User Guide

Product notice

This guide describes features that are common to most models. Some features may not be available on your computer.

Safety warning notice

⚠ WARNING!   To reduce the possibility of heat-related injuries or of overheating the computer, do not place the computer directly on your lap or obstruct the computer air vents. Use the computer only on a hard, flat surface. Do not allow another hard surface, such as an adjoining optional printer, or a soft surface, such as pillows or rugs or clothing, to block airflow. Also, do not allow the AC adapter to come into contact with the skin or a soft surface, such as pillows or rugs or clothing, during operation. The computer and the AC adapter comply with the user-accessible surface temperature limits defined by the International Standard for Safety of Information Technology Equipment (IEC 60950).

Table of contents

1 Starting right

Your Chrome device is a powerful tool designed to enhance your work and entertainment. Read this chapter to learn about best practices after setup, fun things to do with your device, and where to find additional HP resources.

Best practices

To get the most out of your smart investment, after you set up and register the device, we recommend the following steps:

- If you haven't already done so, connect to a wired or wireless network. See details in Connecting to the Internet on your Chrome device on page 8.

- Become familiar with the device hardware and software. For more information, see Using audio and video on your Chrome device on page 18.

- Update or purchase antivirus and security apps at the Chrome Web store.

Fun things to do

- Did you know that you can connect your device to a television? For more information, see Connecting an HDMI device on page 19.

- Did you know that you can also stream live radio to the device and listen to music or talk radio from all over the world? See Using audio on page 18.

- Did you know that you can use Google Docs and Google Sheets to get work done on the go, and that you can save your work to the cloud, from almost anywhere in the world? For more information on saving files to the cloud, see Managing files on page 13.

More HP resources

You have already used *Setup Instructions* to turn on the Chrome device and locate this guide. To locate product details, how-to information, and more, use this table.

Resource	Contents
Setup Poster	● Overview of device setup and features.
Help and 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**.	● A broad range of how-to information and troubleshooting tips.
Worldwide support web page To get support in your language, go to **http://welcome.hp.com/country/us/en/wwcontact_us.html**.	● Online chat with an HP technician. ● Email support. ● Find support telephone numbers. ● Locate HP service center locations.
Safety & Comfort Guide Go to **http://www.hp.com/ergo**.	● Proper workstation setup. ● Guidelines for posture and work habits that increase your comfort and decrease your risk of injury. ● Electrical and mechanical safety information.
Regulatory, Safety and Environmental Notices This guide is provided in the box.	● Important regulatory notices, including proper battery disposal information.
Limited Warranty This guide is provided in the box, or go to **http://www.hp.com/go/orderdocuments**.	● Specific warranty information about this device.

2 Getting to know your device

Identifying components

Your device may support the following components. For more information, refer to the *Setup Poster*, included in the box.

Component		Description
	AC adapter light	● White: The AC adapter is connected and the battery is charged. ● Amber: The AC adapter is connected and the battery is charging. ● Off: The computer is using battery power.
	Action keys	Execute frequently used functions.
🎤	Audio-in (microphone) jack	Connects an optional computer headset microphone, stereo array microphone, or monaural microphone.
🎧	Audio-out (headphone) jack	Connects optional powered stereo speakers, headphones, earbuds, a headset, or a television audio cable. WARNING! To reduce the risk of personal injury, adjust the volume before using headphones, earbuds, or a headset. For additional safety information, see the *Regulatory, Safety and Environmental Notices*. NOTE: When a device is connected to a headphone jack, the device speakers are disabled.
🎧	Audio-out (headphone)/Audio-in (microphone) jack	Connects optional powered stereo speakers, headphones, earbuds, a headset, or a television audio cable. Also connects an optional headset microphone. This jack does not support optional microphone-only devices. WARNING! To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. NOTE: When a device is connected to the jack, the device speakers are disabled. NOTE: Be sure that the device cable has a 4-conductor connector that supports both audio-out (headphone) and audio-in (microphone).
‡D	DisplayPort	Connects an optional digital display device, such as a high-performance monitor or projector.
	esc key	Launches the task manager when used with the shift key.
|□|	External monitor port	Connects an external VGA monitor or projector.

Component		Description
	Hard drive light	● The hard drive is being accessed.
	HDMI port	Connects an optional video or audio device, such as a high-definition television, any compatible digital or audio component, or a high-speed High-Definition Multimedia Interface (HDMI) device.
	Internal display switch	Turns off the display and initiates Sleep if the display is closed while the power is on. NOTE: The internal display switch is not visible from the outside of the computer.
	Internal microphones	Record sound.
	Memory card reader	Reads optional memory cards that store, manage, share, or access information. To insert a card: ▲ Hold the card label-side up, with connectors facing the slot, insert the card into the slot, and then push in on the card until it is firmly seated. To remove a card: ▲ Press in on the card it until it pops out.
	Power button	● When the device is in the Sleep state, press the button briefly to exit Sleep. NOTE: You can also exit Sleep by lifting the display or pressing any key. Sleep is initiated by the system after a certain period of inactivity, or when you lower the display. ● When the device is off, press the button to turn on the device. ● When the device is on and you want to lock the screen, press the power button until the sign-in screen appears. ● When the screen is locked, press the power button to turn the device off. CAUTION: Pressing and holding down the power button will result in the loss of unsaved information.
	Power connector	Connects an AC adapter.
	Power light	Your device may have more than one power light. Each may display different light conditions, depending on device behavior. ● On: The device is on. ● Blinking: The device is in the Sleep state, a power-saving mode. ● Off: The device is off.
	RJ-45 (network) jack/status lights	Connects a network cable. The color of the lights may be different, depending on your device.

Component		Description
		● White: The network is connected.
		● Amber: Activity is occurring on the network.
	Security cable slot	Attaches an optional security cable to the device. **NOTE:** The security cable is designed to act as a deterrent, but it may not prevent the device from being mishandled or stolen.
	SIM slot (select models only)	Supports a wireless subscriber identity module (SIM).
	Speakers	Produce sound.
	TouchPad zone	Reads your finger gestures to move the pointer or activate items on the screen.
	USB 2.0 charging (powered) port	Connects an optional USB device, such as a keyboard, mouse, external drive, printer, scanner or USB hub. Standard USB ports will not charge all USB devices or will charge using a low current. Some USB devices require power and require you to use a powered port. **NOTE:** USB charging ports can also charge select models of cell phones and MP3 players, even when the device is in Sleep mode.
	USB 2.0 port	Connects an optional USB device, such as a keyboard, mouse, external drive, printer, scanner or USB hub.
	USB 3.0 charging (powered) port	Connects an optional USB device, such as a keyboard, mouse, external drive, printer, scanner or USB hub. Standard USB ports will not charge all USB devices or will charge using a low current. Some USB devices require power and require you to use a powered port.
	USB 3.0 port	Connects an optional USB device, such as a keyboard, mouse, external drive, printer, scanner or USB hub.
	Vents	Enable airflow to cool internal components. **NOTE:** The device fan starts up automatically to cool internal components and prevent overheating. The number of vents vary depending on the device. It is normal for the internal fan to cycle on and off during routine operation.
	Webcam	Records video and captures photographs. Some devices allow you to video conference and chat online using streaming video.
	Webcam light	On: The webcam is in use.
	WLAN antennas	Send and receive wireless signals to communicate with WLANs.

