Maintenance and Service Guide

HP Stream Laptop PC
HP Stream 11 Pro G5 Notebook PC
HP Stream 11 Pro G4 Notebook PC Education Edition
HP Stream 11 Pro G3 Notebook PC

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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.

Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. Go to http://www.microsoft.com for details.

To access the latest user guides, go to http://www.hp.com/support, and follow the instructions to find your product. Then select **User Guides**.

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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

⚠ **WARNING!** To reduce the possibility of heat-related injuries or of overheating the device, do not place the device directly on your lap or obstruct the device air vents. Use the device 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 contact the skin or a soft surface, such as pillows or rugs or clothing, during operation. The device and the AC adapter comply with the user-accessible surface temperature limits defined by the International Standard for Safety of Information Technology Equipment (IEC 60950-1).

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1 Product description

Category	Details	Stream 11 Pro G5	Stream 11 Pro G4 Education	Stream 11 Pro G3	Stream
Product Name	HP Stream Laptop PC				√
	HP Stream 11 Pro G5 Notebook PC	√			
	HP Stream 11 Pro G4 Education Edition Notebook PC		√		
	HP Stream 11 Pro G3 Notebook PC			√	
Processor	Intel® Pentium Silver N5000 (1.1 GHZ turbo up to 2.7 GHz) 2400 MHz/4 MB L2, quad core, SDP, 4.8 W	√			
	Intel Celeron™ N4100 (1.1 GHz turbo up to 2.4 GHz) 2400 MHz/4 MB L2, quad core, SDP, 4.8 W	√			
	Intel Celeron N4000 (1.1 GHZ turbo up to 2.6 GHz) 2400 MHz/4 MB L2, dual core, SDP 4.8 W	√			√
	Intel Celeron N3450 1.1 GHz (turbo up to 2.2 GHz) dual core processor, (1866 MHz FSB, 2 MB L2 cache, dual core, SDP, 4 W)		√		
	Intel Celeron N3350 1.1 GHz (turbo up to 2.4 GHz) dual core processor, (1866 MHz FSB, 2 MB L2 cache, dual core, SDP, 4 W)		√		
	Intel Celeron N3060 1.66 GHz (turbo up to 2.48 GHz) dual core (1600 MHz FSB, 2 MB L2 cache, dual core, SDP, 4 W)			√	√
	Intel Celeron N3050 1.66 GHz (turbo up to 2.16 GHz) dual core (1600 MHz FSB, 2 MB L2 cache, dual core, SDP, 4 W)				√
Chipset	Intel integrated soldered-on-circuit (SoC)	√	√	√	√
Graphics	**Internal Graphics**				
	Intel UHD Graphics 605 (N5000)	√			
	Intel UHD Graphics 600 (N4100, N4000)	√			√
	Intel HD Graphics 400 (N3450, N3350, N3060, N3050)		√	√	√
	Supports HD decode, DX11, and HDMI	√	√	√	√
Panel	**11.6 in, high-definition (HD)(1366 × 768), white light-emitting diode (WLED), 16:9 aspect ratio; typical brightness: 220 nits**				
	AntiGlare, slim, SVA, flat (3.0 mm); eDP; touch on panel (TOP), multitouch enabled				√
	AntiGlare, slim, SVA, flat (3.0 mm); eDP; non-touch	√	√	√	√
	BrightView, slim, UWVA, flat (1.2 mm); touch on panel (TOP)	√	√		

Category	Details	Stream 11 Pro G5	Stream 11 Pro G4 Education	Stream 11 Pro G3	Stream
Memory	Supports DDR4-2400 single channel support on-board 4 GB system memory	√			√
	Supports DDR3L-1600 single channel on-board 2 GB system memory		√	√	√
	Supports DDR3L-1600 dual channel on-board 4 GB system memory		√	√	√
Storage	**Embedded MultiMedia Controller (eMMC) configurations**				
	32 GB		√	√	√
	64 GB	√	√	√	√
	128 GB	√	√		
Audio and video	HP VGA camera, USB 2.0 fixed (no tilt) integrated activity light, 640 × 480 by 24 frames per second, camera with rubber for non-touch	√	√	√	√
	Single digital microphone with appropriate beam-forming, echo-cancellation, noise-suppression software	√	√	√	√
	Two speakers	√	√	√	√
	HP Noise Cancellation	√	√	√	√
Wireless	**Integrated wireless local area network (WLAN) options by way of wireless module**	√	√	√	√
	Two built-in WLAN antennas	√	√	√	√
	Intel Dual Band Wireless-AC 9560 802.11ac 2 × 2 WiFi + Bluetooth 5.0 Combo Adapter (MU-MIMO/160Mhz)	√			
	Intel Dual Band AC 7265 802.11ac 2 × 2 WiFi + Bluetooth 4.2 Combo Adapter (non-vPro)		√	√	√
	Realtek RTL8822BE 802.11ac 2 × 2 WiFi + Bluetooth 4.2 Combo Adapter (MU-MIMO supported)				√
Ports	HP Smart Plug AC adapter	√	√	√	√
	Headphone/microphone combo jack	√	√	√	√
	High-definition multimedia interface (HDMI) v.1.4b, supporting up to 1080b, 1920 × 1080 at 60 Hz	√	√	√	√
	USB 3.0 port	√	√	√	√
	USB 2.0 port	√	√	√	√
External media cards	**Micro Secure Digital (SD) Media Reader**	√	√	√	√
	Supports SD/SDHC/SDXC	√	√	√	√
	Push-push insertion/removal	√	√	√	√
Keyboard/ pointing devices	**Keyboard**				
	Full-sized, textured, island-style, keyboard	√	√	√	√
	TouchPad requirements				

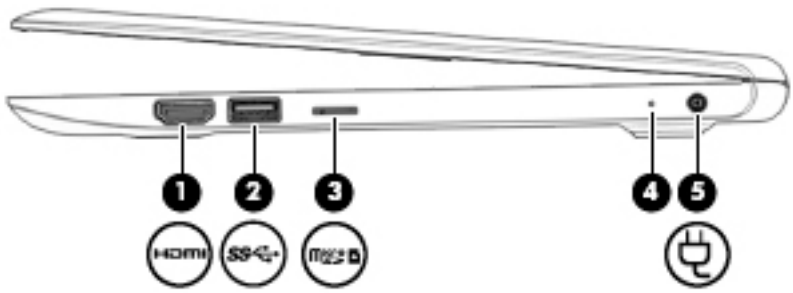
Category	Details	Stream 11 Pro G5	Stream 11 Pro G4 Education	Stream 11 Pro G3	Stream
	ClickPad with image sensor	√	√	√	√
	Multitouch gestures enabled (2-finger scroll, pinch, rotate, 2-finger click, 3-finger flic)	√	√	√	√
	Support for modern trackpad gestures	√	√	√	√
	Taps enabled as default	√	√	√	√
Power requirements	**Battery**				
	Supports a 2-cell, 37.69 Whr, polymer battery	√	√	√	√
	AC adapter				
	Supports 65 W HP Smart AC adapter (non-PFC, EM, 4.5 mm)(Pro G5 models)				√
	Supports 45 W HP Smart AC adapter (non-PFC, RC, 4.5 mm)	√	√	√	√
	Power cord				
	1 m conventional power cord (C5)	√	√	√	√
Security	Trusted platform module (TPM) 2.0	√	√	√	√
	Kensington Mini Security Lock	√	√	√	√
Operating system	**Preinstalled**:				
	Windows 10 Home 64	√			
	Windows 10 Home 64 Compact		√	√	
	Windows 10 Home 64 Single Language	√			
	Windows 10 Home 64 Single Language APAC EM PPP	√			
	Windows 10 Home 64 StF MSNA for High Education	√			
	Windows 10 Home 64 StF MSNA for High Education Strategic	√			
	Windows 10 Home Entry Indonesia PPP				√
	Windows 10 Home Value Indonesia PPP				√
	Windows 10 Home Entry APAC PPP				√
	Windows 10 Home Value APAC PPP				√
	Windows 10 Home in S Mode (Entry)				√
	Windows 10 Home in S Mode (Value)				√
	Windows 10 Home in S Mode (Entry) MS Signature				√
	Windows 10 Home Entry NB				√
	Windows 10 Home Value NB				√
	Windows 10 Home Entry NB with OneDrive				√
	SEAP Windows 10 Home Entry NB				√

Category	Details	Stream 11 Pro G5	Stream 11 Pro G4 Education	Stream 11 Pro G3	Stream
	SEAP Windows 10 Home Entry NB with OneDrive				√
	Windows 10 Pro 64 Compact		√	√	
	Windows 10 Pro 64 StF MSNA	√			
	Windows 10 Pro 64 StF MSNA Emerging Market	√			
	Windows 10 Pro 64 StF MSNA Strategic	√			
	Windows 10 Pro 64 Value Notebook	√			
	Windows 10 Pro S 64	√			
	Windows 10 Pro S 64 Value	√			√
	Windows 10 Pro 64 StF MSNA Compact		√	√	
	Windows 10 Pro 64 StF MSNA EM Compact		√	√	
	Windows 10 Pro 64 StF MSNA Strategic Compact		√	√	
	Windows 10 Pro 64 Value Notebook Compact		√	√	
	Windows 10 S 64 Value Compact		√		
	Win 10 Pro S 64 Compact		√		
	Win 10 Pro S 64 StF MSNA		√		
	Win 10 Pro S 64 StF MSNA EM		√		
	Win 10 Pro S 64 StF MSNA Strategic		√		
	Win 10 Pro S 64 Value Compact		√		
	Web Support				
	Microsoft WHQL	√	√	√	
	Windows 10 USB System Recovery Kit (OSDRU)	√	√	√	
	Windows 10 Enterprise 64	√	√		
	Windows 10 Pro CBB 1803	√			
Serviceability	**End-user replaceable part**:				
	AC adapter	√	√	√	√

2 Getting to know your computer

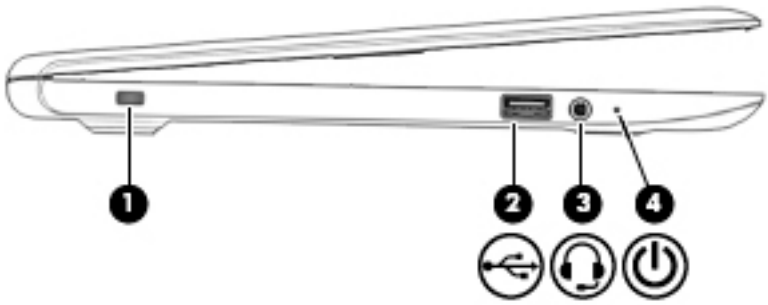
Your computer features top-rated components. This chapter provides details about your components, where they are located, and how they work.

Right side



Component		Description
(1)	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.
(2)	USB SuperSpeed port	Connects a USB device, such as a cell phone, camera, activity tracker, or smartwatch, and provides high-speed data transfer.
(3)	MicroSD memory card reader	Reads optional memory cards that enable you to store, manage, share, or access information. To insert a card: 1. Hold the card label-side up, with connectors facing the computer. 2. Insert the card into the memory card reader, and then press in on the card until it is firmly seated. To remove a card: ▲ Press in on the card, and then remove it from the memory card reader.
(4)	AC adapter and battery light	• White: The AC adapter is connected and the battery is fully charged. • Blinking white: The AC adapter is disconnected and the battery has reached a low battery level. • Amber: The AC adapter is connected and the battery is charging. • Off: The battery is not charging.
(5)	Power connector	Connects an AC adapter.

Left side



Component			Description
(1)		Security cable slot	Attaches an optional security cable to the computer. **NOTE:** The security cable is designed to act as a deterrent, but it may not prevent the computer from being mishandled or stolen.
(2)		USB port	Connects a USB device, such as a cell phone, camera, activity tracker, or smartwatch, and provides data transfer.
(3)		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. **WARNING!** To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, see the *Regulatory, Safety, and Environmental Notices*. To access this guide: ▲ Select the **Start** button, select **HP Help and Support**, and then select **HP Documentation**. **NOTE:** When a device is connected to the jack, the computer speakers are disabled.
(4)		Power light	• On: The computer is on. • Blinking: The computer is in the Sleep state, a power-saving state. The computer shuts off power to the display and other unneeded components. • Off: The computer is off or in Hibernation. Hibernation is a power-saving state that uses the least amount of power.

Display

Component		Description
(1)	WLAN antennas* (select products only)	Send and receive wireless signals to communicate with wireless local area networks (WLANs).
(2)	Camera light	On: The camera is in use.
(3)	Camera	Allows you to video chat, record video, and record still images. Some cameras also allow a facial recognition logon to Windows, instead of a password logon. **NOTE:** Camera functions vary depending on the camera hardware and software installed on your product.
(4)	Internal microphone	Records sound.

*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.

To access this guide:

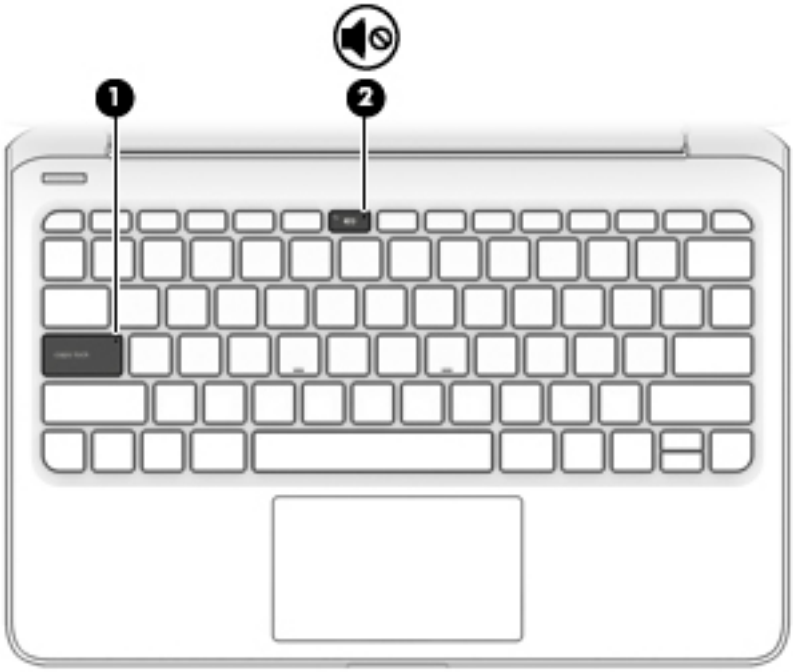
▲ Select the **Start** button, select **HP Help and Support**, and then select **HP Documentation**.

