



# User Guide

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## About This Guide

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

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 **WARNING!** Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.

 **CAUTION:** Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

 **NOTE:** Text set off in this manner provides important supplemental information.

 **TIP:** Text set off in this manner provides helpful hints.

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This product incorporates HDMI technology.



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# 1 Product features

The light-emitting diode (LED) backlit monitor has an active matrix, AMVA+ panel. The monitor features include:

- 81.28 cm (32-inch) diagonal viewable area display with 2560 x 1440 QHD resolution, plus full-screen support for lower resolutions
- Tilt capability and easy viewing from sitting or standing position, or while moving from one side of the monitor to the other
- AMVA+ technology providing wide viewing angles with colors that maintain their integrity
- HDMI (High-Definition Multimedia Interface) video input
- MHL (Mobile High-Definition Link) video input
- DisplayPort video input
- Plug and play capability if supported by your operating system
- On-Screen Display (OSD) adjustments in 10 languages for easy setup and screen optimization
- *My Display* software for adjusting monitor settings through Windows
- HDCP (High-bandwidth Digital Content Protection) used on digital inputs
- Software and documentation disc that includes monitor drivers and product documentation
- Remote control
- VESA mounting bracket for attaching the display to a wall mount device or swing arm
- USB 2.0 hub with one upstream port and two downstream ports
- Beats Audio integrated speakers and headphone jack for optimized sound quality

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 **NOTE:** For safety and regulatory information, refer to the *Product Notices* provided on your media disc, if one is included, or in your documentation kit. To locate updates to the user guide for your product, go to <http://www.hp.com/support>, and select your country. Select **Drivers & Downloads**, and then follow the on-screen instructions.

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## 2 Safety and maintenance guidelines

### Important safety information

A power cord is included with the monitor. If another cord is used, use only a power source and connection appropriate for this monitor. For information on the correct power cord set to use with the monitor, refer to the *Product Notices* provided on your media disc, if one is included, or in your documentation kit.

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 **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.
- Disconnect power from the computer by unplugging the power cord from the AC outlet.
- If provided with a 3-pin attachment plug on the power cord, plug the cord into a grounded (earthed) 3-pin outlet. Do not disable the power cord grounding pin, for example, by attaching a 2-pin adapter. The grounding pin is an important safety feature.

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 from the electrical outlet, grasp the cord by the plug.

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

 **CAUTION:** For the protection of the monitor, as well as the computer, connect all power cords for the computer and its peripheral devices (such as a monitor, printer, scanner) to some form of surge protection device such as a power strip or Uninterruptible Power Supply (UPS). Not all power strips provide surge protection; the power strips must be specifically labeled as having this ability. Use a power strip whose manufacturer offers a Damage Replacement Policy so you can replace the equipment, if surge protection fails.

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

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

Care should be taken to route all cords and cables connected to the LCD monitor so that they cannot be pulled, grabbed, or tripped over.

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

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# 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 the total ampere rating of the products connected to the outlet does not exceed the current rating of the electrical outlet, and 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 not in use. You can substantially increase the life expectancy of the monitor by using a screen saver program and turning off the monitor when not in use.



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**NOTE:** Monitors with a “burned-in image” are not covered under the HP warranty.

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- Slots and openings in the cabinet are provided for ventilation. These openings must not be blocked or covered. Never push objects of any kind into cabinet slots or other openings.
- 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.
- When removing the monitor stand, you must lay the monitor face down on a soft area to prevent it from getting scratched, defaced, or broken.

## Cleaning the monitor

1. Turn off the monitor and unplug the power cord from the back of the unit.
2. Dust the monitor by wiping the screen and the cabinet with a soft, clean antistatic cloth.
3. For more difficult cleaning situations, use a 50/50 mix of water and Isopropyl alcohol.

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**⚠ CAUTION:** 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.

**CAUTION:** 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.

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## Shipping the monitor

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

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## 3 Setting up the monitor

To set up the monitor, ensure that the power is turned off to the monitor, computer system, and other attached devices, and then follow the instructions below.

### Use caution when setting up the monitor

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

If installing a stand, lay the monitor face down on a flat surface covered with a protective sheet foam or non-abrasive cloth. This prevents the screen from getting scratched, defaced or broken as well as damage to the front panel buttons.



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 **NOTE:** Your monitor may look different from the monitor in this illustration.

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## Attaching the monitor stand

**⚠ CAUTION:** The screen is fragile. Avoid touching or applying pressure to the screen; doing so can cause damage.

**💡 TIP:** Consider the placement of the display, because the bezel might cause interfering reflections from surrounding light and bright surfaces.

1. Lift the monitor from its box and place it face down on a flat surface covered by a clean, dry cloth.
2. Attach the stand to the monitor by inserting the bracket at the top of the stand into the slot on the back of the display head until the bracket clicks securely in place.