Component	Description
	NOTE: The antennas are not visible from the outside of the device. For optimal transmission, keep the areas immediately around the antennas free from obstructions. For wireless regulatory notices, see the section of the *Regulatory, Safety, and Environmental Notices* that applies to your country or region.
WWAN antennas	Send and receive wireless signals to communicate with WWANs. **NOTE:** The antennas are not visible from the outside of the device. For optimal transmission, keep the areas immediately around the antennas free from obstructions. For wireless regulatory notices, see the section of the *Regulatory, Safety, and Environmental Notices* that applies to your country or region.

Labels

The labels affixed to the device provide information you may need when you troubleshoot system problems or travel internationally with the device:

IMPORTANT: All labels described in this section will be affixed to the bottom of the device.

For help finding these locations, refer to <u>Getting to know your device on page 3</u>

- Service label—The label affixed to the bottom of your device provides important information to identify the unit. When contacting support, you will probably be asked for the serial number, and possibly for the product number or the model number. Locate these numbers before you contact support.
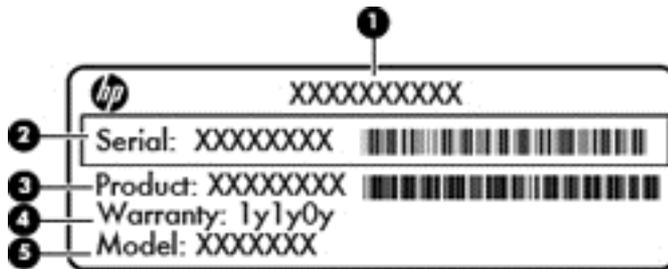
Component	
(1)	Product name
(2)	Serial number (s/n)
(3)	Part number/Product number (p/n)
(4)	Warranty period
(5)	Model description (select models only)

- Regulatory label(s)—Provide(s) regulatory information about the device.

- Wireless certification label(s)—Provide(s) information about optional wireless devices and the approval markings of some of the countries or regions in which the devices have been approved for use.

3 Connecting to the Internet on your Chrome device

Connecting to the internet is quick and easy on your Chrome device. Follow the directions in the sections below to connect to a wired local area network (LAN) or to connect wirelessly through your device's WLAN antennas or by Bluetooth (select models only). For more information about the location of your antennas, and a quick-start guide, see the *Setup Poster* included with your device.

NOTE: The icons on the Chrome desktop and the appearance of the screen may vary.

Connecting to a wired network (select devices only)

Use a LAN connection if you want to connect the device directly to a router in your home (instead of working wirelessly), or if you want to connect to an existing network at your office.

Connecting to a LAN requires an 8-pin, RJ-45 (network) cable, or an optional micro-SD cable with a network adapter connected to it.

To connect to a wired network:

1. Plug the network cable into the network jack **(1)** on the device.

2. Plug the other end of the network cable into a network wall jack **(2)** or router.

NOTE: If the network cable contains noise suppression circuitry **(3)**, which prevents interference from TV and radio reception, orient the circuitry end of the cable toward the device.
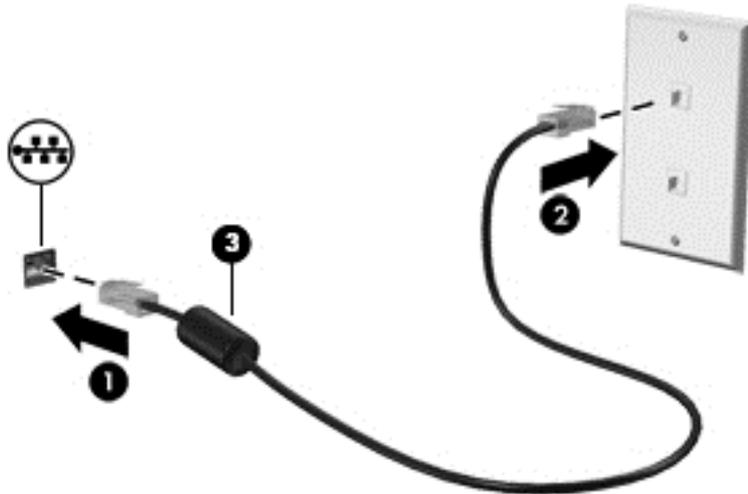
Connecting to a wireless network

To connect to a wireless network, follow the steps below.

1. From the Chrome desktop, click the **Chrome menu** and then select **Wireless networks available**, or select the wireless icon in the status area at the lower right side of the screen.

2. Select the wireless network you want to access and click **Connect**.

3. Provide passwords and encryption keys as prompted. A network protected with a password and/or encryption key is indicated by the secure connection icon . Contact your network administrator for more information, if needed.

Connecting to a Bluetooth device or network (select devices only)

Pair a compatible Bluetooth product, such as a headset, keyboard, or mouse with your device by following the steps below.

1. Click the status area in the lower-right corner of the desktop to display the status menu. If you see **Bluetooth enabled**, Bluetooth is currently connected. If you see **Bluetooth disabled** in the menu, Bluetooth is currently disconnected.

2. If Bluetooth is disabled, you can select **Bluetooth disabled > Enable Bluetooth** in the menu. Your Chrome device scans for available Bluetooth devices.

3. Select the device you want to add and click **Connect**.

4. Follow the instructions on the screen to connect your Bluetooth device. Some devices create a PIN needed to complete the process.

Connecting to a mobile network (select devices only)

To connect to a network controlled by a mobile provider (for example, a data service plan through a cellular provider), a SIM module must be installed on your Chrome device, and you must have activated your mobile network account with your provider.

