



User Guide

SUMMARY

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

Legal information

© Copyright 2020 HP Development Company, L.P.

AMD is a trademark of Advanced Micro Devices, Inc. macOS is a trademark of Apple Computer, Inc., registered in the U.S. and other countries. Bluetooth is a trademark owned by its proprietor and used by HP Inc. under license. HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC. Intel, Celeron, Pentium, and Thunderbolt are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries. NVIDIA, the NVIDIA logo, and G-SYNC are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. Windows is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries. USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum. The microSD logo and microSD are trademarks of SD-3C LLC. DisplayPort™, the DisplayPort™ logo, and VESA® are trademarks or registered trademarks owned by the Video Electronics Standards Association (VESA) in the United States and 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 **Manuals**.






Second Edition: June 2020

First Edition: January 2020

Document part number: L87642-xx2

About this guide

This guide provides technical specifications and information about monitor features, setting up the monitor, and using the software. Depending on the model, your monitor may not have all the features included in this guide.

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



This product incorporates HDMI technology.

Table of contents

1 Getting started	1
Important safety information	1
Product features and components	1
Features	2
Rear components	2
2 Setting up the monitor	5
Installing the stand	5
Mounting the monitor head	6
Removing the monitor stand	6
Attaching the VESA mounting bracket	6
Connecting the cables	8
Connecting USB devices (select products only)	11
Adjusting the monitor (select products only)	11
Installing a security cable	12
Storing headphones	13
Turning on the monitor	13
3 Using the monitor	15
Downloading the monitor driver	15
Using the OSD menu	15
Display mode	16
Using Auto-Sleep Mode	16
Using the Sleep Timer	17
Using the Power-Off Timer	17
Using External Lighting	17
Selecting a faster response time for gaming	18
Adjusting blue light output	19
Using HP Enhance+	19
Using RGB Gain Control	19
Viewing the Frame Rate	19
Using Message Timers	20
Using the Crosshair feature	21
Using Multi-Monitor Align	22
Support and troubleshooting	22
Solving common issues	22

Button lockouts.....	23
Contacting support	23
Preparing to call technical support	23
Locating the serial number and product number	24
4 Maintaining the monitor	25
Maintenance guidelines	25
Cleaning the monitor	25
Shipping the monitor	26
Appendix A Technical specifications.....	27
68.47 cm (27 in) model specifications	27
Preset display resolutions	28
80 cm (31.5 in) model	28
Preset display resolutions	29
Entering user modes.....	30
Power supply specification	30
Energy saver feature	30
Appendix B Accessibility	31
HP and accessibility	31
Finding the technology tools you need	31
The HP commitment	31
International Association of Accessibility Professionals (IAAP)	32
Finding the best assistive technology	32
Assessing your needs	32
Accessibility for HP products	32
Standards and legislation.....	33
Standards	33
Mandate 376 – EN 301 549.....	33
Web Content Accessibility Guidelines (WCAG)	33
Legislation and regulations	34
Useful accessibility resources and links	34
Organizations.....	34
Educational institutions.....	35
Other disability resources.....	35
HP links	35
Contacting support	35

1 Getting started

Read this chapter to learn about safety information and where to find additional HP resources.

Important safety information


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

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


- Plug the power cord into an AC outlet that is easily accessible at all times.
- If the power cord has a three-pin attachment plug, plug the cord into a grounded (earthed) three-pin outlet.
- Disconnect power from the computer by unplugging the power cord from the AC outlet. When unplugging the power cord from the AC outlet, grasp the cord by the plug.


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 that 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 could 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 might cause disturbing reflections from the screen.

Product features and components

Your monitor has top-rated features. This section provides details about your components, where they are located, and how they work.

Features

This product is an In-Plane Switching (IPS) monitor that produces rich on-screen colors and creates better viewing angles. This IPS monitor is paired with a 165 Hz refresh rate for a faster response time of 1 ms, complete with good picture quality.

The product supports FreeSync™, an Adaptive-Sync technology, and is compatible with G-SYNC™. It is designed to reduce stuttering and tearing in games and videos by locking the monitor's refresh rate to the frame rate of the graphics card. Check with your graphics card manufacturer for compatibility with monitors enabled with FreeSync.



NOTE: All specifications referenced are typical and provided by HP's component manufacturers. Actual performance might vary either higher or lower. The native response time is 5 ms, 1 ms is the overdrive response time. Adaptive refresh rates vary by display.

The monitor includes the following features:

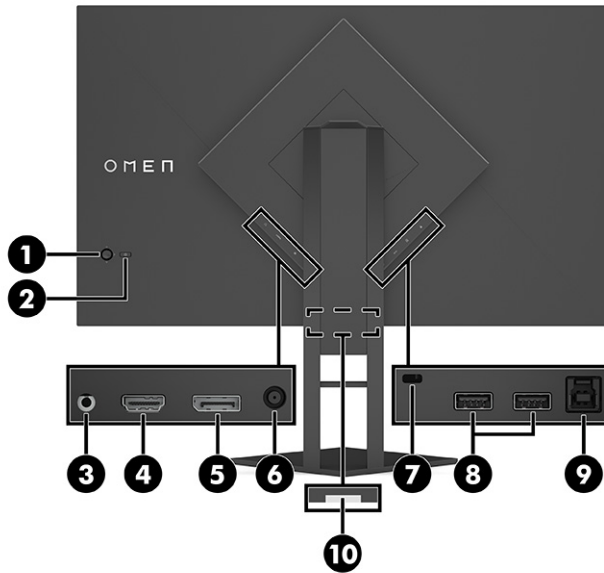
- 68.47 cm (27 inch) diagonal viewable area with 2560 × 1440 QHD resolution
- One DisplayPort 1.2 video input
- One High-Definition Multimedia Interface (HDMI) 2.0 video input
- Two USB 3.0 downstream ports
- One USB Type-B upstream port
- High-bandwidth Digital Content Protection (HDCP) used on all inputs
- Audio-out (headphone) jack
- HDMI, DisplayPort, and USB Type-A-to-USB Type-B cables included
- Plug and Play capability if supported by your operating system
- On-screen display (OSD) adjustments in 10 languages for easy setup and screen optimization
- Frames-per-second indicator displayed on the monitor screen, adjustable using the OSD menu
- Message timer displayed on the monitor screen, adjustable using the OSD menu
- Gaming crosshair displayed on the monitor screen, adjustable using the OSD menu
- Security cable slot on the rear of the monitor for an optional security cable
- User-configurable external lighting with full-range LEDs
- Convenient headphone storage hook on monitor stand
- VESA® mounting capability (100 × 100 mm) for attaching the display to a swing arm mount



NOTE: For safety and regulatory information, see 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 **Manuals**.

