HP Designjet Z2100 Photo printer series

Quick reference guide

Legal notices

The information contained herein is subject to change without notice.

The only warranties for HP Products and services are set forth in the express warranty statement accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Trademarks

Adobe® and Adobe Photoshop® are trademarks of Adobe Systems Incorporated.

Corel® is a trademark or registered trademark of Corel Corporation or Corel Corporation Limited.

Energy Star® is a U.S. registered mark of the United States Environmental Protection Agency.

Windows® is a U.S. registered trademark of Microsoft Corporation.

Table of contents

1 Introduction

Safety precautions 1
The front panel 1
Printer software 3

2 Personalizing the printer

Turn printer on and off 5
Access HP Easy Printer Care (Windows) or HP Printer Utility (Mac OS) 6
Access the Embedded Web Server 7

3 Paper handling

Choose which spindle to use 9
Load a roll onto the spindle 9
Load a roll into the printer 11
Easy loading procedure 12
Paper menu procedure 14
Unload a roll 15
Unload paper key procedure with paper on the roll 16
Paper menu procedure with paper on the roll 16
Roll out of paper procedure 16
Load a single sheet 16
Easy loading procedure 17
Paper menu procedure 18
Unload a single sheet 20
Unload paper key procedure 20
Paper menu procedure 20

4 Printing

Select print quality 23
Select paper size 23
Select margins options 24
Print with shortcuts 25

5 Color management

Color calibration 27

6 Maintaining the printer

Clean the exterior of the printer 29

Maintain the ink cartridges 29
Update the firmware 29

7 Accessories

How to order supplies and accessories 31
Order ink supplies 31
Order paper 32
Non-recommended paper types 32
Order accessories 32

8 Troubleshooting paper issues

The paper has jammed 35

9 Troubleshooting print-quality issues

General advice 39
Horizontal lines across the image (banding) 39
The whole image is blurry or grainy 41
Colors are inaccurate 41
Color accuracy using EPS or PDF images in page layout applications 42
The image is clipped 42

10 Front-panel error messages

11 HP Customer Care

Contact HP Support 49
Telephone numbers 50

Index 53

1 Introduction

Safety precautions

The following precautions ensure the proper use of the printer and prevent the printer from being damaged. Follow these precautions at all times.

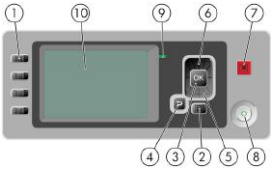
- Use the power supply voltage specified on the nameplate. Avoid overloading the printer's electrical outlet with multiple devices.
- Ensure the printer is well-grounded. Failure to ground the printer may result in electrical shock, fire, and susceptibility to electromagnetic interference.
- Do not disassemble or repair the printer yourself. Contact your local HP Service Representative for service, see Contact HP Support on page 49.
- Use only the electrical cord supplied by HP with the printer. Do not damage, cut, or repair the power cord. A damaged power cord has risk of fire and electric shock. Replace a damaged power cord with an HP-approved power cord.
- Do not allow metal or liquids (except those used in HP Cleaning Kits) to touch the internal parts of the printer. Doing so may cause fire, electric shock, or other serious hazards.
- Power OFF the printer and unplug the power cable from the power outlet in any of the following cases:
  - When placing your hands inside the printer
  - If there is smoke or an unusual smell coming from the printer
  - If the printer is making an unusual noise not heard during normal operation
  - A piece of metal or a liquid (not part of cleaning and maintenance routines) touches internal parts of the printer
  - During an electrical (thunder/lightning) storm
  - During a power failure.

The front panel

Your printer's front panel is located on the front of the printer, in the center. It has the following important functions:

- Assists you in troubleshooting issues
- Is used to perform certain procedures, such as cutting and unloading paper

- Displays helpful animations to guide you through procedures
- Displays up-to-date information about the status of the printer such as, the ink cartridges, the printheads, the paper, and the print jobs
- Displays warning and error messages, when appropriate, along with audio alerts to call attention to a warning or message
- Can be used to change the values of printer settings and thus change the operation of the printer. However, settings in the front panel are overridden by settings in the printer drivers, see *Using your printer* on DVD



The front panel has the following components:

1. Direct access keys:
   - First key: View ink levels, see *Using your printer* on DVD
   - Second key: View loaded paper, see *Using your printer* on DVD
   - Third key: Unload paper, see Unload a roll on page 15 and Unload a single sheet on page 20
   - Fourth key: Form feed and cut, see *Using your printer* on DVD
2. Menu key - Press to return to the main menu of the front-panel display. If you are already on the main menu it will display the status screen.
3. OK key - To confirm an action while in a procedure or interaction. To enter in a submenu in the menu. To select a value when given an option.
4. Back key - To go to the previous step in a procedure or interaction. To go to the upper level, or leave the option in the menu, or when given an option.
5. Down key - To go down in a menu or option, or to decrease a value, for example when configuring the front-panel display contrast or the IP address.
6. Up key - To go up in a menu or option, or to increase a value, for example when configuring the front-panel display contrast or the IP address.
7. Cancel key - To abort a procedure or interaction.
8. Power key - To turn the printer off or on, it also has a light to indicate the printer's status. If the power key light is off the device is off. If the power key light is blinking green, the device is starting up. If the power key light is green on, the device is on. If the power key light is amber on, the device is in standby. If the power key light is blinking amber, the device needs attention.

9. LED light - Indicates the printer's status. If the LED light is solid green, the device is ready. If it is flashing green, the device is busy. If it is solid amber, there is a system error. If it is flashing amber, the printer needs attention.

10. Front-panel display - Displays error, warnings, and information on using your printer.

To **highlight** an item in the front-panel display, press the Up or Down key until the item is highlighted.

To **select** an item in the front-panel display, first highlight it and then press the OK key.

When this guide shows a series of front-panel display items like this: **Item1** > **Item2** > **Item3**, it means that you should select **Item1**, then select **Item2**, then select **Item3**.

Information about specific uses of the front panel can be found throughout this guide.

Printer software

The following software is provided with your printer:

- The PCL3 raster driver, your main printer driver
- The HP Easy Printer Care (Windows) or HP Printer Utility (Mac OS), see Access HP Easy Printer Care (Windows) or HP Printer Utility (Mac OS) on page 6, allows you to:
  - Manage the printer including color with the HP Color Center
  - View the status of the ink cartridges, the printheads, and the paper
  - View job accounting information, see *Using your printer* on DVD
  - Update the printer's firmware, see Update the firmware on page 29
  - Change various printer settings (in the Settings tab)
- The Embedded Web Server, runs in the printer and enables you to use a Web browser on any computer to preform the HP-GL/2 Upgrade and to check ink levels and printer status, see Access the Embedded Web Server on page 7.
- The RTL and HP-GL/2 driver for Windows, needed if you have the HP-GL/2 Upgrade

2 Personalizing the printer

Turn printer on and off

Tip The printer is Energy Star compliant and can be left powered on without wasting energy. Leaving it on improves response time and overall system reliability. When the printer has not been used for a certain period of time (30 minutes by default), it saves power by going into sleep mode. However, any interaction with the printer's front-panel display returns it to active mode, and it can resume printing immediately. To change the sleep mode time, see *Using your printer* on DVD.