If a SIM module is not preinstalled, you can purchase it separately. To insert the SIM module, see the manufacturer's documentation for your module. After the module is installed, follow the steps below to connect to a mobile network.

1. Click the network icon in the lower-right corner of your screen.

2. Click your network status on the menu that appears.

3. Click or on the menu that appears. If you don't see these options, that means your Chrome device is not able to use mobile networks.

4. To connect, select your mobile network's name from the network menu.

NOTE: You may be asked to enter a personal identification number (PIN) if the SIM module is locked.

NOTE: Your Chrome device will use the mobile network to transmit data only when no other networks are connected. To ensure that your device transmits data over the mobile network, disable Wi-Fi from the network menu. For more information, see Using Settings on page 14.

Enabling and disabling Wake on LAN (WOL) function (select devices only)

Wake on LAN (WOL) is a function that allows your device to be turned on by a message sent across your local area network, or LAN.

NOTE: Wake on LAN only functions when a LAN cable is attached. WOL resets to its default setting (WOL-enabled) after a system reboot.

NOTE: Accessing the WOL function requires initiating a Recovery and entering developer mode. Ensure that all of your files are saved to the cloud or to an external drive before proceeding.

The process for enabling and disabling WOL may change as the operating system is updated. For further information and updates, go to http://www.hp.com/support, and select your country. Select **Drivers & Downloads**, and then follow the on-screen instructions to find documentation relevant to your device. You may also refer to http://www.chromium.org/chromium-os/developer-information-for-chrome-os-devices for information about accessing developer mode.

You may turn this function on and off by following the directions below:

1. Altering WOL settings requires entering development mode. Please refer to http://www.chromium.org/chromium-os/developer-information-for-chrome-os-devices for directions on accessing developer mode on your device.

2. After initiating developer mode, the system restarts automatically and prompts you to set up your language and keyboard again before logging on to your user account.

3. After logging in, from the Chrome desktop, press Ctrl + Alt + F2 or Ctrl + Alt + → to enter console mode.

4. On the console screen, type `root` and press Enter.

5. At the next prompt, type **ethtool -s eth0 wol d** and press Enter to disable WOL function. To enable WOL function, type **ethtool –s eth0 wol g** and press Enter.

6. Press Ctrl + Alt + F1 or Ctrl + Alt + → to return to the Chrome desktop.

NOTE: Changes to Wake on LAN functions may only be applied when a LAN cable is attached. WOL will be reset to its default setting (WOL-enabled) after a system reboot.

4 Using the Chrome desktop

The desktop provides a central location where you can customize the information, media, and applications you want to access quickly. You may click or touch any icon below to perform the action described.

NOTE: The icons on the desktop and the appearance of the desktop may vary depending on model.

Using the launcher

The launcher icon ⊞ at the lower left side of the screen allows access to a list of all the available apps on your Chrome device.

Using the shelf

The shelf along the lower edge of the screen contains popular shortcuts to apps so that you can find them easily. You can customize this list of apps at any time by pinning and unpinning apps there.

To pin an app to the shelf, click or tap the launcher icon ⊞ , select an app, right-click or two-finger tap the app, and then select **Pin to shelf**.

Using the status area and settings

The status area at the lower right side of the Chrome desktop provides information about your network status, power status, and which account you're currently using. Click or tap the status area, and a menu appears. Select **Settings** to access to the Settings page. Here, you can change how input devices like the mouse, TouchPad, external keyboards, and displays work, and regulate web browsing and device permissions.

To learn more about the Settings page, go to https://support.google.com/chromeos/ and search for information about this topic. You may also refer to Using Settings on page 14 in this guide.

5 Using apps

Chrome is a lightweight but powerful operating system that gives you access to thousands of free and paid apps to let you work and play wherever you go.

Managing apps

You can expand the productivity and entertainment capabilities of your Chrome device with free or purchased apps that can be downloaded directly to your device.

To find and install apps, visit the Chrome webstore at https://chrome.google.com/webstore/user/purchases#user/purchases. Using the store requires a Google account, but the store maintains a list of every app you have ever installed, even if you've uninstalled them. This way, you'll never lose an app due to reformatting the operating system. Apps update automatically, ensuring that you always have the most recent version installed.

To open an app you've installed:

▲ Click the launcher icon [icon] and select the app from the list, or select the icon for the app you want from the apps pinned to the shelf at the bottom of the main screen.

To pin or unpin an app to the shelf on the main screen:

▲ Click the launcher icon [icon] , and select the app. Right-click or two-finger tap the app, and then select **Pin to shelf**. To unpin an app, right-click or two-finger tap it and select **Unpin**.

To uninstall an app:

▲ Click the launcher icon [icon] , and select the app. Right-click or two-finger tap the app, and then select **Remove from Chrome**.

To learn more about managing apps, go to https://support.google.com/chromeos/ and search for information about the topic.

6   Managing files

You can manage files on your hard drive or where they're stored on the cloud through the Files app, and you can access your files on other devices, either through cloud storage or by transferring the files to a data storage device such as a USB flash drive.

Managing files

Programs like Google Docs and Google Sheets help you to stay productive wherever you are in the world, and you can download audio and video files to your Chrome device. The Files app helps keep your information organized. To use the Files app, follow the steps below.

1.   From the Chrome desktop, click the ▦ launcher icon.

2.   From the apps list, select the **Files** app icon.

3.   From the left menu In the **Files** app, select the file collection you want to open.

4.   Double-click the file to open it, or, if using a touch screen device, double-tap it.

You can access Google Drive, from this app, and you can download your files stored on the cloud to whichever device you're logged onto at any time. So you can always access your files, even if you're using a device that doesn't use Chrome.

Can't find the file you're looking for? Use the search box in the upper left corner of the app to search by keywords in your file's name or contents.

To learn more about file management, go to https://support.google.com/chromeos/, and search for information about this topic.

Physical file media and transfers

Your device may have USB, microSD, or other ports for storage media. Backing up your important files on physical media like USB flash drives or memory cards can help protect you from data loss if your device must be reset to its factory state. You may also use a USB flash drive, USB hard drive, or memory card to transfer your files from your Chrome device to another device.

7   Using Settings

You can adjust the settings for your mouse and TouchPad, web browsing, and device permissions from the Settings page.

To open the settings page, click in the status area on the lower right side of the desktop. Then select **Settings**.

On the Settings page, there are five major subsections, as well as a link to Advanced settings. These subsections are Internet connection, Appearance, Device, Search, and Users.

