

# User Guide

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### **Product notice**

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


### **Software terms**

By installing, copying, downloading, or otherwise using any software product preinstalled on this computer, you agree to be bound by the terms of the HP End User License Agreement (EULA). If you do not accept these license terms, your sole remedy is to return the entire unused product (hardware and software) within 14 days for a refund subject to the refund policy of your place of purchase.

For any further information or to request a full refund of the computer, please contact your local point of sale (the seller).

## Safety warning notice

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 **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).

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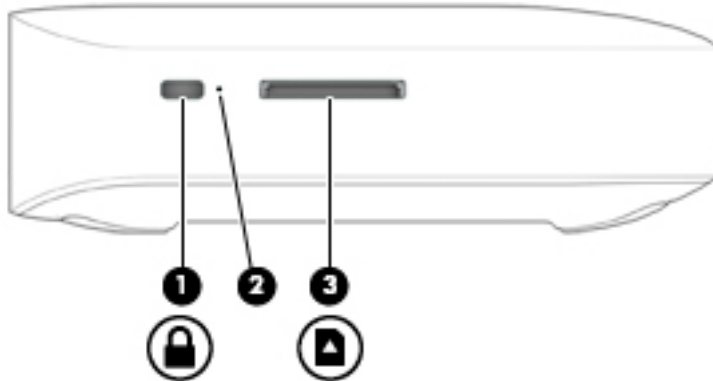
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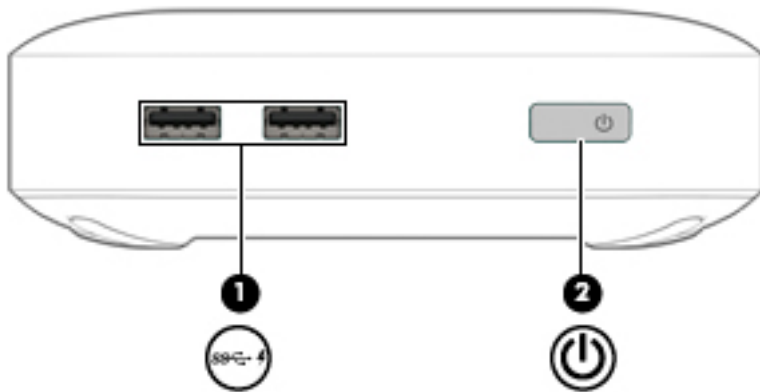
# 1 Getting to know your Chromebox



## Left side



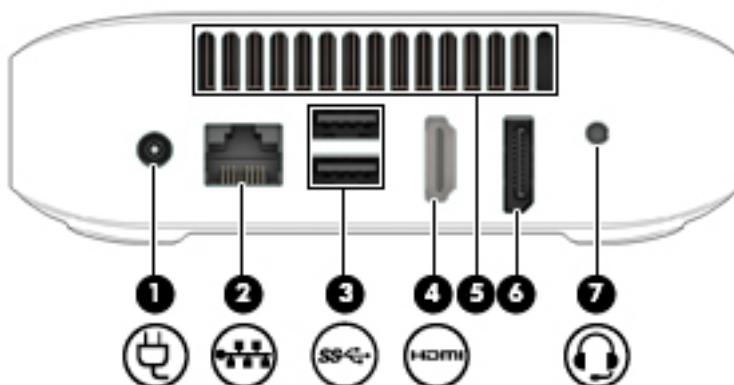
Component	Description
(1) 	<p>Security cable slot</p> <p>Attaches an optional security cable to the device.</p> <p><b>NOTE:</b> The security cable is designed to act as a deterrent, but it may not prevent the device from being mishandled or stolen.</p>
(2)	<p>Recovery button</p> <p>Allows you to install a new copy of the Chrome operating system on your device.</p> <p><b>NOTE:</b> Using this button in conjunction with the <b>Power</b> button will result in all account information and data stored on your Chromebox, such as photos, downloaded files, and saved networks, being deleted. Saving files to an external hard drive, USB stick, or cloud storage is recommended for this reason. You may save your files to the cloud at any time by selecting the Google Drive as your file save location.</p> <p>For details on how to recover your Chrome operating system, please see <a href="#">Securing your Chromebox and information on page 12</a> and <a href="https://support.google.com/chromebook/answer/1080595?hl=en">https://support.google.com/chromebook/answer/1080595?hl=en</a>.</p>
(3) 	<p>Memory card reader</p> <p>Reads optional memory cards that store, manage, share, or access information.</p> <p>To insert a card:</p> <p>Hold the card label-side up, with connectors facing the slot. Insert the card into the slot, and then press in on the card until it is firmly seated.</p> <p>To remove a card:</p> <p>Press in on the card until it pops out.</p>