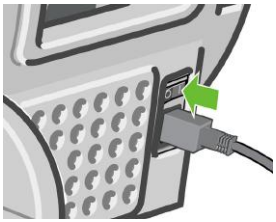
NOTE In sleep mode, the printer wakes up from time to time to do maintenance service to the printheads. This avoids the need of doing long preparation after long idle periods.

The printer has three levels of power consumption.

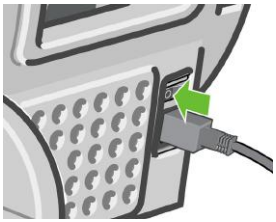
- Plugged in: the power cord is plugged into the back of the printer
- Switched on: the switch at the back of the printer is in the on position
- Powered on: the Power key on the front panel shows a green light

If you wish to turn the printer on or off or reset the printer, the normal and recommended method is to use the Power key on the front panel.

However, if you plan to store the printer indefinitely or the Power key does not seem to work, you are recommended to power it off using the Power key, and then also switch off the power switch at the rear.



To turn it back on, use the power switch at the rear.



When the printer is powered back on, it takes about three minutes to initialize and check and prepare the printheads. Preparing the printheads takes about one minute and 15 seconds. However, if the printer has been off for six weeks or more, preparing the printheads could take up to 45 minutes.

Tip It is strongly recommended to leave the printer powered on or in sleep mode to avoid wasting ink and time.

Access HP Easy Printer Care (Windows) or HP Printer Utility (Mac OS)

HP Easy Printer Care (Windows) or HP Printer Utility (Mac OS) enables you to manage your printer from a computer with a USB connection and TCP/IP.

- Under Windows, start HP Easy Printer Care from your desktop shortcut or from **Start** > **All Programs** > **Hewlett-Packard** > **HP Easy Printer Care** > **Start HP Easy Printer Care**. This launches HP Easy Printer Care showing the printers installed.
- Under Mac OS, launch the Mac Printer Utility by selecting **STARTUP_DISK** > **Library** > **Printers** > **hp** > **Utilities** > **HP Printer Utility**. This launches the HP Printer Selector where you need to add your printer by clicking **More Printers**.

  Select your printer and click **Launch Utility**. This launches the HP Printer Utility.

If you have followed these instructions but failed to get through to HP Easy Printer Care (Windows) or HP Printer Utility (Mac OS), see *Using your printer* on DVD.

Access the Embedded Web Server

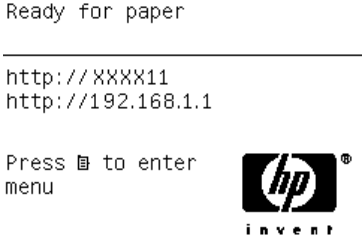
The Embedded Web Server enables you to manage your printer remotely using an ordinary Web browser running on any computer.

NOTE To use the Embedded Web Server, you must have a TCP/IP connection to your printer.

The following browsers are known to be compatible with the Embedded Web Server:

- Internet Explorer 5.5 or later, for Windows
- Internet Explorer 5.1 or later, for Mac OS X
- Netscape Navigator 6.01 or later
- Mozilla 1.5 or later
- Mozilla Firefox 1.0 or later
- Safari

To access the Embedded Web Server on any computer, open your Web browser and give the address of your printer. You can find out the address of your printer (starting with **http:**) from the front-panel display, by looking at the status screen.



If you have followed these instructions but failed to get through to the Embedded Web Server, see *Using your printer* on DVD.

3 Paper handling

Choose which spindle to use

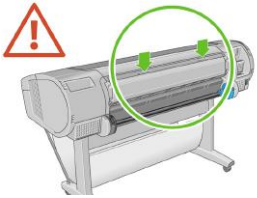
Ensure you use the correct spindle. The illustrations in the Load a roll onto the spindle on page 9 procedure and the Load a roll into the printer on page 11 procedure show the black spindle. You must use the gray spindle if you are loading the following categories and types of rolled papers wider than 36 in (91.5 cm).

Paper category	Paper type
Bond and Coated Paper	Plain Paper
Bond and Coated Paper	Bright White Bond Paper
Bond and Coated Paper	Coated Paper
Technical Paper	Natural Tracing Paper
Technical Paper	Translucent Bond
Technical Paper	Vellum

Tip If you are a regular user of different paper types, you can change rolls more quickly if you preload rolls of different paper types on different spindles. Extra spindles are available for purchase, see Accessories on page 31.

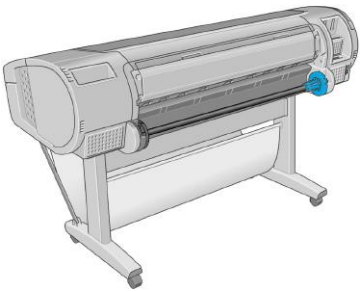
Load a roll onto the spindle

WARNING! Ensure the sheet tray is closed.



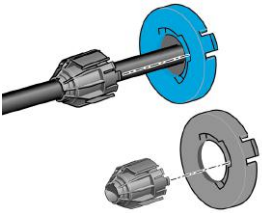
1. Remove the right-hand end of the spindle from the printer, then the other end.

WARNING! Do not insert your fingers into the spindle supports during the removal process.



2. The spindle has a stop at each end to keep the roll in position. The blue stop can be removed to mount a new roll; it slides along the spindle to hold rolls of different widths. Remove the blue paper stop (1) from the end of the spindle.

3. If your roll has a three-inch cardboard core, ensure that the core adaptors supplied with the printer have been installed.

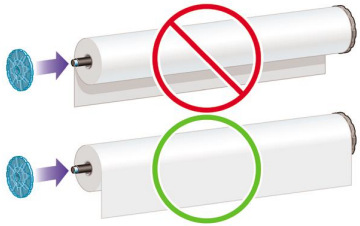


4. If the roll is long; rest the spindle horizontally on a table and load the roll on the table.

Tip You may need two people to handle a large roll.

5. Slide the new roll onto the spindle. Make sure the paper type is oriented as shown. If it is not, remove the roll, turn it 180 degrees and slide it back on to the spindle. There are labels on the spindle showing the correct orientation.

NOTE From the back of the printer, the blue stopper is insert into the right-side holder.



Ensure both ends of the roll are as close to the spindle stops as possible.

6. Put the blue paper stop on to the open end of the spindle, and push it towards the end of the roll.

7. Ensure the blue paper stop is pushed in as far as it goes; until both ends are against the stoppers.

If you are a regular user of different paper types, you can change rolls more quickly if you preload rolls of different paper types on different spindles. Extra spindles are available for purchase, see Accessories on page 31.

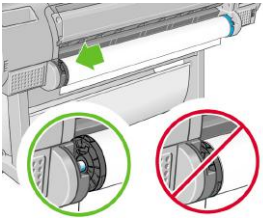
Load a roll into the printer

There are two ways to load a roll. The easy loading procedure is recommended.

CAUTION To start these procedures you must have a roll loaded on the spindle. See Load a roll onto the spindle on page 9.

