



HP DesignJet T870 Printer Series User Guide

SUMMARY

Instructions on installing, using, and troubleshooting printer hardware and software.

About this edition

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Edition 1, June 2025

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1 Introduction

Essential safety precautions and an overview of the printer's main features, components, software options and printing possibilities.

Safety precautions

Ensure proper use of the printer to prevent it from being damaged.

Read these safety precautions before using your printer. Additionally, read your local Environmental, Health, and Safety regulations.

This equipment is not suitable for use in locations where children are likely to be present.

For any maintenance or part replacement, follow the instructions provided in HP documentation to minimize safety risks and to avoid damaging the printer.


Follow these general safety precautions at all times:

- Use the power supply voltage specified on the label. Avoid overloading the printer's electrical outlet with multiple devices.
- Do not disassemble or repair the printer yourself. Contact your service representative, see [HP Support Center on page 110](#).
- Use only the electrical cord supplied by HP with the printer. Do not damage, cut, or repair the power cord. A damaged power cord can cause fire or electric shock. Replace a damaged power cord with an HP-approved power cord.
- Do not operate the printer with covers bypassed.
- Beware that a paper roll does not drop onto your feet or trap your hand and fingers during the paper roll load/unload process.
- 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.
- Do not climb or sit on the printer as it may tip over or lose stability.
- Power off the printer and unplug the power cord from the power outlet then call your service representative 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.
 - The printer has been dropped.
 - During an electrical storm (thunder and lightning).

- During a power failure.
- To avoid being pinched, keep your fingers away from the gap between the bottom of the printer and the stand while you're moving the printer with stand.
- Before servicing the printer.

Electrical shock hazard

This topic explains the concepts involved in this subject.

 **WARNING!** The internal circuits of the built-in power supplies and power inlet operate at hazardous voltages capable of causing death or serious personal injury.

Unplug the printer's power cord before servicing the printer.

The printer requires a building installation circuit breaker, which must meet the requirements of the printer and should be in accordance with the Electrical Code requirements of the local jurisdiction of the country in which the equipment is installed.

To avoid the risk of electric shock:

- Avoid overloading the printer's electrical outlet with multiple devices.
- Do not remove or open any closed system covers or plugs.
- Do not insert objects through slots in the printer.
- Take care not to trip over the cables when walking behind the printer.
- Insert the power cord securely and completely into the wall socket and printer inlet.
- Never handle the power cord with wet hands.

Fire hazard

This topic explains the concepts involved in this subject.

To avoid the risk of fire, take the following precautions:

- The customer is responsible for meeting the printer's requirements and the Electrical Code requirements according to the local jurisdiction of the country where the printer is installed. Use the power supply voltage specified on the nameplate.
- Use only the power cord supplied by HP with the printer. Do not use a damaged power cord. Do not use the power cord with other products.
- Do not insert objects through slots in the printer.
- Take care not to spill liquid on the printer. After cleaning, make sure all components are dry before using the printer again.
- Do not use aerosol products that contain flammable gases inside or around the printer. Do not operate the printer in an explosive atmosphere.
- Do not block or cover the openings of the printer.

Mechanical hazard

The printer has moving parts that could cause injury.

To avoid personal injury, take the following precautions when working close to the printer:

- Keep your clothing and all parts of your body away from moving parts.
- Avoid wearing necklaces, bracelets, and other hanging objects.
- If your hair is long, try to secure it so that it will not fall into the printer.
- Take care that sleeves or gloves do not get caught in moving parts.
- Do not operate the printer with covers bypassed.
- If you need to replace the cutter assembly, take care not to cut yourself on the sharp cutting edge.
- Internal fan blades are hazardous moving parts. Disconnect the printer before servicing.
- Never insert your hands into the printer while it is printing, due to the moving parts inside.
- Do not climb onto or sit on the printer. It may lose stability and tip over.

When installing desktop printer models:

- Ensure that the surface of the support table is always bigger than the printer
- Ensure the entire printer is located inside the support table
- The support selected table must be able to bear at least 2 times the weight of the printer plus the roll paper, sheet papers on the tray and ink supplies.
- Do not use the support table to store other equipment or printer consumables.
- Do not stand on the support table.

Ink handling

HP recommends that you wear gloves when handling ink supplies.

Using this guide

This guide can be downloaded from the HP Support Center.

Introduction

This is a brief introduction to the printer and its documentation for new users.

Use and maintenance

To help you carry out normal printer procedures.

Topics include the following:

- [Connecting the printer on page 11](#)
- [Setting up the printer on page 15](#)

- [Paper handling on page 23](#)
- [Printing on page 33](#)
- [Mobile printing on page 40](#)
- [Practical printing examples on page 49](#)
- [Handling ink cartridges and printhead on page 59](#)
- [Maintaining the printer on page 62](#)

Troubleshooting

To help you solve problems that may occur while printing.

Included are the following topics:

- [Troubleshooting paper issues on page 74](#)
- [Troubleshooting print-quality issues on page 85](#)
- [Troubleshooting ink cartridge and printhead issues on page 95](#)
- [Troubleshooting data communication issues on page 96](#)
- [Troubleshooting general printer issues on page 103](#)
- [Text messages and numerical error codes on page 106](#)

Accessories, support, and specifications

Reference information, including customer care, the printer specifications, and part numbers for paper types, ink supplies, and accessories.

[Accessories on page 71](#), [HP Customer Care on page 110](#), and [Printer specifications on page 113](#).

Glossary

The glossary contains definitions of printing and HP terms used in this documentation.

[Glossary on page 117](#).



Index

In addition to the table of contents, there is an alphabetical index to help you to find topics quickly.

Warnings and cautions

Symbols are used in this manual to ensure the proper use of the printer and to prevent the printer from being damaged.

Follow the instructions marked with these symbols:

-
-  **WARNING!** Failure to follow the guidelines marked with this symbol could result in serious personal injury or death.
 -  **CAUTION:** Failure to follow the guidelines marked with this symbol could result in minor personal injury or damage to the printer.
-

Printer models

This user guide covers the following printer model: HP DesignJet T870 24 in Printer.



NOTE: The images appearing in this guide may not look exactly the same as the printer you have. In some regions, exact naming may vary.

Main features

The HP DesignJet T870 is a four-color inkjet printer, designed to deliver CAD and construction drawings as well as high-quality graphics.

Paper up to 609 mm (24 in) wide can be used to print on. Some major features of the printer are shown below:

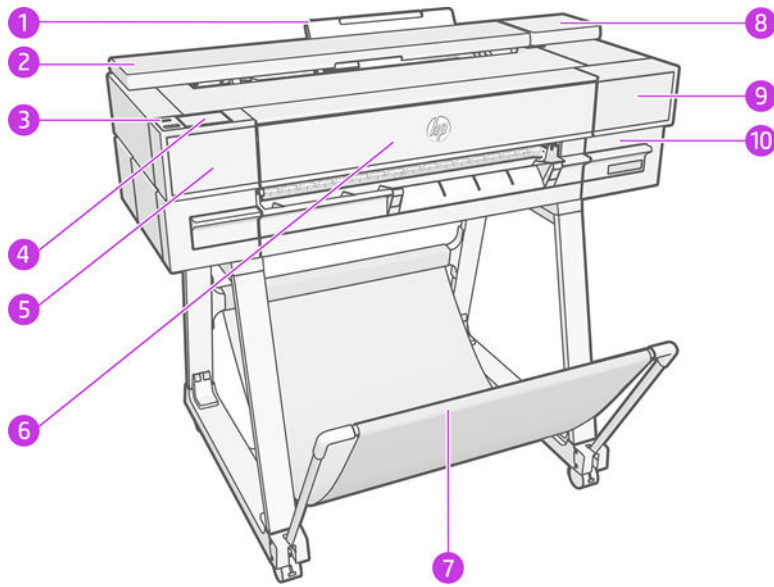
- Print resolution of up to 2400 × 1200 dpi using the **Best** print-quality option, the **Maximum Detail** option and photo paper
- The printer can be controlled from its control panel, and from a remote computer using the Embedded Web Server
- Handles roll and cut-sheet paper, with a tray which automatically switches between both
- Touch-sensitive control panel in color, with an intuitive graphical user interface
- Includes Web-connected features such as automatic firmware upgrades
- Supports remote printing from mobile devices with HP App, see the following links:
 - You can obtain the latest iOS version from the Apple iTunes website at <https://itunes.apple.com/app/id469284907>
 - You can obtain the latest Android version from the Google Store website at <https://play.google.com/store/apps/details?id=com.hp.printercontrol>
- Economode for printing economically
- Enables easy printing from desktop with HP Click, see the HP website <https://www.hp.com/go/clickDesignJet>
- Ink and paper usage information available from the Embedded Web Server, see [Access the Embedded Web Server on page 15](#)
- Access to the online HP Support Center, see [HP Support Center on page 110](#)

Main components

Hardware features of your printer.

Front view

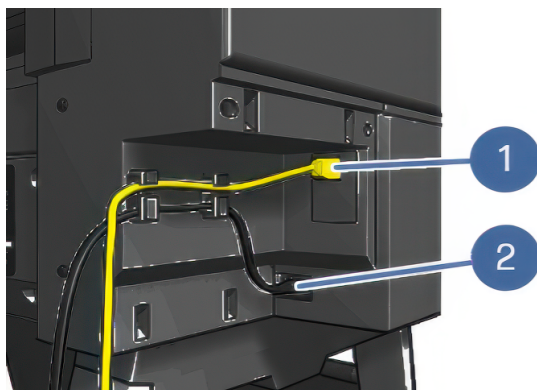
Overview of the main hardware components at the front of the printer.



1. Tray
2. Roll
3. USB port
4. Control panel
5. Cutter
6. Main door
7. Stand and basket
8. Ink cartridges access door
9. Printhead access door
10. Printhead carriage

Rear view

Overview of the main hardware components at the rear of the printer.



1. Gigabit Ethernet port, to connect to a network

2. Power cable

Installing the printer

This section explains how to install the printer.

Please watch this how-to video on installing the printer:

<http://www.hp.com/go/DesignJetT870/installationvideo>.

Turn the printer on and off

The power key is located next to the control panel.

The power key is illuminated when the printer is on, or in sleep mode.

However, if you plan to store the printer for a long period or the power key does not seem to work, you are recommended to unplug the power cord.

To turn it back on, plug in the power cord.

When the printer is powered back on, it takes about three minutes to initialize and check and prepare the printhead.

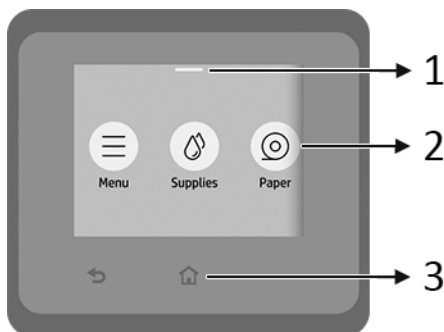


NOTE: When the printer has not been used for a certain period of time (the default time is determined by Energy Star), it saves power by going into sleep mode. However, any interaction with the printer's control-panel display, or sending a new job to print, returns it to active mode, and it can resume printing immediately. To change the sleep mode time, see [Set the Sleep Mode setting on page 17](#).

Control panel

The control panel is a touch-sensitive screen with a graphical user interface located on the front left of the printer.




It gives you complete control of your printer. From it you can print, view information about the printer, change printer settings, perform calibrations and tests, and so on. It also displays alerts (warning and error messages) when necessary.





1. **Status center:** Swipe down at the top of the screen to open.

2. **Home screen icons:**

- **Menu icon** ≡

- **Supplies icon** 
- **Paper icon** 
- **Jobs icon** 

3. Others:

- **Go back icon** 
- **Home icon** 

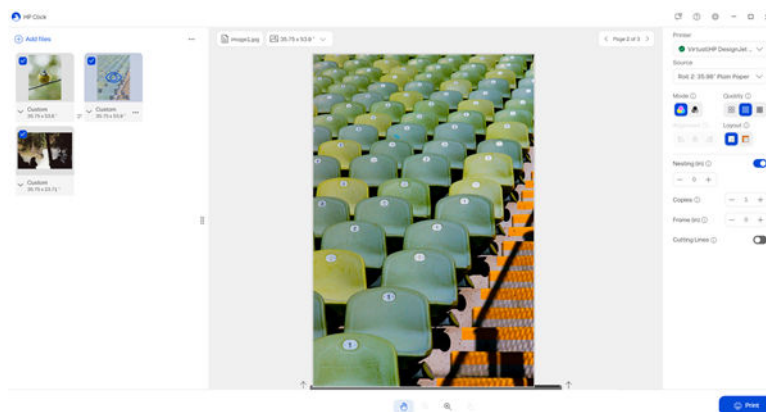
Printer solutions

Drivers and other tools are provided with your printer to raster, review, print locally or remotely, and access support if required.

The following software is available for your printer at the HP website
<https://www.hp.com/go/DesignJetT870/software>.

Software available

- HP Click application for Windows 10 (or newer) and macOS, which provides easy printing with a real preview.

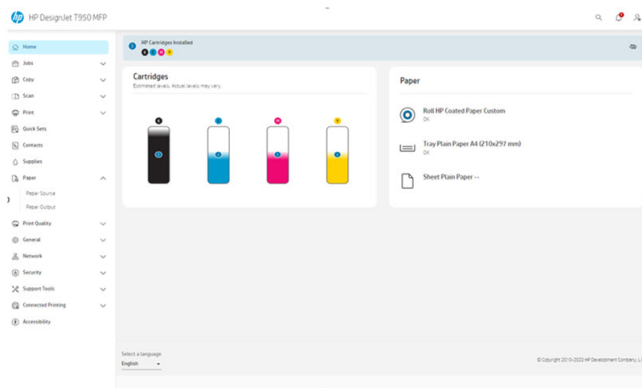


Drivers:

1. HP Click Driver (Recommended for Windows 11 or later)
2. Windows V4 PCL3 driver
3. macOS print driver

For more information about software solutions, visit the following link:
<https://myknowledge.hpcloud.hp.com/documents/0806cb1d-ee86-4c01-b6ea-0f71586af7bf>

- HP app for Windows, Android, macOS, and iOS, which offers mobile printing and monitoring features.
- The Embedded Web Server, which allows you to manage the printer from a remote computer, update the printer's firmware and change various printer settings, and so on.



See [Access the Embedded Web Server on page 15](#).



NOTE: New versions of all printer software can be expected to appear from time to time. In some cases, when you receive your printer there may already be later versions available at the HP website of some of the software provided with it.

Mobile printing

You can print straight from your smartphone or tablet.

- The recommended solution is the HP app, which enhances your printing capabilities and enables scanning and sharing from your phone or tablet:

You can obtain the latest iOS version from the Apple Store website at: [Apple Store](#)

You can obtain the latest Android version from the Google Store website at: [Google Play Store](#).

- Alternatively, you can use other options:
 - **For Apple iOS printing**
 - For Apple devices: you can print directly via AirPrint, which comes pre-installed in iOS devices.
 - **For Android printing:**
 - You can print directly through the native print option that comes preinstalled in Android devices and is available in some apps (Android Default Print Service).
 - You can install Mopria Print Service Plugin. Obtain the latest version from the Google Play website at: [Google Play Store - Mopria](#).
 - You can install the HP Print Service Plugin. Obtain the latest version from the Google Play website at: [Google Play Store - HP Print Service Plugin](#).
 - **For ChromeOS printing:**
 - You can use the Chrome Native Print system, which comes pre-installed in ChromeOS devices. For more information about how to print with ChromeOs check: HP printer setup (Chromebook) | HP® Support [HP printer setup \(Chromebook\)](#)

For more information, visit the HP website at: <http://www.hp.com/go/designjetmobility>.




Reports

The internal prints give various kinds of information about your printer. They can be requested from the control panel.

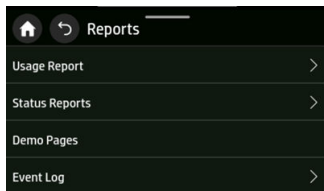
Before requesting any internal print, check that the printer and the paper are ready for printing. The loaded paper should be at least A4 portrait–210 mm (8.27 in) wide—otherwise the print may be clipped.



NOTE: For U.S. and other countries that don't use ISO sizes; Letter is the required paper size for reports. Reports are generated in A4 or letter depending on the selected country.

To print any internal print, tap the **Menu** icon , then **Tools**  > **Reports** , then select the internal print you want. These are some of the prints available:

- Usage Report
 - This report is not printable and can only be viewed on the control panel
- Status Reports
 - Connectivity, Printer Status Report, etc.
- Demo Pages
- Event Log



NOTE: Reports can also be printed from the Embedded Web Server or downloaded as a PDF; go to **Support Tools > Reports and Pages**.

2 Connecting the printer

Printing has never been easier, and your printer comes with various options for connecting to help you do so.

With HP Smart Admin (see the HP website at the following link: <https://admin.hpsmart.com/>) or HP Command Center (see the HP website at the following link: <https://hp-commandcenter.com/>), you have a remote view to manage printers, users, and solutions, which allows you to stay on top of your team to keep your company up and running smoothly.

Choose which connection method to use

Your printer can be connected via Wireless or Gigabit Ethernet.

Connectivity methods

Step 1: Connect the printer to your network

Use the control panel to choose one of these options:

- Connect to Ethernet:
 - If the printer is new, connect the Ethernet cable before turning it on.
- Connect to Wi-Fi:
 - If the printer is new, just follow the steps in the control panel.
 - Printer and device (desktop PC, laptop, mobile) must be connected to the same Wi-Fi.

Step 2: Set up your device

a) Connect the printer to the HP ecosystem

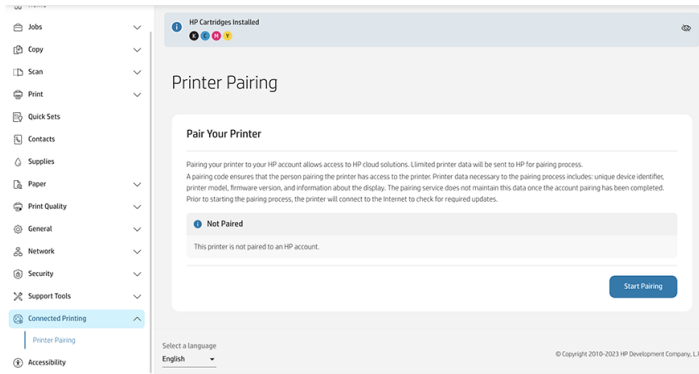
During the printer setup, after performing the network configuration and accepting that printer will connect to the Internet, the printer retrieves the pin pairing code and displays it along with the portal URL. Follow the instructions on the control panel.

If the printer onboarding is skipped, you can pair your printer manually; access the Embedded Web Server (EWS), then go to **Connected Printing > Printer Pairing**.

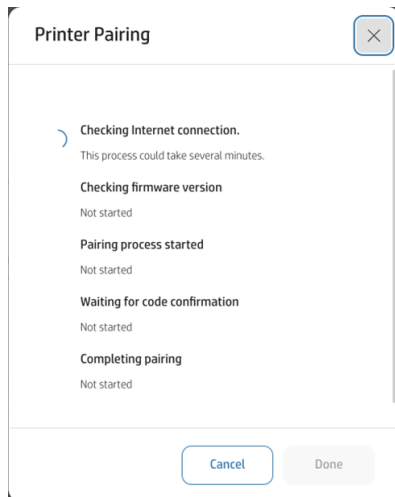


NOTE: You may be asked to type the administration password.

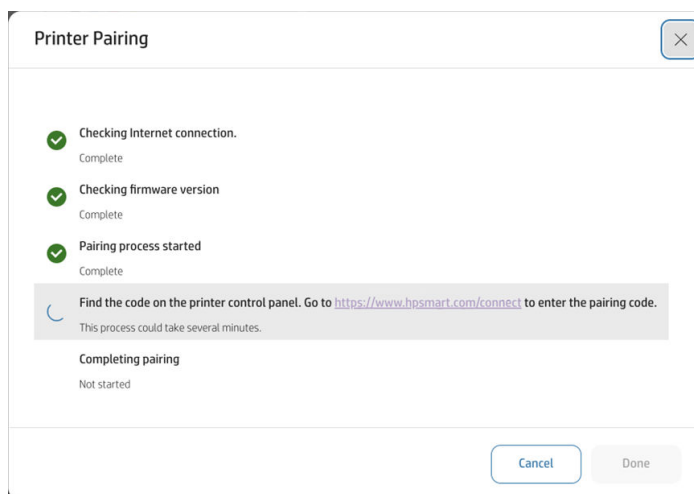
1. Tap **Start Pairing** to begin pin pairing.

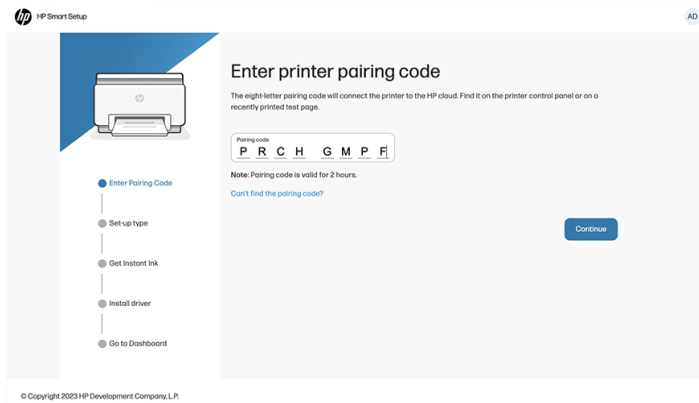


You can see the progress in the window that appears:

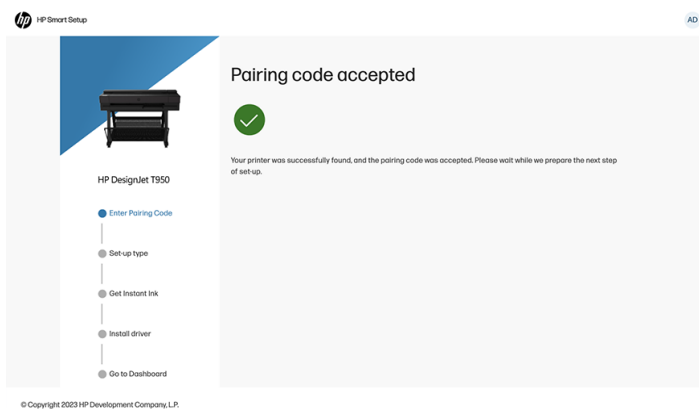


2. The process asks you to check the control panel to retrieve and enter the pairing code. It also indicates which URL you should type in the browser to continue the onboarding process.





3. Once the process has completed and the printer is paired, the following message is displayed:



Printer and devices must be connected to the same network.

If required, you can find your printer's IP by scrolling down from the top of the screen.

Go to the support page for your printer at the HP website

<https://www.hp.com/go/DesignJetT870/support>.



NOTE: If you connect an Ethernet cable, it turns off the wireless capability of the printer.





NOTE: Wireless connections can be affected by the location of the network router and the device. In order to improve a wireless connection:

1. Position the wireless access point in a more central position within the workplace.
2. Place the wireless access point away from dense materials. Metal, concrete, double-thick walls are the hardest to penetrate, wood and plasterboard are easier. Consider this when you position the printer.
3. Change the wireless channel to one that is not being used. Preferably 1, 6, or 11, as these are non-overlapping channels.
4. Extend the range of the wireless network with the use of a simple wireless extender or add more wireless access points.

Connect the printer to your network

On the control panel, use the **Wireless Setup Wizard** or **Wi-Fi Protected Setup** to set up wireless communication.

1. Tap the **Menu** icon , then **Settings**  > **Network** > **Wi-Fi**.
2. Tap **Wireless Setup Wizard** or **Wi-Fi Protected Setup**.
3. Follow the control panel instructions to complete the setup.

If you are already using the printer with a different type of connection, to change it, see [Mobile printing on page 40](#).

Set up your device

Prepare your printer with the correct software for your device.

Install the software (Windows)

Make sure to connect the printer and computer or mobile device to the same network.

To download the software, see [Printer solutions on page 8](#).

Install the software (macOS)





Make sure to connect the printer and computer or mobile device to the same network.

To download the software, see [Printer solutions on page 8](#).

Add your printer

Add a printer to a network under macOS.

- Go to **System Preferences** > **Printers and Scanners**, and then tap + to add a new printer.
 - **If you installed the driver:** Select the **IP** tab, enter your IP address, and select the protocol **HP Jetdirect-Socket**. Tap **Continue**.
 - **If you want to use AirPrint:** Choose your printer from the list of displayed network printers, and tap **Add**. Then, in the **Use** menu, select **Secure AirPrint** or **AirPrint**, and then tap **Add**.

 **TIP:** To see the Bonjour name on the control panel, open the printer's dashboard and tap the **Menu** icon , then **Settings**  > **Network** > **Ethernet** > **Ethernet Details**, or **Settings**  > **Network** > **WiFi** > **Wi-Fi Details**.

3 Setting up the printer

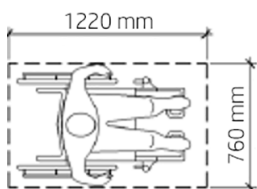
This section gives further information on how to set up the printer.

Introduction

There are various printer settings that the printer administrator may wish to control as soon as a new printer is assembled and ready for use.

Accessibility

To ensure accessibility to the operating area, it is recommended to have an even-leveled clear space of minimum 760 mm (30 inches) by 1220 mm (48 inches).



Light reflection (glare) can affect the readability of the control panel. To improve visibility, from the control panel, select the most suitable theme.

Change the language of the control-panel display

Your printer includes many language options to choose from.

To change the language of the control-panel menus and messages:

If you can understand the current control-panel display language, tap the **Menu** icon , then

Settings , then **General** > **Display** > **Language**. Select your preferred language.




Access the Embedded Web Server

Manage your printer remotely using an ordinary web browser running on any computer.

To access the Embedded Web Server on any computer, open your Web browser and type the IP address of your printer.

You can see your printer's IP address on the control panel when you open the **Status Center**.

To access the Embedded Web Server, the printer requests your Admin PIN to prevent unauthorized users from remotely configuring the printer, or viewing printer settings. The PIN is required to change or view printer settings. By default the user is **admin**. The PIN is found behind the printer.

