User Guide

HP HC241
HP HC241p

Product notice

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

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About This Guide

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

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

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

📝 IMPORTANT: Indicates information considered important but not hazard-related (for example, messages related to property damage). An Important alert 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.

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1 Getting Started

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 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.

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

If your power cord has a 3-pin attachment plug, 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.

The device must be operated within the operating conditions specified by HP only. Never place the device onto heat-emitting objects like radiators or heating ventilators. The environmental temperature must not exceed the maximum temperatures indicated in this guide. Never place the device into a closed surrounding housing unless it is ventilated enough to assure an operational temperature below the allowed maximum.

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 AC outlet, grasp the cord by the plug.

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.

Installations must be set up by qualified personnel only. It is the responsibility of the operating institution to choose qualified personnel for installation and operation of the device.

IMPORTANT: 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 capability. Use a power strip whose manufacturer offers a damage replacement policy so you can replace the equipment if surge protection fails.

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

Insufficient system configuration can result in the risk of exposure to an unacceptable high leakage current for the patient.

If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of the equipment.

All equipment connected to this monitor must be certified according to international standards IEC60601-1, IEC60950 or other IEC/ISO standards applicable to the equipment.

All configurations of equipment must comply with the system standard IEC60601-1. Connecting any additional equipment to the signal input port or signal output port of this monitor is considered configuring a medical system. Therefore, the system must comply with the requirements of the system standard IEC60601-1. For HP support, go to http://www.hp.com/support or contact your local representative.

Indications for use/intended use

- This monitor is intended for healthcare professionals viewing patient information, records, medical examination images, or results in a hospital or clinical medical environment.

- This monitor is not intended for use in the primary interpretation or diagnosis of medical images for human diseases.

- Do not operate this monitor with any surgical, life-support, or radiological equipment (mammography equipment included).

- Do not use this monitor with radiology, pathology, or mammography systems for patient diagnosis purposes.

- The monitor supports an on-screen display (OSD) with four buttons (under the right side of the front bezel) for the adjustment of the monitor settings. The video inputs supported are VGA, HDMI, and DisplayPort. The VGA, HDMI, and DisplayPort video cables are included with the monitor. The selected video input is displayed full screen.

Display kit contents

The monitor ships with the following items:

- Documentation kit

- Quick Setup guide

- VGA video cable

- DisplayPort video cable

- HDMI video cable

- Hospital-grade power cord

- USB Type-B– to –USB Type-A cable

Explanation of symbols used

Table 1-1 Symbols and their descriptions

Symbol	Description
	Warning, electricity
	Caution
	Compliant IEC 060417–5009 Stand-by
	EU Direct 2014/30/EU, 2014/35/EU EMC compliance
IPN_1N_2	IEC 60529 compliance
	Manufacturer (name and address)
	Manufacturing date (YYYY-MM)
SN	Device serial number
	Consult instructions for use
	Disposal information This device must not be thrown in the trash but must be recycled, according to the European WEEE (Waste Electrical and Electronic Equipment) directive.
	US FDA Part 15 of the FCC rules (Class B) compliance
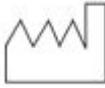
Table 1-1 Symbols and their descriptions (continued)

Symbol	Description
	Temperature limitation
	Humidity limitation
	Atmospheric pressure limitation
	Fragile, handle with care
	Keep dry
	Stacking limit by mass
	This side up
	Pallet stackings
	AC power input
	DisplayPort connector
	HDMI connector (High-Definition Multimedia Interface)
	VGA connector
	USB (upstream) connector
	Security cable slot
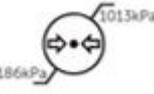
Product features and components

Features

The monitor features include the following:

- 61.1 cm (24.0-inch) diagonal viewable area with 1920 × 1200 resolution, plus full-screen support for lower resolutions; custom scaling for maximum image size while preserving original aspect ratio

- Nonglare screen with an LED backlight

- Wide viewing angle to allow viewing from a sitting or standing position, or moving from side to side (models with embedded privacy filters are limited to a 60–degree horizontal viewing angle)

- Embedded privacy filter behind the cover glass (HP HC241p)

