

# Maintenance and Service Guide

#### **SUMMARY**

This guide provides information about spare parts, removal and replacement of parts, security, backing up, and more.

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

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For any further information or to request a full refund of the price of the computer, please contact your seller.

## Safety warning notice

Reduce the possibility of heat-related injuries or of overheating the computer by following the practices described.

⚠ 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 applicable safety standards.

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# 1 Product description

This table provides detailed product information.

Table 1-1 Product components and their descriptions

Category	Description	
Product Name	HP Chromebook x360 14c	
	Model number: 14c-ca0xxx	
	CTO model number: 14ct-ca000	
Processors	10th Generation Intel® Core™ processors	
	Intel® Core™ i5-10210U (1.6 GHz [turbo up to 4.2 GHz], 4 cores, 6 MB L3 Cache, 15 W, Intel UHD Graphics	
	Intel Core i3-10110U (2.1 GHz [turbo up to 4.1 GHz], 2 cores, 4 MB L3 Cache, 15 W, Intel UHD Graphics)	
	Intel Pentium® Gold 6405U (2.4 GHz, 2 cores, 2 MB L3 Cache, 15 W, Intel UHD Graphics)	
Graphics	Internal graphics	
	Intel UHD Graphics	
Display	35.6 cm (14.0 in), WLED, narrow bezel, touch screen	
	Full high definition (FHD) (1920 × 1080), WLED, UWVA, antiglare, 45% CG, eDP 1.2 without PSR, 250 nits, Gorilla Glass	
Memory	Soldered on board, nonupgradeable	
	DDR4-2666 dual-channel support	
	Supports the following configurations:	
	• 8 GB	
	4 GB (Pentium only)	
Pen (select products	HP Rechargeable USI Stylus	
only)	Stylus Docking: Magnetic	
Primary storage	On-board embedded MultiMedia Controller (eMMC v5.0) configurations	
	128 GB	
	64 GB	
Audio and video	HD audio	
	BANG and OLUFSEN	
	Dual speakers	
	HD Camera: HD WFOV + dual microphones	
	1280 × 720 by 30 frames per second	
	Dual-array digital microphone with appropriate software: beam forming, echo cancellation, noise suppression	

Table 1-1 Product components and their descriptions (continued)

Category	Description		
	Supports Google Assistant		
	Webcam privacy switch		
Wireless	Integrated wireless option with dual antennas (LGA/MIPI/BRI)		
	Intel Wi-Fi 6 AX201 + Bluetooth $^{\circ}$ 5 (non-vPro) (802.11ax 2 × 2, MU-MIMO, supporting gigabit file transfer speeds)		
Media card reader	Supports microSD™, SDHC™, SDXC™		
	Push-push insertion/removal		
orts	Hot plug/unplug and autodetect for correct output to wide-aspect vs. standard aspect video		
	Audio-out (headphone)/audio-in (microphone) combo jack		
	(2) USB 3.2 Gen 1 Type C (right and left side; support charging, power delivery, video, and data)		
	USB 3.2 Gen 1 Type A (right side)		
Keyboard/pointing	Google Assistant Keyboard		
levices	Full size, textured, island style		
	Full size, textured, island style, backlit		
	Touchpad		
	Multitouch gestures enabled		
	Taps enabled as default		
iensors	Accelerometer		
	Gyroscope		
ower requirements	Battery		
	3 cell, 60 Whr, polymer, HP Long Life		
	HP Fast Charge Technology		
	AC adapter, USB Type-C		
	65 W, nPFC, straight		
	45 W, nPFC, straight		
	Power cord		
	C5, 1 m		
iecurity	H1 Secure Microcontroller		
	Camera privacy cover		
	Fingerprint sensor (secure payment)		
perating system	Google® Chrome™ 64		
erviceability	End user replaceable parts		
	AC adapter		

# 2 Components

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

# **Right side**

Use the illustration and table to identify the components on the right side of the computer.

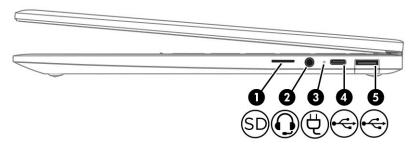


Table 2-1 Right-side components and their descriptions

Component			Description
(1)	SD	Memory card reader	Reads optional memory cards that enable you to store, manage, share, or access information.
			To insert a card:
			<ol> <li>Hold the card label-side up, with connectors facing the computer.</li> </ol>
			<ol><li>Insert the card into the memory card reader, and then press in on the card until it is firmly seated.</li></ol>
			To remove a card:
			Press in on the card, and then remove it from the memory card reader.
(2)	O	Audio-out (headphone)/Audio-in (microphone) combo 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 standalone microphones.
			<b>WARNING!</b> To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, see the <i>Regulatory, Safety, and Environmental Notices</i> .
			<b>NOTE:</b> When a device is connected to the jack, the computer speakers are disabled.
(3)	ψ	AC adapter and battery light	<ul> <li>White: The AC adapter is connected and the battery is fully charged.</li> </ul>
			<ul> <li>Amber: The AC adapter is connected and the battery is charging.</li> </ul>

Table 2-1 Right-side components and their descriptions (continued)

Component			Description
			<ul><li>Blinking amber: The battery has an error.</li><li>Off: The battery is not charging.</li></ul>
(4)	<b>←</b>	USB Type-C port	Connects a USB device, provides data transfer, and (for select products) charges small devices when the computer is on or in Sleep mode.
			<b>NOTE:</b> Cables, adapters, or both (purchased separately) might be required.
(5)	<b>~</b>	USB port	Connects a USB device, provides data transfer, and (for select products) charges small devices when the computer is on or in Sleep mode.

# **Left side**

Use the illustration and table to identify the components on the left side of the computer.

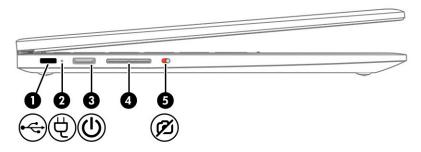


Table 2-2 Left-side components and their descriptions

Component			Description
(1)	•<	USB Type-C port	Connects a USB device, provides data transfer, and (for select products) charges small devices when the computer is on or in Sleep mode.
			<b>NOTE:</b> Cables, adapters, or both (purchased separately) might be required.
(2)	Ą	AC adapter and battery light	<ul> <li>White: The AC adapter is connected and the battery is fully charged.</li> </ul>
			<ul> <li>Amber: The AC adapter is connected and the battery is charging.</li> </ul>
			Blinking amber: The battery has an error.
			Off: The battery is not charging.
(3)	(l)	Power button	<ul> <li>When the computer is off, press the button briefly to turn on the computer.</li> </ul>
			<ul> <li>When the computer is on, press the button briefly to initiate Sleep.</li> </ul>
			<ul> <li>When the computer is in the Sleep state, press the button briefly to exit Sleep (select products only).</li> </ul>

Table 2-2 Left-side components and their descriptions (continued)

Comp	onent		Description
			<ul> <li>When the computer is in Hibernation, press the button briefly to exit Hibernation.</li> </ul>
			<b>IMPORTANT:</b> Pressing and holding down the power button results in the loss of unsaved information.
			If the computer has stopped responding and shutdown procedures are ineffective, press and hold the power button for at least 10 seconds to turn off the computer.
(4)		Volume button	Controls speaker volume on the computer.
(5)	(Z)	Webcam privacy switch	Turns the webcam on and off.
	בע		To turn off the webcam, slide the webcam privacy switch toward the display.
			To turn on the webcam, slide the webcam privacy switch toward the front of the computer.

# **Display**

The computer display can include essential components such as antennas, cameras, and microphones.

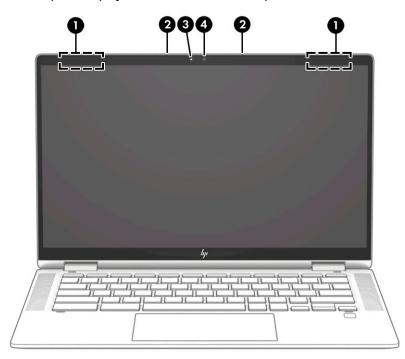


Table 2-3 Display components and their descriptions

Component		Description
(1)	WLAN antennas*	Send and receive wireless signals to communicate with wireless local area networks (WLANs).
(2)	Internal microphones	Record sound.
(3)	Camera light	On (white): The camera is in use.

Table 2-3 Display components and their descriptions (continued)

Component		Description
		On (amber): The camera is turned off by the switch.
		Off: The camera is turned off by the software
(4)	Camera	Allows you to video chat, record video, and record still images.
		<b>NOTE:</b> Camera functions vary depending on the camera hardware and software installed on your product.