You can print the printer status report, go to **Menu**  > **Tools**  > **Reports**  > **Status Reports**, then tap **Print**.



NOTE: The status report has the PIN. If you changed the initial PIN by default and forgot it, go to [Troubleshooting general printer issues on page 103](#).

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

- Microsoft Edge (latest version)
- Apple Safari 15 or later for macOS 10.15 and later
- Mozilla Firefox (latest version)
- Google Chrome (latest version)

If you have followed these instructions but failed to get through to the Embedded Web Server, see [Cannot access the Embedded Web Server on page 104](#).

Change the language of the Embedded Web Server

The default language is the same as your browser but if it is not supported, it will appear in English. You can change it to any supported one.

Embedded Web Server supported languages are English, Portuguese, Catalan, Spanish, French, Italian, German, Polish, Russian, Simplified Chinese, Traditional Chinese, Korean, and Japanese. There is a tab at the bottom left of the window to select them from.

Automatic firmware update

The printer can automatically check for a firmware update periodically.

Set Windows driver preferences

You can change some default settings in your printer driver according to your own preferences, for instance to set color or paper-saving options.

To change default settings, click the **Start** or **Search** button on your computer's screen (depending on your version of Windows), then click **Devices and Settings**, **Devices and printers** or **Print Management**. Then right-click your printer's icon and click **Printing preferences** or **Set Printing Defaults**. Any settings you change in the Printing Preferences window will be saved as default values for the current user.





To set the default values for all the users of your system, right-click the printer's icon again, click **Printer Properties**, go to the **Advanced** tab, and click **Printing Defaults**. Any settings you change in the Printing Defaults window will be saved for all users.


Energy-conservation settings


Learn about the energy-conservation settings that are available on your printer.

Set the Sleep Mode setting

Use the control panel menus to specify the amount of time the printer must be inactive before it goes into sleep mode.





1. From the home screen on the printer control panel, tap the **Menu** icon , then **Settings** .
2. Scroll to and open the following menus: **General** > **Energy** > **Sleep**.
3. Tap an option to specify the amount of time the printer must be inactive before it goes into sleep mode.
4. When you are finished, tap the **Back arrow** button  to return to the **General** menu, or tap the **Home** button  to return to the home screen.


 **NOTE:** You can perform the same operation from the Embedded Web Server by going to **General** > **Power settings** > **Energy settings**.


 **WARNING!** Changing this setting beyond 20 minutes will increase energy consumption.

Set the Shutdown Mode setting

Use the control panel menus to specify the amount of time the printer must be inactive before it shuts down.



1. From the home screen on the printer control panel, tap the **Menu** icon , then the **Settings** icon .
2. Scroll to and open the following menus: **General** > **Energy** > **Inactivity Shutdown**.
3. Tap an option to specify the amount of time the printer must be inactive before it shuts down.
4. When you are finished, tap the **Back arrow** button  to return to the **General** menu, or tap the **Home** button  to return to the home screen.

 **NOTE:** You can perform the same operation from the Embedded Web Server by going to **General** > **Power settings** > **Energy settings**.

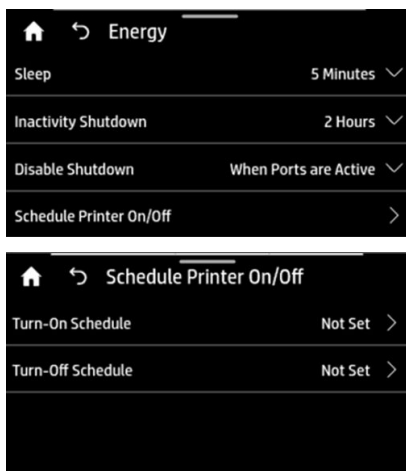
 **WARNING!** Changing this setting beyond 20 minutes will increase energy consumption.

Set scheduled on/off time

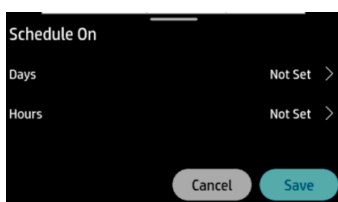
Use the control panel menus to specify when to automatically turn the printer on and off.

1. From the home screen on the printer control panel, tap the **Menu** icon , then **Settings** .


2. Scroll to and open the following menus: **General** > **Energy** > **Scheduled Printer On/Off**.

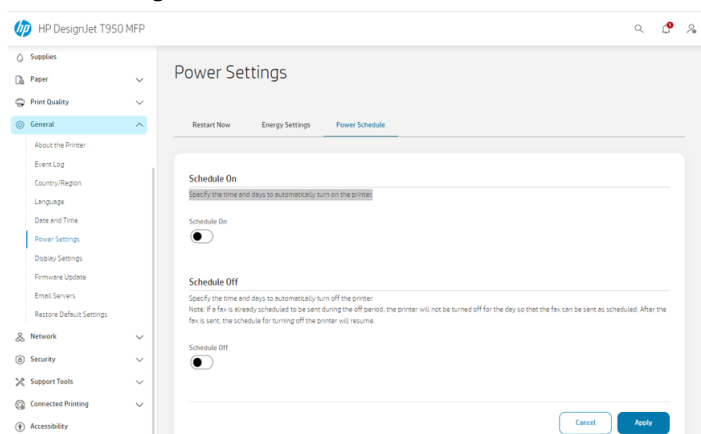


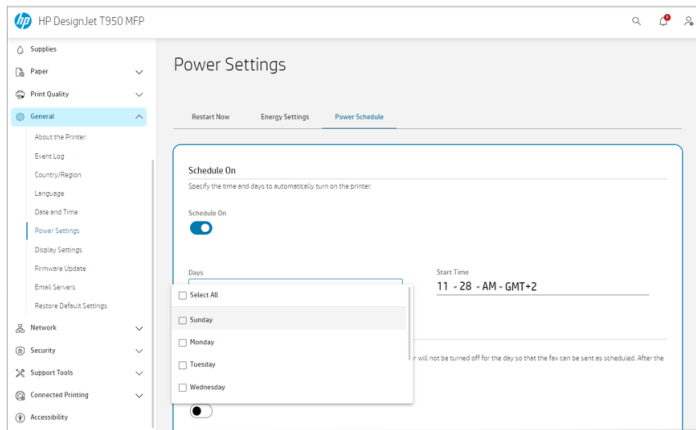
3. Tap an option to specify set the scheduled on or off time (on shown).



4. Set the day(s) and time.



 **NOTE:** You can perform the same operation from the Embedded Web Server by going to **General** > **Power settings** > **Power schedule**.








Change the control-panel display brightness

The level of brightness displayed can be adjusted.

To change the brightness of the control panel, tap the **Menu** icon , then **Settings** , then **General** > **Display** > **Display Brightness** and slide to your desired level.

Configure network settings

You can view and configure the network settings from the Embedded Web Server or the control panel.

- From the Embedded Web Server: Select the **Network** tab.
- From the control panel, tap the **Menu** icon , then **Info** , then **Connectivity**.
- From the control panel, tap **Settings** , then **Network**.

The following options are available:

- **Enable/Disable wireless** turns the wireless connection on or off.
- **Wireless setup wizard** provides an easy way to connect to a wireless network.
- **Wi-Fi protected setup** allows you to set up a connection with a wireless network using WPS (pushbutton or pin) encryption.
- **View wireless details** displays information about the wireless network.
- **IP settings** allows you to select the IP address -automatic or manual (Static).
- **Print wireless test report** print information about the wireless network.
- **Print wireless network test** runs diagnostic tests of wireless connectivity.
- **Ethernet settings** allows you to view and print Ethernet details:
 - **Link speed** sets the speed at which data are transmitted over the network. The default is **Automatic**.

- **IP settings** allows you to view or change the IP address, subnet mask, default gateway, and DNS address.
- **Network settings.**
 - **Hostname** allows you to change the hostname.
 - **Proxy settings** allows you to change the proxy settings.
 - **Bonjour name** allows you to change the Bonjour name.
- **Restore Network Settings.**

Configure firewall settings

Firewall features provide network-layer security on both IPv4 and IPv6 networks. The firewall provides simple control of IP addresses that are allowed access.



NOTE: In addition to firewall protection at the network layer, the printer also supports open secure sockets layer (SSL) standards at the transport layer for secure client-server applications, such as client-server authentication or HTTPS Web browsing.

For firewall operation on the printer, go to **Menu**  **> Settings**  **> Network > Security > Disable**

Firewall: You must configure a firewall policy to apply to specified IP traffic. Firewall policy pages are accessed through the Embedded Web Server and displayed by your Web browser. After a policy is configured, it is not activated until you click **Apply** in the Embedded Web Server.


Creating and using firewall rules

Control IP traffic and allow or drop IP traffic based on IP addresses and services.

Enter up to ten rules, each rule specifying the host addresses, services, and the action to take for those addresses and services.

Create a firewall rule

Set up a new rule from the Embedded Web Server.

1. Open the Embedded Web Server.
2. Tap the **Network** tab, then **Network Security > Firewall**.
3. Select **Enable Firewall**.
4. Tap the **Add** icon , and then follow the onscreen instructions.



NOTE: After you tap **Apply**, the connection to the Embedded Web Server might be temporarily disrupted for a short period of time. If the IP address was unchanged, the Embedded Web Server connection will be enabled again. However, if the IP address was changed, use the new IP address to open the Embedded Web Server.

Change the priority of firewall rules

You can move a rule up or down to select the priority from the **Rule Precedence** list.

1. Open the Embedded Web Server.

2. Tap the **Network** tab, then **Network Security > Firewall**.
3. Select the priority by selecting a rule and moving up and down using the arrows.
4. Tap **Apply**.

Change firewall options

Options can always be edited at a later date.

1. Open the Embedded Web Server.
2. Tap the **Network** tab, then **Network Security > Firewall**.
3. Change whatever options you wish, then tap **Apply**.



NOTE: After you tap **Apply**, the connection to the Embedded Web Server might be temporarily disrupted for a short period of time. If the IP address was unchanged, the Embedded Web Server connection will be enabled again. However, if the IP address was changed, use the new IP address to open the Embedded Web Server.

Reset firewall settings

Restore the printer's network settings to reset to factory defaults.

Limitations to rules, templates, and services



There is a limit per item that can be created and stored at any one time.




Table 3-1 Limitations per item


Item	Limit
Maximum number of rules	10 (one default rule)
Maximum number of address templates	12
Maximum number of user-defined address templates	5
Maximum number of services you can add to a user-defined service template	40
NOTE: The predefined All Services template is not subject to this limitation and includes all services supported by the print server.	
Maximum number of services you can add to the policy	40
NOTE: For a given rule, only one address template and one service template can be added.	
Maximum number of service templates in the policy	10
Maximum number of user-defined custom service templates	5

Reset network settings

The network settings can be reset or restored to default.

Go to the control panel and tap the **Menu** icon , then **Settings** , then **Network**, then **Restore network settings**.

Alternatively, tap the **Menu** icon , then **Tools**  > **Maintenance**  > **Restore settings** > **Restore network settings**.

 **NOTE:** Print the network configuration page and check that the network settings have been reset.

 **NOTE:** Resetting the printer's network settings also resets the printer's firewall settings.

4 Paper handling

To print you can load rolls, single sheets, or use the tray.

General paper-loading advice

You can load paper into the printer in three different ways: from a roll, as a single sheet, or as a stack of single sheets from the tray. Switching from one to another is automatic.

⚠ CAUTION: If your model has a stand, make sure the printer wheels are locked (the brake lever is pressed down) to prevent the printer from moving the automatic switch between the roll and tray.

⚠ CAUTION: All roll paper must be 368.3 mm (14.5 in) or wider. A4 and letter paper should not be loaded in landscape orientation in the tray.

💡 TIP: For photo paper wear cotton gloves to avoid transferring oils onto the paper.

⚠ CAUTION: Keep the bin closed throughout the loading process.

Load a roll onto the spindle

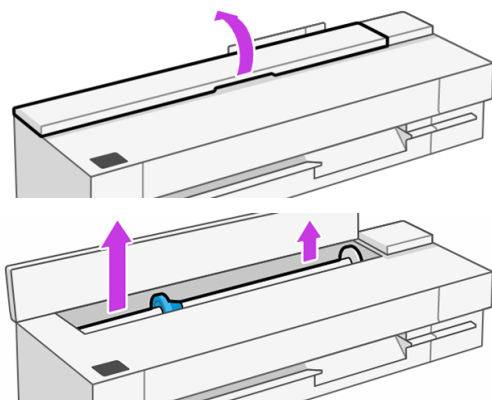
Rolls of different widths can be loaded onto the printer.

1. From the control panel, tap the **Paper** icon , then select the roll, then tap the **Load** button.

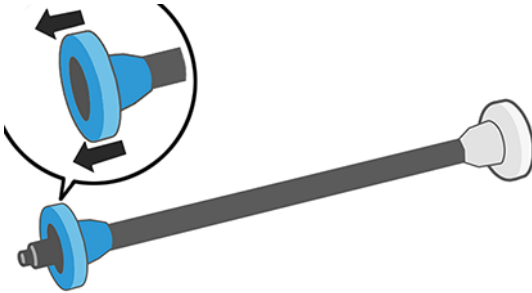
📝 NOTE: This step is optional: when you start to feed roll paper into the printer, it automatically recognizes if you are loading a roll or a single sheet.

2. Remove the spindle from the printer.

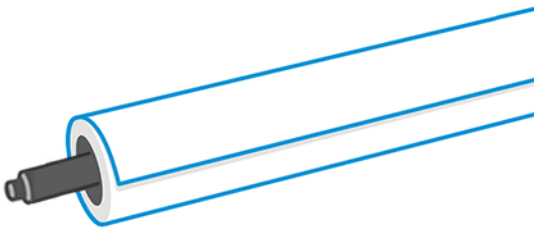
⚠ WARNING! Do not insert your fingers into the spindle supports during the removal process.



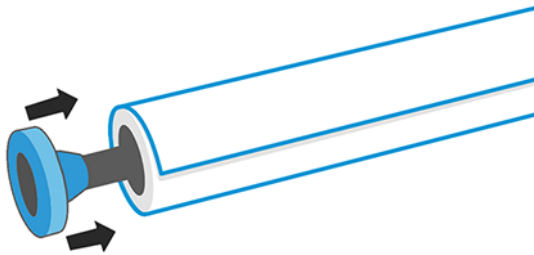
3. The spindle has a stop at each end to keep the roll in position. The blue stop can be removed to mount a new roll; it slides along the spindle to hold rolls of different widths. Remove the blue paper stop from the end of the spindle.



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



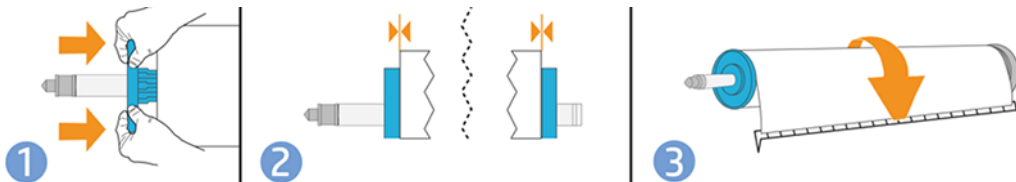
6. Looking from the front of the printer, put the blue paper stop on to the open end (left side) of the spindle, and push into the end of the roll.



7. Ensure the blue paper stop is pushed in as far as it goes.



NOTE: Check that there is no space between the roll and the stops at both ends.



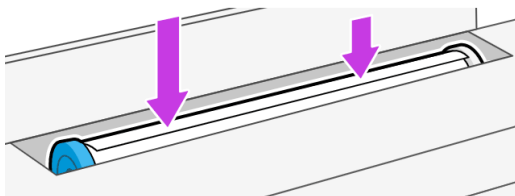
TIP: If you are a regular user of different paper types, you can change rolls more quickly if you preload rolls of different paper types on different spindles. Extra spindles are available for purchase, see [Accessories on page 71](#).

Load a roll into the printer

Before you start this procedure, you must have a roll loaded on the spindle.

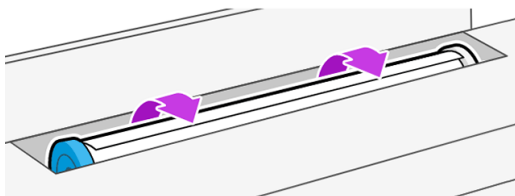
See [Load a roll onto the spindle on page 23](#).

1. Insert the spindle into the printer, holding it by both ends. The blue hub should be on the left, as viewed from the control of the printer.

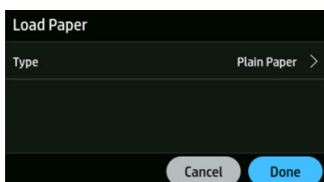


2. If the edge of the roll is not straight or torn (sometimes due to tape used to hold end of the roll), pull the paper slightly and cut a straight edge.
3. Insert the edge of the paper into the printer.

⚠ WARNING! Do not push your fingers inside the printer's paper path.

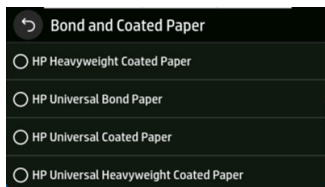


4. Roll the paper into the printer until you feel resistance and the paper flexes slightly. When the printer detects the paper, it beeps, and feeds in the paper automatically.
5. The control panel prompts you to select the paper category and type. To select the paper type, click on the type and the different paper categories are shown



Plain paper was the last to be loaded.





If you do not see your paper type in the control panel, tap **More paper types**. If you still cannot find your paper type in the whole list, see [Paper type is not in the driver or control panel on page 76](#).


6. The printer checks the alignment and measures the width. If the roll is not correctly aligned, follow the instructions on the control-panel display.



NOTE: If you have an unexpected issue at any stage of the paper loading process, see [Paper cannot be loaded successfully on page 74](#).

Unload a roll

If there is paper on the roll, you can unload it from the control panel.

1. From the control panel, tap the **Paper** icon , then select the roll, then tap the **Unload** button, then **Unload roll**. Afterwards, the tray will become the default active paper source.
2. If the end of the paper is no longer attached to the core, the control panel asks you to unload the roll manually.




NOTE: If you don't load a new roll, or if a roll is unloaded; the tray is the default active paper source.

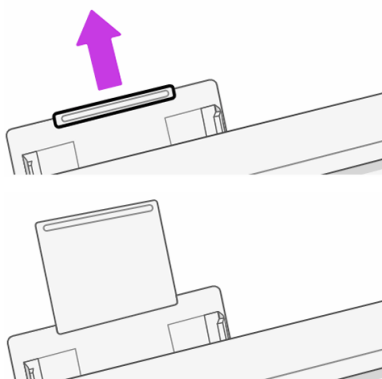
Use the tray

Load multiple sheets and ease single sheet printing.

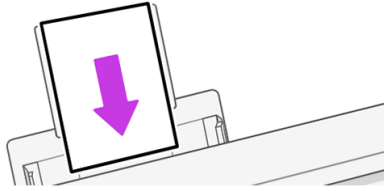
1. If no roll is loaded or the roll has run out of paper, the tray is active by default.

Alternatively, from the control panel, tap the **Paper** icon , then select **Tray**.

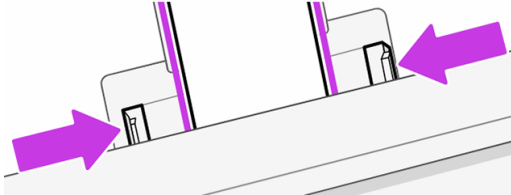
2. Adjust the input tray extensions depending on the length of the paper: the first extension for A4 and the second extension for A3 paper.



3. Load sheets of paper into the tray with the printed side facing outwards. Ensure that the sheets are all of the same size.





4. Adjust the tray to fit the width of the paper.




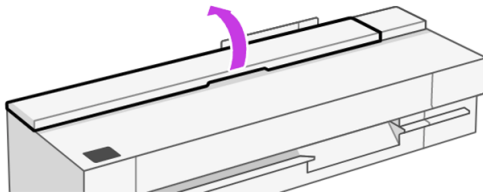
Load a single sheet

Roll paper and single sheets use the same input slot in the printer.

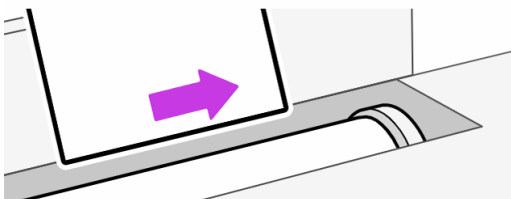
 **NOTE:** If you have a tray see [Use the tray on page 26](#).

 **NOTE:** Sheets of width 329 mm (12.95 in) or less should be loaded from the tray.

1. From the control panel, tap the **Paper** icon , then select **Sheet**, then tap the **Load** button.
2. If a roll is already loaded, you have to wait while it is automatically unloaded.
3. Open the roll cover.

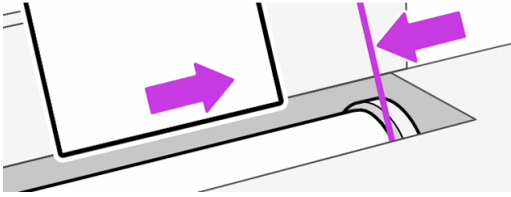


4. Select your paper category and type. If you do not see your paper type in the control panel, tap **More paper types**. If you still cannot find your paper type in the whole list, see [Paper type is not in the driver or control panel on page 76](#).
5. When prompted by the control panel, insert the sheet into the right-hand side of the input slot.

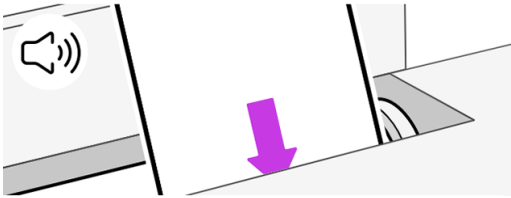


 **WARNING!** Do not push your fingers inside the printer's paper path.

6. Align the sheet with the line.



7. Guide the sheet into the printer; this is especially important with thicker papers.



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



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


9. If the sheet is not correctly aligned, you may be asked to reload it.



NOTE: If you have an unexpected problem at any stage of the paper loading process, see [Paper cannot be loaded successfully on page 74](#).

Unload a single sheet

Sheets are unloaded from the front of the printer.

1. To unload a sheet, go to the control panel and tap the **Paper** icon , then **Sheet loaded > Unload**.
2. Either catch the sheet manually or allow it to fall into the bin.



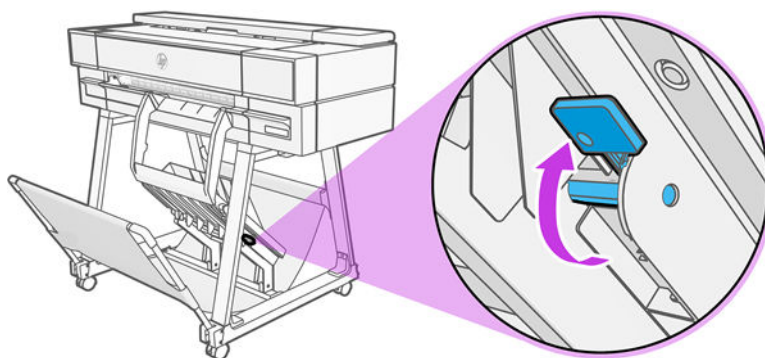
NOTE: If you don't load a new sheet, the tray is the default active paper source.

Use the sheet organizer accessory

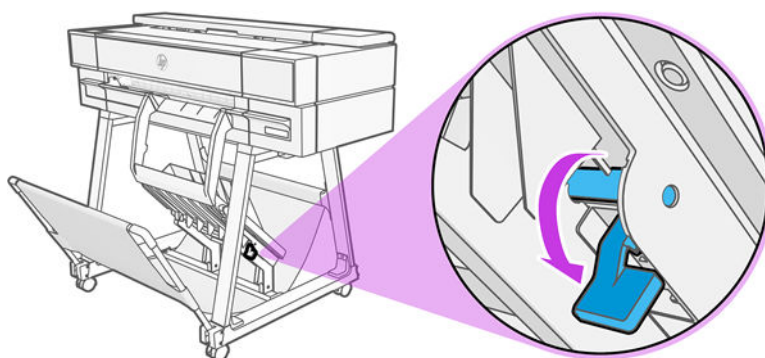
The sheet organizer has two configurations for collecting printed cut-sheets: A4 or A3 (ANSI A or ANSI B) (default). You can use either configuration, but must ensure it matches the substrate size to prevent collection issues.

The sheet organizer can collect up to 50 sheets of plain documents or up to 10 sheets of non-plain documents. In A3 (ANSI B) configuration, the sheet organizer can hold printed documents up to a length of 432 mm (17 in).

- **For A3 and ANSI B size cut-sheet collection:** The length adjuster needs to be in the up position which is parallel to the tray. The length-adjuster lever is found on the right side of the tray.



- **For A4 and ANSI A size cut-sheet collection:** The length adjuster needs to be in the down position which is perpendicular to the tray. Rotate the lever counter clockwise until it snaps into the down position.



For any issues, refer to the troubleshooting chapter. See [Troubleshooting paper issues on page 74](#).

Sheet organizer configuration	297 mm (11.7 In) ≤ Plot length ≤ 420 mm (16.5 In)	Plot length ≤ 297 mm (11.7 In)
	A3/ANSI B size or longer	A4/ANSI A size or smaller
A3/ANSI B	50 (plain paper)	
	10 (other paper)	
A4/ANSI A		50 (plain paper)
		10 (other paper)

View information about the paper

Tap the icon of the active paper source.

The following information is displayed on the control panel:

- Paper type you have selected
- Roll or sheet status
- Width of the paper

If no tray, roll, or single-sheet paper is loaded, the message **Out of paper** is displayed.

Maintain paper

Always protect your paper and sheets to print at the highest quality.



- Store rolls covered by another piece of paper or cloth
- Store cut sheets covered and clean or brush them before loading them in the printer
- Clean input and output platens
- Always keep the top cover of your printer closed



NOTE: Photo and coated paper requires careful handling, see [Print is scuffed or scratched on page 90](#).