- Edge-to-edge anti-glare cover glass

- IP protection: IP32 for LCD monitor, front cover glass only

- Optional stand sold separately, with tilt capability, pivot capability to rotate the monitor from landscape to portrait, swivel and height adjustment capabilities

- HP Quick Release 2 device to quickly attach the monitor head to the stand (sold separately) with a simple click, and then remove it with the convenient sliding tab release

- DisplayPort, High–Definition Multimedia Interface (HDMI), and VGA video inputs with cables included

- USB 2.0 hub with one USB 2.0 Type-B upstream port (connects the monitor to the source device) and two USB Type-A downstream ports (connect to USB devices)

- USB 2.0 Type-B– to –Type-A cable provided to connect the monitor's USB hub to the USB connector on the computer

- Hospital-grade power cord

⚠ **WARNING!** Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked hospital only or hospital grade.

- Four Function buttons under the right side of the front bezel, three that can be reconfigured to quickly allow selection of the most commonly used operations

- Capacitive on-screen display (OSD) buttons

⚠ **CAUTION:** Do not touch the patient and this medical device at the same time.

- Plug and Play capability if supported by your operating system

- 100 mm integrated VESA mounting

- Security cable slot on the rear of the monitor for an optional security cable lock

- OSD menu adjustments in several languages for easy setup and screen optimization

- High Bandwidth Digital Content Protection (HDCP) copy protection on all digital inputs

- Compliance with Digital Imaging and Communications in Medicine (DICOM) Part 14 for use in healthcare clinical reviews by healthcare professionals in peer consultation and patient consultation (on HP HC241 model without privacy filter)

- Compliance with IEC 60601–1–2.2014

- Expected service life: 5 years

- Energy saver feature to meet requirements for reduced power consumption

📝 **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 **User Guides**.

Front panel controls

Control		Function
1	Function buttons (4)	Use these buttons to navigate through the OSD menu based on the indicators next to the buttons that are activated while the OSD menu is open.
		NOTE: To activate the Function buttons, press any of the buttons so that the button labels appear on the right side of the screen and the button LEDs are lit.
	Menu button	Opens the OSD menu, selects a menu item from the OSD menu, or closes the OSD menu.
	Information button Assignable Function button 1	Opens the **Information** menu and selects a preset view mode.
	Next Active Input button Assignable Function button 2	Navigates through the OSD menu and selects a video input source.
	Sanitization button Assignable Function button 3	Updates the sanitization log.
2	Power button	Turns the monitor on or off. White: The monitor is on. Off: The monitor is off. Amber: The monitor is in sleep mode.

Reassigning the Function buttons

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

To reconfigure Function buttons:

1. Press one of the four front panel Function buttons to activate the buttons, and then press the Menu button to open the OSD menu.

2. In the OSD menu, select **Menu Control**, select **Assign Buttons**, and then select one of the available options for the button you want to reassign.

Rear and side components
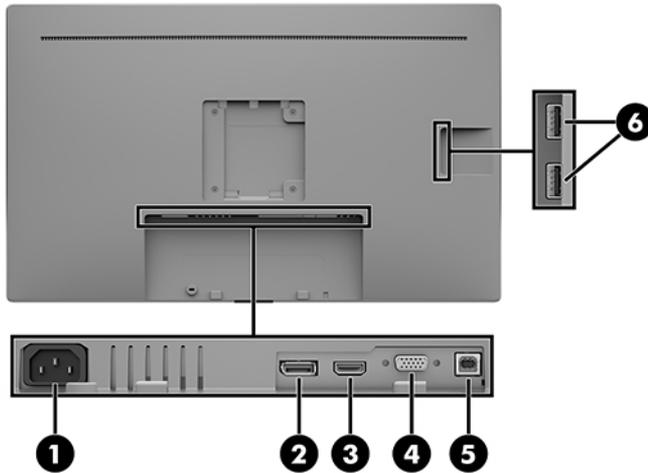
Table 1-3 Rear and side components and their functions

Component		Function
1	Power connector	Connects an AC power cord.
2	DisplayPort port	Connects a DisplayPort cable to the source device.
3	HDMI port	Connects an HDMI cable to the source device.
4	VGA port	Connects a VGA cable to the source device.
5	USB Type-B port (upstream)	Connects a USB Type-B cable to a source device to enable the monitor USB hub.
6	USB Type-A ports (2) (downstream)	Connect USB devices to the monitor USB hub.

