User Guide

© Copyright 2019 HP Development Company, L.P.

HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

Windows is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Product notice

This guide describes features that are common to most models. Some features may not be available on your product. To access the latest user guide, go to http://www.hp.com/support, and follow the instructions to find your product. Then select **User Guides**.

Second Edition: May 2019

First Edition: March 2019

Document Part Number: L54560-002

About This Guide

This guide provides information about monitor features, setting up the monitor, using the software and technical specifications.

WARNING! Indicates a hazardous situation that, if not avoided, **could** result in death or serious injury.

CAUTION: Indicates a hazardous situation that, if not avoided, **could** result in minor or moderate injury.

IMPORTANT: Indicates information considered important but not hazard-related (for example, messages related to property damage). A notice alerts the user that failure to follow a procedure exactly as described could result in loss of data or in damage to hardware or software. Also contains essential information to explain a concept or to complete a task.

NOTE: Contains additional information to emphasize or supplement important points of the main text.

TIP: Provides helpful hints for completing a task.

HIGH-DEFINITION MULTIMEDIA INTERFACE

This product incorporates HDMI technology.

Table of contents

1 Getting Started 1

Important safety information 1

Product features and components 2

Features 2

Rear components 3

Front components 4

Setting up the monitor 4

Installing the monitor stand 5

Mounting the monitor head 6

Removing the monitor stand 6

Attaching the VESA mounting bracket 7

Connecting the cables 8

Connecting USB devices 11

Adjusting the monitor 12

Turning on the monitor 14

Installing a security cable 15

2 Using the monitor 16

Software and utilities 16

The Information file 16

The Image Color Matching file 16

Using the OSD menu 17

Using the function buttons 18

Reassigning the function buttons 18

Adjusting blue light output (select products only) 18

Using Auto-Sleep Mode 19

Changing the Power Mode setting 19

3 Support and troubleshooting 20

Solving common issues 20

Button lockouts 20

Contacting support 21

Preparing to call technical support 21

Locating the serial number and product number 21

4 Maintaining the monitor 22
Maintenance guidelines 22
Cleaning the monitor 22
Shipping the monitor 23

Appendix A Technical specifications 24
31.5 in/80 cm model specifications 24
Preset display resolutions 25
31.5 in/80 cm model 25
Energy saver feature 26

Appendix B Accessibility 27
Accessibility 27
Finding the technology tools you need 27
Our commitment 27
International Association of Accessibility Professionals (IAAP) 27
Finding the best assistive technology 28
Assessing your needs 28
Accessibility for HP products 28
Standards and legislation 29
Standards 29
Mandate 376 – EN 301 549 29
Web Content Accessibility Guidelines (WCAG) 29
Legislation and regulations 29
United States 30
21st Century Communications and Video Accessibility Act (CVAA) 30
Canada 30
Europe 31
United Kingdom 31
Australia 31
Worldwide 31
Useful accessibility resources and links 32
Organizations 32
Educational institutions 32
Other disability resources 32
HP links 32
Contacting support 33

1 Getting Started

Important safety information

An AC adapter and AC power cord may be included with the monitor. If another cord is used, use only a power source and connection appropriate for this monitor. For information about the correct AC power cord set to use with the monitor, refer to the *Product Notices* provided in your documentation kit.

WARNING! To reduce the risk of electric shock:

- Plug the power cord into an AC outlet that is easily accessible at all times.
- If the power cord has a 3-pin attachment plug, plug the cord into a grounded (earthed) 3-pin outlet.

For your safety, do not place anything on power cords or cables. Care should be taken to route all cords and cables connected to the monitor so that they cannot be stepped on, pulled, grabbed, or tripped over.

To reduce the risk of serious injury, read the *Safety & Comfort Guide* provided with your user guides. It describes proper workstation setup and proper posture, health, and work habits for computer users. The *Safety & Comfort Guide* also provides important electrical and mechanical safety information. The *Safety & Comfort Guide* is also available on the Web at http://www.hp.com/ergo.

IMPORTANT: For the protection of the monitor and the computer, connect all power cords for the computer and its peripheral devices (such as a monitor, printer, scanner) to a surge protection device such as a power strip or uninterruptible power supply (UPS). Not all power strips provide surge protection; the power strip must be specifically labeled as having this capability. Use a power strip whose manufacturer offers a damage replacement policy so you can replace the equipment if surge protection fails.

Use the appropriate and correctly sized furniture designed to properly support your monitor.

WARNING! Monitors that are inappropriately situated on dressers, bookcases, shelves, desks, speakers, chests, or carts may fall over and cause personal injury.

NOTE: This product is suitable for entertainment purposes. Consider placing the monitor in a controlled luminous environment to avoid interference from surrounding light and bright surfaces that may cause disturbing reflections from the screen.

Product features and components

Features

The monitor includes the following features:

- 80 cm/31.5 in diagonal viewable screen area with 2560 × 1440 resolution, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio
- Nonglare panel with an LED backlight
- Wide viewing angle to allow viewing from a sitting or standing position, or when moving from side to side
- Tilt, swivel, and height adjustment capabilities
- Pivot capability to rotate the monitor head from landscape to portrait mode
- Removable stand for flexible monitor head mounting solutions
- DisplayPort video inputs (cable provided)
- High-Definition Multimedia Interface (HDMI) video input (cable provided)
- USB 3.0 hub with two upstream ports: one USB Type-C and one USB Type-B (connect to the computer); and four downstream ports: three USB Type-A and one USB Type-C (connect to USB devices)
- USB cable provided to connect the monitor's USB hub to the USB port on the computer
- Plug and Play capability, if supported by your operating system
- Security cable slot provision on rear of monitor for optional security cable
- On-screen display (OSD) adjustments in several languages for easy setup and screen optimization
- HP Display Assistant software for adjusting monitor settings and enabling the theft deterrence features
- High-bandwidth Digital Content Protection (HDCP) copy protection on all digital inputs
- Energy saver feature to meet requirements for reduced power consumption

NOTE: For safety and regulatory information, refer to the *Product Notices* provided in your documentation kit. To access the latest user guide, go to http://www.hp.com/support and follow the instructions to find your product. Then select **User Guides**.

Rear components

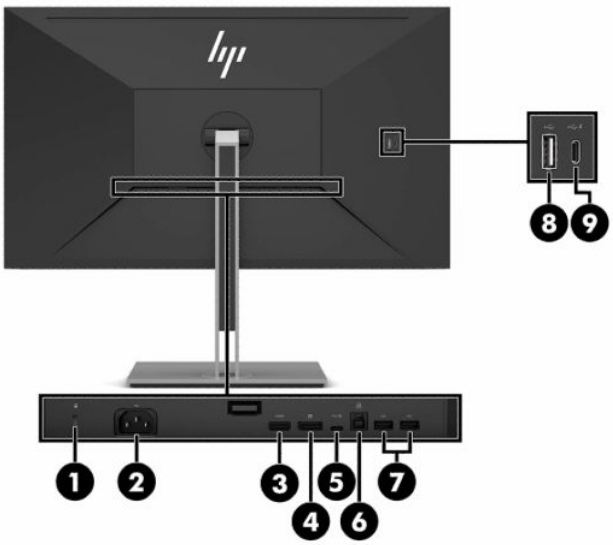


Table 1-1 Rear components

Component		Function
1	Security cable slot	Connects an optional security cable to the monitor.
2	Power connector	Connects the power cord.
3	HDMI port	Connects an HDMI cable from the monitor to a source device such as a computer or game console.
4	DisplayPort connector	Connects the DisplayPort cable from the monitor to a source device such as a computer or game console.
5	USB Type-C port (upstream)	Connects the USB CM-CM cable from the monitor to a source device such as a computer or game console.
6	USB Type-B port (upstream)	Connects a USB Type-B cable from the monitor to a source device such as a computer or game console.
7	USB Type-A ports (2) (downstream)	Connect USB cables to peripheral devices, such as a keyboard, mouse, or USB hard drive, and provides data transfer.
8	USB Type-A port (downstream)	Connects a USB cable to a peripheral USB device, such as a keyboard, mouse, or USB hard drive, and provides data transfer.
9	USB Type-C port with charging (downstream)	Connects a USB Type-C cable to a peripheral USB device, provides data transfer, and even when the monitor is in Sleep mode, charges most devices such as a smart phone or tablet. **NOTE:** Cables and/or adapters (purchased separately) may be required.