Internet connection

In this area, you can add connections, set proxies, and enable and disable wireless and mobile connections. To learn more about managing networks in Chrome, go to https://support.google.com/chromeos/ and search for information about the topic.

Appearance

In this area, you can adjust your wallpaper, get themes, and adjust other cosmetic details of your Chrome experience.

Device

The following sections describe how to adjust the way in which your Chrome device functions.

Touchpad and mouse speed

This area allows you to control the responsiveness of the mouse and TouchPad controls.

To adjust TouchPad or mouse speed, move the appropriate slider to the right to increase the speed with which the arrow moves on the screen in response to device input. Move the slider to the left to decrease the speed with which the arrow responds to input.

Clicking the **Touchpad settings** button (or the **Touchpad and mouse settings** button, if a mouse is connected) opens the **Touchpad** window, in which you can adjust tap-to-click settings and scrolling preferences.

If a mouse is connected, you can adjust which mouse button is primary from this window, as well.

Keyboard settings

Clicking the **Keyboard settings** button opens the Keyboard settings window. Here you can set which key opens the Search function, and how the Ctrl and Alt keys function.

Additionally, you can set the action keys to work as function keys, which may be required by some websites or applications. To make this change, start by opening the Settings page. Click in the status area at the lower right side of the desktop. Then select **Settings**. On the Settings page, find the **Device** subsection, and select **Keyboard settings**. In the Keyboard settings window, select **Treat top-row keys as function keys**.

You can also change your keyboard's language and input settings from this window. To learn more about keyboard language settings, go to https://support.google.com/chromeos/ and search for more information about the topic.

Display settings

Clicking this button opens the **Manage Displays** window, which allows you to change the resolution, orientation, and other elements of your display. Here, you can select from available screen resolutions, change the orientation of the screen from landscape to portrait, and adjust mirroring to other display devices.

Search

In this subsection of the Settings page, you can adjust which search engine you want to use while browsing the web. To do so, select from the list of search engines provided. To learn more about managing your search engines or using a search engine not in the list provided, go to https://support.google.com/chromeos/ and search for more information about the topic.

Users

In this area, you can adjust who can use your Chrome device, and how. For instance, you can enable a security setting to require a user to enter a password to exit Sleep, so that other people cannot gain access to your account just because they have your device.

Select **Require a password to wake from sleep** to ensure that if your device initiates Sleep while it is unattended, no one can access your account or information without your password.

Advanced sync settings

Under **Advanced sync settings**, you can determine which elements of your Chrome experience and preferences will be saved to your Google account. Apps, Autofill, Bookmarks, Extensions, History, Passwords, Settings, Themes, and Open Tabs are synched to your Google account by default. To change this, select **Choose what to sync** and clear the check boxes for the items that you do not want to be saved for use when you log on to your Google account from a different access point.

Under **Encryption options**, you can change the security settings for your Google account. By default, Google encrypts all synced passwords with your Google credentials. For added security, you can encrypt all your synced data with a passphrase.

For more details, go to https://support.google.com/chromeos/ and search for more information about the topic.

Manage other users

Select **Enable Guest browsing** to determine if people need to log on to a Google account before using the device. By default, guest browsing is enabled, which allows a guest to use the device to browse the internet, and nothing more.

Select **Show usernames and photos on the sign-in screen**. By default, this feature is enabled and shows a list of people who have accessed their accounts on this device.

Select **Restrict sign-in to the following users** to specify access to your device. By default, this feature is disabled, but enabling it allows you to type in a list of Google account users who are allowed to access your device. Only those on the list may use the device to sign in.

For more details, go to https://support.google.com/chromeos/, and search for information about these topics.

Advanced settings

Clicking on **Show advanced settings** reveals a hidden subsection of the Settings page, where you can adjust the date and time, alter privacy settings, adjust accessibility options, and much more.

⚠️ **CAUTION:** Changing many of these settings can compromise the security of your device, and is not recommended. For more details, go to https://support.google.com/chromeos/, and search for information about these topics.

📝 **NOTE:** The settings available in this area may differ, depending on model and operating system updates.

Date and time

Under **Date and time**, you can select your time zone and switch to a twenty-four hour clock, if you want to do so.

Privacy

Under **Privacy**, you can control how your internet browsing functions. You can select whether or not to enable malware and phishing protection, set up voice searches, and enable predictive searches in your web browser.

Clicking the **Content settings** button opens the Content settings window. Here, you can enable or disable cookies, determine if all images on web pages will be shown, enable JavaScripts, block pop-up windows, and set which input devices are used for web communication, such as your microphone and webcam. For more details, go to https://support.google.com/chromeos/, and search for information about these topics.

Clicking the **Clear browsing data** button opens the Clear browsing data window. Here, you can clear your internet history cache, cookies, and any passwords you may have saved.

Bluetooth

Under **Bluetooth**, you can enable or disable your device's interaction with Bluetooth devices.

Passwords and forms

Under **Passwords and forms**, you can manage your web passwords and Autofill settings. Autofill is a service that remembers addresses and credit card numbers that you have entered into websites in the past. Removing these pieces of personal information before giving your Chrome device to someone else is a good idea.

Web content

Under **Web content**, you can customize the font size, and page zoom of web pages that you visit, for better readability.

Languages

Under **Languages**, you can customize your keyboard type and shift to an international keyboard by clicking the **Language and input settings** button.

Downloads

Under **Downloads**, you can set a custom location for downloaded files to be sent, and enable or disable access to Google Drive, Google's cloud file storage service.

HTTP/SSL

Under **HTTP/SSL**, you can manage web certificates from sites that recognize your device and accounts. For more details, go to https://support.google.com/chromeos/, and search for information about these topics.

Google Cloud Print

Under **Google Cloud Print**, you can manage your access to printers that are ready for use with Google's Cloud Print service, and select which available printer you want to use. For more details, go to https://support.google.com/chromeos/, and search for information about this topic.

On startup

Under **On startup**, you can adjust how your device behaves when it first turns on. You can select from starting on a New Tab page, continuing where you last left off, or from a specific page or set of pages.

Accessibility

Under **Accessibility**, you can adjust elements of your Chrome device to make it easier to use. You can enable large fonts and a larger mouse cursor, set the device to use a high contrast mode for better visibility, turn on sticky keys, enable the on-screen keyboard, or turn on ChromeVox, which provides audio feedback. For more details, go to https://support.google.com/chromeos/, and search for information about these topics.

Powerwash

Under **Powerwash**, you can remove all user accounts on this device and reset it to its factory condition.