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 screen. Pressure on the screen may cause nonuniformity of color or disorientation of the liquid crystals. If this occurs, the screen will not recover to its normal condition.

If installing a stand (sold separately), position the monitor facedown on a flat surface covered with protective sheet foam or a nonabrasive cloth. This prevents the screen from getting scratched, defaced, or broken and prevents damage to the control buttons.

Connecting the cables

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 through the OSD menu by pressing the Menu button and selecting **Input Control**.

● Connect one end of a DisplayPort cable to the DisplayPort port on the rear of the monitor and the other end to the DisplayPort port on the source device.
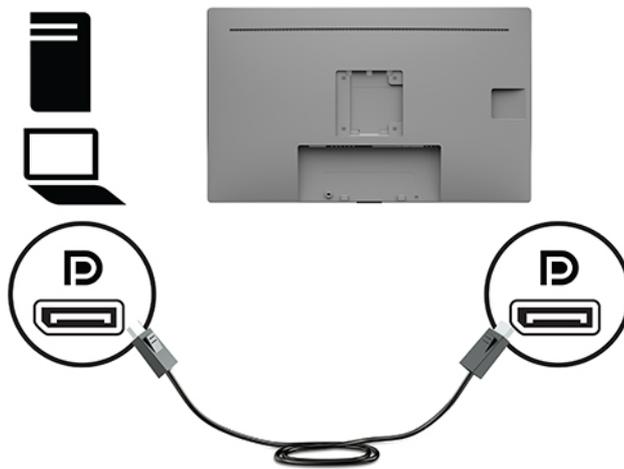
● Connect one end of an HDMI cable to the HDMI port on the back of the monitor and the other end to the HDMI port on the source device.
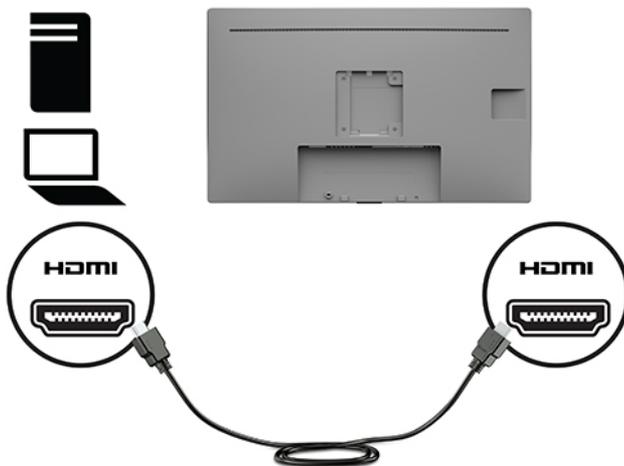
● Connect one end of a VGA cable to the VGA port on the back of the monitor and the other end to the VGA port on the source device.
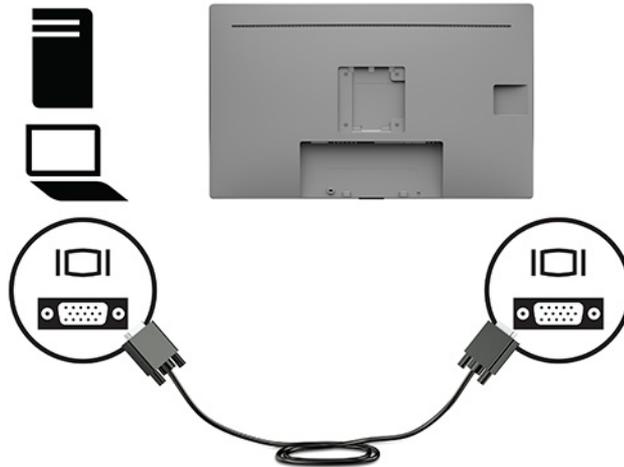
3. You must connect the USB upstream cable from the source computer to the monitor to enable the USB ports on the monitor.

