



HP Pavilion 17 Notebook PC
HP Pavilion 15 Notebook PC

Maintenance and Service Guide

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Product notice

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

Not all features are available in all editions of
Windows 8. This computer may require
upgraded and/or separately purchased
hardware, drivers and/or software to take full
advantage of Windows 8 functionality. See
<http://www.microsoft.com> for details.

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additional warranty. HP shall not be liable for
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Important Notice about Customer Self-Repair Parts

 **CAUTION:** Your computer includes Customer Self-Repair parts and parts that should only be accessed by an authorized service provider. See Chapter 5, "Removal and replacement procedures for Customer Self-Repair parts," for details. Accessing parts described in Chapter 6, "Removal and replacement procedures for Authorized Service Provider only parts," can damage the computer or void your warranty.

Safety warning notice

 **WARNING!** To reduce the possibility of heat-related injuries or of overheating the computer, do not place the computer directly on your lap or obstruct the computer air vents. Use the computer only on a hard, flat surface. Do not allow another hard surface, such as an adjoining optional printer, or a soft surface, such as pillows or rugs or clothing, to block airflow. Also, do not allow the AC adapter to come into contact with the skin or a soft surface, such as pillows or rugs or clothing, during operation. The computer and the AC adapter comply with the user-accessible surface temperature limits defined by the International Standard for Safety of Information Technology Equipment (IEC 60950-1).

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1 Product description

Category	Description	AMD	Intel
Product Name	HP Pavilion 17 Notebook PC HP Pavilion 15 Notebook PC	√	√
Processors	Processors are attached to the system board.		
AMD™	<ul style="list-style-type: none"> • AMD A10-7300 (1.9 GHz, up to 3.2 GHz, 2 MB L2), quad core 20 W, Max DDR3L-1600 • AMD A10-5745M (2.1 GHz/2.9 GHz, 4 MB L2, 1333 MHz DDR3L), quad core, 25 W Max DDR3L-1333 • A10-4655M (2.0 GHz, up to 2.8 GHz, 4 MB L2), Quad 25 W, Max DDR3L-1333 • AMD A8-6410 (2.0 GHz up to 2.4 GHz, 2 MB L2, 1600 MHz DDR3L), quad core 15 W Max DDR3L-1600 • AMD A6-6310 (1.8 up to 2.4 GHz, 2 MB L2, 1600 MHz DDR3L), quad core, 15 W Max DDR3L-1600 • AMD A4-6210 (1.8 GHz, 2 MB L2), quad core 15 W, Max DDR3L-1600 • AMD E1-6010 (1.35 GHz, 1 MB L2), dual core 10 W, Max DDR3L-1333 • HP Hexa-Core (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L), quad core 15 W 	√	
Intel®	<ul style="list-style-type: none"> • Intel Core i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, dual core 15 W • Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, dual core 15 W • Intel Core i3-5010U (2.1 GHz), 1600 MHz/3 MB L3, Dual 15 W • Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, dual core 15 W • Intel Pentium N3540 (2.16 GHz, turbo up to 2.66 GHz), 1333 MHz/2 MB L2, quad core 4.5 W • Intel Celeron N2840 (2.16 GHz, turbo up to 2.58 GHz), 1333 MHz/2 MB L2, dual core SDP 4.5 W for use on Pavilion 17 models only 		√
Chipset	<ul style="list-style-type: none"> • AMD A76M FCH • AMD A76 FCH Bridge to AMD A70M FCH • AMD A70M FCH • AMD Integrated SOC FCH 	√	
	<ul style="list-style-type: none"> • Intel Wildcat Point-LP PCH 		√
Graphics	Internal graphics:		
	Support HD Decode, DX11, and HDMI	√	
	Support PX7		
	<ul style="list-style-type: none"> • AMD Radeon™ R6 Graphics 		

Category	Description	AMD	Intel
	<ul style="list-style-type: none"> • AMD Radeon HD 8610G • AMD Radeon HD 7620G • AMD Radeon R5 Graphics • AMD Radeon R4 Graphics • AMD Radeon R3 Graphics 		
	<ul style="list-style-type: none"> • Intel HD Graphics 5500 • Intel HD Graphics, for use with 4th Generation Intel Pentium processors 		√
Panel	<p>16:9 Ultra Wide Aspect Ratio</p> <p>Touch solution with flush glass, multitouch enabled</p> <p>No printing logo, no mic drill hole on mask</p> <p>Support LVDS (co-layout with eDP1.3+PSR)</p> <ul style="list-style-type: none"> • 17.3" HD+ WLED BrightView (1600x900) (wedge, 6.0mm) (for non-touch SKU only) • 17.3" HD+ WLED Antiglare (1600x900) LED- SVA (wedge, 6.0mm) (for touch SKU only) • 17.3" FHD WLED Antiglare (1920x1080) Wedge (6.0mm) WVA (for both non-touch & touch SKU) • 15.6" HD WLED BrightView (1366x768) flat (3.6mm) SVA (for non-touch SKU only) • 15.6" HD WLED Antiglare (1366x768) flat (3.8mm) SVA (for touch SKU only) • 15.6" FHD WLED Antiglare (1920x1080) slim (3.2mm) SVA (for both non-touch & touch SKU) 	√	√
Memory	<p>Supports the following configurations:</p> <p>Two SODIMM memory module slots (select models only)</p> <p>DDR3L-1600 MHz dual channel support</p> <p>DDR3L-1333 MHz dual channel support</p> <p>Max. DDR3L-1600MHz Single Channel Support</p> <ul style="list-style-type: none"> • 16384 MB (8192 MB + 8192 MB) • 12288 MB (8192 MB×1 + 4096 MB×1; not supported on computer models with a 32-bit operating system) • 8192 MB (8192 MB×1 or 4096 MB×2; not supported on computer models equipped with a 32-bit operating system) • 6144 MB (4096 MB×1 + 2048 MB×1; not supported on computer models equipped with a 32-bit operating system) • 4096 MB (4096 MB×1 or 2048 MB×2) 	√	√
Hard drive	<p>Supports 6.35 cm (2.5 in) hard drives in 9.5 mm (.37 in) and 7.0 mm (.28 in) thicknesses (all hard drives use the same bracket)</p> <p>Supports the following hard drives:</p> <ul style="list-style-type: none"> • 2 TB, 5400 rpm, 9.5mm 	√	√

Category	Description	AMD	Intel
	<p>1.5 TB, 5400 rpm 9.5 mm for HP Pavilion 15 Notebooks and AMD computers only</p> <ul style="list-style-type: none"> 1 TB, 5400 rpm, 9.5 mm 750 GB, 5400 rpm, 9.5 mm 500 GB, 5400 rpm, 7.0 mm or 9.5 mm 320 GB, 5400 rpm, 7.0 mm or 9.5 mm <p>Serial ATA</p> <p>HP 3D DriveGuard</p>		
	<p>Supports the following hybrid drives:</p> <ul style="list-style-type: none"> 500 GB, 5400 rpm, + 8 GB NAND Hybrid HDD; 7 mm 750 GB, 5400 rpm, + 8 GB NAND Hybrid HDD; 9.5 mm 1 TB, 5400 rpm, + 8 GB NAND Hybrid HDD; 9.5 mm 	√	√
	<p>Support M.2 SATA-3 (NGFF)</p> <p>M.2 SATA configurations(TLC)</p> <p>256 GB M2 SATA</p>		
Optical drive	<p>Fixed</p> <p>Serial ATA</p> <p>9.5 mm tray load</p> <p>Zero power optical drive</p> <p>Supports the following:</p>	√	√
	<ul style="list-style-type: none"> DVD±RW Double-Layer SuperMulti Drive Blu-ray Disc R/RW with SuperMulti for AMD HP Pavilion 15 PC models only <p>Support M-disc</p>	√	√
Audio and video	<p>Supports:</p> <p>Dual speakers and subwoofer</p> <p>HP TrueVision HD webcam (fixed, no tilt with activity LED; 1280×720 by 30 frames per second, USB 2.0, M-jpeg)</p> <p>Two dual array, digital microphones with appropriate beam-forming, echo-cancellation, noise-reduction software</p>	√	√
	<p>HD Audio</p> <p>Supports Dragon Notes for AMD models only</p>		√
Ethernet	<p>Integrated 10/100 NIC</p>	√	√
Wireless	<p>One half-size mini card/PCI Express (HMC/PCIe) slot</p> <p>Compatible with Miracast-certified devices</p> <p>Support for the following WLAN formats:</p>		
	<p>Integrated wireless options with single antenna (HMC/PCIe)</p> <ul style="list-style-type: none"> Qualcomm Atheros AR9485 802.11 bgn 1x1 Wi-Fi adapter (with single antenna) 	√	√

Category	Description	AMD	Intel
	<ul style="list-style-type: none"> Realtek RT8188 802.11bgn 1x1 Wi-Fi Adapter Realtek RT8723BE 802.11bgn 1x1 Wi-Fi + Bluetooth 4.0 Combo Adapter Realtek RT8188EE 802.11 bgn 1x1 Wi-Fi adapter Realtek RT8723BE 802.11 bgn 1x1 Wi-Fi + BT4.0 combo adapter Broadcom BCM43142 802.11 bgn 1x1 Wi-Fi + Bluetooth 4.0 HMC combo adapter QCA 9565 802.11bgn 1x1 Wi-Fi + Bluetooth 4.0 Combo Adapter 		
	Integrated wireless options with dual antennas (HMC/PCIe)	√	√
	<ul style="list-style-type: none"> Intel Dual Band Wireless-AC 3160 802.11 ac 1x1 WiFi + BT 4.0 combo adapter (with dual antennas) 		
External media cards	HP Multi-Format Memory Card Reader slot with push-push technology, supporting the following digital card formats: Supports memory cards such as Secure Digital SD/SDHC/SDXC	√	√
Internal Card Expansion	One half-size mini-card slot for WLAN	√	√
	One M.2 socket for SSD (Optional)		√
Ports	<ul style="list-style-type: none"> AC Smart Pin adapter plug (4.5 mm barrel) Combination audio-out (stereo headphone)/audio-in (mono microphone) RJ-45 (Ethernet) USB 3.0 (2 ports), USB 2.0 (1 port) 	√	√
	<ul style="list-style-type: none"> HDMI version 1.4 output supporting 1920 x 1080 @ 60 Hz Hot Plug / Unplug and auto detect for correct output to wide-aspect versus standard aspect video 	√	√
Keyboard/ pointing devices	Full Size Textured island-style Keyboard with numeric key pad black Full Size Backlit 3 coat paint island-style Keyboard with numeric key pad black with red LED Clickpad with image sensor Multitouch gestures enabled Supports Windows® 8 Modern Trackpad Gestures	√	√
Power requirements	Supports the following AC adapters:	√	√
	<ul style="list-style-type: none"> 45 W HP Smart AC adapter (nPFC, 3-wire, 4.5 mm, nslim) 		
	<ul style="list-style-type: none"> 65 W HP Smart AC adapter (nPFC, 3-wire, 4.5 mm) 	√	√
	<ul style="list-style-type: none"> 65 W HP Smart AC adapter (nPFC, 3-wire, 4.5 mm, nslim) 		
	<ul style="list-style-type: none"> 90 W Smart AC adapter (PFC, 3-wire, 4.5 mm) 	√	
	<ul style="list-style-type: none"> 90 W AC adapter (PFC, 3-wire, 4.5 mm) 		
	Supports battery fast charge	√	√
	Supports the following batteries (battery is user-removable)		
	<ul style="list-style-type: none"> 4 cell battery - 41 Whr (2.8 AH) 		
Security	<ul style="list-style-type: none"> Security cable lock 	√	√

Category	Description	AMD	Intel
Operating system	Preinstalled:	√	√
	• Windows 10 Standard, 64 bit		
	• Windows 10 Professional, 64 bit		
	• FreeDOS 2.0, for Intel models only		
	• Ubuntu Linux (select models only)		
Serviceability	End-user replaceable parts:	√	√
	• AC adapter		
	• Battery		
	• Optical drive		

2 External component identification

Finding your hardware and software information

Locating hardware

To find out what hardware is installed on your computer:

- ▲ Type `device manager` in the taskbar search box, and then select the **Device Manager** app.

A list displays all the devices installed on your computer.

For information about system hardware components and the system BIOS version number, press `fn+esc` (select products only).

Locating software

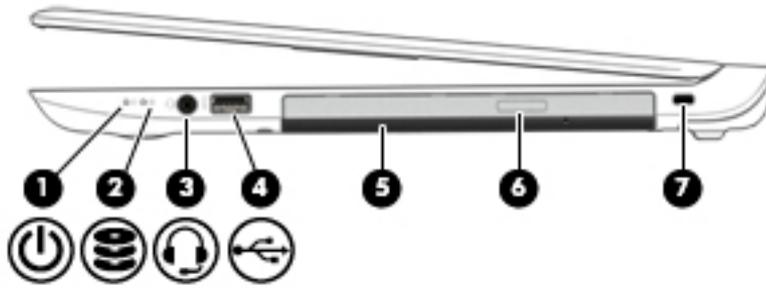
To find out what software is installed on your computer:

- ▲ Select the **Start** button, and then select **All apps**.

– or –

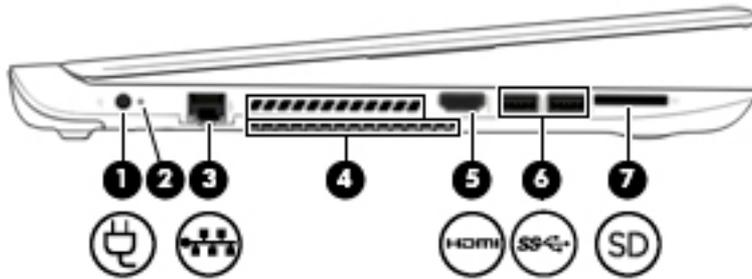
Right-click the **Start** button, and then select **Programs and Features**.

Right side



Component	Description
<p>(1)  Power light</p>	<ul style="list-style-type: none"> 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.
<p>(2)  Hard drive light</p>	<ul style="list-style-type: none"> Blinking white: The hard drive is being accessed. Amber: HP 3D DriveGuard has temporarily parked the hard drive.
<p>(3)  Audio-out (headphone)/Audio-in (microphone) combo jack</p>	<p>Connects optional powered stereo speakers, headphones, earbuds, a headset, or a television audio cable. Also connects an optional headset microphone. This jack does not support optional microphone-only devices.</p> <p>WARNING! To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, refer to the <i>Regulatory, Safety, and Environmental Notices</i>.</p> <p>To access this guide:</p> <ol style="list-style-type: none"> Type support in the taskbar search box, and then select the HP Support Assistant app. – or – Click the question mark icon in the taskbar. <ol style="list-style-type: none"> Select My PC, select the Specifications tab, and then select User Guides. <p>NOTE: When a device is connected to the jack, the computer speakers are disabled.</p>
<p>(4)  USB 2.0 port</p>	<p>Connects an optional USB device, such as a keyboard, mouse, external drive, printer, scanner or USB hub.</p>
<p>(5) Optical drive</p>	<p>Depending on your computer model, reads an optical disc or reads and writes to an optical disc.</p>
<p>(6) Optical drive eject button</p>	<p>Releases the optical drive disc tray.</p>
<p>(7)  Security cable slot</p>	<p>Attaches an optional security cable to the computer.</p> <p>NOTE: The security cable is designed to act as a deterrent, but it may not prevent the computer from being mishandled or stolen.</p>

Left side



Component	Description
(1) 	Power connector Connects an AC adapter.
(2) 	AC adapter and battery light <ul style="list-style-type: none"> • White: The AC adapter is connected and the battery is fully charged. • Amber: The AC adapter is connected and the battery is charging. • Off: The battery is not charging.
(3) 	RJ-45 (network) jack/status lights Connects a network cable. <ul style="list-style-type: none"> • White: The network is connected. • Amber: Activity is occurring on the network.
(4) 	Vents (2) Enable airflow to cool internal components. NOTE: 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.
(5) 	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.
(6) 	USB 3.0 ports (2) Connects an optional USB device, such as a keyboard, mouse, external drive, printer, scanner or USB hub.
(7) 	Memory card reader Reads optional memory cards that enable you to store, manage, share, or access information. To insert a card: <ol style="list-style-type: none"> 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: <ul style="list-style-type: none"> ▲ Press in on the card, and then remove it from the memory card reader.

Display



Component	Description
(1) WLAN antennas*	Send and receive wireless signals to communicate with wireless local area networks (WLANs).
(2) Internal microphones	Record sound.
(3) Webcam light	On: The webcam is in use.
(4) Webcam	Records video and captures photographs. Some products allow you to video conference and chat online using streaming video. To use a webcam (integrated camera): ▲ Type camera in the taskbar search box, and then select Camera .

*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:

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

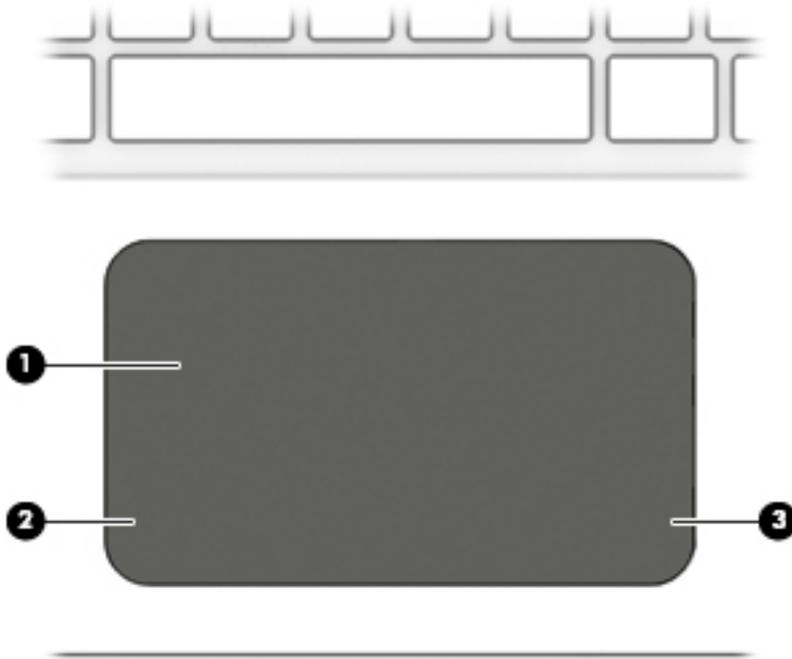
– or –

Click the question mark icon in the taskbar.