⚠ CAUTION: HP recommends backing up all personal files before resetting your device. Your Google account information and files on cloud services like Google Drive will be unaffected by a powerwash, but files stored locally will be deleted if you do not back them up.

For more details, go to https://support.google.com/chromeos/, and search for information about this topic. You may also refer to Backing up and recovering your Chrome device and data on page 29.

Reset browser settings

Under **Reset browser settings**, you can restore your web browser's settings to their original defaults.

8 Using audio and video on your Chrome device

Use your Chrome device as an entertainment hub to enjoy and manage your music, and download and watch movies. Or, to make your device an even more powerful entertainment center, connect external devices like a monitor, projector, TV, speakers, and headphones.

> **NOTE:** Your device may not support all of these types of audio and video components. Refer to the *Setup Poster*, included in the box, for more detailed information.

Using audio

On your Chrome device, you can download and listen to music, stream audio content from the web (including radio), record audio, or mix audio and video to create multimedia. To enhance your listening enjoyment, attach external audio devices such as speakers or headphones.

Connecting speakers

You can attach wired speakers to your device by connecting them to a USB port or to the audio-out (headphone) jack on your device.

To connect *wireless* speakers to your device, follow the device manufacturer's instructions. To connect high-definition speakers to the device, see Connecting an HDMI device on page 19. Before connecting speakers, lower the volume setting.

Connecting headphones

You can connect wired headphones to the headphone jack on your device.

To connect *wireless* headphones to your device, follow the device manufacturer's instructions.

> **WARNING!** To reduce the risk of personal injury, lower the volume setting before putting on headphones, earbuds, or a headset. For additional safety information, see the *Regulatory, Safety and Environmental Notices*.

Using video

Your Chrome device is a powerful video device that enables you to watch streaming video from your favorite websites and download video and movies to watch later without needing to connect to a network.

To get the most out of your device, use one of the video ports on the device to connect an external monitor, projector, or TV. Your device may have a high-definition multimedia interface (HDMI) port, which allows you to connect a high-definition monitor or TV, or a DisplayPort interface, for connecting to a DisplayPort-compatible device.

> **IMPORTANT:** Be sure that the external device is connected to the correct port on the Chrome device, using the correct cable. Check the device manufacturer's instructions.

Connecting an HDMI device

NOTE: To connect an HDMI device to your Chrome device, you need an HDMI cable, sold separately.

To see the device screen image on a high-definition TV or monitor, connect the high-definition device according to the following instructions:

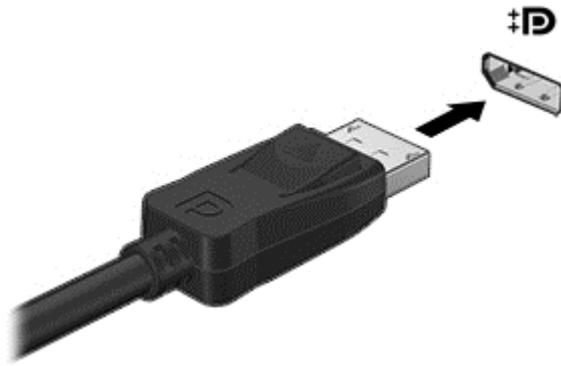1. Connect one end of the HDMI cable to the HDMI port on the device.
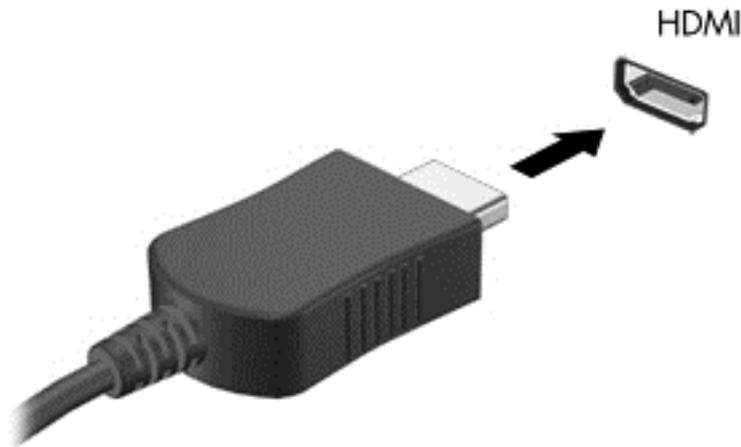
2. Connect the other end of the cable to the high-definition TV or monitor.

3. The Chrome desktop now appears on your display device. If it does not display automatically, press **Ctrl +** [ ] to mirror your screen to the display device.

Connecting a digital display device

The DisplayPort connects a digital display device such as a high-performance monitor or projector. The DisplayPort delivers higher performance than a VGA external monitor port and improves digital connectivity.

1. Connect one end of the DisplayPort cable to the DisplayPort on the Chrome device.

2. Connect the other end of the cable to the digital display device.

3. The Chrome desktop now appears on your display device. If it does not display automatically, press **Ctrl +** to mirror your screen to the display device.

Streaming content to a high-definition TV or monitor (select devices only)

Cast screen technology allows you to stream or display content, such as a movie, wirelessly from your device to a compatible display device, such as a high-definition TV or monitor. If the content has already been downloaded to your device, you can access it through the file manager.

If your content is available through a service, such as Amazon Instant Video, Hulu, Netflix, or Google Play, or other applicable service, you must download an app in order to access your content and view it, either on your device or on a high-definition screen. See Using apps on page 12 for more details.

NOTE: Chrome does not currently support wirelessly streaming data to a monitor or TV. You may use an optional external wireless adapter and an affiliated app, such as a Chromecast, to do so. To learn more about setting up a Chromecast device with your Chrome device, go to https://support.google.com/chromeos/.

Changing screen resolution

To change the screen resolution, click the status area in the lower-right corner of your desktop. Select **Settings**, and go to the **Device** subsection. Click the **Display settings** button, and adjust your screen resolution on the **Display settings** page.

For more information, see Using Settings on page 14.

9   Using TouchPad gestures

A TouchPad allows you to control the pointer on the screen using your fingers.