Change the drying time

You may wish to change the drying time setting to suit special printing conditions such as multiple prints where time is of higher importance or when you need to be sure ink is dry before handling.

Tap the **Menu** icon , then **Settings** , then **General** > **Extra Dry Time**. You can select:

- **Extended**, to set a longer than recommended time to ensure ink is completely dry
- **Optimal**, to set the default and recommended time for your selected paper (this is the default setting)
- **Off**, to disable the drying time and remove your print as soon as it finishes printing





CAUTION: If the ink is not dry when the print is removed it could leave ink in the output tray and marks on the print.




NOTE: If you cancel the drying time during a print, the printer may not feed and cut the paper right away due to the printhead maintenance, which runs in parallel. If the dry time is zero, the printer cuts the paper and then performs the printhead maintenance. However, if the dry time is greater than zero, the printer does not cut the paper until after the printhead maintenance has completed.


Turn the automatic cutter on and off


You can change the cutter option to suit your requirements for each print job.

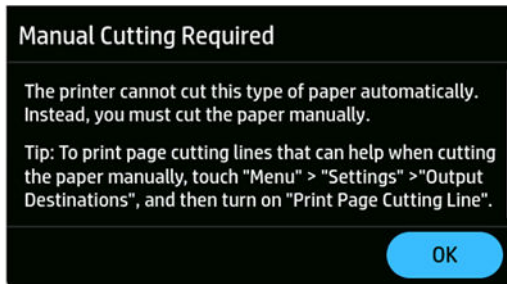
To turn the printer's paper cutter on or off, go to the control panel and tap the **Menu** icon , then **Settings** , then **Output destination** > **Horizontal cutter**.

The default setting is **On**.

 **NOTE:** If the cutter is turned off, it will not cut the paper between jobs, but it will continue to cut the paper on loading and unloading rolls.


 **TIP:** To cut roll paper while the automatic cutter is disabled, see [Advance button and cut button on page 32](#).

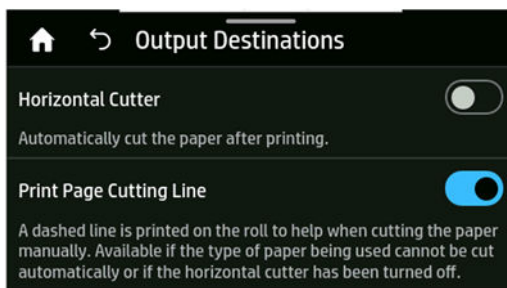
 **NOTE:** If you load the non-cuttable paper type, printer shows this screen while the paper loading process and disables the automatic cutter. Users cannot use the automatic cutter with these paper types.




Draw the cutting line when automatic cutter is disabled

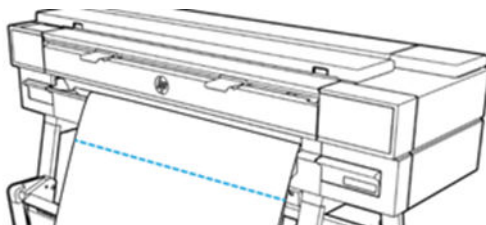
Printer can automatically draw a horizontal dashed line right after the end of the job. After printing, you can cut the roll along this cut line with scissors.

 **IMPORTANT:** To enable this feature, ensure you turned off "Horizontal Cutter" or selected the non-cuttable paper types. See [Turn the automatic cutter on and off on page 30](#) for more information.

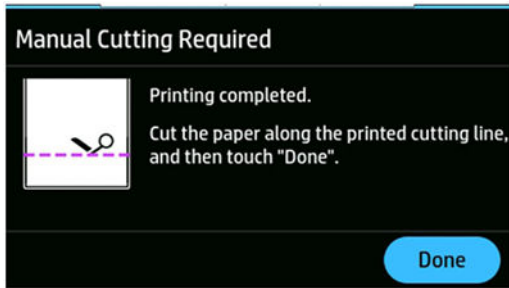


 **NOTE:** This feature is only supported for roll paper. It does not apply to internal prints or reports.

1. To turn the feature on, go to the control panel, tap the Menu icon, then Settings, then Output Destination > Print Page Cutting Line.
2. Print a job.
3. Once it finishes printing a job, it prints a cut line right after the end of the job.



4. It shows this screen. Cut the roll with scissors and tap the Done button.



5. It rewinds the excess roll back to the home position and gets ready for the next job.


Advance button and cut button


You can advance the paper with, or without cutting it.

From the control panel, tap **Paper**  > **Roll**, then tap the **Advance and Cut** icon .

The **Advance** option advances the paper without cutting it. **Cut** advances the paper and makes a straight cut across the front edge. There are at least two possible reasons why you might want to do this:

- To trim the leading edge of the paper if it is damaged or not straight.
- To advance and cut the paper when the automatic cutter has been disabled.

 **CAUTION:** Remove the cut piece from the output platen. If strips or short prints are left on the output platen, the printer could jam. Check also that there are no pieces of paper in the cutter guide.

 **NOTE:** Photo and coated paper requires careful handling, see [Print is scuffed or scratched on page 90](#).

5 Printing

Printing has never been easier or more flexible. Print from computers and mobile devices with the use of a variety software, customizable options and advanced settings.

Easy printing with HP Click

HP Click is an easy-to-use software tool designed for people who want a simple way of printing on large format printers.

It provides several benefits to simplify the print experience, such as nesting, batch printing and real print preview. In combination with the cut sheet tray, you can send to print multi-sized documents all at once.

Ideal for a broad range of graphics and technical applications, including posters, roll-up banners, info-graphic presentations, maps, and CAD documents. See the HP website at the following link:
<http://www.hp.com/go/clickDesignJet>.

Printing from an application using a printer driver

This is the traditional way of printing from an application.

The correct printer driver must be installed on the computer, and the computer must be connected to the printer by network.

When the printer driver has been installed and the computer is connected to the printer, you can print from a software application by using the application's own **Print** command and selecting the correct printer.

Advanced print settings

Advanced print settings can be used when the defaults do not meet your requirements.

The rest of this chapter explains the various print settings that you can use. These methods offer a relatively large number of settings in order to satisfy all requirements.



TIP: In general you are recommended to use the default settings unless you know that they do not meet your requirements.



TIP: If you intend to reuse a particular group of settings repeatedly, you can save those settings under a name of your own choice and recall them later. A saved group of settings is known as a 'quick set' in the Windows printer driver.

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.


You can select the options: **Best**, **Normal** and **Fast**. If you select **Fast**, you can also select **Economode**, which consumes less ink, increases printing speed even further, but reduces print quality. **Economode** can only be selected from the advanced options.

There are supplementary custom options that may have an effect on print quality: **Maximum detail**. See [High-quality printing on page 37](#).

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


- **In the Windows drivers dialog:** Go to **Basic>Print quality**.
- **In the macOS Print dialog:** go to the **Paper/Quality** panel and look at the **Quality Options** section. If you select **Standard** quality options, you will see a simple slider with which you can select speed or quality. If you select **Custom** quality options, you will see the more specific options described above.

 **NOTE:** If the print quality is set from your computer, it overrides the print-quality setting in the control 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 and the document can be rescaled if necessary.

 **NOTE:** The paper size specified should be the paper size the document was created at. It is possible to rescale the document to a different size for printing. See [Rescale a print on page 36](#).

- **In the Windows driver dialog:** Go to **Basic > Document size** and select the paper size from the list.
- **In the macOS Print dialog:** Select your printer from the **Printer** list, then select your paper size from the **Paper Size** list.

 **NOTE:** If your application offers no **Page Setup** dialog, use the **Print** dialog.

 **NOTE:** If the paper size is set from your computer, it overrides the paper size setting in the control panel.

Custom paper sizes

If you want to choose a paper size that is not included in the list of standard paper sizes, there are various different ways to specify it.

Use the Windows printer driver

You can create and save custom paper sizes to suit your requirements.

1. Go to **Basic> Document size**.
2. Open the drop-down list and scroll down to the **(+)Create** section.
3. Enter the name, units, and size of the new paper custom size.
4. Tap the **Ok** button.

Custom paper sizes created with the printer driver have the following characteristics:

- The paper size is permanent and does not disappear if the driver is closed or the computer is turned off.
- The paper size is local to the printer queue and not seen from other printer queues in the same computer.

- In Domain server networks, the paper size is local to the computer and not seen from other computers sharing the printer queue.
- In Workgroup networks, the paper size is shared among all the computers that share the printer queue.
- If the printer queue is deleted, the paper size is deleted with it.

Use Windows forms

Unrestricted users can create a new Windows form.

1. From the **Start** menu or the control panel, tap **Printers > File**, and select **Server Properties**.
2. In the **Forms** tab, check the **Create a new form** box.
3. Enter the name and dimensions of the new paper size. Leave the margins as 0.00.
4. Tap the **Save form** button.
5. Go to the printer driver and select the document size.
6. Select your new paper size from the group of **Custom sizes**.

Paper sizes created with Windows forms have the following characteristics:

- The paper size is permanent and does not disappear if the driver is closed or the computer is turned off.
- Restricted users cannot create paper forms. The **manage documents** role in the Windows Active Directory is the minimum required.
- The paper size is local to the computer and is seen in all the printer queues created on the computer that support paper that size.
- If a printer queue is shared, this paper size appears in all the client's computers.
- If a printer queue is shared from another computer, this paper size **doesn't** appear on the driver's document size list. A Windows form in a shared queue must be created in the server.
- If the printer queue is deleted, the paper size does not disappear.

Use macOS printer driver

You can manage paper customs sizes from the driver.

1. Go to the **Print** dialog.
2. Select **Paper Size>Manage Custom Sizes**.

Select margins options

By default, the printer leaves a 5 mm (0.2 in) margin between the edges of your image and the edges of the paper. However, you can change this behavior in the following way:

- **In the Windows driver dialog:** Go to **Basic > Margin Layout**.
- **In the macOS Print dialog:** Select the **Margins/Layout** panel.

At least some of the following options appear:

- **Standard or Use application settings.** Your image will be printed on a page of the size you have selected, with the default 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.** You should load paper that is larger than the size you selected in the application or driver. If you cut off the margins after printing, 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. This is useful when you want your image to cover the whole area of the paper.
- **Clip Contents By Margins.** Your image will be printed on a page of the size you have selected, with the default 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.

Print on loaded paper

You can print a job on whichever substrate is loaded in the printer.

- **In the Windows driver dialog:** Select **Use printer settings** in the **Paper Type** option of your printer driver.
- **In the macOS Print dialog:** Select the **Paper/Quality** panel, then in the **Paper Type** drop-down list, select **Any**.



NOTE: **Use printer settings** is the default **Paper Type** selection.

Rescale a print

You can send an image to the printer at a certain size but tell the printer to rescale it to a different size (normally larger).

This may be useful:

- If your software does not support large formats
- If your file is too large for the printer's memory; in which case you can reduce the paper size in your software and then scale it up again using the control-panel option

You can rescale an image in the following ways:

- **You can rescale an image from the Windows driver dialog:** Go to the **Advanced > Scale**.
 - By selecting a paper size, the image size is adjusted to the paper size you have selected. For example, if you have selected ISO A2 and you print an A3-sized image, it is enlarged to fit the A2 paper. If the ISO A4 size is selected, the printer reduces a larger image to fit the A4 size.
 - The **percentage of actual size** option enlarges the printable area of the original paper size by the percentage indicated, and then adds the margins to create the output paper size.
- **In the macOS Print dialog:** Select the **Paper Handling** panel, then **Scale to fit paper size**, and select the paper size to which you want to scale the image. If you want to increase the size of the image, make sure that the **Scale down only** box is unchecked.

If you are printing to a single sheet, you must ensure that the image fits onto the sheet, if not the image will be clipped.

Print a draft

You can specify this to save time and cost.

- **In the Windows driver dialog:** Go to **Print quality** and select **Fast**.

You can specify even faster draft-quality printing by using Economode, as follows. This is intended mainly for documents containing only text and line drawings:

- **In the Windows driver dialog:** Go to **Advanced > Color and quality** and check **Economode**.
- **In the macOS Print dialog:** Go to the **Paper/Quality** panel and move the print-quality slider to the extreme left (**Speed**).

High-quality printing

For unrivaled print quality.

- **In the Windows driver dialog:** Go to **Print quality** and select **Best**.
- **In the macOS Print dialog:** Go to the **Paper/Quality** panel and move the print-quality slider to the extreme right (**Quality**).

If you have a high-resolution image

You can improve print sharpness when using glossy paper.

If your image has a resolution greater than the rendering resolution (which you can see in the **Custom Print Quality Options**), print sharpness may be improved by selecting the **Maximum Detail** option.

This option is available only if you are printing on photo paper.



NOTE: The **Maximum Detail** option results in slower printing with photo papers, but it does not increase the amount of ink used.

Use paper economically

You may be able to save some of your roll paper by removing blank areas and/or by image rotation.

- **In the Windows driver dialog:** Go to **Advanced > Output > Remove blank areas** and enable the setting.

You can also select one of the **Rotation** options.

- **In the macOS Print dialog:** Go to **Finishing panel > Remove Blank Areas**.

Use ink economically

There are some recommendations you can follow to save ink.

- For draft prints use plain paper, set **Print quality** to **Economode**.
- Clean the printhead only when needed. Cleaning the printhead can be useful, but it uses a small amount of ink.
- Wide prints make more efficient use of ink than narrow prints, because printhead maintenance uses some ink, and its frequency is related to the number of passes made by the printhead.


Printing in grayscale or black-and-white

There are a number of ways to convert all the colors in your image to shades of gray.

- **In your application program:** Many applications provide this option.
- **In the Windows driver dialog:** Go to **Basic > Color mode** and tap **Grayscale**. Only black ink is used to print, except if the paper loaded is glossy, in which case colored inks are used to compose the gray shades. You can also select **Pure black and white** for black and white output only, with no gray shades. In this case only black ink is used to print. The **Pure black and white** option is not supported when you print on glossy paper.
- **In the macOS Print dialog:** Go to the **Color Options** panel and from the **Mode** drop-down list, select **Grayscale**. Only black ink is used for printing, unless the paper loaded is glossy, in which case the other inks are used to compose gray shades. You can also select **Pure black and white** for black and white output only, with no gray shades. In this case, only black ink is used for printing. The **Print in pure black and white** option is not supported when printing on glossy paper.

Print from USB flash drive

Print an image on a USB flash drive directly to the printer using the control panel.

1. Insert the USB flash drive containing the image or images that you want to print into the printer's USB port.
2. From the control-panel home screen, tap the **Print** icon  .
3. Tap **Print from USB**.
4. Select the file to print.
5. Tap **USB settings** at the bottom right to select the print settings for the job. The printing parameters for the task include the number of copies, color options, print quality, output size, paper source, and print margins.
6. Tap **Print** to print the job.

Print using Wi-Fi Direct

With Wi-Fi Direct, you can print wirelessly from a computer, smart phone, tablet, or other wireless-capable device—without connecting to an existing wireless network.

Guidelines for using Wi-Fi Direct



There are essential prerequisites to using Wi-Fi Direct.

- Make sure your computer or mobile device has the necessary software.
 - If you are using a computer, make sure you have installed the HP printer software.
 - If you have not installed the HP printer software on the computer, connect to Wi-Fi Direct first and then install the printer software. Select **Wireless** when prompted by the printer software for a connection type.
- If you are using a mobile device, make sure you have installed a compatible printing app. For more information, visit the HP Mobile Printing website at <http://www.hp.com/go/mobileprinting>. If a local version of this website is not available in your country/region or language, you might be directed to the HP Mobile Printing website in another country/region or language.
- Make sure Wi-Fi Direct for your printer is turned on.

- Up to five computers and mobile devices can use the same Wi-Fi Direct connection.
- Wi-Fi Direct can be used while the printer is also connected to a network using a wireless connection.
- Wi-Fi Direct cannot be used to connect a computer, mobile device, or printer to the Internet.



Turn on Wi-Fi Direct

You can turn on Wi-Fi Direct directly from the control panel, or alternatively from the EWS.

1. From the printer control panel, tap **Menu**  > **Settings**  > **Network** > **Wi-Fi Direct**.
2. If the display shows that Wi-Fi Direct is **Off**, tap **Wi-Fi Direct** and then switch it on.
3. You can also turn on Wi-Fi Direct from the Embedded Web Server. For more information about using the Embedded Web Server, see [Access the Embedded Web Server on page 15](#).

Change connection method

You can change the Wi-Fi Direct connection method, and choose between automatic and manual.

1. From the printer control panel, tap **Menu**  > **Settings**  > **Network** > **Wi-Fi Direct**.
2. Tap **Connection Method** and then select **Automatic** or **Manual**:
 - a. If **Automatic** was selected during Wi-Fi Direct setup on the printer, the mobile device automatically connects to the printer.
 - b. If **Manual** was selected during the Wi-Fi Direct setup on the printer, acknowledge the connection on the printer display or enter the printer PIN on your mobile device. The PIN is provided by the printer when a connection attempt is made.

Print from a wireless-capable mobile device that supports Wi-Fi Direct

Make sure you have installed the latest version of HP Print Service Plugin on your mobile device.



NOTE: If your mobile device does not support Wi-Fi, you cannot use Wi-Fi Direct.

1. Make sure you have turned on Wi-Fi Direct on the printer.
2. Turn on Wi-Fi Direct on your mobile device. For more information, see the documentation provided with the mobile device.
3. From your mobile device, select a document from a print enabled application, and then select the option to print the document.

The list of available printers appears.

4. From the list of available printers, choose the Wi-Fi Direct name shown such as **DIRECT-**-HP DesignJet T870 Printer series** (where ** are the unique characters to identify your printer), and then follow the onscreen instructions on the printer and your mobile device.
5. Print your document.

Print from a wireless-capable mobile device that does not support Wi-Fi Direct

Make sure you have installed a compatible printing app on your mobile device.

1. Make sure you have turned on Wi-Fi Direct on the printer.
2. Turn on the Wi-Fi connection on your mobile device. For more information, see the documentation provided with the mobile device.



NOTE: If your mobile device does not support Wi-Fi, you cannot use Wi-Fi Direct.

3. From the mobile device, connect to a new network. Use the process you normally use to connect to a new wireless network or hotspot. Choose the Wi-Fi Direct name from the list of wireless networks shown such as **DIRECT-**-HP DesignJet T870 Printer series** (where ** are the unique characters to identify your printer).
4. Enter the Wi-Fi Direct password when prompted.
5. Print your document.

Mobile printing

This section gives more information on printing from a mobile.

Introduction

The main method of Mobile Printing is: Direct printing by connection to the same network.

Your printer can be connected to the HP Cloud, providing various benefits, like Print Anywhere or Private Pickup. See [Choose which connection method to use on page 11](#) for more information.

See the HP website at the following link: <http://www.hp.com/go/designjetmobility> for more detailed information.



IMPORTANT: The printer must be connected to a network with Internet access: connect an Ethernet cable.



IMPORTANT: In order to print/scan from mobile devices, **Bonjour**, **IPP/IPPS** must be enabled in the Embedded Web Server (**Network > Advanced Settings**).

Print from Android

You can add and manage your device's print services from your Android Settings: **Settings**  >

Connected Devices > Connection Preferences > Printing (exact location may vary depending on Android OS version).



NOTE: Printing is only available from applications that offer printing or sharing.

Print using the HP app

Stay productive and organized with the HP app. Print documents and photos, via email or messaging apps, and check the status and ink levels of your printer.

You must have Android 10.0 or later.

To have access to all the HP app's features, connect your printer to HP Cloud and log in using your HP Credentials.

Make sure your device and printer are operating on the same network and follow the steps below:

To print using the HP app:

1. Open the HP app and select your printer.
2. Select whether you want to print documents or photos from your local device, or link your Google Drive, Dropbox, or other accounts to access your content.
3. Use the edit options to adjust quality, color, and other settings if you wish to make such adjustments.
4. Tap **Print** and collect your printed documents.

Print using the Android default print service

You must have Android 12.0 or later.

The Android default print service comes pre-installed on Android devices, but is enabled only if no other compatible print service is installed, such as the HP Print Service plugin or the Mopria Print Service.

To use the default service, follow the steps below:

1. Open the document or photo you want to print, tap the **Menu** icon, then tap **Print**.
2. Choose your printer from the list. Printers discovered by the default print service will appear with a generic printer logo.
3. Check the print settings, then tap **Print**.

Print using the Mopria Print Service

You must have Android 5.0 or later.

If it is not already installed on your device, download, install, and enable the Mopria Print Service from the Google Play store at <https://play.google.com/store/apps/details?id=org.mopria.printplugin>.

To use Mopria, follow the steps below:

1. Open the document or photo you want to print, tap the **Menu** icon, then tap **Print**.
2. Choose your printer from the list. Printers discovered by the Mopria Print Service will appear with the Mopria Alliance logo.
3. Check the print settings, then tap **Print**.

Alternatively, for document types PDF, JPEG, and PNG, you can use the Android **Share** button and select **Mopria** from the list of options.

For more information, visit the Mopria website at <https://mopria.org/>.

Print using the HP Print Service plugin

You must have Android 6.0 or later.

If it is not already installed on your device, download, install, and enable the HP Print Service plugin from the Google Play store at <https://play.google.com/store/apps/details?id=com.hp.android.printservice>.

To use the plugin, follow the steps below:

1. Open the document or photo you want to print, tap the **Menu** icon, then tap **Print**.
2. Choose your printer from the list. Printers discovered by the HP Print Service plugin will appear with the HP logo.
3. Check the print settings, then tap **Print**.

Alternatively, for document types PDF, JPEG, and PNG, you can use the Android **Share** button and select the **HP Print Service** plugin from the list of options.

Print from Apple iOS



NOTE: Printing is only available from applications that offer printing or sharing.

Print using the HP app

Stay productive and organized with the HP app. Print documents and photos, share scans to repositories, via email or messaging apps, and check the status and ink levels of your printer.

You must have iOS/iPadOS 15.0 or later.

You can download the HP app from the iTunes website at following link: <https://itunes.apple.com/app/id469284907>

To have access to all the HP app's features, connect your printer to HP Cloud and log in using your HP credentials.

Make sure your device and printer are operating on the same network and follow the steps below:

To print using the HP app:

1. Open the HP app and select your printer.
2. Select whether you want to print documents or photos from your local device, or link your Google Drive, Dropbox, or other accounts to access your content.
3. Use the edit options to adjust quality, color, and other settings if you wish to make such adjustments.
4. Tap **Print** and collect your printed documents.

Print using AirPrint

iOS printing is enabled through AirPrint. You must have iOS 7.0 or later.

1. Open the document or photo you want to print and press the **Share** button.
2. Swipe the screen to reveal the **Print** button and press it.
3. Check the print settings, then press **Print**.

Print from Chrome OS

Printing is only available from applications that offer printing or sharing.

Print using Chrome OS Native Print

With the latest ChromeOS versions, you can use native printing capabilities for basic printing without having to install additional software.

1. Choose your content. Open the document or photo you want to print, tap the **menu icon** and select **Print**.
2. Choose your printer. Select from the list of printers that appears. Printers discovered by ChromeOS Native Print will appear with a generic printer logo.
3. Confirm that the correct printer and print settings are selected. Tap **Print** and collect your printed documents.

For more information, visit the Google website at the following link:

<https://support.google.com/chrome/a/topic/9045842>.

Mobile specifications

The HP app requires you to have an Internet connection.

Print functionalities require that the mobile device and printer be on the same network.



NOTE: OS versions supported may vary in the future.

6 Quick Sets

A Quick Set is a named group of settings with defined default values.

Quick Sets help you be more efficient and are convenient for less experienced users. They offer a 'one click' action to print jobs.

Factory Quick Sets

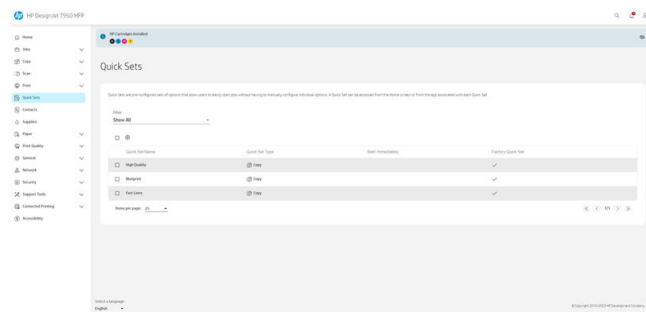
The printer comes with some pre-defined factory Quick Sets, designed to support typical user requirements.

See [Launching Quick Sets on page 47](#) for more information.

Managing Quick Sets

Quick Sets can be managed from the Embedded Web Server.

Look for the **Quick Sets** option on the menu. See [Access the Embedded Web Server on page 15](#) for more information.



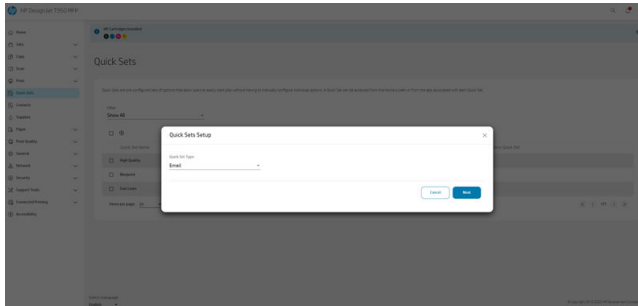
Depending on the permissions your printer has set, you can create, delete, edit, or view a Quick Set.

Creating a new Quick Set

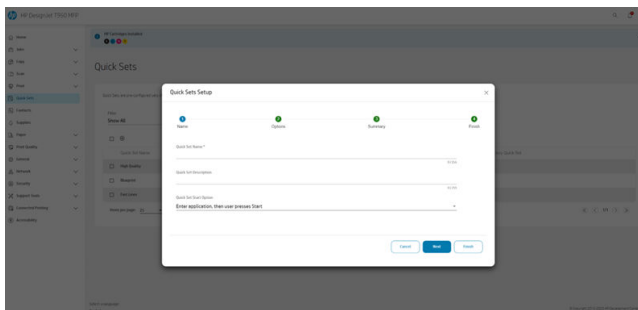
Quick Sets can be created from the Embedded Web Server.

