawing 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 page 1-32. For advice specific to your software, see either the documentation supplied with the driver or any Software Application Notes supplied with your printer.
- If you still haven't found the solution, try changing the printer's **Graphics** Language setting on the front panel (Device setup / Lang).

#### If the Image Is Unexpectedly Rotated

- Check the front-panel Page format / Rotate setting. See page 4-8.
- For non-PostScript files: if Queueing and Nesting are both ON, pages may be automatically rotated to save media. See page 6-10.
- For an explanation of rotation for PostScript files, see page 4-10.



#### If the Print Is a Mirror Image of Your Drawing

• Check the front-panel Page format / Mirror setting.



#### If the Print Is Inaccurate

• If you notice problems with accuracy, print the **Service Config** print, as explained on page 7-5, to see if the printer needs to be recalibrated.





- The interface cable between your computer and the printer could be faulty. Try another cable to see if the problem is corrected.
- If you are using a serial interface between the printer and your computer, make sure the printer's serial interface settings match the settings and requirements of your software and hardware. See page 1-26.
- 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. See page 7-7.

#### If One Image Overlays Another on the Same Sheet

- The I/O Setup / I/O Timeout setting may be too long. Decrease the setting and print again. See page 7-9.
- If Device setup / Lang is set to 7586,HP–GL/2 (the default), try changing the Terminator setting and send the files again.

#### If 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.

See page 5-7.



## If the Printer Produces a Black and White Print When You Expected a Color Print

• Check the front panel **Color/Mono** setting, and the equivalent setting in your software.

#### If a Gray Box Appears Where an Image Should Be

• If the image is an embedded EPS (encapsulated PostScript) file, and you printed it using the non-PostScript Microsoft Windows driver, try using the HP DesignJet PostScript driver for Microsoft Windows instead.







# If the Printer Has Printed a Different Print Than the One You Were Expecting

One possibility is that you have accidentally initiated one of the printer's internal prints:

- **The Cartridge Alignment Print.** (A small pattern of colored lines without text.) This is printed automatically every time you replace, or even reseat a cartridge.
- **The Current Configuration Print**. This is printed by simultaneously pressing the two arrow keys on the front-panel.
- **The Demos**. These are printed from the front-panel menu options Demos / PostScript and Demos / Samples.
- **The Front-Panel Menu Print**. This is printed from the front-panel menu Demos / Menu.
- The Palette Print. This is printed from the front-panel menu Demos / Palette.
- The Service Configuration Print. This is printed from the front-panel menu Demos / Service Config.



# If the Quality Of A Color Print Is Not as Sharp as You Were Expecting

- Select Best on the front-panel **Print Quality** key and print again.
- Did you specify the correct media type when loading? The highest line quality is only produced using Opaque Bond, Coated Paper or Matte Film. For details of media types, see page 3-3. To find out the printers' current media type setting, see page 7-2.
- Your application-software driver may be overriding the Sharp lines selection on the front-panel menu.
- Are you printing something other than a line drawing, for example a CorelDRAW! file? If so, you may want to experiment to improve the output quality by setting Sharp lines to Off on the front-panel menu, and print again.
- Are you printing a CAD drawing with small raster images? Try setting Sharp lines to On and print again.
- When loading the paper, specify "Heavy coated paper" on the front panel, rather than "Coated paper".

Troubleshooting
Solving Print-Quality Problems

#### **Solving Print-Quality Problems**

To achieve the best performance from your printer, we recommend you 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 page 3-3 and the Supplies Source catalog supplied with the printer.

#### If the Color Is Not as Expected

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:

- That included as part of the HP Color Management Kit supplied with the printer.
- The *Software Application Note* for your application, in the specific package shipped with your printer.
- Online documentation in the drivers shipped with your printer, for example in the Color Options dialog box of the non-PostScript Microsoft Windows driver.

Additionally, remember that your printer may be configured to use one of its internal pen palettes instead of your software's palette (which is the default). See the section starting on page 5-5. If you cannot find any reason for the discrepancy, before getting help, find out for which CMYK printer inks the colors have been specified.

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#### If there Are White Streaks in Solid Areas

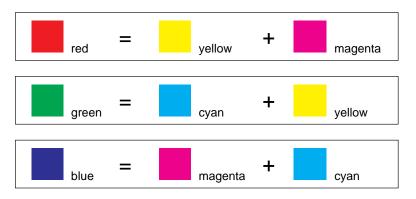
This may mean that a cartridge nozzle is blocked. Unless you have switched cartridge check off (see page 3-25), the printer normally detects this problem and tries to clear the nozzle automatically. However, some nozzles may still remain blocked, and in this case, the printer will display Service cartridges on the front panel. This means you should replace the problem cartridge, as explained from page 3-25. If you are unsure which cartridge has the problem, refer to the next page.





#### If There are Other Gaps in Solid Areas Or in Lines

- 1 One or more of your cartridges may be out of ink. For an explanation of how to check, see page 3-25.
- 2 If the ink levels are OK, try to assess which cartridge has the problem. Look at your print, if the problem occurs only in one of the following colors yellow, cyan, magenta, red, green, blue or black then you can eliminate one or more of the cartridges. Remember that the printer's cartridges are yellow, cyan, magenta and black, and that "pure" red, green and blue are made up as follows:



- **3** If you know which cartridge has the problem, then try reseating it to ensure good electrical connections. While it is out of the carriage, check the print nozzles to make sure the protective tape has been removed. Don't forget that, after you remove or reseat a cartridge, the printer will run its automatic cartridge alignment procedure see page 3-26.
- 4 If you don't know which cartridge has the problem, then print the **Service Configuration Print**, by choosing Utilities / Service Config on the front panel. This print contains a pattern for each of the four cartridge colors (yellow, cyan, magenta and black) which you can examine for gaps or streaks. If you can identify a problem cartridge, try the checks in 3 above.
- **5** If the problems persist, try running the recalibration routine. See page 7-5.
- 6 If the problems still persist, replace the cartridge(s). See page 3-25.