Front components

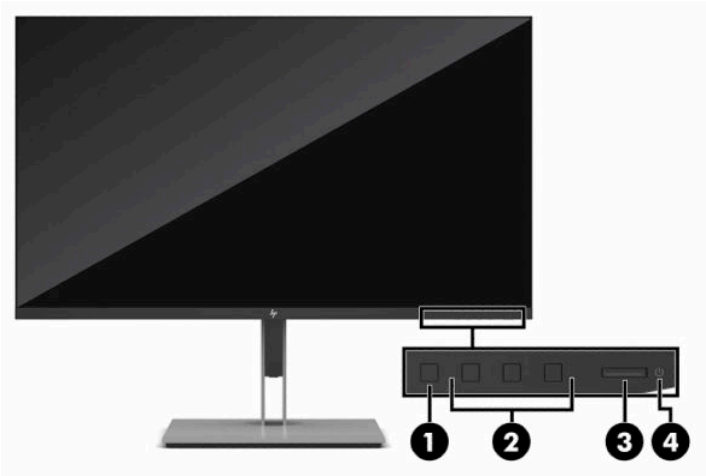


Table 1-2 Front components

Control		Function
1	Menu button	Press to open the OSD menu, select a menu item from the OSD, or close the OSD menu.
2	Function buttons	Use these buttons to navigate through the OSD menu based on the indicators above the buttons that are activated while the OSD menu is open. **NOTE:** You can reconfigure the function buttons in the OSD menu to quickly select the most commonly used operations. See Using the function buttons on page 18 for more information.
3	Power button	Turns the monitor on or off.
4	Power light	White: The monitor is on. Amber: Monitor is in a reduced power state because of inactivity. See Using Auto-Sleep Mode on page 19 for more information..

Setting up the monitor

WARNING! To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation setup and proper posture, health, and work habits for computer users. The *Safety & Comfort Guide* also provides important electrical and mechanical safety information. The *Safety & Comfort Guide* is available on the Web at http://www.hp.com/ergo.

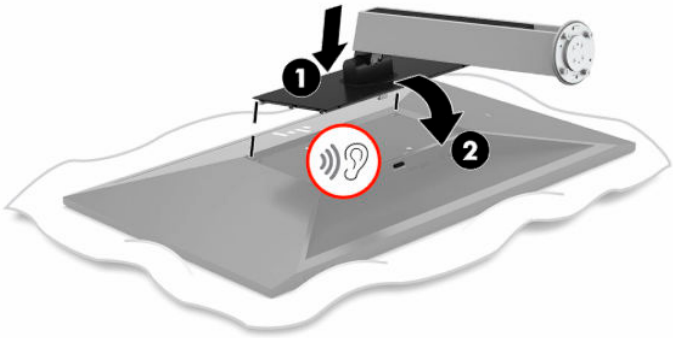
IMPORTANT: To prevent damage to the monitor, do not touch the surface of the LCD panel. Pressure on the panel may cause nonuniformity of color or disorientation of the liquid crystals. If this occurs, the screen will not recover to its normal condition.

IMPORTANT: To prevent the screen from getting scratched, defaced, or broken and prevent damage to the control buttons, position the monitor facedown on a flat surface covered with protective sheet foam or a nonabrasive cloth.

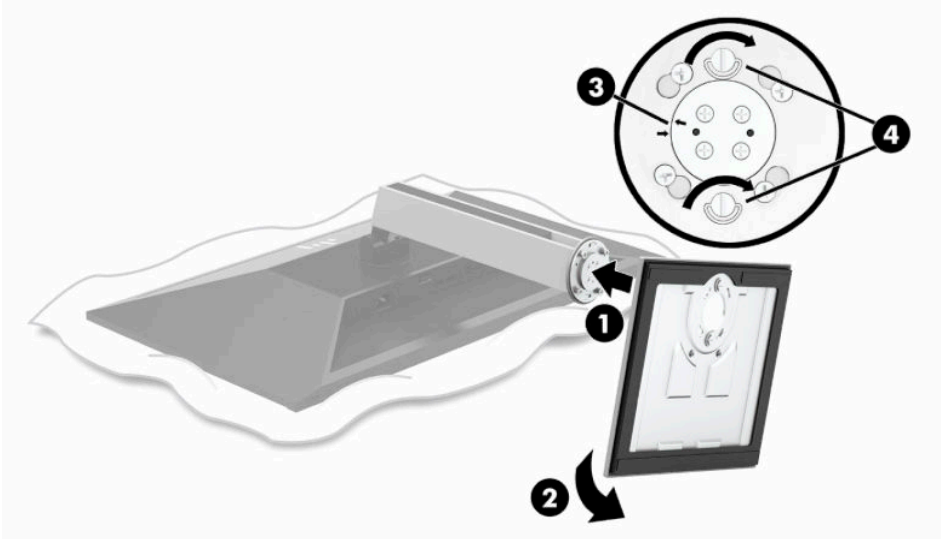
Installing the monitor stand

TIP: Consider the placement of the monitor, because surrounding light and bright surfaces might cause interfering reflections.

1. Position the monitor facedown on a flat surface covered by a protective sheet made of foam or a clean, dry cloth.
2. Lower the bottom of the stand's mounting plate into the back of the monitor's recess **(1)** until it snaps into place **(2)**.
3. The latch pops up when the stand is locked in place.



4. With the monitor still placed facedown on a flat surface:
   a. Insert the base into the bottom of the monitor stand (1).
   b. Swivel the base counterclockwise to lock it in place (2).
   c. Confirm that the red arrow on the monitor stand is aligned with the green arrow on the bottom of the base (3).
   d. Then insert the two thumbscrews into the base and tighten them (4).



Mounting the monitor head

The monitor head can be attached to a wall, swing arm, or other mounting fixture.

IMPORTANT: This monitor supports the VESA industry standard 100 mm mounting holes. To attach a third-party mounting solution to the monitor head, four 4 mm, 0.7 pitch, and 10 mm long screws are required. Longer screws must not be used because they may damage the monitor head. It is important to verify that the manufacturer's mounting solution is compliant with the VESA standard and is rated to support the weight of the monitor head. For best performance, it is important to use the power and video cables provided with the monitor.

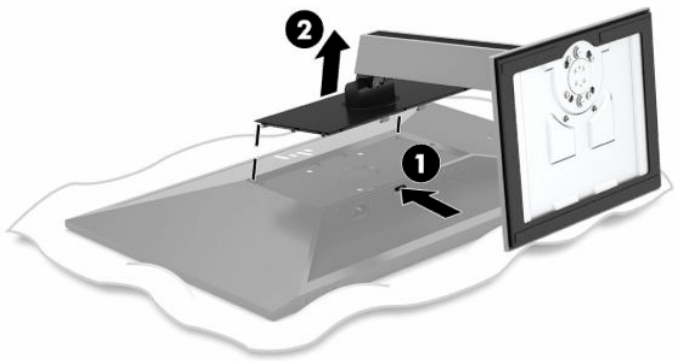
NOTE: This apparatus is intended to be supported by a UL- or CSA-Listed wall-mount bracket.