1. Tap the Add icon (+). A window opens to create a new Quick Set to print jobs.

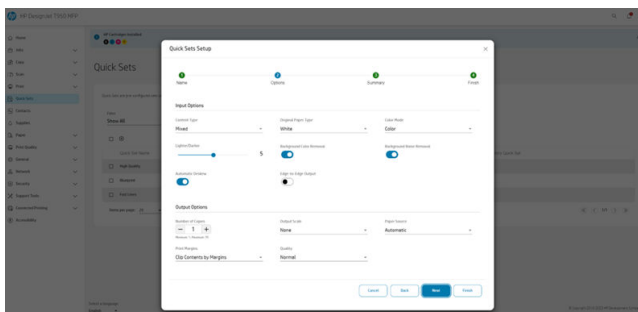
2. Select the new type of Quick Set from the drop-down list. Choose **Print from USB**, then tap **Next**.



3. Give the new Quick Set a name, description, and choose the start option from the drop-down list, then tap **Next**.

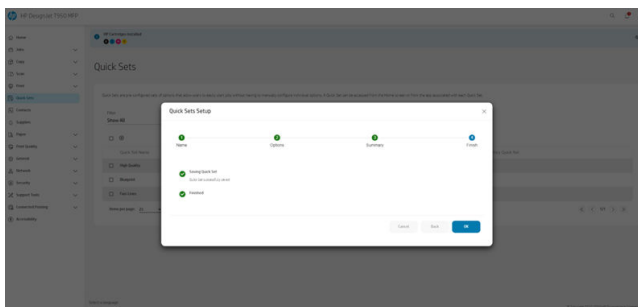


4. Select the input options you require, then tap **Next**.



5. A summary of the Quick Set appears. Tap **Next** to save the Quick Set and continue.

6. The Quick Set is added and now available to use. Tap **OK** to finish.



7. The new Quick Set will now appear in the list.

Editing a Quick Set

Quick Sets can be edited from the Embedded Web Server.



NOTE: Factory Quick Sets cannot be edited.

1. Select the Quick Set to edit by clicking on the checkbox near the Quick Set name.
2. Tap the **Edit** icon. A window will open with information on the Quick Set.
3. Edit the information and follow the steps. Tap **OK** to finish.

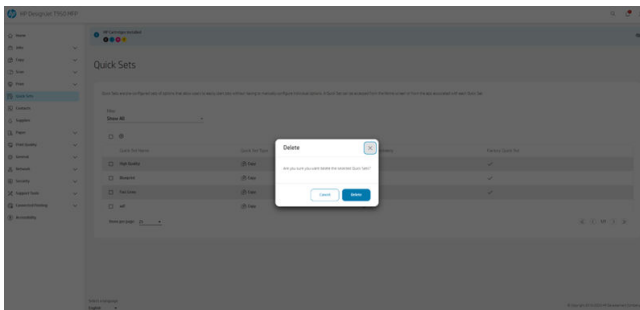
Deleting a Quick Set

Quick Sets can be deleted from the Embedded Web Server.

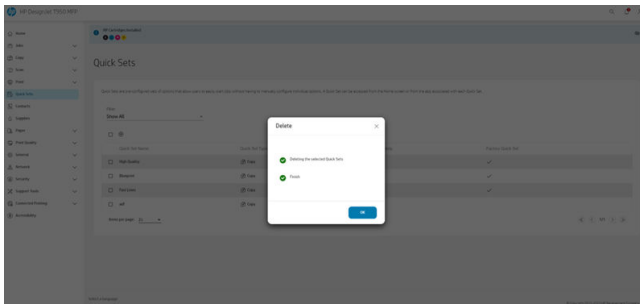


NOTE: Factory Quick Sets cannot be deleted.

1. Select the Quick Set you want to delete by clicking on the checkbox by the Quick Set's name.
2. Tap the **Delete** icon. A confirmation window will open.



3. The Quick Set will be deleted. Tap **OK** to finish.

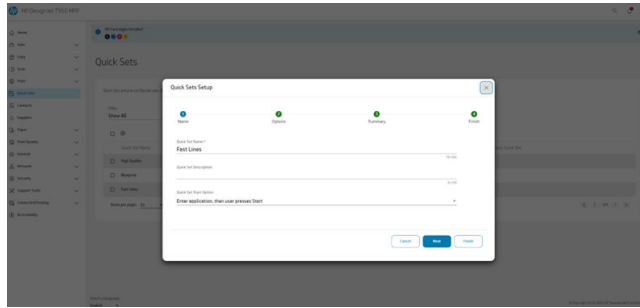


Copying a Quick Set

Quick Sets can be copied from the Embedded Web Server.

1. Select the Quick Set you want to copy by clicking on the checkbox by the Quick Set's name.

2. Tap the **Copy** icon. A window will open with information on the Quick Set.



3. Give the Quick Set a new name, add a description, and make any other changes to settings.
4. Follow the steps until you have saved the Quick Set. Tap **OK** to finish.
5. The duplicated Quick Set will now appear in the list.

Viewing a Quick Set

Quick Sets can be viewed from the Embedded Web Server.



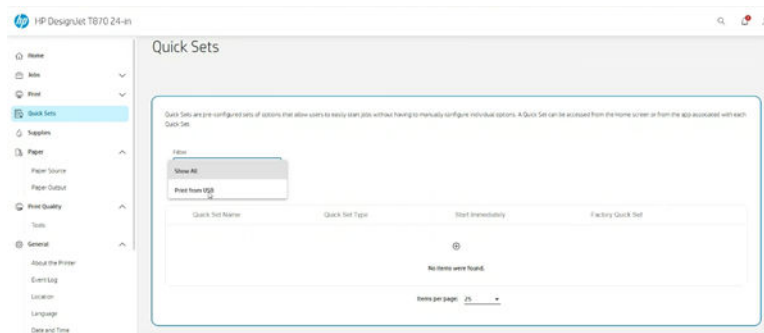
NOTE: Only factory Quick Sets can be viewed.

1. Select the Quick Set you want to view by clicking on the checkbox by the Quick Set's name.
2. Tap the **View** icon. A window will open with information on the Quick Set.
3. Check any information you want to check and follow the steps. Tap **OK** to finish.

Launching Quick Sets

Quick Sets can be launched from the Embedded Web Server.

1. From the control panel, tap **Print from USB**.



2. Select an appropriate Quick Set to start your job. Quick Sets can be temporally modified by changing a setting.



NOTE: Created Quick Sets will appear here along with factory Quick Sets.

3. Click **Send** to start the process.

4. Follow the instructions on the control panel to finish.

7 Practical printing examples

Step by step examples to print drafts, projects, presentations etc. to help you follow correct procedure with your jobs.

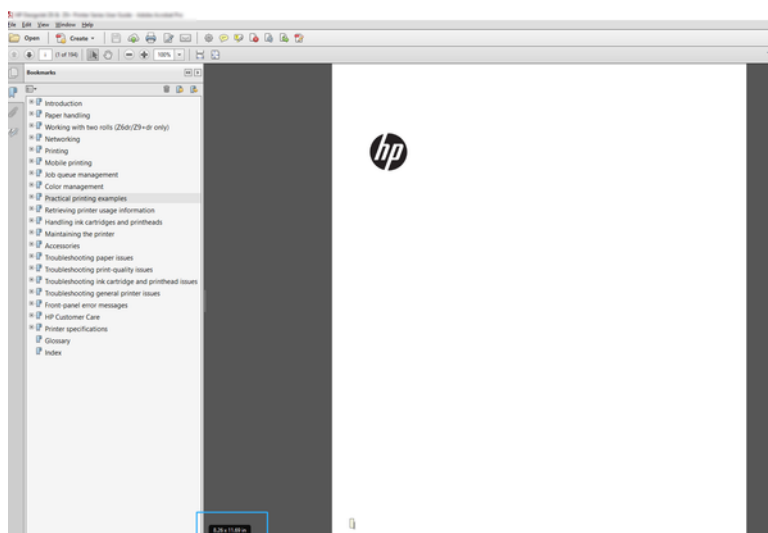
Print a draft for revision with the correct scale

Page size and orientation may not always be set as you require. This can be altered.

Using Adobe Acrobat

Print a revision draft with the correct scale.

1. In the Acrobat window, bring the mouse cursor to the bottom left corner of the document pane to check the page size.



2. Select **File > Print** and ensure that **Page Sizing & Handling** is set to **Actual size**.



NOTE: The page size will **not** be automatically selected according to the drawing size.

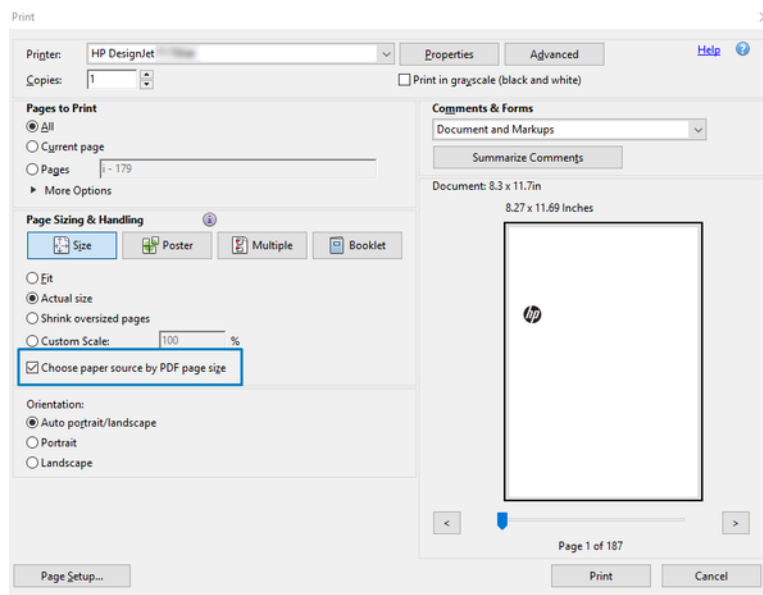
3. Click the **Properties** button.
4. Choose whatever **Document Size** and **Print Quality** you want to use. If you want to define a new custom paper size, follow the instructions in [Custom paper sizes on page 34](#).
5. Select **Rotation**, then **Autorotate**.
6. Click **OK**, and check that the print preview in the **Print** dialog box seems correct.

Print a PDF multipage job from Adobe Acrobat Reader or Adobe Acrobat Pro

Set up for a multipage job is a quick and simple process.

You can print a multipage job from Adobe Acrobat.

1. Open a multipage job in Adobe Acrobat Reader or Adobe Acrobat Pro (HP recommends always using the latest version).
2. Click **File > Print**.
3. Select the printer and driver.
4. Check the **Choose paper source by PDF page size** box.



5. Adjust other properties in the driver properties window, as required.
6. Click the **Print** button.

Print a document with the correct colors

Print a document from Adobe Acrobat and Adobe Photoshop, with the emphasis on color management.

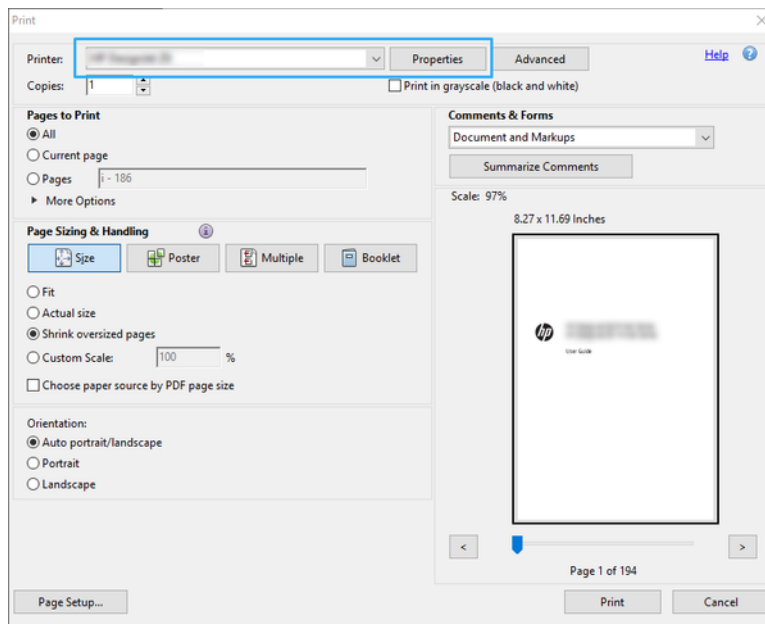
Using Adobe Acrobat Reader

The print process is very simple. Acrobat Reader is the most basic application for PDF files; several color management tools common in more sophisticated applications are not explicitly present, and work by default with presets that cannot be changed.

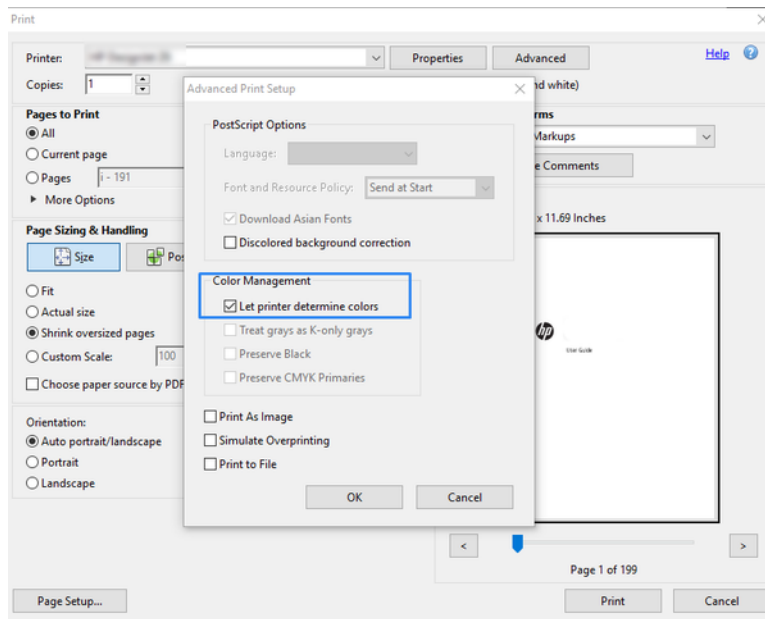
For example, there is no way to select a working color space; a default color space, most likely sRGB, is applied. This color space is used for screen display, for example. Also, as an alternative color profile when no other is specified by a file, as will be explained later.

1. Click **File > Print**.

2. Select the printer and driver from the **Printer** drop-down menu in the **Print** dialog box. Driver settings can be adjusted by clicking the **Properties** button.



3. Adjust the color settings in the driver properties window. Click the **Properties** button in the **Print** dialog and set the **Color** option in the **Color mode** section. Click **OK**.
4. Click the **Advanced** button in the Print dialog box to set color management options. Check the box **Let printer determine colors**.



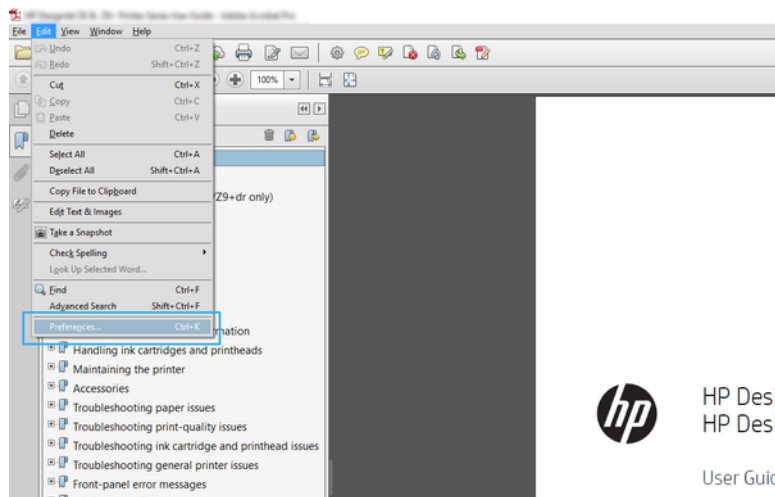
5. If the document contains several color profiles and you are not sure what the result will be, you can flatten the document first and print it as seen on the screen. To do this, check the box **Print As Image** in the Advanced Print Setup dialog box. In this case, the rasterization is performed by Acrobat Reader before calling the driver; whereas, if you do not check this box, the rasterization is

performed by the driver. So checking the box may have a visible effect on the look of the printed document.

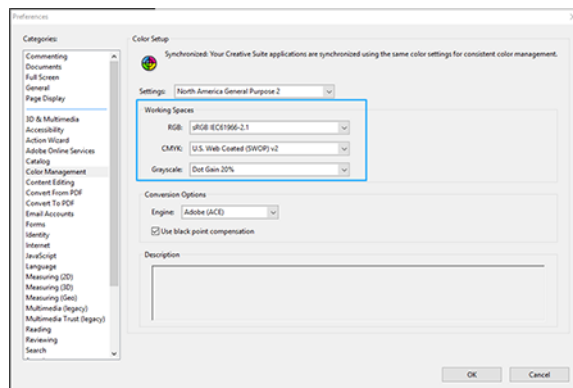
Using Adobe Acrobat Pro

This is a professional application that allows full color management. See briefly described, the options to select a working color space, convert images to a desired color space, and print.

1. PDF files may not contain a color profile. In the absence of a color profile, Acrobat uses a working color space by default. To choose a working color space, first click **Edit > Preferences**.

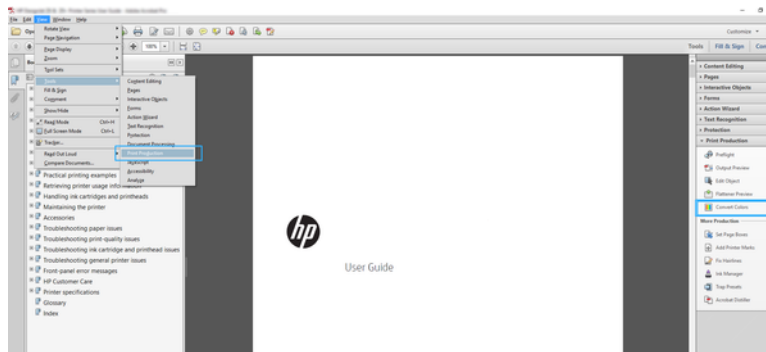


2. In the Preferences dialog box, you can choose RGB, CMYK, and grayscale working color spaces.

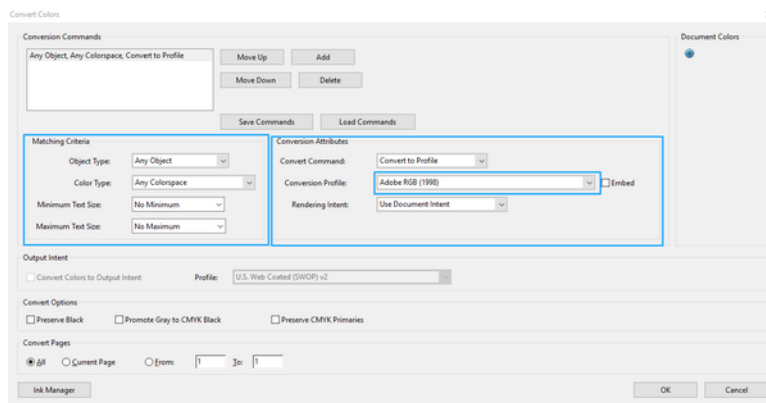


3. PDF files can contain elements with different color profiles. Some may have color profiles, some may not. The working color space will affect only those without a color profile. If you want to attach a specific color profile to the document, you must convert the contents of the document as follows.

First, select **Convert Colors** from **View > Tools > Print Production** or by clicking the icon in the status bar.



4. Select the elements you want to convert by specifying matching criteria (object type and/or color type) and then the conversion attributes. If you want to change the embedded color profile, you can select **Any Object** and **Any Colorspace** in the Matching Criteria section. In the Conversion Attributes section you can choose, for example, to embed an Adobe RGB (1998) profile by selecting it as the **Conversion Profile**, checking the **Embed** box, clicking the **OK** button, and saving the file to keep the changes. The saved file will have an embedded Adobe RGB color profile.



5. To print the document, choose a printer from the Print dialog box, click the **Properties** button, and in the **Color mode** section, set the color options.



IMPORTANT: Select **Print in color** and **Printer managed colors**.

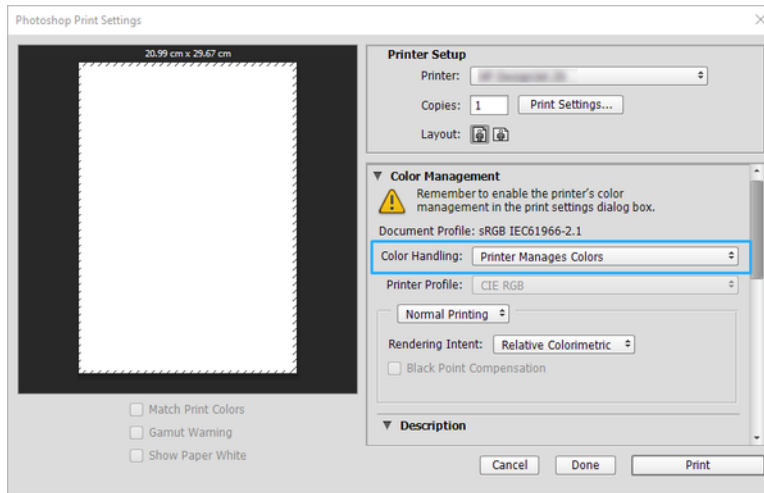
6. In the Print dialog box, click the **Print** button to print the document.

Using Adobe Photoshop

The printer can manage colors directly.

1. In Photoshop, click **File > Print**, then select your printer.

2. In the Color Management section, set the Color Handling option to **Printer Manages Colors**.



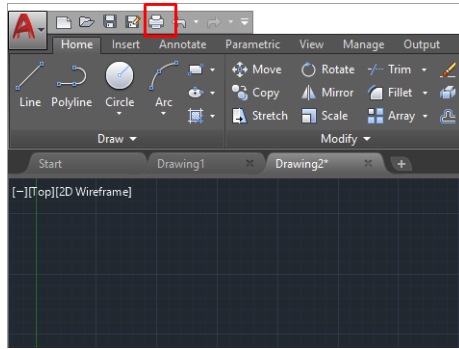
Print a project using Autodesk AutoCAD

Set up a plot to print from a model or a layout.

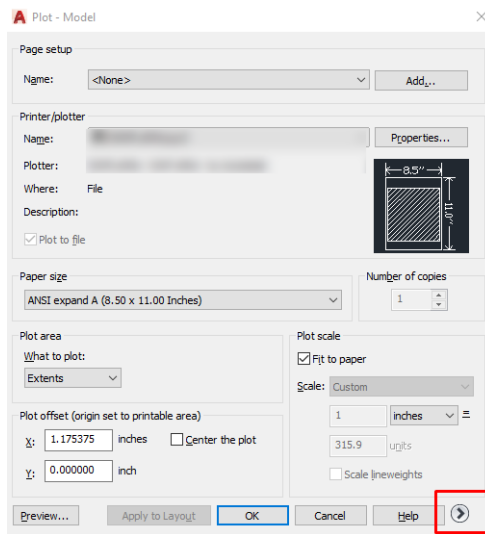
1. The AutoCAD window can show a model or layout. Normally a layout is printed rather than the model.




2. Click the **Plot** icon at the top of the window.



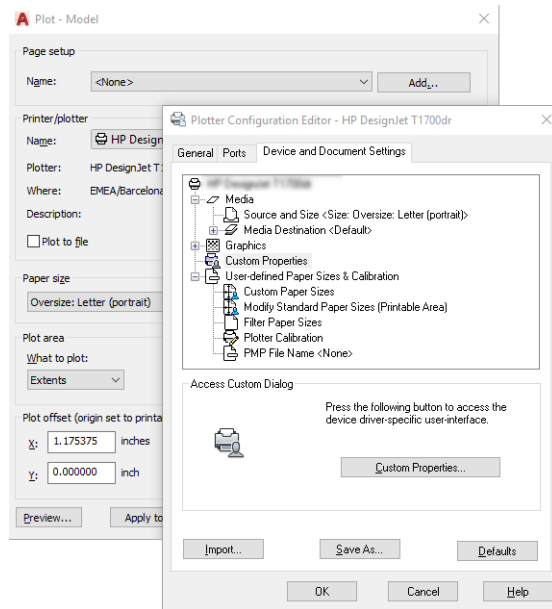
3. The **Plot** window opens.
4. You can see further options by clicking the circular button in the lower right corner of the window.



 **NOTE:** The Quality option here does not refer to the final print quality but to the quality of AutoCAD viewport objects that are sent for printing.

5. Select your printer and click the **Properties** button.

6. Select the **Device and Document Settings** tab, and click the **Custom Properties** button.



7. In the **Driver**, select the paper type that you intend to use.
8. Select the print quality.
9. If you intend to print on roll paper, you must decide where the printer should cut the paper.
- With the Windows driver: Select **Document** > **Margin layout** > **Clip content by margins**.
10. Select the **Rotation** option **Autorotate**. Autorotation can help to avoid wasting paper.
11. Click the **OK** button and save your configuration changes to a PC3 file.
12. When you have clicked the **OK** button in the Plot window, the printer will construct a print preview.

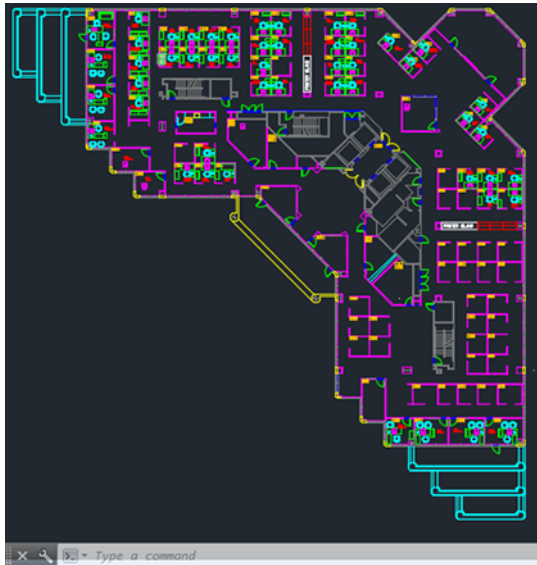
Print a presentation

Setup AutoCAD or Photoshop presentations.