#### If There are Jagged Vertical or Horizontal Lines

- Did you specify the right media type when loading the media? For details of front-panel media types, see page 3-3. To find out the printer's current type of media setting, see page 7-2.
- Force the automatic cartridge alignment procedure by reseating any one of the print cartridges.
- If the problem persists, replace the print cartridges. See page 3-25.

#### If There are Slightly Warped Lines

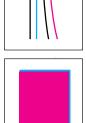
• The media itself may be warped. This can happen if it has been used or stored in an extreme environment. For all environmental specifications, see page 11-4.

#### If There are Color "Shadows"

Force the automatic cartridge alignment procedure by reseating any one of the print cartridges.

#### If One or More Cartridges are not Printing at All

- Look to see if the cartridge is out of ink. See 3-25.
- If it is still not printing, remove the faulty cartridge(s) and check the print nozzles to make sure the protective tape has been removed. Do not forget that, after you remove or reseat a cartridge, the printer will run its automatic cartridge alignment procedure see page 3-26.



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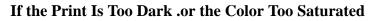
#### If There are Blurred Lines (Ink "Bleeds" from Lines)

- Perhaps you are not using HP media. For details of HP media, see page 3-3 and the Supplies Source catalog supplied with the printer.
- The printer may be operating in an area where the temperature and humidity are too high. For environmental specifications, see page 11-4. To allow for extremely dry or humid environments within the specification, see page 3-21.
- Did you adjust the drying time in the front-panel menu purely to speed up the printers output? For details of drying time adjustments see page 3-22.



#### If There are Blotchy Areas (Uneven Fill Density)

- Perhaps you are not using HP media. For details of HP media, see page 3-3 and the Supplies Source catalog supplied with the printer.
- Did you specify the right media type when loading the media? For details of front-panel media types, see page 3-3. To find out the printer's current type of media setting, see page 7-2.
- Note that some media types are not recommended for color prints with large area fills. See page 3-5.



• You can make a global adjustment to the amount of black ink used (which affects most colors too) by adjusting the Lightness setting. See page 5-9. This is also available from some drivers, where the feature may be called "Darkness".

Troubleshooting
Solving Print-Quality Problems



#### If There Is Pronounced Banding in Area Fills

Some banding is normal, especially in dark or dense area fills. If the banding is unacceptable try the following:

- Make sure you are using HP media.
- Try changing the Print Quality setting.
- If the banding is in a black or gray area, then try reducing the percentage of black in grayscales, either in your software or in the printer's palette. For details of how to do this using the printer's palette, see page 5-5.
- Force the automatic cartridge alignment procedure by reseating a print cartridges.
- Try accuracy calibration.
- Adjust the drying time, see page 3-21.
- If the problem persists, replace the print cartridges. See page 3-25.



#### If Ink Smears After You Remove a Print

- Use HP media for best quality.
- This can be caused by extreme environmental conditions. For environmental specifications, see page 11-4.
- *With roll media*, the printer automatically allows a suitable ink-drying time before cutting the roll and dropping the print in the media bin. To allow for extremely dry or humid environments within the specification, see page 3-21.
- *With sheet media*, *you* need to allow for ink-drying time before removing the sheet. For recommended ink-drying times, see page 3-21. For example, with a best-quality monochrome print on opaque bond, you should wait about 90 seconds before unloading the sheet.
- Handle media by the edges. If possible, wear gloves when you handle film. Skin oils can interact with ink and cause it to smear.



#### **Solving Front-Panel Problems**

#### If the Access Cartridges Key Does Not Work

• Make sure the window is closed before you press Access Cartridges.

#### If the Cancel key Does Not Work

• A PostScript file will carry on printing for a while before implementing a cancel request. Simply wait until the front panel display STATUS / Ready.

#### If None Of the Front-Panel Keys Work

• Turn the printer off and then on again. If the problem persists, have your printer serviced.

#### If Page Format/Rotate Does Not Work

- Your print file may be too big for the printer's memory. See the note on page 9-22.
- 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.
- The printer cannot rotate any file sent using the non-PostScript Microsoft Windows driver supplied with the printer, as they contain raster images.

#### If a Display Message Will Not Clear

- Look up the message in chapter 10. The message description may help you understand and resolve the problem.
- If looking up the message did not help, press **Enter**. If that does not work, turn the power off, then on again. If the message still displays, have the printer serviced. If the message says "System Error" and has an alphanumeric code, refer to the next explanation.

#### If a "System Error" Message Is Displayed

• Press **Enter**. If the message does not clear, turn the printer off, then on again to try to clear the error message. If media appears to be jammed, clear it. If the message is still displayed, record the alphanumeric code and have the printer serviced. Report the code to the service technician; knowing the code number will help the technician resolve the problem.

#### If an "Out Of Memory/Data Was Lost" Message Is Displayed

• The current file is too large for the printer's memory.

#### File Size and Memory Usage

There is no direct relationship between file size on your computer and memory used in the printer to print that file. In fact, because of file compression (and general complexity) it is often impossible to estimate how much memory will be used. In general, thicker lines ( $\geq 0.5$  mm), complex objects (such as polylines) and fills will all use significantly more memory.

This also means that size of the largest file you can store in the printer's queue is not the same thing as the amount of memory installed in your printer.

Two tips for PostScript users with file-size problems:

- Try reducing the page size in your software and then scale the print in the printer's front panel. See page 4-13.
- Try reducing the resolution of any bit-map objects in your file, for example photographs.



#### **Solving Miscellaneous Problems**

#### If the Printer Does not Print

- You may have a power problem. If there is no activity at all from the printer, and no lights on the front panel, check that the power cable is connected correctly and that there is power available at the socket.
- You may have a problem with your application driver. Is your software configured for this printer? For general advice, see page 1-32. For advice specific to your software, see either the documentation supplied with the driver or a relevant Software Application Note supplied with your printer.
- The file may be too big for the printer's memory. Look on your computer screen for any error message: some drivers, for example the Microsoft Windows driver supplied with your printer, allow you to choose a different printing mode and try to send the file again.
- If you continue to have problems, see "Getting help" on page 9-25.