Using TouchPad gestures

The TouchPad supports a variety of gestures that let your fingers tap and scroll to manipulate items on the desktop
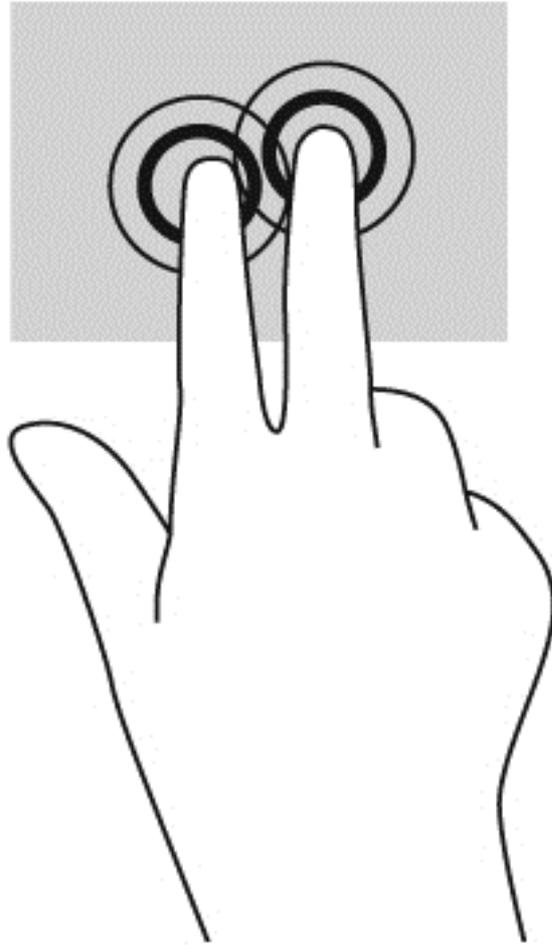
Dragging and dropping

Select the item you want to move with one finger. Move the item with two fingers. When you have positioned the item where you want it, remove both fingers from the TouchPad to drop the item at its new location.

Tapping

To make an on-screen selection, use the Tap function on the TouchPad.

- Tap one finger on the TouchPad zone to make a selection.

● Tap two fingers on the TouchPad zone to bring up a context-sensitive menu.

Scrolling

Scrolling is useful for moving up, down, or sideways on a page or image. Scrolling to the left or the right with two fingers will scroll the screen, if there is more content viewable to either side, or will move back and forth through web browser history.

To scroll, place two fingers slightly apart on the TouchPad, and then drag them across the TouchPad in an up, down, left, or right motion.

NOTE: Scrolling speed is controlled by finger speed.
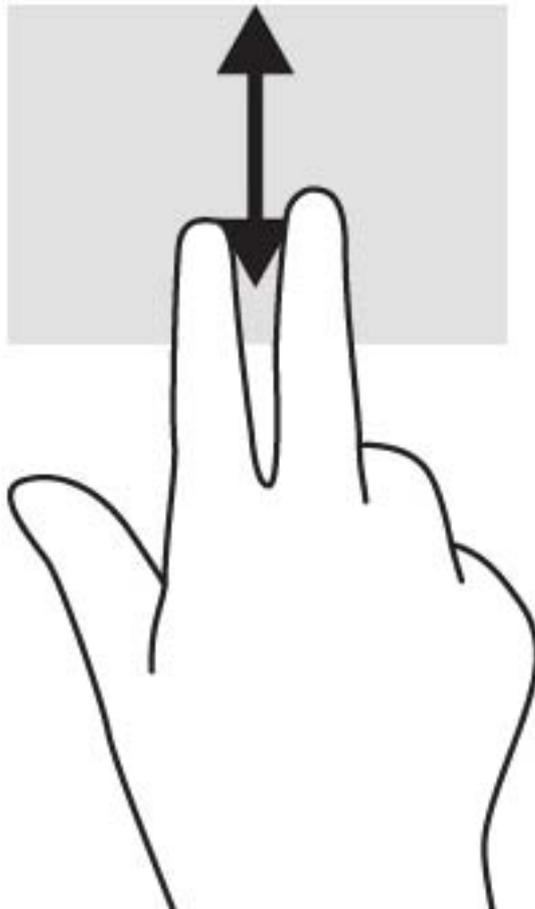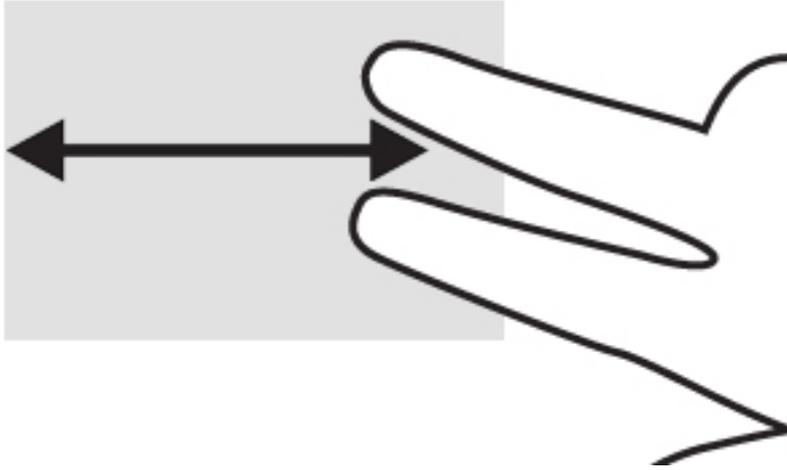
To scroll between open tabs in Chrome, slide three fingers left or right on the TouchPad.
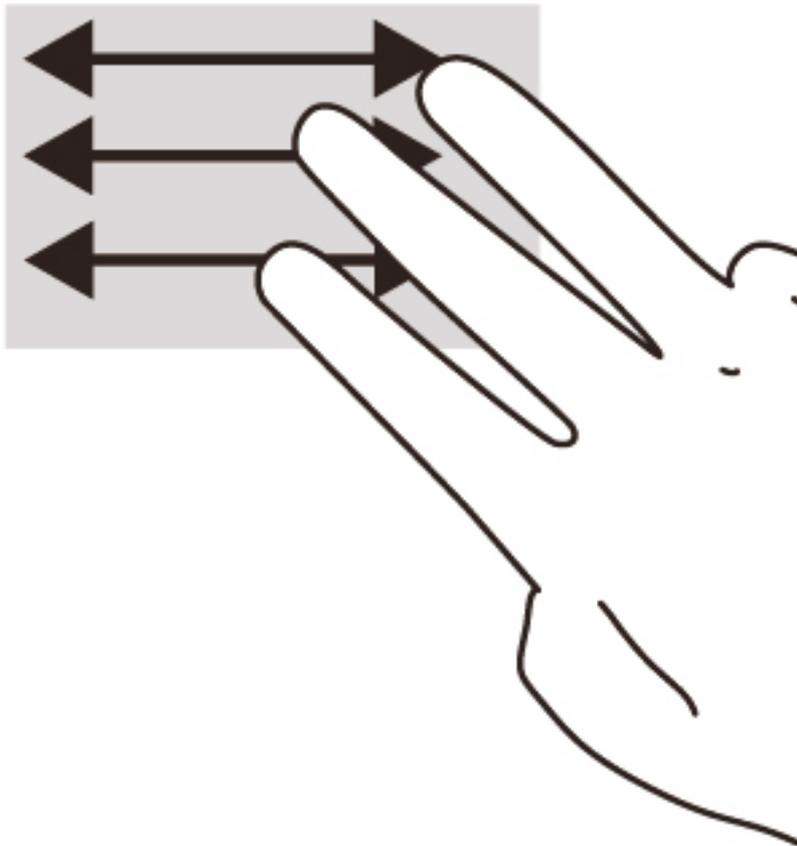
10 Using the keyboard and mouse