<sup>\*</sup>The antennas are not visible from the outside of the computer. 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.

# **Keyboard area**

Keyboards can vary by language.

## **Touchpad**

Identify the touchpad component.

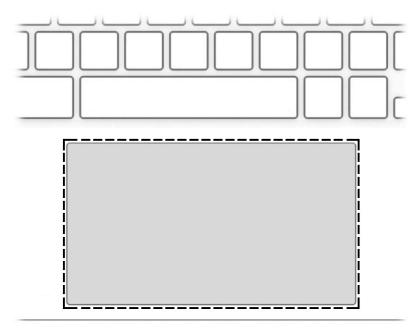


Table 2-4 Touchpad component and description

Component	Description
Touchpad zone	Reads your finger gestures to move the pointer or activate items on the screen.

## **Speakers and fingerprint reader**

Identify the speakers and fingerprint reader.

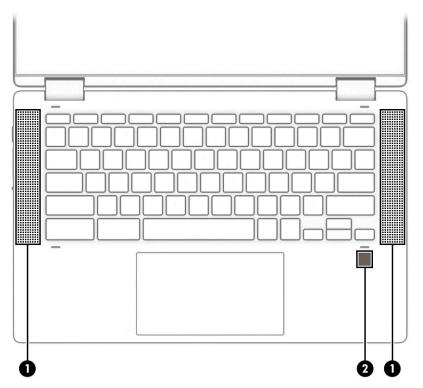


Table 2-5 Speakers and fingerprint reader and their descriptions

	Component	Description
(1)	Speakers	Produce sound.
(2)	Fingerprint reader (select products only)	Allows a fingerprint logon instead of a password logon.  Swipe down across the fingerprint reader.  IMPORTANT: To prevent fingerprint logon issues, be sure when you register your fingerprint that all sides of your finger are registered by the fingerprint reader.

# **Special keys**

Identify the special keys.

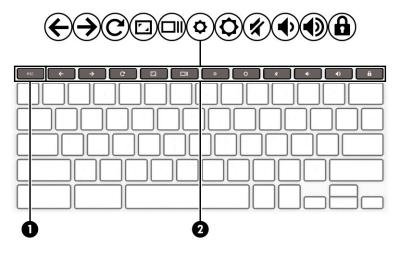


Table 2-6 Special keys and their descriptions

Component		Description	
(1)	esc key	Activates certain computer functions when pressed in combination with other keys, such as tab or shift.	
(2)	Action keys	Execute frequently used system functions.	

## **Bottom**

Identify the bottom component.

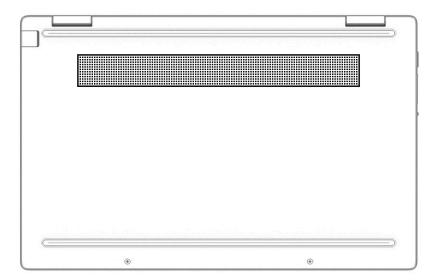


Table 2-7 Bottom component and description

Component	Description
Vent	Enables airflow airflow to cool internal components.
	<b>NOTE:</b> The computer 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 computer provide information that you might need when you troubleshoot system problems or travel internationally with the computer. Labels can be in paper form or imprinted on the product.

- IMPORTANT: Check the following locations for the labels described in this section: the bottom of the computer, inside the battery bay, under the service door, on the back of the display, or on the bottom of a tablet kickstand.
  - Service label—Provides important information to identify your computer. When contacting support, you
    might be asked for the serial number, the product number, or the model number. Locate this
    information before you contact support.

Your service label information order might vary by country and might not include the wording "Model" due to the country regulation.

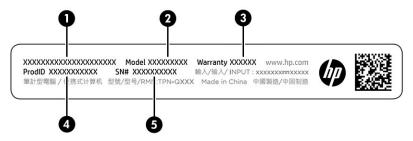


Table 2-8 Service label components

Comp	Component		
(1)	HP product name		
(2)	Model number		
(3)	Warranty period		
(4)	Product ID		
(5)	Serial number		

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

# 3 Illustrated parts catalog

Use this table to determine the spare parts that are available for the computer.

## **Computer major components**

To identify the computer major components, use this illustration and table.

NOTE: HP continually improves and changes product parts. For complete and current information about supported parts for your computer, go to <a href="http://partsurfer.hp.com">http://partsurfer.hp.com</a>, select your country or region, and then follow the on-screen instructions.

NOTE: Details about your computer, including model, serial number, product key, and length of warranty, are on the service tag at the bottom of your computer.

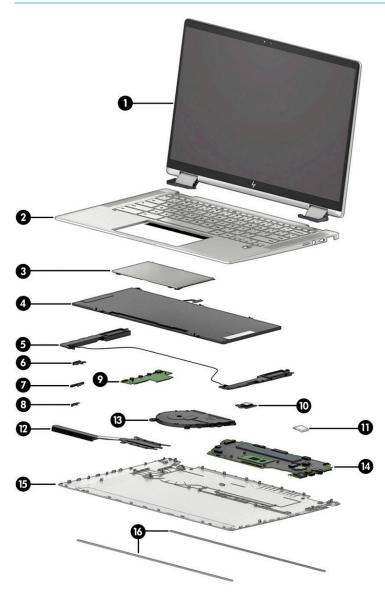


Table 3-1 Computer major component descriptions and part numbers

ltem	Component	Spare part number
(1)	Display assembly	not available as a
	NOTE: Display assemblies are spared only at the subcomponent level.	spare part
(2)	Top cover with keyboard	
	Backlit, no fingerprint reader	M00328-001
	Not backlit, no fingerprint reader	M00329-001
	Backlit, with fingerprint reader	M00330-001
	Not backlit, with fingerprint reader	M00331-001
(3)	Touchpad	M00314-001
	NOTE: The touchpad cable is available as spare part number M00308-001.	
(4)	Battery (3 cell, 60 Whr)	L84398-006
(5)	Speaker Kit	M00323-001
(6)	Webcam privacy switch	M00321-001
(7)	Volume button (includes rubber bumper)	M00320-001
(8)	Power button	M00319-001
(9)	USB board	M00313-001
	<b>NOTE:</b> The USB board cable is available as spare part number M00307-001.	
(10)	Fingerprint reader board (includes cable)	M00315-001
(11)	USB door	M01320-001
(12)	Heat sink (includes thermal material)	M00325-001
(13)	Fan	M00324-001
(14)	<b>System board</b> (includes integrated processor, system memory, and eMMC memory; includes replacement thermal material)	
	Intel Core i5-10210U processor, 8 GB of system memory, and 128 GB of eMMC memory (models without a fingerprint reader)	M00300-001
	Intel Core i5-10210U processor, 8 GB of system memory, and 128 GB of eMMC memory (models with a fingerprint reader)	M00303-001
	Intel Core i3-10110U processor, 8 GB of system memory, and 128 GB of eMMC memory (models with a fingerprint reader)	M00301-001
	Intel Core i3-10110U processor, 8 GB of system memory, and 64 GB of eMMC memory (models without a fingerprint reader)	M00297-001
	Intel Core i3-10110U processor, 8 GB of system memory, and 64 GB of eMMC memory (models with a fingerprint reader)	M00299-001
	Intel Core i3-10110U processor, 4 GB of system memory, and 64 GB of eMMC memory (models with a fingerprint reader)	M00298-001
	Intel Pentium 6405U processor, 4 GB of system memory, and 64 GB of eMMC memory	M00302-001
(15)	Bottom cover	M00306-001
(16)	Rubber feet	M00322-001

# **Display assembly subcomponents**

To identify the display assembly subcomponents, use this illustration and table.

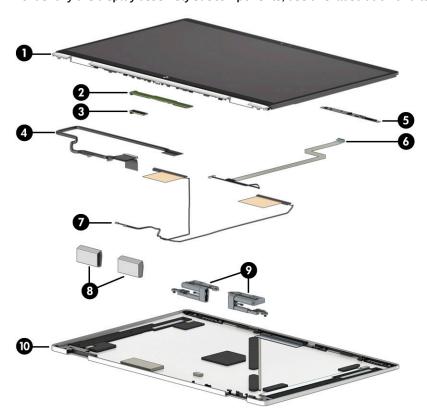


Table 3-2 Display component descriptions and part numbers

Item	Component	Spare part number
(1)	Display panel	M00317-001
	<b>NOTE:</b> Display panel adhesive is available as spare part number M00311-001.	
(2)	Touch board	not available as a spare part
(3)	G-sensor board	M00316-001
(4)	Display cable	M00309-001
(5)	Camera module	M00442-001
(6)	Camera cable	M00310-001
(7)	Wireless antenna cables	M00304-001
(8)	Hinge covers (include rubber inserts)	M00318-001
(9)	Hinges (left and right)	M00312-001
(10)	Display back cover (includes antennas)	M00305-001

# **Miscellaneous parts**

To identify the miscellaneous parts, use this table.