#### If the Printer Seems Too Slow

- Did you specify **Best Print Quality** level on the front panel? Best quality prints are produced more slowly. See page 5-12.
- Did you specify the right media type when loading the media? For details of front-panel media types, see page 3-3. To find out the printer's current media type setting, see page 7-2.
- If you are using the non-PostScript Microsoft Windows driver shipped with the printer, check the settings in the "Print Setup / Options" dialog box, where some of the settings impact printing speed. If in doubt, use the on-screen help system.
- Is Sharp lines set to Auto on the front panel or in your driver? If so, setting it to Off will speed up your printer but may reduce the quality of your print. See page 5-15.

Troubleshooting Solving Miscellaneous Problems

### If the Printer Waits Too Long to Print a Nest

• Change the Nest wait setting. See page 6-11.

# If the Printer Performs the Cartridge Alignment Routine Unexpectedly

• This is a normal printer operation. The printer will align the cartridges every time you replace, or even reseat, a cartridge, whether or not it is new.

## If the Bail (Black Metal Bar) Does Not Lower All the Way

- If the the bail (the black metal bar just inside the printer's window) will not lower all the way, check for obstructions underneath it.
- Make sure the cutting carriage is pushed all the way to the right.



# **Getting Help**

*Hewlett-Packard* has support services available to help you in case you have a problem with your printer.

For a list of the support services available, refer to the *Hewlett-Packard Support Services* booklet shipped with this printer.

## What to Do Before You Call

- **1** Review the troubleshooting suggestions:
  - in this chapter,
  - in the relevant driver documentation supplied with this printer (for users sending PostScript files or those using Microsoft Windows and AutoCAD applications),
  - in any relevant Software Application Note supplied with this printer.
- 2 Print the demo as explained on page 1-21. If the demos work and do not display the problems you have found with your own prints, then the problem is probably not with your printer.
- **3** If the problem appears to be related to your software application, first contact your software vendor.
- 4 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.



- **5** 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 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 (RS-232-C, parallel, or modular).
  - The software name and version you are currently using.

## If a Repair Is Needed

Contact the Hewlett-Packard dealer or HP Sales and Support Office nearest to where you purchased the printer for complete service information.

10



Front-Panel Messages

# **Front-Panel Messages**

This is a list of all possible messages in the front-panel display. If you need to do something, it is shown in *italics* in the **Explanation and** *Action* column.

The messages are listed in alphabetical order.

Message	Explanation and Action
Alignment errorContinue	The alignment procedure has failed. Check that an opaque media is loaded. Press $\downarrow$ to continue and force the automatic alignment procedure again by reseating any of the print cartridges. Do not lift the window while cartridge alignment is being performed.
Calibrate error Continue $\rightarrow$	The calibration print was loaded incorrectly and it could not be measured. Press $\downarrow$ to continue, then reload the print for measurement. Follow front panel instructions.
Calibration doneContinue	Accuracy calibration is complete. <i>Press</i> ↓ <i>to continue.</i>
Close roll cover Continue $\rightarrow$	Rewind the media to take up any slack in the roll, close the roll cover, then press $\downarrow$ to continue.
Create pattern $\rightarrow$ Measure pattern $\rightarrow$	Press $\uparrow$ to create the pattern for automatic calibration. Press $\downarrow$ to stat the automatic calibration.
Edge not found Reload media	The printer could not find edge of media during loading procedure. <i>Check the leading edge of the media for unevenness or tears; cut a straight edge, if necessary, and reload. Be sure to position the right edge along the perforated line on the entry platen when loading.</i>
Lift lever	Lift the lever at the right of the printer.
Load arrow edge print side down	Remove accuracy calibration print, turn it so that the edge with arrows printed on it is print side down, then load that edge into the printer.
Load cancelled Remove media	You pressed the <b>Cancel</b> button while media loading was in progress. <i>Remove media</i> .
Load error Remove media	You inserted media with the media lever raised. Lower the lever and reload the media.
Load media to align cartridges	Load media to proceed with cartridge alignment.
Lower lever after aligning	When you've finished aligning the roll media as instructed, lower the lever at the right of the printer.

Message	Explanation and Action		
Lower lever to continue	You lifted the media lever while the processor was busy. <i>Lower the lever to continue.</i>		
Lower window to continue	You opened the window while the processor was busy. <i>Close the window to continue.</i>		
Media too small	The media you loaded for accuracy calibration or cartridge alignment is too small. <i>Reload appropriate media.</i> See page 7-5.		
Mispositioned Reload roll	The roll is mispositioned. Reload media.		
Mispositioned Reload sheet	The sheet is mispositioned. <i>Remove it and reload it with the right edge no more than 0.2 inches (0.5 cm) from either side of the perforated line on the entry platen.</i>		
MIO data error	You configured the modular interface incorrectly. <i>Press Enter to clear the message from the front panel display. Recheck the MIO configuration settings.</i>		
MIO error Communication break	You prematurely stopped the flow of data from the computer to the printer (e.g., by turning off the computer before all data is sent). <i>Press Enter to clear the message from the front panel display.</i>		
Open window to access cartridges	Lift the window to access the cartridges.		
Out of memory Data was lost	The current file is too large for the printer's buffer. See the note on page 9-22.		
Pull ↓ / Align ↔ edges to roll	Grasp the left and right free edges of the roll media and pull toward you until the media is taut. At the same time, align the left and right edges of the media so the they are flush with the left and right edges of the roll.		
Remove media Continue →	The ink is dry. Remove the accuracy calibration print the printer just produced. Press $\downarrow$ to continue with accuracy calibration.		
Remove media Lower lever	You have attempted to load media while the lever at the right of the printer was raised. Remove the media, lower the lever, and reload media with the lever down.		
Replace cartridge(s)	The cartridge indicated has a clogged nozzle. Replace it to continue.		
Reseat cartridge(s)	The cartridge indicated is badly seated. Reseat it to continue.		
Roll misaligned Reload roll	Roll media is skewed. <i>Reload media.</i>		
RS-232 error Baud, parity	You configured the RS-232-C interface incorrectly. <i>Press Enter to clear the message from the front panel display. Check the baud rate and parity settings in the front panel, in the hardware configuration, and in your software to be sure they are all compatible.</i>		