● For a USB Hub:

    Connect the Type-B end of a USB cable to the USB Type-B port on the monitor and the other end to a USB Type-A port on the source device.
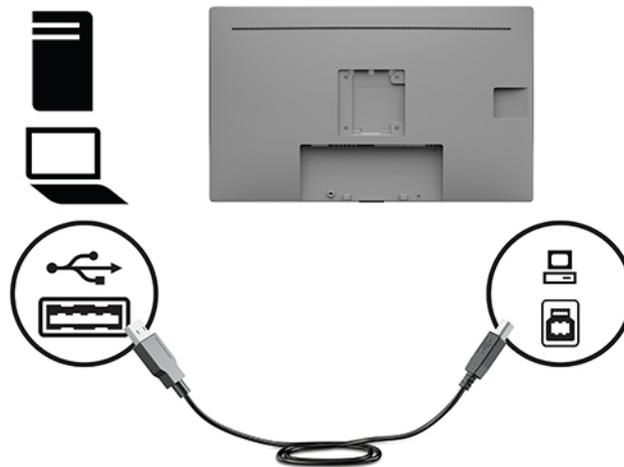
4. Connect one end of the AC power cord to the monitor. Then connect the power cord to the grounded AC outlet.
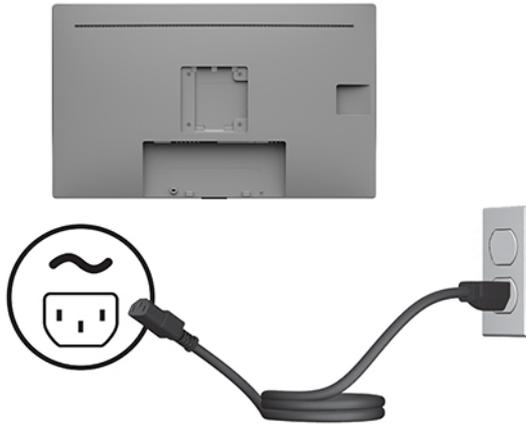
⚠ WARNING! To reduce the risk of electric shock or damage to the equipment:

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

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

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

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

Connecting USB devices

USB ports are used to connect devices such as a digital camera, USB keyboard, or USB mouse. There are two USB Type-A downstream ports on the side of the monitor.

NOTE: You must connect the USB upstream cable from the computer to the monitor to enable the USB downstream ports on the monitor. See Connecting the cables on page 8.

Turning on the monitor

1. Press the power button on the computer to turn it on.

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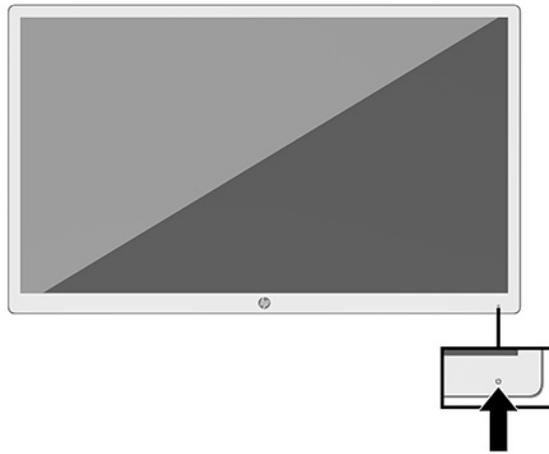
IMPORTANT: Burn-in damage may occur on all monitors that display the same static image on screen for 12 or more consecutive hours. To avoid burn-in damage, always activate a screen saver application or turn off the monitor when it will not be in use for a prolonged period. Image retention is a condition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

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

**NOTE:** You can disable the power LED in the OSD menu. Press the Menu button on the front of the monitor to open the OSD menu. In the OSD menu select **Power Control**, select **Power LED**, and then select **Off**.

When the monitor is first turned on, a monitor status message displays for five seconds. The message shows which input is the current active signal, the 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 monitor.

Mounting the monitor head

The monitor head can be attached to a stand using the HP Stand Kit, product number 4BX37AA (sold separately) or to a wall or other mounting fixture.

NOTE: This apparatus is intended to be supported by a UL Listed 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, 10 mm-long screws are required. Longer screws 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 head. For best performance, use the power and video cables provided with the monitor.