## Rear and side components



Component	Function
1 Menu button	Press to open the OSD menu, select a menu item from the OSD, or close the OSD menu.
2 Plus button	If the OSD menu is on, press to navigate forward through the OSD menu and increase adjustment levels.  If the OSD menu is inactive, press to open the audio menu.
3 Minus button	If the OSD menu is on, press to navigate backward through the OSD menu and decrease adjustment levels.  If the OSD menu is inactive, press to advance to the next active input port (HDMI, MHL / HDMI, DisplayPort).
4 Subwoofers	Provide bass to the speaker system.
5 Headphone jack	Connects the headphone cable (not included) to the monitor.
6 DC Power connector	Connects the DC power adapter to the monitor.
7 USB 2.0 Upstream	Connects the USB hub cable from the source device to the monitor.
8 USB 2.0 Downstream	Connects optional USB devices to the monitor.
9 USB 2.0 Downstream with Charging	Connects optional USB devices to the monitor.
10 Audio In	Connects the audio cable from the source device to the monitor.
11 DisplayPort	Connects the DisplayPort cable from the source device to the monitor.
12 HDMI	Connects the HDMI cable from the source device to the monitor.
13 HDMI MHL	Connects the HDMI or MHL cable from the source device to the monitor.

**NOTE:** The USB 2.0 Downstream with Charging port also provides current to charge a device such as a smart phone or tablet. You can make the charging current available even when the monitor is in Sleep mode by changing the settings in the OSD. Open the OSD and select **Power Control > USB Power > On**.

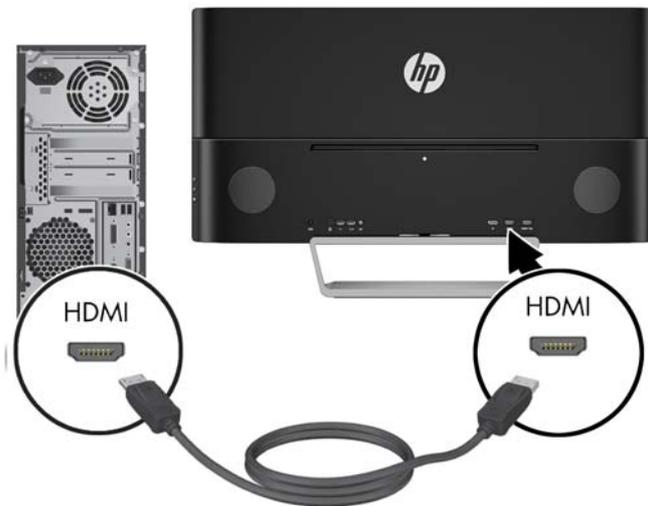
# Connecting the cables

 **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. Connect a video cable.

 **NOTE:** The monitor will automatically determine which inputs have valid video signals. The inputs can be selected by pressing the **Plus** button on the side panel or through the On-Screen Display (OSD) by pressing the **Menu** button and selecting **Input Control**.

- Connect an HDMI cable to the HDMI connector on the back of the monitor and the other end to the source device.



- Connect an MHL cable to the HDMI MHL connector on the rear of the monitor and to the micro USB connector on an MHL-enabled source device, such as a smart phone or tablet, to stream content from the mobile device to your monitor screen.

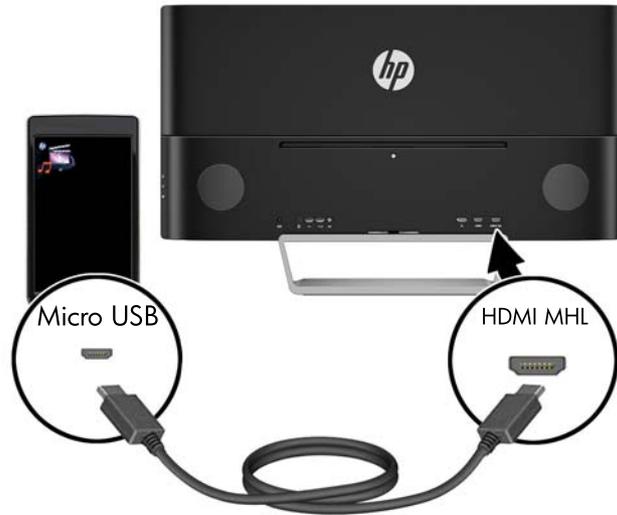
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 **NOTE:** The MHL video is limited to the mobile device output resolution.