Message	Explanation and Action	
Service cartridges Continue $\rightarrow$	Cartridge Check is on and an error has been detected. Press $\uparrow$ if you want to service the cartridges (replace or reseat). Press $\downarrow$ if you want to continue without servicing the cartridges.	
Sheet load $\rightarrow$ Roll load $\rightarrow$	Press ↑ to load sheet media. Press ↓ to load roll media.	
Sheet misaligned Reload sheet	Sheet media is skewed. <i>Remove it and reload it so that the left and right edges being loaded into the printer are square.</i> The leading edge must also be straight.	
Sheet / Roll?	• Either: You have chosen Sheet mode while loading roll media. <i>Reload media.</i>	
Reload media	• Or: You have loaded a sheet more than 51 inches (130 cm) long. <i>Trim sheet and reload.</i>	
STATUS Accessing cartridges	You have pressed the Access cartridges button. The cartridge carriage is moving out so you can access it.	
STATUS Aligning cartridges	The printer is aligning cartridges.	
STATUS Cancelling	You have pressed the <b>Cancel</b> button and the printer is in the process of cancellin the procedure. <i>Continue when this message is no longer displayed.</i>	
STATUS Checking media	The printer is checking to see if media is properly positioned with respect to the perforated line of the entry platen.	
STATUS Creating pattern	The printer is performing accuracy calibration.	
STATUS Ink drying (xx m xx s)	The ink on your print is drying. <i>Wait before removing the print. If you remove it before the indicated time has passed, avoid smearing the ink.</i>	
STATUS Loading roll	The printer is loading roll media.	
STATUS Loading sheet	The printer is loading sheet media.	
STATUS Maintenance advised	You are using the printer more intensively than the recommended duty cycle and should <i>contact your local HP dealer or HP service engineer to arrange a service.</i> For the duty cycle specification, see page 11-4. If you choose to ignore the message, you may continue to use the printer as normal, but may encounter a number of operational or print-quality problems.	
STATUS Measuring pattern	The printer is measuring the accuracy calibration print you just loaded.	

Message	Explanation and Action	
STATUS Returning cartridges	The cartridge carriage is returning to its station at the left of the printer.	
STATUS Roll feed edge trim	The printer is trimming the edge of roll media.	
STATUS Initializing	The printer is doing an internal check on power-up.	
STATUS Out of media	The printer has received a file, is ready to print, but has no media loaded.	
STATUS Printing	The printer is printing.	
STATUS Printing (Special)	The printer is printing with a special print mode controlled by your software rather than by the printer.	
STATUS Ready for media	The printer is ready for you to load media.	
STATUS Ready	The printer is ready to print.	
STATUS Receiving	The printer has received data.	
STATUS Testing cartridges	The printer is testing the cartridges for problems, i.e., clogged cartridge or bad electrical connection (improper seating).	
Switch power off Check cartridge path	<i>Turn off the printer.</i> The cartridge carriage cannot move. The printer may be jammed with media. <i>Check the media path and clear it if necessary. Then turn on the printer.</i>	
Switch power off Check paper path	<i>Turn off the printer.</i> The drive roller cannot move or the roll feed spindle cannot freely rotate. The printer may be jammed with media. <i>Check the media path and clear it if necessary. Then turn on the printer.</i>	
System error XXXXXX	An internal error has occurred and a system error number is displayed. <i>Press</i> <b>Enter</b> ; this may clear the error and allow you to continue. If you cannot continue, turn off the printer, then turn it on again. If you still see the system error message, record the system error number and have the printer serviced. For support details, see page 9-25.	
Wrong cartridge type	You have loaded one or more incompatible cartridges. <i>Replace the cartridges with those appropriate for this printer.</i>	

# 11

Printer Specifications	11-2
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# Reference

Reference Printer Specifications

# **Printer Specifications**

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Functional Specifica	ations			
Cartridges	Four: yellow, cyan, magenta and black. For part numbers, see page 11-15.			
Media sizes	Width (carriage axis)		Length (paper axis)	
	Minimum	Maximum	Minimum	Maximum
E/A0-size printer	190 mm (7.5 in)	917 mm (36.1 in)	210 mm (8.3 in)	Maximum length of long axis plot on roll media: 15.2 m (50 ft) Sheet media: 1.32 m (52 in)
Media types	Monochrome		Color	
See also Supplies Source catalog and (in	Coated paper		Coated paper	
Europe and USA)	Matte film		Matte film	
Media Reference Guide.	Clear film		Clear film	
For alternative names,	Heavy coated paper		Heavy coated paper	
HP commercial names	Opaque bond		Opaque bond (CAD drawings only)	
and physical characteristics of	Translucent bond			
these media types,	Natural tracing paper		Natural tracing p	paper <sup>1</sup>
see chapter 3.	Vellum		Vellum <sup>1</sup>	
	High-gloss photo paper <sup>2</sup>		High-gloss photo paper	
	Semi-gloss photo paper <sup>2</sup>		Semi-gloss photo paper	
	High-gloss film <sup>2</sup>		High-gloss film	
	<ul> <li><sup>1</sup> CAD drawings only and HP media only.</li> <li>2 To print in monochrome on glossy media, you must have all four cartridges loaded.</li> <li>Note. From time to time, new media types may become available. For up-to-date information, please contact your HP dealer or local HP Sales and Support Office.</li> </ul>			
Margins		Normal	Smaller (roll me	dia only)
For printing area (media size minus margins), see	Leading edge:	17 mm (0.67 in)	10 mm (0.39 in)	
	Trailing edge:	17 mm (0.67 in)	10 mm (0.39 in)	×
page 11-6	Sides:	5 mm (0.2 in)	5 mm (0.2 in)	× ×
	All measurements $\pm$ 2 mm (0.08 in).			