Keyboard area

TouchPad

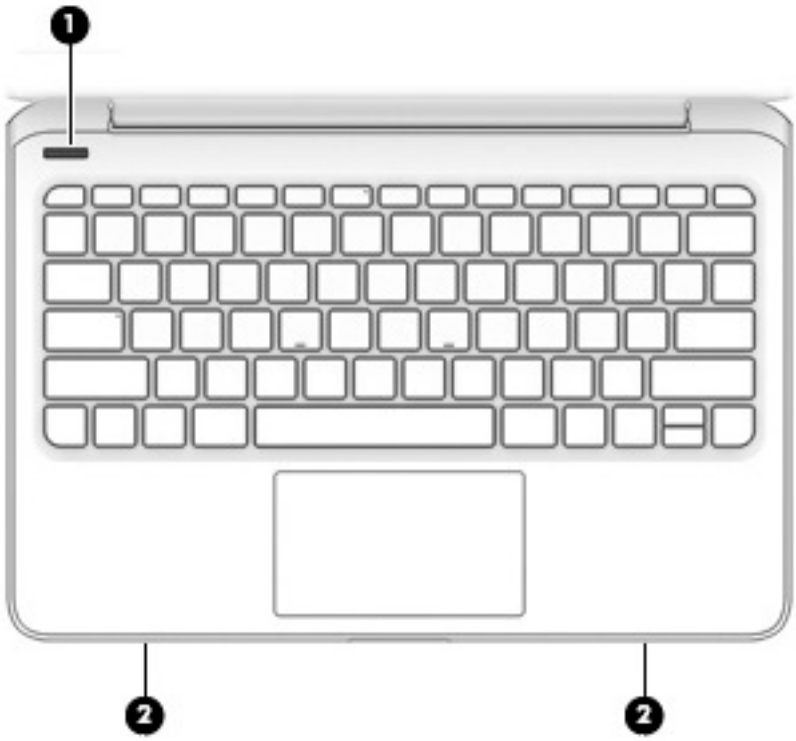
Component		Description
(1)	TouchPad zone	Reads your finger gestures to move the pointer or activate items on the screen.
(2)	Left control zone	Textured area that allows you to perform additional gestures.
(3)	Right control zone	Textured area that allows you to perform additional gestures.

Lights



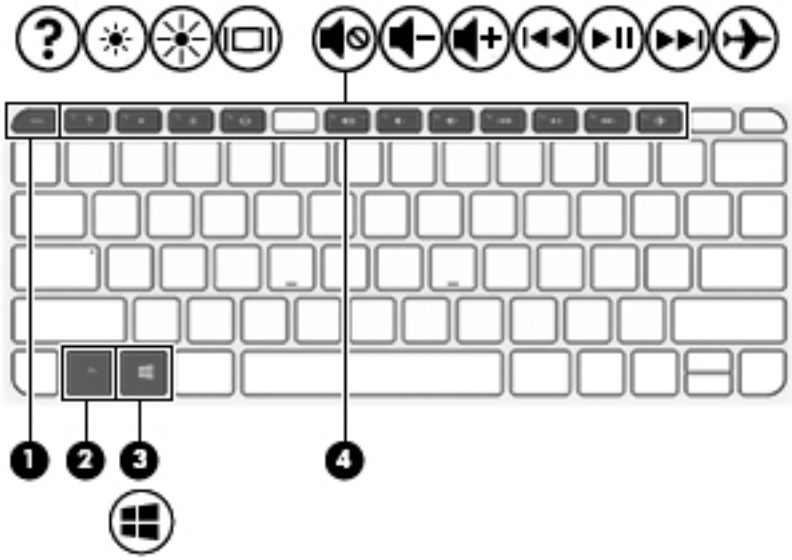
Component		Description
(1)	Caps lock light	On: Caps lock is on, which switches the key input to all capital letters.
(2)	Mute light	• On: Computer sound is off. • Off: Computer sound is on.

Button and speakers



Component		Description
(1)	Power button	• When the computer is off, press the button to turn on the computer. • When the computer is on, press the button briefly to initiate Sleep. • When the computer is in the Sleep state, press the button briefly to exit Sleep (select products only). • When the computer is in Hibernation, press the button briefly to exit Hibernation. **CAUTION:** 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 down for at least 5 seconds to turn off the computer. To learn more about your power settings, see your power options: ▲ Right-click the **Power** icon , and then select **Power Options**.
(2)	Speakers (2)	Produce sound.

Special keys

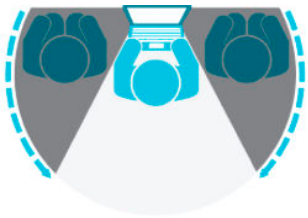


Component		Description
(1)	esc key	Displays system information when pressed in combination with the fn key.
(2)	fn key	Executes specific functions when pressed in combination with another key.
(3)	Windows key	Opens the Start menu. **NOTE:** Pressing the Windows key again will close the Start menu.
(4)	Action keys	Execute frequently used system functions. **NOTE:** On select products, the f5 action key turns the keyboard backlight feature off or on.

Action keys

An action key performs the function indicated by the icon on the key. To determine which keys are on your product, see Special keys on page 11.

▲ To use an action key, press and hold the key.

Icon	Description
	Helps prevent side-angle viewing from onlookers. If needed, decrease or increase brightness for well-lit or darker environments. Press the key again to turn off the privacy screen. 
	Decreases the screen brightness incrementally as long as you hold down the key.
	Increases the screen brightness incrementally as long as you hold down the key.
	Opens the “How to get help in Windows 10” webpage.
	Switches the screen image between display devices connected to the system. For example, if a monitor is connected to the computer, repeatedly pressing this key alternates the screen image from the computer display to the monitor display to a simultaneous display on both the computer and the monitor.
	Turns the keyboard backlight off or on. On select products, you can adjust the brightness of the keyboard backlight. Press the key repeatedly to adjust the brightness from high (when you first start up the computer), to low, to off. After you adjust the keyboard backlight setting, the backlight will revert to your previous setting each time you turn on the computer. The keyboard backlight will turn off after 30 seconds of inactivity. To turn the keyboard backlight back on, press any key or tap the TouchPad (select products only). To conserve battery power, turn off this feature.
	Plays the previous track of an audio CD or the previous section of a DVD or a Blu-ray Disc (BD).
	Starts, pauses, or resumes playback of an audio CD, a DVD, or a BD.
	Plays the next track of an audio CD or the next section of a DVD or a BD.
	Stops audio or video playback of a CD, a DVD, or a BD.
	Decreases speaker volume incrementally while you hold down the key.
	Increases speaker volume incrementally while you hold down the key.

Icon	Description
	Mutes or restores speaker sound.
	Turns the airplane mode and wireless feature on or off. **NOTE:** The airplane mode key is also referred to as the wireless button. **NOTE:** A wireless network must be set up before a wireless connection is possible.

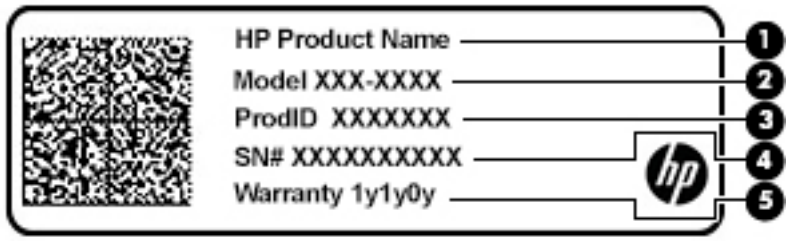
Labels

The labels affixed to the computer provide information you may need when you troubleshoot system problems or travel internationally with the computer. Labels may be in paper form or imprinted on the product.

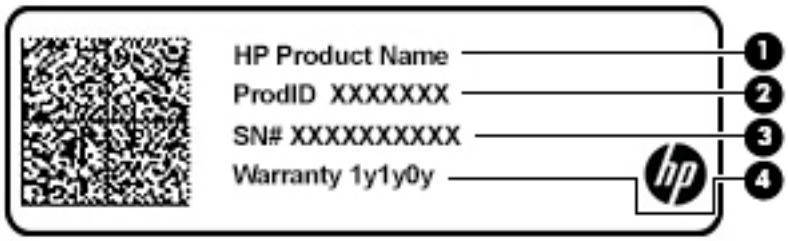
IMPORTANT: Check the following locations for the labels described in this section: the bottom of the computer, inside the battery bay, under the service door, on the back of the display, or on the bottom of a tablet kickstand.

- Service label—Provides important information to identify your computer. When contacting support, you may be asked for the serial number, the product number, or the model number. Locate this information before you contact support.

  Your service label will resemble one of the examples shown below. Refer to the illustration that most closely matches the service label on your computer.



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



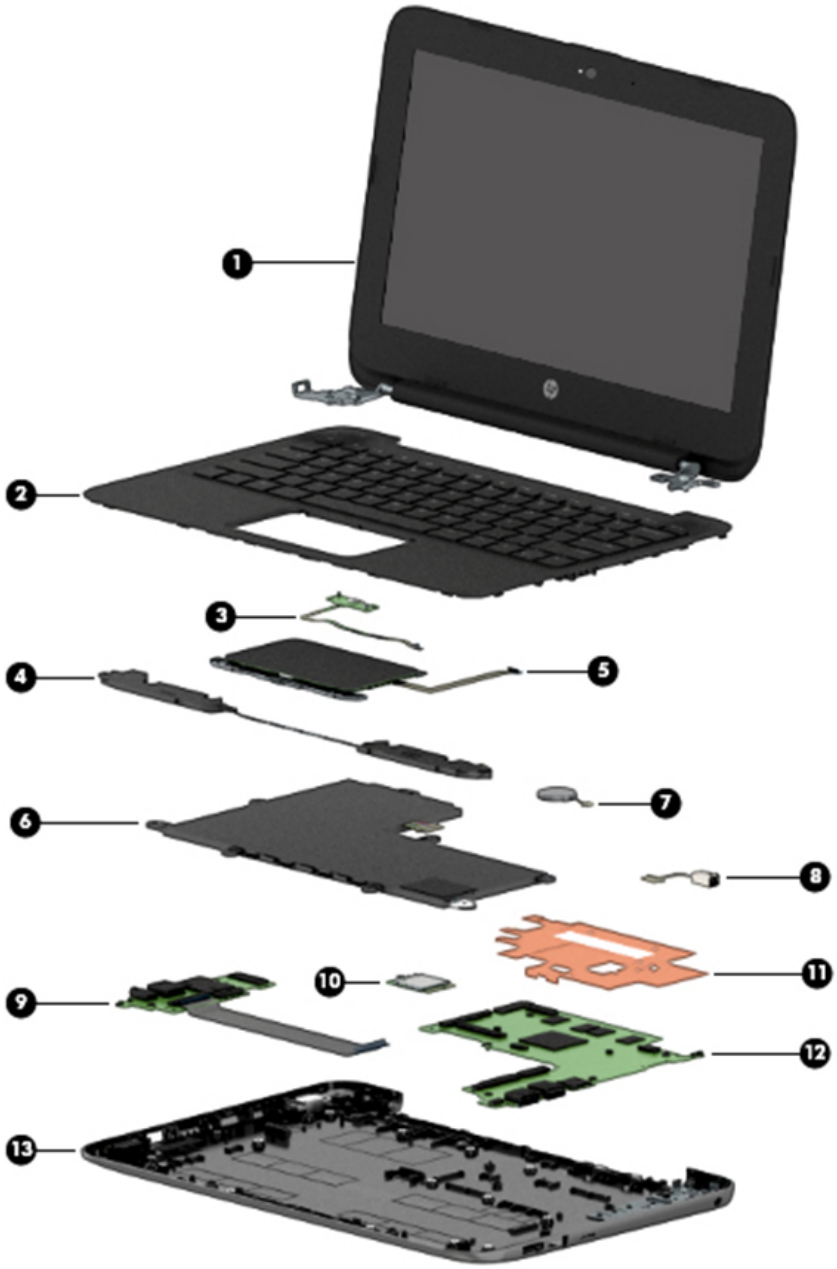
Component	
(1)	HP product name
(2)	Product ID
(3)	Serial number
(4)	Warranty period