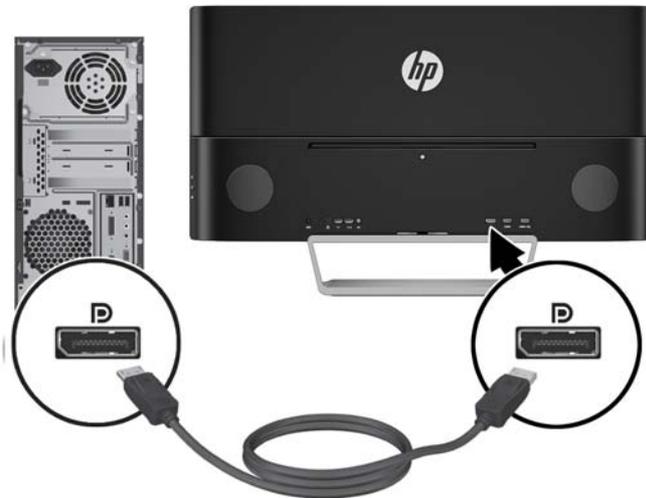
 **NOTE:** The MHL connector also charges your MHL mobile device while connected and streaming.

 **NOTE:** You can also connect an HDMI cable between the HDMI MHL port on the monitor and an HDMI source device.

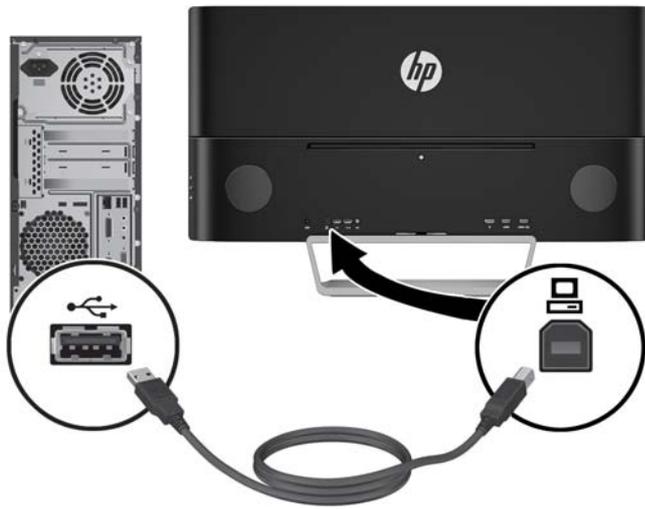
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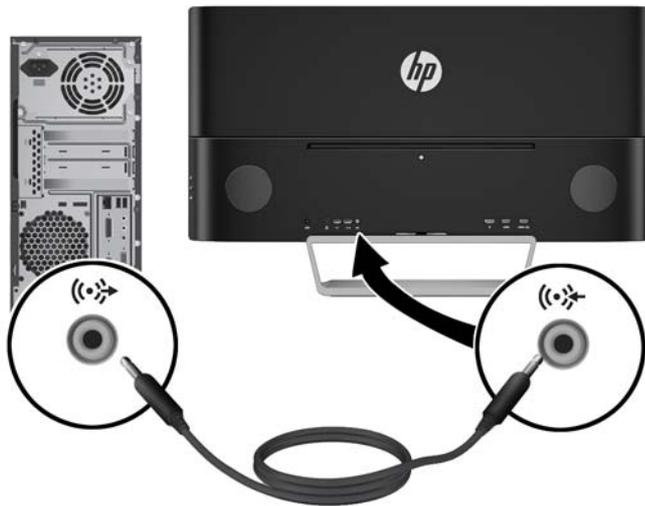
- Connect a DisplayPort cable to the DisplayPort connector on the rear of the monitor and the other end to the DisplayPort connector on the source device.



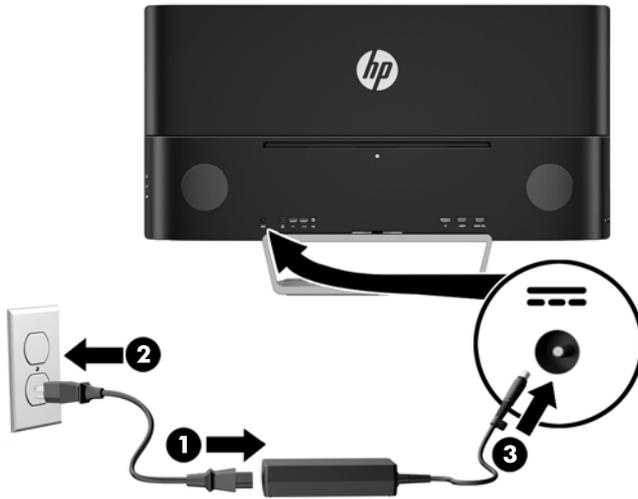
3. Connect a USB upstream cable to the USB upstream connector on the rear of the monitor and the other end to a USB downstream connector on the source device.



4. Connect an audio cable to the Audio In connector on the rear of the monitor and the other end to the Audio Out connector on the source device.



5. Connect one end of the power cord to the power supply (1) and the other end to a grounded electrical outlet (2), and then connect the round end of the power supply cord to the monitor (3).



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**⚠ 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.