Installing a security cable

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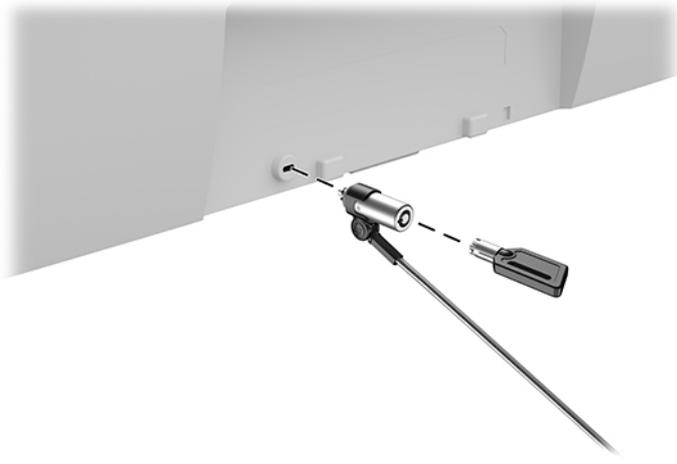
2 Using the monitor

Downloading the monitor drivers

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

- INF (Information) file
- ICM (Image Color Matching) files (one for each calibrated color space)
- HP Display Assistant — adjusts the monitor settings and enables theft deterrence features

To download the files:

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

Using the on-screen display (OSD) menu

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

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

1. If the monitor is not already on, press the power button on the front of the monitor to turn on the monitor.
2. To access the OSD menu, press one of the four Function buttons on the monitor's front panel to activate the buttons. Then press the Menu button to open the OSD menu.
3. Use the Function buttons to navigate, select, and adjust the menu choices. The on-screen button labels vary depending on which menu or submenu is active.

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

Table 2-1 OSD menu options and descriptions

Main Menu	Description
Brightness	Adjusts the brightness level of the screen.
Contrast	Adjusts the contrast level of the screen. The factory default is 80.
Color Control	Selects and adjusts the screen color.
Input Control	Selects the video input signal.
Image Control	Adjusts the screen image.
Power Control	Adjusts the power settings.
Menu Control	Adjusts the OSD menu controls.

Table 2-1 OSD menu options and descriptions (continued)

Main Menu	Description
Management	Adjusts the DDC/CI settings, language selection setting, and returns all OSD menu settings to the factory default settings.
Sanitization	Enables the sanitization log, updates the sanitization log, opens the view sanitization log, and sets the hourly alert schedule.
Information	Selects and displays important information about the monitor.
Exit	Exits the OSD menu screen.

Using color options

This monitor has been certified as compliant with DICOM (Digital Imaging and Communication in Medicine) Part 14. The monitor can be used by clinicians to view medical images for clinical review, peer consultation, patient consultation, or image verification. The monitor is not intended for use in diagnosis, cure, treatment, or prevention of human disease or other medical conditions.

NOTE: DICOM modes are not supported on the HP HC241p model due to the embedded privacy filter.

The monitor is factory-calibrated, and the default color setting is DICOM (0.0 ALC). To change the color setting to another preset or custom setting:

1. Press the Menu button on the front panel of the monitor to open the on-screen display menu.

2. Navigate to and highlight the **Color** menu, and then select a color setting.

3. Then click **Save and Return**.

NOTE: When viewing medical images, make sure the monitor color setting is set to DICOM.

The following table lists the options on the Color Control menu.

Table 2-2 Color Control menu options and descriptions

Main Menu	Description
DICOM (0.0 ALC)	Sets the screen to DICOM Part 14 GSDF at zero ambient light compensation setting.
DICOM (2.2 ALC)	Sets the screen to DICOM Part 14 GSDF at 2.2 ambient light compensation setting for darker viewing conditions.
Neutral	Sets the color scheme to a point in the 6500K color temperature range.
Cool	Sets the color scheme to a point in the 9300K color temperature range.
Warm	Sets the color scheme to a point in the 5000K color temperature range.
Custom RGB	Allows you to select and adjust your own color levels. - R: Set the red color levels. - G: Set the green color levels. - B: Set the blue color levels.

Using Auto-Sleep Mode

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 will enter 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 (sleep mode), the monitor screen is blanked, the backlight is turned 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 will wake from sleep mode when the computer sends an active signal to the monitor (for example, if you activate the mouse or keyboard).