2. Select **My PC**, select the **Specifications** tab, and then select **User Guides**.

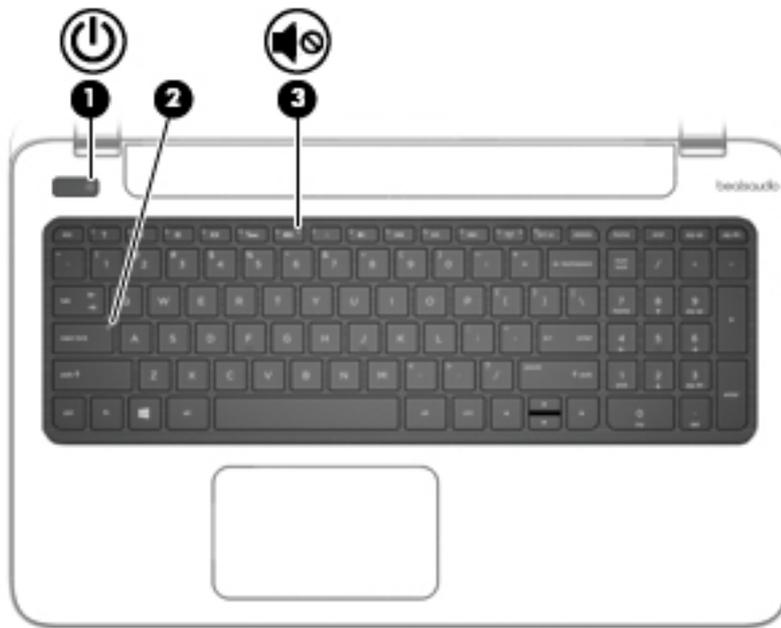
Top

TouchPad



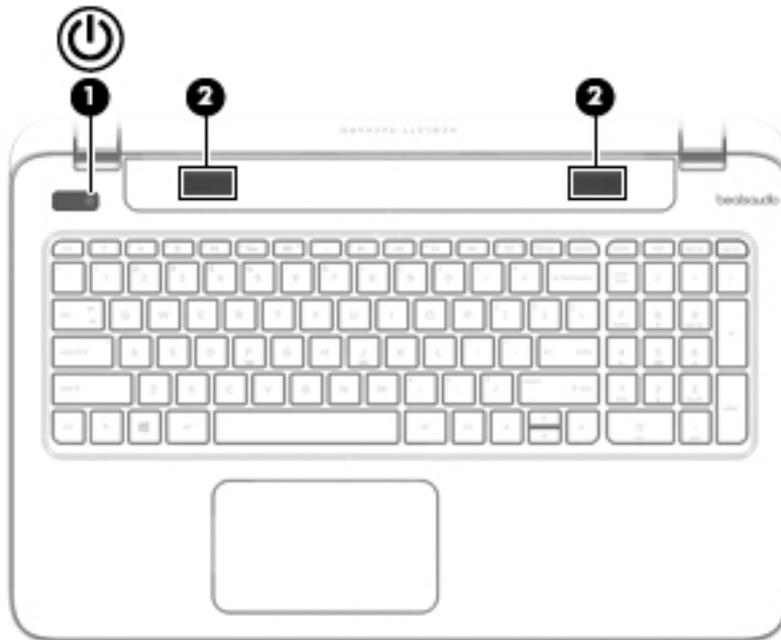
Component	Description
(1) TouchPad zone	Reads your finger gestures to move the pointer or activate items on the screen.
(2) Left TouchPad button	Functions like the left button on an external mouse.
(3) Right TouchPad button	Functions like the right button on an external mouse.

Lights



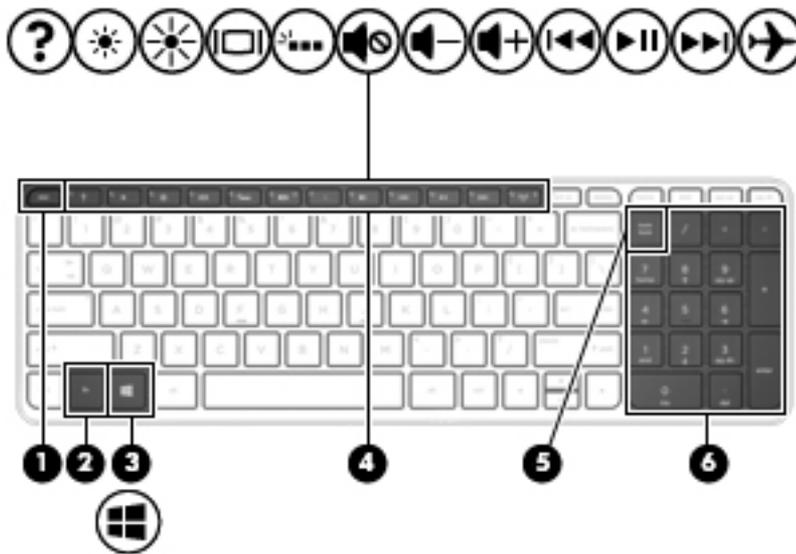
Component	Description
(1)  Power light	<ul style="list-style-type: none">• On: The computer is on.• Blinking: The computer is in the Sleep state, a power-saving state. The computer shuts off power to the display and other unneeded components.• Off: The computer is off or in Hibernation. Hibernation is a power-saving state that uses the least amount of power.
(2) Caps lock light	On: Caps lock is on, which switches the key input to all capital letters.
(3)  Mute light	<ul style="list-style-type: none">• Amber: Computer sound is off.• Off: Computer sound is on.

Buttons and speakers



Component	Description
<p>(1)  Power button</p>	<ul style="list-style-type: none">• 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.• When the computer is in Hibernation, press the button briefly to exit Hibernation. <p>CAUTION: Pressing and holding down the power button results in the loss of unsaved information.</p> <p>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.</p> <p>To learn more about your power settings, see your power options.</p> <p>▲ Type <code>power</code> in the taskbar search box, and then select Power and sleep settings.</p> <p>– or –</p> <p>Right-click the Start button, and then select Power Options.</p>
<p>(2) Speakers</p>	<p>Produce sound.</p>

Keys



Component	Description
(1) esc key	Displays system information when pressed in combination with the fn key.
(2) fn key	Executes frequently used system functions when pressed in combination with the esc key, b key, action keys, or the spacebar .
(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 backlight keyboard feature off or on.
(5) num lock key	Alternates between the navigational and numeric functions on the integrated numeric keypad.
(6) Integrated numeric keypad	When num lock is on, the keypad can be used like an external numeric keypad.

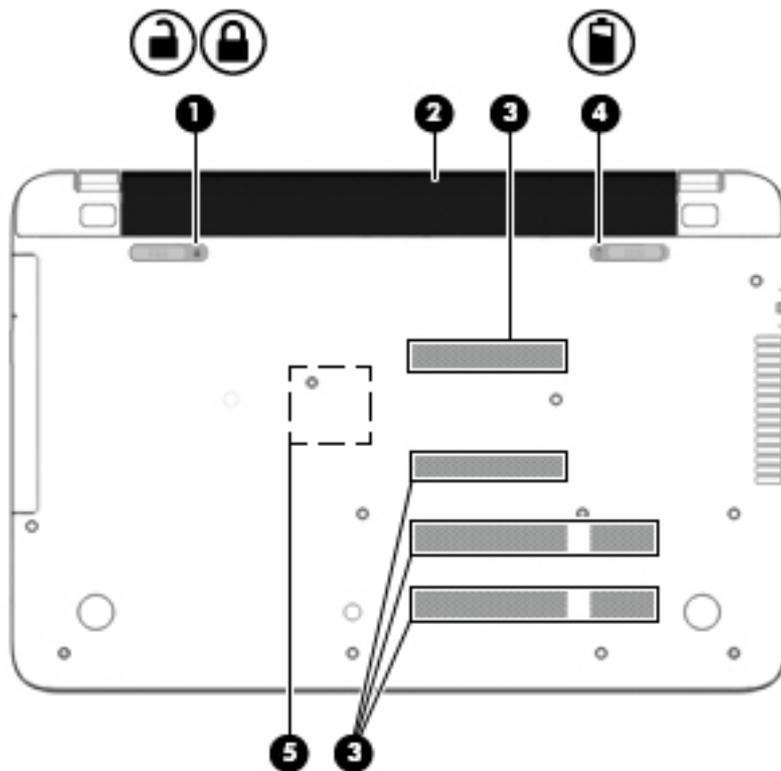
Using the action keys

- An action key performs an assigned function.
- The icon on each action key illustrates the function for that key.
- To use an action key, press and hold the key.

Icon	Description
	Opens the web browser to Windows Help and provides answers to your Windows operating system questions.

Icon	Description
	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.
	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 backlight keyboard off or on. NOTE: To conserve battery power, turn off this feature.
	Mutes or restores speaker sound.
	Decreases speaker volume incrementally while you hold down the key.
	Increases speaker volume incrementally while you hold down the key.
	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.
	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.

Bottom



Component	Description
(1)  	Battery lock Locks the battery in the battery bay.
(2)	Battery bay Holds the battery.
(3)	Vents (6) Enable airflow to cool internal components. NOTE: 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.
(4) 	Battery release latch Releases the battery.
(5)	HP Triple Bass Reflex Subwoofer Provides superior bass sound.

Labels

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

 **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, or on the back of the display.

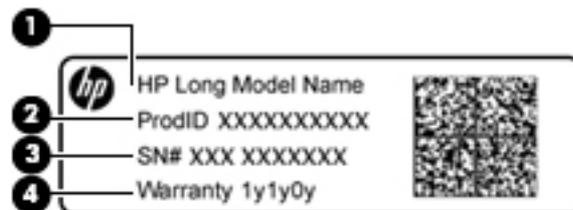
- Service label—Provides important information to identify your computer. When contacting support, you will probably be asked for the serial number, and possibly for the product number or the model number. Locate these numbers before you contact support.

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) | Serial number |
| (2) | Product number |
| (3) | Warranty period |
| (4) | Model number (select products only) |
-



Component

-
- | | |
|-----|-----------------------------------|
| (1) | Model name (select products only) |
| (2) | Product number |
| (3) | Serial number |
| (4) | Warranty period |
-

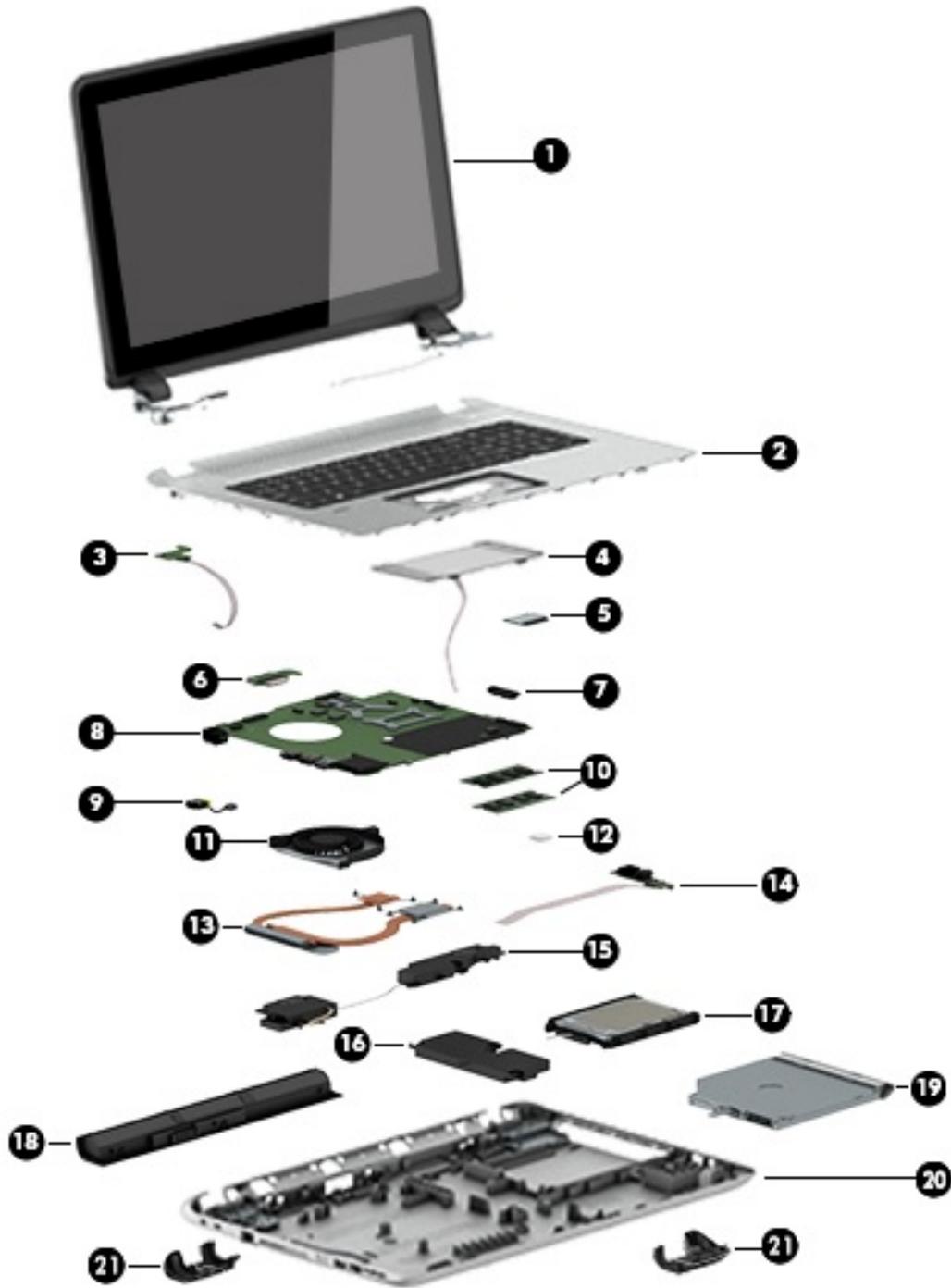
- Regulatory label(s)—Provide(s) regulatory information about the computer.
- Wireless certification label(s)—Provide(s) information about optional wireless devices and the approval markings for the countries or regions in which the devices have been approved for use.

3 Illustrated parts catalog

Computer major components

 **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.

 **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. See [Bottom on page 15](#) for details.



Item	Component	Spare part number
(1)	Display assembly, 15.6 in Display assembly, 17.3 in	
	Flat display assembly for use with HP Pavilion Notebooks. This display assembly is spared at the subcomponent level only. For more display assembly spare part information, see Display assembly subcomponents on page 30 .	
(2)	Top cover (includes keyboard and cable):	

Item	Component	Spare part number
Top cover for HP Pavilion 15 Notebook PC computer models:		
	With full size textured island-style Keyboard. TouchPad and numeric keypad black for use in the United States	762529-001
	With full size textured island-style Keyboard and numeric keypad black for use in the United Kingdom	762529-031
	With full size textured island-style Keyboard and numeric keypad black for use in Germany	762529-041
	With full size textured island-style Keyboard and numeric keypad black for use in France	762529-051
	With full size textured island-style Keyboard and numeric keypad black for use in Italy	762529-061
	With full size textured island-style Keyboard and numeric keypad black for use in Spain	762529-071
	With full size textured island-style Keyboard and numeric keypad black for use in Portugal	762529-131
	With full size textured island-style Keyboard and numeric keypad black for use in Turkey	762529-141
	With full size textured island-style Keyboard and numeric keypad black for use in Greece	762529-151
	With full size textured island-style Keyboard and numeric keypad black for use in Latin America	762529-161
	With full size textured island-style Keyboard and numeric keypad black for use in Saudi Arabia	762529-171
	With full size textured island-style Keyboard and numeric keypad black for use in Hungary	762529-211
	With full size textured island-style Keyboard and numeric keypad black for use in Russia	762529-251
	With full size textured island-style Keyboard and numeric keypad black for use in Bulgaria	762529-261
	With full size textured island-style Keyboard and numeric keypad black for use in Romania	762529-271
	With full size textured island-style Keyboard and numeric keypad black for use in Thailand	762529-281
	With full size textured island-style Keyboard and numeric keypad black for use in Japan	762529-291
	With full size textured island-style Keyboard and numeric keypad black for use in Europe	762529-A41
	With full size textured island-style Keyboard and numeric keypad black for use in Taiwan	762529-AB1
	With full size textured island-style Keyboard and numeric keypad black for use in South Korea	762529-AD1
	With full size textured island-style Keyboard and numeric keypad black for use in the Netherlands	762529-B31
	With full size textured island-style Keyboard and numeric keypad black for use in the Adriatics	762529-BA1
	With full size textured island-style Keyboard and numeric keypad black for use in Israel	762529-BB1
	With full size textured island-style Keyboard and numeric keypad black for use in Switzerland	762529-BG1
	With full size textured island-style Keyboard and numeric keypad black Canada	762529-DB1
	With full size textured island-style Keyboard and numeric keypad black for use in Denmark, Finland, and Norway	762529-DH1
	With full size textured island-style Keyboard and numeric keypad black for use in For use in the Czech Republic and Slovakia	762529-FL1
	With full size textured island-style Keyboard and numeric keypad black for use in South Africa	762529-FP1
	With full size textured island-style Keyboard, TouchPad, and numeric keypad white for use in the United States	762530-001

Item	Component	Spare part number
	With full size textured island-style Keyboard and numeric keypad white for use in the United Kingdom	762530-031
	With full size textured island-style Keyboard and numeric keypad white for use in Germany	762530-041
	With full size textured island-style Keyboard and numeric keypad white for use in France	762530-051
	With full size textured island-style Keyboard and numeric keypad white for use in Italy	762530-061
	With full size textured island-style Keyboard and numeric keypad white for use in Spain	762530-071
	With full size textured island-style Keyboard and numeric keypad white for use in Portugal	762530-131
	With full size textured island-style Keyboard and numeric keypad white for use in Turkey	762530-141
	With full size textured island-style Keyboard and numeric keypad white for use in Greece	762530-151
	With full size textured island-style Keyboard and numeric keypad white for use in Latin America	762530-161
	With full size textured island-style Keyboard and numeric keypad white for use in Saudi Arabia	762530-171
	With full size textured island-style Keyboard and numeric keypad white for use in Hungary	762530-211
	With full size textured island-style Keyboard and numeric keypad white for use in Russia	762530-251
	With full size textured island-style Keyboard and numeric keypad white for use in Bulgaria	762530-261
	With full size textured island-style Keyboard and numeric keypad white for use in Romania	762530-271
	With full size textured island-style Keyboard and numeric keypad white for use in Thailand	762530-281
	With full size textured island-style Keyboard and numeric keypad white for use in Japan	762530-291
	With full size textured island-style Keyboard and numeric keypad white for use in Europe	762530-A41
	With full size textured island-style Keyboard and numeric keypad white for use in Taiwan	762530-AB1
	With full size textured island-style Keyboard and numeric keypad white for use in South Korea	762530-AD1
	With full size textured island-style Keyboard and numeric keypad white for use in the Netherlands	762530-B31
	With full size textured island-style Keyboard and numeric keypad white for use in the Adriatics	762530-BA1
	With full size textured island-style Keyboard and numeric keypad white for use in Israel	762530-BB1
	With full size textured island-style Keyboard and numeric keypad white for use in Switzerland	762530-BG1
	With full size textured island-style Keyboard and numeric keypad white for use in Canada	762530-DB1
	With full size textured island-style Keyboard and numeric keypad white for use in Denmark, Finland, and Norway	762530-DH1
	With full size textured island-style Keyboard and numeric keypad white for use in the Czech Republic and Slovakia	762530-FL1
	With full size textured island-style Keyboard and numeric keypad white for use in South Africa	762530-FP1
	Top cover for HP Pavilion 17 Notebook PC computer models:	
	With full size textured island-style Keyboard and numeric keypad black for use in the United States	765806-001
	With full size textured island-style Keyboard and numeric keypad black for use in the United Kingdom	765806-031
	With full size textured island-style Keyboard and numeric keypad black for use in Germany	765806-041