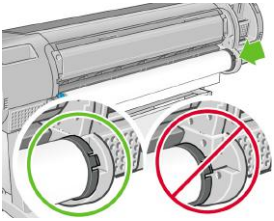
Easy loading procedure

1. Standing behind the printer, rest the spindle's black end on the left side roll holder. Do not put the end completely into the roll holder.

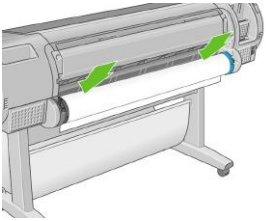


2. Check that you are using the correct spindle for your type of paper, see Choose which spindle to use on page 9.

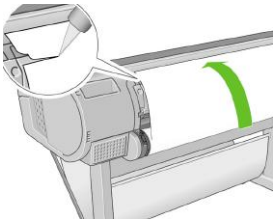
3. Rest the blue end of the spindle on the right side roll holder. If you are loading the gray spindle, ensure the rounded side of the spindle top is resting on the roll holder.



4. With both hands, push the spindle into both roll holders at the same time. The spindle snaps in place.



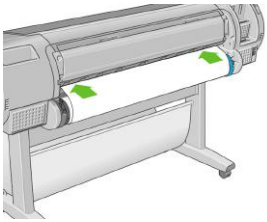
5. If the edge of the roll is not straight or torn (sometimes due to tape used to hold end of the roll), pull paper slightly beyond the cutting grove and use a cutter to cut a straight edge.



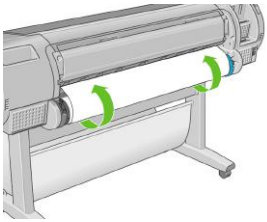
CAUTION Cut the paper as straight as possible, as uneven paper does not load correctly.

6. Insert the edge of the paper into the feeder.

WARNING! Do not to push your fingers inside the printer's paper path, the results may be painful.

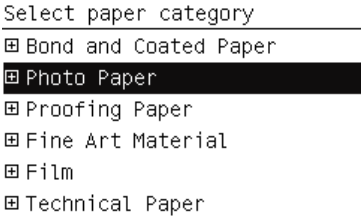


7. Roll the spindle into the feeder until you feel resistance. The printer detects the paper and feed it automatically into the printer.

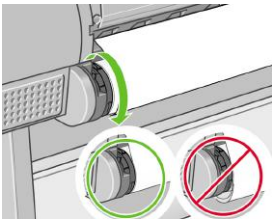


8. Once the paper is fed into the printer, the front-panel display asks if you are loading a roll or a sheet. Select **Roll** with the Up and Down keys and press OK.

9. Select your paper category and type.



10. The printer checks the alignment and measures the width.
11. Look at the front panel; you may find some instructions there.
12. When the roll is aligned, the front panel displays the **Ready** message and the printer is ready to print. If the role is not aligned, follow the instructions on the front-panel display.
13. If the paper is loose on the roll, lightly rewind from the end of the spindle until tight.



NOTE If you have an unexpected issue at any stage of the paper loading process, see *Using your printer* on DVD.

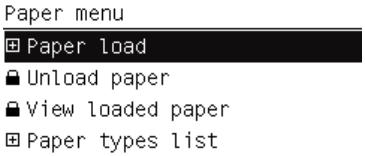
Tip When prints fall into the basket, they can be torn or get ink marks from other prints. To avoid this, catch your prints as they are cut from the roll and do not stack prints in the basket or turn off the automatic cutter, see *Using your printer* on DVD, and use the Form feed and cut key to release your print.

Paper menu procedure

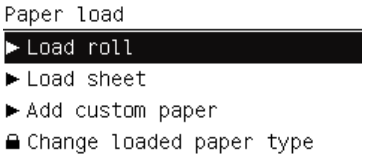
As an alternative you can use the paper menu to start the paper loading process.

1. Follow steps one through four of the Easy loading procedure on page 12.
2. Press the Menu key to return to the main menu, select the Paper menu icon .

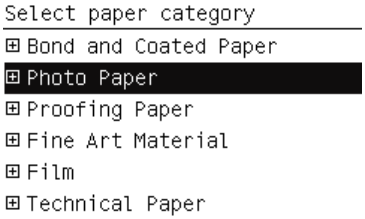
3. Select **Paper load**.



4. Select **Load roll**.



5. Select your paper category and type.



6. Continue with step five of the easy loading process, skipping steps seven and eight.

Tip When prints fall into the basket, they can be torn or get ink marks from other prints. To avoid this, catch your prints as they are cut from the roll and do not stack prints in the basket or turn off the automatic cutter, see *Using your printer* on DVD, and use the Form feed and cut key to release your print.

Unload a roll

Before unloading a roll, check whether there is paper on the roll or if the roll is out of paper, and follow the appropriate procedure as described below.

Unload paper key procedure with paper on the roll

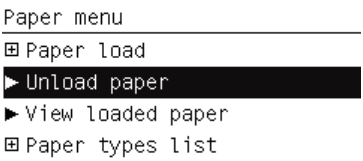
If there is paper on the roll, use the following procedure.

1. Press the Unload paper key on the front panel.
2. When prompted by the front-panel display, lift the blue lever on the left.
3. When prompted by the front-panel display, lightly rewind the paper from the end of the spindle until removed from the printer.
4. When prompted by the front-panel display, lower the blue lever.

Paper menu procedure with paper on the roll

If there is paper on the roll, you can also start the process from the paper menu in the front panel's main menu.

1. Press the Menu key to return to the main menu, select the Paper menu icon .
2. Select **Unload paper**.



3. Continue from step two of the Unload paper key process.

Roll out of paper procedure

If the end of the paper is no longer attached to the roll use the following procedure.

1. If you have already started the unload process, press the Cancel key on the front panel to cancel that procedure.
2. Lift the blue lever on the left. If the front panel displays a warning about the lever, ignore it.
3. Pull out the paper from the printer. Pull from wherever the paper is accessible; the back of the printer is recommended.
4. Lower the blue lever.
5. If the front panel displays a warning message, press the OK key to clear it.

Load a single sheet

There are two ways to load a sheet. The easy loading procedure is recommended.

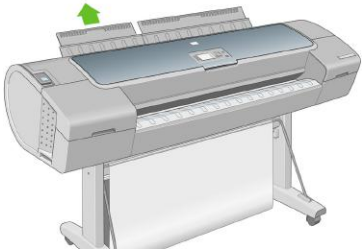
CAUTION Any loaded roll or sheet must be unloaded before loading a sheet, see Unload a roll on page 15, and Unload a single sheet on page 20.

WARNING! For sheets thicker than 0.5mm, you must have space behind the printer equal to the length of the sheet.

Easy loading procedure

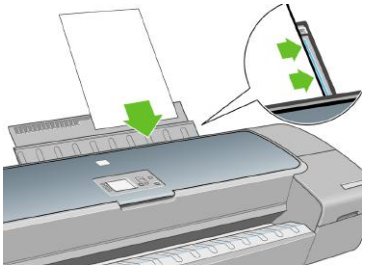
1. Standing in front of the printer, open the sheet tray. If the sheet is long, extend the right extension. If the sheet is also wide extend the left extension.

   Tip If the tray is difficult to open, try opening from behind the printer.