Removing the monitor stand

You can remove the monitor head from the stand to install the monitor head on a wall, a swing arm, or other mounting fixture.

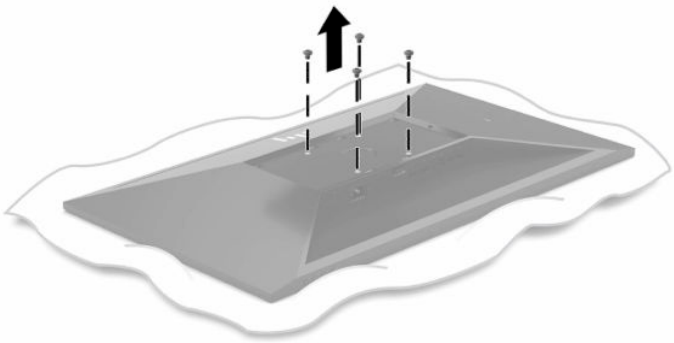
IMPORTANT: Before disassembling the monitor, be sure that the monitor is turned off and all cables are disconnected.

1. Disconnect and remove all cables from the monitor.
2. Position the monitor facedown on a flat surface covered by a protective sheet made of foam or a clean, dry cloth.
3. Push up on the latch near the bottom center of the monitor **(1)**.
4. Lift the bottom of the stand straight up until the mounting plate clears the recess in the panel **(2)**.

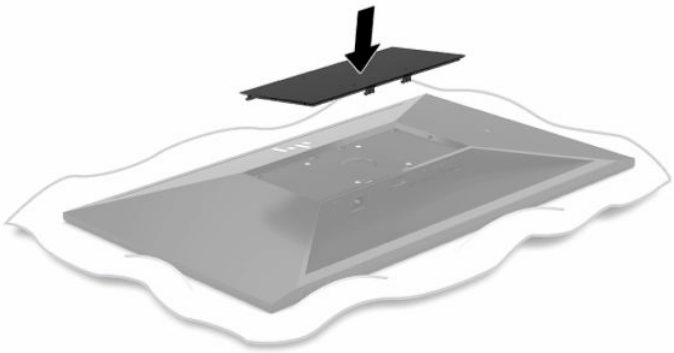


Attaching the VESA mounting bracket

1. Remove the four screws from the VESA holes located on the rear of the monitor head.

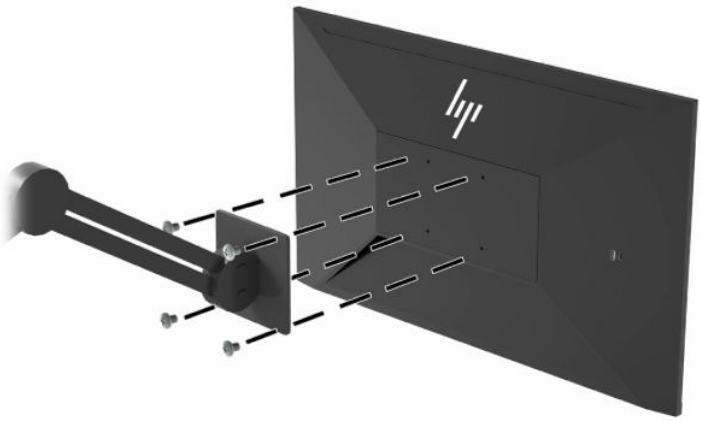


2. Install the VESA mounting bracket.



3. Install the mounting plate to the wall or swing arm of your choice by inserting the four new VESA screws provided with the VESA mounting bracket.

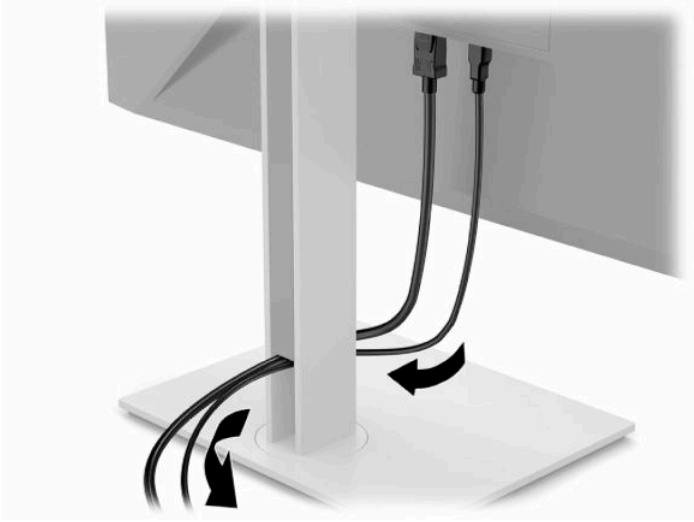
IMPORTANT: It is important to use the four new VESA screws that are attached to the new mounting bracket. Do not reuse the four VESA screws that were removed from the back of the monitor head. These screws are not long enough to provide a secure connection.



Connecting the cables

NOTE: The monitor ships with select cables. Not all cables shown in this section are included with the monitor.

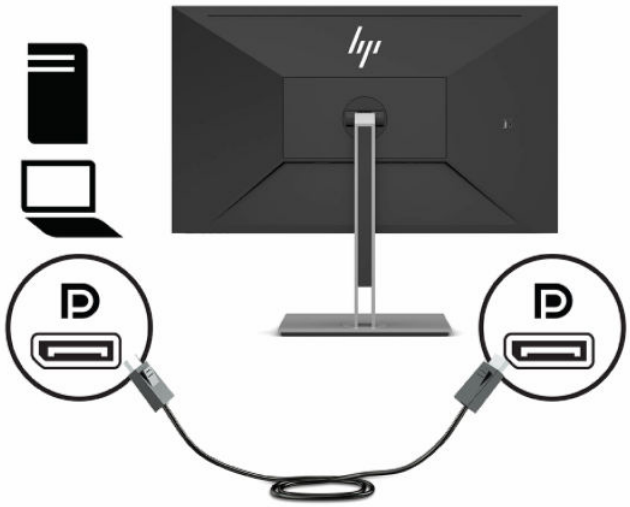
1. Place the monitor in a convenient, well-ventilated location near the computer.
2. Before connecting the cables, route the cables through the cable routing hole in the center of the stand.



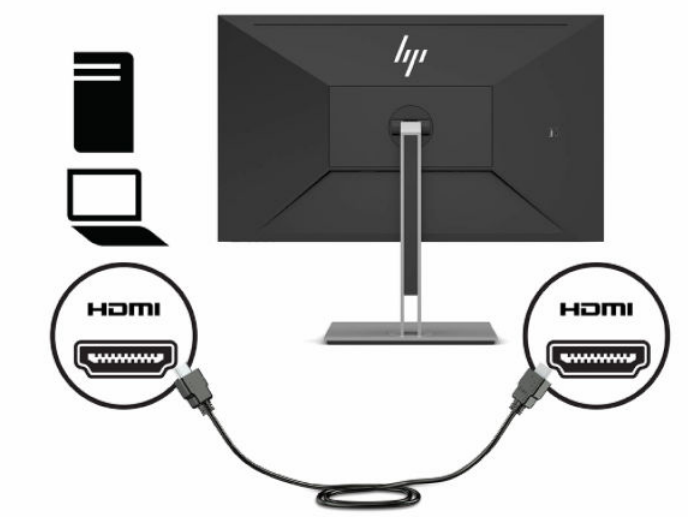
3. Connect a video cable.