Item	Component	Spare part number
	With full size textured island-style Keyboard and numeric keypad black for use in France	765806-051
	With full size textured island-style Keyboard and numeric keypad black for use in Italy	765806-061
	With full size textured island-style Keyboard and numeric keypad black for use in Spain	765806-071
	With full size textured island-style Keyboard and numeric keypad black for use in Portugal	765806-131
	With full size textured island-style Keyboard and numeric keypad black for use in Turkey	765806-141
	With full size textured island-style Keyboard and numeric keypad black for use in Greece	765806-151
	With full size textured island-style Keyboard and numeric keypad black for use in Saudi Arabia	765806-171
	With full size textured island-style Keyboard and numeric keypad black for use in Hungary	765806-211
	With full size textured island-style Keyboard and numeric keypad black for use in Russia	765806-251
	With full size textured island-style Keyboard and numeric keypad black for use in Bulgaria	765806-261
	With full size textured island-style Keyboard and numeric keypad black for use in Romania	765806-271
	With full size textured island-style Keyboard and numeric keypad black for use in Belgium	765806-A41
	With full size textured island-style Keyboard and numeric keypad black for use in the Netherlands	765806-B31
	With full size textured island-style Keyboard and numeric keypad black for use in Slovenia	765806-BA1
	With full size textured island-style Keyboard and numeric keypad black for use in Israel	765806-BB1
	With full size textured island-style Keyboard and numeric keypad black for use in Switzerland	765806-BG1
	With full size textured island-style Keyboard and numeric keypad black for use in Canada	765806-DB1
	With full size textured island-style Keyboard and numeric keypad black for use in Denmark, Finland, and Norway	765806-DH1
	With full size textured island-style Keyboard and numeric keypad black for use in the Czech Republic and Slovakia	765806-FL1
	With full size textured island-style Keyboard and numeric keypad white for use in the United States	765807-001
	With full size textured island-style Keyboard and numeric keypad white for use in the United Kingdom	765807-031
	With full size textured island-style Keyboard and numeric keypad white for use in Germany	765807-041
	With full size textured island-style Keyboard and numeric keypad white for use in France	765807-051
	With full size textured island-style Keyboard and numeric keypad black for use in Italy	765807-061
	With full size textured island-style Keyboard and numeric keypad white for use in Spain	765807-071
	With full size textured island-style Keyboard and numeric keypad white for use in Portugal	765807-131
	With full size textured island-style Keyboard and numeric keypad white for use in Turkey	765807-141
	With full size textured island-style Keyboard and numeric keypad white for use in Greece	765807-151
	With full size textured island-style Keyboard and numeric keypad white for use in Saudi Arabia	765807-171
	With full size textured island-style Keyboard and numeric keypad white for use in Hungary	765807-211
	With full size textured island-style Keyboard and numeric keypad white for use in Russia	765807-251

Item	Component	Spare part number
	With full size textured island-style Keyboard and numeric keypad white for use in Bulgaria	765807-261
	With full size textured island-style Keyboard and numeric keypad white for use in Romania	765807-271
	With full size textured island-style Keyboard and numeric keypad white for use in Belgium	765807-A41
	With full size textured island-style Keyboard and numeric keypad white for use in the Netherlands	765807-B31
	With full size textured island-style Keyboard and numeric keypad white for use in Slovenia	765807-BA1
	With full size textured island-style Keyboard and numeric keypad white for use in Israel	765807-BB1
	With full size textured island-style Keyboard and numeric keypad white for use in Switzerland	765807-BG1
	With full size textured island-style Keyboard and numeric keypad white for use in Canada	765807-DB1
	With full size textured island-style Keyboard and numeric keypad white for use in Denmark, Finland, and Norway	765807-DH1
	With full size textured island-style Keyboard and numeric keypad white for use in the Czech Republic and Slovakia	765807-FL1
(3)	Power button board (includes cable)	
	For HP Pavilion 15 Notebook PC computer models	762496-001
	For HP Pavilion 17 Notebook PC computer models	763708-001
(4)	TouchPad board (with bracket and cable)	
	For HP Pavilion 15 Intel Notebook PC computer models	
	In Ano Silver	762506-001
	In Ash Silver	762525-001
	For HP Pavilion 17 Intel Notebook PC computer models	
	In ash silver	765792-001
	In natural silver	767059-001
	For HP Pavilion 17 AMD Notebook PC computer models	
	In ano silver	781764-001
	In ash silver	781765-001
	For HP Pavilion 15 AMD Notebook PC computer models	
	In ano silver	781767-001
	In ash silver	781768-001
(5)	WLAN module:	
	Realtek RT8188EE 802.11 bgn 1x1 Wi-Fi adapter, for use only on computer models equipped with Intel processors for HP Pavilion 17	709848-005
	Broadcom BCM43142 802.11 bgn 1x1 Wi-Fi + BT4.0 HMC combo adapter, for use only on computer models equipped with Intel processors for HP Pavilion 17	753076-005
	Realtek RT8723BE 802.11bgn 1x1 Wi-Fi + BT4.0 Combo Adapter for HP Pavilion 17 and 15 Notebook PC	753077-005
	Realtek 8188EE 802.11BGN 1x1 for HP Pavilion 17 and 15 Notebook PC	709848-005

Item	Component	Spare part number
	Intel Dual Band Wireless-AC 3160 802.11 ac 1x1 WiFi + BT 4.0 Combo Adapter for HP Pavilion 17 and 15 Notebook PC	784638-005
(6)	Battery Board (For use only with HP Pavilion 17 Notebook PC)	763710-001
(7)	USB board	
	For use with HP Pavilion 17 Notebook PC computer models	767120-001
	For use with HP Pavilion 15 Notebook PC computer models	762497-001
(8)	System board (includes replacement thermal material):	
	For computer models equipped with Intel processors and UMA graphics	
	Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	767417-001
	Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	767417-501
	Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	767418-001
	Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	767418-501
	Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782931-001
	Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782931-501
	Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782931-601
	Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782932-001
	Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782932-501
	Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782932-601
	Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	787515-001
	Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Standard HP Pavilion 17 Notebook PC	787515-501
	Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Professional HP Pavilion 15 Notebook PC	787515-601
	Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	787484-001
	Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Standard HP Pavilion 15 Notebook PC	787484-501
	Intel Celeron N2840 (2.16 up to 2.58 GHz) 1333 MHz/2 MB L2, dual SDP4.5 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	787485-001
	Intel Celeron N2840 (2.16 up to 2.58 GHz) 1333 MHz/2 MB L2, dual SDP4.5 W for use with Windows Standard HP Pavilion 17 Notebook PC	787485-501

Item	Component	Spare part number
	Intel Core i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	799547-001
	Intel Core i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	799547-501
	Intel Core i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 15 Notebook PC	799547-601
	Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	791471-001
	Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	791471-501
	Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	791472-001
	Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	791472-501
For computer models equipped with Intel processors and discrete switchable graphics		
	Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	777102-001
	Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	777102-501
	Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	777103-001
	Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	777103-501
	Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	777104-001
	Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	777104-501
	Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	777106-001
	Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	777106-501
	Intel Pentium 830 N3540, 2.16 turbo up to 2.66 GHz discrete processor (2 MB L2 cache, quad core, SDP 4.5 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	787516-001
	Intel Pentium 830 N3540, 2.16 turbo up to 2.66 GHz discrete processor (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Standard HP Pavilion 15 Notebook PC	787516-501
	Intel Pentium 830 N3540, 2.16 turbo up to 2.66 GHz discrete processor (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Professional HP Pavilion 15 Notebook PC	787516-601
	Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux	782933-001
	Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782933-501
	Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782933-601

Item	Component	Spare part number	
	Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782934-001	
	Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782934-501	
	Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782934-601	
	Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	782936-001	
	Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782936-501	
	Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 15 Notebook PC	782936-601	
	Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782937-001	
	Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782937-501	
	Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782937-601	
	Intel Core 830M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782938-001	
	Intel Core 830M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782938-501	
	Intel Core 830M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782938-601	
	Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782939-001	
	Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782939-501	
	Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782939-601	
	For computer models equipped with AMD processors and UMA graphics		
	AMD A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763420-001	
	AMD A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763420-501	
	AMD A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762527-001	
	AMD A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762527-501	
	AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763422-001	
	AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763422-501	

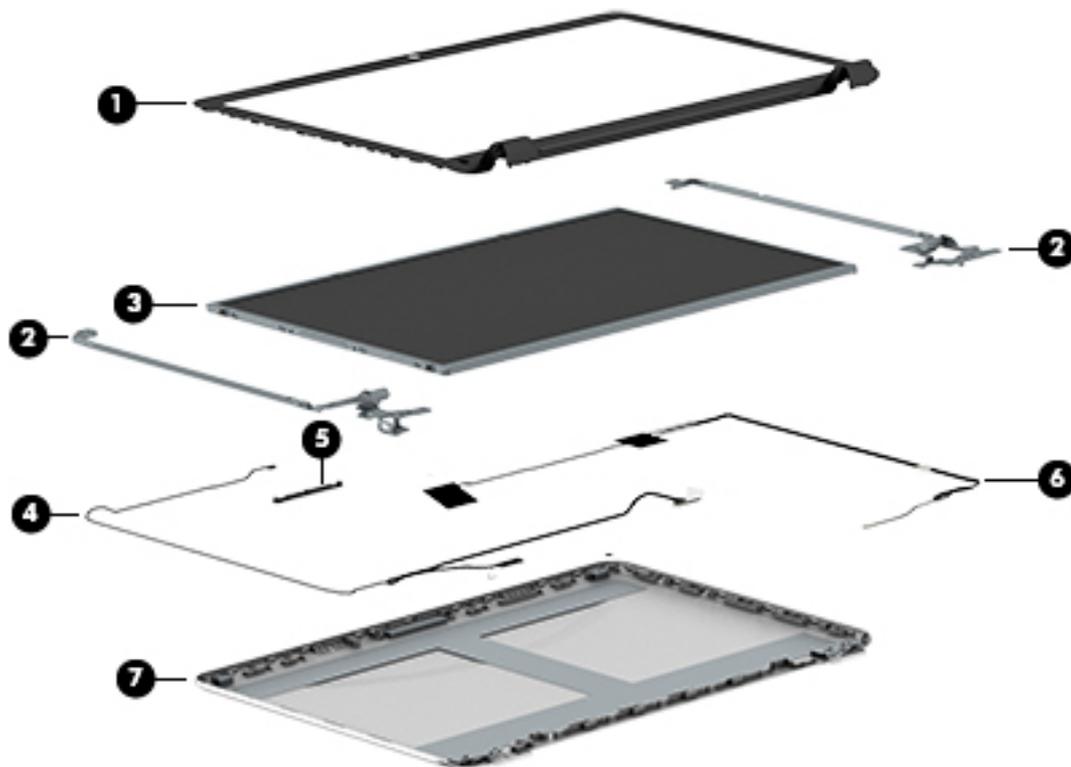
Item	Component	Spare part number
	AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762526-001
	AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762526-501
	AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763421-001
	AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763421-501
	AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762528-001
	AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762528-501
	EI-6010 (1.35 GHz, 1 MB L2), dual core 10 W, Max DDR3L-1333 for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763423-001
	EI-6010 (1.35 GHz, 1 MB L2), dual core 10 W, Max DDR3L-1333 for use with Windows Standard HP Pavilion 17 Notebook PC	763423-501
	AMD A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763424-001
	AMD A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763424-501
	AMD A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	766714-001
	AMD A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with Windows Standard HP Pavilion 15 Notebook PC	766714-501
	AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L), quad core, 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763421-001
	AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L), quad core, 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	763421-501
	A10-4655M (2.0 GHz, up to 2.8 GHz, 4 MB L2), Quad 25 W, Max DDR3L-1333 for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	800233-001
	A10-4655M (2.0 GHz, up to 2.8 GHz, 4 MB L2), Quad 25 W, Max DDR3L-1333 for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	800233-501
	A10-4655M (2.0 GHz, up to 2.8 GHz, 4 MB L2), Quad 25 W, Max DDR3L-1333	799508-001
	A10-4655M (2.0 GHz, up to 2.8 GHz, 4 MB L2), Quad 25 W, Max DDR3L-1333 for use with Windows Standard HP Pavilion 17 Notebook PC	799508-501
	For computer models equipped with AMD processors and Discrete graphics	
	AMD M260 A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763425-001
	AMD M260 A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763425-501
	AMD M260 A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762532-001
	AMD M260 A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762532-501

Item	Component	Spare part number
	AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763427-001
	AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763427-501
	AMD M260 A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762531-001
	AMD M260 A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762531-501
	AMD M260 A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763428-001
	AMD M260 A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763428-501
	AMD M260 A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	766715-001
	AMD M260 A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with Windows Standard HP Pavilion 15 Notebook PC	766715-501
	AMD A10-7300 (1.9 GHz, up to 3.2 GHz, 2 MB L2), quad core 19 W, Max DDR3L-1600 for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	778258-001
	AMD A10-7300 (1.9 GHz, up to 3.2 GHz, 2 MB L2), quad core 19 W, Max DDR3L-1600 for use with Windows Standard HP Pavilion 15 Notebook PC	778258-501
	AMD A10-7300 (1.9 GHz, up to 3.2 GHz, 2 MB L2), quad core 19 W, Max DDR3L-1600 for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	790770-001
	AMD A10-7300 (1.9 GHz, up to 3.2 GHz, 2 MB L2), quad core 19 W, Max DDR3L-1600 for use with Windows Standard HP Pavilion 15 Notebook PC	790770-501
(9)	Power Connector	
	For use with HP Pavilion 15 Notebook PC computer models	762507-001
	For use with HP Pavilion 17 Notebook PC computer models	763699-001
(10)	Memory modules :	
	2 GB memory module	691739-005
	4 GB memory module	691740-005
	8 GB memory module	693374-005
	2 GB memory module	652972-005
	8 GB memory module	670034-005
(11)	Fan for use with HP Pavilion 17 Notebook PC computer models	765788-001
	Fan for use with HP Pavilion 15 Notebook PC computer models	762505-001
(12)	RTC battery	697917-001
(13)	Heat sink assembly for use only on computer models equipped with UMA graphics (includes replacement thermal material):	
	For use with HP Pavilion 15 Notebook PC computer models:	
	For use only on computer models with Intel processors discrete memory 19 W	762524-001

Item	Component	Spare part number
	For use only on computer models with Intel processors discrete memory 19 W CB	777250-001
	For use only on computer models equipped with AMD processors and discrete graphics 19 W	767340-001
	For use only on computer models equipped with Intel processors and discrete graphics 8.5 W	780212-001
	For use only on computer models equipped with Intel processors and discrete graphics KVR	795096-001
	For use only on computer models equipped with AMD processors and UMA graphics 25 W	764082-001
	For use with HP Pavilion 17 Notebook PC computer models	
	For use only on computer models with Intel processors discrete memory 19 W	762524-001
	For use only on computer models equipped with AMD processors and UMA graphics 19 W	764080-001
	For use only on computer models equipped with AMD processors and UMA graphics 19 W	767339-001
	For use only on computer models equipped with AMD processors and discrete graphics 25 W	764083-001
	For use only on computer models equipped with AMD processors and UMA graphics 19 W	767339-001
	For use only on computer models with Intel processors discrete memory 19 W	767340-001
	For use only on computer models with Intel processors discrete memory 19 W CB	777250-001
(14)	Display Cable For specific cable spare parts, see Display assembly subcomponents on page 30	
(15)	Speaker Kit (includes left and right front speakers and cables) for HP Pavilion 17 Notebook PC computer models	763717-001
	Speaker Kit (includes left and right front speakers and cables) for HP Pavilion 15 Notebook PC computer models	762502-001
(16)	Subwoofer	766723-001
(17)	Hard drive (does not include the hard drive rubber bracket, hard drive connector cable, or screws) For specific hard drive spare parts, see Mass storage devices on page 33	
(18)	4-cell, 41 WHr, 2.8A H Li-ion battery	756743-001
(19)	Optical drive: For specific optical drives with spare part numbers, see Mass storage devices on page 33	
(20)	Base enclosure: For use on HP Pavilion 17 Notebook PC computer models	
	Aqua blue finish for use with Intel processors	766908-001
	Natural silver finish for use with Intel processors	766909-001
	Snow white finish for use with Intel processors	765781-001
	Vibrant red finish for use with Intel processors	766910-001
	Neon purple	777196-001
	Snow white for use with AMD processors	780084-001
	Aqua blue for use with AMD processors	780085-001
	Natural silver for use with AMD processors	780086-001

Item	Component	Spare part number
	Vibrant red for use with AMD processors	780087-001
	Neon purple for use with AMD processors	780088-001
	Twinkle black for use with AMD processors	792335-001
	Neon purple for use with AMD processors	793828-001
	Neon purple for use with Intel processors	794692-001
	For use on HP Pavilion 15 Notebook PC computer models	
	Aqua blue finish for use with Intel processors	762501-001
	Natural silver finish for use with Intel processors	762498-001
	Snow white finish for use with Intel processors	762499-001
	Vibrant red finish for use with Intel processors	762500-001
	Neon purple for use with Intel processors	778264-001
	Natural silver for use with Intel processors	780094-001
	Snow white for use with Intel processors	780095-001
	Vibrant red for use with Intel processors	780096-001
	Aqua blue for use with Intel processors	780097-001
	Neon pink for use with Intel processors	780098-001
	Neon purple for use with Intel processors	780099-001
	Twinkle black for use with Intel processors	790018-001
	Neon purple for use with Intel processors	788385-001
	Neon purple for use with Intel processors	777196-001
	Twinkle black for use with AMD processors	792437-001
(21)	Base enclosure caps (Included in the plastics kit)	
	For HP Pavilion 17 Notebook PC computer models	765789-001
	For HP Pavilion 15 Notebook PC computer models	764081-001