   NOTE The extensions are seven cm and snap in place.

2. Insert the sheet into the feeder. Load your sheet aligned with the load line and insert until the paper will not continue, with thicker sheets you feel resistance. The printer detects the sheet in three seconds. A countdown begins on the front-panel display.

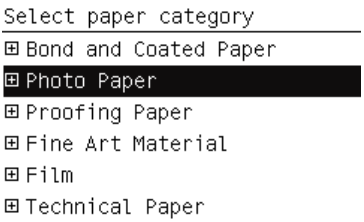
   

   WARNING! Take care not to push your fingers inside the printer's paper path, the results may be painful.

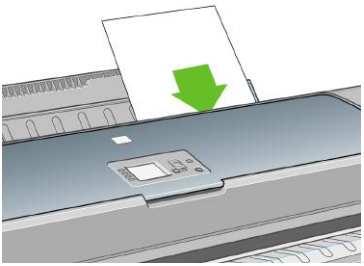
3. After the countdown, the paper feeds into the printer. Guide the sheet into the printer; this is especially important with thicker papers.

4. The front-panel display asks if you are loading a roll or a sheet. Select **Sheet** with the Up and Down keys.

5. Enter your paper category and type.



6. The printer checks the alignment and measures the sheet.



NOTE Depending on the length of the sheet, it feeds out the front of the printer.

7. If the paper has been loaded successfully, the front panel displays the **Ready** message and the printer ready to print. If the paper is not straight, follow the instructions on the front-panel display.

NOTE When correctly loaded, the sheet is in the back of the printer.

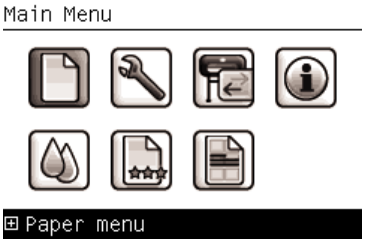
NOTE If you have an unexpected problem at any stage of the paper loading process, see *Using your printer* on DVD.

Paper menu procedure

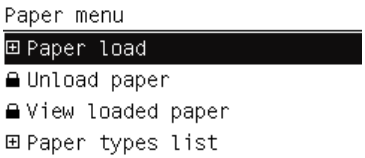
As an alternative you can use the paper menu to start the paper loading process

1. Perform step one of the easy loading procedure.

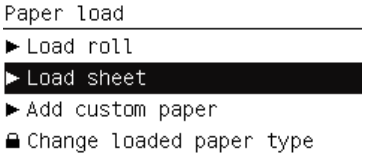
2. Press the Menu key to return to the main menu and select the Paper menu icon .



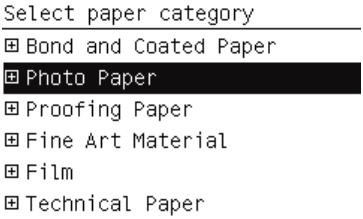
3. Select **Paper load**.



4. Select **Load sheet**.



5. Select your paper category and type.



6. Continue with step two of the easy loading procedure, skipping steps four and five.

Unload a single sheet

To unload a single sheet after printing, you can simply pull the sheet free from the front of the printer. To unload a sheet without printing, use the Unload paper key or the paper menu procedure.

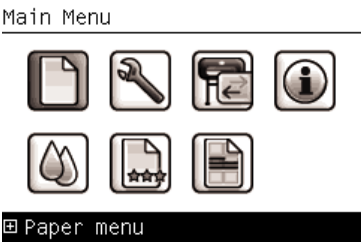
Unload paper key procedure

1. Press the Unload paper key on the front panel.
2. The sheet unloads out the front of the printer, either catch it manually or allow it to fall in the basket.

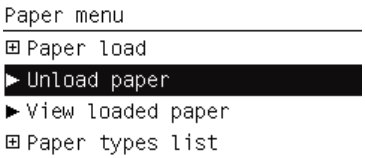
Paper menu procedure

You can also unload a sheet from the paper menu.

1. Press the Menu key to return to the main menu and select the Paper menu icon .



2. Select **Unload paper**. The sheet unloads out of the front of the printer, either catch it manually or allow it to fall in the basket.



4 Printing

Select print quality

The printer has various print-quality options because best-quality printing requires some loss of speed, while fast printing implies some reduction in print quality.

Therefore, the standard print-quality selector is a slider that allows you to choose between quality and speed, or perhaps some compromise between the two.

Alternatively, you can select from the custom options: **Best**, **Normal**, and **Fast**. There are also two supplementary custom options that may have an effect on print quality: **Maximum detail** and **More passes**. See *Using your printer* on DVD.

NOTE In the Windows driver dialog, the rendering resolution for your job is displayed in the Custom Print Quality Options dialog box.

You can select print-quality options in the following ways:

- **In the Windows driver dialog:** go to the **Paper/Quality** tab and look at the Print Quality section. If you select **Standard Options**, you will see a simple slider with which you can select some compromise between speed and quality. If you select **Custom Options**, you will see the more specific options described above.
- **In the Mac OS Print dialog:** go to the **Paper Type/Quality** panel and select **Paper**. If you select **Standard** quality options, you will see a simple slider with which you can select some compromise between speed and quality. If you select **Custom** quality options, you will see the more specific options described above.
- **Using the front panel:** select the Setup menu icon, then **Printing preferences** > **Print quality**. This option is available only with the HP-GL/2 Upgrade.

  NOTE If the print quality is set in the **Print** dialog, it overrides the print-quality setting in the front panel.

NOTE You cannot change the print quality of pages that the printer is already receiving or has already received (even if they have not started to print yet).

Select paper size

The paper size can be specified in the following ways.

NOTE The paper size specified here should be the paper size in which the document was created. It is possible to rescale the document to a different size for printing. See *Using your printer* on DVD.

- **In the Windows driver dialog:** select the **Paper/Quality** tab, then **Document Size**.
- **In the Mac OS Page Setup dialog:** select your printer in the **Format for** popup menu, then **Paper Size**.
- **Using the front panel:** select the Setup menu icon , then **Printing preferences** > **Paper** > **Select paper size**. This option is available only with the HP-GL/2 Upgrade.

  NOTE If the paper size is set in the **Print** or **Page Setup** dialog, it overrides the paper size setting in the front panel.

To choose a non-standard paper size not shown in the list of paper sizes:

- Under Windows, there are two different ways:
  - In the driver dialog, select **Custom** from the paper size list in the **Paper/Quality** tab, then specify the paper dimensions, then click **Save** to save your new paper size. To see your new custom size in the list of custom sizes, you need to exit the printer properties, then reenter them and use the **More** button.
  - From the Start menu, select **Printers and Faxes**, then from the File menu select **Server Properties**. In the **Forms** tab, check the **Create a new form** box, specify the name and dimensions of the new form, then click **Save Form**.
- Under Mac OS X 10.4, select **Paper Size** > **Manage Custom Sizes** in the **Page Setup** dialog.
- Under Mac OS X 10.2 or 10.3, select **Settings** > **Custom Paper Size** from the **Page Setup** dialog.

Select margins options

By default, the printer leaves a 5 mm margin between the edges of your image and the edges of the paper (17 mm at the foot of a sheet of paper). However, you can change this behavior in several ways.