Table 3-3 Miscellaneous part descriptions and part numbers

Component	Spare part number
AC adapter, USB Type-C (nPFC, 1.8 m)	
65 W	L67440-001
45 W	L43407-001
Screw Kit	M00327-001
Protective shielding kit (for WLAN, touchpad, and bottom cover)	M03808-001
HVAR USI Active Pen	L73384-001
Power cord (duckhead, for use in Japan)	L33157-001
<b>Power cord</b> (C5, 1.0 m)	
Australia	L19358-001
Denmark	L19360-001
Europe (Austria, Belgium, Finland, France, Germany, the Netherlands, Norway, and Sweden)	L19361-001
India	L19363-001
Japan	L19365-001
North America	L19367-001
South Korea	L19366-001
Taiwan	L19372-001
The United Kingdom	L19373-001

# Removal and replacement procedures preliminary requirements

Use this information to properly prepare to disassemble and reassemble the computer.

## **Tools required**

You need the following tools to complete the removal and replacement procedures:

- **Tweezers**
- Nonconductive, nonmarking pry tool
- Magnetic Phillips P1 screwdriver

## **Service considerations**

The following sections include some of the considerations that you must keep in mind during disassembly and assembly procedures.



NOTE: As you remove each subassembly from the computer, place the subassembly (and all accompanying screws) away from the work area to prevent damage.

## **Plastic parts**

Using excessive force during disassembly and reassembly can damage plastic parts.

#### **Cables and connectors**

Handle cables with extreme care to avoid damage.

IMPORTANT: When servicing the computer, be sure that cables are placed in their proper locations during the reassembly process. Improper cable placement can damage the computer.

Apply only the tension required to unseat or seat the cables during removal and insertion. Handle cables by the connector whenever possible. In all cases, avoid bending, twisting, or tearing cables. Be sure that cables are routed so that they cannot be caught or snagged as you remove or replace parts. Handle flex cables with extreme care; these cables tear easily.

## **Drive handling**

Note the following guidelines when handling drives.

IMPORTANT: Drives are fragile components. Handle them with care. To prevent damage to the computer, damage to a drive, or loss of information, observe these precautions:

Before removing or inserting a hard drive, shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.

Before handling a drive, be sure that you are discharged of static electricity. While handling a drive, avoid touching the connector.

Before removing an optical drive, be sure that a disc is not in the drive, and be sure that the optical drive tray is closed.

Handle drives on surfaces covered with at least 2.54 cm (1 inch) of shock-proof foam.

Avoid dropping drives from any height onto any surface.

After removing a hard drive or an optical drive, place it in a static-proof bag.

Avoid exposing an internal hard drive to products that have magnetic fields, such as monitors or speakers.

Avoid exposing a drive to temperature extremes or liquids.

If a drive must be mailed, place the drive in a bubble pack mailer or other suitable form of protective packaging, and label the package "FRAGILE."

### **Workstation guidelines**

Follow these grounding workstation guidelines:

- Cover the workstation with approved static-shielding material.
- Use a wrist strap connected to a properly grounded work surface and use properly grounded tools and equipment.
- Use conductive field service tools, such as cutters, screw drivers, and vacuums.
- When fixtures must directly contact dissipative surfaces, use fixtures made only of static-safe materials.
- Keep the work area free of nonconductive materials, such as ordinary plastic assembly aids and polystyrene foam.
- Handle ESD-sensitive components, parts, and assemblies by the case or PCM laminate. Handle these
  items only at static-free workstations.
- Avoid contact with pins, leads, or circuitry.
- Turn off power and input signals before inserting or removing connectors or test equipment.

## **Electrostatic discharge information**

A sudden discharge of static electricity from your finger or other conductor can destroy static-sensitive devices or microcircuitry. Often the spark is neither felt nor heard, but damage occurs. An electronic device exposed to electrostatic discharge (ESD) might not appear to be affected at all and can work perfectly throughout a normal cycle. The device might function normally for a while, but it has been degraded in the internal layers, reducing its life expectancy.

Networks built into many integrated circuits provide some protection, but in many cases, the discharge contains enough power to alter device parameters or melt silicon junctions.

MPORTANT: To prevent damage to the device when you remove or install internal components, observe these precautions:

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

Before touching an electronic component, discharge static electricity by using the guidelines described Personal grounding methods and equipment on page 18.

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

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

### Generating static electricity

Follow these static electricity guidelines.

- Different activities generate different amounts of static electricity.
- Static electricity increases as humidity decreases.

Table 4-1 Static electricity occurrence based on activity and humidity

Relative humidity				
Event	55%	40%	10%	
Walking across carpet	7,500 V	15,000 V	35,000 V	
Walking across vinyl floor	3,000 V	5,000 V	12,000 V	
Motions of bench worker	400 V	800 V	6,000 V	
Removing DIPs (dual in-line packages) from plastic tube	400 V	700 V	2,000 V	
Removing DIPs from vinyl tray	2,000 V	4,000 V	11,500 V	
Removing DIPs from polystyrene foam	3,500 V	5,000 V	14,500 V	
Removing bubble pack from PCB (printed circuit board)	7,000 V	20,000 V	26,500 V	
Packing PCBs in foam-lined box	5,000 V	11,000 V	21,000 V	
Multiple electric components can be packaged together in plastic tubes, trays, or polystyrene foam.				

NOTE: As little as 700 V can degrade a product.

## Preventing electrostatic damage to equipment

Many electronic components are sensitive to ESD. Circuitry design and structure determine the degree of sensitivity. The following packaging and grounding precautions are necessary to prevent static electricity damage to electronic components.

- To avoid hand contact, transport products in static-safe containers such as tubes, bags, or boxes.
- Protect all electrostatic parts and assemblies with conductive or approved containers or packaging.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free stations.
- Place items on a grounded surface before removing them from their container.
- Always be properly grounded when touching a sensitive component or assembly.

- Avoid contact with pins, leads, or circuitry.
- Place reusable electrostatic-sensitive parts from assemblies in protective packaging or conductive foam.

### Personal grounding methods and equipment

Using certain equipment can prevent static electricity damage to electronic components.

- **Wrist straps** are flexible straps with a maximum of 1 MΩ ±10% resistance in the ground cords. To provide proper ground, a strap must be worn snug against bare skin. The ground cord must be connected and fit snugly into the banana plug connector on the grounding mat or workstation.
- **Heel straps/Toe straps/Boot straps** can be used at standing workstations and are compatible with most types of shoes or boots. On conductive floors or dissipative floor mats, use them on both feet with a maximum of  $1 M\Omega \pm 10\%$  resistance between the operator and ground.

Table 4-2 Static shielding protection levels

Static shielding protection levels			
Method	Voltage		
Antistatic plastic	1,500		
Carbon-loaded plastic	7,500		
Metallized laminate	15,000		

### **Grounding the work area**

To prevent static damage at the work area, follow these precautions.

- Cover the work surface with approved static-dissipative material. Provide a wrist strap connected to the work surface and properly grounded tools and equipment.
- Use static-dissipative mats, foot straps, or air ionizers to give added protection.
- Handle electrostatic sensitive components, parts, and assemblies by the case or PCB laminate. Handle them only at static-free work areas.
- Turn off power and input signals before inserting and removing connectors or test equipment.
- Use fixtures made of static-safe materials when fixtures must directly contact dissipative surfaces.
- Keep work area free of nonconductive materials such as ordinary plastic assembly aids and polystyrene foam.
- Use field service tools, such as cutters, screwdrivers, and vacuums, that are conductive.

## **Recommended materials and equipment**

HP recommends certain materials and equipment to prevent static electricity.

- Antistatic tape
- Antistatic smocks, aprons, or sleeve protectors
- Conductive bins and other assembly or soldering aids
- Conductive foam
- Conductive tabletop workstations with ground cord of 1 MΩ ±10% resistance

- Static-dissipative table or floor mats with hard tie to ground
- Field service kits
- Static awareness labels
- Wrist straps and footwear straps providing 1 MΩ ±10% resistance
- Material handling packages
- Conductive plastic bags
- Conductive plastic tubes
- Conductive tote boxes
- Opaque shielding bags
- Transparent metallized shielding bags
- Transparent shielding tubes

## Packaging and transporting guidelines

Follow these grounding guidelines when packaging and transporting equipment.