Display assembly subcomponents



Item	Component	Spare part number
(1)	Display bezel for HP Pavilion 17 Notebook PC (includes screws)	765782-001
	Display bezel for HP Pavilion 15 Notebook PC (includes screws)	762512-001
(2)	Display Hinge Kit (includes left and right hinges and screws)	
	For HP Pavilion 17 Notebook PC	
	Display Hinge Kit, non-Touchscreen (includes left and right hinges and screws) for HP Pavilion 17 Notebook PC	763706-001
	Display Hinge Kit, Touchscreen (includes left and right hinges and screws) for HP Pavilion 17 Notebook PC	765356-001
	For HP Pavilion 15 Notebook PC	
	Display Hinge Kit, non-Touchscreen (includes left and right hinges and screws) for HP Pavilion 17 Notebook PC	762520-001
	Display Hinge Kit, Touchscreen (includes left and right hinges and screws) for HP Pavilion 17 Notebook PC	763105-001
(3)	15.6 LED BrightView HD SVA HD, WLED, SVA flat display panel (includes screws)	762513-001
	15.6 WLED AG HD Touchscreen with bezel (includes screws)	764622-001
	15.6 WLED AG full HD SVA available for Windows 10 (includes screws)	764623-001
	15.6 WLED AG full HD Touchscreen with bezel flat display panel (includes screws)	766687-001
	17.3 WLED AG HD Touchscreen flat display panel flat display panel (includes screws)	766903-001

Item	Component	Spare part number
	17.3 WLED AG BrightView HD flat display panel available for Windows 10 (includes screws)	766904-001
	17.3 WLED AG full HD flat display panel available for Windows 10 (includes screws)	766905-001
	17.3 WLED AG Touchscreen full HD flat display panel (includes screws)	766906-001
(4)	Antenna Kit (includes left and right wireless antenna cables and transceivers and screws) for HP Pavilion 15 Notebook PC	762518-001
	Antenna Kit, Touchscreen (includes left and right wireless antenna cables and transceivers and screws) for HP Pavilion 15 Notebook PC	763568-001
	Antenna Kit (includes left and right wireless antenna cables and transceivers and screws) for HP Pavilion 17 Notebook PC	763691-001
	Antenna Kit, Touchscreen (includes left and right wireless antenna cables and transceivers and screws) for HP Pavilion 15 Notebook PC	763692-001
(5)	Webcamera/microphone module (includes adhesive and screws) for HP Pavilion 17 and 15 Notebook PC	762521-001
	Webcamera/microphone module, Touchscreen (includes adhesive and screws) for HP Pavilion 17 and 15 Notebook PC	762545-001
(6)	Display panel SXGA cable for non-Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 17 Notebook PC computer models	765785-001
	Display panel SXGA cable for Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 17 Notebook PC computer models	765786-001
	Display panel HD cable for non-Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 15 Notebook PC computer models	762519-001
	Display panel full HD cable for Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 15 Notebook PC computer models	763590-001
	Display panel full HD cable for non-Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 15 Notebook PC computer models	762544-001
	Display panel HD cable for non-Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 15 Notebook PC computer models	763572-001
(7)	Display back cover (includes screws):	
	For HP Pavilion 17 Notebook PC	
	Aqua blue finish	765774-001
	Natural silver finish	765775-001
	Snow white finish	765773-001
	Vibrant red finish	765776-001
	Neon purple finish	777194-001
	Aqua blue finish, Touchscreen	765778-001
	Natural silver finish, Touchscreen	765779-001
	Snow white finish, Touchscreen	765777-001
	Vibrant red finish, Touchscreen	765780-001
	Neon purple finish, Touchscreen	777195-001

Item	Component	Spare part number
	Twinkle black Touchscreen	792334-001
	Neon purple Touchscreen for use with AMD processors	793827-001
	Neon purple, non-Touchscreen for use with AMD processors	794676-001
	For HP Pavilion 15 Notebook PC	
	Aqua blue finish	762511-001
	Natural silver finish	762508-001
	Snow white finish	762509-001
	Vibrant red finish	762510-001
	Neon purple finish	779639-001
	Aqua blue finish, Touchscreen	762517-001
	Natural silver finish, Touchscreen	762514-001
	Snow white finish, Touchscreen	762515-001
	Vibrant red finish, Touchscreen	762516-001
	Neon purple finish, Touchscreen	778263-001
	Touchscreen HP Pavilion 15 Notebook PC Intel computer model	790017-001
	Neon Pink	778259-001
	Neon Pink, Touchscreen	778260-001
	Twinkle black, Touchscreen	792436-001

Mass storage devices



Item	Component	Spare part number
(1)	Optical drive, DVD+/-RW DL SuperMulti (includes optical drive hardware kit with optical drive bezel and bracket):	
	For HP Pavilion 17 Notebook PC	
	Aqua blue finish	765793-001
	Natural silver finish	763426-001
	Snow white finish	765787-001
	Vibrant red finish	766894-001
	Neon purple finish	777222-001
	Neon Pink finish	793829-001
	Twinkle black finish	792336-001
	For HP Pavilion 15 Notebook PC	
	Optical drive, DVD+/-RW DL SuperMulti (includes optical drive hardware kit with optical drive bezel and bracket):	762503-001
	Blu-ray Disc R/RW with SuperMulti for AMD models only	778266-001
	Optical drive board natural silver	778856-001
	Optical Drive Hardware Kit,	
	For HP Pavilion 15 Notebook PC in neon pink	778262-001
	For HP Pavilion 15 Notebook PC in twinkle black	790019-001
	For HP Pavilion 15 Notebook PC in neon purple	778265-001
	For HP Pavilion 15 Notebook PC in neon purple	778856-001
	For HP Pavilion 15 Notebook PC in natural silver	763100-001
	For HP Pavilion 15 Notebook PC in snow white	763101-001
	For HP Pavilion 15 Notebook PC in aqua blue	763103-001
	For HP Pavilion 15 Notebook PC in vibrant red	763102-001

Item	Component	Spare part number
(2)	Hard drive (does not include the hard drive rubber bracket, hard drive connector cable, or screws)	
	1 TB, 5400 rpm, 9.5 mm available for Windows 10	778192-005
	750 GB, 5400 rpm, 9.5 mm available for Windows 10	778190-005
	500 GB 5400 rpm 9.5 mm available for Windows 10	778188-005
	500 GB 5400 rpm 7 mm hybrid	732000-005
	1 TB, 5400 rpm 9.5 mm	731999-005
	750 GB 5400 rpm + 8 GB NAND hybrid, 9.5 mm	732001-005
	1.5 TB, 5400 rpm 9.5 mm for HP Pavilion 15 Notebooks and AMD computers only	747375-005
	Hard Drive Hardware Kit , for HP Pavilion 17 Notebook PC	773501-001
	Hard Drive Hardware Kit , for HP Pavilion 15 Notebook PC	762504-001
	Solid State Drive (not illustrated)	
	Solid state drive 256 GB M2 SATA	801479-001
	Solid state drive 256 GB M2 SATA-3	801473-001

Miscellaneous parts

Component	Spare part number
AC adapter:	
45 W HP Smart AC adapter (nPFC, RC, 3-wire, 4.5 mm, nslim)	741727-001
65 W HP Smart AC adapter (nPFC, RC, 3-wire, 4.5 mm)	710412-001
90 W HP Smart AC adapter (PFC, RC, 3-wire, 4.5 mm), for use with computer models with AMD processors	710413-001
90-W AC adapter (EM, PFC, SMT, 3-wire, 4.5-mm) for use with HP Pavilion 15 Notebook PC computer models only	710414-001
65-W HP Smart AC adapter (non-PFC, EM, 3-wire, 4.5-mm) for use with HP Pavilion 15 Notebook PC computer models only	714657-001
Power cord (3 pin, black, 1.0 m):	
For use in North America	755530-001
For use in Australia, for use with computer models with Intel processors	755530-011
For use in Brazil, for use with computer models with Intel processors	755530-202
For use in Europe, for use with computer models with Intel processors	755530-021
For use in India, for use with computer models with Intel processors	755530-D61
For use in Italy	755530-061
For use in the People's Republic of China, for use with computer models with Intel processors	755530-AA1
For use in Taiwan, for use with computer models with Intel processors	755530-AB1

Component	Spare part number
For use in Thailand, for use with computer models with Intel processors	755530-201
For use in the United Kingdom and Singapore, for use with computer models with Intel processors	755530-031
For use in Denmark, Finland, Norway	755530-081
For use in Switzerland	755530-111
For use in Israel	755530-BB1
For use in South Africa	755530-AR1
Screw Kit for HP Pavilion 15 Notebook PC	762522-001
Screw Kit for HP Pavilion 17 Notebook PC	765790-001
HDMI to VGA Adapter for use with computer models with AMD processors	701943-001
Rubber kit for HP Pavilion 15 Notebook PC	763104-001
Rubber kit for HP Pavilion 17 Notebook PC	763714-001
Heat spreader for use with Intel computer models	784982-001

4 Removal and replacement procedures preliminary requirements

Tools required

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

- Flat-bladed screwdriver
- Magnetic screwdriver
- Phillips P0 and P1 screwdrivers

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 a diskette drive or optical drive, be sure that a diskette or 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.

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

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."

Grounding guidelines

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 computer 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			
Event	Relative humidity		
	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.

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, screwdrivers, 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 $\pm 10\%$ 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

5 Removal and replacement procedures for Customer Self-Repair parts

 **NOTE:** The Customer Self-Repair program is not available in all locations. Installing a part not supported by the Customer Self-Repair program may void your warranty. Check your warranty to determine if Customer Self-Repair is supported in your location.

Component replacement procedures

 **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.

 **NOTE:** Please read and follow the procedures described here to access and replace Customer Self-Repair parts successfully.

 **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. See [Bottom on page 15](#) for details.

This chapter provides removal and replacement procedures for Customer Self-Repair parts.

There may be as many as five screws that must be removed, replaced, and/or loosened when servicing Customer Self-Repair parts. Make special note of each screw size and location during removal and replacement.

Battery

Description	Spare part number
4-cell, 41 WHr 2.8 AH Li-ion battery	756743-001

Before removing the battery, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.

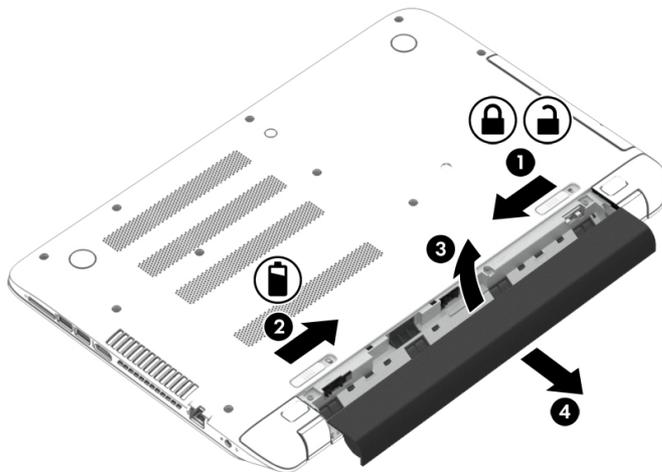
Remove the battery:

1. Turn the computer upside down on a flat surface.
2. Slide the battery lock latch **(1)** and then slide the battery release latch **(2)** to release the battery.



NOTE: The battery release latch automatically returns to its original position.

3. Pivot the battery upward **(3)**, and then remove the battery from the computer **(4)**.



Reverse this procedure to install the battery.

Optical drive



NOTE: The optical drive spare part kit includes the optical drive connector board and cable. The optical drive connector board and cable are removed when removing the system board and not part of the customer replacement procedure of the optical drive.

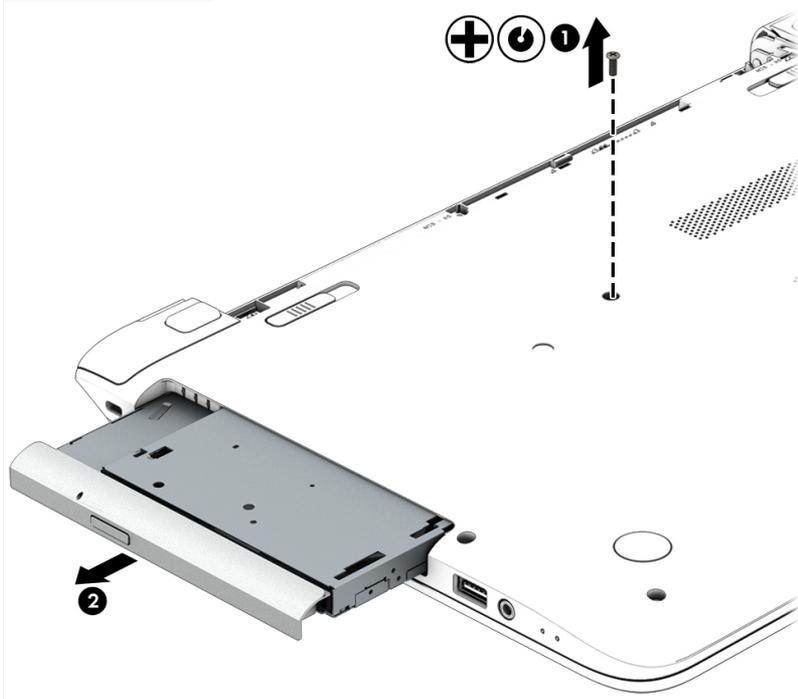
Description	Spare part number
Optical drive, DVD+/-RW DL SuperMulti (includes optical drive hardware kit with optical drive bezel and bracket):	
For HP Pavilion 17 Notebook PC	
Aqua blue finish	765793-001
Natural silver finish	763426-001
Snow white finish	765787-001
Vibrant red finish	766894-001
Neon purple finish	777222-001
Neon pink finish	793829-001
Twinkle black finish	792336-001
For HP Pavilion 15 Notebook PC	
Optical drive, DVD+/-RW DL SuperMulti (includes optical drive hardware kit with optical drive bezel and bracket):	762503-001
Blu-ray Disc R/RW with SuperMulti for AMD models only	778266-001
Optical Drive Hardware Kit,	
For HP Pavilion 15 Notebook PC in twinkle black	790019-001
For HP Pavilion 15 Notebook PC in neon pink	778262-001
For HP Pavilion 15 Notebook PC in neon purple	778265-001
For HP Pavilion 15 Notebook PC in neon purple	778856-001
For HP Pavilion 15 Notebook PC in natural silver	763100-001
For HP Pavilion 15 Notebook PC in snow white	763101-001
For HP Pavilion 15 Notebook PC in aqua blue	763103-001
For HP Pavilion 15 Notebook PC in vibrant red	763102-001

Before removing the optical drive, follow these steps:

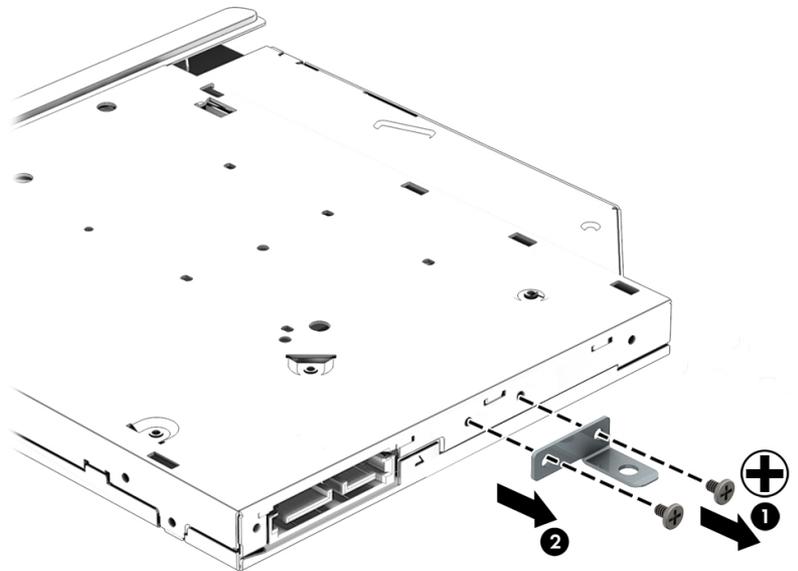
1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)).

Remove the optical drive:

1. Remove the screw **(1)** that secures the optical drive to the computer.
2. Use a flat tool to press on the optical drive bracket tab **(2)** to release the optical drive.



3. Remove the optical drive from the computer.
4. If it is necessary to replace the optical drive bracket, position the optical drive with the rear panel toward you.
5. Remove the two screws **(1)** that secure the optical drive bracket to the optical drive.
6. Remove the optical drive bracket **(2)**.



Reverse this procedure to reassemble and install the optical drive.

6 Removal and replacement procedures for Authorized Service Provider parts

 **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.

 **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.

Component replacement procedures

 **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. See [Bottom on page 15](#) for details.

This chapter provides removal and replacement procedures for Authorized Service Provider only parts.

There are as many as 83 screws that must be removed, replaced, and/or loosened when servicing Authorized Service Provider only parts. Make special note of each screw size and location during removal and replacement.