- **In the Windows driver dialog:** select the **Paper/Quality** tab and then the **Layout** button.
- **In the Mac OS Print dialog:** select the **Paper Type/Quality** panel and then **Layout**.

You will then see at least some of the following options.

NOTE Under Mac OS, the available margins options depend on the paper size selected in the **Page Setup** dialog. For instance, for borderless printing you must select a paper size name that includes the words “no margins”.

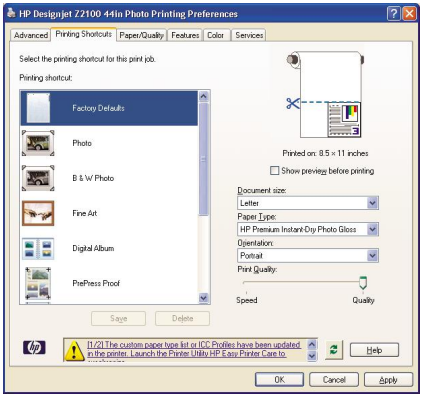
- **Standard**. Your image will be printed on a page of the size you have selected, with a narrow margin between the edges of the image and the edges of the paper. The image should be small enough to fit between the margins.
- **Oversize**. Your image will be printed on a page slightly larger than the size you have selected. If you cut off the margins, you will be left with a page of the size you selected, with no margins remaining between your image and the edges of the paper.
- **Clip Contents By Margins**. Your image will be printed on a page of the size you have selected, with a narrow margin between the edges of the image and the edges of the paper. In this case, if the image is the same size as the page, the printer assumes that the extreme edges of the image are either white or unimportant, and do not need to be printed. This may be useful when your image already contains a border.
- **Borderless**. Your image will be printed on a page of the size you have selected, with no margins. The image is slightly enlarged to ensure that no margin is left between the edges of the image and the edges of the paper. If you select **Automatically by Printer**, this enlargement is done automatically. If you select **Manually in Application**, you must select a custom page size slightly larger than the page on which you intend to print. See also *Using your printer* on DVD.

Print with shortcuts

The printer driver provides many options that can be set to different values when printing a particular job. A printing shortcut stores the values of all these options that are appropriate for a particular kind of job, so that you can set them all with a single click. Some settings (such as paper size, paper source, and orientation) may be overridden by the values provided by your application.

To use a shortcut, select the **Printing Shortcuts** tab in the Windows driver dialog.

NOTE Shortcuts are available only under Windows.



You can see a list of available shortcuts; select the one that matches the kind of job you want to print.

The driver options are now adjusted to suit your job. You can either print immediately, or examine the settings to check that you agree with them. If you like, you can select a shortcut and then change some of its settings manually.

Tip Check at least the settings that you can see in the **Printing Shortcuts** tab: the document size, orientation, etc.

The Factory Defaults shortcut contains the printer's default settings. When you click on it, it sets all options to their default values.

Printing shortcuts can be customized to your particular needs. To create your own shortcut:

1. Select the shortcut that comes closest to satisfying your requirements.
2. Change any value in the **Printing Shortcuts** tab and/or other tabs.
3. Save the new printing shortcut.

If you decide later that you no longer want a shortcut, you can delete it.

5 Color management

Color calibration

Color calibration enables your printer to produce consistent colors with the particular printheads, inks, and paper type that you are using, and under your particular environmental conditions. After color calibration, you can expect to get identical prints from two different printers situated in different countries.

The printer usually reminds you with an alert whenever you need to perform color calibration, unless you have disabled the alerts. Calibration should be done in any of the following circumstances:

- Whenever a printhead is replaced
- Whenever a new paper type is introduced that has not yet been calibrated with the current set of printheads
- Whenever a certain amount of printing has been done since the last calibration
- Whenever the environmental conditions (temperature and humidity) change significantly

You should calibrate a paper type before creating its color profile; however, you can later recalibrate without needing to recreate the color profile.

You can start color calibration in the following ways:

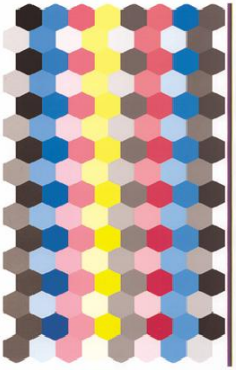
- From the printer alert that recommends calibration.
- From the HP Color Center: select **Calibrate Your Printer**.
- From the front panel: select the Image Quality Maintenance menu icon , then **Calibrate color**.

The calibration process is fully automatic and can be performed unattended after you have loaded paper of the type you wish to calibrate—which should be A4, Letter, or any larger size.

NOTE Color calibration cannot be performed successfully on plain paper, nor on any kind of transparent material. Do not attempt it.

The process takes about 8–10 minutes and consists of the following steps.

1. A calibration test chart is printed, which contains patches of each ink used in your printer.



2. The test chart is allowed to dry for a period of time that depends on the paper type. The ink should be dry when scanned, because wet ink may be a slightly different color from dry ink.
3. The test chart is scanned and measured using the HP Embedded Spectrophotometer.
4. From the measurements made by the spectrophotometer, the printer calculates the necessary correction factors to apply for consistent color printing on that paper type. It also calculates the maximum amount of each ink that can be applied to the paper.

6 Maintaining the printer

Clean the exterior of the printer

Clean the outside of the printer and all other parts of the printer that you regularly touch as part of normal operation with a damp sponge or a soft cloth and a mild household cleaner such as non-abrasive liquid soap.

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

CAUTION Do not use abrasive cleaners on the printer.

Maintain the ink cartridges

During the normal lifetime of a cartridge, no specific maintenance is required. However, in order to maintain the best print quality, replace a cartridge when it reaches its expiration date. The printer's front panel notifies you when any cartridge reaches its expiration date.

You can also check a cartridge's expiration date at any time: see *Using your printer* on DVD.

See also *Using your printer* on DVD.

Update the firmware

The printer's various functions are controlled by software that resides in the printer, otherwise known as firmware.

From time to time firmware updates will be available from Hewlett-Packard. These updates increase the printer's functionality and enhance its features.

Firmware updates can be downloaded from the Internet and installed in your printer in the following ways; you can choose whichever you find most convenient.

- Using HP Easy Printer Care under Windows, select your printer, the **Support** tab, and then **Firmware Update**.
- Using HP Printer Utility under Mac OS, select **Support** and then **Firmware Update**.
- Using your printer's Embedded Web Server, select the **Setup** tab and then **Firmware update**.

In each case, follow the instructions on your screen to download the firmware file and store it on your hard disk. Then select the downloaded file and click **Update**.

The firmware includes a set of the most commonly used paper profiles. Extra paper profiles can be downloaded separately; see *Using your printer* on DVD.

7 Accessories

How to order supplies and accessories

There are two alternative ways to order supplies or accessories for your printer:

- Visit http://www.hp.com/go/designjetz2100_order/ on the Web.
- Contact HP Support (see Contact HP Support on page 49).

The rest of this chapter lists the available supplies and accessories, and their part numbers.

Order ink supplies

The following ink supplies can be ordered for your printer.