NOTE: Except for USB Type-C inputs, the monitor automatically determines which inputs have valid video signals. USB Type-C input must be manually selected. To select any input, including USB Type-C, open the OSD and select **Input**.

- Connect one end of a DisplayPort cable to the DisplayPort connector on the rear of the monitor and the other end to the DisplayPort connector on the source device.

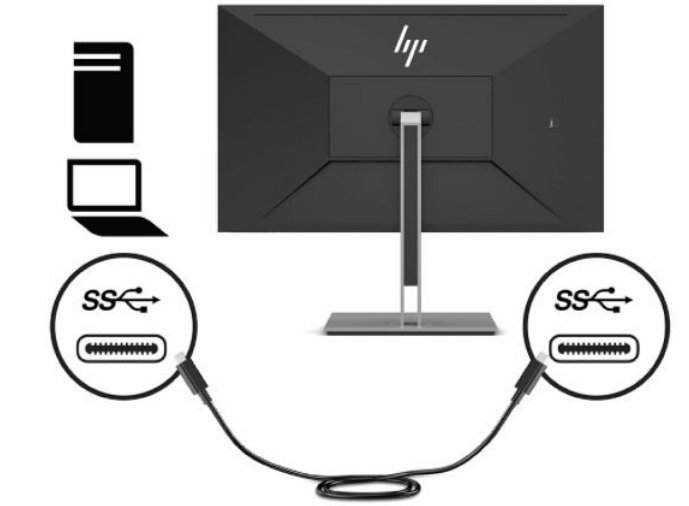


- Connect one end of an HDMI cable to the HDMI port on the rear of the monitor and the other end to the HDMI port on the source device.



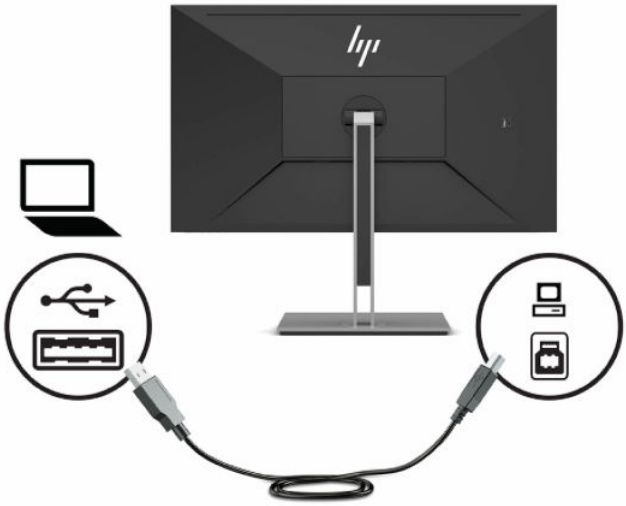
- Connect a USB CM to CM cable to the USB Type-C port on the monitor. Then connect the Type-C connector to the USB downstream port on the source device.

NOTE: The USB CM to CM cable provides power delivery up to 15 W (5V, 3A).



4. Connect a USB Type-A to Type-B cable to the USB Type-B port on the rear of the monitor and the other end to a USB port on the source device.

NOTE: You must connect the USB Type-C upstream cable or USB Type-B upstream cable from the source device (computer) to the rear of the monitor to enable the USB Type-A downstream ports on the monitor. For more information, see Connecting USB devices on page 11.



5. Connect one end of the power cord to the power connector on the rear of the monitor and the other end to a grounded AC outlet.

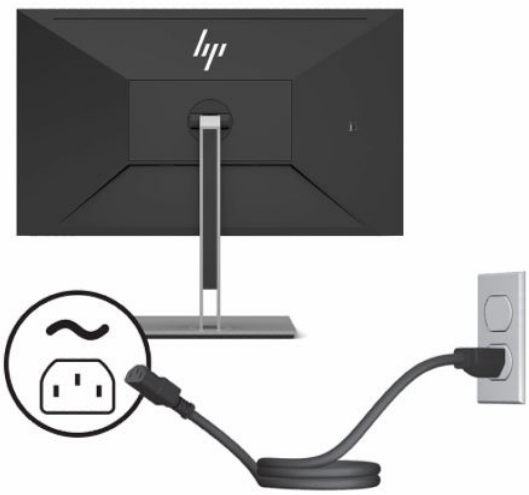
WARNING! To reduce the risk of electric shock or damage to the equipment:

Do not disable the power cord grounding plug. The grounding plug is an important safety feature.

Plug the power cord into a grounded (earthed) AC outlet that is easily accessible at all times.

Disconnect power from the equipment by unplugging the power cord from the AC outlet.

For your safety, do not place anything on power cords or cables. Arrange them so that no one may accidentally step on or trip over them. Do not pull on a cord or cable. When unplugging the power cord from the AC outlet, grasp the cord by the plug.



Connecting USB devices

USB ports are used to connect devices such as a digital camera, USB keyboard, or USB mouse. There are four downstream USB ports on the monitor: two USB Type-A downstream on the rear, and one USB Type-C and one USB Type-A downstream on the rear side.

NOTE: You must connect the USB Type-C upstream cable or USB Type-B upstream cable from the source device (computer) to the rear of the monitor to enable the USB Type-A downstream ports on the monitor.

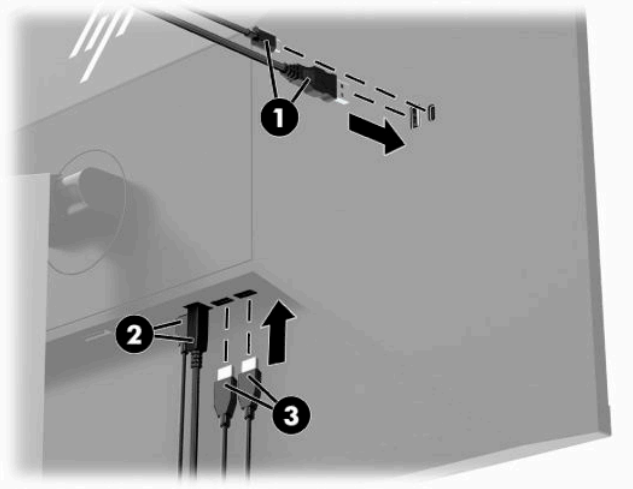


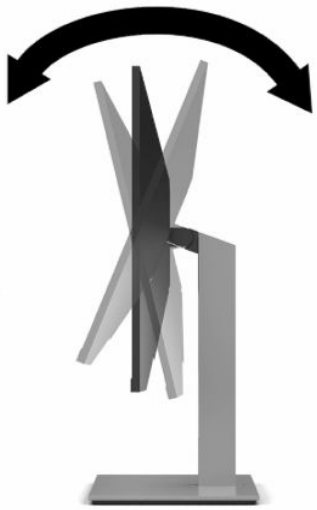
Table 1-3 USB port locations

USB Ports	
(1)	USB Type-A and USB Type-C downstream ports
(2)	USB Type-C or USB Type-B upstream port from computer
(3)	USB Type-A downstream ports

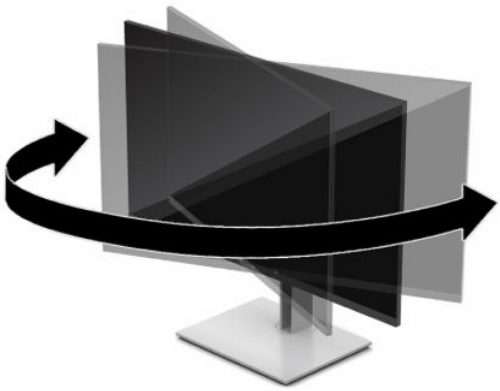
Adjusting the monitor

⚠ **WARNING!** To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation setup and proper posture, health, and work habits for computer users. The *Safety & Comfort Guide* also provides important electrical and mechanical safety information. The *Safety & Comfort Guide* is available on the Web at http://www.hp.com/ergo.