Functional Specifications (continued)				
Resolution	Color/Mono set to: Mono		Color/Mono set to: Color	
by Print Quality setting	Fast	Fast 300 x 300 dpi.		300 x 300 dpi.
g	Normal	PS: 300 x 300 dpi.	Normal	300 x 300 dpi.
		Non-PS: 600 x 600 dpi. <sup>1</sup>		
	Best	600 x 600 dpi. <sup>1</sup>	Best	600 x 600 dpi. <sup>2</sup>
Accuracy (Maximum accumulated error)	$\pm$ 0.38 mm (0.015 in) or $\pm$ 0.2% of the specified vector length, whichever is greater, at 23°C (73°F), 50–60% relative humidity, on HP Matte Film.			
Programming languages supported	Adobe PostScript Level 2, HP-GL (7586B), HP-GL/2, HP RTL, PJL.			
	<sup>1</sup> Except for glossy media types, on which the resolution is always 300 dpi.			
	<sup>2</sup> Addressable dpi (depending on the type of image your application software has created). Only on coated paper, matte film and opaque bond media.			

Physical Specifications					
	<i>Weight</i> (packed)	<i>Length</i> (unpacked)	<i>Depth</i> (unpacked)	<i>Height</i> (unpacked)	
With stand	61 kg (135 lb)	1370 mm (54.0 in)	675 mm (26.6 in)	1200 mm (47.3 in)	
Without stand	43 kg (95 lb)				

#### **Memory Specifications**

Your printer comes with a standard memory of 75 MB (3 MB of internal memory and 72 MB of printing memory). Of the 72 MB, 64 MB is provided by two pre-installed 32-MB ROM SIMMs. See also the note on page 9-22.

Reference Printer Specifications

Environmental Specifications				
Operational	Mechanical and electrical:	0 to 55°C (32 to 131°F) @ 5-95% relative humidity		
	With cartridges and media:	15 to 35°C (59 to 95°F) @ 20-80% relative humidity		
	For optimal print quality and media handling:	15 to 30°C (59 to 86°F) @ 20-80% relative humidity		
Storage	Printer and media:	-40 to 70°C (-40 to 158°F) @ 20-80% relative humidity		
	Cartridges:	-40 to 70°C (-40 to 158°F) @ 20-90% relative humidity		

Power Specifications		
Source	100–240V ac $\pm$ 10%. Autoranging.	
Frequency	50–60 Hz.	
Consumption	140 W max. (2.0 A max.)	
Energy Star rating (USA)	Maximum power in idle state: 45 watts.	

Acoustic Specifications			
Operating sound pressure 42 dB(A) (From a one-meter bystander position a			
Idle sound pressure	<20 dB(A)	with <b>Print Quality</b> set to <b>Best</b> .)	

Duty Cycle		
maximum number	Medium density E/A0 image prints:	25
	Medium density E/A0 CAD prints:	40

EMC (ElectroMagnetic Compatibility) Specifications		
Canada	Canadian Department of Communications, Radio Interference Regulations Class A and Class B compliant.	
European Union	89/336/EEC EMC Directive compliant. Meets EN 55022 Class A and Class B emission limits, prEN 55024-2 ESD, prEN55024-3 Radiated Immunity, prEN 55024-4 Fast Transients.	
Japan	Registered VCCI Class 1 and Class 2.	
Korea	RRL certified.	
South Africa	SABS licensed.	
USA	Federal Communications Commission certified. Class A and Class B computing device. CFR 47 Part 15	

Safety Specification	S	
Information Technolo	gy Equipment (ITE),	
Movable, Class I,		
Plugable Type A,		
Installation Category	п	
Pollution Degree 2.	,	
For indoor controlled	office environments use.	
Canada	Canadian Standards Association "Certified" ITE, CSA C22.2 No.950	
European Union	73/23/EEC Low Voltage Directive compliant. Meets EN 60950	
Mexico	DGN, NOM019-SCFI-1993 certified	
Norway	y NEMKO approved, EN 60950, EMKO TSE(74)DK207/94	
USA	Underwriters' Laboratories "Listed" ITE, UL 1950	

	<u> </u>	= Media Size Mir			
	Media Size (and Orientation	Printing Area (Width x Height) by Orientation of <i>Drawing</i>			
	of Media)	inches		millimeters	
		landscape	portrait	landscape	portrait
ANSI media	A (portrait)	9.66 x 8.1	8.1 x 9.66	245 x 205	205 x 245
	A (landscape)	10.6 x 7.16	7.16 x 10.6	269 x 182	182 x 269
	B (portrait)	15.7 x 10.6	10.6 x 15.7	397 x 269	269 x 397
	B (landscape)	16.6 x 9.66	9.66 x 16.6	421 x 245	245 x 421
	C (portrait)	20.7 x 16.6	16.6 x 20.7	524 x 421	421 x 524
	C (landscape)	20.6 x 15.7	15.7 x 20.6	549 x 398	398 x 549
	D (portrait)	32.7 x 21.6	21.6 x 32.7	829 x 548	548 x 829
	D (landscape)	33.6 x 20.7	20.7 x 33.6	854 x 525	525 x 854
	E (portrait)	42.7 x 33.6	33.6 x 42.7	1084 x 854	854 x 1084
Architectural	A (portrait)	10.7 x 8.60	8.6 x 10.7	271 x 219	219 x 271
media	A (landscape)	11.6 x 7.66	7.66 x 11.6	295 x 195	195 x 295
	B (portrait)	16.7 x 11.6	11.6 x 16.7	423 x 295	295 x 423
	B (landscape)	17.6 x 10.7	10.7 x 17.6	447 x 271	271 x 447
	C (portrait)	22.7 x 17.6	17.6 x 22.7	576 x 447	447 x 576
	C (landscape)	23.6 x 16.7	16.7 x 23.6	600 x 423	423 x 600
	D (portrait)	34.7 x 23.6	23.6 x 34.7	880 x 600	600 x 880
	D (landscape)	35.6 x 22.7	22.7 x 35.6	904 x 576	576 x 904
	E1 (portrait)	40.7 x 29.6	29.6 x 40.7	1033 x 752	752 x 1033
	E (portrait)	46.7 x 35.6	35.6 x 46.7	1185 x 904	904 x 1185
ISO media	A4 (portrait)	10.3 x 7.87	7.87 x 10.3	263 x 200	200 x 263
	A4 (landscape)	11.3 x 6.93	6.93 x 11.3	287 x 176	176 x 287
	A3 (portrait)	15.2 x 11.3	11.3 x 15.2	386 x 287	287 x 386
	A3 (landscape)	16.1 x 10.3	10.3 x 16.1	410 x 263	263 x 410
	A2 (portrait)	22.0 x 16.1	16.1 x 22.0	560 x 410	410 x 560
	A2 (landscape)	23.0 x 15.2	15.2 x 23.0	584 x 386	386 x 584
	A1 (portrait)	31.8 x 23.0	23.0 x 31.8	807 x 584	584 x 807
	A1 (landscape)	32.7 x 22.0	22.0 x 32.7	831 x 560	560 x 831
	A0 (portrait)	45.5 x 32.7	32.7 x 45.5	1155 x 831	831 x 1155
For margins, see pag	je 11-2. This table is cal				