You can disable Auto-Sleep Mode in the OSD menu. Press the Menu button on the monitor's front panel to open the OSD menu. In the OSD menu select **Power Control**, select **Auto-Sleep Mode**, and then select **Off**.

3   Support and troubleshooting

Solving common problems

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

Table 3-1 **Common problems and solutions**

Problem	Possible Cause	Solution
Screen is blank or video is flashing.	Power cord is disconnected.	Connect the AC power cord.
	Display is turned off.	Press the front panel power button. **NOTE:** If pressing the power button has no effect, press and hold the power button for 10 seconds to disable the Power Button Lockout feature.
	Video cable is improperly connected.	Connect the video cable properly. Refer to Connecting the cables on page 8 for more information.
	System is in sleep mode.	Press any key on the keyboard or move the mouse to inactivate the screen blanking utility.
	Video card is incompatible.	Open the OSD menu and select the **Input Control** menu. Set **Auto-Switch Input** to **Off** and manually select the input.
Image appears blurred, indistinct, or too dark.	Brightness setting is too low.	Open the OSD menu and select **Brightness** to adjust the brightness scale as needed.
Check Video Cable is displayed on the screen.	Display 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 22).
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 **Power Control**, select **Auto-Sleep Mode**, and then set auto-sleep to **On**.
OSD Lockout is displayed.	The monitor's OSD Lockout function is enabled.	Press and hold the Menu button on the front panel of the monitor 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 on the front panel for 10 seconds to unlock the power button function.
Power voltage	Interruption note	An imaging system displays an image that could be altered, but in a way that would not affect the diagnosis or treatment.

Button lockouts

Holding down the power button or Menu button on the front panel for ten seconds will lock out the functionality of the buttons. You can restore the functionality by holding the buttons down again for ten

seconds. This functionality is only available when the monitor is turned on and displaying an active signal, and the OSD is closed.

Contacting support

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

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:

● Display model number

● Display serial number

● Purchase date on invoice

● Conditions under which the problem occurred

● Error messages received

● Hardware configuration

● Name and version of the hardware and software you are using

Locating the serial number and product number

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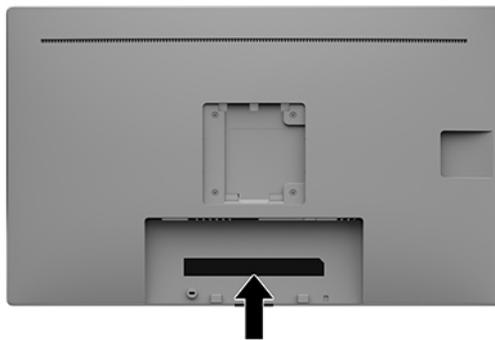
4 Maintaining the monitor

Maintenance guidelines

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

- Do not open the monitor cabinet or attempt to service this product yourself. Adjust only those controls that are covered in the operating instructions. If the monitor is not operating properly or has been dropped or damaged, contact an authorized HP dealer, reseller, or service provider.

- Use only a power source and connection appropriate for this monitor, as indicated on the label/back plate of the monitor.

- Be sure the total ampere rating of the products connected to the outlet does not exceed the current rating of the AC 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.

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

- 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 AC power cord. Do not walk on the AC power cord.

- Keep the monitor in a well-ventilated area, away from excessive light, heat, or moisture.

- When removing the monitor stand (sold separately), you must position the monitor facedown on a soft area to prevent it from getting scratched, defaced, or broken.

Cleaning the monitor

1. Turn off the monitor.

2. Disconnect any external devices.

3. Dust the monitor by wiping the screen and the cabinet with a soft, clean antistatic cloth.

   IMPORTANT: The cloth should be moist, but not wet. Water dripping into the ventilation or other points of entry can cause damage to the monitor. Allow the unit to air-dry before use.

4. Next, use any of the following germicidal wipe formulations to safely disinfect all exposed surfaces of your monitor. Refer to the directions for use provided by the manufacturer of the wipes.

   IMPORTANT: Spray the cleaner onto a cloth and use the damp cloth to gently wipe the screen surface. Never spray the cleaner directly on the screen surface. It may run behind the bezel and damage the electronics.