Table 7-1 Ink cartridges

Cartridge	Part number
HP 70 Matte Black 130 ml Ink Cartridge	C9448A
HP 70 Photo Black 130 ml Ink Cartridge	C9449A
HP 70 Light Gray 130 ml Ink Cartridge	C9451A
HP 70 Cyan 130 ml Ink Cartridge	C9452A
HP 70 Magenta 130 ml Ink Cartridge	C9453A
HP 70 Yellow 130 ml Ink Cartridge	C9454A
HP 70 Light Magenta 130 ml Ink Cartridge	C9455A
HP 70 Light Cyan 130 ml Ink Cartridge	C9390A
HP 70 Matte Black 130 ml Ink Cartridge Twin Pack	CB339A
HP 70 Photo Black 130 ml Ink Cartridge Twin Pack	CB340A
HP 70 Light Gray 130 ml Ink Cartridge Twin Pack	CB342A
HP 70 Cyan 130 ml Ink Cartridge Twin Pack	CB343A
HP 70 Magenta 130 ml Ink Cartridge Twin Pack	CB344A
HP 70 Yellow 130 ml Ink Cartridge Twin Pack	CB345A

Table 7-1 Ink cartridges (continued)

Cartridge	Part number
HP 70 Light Magenta 130 ml Ink Cartridge Twin Pack	CB346A
HP 70 Light Cyan 130 ml Ink Cartridge Twin Pack	CB351A

Table 7-2 Printheads

Printhead	Part number
HP 70 Matte Black & Cyan Printhead	C9404A
HP 70 Light Magenta & Light Cyan Printhead	C9405A
HP 70 Magenta & Yellow Printhead	C9406A
HP 70 Photo Black & Light Gray Printhead	C9407A

Order paper

The following paper categories are currently available for use with your printer.

- HP Bond and Coated Paper
- HP Photographic Paper
- HP Proofing Paper
- HP Backlit Material
- HP Self-Adhesive Material and Laminate
- HP Banner and Sign Material
- HP Fine Art Printing Material

Specific paper types are likely to change over the course of time. For full details and the latest information, see http://www.hp.com/go/designjet/supplies/.

Non-recommended paper types

In many cases, paper types that are not supported by HP may nevertheless be usable with your printer. However, the following paper types are unlikely to give satisfactory results:

- Photo paper that swells
- Brochure paper

Order accessories

The following accessories can be ordered for your printer.

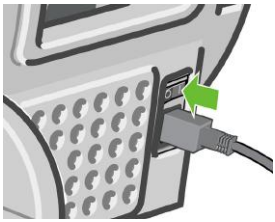
Name	Product number
HP Designjet Z2100 24in Stand (Asia only)	Q6663A
HP-GL/2 Upgrade	Q6692A
EFI Designjet Edition 5.1 for HP XL International	Q6643D
EFI Designjet Edition 5.1 for HP XL Japan	Q6644D
HP Advanced Profiling Solution	Q6695A
HP Jetdirect 635n IPv6/IPsec Print Server	J7961G

8 Troubleshooting paper issues

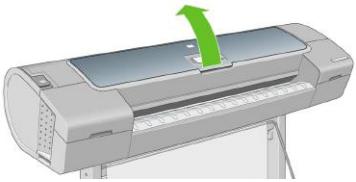
The paper has jammed

When a paper jam occurs, you normally see the **Possible paper jam** message in the front-panel display.

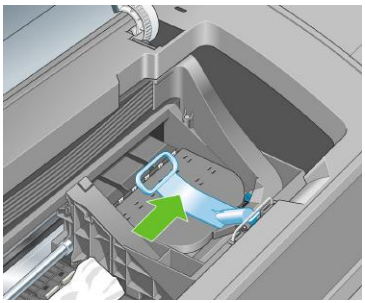
1. Power off the printer at the front panel and also switch it off at the rear.



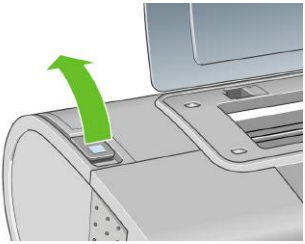
2. Open the window.



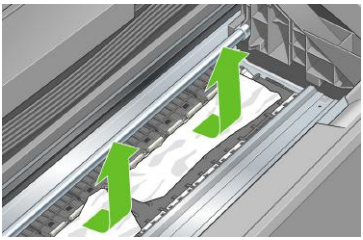
3. Try to move the printhead carriage out of the way.



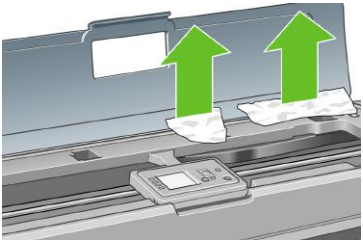
4. Lift the blue lever as far up as it will go.



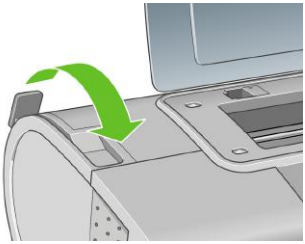
5. Carefully remove any of the jammed paper that you can lift up and out from the top of the printer.



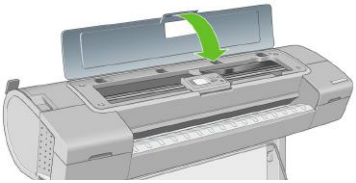
6. Carefully remove all small pieces of paper.



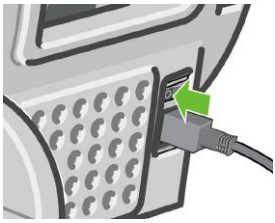
7. Lower the blue lever.



8. Close transparent window.



9. Switch on the printer.



10. Reload the roll, or load a new sheet. See Load a roll into the printer on page 11 or Paper menu procedure on page 18.

NOTE If you find that there is still some paper causing an obstruction within the printer, restart the procedure and carefully remove all pieces of paper.

9 Troubleshooting print-quality issues

General advice

When you have any print-quality problem:

- To achieve the best performance from your printer, use only genuine manufacturer's supplies and accessories, whose reliability and performance have been thoroughly tested to give trouble-free performance and best-quality prints. For details of recommended papers, see Order paper on page 32.
- Make sure that the paper type selected in the front panel is the same as the paper type loaded into the printer. To check this, use the View loaded paper key on the front panel. At the same time, check that the paper type has been calibrated. Also make sure that the paper type selected in your software is the same as the paper type loaded into the printer.

  CAUTION If you have the wrong paper type selected, you could experience poor print quality and incorrect colors, and perhaps even damage to the printheads.

- Check that you are using the most appropriate print-quality settings for your purposes (see Printing on page 23). You are likely to see lower print quality if you have moved the print-quality slider to the 'Speed' end of the scale, or set the custom quality level to **Fast**.
- Check that your environmental conditions (temperature, humidity) are in the recommended range. See *Using your printer* on DVD.
- Check that your ink cartridges and printheads have not passed their expiration dates: see Maintain the ink cartridges on page 29.