Base enclosure

Description	Spare part number
Top cover for HP Pavilion 15 Notebook PC computer models:	
With full size textured island-style Keyboard. TouchPad and numeric keypad black for use in the United States	762529-001
With full size textured island-style Keyboard and numeric keypad black for use in the United Kingdom	762529-031
With full size textured island-style Keyboard and numeric keypad black for use in Germany	762529-041
With full size textured island-style Keyboard and numeric keypad black for use in France	762529-051
With full size textured island-style Keyboard and numeric keypad black for use in Italy	762529-061
With full size textured island-style Keyboard and numeric keypad black for use in Spain	762529-071
With full size textured island-style Keyboard and numeric keypad black for use in Portugal	762529-131
With full size textured island-style Keyboard and numeric keypad black for use in Turkey	762529-141
With full size textured island-style Keyboard and numeric keypad black for use in Greece	762529-151
With full size textured island-style Keyboard and numeric keypad black for use in Latin America	762529-161
With full size textured island-style Keyboard and numeric keypad black for use in Saudi Arabia	762529-171
With full size textured island-style Keyboard and numeric keypad black for use in Hungary	762529-211
With full size textured island-style Keyboard and numeric keypad black for use in Russia	762529-251
With full size textured island-style Keyboard and numeric keypad black for use in Bulgaria	762529-261
With full size textured island-style Keyboard and numeric keypad black for use in Romania	762529-271
With full size textured island-style Keyboard and numeric keypad black for use in Thailand	762529-281
With full size textured island-style Keyboard and numeric keypad black for use in Japan	762529-291
With full size textured island-style Keyboard and numeric keypad black for use in Europe	762529-A41
With full size textured island-style Keyboard and numeric keypad black for use in Taiwan	762529-AB1
With full size textured island-style Keyboard and numeric keypad black for use in South Korea	762529-AD1
With full size textured island-style Keyboard and numeric keypad black for use in the Netherlands	762529-B31
With full size textured island-style Keyboard and numeric keypad black for use in the Adriatics	762529-BA1
With full size textured island-style Keyboard and numeric keypad black for use in Israel	762529-BB1
With full size textured island-style Keyboard and numeric keypad black for use in Switzerland	762529-BG1
With full size textured island-style Keyboard and numeric keypad black Canada	762529-DB1
With full size textured island-style Keyboard and numeric keypad black for use in Denmark, Finland, and Norway	762529-DH1
With full size textured island-style Keyboard and numeric keypad black for use in the Czech Republic and Slovakia	762529-FL1
With full size textured island-style Keyboard and numeric keypad black for use in South Africa	762529-FP1
With full size textured island-style Keyboard, TouchPad, and numeric keypad white for use in the United States	762530-001
With full size textured island-style Keyboard and numeric keypad white for use in the United Kingdom	762530-031

Description	Spare part number
With full size textured island-style Keyboard and numeric keypad white for use in Germany	762530-041
With full size textured island-style Keyboard and numeric keypad white for use in France	762530-051
With full size textured island-style Keyboard and numeric keypad white for use in Italy	762530-061
With full size textured island-style Keyboard and numeric keypad white for use in Spain	762530-071
With full size textured island-style Keyboard and numeric keypad white for use in Portugal	762530-131
With full size textured island-style Keyboard and numeric keypad white for use in Turkey	762530-141
With full size textured island-style Keyboard and numeric keypad white for use in Greece	762530-151
With full size textured island-style Keyboard and numeric keypad white for use in Latin America	762530-161
With full size textured island-style Keyboard and numeric keypad white for use in Saudi Arabia	762530-171
With full size textured island-style Keyboard and numeric keypad white for use in Hungary	762530-211
With full size textured island-style Keyboard and numeric keypad white for use in Russia	762530-251
With full size textured island-style Keyboard and numeric keypad white for use in Bulgaria	762530-261
With full size textured island-style Keyboard and numeric keypad white for use in Romania	762530-271
With full size textured island-style Keyboard and numeric keypad white for use in Thailand	762530-281
With full size textured island-style Keyboard and numeric keypad white for use in Japan	762530-291
With full size textured island-style Keyboard and numeric keypad white for use in Europe	762530-A41
With full size textured island-style Keyboard and numeric keypad white for use in Taiwan	762530-AB1
With full size textured island-style Keyboard and numeric keypad white for use in South Korea	762530-AD1
With full size textured island-style Keyboard and numeric keypad white for use in the Netherlands	762530-B31
With full size textured island-style Keyboard and numeric keypad white for use in the Adriatics	762530-BA1
With full size textured island-style Keyboard and numeric keypad white for use in Israel	762530-BB1
With full size textured island-style Keyboard and numeric keypad white for use in Switzerland	762530-BG1
With full size textured island-style Keyboard and numeric keypad white for use in Canada	762530-DB1
With full size textured island-style Keyboard and numeric keypad white for use in Denmark, Finland, and Norway	762530-DH1
With full size textured island-style Keyboard and numeric keypad white for use in the Czech Republic and Slovakia	762530-FL1
With full size textured island-style Keyboard and numeric keypad white for use in South Africa	762530-FP1
Top cover for HP Pavilion 17 Notebook PC computer models:	
With full size textured island-style Keyboard and numeric keypad black for use in the United States	765806-001
With full size textured island-style Keyboard and numeric keypad black for use in the United Kingdom	765806-031
With full size textured island-style Keyboard and numeric keypad black for use in Germany	765806-041
With full size textured island-style Keyboard and numeric keypad black for use in France	765806-051
With full size textured island-style Keyboard and numeric keypad black for use in Italy	765806-061
With full size textured island-style Keyboard and numeric keypad black for use in Spain	765806-071

Description	Spare part number
With full size textured island-style Keyboard and numeric keypad black for use in Portugal	765806-131
With full size textured island-style Keyboard and numeric keypad black for use in Turkey	765806-141
With full size textured island-style Keyboard and numeric keypad black for use in Greece	765806-151
With full size textured island-style Keyboard and numeric keypad black for use in Saudi Arabia	765806-171
With full size textured island-style Keyboard and numeric keypad black for use in Hungary	765806-211
With full size textured island-style Keyboard and numeric keypad black for use in Russia	765806-251
With full size textured island-style Keyboard and numeric keypad black for use in Bulgaria	765806-261
With full size textured island-style Keyboard and numeric keypad black for use in Romania	765806-271
With full size textured island-style Keyboard and numeric keypad black for use in Belgium	765806-A41
With full size textured island-style Keyboard and numeric keypad black for use in the Netherlands	765806-B31
With full size textured island-style Keyboard and numeric keypad black for use in Slovenia	765806-BA1
With full size textured island-style Keyboard and numeric keypad black for use in Israel	765806-BB1
With full size textured island-style Keyboard and numeric keypad black for use in Switzerland	765806-BG1
With full size textured island-style Keyboard and numeric keypad black for use in Canada	765806-DB1
With full size textured island-style Keyboard and numeric keypad black for use in Denmark, Finland, and Norway	765806-DH1
With full size textured island-style Keyboard and numeric keypad black for use in the Czech Republic and Slovakia	765806-FL1
With full size textured island-style Keyboard and numeric keypad white for use in the United States	765807-001
With full size textured island-style Keyboard and numeric keypad white for use in the United Kingdom	765807-031
With full size textured island-style Keyboard and numeric keypad white for use in Germany	765807-041
With full size textured island-style Keyboard and numeric keypad white for use in France	765807-051
With full size textured island-style Keyboard and numeric keypad black for use in Italy	765807-061
With full size textured island-style Keyboard and numeric keypad white for use in Spain	765807-071
With full size textured island-style Keyboard and numeric keypad white for use in Portugal	765807-131
With full size textured island-style Keyboard and numeric keypad white for use in Turkey	765807-141
With full size textured island-style Keyboard and numeric keypad white for use in Greece	765807-151
With full size textured island-style Keyboard and numeric keypad white for use in Saudi Arabia	765807-171
With full size textured island-style Keyboard and numeric keypad white for use in Hungary	765807-211
With full size textured island-style Keyboard and numeric keypad white for use in Russia	765807-251
With full size textured island-style Keyboard and numeric keypad white for use in Bulgaria	765807-261
With full size textured island-style Keyboard and numeric keypad white for use in Romania	765807-271
With full size textured island-style Keyboard and numeric keypad white for use in Belgium	765807-A41
With full size textured island-style Keyboard and numeric keypad white for use in the Netherlands	765807-B31
With full size textured island-style Keyboard and numeric keypad white for use in Slovenia	765807-BA1

Description	Spare part number
With full size textured island-style Keyboard and numeric keypad white for use in Israel	765807-BB1
With full size textured island-style Keyboard and numeric keypad white for use in Switzerland	765807-BG1
With full size textured island-style Keyboard and numeric keypad white for use in Canada	765807-DB1
With full size textured island-style Keyboard and numeric keypad white for use in Denmark, Finland, and Norway	765807-DH1
With full size textured island-style Keyboard and numeric keypad white for use in the Czech Republic and Slovakia	765807-FL1
Base enclosure	
For use on HP Pavilion 17 Notebook PC computer models	
Aqua blue finish for use with Intel processors	766908-001
Natural silver finish for use with Intel processors	766909-001
Snow white finish for use with Intel processors	765781-001
Vibrant red finish for use with Intel processors	766910-001
Neon purple for use with Intel processors	777196-001
Snow white for use with AMD processors	780084-001
Aqua blue for use with AMD processors	780085-001
Natural silver for use with AMD processors	780086-001
Vibrant red for use with AMD processors	780087-001
Neon purple for use with AMD processors	780088-001
Neon purple for use with Intel processors	794692-001
For use on HP Pavilion 15 Notebook PC computer models	
Aqua blue finish for use with Intel processors	762501-001
Natural silver finish for use with Intel processors	762498-001
Snow white finish for use with Intel processors	762499-001
Vibrant red finish for use with Intel processors	762500-001
Neon purple for use with Intel processors	778264-001
Natural silver for use with AMD processors	780094-001
Snow white for use with Intel processors for use with AMD processors	780095-001
Vibrant red for use with AMD processors	780096-001
Aqua blue for use with Intel processors for use with AMD processors	780097-001
Neon pink for use with Intel processors for use with AMD processors	780098-001
Neon purple for use with Intel processors for use with AMD processors	780099-001
Twinkle black for user with Intel processors	790018-001
For use with Intel processors for use with HP Pavilion 15 Notebook PC	788385-001
Twinkle black for use with AMD processors	792437-001

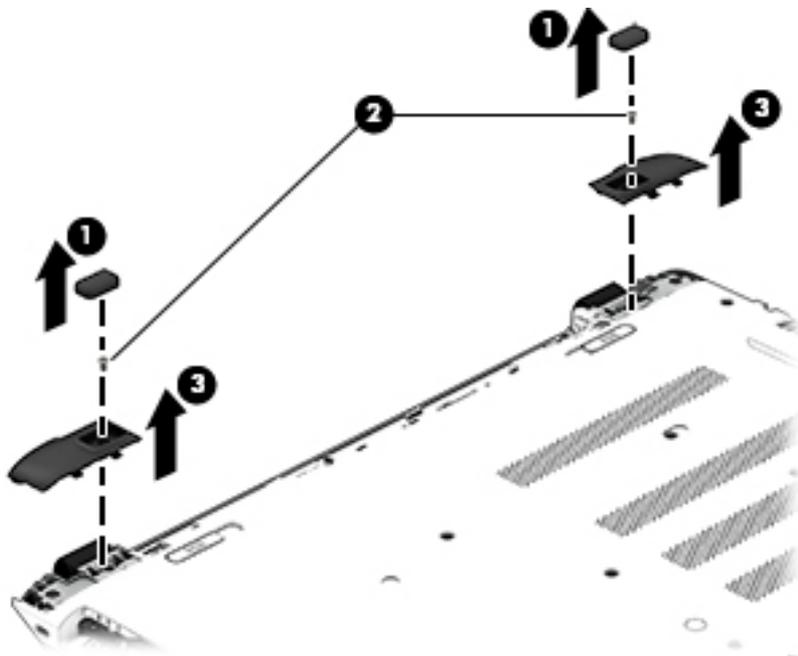
Description	Spare part number
Base enclosure caps	
For HP Pavilion 17 Notebook PC computer models	765789-001
For HP Pavilion 15 Notebook PC computer models	764081-001

Before disassembling the computer, follow these steps:

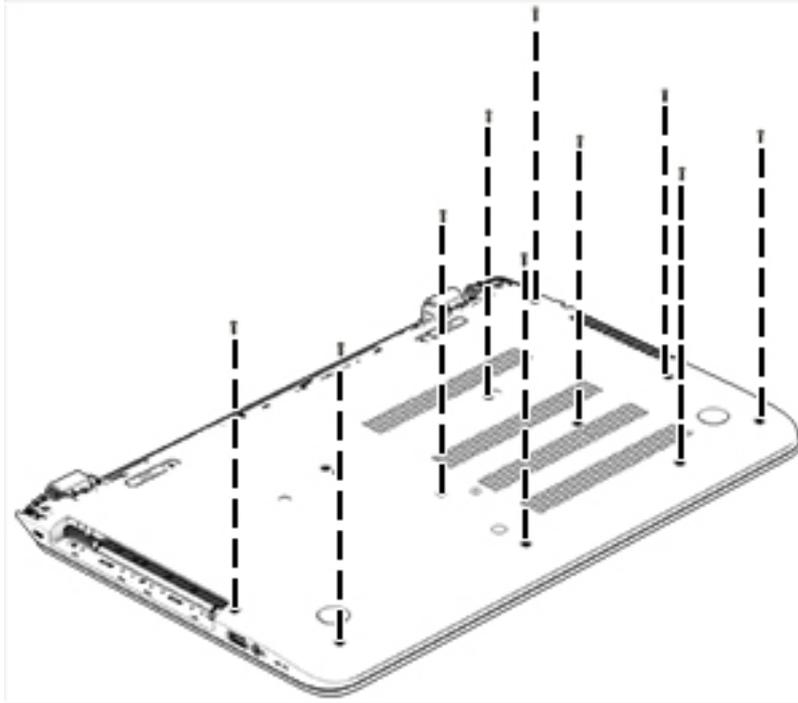
1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)).
5. Remove the optical drive.

Remove the base enclosure:

1. Turn the computer face down, and remove the rubber feet **(1)**, the two screws **(2)** and lift the end caps **(3)**.



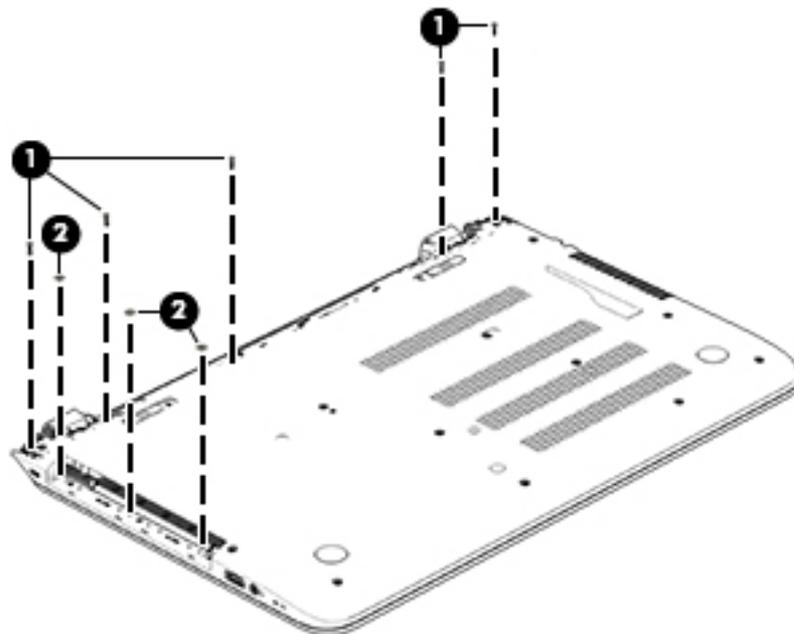
2. Remove the ten Phillips screws.



3. Remove five screws **(1)** around the battery area, three broadhead screws **(2)** in the optical drive bay and one screw **(3)** near the display hinge.



NOTE: Some models may have two screws in the optical drive bay **(2)**.



4. Turn the computer right side up and carefully remove the top cover.



 **NOTE:** Use a thin, non-conductive tool to lift the top cover.

5. Carefully disconnect the following cables:
 - Power button cable **(1)**
 - Keyboard cable **(2)**
 - TouchPad cable **(3)**

Lift the top cover **(4)** to remove it from the computer.



Reverse this procedure to install the top cover and base enclosure.

Display panel

Component	Spare part number
Display bezel (includes screws) for HP Pavilion 17 Notebook PC	765782-001
Display bezel (includes screws) for HP Pavilion 15 Notebook PC	762512-001
Display Hinge Kit (includes left and right hinges and screws)	
For HP Pavilion 17 Notebook PC	
Display Hinge Kit, non-Touchscreen (includes left and right hinges and screws) for HP Pavilion 17 Notebook PC	763706-001
Display Hinge Kit, Touchscreen (includes left and right hinges and screws) for HP Pavilion 17 Notebook PC	765356-001
For HP Pavilion 15 Notebook PC	
Display Hinge Kit, non-Touchscreen (includes left and right hinges and screws) for HP Pavilion 17 Notebook PC	762520-001
Display Hinge Kit, Touchscreen (includes left and right hinges and screws) for HP Pavilion 17 Notebook PC	763105-001
15.6 LED BrightView HD SVA HD, WLED, SVA flat display panel available for Windows 10 (includes screws)	762513-001
15.6 WLED AG HD Touchscreen with bezel (includes screws)	764622-001
15.6 WLED AG full HD SVA (includes screws)	764623-001
15.6 WLED AG full HD Touchscreen with bezel flat display panel (includes screws)	766687-001
17.3 WLED AG HD Touchscreen flat display panel flat display panel (includes screws)	766903-001
17.3 WLED AG BrightView HD flat display panel (includes screws)	766904-001
17.3 WLED AG full HD flat display panel (includes screws)	766905-001
17.3 WLED AG Touchscreen full HD flat display panel (includes screws)	766906-001
Antenna Kit (includes left and right wireless antenna cables and transceivers and screws) for HP Pavilion 15 Notebook PC	762518-001
Antenna Kit (includes left and right wireless antenna cables and transceivers and screws) for HP Pavilion 17 Notebook PC	763568-001
Antenna Kit (includes left and right wireless antenna cables and transceivers and screws) for HP Pavilion 17 Notebook PC	763691-001
Antenna Kit, Touchscreen (includes left and right wireless antenna cables and transceivers and screws) for HP Pavilion 15 Notebook PC	763692-001
Display panel SXGA cable for non-Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 17 Notebook PC computer models	765785-001
Display panel SXGA cable for Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 17 Notebook PC computer models	765786-001
Display panel HD cable for non-Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 15 Notebook PC computer models	762519-001
Display panel full HD cable for Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 15 Notebook PC computer models	763590-001
Display panel full HD cable for non-Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 15 Notebook PC computer models	762544-001

Component	Spare part number
Display panel HD cable for non-Touchscreen models (includes webcamera/microphone module cable and screws) for HP Pavilion 15 Notebook PC computer models	763572-001
Display back cover (includes screws):	
For HP Pavilion 17 Notebook PC	
Aqua blue finish, non-Touchscreen	765774-001
Natural silver finish	765775-001
Snow white finish, non-Touchscreen	765773-001
Vibrant red finish, non-Touchscreen	765776-001
Neon purple finish, non-Touchscreen	777194-001
Aqua blue finish, Touchscreen	765778-001
Natural silver finish, Touchscreen	765779-001
Snow white finish, Touchscreen	765777-001
Vibrant red finish, Touchscreen	765780-001
Neon purple finish, Touchscreen	777195-001
Twinkle black, Touchscreen	792334-001
Neon purple Touchscreen for use with AMD processors	793827-001
Neon purple, non-Touchscreen for use with AMD processors	794676-001
Neon purple, non-Touchscreen for use with AMD processors	794676-001
For HP Pavilion 15 Notebook PC	
Aqua blue finish, non-Touchscreen	762511-001
Natural silver finish, non-Touchscreen	762508-001
Snow white finish, non-Touchscreen	762509-001
Vibrant red finish, non-Touchscreen	762510-001
Neon purple finish, non-Touchscreen	779639-001
Aqua blue finish, Touchscreen	762517-001
Natural silver finish, Touchscreen	762514-001
Snow white finish, Touchscreen	762515-001
Vibrant red finish, Touchscreen	762516-001
Neon purple finish, Touchscreen	778263-001
Twinkle black Touchscreen	790017-001
Neon Pink, non-Touchscreen	778259-001
Neon Pink, Touchscreen	778260-001
Twinkle black, Touchscreen	792436-001
Webcamera/Microphone	

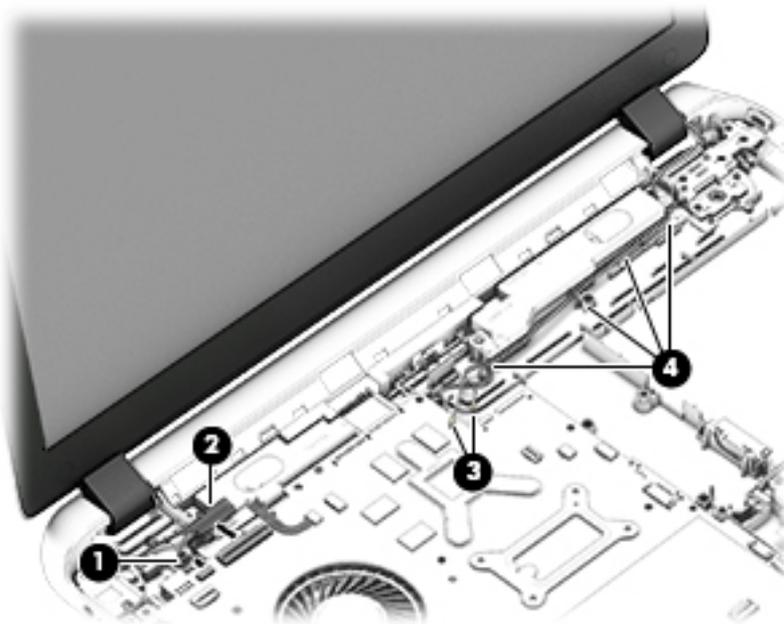
Component	Spare part number
Webcamera/microphone module (includes adhesive and screws)	762521-001
Webcamera/microphone module, Touchscreen (includes adhesive and screws)	762545-001

Before removing the display panel, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)).
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).