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

Table 4-1 Recommended cleaning formulas

Recommended cleaning formulas
Benzyl-C12–18–alkyldimethyl ammonium chlorides: <0.1%, quaternary ammonium compounds, C12–14–alkyl[(ethylphenyl)methyl]dimethyl, chlorides: <0.1%
Isopropanol: 10–20%, 2–butoxyethanel: <5%, quaternary ammonium compounds, C12–18–alkyl[(ethylphenyl)methyl]dimethyl, chlorides: <0.5%, benzyl-C12–18–alkyldimethyl ammonium chlorides: <0.5%
Quaternary ammonium compounds, C12–18–alkyl[(ethylphenyl)methyl]dimethyl, chlorides: <0.5%, benzyl-C12–18–alkyldimethyl ammonium chlorides: <0.5%
Isopropyl alcohol: 55.0%, alkyl dimethyl benzyl ammonium chlorides: 0.250%, Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride: 0.250%
Isopropanol: 10–20%, ethylene glycol monobutyl ether (2–butoxyethanol): 1–5%, diisobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride: 0.1–0.5%
Sodium hypochlorite 0.1–1%
Cellulose: 10–30%, ethyl alcohol: 0.10–1.00%
Isopropyl alcohol: 30–40%, water 60–70%

NOTE: Contact your local HP sales representative for recommended brands of ready-to-use cleaning wipes which have been tested and recommended for cleaning and disinfecting the monitor.

5. Update the sanitization log. For detailed instructions, see .

Using the sanitization menu

The sanitization menu can be used to update the sanitization log, view the sanitization log, and set sanitization schedule alerts. To access the sanitization menu:

1. Press one of the four front bezel buttons to activate the buttons, and then press the Menu button to open the OSD menu.

2. In the OSD menu, select **Sanitization**.

TIP: To update the sanitization log more quickly, press one of the four front bezel buttons to activate the buttons, and then select the sanitization button.

3. Use the four front bezel buttons to navigate, select, and adjust the menu choices. The button labels are variable depending on the menu or sub-menu that is active.

Table 4-2 Sanitization menu choices and descriptions

Menu choice	Description
Enable sanitization log	When the check box is selected (default setting), all sanitization log functions are enabled.
Update sanitization log	Places an entry in the first sanitization log list and resets the timer.

Table 4-2 Sanitization menu choices and descriptions (continued)

Menu choice	Description
View sanitization log	Displays the first 27 sanitization log entries.
Hours since last sanitization	Displays the number of hours since the last sanitization log entry.
Show alert message when hourly schedule is exceeded	When the check box is selected (default is cleared), it enables the set hourly alert schedule function and will display an **Update Sanitization Log** message on the screen.
Set hourly alert schedule	Allows the user to set the number of hours between sanitization log updates. When that number of hours expires an **Update Sanitization Log** message will appear on the monitor.

Shipping the monitor

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

A   Technical specifications

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

Table A-1 Monitor specifications

HP HC241 / HP HC241p		
Display	**61.1 cm** wide screen	24.0 in wide screen
Type	AHVA	
Viewable image size	**61.1 cm** diagonal	24.0 in diagonal
Weight	**6.87 kg**	15.15 lbs
Dimensions		
Height (monitor head only)	**37.88 cm**	14.91 in
Height (with stand)	**55.16 cm**	21.72 in
Depth (monitor head only)	**5.32 cm**	2.09 in
Depth (with stand)	**19.70 cm**	7.75 in
Width	**56.36 cm**	22.19 in
Maximum graphic resolution	1920 × 1200 (60 Hz)	
Optimum graphic resolution	1920 × 1200 (60 Hz)	
Dot pitch	0.27 (H) × 0.27 (V) mm	
Pixels per inch	94.34 PPI	
Horizontal frequency	30 kHz to 80 kHz	
Vertical refresh rate	50 Hz to 60 Hz	
Environmental requirements temperature		
Operating temperature	**5°C to 35°C**	41°F to 95°F
Atmospheric pressure range	70.0 kPa to 106.0 kPa	
Storage/transportation temperature	**-34°C to 60°C**	-29°F to 140°F
Storage/transportation humidity	**5% to 95% RH at 38.7°C**	5% to 95% RH at 101.7°F
Relative humidity	20% to 80%	
Power source	100 V ac to 240 V ac 50/60 Hz	
Altitude		
Operating	**0 m to 2,000 m**	0 to 6,562 ft
Storage	**0 m to 12,192 m**	0 to 40,000 ft

HP HC241 / HP HC241p

Measured power consumption

Full power	35 W
Typical settings	25 W
Sleep	<0.3 W
Off	<0.3 W
Input terminal	One DisplayPort port, one HDMI port, one VGA, one USB Type-B port (upstream), and two USB 2.0 Type-A ports (downstream)

* HP Stand Kit, product number 4BX37AA

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.