- To avoid hand contact, transport products in static-safe tubes, bags, or boxes.
- Protect ESD-sensitive parts and assemblies with conductive or approved containers or packaging.
- Keep ESD-sensitive parts in their containers until the parts arrive at static-free workstations.
- Place items on a grounded surface before removing items from their containers.
- Always be properly grounded when touching a component or assembly.
- Store reusable ESD-sensitive parts from assemblies in protective packaging or nonconductive foam.
- Use transporters and conveyors made of antistatic belts and roller bushings. Be sure that mechanized
  equipment used for moving materials is wired to ground and that proper materials are selected to avoid
  static charging. When grounding is not possible, use an ionizer to dissipate electric charges.

# 5 Removal and replacement procedures for authorized service provider parts

This chapter provides removal and replacement procedures for authorized service provider parts.

- IMPORTANT: Components described in this chapter should be accessed only by an authorized service provider. Accessing these parts can damage the computer or void the warranty.
- NOTE: Details about your computer, including model, serial number, product key, and length of warranty, are on the service tag at the bottom of your computer.

## **Component replacement procedures**

To remove and replace computer components, use these procedures.

NOTE: HP continually improves and changes product parts. For complete and current information about supported parts for your computer, go to <a href="http://partsurfer.hp.com">http://partsurfer.hp.com</a>, select your country or region, and then follow the on-screen instructions.

You must remove, replace, or loosen as many as xx screws when you service the parts described in this chapter. Make special note of each screw size and location during removal and replacement.

### **Preparation for disassembly**

To remove and replace computer components, use these procedures.

See Removal and replacement procedures preliminary requirements on page 15 for initial safety procedures.

- Turn off the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
- 2. Disconnect the power from the computer by unplugging the power cord from the computer.
- Disconnect all external devices from the computer.

#### **Bottom cover**

To remove the bottom cover, use this procedure and illustration.

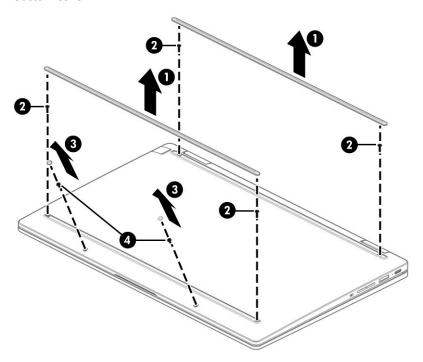
Table 5-1 Bottom cover description and part number

Description	Spare part number
Bottom cover	M00306-001
Rubber feet	M00322-001

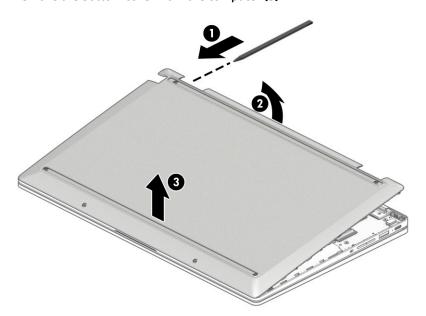
Before removing the bottom cover, prepare the computer for disassembly (<u>Preparation for disassembly</u> on page 21).

Remove the bottom cover:

- 1. Remove the two bottom rubber feet from the computer (1).
- 2. Remove the four Phillips M2.0 × 7.0 screws (2) from under the feet.
- 3. Remove the two screw covers (3) and two Phillips M2.0 × 3.5 screws (4) from the bottom edge of the bottom cover.



- 4. Use a nonmarking, nonconductive tool (1) to release the bottom cover from the computer (2).
- 5. Remove the bottom cover from the computer (3).



To replace the bottom cover, reverse the removal procedures.

#### **Battery**

To remove the battery, use this procedure and illustration.

#### Table 5-2 Battery description and part number

Description	Spare part number
Battery (3 cell, 60 Whr)	L84398-006

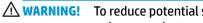


**MARNING!** To avoid personal injury and damage to the product:

- Do not puncture, twist, or crack the battery.
- Do not cause an external puncture or rupture to the battery. They can cause a short inside the battery, which can result in battery thermal runaway.
- Do not handle or touch the battery enclosure with sharp objects such as tweezers or pliers, which might puncture the battery.
- Do not compress or squeeze the battery case with tools or heavy objects stacked on top of the case. These actions can apply undue force on the battery.
- Do not touch the connectors with any metallic surface or object, such as metal tools, screws, or coins, which can cause shorting across the connectors.

Before removing the battery, follow these steps:

- Prepare the computer for disassembly (Preparation for disassembly on page 21).
- Remove the bottom cover (Bottom cover on page 21). 2.



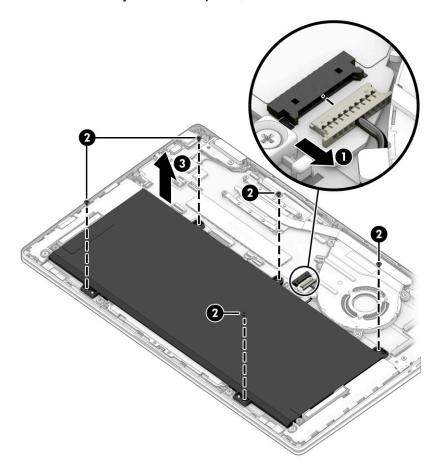
MARNING! To reduce potential safety issues, use only the user-replaceable battery provided with the computer, a replacement battery provided by HP, or a compatible battery purchased from HP.

**IMPORTANT:** Removing a battery that is the sole power source for the computer can cause loss of information. To prevent loss of information, save your work or shut down the computer through Windows before you remove the battery.

#### Remove the battery:

- Disconnect the battery cable from the system board (1). 1.
- Remove the five Phillips M2.0 × 3.0 screws (2) that secure the battery to the computer.

3. Remove the battery from the computer (3).



To insert the battery, reverse the removal procedures.

## **Speakers**

To remove the speakers, use this procedure and illustration.

Table 5-3 Speaker description and part number

Description	Spare part number
Speaker Kit	M00323-001

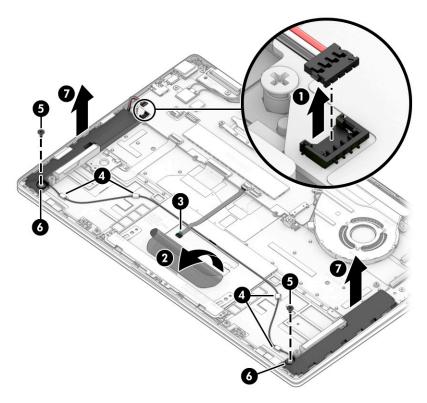
Before removing the speakers, follow these steps:

- 1. Prepare the computer for disassembly (Preparation for disassembly on page 21).
- 2. Remove the bottom cover (<u>Bottom cover on page 21</u>).
- **3.** Remove the battery (see <u>Battery on page 23</u>).

#### Remove the speakers:

- 1. Disconnect the speaker cable from the system board (1).
- 2. Lift the plastic shield that covers the cables on the touchpad (2).

- 3. Disconnect the cable from the ZIF connector on the touchpad (3). You need to move this cable so that you can remove the speaker cable that routes under it.
- Remove the speaker cable from the clips in the computer chassis (4).
- 5. Remove the two Phillips M2.0 × 5.0 screws (5) that secure the speakers to the computer.
- NOTE: When installing the speakers, be sure that the gaskets are correctly installed in the speaker screw holes (6).
- 6. Remove the speakers from the computer (7).



Reverse this procedure to install the speakers.

## **Touchpad**

To remove the touchpad, use this procedure and illustration.

Table 5-4 Touchpad description and part number

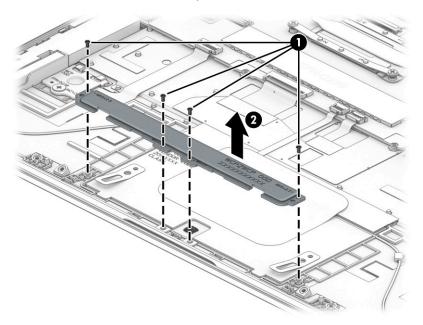
Description	Spare part number
Touchpad	M00314-001
Touchpad cable	M00308-001

Before removing the touchpad, follow these steps:

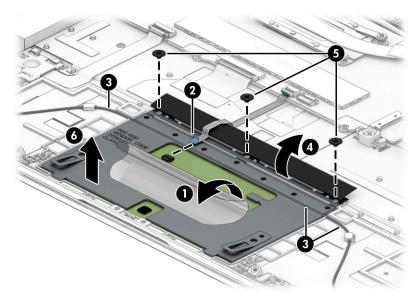
- 1. Prepare the computer for disassembly (<u>Preparation for disassembly on page 21</u>).
- 2. Remove the bottom cover (Bottom cover on page 21).
- 3. Remove the battery (see <u>Battery on page 23</u>).