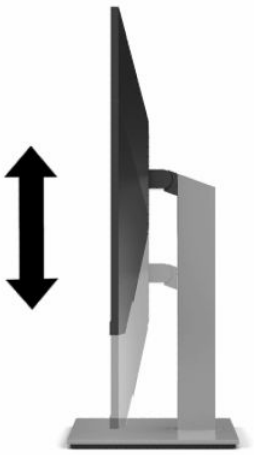
1. Tilt the monitor head forward or backward to set it to a comfortable eye level.



2. Swivel the monitor head to the left or right for the best viewing angle.



3. Adjust the monitor's height to a comfortable position for your individual workstation. The monitor's top bezel edge should not exceed a height that is parallel to your eye height. A monitor that is positioned low and reclined may be more comfortable for users with corrective lenses. The monitor should be repositioned as you adjust your working posture throughout the work day.

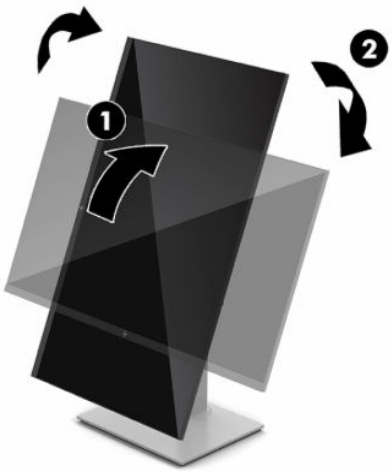


4. You can pivot the monitor head from landscape to portrait orientation viewing to adapt to your application.

   a. Adjust the monitor to full height position and tilt the monitor head back to full tilt position **(1)**.

   b. Pivot the monitor head clockwise or counterclockwise 90° from landscape to portrait orientation **(2)**.

IMPORTANT: If the monitor is not in full-height and full-tilt position when pivoting, the bottom right corner of the monitor head will come in contact with the base and potentially cause damage to the monitor.



NOTE: To view information on the screen in portrait mode, install the HP Display Assistant software included on the software and documentation optical disc or download from www.hp.com/support. The position of the OSD menu can also be rotated to portrait mode. To rotate the OSD menu, access the OSD menu by pressing the Menu button on the front bezel, select **Image Control** from the menu, and then select **OSD Rotation**.

Turning on the monitor

IMPORTANT: Burn-in image damage may occur on monitors that display the same static image on the screen for 12 or more consecutive hours. To avoid burn-in image damage, you should always activate a screen saver application or turn off the monitor when it will not be in use for a prolonged period of time. Image retention is a condition that may occur on all LCD screens. Burn-in damage on the monitor is not covered under the HP warranty.

NOTE: If pressing the power button has no effect, the Power Button Lockout feature may be enabled. To disable this feature, press and hold the monitor power button for 10 seconds.

NOTE: You can disable the power light in the OSD menu. Press the Menu button to open the OSD, and then select **Power**, select **Power LED**, and then select **Off**.

1. Press the power button on the computer to turn it on.
2. Press the power button on the bottom of the monitor to turn it on.

When the monitor is first turned on, a monitor status message displays for five seconds. The message shows which input is the current active signal, the status of the auto-switch source setting (On or Off; default setting is On), the current preset screen resolution, and the recommended preset screen resolution.

The monitor automatically scans the signal inputs for an active input and uses that input for the display.

Installing a security cable

You can secure the monitor to a fixed object with an optional security cable available from HP.

2 Using the monitor

Software and utilities

You can download and install the following files from http://www.hp.com/support:

- INF (Information) file
- ICM (Image Color Matching) files
- HP Display Assistant: Adjusts the monitor settings and enables theft deterrence features

To download the files:

1. Go to http://www.hp.com/support.
2. Select **Software and Drivers**.
3. Select your product type.
4. Enter your HP monitor model in the search field and follow the on-screen instructions.

The Information file

The INF file defines monitor resources used by Windows® operating systems to ensure monitor compatibility with the computer's graphics adapter.

This monitor is Microsoft Windows Plug and Play–compatible and the monitor will work correctly without installing the INF file. Monitor Plug and Play-compatibility requires that the computer's graphic card is VESA DDC2–compliant and that the monitor connects directly to the graphics card. Plug and Play does not work through separate BNC-type connectors or through distribution buffers/boxes.

The Image Color Matching file

The ICM files are data files that are used in conjunction with graphics programs to provide consistent color matching from monitor screen to printer, or from scanner to monitor screen. This file is activated from within graphics programs that support this feature.

NOTE: The ICM color profile is written in accordance with the International Color Consortium (ICC) Profile Format specification.

Using the OSD menu

Use the OSD menu to adjust the screen image based on your viewing preferences. You can access and make adjustments in the OSD menu using the buttons on the monitor's front bezel.

To access the OSD menu and make adjustments, do the following:

1. If the monitor is not already on, press the power button to turn on the monitor.
2. Press the Menu button.
3. Use the three function buttons to navigate, select, and adjust the menu choices. The on-screen button labels vary depending on which menu or submenu is active.

The following table lists menu selections in the OSD main menu.

Table 2-1 OSD main menu

Main Menu	Description
Brightness	Adjusts the brightness level of the screen. The factory default is 90.
Contrast	Adjusts the contrast level of the screen. The factory default is 80.
Color	Selects and adjusts the screen color.
Image	Adjusts the screen image.
Input	Selects the video input signal.
Power	Adjusts the power settings.
Menu	Adjusts the on-screen display (OSD) and function button controls.
Management	Adjusts the DDC/CI settings and returns all OSD menu settings to the factory default settings.
USB Host	Selects the USB host and selects the language in which the OSD menu is displayed. The factory default is English.
Information	Selects and displays important information about the monitor.
Exit	Exits the OSD menu screen.

Using the function buttons

Pressing one of the three function buttons activates the buttons and displays the icons above the buttons. The factory default button icons and functions are shown below.

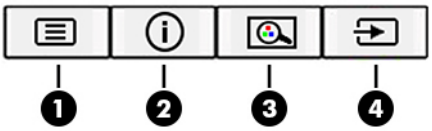


Table 2-2 Button names and functions

Button		Function
1	Menu button	Opens the OSD main menu, selects a menu item from the OSD, or closes the OSD menu.
2	Information/Auto Adjustment button (function button 3- assignable)	For digital input, opens the Information menu. For VGA input, activates the auto adjustment feature to optimize the screen image.
3	Viewing Modes button (function button 2 - assignable)	Opens the Viewing Modes menu where you can adjust the monitor screen to a comfortable viewing light or select a preset viewing mode.
4	Next Active Input button (function button 1 - assignable)	Switches the monitor's input source to the next active input.

Reassigning the function buttons

You can change the assignable function buttons from their default values so that when the buttons are activated you can quickly access commonly used menu items. You cannot reassign the Menu button.

To reassign the function buttons:

1. Press the Menu button to open the OSD menu.
2. Select **Menu**, select **Assign Buttons**, and then select one of the available options for the button you want to assign.

NOTE: To view an OSD menu simulator, visit the HP Customer Self Repair Services Media Library at http://www.hp.com/go/sml.

Adjusting blue light output (select products only)

Decreasing the blue light emitted by the monitor reduces the blue light exposure to your eyes. This monitor allows you to select a setting to reduce blue light output and create a more relaxing and less stimulating image while you read content on the screen.