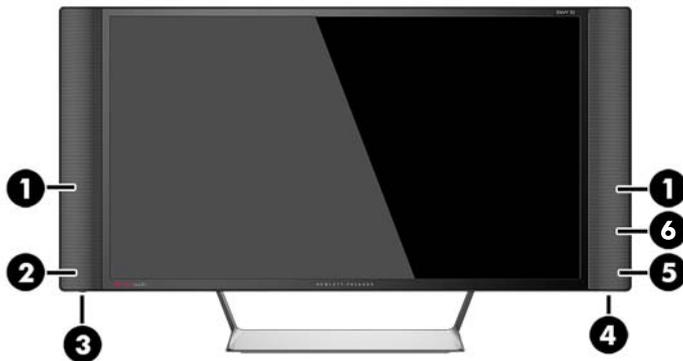
Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.

Disconnect power from the equipment by unplugging the power cord from the electrical 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 from the electrical outlet, grasp the cord by the plug.

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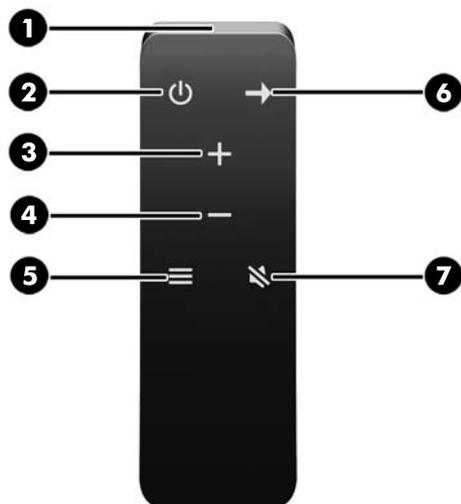
## Front panel controls



Control	Function
1 Speakers	Provide Beats Audio sound.
2 Mute LED	The LED is lit when the volume is muted, and off when the volume is not muted.
3 Volume/Mute	Rotate the dial control to adjust the volume. Press the dial upward to mute and unmute the audio.
4 Power	Turns the monitor on or off.
5 Power LED	System on = white System off = off Sleep mode = amber Sleep timer mode = blinking amber
6 IR Receiver	Receives information from the remote control.

## Remote control features

The remote control can be used to turn the monitor on or off, open and make adjustments to the OSD, adjust the volume, and mute or unmute the speakers.



Button	Function
1	IR Transmitter Sends information from the remote control to the monitor.
2	Power Turns the monitor on or off.
3	Plus If the OSD menu is on, press to navigate forward through the OSD menu and increase adjustment levels. If the OSD menu is inactive, press to increase the speaker volume.
4	Minus If the OSD menu is on, press to navigate backward through the OSD menu and decrease adjustment levels. If the OSD menu is inactive, press to decrease the speaker volume.
5	Menu Press to open the OSD menu, select a menu item from the OSD, or close the OSD menu. <b>NOTE:</b> When using the remote control to open the OSD menu, the menu will appear in Large mode. You can return the menu to Normal mode by pressing one of the menu buttons on the side of the display head.
6	Input Source Press to advance to the next active input port (HDMI, MHL / HDMI, DisplayPort).
7	Mute Press to mute or unmute the audio.

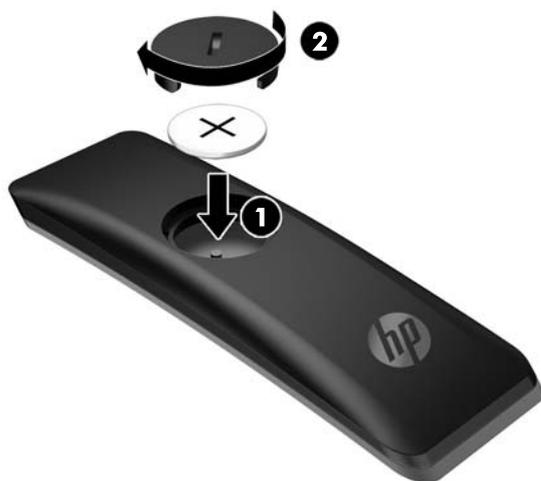
## Replacing the remote control battery

The remote control uses a CR2032 button cell lithium battery.

1. Rotate the battery cover counter-clockwise and lift it off the remote control (1), and then lift the battery out of the compartment (2).



2. Install the new battery in the battery compartment with the positive side facing up (1), and then replace the battery cover (2).



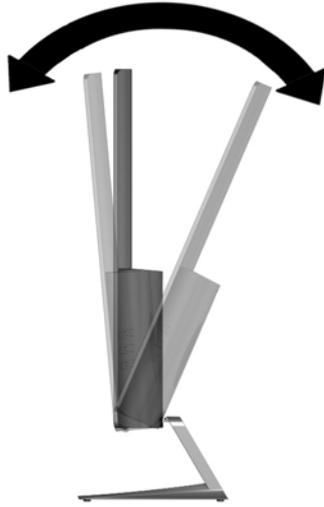
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**⚠ CAUTION:** See the *Product Notices* document provided on the media disc for proper battery disposal.