- 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

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

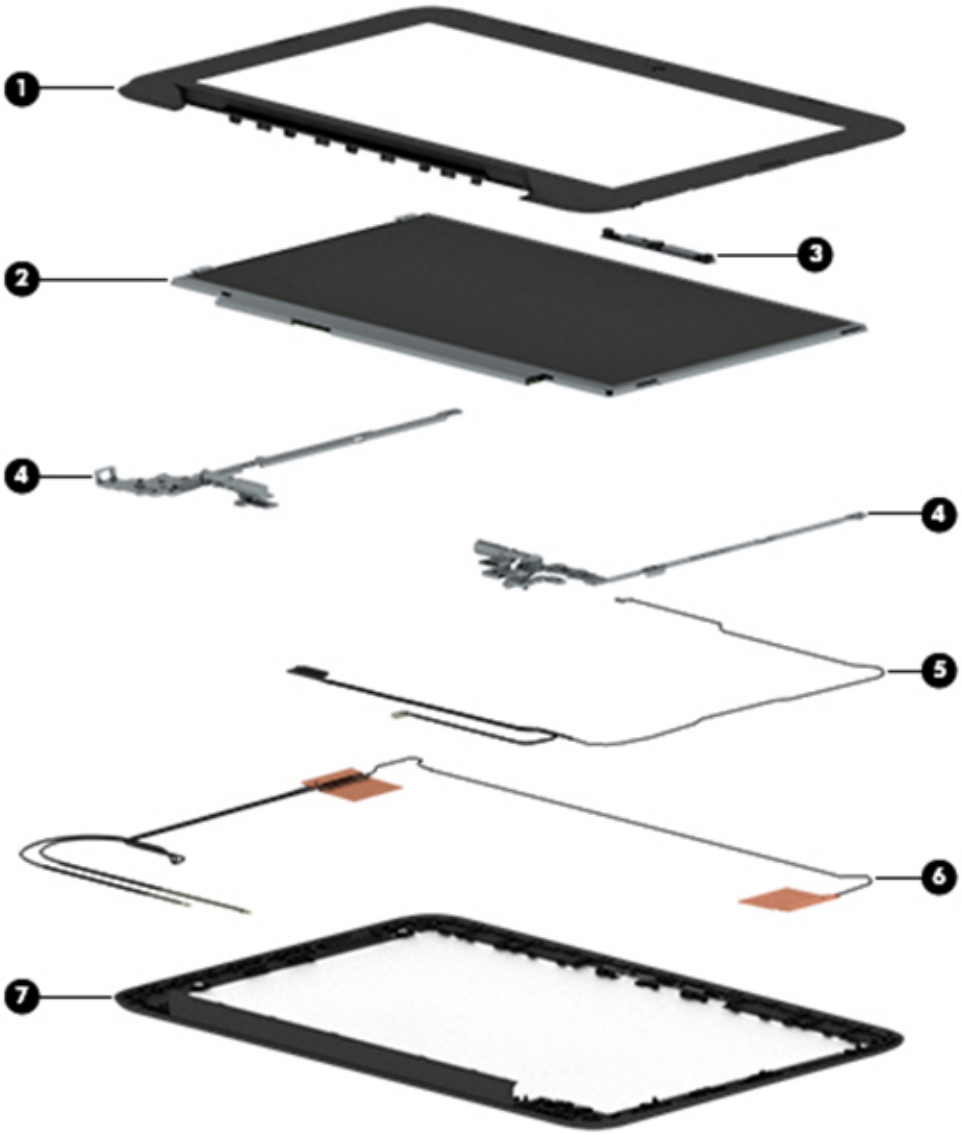
Computer major components



Item	Component	Spare part number
(1)	**Display assembly**: The display assembly is spared at the subcomponent level only. For more display assembly spare part information, see Display assembly subcomponents on page 18.	
(2)	**Keyboard/top cover** (includes keyboard cable). For a complete list of keyboard/top covers see Keyboard/top cover on page 28.	
(3)	**Power button board** **NOTE:** The power button board spare part kit does not include the power button board cable. The power button board cable is available using spare part number 830757-001.	
	For use in HP Stream models and Pro G3 models	902958-001
	For use on Pro G4 Education Edition models and Pro G5 models	L02774-001
(4)	**Speakers** (include left and right speakers and cables)	
	For use in HP Stream models and Pro G3 models	902964-001
	For use on Pro G4 Education Edition models and Pro G5 models	L02775-001
(5)	**TouchPad board** (includes double-sided adhesive). For a complete list of TouchPad board descriptions see TouchPad board on page 45 **NOTE:** The TouchPad board spare part kit does not include the TouchPad board cable. The TouchPad board cable is available using spare part number 830763-001 for HP Stream and Pro G3 models or L02777-001 for Pro G4 Education Edition models/Pro G5 models.	
	TouchPad bracket	908302-001
(6)	**Battery** (2-cell, 37 Whr, 4.96 Ah, Li-ion; includes cable)	824536-850
(7)	**RTC battery** (includes cable and double-sided adhesive)	
	For use in HP Stream models and Pro G3 models	830764-001
	For use on Pro G4 Education Edition models	L02772-001
(8)	**Power connector**	743480-004
(9)	**Connector board** (includes audio jack and USB port) **NOTE:** The connector board spare part kit does not include the connector board cable. The connector board cable is available using spare part number 830759-001.	
	For use in HP Stream models and Pro G3 models	902960-001
	For use on Pro G4 Education Edition models and Pro G5 models	L02773-001
(10)	**WLAN module:**	
	Intel Dual Band Wireless-AC 7265 802.11ac 2 × 2 WiFi + Bluetooth 4.2 Combo Adapter D1 (HP Stream Laptop PC with Intel Celeron N4000 only)	901229-855
	Intel Dual Band Wireless-AC 7265 802.11ac 2 × 2 WiFi + Bluetooth 4.2 Combo Adapter D0	793840-005
	Realtek RTL8822BE 802.11ac 2 × 2 WiFi + Bluetooth 4.2 Combo Adapter (MU-MIMO supported)	924813-855
	Intel Dual Band Wireless-AC 9560 802.11ac 2 × 2 WiFi + Bluetooth 5.0 Combo Adapter (Pro G5 models only)	L22634-005
(11)	**Heat sink** (includes replacement thermal material)	
	For use in HP Stream models and Pro G3 models	902899-001
	For use on Pro G4 Education Edition models and Pro G5 models	L02781-001

Item	Component	Spare part number
(12)	**System board** (includes HDMI port, micro-SD card reader slot, USB port, WLAN slot, LVDS slot, DC in slot, and replacement thermal material). For a complete list of system board descriptions see System board on page 39.	
(13)	**Base enclosure**	
	For use on HP Stream Laptop PC models only	
	• Aqua blue finish	902949-001
	• Infinity purple finish (only models with Intel Celeron N4000 or Intel Celeron N3XXX)	L23671-001
	• Snow white finish	910457-001
	• Smoke gray finish (only models with Intel Celeron N400)	L32380-001
	• Violet purple finish (only models with Intel Celeron N3XXX)	902950-001
	For use on HP Stream Laptop PC models with Intel Celeron N4000 and HP Stream 11 Pro G3 Notebook PC models only; jet black finish	908300-001
	For use on HP Stream Laptop PC models with Intel Celeron N400 and HP Stream 11 Pro G4 Education Edition Notebook PC models only	L02780-001
	For use in Pro G5 models	
	• Smoky/storm gray finish	L44338-001
	• Teal finish	L44339-001
	Rubber Kit (not illustrated, includes rubber feet)	
	For use on HP Stream Laptop PC models only	
	• Snow white finish	L23675-001
	• Infinity purple finish (only models with Intel Celeron N400 or Intel Celeron N3XXX)	910461-001
	• Aqua blue finish	902961-001
	• Violet purple finish (only models with Intel Celeron N3XXX)	902962-001
	For use on HP Stream 11 Pro G4 Education Edition Notebook PC models only	L02779-001
	For use on HP Stream Laptop PC models with Intel Celeron N400 and HP Stream 11 Pro G3 Notebook PC models only; jet black finish	908303-001
	For use in Pro G5 models	
	• Front feet	L44340-001
	• Rear feet	L44341-001

Display assembly subcomponents



Item	Component	Spare part number
(1)	**Display bezel**	
	For use on HP Stream Laptop PC models only	
	• Infinity purple finish (only models with Intel Celeron N4000 or Intel Celeron N3XXX)	L23673-001
	• Snow white finish	910458-001
	• Aqua blue finish	902951-001
	• Smoke gray finish (only models with Intel Celeron N4000)	L32381-001
	• Violet purple finish (only models with Intel Celeron N3XXX)	902952-001
	For use on HP Stream Laptop PC models and Pro G3 models; black finish	908298-001
	For use on Pro G4 Education Edition models	L02784-001

Item	Component	Spare part number
	For use on Pro G5 models	L44346-001
(2)	**Display panel**	
	For use on HP Stream and Pro G3 models only	
	• AntiGlare, SVA	902900-001
	For use on HP Stream 11 Pro G4 Education Edition Notebook PC models only	
	• BrightView, UWVA, touch	L04050-001
	• AntiGlare, SVA	L02782-001
	For use on HP Stream 11 Pro G5 Notebook PC models only	
	• AntiGlare, SVA	L44347-001
	• BrightView, UWVA	L44348-001
(3)	**Camera/microphone module** (includes double-sided adhesive)	
	For use in HP Stream models and Pro G3 models	902905-001
	For use on Pro G4 Education Edition models and Pro G5 models	L02790-001
(4)	**Display Hinge Kit** (includes left and right display hinges)	
	For use in HP Stream models and Pro G3 models	902955-001
	For use on Pro G4 Education Edition models and Pro G5 models	L02785-001
(5)	**Display panel cable** (includes camera/microphone module cable)	
	For use in HP Stream models and Pro G3 models	902953-001
	For use on Pro G4 Education Edition models and Pro G5 models	L02786-001
	For use on models with an LG touch panel	L04052-001
(6)	**WLAN antenna** (includes left and right WLAN cables and transceivers)	902946-001
(7)	**Display enclosure/back cover** (includes rubber padding, antenna, and shielding):	
	For use on HP Stream Laptop PC models only	
	• Infinity purple finish	L23669-001
	• Snow white finish	910456-001
	• Aqua blue finish	902947-001
	• Smoke gray finish (only models with Intel Celeron N4000)	L32379-001
	• Violet purple finish (only models with Intel Celeron N3XXX)	902948-001
	• Jack black finish	913135-001
	For use on HP Stream 11 Pro G4 Education Edition Notebook PC models only	L02783-001
	For use on HP Stream 11 Pro G5 models only	
	• Smoky/storm gray finish	L44344-001
	• Teal finish	L44345-001
	Display panel bracket (not illustrated)	L02789-001

Miscellaneous parts

Component	Spare part number
AC adapter	
65 W HP Smart AC adapter (HP Stream 11 Pro G4 Education Edition Notebook PC, HP Stream 11 Pro G3 Notebook PC, and HP Stream Laptop PC with Intel Celeron N3XXX only)	714635-850
65 W HP Smart AC adapter (HP Stream Laptop PC with Intel Celeron N4000 only)	913691-850
45 W HP Smart AC adapter, non-slim	741553-850
45 W HP Smart AC adapter, nPFC, RC, 4.5 mm, non-slim, 3 pin	741727-001
45 W HP Smart AC adapter, nPFC, RC, 4.5 mm, 2 pin	742436-001
Case	
11.1 gray/purple chroma sleeve	853424-031
Essential top load case	679921-001
HP Business Slim Top Load Case	718549-001
HP 14.1 Business Slim Top Load Case	L05333-001
HP 17.3 Business Backpack	L05335-001
HDMI to VGA adapter	701943-001
HDMI to DVI adapter	749038-001
HDMI-to-DVI-D adapter	691227-001
HP Smart AC adapter dongle, 7.4 mm	734734-001
AC power adapter, C5, for use in Japan	226768-001
HP Ultraslim Keyed Cable Lock	703372-001
Headset,	
In ear, black	903294-001
HP Stereo 3.5 mm headset	840339-001
HP Stereo USB headset	840340-001
Power cord, (C5, 1.83 m):	
For use in Australia	213356-001
For use in Europe	213350-001
For use in Israel	398063-001
For use in Italy	213352-001
For use in Japan	349756-001
For use in North America	213349-001
For use in Switzerland	213354-001
For use in the United Kingdom and Singapore	213351-001
Option 917, 3-cond, ROHS	361240-001

Component	Spare part number
Power cord, (C7, 1.83 m):	
For use in Europe	940393-101
Power cord, (C5, 1.00 m):	
For use in Argentina	401300-007
For use in Australia	213356-008
For use in Denmark	213353-008
For use in Europe	213350-009
For use in India	404827-003
For use in Israel	398063-003
For use in Italy	213352-008
For use in Japan	349756-002
For use in North America	213349-009
For use in South Korea	237836-008
For use in Switzerland	213354-008
For use in Taiwan	393313-003
For use in Thailand	285096-006
For use in the United Kingdom	213351-008
Option 917, 3-cond, ROHS	361240-002
Mouse	684978-001
Mouse HP USB Laser	674318-001
HP Comfort Grip Wireless Mouse	691922-001
HP USB Travel Mouse	757770-001
Plastics kit, for use in Pro G4 Education and Pro G5 models	L02788-001
Optical drive, USB external DVDRW drive	747080-001
Screw Kit	
For use in Stream and Pro G3 models	902963-001
For use in Pro G4 Education and Pro G5 models	L02787-001
USB to Gigabit RJ-45 adapter	829941-001

4 Removal and replacement procedures preliminary requirements

Tools required

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

- Case utility tool or similar thin plastic tool (non-conductive, non-marking)
- Magnetic 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

CAUTION: Using excessive force during disassembly and reassembly can damage plastic parts. Use care when handling the plastic

Cables and connectors

CAUTION: 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.

Cables must be handled with extreme care to avoid damage. 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 in such a way that they cannot be caught or snagged by parts being removed or replaced. Handle flex cables with extreme care; these cables tear easily.

Drive handling

⚠ **CAUTION:** Drives are fragile components that must be handled 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 one 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 Styrofoam.
- 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.

Equipment guidelines

Grounding equipment must include either a wrist strap or a foot strap at a grounded workstation.

- When seated, wear a wrist strap connected to a grounded system. Wrist straps are flexible straps with a minimum of one megohm ±10% resistance in the ground cords. To provide proper ground, wear a strap snugly against the skin at all times. On grounded mats with banana-plug connectors, use alligator clips to connect a wrist strap.
- When standing, use foot straps and a grounded floor mat. Foot straps (heel, toe, or 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 foot straps on both feet with a minimum of one megohm resistance between the operator and ground. To be effective, the conductive must be worn in contact with the skin.

The following grounding equipment is recommended to prevent electrostatic damage:

- Antistatic tape
- Antistatic smocks, aprons, and sleeve protectors
- Conductive bins and other assembly or soldering aids
- Nonconductive foam
- Conductive tabletop workstations with ground cords of one megohm resistance
- Static-dissipative tables or floor mats with hard ties to the ground
- Field service kits
- Static awareness labels
- Material-handling packages
- Nonconductive plastic bags, tubes, or boxes
- Metal tote boxes
- Electrostatic voltage levels and protective materials

The following table lists the shielding protection provided by antistatic bags and floor mats.

Material	Use	Voltage protection level
Antistatic plastics	Bags	1,500 V
Carbon-loaded plastic	Floor mats	7,500 V
Metallized laminate	Floor mats	5,000 V

Electrostatic discharge damage

Electronic components are sensitive to electrostatic discharge (ESD). Circuitry design and structure determine the degree of sensitivity. Networks built into many integrated circuits provide some protection, but in many cases, ESD contains enough power to alter device parameters or melt silicon junctions.

A discharge of static electricity from a finger or other conductor can destroy static-sensitive devices or microcircuitry. Even if the spark is neither felt nor heard, damage may have occurred.

An electronic device exposed to ESD may not be affected at all and can work perfectly throughout a normal cycle. Or the device may function normally for a while, then degrade in the internal layers, reducing its life expectancy.

⚠ **CAUTION:** To prevent damage to the tablet when you are removing or installing 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 in this section.

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.

The following table shows how humidity affects the electrostatic voltage levels generated by different activities.

⚠ **CAUTION:** A product can be degraded by as little as 700 V.

Typical electrostatic voltage levels			
	Relative humidity		
Event	**10%**	**40%**	**55%**
Walking across carpet	35,000 V	15,000 V	7,500 V
Walking across vinyl floor	12,000 V	5,000 V	3,000 V
Motions of bench worker	6,000 V	800 V	400 V
Removing DIPS from plastic tube	2,000 V	700 V	400 V
Removing DIPS from vinyl tray	11,500 V	4,000 V	2,000 V
Removing DIPS from Styrofoam	14,500 V	5,000 V	3,500 V
Removing bubble pack from PCB	26,500 V	20,000 V	7,000 V
Packing PCBs in foam-lined box	21,000 V	11,000 V	5,000 V

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

CAUTION: Components described in this chapter should only be accessed by an authorized service provider. Accessing these parts can damage the computer or void the warranty.