To adjust the blue light output from the monitor:

1. Press one of the rear panel OSD buttons to activate the buttons, and then press the Menu button to open the OSD. Select **Color Control** and **Viewing Mode**.
2. Select your desired setting:

- **Low Blue Light**: (TUV certified) Reduces blue light for improved eye comfort.
- **Reading**: Optimizes blue light and brightness for indoor viewing.
- **Night**: Adjusts to the lowest blue light and reduces the impact on sleep.

3. Select **Save and Return** to save your setting and close the menu. Select **Cancel** if you do not want to save the setting.
4. In the Main menu, select **Exit**.

Using Auto-Sleep Mode

The monitor supports an on-screen display (OSD) menu option called Auto-Sleep Mode that allows you to enable or disable a reduced power state for the monitor. When Auto-Sleep Mode is enabled, the monitor enters a reduced power state when the host computer signals low power mode, absence of either horizontal or vertical sync signal. Auto-Sleep Mode is enabled by default.

Upon entering this reduced power state (sleep mode), the monitor screen is blanked, the backlight is turned off, and the power light indicator turns amber. The monitor draws less than 0.5 W of power when in this reduced power state. The monitor wakes from the sleep mode when the host device sends an active signal to the monitor (for example, if you activate the mouse or keyboard).

To disable Auto-Sleep Mode:

1. Press the Menu button to open the OSD.
2. In the OSD menu, select **Power Control**, select **Auto-Sleep Mode**, and then select **Off**.

Changing the Power Mode setting

When in sleep mode, to comply with international power standards, the monitor default setting is Power Saver mode. If your display supports Performance mode, then to keep the USB ports enabled even when the monitor is in Auto-Sleep Mode, change the Power Mode setting from Power Saver to Performance.

To change the Power Mode setting:

1. Press the Menu button to open the OSD menu.
2. Select **Power Control**, select **Power Mode**, and then select **Performance**.
3. Select **Save** and close the OSD.

3 Support and troubleshooting

Solving common issues

The following table lists possible issues, the possible cause of each issue, and the recommended solutions.

Table 3-1 Common issues and solutions

Issue	Possible Cause	Solution
Screen is blank or video is flashing.	Power cord is disconnected.	Connect the power cord.
	Monitor is turned off.	Press the front bezel power button. **NOTE:** If pressing the power button has no effect, press and hold the power button for 10 seconds to disable the Power Button Lockout feature.
	Video cable is improperly connected.	Connect the video cable properly. See Connecting the cables on page 8 for more information.
	System is in sleep mode.	Press any key on the keyboard or move the mouse to exit sleep mode.
	Video card is incompatible.	Open the OSD menu and select the **Input Control** menu. **Set Auto-Switch Input** to **Off** and manually select the input.
Image appears blurred, indistinct, or too dark.	Brightness is too low.	Open the OSD menu and select **Brightness** to adjust the brightness scale as needed.
Check Video Cable is displayed on screen.	Monitor video cable is disconnected.	Connect the appropriate video signal cable between the computer and monitor. Be sure that the computer power is off while you connect the video cable.
Input Signal Out of Range is displayed on screen.	Video resolution and/or refresh rate are set higher than what the monitor supports.	Change the settings to a supported setting. See Preset display resolutions on page 25 for more information.
The monitor is off but it did not seem to enter into sleep mode.	The monitor's power saving control is disabled.	Open the OSD menu and select **Power Control** > **Auto-Sleep Mode** and set auto-sleep to **On**.
OSD Lockout is displayed.	The monitor's OSD Lockout function is enabled.	Press and hold the Menu button on the front bezel for 10 seconds to disable the OSD Lockout function.
Power Button Lockout is displayed.	The monitor's Power Button Lockout function is enabled.	Press and hold the power button for 10 seconds to disable the Power Button Lockout function.

Button lockouts

Holding down the power button or Menu button for ten seconds will lock out the functionality of the buttons. You can restore the functionality by holding the buttons down again for ten seconds. This functionality is only available when the monitor is turned on, displaying an active signal, and the OSD is not open.

Contacting support

To resolve a hardware or software problem, go to http://www.hp.com/support. Use this site to get more information about your product, including links to discussion forums and instructions on troubleshooting. You can also find information on how to contact HP and open a support case.

NOTE: The monitor user guide, reference material, and drivers are available at http://www.hp.com/support.

Preparing to call technical support

If you cannot solve a problem using the troubleshooting tips in this section, you may need to call technical support. Have the following information available when you call:

- Monitor model number
- Monitor serial number
- Purchase date on invoice
- Conditions under which the problem occurred
- Error messages received
- Hardware configuration
- Name and version of the hardware and software you are using

Locating the serial number and product number

The serial number and product number are located on a label on the bottom of the monitor head. You may need these numbers when contacting HP about the monitor model.

NOTE: You may need to partially pivot the monitor head to read the label.

4 Maintaining the monitor

Maintenance guidelines

To enhance the performance and extend the life of the monitor:

- Do not open the monitor cabinet or attempt to service this product yourself. Adjust only those controls that are covered in the operating instructions. If the monitor is not operating properly or has been dropped or damaged, contact an authorized HP dealer, reseller, or service provider.
- Use only a power source and connection appropriate for this monitor, as indicated on the label/back plate of the monitor.
- Be sure that the total ampere rating of the products connected to the outlet does not exceed the current rating of the AC outlet and that the total ampere rating of the products connected to the cord does not exceed the rating of the cord. Look on the power label to determine the ampere rating (AMPS or A) for each device.
- Install the monitor near an outlet that you can easily reach. Disconnect the monitor by grasping the plug firmly and pulling it from the outlet. Never disconnect the monitor by pulling the cord.
- Turn the monitor off when it is not in use and use a screen saver program. Doing this can substantially increase the life expectancy of the monitor.

NOTE: A burned-in image on the monitor is not covered under the HP warranty.

- Never block the slots and openings of the cabinet or push objects into them. These openings provide ventilation.
- Do not drop the monitor or place it on an unstable surface.
- Do not allow anything to rest on the AC power cord. Do not walk on the cord.
- Keep the monitor in a well-ventilated area, away from excessive light, heat, or moisture.

Cleaning the monitor

1. Turn off the monitor and unplug the power cord from the AC outlet.
2. Disconnect any external devices.
3. Dust the monitor by wiping the screen and the cabinet with a soft, clean antistatic cloth.
4. For more difficult cleaning situations, use a 50/50 mix of water and isopropyl alcohol.

IMPORTANT: Do not use cleaners that contain any petroleum-based materials such as benzene, thinner, or any volatile substance to clean the monitor screen or cabinet. These chemicals may damage the monitor.

IMPORTANT: Spray the cleaner onto a cloth and use the damp cloth to gently wipe the screen surface. Never spray the cleaner directly on the screen surface. It may run behind the bezel and damage the electronics. The cloth should be moist, but not wet. Water dripping into the ventilation openings or other points of entry can cause damage to the monitor. Allow the monitor to air-dry before use.

Shipping the monitor

Keep the original packing box in a storage area. You may need it later if you ship the monitor or move.

A Technical specifications

NOTE: All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

For the latest specifications or additional specifications on this product, go to http://www.hp.com/go/quickspecs/ and search for your specific monitor model to find the model-specific QuickSpecs.