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## Adjusting the monitor

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



## Mounting the monitor

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

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

 **CAUTION:** This monitor supports the VESA industry standard 100 mm mounting holes. To attach a third-party mounting solution to the monitor, 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. 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 display panel. For best performance, it is important to use the power and video cables provided with the monitor.

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## Removing the monitor stand

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

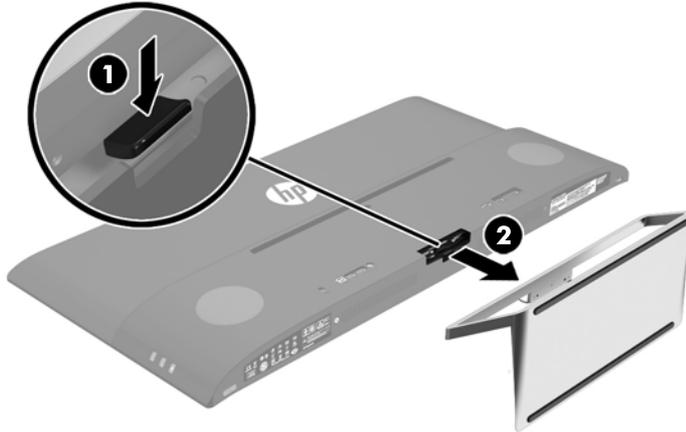
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 **CAUTION:** Before beginning to disassemble the monitor, be sure the monitor is turned off and all cables are disconnected.

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1. Disconnect and remove all cables from the monitor.
2. Lay the monitor face down on a flat surface covered by a clean, dry cloth.

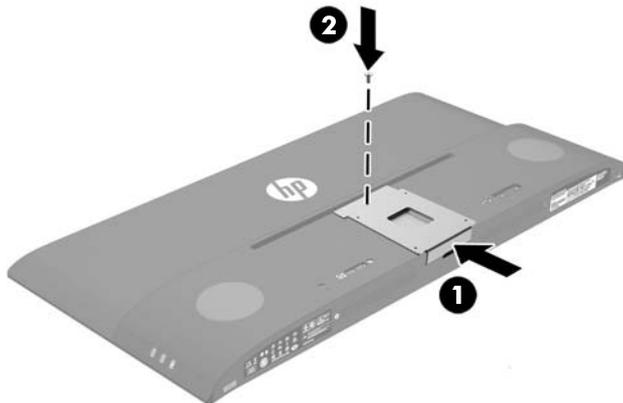
3. Press down on the release latch (1) and slide the stand out of the slot on the display head (2).



## Attaching the VESA mounting bracket

A VESA mounting bracket is included with the monitor for use when attaching the monitor panel to a wall, swing arm, or other mounting fixture.

1. Remove the monitor stand. Refer to [Removing the monitor stand on page 14](#).
2. Remove the screw from the center of the rear of the display head.
3. Insert the tab at the bottom of the VESA bracket into the slot on the back of the display head until the bracket clicks in place (1), and then secure the top of the bracket with the screw that was installed in the center of the display head (2).

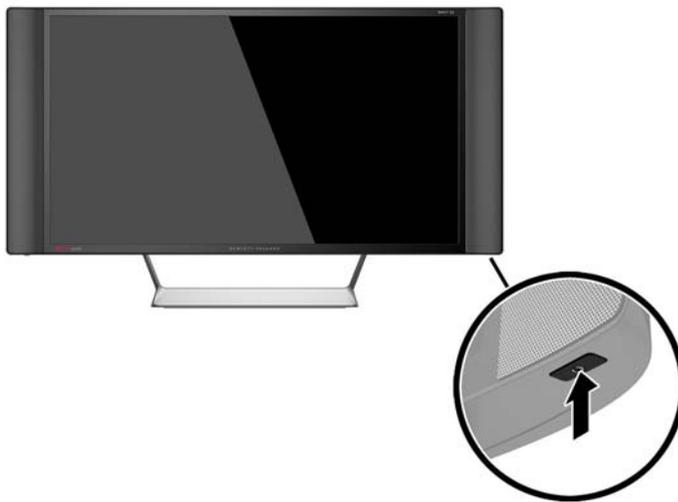


4. To attach the monitor to a swing arm or other mounting device, insert four mounting screws through the holes on the mounting device and into the screw holes on the VESA bracket that was installed on the rear of the monitor.



## Turning on the monitor

1. Press the power button on the source device to turn it on.
2. Press the power button on the front of the monitor to turn it on.