# **Interface Specifications**

Below are the parallel and serial interface specifications. For specifications of the HP JetDirect Network interface, see the JetDirect Print Server documentation supplied with this printer.

Parallel (Bi-Tronics/Centronics)	Pin	Wire/Signal Name	Source
Interface	1	Strobe	computer
The connector on the printer is 36-pin female.	2 9	D0 D7 (data lines)	both
Meet evicting percilel echles current	10	Ack	printer
Most existing parallel cables support Bi-Tronics communication, but for	11	Busy	printer
use with this printer, the cable <i>must</i> meet the specification in this table.	12	PError	printer
	13	Select (SelectOut)	printer
	14	AutoFd	computer
	16	GND	
	19 30	GND	
	31	Init	computer
	32	Fault	printer
	36	SelectIn	computer

Serial (RS-232-C) Interface	Pin	Wire/Signal Name	Source
The connector on the printer is 25 pin	1	Protective Ground	
The connector on the printer is 25-pin female.	2	Transmitted Data	DTE
The printer is configured as DTE (data	3	Received Data	DCE
terminal equipment).	4	Request to Send	DTE
Data is transmitted on Pin 2 and	6	Data Set Ready	DCE
received on Pin 3.	7	Signal Ground	
	20	Data Terminal Ready	DTE

Reference

Interface Cables



# **Interface Cables**

Cables for Macintoshes				
Interface type	HP part	Cable length	Connector type at	
Computer	number		computer end of cable	
Serial (RS-232-C) Interface				
Apple Macintosh Plus, SE, II Series, Classic, LC family, Quadra family, PowerBook, PowerMac	17302A	1.5 m (4.9 ft)	8-pin male mini-DIN	

Cal	Cables for PCs				
Interface type Computer	HP part number	Cable length	Connector type at computer end of cable		
Parallel (Bi-Tronics/Centronics) Interface					
All	C2912B	3.0 m (9.8 ft)	25-pin male		
	92284A	2.1 m (6.9 ft)	25-pin male		
Serial (RS-232-C) Interface					
HP Vectra or HP 24541A/B serial-interface card (9-pin connector)	24542G	3.0 m (9.8 ft)	9-pin female		
IBM AT and compatibles using 9-pin serial connectors					
HP Vectra PC with HP 24541A/B dual serial-	13242G	5.0 m (16.4 ft)	25-pin male		
interface card using the 25-pin connector	17255M	1.2 m (3.9 ft)	25-pin male		
IBM PC, PC/XT, PC/AT, PS/1, PS/2 and	C2913A	1.2 m (3.9 ft)	25-pin female		
compatibles	17255D	1.2 m (3.9 ft)	25-pin female		

Cables for Unix Systems				
Interface type Computer	HP part number	Cable length	Connector type at computer end of cable	
Parallel (Bi-Tronics/Centronics) Interface				
All	C2912B	3.0 m (9.8 ft)	25-pin male	
	92284A	2.1 m (6.9 ft)	25-pin male	
Serial (RS-232-C) Interface				
HP 9000 workstations using 9-pin connectors.	24542G	3.0 m (9.8 ft)	9-pin female	
HP Apollo workstation using an SPE	13242G	5.0 m (16.4 ft)	25-pin male	
(Serial/Parallel Expansion) option and supplied adapter cable	17255M	1.2 m (3.9 ft)	25-pin male	
Sun workstation	13242G	5.0 m (16.4 ft)	25-pin male	
Note: You may need a Sun serial adapter cable to convert the DIN connector found on certain Sun SPARCstations to the 25-pin connector on the HP cable. Contact your Sun dealer for part numbers.	17255M	1.2 m (3.9 ft)	25-pin male	

Reference Regulatory Notices



# **Regulatory Notices**

### To Obtain a Material Safety Data Sheet (MSDS)

You can obtain current Material Safety Data Sheets for the print cartridges used in the printer (HP Part numbers 51644C [cyan], 51644M [magenta], 51644Y [yellow] and 51645A [black]) by mailing a request to this address: **Hewlett-Packard Customer Information Center,** 19310 Pruneridge Avenue, Dept. MSDS, Cupertino, CA 95014, U.S.A.

#### Sound

Geräuschemission (Germany)	LpA < 70 dB, am Arbeitsplatz, im Normalbetrieb, nach DIN 45635 T. 19.
	Electro-Magnetic Compatibility (EMC)
FCC Statements (U.S.A.)	The U.S. Federal Communications Commission (in 47 cfr 15.105) has specified that the following notices be brought to the attention of users of this product.
CAUTION	Pursuant to Part 15.21 of the FCC Rules, any changes or modifications to this equipment not expressly approved by the Hewlett-Packard Company, may cause harmful interference and void the FCC authorization to operate this equipment.
	This equipment has been tested and found to comply with the limits for a <i>Class B</i> digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a <i>residential</i> installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interferences by one or more of the following measures:
	• Reorient the receiving antenna
	• Increase the separation between the equipment and the receiver
	• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
	• Consult the dealer or an experienced radio/TV technician for help
	The user may find useful the following booklet prepared by the FCC: "How to Identify and Resolve RadiofTV Interference Problems". This booklet is available from the US Government Printing Office, Washington, DC 20402, Stock No. $004f(((f(()aefa$
<b>When</b> connected to an IEEE 802.3 or Ethernet network	This equipment has been tested and found to comply with the limits for a <i>Class A</i> digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a <i>commercial</i> environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