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

Component replacement procedures

There are as many as 54 screws that must be removed, replaced, and/or loosened when servicing the computer. Make special note of each screw size and location during removal and replacement.

Preparation for disassembly

See Removal and replacement procedures preliminary requirements on page 22 for initial safety procedures.

1. 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.
3. Disconnect all external devices from the computer

Computer feet

Description	Spare part number
Computer feet (included in the rubber kit) for use on HP Stream Laptop PC models only	
• Infinity purple finish (only models with Intel Celeron N400 or Intel Celeron N3XXX)	L23675-001
• Smoke gray finish (only models with Intel Celeron N400)	L32383-001
• Snow white finish	910461-001
• Aqua blue finish	902961-001
• Violet purple finish (only models with Intel Celeron N3XXX)	902962-001
Computer feet (included in the rubber kit) for use on HP Stream Laptop PC models with Intel Celeron N4000 and HP Stream 11 Pro G3 Notebook PC models only; black finish	908303-001
Computer feet (included in the rubber kit) for use on HP Stream 11 Pro G4 Education Edition Notebook PC models only	L02778-001
Computer feet (included in the rubber kit) for use in Pro G5 models	
• Front feet	L44340-001
• Rear feet	L44341-001

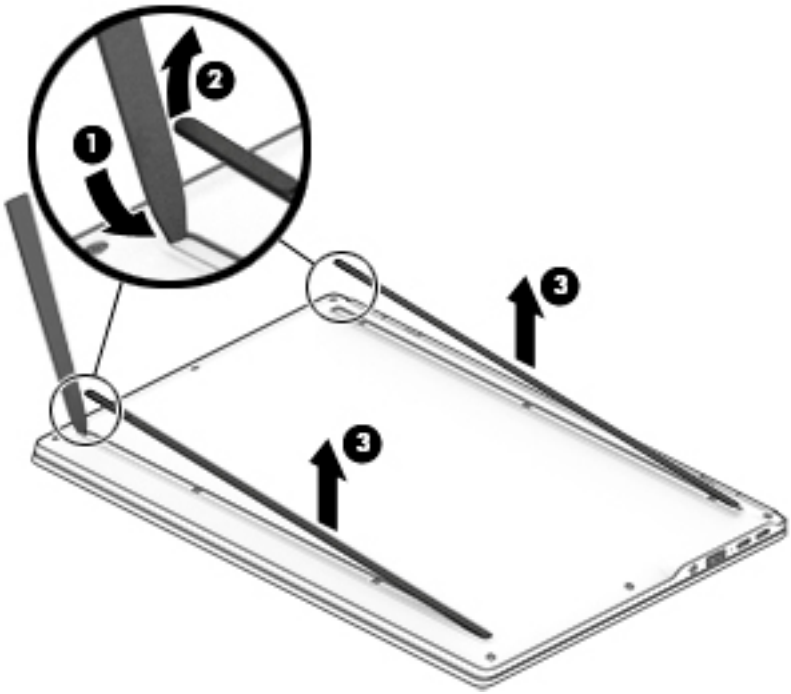
Before replacing the computer feet, follow these steps:

- Prepare the computer for disassembly (Preparation for disassembly on page 26).

Remove the computer feet:

NOTE: The appearance of the rubber feet and the number of screws may differ for your computer.

1. Close the computer and position it upside down, with the front toward you.
2. Insert a tool **(1)** with no sharp edges between the base enclosure and one end of the rubber feet.
3. Pull up the rubber feet **(2)** lightly and quickly.
4. Carefully remove the rubber feet **(3)**.



To install the rubber feet, refit them on the adhesive backing.

NOTE: The bottoms of the computer feet are ribbed. These ribs are designed to fit only one way in the grooves that are in the enclosure. Make sure the feet are positioned in those grooves when reinstalling the feet.

Keyboard/top cover

NOTE: The table below lists an xxx extension. The country part number extensions are listed in the next table.

NOTE: The keyboard cable is included.

Description	Stream w/ Intel Celeron N4000	Stream 11 Pro G5	Stream 11 Pro G4 Education	Stream w/ Intel Celeron N3XXX	Stream 11 Pro G3	Spare part number
Infinity purple	√			√		L23725-xxx
Aqua blue	√			√		902956-xxx
Jack black	√				√	908301-xxx
Violet purple				√		902957-xxx
Snow white	√			√		910459-xxx
Smoke gray			√			L02776-xxx
Smoke gray	√					L32384-xxx
Chalkboard gray		√				L44342-xxx

Description	Spare part number extension	Description	Spare part number extension
Africa-French	FP1	the Netherlands	B31
Belgium	A41	Portugal	131
Bulgaria	261	Romania	271
Canada	DB1	Russia	251
the Czech Republic and Slovenia	FL1	Saudi Arabia	171
Denmark, Finland, and Norway	DH1	Slovenia	BA1
France	051	South Korea	AD1
Germany	041	Spain	071
Greece	151	Switzerland	BG1
Hungary	211	Taiwan	AB1
Israel	BB1	Thailand	281
Italy	061	Turkey	141
Japan	291	the United Kingdom	031
Latin America	161	the United States	001

Before removing the keyboard/top cover, follow these steps:

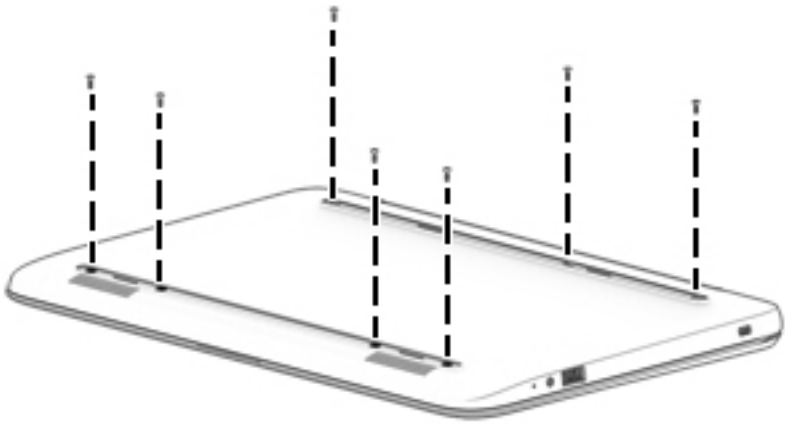
1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).

NOTE: When replacing the keyboard/top cover, be sure that the TouchPad board (see TouchPad board on page 45) and power button board (see Power button board on page 44) are removed from the defective keyboard/top cover and installed on the replacement keyboard/top cover.

Remove the keyboard/top cover:

NOTE: The number of screws may differ for your computer.

1. Remove the seven Phillips M2.0 × 5.7 screws that secure the keyboard/top cover to the bottom cover.



2. Turn the computer right side up with the front toward you.
3. Open the computer as far as it will open.
4. Insert a case utility tool **(1)** or similar thin, plastic tool between the front edge of the keyboard/top cover and the bottom cover.
5. Lift the front edge **(2)** of the keyboard/top cover until it separates from the front edge of the bottom cover.

6. Disconnect the battery cable from the system board **(1)**.

7. Release the zero insertion force (ZIF) connector **(2)** to which the power button board cable is attached, and then disconnect the power button board cable from the system board.
8. Release the ZIF connector **(3)** to which the keyboard cable is attached, and then disconnect the keyboard cable from the system board.
9. Release the ZIF connector **(4)** to which the TouchPad board cable is attached, and then disconnect the TouchPad board cable from the system board.
10. Remove the keyboard/top cover **(5)**.

Reverse this procedure to install the keyboard/top cover.

Speakers

Description	Spare part number
Speakers (includes left and right speakers and cables) for use in HP Stream models and Pro G3 models	902964-001
Speakers (includes left and right speakers and cables) for use on Pro G4 Education Edition models and Pro G5 models	L02775-001

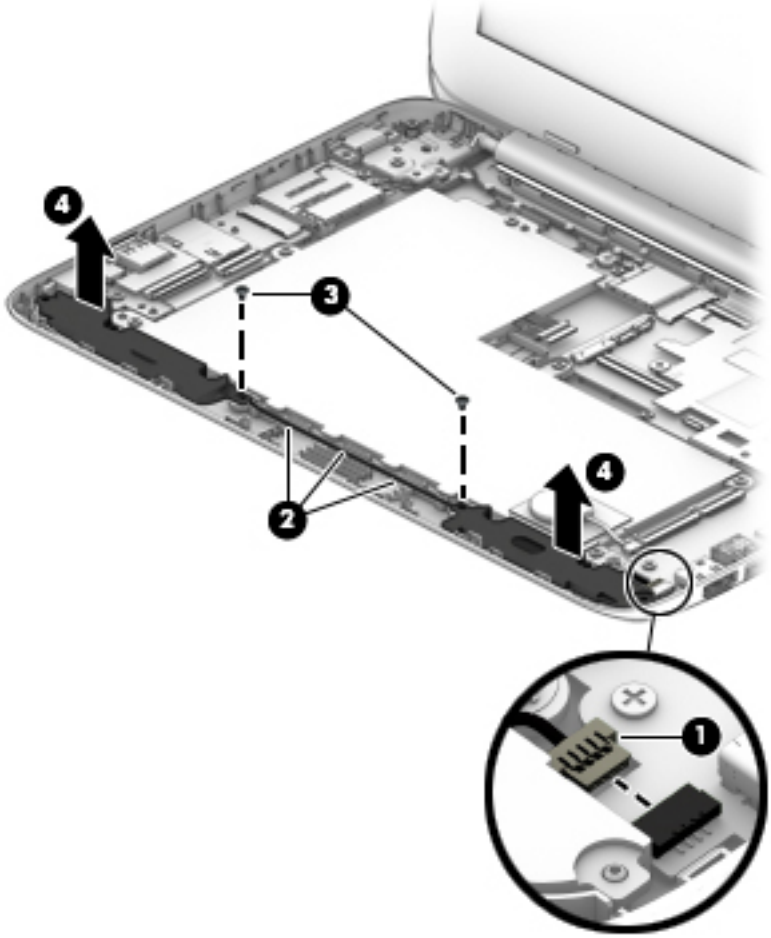
Before removing the speakers, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Disconnect the battery (see Battery on page 34).

Remove the speakers:

1. Disconnect the speaker cable from the system board **(1)**.
2. Release the speaker cables from the routing clips **(2)** built into the battery.
3. Remove the two Phillips M2.0 × 3.3 screws **(3)** that secure the speakers to the bottom cover.

4. Remove the speakers **(4)**.



Reverse this procedure to install the speakers.

RTC battery (select products only)

Description	Spare part number
RTC battery (includes cable and double-sided adhesive) for use in HP Stream models and Pro G3 models	830764-001
RTC battery (includes cable and double-sided adhesive) for use on Pro G4 Education Edition models	L02772-001

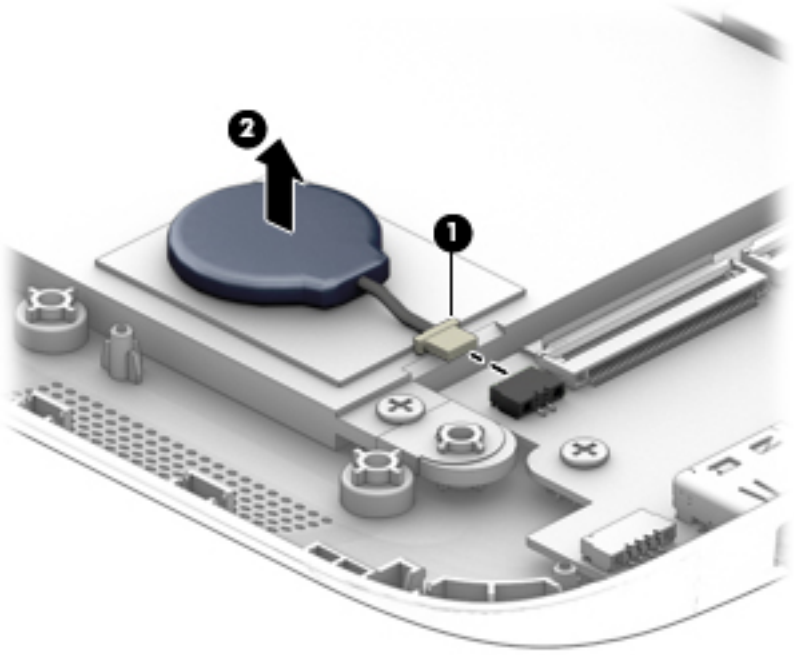
NOTE: RTC batteries are not used in some models.

Before removing the RTC battery, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Remove the speakers (see Speakers on page 31).

Remove the RTC battery:

1. Disconnect the RTC battery cable **(1)** from the system board.
2. Detach the RTC battery **(2)** from the battery. (The RTC battery is attached to the battery with double-sided adhesive.)



3. Remove the RTC battery and cable.

Reverse this procedure to install the RTC battery.

Battery

Description	Spare part number
Battery (2-cell, 37 Whr, 4.96 Ah, polymer, includes cable)	824536-850

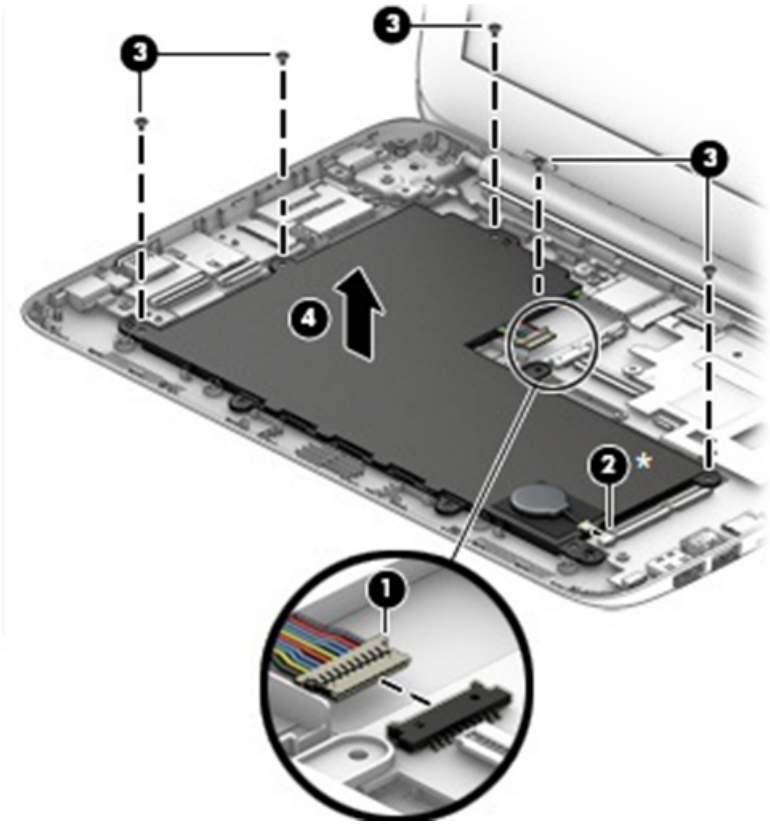
Before removing the battery, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Remove the speakers (see Speakers on page 31).