**⚠ CAUTION:** Burn-in image damage may occur on monitors that display the same static image on screen for a prolonged period of time.\* To avoid burn-in image damage on the monitor screen, you should always activate a screen saver application or turn off the monitor when it is not in use for a prolonged period of time. Image retention is a condition that may occur on all LCD screens. Monitors with a “burned-in image” are not covered under the HP warranty.

\* A prolonged period of time is 12 consecutive hours of non-use.

**📝 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 LED in the OSD menu. Press the [Menu](#) button on the front of the monitor, and then select **Power Control > Power LED > Off**.

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When the monitor is powered on, a Monitor Status message is displayed for five seconds. The message shows which input is the current active signal, the status of the auto-switch source setting (On or Off; factory default is On), the current preset display resolution, and the recommended preset display resolution.

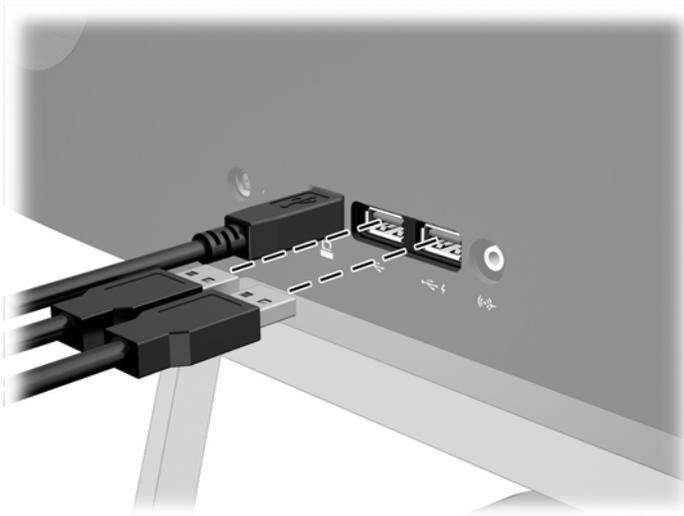
The monitor automatically scans the signal inputs for an active input and uses that input for the display.

## Connecting USB devices

There is one USB upstream port and two USB downstream ports on the rear of the monitor.

 **NOTE:** You must connect the USB upstream cable from the source computer to the monitor to enable the USB ports on the monitor. Refer to Step 4 in [Connecting the cables on page 7](#).

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## Locating the rating label

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



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# 4 Operating the monitor

## Software and utilities

The disc that comes with the monitor contains files you can install on the computer:

- an .INF (Information) file
- ICM (Image Color Matching) files (one for each calibrated color space)
- *My Display* software

### The Information file

The .INF file defines monitor resources used by Microsoft 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.

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## Installing the .INF and .ICM files

After you determine that you need to update, you can install the .INF and .ICM files from the disc or download them.

### Installing from the disc

To install the .INF and .ICM files on the computer from the disc:

1. Insert the disc in the computer optical drive. The disc menu is displayed.
2. View the **HP Monitor Software Information** file.
3. Select **Install Monitor Driver Software**.
4. Follow the on-screen instructions.
5. Ensure that the proper resolution and refresh rates appear in the Windows Display control panel.



**NOTE:** You may need to install the digitally signed monitor .INF and .ICM files manually from the disc in the event of an installation error. Refer to the HP Monitor Software Information file on the disc.

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## Downloading from the Internet

To download the latest version of .INF and .ICM files from the HP monitors support Web site:

1. Go to <http://www.hp.com/support> and select the appropriate country and language.
2. Select **Drivers & Downloads**, type your monitor model in the **Find by product** search field, and click **Go**.
3. If necessary, select your monitor from the list.
4. Select your operating system, and then click **Next**.
5. Click **Driver - Display/Monitor** to open the list of drivers.
6. Click on the driver.
7. Click the **System Requirements** tab, and then verify that your system meets the program minimum requirements.
8. Click **Download** and follow the on-screen instructions to download the software.

## Using *My Display* software

The disc provided with the monitor includes *My Display* software. Use *My Display* software to choose preferences for optimum viewing. You can select settings for gaming, movies, photo editing or just working on documents and spreadsheets. You can also easily adjust settings such as brightness, color, and contrast using *My Display* software.

### Installing the software

To install the software:

1. Insert the disc in your computer disc drive. The disc menu is displayed.
2. Select the language.



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**NOTE:** This choice selects the language you will see while installing the software. The language of the software itself will be determined by the operating system language.

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3. Click **Install My Display Software**.
4. Follow the on-screen instructions.
5. Restart the computer.

### Using the software

To open the *My Display* software:

1. Click the **HP My Display** icon on the taskbar.  
Or  
Click **Windows Start**™ on the taskbar.
2. Click **All Programs**.
3. Click **HP My Display**.
4. Select **HP My Display**.

For additional information, refer to the on-screen **Help** within the software.

## Downloading the software

If you prefer to download the *My Display* software, follow the instructions below.