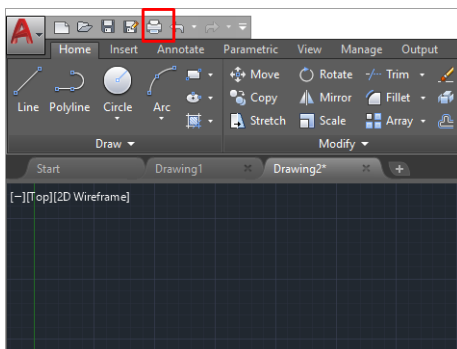
Using Autodesk AutoCAD

Print a presentation with Autodesk AutoCAD.

1. Open the AutoCAD file and select a layout.

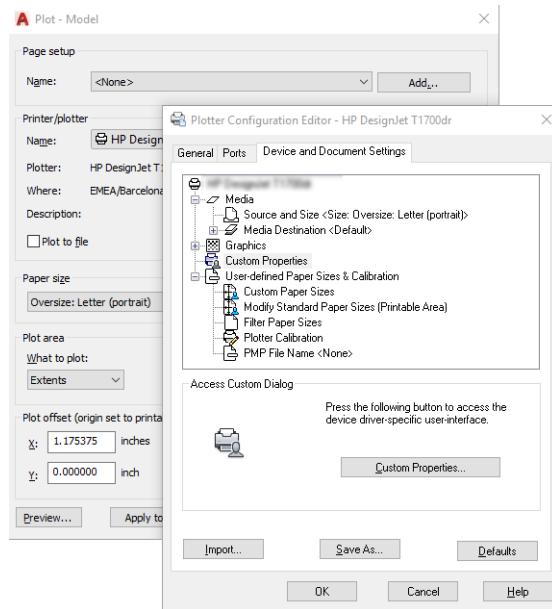


2. Click the Plot icon at the top of the window.



3. Ensure that the correct printer is selected, then click the **Properties** button.

4. Select the **Device and Document Settings** tab, and click the **Custom Properties** button.



5. In the **Driver**, select the paper type that you intend to use.



NOTE: If you select neither the paper source nor the paper type, the printer will not print on any protected roll.

6. Select the print quality.
7. If you intend to print on roll paper, you must decide where the printer should cut the paper.
 - With the Windows driver: Select **Document** > **Margin layout** > **Clip content by margins**.
8. Select the **Rotation** option **Autorotate**. Autorotation can help to avoid wasting paper.
9. Click the **OK** button and save your configuration changes to a PC3 file.
10. When you have clicked the **OK** button in the Plot window, the printer will construct a print preview.

Using Adobe Photoshop

Print a presentation with Adobe Photoshop.

1. In Photoshop, click **File** > **Print** and then select your printer.
2. Click **Print settings**, then select the **Document size** option.
3. Choose from the available paper sizes.

If you don't find your desired paper size, create it by following the instructions in [Custom paper sizes on page 34](#).

4. Select **Show preview before printing**. You may also wish to change the default paper source, paper type and print quality.
5. In the **Color** section, the default color management option is **Printer managed colors**, which is the correct option as you have already selected **Printer Manages Colors** in Photoshop.


8 Handling ink cartridges and printhead


There are four replaceable ink cartridges that supply the printhead. You can check status information, and easily change an ink cartridge when required.

About the ink cartridges

Ink cartridges store the ink and are connected to the printhead, which distributes the ink on the paper.

To purchase additional cartridges, see [Accessories on page 71](#).

 **CAUTION:** Observe precautions when handling ink cartridges because they are ESD-sensitive devices. Avoid touching pins, leads and circuitry.

 **NOTE:** This printer is intended to work only with cartridges that have a new or reused HP chip, and it uses dynamic security measures to block cartridges using a non-HP chip. Periodic firmware updates will maintain the effectiveness of these measures and block cartridges that previously worked. A reused HP chip enables the use of reused, remanufactured, and refilled cartridges. More on the HP website at the following link: <http://www.hp.com/learn/ds>.

Store supply usage data

The HP cartridge used with this printer contains a memory chip that assists in the operation of the printer.

The HP cartridge used with this printer contains a memory chip that assists in the operation of the printer.

The memory chip stores a limited set of anonymous information about the usage of the printer, which can include the following: the date when the cartridge was first installed, the date when the cartridge was last used, the number of pages printed using the cartridge, the page coverage, the printing modes used, any printing errors that may have occurred, and the printer model. This information helps HP to design future products to meet our customers' printing needs.

The information collected by the memory chip does not include information that could be used to identify a customer or user of the cartridge or printer.


HP collects a sample of the memory chips from ink cartridges returned to HP's free return and recycling program (HP Planet Partners, see the HP website at the following link: <http://www.hp.com/recycle>). The sampled memory chips are read and studied in order to improve future HP products.

Any third party possessing the printer cartridge might have access to the information on the memory chip. If you prefer if you prefer to not allow access to this information, you can render the chip inoperable. However, after you render the memory chip inoperable, the memory chip cannot be used in an HP printer.

If you are concerned about providing this anonymous information, you can turn off the memory chip's ability to collect printer usage information. To do so, access the EWS and tap **Security > Security Settings**, then in the **Printer Settings** section, toggle to **Anonymous usage information**. This does not prevent the cartridge from working normally in other respects. However, if you change your mind later, you can restore the factory defaults to resume collecting printer usage information.

Check ink cartridge status

Information about the evolution of the ink cartridges.

To view the ink levels of your ink cartridges, tap the **Supplies** icon , then **Ink Cartridges** on the control panel. For more information, tap the specific cartridge.


In the Embedded Web Server go to **Home > Estimated Cartridges Levels** or **Supplies > Cartridges**.


For an explanation of the ink cartridge status messages, see [Ink cartridge status messages on page 95](#).

Replace an ink cartridge

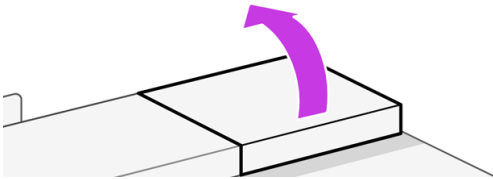
There are two occasions when you need to replace an ink cartridge.

- The ink cartridge is very low and you want to replace it with a full cartridge for unattended printing (you can use up the remaining ink in the first cartridge at a more convenient time).
- The ink cartridge is empty or faulty, and you must replace it to continue printing.

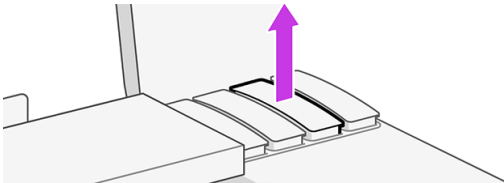
 **CAUTION:** Do not try to remove an ink cartridge while printing.

 **CAUTION:** Remove an ink cartridge only if you are ready to insert another one.

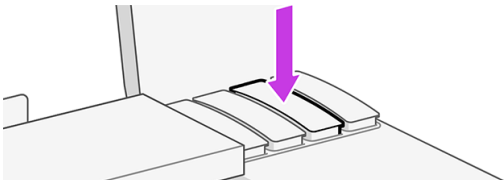
1. Make sure the printer is turned on.
2. Open the ink cartridge cover on the rear right-hand side of the printer.



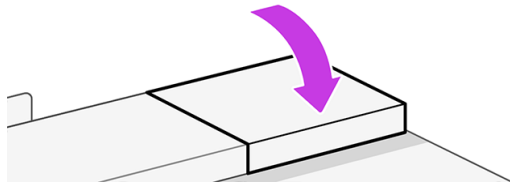
3. Remove the ink cartridge.



4. Insert the new ink cartridge. Make sure that you insert the ink cartridge into the slot that has the same colored letter as the cartridge you are installing.



5. Close the ink cartridge cover.



About the printhead

The printhead, which is supplied installed in the printer, is connected to the ink cartridges and jets ink onto the paper.

CAUTION: Observe precautions when handling the printhead, because it is an ESD-sensitive device. Avoid touching pins, leads, and circuitry.

For information on replacing printheads, see [Replace the printhead on page 64](#).

Safe mode

Under certain conditions, including printer operation outside of environmental specifications, and when a used, refilled, or counterfeit ink cartridge has been detected, the printer will operate in safe mode.

HP is unable to warrant the performance of the printing system when operated outside of environmental specifications or when a used, refilled, or counterfeit ink cartridge is installed. Safe mode is designed to protect the printer and the printheads from damage due to unexpected conditions, and is in operation when the icon is displayed on the printer's control panel and by the Embedded Web.

For optimal performance, use original HP ink cartridges. HP DesignJet printing systems, including original HP inks and printheads, are designed and engineered together to provide uncompromising print quality, consistency, performance, durability, and value—with every print.

NOTE: This printer is not designed to use continuous ink systems. To resume printing, remove the continuous ink system and install genuine HP (or compatible) cartridges.

NOTE: This printer is designed for ink cartridges to be used until they are empty. Refilling cartridges prior to depletion might cause your printer to fail. If this happens, insert a new cartridge (either genuine HP or compatible) to continue printing.

NOTE: This printer is intended to work only with cartridges that have a new or reused HP chip, and it uses dynamic security measures to block cartridges using a non-HP chip. Periodic firmware updates will maintain the effectiveness of these measures. More on the HP website at the following link: <http://www.hp.com/learn/ds>.

9 Maintaining the printer

Checking printer status and maintenance are essential to keep your equipment in prime condition. Keep your printer clean, diagnose issues, calibrate, replace the printhead when required, and keep your software up to date.

Check printer status

There are various ways you can check the current printer status.

1. From the control panel, you can get information about the loaded paper and the ink levels.
2. If you access the Embedded Web Server, you see information about the general status of the printer.

Take care of the printer


The printer is not designed for any purpose other than printing.

It is not recommended to use the printer as a table, for two reasons:

- The surface can easily be damaged.
- Anything that falls into the printer can cause more serious damage.

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 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.




Print Quality Diagnostic Report


There are two test patterns designed to highlight printhead reliability problems.

To print the Print Quality Diagnostic Report

Check the performance of the printhead that is currently installed in your printer, and whether it suffers from clogging or alignment problems.

1. Use the same paper type that you were using when you detected a problem. The test patterns are easiest to evaluate on plain white paper.
2. Check that the selected paper type is the same as the paper type loaded into the printer. See [View information about the paper on page 29](#).

3. From the printer's control panel, tap the **Menu** icon , then **Tools**  > **Reports**  > **Status Reports** > **Print Quality Diagnostic Report**.

 **NOTE:** The report can also be requested from the Embedded Web Server.

Test pattern 1: If the lines are not straight and connected, align the printhead. See [Align the printhead on page 64](#).



Test pattern 2: If you see thin white lines across and of the colored blocks, clean the printhead. See [Clean the printhead on page 63](#).



Corrective actions

If you have an issue with the diagnostic page, there are steps you can take, depending on the problem.


1. If the lines in Test Pattern 1 are not straight and connected, align the printhead (see [Align the printhead on page 64](#)).
2. If any of the colored blocks in Test Pattern 2 show white lines, are faded or completely missing, clean the printhead (see [Clean the printhead on page 63](#)). Follow the control-panel prompts and perform all three levels of cleaning if necessary.
3. If the problem remains, clean the printhead again.
4. If the problem remains, replace the printhead (see [Replace the printhead on page 64](#)). If the printhead is still in warranty, contact HP Support (see [Contact HP Support on page 111](#)).

Clean the printhead

If your print is streaked or has incorrect or missing colors, the printhead may need to be cleaned.

There are three stages of cleaning (Express, Basic and Advance). Each stage lasts about two minutes, uses one sheet of paper, and uses an increasing amount of ink. After each stage, review the quality of the printed page. You should initiate the next phase of cleaning only if the print quality is poor.


If print quality still seems poor after you complete all stages of cleaning, try aligning the printhead.

 **NOTE:** Cleaning uses ink, so clean the printhead only when necessary.

 **NOTE:** Failing to turn off the printer correctly can cause print-quality problems.

Clean the printhead from the control panel

When your print quality seems poor, and you are next to the printer, this is a simple method to address the issue.

1. Make sure there is paper in the input tray or a roll loaded.
2. Go to the control panel and tap the **Menu** icon , then **Tools > Troubleshooting > Print Quality > Printhead Cleaning**.


Align the printhead




Precise printhead alignment is essential for good area fill, line quality, and sharp edges in graphical elements.


Your printer has an automatic printhead alignment process which runs whenever a printhead has been accessed or replaced. You may need to align the printhead after a paper jam or if you are experiencing print-quality problems.

 **IMPORTANT:** Load minimum A4 and letter size paper. Do not load them in landscape.

1. Load the paper you wish to use, see [Paper handling on page 23](#). You can use a roll or a cut sheet; plain white paper is recommended.

 **CAUTION:** Do not use transparent or semi-transparent paper to align the printhead.

2. Ensure that the window is closed, as a strong light source near the printer during printhead realignment can affect alignment.
3. From the control panel, tap the **Menu** icon , then **Tools**  **> Troubleshooting**  **> Print Quality > Printhead Alignment**.


 **NOTE:** Printhead alignment can also be started from the Embedded Web Server (**Print Quality > Tools > Printhead Alignment**).

4. If the loaded paper is satisfactory, the printer runs the realignment and prints a realignment pattern.
5. The process takes about five minutes. Wait until the control-panel display shows the process complete before using the printer.



If the printer cannot complete the printhead alignment successfully, you may be asked to clean the printhead and try again.

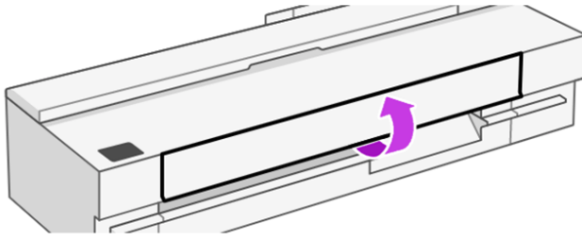
Replace the printhead

When the printhead has an issue that cannot be fixed, you must replace it. After replacement, the printer will automatically perform a printhead alignment on the loaded paper.

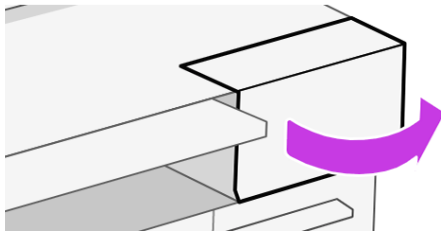
 **TIP:** If you would like to perform the printhead alignment on a different paper (perhaps from the tray), you could change the paper before starting this procedure. Plain white paper is recommended. A4 and letter paper should not be loaded in landscape orientation.

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

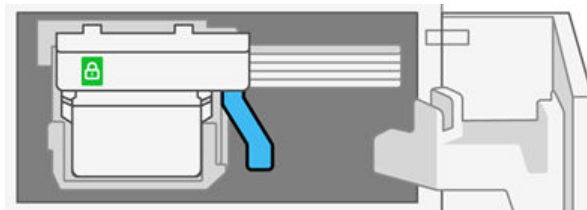
3. From the control panel, tap the **Menu** icon , then the **Supplies** icon , then **Printheads** > **Replace Printhead**. Follow the instructions on the control panel.
4. Open the main door.



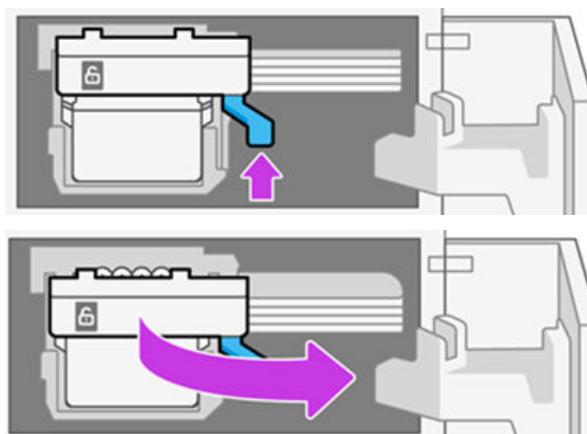
5. Open the printhead door on the right-hand side of the printer.

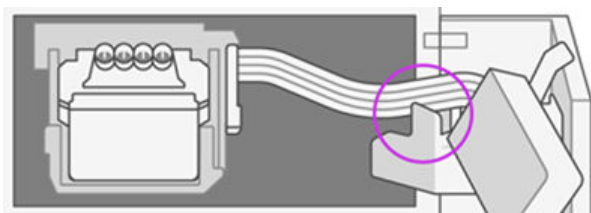


6. Locate the tubes connector-lever to release the ink tubes.

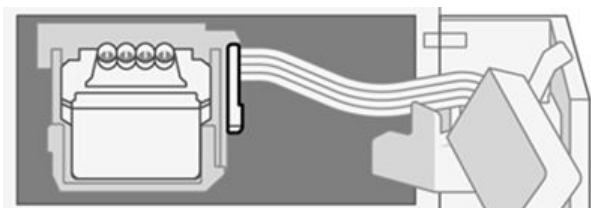


7. Raise the lever to release the tube connector and store the tubes connector on the tubes connector-holder in the printer door.

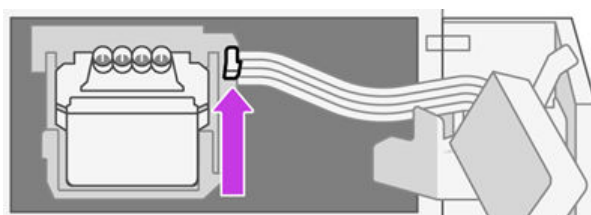




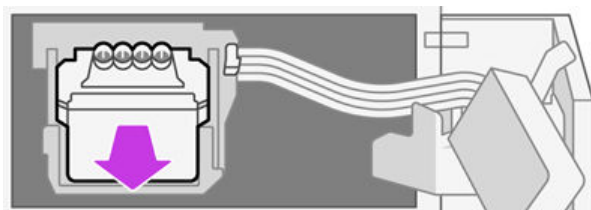
8. Locate the printhead lever.



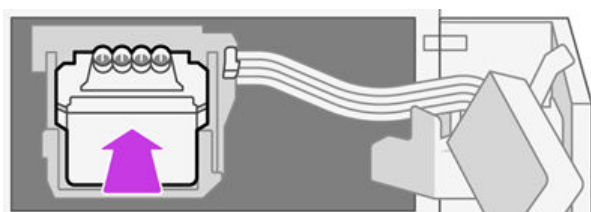
9. Raise the lever to release the printhead.



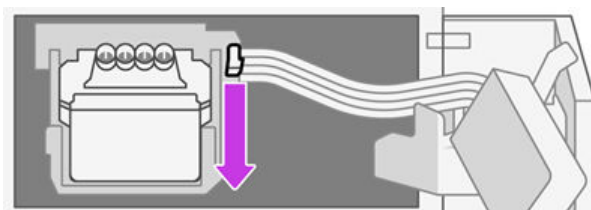
10. Remove the printhead, handling it with care to avoid getting ink on the connections.



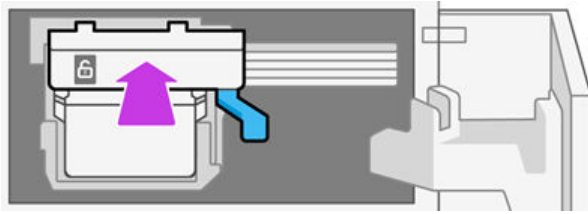
11. Insert the new printhead.



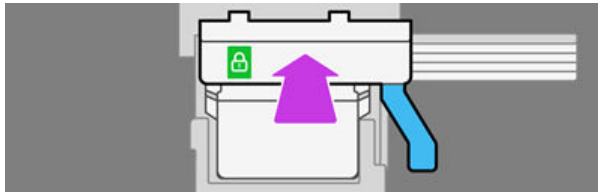
12. Lower the printhead lever (white).



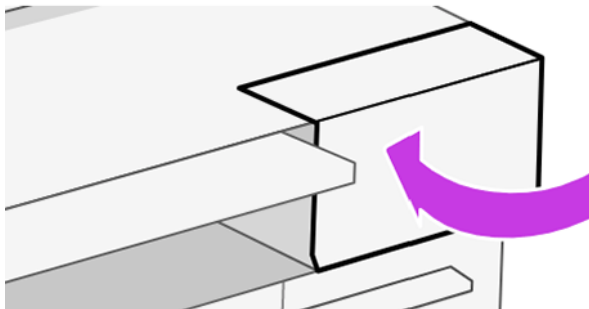
13. Insert the tubes connector into the printhead.



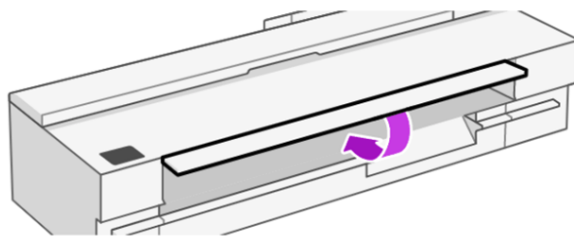
14. Make sure that the tubes connector locks shut.



15. Close the printhead door.




16. Close the main door and follow the instructions on the control panel.



The control panel now recommends a printhead alignment.

The printer prepares the printhead for use.

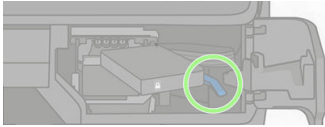
 **NOTE:** Do not open any covers during this process.

Cannot connect the tubes to the printhead

It is important that you are using the correct type of printhead, and that it is well placed in its slot.

1. Check that the printhead is correctly inserted. See [Cannot insert the printhead on page 95](#).

2. Check that the tubes connector lever (blue) is up before connecting the tubes connector.



Clean the encoder strip

You can use a small damp cloth to remove unwanted residue.

1. Turn off the printer: Press the power key and unplug the power cable.
2. Using tap water and a small cloth that will not leave fibers in the printer, dampen the cloth and remove any excess water, so that the cloth is damp but not wet.
3. Open the main door.
4. Hold the cloth in an inverted U shape around the encoder strip and carefully wipe until no further ink residue appears on the cloth. Be very careful not to scratch the encoder strip with your fingernails or any other object. Make sure that you are holding the cloth correctly.



NOTE: Do not move the carriage away from the service station.

5. Close the main door.
6. Turn the printer on.

Recalibrate the paper advance

Accurate paper advance is important to image quality because it is part of controlling the proper placement of dots on the paper. If the paper is not advanced the proper distance between printhead passes, light or dark bands appear in the print and image grain may increase.




The printer is calibrated to advance correctly with all the papers appearing in the control panel. When you select the type of loaded paper, the printer adjusts the rate at which to advance the paper while printing. However, if you are not satisfied with the default calibration of your paper, you may need to recalibrate the rate at which the paper advances. See [Troubleshooting print-quality issues on page 85](#) to determine whether paper advance calibration will solve your issue.

Recalibrating the paper advance procedure

The recalibration procedure takes approximately three minutes.






TIP: It is recommended to only have the paper loaded that you want to calibrate.

1. From the control panel, tap the **Menu** icon , then **Tools**  > **Troubleshooting**  > **Print Quality** > **Paper-Advance Calibration** > **Automatic Paper-Advance Calibration**. When prompted by the control panel, confirm the paper source and type. The printer automatically recalibrates the paper advance and prints a paper advance calibration image.
2. Wait until the control panel displays the status screen and re-print your print.






NOTE: Do not worry about the paper advance calibration image.

If you are satisfied with your print, continue using this calibration for your paper type. If you see improvement in your print, continue with the next step. If you are dissatisfied with the recalibration, return to the default calibration, see [Return to default calibration on page 69](#).

3. If you would like to fine tune the calibration, or are using a transparent paper, tap the **Menu** icon  from the control panel, then tap **Tools**  > **Troubleshooting**  > **Print Quality** > **Paper-Advance Calibration** > **Manual Paper-Advance Calibration**.
4. Select the percentage of change from -99% to +99%. To correct light banding decrease the percentage. To correct dark banding increase the percentage.
5. To save the value, tap **OK** on the control panel.
6. Wait until the control panel displays the status screen and reprint your print.

Return to default calibration

This sets all the corrections made by the paper advance calibration to zero. To return to the default paper advance calibration value, you must reset the calibration.


1. From the control panel, tap the **Menu** icon , then **Tools**  > **Troubleshooting**  > **Print Quality** > (...) > **Reset Calibrations**.
2. Wait until the control panel displays the operation has completed successfully.

Move or store the printer


If you need to move the printer, take care to prepare it correctly to avoid possible damage.

To prepare the printer:

1. Do not remove the ink cartridges or printhead.
2. Make sure that no paper is loaded.
3. Turn off the printer using the **Power** key at the back.
4. Unplug the printer's power cord.
5. Disconnect any cables connecting the printer to a network or a computer.

 **CAUTION:** If you turn the printer upside down, ink could escape into the printer and cause serious damage.


When the printer is turned back on, it takes about three minutes to initialize itself and to check and prepare the printhead. Preparing the printhead normally takes just over a minute. However, if the printer has been off for a eight weeks or more, preparing the printhead could take up to a few minutes.

 **CAUTION:** If the printer remains off for a long period of time, the printhead may become unusable. In this case, you need to replace the printhead with a new one.

Firmware update

The printer's various functions are controlled by firmware that resides in the printer.

From time to time firmware updates will be available from HP. These updates improve the printer's functionality, enhance its features, and may correct minor problems.


 **IMPORTANT:** You are strongly recommended to update the firmware periodically in order to take advantage of the latest developments.

There are various ways of downloading and installing firmware updates; you can choose whichever you find most convenient. They can be divided into two categories: automatic and manual updates.

Automatic firmware updates

Automatic firmware updates are available for printers connected to the Internet.

Your printer can automatically download the latest firmware release and install it for you.

 **IMPORTANT:** Your printer must be connected to the Internet and the firmware update setting must be set to "Install updates automatically".

To configure automatic firmware updates:

- From the control panel: **Menu > Settings > Firmware Update**.
- From the EWS: **General > Firmware Update > Firmware update**.

Once the printer detects that there is a new firmware available, follow the instructions on the control panel.