Remove the display panel:

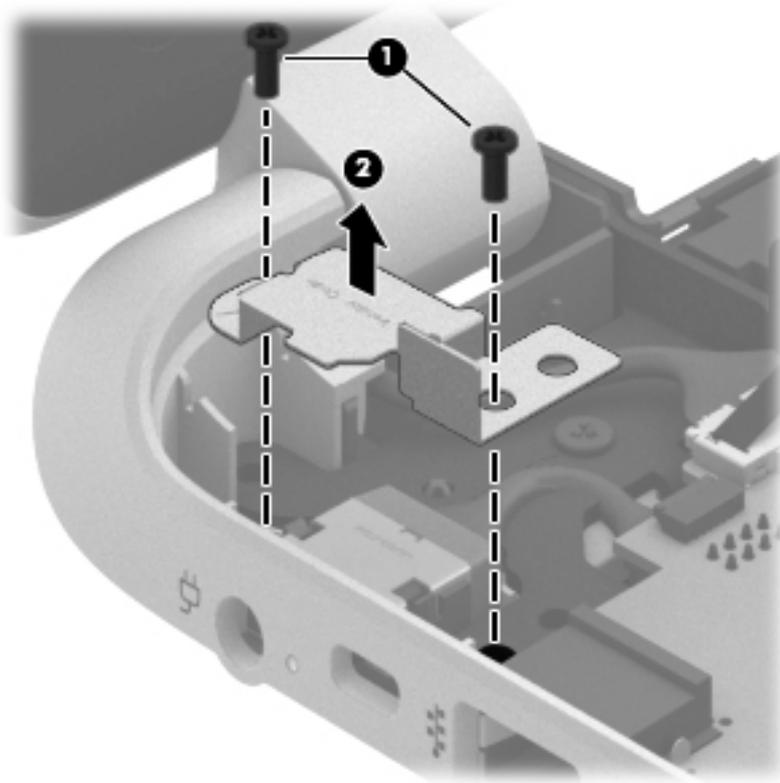
1. Open the computer.
2. Disengage the display cable **(1)** and disconnect the display connector **(2)** on the left side base of the display panel.
3. On the right side, disconnect the WLAN cable **(3)** and carefully remove the cable from the retaining tabs **(4)**.



4. Remove the power connector cover by removing the Phillips screw **(1)** and lifting the cover **(2)**.

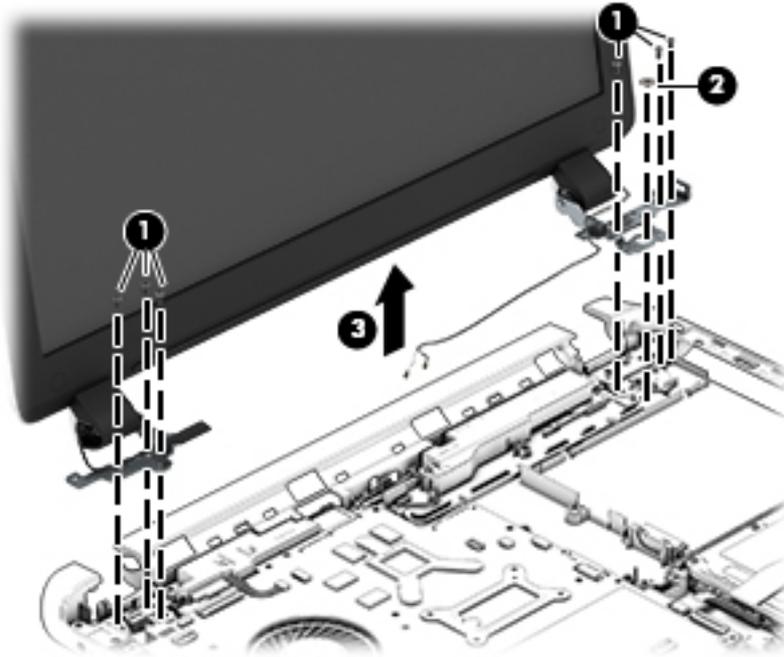
 **NOTE:** The power connector cover has two screws, however, the screw on the left is removed during the base enclosure and top cover removal process. Removing the cover is required for the display panel removal.

 **NOTE:** You will remove the power connector after you have removed the system board. This procedure is to remove the power connector cover.

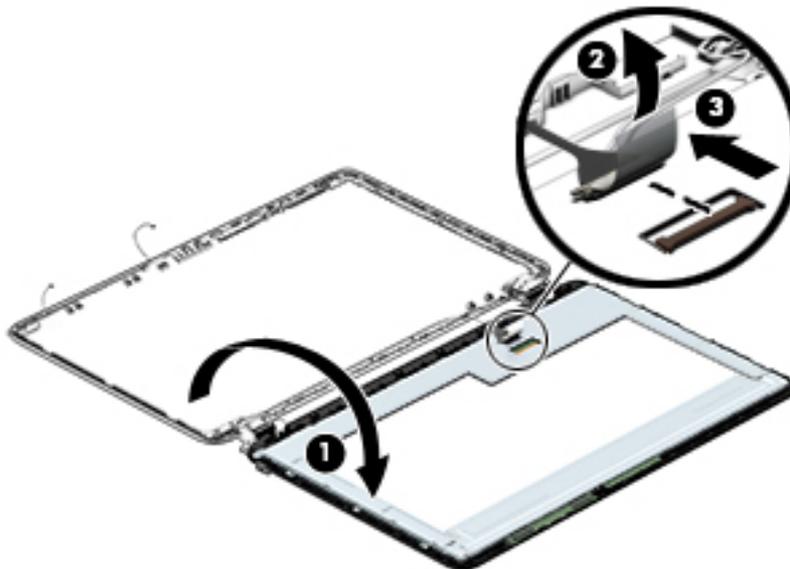


5. Remove the six Phillips screws **(1)** on the left and one broadhead screw **(2)** on the right side base of the display panel. Lift the panel up **(3)**.

 **NOTE:** Support the display panel as you are removing the screws.

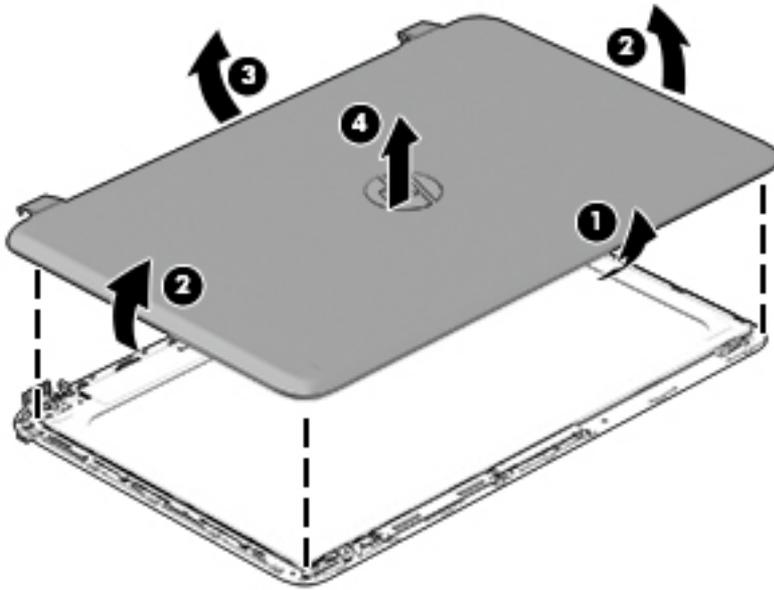


6. Open the panel cover **(1)**, swivel the display panel hinges **(2)** on both sides and then tilt up the display panel hinge **(3)** to release it.



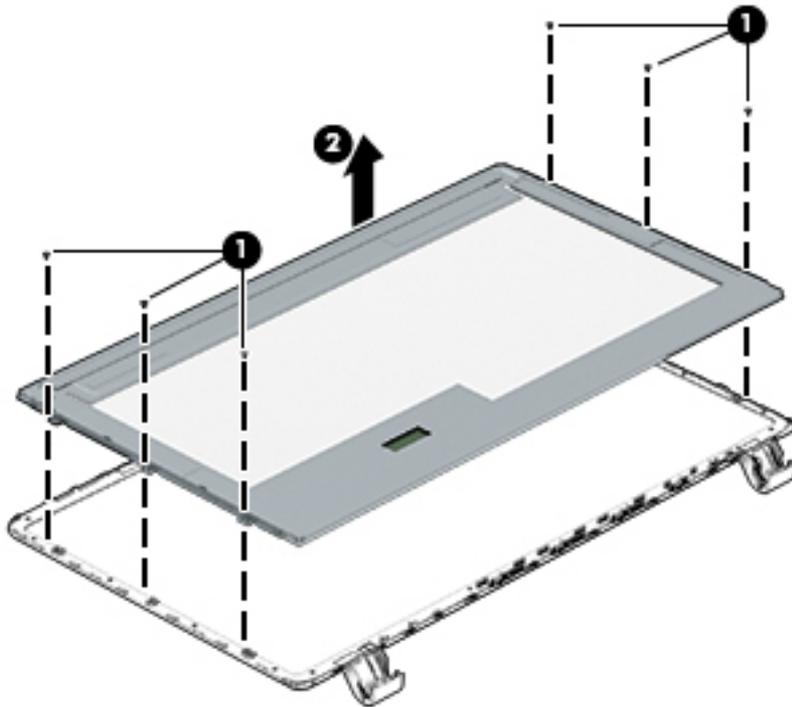
7. Loosen the edges of the back cover **(1)**, **(2)**, and **(3)** from all four sides of the display bezel and lift the display panel **(4)**.

 **NOTE:** Use a sharp probe to pop the covers out to avoid scratching the bezel.



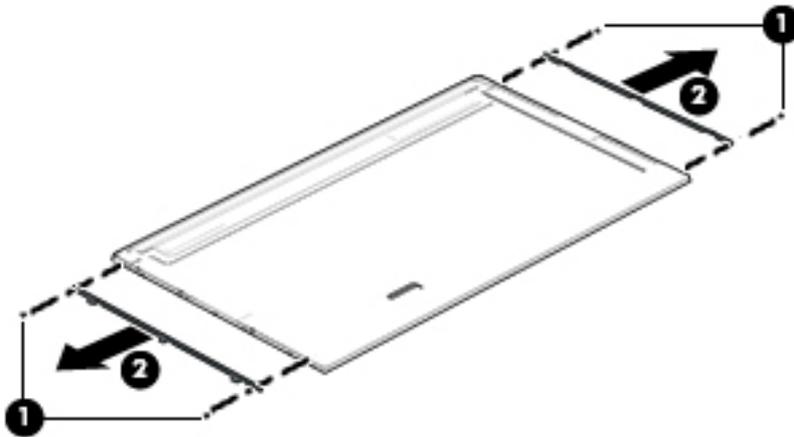
8. To remove the raw panel, remove the six Phillips screws **(1)** and any adhesive that secures the display panel to the back cover and lift the display panel **(2)** carefully.

 **NOTE:** Depending on your specific model, some computers only have four display panel screws.



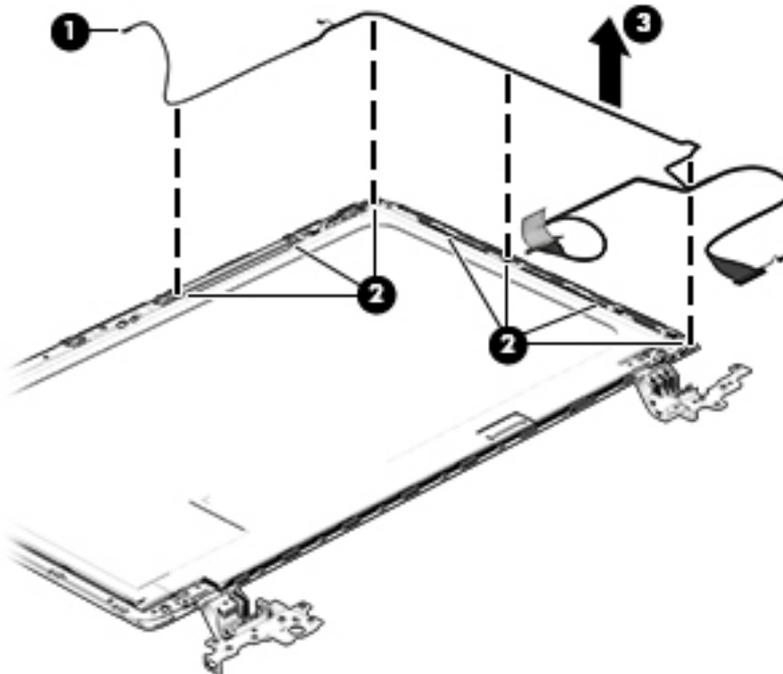
9. Remove the display panel side bracket (select models only) by removing the four Phillips screws **(1)** and releasing the side bracket **(2)**.

 **NOTE:** If your computer model does not have side brackets, skip to the next step.

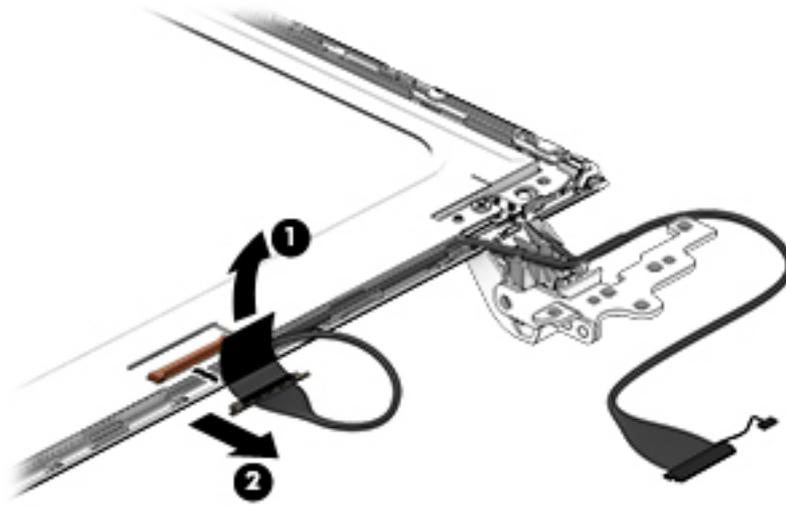


10. If it is necessary to remove the display panel cable or access the webcam and microphone, follow these steps. With the display bezel upside down, disconnect the cable from the webcam/microphone **(1)** and from the routing channel built into the back cover.

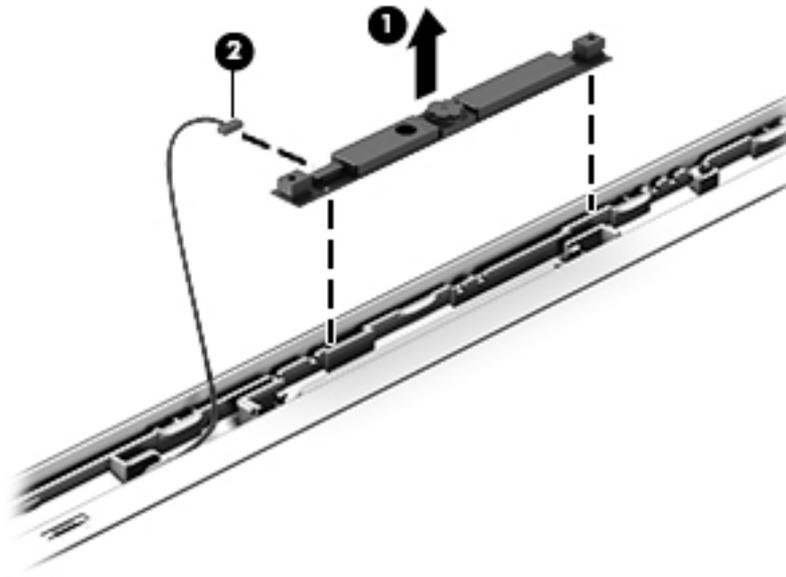
Carefully release the cable from the channel guides, the guides in the display hinge, and remove the display panel cable **(2)**. Lift the cable **(3)** to remove it.



11. On select models, removing the cable also requires disengaging it from the channels in the hinges and disconnecting from the display panel. To disconnect the cable from the display panel, carefully remove the foil tape at the bottom of the display panel and then carefully lift the display cable connector (1) and remove the display connector (2).