Normes de sécurité (Canada)	Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de <i>Classe B</i> prescrites dans le réglement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.
	Le présent appareil numérique, <i>connecté à un réseau de type IEEE 802.3 ou Ethernet</i> , n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de <i>Classe A</i> prescrites dans le réglement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.
DOC statement (Canada)	This digital apparatus does not exceed the <i>Class B</i> limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.
	When connected to an IEEE 802.3 or Ethernet network, this digital apparatus does not exceed the <i>Class A</i> limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.
VCCI Class 1 および	この装置は、第二種情報装置(住宅地域またはその隣接した地域において使用され
Class 2 (Japan)	るべき情報装置)で住宅地域での電波障害防止を目的とした情報処理装置等電波障害
	自主規制協議会 (VCCI) 基準に適合しております。
	しかし、本装置をラジオ、テレビジョン受信機に近接してご使用になると、受信障
	害の原因となることがあります。
	取扱説明書に従って正しい取り扱いをして下さい。
	IEEE802.3もしくはEthernetに接続されている場合、この装置は、第一種情報装置
	(商工業地域において使用されるべき情報装置)で商工業地域での電波障害防止を目
	的とした情報処理装置等電波障害自主規制協議会 (VCCI) 基準に適合しております。
	従って、住宅地域またはその隣接した地域において使用すると、ラジオ、テレビ
	ジョン受信機等に受信障害を与えることがあります。
	取扱説明書に従って正しい取り扱いをして下さい。
Korean EMI statement	이 기기는 업무용으로 전자파장해검정을 받은 기기이오니 판매자 또는 사용자는 이점을 주의하시기 바라며, 만약 잘못 구입하였을 때에는 구입한 곳에서 비업무용으로 교환하시기 바랍니다.
Tele-	Telecommunications Statement
communications General Approval (UK)	The HP DesignJet 755CM printer, model C3198B, is approved under Approval Number NS/G/1234/5/100003 for indirect connection to public telecommunication systems within the United Kingdom.

Reference Regulatory Notices

	DECLARATION OF CONFORMITY according to ISO/IEC Guide 22 and EN 45014
nufacturer's Name:	Hewlett-Packard Española S.A.
nufacturer's Address:	Hewlett-Packard Española S.A. BARCELONA DIVISION Avda. Graells, 501 08190 Sant Cugat del Vallès Barcelona, Spain
lares that the product	
Product Name: Model Number:	InkJet Printer HP C3198B
forms to the following F	Product Specifications:
Safety:	IEC 950: 1991 + A1, A2 / EN 60950 (1992) + A1, A2 CSA C22.2 No. 950 (1993) UL 1950 (1993) EMKO-TSE(74)DK207/94 NOM-019-SCFI-1993
EMC:	CISPR 22: 1993 / EN 55022 (1994): Class B <sup>(1)</sup> CISPR 22: 1993 / EN 55022 (1994): Class A <sup>(2)</sup> EN 50082-1 (1992) IEC 801–2: 1991 / prEN 55024–2 (1992): 4KV CD 8KV AD IEC 801–3: 1984 / prEN 55024–3 (1991): 3 V/m IEC 801–4: 1988 / prEN 55024–4 (1993): 1KV Power Lines 0.5KV Signal Lines
	FCC Part 15 – Class B / DOC–B / VCCI–2 / RRL–A FCC Part 15 – Class A / DOC–A / VCCI–1 / RRL–A <sup>(2)</sup>
plementary Information	
product herewith complies v	with the requirements of the Low Voltage Directive 73/23/EEC and th d carries the CE marking accordingly.

<sup>(1)</sup> The product was tested with a system, consisting of: a Macintosh personal computer for LocalTalk, keyboard, mouse, and an HP Surestore optical disk drive as the second peripheral.

<sup>(2)</sup> The product was tested with IEEE 802.3 or 802.5 cables.

Zaldun Jordi Balderas, Quality Engineering Manager

Sant Cugat del Vallès (Barcelona), September 1st, 1996

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department HQ/TRE Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (fax: (+49) 7031 143143).



Ordering Accessories		HP Part
		Number
Cables		See page 11-8
Documentation		
User's Guide and Quick Reference Guide	Chinese	C3198-60060
	English	C3198-60051
	French	C3198-60055
	German	C3198-60054
	Italian	C3198-60057
	Korean	C3198-60052
	Portuguese	C3198-60059
	Spanish	C3198-60056
Software Application Notes (CAD)	English	C4705-9000
Software Application Notes (graphics packages)	English	C3198-9012
Hewlett-Packard Support Services	Multi	(1)
HP-GL/2 and RTL Programmer's Reference Guide	English	5959-9733 <sup>(2</sup>
The Product Comparison Guide for HP-GL/2 and HP RTL Peripherals	English	5959-9734 <sup>(2</sup>
PJL Technical Reference Manual	English	5961-0938

 $^{1}\,$  This item is updated regularly. For details of the latest version available, please contact your HP dealer or sales representative.

<sup>2</sup> See note on page 11-16.

### Reference Ordering Accessories

To achieve the best performance from your printer, we recommend you only use genuine *Hewlett-Packard* accessories and supplies, whose reliability and performance have been thoroughly tested to give trouble-free performance. For Example:

- HP drivers are developed to support all the latest features and to optimize print quality and your printers performance.
- HP memory expansion modules are thoroughly tested to give you maximum performance.
- HP ink cartridges and media supplies are developed for optimal print quality.

			HP Part Number	
Drivers				
Latest versions this printer:	of the following were shipped with			
HP DesignJe	HP DesignJet PostScript Drivers for Macintosh			
HP DesignJe Windows	(1)			
HP Plotter D AutoCAD fo	(1)			
HP Driver fo		(1)		
Media Supplies	3			
Supplies Source (The latest editi	e Catalog on was shipped with this printer)		(1)	
Memory Modul	es			
modules. Should	two 32-MB memory pre-installed ild you need to replace them, you the part numbers listed on the right. 72-pin, 36-bit.	4 MB	C3132A	
		8 MB	C3133A	
		16 MB	D2297A or C3146A	
	4/8 MB: 80 nanoseconds. 16/32 MB: 70 nanoseconds.	32 MB	D2298A	

<sup>1</sup> This item is updated regularly. For details of the latest version available, please contact your HP dealer or sales representative, or, for drivers, use one of the support resources for your area listed towards the end of chapter 9.