## Front








Component	Description
<p>(1)  USB 3.0 charging (powered) ports (2)</p>	<p>Connect 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.</p> <p><b>NOTE:</b> USB charging ports can also charge select models of cell phones and MP3 players, even when the device is off.</p>
<p>(2)  Power button/Power light</p>	<ul style="list-style-type: none"> <li>• When the Chromebox is off, press the button to turn on the device. A white light indicates that the unit is on. The light will be off, if the unit is off, or in standby mode.</li> <li>• When the device is in the Sleep state, press the button briefly to exit Sleep.</li> <li>• When the device is on and you want to lock the screen, press the power button until you see the sign-in screen appear. Pressing the power button during screen-lock mode turns off the device.</li> <li>• When the device is on and you want to turn it off, press and hold the power button.</li> </ul>

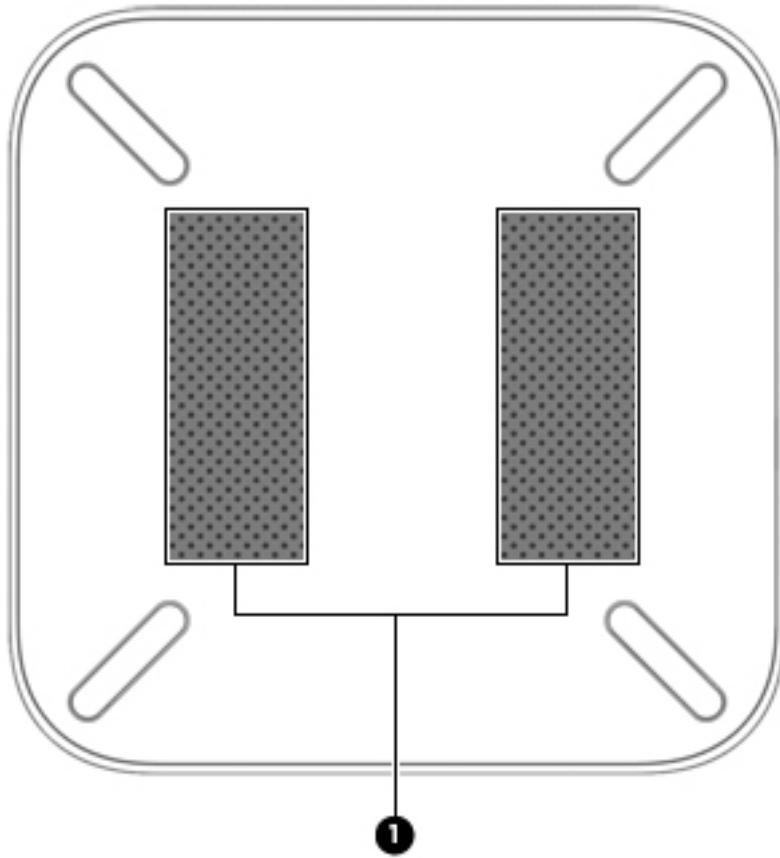
## Rear





Component	Description
(1) 	<p>Power connector</p> <p>Connects an AC adapter.</p> <p><b>NOTE:</b> Your device will attempt to preserve your work in the event of a power event. If you experience a power outage, or accidentally unplug your device, your Chromebox will automatically restart when power is restored.</p>
(2) 	<p>RJ-45 (network) jack</p> <p>Connects a network cable.</p>
(3) 	<p>USB 3.0 ports (2)</p> <p>Each USB 3.0 port connects an optional USB device, such as a keyboard, mouse, external drive, printer, or USB hub.</p>
(4) 	<p>HDMI port</p> <p>Connects an optional video or audio device, such as a high-definition television, or any compatible digital or audio device.</p>
(5)	<p>Vent</p> <p>Enables airflow to cool internal components.</p> <p><b>NOTE:</b> The device fan starts up automatically to cool internal components and prevent overheating. It is normal for the internal fan to cycle on and off during routine operation.</p>
(6)	<p>DisplayPort</p> <p>Connects an optional digital display device, such as a high-performance monitor or projector.</p>
(7) 	<p>Audio-out (headphone) jack/Audio-in (microphone) combo jack</p> <p>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.</p> <p><b>WARNING!</b> To reduce the risk of personal injury, adjust the volume before using headphones, earbuds, or a headset. For additional safety information, see the <i>Regulatory, Safety and Environmental Notices</i>. For further information, please see <a href="#">More HP resources on page 14</a>.</p> <p><b>NOTE:</b> Be sure that the device cable has a 4-conductor connector that supports both audio-out (headphone) and audio-in (microphone).</p>


## Bottom



Component		Description
(1)	Vents (2)	Enable airflow to cool internal components.  <b>NOTE:</b> The device fan starts up automatically to cool internal components and prevent overheating. It is normal for the internal fan to cycle on and off during routine operation.