Rear components

To identify the components on the rear of the monitor, use this illustration and table.



⚠ CAUTION: To reduce the risk of personal injury, adjust the source device volume before using headphones, earbuds, or a headset. For additional safety information, see the *Product Notices* provided in your documentation kit.

Table 1-1 Rear components and their descriptions

Component	Description
(1) OSD joystick	Opens the OSD menu, selects an item from the menu, or closes the OSD menu.
(2) Power button	Turns the monitor off and on.
(3) Audio-out (headphones) jack	Connects optional headphones.
(4) HDMI port	Connects an HDMI cable to a source device such as a computer or game console.
(5) DisplayPort connector	Connects a DisplayPort cable to a source device such as a computer or game console.
(6) Power connector	Connects an AC adapter.
(7) Security cable slot	Connects an optional security cable.
(8) USB SuperSpeed ports (downstream) (2)	Connect USB cables to a peripheral device, such as a keyboard, mouse, or USB hard drive.
(9) USB Type-B port (upstream)	Connects a USB hub cable to a source device such as a computer or game console.
(10) Serial number label	Identifies the serial label location.

2 Setting up the monitor

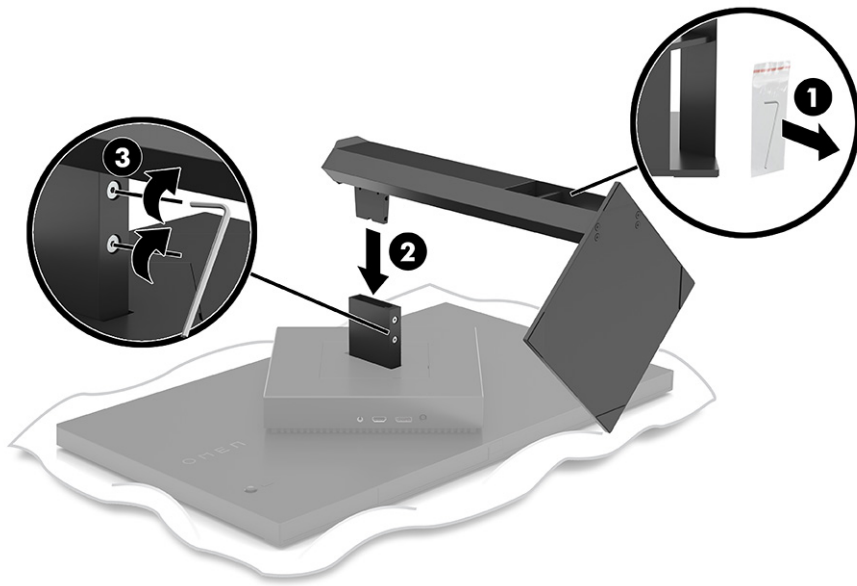
It is important to set up the monitor correctly in order to avoid serious injury or damage to the monitor.

- ⚠ 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 can 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 to 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 stand

Correctly attaching your monitor stand is critical for safe use. This section describes how to safely attach a stand.

1. Position the monitor facedown on a flat surface covered by a soft clean cloth.
2. Remove the bag containing the allen tool from the back of the monitor stand (1). Slide the hinge on the stand into the hinge slot on the back of the monitor head and push down to secure it (2). There will be an audible click when the stand is properly seated onto the hinge. Use the allen tool to tighten the two screws on the underside of the monitor's hinge slot (3). Be sure that the stand is properly secured to the monitor head before use.



Mounting the monitor head

The monitor head can be attached to a swing arm or the stand.

IMPORTANT: This monitor supports the VESA® industry-standard 100 mm mounting holes. To attach a third-party mounting solution to the monitor head, use four 4 mm, 0.7 pitch, and 10 mm long screws. Longer screws might damage the monitor. Be sure 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, use the power and video cables provided with the monitor.

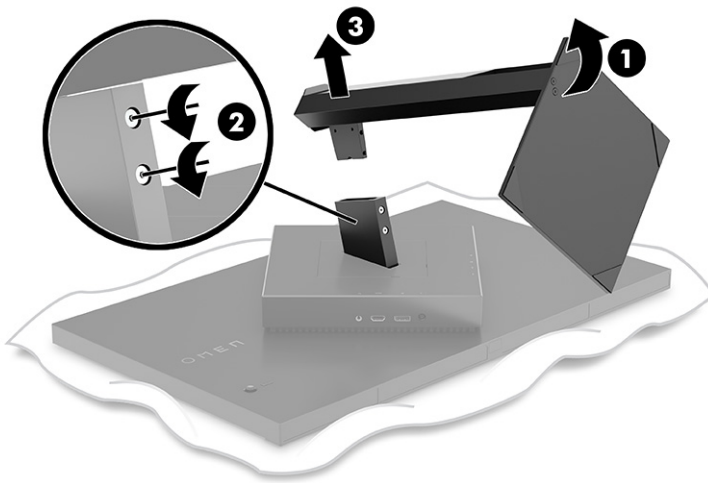
NOTE: This apparatus is intended to be supported by a UL-listed or CSA-listed wall-mount bracket.

Removing the monitor stand

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

IMPORTANT: Before beginning to disassemble 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 clean, dry cloth.
3. Tilt the bottom of the monitor stand upward (1), use the allen tool to loosen the two screws on the underside of the monitor's hinge (2), and then slide the stand off the monitor head (3).