NOTE: When replacing the battery, be sure that the RTC battery (select products only) (see RTC battery (select products only) on page 33) is removed from the defective battery and installed on the replacement battery.

Remove the battery:

1. Disconnect the battery cable **(1)** from the system board.
2. Disconnect the RTC battery cable (select products only) from the system board **(2)**.
3. Remove the four Phillips M2.0 × 3.3 screws **(3)** that secure the battery to the bottom cover.
4. Remove the battery **(4)**.



Reverse this procedure to install the battery.

WLAN module

Description	Spare part number
Intel Dual Band Wireless-AC 7265 802.11ac 2 × 2 WiFi + Bluetooth 4.2 Combo Adapter D1 (HP Stream Laptop PC with Intel Celeron N4000 only)	901229-855
Intel Dual Band Wireless-AC 7265 802.11ac 2 × 2 WiFi + Bluetooth 4.2 Combo Adapter D0	793840-005
Realtek RTL8822BE 802.11ac 2 × 2 WiFi + BT 4.2 Combo Adapter (MU-MIMO supported)	924813-855
Intel Dual Band Wireless-AC 9560 802.11ac 2 × 2 WiFi + Bluetooth 5.0 Combo Adapter (Pro G5 models only)	L22634-005

CAUTION: To prevent an unresponsive system, replace the wireless module only with a wireless module authorized for use in the computer by the governmental agency that regulates wireless devices in your country or region. If you replace the module and then receive a warning message, remove the module to restore device functionality, and then contact technical support.

Before removing the WLAN module, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Disconnect the battery (see Battery on page 34).

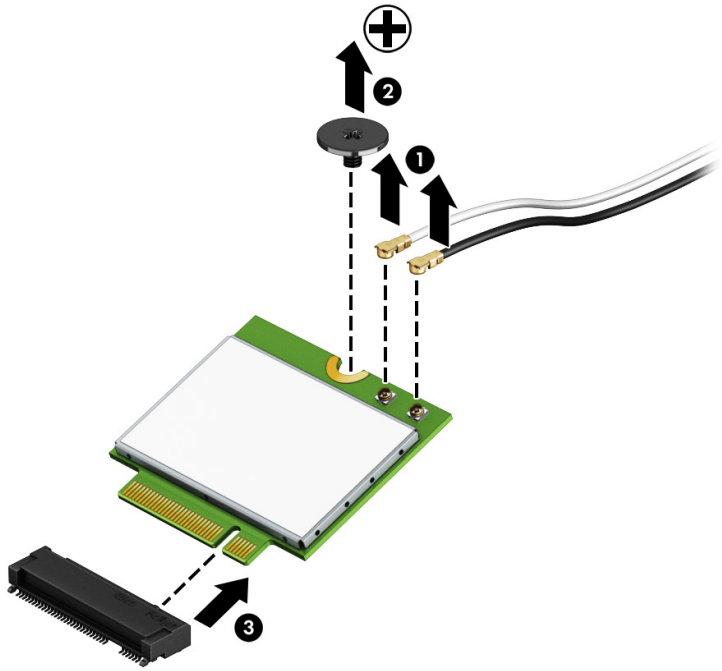
Remove the WLAN module:

1. Disconnect the WLAN antenna cables **(1)** from the terminals on the WLAN module.

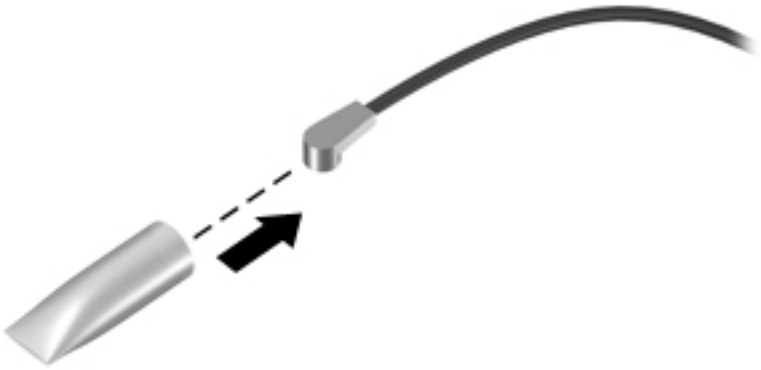
NOTE: The #1 WLAN antenna cable connects to the WLAN module #1/Main terminal. The #2 WLAN antenna cable connects to the WLAN module #2/Aux terminal.

2. Remove the Phillips M2.0 × 3.3 screw **(2)** that secures the WLAN module to the bottom cover. (The WLAN module tilts up.)

3. Remove the WLAN module **(3)** by pulling the module away from the slot at an angle.



NOTE: If the WLAN antenna is not connected to the terminal on the WLAN module, a protective sleeve must be installed on the antenna connector, as shown in the following illustration.



Reverse this procedure to install the WLAN module.

Heat sink

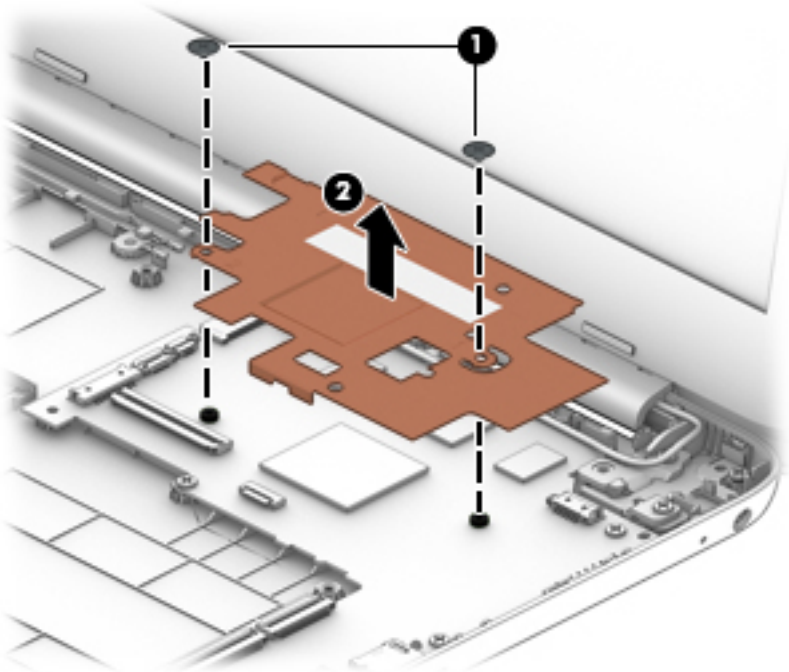
Description	Spare part number
Heat sink (includes replacement thermal material) for use in HP Stream models and Pro G3 models	902899-001
Heat sink (includes replacement thermal material) for use on Pro G4 Education Edition models and Pro G5 models	L02781-001

Before removing the heat sink, follow these steps:

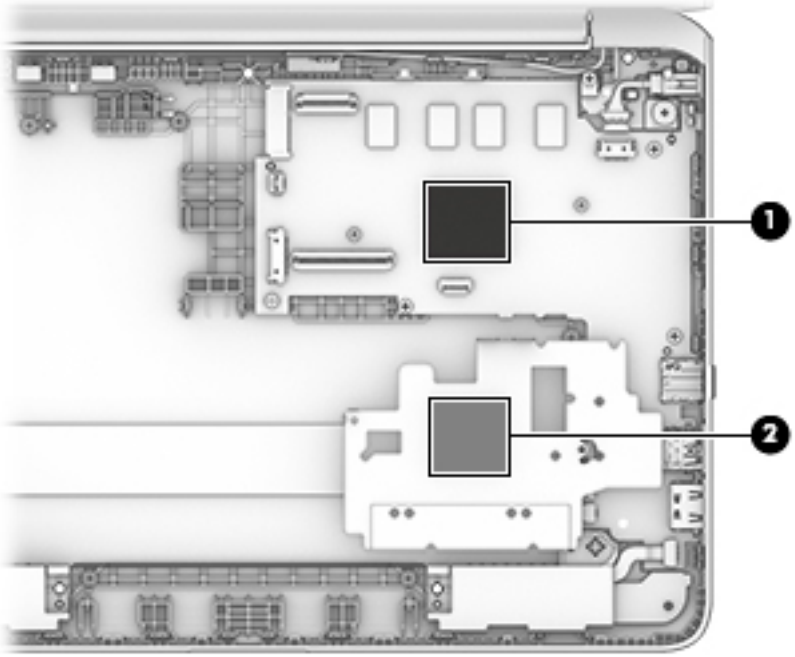
1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Remove the speakers (see Speakers on page 31).
5. Remove the battery (see Battery on page 34).

Remove the heat sink:

1. Remove the two Phillips M2.0 × 2.2 broad head screws **(1)** that secure the heat sink to the system board.
2. Remove the heat sink **(2)**.



NOTE: The thermal material must be thoroughly cleaned from the surfaces of the heat sink and the system board components each time the heat sink is removed. Thermal paste is used on the processor **(1)** and the heat sink section **(2)** that services it.



Reverse this procedure to install the heat sink.

System board

NOTE: The system board spare part kit includes an HDMI port, micro-SD card reader slot, USB port, WLAN slot, and replacement thermal material.

NOTE: The table below lists an xxx extension. 601 is the number for Windows systems; 001 is the number for non-Windows systems.

	Stream w/ Intel N4000	Stream 11 Pro G5	Stream 11 Pro G4 Education	Stream w/ Intel N3XXX	Stream 11 Pro G3	Spare Part Number
Pentium N5000 processor, 4.0 GB of system memory, 128 GB of eMMC		√				L44337-xxx
Celeron N4100 processor, 4.0 GB of system memory, 64 GB of eMMC		√				L44336-xxx
Celeron N4000 processor, 2.0 GB of system memory, 32 GB of eMMC	√					L23457-xxx
Celeron N4000, 4.0 GB of system memory, 32 GB of eMMC	√					L23458-xxx
Celeron N4000 processor, 4.0 GB of system memory, 64 GB of eMMC	√					L23459-xxx
Celeron N4000 processor, 4.0 GB of system memory, 64 GB of eMMC		√				L44335-xxx
Celeron N4000 processor, 4.0 GB of system memory, 128 GB of eMMC		√				L44334-xxx
Celeron N3450 processor, 4.0 GB of system memory, 128 GB of eMMC			√			L02770-xxx
Celeron N3450 processor , 4.0 GB of system memory, 64 GB of eMMC			√			L02771-xxx
Celeron N3350 processor, 4.0 GB of system memory, 128 GB of eMMC			√			L02769-xxx
Celeron N3350 processor, 4.0 GB of system memory, 64 GB of eMMC			√			L02768-xxx
Celeron N3350 processor, 2.0 GB of system memory			√			L31330-xxx
Celeron N3060 processor, 2.0 GB of system memory, 64 GB of eMMC				√		L02226-xxx
Celeron N3060 processor, 2.0 GB of system memory, 32 GB of eMMC				√		902901-xxx
Celeron N3060 processor, 4.0 GB of system memory, 64 GB of eMMC					√	907727-xxx
Celeron N3060 processor, 2.0 GB of system memory, 64 GB of eMMC					√	907726-xxx
Celeron N3060 processor, 2.0 GB of system memory, 32 GB of eMMC					√	911091-xxx
Celeron N3060 OFR processor, 4.0 GB of system memory, 64 GB of eMMC					√	L45171-xxx

	Stream w/ Intel N4000	Stream 11 Pro G5	Stream 11 Pro G4 Education	Stream w/ Intel N3XXX	Stream 11 Pro G3	Spare Part Number
Celeron N3060 OFR processor, 4.0 GB of system memory, 32 GB of eMMC					√	L45170-xxx
Celeron N3060 OFR processor, 2.0 GB of system memory, 32 GB of eMMC					√	L45169-xxx
Celeron N3050 processor, 2.0 GB of system memory, 32 GB of eMMC				√		902902-xxx
Celeron N3060 processor, 2.0 GB of system memory, 32 GB of eMMC				√		902903-xxx
Celeron N3050 processor, 4.0 GB of system memory, 32 GB of eMMC				√		902904-xxx

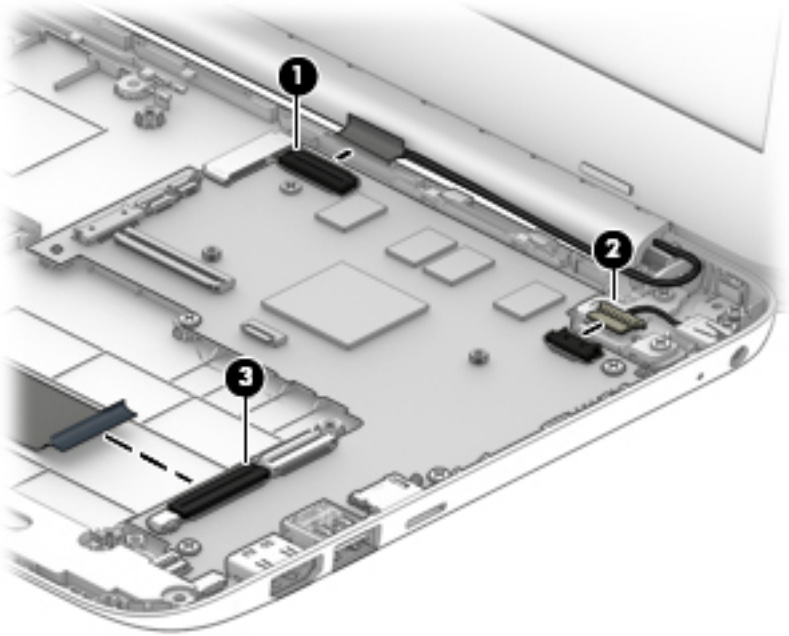
Before removing the system board, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Remove the speakers (see Speakers on page 31).
5. Remove the battery (see Battery on page 34).
6. Remove the WLAN module (see WLAN module on page 35).
7. Remove the heat sink (see Heat sink on page 37).