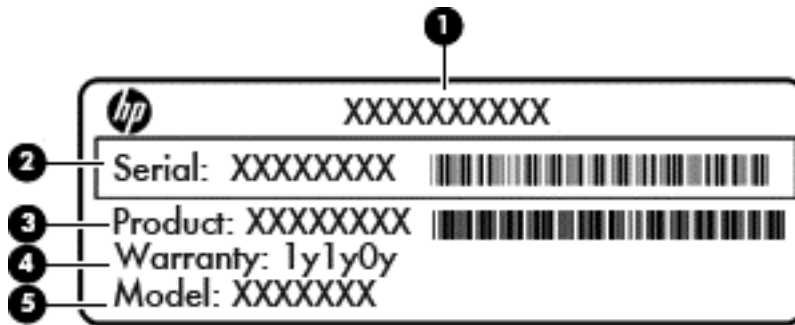
# Labels

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 [Getting to know your Chromebox on page 1](#)

- 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.



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## Component

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(1)	Product name
(2)	Serial number (s/n)
(3)	Part number/Product number (p/n)
(4)	Warranty period
(5)	Model description (select models only)

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- 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.










## 2 Using an optional keyboard and mouse

Connecting an optional external keyboard and mouse will allow you to type, select items, scroll and to perform other functions. The keyboard also allows you to use action keys and hot keys to perform specific functions.



 **TIP:** HP recommends using a Chrome-compatible keyboard with your device. Keyboards not compatible with Chrome may not offer the same action key functionality. To find a Chrome-compatible keyboard, go to [www.hp.com](http://www.hp.com).

### Using the action keys

For more information on action keys and keyboard shortcuts, go to <https://support.google.com/chromebook/answer/183101?hl=en>.

Icon	Key	Description
	<code>esc</code>	<code>esc</code> 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.
	Switch window	Switch to your next window.
	Brightness down	Decreases the screen brightness incrementally as long as you hold down the key. <b>NOTE:</b> 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. <b>NOTE:</b> 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.

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Icon	Key	Description
	Volume up	Increases speaker volume incrementally as long as you hold down the key, and restores sound from mute.
	Power button	<ul style="list-style-type: none"><li>• When the device is off, press the button to turn on the Chromebox. A white light indicates that the unit is on. The light will be off, if the unit is off, or in standby mode.</li><li>• When the device is in the Sleep state, press the button briefly to exit Sleep.</li><li>• When the device is on and you want to lock the screen, press the power button until you see the sign-in screen appear. Pressing the power button during screen-lock mode turns off the device.</li><li>• When the device is on and you want to turn it off, press and hold the power button.</li></ul>

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## 3 Using your Chromebox

Use your HP 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.

### Using audio

On your 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 8](#). 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.

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 **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*.


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### Using video

Your Chromebox 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 Chromebox, use one of the video ports on the device to connect an external monitor, projector, or TV. Your device has both a high-definition multimedia interface (HDMI) port, which allows you to connect a high-definition monitor or TV, and a DisplayPort interface, for connecting to a DisplayPort compatible device.


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

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#### Connecting an HDMI device

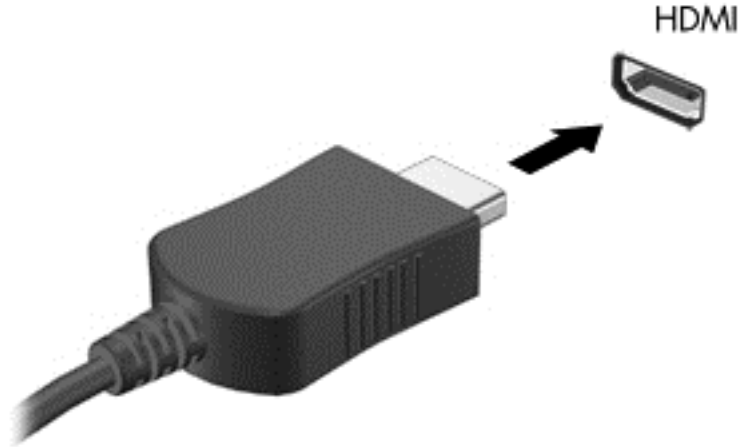
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 **NOTE:** To connect an HDMI device to your Chromebox, you need an HDMI cable, sold separately.

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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. You will now see the Chrome desktop on your 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 Chromebox.



2. Connect the other end of the cable to the digital display device.
3. You will now see the Chrome desktop on your display device.

## Connecting to your 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 wish to access and click **Connect**.
3. Provide passwords and encryption keys as prompted. A network protected with a password and/or encryption key will be indicated by the secure connection icon . Contact your network administrator for more information, if needed.