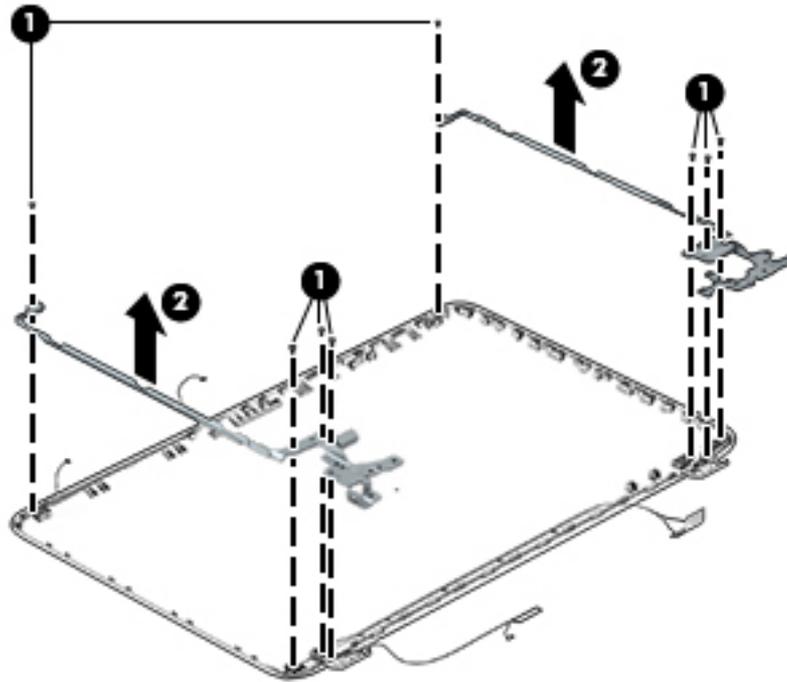


12. If it is necessary to replace the webcam/microphone perform the following: Lift the module (1) from the adhesive holding it in place on the display bezel and disconnect the module connector (2) if you have not already done so when removing the display cable.

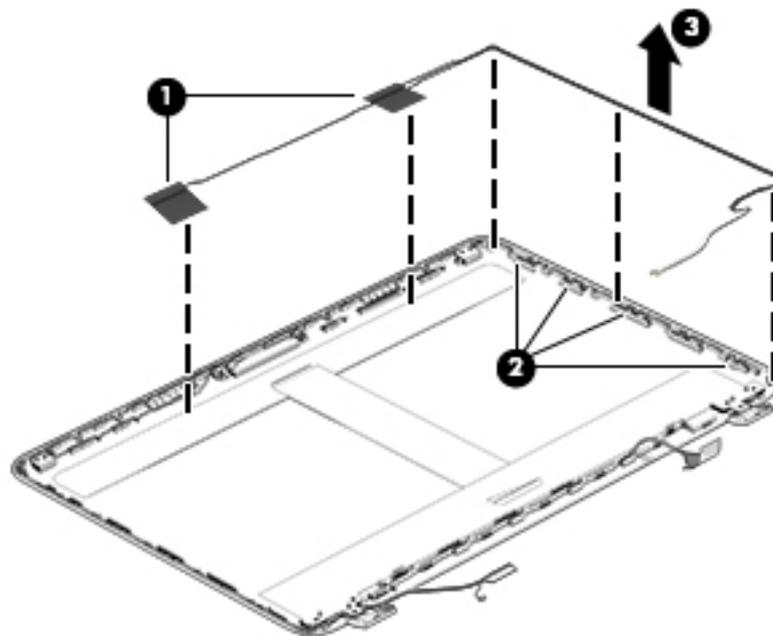


13. If it is necessary to replace the WLAN antenna cable, follow these procedures:
 - a. Position the display back cover face up.

- b. Remove the display brackets by removing the eight Phillips and broadhead screws (1) securing the hinge brackets to the back cover, and then lift the brackets (2) to remove them.



- c. Release the wireless antenna transceivers (1) from the display bezel. (The wireless antenna transceivers are attached to the display bezel with double-sided tape.)
- d. Remove the wireless antenna from the retaining channels (2), and lift the antenna (3)



Reverse this procedure to install the display panel.

WLAN module

Description	Spare part number
Realtek RT8188EE 802.11 bgn 1x1 Wi-Fi adapter, for use only on computer models equipped with Intel processors for HP Pavilion 17 and 15 Notebook PC computer models	709848-005
Broadcom BCM43142 802.11 bgn 1x1 Wi-Fi + BT4.0 HMC combo adapter, for use only on computer models equipped with Intel processors for HP Pavilion 17 and 15 Notebook PC computer models available for Windows 10	753076-005
Intel Dual Band Wireless-AC 3160 802.11 ac 1x1 WiFi + BT 4.0 combo adapter, for use only on computer models equipped with Intel processors for HP Pavilion 17 and 15 Notebook PC computer models	710662-005
Realtek RT8723BE 802.11bgn 1x1 Wi-Fi + BT4.0 Combo Adapter for HP Pavilion 17 Notebook PC computer models available for Windows 10	753077-005
RTL8188EE 802.11BGN 1x1 available for Windows 10	709848-005
Broadcom BCM 4352 WLAN 802.11 AC+BT4 2x2 HMC for HP Pavilion 15 AMD computer models available for Windows 10	724935-005
Intel Dual Band Wireless-AC 3160 802.11 ac 1x1 WiFi + BT 4.0 Combo Adapter for HP Pavilion 17 and 15 Notebook PC	784638-005

 **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. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)).
5. Remove the optical drive.
6. Remove the base enclosure and top cover (see [Base enclosure on page 46](#)).

Remove the WLAN module:

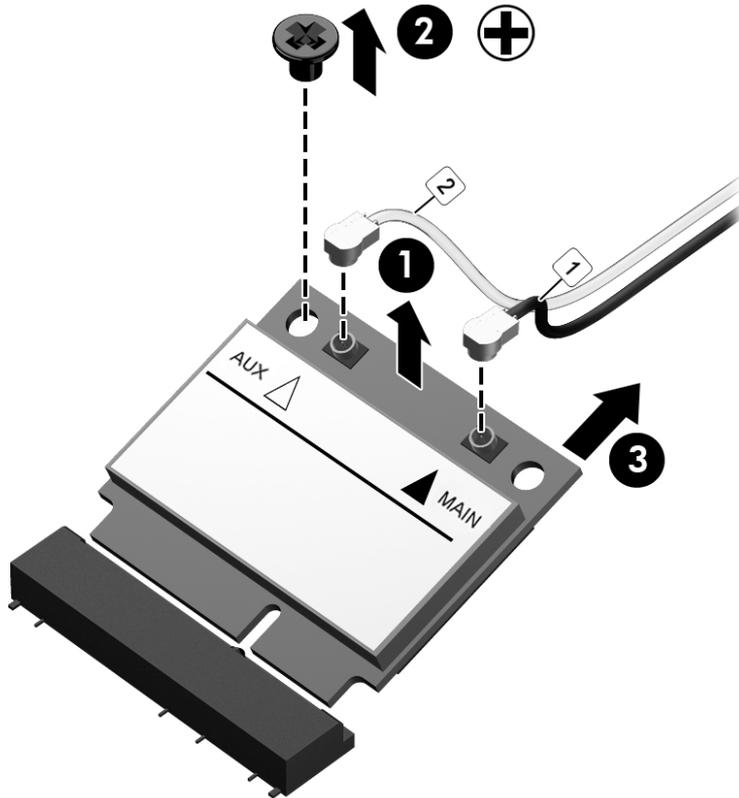
1. Disconnect the #1 and #2 WLAN antenna cables from the WLAN module **(1)** if you have not already done so to remove the display panel.

 **NOTE:** The WLAN module may have two screws depending on the model.

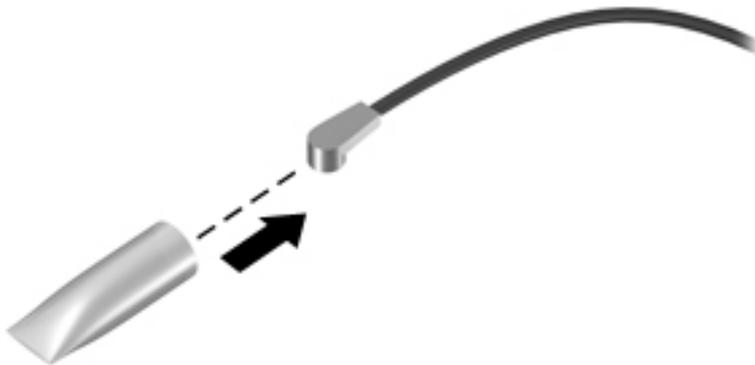
 **NOTE:** The #1 WLAN antenna cable is connected to the WLAN module #1 main terminal. The #2 WLAN antenna cable is connected to the WLAN module #2 auxiliary terminal.

2. Remove the Phillips PM screw(s) **(2)** that secure the WLAN module to the system board. (The WLAN module tilts up.)

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



 **NOTE:** If the WLAN antennas are not connected to the terminals on the WLAN module, the protective sleeves must be installed on the antenna connectors, as shown in the following illustration.



TouchPad button board

Description	Spare part number
For HP Pavilion 15 Notebook PC Intel computer models	
In Ano silver	762506-001
In ash silver	762525-001
For HP Pavilion 15 Notebook PC AMD computer models	
In Ano silver	781767-001
In ash silver	781768-001
For HP Pavilion 17 Notebook PC Intel computer models	
In ash silver	765792-001
In natural silver	767059-001
For HP Pavilion 17 Notebook PC AMD computer models	
In Ano Silver	781764-001
In Ash Silver	781765-001

Before removing the TouchPad button board, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)).
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).

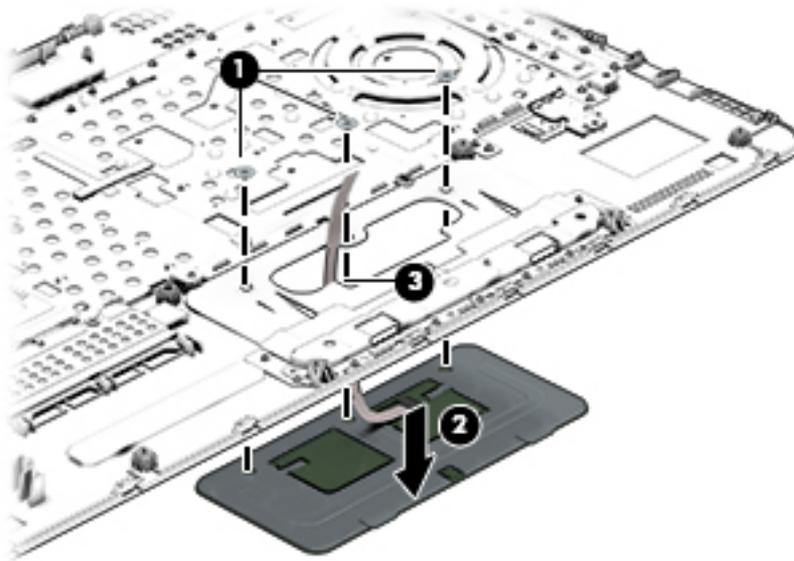
Remove the TouchPad button board:

1. Turn the top cover upside down, with the front toward you.
2. Remove the two broadhead screws **(1)** that secure the TouchPad button board bracket to the top cover.



NOTE: Some models may have three screws for the TouchPad button board **(1)**.

3. Remove the TouchPad board by carefully pushing the TouchPad down **(2)** and routing the cable through the opening **(3)** (the cable was disconnected earlier from the top cover).



Reverse this procedure to install the TouchPad button board.

Battery Board (select models only)

Description	Spare part number
Battery board for HP Pavilion 17 Notebook PC	763710-001

The battery board is for select HP Pavilion 17 Notebook PC computer models.

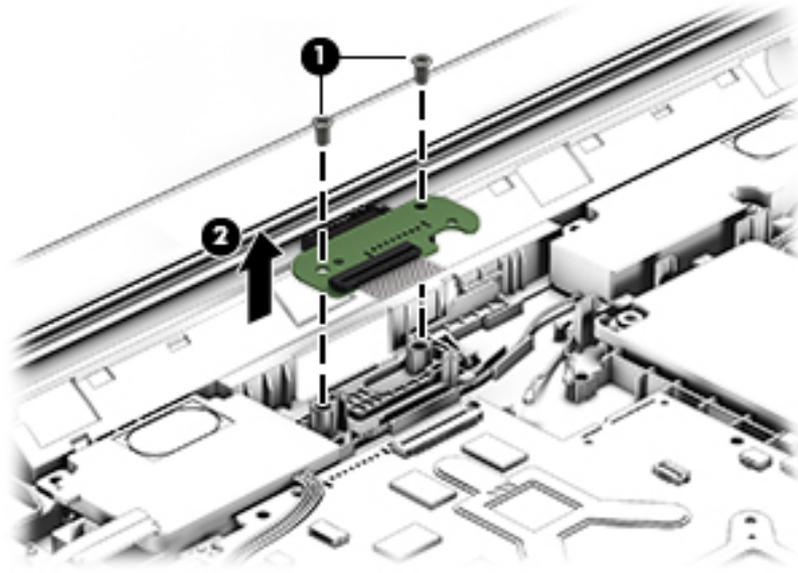
Before removing the battery board, follow these steps:

1. Disconnect all external devices connected to the computer.
2. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
3. Remove the battery (see [Battery on page 42](#)).
4. Remove the optical drive.
5. Remove the base enclosure and top cover (see [Base enclosure on page 46](#)).

Remove the battery board:

1. Turn the computer, with the front edge toward you.
2. Remove the two screws **(1)**.

3. Lift the battery board **(2)** to remove it.



Reverse this procedure to install the battery board.

Optical drive connector



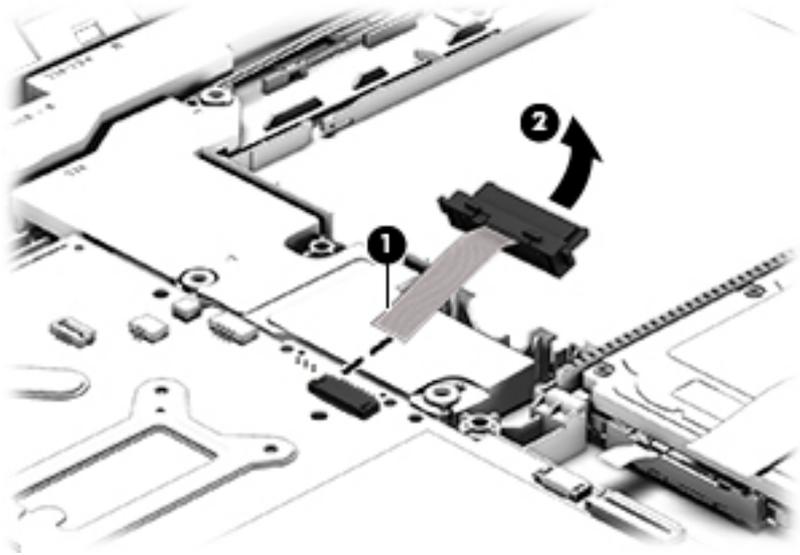
NOTE: The optical drive connector and cable are included in the optical drive spare part kit. (See the Optical drive removal for more information for the spare part kit information.)

Before removing the optical drive connector board, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)).
5. Remove the optical drive.
6. Remove the base enclosure and top cover (see [Base enclosure on page 46](#)).

Remove the optical drive connector board:

- ▲ Disconnect the cable from the ZIF connector **(1)**, and then disconnect the optical drive connector **(2)** from the tabs to remove it.



Reverse this procedure to install the optical drive connector board.

USB board

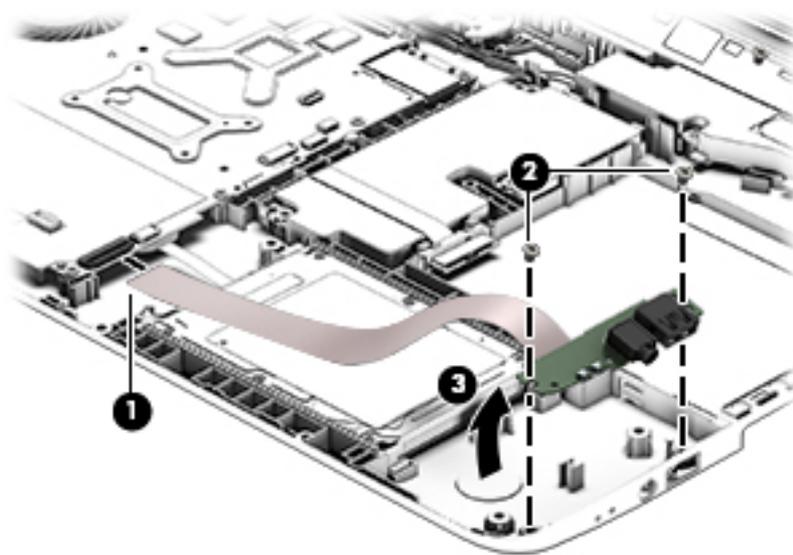
Description	Spare part number
USB board for use with HP Pavilion 17 Notebook PC computer models	767120-001
USB board for use with HP Pavilion 15 Notebook PC computer models	762497-001

Before removing the USB board, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)).
5. Remove the optical drive.
6. Remove the base enclosure and top cover (see [Base enclosure on page 46](#)).

Remove the USB board and cables:

1. Disconnect the USB cable from the ZIF connector **(1)**.
2. Remove the Phillips screw securing the USB board **(2)**, and lift the USB board **(3)** to remove it.



Reverse this procedure to install the USB board and cables.

Hard drive

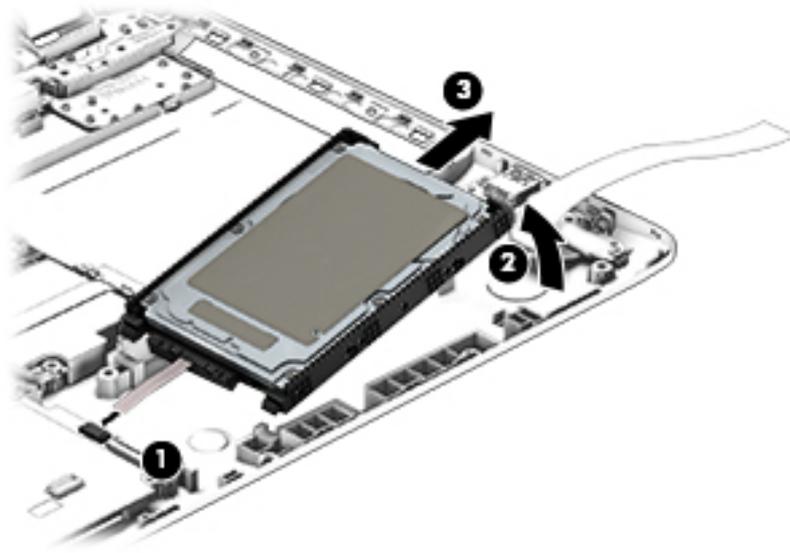
Description	Spare part number
1 TB, 5400 rpm, 9.5 mm	778192-005
750 GB, 5400 rpm, 9.5 mm	778190-005
500 GB 5400 rpm 9.5 mm	778188-005
500 GB 5400 rpm 7 mm hybrid	732000-005
1 TB, 5400 rpm 9.5 mm	731999-005
750 GB 5400 rpm + 8 GB NAND hybrid, 9.5 mm	732001-005
1.5 TB, 5400 rpm 9.5 mm for HP Pavilion 15 Notebooks and AMD computers only	747375-005
Hard Drive Hardware Kit , for HP Pavilion 17 Notebook PC	773501-001
Hard Drive Hardware Kit , for HP Pavilion 15 Notebook PC	762504-001

Before removing the hard drive, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)).
5. Remove the optical drive.
6. Remove the base enclosure and top cover (see [Base enclosure on page 46](#)).
7. Remove the USB connector cable (see [USB board on page 68](#)).