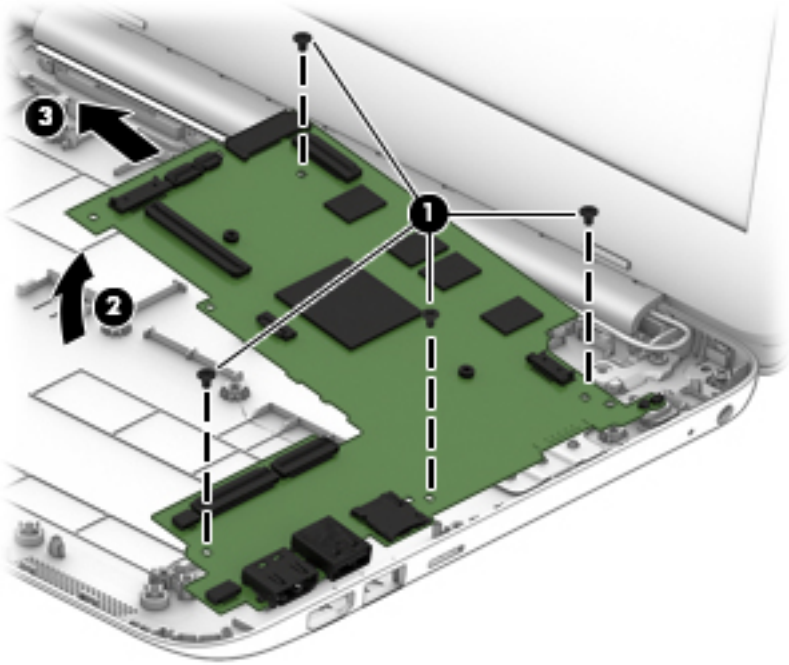
Remove the system board:

1. Release the ZIF connector **(1)** to which the display panel cable is attached, and then disconnect the display panel cable from the system board.
2. Disconnect the power connector cable **(2)** from the system board.

3. Release the ZIF connector **(3)** to which the connector board cable is attached, and then disconnect the connector board cable from the system board.



4. Remove the four Phillips M2.0 × 3.3 screws **(1)** that secure the system board to the bottom cover.
5. Release the system board by lifting the left side of the system board **(2)** until it rests at an angle.
6. Remove the system board **(3)** by sliding it up and to the left at an angle.



Reverse this procedure to install the system board.

Connector board

NOTE: The connector board spare part kit does not include the connector board cable. The connector board cable is available using spare part number 830759-001.

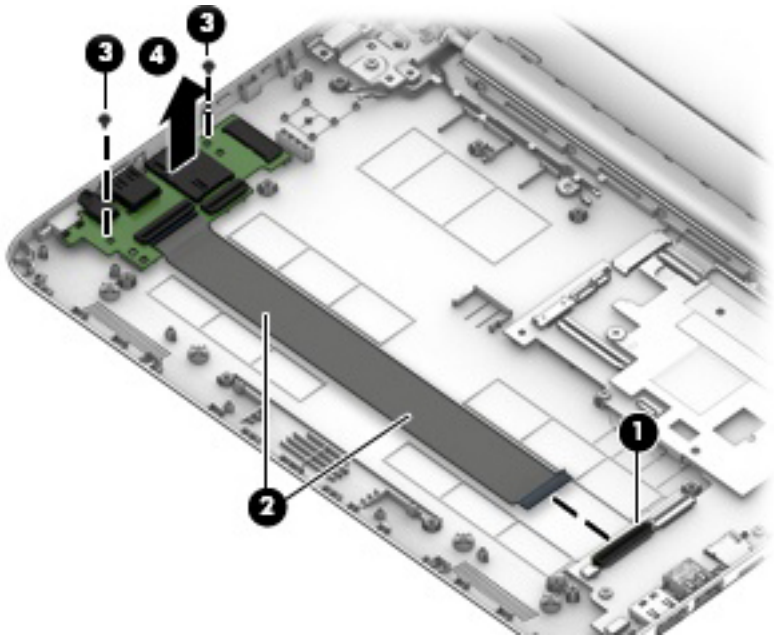
Description	Spare part number
Connector board (includes audio jack and USB port) for use in HP Stream models and Pro G3 models	902960-001
Connector board (includes audio jack and USB port) for use on Pro G4 Education Edition models and Pro G5 models	L02773-001

Before removing the connector board, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Remove the speakers (see Speakers on page 31).
5. Remove the battery (see Battery on page 34).

Remove the connector board:

1. Release the ZIF connector **(1)** to which the connector board cable is attached, and then disconnect the connector board cable from the system board.
2. Detach the connector board cable **(2)** from the bottom cover. (The connector board cable is attached to the bottom cover with double-sided adhesive.)
3. Remove the two Phillips M2.0 × 3.3 screws **(3)** that secure the connector board to the bottom cover.
4. Remove the connector board **(4)**.



Reverse this procedure to install the connector board.

Power connector

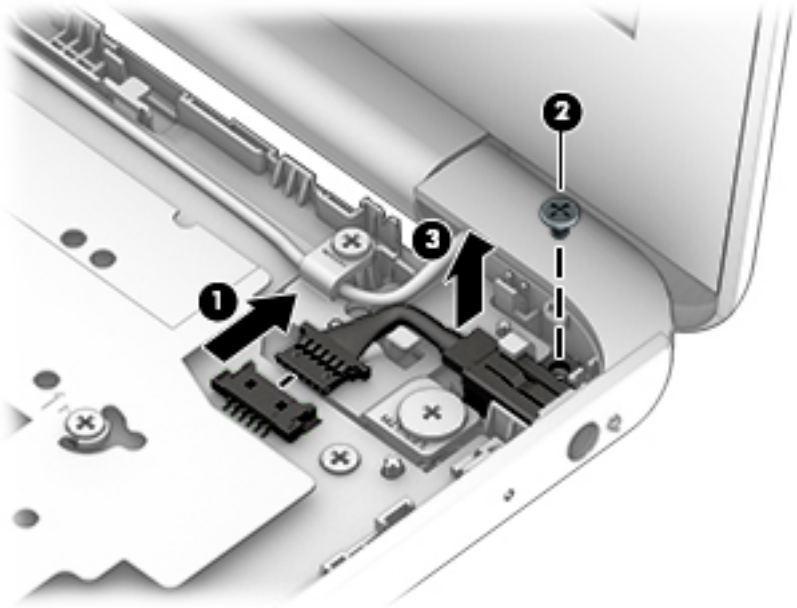
Description	Spare part number
Power connector	743480-004

Before removing the power connector, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Remove the speakers (see Speakers on page 31).
5. Remove the battery (see Battery on page 34).

Remove the power connector cable:

1. Disconnect the power connector cable **(1)** from the system board.
2. Remove the screw **(2)** securing the connector.
3. Remove the power connector **(3)**.



Reverse this procedure to install the power connector cable.

Power button board

NOTE: The power button board spare part kit does not include the power button board cable. The power button board cable is available using spare part number 830757-001.

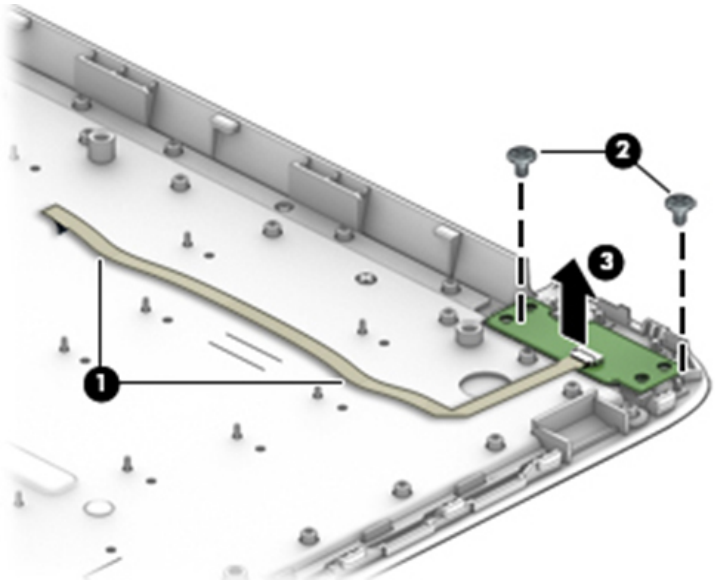
Description	Spare part number
Power button board for use in HP Stream models and Pro G3 models	902958-001
Power button board for use on Pro G4 Education Edition models and Pro G5 models	L02774-001

Before removing the power button board, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Disconnect the battery (see Battery on page 34).

Remove the power button board:

1. Turn the keyboard/top cover upside down with the front toward you.
2. Detach the power button board cable **(1)** from the keyboard/top cover. (The power button board cable is attached to the keyboard/top cover with double-sided adhesive at two locations.)
3. Remove the two Phillips M2.0 × 2.8 screws **(2)** that secure the power button board to the keyboard/top cover.
4. Remove the power button board **(3)** and cable.



Reverse this procedure to install the power button board.

TouchPad board

NOTE: The TouchPad board spare part kit does not include the TouchPad board cable. The TouchPad board cable is available using spare part number 830763-001 for HP Stream and Pro G3 models or L02777-001 for Pro G4 Education Edition models/Pro G5 models.

	Stream w/ Intel Celeron N4000	Stream 11 Pro G5	Stream 11 Pro G4 Education	Stream w/ Intel Celeron N3XXX	Stream 11 Pro G3	Spare part number
Infinity purple	√			√		L23677-001
Aqua blue	√			√		905532-001
Jack black	√				√	908297-001
Violet purple				√		905745-001
Snow white	√			√		910460-001
Smoke gray	√					L32382-001
Smoke gray			√			L02788-001
Smoke gray		√				L44343-001

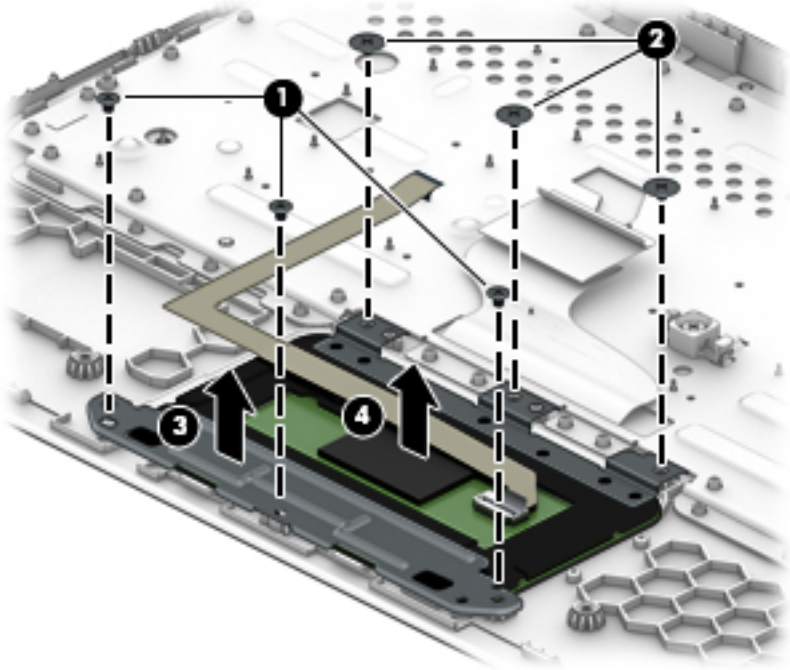
Before removing the TouchPad board, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the computer feet (see Computer feet on page 26).
3. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
4. Disconnect the battery (see Battery on page 34).

Remove the TouchPad board:

1. Turn the keyboard/top cover upside down with the front toward you.
2. Remove the three Phillips M2.0 × 2.8 screws **(1)** that secure the TouchPad board bracket and TouchPad board to the top cover.
3. Remove the three Phillips M2.0 × 2.2 broad head screws **(2)** that secure the TouchPad board to the top cover.
4. Remove the TouchPad board bracket **(3)**.

5. Remove the TouchPad board **(4)** and cable.



Reverse this procedure to install the TouchPad board.

Display assembly

NOTE: The display assembly is spared at the subcomponent level only. For more display assembly spare part information, see the individual removal subsections and see Display assembly subcomponents on page 18.

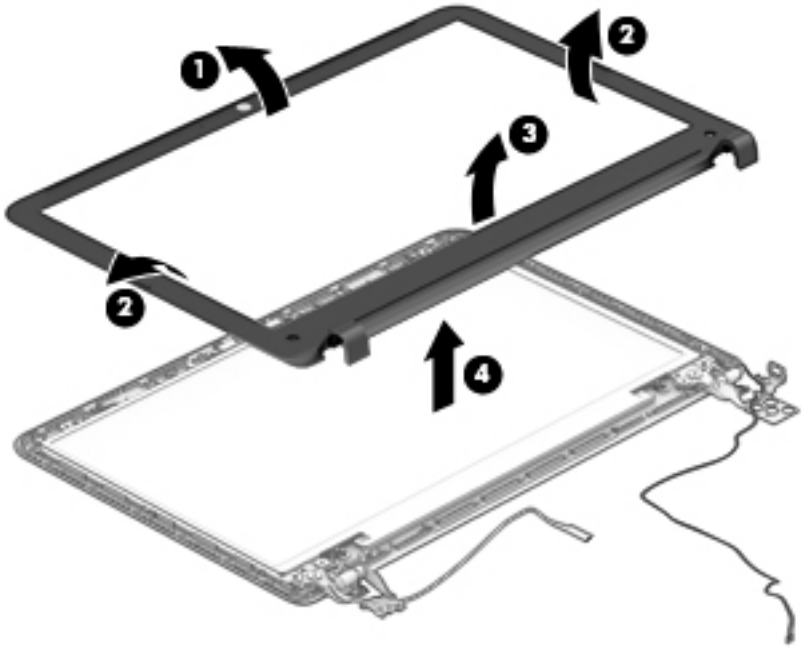
Before removing the display assembly, follow these steps:

1. Prepare the computer for disassembly (Preparation for disassembly on page 26).
2. Remove the keyboard/top cover (see Keyboard/top cover on page 28).
3. Disconnect the battery (see Battery on page 34).