Manual firmware updates (USB method)

Manual firmware updates can be carried out using a USB flash drive.

1. Download the firmware file from the HP website. See [Software update on page 70](#).
2. Copy the file into the USB flash drive and insert it into the Hi-Speed USB host port in the control panel.
3. Go to the control panel: **Menu > Tools > Maintenance > Firmware** and select **Update from USB**.
4. Select the downloaded firmware file and follow the instructions on the control panel.

Software update

Manual updates of printer drivers and other software and firmware are available for your printer.

Go to the HP website <https://www.hp.com/go/DesignJetT870/software>.

Printer maintenance kits

Two maintenance kits are available for your printer, containing components that may need to be replaced after long use.

When one of them is needed, a message is displayed on the control panel and you should contact HP Support (see [Contact HP Support on page 111](#)) and request the maintenance kit. The kits are installed by service engineers only.

10 Accessories

Supplies and accessories can be ordered for your printer.

How to order supplies and accessories

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

- Visit the HP website at the following links: <https://hp.globalbmg.com/> and <https://www.hp.com/> on the Web.
- Contact HP Support (see [HP Support Center on page 110](#)).

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

Order ink supplies

Ink cartridges can be ordered singularly. There is also a printhead replacement kit you can order for your printer.

Table 10-1 Ink cartridges

Cartridge	Part number
HP 738 130ml Cyan DesignJet Ink Cartridge	498N5A
HP 738 130ml Magenta DesignJet Ink Cartridge	498N6A
HP 738 130ml Yellow DesignJet Ink Cartridge	498N7A
HP 738 130ml Black DesignJet Ink Cartridge	498N4A
HP 738B 130ml Black DesignJet Ink Cartridge	498P2A
HP 738 300ml Cyan DesignJet Ink Cartridge	676M6A
HP 738 300ml Magenta DesignJet Ink Cartridge	676M7A
HP 738 300ml Yellow DesignJet Ink Cartridge	676M8A
HP 738 300ml Black DesignJet Ink Cartridge	498N8A
HP 738B 300ml Black DesignJet Ink Cartridge	498P6A

Table 10-2 Printhead

Printhead	Part number
HP 739 DesignJet Printhead Replacement Kit	498N0A

The availability of supplies varies by region. Check your local HP website for the availability of supplies in your region.

If you are using an XT printer version, or a printer bought in the Asia-Pacific region, please check the compatibility of supplies with a trusted reseller.

Order paper

HP printers can use a wide range of paper types.

To check the saltest information related to papers supported by your printer, go to the HP website at the following link: <http://www.hpmedia.com>.

Order accessories

The sheet organizer is available as an accessory for your printer.

Table 10-3 Accessories

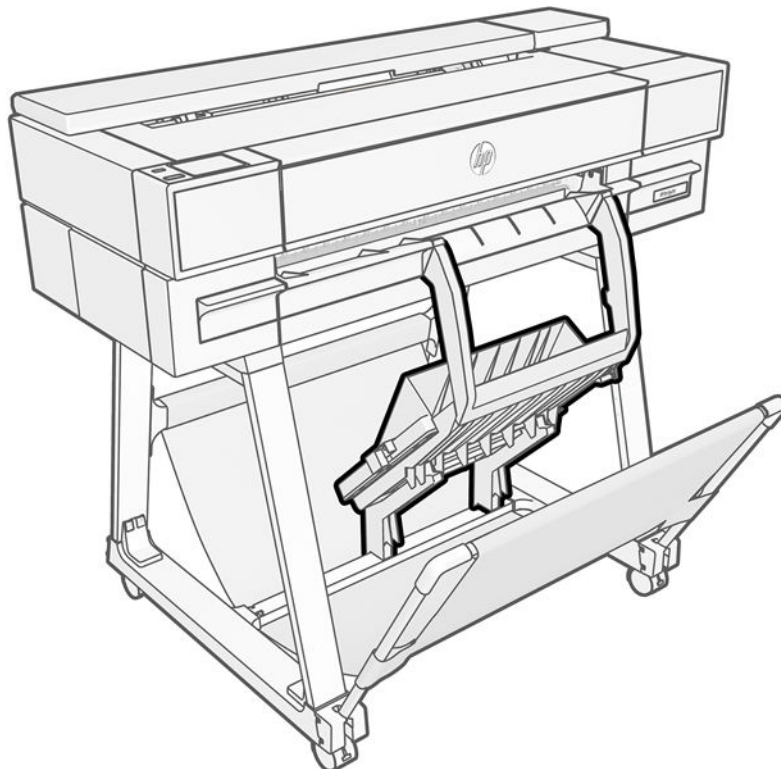
Name	Description	Product number	Strategic	Compatibility
HP DesignJet Sheet Organizer	Output pocket for tray sheets to be separated from LF pages	698G7A	Yes	HP DesignJet T850 HP DesignJet T850 MFP
		BT6F2A	Yes	HP DesignJet T870

Introduction to the accessories

You can increase your printer's possibilities with accessories.

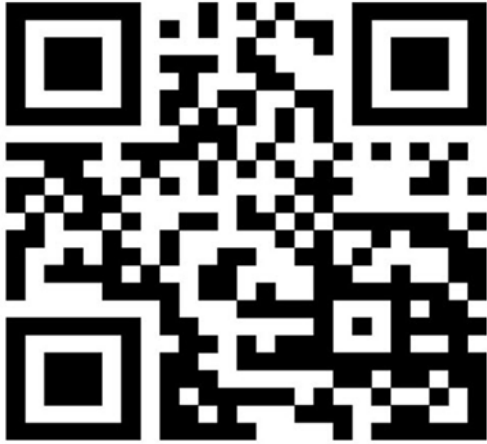
HP DesignJet Sheet Organizer

You can collect A3 and smaller pages separately from large-format pages.



Please watch this how-to video on installing the sheet organizer: www.hp.com/how-to-video-sheet-organizer.

Alternatively, you can scan the QR code to watch the video.



11 Troubleshooting paper issues

When the printer detects a jam, it tries to resolve the issue automatically. If it cannot, it stops, and you must fix the problem manually.

Paper cannot be loaded successfully

There are various reasons why you may have issues loading the paper.

- Ensure that no paper is already loaded.
- Ensure that the paper is far enough inside the printer, you should feel the printer grab the paper.
- Do not attempt to straighten the paper during the aligning process, unless instructed to do so by the control-panel display. The printer automatically attempts to straighten the paper.
- The paper may be crumpled, or warped, or may have irregular edges.

Unsuccessful roll load

There are checks to make and steps to correct any problems.

- Check that the roll is at least 370 mm (14.5 in) wide: narrower rolls are not supported.
- Check the leading edge of the paper: if it is not straight or clean, it should be trimmed. Remove the initial 20 mm (1 in) from the roll and try again. This may be necessary even with a new roll of paper.
- Check that the roll ends are tight against the spindle ends.
- Check that the spindle is correctly inserted.
- Check that the paper is correctly loaded on the spindle, and that it loads over the roll towards you.
- Check that all roll tapes have been removed.
- Check that the paper is wound tightly on the roll.
- Do not touch the roll or paper at during the final steps of the loading process.

If the paper has not been inserted straight, follow the instructions on the control panel.

If you would like to start the load process again, cancel the process on the control panel and rewind the roll from the end of the spindle until the edge is removed from the printer.



NOTE: If the roll has become loose around the core, the printer cannot load the paper.

Unsuccessful sheet load

There are checks to make and steps to correct any problems.

- Check that the sheet is more than 210 mm (8.3 in) wide (A4/ANSI A).
- Guide the sheet, especially thick papers, when the printer initially feeds the sheet.

- Ensure that the sheet is aligned with the reference line on the roll cover.
- Do not attempt to straighten the sheet during the loading process, unless instructed to by the control-panel display.
- Do not use hand-cut sheets, which may be of irregular shapes. Use only purchased sheets.

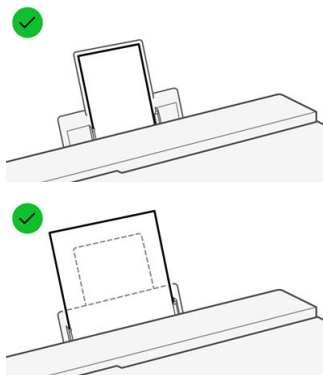
In case of any problem, follow the instructions given on the control-panel display.

If you would like to start the load process again, cancel the process on the control panel; the printer ejects the sheet from the front of the printer.

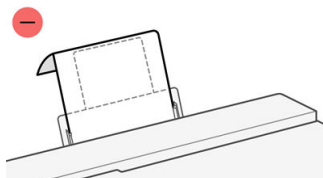
Unsuccessful load from the tray

There are checks to make and steps to correct any problems.

- Check that you have not loaded too many sheets into the tray. The maximum number of sheets depends on the paper thickness: around 50 sheets of plain, standard paper.
- Check that the sheets are correctly loaded into the tray.
- Check that the sheets are correctly adjusted and centered in the tray.
- Check that you have extended the input tray correctly: the first extension for A4, the second for A3 paper.



If the paper is hanging over the back of the input tray as shown, it may fail to load.





NOTE: Try to avoid leaving sheets of paper loaded in the printer for a significant length of time, because they will deform.

Paper loading error messages

There is a list of control-panel messages related to paper loading, with the suggested corrective action.

Table 11-1 Error Messages

Control-panel message	Suggested action
Paper loaded with too much skew	During the paper load process the printer detected that the paper had too much skew. Tap OK to unload the roll automatically, then restart the process.
Paper not detected	During the paper load process the printer did not detect any paper. Ensure the paper is inserted fully and is not transparent.
Paper too far from lateral edge	Reload the cut sheet, aligning the right edge against the black stop on the spindle.
Paper load failed. Paper width is smaller than the minimum size supported by the selected paper source.	Cut sheets smaller than ISO A4 must be loaded using the tray.
Sheet too big	During the load process the printer has detected that the sheet of paper is either too wide or too long to be loaded correctly. Tap the cancel icon  to stop the load process. See Functional specifications on page 113 .
Sheet too small	During the load process the printer detected that the sheet of paper is too narrow or too short to be loaded in the printer. Tap the cancel icon  to stop the load process. See Functional specifications on page 113 .

Paper type is not in the driver or control panel

To work with a paper type not present in the driver menu, you can identify the paper type as one of the presets already available in the driver, however, you must identify whether your paper is transparent or translucent, photo or bond, coated or technical.



NOTE: For glossy paper, it is important to select a glossy paper type, as the printer adjusts its use of ink for glossy paper.

Transparent or translucent film

You may use clear or matte film.

If your paper is a transparent film (for example, a transparency), select paper type **Film > Transparent/Clear film**.

If your paper is a translucent paper or film (for example, technical paper), select paper type **Film > Matte film**.

Photo paper

If your paper is a photo paper, use the **Photo Paper** category. For glossy or high-gloss paper select paper type **Photo Gloss Paper**. For Semi-gloss, Satin, Pearl, or Luster finishes, select paper type **Photo Semi-gloss/Satin Paper**.

Bond and coated or technical paper

Your paper type selection for generic paper depends on the paper's ink absorption capacity.

- For natural tracing papers, select paper type **Natural Tracing Paper < 65 g/m²** or **Natural Tracing Paper > 65 g/m²**, depending on the weight of the paper.
- For thin papers (< 90 g/m²) or uncoated papers (for example plain paper or bright white paper), select paper type **Bond and Coated Paper > Plain Paper**.

- For light coated papers (< 110 g/m²), select paper type **Bond and Coated Paper > Coated Paper**.
- For heavyweight coated papers (< 200 g/m²), select paper type **Bond and Coated Paper > Heavyweight Coated Paper**.
- For matte paper, select paper type **Polypropylene Matte** or **Adhesive Paper**. For a gloss or satin paper, select paper type **Adhesive Polypropylene Gloss**.

Black ink is easily removed when touched

This happens when your paper is incompatible with matte black ink.

To use an optimized ink combination, select paper type **Photo Paper > Photo Gloss Paper**.

After printing, the paper has wrinkles or there is too much ink

This happens when too much ink is used.

To use less ink, select a thinner category. Matte paper categories from thinnest to thickest are:

- Plain Paper
- Coated Paper
- Heavyweight Coated Paper

For other print-quality problems, see [Troubleshooting print-quality issues on page 85](#).

Paper size is not in the driver or control panel

Please note that some paper sizes may be identified by their standard ISO, ANSI, ARCH names rather than their actual dimensions.

For example, to support 12-in x 18-in media, please choose **ArchB** in the driver or control panel.

Printer printed on the wrong paper type

This happens when the printer prints your job before you were able to load your desired paper.

You may have **Use printer settings** selected for the **Paper Type** in the printer driver.

When **Use printer settings** is selected the printer will print immediately on whichever paper is loaded. Load your desired paper, see [Paper handling on page 23](#), and select your paper type specifically in the driver.

- **In the Windows driver dialog:** Select your paper type from the Paper Type list.
- **In the macOS Print dialog:** Select the **Paper/Quality** panel, then from the **Paper Type** list, select your paper type.



NOTE: **Use printer settings** is the driver default.

Paper mismatch

If the paper currently loaded in the printer is not suitable for a particular job, the printer stops and waits for you to decide what to do. There are several ways in which the loaded paper may be considered unsuitable.

- The paper type is not as specified for the job.
- The paper source (roll, tray, or manual feed) is not as specified for the job.
- The paper size is smaller than specified for the job.

If you do not specify these things for a particular job, the printer will print on whatever paper is loaded.

If the printer stops for a paper mismatch, you can decide among the following alternatives:

- Load the correct paper and resume printing.
- Print the job on the already-loaded paper. The print may be clipped if the paper is not large enough.
- Cancel the job.

Cut-sheet doesn't enter or drops out of the sheet organizer

Ensure the correct paper-type settings are selected in the control panel in the tray tab. Ensure the paper guides in the tray are in the position that matches the paper size.

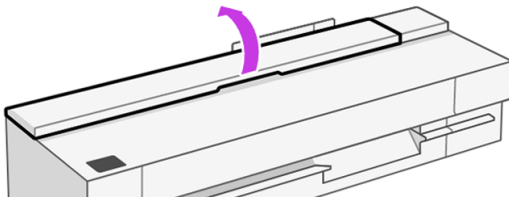
It is recommended to use long-grain orientation paper on a high ink volume document, as short-grain orientation paper has a tendency to curl and block the pocket's entrance, which causes documents to fall to the floor.

It is not recommended to use non-plain stiff paper as it can stop the paper from entering the sheet organizer, causing it to drop to the floor.

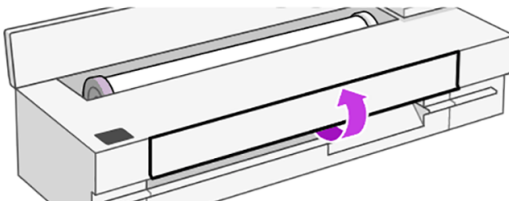
Roll has jammed

When a paper jam occurs, you normally see a message about it in the control-panel display.

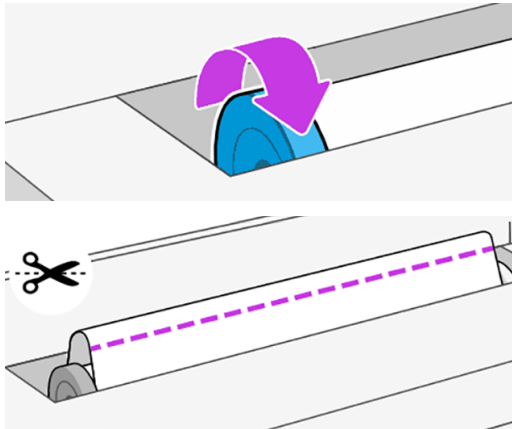
1. Open the roll cover.



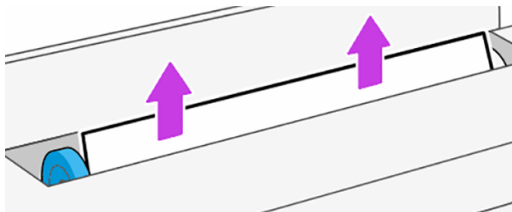
2. Open the main door.



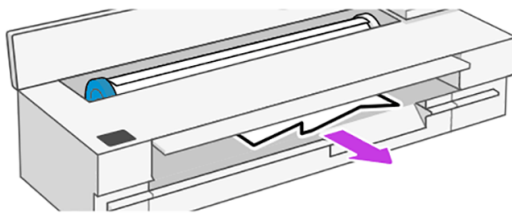
3. Rewind the roll to create a loop. Cut the paper, if needed.



4. Carefully remove any of the jammed paper that you can from the top of the printer.



5. Carefully remove any of the jammed paper from the front window.



6. Reload the roll, or load a new sheet; see [Paper handling on page 23](#).



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. You may need to remove the tray (see [Tray has jammed on page 79](#)).

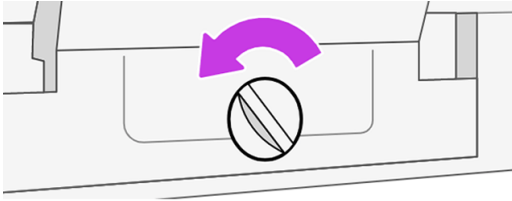
Tray has jammed

Paper can jam in the tray for a variety of reasons.

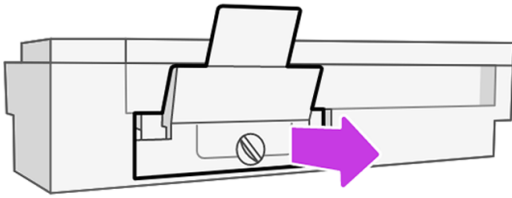
Proceed as follows:

1. Remove as much paper as you can from the tray.
2. Push down the tray extensions, which will make the tray easier to handle.

3. Unlock the tray, using the rotary switch behind it.



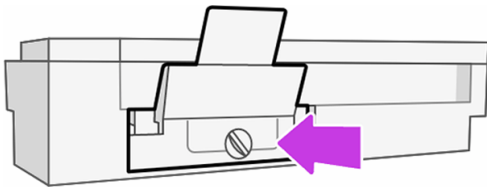
4. Pull out the tray.



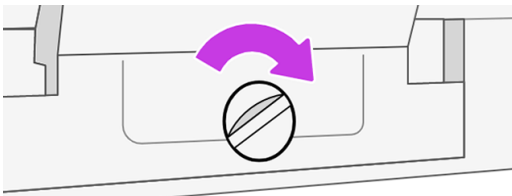
5. Remove all paper from the tray.



6. Put the tray in again.




7. Lock the tray.

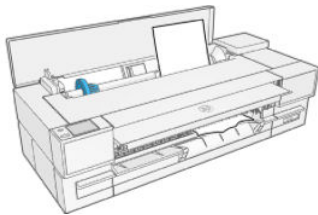
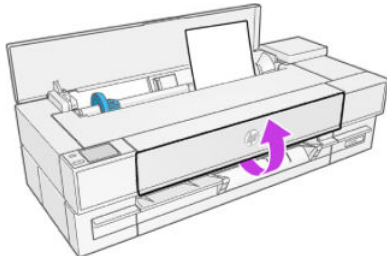


A single sheet has jammed

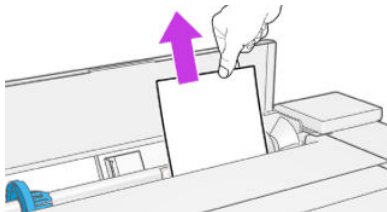
When a single sheet jam occurs, you normally see a message about it in the front-panel display.

 **NOTE:** Be sure to remove all paper pieces and fragments from the printer.

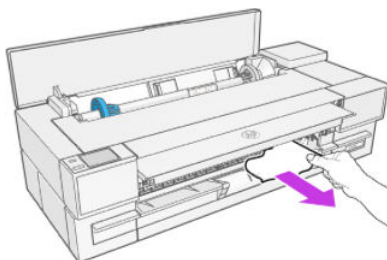
1. Open the top window.



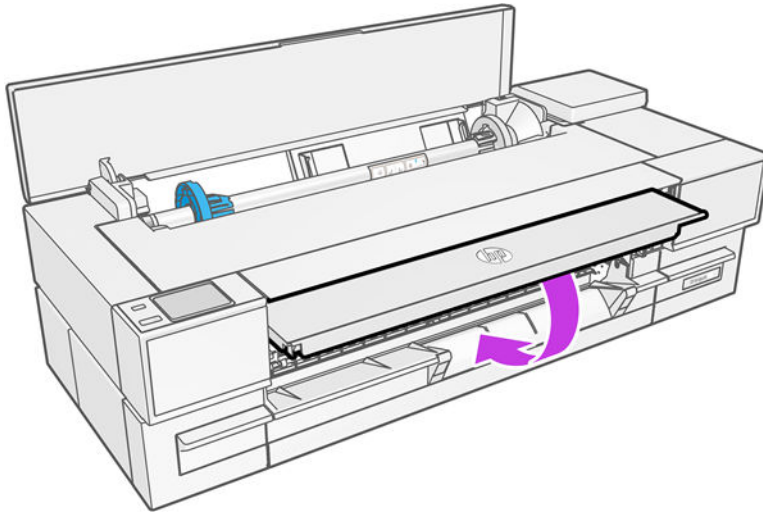
2. Remove the sheet from the printer.



3. Remove any of the jammed paper.

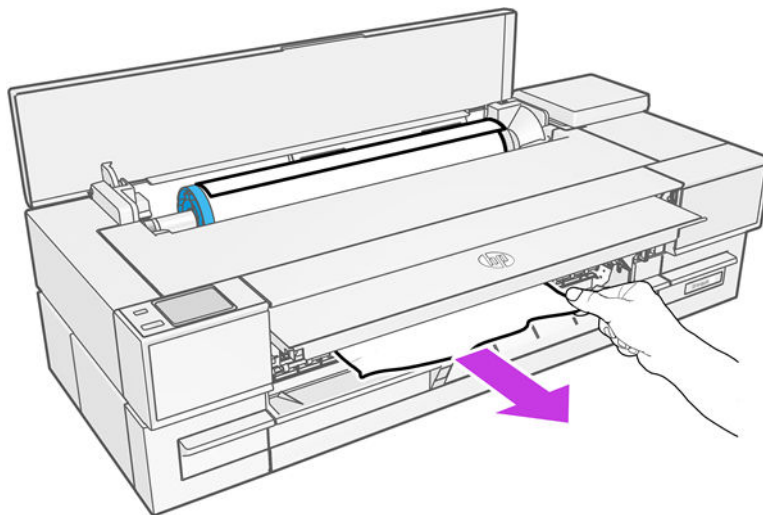


4. Close the top window when finished.



Cut strip stuck in output area, creating a jam

If a piece of paper has been cut, i.e. printing a new roll, the cut strip may remain in the output area. Make sure that the printer is not printing, then reach into the area and remove the strip.



How to remove jams

This section explains how to remove jams from your printer.

Watch this how-to video on removing jams:

[Watch this how-to video on removing jams with this link.](#)

Alternatively, you can scan the QR code to watch the video.



Printer displays out of paper when paper is available

If the roll has become loose from its core, it will not feed correctly and the printer will not load the paper. If possible, tighten the paper to its core or load a new roll.

Prints do not fall neatly into the bin

There are steps you can follow if there is an issue with the bin.

- Ensure the bin is correctly installed.
- Ensure the bin is open.
- Ensure the bin is not full.
- Paper often tends to curl near the end of a roll, which can cause output problems. Load a new roll, or remove prints manually as they are completed.

Sheet stays in the printer when the print has been completed

The printer holds the paper to allow the print to dry after printing.

See [Change the drying time on page 30](#). If the paper is only partially ejected after the drying time, gently pull the sheet out of the printer. If the automatic cutter is disabled, use the **Form feed and cut** option in the control panel, see [Advance button and cut button on page 32](#).

Paper is cut when the print has been completed

By default the printer cuts the paper after the drying time has been completed. You can disable the cutter.

See [Change the drying time on page 30](#). You can disable the cutter, see [Turn the automatic cutter on and off on page 30](#).

Cutter does not cut well

By default, the printer is set to cut the paper automatically after the drying time has been completed.

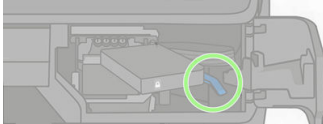
If the cutter is turned on but not cutting correctly, check that the cutter rail is clean and clear of any obstacles, and check that there are no pieces of paper in the cutter groove.

If using the driver, make sure that the cutter is not disabled in the print options.

Cannot connect the tubes to the printhead

It is important that you are using the correct type of printhead, and that it is well placed in its slot.

1. Check that the printhead is correctly inserted. See [Cannot insert the printhead on page 95](#).
2. Check that the tubes connector lever (blue) is up before connecting the tubes connector.



12 Troubleshooting print-quality issues

Step by step instructions are provided for you to identify and resolve your issue.

General printing advice

To achieve the best performance from your printer, use only genuine manufacturer's supplies and accessories.

- Genuine manufacturer's supplies and accessories have been thoroughly tested to give trouble-free performance and best-quality prints. For details of recommended papers, see [Order paper on page 72](#).
 - Make sure that the paper type selected in the control panel is the same as the paper type loaded into the printer (see [View information about the paper on page 29](#)). Also make sure that the paper type selected in your software is the same as the paper type loaded into the printer. See [Paper type is not in the driver or control panel on page 76](#) if you have doubts about the paper selection.
-
- ⚠ CAUTION:** If you have the wrong paper type selected, you could experience poor print quality and incorrect colors, and perhaps even damage to the printhead.
-
- Check that you are using the most appropriate print-quality settings for your purposes (see [Printing on page 33](#)). You are likely to see lower print quality if you have set the quality level to **Fast**.
 - Check that your environmental conditions (temperature, humidity) are in the recommended range. See [Environmental specifications on page 115](#).