Horizontal lines across the image (banding)

If your printed image suffers from added horizontal lines as shown (the color may vary):

1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software. To check on the front panel, use the View loaded paper key.
2. Check that you are using appropriate print-quality settings for your purposes (see Printing on page 23). In some cases, you can overcome a print-quality problem merely by selecting a higher print-quality level. For instance, if you have set the Print Quality slider to **Speed**, try setting it to **Quality**; if you have already set it to **Quality**, try selecting **Custom Options** and then **More Passes**. If you change the print-quality settings, you may wish to reprint your job at this point in case the problem has been solved.
3. Print the Image Diagnostics Print. See *Using your printer* on DVD.
4. If the printheads are working correctly, go to the front panel and press the View loaded paper key to see the paper advance calibration status. If the status is PENDING, you should perform paper advance calibration: see *Using your printer* on DVD.

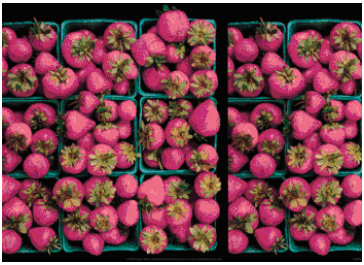
If the problem persists despite all the above actions, contact your customer service representative for further support.

The whole image is blurry or grainy

1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software. To check on the front panel, use the View loaded paper key.
2. Check that you are printing on the correct side of the paper.
3. Check that you are using appropriate print-quality settings (see Printing on page 23). In some cases, you can overcome a print-quality problem merely by selecting a higher print-quality level. For instance, if you have set the Print Quality slider to **Speed**, try setting it to **Quality**; if you have already set it to **Quality**, try selecting **Custom Options** and then **More Passes**. If you change the print-quality settings, you may wish to reprint your job at this point in case the problem has been solved.
4. Go to the front panel and select the Ink menu icon, then **Printhead information** to see the printhead alignment status. If the status is PENDING, you should align the printheads. See *Using your printer* on DVD. After alignment, you may wish to reprint your job in case the problem has been solved.
5. Go to the front panel and press the View loaded paper key to see the paper advance calibration status. If the status is PENDING, you should perform paper advance calibration: see *Using your printer* on DVD.

If the problem persists despite all the above actions, contact your customer service representative for further support.

Colors are inaccurate



If the colors of your print do not match your expectations, try the following:

1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software. To check on the front panel, use the View loaded paper key. At the same time, check the color calibration status. If the status is RECOMMENDED or OBSOLETE, you should perform color calibration: see Color calibration on page 27. If you have made any changes, you may wish to reprint your job in case the problem has been solved.
2. Check that you are printing on the correct side of the paper.
3. Check that you are using appropriate print-quality settings (see Printing on page 23). If you have selected the **Speed** or **Fast** options, you may not get the most accurate colors. If you change the print-quality settings, you may wish to reprint your job at this point in case the problem has been solved.
4. If you are using Application Color Management, check that the color profile you are using corresponds to the selected paper type and print-quality settings. If you have doubts about which color settings to use, see Color management on page 27. If you need to create a color profile, see *Using your printer* on DVD.
5. If the problem consists of color differences between your print and your monitor, please follow the instructions in the “How to calibrate your monitor” section of the HP Color Center. At this point, you may wish to reprint your job in case the problem has been solved.
6. Print the Image Diagnostics Print. See *Using your printer* on DVD.

If the problem persists despite all the above actions, contact your customer service representative for further support.

Color accuracy using EPS or PDF images in page layout applications

Page layout applications such as Adobe InDesign and QuarkXPress do not support color management of EPS, PDF, or grayscale files.

If you have to use such files, try to ensure that the EPS, PDF, or grayscale images are already in the same color space that you intend to use later on in Adobe InDesign or QuarkXPress. For instance, if your final goal is to print the job in a press that follows the SWOP standard, convert the image into SWOP when you create it.

The image is clipped

Clipping normally indicates a discrepancy between the actual printable area on the loaded paper and the printable area as understood by your software. You can often identify this kind of problem before printing by previewing your print (see *Using your printer* on DVD).

- Check the actual printable area for the paper size you have loaded.

  printable area = paper size – margins

- Check what your software understands to be the printable area (which it may call "printing area" or "imageable area"). For example, some software applications assume standard printable areas that are larger than those used in this printer.
- If you have defined a custom page size with very narrow margins, the printer may impose its own minimal margins, clipping your image slightly. You may want to consider using a larger paper size, or borderless printing (see Select margins options on page 24).

- If your image contains its own margins, you may be able to print it successfully by using the **Clip Contents by Margins** option (see Select margins options on page 24).
- If you are trying to print a very long image on a roll, check that your software is capable of printing an image of that size.
- You may have asked to rotate the page from portrait to landscape on a paper size that is not wide enough.
- If necessary, reduce the size of the image or document in your software application, so it fits between the margins.

There is another possible explanation for a clipped image. Some applications, such as Adobe Photoshop, Adobe Illustrator, and CorelDRAW, use an internal 16-bit coordinate system which means that they cannot handle an image of more than 32,768 pixels. If you try to print an image larger than this from these applications, the bottom of the image will be clipped. In this case, the only way to print the whole image is to reduce the resolution so that the whole image requires fewer than 32,768 pixels. The Windows driver dialog includes an option called **16-bit App. Compatibility**, which can be used to reduce the resolution of such images automatically. You can find this option in the **Advanced** tab, under **Document Options** > **Printer Features**.

10 Front-panel error messages

Occasionally you may see one of the following messages appear on the front-panel display. If so, please follow the advice in the Recommendation column.

If you see an error message that does not appear here, and you feel in doubt about the correct response, contact HP Support. See Contact HP Support on page 49.

Table 10-1 Text messages

Message	Recommendation
[Color] cartridge has expired	Replace the cartridge. See *Using your printer* on DVD.
[Color] cartridge is missing	Insert a cartridge of the correct color. See *Using your printer* on DVD.
[Color] cartridge is out of ink	Replace the cartridge. See *Using your printer* on DVD.
[Color] printhead #[n] error: not present	Insert the correct printhead. See *Using your printer* on DVD.
[Color] printhead #[n] error: please remove	Remove the incorrect printhead and insert a new printhead of the correct type (color and number). See *Using your printer* on DVD.
[Color] printhead #[n] error: replace	Remove the non-functional printhead and insert a new printhead. See *Using your printer* on DVD.
[Color] printhead #[n] error: reseat	Remove and reinsert the same printhead, or try cleaning the electrical connections. If necessary, insert a new printhead. See *Using your printer* on DVD.
[Color] printhead #[n] out of warranty	The printhead's warranty has expired, because of the length of time it has been in operation or because of the volume of ink used.
[Color] printhead #[n] warranty warning	The printhead's warranty may be invalidated by the use of the wrong kind of ink.
IO error	Restart the printer. If the problem persists, contact HP Support. See Contact HP Support on page 49.
IO warning	Try again; if the problem persists, contact HP Support. See Contact HP Support on page 49.
Paper advance calibration pending	Perform paper advance calibration. See *Using your printer* on DVD.
Paper too small to print paper advance calibration	Unload paper and load larger paper.