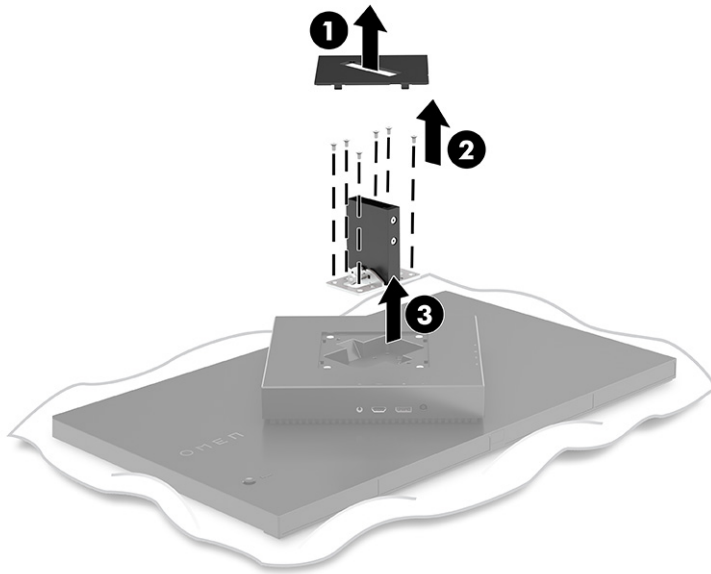
Attaching the VESA mounting bracket

This display is compatible with most VESA mounting arms and mounts (sold separately). The VESA mount should support a 100 x 100x mm VESA mounting standard and should be able to rotate at least 45°.

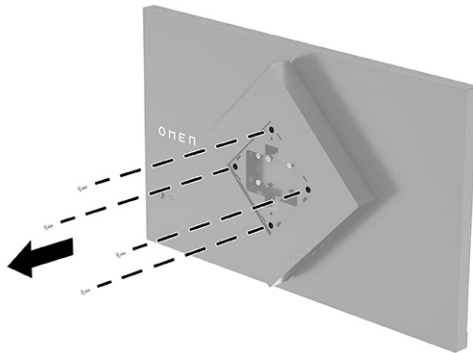
NOTE: The swing arm for this monitor must include a VESA mounting adapter with a rotation function to accommodate the landscape design of the monitor.

1. Remove the monitor stand if it is attached. See [Removing the monitor stand on page 6](#)

2. Use a flathead screwdriver to pry open the VESA cover on the back of the monitor, and remove the VESA cover (1).
3. Use a screwdriver to remove the six screws that hold the hinge in place (2), and then remove the hinge (3).

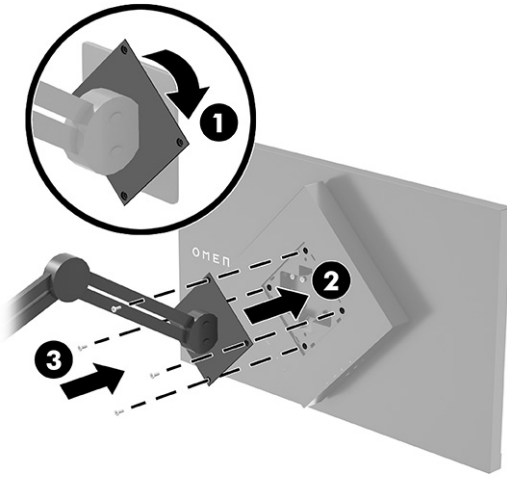


4. Remove the four VESA screws from the back of the monitor and use them to attach the mounting device as indicated in the following step 6.



5. On the swing arm, rotate the VESA bracket to 45° to line up with the screw holes on the back of the monitor (1) before attaching the bracket to the monitor.

6. With the VESA bracket rotated to 45°, insert the VESA bracket into the slot on the back of the monitor head (2). Then secure the bracket to the monitor head and tighten them (3). Be sure that the bracket is properly secured to the monitor head before use.



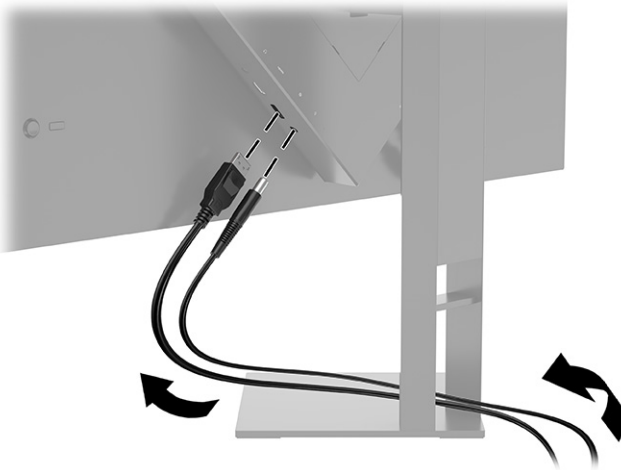
Connecting the cables

In addition to details about how to connect a cable, this section contains information about how your monitor functions when you connect certain cables.



NOTE: The monitor ships with select cables.

1. Place the monitor in a convenient, well-ventilated location near the computer or source device.
2. Before connecting the cables, route the cables through the cable management guide on the rear of the monitor.

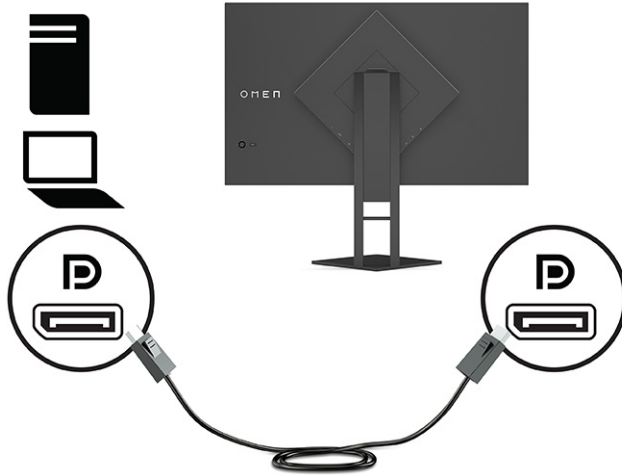


3. Connect a video cable.

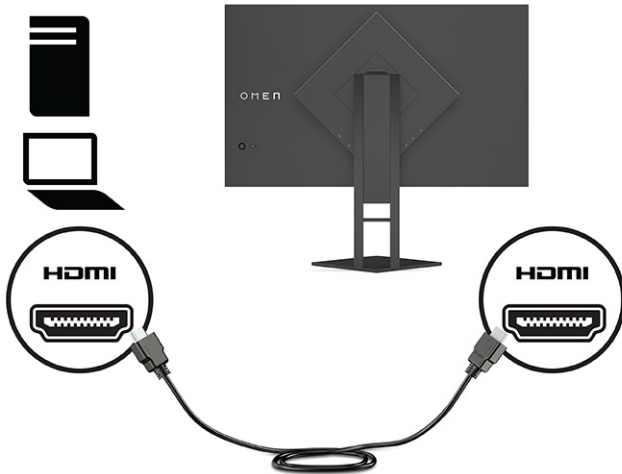


NOTE: The monitor automatically determines which inputs have valid video signals. You can also select inputs by pressing the **Menu** button and selecting **Input**. DisplayPort is the preferred connection type for optimal performance.