Horizontal lines across the image (banding)

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



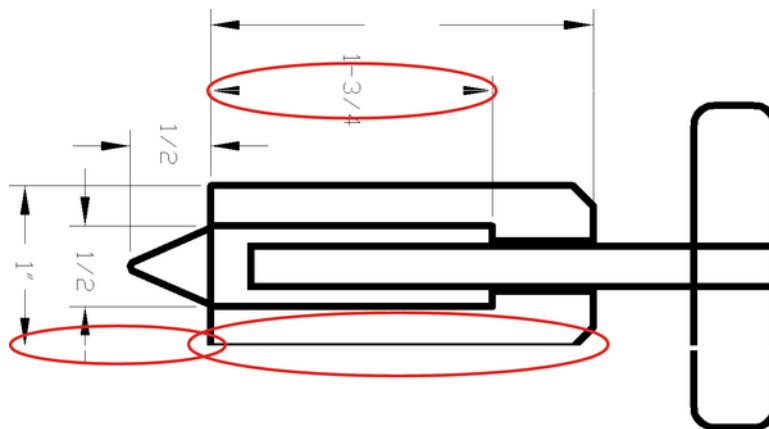
1. Check that the paper type you have loaded corresponds to the paper type selected in the control panel and in your software. If you have doubts about the paper selection, see [Paper type is not in the driver or control panel on page 76](#).
2. Check that you are using appropriate print-quality settings for your purposes (see [Printing on page 33](#)). 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 level to **Fast**, try setting it to **Best**.
3. Print the Print Quality Diagnostic Report. See [To print the Print Quality Diagnostic Report on page 62](#).

4. If no issues were found in the Print Quality Diagnostic Report, but you still see white horizontal lines or white streaks in your image, clean the printhead, making sure you complete all phases of the cleaning process right until the end (see [Clean the printhead on page 63](#)).
5. If the printhead is working correctly, perform paper advance calibration: see [Recalibrate the paper advance on page 68](#).

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

Lines are too thick, too thin, or missing

Check the paper type and settings, and run a report.



1. Check that the paper type you have loaded corresponds to the paper type selected in the control panel and in your software. If you have doubts about the paper selection, see [Paper type is not in the driver or control panel on page 76](#).
2. Check that you are using appropriate print-quality settings for your purposes (see [Printing on page 33](#)). If available for your paper, try turning on the **Maximum detail** option (under the **Print quality** setting).
3. If lines are too thin or missing, print the Print Quality Diagnostic Report. See [To print the Print Quality Diagnostic Report on page 62](#).
4. If the problem remains, perform a paper advance calibration: see [Recalibrate the paper advance on page 68](#).

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

Lines appear stepped or jagged

Check your original image, and print-quality settings.

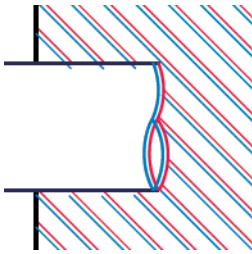


1. The problem may be inherent in the image. Try to improve the image with the application you are using to edit it.
2. Check that you are using appropriate print-quality settings. See [Printing on page 33](#).
3. Turn on the **Maximum detail** option (under the **Print quality** setting) only available for Photo paper.

Lines print double or in the wrong colors

This problem can have various visible symptoms.

- Colored lines are printed double, in different colors.



- The borders of colored blocks are wrongly colored.



To correct this kind of problem, print the Print Quality Diagnostic Report, and align the printhead if recommended in the report. See [To print the Print Quality Diagnostic Report on page 62](#).

Lines are discontinuous

Check your print-quality settings and print a Print Quality Diagnostic Report.



1. Check that you are using appropriate print-quality settings. See [Printing on page 33](#).
2. Print the Print Quality Diagnostic Report, and align the printhead if recommended in the report. See [To print the Print Quality Diagnostic Report on page 62](#).

Lines are blurred

Humidity can cause ink to soak into the paper, making the lines blurred and fuzzy.

Try the following:



1. Check that your environmental conditions (temperature, humidity) are suitable for high-quality printing. See [Environmental specifications on page 115](#).
2. Check that the paper type selected in the control panel is the same as the paper type you are using. See [View information about the paper on page 29](#).
3. Try changing to a heavier paper type, such as HP Heavyweight Coated Paper.
4. Select a higher print quality (such as **Normal** or **Best**), the printer will then use more time to dry ink.
5. Select a paper type that is slightly thinner than the paper you have loaded; this will persuade the printer to use less ink. Here are some example paper types in ascending order of thickness: Plain Paper, Coated Paper, Heavyweight Coated Paper.
6. Print the Print Quality Diagnostic Report, and align the printhead if recommended in the report. See [To print the Print Quality Diagnostic Report on page 62](#).

Line lengths are inaccurate

If you have measured your printed lines and find that the lengths are not sufficiently accurate for your purposes, you can try to improve line length accuracy.

Try the following:

1. Print on HP Heavy Weight Coated, for which your printer's line length accuracy is specified. See [Functional specifications on page 113](#).
2. Set Print Quality to **Best**.

3. Maintain the room at a steady temperature between 10 and 30°C (50 and 86°F).
4. Load the roll of film and let it rest for five minutes before printing.
5. If you are still not satisfied, try recalibrating the paper advance. See [Recalibrate the paper advance on page 68](#).

Whole image is blurry or grainy

There are a series of steps and checks you can make to deal with this issue. Check the paper, settings, run reports to find the issue etc.



1. Check that the paper type you have loaded corresponds to the paper type selected in the control panel and in your software. If you have doubts about the paper selection, see [Paper type is not in the driver or control panel on page 76](#).
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 33](#)). 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 to **Fast**, try using **Best**.
4. Print the Print Quality Diagnostic Report, and align the printhead if recommended in the report. See [To print the Print Quality Diagnostic Report on page 62](#).
5. If the problem remains, perform a paper advance calibration: see [Recalibrate the paper advance on page 68](#).

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

Paper is not flat

If the paper does not lie flat when it comes out of the printer, but has shallow waves in it, you are likely to see defects in the printed image, such as vertical stripes. This can happen when you use thin paper that becomes saturated with ink.





1. Check that the paper type you have loaded corresponds to the paper type selected in the control panel and in your software. If you have doubts about the paper selection, see [Paper type is not in the driver or control panel on page 76](#).
2. Try changing to a thicker paper type, such as HP Heavyweight Coated Paper.
3. Select a lower print quality (such as **Fast**); the printer will then use less ink.
4. Select a paper type that is slightly thinner than the paper you have loaded; this will persuade the printer to use less ink. Here are some example paper types in ascending order of thickness: Plain Paper, Coated Paper, Heavyweight Coated Paper.

Print is scuffed or scratched

Pigmented ink can be scuffed or scratched when touched by a finger, a pen or some other object. This is particularly noticeable on coated paper.

Glossy paper may be extremely sensitive to the bin or to anything else that it contacts soon after printing, depending on the amount of ink used and the environmental conditions at the time of printing.

To reduce the risk of scuffs and scratches:

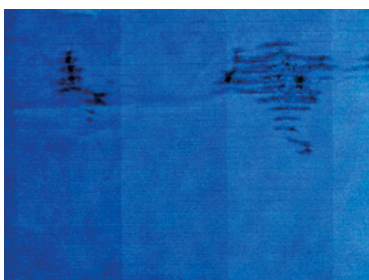
- Handle prints carefully.
- Avoid stacking prints on top of each other.
- Increase the drying time. At the control panel, tap the **Menu** icon , then **Settings**  > **General** > **Extra Dry Time**.

Ink marks on the paper

This problem can occur for several different reasons.

Horizontal smears on the front of coated paper

If a lot of ink is used on plain or coated paper, the paper absorbs the ink quickly and expands. As the printhead moves over the paper, the printhead may come into contact with the paper and smear the printed image.



Whenever you notice this problem, cancel the printing job immediately. Soaked paper can damage the printhead.

If you notice poor print quality after this has happened, clean the printhead. [Clean the printhead on page 63.](#)

1. Check that the paper type you have loaded corresponds to the paper type selected in the control panel and in your software. If you have doubts about the paper selection, see [Paper type is not in the driver or control panel on page 76](#).
2. Use a recommended paper type (see [Order paper on page 72](#)) and the correct print settings.
3. If you see that the paper wrinkles, it is most likely because the paper is too thin. Try changing to a thicker paper type such as HP Heavyweight Coated Paper.
4. Select a paper type that is slightly thinner than the paper you have loaded; this will cause the printer to use less ink. Here are some example paper types in ascending order of thickness: Plain Paper, Coated Paper, Heavyweight Coated Paper.
5. Try to increase the margins by relocating the image to the center of the page using your software application.

Ink marks on the back of the paper

Clean the platen with a soft cloth. Clean each rib separately.

Black ink comes off when you touch the print

This problem may be caused by printing with matte black ink on glossy paper. The printer will not use matte black ink if it knows that the paper will not retain it.

To be sure of avoiding matte black ink, you can select **Photo Glossy Paper** as the paper type (in the **Photo Paper** category).

Edges of objects are stepped or not sharp

If edges of objects or lines appear to be poorly defined or lighter in density, and you have already set the print-quality slider to **Best**, try setting print quality to **Normal**.



If the problem still persists, try rotating the image.

Edges of objects are darker than expected

You might see darker edges in some areas of the plot that cause local color variations. Try setting print quality to **Best**.



See [Printing on page 33](#) for more information.

If the problem still persists, try rotating the image.

Vertical lines of different colors

If your print has vertical bands of different colors along it try changing the paper and/or adjusting the print-quality settings.

1. Try using thicker paper, choosing from the recommended paper types such as HP Heavyweight Coated Paper. See [Order paper on page 72](#).
2. Try using higher print-quality settings (see [Printing on page 33](#)). For instance, if you have set the Print Quality to **Fast**, try setting it to **Best**.

White spots on the print

You may notice white spots on the print. This is probably due to paper fibers, dust or loose coating material.

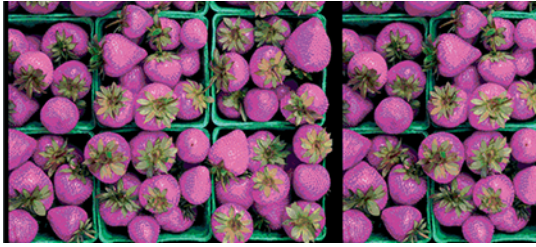
To avoid this problem:

1. Try cleaning the paper manually with a brush before printing, to remove any loose fibers or particles.
2. Always keep the cover of your printer closed.
3. Protect your paper rolls and sheets by storing them in bags or boxes.

Colors are inaccurate

If the colors of your print do not match your expectations, there are steps you can take.

Try the following:



1. Check that the paper type you have loaded corresponds to the paper type selected.
2. Check that you are printing on the correct side of the paper.
3. Check that you are using appropriate print-quality settings. For the most accurate colors, select **Normal** or **Best** quality.
4. If using glossy paper, check that you are using the supported paper type. See [Order paper on page 72](#) and ensure the glossy paper is compatible with pigment inks.
5. Print the Print Quality Diagnostic Report. See [To print the Print Quality Diagnostic Report on page 62](#).

Colors are fading

The inks used by this printer are designed for minimal color fading over time. However, lamination will increase the life of prints (depending on the type of lamination) with all paper types.

Check you are using a recommended paper type (see [Order paper on page 72](#)). For more information about lamination, consult your laminate provider.

Image is incomplete (clipped at the bottom)

If the image is incomplete you may have cut the data being received, or there could be a communication issue.

- Did you tap **Cancel** before all the data were received by the printer? If so, you have ended the data transmission and will have to print the page again.
- There may be a communications problem between your computer and the printer. Check your network cable, or your Wi-Fi connection.
- Check to make sure that your software settings are correct for your current page size (for example, long-axis prints).
- If you are using network software, make sure it has not timed out.

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.

- Check the actual printable area for the paper size you have loaded.
printable area = paper size - margins (5×5×5×5 mm 0.2×0.2×0.2×0.2 in)

- 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.
- 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 35](#)).
- 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.

Some objects are missing from the printed image

Large quantities of data may be necessary to print a high-quality large-format print job, and in some specific workflows there may be issues that can lead to some objects missing from the output.

Here are some suggestions to help you to avoid this problem:

- Select a smaller page size and scale to the desired final page size in the driver or in the control panel.
- Save the file in another format, such as TIFF or EPS, and open it with another application.
- Reduce the resolution of bitmap images in your application software.



NOTE: If you're using Adobe applications, ensure that you have installed the latest version.

These options are suggested for troubleshooting purposes and may adversely affect the final output quality or the time necessary to generate the print job. Therefore, they should be canceled if they do not help to solve the problem.

How to avoid further issues

There are things you can do to help avoid future issues, or to try if you still haven't found a solution to an problem you are experiencing.

- Try using a higher print-quality option. See [Printing on page 33](#).
- Check the driver you are using to print with. If it is a non-HP driver, consult the driver vendor about the issue, or better still; and if feasible, try using the correct HP driver. You can download the latest HP drivers from the HP website. See [Printer solutions on page 8](#).
- Regularly update the firmware in your printer.
- Always check that you have the correct settings in your software application.


13 Troubleshooting ink cartridge and printhead issues

Step by step instructions are provided for you to identify and resolve your issue.

Cannot insert an ink cartridge

It is important that you are using the correct type of cartridge, and that it is well placed in its slot.

1. Check that you have the correct type of cartridge (model number).
2. Check that the colored label on the cartridge is the same color as the label on the slot.
3. Check that the cartridge is correctly oriented, with the letter or letters marking the cartridge label right-side up and readable.

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

Ink cartridge status messages

There are ink cartridge status messages to alert you to an issue.

- **OK:** The cartridge is working normally, with no known problems.
- **Missing or Damaged:** There is no cartridge present, or it is not correctly connected to the printer (shown with an X on the status screen).
- **Low:** The ink level is low.
- **Out of ink:** The cartridge is empty.
- **Not genuine HP:** The cartridge is not a genuine HP cartridge.
- **Wrong slot:** The cartridge has been inserted into the wrong slot.
- **Incompatible:** The cartridge is incompatible with this printer.

Cannot insert the printhead

It is important that you are using the correct type of printhead, and that it is well placed in its slot.

1. Check that you have the correct type of printhead (model number).
2. Check that you have removed the orange protective cap from the printhead.
3. Check that the printhead is correctly oriented.
4. Check that you have correctly latched the printhead, see [Replace the printhead on page 64](#).

14 Troubleshooting data communication issues

Step by step instructions are provided for you to identify and resolve your issue.



Communication failures between computer and printer

It is important that the printer is communicating properly to the computer to be able to print.

Symptoms of a communication failure can be:


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

How to proceed:

- Ensure that you have selected the correct printer in your application, see [Printing on page 33](#).
- Ensure that the printer works correctly when printing from other applications.
- Remember that very large prints may take some time to receive, process and print.
- If the printer is connected to a network, check the printer connectivity status: the printer should have an IP address and it should match the IP address specified in the printing computer. If the addresses do not match, then configure it correctly; if the issue persists, check your network configuration.
- Try another Ethernet cable.
- If the printer is connected to a wireless network, you can request a diagnostic report from the control panel: tap the **Menu** icon , then **Settings**  > **Network** > **WiFi** > **WiFi Test Report**.
Alternatively, try moving the printer closer to the wireless router, or try connecting the printer by wired network.



Fixed IP

Set a fixed IP address for the printer from the control panel.

1. Go to the control panel and tap the **Menu** icon , then > **Settings** > **Network** > **Wi-Fi** or **Ethernet**.
2. At the bottom of the screen, tap **IPv4 / IPv6** > **Manual**, and enter the IP address, the subnet mask, and the gateway (those settings should be provided by your network administrator).

Hostname

You can use the hostname instead of the numeric IP address.

1. Go to the control panel and tap the **Menu** icon , then **Settings**  > **Network** > **Wi-Fi/Ethernet details**.
2. Take a note of the IP address and the hostname (HPXXXXXX format).
3. If your computer is running Windows, tap the **Start** button, then the **Configuration** button, then tap **Devices** > **Printers and Scanners**, then tap the printer, then **Administer** > **Properties** > **Ports** > **Configure Port**, and in the **Printer name** or **IP address** field enter the hostname.

Wired network issues

If you are unable to install the HP software for your printer, then you need to perform some checks to solve the issue.

Check that:

- All cable connections to the computer and the printer are secure.
- The network is operational and the network equipment is turned on.
- All applications, including virus protection programs, spyware protection programs, and firewalls, are not blocking the connections to the printer.
- The printer is installed on the same subnet as the computers that use the printer.

If the installation program cannot discover the printer, print the network configuration page, and enter the IP address manually in the installation program. For more information, see [Network configuration page on page 101](#).

Though it is not recommended that you assign a static IP address to the printer, you might resolve some installation problems (such as a conflict with a personal firewall) by doing so. See [Communication failures between computer and printer on page 96](#).

Network port created does not match printer IP address (Windows)

If you are using a computer running Windows, make sure that the network ports created in the printer driver match the printer's IP address.

1. Print the printer's network configuration page.
2. Click **Start**, point to **Settings**, then click **Printers** or **Printers and Faxes**.
– or –
Click **Start**, click **Control Panel**, then double-click **Printers**.
3. Right-click the **Printer** icon, click **Properties**, and then click the **Ports** tab.
4. Select the TCP/IP port for the printer, and then click **Configure Port**.
5. Compare the IP address listed in the dialog box and make sure it matches the IP address listed on the network configuration page. If the IP addresses are different, change the IP address in the dialog box to match the address on the network configuration page.



6. Click **OK** twice to save the settings and close the dialog boxes.

Wireless network issues

Step by step instructions are provided for you to identify and resolve your issue.



Wireless network troubleshooting

Check that the wireless is on, then follow the troubleshooting steps.

1. To turn on wireless, tap the **Menu** icon , then **Settings**  > **Network** > **Wi-Fi** > toggle Wi-Fi to ON.
2. Make sure that an Ethernet cable has not been connected to the printer. Connecting an Ethernet cable turns off the printer's wireless capabilities.
3. Restart components of the wireless network.

Turn off the router and the printer, and then turn them back on in this order: router first and then the printer. If you still are unable to connect, turn off the router, printer, and your computer. Sometimes, turning off the power and then turning it back on can solve a network communication issue.

4. Run the Wireless Network Test.

For wireless networking issues, run the Wireless Network Test. To print a Wireless Network Test page, tap the **Menu** icon , then **Settings**  > **Network** > **Wi-Fi** > **Wi-Fi Test Report**. If a problem is detected, the printed test report includes recommendations that could help to solve the problem.

Advanced wireless network troubleshooting

If you have tried to fix the problem and are still unable to connect to your printer to the wireless network, then there are steps you can take.

Try the following:

1. Make sure that your computer's wireless networking has been turned on. For more information, see the documentation that came with your computer.
2. If you are not using a unique network name (SSID), then it is possible that your computer could be connected to a nearby network that is not yours. The following steps can help you to determine whether your computer is connected to your network.

Windows:

- a. Click **Start**, click **Control Panel**, point to **Network Connections**, then click **View Network Status and Tasks**

– or –


Click **Start**, then **Settings**, click **Control Panel**, double-click **Network Connections**, click the **View** menu, then select **Details**.


Leave the network dialog box open while you continue to the next step.

- b. Disconnect the power cord from the wireless router. The connection status of your computer should change to **Not Connected**.

- c. Reconnect the power cord to the wireless router. The connection status should change to **Connected**.

macOS:

- Click the **Wi-Fi** icon  in the menu bar at the top of the screen. From the menu that appears, you can determine if the Wi-Fi is turned on and which wireless network your computer is connected to.

 **TIP:** For more detailed information about your Wi-Fi connection, click **System Preferences** in the Dock. If the wireless connection is working correctly, a green dot appears next to the list of connections. For more information, click the **Help** button in the window.

If you are unable to get your computer connected to your network, contact the person/company that set up your network or the router manufacturer as there may be a hardware issue with your router or computer.

3. Print the printer's Wireless Configuration page (see [Network configuration page on page 101](#)). After the page has been printed, check the Network Status and URL. The Network Status is **Ready** if the printer is actively connected to a network, or **Offline** if it is not (in the latter case, run the Wireless Network Test). The URL is the network address assigned to the printer by your router; you need it to connect to the printer's Embedded Web Server.
4. If you have established that the computer and the printer both have active connections to a network, you can check whether they are on the same network by trying to access the printer's Embedded Web Server (see [Access the Embedded Web Server on page 15](#)).
5. If you cannot access the Embedded Web Server and are sure that both the computer and printer have active connections to the same network, the firewall security software could be blocking communication. Temporarily turn off any firewall security software running on your computer, and try to access the Embedded Web Server again. If you can access it, try using the printer for printing.

If you are able to access the Embedded Web Server and use your printer with the firewall turned off, you need to reconfigure your firewall settings to allow the computer and printer to communicate with each other over the network.

If you are able to access the Embedded Web Server, but are still unable to use the printer even with the firewall turned off, try enabling the firewall software to recognize the printer.

6. If you have the HP software installed, you can check the printer's status from your computer to check whether the printer is paused or offline, preventing you from using it.

Windows:

- a. Click the **Start** button, then the **Configuration** button, then tap **Devices > Printers and Scanners**.
- b. Do one of the following, depending on the printer status:
 - If the printer is **Offline**, right-click the printer, and click **Use Printer Online**.
 - If the printer is **Paused**, right-click the printer, and click **Resume Printing**.
- c. Try using the printer over the network.

macOS:

- a. Click **System Preferences** in the dock, then click **Printers & Scanners**.
- b. Select the printer, then click **Print Queue**.
- c. If **Jobs Stopped** appears in the resulting window, click **Start Jobs**.

Windows:

- a. Click the **Start** button, then the **Configuration** button, then tap **Devices > Printers and Scanners**.
- b. Do one of the following, depending on the printer status:
 - If the printer is **Offline**, right-click the printer, and click **Use Printer Online**.
 - If the printer is **Paused**, right-click the printer, and click **Resume Printing**.
- c. Try using the printer over the network.

macOS:

- a. Click **System Preferences** in the dock, then click **Printers & Scanners**.
 - b. Select the printer, then click **Print Queue**.
 - c. If **Jobs Stopped** appears in the resulting window, click **Start Jobs**.
7. If you install the HP software a second time, the installer may create a second version of the printer driver in your Printers or Printers and Faxes folder (Windows only). If you have difficulties printing or connecting to the printer, make sure the correct version of the Windows printer driver is set as the default.
- a. Click **Start**, point to **Settings**, then click **Printers** or **Printers and Faxes**.

– or –

Click **Start**, click **Control Panel**, then double-click **Printers**.
 - b. Right-click the **Printer** icon, and then click **Properties**, **Document Defaults**, or **Printing Preferences**.
 - c. On the **Ports** tab, look for a port in the list with a checkmark. The version of the printer driver that is connected wirelessly has **Standard TCP/IP Port** as the Port description, next to the checkmark.
 - d. Right-click the **Printer** icon for the version of the printer driver that is connected wirelessly, and click **Set as Default Printer**.
8. Try restarting the HP Network Device Support service (Windows only).
- a. Delete any print jobs currently in the print queue.
 - b. On the desktop, right-click **My Computer** or **Computer**, then click **Manage**.
 - c. Double-click **Services and Applications**, then click **Services**.
 - d. Scroll down the list of services, right-click **HP Network Devices Support**, then click **Restart**.
 - e. After the service restarts, try using the printer over the network again.

If you are able to use the printer over the network, your network setup was successful.

If you still cannot use the printer over the network, or if you have periodic problems in doing so, your firewall may be interfering, or there may be a problem with your network configuration or router. Contact the person who set up your network or the router manufacturer for help.

Add hardware addresses to a wireless access point (WAP)

MAC filtering is a security feature in which a WAP is configured with a list of MAC addresses (also called “hardware addresses”) of devices that are allowed to gain access to the network through the WAP.

If the WAP does not have the hardware address of a device attempting to access the network, the WAP denies the device access to the network. If the WAP filters MAC addresses, then the printer's MAC address must be added to the WAP's list of accepted MAC addresses.

1. Print the network configuration page. For more information, see [Network configuration page on page 101](#).
2. Open the WAP's configuration utility, and add the printer's hardware address to the list of accepted MAC addresses.

Mobile Printing issues




For issues, visit the links listed here.

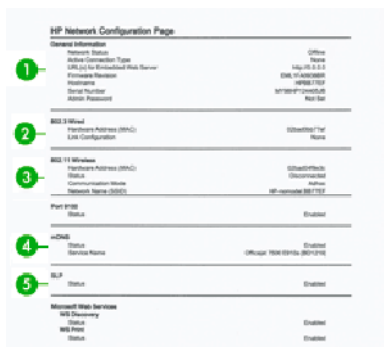
See the HP website at the following link: <http://www.hp.com/go/designjetmobility> (availability varies by product, country, and region).

Also see the HP website at the following link: <http://www.hpsmart.com>.

Network configuration page

If the printer is connected to a network, you can print a network configuration page to view the network settings for the printer.

You can use the network configuration page to help troubleshoot network connectivity problems. If you need to call HP, it is often useful to print this page before calling. To print the network configuration page from the control panel: tap the **Menu** icon , then > **Tools**  > **Reports**  > **Status Reports** > **Network Configuration Report**.



HP Network Configuration Page		
General Information		
1	Network Status	Offline
	Active Connection Type	None
	URL for Embedded Web Server	http://192.168.1.1
	Embedded Web Server	192.168.1.1
	Hardware	HP DesignJet Z6800
	Serial Number	5717871000000
	Model	DesignJet Z6800
802.3 Wired		
2	Hardware Address (MAC)	080020123456
	Link Configuration	10/100/1000
802.11 Wireless		
3	Hardware Address (MAC)	080020123456
	Channel	11
	Communication Mode	Infrastructure
	Network Name (SSID)	HP-DesignJet Z6800
Port 1 (RJ45)		
4	Status	Enabled
	Speed	10/100/1000
	Link	Established
Port 2 (RJ45)		
5	Status	Enabled
	Speed	10/100/1000
	Link	Established
Management Web Services		
	Web Services	Enabled
	Web Page	Enabled
	Web Port	80

1. **General Information:** Shows information about the current status and active connection type of the network, and other information, such as the URL of the Embedded Web Server.
2. **802.3 Wired:** Shows information about the active wired network connection, such as the IP address, subnet mask, default gateway, and hardware address of the printer.

3. **802.11 Wireless:** Shows information about your wireless network connection, such as the hostname, IP address, subnet mask, default gateway, and server.
4. **Miscellaneous:** Shows information about more advanced network settings.