1. Go to <http://www.hp.com/support> and select the appropriate country and language.
2. Select **Drivers & Downloads**, type your monitor model in the **Find by product** search field, and click **Go**.
3. If necessary, select your monitor from the list.
4. Select your operating system, and then click **Next**.
5. Click **Utility - Tools** to open the list of utilities and tools.
6. Click **HP My Display**.
7. Click the **System Requirements** tab, and then verify that your system meets the program minimum requirements.
8. Click **Download** and follow the on-screen instructions to download *My Display*.

## Using Auto-Sleep Mode

The display supports an OSD (On-Screen Display) option called **Auto-Sleep Mode** that allows you to enable or disable a reduced power state for the display. When Auto-Sleep Mode is enabled (enabled by default), the monitor will enter a reduced power state when the host PC signals low power mode (absence of either horizontal or vertical sync signal).

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

You can disable the Auto-Sleep Mode in the OSD. Press the **Menu** button on the side panel to open the OSD. In the OSD select **Power Control > Auto-Sleep Mode > Off**.

## Using the On-Screen Display (OSD) menu

Use the On-Screen Display (OSD) to adjust the screen image based on your viewing preferences. You can access and make adjustments in the OSD using the buttons on the right side of the display or the buttons on the remote control.

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

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 **Menu** button on the right side of the monitor or on the remote control.
3. To navigate through the OSD menu, press the **+** (Plus) button on the monitor's side panel or on the remote control to scroll up, or the **-** (Minus) button to scroll down.
4. To select an item from the OSD menu, use the **+** or **-** buttons to scroll to and highlight your selection, then press the **Menu** button to select that function.
5. Adjust the item using the **+** or **-** buttons to adjust the scale.
6. After adjusting the function, select **Save and Return**, or **Cancel** if you don't want to save the setting, then select **Exit** from the Main menu.

Main Menu	Description
Brightness	Adjusts the brightness level of the screen. The factory default range is 90.
Contrast	Adjusts the contrast level of the screen. The factory default range is 80.
Input Control	Selects the video input signal.
Color Control	Selects and adjusts the screen color.
Image Control	Adjusts the screen image.
Power Control	Adjusts the power settings.
OSD Control	Adjusts the on-screen display (OSD) controls.
Management	Adjusts the audio settings and returns all OSD menu settings to the factory default settings.
Language	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.

# 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 display model to find the model-specific QuickSpecs.

Display	81.28 cm wide screen	32 inches wide screen
Type	AMVA+	
Viewable image size	81.28 cm diagonal	32 inch diagonal
Tilt	-5° to 23°	
Weight		
Without stand	9.0 kg	19.8 lbs
With stand	10.7 kg	23.54 lbs
Dimensions (including stand)		
Height	52.2 cm	20.551 in
Depth	17.894 cm	7.049 in
Width	86.164 cm	33.923 in
Maximum graphic resolution	2560 x 1440 (60 Hz)	
Optimum graphic resolution	2560 x 1440 (60 Hz)	
Text mode	720 x 400	
Dot pitch	0.27675 mm	
Pixels per inch	91.8 PPI	
Horizontal frequency	24 kHz to 90 kHz	
Vertical refresh rate	50 Hz to 60 Hz	
Environmental requirements temperature		
Operating temperature	5°C to 35°C	41°F to 95°F
Storage temperature	-20°C to 60°C	-4°F to 140°F
Relative humidity	20% to 70%	
Power source	100 VAC to 240 VAC 50/60 Hz	
Altitude:		
Operating	0 m to 5000 m	0 to 16,400 ft
Storage	0 m to 12192 m	0 to 40,000 ft

Measured power consumption:

Full power	97 W
Typical settings	50 W
Sleep	<0.5 W
Off	<0.5 W
Input terminal	One HDMI connector, one HDMI/MHL connector, one DisplayPort connector

## Recognizing preset display resolutions

The display resolutions listed below 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.

Preset	Pixel format	Horz freq (kHz)	Vert freq (Hz)
1	640 x 480	31.469	59.94
2	720 x 400	31.469	70.087
3	800 x 600	37.879	60.317
4	1024 x 768	48.363	60.004
5	1280 x 720	45	60
6	1280 x 1024	63.981	60.02
7	1440 x 900	55.935	59.887
8	1600 x 900	60	60
9	1680 x 1050	65.29	59.954
10	1920 x 1080	67.5	60
11	1920 x 1200	74.556	59.885
12	2560 x 1440	88.787	59.995

Preset	Timing name	Pixel format	Horz freq (kHz)	Vert freq (Hz)
1	480p	720 x 480	31.469	60
2	576p	720 x 576	31.25	50
3	720p50	1280 x 720	37.5	50
4	720p60	1280 x 720	45	60
5	1080p60	1920 x 1080	67.5	60
6	1080p50	1920 x 1080	56.25	50
7	1080p30	1920 x 1080	33.7	30

## Entering user modes

The video controller signal may occasionally call for a mode that is not preset if:

- You are not using a standard graphics adapter.
- You are not using a preset mode.