Chrome devices may have either integrated keyboards, or may require connecting an optional, Chrome-compatible external keyboard and mouse to allow you to type, select items, scroll and to perform other functions. Chrome-compatible keyboards also allow you to use action keys to perform specific functions.

TIP: HP recommends using a Chrome-compatible keyboard with your device. External keyboards not compatible with Chrome may not offer the same action key functionality. To find a Chrome-compatible keyboard, go to www.hp.com.

Using the action keys

Not every Chrome device or external keyboard has the same action keys. To learn more about the keyboard and shortcuts, go to https://support.google.com/chromeos/ and search for information on the topics.

Icon	Key	Description
	esc	esc is a key that interacts with other keys to activate the device's functions.
←	Back	Go to the previous page in your browser history.
→	Forward	Go to the next page in your browser history.
⟳	Reload	Reload your current page.
⤢	Full screen	Open your page in full-screen mode. **NOTE:** Pressing this button in conjunction with ctrl lets you mirror your screen to an external display.
▢)))	Display apps	Displays open apps. **NOTE:** Pressing this button in conjunction with ctrl takes a screenshot.
⚙	Brightness down	Decreases the screen brightness incrementally as long as you hold down the key. **NOTE:** If your external display does not support DDC/CI, then the brightness key may not function.
☀	Brightness up	Increases the screen brightness incrementally as long as you hold down the key. **NOTE:** If your external display does not support DDC/CI, then the brightness key may not function.
🔇	Mute	Mutes speaker sound.
🔉	Volume down	Decreases speaker volume incrementally as long as you hold down the key.

Icon	Key	Description
	Volume up	Increases speaker volume incrementally as long as you hold down the key, and restores sound from mute.
	Power button	● When the device is in the Sleep state, press the button briefly to exit Sleep. NOTE: You can also exit Sleep by lifting the display or pressing any key. Sleep is initiated by the system after a certain period of inactivity, or when you lower the display. ● When the device is off, press the button to turn on the device. ● When the device is on and you want to lock the screen, press the power button until the sign-in screen appears. ● When the screen is locked, press the power button to turn the device off. CAUTION: Pressing and holding down the power button will result in the loss of unsaved information.

You can also set the action keys to work like conventional function keys, which may be required for some websites and applications. For more information, see Using Settings on page 14.

11 Securing your Chrome device and information

Device security is essential for protecting the confidentiality, integrity, and availability of your information. Standard security solutions and third-party software can help protect your device from a variety of risks, such as viruses, worms, and other types of malicious code.

When you log on to Chrome and enable sync, Chrome keeps your information secure by using your Google Account credentials to encrypt your synced passwords. Alternatively, you can choose to encrypt all of your synced data with a sync passphrase. This sync passphrase is stored on your device, and isn't sent to Google. To learn more, go to https://support.google.com/chromeos/ and search for information about the topic.

IMPORTANT: Some security features listed in this chapter may not be available on your device.

Device risk	Security feature
Unauthorized use of the device	Sign-in password
Viruses	Antivirus, phishing, and malware protection
Ongoing or future threats to the device	Software updates
Unauthorized removal of the device	Security cable lock

Securing your wireless network

When you set up your wireless network, always enable security features.

Locking and unlocking your device

Whenever you leave your Chrome device unattended, it's a good idea to lock the screen, at a minimum. You may also set a password to protect your screen lock.

To lock the screen, click the lock icon 🔒 in the status area or press the power button briefly. The log in screen appears. To set a screen password for added security, follow the steps below.

1. Log on to your Chrome device.

2. Click the status area in the lower-right corner.

3. Select **Settings** and find the **Users** section.

4. Select the **Require password to wake up from sleep** check box, and set your password there.

You may also set your device so that only authorized users may log on to their accounts on it. For more information, see Using Settings on page 14. To learn more about security passwords and locking your screen, go to https://support.google.com/chromeos and search for more information about the topic.

Using an optional security cable lock

A security cable lock, which is purchased separately, is designed to act as a deterrent, but it may not prevent the device from being mishandled or stolen. Security cable locks are only one of several methods that should be employed as part of a complete security solution to help maximize theft protection.

The security cable slot on your Chrome device may look slightly different from the illustration in this section.

1. Loop the security cable lock around a secured object.

2. Insert the key (1) into the security cable lock (2).

3. Insert the security cable lock into the security cable slot on the device (3), and then lock the security cable lock with the key.
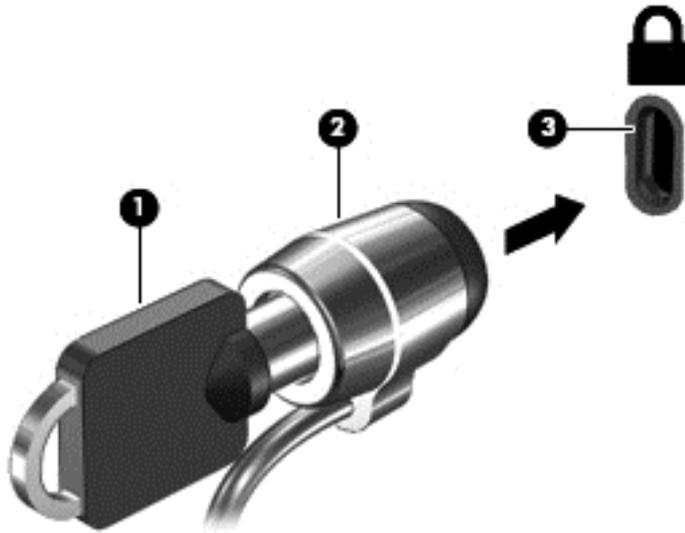
4. Remove the key and keep it in a safe place.