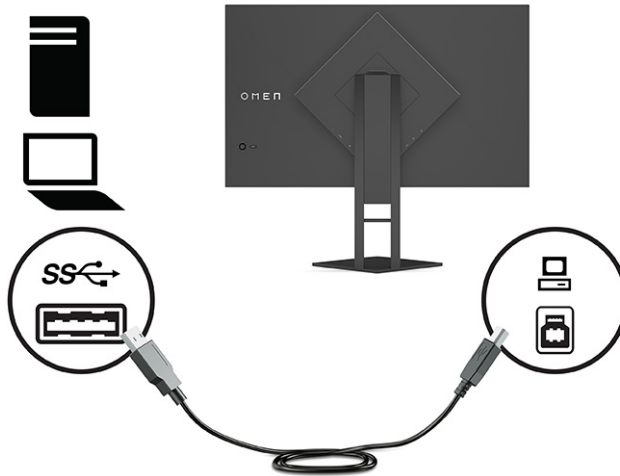
- Connect one end of a DisplayPort cable to the DisplayPort connector on the rear of the monitor and the other end to the DisplayPort connector on the source device.




- 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.



4. Connect the Type-B connector on the USB upstream cable to the USB Type-B upstream port on the rear of the monitor. Then connect the cable's Type-A connector to the USB Type-A downstream port on the source device.



 **NOTE:** You must connect the USB Type-B upstream cable from the source device (computer, laptop, gaming console) to the rear of the monitor to enable the USB Type-A downstream ports on the monitor. For more information, see [Connecting USB devices \(select products only\) on page 11](#).

5. Connect one end of the power cord to the AC adapter **(1)** and the other end to a grounded AC outlet **(2)**. Then connect the AC adapter to the power connector on the monitor **(3)**.

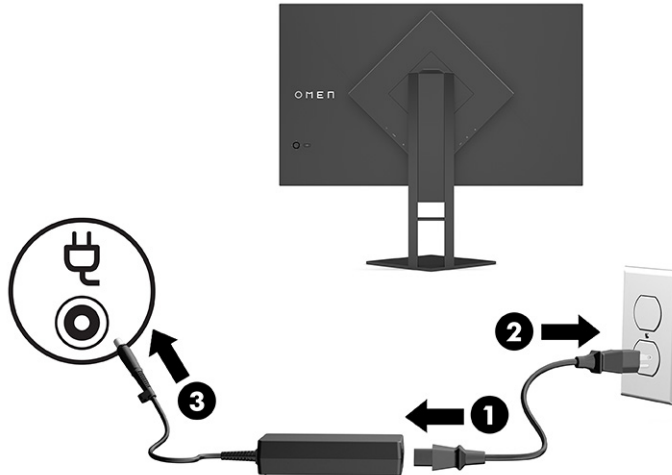
 **WARNING!** To reduce the risk of electric shock or damage to the equipment:

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 can 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.

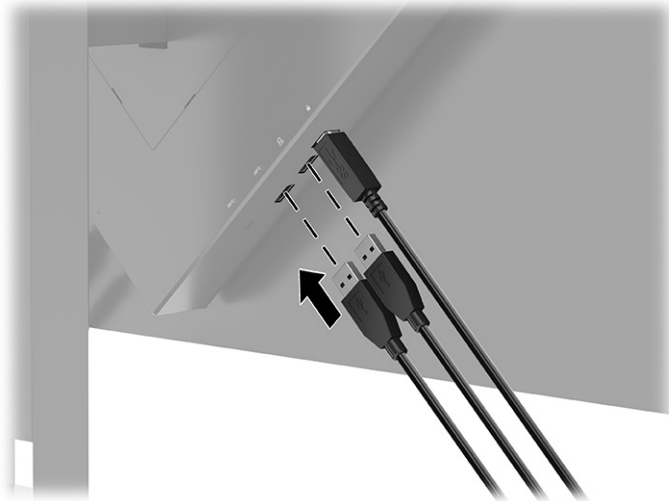


Connecting USB devices (select products only)

The rear of the monitor provides one USB Type-B upstream port and two USB Type-A downstream ports.



NOTE: You must connect the USB Type-B upstream cable from the source device to the monitor to enable the USB Type-A downstream ports on the monitor.



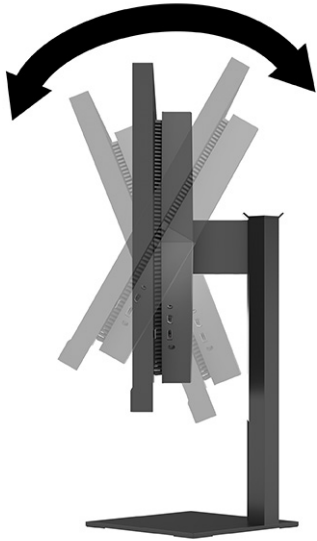
Adjusting the monitor (select products only)

To support an ergonomic work space, your monitor offers the adjustment options outlined in this section.

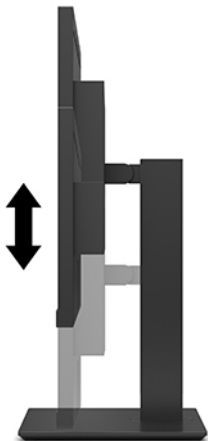


WARNING! To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation setup and proper posture, health, and work habits for computer users. The *Safety & Comfort Guide* also provides important electrical and mechanical safety information. The *Safety & Comfort 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.