31.5 in/80 cm model specifications

Table A-1 31.5 in model specifications

Specification	Measurement	
Display, wide-screen	**80 cm**	31.5 inch
Type	VA	
Viewable image size	**80 cm diagonal**	31.5 inch diagonal
Maximum weight (unpacked)	**10.30 kg**	22.71 lbs
Dimensions (include base)		
Height (highest position)	**58.94 cm**	23.20 inches
Height (lowest position)	**43.94 cm**	17.30 inches
Depth	**24.02 cm**	9.46 inches
Width	**71.40 cm**	28.11 inches
Tilt	-5° to 20°	
Swivel	30° ± 2°	
Environmental requirements temperature		
Operating temperature	**5 to 35° C**	41 to 95° F
Storage temperature	**-20 to 60° C**	-4 to 140° F
Storage humidity		5% to 95%
Power source	100–240 VAC 50/60 Hz	
Input terminal	One HDMI port, one DisplayPort connector, and one USB Type-C DisplayPort connector	

Preset display resolutions

The display resolutions listed below are the most commonly used modes and are set as factory defaults. The monitor automatically recognizes these preset modes and they will appear properly sized and centered on the screen.

31.5 in/80 cm model

Table A-2 Preset display resolutions

Preset	Pixel format	Horz Freq (kHz)	Vert Freq (Hz)
1	640 × 480	31.469	59.940
2	720 × 400	31.469	70.087
3	800 × 600	37.879	60.317
4	1024 × 768	48.363	60.004
5	1280 × 720	45.000	60.000
6	1280 × 800	49.702	59.810
7	1280 × 1024	63.981	60.020
8	1440 × 900	55.935	59.887
9	1600 × 900	60.000	60.000
10	1600 × 1200	75.000	60.000
11	1680 × 1050	65.290	59.954
12	1920 × 1080	67.500	60.000
13	1920 × 1200	74.038	59.950
14	2560 × 1440	88.787	59.951

Table A-3 Preset timing resolutions

Preset	Timing name	Pixel format	Horz freq (kHz)	Vert freq (Hz)
1	480i	720 × 480	15.734	60
2	480p	720 × 480	31.469	60
3	576i	720 × 576	15.625	50
4	576p	720 × 576	31.250	50
5	720p50	1280 × 720	37.500	50
6	720p60	1280 × 720	45.000	60
7	1080i60	1920 × 1080	33.750	60
8	1080p60	1920 × 1080	67.500	60
9	1080i50	1920 × 1080	28.125	50
10	1080p50	1920 × 1080	56.250	50

Energy saver feature

The monitors support a reduced power state. The reduced power state will is initiated if the monitor detects the absence of either the horizontal sync signal or the vertical sync signal. Upon detecting the absence of these signals, the monitor screen is blanked, the backlight is turned off, and the power light turns amber. When the monitor is in the reduced power state, the monitor uses <0.5 watts of power. There is a brief warm-up period before the monitor will return to its normal operating state.

See the computer manual for instructions on setting energy saver features (sometimes called power management features).

NOTE: The above power saver feature only works when the monitor is connected to a computer that has energy saver features.

By selecting the settings in the monitor's Energy Saver utility, you can also program the monitor to enter into the reduced power state at a predetermined time. When the monitor's Energy Saver utility causes the monitor to enter the reduced power state, the power light blinks amber.

B Accessibility

Accessibility

HP is working to weave diversity, inclusion and work/life into the fabric of our company, so it is reflected in everything we do. Here are some examples of how we are putting differences to work to create an inclusive environment focused on connecting people to the power of technology throughout the world.

Finding the technology tools you need

Technology can unleash your human potential. Assistive technology removes barriers and helps you create independence at home, at work, and in the community. Assistive technology helps increase, maintain, and improve the functional capabilities of electronic and information technology. For more information, see Finding the best assistive technology on page 28.

Our commitment

HP is committed to providing products and services that are accessible for people with disabilities. This commitment supports our company's diversity objectives and helps us ensure that the benefits of technology are available to all.

Our accessibility goal is to design, produce, and market products and services that can be effectively used by everyone, including people with disabilities, either on a stand-alone basis or with appropriate assistive devices.

To achieve our goal, this Accessibility Policy establishes seven key objectives to guide our actions as a company. All HP managers and employees are expected to support these objectives and their implementation in accordance with their roles and responsibilities:

- Raise the level of awareness of accessibility issues within our company, and provide our employees with the training they need to design, produce, market, and deliver accessible products and services.
- Develop accessibility guidelines for products and services, and hold product development groups accountable for implementing these guidelines where competitively, technically, and economically feasible.
- Involve people with disabilities in the development of accessibility guidelines, and in the design and testing of products and services.
- Document accessibility features and make information about our products and services publicly available in an accessible form.
- Establish relationships with leading assistive technology and solution providers.
- Support internal and external research and development that will improve assistive technology relevant to our products and services.
- Support and contribute to industry standards and guidelines for accessibility.

International Association of Accessibility Professionals (IAAP)

IAAP is a not-for-profit association focused on advancing the accessibility profession through networking, education, and certification. The objective is to help accessibility professionals develop and advance their careers and to better enable organizations to integrate accessibility into their products and infrastructure.

HP is a founding member, and we joined to participate with other organizations to advance the field of accessibility. This commitment supports our company's accessibility goal of designing, producing, and marketing products and services that can be effectively used by people with disabilities.

IAAP will make our profession strong by globally connecting individuals, students, and organizations to learn from one another. If you are interested in learning more, go to http://www.accessibilityassociation.org to join the online community, sign up for newsletters, and learn about membership options.

Finding the best assistive technology

Everyone, including people with disabilities or age-related limitations, should be able to communicate, express themselves, and connect with the world using technology. HP is committed to increasing accessibility awareness within HP and with our customers and partners. Whether it's large fonts that are easy on the eyes, voice recognition that lets you give your hands a rest, or any other assistive technology to help with your specific situation—a variety of assistive technologies make HP products easier to use. How do you choose?

Assessing your needs

Technology can unleash your potential. Assistive technology removes barriers and helps you create independence at home, at work, and in the community. Assistive technology (AT) helps increase, maintain, and improve the functional capabilities of electronic and information technology.

You may choose from many AT products. Your AT assessment should allow you to evaluate several products, answer your questions, and facilitate your selection of the best solution for your situation. You will find that professionals qualified to do AT assessments come from many fields, including those licensed or certified in physical therapy, occupational therapy, speech/language pathology, and other areas of expertise. Others, while not certified or licensed, may also provide evaluation information. You will want to ask about the individual's experience, expertise, and fees to determine if they are appropriate for your needs.

Accessibility for HP products

The following links provide information about accessibility features and assistive technology, if applicable, included in various HP products. These resources will help you select the specific assistive technology features and product(s) most appropriate for your situation.

- HP Elite x3–Accessibility Options (Windows 10 Mobile)
- HP PCs–Windows 7 Accessibility Options
- HP PCs–Windows 8 Accessibility Options
- HP PC's–Windows 10 Accessibility Options
- HP Slate 7 Tablets–Enabling Accessibility Features on Your HP Tablet (Android 4.1/Jelly Bean)
- HP SlateBook PCs–Enabling Accessibility Features (Android 4.3,4.2/Jelly Bean)
- HP Chromebook PCs–Enabling Accessibility Features on Your HP Chromebook or Chromebox (Chrome OS)
- HP Shopping–peripherals for HP products

If you need additional support with the accessibility features on your HP product, see Contacting support on page 33.

Additional links to external partners and suppliers that may provide additional assistance:

- Microsoft Accessibility information (Windows 7, Windows 8, Windows 10, Microsoft Office)
- Google Products accessibility information (Android, Chrome, Google Apps)

- Assistive Technologies sorted by impairment type
- Assistive Technologies sorted by product type
- Assistive Technology vendors with product descriptions
- Assistive Technology Industry Association (ATIA)

Standards and legislation

Standards

Section 508 of the Federal Acquisition Regulation (FAR) standards was created by the US Access Board to address access to information and communication technology (ICT) for people with physical, sensory, or cognitive disabilities. The standards contain technical criteria specific to various types of technologies, as well as performance-based requirements which focus on functional capabilities of covered products. Specific criteria cover software applications and operating systems, web-based information and applications, computers, telecommunications products, video and multi-media, and self-contained closed products.