12 Backing up and recovering your Chrome device and data

Backing up your software applications and information

All apps update automatically, and a record of your downloads and purchases is kept in the Chrome Store. Google also saves your last synched settings automatically. If you have to perform a recovery on your device, you can login with your Google account and automatically retrieve all of your settings, favorites, and apps.

Saving important documents and files either to a USB stick, memory card, external hard drive, or to Google Cloud storage is recommended. You may save your files to the cloud at any time by selecting the Google Drive as your file save location.

Recovering your Chrome device

If you want to give your Chrome device to someone else, reset owner permissions, or are having problems with your account profile, you can clear all local user data by resetting your device.

NOTE: All data stored on your device, including permissions, settings, and user-owned files will be deleted for all accounts by performing a factory reset. Resetting your device will not affect your accounts, or any data synched to those accounts.

These directions apply to select models only. To learn more, go to https://support.google.com/chromeos/ and search for information about the topic.

1. Click the status area in the lower-right corner of the screen.

2. Select **Settings** and click **Show advanced settings**.

3. Find the "Powerwash" section and click **Powerwash**.

4. A dialogue box opens. Select **Restart**.

13 Maintenance

It is important that you perform simple maintenance of your device to be sure that it works at peak performance.

Cleaning your device

Use the following products to safely clean your device:

- Dimethyl benzyl ammonium chloride 0.3 percent maximum concentration (for example, disposable wipes, which come in a variety of brands)

- Alcohol-free glass-cleaning fluid

- Water with mild soap solution

- Dry microfiber cleaning cloth or a chamois (static-free cloth without oil)

- Static-free cloth wipes

⚠ **CAUTION:** Avoid strong cleaning solvents that can permanently damage your device. If you are not sure that a cleaning product is safe for your device, check the product contents to make sure that ingredients such as alcohol, acetone, ammonium chloride, methylene chloride, and hydrocarbons are not included in the product.

Fibrous materials, such as paper towels, can scratch the device. Over time, dirt particles and cleaning agents can get trapped in the scratches.

Cleaning procedures

Follow the procedures in this section to safely clean your device.

⚠ **WARNING!** To prevent electric shock or damage to components, do not attempt to clean your device while it is turned on.

- Turn off the device.

- Disconnect AC power.

- Disconnect all powered external devices.

⚠ **CAUTION:** To prevent damage to internal components, do not spray cleaning agents or liquids directly on any device surface. Liquids dripped on the surface can permanently damage internal components.

Cleaning the display

⚠ **CAUTION:** Do not spray or place the cleaner directly on the screen.

Gently wipe the sides and the surface of the display using a soft, lint-free cloth moistened with an alcohol-free glass cleaner.

Cleaning the device vents (select devices only)

Air vents keep the device cool. Keep these vents clean by using a small, battery-powered vacuum cleaner. (A battery-powered vacuum cleaner eliminates the risk of electric shock.)

1. Vacuum the vents on the device case.

2. Remove any debris that has accumulated in and around the device connectors (for example, the Ethernet and USB connectors).

Cleaning the keyboard or mouse (select devices only)

⚠ **WARNING!** To reduce the risk of electric shock or damage to internal components, do not use a vacuum cleaner attachment to clean the keyboard. A vacuum cleaner can deposit household debris on the keyboard surface.

⚠ **CAUTION:** To prevent damage to internal components, do not allow liquids to drip between the keys.

- To clean the keyboard or mouse, use a soft microfiber cloth or a chamois moistened with one of the cleaning solutions listed previously or use an acceptable disposable wipe.

- To prevent keys from sticking and to remove dust, lint, and particles from the keyboard, use a can of compressed air with a straw extension.

If you have a roller-ball mouse, clean the ball and rollers inside.

1. Turn the mouse upside down, and rotate the ball-cover ring counterclockwise to remove the ring and release the roller ball.

2. Rinse the roller ball with soap and warm water.

3. Clean the rollers inside the mouse with a cotton swab dampened with isopropyl (rubbing) alcohol.

4. After the roller ball and rollers are completely dry, replace the ball and ball-cover ring.

14 Power and Battery

Factory-sealed battery

> NOTE: This information applies to select devices only.

To monitor the status of your battery, click the battery icon in the status area at the lower right side of the desktop.

Charging the Battery

1. Connect the power adapter to the device.
2. Verify that the battery is charging by checking the AC adapter light.
3. While the battery is charging, keep the AC adapter connected until the battery information in the status area reads as 100% charged.

The battery[ies] in this product cannot be easily replaced by user themselves. Removing or replacing the battery could affect your warranty coverage. If a battery is no longer holding a charge, contact support.

When a battery has reached the end of its useful life, do not dispose of the battery in general household waste. Follow the local laws and regulations in your area for battery disposal.

15 Electrostatic Discharge

Electrostatic discharge is the release of static electricity when two objects come into contact—for example, the shock you receive when you walk across the carpet and touch a metal door knob.

A discharge of static electricity from fingers or other electrostatic conductors may damage electronic components. To prevent damage to the device, damage to a drive, or loss of information, observe these precautions:

- If removal or installation instructions direct you to unplug the device, unplug it after being properly grounded and before removing a cover.

- Keep components in their electrostatic-safe containers until you are ready to install them.

- Avoid touching pins, leads, and circuitry. Handle electronic components as little as possible.

- Use nonmagnetic tools.

- Before handling components, discharge static electricity by touching an unpainted metal surface.

- If you remove a component, place it in an electrostatic-safe container.

If you need more information about static electricity or assistance with component removal or installation, contact support.

16 Accessibility Features

Accessibility

HP designs, produces, and markets products and services that can be used by everyone, including people with disabilities, either on a stand-alone basis or with appropriate assistive devices.

Supported Assistive Technologies

HP products support a wide variety of operating system assistive technologies and can be configured to work with additional assistive technologies. Use the Search feature on your device to locate more information about assistive features.

NOTE: For additional information about a particular assistive technology product, contact customer support for that product.

Contacting support

We are constantly refining the accessibility of our products and services and welcome feedback from users. If you have an issue with a product or would like to tell us about accessibility features that have helped you, please contact us at (888) 259-5707, Monday through Friday, 6 A.M. to 9 P.M. Mountain Time. If you are deaf or hard-of-hearing and use TRS/VRS/WebCapTel, contact us if you require technical support or have accessibility questions by calling (877) 656-7058, Monday through Friday, 6:00 a.m. to 9:00 p.m. Mountain Time.

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