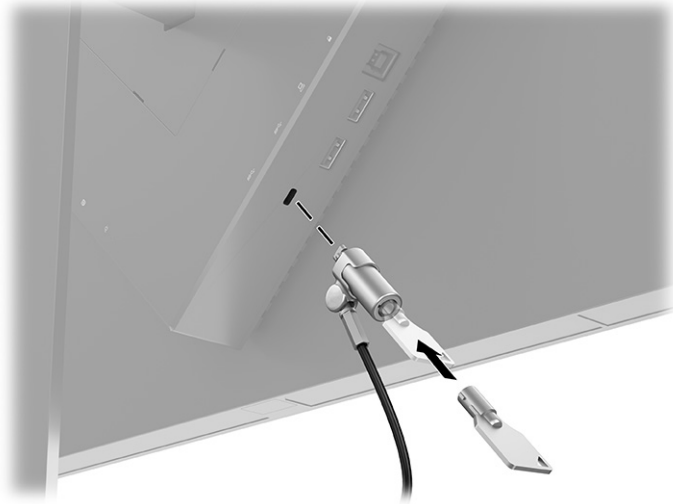


2. Adjust the monitor's height to a comfortable position for your individual workstation. The monitor's top bezel edge should not exceed a height that is parallel to your eye height. A monitor that is positioned low and reclined might be more comfortable for users with corrective lenses. Reposition your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



Installing a security cable

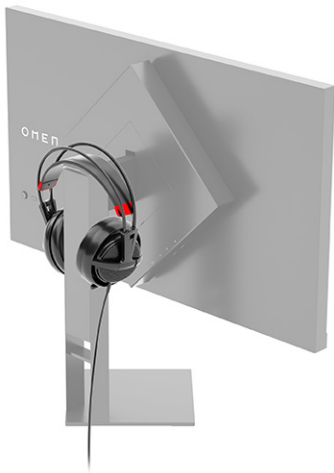
You can secure the monitor to a fixed object with an optional security cable available from HP. Use the key provided to attach and remove the lock.



Storing headphones


You can store your headphones on the monitor.


The monitor features a headphone hook at the top of the stand for convenient headphone storage.




Turning on the monitor

This section provides important information about preventing damage to your monitor, startup indicators, and troubleshooting information.

 **IMPORTANT:** Burn-in image damage might occur on monitors that display the same static image on the screen for 12 or more 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 might 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 might be enabled. To disable this feature, press and hold the monitor power button for 10 seconds.

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

- ▲ Press the power button on the monitor to turn it on.



When you first turn on your monitor, a monitor status message is displayed for 5 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 display resolution, and the recommended preset display resolution.

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

3 Using the monitor

This chapter describes how to use your monitor and its features.

Downloading the monitor driver

You can download and install the monitor INF (Information) driver.

This monitor is 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 graphics 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 or boxes.

- INF (Information) file
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.

Using the OSD menu

You can adjust your HP monitor to suit your tastes. Use the OSD menu to customize the viewing features of your monitor.

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

To access the OSD menu and make adjustments:

1. If the monitor is not already on, press the power button to turn on the monitor.
2. To access the OSD menu, press the center of the OSD joystick on the rear panel.
3. Move the joystick up, down, left, or right to navigate menu choices. Press the center of the joystick to make a selection.

The following table lists possible menu selections in the OSD main menu. It includes descriptions for each setting and its impacts on your monitor's appearance or performance.

Table 3-1 OSD menu options and descriptions for using a button or a controller (select products only)

Main menu	Description
Gaming	Button or controller—Selects and adjusts gaming preferences, such as Adaptive-Sync, response time, frame rate, message timers, crosshair, ambient lighting, and multiple-monitor alignment.
Brightness	Button—Adjusts the brightness level of the screen. The factory default is 90.
Contrast	Button—Adjusts the contrast level of the screen. The factory default is 80.

Table 3-1 OSD menu options and descriptions for using a button or a controller (select products only) (continued)

Main menu	Description
Color	Button—Selects and adjusts the screen color.
	Controller—Provides a variety of color presets that configure the monitor for different viewing situations.
Input	Selects the video input signal (DisplayPort or HDMI).
Image	Button—Adjusts the screen image.
	Controller—Adjusts the screen image, including brightness, contrast, dynamic contrast, gamma, sharpness, and image scaling.
Power	Adjusts the power settings.
Menu	Adjusts the on-screen display (OSD) menu and function button controls.
Management	Button—Adjusts the DDC/CI settings, selects the language in which the OSD menu is displayed (the factory default is English), and returns all OSD menu settings to the factory default settings.
	Controller—Returns all OSD menu settings to the factory default settings.
Information	Displays important information about the monitor.
Exit	Exits the OSD menu screen.

Display mode

When you turn on the monitor, the status message shows the display mode. The display mode is also displayed when you change the video input.

The display mode of the monitor is reported in the monitor status message that appears when the monitor is turned on and when the video input is changed. The current display mode shows in the **Information** menu window and at the bottom of the OSD's main menu in the status bar area. Modes of operation are **Normal** and **Adaptive-Sync or FreeSync**.

To turn on the Adaptive-Sync mode or the FreeSync mode:

1. Press the center of the OSD controller to open the OSD menu.
2. In the OSD, select **Gaming**.
3. Select **Adaptive-Sync**, and then select **On**.



NOTE: The default setting for Adaptive-Sync/FreeSync is On.

Using Auto-Sleep Mode

Your monitor has an energy-saving called Auto-Sleep Mode, a reduced power state. This section describes how to activate or adjust Auto-Sleep Mode on your monitor.

The monitor supports an 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 (enabled by default), the monitor enters a reduced power state when the computer signals low power mode (absence of either horizontal or vertical sync signal).

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

To disable Auto-Sleep Mode in the OSD:

1. Press the center of the OSD joystick to open the OSD menu.
2. In the OSD, select **Power**.
3. Select **Auto-Sleep Mode**, and then select **Off**.

Using the Sleep Timer

The Sleep Timer lets you set when the monitor enters the sleep state.

You can use the Sleep Timer menu to program the monitor to enter and exit the reduced power or sleep state at predetermined user-selectable times. For example, you can set the monitor to automatically enter sleep mode at 5 p.m and then automatically wake from sleep mode at 8 a.m. When the monitor is in sleep mode, the power light blinks amber.

The Sleep Timer is disabled if the Power-Off Timer is active.

To use the Sleep Timer:

1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Power**.
3. Select a **Sleep Timer**, and then select **On**.
4. Set the times you want the monitor to enter into sleep mode and wake from sleep mode.

Using the Power-Off Timer

The Power-Off Timer feature lets you program when your monitor turns off or on.

The Power-Off Timer is disabled if Sleep Timer is active.

You use the Power-Off Timer menu to program the monitor to automatically turn off at a predetermined user-selectable time. For example, you can manually turn on the monitor in the morning and configure the Power-Off Timer to automatically turn off the monitor at 6 p.m. in the evening.