#### Remove the touchpad:

- 1. Remove the four Phillips M1.6  $\times$  2.3 screws (1) that secure the touchpad bracket to the computer.
- 2. Remove the bracket from the computer (2).



- 3. Lift the plastic shield that covers the cables on the touchpad (1).
- 4. Disconnect the cable from the ZIF connector on the touchpad and remove the cable (2).
- 5. Remove the speaker the cable from the touchpad (3).
- 6. Remove the protective shielding from the top of the touchpad (4).
- 7. Remove the three Phillips  $M2.0 \times 2.0$  screws (5) that secure the touchpad to the computer.
- 8. Remove the touchpad from the computer (6).



Reverse this procedure to install the touchpad.

## Fingerprint reader board (select products only)

To remove the fingerprint reader board, use this procedure and illustration.

Table 5-5 Fingerprint reader board description and part number

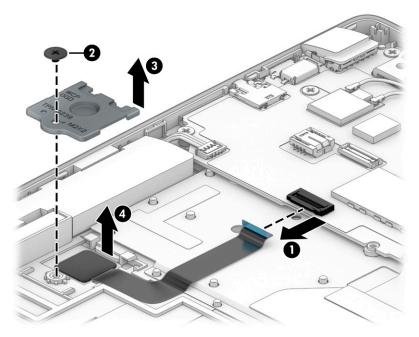
Description	Spare part number
Fingerprint reader board (includes cable)	M00315-001

Before removing the fingerprint reader board, follow these steps:

- 1. Prepare the computer for disassembly (Preparation for disassembly on page 21).
- 2. Remove the bottom cover (<u>Bottom cover on page 21</u>).
- 3. Remove the battery (see <u>Battery on page 23</u>).

Remove the fingerprint reader board:

- 1. Disconnect the cable from the ZIF connector on the system board (1).
- 2. Remove the Phillips M2.0 × 2.0 screw (2) that secures the fingerprint reader bracket, and then remove the bracket from the computer (3).
- Remove the fingerprint reader board from the computer (4).



Reverse this procedure to install the fingerprint reader board.

#### Fan

To remove the fan, use this procedure and illustration.

Table 5-6 Fan description and part number

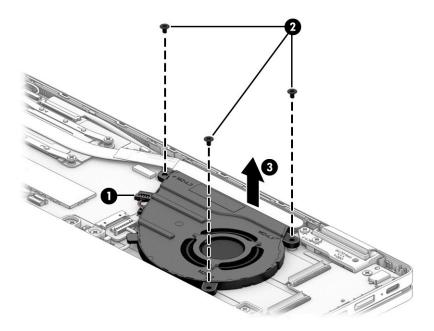
Description	Spare part number
Fan assembly	M00324-001

Before removing the fan, follow these steps:

- 1. Prepare the computer for disassembly (<u>Preparation for disassembly on page 21</u>).
- 2. Remove the bottom cover (Bottom cover on page 21).
- 3. Disconnect the battery cable from the system board (see <a href="Battery on page 23">Battery on page 23</a>).

#### Remove the fan assembly:

- 1. Disconnect the fan cable from the system board (1).
- 2. Remove the three Phillips M2.0 × 3.0 screws (2), and then remove the fan from the computer (3).



Reverse this procedure to install the fan assembly.

#### **Heat sink**

To remove the heat sink, use these procedures and illustrations.

Table 5-7 Heat sink description and part number

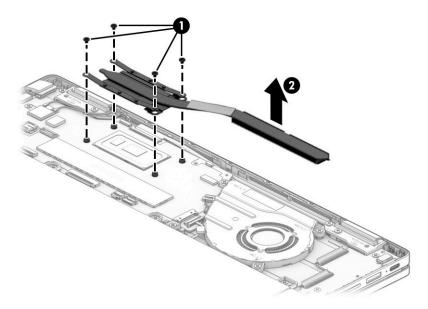
Description	Spare part number
Heat sink	M00325-001

#### Before removing the heat sink, follow these steps:

- Prepare the computer for disassembly (Preparation for disassembly on page 21).
- 2. Remove the bottom cover (Bottom cover on page 21).
- 3. Disconnect the battery cable from the system board (see Battery on page 23).

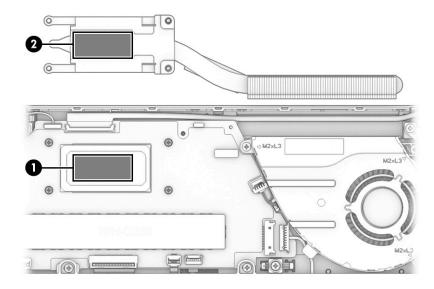
#### Remove the heat sink:

1. In the order indicated on the heat sink, remove the four Phillips M2.0 × 3.0 screws (1), and then remove the heat sink from the computer (2).



2. Thoroughly clean the thermal material from the surfaces of the heat sink and the system board components each time the heat sink is removed. Replacement thermal material is included with the heat sink and system board spare part kits. The following illustration shows the replacement thermal material locations.

Thermal paste is used on the system board component (1) and on the heat sink area (2) that services it.



Reverse this procedure to install the heat sink.

#### **USB** board

To remove the USB board, use this procedure and illustration.

Table 5-8 USB board description and part number

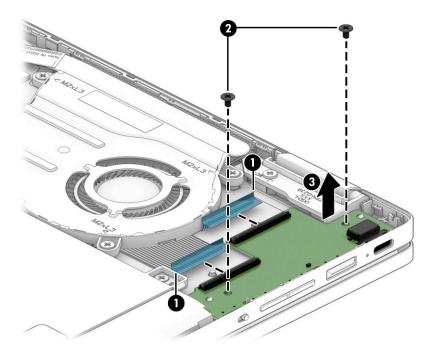
Description	Spare part number
USB board	M00313-001
USB board cable	M00307-001

Before removing the USB board, follow these steps:

- 1. Prepare the computer for disassembly (Preparation for disassembly on page 21).
- 2. Remove the bottom cover (Bottom cover on page 21).
- 3. Disconnect the battery cable from the system board (see <a href="Battery on page 23">Battery on page 23</a>).

#### Remove the USB board:

- 1. Disconnect the two cables from the USB board ZIF connectors (1).
- 2. Remove the two Phillips M2.0 × 3.0 screws (2) that secure the board to the computer.
- **3.** Remove the board from the computer **(3)**.



Reverse this procedure to install the USB board.

#### **Power button**

To remove the power button, use this procedure and illustration.

Table 5-9 Power button description and part number

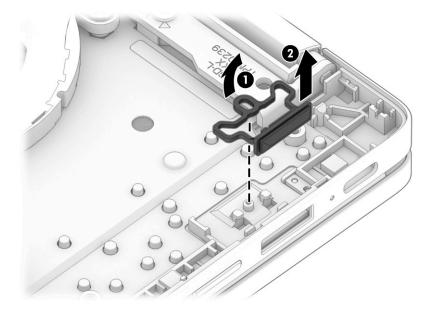
Description	Spare part number
Power button	M00319-001

Before removing the power button, follow these steps:

- 1. Prepare the computer for disassembly (Preparation for disassembly on page 21).
- 2. Remove the bottom cover (Bottom cover on page 21).
- 3. Disconnect the battery cable from the system board (see Battery on page 23).
- 4. Remove the USB board (see USB board on page 29).

#### Remove the power button:

- 1. From the inside of the computer, lift the rear of the power button (1).
- 2. Remove the power button from the computer (2).



Reverse this procedure to install the power button.

#### **Volume button**

To remove the volume button, use this procedure and illustration.

Table 5-10 Volume button description and part number

Description	Spare part number
Volume button (includes rubber bumper)	M00320-001

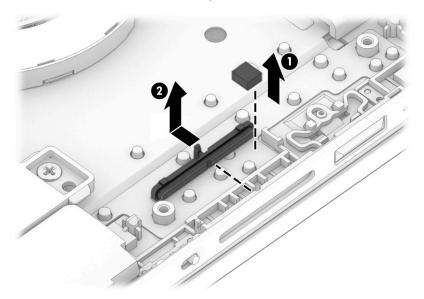
#### Before removing the volume button, follow these steps:

- 1. Prepare the computer for disassembly (<u>Preparation for disassembly on page 21</u>).
- 2. Remove the bottom cover (<u>Bottom cover on page 21</u>).
- 3. Disconnect the battery cable from the system board (see <u>Battery on page 23</u>).
- 4. Remove the USB board (see USB board on page 29).