Table 10-1 Text messages (continued)

Message	Recommendation
Paper too small to scan paper advance calibration	Unload paper and load larger paper.
PDL Error: Ink system not ready	Clean the printheads. See *Using your printer* on DVD.
PDL Error: Job clipped	The image is too large for the paper or for the printer. Load larger paper if possible, or reduce the image size.
PDL Error: memory full	Restart the printer and try resending the job; if necessary, reduce the complexity of the job.
PDL Error: out of paper	Load more paper.
PDL Error: parsing error	The print job is unintelligible to the printer. Try to recreate and resend it. Check your cable connections.
PDL Error: print mode error	The paper type or print quality specified for the job are incorrect. Change the loaded paper type or the print settings.
PDL Error: printing error	Try sending the job again.
PDL Error: virtual memory full	Restart the printer and try resending the job; if necessary, reduce the complexity of the job.
Printhead alignment error: paper too small	Unload paper and load larger paper.
Replace [color] cartridge	Replace the cartridge. See *Using your printer* on DVD.
Reseat [color] cartridge	Remove and reinsert the same cartridge. See *Using your printer* on DVD.
Update: failed. Invalid file	Make sure that you have selected the correct firmware update file. Then try again to perform the update.

Table 10-2 Numerical error codes

Error code	Recommendation
01.0 01.1 01.2	Restart the printer. If the problem persists, contact HP Support. See Contact HP Support on page 49.
21 21.1 22.0 22.1 22.2 22.3 24	Restart the printer. If the problem persists, contact HP Support. See Contact HP Support on page 49.

Table 10-2 Numerical error codes (continued)

Error code	Recommendation
62	Update your printer's firmware. See Update the firmware on page 29.
63	
64	
65	
67	
74.1	Try the firmware update again. Do not try to use your computer while the update is in progress. If the problem persists, contact HP Support. See Contact HP Support on page 49.
79	Restart the printer. If the problem persists, contact HP Support. See Contact HP Support on page 49.
94	Restart color calibration. See Color calibration on page 27.
94.1	

11 HP Customer Care

Contact HP Support

HP Support is available to you by telephone. What to do before you call:

- Review the troubleshooting suggestions in this guide.
- Review the relevant driver documentation.
- If you have installed third-party software drivers and RIPs, see their documentation.
- If you call one of the Hewlett-Packard offices, please have the following information available to help us answer your questions more quickly:
  - The printer you are using (the product number and the serial number, found on the label at the back of the printer)
  - If there is an error code on the front panel, note it down; see Front-panel error messages on page 45
  - The printer's Service ID: at the front panel, select the Information menu icon , then **View printer information**
  - 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 (USB or network)
  - The software name and version you are currently using
  - If possible, print out the following reports; you may be asked to fax them to the support center helping you: Configuration, Usage Report, and “all pages above” from Service Information (see *Using your printer* on DVD)

Telephone numbers

An up-to-date list of HP Support telephone numbers is available on the Web: please visit http://welcome.hp.com/country/us/en/wwcontact_us.html. If you have no access to the Web, try one of the numbers below.

- Algeria: 213 17 63 80
- Argentina: 0 800 777 HP INVENT, local 5411 4778 8380
- Australia: 13 10 47
- Austria: 0810 00 10 00
- Bahrain: 800 171
- Belgium: (0) 78 600 600
- Bolivia: 0 800 1110, local 54 11 4708 1600
- Brazil: 0800 157 751, local 55 11 3747 7799
- Canada: 1 800 HP INVENT
- Caribbean: 1 800 711 2884
- Central America: 1 800 711 2884
- Chile: 800 HP INVENT, 123 800 360 999
- China: 800 810 59 59, 10 6564 59 59
- Colombia: 01 8000 51 HP INVENT, local 571 606 9191
- Czech Republic: 420 261 307 310
- Denmark: 70 11 77 00
- Ecuador: 999 119, 1 800 225 528
- Egypt: 202 532 5222
- Finland: 0203 53232
- France: 08 26 10 49 49
- Germany: 0180 52 58 143
- Greece: 210 6073603, 801 11 22 55 47
- Guadaloupe: 0800 99 00 11, 877 219 8791
- Guatemala: 1 800 999 5105, 1 800 711 2884
- Hong Kong: 852 3002 8555
- Hungary: 06 1 382 1111
- India: 1 600 112 267
- Indonesia: 350 3408

- Ireland: 1 890 946500
- Israel: 09 830 4848
- Italy: 02 3859 1212
- Jamaica: 0 800 711 2884
- Japan: software 0120 014121, hardware 0120 742594
- Korea: 82 1588 3003
- Luxembourg: 27 303 303
- Malaysia: 1 800 80 5405
- Martinique: 0 800 99 00, 877 219 8671
- Mexico: 01 800 472 6684, local 5258 9922
- Middle East: 4 366 2020
- Morocco: 2240 4747
- Netherlands: 0900 1170 000
- New Zealand: 09 365 9805
- Norway: 800 62 800
- Paraguay: 00 811 800, 800 711 2884
- Panama: 001 800 711 2884
- Peru: 0 800 10111
- Philippines: 632 888 6100
- Poland: 22 566 6000
- Portugal: 213 164 164
- Puerto Rico: 1 800 652 6672
- RSA: 27 11 258 9301, local 086 000 1030
- Romania: 40 21 315 4442
- Russia: 095 797 3520, 812 3467 997
- Saudi Arabia: 6272 5300
- Slovakia: 2 50222444
- South Africa: 0800 001 030
- Spain: 902 010 333
- Sweden: 077 130 30 00
- Switzerland: 0848 80 20 20

- Taiwan: 886 2 872 28000
- Thailand: 0 2353 9000
- Tunisia: 71 89 12 22
- Turkey: 216 444 71 71
- UAE: 800 4520, 04 366 2020
- Ukraine: 44 4903520
- United Kingdom: 0870 842 2339
- United States: 1 800 HP INVENT
- Uruguay: 54 11 4708 1600
- Venezuela: 0 800 HP INVENT, local 58 212 278 8000
- Vietnam: 84 8 823 45 30
- West Africa (French): 351 213 17 63 80

Index

A
accessories
order 32

C
calibration
color 27
clean the printer 29
clipped image 42
color calibration 27
colors inaccurate 41
core adaptors 10

E
Embedded Web Server
access 7
error messages, front panel 45

F
firmware update 29
front panel 1
front panel option
calibrate color 27
load roll 14
load sheet 18
print quality 23
printhead information 41
select paper size 24
unload paper 16, 20
view printer information 49

G
graininess 41

H
HP Support 49

I
image problems
clipped image 42
ink cartridge
maintenance 29
order 31

L
load a sheet 16
load roll into printer 11
load roll onto spindle 9

M
margins 24

O
order
accessories 32
ink cartridges 31
paper 32
printheads 32

P
page size 23
paper jam 35
paper size 23
paper types 32
print quality
select 23
print with shortcuts 25
print-quality problems
banding 39
general 39
graininess 41
horizontal lines 39
printer software 3
Printer Utility
access 6
printhead
order 32

R
roll paper
choose spindle 9
load into the printer 11
load onto the spindle 9
unload 15

S
safety precautions 1
sheet paper
load 16
unload 20
shortcuts 25
software 3
support services
HP Support 49
switch the printer on/off 5

T
telephone numbers 50

U
unload a sheet 20
unload roll from printer 15