To turn on the Power-Off Timer:

1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Power**.
3. Select **Power-Off Timer**, and then select **On**.
4. Set the time you want the monitor to turn off.

Using External Lighting

The External Lighting feature enhances the gaming experience by illuminating a desktop or wall.

The monitor features External Lighting to illuminate a desktop or wall and enhance the gaming experience. You can adjust the color and brightness of the external light or turn it off in the OSD menu or OMEN Command Center. There are two independent control zones for External Lighting: Ambient lighting which controls the lighting located on the back of the monitor that projects on the wall and Bottom lighting that controls the lighting located at the monitor base that projects onto the desk.

To adjust the external lighting:

1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Gaming**, and then select **External Lighting**.
3. Select a setting for Ambient lighting or Bottom lighting:

Ambient Lighting (projects on the wall) and **Bottom Lighting** (projects on the desk):

- **Off:** Turns off the external lighting.
- **Task Light:** Full white and bright setting to emulate an adjustable white desk light for better reading or viewing.
- **Color Cycle:** Slowly fades between all static color presets.
- **Breathing:** Slowly fades on and off. Speed has three settings Slow, Medium, and Fast. Color is decided by the color selected in the static color menu.
- **Color Cycle:** Slowly fades between all static color presets.
- **Static Color:** Sets external lighting colors to Red, Green, Blue, Yellow, Purple, Cyan, Orange, or custom.
- **LED Brightness:** Adjusts the external LED brightness.
- **Apply to all zones:** Applies settings for this zone to all other external lighting zones on the monitor.
- **Copy Ambient Zone** Sets the lighting setting for this zone to match setting set in Ambient zone menu.
- **Off:** Turns off external bottom lighting.

Selecting a faster response time for gaming

This feature allows you to select a faster response time for gaming.

The default response time setting is optimized for gaming purposes. All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance can vary either higher or lower.

To set a faster response time:

1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Gaming**, and then select **Response Time**.
3. Cycle through the adjustment levels to increase or decrease response time.

Adjusting blue light output

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 your monitor to a comfortable viewing light:

1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Color**.
3. Select **Low Blue Light** (TÜV certified) for improved eye comfort.

Using HP Enhance+

The HP Enhance+ feature lets you enhance the appearance of both static images and motion video.

The HP Enhance+ color submenu adds an additional level of detail (sharpness and contrast) to static images and motion video to enhance their appearance. The three user-selectable options are Low, Medium, and High. The default is Medium.

To turn on HP Enhance+:

1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Color**, and then select **HP Enhance+**.
3. Select either **Low**, **Medium** or **High**.

Using RGB Gain Control

The RGB Gain Control lets you adjust color temperature.

Exiting the menu automatically saves the RGB color settings.

The RGB Gain Control can be used to manually adjust the color temperature of select color presets, making certain color presets adjustable user modes. Adjustments are stored separately for each color preset.

To adjust the color temperature:

1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Color**.
3. Select a **RGB Gain Control**.
4. Select either **Red Color ADJ SCALE GRAPHIC**, **Green Color ADJ SCALE GRAPHIC**, or **Blue Color ADJ SCALE GRAPHIC** to make adjustments.

Viewing the Frame Rate

The Frame Rate function allows you to work with the active input frames per second (FPS).

Turning on the Frame Rate function allows you to view the current active input frames per second (FPS). If you turn on the Frame Rate function, you see the current active input frames per second (FPS) as a number in one

section of the screen. You can select FPS text colors and screen locations from the Color and Location submenus.

To view the FPS on the screen:



1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Gaming**.
3. Select **Frame Rate**, and then select **On**.
4. Set the color and location of the FPS that is displayed on the screen.
 - **Task Light:** Full white and bright setting to emulate a white desk light for better reading or viewing.
 - **Color Cycle:** Slowly fades between all static color presets.
 - **Breathing:** Slowly fades on and off. Speed has three settings Slow, Medium, and Fast. Color is decided by the color selected in the static color menu.
 - **Static Color:** Sets external lighting colors to Red, Green, Blue, Yellow, Purple, Cyan, Orange, or custom.
 - **Random Color:** Randomly cycles external light color through the static colors.
 - **LED Brightness:** Adjusts the external LED brightness.

External lighting is set to On (OMEN White) by default.

Using Message Timers

The Message Timers show timers that display reminders and messages.

To use the message timers:

The Message Timers menu presents two types of timers that display preset reminders and information messages. The timer menu has an On/Off option and Start, Stop, and Reset controls. Selecting On shows the currently selected timer value at the current selected location of the screen. The default is the top right corner.

You can use the Message Timers as parental controls to help limit a minor's game play and other online activities by setting the timer to display messages. After 30 minutes, the monitor can display "Please Stop Playing the Game!"

The on-screen timer format initially shows minutes and seconds (00:0) but will display hours as time progresses. There are two different message timer options, but you can choose only one timer (Speedrun or Countdown) at a time. Options for both timers include the color of the timer numbers and the location of the timer on the screen.

1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Gaming**, and then select **Message Timers**.
3. Select and adjust the timers using the following options:
 - **Speedrun Timer:** This is a progress timer showing minutes and seconds (00:0). It starts at zero and continues to 24 hours. When the timer reaches the 24 hour limit, a 20 second message appears to inform you that the timer had expired. The timer allows you to track the amount of time you've spent in a game or performing a specific task.
 - **Countdown Timer:** You can use the adjustment bar to choose a start time between 1 and 45 minutes in single-minute increments and then between 5 and 120 minutes in 5 minute increments. The timer counts down to 00:0 and then shows a message for 20 seconds in the center of the screen. The Message submenu allows you to select the exact message that will appear on the screen. The default value for the countdown timer is 20 minutes.
 - **Start:** Starts the selected timer.
 - **Stop:** Pauses or stops the timer but does not reset the timer. Selecting the Start option again continues the timer counter.
 - **Reset Timer:** Resets the timer counter to the selected start value. Full white and bright setting to emulate a white desk light for better reading or viewing.
 - Allows you to select the on-screen message that appears when the selected timer expires. You can select the following messages: Your Gaming Timer has Expired!, Please Stop Playing the Game!, Please Take a Break!, Please Shutdown the Computer!

Using the Crosshair feature

The Crosshair feature allows you to control the OSD pointer.