#### Remove the volume button:

1. Remove the rubber bumper from the computer (1). Be sure to note the installation location of the bumper.

2. Pull the volume button into the computer to remove it (2).



Reverse this procedure to install the volume button.

### **Webcam privacy switch**

To remove the webcam privacy switch, use this procedure and illustration.

Table 5-11 Webcam privacy switch description and part number

Description	Spare part number
Webcam privacy switch	M00321-001

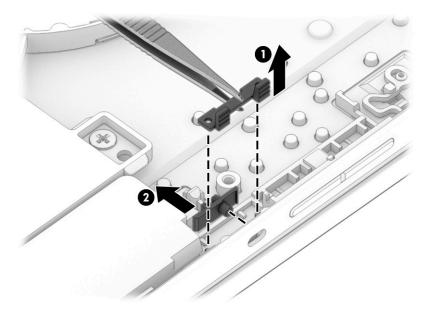
Before removing the webcam privacy switch, follow these steps:

- 1. Prepare the computer for disassembly (<u>Preparation for disassembly on page 21</u>).
- 2. Remove the bottom cover (Bottom cover on page 21).
- 3. Disconnect the battery cable from the system board (see <u>Battery on page 23</u>).
- Remove the USB board (see <u>USB board on page 29</u>).

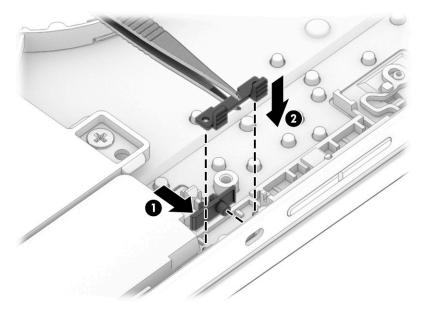
Remove the webcam privacy switch:

1. Use tweezers to remove the bracket (1).

Use tweezers to pull the webcam privacy switch into the computer to remove it (2).



When replacing the webcam privacy switch, insert the switch into the slot (1), and then install the bracket at the base of the switch, making sure the holes in the bracket line up with small posts on computer (2).



### **System board**

To remove the system board, use these procedures and illustrations.

Table 5-12 System board descriptions and part numbers

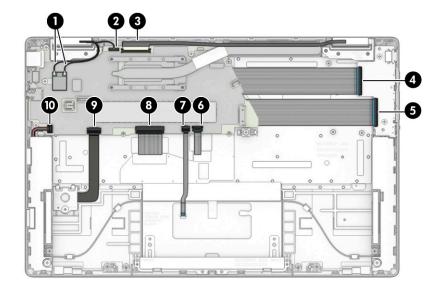
Description	Spare part number
System board (includes processor):	
Intel Core i5-10210U processor, 8 GB of system memory, and 128 GB of eMMC memory (models without a fingerprint reader)	M00300-001

Table 5-12 System board descriptions and part numbers (continued)

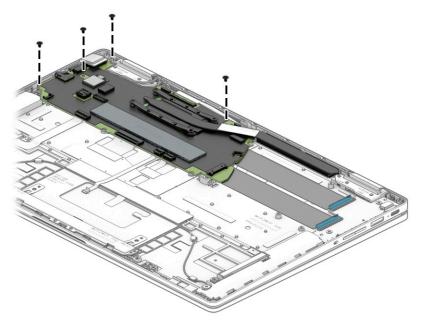
Description	Spare part number
Intel Core i5-10210U processor, 8 GB of system memory, and 128 GB of eMMC memory (models with a fingerprint reader)	M00303-001
Intel Core i3-10110U processor, 8 GB of system memory, and 128 GB of eMMC memory (models with a fingerprint reader)	M00301-001
Intel Core i3-10110U processor, 8 GB of system memory, and 64 GB of eMMC memory (models without a fingerprint reader)	M00297-001
Intel Core i3-10110U processor, 8 GB of system memory, and 64 GB of eMMC memory (models with a fingerprint reader)	M00299-001
Intel Core i3-10110U processor, 4 GB of system memory, and 64 GB of eMMC memory (models with a fingerprint reader)	M00298-001
Intel Pentium 6405U processor, 4 GB of system memory, and 64 GB of eMMC memory	M00302-001

#### Before removing the system board, follow these steps:

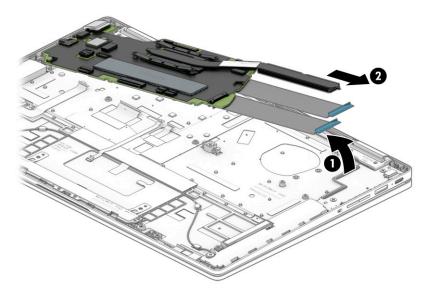
- 1. Prepare the computer for disassembly (<u>Preparation for disassembly on page 21</u>).
- 2. Remove the bottom cover (Bottom cover on page 21).
- 3. Remove the battery (see <u>Battery on page 23</u>).
- 4. Remove the fan (see Fan on page 27).
- 1. Disconnect the following cables from the system board:
  - Antenna cables from integrated WLAN module (1)
  - Camera cable (2)
  - Display cable (3)
  - USB board cable (ZIF) from USB board (4)
  - USB board cable (ZIF) from USB board (5)
  - Keyboard backlight cable (ZIF) (6) (select products only)
  - Touchpad cable (ZIF) (7)
  - Keyboard cable (ZIF) (8)
  - Fingerprint reader cable (ZIF) (9)
  - Speaker cable (10)



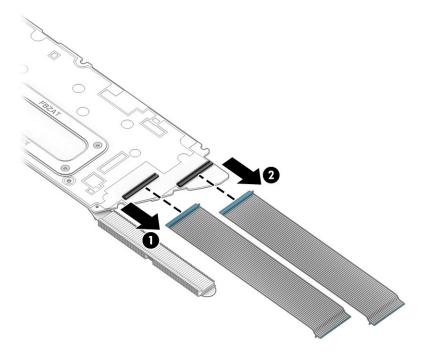
Remove the four Phillips M2.0  $\times$  3.0 screws that secure the system board to the computer. 2.



3. Lift the right side of the system board (1), and then pull the board up and to the right to remove it from the computer (2).



**4.** If you need to remove the USB cables, disconnect the bottom **(1)** and top **(2)** cables from the system board.



Reverse this procedure to install the system board.

#### **USB** door

To remove the USB door, use this procedure and illustration.

Table 5-13 USB door description and part number

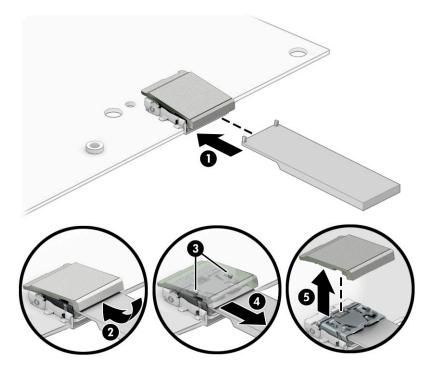
Description	Spare part number
USB door	M01320-001

Before removing the USB door, follow these steps:

- 1. Prepare the computer for disassembly (Preparation for disassembly on page 21).
- 2. Remove the bottom cover (<u>Bottom cover on page 21</u>).
- 3. Disconnect the battery cable from the system board (see <a href="Battery on page 23">Battery on page 23</a>).
- 4. Remove the system board (see <a href="System board on page 33">System board on page 33</a>).

#### Remove the USB door:

- 1. Insert a removal tool (1) under the USB door (2).
- 2. Align the posts on the tool with the slots on the underside of the door (3), and then pull the tool away from the door to release it (4).
- Remove the USB door from the computer (5).



Reverse this procedure to install the USB door.

### **Display assembly**

To remove and disassemble the display assembly, use these procedures and illustrations.

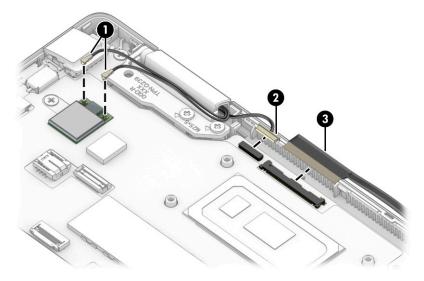
NOTE: Display assemblies are offered as spare parts only at a subcomponent level.