If this occurs, you may need to readjust the parameters of the monitor screen by using the on-screen display. 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, there are at least 10 user modes that can be entered and stored.

## Power adapter

Manufacturer	Model number	Power supply rating
Delta Electronic, Inc.	TPC-DA52	19.5Vdc / 7.69A
LITE-ON Technology CORP.	TPC-LA52	19.5Vdc / 7.69A

## Energy saver feature

The monitor supports a reduced power state. The reduced power state will be entered into if the monitor detects the absence of either the horizontal sync signal and/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 will utilize <0.5 watts of power. There is a brief warm-up period before the monitor will return to its normal operating state.

Refer to the computer manual for instructions on setting the energy saver mode (sometimes called power management feature).

 **NOTE:** The above power saver feature only works when connected to computers that have energy saver modes.

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

# B Support and troubleshooting

## Solving common problems

The following table lists possible problems, the possible cause of each problem, and the recommended solutions.

Problem	Possible Cause	Solution
Screen is blank or video is flashing.	Power cord is disconnected.	Connect the power cord.
	Power button is turned off.	Press the front panel power button. <b>NOTE:</b> 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. Refer to <a href="#">Connecting the cables on page 7</a> for more information.
	System is in sleep mode.	Press any key on the keyboard or move the mouse to inactivate the screen blanking utility.
	Video card compatibility.	Open the OSD menu and select the <a href="#">Input Control</a> menu. Set <a href="#">Auto-Switch Input</a> to <a href="#">Off</a> and manually select the input.
Image appears blurred, indistinct, or too dark.	Brightness is too low.	Open the OSD menu and select <a href="#">Brightness</a> to adjust the brightness scale as needed.
No speaker volume or low speaker volume.	Volume control is turned down.	Adjust the volume control on the bottom left of the front panel.
	Volume is muted.	Press up on the volume control to unmute the volume.
	Volume is turned down in the OSD,	Open the OSD and select <a href="#">Management &gt; Audio</a> and adjust the volume scale.
	Headphones are plugged in.	Unplug the headphones. The speakers are disabled when the headphones are plugged in.
<b>Check Video Cable</b> 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 connecting the video cable.
<b>Input Signal Out of Range</b> 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 <a href="#">Recognizing preset display resolutions on page 24</a> ).
The monitor is off but it did not seem to enter into a low-power sleep mode.	The monitor's power saving control is disabled.	Open the OSD menu and select <a href="#">Power Control &gt; Auto-Sleep Mode</a> and set auto-sleep to <a href="#">On</a> .
<b>OSD Lockout</b> is displayed.	The monitor's OSD Lockout function is enabled.	Press and hold the Menu button on the side panel for 10 seconds to disable the OSD Lockout function.
<b>Power Button Lockout</b> is displayed.	The monitor's Power Button Lockout function is enabled.	Press and hold the power button for 10 seconds to unlock the power button 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 display is powered on, displaying an active signal, and the OSD is not active.

## Product support

For additional information on using your monitor, go to <http://www.hp.com/support>. Select your country or region, select **Troubleshooting**, and then enter your model in the search window and click the **Go** button.

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

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If the information provided in the guide does not address your questions, you can contact support. For U.S. support, go to <http://www.hp.com/go/contactHP>. For worldwide support, go to [http://welcome.hp.com/country/us/en/wwcontact\\_us.html](http://welcome.hp.com/country/us/en/wwcontact_us.html).

Here you can:

- Chat online with an HP technician

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 **NOTE:** When support chat is not available in a particular language, it is available in English.

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- Find support telephone numbers
- Locate an HP service center

## 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

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## C LCD monitor quality and pixel policy

The TFT monitor uses high-precision technology, manufactured according to HP standards, to guarantee trouble-free performance. Nevertheless, the display may have cosmetic imperfections that appear as small bright or dark spots. This is common to all LCD displays used in products supplied by all vendors and is not specific to the HP LCD. These imperfections are caused by one or more defective pixels or sub-pixels.

- A pixel consists of one red, one green, and one blue sub-pixel.
- A defective whole pixel is always turned on (a bright spot on a dark background), or it is always off (a dark spot on a bright background). The first is the more visible of the two.
- A defective sub-pixel (dot defect) is less visible than a defective whole pixel and is small and only visible on a specific background.

To locate defective pixels, the monitor should be viewed under normal operating conditions, in normal operating mode at a supported resolution and refresh rate, from a distance of approximately 50 cm (20 in).

HP expects that, over time, the industry will continue to improve its ability to produce LCDs with fewer cosmetic imperfections and HP will adjust guidelines as improvements are made.