- **Port 9100:** The printer supports raw IP printing through TCP Port 9100. This HP-proprietary TCP/IP port on the printer is the default port for printing. It is accessed by HP software (for example, the HP Standard Port).
- **LPD:** Line Printer Daemon (LPD) refers to the protocol and programs associated with line-printer spooling services that may be installed on various TCP/IP systems.



NOTE: The LPD functionality can be used with any host implementation of LPD that complies with the RFC 1179 document. The process for configuring printer spoolers, however, might differ. See your system documentation for information about configuring these systems.

- **Bonjour:** Bonjour services (which use mDNS, or Multicast Domain Name System) are typically used on small networks for IP address and name resolution (through UDP port 5353), where a conventional DNS server is not used.
- **SLP:** Service Location Protocol (SLP) is an Internet standard network protocol that provides a framework to allow networking applications to discover the existence, location, and configuration of networked services in enterprise networks. This protocol simplifies discovery and use of network resources such as printers, Web servers, fax machines, video cameras, file systems, backup devices (tape drives), databases, directories, mail servers, and calendars.
- **Microsoft Web Services:** Enable or disable the Microsoft Web Services Dynamic Discovery (WS Discovery) protocols or Microsoft Web Services for Devices (WSD) Print services supported on the printer. Disable unused print services to prevent access through those services.



NOTE: For more information about WS Discovery and WSD Print, visit the Microsoft website at the following link: <http://www.microsoft.com/>.

- **SNMP:** SNMP (Simple Network Management Protocol) is used by network management applications for device management. The printer supports SNMPv1 protocol on IP networks.
 - **WINS:** If you have a Dynamic Host Configuration Protocol (DHCP) server on your network, the printer automatically obtains its IP address from that server and registers its name with any RFC 1001 and 1002-compliant dynamic name services as long as a WINS server IP address has been specified.
5. **Connected PC(s):** Lists the computers connected to this printer, as well as the last time these computers accessed the printer.

15 Troubleshooting general printer issues

Step by step instructions are provided for you to identify and resolve your issue.

Printer does not start

You may have an electrical power problem. If there is no activity at all from the printer and the control panel does not respond, check that the power cord is connected correctly and that there is power available at the socket.

- If the printer does not start (the control panel is blank), hold down the **Power** key for a few seconds and check whether the power LED turns orange while the key is held down.
- If you see no orange light, no power is reaching the printer; check that the power cord is correctly plugged in. If the problem persists, call HP Support (see [HP Customer Care on page 110](#)) and explain that you have a problem with the power supply.
- If you see the orange light, wait for the printer to check if it makes a beeping sound:
 - Three beeps means an electronic problem; call HP Support and explain.

Printer does not print

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

- You may not have installed in your computer the correct driver for your printer.
- If you are printing on a sheet, you must specify **Automatic** or **Sheet** or **Tray** as the paper source in your printer driver.
- Check the complexity of the job, very large prints may take some time to receive, process and print.
- You may be experiencing unusual electromagnetic phenomena, such as strong electromagnetic fields or severe electrical disturbances, which can cause the printer to behave strangely or even stop working. In this case, turn off the printer using the **Power** key at the back and unplug the power cord, wait until the electromagnetic environment has returned to normal, then turn it on again. If you still experience problems, contact your customer service representative.

Printer seems slow

Here are some possible explanations:

- Did you set the print-quality to **Best** or **Maximum detail**? Best-quality and maximum detail prints take longer.
- Did you specify the correct paper type when loading the paper? Some paper types require more time for printing; for example, photo and coated papers require more drying time between passes. To find out the printer's current paper type setting, see [View information about the paper on page 29](#).

- If your printer is connected by network, check that all components used in the network (network interface cards, hubs, routers, switches, cables) are capable of high-speed operation. Is there a lot of traffic from other devices on the network?
- Did you specify **Extended** drying time in the control panel? Try changing the drying time to **Optimal**.
- If your printer is connected by Wi-Fi, switch to a wired network.

Control panel is frozen

If the control panel displays a fixed image and you are unable to use it, power cycle your printer.

- Turn off the printer and unplug the power cord from it.
- Wait 30 seconds.
- Plug the power cord into the printer again and turn the printer on.
- Check the functionality of the printer.

If the problem persists, call HP support. See [HP Customer Care on page 110](#).

Cannot access the Embedded Web Server

If you are using a proxy server, try bypassing the server and accessing the Embedded Web Server directly.

Before proceeding, if you have not done so already, please read: [Access the Embedded Web Server on page 15](#).

- In Microsoft Edge for Windows, go to **Tools > Internet Options > Connections > LAN Settings**, and check the **Bypass proxy server for local addresses** box. Alternatively, for more precise control, click the **Advanced** button and add the printer's IP address to the list of exceptions, for which the proxy server is not used.
- In Safari for macOS, go to **Safari > Preferences > Advanced** and click the **Proxies: Change Settings** button. Add the printer's IP address or its domain name to the list of exceptions, for which the proxy server is not used, in the bypass proxy settings for the **Hosts & Domains** field.

If you still cannot connect, switch the printer off and back on with the power key on the control panel.

Restore factory defaults and settings

If you disabled any functions or changed some settings and want to change them back, you can restore the printer to the original factory settings or network settings.

Defaults

Restore the printer to the original factory defaults.

1. From the control panel, tap **Menu**  > **Tools**  > **Maintenance**  > **Restore Settings**, then select the appropriate reset option: **Restore Network Settings**, **Restore User Settings**, **Restore User Data**, or **Restore All Factory Defaults**.

2. From the Embedded Web Server, open the **General** tab, then **Restore Default Settings**, then select the appropriate reset option: **Restore Network Settings** or **Restore All Factory Defaults**.
3. **Restore All Factory Defaults.** Tap **Restore** to reset all printer settings. All configured settings in the printer will be deleted and the original factory settings will be restored, including all administrator passwords for the printer, network configurations, any stored jobs (if available), HP workpath licenses (if available), contact entry for fax, and web services account information.

Alerts

Your printer can report errors or alerts in different ways.

- **Errors:** Mainly alerting you to the fact that the printer is unable to work normally. However, in the printer driver, errors can also alert you to conditions that could ruin the print, such as clipping, even if the printer is able to print.
- **Warnings:** Alert you when the printer needs attention either for an adjustment, such as a calibration or for a possible unprintable situation, such as a preventive maintenance or low ink.

There are four different alerts communicators within your printer's system:

- **Control-panel display:** The control panel shows only the most relevant alert at a time. In the case of a warning, it disappears after a timeout. There are permanent alerts, such as "ink cartridge low on ink", that reappear when the printer becomes idle and there is not another more severe alert.
- **Embedded Web Server:** The upper-right corner of the Embedded Web Server window shows the printer status. If there is an alert in the printer, the status shows the alert text.
- **Print queue:** The print queue shows alerts. The driver warns about job configuration settings that may produce a problem in the final output. If the printer is not ready to print, it displays a warning.

By default, error alerts (critical alerts) are always displayed and warning alerts (non-critical alerts) as displayed only when you are printing. If alerts are enabled and there is a problem that prevents a job from completing, you see a pop-up window, which explains the reason for the problem. Follow the instructions to achieve your required result.



NOTE: There are environments that do not support bidirectional communication. In those cases, alerts do not reach the job owner.

16 Control-panel error messages

Printer issues appear in the control panel automatically along with the recommendation of how to fix them.

Text messages and numerical error codes

Error messages indicate that there is a printer error that needs attention. When they appear, 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, or if the recommended action does not seem to solve the problem, contact HP Support. See [Contact HP Support on page 111](#).

Table 16-1 Text messages

Message	Recommendation
Cartridge low	The indicated cartridges are low. You do not have to replace the cartridge(s) now. HP recommends you have a replacement available for when the cartridge is depleted and will need to be replaced.
Cartridge very low	The indicated cartridges are very low and will be depleted soon. While you do not have to replace the cartridges now, HP recommends you have a replacement available for when cartridges are depleted and will need to be replaced.
Cartridges depleted	The indicated cartridges are depleted. Replace these cartridges.
Maintenance kit 1 required	Contact HP Support. See Contact HP Support on page 111 .
Maintenance kit 2 required	Contact HP Support. See Contact HP Support on page 111 .
Cartridge problem	Insert cartridges of the correct color as needed. See Replace an ink cartridge on page 60 .
Carriage jam	See Roll has jammed on page 78 .
The width of the paper is smaller than the minimum size supported by the selected media source. Loading canceled.	Remove the paper and load paper of the correct size.
Loaded paper is too wide. Manual unload required.	Remove the paper manually and load paper of the correct size.
The paper is too far from the lateral load line. Try loading the paper again.	Remove and reload the paper.
Please manually unload roll paper and try again.	Rewind the roll manually.
The currently loaded paper has too much skew and cannot be corrected automatically. Tap Remove , and then load the paper again.	Remove and reload the paper.
The roll is out of paper, and the current job has been canceled. Load another roll, and then send the job again.	Load a new roll.

Table 16-1 Text messages (continued)

Message	Recommendation
You are printing a multipage job. Load another sheet to continue printing or cancel the job.	Load another single sheet.
Tray is out of paper. Load paper in the tray and press OK to continue printing or cancel the job.	Load paper into the tray.
End of roll has been reached. It is not possible to load the roll.	Load a new roll.
Missing or failed printhead.	Remove and reinsert the same printhead, or try cleaning the electrical connections. If necessary, insert a new printhead. See Replace the printhead on page 64 . NOTE: The error message does not permit returning to the home screen to start the printhead replacement. Instead, press Show more .
Refilled or depleted cartridge detected	Check the cartridge.
Used cartridges might not have enough ink to complete start-up. Open ink door to replace the cartridges.	A new printhead has been inserted without a new set of ink cartridges. Replace the cartridges not marked as new. See Replace an ink cartridge on page 60 .

Reading a system error code

System error codes explain what action should be taken to resolve the problem. They are defined in two ways: D0XX-YYZZ, which explains which component or system is failing, or xx.xx.xx.xx. Both formats indicate the course of action to be taken.

The first format is explained in the following table. The second format (xx.xx.xx.xx) occurs in response to internal firmware failures. In this case, you should restart the printer, then ensure that you have the latest firmware version: updating it may solve the problem. If the problem persists, contact your service representative. Some examples of these errors are F0.01.01.02, F0.01.04.07, F0.01.01.04 or F0.01.01.01.

For System Errors in format D0XX-YYZZ, the different parts of the code have the following meanings:

- D: Device information in which the failure has been detected.
- XX: Subsystem in which the failure has been detected (see the subsystem error codes table)
- YY: Service part in which the failure has been detected.
- ZZ: Indicates the cause of error as identified by self-diagnostics; see the next section for more details.

Values of D (Device)

Value Subsystem

0 Printer

1 Accessories

8 Internal printer firmware error*

*Errors starting with 8 (D=8) are internal firmware issues (for example, 86B0-1A7E-0000). If an error of this kind appears, there is probably an issue in the firmware that will be solved in a future release. These

errors are not documented for this reason. If one of these errors appears, check whether the latest firmware is installed and install it if needed.

Table 16-2 Values of XX (subsystem)

Value	Subsystem
01	Main PCA
04	Print bundle PCA
21	Service station
26	Ink supply station
27	Printhead
41	Carriage PCA
42	Carriage motor
43	Pick motor
44	Feed motor
45	Rewinder motor
59	NVM
85	Feed index PCA
87	Encoder

For system errors in the XX.YY.XX.XX format, YY indicates the subsystem.

Table 16-3

Value	YY
01	System
02	Security
03	Connectivity
04	Front-panel firmware
31	Job management

Table 16-4 Numerical error codes

Error code	Recommendation
0021-0017	Service station error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.
0021-0060	Service station error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.
0026-0061	ISS Pump error. Call your service representative.
0042-0059	Carriage motor error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.

Table 16-4 Numerical error codes (continued)

Error code	Recommendation
0042-0060	Carriage motor error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.
0042-0161	Carriage motor error. Restart the printer. If the problem persists, call your service representative.
0043-0059	Pick motor error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.
0043-0060	Pick motor error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.
0044-0059	Feed motor error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.
0044-0060	Feed motor error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.
0045-0060	Rewinder motor error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.
0721-0078	PMK maintenance needed. Call your service representative.
0942-0188	Carriage motor error. There may be a paper or carriage jam. Check and clear the paper path if necessary and restart the printer.
0955-0050	Line sensor error. Call your service representative.
F0.01.01.01	Internal FW error. Make sure that the printer firmware version is up to date and restart the printer.
F0.01.01.02	Internal FW error. Make sure that the printer firmware version is up to date and restart the printer.
F0.01.01.04	Internal FW error. Make sure that the printer firmware version is up to date and restart the printer.
F0.01.01.07	Internal FW error. Make sure that the printer firmware version is up to date and restart the printer.
F0.01.04.07	Internal FW error. Make sure that the printer firmware version is up to date and restart the printer.
F0.01.01.06	Make sure that the printer firmware version is up to date and restart the printer.
F0.01.04.03	Make sure that the printer firmware version is up to date and restart the printer.
F0.01.03.01	Make sure that the printer firmware version is up to date and restart the printer.
F0.01.03.04	Make sure that the printer firmware version is up to date and restart the printer.
8XXX-XXXX	Internal FW error. Make sure that the printer firmware version is up to date and restart the printer.

17 HP Customer Care

HP Customer Care offers award-winning support to ensure you get the most from your HP DesignJet, providing comprehensive, proven support expertise and new technologies to give you unique end-to-end support.

Introduction

Services include setup and installation, troubleshooting tools, warranty upgrades, repair and exchange services, phone and Web support, software updates and self-maintenance services.

To find out more about HP Customer Care, see [Contact HP Support on page 111](#).

To register your warranty, visit the HP website at the following link: <https://eoi.hpcloud.hp.com/login>.

HP Professional Services

Enjoy a world of dedicated services and resources to ensure you always get the best performance from your HP DesignJet printers and solutions.

HP Support Center

Join the HP community at the HP Support Center, your large-format printing community, for 24/7 access to support.

- Multimedia tutorials
- Step-by-step how-to guides
- Downloads: the latest printer firmware, drivers, software, paper presets, and more
- Technical support: online troubleshooting, customer care contacts, and more
- Workflows and detailed advice for completing various printing tasks from particular software applications
- Forums for direct contact with the experts, both HP and your colleagues
- Warranty tracking online, for your peace of mind
- Latest product information: printers, supplies, accessories, software, and more
- Supplies Center for all you need to know about ink and paper

The HP Support Center can be found at the HP website <https://www.hp.com/go/DesignJetT870/support>.

By customizing your registration for the products you have purchased and your type of business, and by setting your communication preferences, you decide the information you need.

Download printer software

Be sure to follow the software installation instructions.

Install the printer software from the HP website <https://www.hp.com/go/DesignJetT870/software>.

HP Care Packs and Warranty Extensions

HP Care Packs and Warranty Extensions allow you to extend your printer's warranty beyond the standard period.

They include remote support. On-site service is also provided if necessary, with two alternative response-time options:

- Next business day
- Same business day, within four hours (may not be available in all countries)

There is an HP Installation service that unpacks, sets up, and connects the printer for you.

For more information on HP Care Packs, visit the HP website at the following link:

<http://cpc.ext.hp.com/portal/site/cpc>.

Customer Self Repair

HP's Customer Self Repair program offers our customers the fastest service under either warranty or contract. It enables HP to ship replacement parts directly to you (the end user) so that you can replace them.

Using this program, you can replace parts at your own convenience.

Convenient, easy to use

- An HP Support Specialist will diagnose and assess whether a replacement part is required to address a defective hardware component.
- Replacement parts are express-shipped; most in-stock parts are shipped the very same day you contact HP.
- Available for most HP products currently under warranty or contract.
- Available in most countries.

For more information about Customer Self Repair, visit the HP website at the following link:

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

Contact HP Support

HP Virtual Assistant is there to provide you with support at any time day or night.



You can access the HP Virtual Assistant for your printer from the HP website at the following link:

<https://www.hp.com/go/DesignJet/VA>.

HP Support is also 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 HP offices, please have the following information available to help us answer your questions more quickly:
 - The product you are using (the product number and the serial number, found on the label at the back of the product)
 - If there is an error code on the control panel, note it down; see [Text messages and numerical error codes on page 106](#)
 - 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 type of interface used on your product (USB, network, or Wi-Fi)
 - The software and driver name and version number that you are currently using
 - The Printer Service information:
 - From the Embedded Web Server:

In a Web browser, enter your printer's IP address to access the Embedded Web Server. To access the printer's service information:

Tap **Support Tools > Service Support > Service Information >** , then tap the **Download** button

Reports and **Pages Shown** and **Service Information** will be automatically checked.

Tap the **Download** button. Wait until the printer has finished generating the report file.



NOTE: When you access these pages, the printer asks you to sign in with the PIN. See [Access the Embedded Web Server on page 15](#).

18 Printer specifications

Reference lists of specifications for your printer.

Functional specifications

Your printer is designed to deliver CAD and construction drawings as well as high-quality graphics.

Table 18-1 HP Ink supplies

Description	Specification
Printhead	One printhead
Ink cartridges	Cartridges containing 130 ml of ink: black, yellow, magenta, and cyan
	Cartridges containing 300 ml of ink: black, yellow, magenta, and cyan

Table 18-2 Paper sizes

Description	Minimum	Maximum
Roll width	368 mm (14.5 in)	610 mm (24 in)
Roll length	N/A	91 m (300 feet) (max Ø applies)
Roll diameter	N/A	130 mm (5.1 in)
Roll weight	N/A	8 kg (17.6 lb)
Sheet width	210 mm (8.27 in)	610 mm (24 in)
Sheet length	279 mm (11 in)	1676 mm (66 in)
Paper thickness	N/A	0.3 mm (0.01 in)
Paper weight - roll/manual sheet	60 g/m ²	280 g/m ²
Paper weight - multi-sheet tray	60 g/m ²	220 g/m ²

Table 18-3 Printing resolutions

Print quality	Maximum detail	Rendering resolution (ppi)	Printing resolution (dpi)
Best (glossy paper*)	On	1200 × 1200	2400 × 1200
	Off	600 × 600	1200 × 1200
Best (other papers)	Off	600 × 600	1200 × 1200
Normal	Off	600 × 600	1200 × 1200
Fast	Off	600 × 600	1200 × 1200
Econofast	Off	600 × 600	1200 × 1200

* For a list of supported glossy papers, see [Order paper on page 72](#).

Table 18-4 Margins

Description	Specification
Top left and right margins	5 mm (0.2 in)
Bottom margin	17 mm (0.67 in) (manual sheet)

Table 18-5 Mechanical accuracy

Specifications
±0.1% of the specified vector length or ±0.2 mm (whichever is greater) at 23°C (73°F), 50-60% relative humidity, on E/A0 printing material in Best or Normal mode with HP Heavyweight Coated Paper roll feed.

Table 18-6 Graphic languages supported

HP DesignJet	Languages
HP DesignJet T870 Printer Series	HP PCL3GUI, HP-GL/2

Physical specifications

These are the physical specifications of your printer.

Table 18-7 Printer physical specifications

Specification	HP DesignJet T870
Weight	38 kg 83.7 lb (w/o paper roll)
Width	1102 mm 43.4 in
Depth	890 mm 35.3 in (basket and tray extended) 695 mm 27.3 in (basket and tray closed)
Height	1010 mm 39.7 in (tray extended) 965 mm 38 in (tray closed)

Memory specifications

Your printer has 1 GB of memory.

Table 18-8 Memory specifications

Printer	Memory
HP DesignJet T870	1 GB

Power specifications

Use the electrical cord supplied with the printer and the power supply voltage specified on the label. Avoid overloading the printer's electrical outlet with multiple devices.

Table 18-9 Printer power specifications

Type:	Values:
Source	100-240 V ac \pm 10%, auto-ranging
Frequency	50/60 Hz
Maximum current	1200 mA
Average consumption	35 W

Ecological specifications

This product complies with the WEEE Directive 2012/19/EU and RoHS Directive 2011/65/EU.

To determine the ENERGY STAR and EPEAT registration status of these product models, check your model at <http://www.epeat.net> and <http://www.energystar.gov/productfinder> or see the HP website at <https://www.hp.com/us-en/hp-information/sustainable-impact/document-reports.html>.

Inks are UL ECOLOGO® certified. For more information, visit <http://www.spot.ul.com/main-app/products/catalog/>.

Printer models are made with a minimum of 45% post consumer recycled plastic and 10% recycled metal (calculated by total plastic and metal weight, respectively).

Free, convenient HP ink cartridge recycling with HP Planet Partners program. Program availability varies. For details, check the HP website <http://www.hp.com/recycle>.

The power scheduler feature enables you to save energy significantly when the printer is idle.

Environmental specifications

Recommended operating and storage temperature and humidity.

Table 18-10 Printer environmental specifications

Type:	Values:
Operating temperature	5 to 40 degree Celsius (41 to 104 degree Fahrenheit)
Recommended operating temperature	15 to 35 degree Celsius (59 to 95 degree Fahrenheit), depending on paper type
Storage temperature	-25 to 55 degree Celsius (-13 to 131 degree Fahrenheit)
Recommended operating humidity	20 to 80% RH, depending on paper type
Storage humidity	0 to 95% RH
Maximum altitude when printing	3000 m (9843 ft)

Acoustic specifications

Declared noise emission levels for the HP DesignJet T870 Printer. Sound pressure levels at bystander positions and sound power levels measured per ISO 7779.

Table 18-11 Printer acoustic specifications

Description	Specification
Idle sound power	< 3.4 B (A)
Operating sound power	5.6 B (A)
Idle sound pressure	< 16 dB (A)
Operating sound pressure	40 dB (A)

Glossary

AirPrint

Apple technology that helps you create full-quality printed output without the need to download or install drivers.

Bonjour

Apple Computer's trade name for its implementation of the IETF Zeroconf specification framework, a computer network technology used in Apple's Mac OS X from version 10.2 onwards. It is used to discover services available on a local area network. It was originally known as Rendezvous.

Color accuracy

The ability to print colors that match the original image as closely as possible, bearing in mind that all devices have a limited color gamut and may not be physically capable of matching certain colors precisely.

Color consistency

The ability to print the same colors from a particular print job from print to print and from printer to printer.

Color model

A system of representing colors by numbers, such as RGB or CMYK.

Color space

A color model in which each color is represented by a specific set of numbers. Many different color spaces can use the same color model: for instance, monitors generally use the RGB color model, but they have different color spaces, because a particular set of RGB numbers results in different colors on different monitors.

Cutter

A printer component that slides back and forth across the platen to cut the paper.

ESD

ElectroStatic Discharge. Static electricity is common in daily life. It is the spark when touching the car door, or the cling of clothing. Although controlled static electricity has some useful applications, uncontrolled electrostatic discharges are one of the main hazards to electronic products. Therefore, to prevent damage some precautions are needed when setting up the printer, or handling ESD sensitive devices. This type of damage may reduce the life expectancy of the device. One way to minimize uncontrolled ESDs, and therefore reduce this type of damage is by touching any exposed grounded part of the printer (mainly metal parts) before handling ESD sensitive devices (such as the printhead or ink cartridges). Additionally, to reduce the generation of electrostatic charge in your body try to avoid working in a carpeted area, and keep your body movements to a minimum when handling ESD sensitive devices. Also, avoid working in low humidity environments.

Ethernet

A popular computer networking technology for local area networks.

Fast Ethernet

An Ethernet network capable of transferring data at up to 100,000,000 bits/second. Fast Ethernet interfaces are capable of negotiating slower speeds when required for compatibility with older Ethernet devices.

Firmware

Software that controls your printer's functionality and is stored semi-permanently in the printer (it can be updated).

Gamut

The range of colors and density values reproducible on an output device, such as a printer or monitor.

HP RTL

HP Raster Transfer Language: a language defined by HP to describe raster (bitmap) graphics.

HP-GL/2

HP Graphics Language 2: a language defined by HP to describe vector graphics.

I/O

Input/Output: this term describes the passing of data between one device and another.

ICC

The International Color Consortium, a group of companies that have agreed on a common standard for color profiles.

Ink cartridge

A removable printer component that stores ink of a particular color and provides it to the printhead.

IP address

May mean an IPv4 address (most likely) or an IPv6 address.

IPv4 address

A unique identifier that identifies a particular node on an IPv4 network. An IPv4 address consists of four integers separated by full stops. Most networks in the world use IPv4 addresses.

IPv6 address

A unique identifier that identifies a particular node on an IPv6 network. An IPv6 address consists of up to 8 groups of hexadecimal digits separated by colons. Each group contains up to 4 hexadecimal digits. Only a few new networks in the world use IPv6 addresses.

LED

Light-Emitting Diode: a semiconductor device that emits light when electrically stimulated.

MAC address

Media Access Control address: a unique identifier used to identify a particular device on a network. It is a lower-level identifier than the IP address. Thus, a device may have both a MAC address and an IP address.

Network

A network is a set of connections that pass data between computers and devices. Every device is able to communicate with every other device in the same network. This allows data to be moved between computers and devices, and allows devices such as printers to be shared between many computers.

Nozzle

One of many tiny holes in a printhead through which ink is deposited onto the paper.

Paper

A thin, flat material made to be written or printed on; most commonly made from fibers of some kind which are pulped, dried and pressed.

Platen

The flat surface within the printer over which the paper passes while it is being printed on.

Printer driver

Software that converts a print job in a generalized format into data suitable for a particular printer.

Printhead

A removable printer component that takes ink of one or more colors from the corresponding ink cartridge(s) and deposits it on the paper, through a cluster of nozzles.

Spindle

A rod that supports a roll of paper while it is being used for printing.

TCP/IP

Transmission Control Protocol/Internet Protocol: the communications protocols on which the Internet is based.

USB

Universal Serial Bus: a standard serial bus designed to connect devices to computers. Your printer supports Hi-Speed USB (sometimes called USB 2.0).

USB host port

A rectangular USB socket such as those found on computers. A printer can control USB devices that are connected to such a port.

WiFi

This term is used for any wireless local area network products that are based on the Institute of Electrical and Electronics Engineers' (IEEE) 802.11 standards.

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