Remove the display assembly:

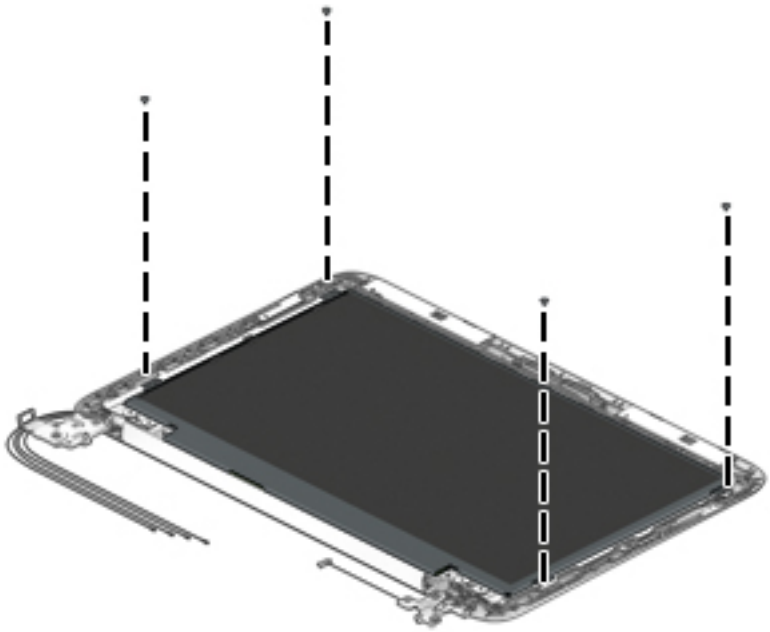
1. Remove the four Phillips M2.4 × 4.6 screws **(1)** that secure the display assembly to the bottom cover.
2. Release the power connector cable **(2)** from the right hinge area.
3. Remove the display assembly **(3)**.

4. If it is necessary to replace the display bezel or any of the display assembly subcomponents:
   a. Flex the inside edges of the top edge **(1)**, the left and right sides **(2)**, and the bottom edge **(3)** of the display bezel until the bezel disengages from the display back cover.
   b. Remove the display bezel **(4)**.



5. If it is necessary to replace the display panel:

   a. Remove the four Phillips M2.0 × 3.3 screws that secure the display panel to the display back cover.

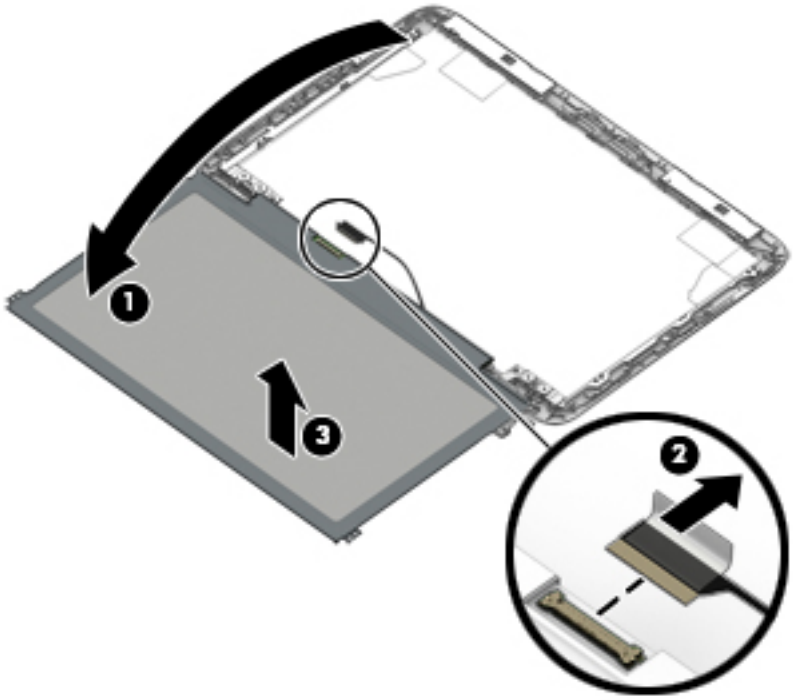


⚠ **CAUTION:** Before turning the display panel upside down, make sure the work surface is clear of tools, screws, and any other foreign objects. Failure to follow this caution can result in damage to the display panel.

   b. Lift the top edge of the display panel **(1)** and swing it up and forward until it rests upside down in front of the display back cover.

   c. Release the adhesive strip **(2)** that secures the display panel cable connector to the display panel and disconnect the display cable from the display panel.

d. Remove the display panel **(3)**.

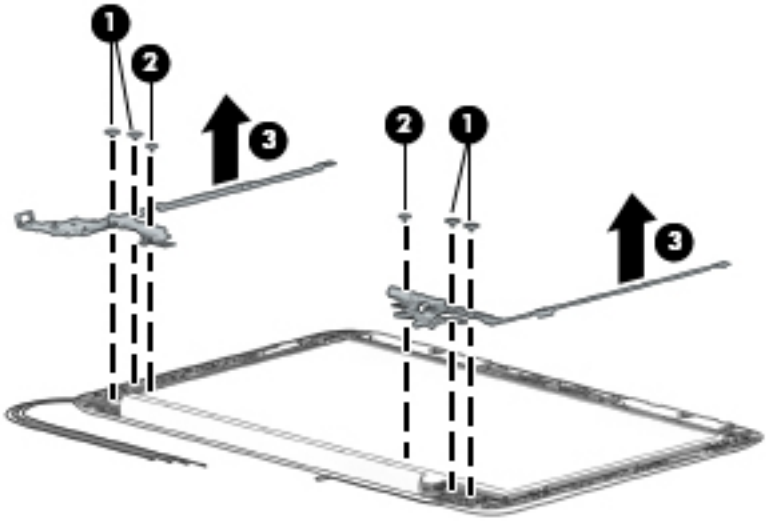


6. If it is necessary to replace the display hinges:

   a. Remove the four Phillips M2.5 × 3.2 broad head screws **(1)** that secure the display hinges to the display back cover.

   b. Remove the two Phillips M2.0 × 2.9 broad head screws **(2)** that secure the display hinges to the display back cover.

   c. Remove the display hinges **(3)**.

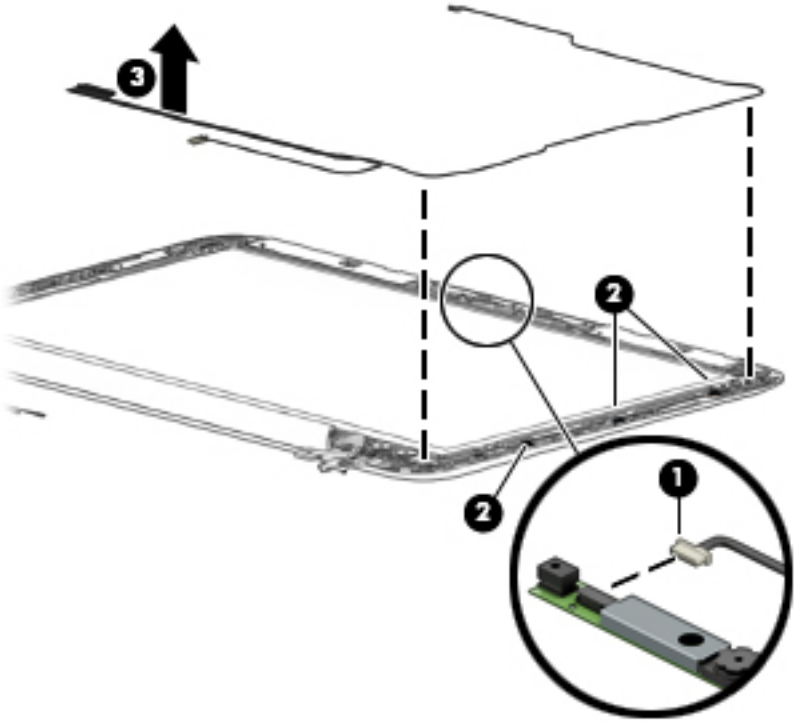


7. If it is necessary to replace the display panel cable:

a. Disconnect the display panel cable **(1)** from the camera/microphone module.

b. Release the display panel cable from the retention clips **(2)** and routing channel built into the right side of the display back cover.

c. Remove the display panel cable **(3)**.

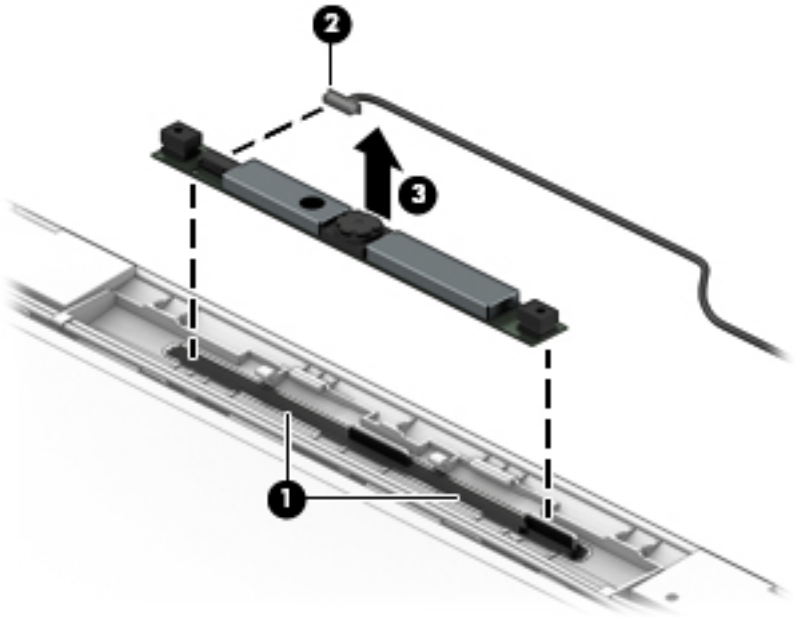


8. If it is necessary to replace the camera/microphone module:

a. Detach the camera/microphone module **(1)** from the display back cover. (The camera/microphone module is attached to the display back cover with double-sided adhesive at two locations.)

b. Disconnect the camera/microphone module cable **(2)** from the camera/microphone module.

c. Remove the camera/microphone module **(3)**.

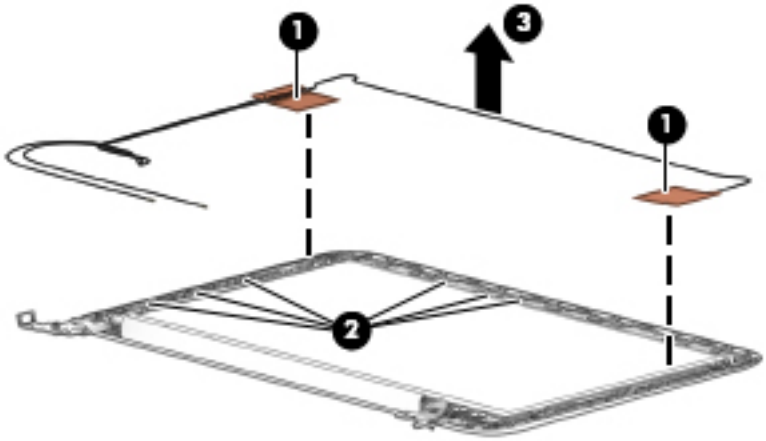


9. If it is necessary to replace the WLAN antenna cables and transceivers:

   a. Detach the WLAN antenna transceivers **(1)** from the display back cover. (The WLAN antenna transceivers are attached to the display back cover with double-sided adhesive.)

   b. Release the WLAN antenna cables from the clips **(2)** and routing channel built into the top and left edges of the display back cover.

   c. Remove the WLAN antenna cables and transceivers **(3)**.



Reverse this procedure to reassemble install the display assembly.

Base enclosure

The base enclosure remains after disassembling the computer.

Description	Spare part number
Base enclosure for use on HP Stream Laptop PC models only	
• Aqua blue finish	902949-001
• Infinity purple finish (only models with Intel Celeron N400 or Intel Celeron N3XXX)	L23671-001
• Snow white finish	910457-001
• Smoke gray finish (only models with Intel Celeron N400)	L32380-001
• Violet purple finish (only models with Intel Celeron N3XXX)	902950-001
Base enclosure for use on HP Stream Laptop PC models with Intel Celeron N400 and HP Stream 11 Pro G3 Notebook PC models only; black finish	908300-001
Base enclosure for use on HP Stream 11 Pro G4 Education Edition Notebook PC models only	L02780-001
Base enclosure for use in Pro G5 models	
• Smoky/storm gray finish	L44338-001
• Teal finish	L44339-001

6 Using Setup Utility (BIOS)

Setup Utility, or Basic Input/Output System (BIOS), controls communication between all the input and output devices on the system (such as disk drives, display, keyboard, mouse, and printer). Setup Utility (BIOS) includes settings for the types of devices installed, the startup sequence of the computer, and the amount of system and extended memory.

NOTE: To start Setup Utility on convertible computers, your computer must be in notebook mode and you must use the keyboard attached to your notebook.

Starting Setup Utility (BIOS)

CAUTION: Use extreme care when making changes in Setup Utility (BIOS). Errors can prevent the computer from operating properly.

▲ Turn on or restart the computer, quickly press esc, and then press f10.

Updating Setup Utility (BIOS)

Updated versions of Setup Utility (BIOS) may be available on the HP website.

Most BIOS updates on the HP website are packaged in compressed files called *SoftPaqs*.

Some download packages contain a file named Readme.txt, which contains information regarding installing and troubleshooting the file.

Determining the BIOS version

To decide whether you need to update Setup Utility (BIOS), first determine the BIOS version on your computer.

To reveal the BIOS version information (also known as *ROM date* and *System BIOS*), use one of these options.

- HP Support Assistant
  1. Type `support` in the taskbar search box, and then select the **HP Support Assistant** app.

     – or –

     Select the question mark icon in the taskbar.
  2. Select **My notebook**, and then select **Specifications**.
- Setup Utility (BIOS)
  1. Start Setup Utility (BIOS) (see Starting Setup Utility (BIOS) on page 53).
  2. Select **Main**, and then make note of the BIOS version.
  3. Select **Exit**, select one of the options, and then follow the on-screen instructions.

To check for later BIOS versions, see Downloading a BIOS update on page 54.

Downloading a BIOS update

CAUTION: To reduce the risk of damage to the computer or an unsuccessful installation, download and install a BIOS update only when the computer is connected to reliable external power using the AC adapter. Do not download or install a BIOS update while the computer is running on battery power, docked in an optional docking device, or connected to an optional power source. During the download and installation, follow these instructions:

- Do not disconnect power from the computer by unplugging the power cord from the AC outlet.
- Do not shut down the computer or initiate Sleep.
- Do not insert, remove, connect, or disconnect any device, cable, or cord.

NOTE: If your computer is connected to a network, consult the network administrator before installing any software updates, especially system BIOS updates.

1. Type `support` in the taskbar search box, and then select the **HP Support Assistant** app.

   – or –

   Select the question mark icon in the taskbar.