## Enabling and disabling Wake on LAN (WOL) function

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.

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

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


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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 will restart automatically, and you will be prompted to set up your language and keyboard again, and sign in to your user account.
3. Once you've signed in, you will see the Chrome desktop. From here, 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.

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 **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.

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## Managing apps

You can expand the productivity and entertainment capabilities of your Chromebox 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 will maintain 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  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 , and select the app. Right-click the app, and then select **Pin to shelf**. To unpin an app, right-click it and select **Unpin**.

To uninstall an app:

- ▲ Click the Launcher icon , and select the app. Right-click the app, and then select **Remove from Chrome**.


For more information on managing apps, visit [https://support.google.com/chrome\\_webstore/answer/1053346?hl=en](https://support.google.com/chrome_webstore/answer/1053346?hl=en).

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## 4 Securing your Chromebox 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 sign in 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. For more information on syncing your data, visit <https://support.google.com/chrome/answer/1181035?hl=en>.

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

Device risk	Security feature
Unauthorized use of the device	Power-on password
Viruses	Antivirus software
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.


### 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 synced 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 Chromebox

If you wish to give your Chromebox 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 synced to those accounts.

1. Click the status area in the lower-right corner.
2. Select **Settings** and click **Show advanced settings**.
3. Find the “Powerwash” section and click **Powerwash**.
4. A dialogue box will open. Select **Restart**.

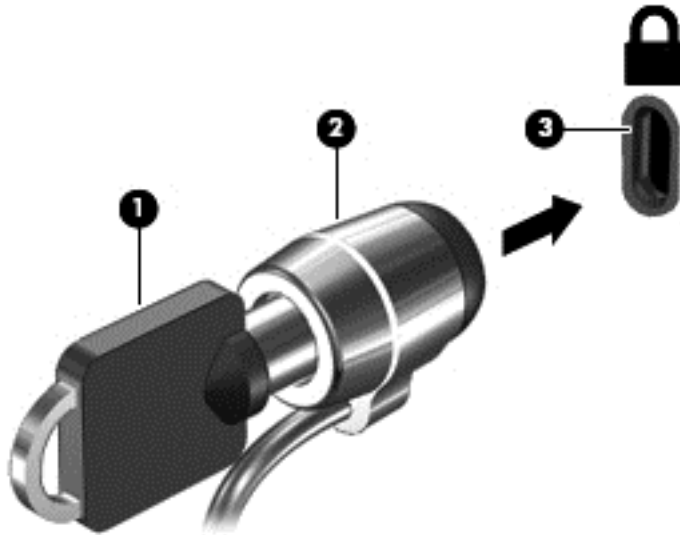
For more detailed information on resetting your Chromebox, see <https://support.google.com/chromebook/answer/183084>.

## 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 Chromebox may look slightly different from the illustration in this section. For the location of the security cable slot on your device, see [Getting to know your Chromebox on page 1](#).

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.

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## 5 More HP resources

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

Resource	Contents
Setup Poster	<ul style="list-style-type: none"><li>• Overview of device setup and features.</li></ul>
Help and Support For U.S. support, go to <a href="http://www.hp.com/go/contactHP">http://www.hp.com/go/contactHP</a> . For worldwide support, go to <a href="http://welcome.hp.com/country/us/en/wwcontact_us.html">http://welcome.hp.com/country/us/en/wwcontact_us.html</a> .	<ul style="list-style-type: none"><li>• A broad range of how-to information and troubleshooting tips.</li></ul>
Worldwide support web page To get support in your language, go to <a href="http://welcome.hp.com/country/us/en/wwcontact_us.html">http://welcome.hp.com/country/us/en/wwcontact_us.html</a> .	<ul style="list-style-type: none"><li>• Online chat with an HP technician.</li><li>• Email support.</li><li>• Find support telephone numbers.</li><li>• Locate HP service center locations.</li></ul>
<i>Safety &amp; Comfort Guide</i> Go to <a href="http://www.hp.com/ergo">http://www.hp.com/ergo</a> .	<ul style="list-style-type: none"><li>• Proper workstation setup.</li><li>• Guidelines for posture and work habits that increase your comfort and decrease your risk of injury.</li><li>• Electrical and mechanical safety information.</li></ul>
<i>Regulatory, Safety and Environmental Notices</i> This guide is provided in the box.	<ul style="list-style-type: none"><li>• Important regulatory notices, including proper battery disposal information.</li></ul>
<i>Limited Warranty</i> This guide is provided in the box, or go to <a href="http://www.hp.com/go/orderdocuments">http://www.hp.com/go/orderdocuments</a> .	<ul style="list-style-type: none"><li>• Specific warranty information about this device.</li></ul>

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## 6 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 of the component.
- 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.

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