Mandate 376 – EN 301 549

The EN 301 549 standard was created by the European Union within Mandate 376 as the basis for an online toolkit for public procurement of ICT products. The standard specifies the functional accessibility requirements applicable to ICT products and services, together with a description of the test procedures and evaluation methodology for each accessibility requirement.

Web Content Accessibility Guidelines (WCAG)

Web Content Accessibility Guidelines (WCAG) from the W3C's Web Accessibility Initiative (WAI) helps web designers and developers create sites that better meet the needs of people with disabilities or age-related limitations. WCAG advances accessibility across the full range of web content (text, images, audio, and video) and web applications. WCAG can be precisely tested, is easy to understand and use, and allows web developers flexibility for innovation. WCAG 2.0 has also been approved as ISO/IEC 40500:2012.

WCAG specifically addresses barriers to accessing the web experienced by people with visual, auditory, physical, cognitive, and neurological disabilities, and by older web users with accessibility needs. WCAG 2.0 provides characteristics of accessible content:

- **Perceivable** (for instance, by addressing text alternatives for images, captions for audio, adaptability of presentation, and color contrast)
- **Operable** (by addressing keyboard access, color contrast, timing of input, seizure avoidance, and navigability)
- **Understandable** (by addressing readability, predictability, and input assistance)
- **Robust** (for instance, by addressing compatibility with assistive technologies)

Legislation and regulations

Accessibility of IT and information has become an area of increasing legislative importance. This section provides links to information about key legislation, regulations, and standards.

- United States
- Canada
- Europe

- United Kingdom
- Australia
- Worldwide

United States

Section 508 of the Rehabilitation Act specifies that agencies must identify which standards apply to the procurement of ICT, perform market research to determine the availability of accessible products and services, and document the results of their market research. The following resources provide assistance in meeting Section 508 requirements:

- www.section508.gov
- Buy Accessible

The U.S. Access Board is currently updating the Section 508 standards. This effort will address new technologies and other areas where the standards need to be modified. For more information, go to Section 508 Refresh.

Section 255 of the Telecommunications Act requires telecommunications products and services to be accessible to people with disabilities. FCC rules cover all hardware and software telephone network equipment and telecommunications equipment used in the home or office. Such equipment includes telephones, wireless handsets, fax machines, answering machines, and pagers. FCC rules also cover basic and special telecommunications services, including regular telephone calls, call waiting, speed dialing, call forwarding, computer-provided directory assistance, call monitoring, caller identification, call tracing, and repeat dialing, as well as voice mail and interactive voice response systems that provide callers with menus of choices. For more information, go to Federal Communication Commission Section 255 information.

21st Century Communications and Video Accessibility Act (CVAA)

The CVAA updates federal communications law to increase the access of persons with disabilities to modern communications, updating accessibility laws enacted in the 1980s and 1990s to include new digital, broadband, and mobile innovations. Regulations are enforced by the FCC and documented as 47 CFR Part 14 and Part 79.

- FCC Guide on the CVAA

Other U.S. legislation and initiatives

- Americans with Disabilities Act (ADA), Telecommunications Act, the Rehabilitation Act and others

Canada

The Accessibility for Ontarians with Disabilities Act was established to develop and implement accessibility standards to make goods, services, and facilities accessible to Ontarians with disabilities and to provide for the involvement of persons with disabilities in the development of the accessibility standards. The first standard of the AODA is the customer service standard; however, standards for transportation, employment, and information and communication are also being developed. The AODA applies to the Government of Ontario, the Legislative Assembly, every designated public sector organization, and to every other person or organization that provides goods, services, or facilities to the public or other third parties and that has at least one employee in Ontario; and accessibility measures must be implemented on or before January 1, 2025. For more information, go to Accessibility for Ontarians with Disability Act (AODA) .

Europe

EU Mandate 376 ETSI Technical Report ETSI DTR 102 612: "Human Factors (HF); European accessibility requirements for public procurement of products and services in the ICT domain (European Commission Mandate M 376, Phase 1)" has been released.

Background: The three European Standardization Organizations have set up two parallel project teams to carry out the work specified in the European Commission "Mandate 376 to CEN, CENELEC and ETSI, in Support of Accessibility Requirements for Public Procurement of Products and Services in the ICT Domain".

ETSI TC Human Factors Specialist Task Force 333 has developed ETSI DTR 102 612. Further details about the work performed by STF333 (e.g., Terms of Reference, specification of the detailed work tasks, time plan for the work, previous drafts, listing of comments received and means to contact the task force) can be found at the Special Task Force 333.

The parts relating to the assessment of suitable testing and conformity schemes were carried out by a parallel project, detailed in CEN BT/WG185/PT. For further information, go to the CEN project team website. The two projects are closely coordinated.

- CEN project team
- European Commission mandate for e-accessibility (PDF 46KB)

United Kingdom

The Disability Discrimination Act of 1995 (DDA) was enacted to ensure that websites are accessible to blind and disabled users in the United Kingdom.

- W3C UK Policies

Australia

The Australian government has announced their plan to implement Web Content Accessibility Guidelines 2.0.

All Australian government websites will require Level A compliance by 2012, and Double A by 2015. The new standard replaces WCAG 1.0, which was introduced as a mandated requirement for agencies in 2000.

Worldwide

- JTC1 Special Working Group on Accessibility (SWG-A)
- G3ict: The Global Initiative for Inclusive ICT
- Italian accessibility legislation
- W3C Web Accessibility Initiative (WAI)

Useful accessibility resources and links

The following organizations may be good resources for information about disabilities and age-related limitations.

NOTE: This is not an exhaustive list. These organizations are provided for informational purposes only. HP assumes no responsibility for information or contacts you may encounter on the Internet. Listing on this page does not imply endorsement by HP.

Organizations

- American Association of People with Disabilities (AAPD)
- The Association of Assistive Technology Act Programs (ATAP)
- Hearing Loss Association of America (HLAA)
- Information Technology Technical Assistance and Training Center (ITTATC)
- Lighthouse International
- National Association of the Deaf
- National Federation of the Blind
- Rehabilitation Engineering & Assistive Technology Society of North America (RESNA)
- Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI)
- W3C Web Accessibility Initiative (WAI)

Educational institutions

- California State University, Northridge, Center on Disabilities (CSUN)
- University of Wisconsin - Madison, Trace Center
- University of Minnesota computer accommodations program

Other disability resources

- ADA (Americans with Disabilities Act) Technical Assistance Program
- Business & Disability network
- EnableMart
- European Disability Forum
- Job Accommodation Network
- Microsoft Enable
- U.S. Department of Justice - A Guide to disability rights Laws

HP links

Our contact webform

HP comfort and safety guide

HP public sector sales

Contacting support

NOTE: Support is in English only.

- Customers who are deaf or hard of hearing that have questions about technical support or accessibility of HP products:
  - Use TRS/VRS/WebCapTel to call (877) 656-7058 Monday through Friday, 6 a.m. to 9 p.m. Mountain Time.
- Customers with other disabilities or age-related limitations who have questions about technical support or accessibility of HP products, choose one of the following options:
  - Call (888) 259-5707 Monday through Friday, 6 a.m. to 9 p.m. Mountain Time.
  - Complete the Contact form for people with disabilities or age-related limitations.