2. Select **Updates**, and then select **Check for updates and messages**.
3. Follow the on-screen instructions.
4. At the download area, follow these steps:

   a. Identify the most recent BIOS update and compare it to the BIOS version currently installed on your computer. If the update is more recent than your BIOS version, make a note of the date, name, or other identifier. You may need this information to locate the update later, after it has been downloaded to your hard drive.

   b. Follow the on-screen instructions to download your selection to the hard drive.

   Make a note of the path to the location on your hard drive where the BIOS update is downloaded. You will need to access this path when you are ready to install the update.

BIOS installation procedures vary. Follow any instructions that appear on the screen after the download is complete. If no instructions appear, follow these steps:

1. Type `file` in the taskbar search box, and then select **File Explorer**.
2. Select your hard drive designation. The hard drive designation is typically Local Disk (C:).
3. Using the hard drive path you recorded earlier, open the folder that contains the update.
4. Double-click the file that has an .exe extension (for example, *filename*.exe).

   The BIOS installation begins.

5. Complete the installation by following the on-screen instructions.

NOTE: After a message on the screen reports a successful installation, you can delete the downloaded file from your hard drive.

7 Using HP PC Hardware Diagnostics

Using HP PC Hardware Diagnostics Windows (select products only)

HP PC Hardware Diagnostics Windows is a Windows-based utility that allows you to run diagnostic tests to determine whether the computer hardware is functioning properly. The tool runs within the Windows operating system in order to diagnose hardware failures.

If HP PC Hardware Diagnostics Windows is not installed on your computer, first you must download and install it. To download HP PC Hardware Diagnostics Windows, see Downloading HP PC Hardware Diagnostics Windows on page 55.

After HP PC Hardware Diagnostics Windows is installed, follow these steps to access it from HP Help and Support or HP Support Assistant.

1. To access HP PC Hardware Diagnostics Windows from HP Help and Support:

   a. Select the **Start** button, and then select **HP Help and Support**.

   b. Right-click **HP PC Hardware Diagnostics Windows**, select **More**, and then select **Run as administrator**.

   – or –

   To access HP PC Hardware Diagnostics Windows from HP Support Assistant:

   a. Type `support` in the taskbar search box, and then select the **HP Support Assistant** app.

      – or –

      Select the question mark icon in the taskbar.

   b. Select **Troubleshooting and fixes**.

   c. Select **Diagnostics**, and then select **HP PC Hardware Diagnostics Windows**.

2. When the tool opens, select the type of diagnostic test you want to run, and then follow the on-screen instructions.

   NOTE: If you need to stop a diagnostic test at any time, select **Cancel**.

3. When HP PC Hardware Diagnostics Windows detects a failure that requires hardware replacement, a 24-digit Failure ID code is generated. For assistance in correcting the problem, contact support, and then provide the Failure ID code.

Downloading HP PC Hardware Diagnostics Windows

- The HP PC Hardware Diagnostics Windows download instructions are provided in English only.
- You must use a Windows computer to download this tool because only .exe files are provided.

Downloading the latest HP PC Hardware Diagnostics Windows version

To download HP PC Hardware Diagnostics Windows, follow these steps:

1. Go to http://www.hp.com/go/techcenter/pcdiags. The HP PC Diagnostics home page is displayed.
2. Select **Download HP Diagnostics Windows**, and then select a location on your computer or a USB flash drive.

The tool is downloaded to the selected location.

Downloading HP Hardware Diagnostics Windows by product name or number (select products only)

NOTE: For some products, it may be necessary to download the software to a USB flash drive by using the product name or number.

To download HP PC Hardware Diagnostics Windows by product name or number, follow these steps:

1. Go to http://www.hp.com/support.
2. Select **Get software and drivers**, select your type of product, and then enter the product name or number in the search box that is displayed.
3. In the **Diagnostics** section, select **Download**, and then follow the on-screen instructions to select the specific Windows diagnostics version for your computer or flash drive.

The tool is downloaded to the selected location.

Installing HP PC Hardware Diagnostics Windows

To install HP PC Hardware Diagnostics Windows, follow these steps:

- Navigate to the folder on your computer or the USB flash drive where the .exe file was downloaded, double-click the .exe file, and then follow the on-screen instructions.

Using HP PC Hardware Diagnostics UEFI

NOTE: For Windows 10 S computers, you must use a Windows computer and a USB flash drive to download and create the HP UEFI support environment because only .exe files are provided. For more information, see Downloading HP PC Hardware Diagnostics UEFI to a USB flash drive on page 57.

HP PC Hardware Diagnostics UEFI (Unified Extensible Firmware Interface) allows you to run diagnostic tests to determine whether the computer hardware is functioning properly. The tool runs outside the operating system so that it can isolate hardware failures from issues that are caused by the operating system or other software components.

If your PC will not boot into Windows, you can use HP PC Hardware Diagnostics UEFI to diagnose hardware issues.

When HP PC Hardware Diagnostics UEFI detects a failure that requires hardware replacement, a 24-digit Failure ID code is generated. For assistance in correcting the problem, contact support, and provide the Failure ID code.

NOTE: To start diagnostics on a convertible computer, your computer must be in notebook mode, and you must use the attached keyboard.

NOTE: If you need to stop a diagnostic test, press esc.

Starting HP PC Hardware Diagnostics UEFI

To start HP PC Hardware Diagnostics UEFI, follow these steps:

1. Turn on or restart the computer, and quickly press esc.
2. Press f2.

   The BIOS searches three places for the diagnostic tools, in the following order:

   a. Connected USB flash drive

   NOTE: To download the HP PC Hardware Diagnostics UEFI tool to a USB flash drive, see Downloading the latest HP PC Hardware Diagnostics UEFI version on page 57.

   b. Hard drive

   c. BIOS
3. When the diagnostic tool opens, select a language, select the type of diagnostic test you want to run, and then follow the on-screen instructions.

Downloading HP PC Hardware Diagnostics UEFI to a USB flash drive

Downloading HP PC Hardware Diagnostics UEFI to a USB flash drive can be useful in the following situations:

- HP PC Hardware Diagnostics UEFI is not included in the preinstall image.
- HP PC Hardware Diagnostics UEFI is not included in the HP Tool partition.
- The hard drive is damaged.

NOTE: The HP PC Hardware Diagnostics UEFI download instructions are provided in English only, and you must use a Windows computer to download and create the HP UEFI support environment because only .exe files are provided.

Downloading the latest HP PC Hardware Diagnostics UEFI version

To download the latest HP PC Hardware Diagnostics UEFI version to a USB flash drive:

1. Go to http://www.hp.com/go/techcenter/pcdiags. The HP PC Diagnostics home page is displayed.
2. Select **Download HP Diagnostics UEFI**, and then select **Run**.

Downloading HP PC Hardware Diagnostics UEFI by product name or number (select products only)

NOTE: For some products, it may be necessary to download the software to a USB flash drive by using the product name or number.

To download HP PC Hardware Diagnostics UEFI by product name or number (select products only) to a USB flash drive:

1. Go to http://www.hp.com/support.
2. Enter the product name or number, select your computer, and then select your operating system.
3. In the **Diagnostics** section, follow the on-screen instructions to select and download the specific UEFI Diagnostics version for your computer.

Using Remote HP PC Hardware Diagnostics UEFI settings (select products only)

Remote HP PC Hardware Diagnostics UEFI is a firmware (BIOS) feature that downloads HP PC Hardware Diagnostics UEFI to your computer. It can then execute the diagnostics on your computer, and it may upload results to a preconfigured server. For more information on Remote HP PC Hardware Diagnostics UEFI, go to http://www.hp.com/go/techcenter/pcdiags, and then select **Find out more**.

Downloading Remote HP PC Hardware Diagnostics UEFI

NOTE: HP Remote PC Hardware Diagnostics UEFI is also available as a Softpaq that can be downloaded to a server.

Downloading the latest Remote HP PC Hardware Diagnostics UEFI version

To download the latest Remote HP PC Hardware Diagnostics UEFI version, follow these steps:

1. Go to http://www.hp.com/go/techcenter/pcdiags. The HP PC Diagnostics home page is displayed.
2. Select **Download Remote Diagnostics**, and then select **Run**.

Downloading Remote HP PC Hardware Diagnostics UEFI by product name or number

NOTE: For some products, it may be necessary to download the software by using the product name or number.

To download HP Remote PC Hardware Diagnostics UEFI by product name or number, follow these steps:

1. Go to http://www.hp.com/support.
2. Select **Get software and drivers**, select your type of product, enter the product name or number in the search box that is displayed, select your computer, and then select your operating system.
3. In the **Diagnostics** section, follow the on-screen instructions to select and download the **Remote UEFI** version for the product.

Customizing Remote HP PC Hardware Diagnostics UEFI settings

Using the Remote HP PC Hardware Diagnostics setting in Computer Setup (BIOS), you can perform the following customizations:

- Set a schedule for running diagnostics unattended. You can also start diagnostics immediately in interactive mode by selecting **Execute Remote HP PC Hardware Diagnostics**.
- Set the location for downloading the diagnostic tools. This feature provides access to the tools from the HP website or from a server that has been preconfigured for use. Your computer does not require the traditional local storage (such as a disk drive or USB flash drive) to run remote diagnostics.
- Set a location for storing the test results. You can also set the user name and password settings used for uploads.
- Display status information about the diagnostics run previously.

To customize Remote HP PC Hardware Diagnostics UEFI settings, follow these steps:

1. Turn on or restart the computer, and when the HP logo appears, press f10 to enter Computer Setup.
2. Select **Advanced**, and then select **Settings**.

3. Make your customization selections.
4. Select **Main**, and then **Save Changes and Exit** to save your settings.

Your changes take effect when the computer restarts.

8 Specifications

	Metric	U.S.
Computer dimensions		
Width	**30.0 cm**	11.8 in
Depth (HP Stream Laptop PC models)	**20.6 cm**	8.1 in
(HP Stream 11 Pro G4 Education Edition Notebook PC)	**20.8 cm**	8.2 in
Height	**1.8 cm**	0.7 in
Weight (HP Stream Laptop PC models)	**1.2 kg**	2.6 lbs
(HP Stream 11 Pro G4 Education Edition Notebook PC)	**1.3 kg**	2.8 lbs
Input power	**Rating**	
Operating voltage and current	19.5 V dc @ 2.31 A – 45 W 19.5 V dc @ 3.33 A – 65 W	
Temperature		
Operating	**5°C to 35°C**	41°F to 95°F
Nonoperating	**-20°C to 60°C**	-4°F to 140°F
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

NOTE: Applicable product safety standards specify thermal limits for plastic surfaces. The device operates well within this range of temperatures.

9 Backing up, restoring, and recovering

This chapter provides information about the following processes, which are standard procedure for most products:

- **Backing up your personal information**—You can use Windows tools to back up your personal information (see Using Windows tools on page 61).
- **Creating a restore point**—You can use Windows tools to create a restore point (see Using Windows tools on page 61).
- **Creating recovery media** (select products only)—You can use the HP Cloud Recovery Download Tool (select products only) to create recovery media (see Using the HP Cloud Recovery Download Tool to create recovery media (select products only) on page 61).
- **Restoring and recovery**—Windows offers several options for restoring from backup, refreshing the computer, and resetting the computer to its original state (see Using Windows tools on page 61).

IMPORTANT: If you will be performing recovery procedures on a tablet, the tablet battery must be at least 70% charged before you start the recovery process.

IMPORTANT: For a tablet with a detachable keyboard, connect the tablet to the keyboard base before beginning any recovery process.

Backing up information and creating recovery media

Using Windows tools

IMPORTANT: Windows is the only option that allows you to back up your personal information. Schedule regular backups to avoid information loss.

You can use Windows tools to back up personal information and create system restore points and recovery media.

NOTE: If computer storage is 32 GB or less, Microsoft System Restore is disabled by default.

For more information and steps, see the Get Help app.

1. Select the **Start** button, and then select the **Get Help** app.
2. Enter the task you want to perform.

NOTE: You must be connected to the Internet to access the Get Help app.

Using the HP Cloud Recovery Download Tool to create recovery media (select products only)

You can use the HP Cloud Recovery Download Tool to create HP Recovery media on a bootable USB flash drive, as follows:

1. Go to http://www.hp.com/support.
2. Select **Software and Drivers**, and then follow the on-screen instructions.

NOTE: If you cannot create recovery media yourself, contact support to obtain recovery discs. Go to http://www.hp.com/support, select your country or region, and then follow the on-screen instructions.

Restoring and recovery

Restoring, resetting, and refreshing using Windows tools

Windows offers several options for restoring, resetting, and refreshing the computer. For details, see Using Windows tools on page 61.

Recovering using HP Recovery media

HP Recovery media is used to recover the original operating system and software programs that were installed at the factory. On select products, it can be created on a bootable USB flash drive using the HP Cloud Recovery Download Tool. For details, see Using the HP Cloud Recovery Download Tool to create recovery media (select products only) on page 61.

NOTE: If you cannot create recovery media yourself, contact support to obtain recovery discs. Go to http://www.hp.com/support, select your country or region, and then follow the on-screen instructions.

To recover your system:

- Insert the HP Recovery media, and then restart the computer.

Changing the computer boot order

If your computer does not restart using the HP Recovery media, you can change the computer boot order. This is the order of devices listed in BIOS where the computer looks for startup information. You can change the selection to an optical drive or a USB flash drive, depending on the location of your HP Recovery media.

To change the boot order:

IMPORTANT: For a tablet with a detachable keyboard, connect the tablet to the keyboard base before beginning these steps.

1. Insert the HP Recovery media.
2. Access the system **Startup** menu.

   For computers or tablets with keyboards attached:

   - Turn on or restart the computer or tablet, quickly press esc, and then press f9 for boot options.

   For tablets without keyboards:

   - Turn on or restart the tablet, quickly hold down the volume up button, and then select **f9**.

     – or –

     Turn on or restart the tablet, quickly hold down the volume down button, and then select **f9**.
3. Select the optical drive or USB flash drive from which you want to boot, and then follow the on-screen instructions.

10 Power cord set requirements

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

The following 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 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

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
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	CCC	4
Saudi Arabia	SASO	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

1. The flexible cord must be Type HO5VV-F, 3-conductor, 0.75 mm² 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.

Country/region	Accredited agency	Applicable note number

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 mm² conductor size. KTL logo and individual approval number must be on each element. Corset approval number and logo must be printed on a flag label.
6. The flexible cord must be Type HVCTF 3-conductor, 1.25 mm² 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.

11 Recycling

When a non-rechargeable 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 Web site at http://www.hp.com/recycle.

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