The Crosshair menu allows you to customize various characteristics of a monitor-controlled OSD pointer through the following submenus for improved accuracy in gaming.

To use the Crosshair option:

1. Press the center of the OSD joystick to open the OSD menu.
2. In the OSD, select **Gaming**.
3. Select **Crosshair**, and then select **On**.

4. Configure the Crosshair using the following submenus:
 - **Configure** Select individual graphics parts that make up a on-screen crosshair or pointer by selecting the checkboxes next to the options that you want to display. You can combine multiple options to form your own customized Crosshair.
 - **Color:** Allows you to select the Crosshair color on the screen.
 - **Location:** Allows you to select the Crosshair location on the screen.

Using Multi-Monitor Align

The Multi-Monitor Align features helps you set up multiple monitors side by side.

The Multi-Monitor Align OSD option displays a full-screen alignment pattern that will assist you in setting up multiple monitors side by side. Selecting this option exits the OSD and displays the full screen alignment pattern.

To use Multi-MonitorAlign:

1. Press the center of the OSD joystick to open the OSD menu.
2. Select **Gaming**.
3. Select a **Multi-MonitorAlign**, and then select **On**.
4. Press the center of the OSD joystick again to exit the pattern.

Support and troubleshooting

If your monitor is not working as expected, you might be able to resolve the issue by following the instructions in this section.

Solving common issues

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

Table 3-2 Common issues and solutions

Issues	Possible cause	Solution
Screen is blank or video is flashing.	Power cord is disconnected.	Connect the power cord.
	Monitor is off.	Press the monitor power button. NOTE: If pressing the power button has no effect, press and hold the power button for 10 sec to disable the Power Button Lockout feature.
	Video cable is improperly connected.	Connect the video cable properly. For more information, see Connecting the cables on page 8 .
	System is in Auto-Sleep Mode.	Press any key on the keyboard or move the mouse to inactivate the screen blanking utility.
	Video card is incompatible.	Open the OSD menu and select the Input menu. Set Auto-Switch Input to Off and manually select the input.
		or

Table 3-2 Common issues and solutions (continued)

Issues	Possible cause	Solution
		Replace the video card or connect the video cable to one of the computer's on-board video sources.
Image appears blurred, indistinct, or too dark.	Brightness setting is too low.	Open the OSD menu, and select Brightness to adjust the brightness scale as needed.
"Input Signal Not Found" is displayed on the 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 connecting the video cable.
"Input Signal Out of Range" is displayed on screen.	Video resolution and/or refresh rate are set higher than the monitor supports.	Change the settings to a supported setting (see Preset display resolutions on page 29).
The monitor does not enter into a low-power sleep state.	The monitor's power saving control is disabled.	Open the OSD menu and select Power , select Auto-Sleep Mode , and then select On .
"OSD Lockout" is displayed.	The monitor's OSD Lockout function is enabled.	Press and hold the OSD button for 10 seconds to disable the OSD Lockout function.
"Power Button Lockout" is displayed.	The monitor's Power Button Lockout feature is enabled.	Press and hold the Power button for 10 seconds to unlock the power button function.

Button lockouts

The button lockout function is available only when the monitor is on, an active signal is displayed, and the OSD menu is closed. Holding down the power button or **OSD** joystick for 10 seconds disables that button. You can re-enable the button by holding it down again for 10 seconds.

Contacting support

Complimentary phone support coverage is available for one year after purchase of your product.



NOTE: Contact customer support to replace the power cord, the AC adapter (select products only), or any other cables that shipped with your monitor.

Complimentary phone support coverage is available for one year after purchase of your HP Omen product. Call (866) 724-8628, Monday through Friday, 8:00 a.m. to midnight (EST), and Saturday through Sunday, 9:00 a.m. to 9:00 p.m. (EST) (excluding public holidays).* OMEN chat support is available at www.hp.com/contacthp.*

*Support options and hours are subject to change without notice.

Preparing to call technical support

Here are some guidelines about calling 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.

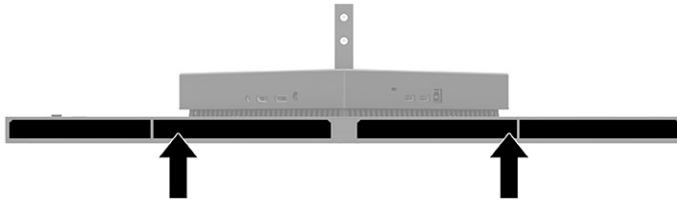
1. Monitor model number
2. Monitor serial number
3. Purchase date on invoice
4. Conditions under which the problem occurred

5. Error messages received
6. Hardware configuration
7. Name and version of the hardware and software you are using

Locating the serial number and product number

Locating the serial number and product number is important when contacting support.

Depending on the product, the serial number and product number are located on a label on the rear of the monitor or on a label under the front bezel of the monitor head. You might need these numbers when contacting HP about the monitor.



4 Maintaining the monitor

Properly maintained, your monitor can run for many years. These instructions provide steps you can perform to keep your monitor in the best condition.

Maintenance guidelines

Follow these instructions 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 or 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 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

Use these instructions to clean your monitor when necessary.

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 petroleum-based materials such as benzene, thinner, or any volatile substance to clean the monitor screen or cabinet. These chemicals might 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 can 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.

5. After you remove the dirt and debris, you can also clean the surfaces with a disinfectant. The World Health Organization (WHO) recommends cleaning surfaces, followed by disinfection, as a best practice for preventing the spread of viral respiratory illnesses and harmful bacteria. A disinfectant that is within HP's cleaning guidelines is an alcohol solution consisting of 70% isopropyl alcohol and 30% water. This solution is also known as rubbing alcohol and is sold in most stores.

Shipping the monitor

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

A Technical specifications

This section contains technical specifications for the physical aspects of your monitor, such as the weight and viewing dimensions, as well as required environmental operating conditions and power source ranges.

All specifications represent the typical specifications provided by HP component manufacturers; actual performance can vary either higher or lower.



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

68.47 cm (27 in) model specifications

This section provides specifications for your monitor.