Before removing the display panel, follow these steps:

- 1. Prepare the computer for disassembly (<u>Preparation for disassembly on page 21</u>).
- 2. Remove the bottom cover (<u>Bottom cover on page 21</u>).
- 3. Remove the battery (see <u>Battery on page 23</u>).
- 4. Remove the heat sink (see Heat sink on page 28).

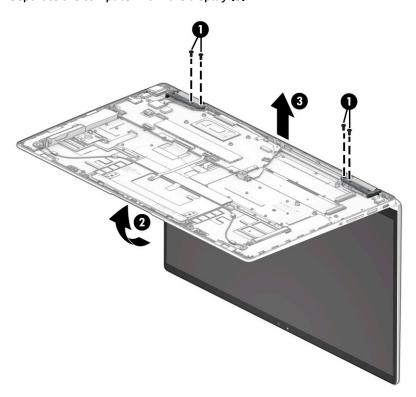
#### Remove the display assembly:

- 1. Disconnect the antenna cables from the integrated WLAN module (1).
- **2.** Disconnect the touch cable from the system board **(2)**.
- 3. Disconnect the display cable from the system board (3).



- 4. Remove the four Phillips M2.5 × 5.0 screws (1) that secure the display to the computer.
- 5. Open the computer to open the hinges (2).

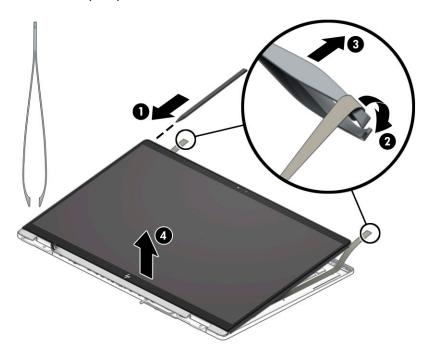
**6.** Separate the computer from the display **(3)**.



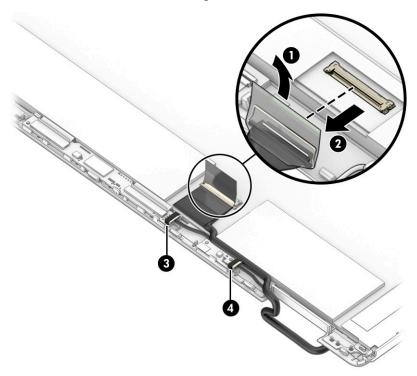
- If you need to remove the display panel:
  - **a.** Use a flat tool to separate the panel from the display back cover (1).
  - b. The display panel is secured to the display enclosure with tape that is installed under the left and right sides of the panel. To remove the panel, use tweezers to grasp the end of the tape. While turning the tweezers, wrap the tape around the tweezers (2) as you continue to pull the tape out from behind the display panel (3). You must pull the tape multiple times before it is completely removed.

c. Rotate the display panel over and place it next to the display back cover (4).

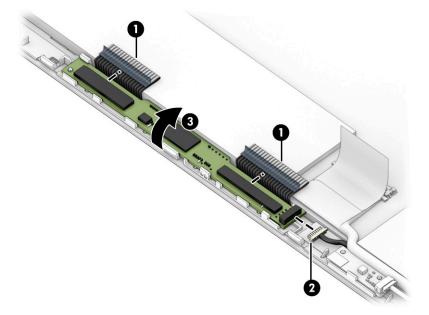
The display panel is available as spare part number M00317-001. Display panel adhesive is available as spare part number M00311-001.



- **d.** Lift the tape from the connector on the display panel **(1)**, and then disconnect the cable from the panel **(2)**.
- e. Disconnect the cable from the side of the touch board (3).
- **f.** Disconnect the cable form the g-sensor board **(4)**.

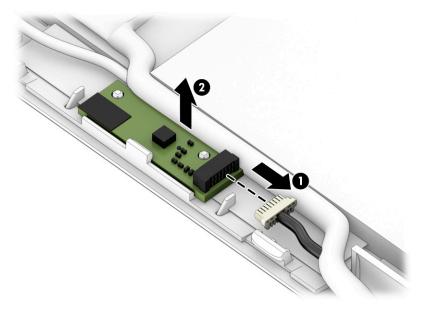


8. If you need to remove the touch board, disconnect the two flat ribbon cables from the top of the board (1), disconnect the cable from the end of the board (2), and then rotate the bottom of the board up to remove it (3).



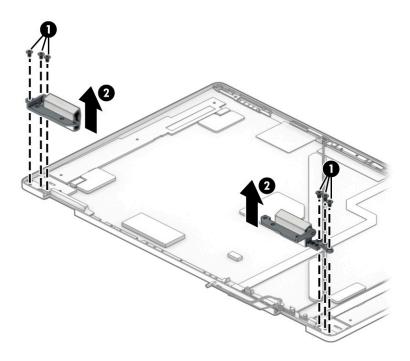
9. If you need to remove the g-sensor board, disconnect the cable from the board (1), and then remove the board from the clips that secure it to the bottom of the display (2).

The g-sensor board is available as spare part number M00316-001.



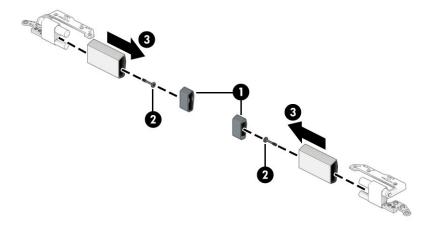
- **10.** If you need to remove the hinges from the display enclosure:
  - **a.** Remove the three Phillips M2.5 × 3.5 screws **(1)** from each hinge.
  - **b.** Remove the hinges from the display (2).

The display hinges are available as spare part number M00312-001.



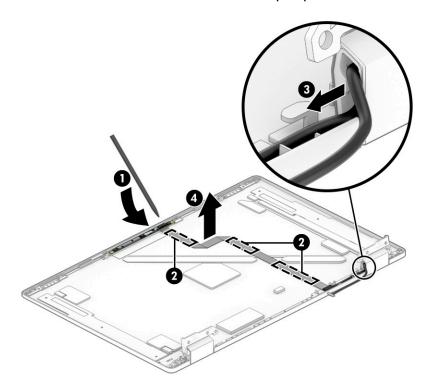
11. If you need to remove the hinge covers from the hinges, remove rubber insert from inside of hinge cover (1), remove the Phillips M2.0 × 10.0 screw (2) from each hinge cover, and then pull the hinge covers off the hinges (3).

The hinge covers are available as spare part number M00318-001.

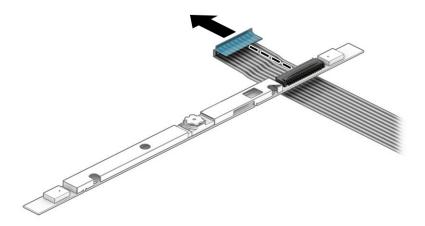


- **12.** If you need to remove the camera module and cable:
  - **a.** Use a thin tool to lift up evenly across the module and peel the module up from the display back cover **(1)**.
  - **b.** Peel the cable up from the inside of the display back cover (2).

Remove the cable from the clips above the right hinge (3), and then remove the camera and cable from the display back cover (4). The camera module is available as spare part number M00442-001. The camera cable is available as spare part number M00310-001.



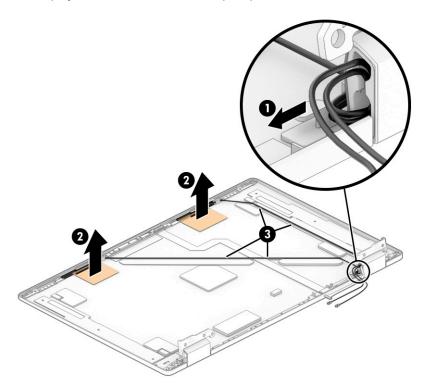
Disconnect the cable from the camera module.



13. If you need to remove the antenna cables, remove the cable from the clips above the right hinge (1), and then peel the antennas (2) and cables (3) off the inside of the display back cover.

Antenna cables are available as spare part number M00304-001.

The display back cover is available as spare part number M00305-001.



Reverse this procedure to reassemble and replace the display assembly.

### **Keyboard with top cover**

The top cover with keyboard remains after removing all other spare parts from the computer. In this section, the first table provides the main spare part number for the top cover/keyboards. The second table provides the country codes.