		HP Part Number
Print Cartridges	Yellow	51644Y
Although other cartridges may appear to fit in the	Cyan	51644C
stalls, use only these part numbers.	Magenta	51644M
	Black	51645A
Spindle Assembly		
E/A0-size		C3173A



Reference Ordering Accessories

### HP-GL/2 and HP RTL Programming Information

The *HP-GL/2 and HP RTL Reference Guide* provides complete explanations and examples of the HP-GL/2 and HP RTL graphic and interfacing instructions. If you are writing an HP-GL/2 or RTL driver for your printer, you will find this guide an invaluable source of general instruction information. It is published by Addison-Wesley Publishing Company and you can can order it through most book stores (ISBN 0-201-56308-8).

For specific parameter information, refer to *The Product Comparison Guide for HP-GL/2 and HP RTL Peripherals*, which you can order through your HP Sales office.

## How to Order Supplies and Accessories

You can order supplies and accessories in any of the following ways:

- Call your local authorized HP dealer.
- Contact your local HP Sales and Support office.
- Refer to the *Hewlett-Packard Services* Booklet that was supplied with your printer.

# 12

# Glossary

#### ac Alternating current.

**addressable dpi** A resolution higher than nominal value of the cartridges, giving a finer grid on which the plotter can selectively position dots and improve print quality.

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

**application** The software you use to create your drawings.

**bail** The black metal bar inside the printer, which holds the media in place.

**baud rate** The data transmission rate in a serial interface between a computer and a device, in bits per second.

**Bi-tronics** A standard for the parallel interface between computer and device, compatible with Centronics.

**CAD** Computer-aided design.

cartridge Print cartridge, containing ink.

**Centronics** A standard for the parallel interface between computer and device.

clear film See-through, polyester media type.

clipping Losing part of a drawing at the edges.

**CMYK** Cyan, magenta, yellow and black. The colors of the printer's four inks, and also a standard color model.

**coated paper** Paper coated on one side for inkjet printing.

**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, plotter, 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.

**GIS** Geographical information system (mapping software).

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

grayscale Shades of gray to represent colors.

**high-gloss film** A glossy, opaque, polyester media type.

**high-gloss photo** A glossy, opaque photographic paper.

**HP-GL** One of Hewlett-Packard's standard graphics languages for plotters and printers. Produces vector data. Forerunner to HP-GL/2.

**HP-GL/2** One of Hewlett-Packard's standard graphics languages for plotters and printers. Produces vector data. Newer than HP-GL.

**I/O** Input/output. The transmission of data between a computer and a device.

**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 whose X-axis (the axis vertical to the printer as you look at it from the front) 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 media.

matte Not glossy.

matte film Opaque, polyester media type.

**media** The material, usually paper, onto which the printer prints.

media bin The catcher situated below the printer.

**MIO** Modular input/output. Refers to the printer's network interface.

**nesting** Placing two or more pages side-by-side on the media to avoid waste.

opaque bond A matte paper media.

**palette** A set of logical pens defined by color and width.

**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 plotter has no physical pens, the lines it draws match the attributes of a pen.

**platen** The exterior part of the printer on which the media rests before going into the media-entry slot.

printing area Page size minus margins.

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

**queueing** Placing each page of each file received by the device in line, before and after printing.

**parity** An error-checking method in a serial interface between a computer and a device.

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

**RGB** Red, green and blue. A standard color model.

**RS-232-C** A serial interface standard.

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

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

**semi-gloss photo** A semi glossy, opaque photographic paper.

**serial interface** A type of interface between computer and device. Generally slower than a parallel interface.

**spindle** The rod which holds the roll of media.

tracing paper A semi-opaque matte paper type.

**translucent bond** A semi-opaque matte paper type.

**vector** A line. A method for defining an image, in terms of lines rather than dots. Vector data typically needs less memory than raster data.

**vellum** Cotton-fiber-based, semi-opaque matte media type.

**X-axis** The vertical axis, as you look at the printer from the front.

**Y-axis** The horizontal axis, as you look at the printer from the front.

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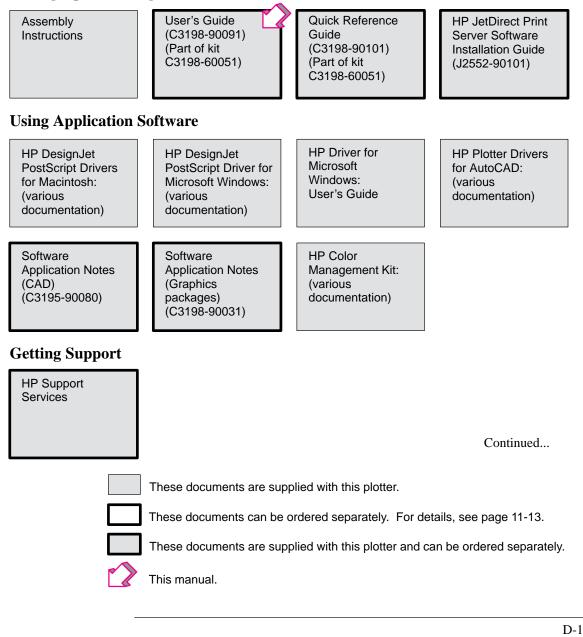
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# **Documentation Map**

# Printed Documentation for Users of the HP DesignJet 755CM Printer

### Setting Up and Using the Printer



## **Documentation Map**

### **Programmer's Reference**

HP-GL/2 and RTL Programmer's Reference Guide (5959-9733)

This manual.

The Product Comparison Guide for HP-GL/2 and HP RTL Peripherals (5959-9734)

PJL Technical Reference Manual (5961-0938)



These documents are supplied with this plotter.

These documents can be ordered separately. For details, see page 11-13.

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