Table A-1 Technical specifications

Specification	Measurement	
Display, wide-screen	68.47 cm	27 in
Panel type	IPS	
Viewable image size	68.47 cm diagonal	27 in diagonal
Viewing angle	170°/160°	
Tilt	-5° to +20°	
Height adjustment	0 mm to 130 mm	0 in to 5.12 in
Maximum weight with stand (unpacked)	10.30 kg	22.71 lbs
Dimensions (including stand)		
Depth	25.7 cm	9.46 in
Height (highest position)	52.2 cm	20.55 in
Width	61.3 cm	28.11 in
Maximum graphic resolution	2560 × 1440 @ 165 Hz (DP)/2560 × 1440 @ 144 Hz (HDMI)	
Static contrast ratio	1000:1 typical	
Dynamic contrast ratio	10,000,000:1	
Pixel pitch	0.2331 mm × 0.2331 mm	
Pixels per inch	109	
Backlight type	Mercury-free LED	
Response time with OD function	backlighting	1 ms GTG*
Environmental requirements temperature		
Operating temperature	5°C to 35°C	41°F to 95°F

Table A-1 Technical specifications (continued)

Specification	Measurement
Storage temperature	-34°C to 60°C -29°F to 140°F
Storage humidity	5% to 95%
Operating humidity	20% to 80%
Power source	100 V ac to 240 V ac 50/60 Hz
Power consumption, maximum	75 W
Power consumption, typical	50 W
Energy saving/standby mode	0.5 W
Power adapter	90 W
Input terminal	One HDMI port and one DisplayPort

*All specifications represented are typical and provided by HP's component manufacturers. Actual performance might vary either higher or lower. The native response time is 5 ms, 1 ms is the overdrive response time.

Preset display resolutions

The following display resolutions 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.

80 cm (31.5 in) model

This section provides preset display resolutions and preset timing resolutions.

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

Table A-2 Preset display resolutions (continued)

Preset	Pixel format	Horz freq (kHz)	Vert freq (Hz)
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

Preset display resolutions

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

Table A-4 Preset display resolutions

Preset	Pixel format	Horz freq (kHz)	Vert freq (Hz)
1	640 × 480	60.0	60.000
2	720 × 400	70.0	70.087
3	800 × 600	37.879	60.317
4	1024 × 768	31.469	60.000
5	1280 × 720	45.000	60.000
6	1280 × 800	49.702	60.000
7	1280 × 1024	63.981	60.000
8	1440 × 900	55.468	60.000
9	1600 × 900	60.000	60.000
10	1600 × 1200	65.290	60.000
11	1680 × 1050	60.000	60.000

Table A-4 Preset display resolutions (continued)

Preset	Pixel format	Horz freq (kHz)	Vert freq (Hz)
12	1920 × 1080	67.500	60.000
13	1920 × 1200	67.500	60.000
14	2560 × 1440	60.000	60.000

Entering user modes

Your video controller signal may call for a mode that is not preset.

The video controller signal may occasionally call for a mode that is not preset if you are not using a standard graphics adapter or you are not using a preset mode.

If this occurs, you may need to readjust the parameters of the monitor screen by using the OSD. Your changes can be made to any or all of these modes and saved in memory. The monitor automatically stores the new setting, and then recognizes the new mode just as it does a preset mode. In addition to the factory preset modes, at least eight user modes can be entered and stored.

Power supply specification

This section provides power supply specifications.

Table A-5 Power supply specification

Manufacturer	Model number	Power supply rating
Delta	TPC-DA18	19 V dc / 4.62 A - 90 W
Chicony	TPC-CA18	19 V dc / 4.62 A - 90 W

Energy saver feature

The monitor supports a reduced power state.

The reduced power state 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 blank, the backlight is turned off, and the power light turns amber. In the reduced power state, the monitor uses < 0.5 W of power. There is a brief warm-up period before the monitor returns to its normal operating state.

See the computer manual for instructions on setting the energy saver mode (sometimes called “power management feature”).



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

By selecting the settings in the monitor Sleep Timer utility, you can also program the monitor to initiate the reduced power state at a predetermined time. When the monitor Sleep Timer utility initiates the reduced power state, the power light blinks amber.

B Accessibility

HP's goal is to design, produce, and market products, services, and information that everyone everywhere can use, either on a stand-alone basis or with appropriate third party assistive technology (AT) devices or applications.

HP and accessibility

Because HP works to weave diversity, inclusion, and work/life into the fabric of the company, it is reflected in everything HP does. HP strives 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 32](#).

The HP commitment

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

The HP 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 that goal, this Accessibility Policy establishes seven key objectives to guide HP actions. 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 HP, and provide 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 HP 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 improves assistive technology relevant to HP 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.

As a founding member, HP joined to participate with other organizations to advance the field of accessibility. This commitment supports HP's accessibility goal of designing, producing, and marketing products and services that people with disabilities can effectively use.

IAAP will make the 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 can 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, can 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

These 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 products 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 35](#).

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 Technology Industry Association \(ATIA\)](#)

Standards and legislation

Countries worldwide are enacting regulations to improve access to products and services for persons with disabilities. These regulations are historically applicable to telecommunications products and services, PCs and printers with certain communications and video playback features, their associated user documentation, and their customer support.

Standards

The US Access Board created Section 508 of the Federal Acquisition Regulation (FAR) standards 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 multimedia, and self-contained closed products.

Mandate 376 – EN 301 549

The European Union created the EN 301 549 standard within Mandate 376 as an online toolkit for public procurement of ICT products. The standard specifies the accessibility requirements applicable to ICT products and services, with a description of the test procedures and evaluation methodology for each 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. These links provide information about key legislation, regulations, and standards.

- [United States](#)
- [Canada](#)
- [Europe](#)
- [Australia](#)
- [Worldwide](#)

Useful accessibility resources and links

These organizations, institutions, and resources might be good sources of 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 encounter on the Internet. Listing on this page does not imply endorsement by HP.

Organizations

These organizations are a few of the many that provide information about disabilities and age-related limitations.

- 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

Many educational institutions, including these examples, provide information about disabilities and age-related limitations.

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

Other disability resources

Many resources, including these examples, provide information about disabilities and age-related limitations.

- ADA (Americans with Disabilities Act) Technical Assistance Program
- ILO Global Business and Disability network
- EnableMart
- European Disability Forum
- Job Accommodation Network
- Microsoft Enable

HP links

These HP-specific links provide information that relates to disabilities and age-related limitations.

[Our contact webform](#)

[HP comfort and safety guide](#)

[HP public sector sales](#)

Contacting support

HP offers technical support and assistance with accessibility options for customers with disabilities.



NOTE: Support is in English only.

- Customers who are deaf or hard of hearing who 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](#).