Table 5-14 Keyboard with top cover descriptions and part numbers

Description	Spare part number
Keyboard with top cover, backlit, no fingerprint reader	M00328-001
Keyboard with top cover, not backlit, no fingerprint reader	M00329-001
Keyboard with top cover, backlit, with fingerprint reader	M00330-001
Keyboard with top cover, not backlit, with fingerprint reader	M00331-001

Table 5-15 Spare part country codes

For use in country or region	Spare part number	For use in country or region	Spare part number	For use in country or region	Spare part number
Belgium	-A41	Germany	-041	Spain	-071

Table 5-15 Spare part country codes (continued)

For use in country or region	Spare part number	For use in country or region	Spare part number	For use in country or region	Spare part number
Denmark, Finland, and Norway	-DH1	International	-B31	Taiwan	-AB1
French Canada	-DB1	Italy	-061	United Kingdom	-031
France	-051	South Korea	-AD1	United States	-001

#### Backing up, resetting, and recovering 6

This chapter provides information about processes that are standard procedure for most products.

## **Backing up**

You can back up your data to an optional USB flash drive or SD memory card or through Google Drive.

For detailed information about creating a backup, go to http://www.support.google.com.

# Resetting

A factory reset erases all the information on your computer hard drive, including all the files in the Downloads folder. Before you reset, be sure to back up your files to an optional USB flash drive, SD memory card, or through Google Drive. The factory reset will not delete any of your files on Google Drive or an external storage device.

# Recovering

When your Chrome OS™ operating system is not working properly, you can perform a recovery. A recovery reinstalls the operating system and software programs and restores the original factory settings. Locally saved files and saved networks are deleted for all accounts. Your Google Accounts and any data synced to your Google Drive™ storage are not affected by a system recovery.



NOTE: For more information about performing a system recovery on your computer, go to http://www.support.google.com

Before beginning the recovery process, you need the following:

- A USB flash drive or SD memory card with a capacity of 4 GB or greater. All data is erased from this storage device when the recovery media is created, so back up any files from the device before you begin.
- A computer with internet access. You must also have administrative rights to the computer.
- Computer AC adapter. The computer must be plugged into AC power during recovery.
- The "Chrome OS is missing or damaged" screen displaying on your computer. If this message is not already displayed:
  - Turn on the computer, press and hold the esc + f3 kevs, and then press the power button. The computer restarts, and the screen shows the "Chrome OS is missing or damaged" screen.

### Installing the Chromebook Recovery Utility

The Chromebook™ Recovery Utility is an app used to recover the original operating system and software programs that were installed at the factory. This utility can be installed from the Chrome Web Store on any computer.

### **Creating recovery media**

Recovery media is used to recover the original operating system and software programs that were installed at the factory.

### **Recovering the Chrome operating system**

To recover the Chrome operating system on your computer using the recovery media you created:

# Setting up your computer after a reset or recovery

After a reset or recovery is complete, perform the initial setup process.

For details on setting up the computer, go to <a href="http://www.support.google.com">http://www.support.google.com</a>.

# Erase and reformat the recovery media

During the process of creating recovery media, the USB flash drive or SD memory card is formatted for use as a recovery tool. After you recover your computer, you will need to erase the recovery media if you want to reuse your USB flash drive or SD memory card to store other files. Use the steps in this section to erase the recovery media using the Chromebook Recovery Utility.

# 7 Specifications

This chapter provides specifications for your computer.

# **Computer specifications**

This section provides specifications for your computer. When traveling with your computer, the computer dimensions and weights, as well as input power ratings and operating specifications, provide helpful information.

Table 7-1 Computer specifications

	Metric	U.S.
Dimensions		
Width	321.5 mm	12.66 in
Depth	206 mm	8.11 in
Height (front to back)	17.95 mm	0.71 in
Neight	1650 g	3.64 lb
nput power		
Operating voltage and current	19.5 V dc @ 3.33 A – 65 W	
	19.5 V dc @ 2.31 A – 45 W	
Temperature		
Operating	5°C to 35°C	41°F to 95°F
Nonoperating	<b>-20°C to 60°C</b>	
Relative humidity (noncondensing)		
Operating	10% to 90%	
Nonoperating	5% to 95%	
Maximum altitude (unpressurized)		
Operating	–15 m to 3,048 m	-50 ft to 10,000 ft
Nonoperating	–15 m to 12,192 m	-50 ft to 40,000 ft

# 35.6 cm (14.0 in) display specifications

This section provides specifications for your display.

Table 7-2 Display specifications

	Metric	U.S.
Active diagonal size	35.6 cm	14.0 in
Resolution	1920 × 1080 (FHD)	
Surface treatment	Antiglare	
Brightness	250 nits	
Viewing angle	UWVA	
Backlight	WLED	
Display panel interface	eDP 1.2	

# 8 Power cord set requirements

This chapter provides power cord requirements for countries and regions.

The wide-range input feature of the computer permits it to operate from any line voltage from 100 V ac to 120 V ac, or from 220 V ac to 240 V ac.

The 3-conductor power cord set included with the computer meets the requirements for use in the country or region where the equipment is purchased.

Power cord sets for use in other countries or regions must meet the requirements of the country and region where the computer is used.

# **Requirements for all countries**

These power cord requirements are applicable to all countries and regions.

- The length of the power cord set must be at least 1.0 m (3.3 ft) and no more than 2.0 m (6.5 ft).
- All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country or region where the power cord set will be used.
- The power cord sets must have a minimum current capacity of 10 A and a nominal voltage rating of 125 V ac or 250 V ac, as required by the power system of each country or region.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector for mating with the appliance inlet on the back of the computer.

## Requirements for specific countries and regions

To determine power cord requirements for specific countries and regions, use this table.

Table 8-1 Power cord requirements for specific countries and regions

Country/region	Accredited agency	Applicable note number
Argentina	IRAM	1
Australia	SAA	1
Austria	OVE	1
Belgium	CEBEC	1
Brazil	ABNT	1
Canada	CSA	2
Chile	IMQ	1
Denmark	DEMKO	1
Finland	FIMKO	1
France	UTE	1
Germany	VDE	1

Table 8-1 Power cord requirements for specific countries and regions (continued)

Country/region	Accredited agency	Applicable note number
India	BIS	1
Israel	SII	1
Italy	IMQ	1
Japan	JIS	3
The Netherlands	KEMA	1
New Zealand	SANZ	1
Norway	NEMKO	1
The People's Republic of China	ССС	4
Saudi Arabia	SAS0	7
Singapore	PSB	1
South Africa	SABS	1
South Korea	KTL	5
Sweden	SEMKO	1
Switzerland	SEV	1
Taiwan	BSMI	6
Thailand	TISI	1
The United Kingdom	ASTA	1
The United States	UL	2

- The flexible cord must be Type H05VV-F, 3-conductor, 0.75 mm<sup>2</sup> conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.
- 2. The flexible cord must be Type SVT/SJT or equivalent, No. 18 AWG, 3-conductor. The wall plug must be a two-pole grounding type with a NEMA 5-15P (15 A, 125 V ac) or NEMA 6-15P (15 A, 250 V ac) configuration. CSA or C-UL mark. UL file number must be on each element.
- 3. The appliance coupler, flexible cord, and wall plug must bear a T mark and registration number in accordance with the Japanese Dentori Law. The flexible cord must be Type VCTF, 3-conductor, 0.75 mm² or 1.25 mm² conductor size. The wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (7 A, 125 V ac) configuration.
- 4. The flexible cord must be Type RVV, 3-conductor, 0.75 mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the CCC certification mark.
- 5. The flexible cord must be Type H05VV-F 3-conductor, 0.75 mm<sup>2</sup> conductor size. KTL logo and individual approval number must be on each element. Approval number and logo must be printed on a flag label.
- 6. The flexible cord must be Type HVCTF 3-conductor, 1.25 mm<sup>2</sup> conductor size. Power cord set fittings (appliance coupler, cable, and wall plug) must bear the BSMI certification mark.
- 7. For 127 V ac, the flexible cord must be Type SVT or SJT 3-conductor, 18 AWG, with plug NEMA 5-15P (15 A, 125 V ac), with UL and CSA or C-UL marks. For 240 V ac, the flexible cord must be Type H05VV-F 3-conductor, 0.75 mm² or 1.00 mm² conductor size, with plug BS 1363/A with BSI or ASTA marks.

# 9 Recycling

When a nonrechargeable or rechargeable 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.

HP encourages customers to recycle used electronic hardware, HP original print cartridges, and rechargeable batteries. For more information about recycling programs, see the HP website at <a href="http://www.hp.com/recycle">http://www.hp.com/recycle</a>.

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