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	1440 × 900	55.469	59.901
10	1600 × 900	60.000	60.000
11	1600 × 1200	75.000	60.000
12	1680 × 1050	65.290	59.954
13	1920 × 1080	67.500	60.000
14	1920 × 1200	74.038	59.950

Table A-3 Preset timing resolutions

Preset	Timing name	Pixel format	Horz freq (kHz)	Vert freq (Hz)
1	480p	720 × 480	31.469	59.94

Table A-3 Preset timing resolutions (continued)

Preset	Timing name	Pixel format	Horz freq (kHz)	Vert freq (Hz)
2	720p60	1280 × 720	45.000	60.00
3	576p	720 × 576	31.250	50.00
4	720p50	1280 × 720	37.500	50.00
5	1080p60	1920 × 1080	67.500	60.00
6	1080p50	1920 × 1080	56.250	50.00

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 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 <0.3 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 works only when the monitor is connected to a computer that has energy saver features.

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   Accessibility

Accessibility

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

Finding the technology tools you need

Technology can unleash your human potential. Assistive technology removes barriers and helps you create independence at home, at work, and in the community. Assistive technology helps increase, maintain, and improve the functional capabilities of electronic and information technology. For more information, see Finding the best assistive technology on page 25.

Our commitment

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

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

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

- Raise the level of awareness of accessibility issues within our company, and provide our employees with the training they need to design, produce, market, and deliver accessible products and services.

- Develop accessibility guidelines for products and services, and hold product development groups accountable for implementing these guidelines where competitively, technically, and economically feasible.

- Involve people with disabilities in the development of accessibility guidelines, and in the design and testing of products and services.

- Document accessibility features and make information about our products and services publicly available in an accessible form.

- Establish relationships with leading assistive technology and solution providers.

- Support internal and external research and development that will improve assistive technology relevant to our products and services.

- Support and contribute to industry standards and guidelines for accessibility.

International Association of Accessibility Professionals (IAAP)

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

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

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

Finding the best assistive technology

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

Assessing your needs

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

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

Accessibility for HP products

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

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

If you need additional support with the accessibility features on your HP product, see Contacting support on page 30.

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

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

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

Standards and legislation

Standards

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

Mandate 376 – EN 301 549

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

Web Content Accessibility Guidelines (WCAG)

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

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

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

Legislation and regulations

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

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

- United Kingdom

- Australia

- Worldwide

United States

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

- www.section508.gov

- Buy Accessible

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

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

21st Century Communications and Video Accessibility Act (CVAA)

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

- FCC Guide on the CVAA

Other U.S. legislation and initiatives

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

Canada

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

Europe

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

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

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

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

- CEN project team

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

- Commission takes low profile on e-accessibility

United Kingdom

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

- W3C UK Policies

Australia

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

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

Worldwide

- JTC1 Special Working Group on Accessibility (SWG-A)

- G3ict: The Global Initiative for Inclusive ICT

- Italian accessibility legislation

- W3C Web Accessibility Initiative (WAI)

Useful accessibility resources and links

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

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

Organizations

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

Educational institutions

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

Other disability resources

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

HP links

Our contact webform

HP comfort and safety guide

HP public sector sales

Contacting support

- Customers who are deaf or hard of hearing that have questions about technical support or accessibility of HP products:

  - Use TRS/VRS/WebCapTel to call (877) 656-7058 Monday through Friday, 6 a.m. to 9 p.m. Mountain Time.

- Customers with other disabilities or age-related limitations who have questions about technical support or accessibility of HP products, choose one of the following options:

  - Call (888) 259-5707 Monday through Friday, 6 a.m. to 9 p.m. Mountain Time.

  - Complete the Contact form for people with disabilities or age-related limitations.