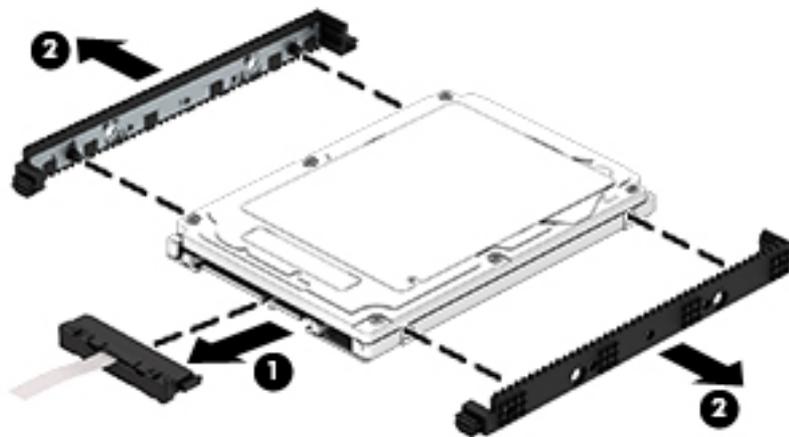
Remove the primary hard drive:

- ▲ Disconnect the hard drive cable from the system board **(1)**, and then tilt the hard drive **(2)** and lift to remove it **(3)**.



If it is necessary to disassemble the hard drive:

- ▲ Remove the hard drive cable (1), and then remove the hard drive bracket (2).



Reverse these procedures to reassemble and install the hard drive.

System board

 **NOTE:** The system board spare part kit includes replacement thermal material.

Description	Spare part number
For computer models equipped with Intel processors and UMA graphics	
Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	767417-001
Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	767417-501
Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	767418-001

Description	Spare part number
Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	767418-501
Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782931-001
Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782931-501
Intel Core i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782931-601
Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782932-001
Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782932-501
Intel Core i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782932-601
Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	787515-001
Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Standard HP Pavilion 17 Notebook PC	787515-501
Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Professional HP Pavilion 15 Notebook PC	787515-601
Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	787484-001
Intel Pentium N3540, 2.16 turbo up to 2.66 GHz (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Standard HP Pavilion 15 Notebook PC	787484-501
Intel Celeron N2840 (2.16 up to 2.58 GHz) 1333 MHz/2 MB L2, dual SDP 4.5 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	787485-001
Intel Celeron N2840 (2.16 up to 2.58 GHz) 1333 MHz/2 MB L2, dual SDP 4.5 W for use with Windows Standard HP Pavilion 17 Notebook PC	787485-501
Intel Core i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	799547-001
Intel Core i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	799547-501
Intel Core i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 15 Notebook PC	799547-601
Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	791471-001
Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	791471-501
Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	791472-001
Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	791472-501
For computer models equipped with Intel processors and discrete switchable graphics	

Description	Spare part number
Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	777102-001
Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	777102-501
Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	777103-001
Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	777103-501
Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	777104-001
Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	777104-501
Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	777106-001
Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	777106-501
Intel Core 830 M i3-4005U (1.7 GHz), 1600 MHz/2 MB L3, Dual 15 W available for FreeDOS and Ubuntu Linux,	779840-001
Intel Pentium 830 N3540, 2.16 turbo up to 2.66 GHz discrete processor (2 MB L2 cache, quad core, SDP 4.5 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	787516-001
Intel Pentium 830 N3540, 2.16 turbo up to 2.66 GHz discrete processor (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Standard HP Pavilion 15 Notebook PC	787516-501
Intel Pentium 830 N3540, 2.16 turbo up to 2.66 GHz discrete processor (2 MB L2 cache, quad core, SDP 4.5 W) for use with Windows Professional HP Pavilion 15 Notebook PC	787516-601
Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux	782933-001
Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782933-501
Intel Core 840M 4 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782933-601
Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782934-001
Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782934-501
Intel Core 840M 4 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782934-601
Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux for use with Windows Standard HP Pavilion 17 Notebook PC	782936-001
Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782936-501
Intel Core 840M 2 GB i7-5500U (2.4 GHz, SC turbo up to 3.0 GHz), 1600 MHz/4 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 15 Notebook PC	782936-601
Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782937-001

Description	Spare part number
Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782937-501
Intel Core 840M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782937-601
Intel Core 830M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782938-001
Intel Core 830M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782938-501
Intel Core 830M 2 GB i5-5200U (2.2 GHz, SC turbo up to 2.7 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782938-601
Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	782939-001
Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	782939-501
Intel Core 830M 2 GB i3-5005U (2.0 GHz), 1600 MHz/3 MB L3, Dual 15 W for use with Windows Professional HP Pavilion 17 Notebook PC	782939-601
For computer models equipped with AMD processors and UMA graphics	
AMD A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763420-001
AMD A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763420-501
AMD A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762527-001
AMD A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762527-501
AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763422-001
AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763422-501
AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762526-001
AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762526-501
AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763421-001
AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763421-501
AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762528-001
AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762528-501
EI-6010 (1.35 GHz, 1 MB L2), Dual 10 W, Max DDR3L-1333 for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763423-001

Description	Spare part number
EI-6010 (1.3 5 GHz, 1 MB L2), Dual 10 W, Max DDR3L-1333 for use with Windows Standard HP Pavilion 17 Notebook PC	763423-001
AMD A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763424-001
AMD A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763424-501
AMD A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	766714-001
AMD A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with Windows Standard HP Pavilion 15 Notebook PC	766714-501
AMD A4-6210 (1.8 GHz, 2 MB L2, 1600 MHz DDR3L), quad core, 15 W for use with Windows Standard HP Pavilion 17 Notebook PC	763421-001
A10-4655M (2.0 GHz, up to 2.8 GHz, 4 MB L2), Quad 25 W, Max DDR3L-1333 for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	800233-001
A10-4655M (2.0 GHz, up to 2.8 GHz, 4 MB L2), Quad 25 W, Max DDR3L-1333 for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	800233-501
A10-4655M (2.0 GHz, up to 2.8 GHz, 4 MB L2), Quad 25 W, Max DDR3L-1333	799508-001
A10-4655M (2.0 GHz, up to 2.8 GHz, 4 MB L2), Quad 25 W, Max DDR3L-1333 for use with Windows Standard HP Pavilion 17 Notebook PC	799508-501
For computer models equipped with AMD processors and Discrete graphics	
AMD M260 A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763425-001
AMD M260 A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763425-501
AMD M260 A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762532-001
AMD M260 A6-6310 (2.4 GHz/1.8 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762532-501
AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763427-001
AMD A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763427-501
AMD M260 A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	762531-001
AMD M260 A8-6410 (2.4 GHz/2.0 GHz, 2 MB L2, 1600 MHz DDR3L, quad core, 15 W) for use with Windows Standard HP Pavilion 15 Notebook PC	762531-501
AMD M260 A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 17 Notebook PC	763428-001
AMD M260 A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with Windows Standard HP Pavilion 17 Notebook PC	763428-501
AMD M260 A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	766715-001
AMD M260 A10-5745M (2.9 GHz/2.1 GHz, 4 MB L2, 1333 MHz DDR3L, quad core, 25 W) for use with Windows Standard HP Pavilion 15 Notebook PC	778258-001

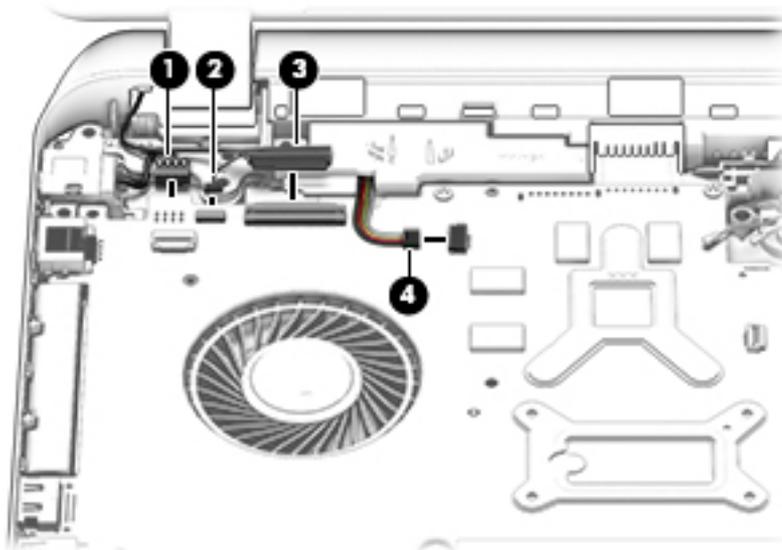
Description	Spare part number
AMD A10-7300 (1.9 GHz, up to 3.2 GHz, 2 MB L2), quad core 19 W, Max DDR3L-1600 for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	778258-501
AMD A10-7300 (1.9 GHz, up to 3.2 GHz, 2 MB L2), quad core 19 W, Max DDR3L-1600 for use with FreeDOS and Ubuntu Linux HP Pavilion 15 Notebook PC	790770-001
AMD A10-7300 (1.9 GHz, up to 3.2 GHz, 2 MB L2), quad core 19 W, Max DDR3L-1600 for use with Windows Standard HP Pavilion 15 Notebook PC	790770-501

Before removing the system board, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)),
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).
7. Remove the WLAN module (see [WLAN module on page 62](#)).

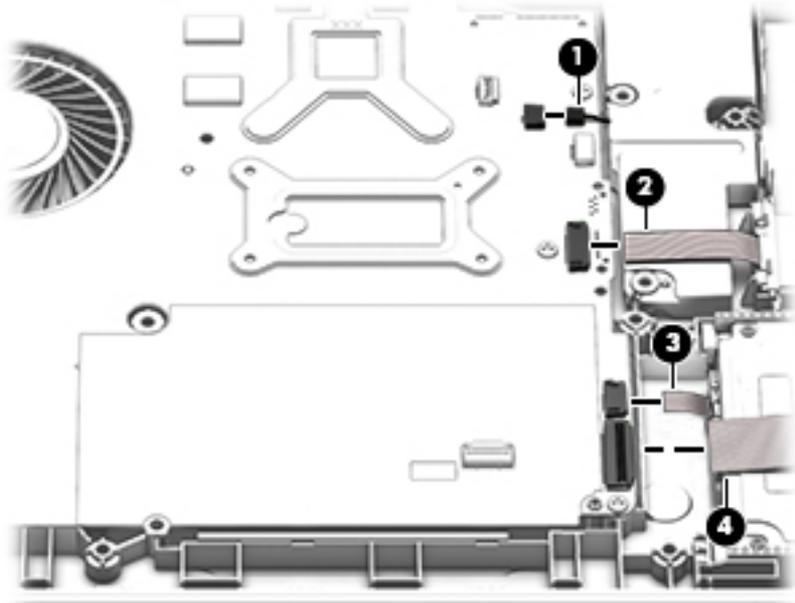
Remove the system board:

1. Remove the following cables if you have not already done so:
 - Power connector board cable **(1)**
 - Display cables **(2), and (3)**
 - Speaker cable **(4)**



2. Disconnect the following cables if you have not already done so:

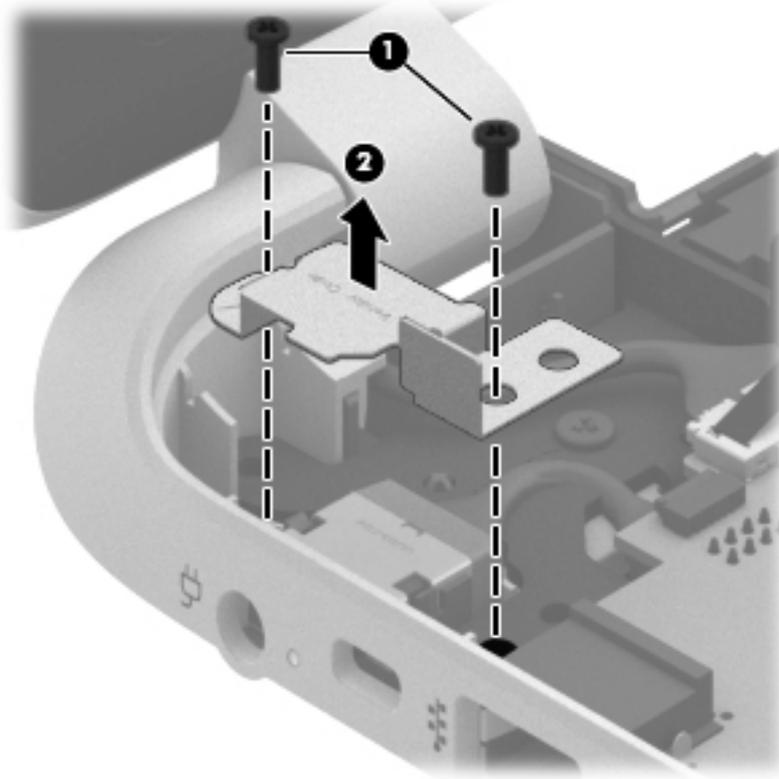
- Subwoofer cable (1)
- Optical drive cable (2)
- Hard drive cable (3)
- USB connector cable (4)



3. Remove the power connector cover by removing the screw(s) **(1)** and lifting the cover **(2)**.

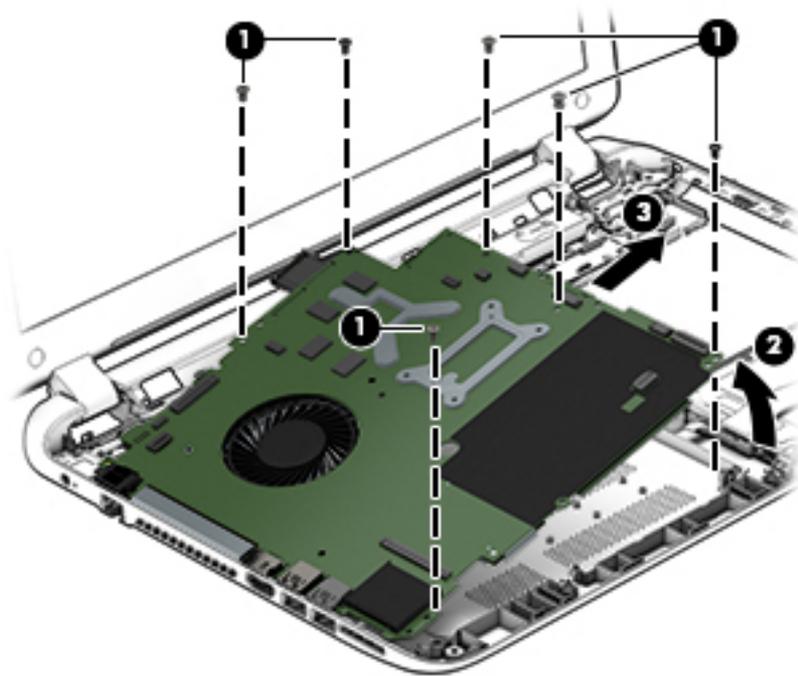
 **NOTE:** The power connector cover has two screws, however, the screw on the left is removed during the base enclosure and top cover removal process.

 **NOTE:** You will remove the power connector after you have removed the system board. This procedure is to remove the power connector cover if did not remove it when removing the display panel.



4. Remove the six Phillips screws **(1)**.

- Lift the system board (2), and then remove the system board (3) by sliding it up and to the right at an angle.



Reverse this procedure to install the system board.

Solid State Drive

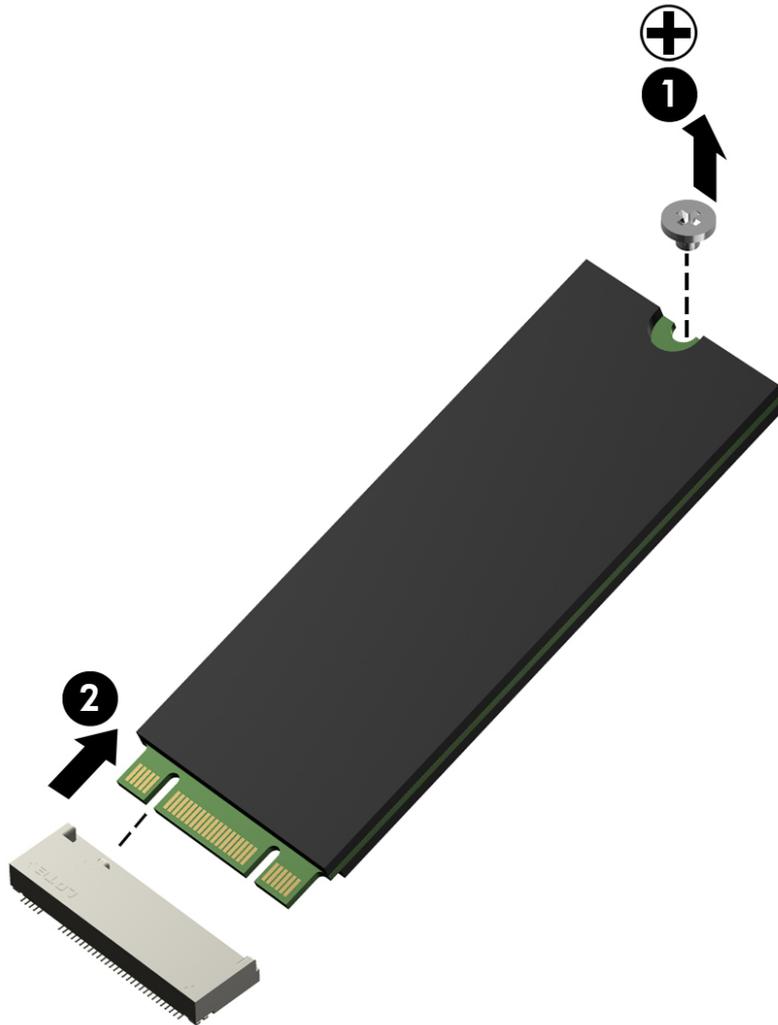
Description	Spare part number
256 GB mSATA solid-state drive MLC (not pictured) available on select models	766593-001
256 GB mSATA solid-state drive TLC (not pictured)	766594-001

Before removing the solid state drive, follow these steps:

- 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.
- Disconnect all external devices connected to the computer.
- Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
- Remove the battery (see [Battery on page 42](#)),
- Remove the optical drive (see [Optical drive connector on page 66](#)).
- Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).
- Remove the WLAN module (see [WLAN module on page 62](#)).
- Remove the system board (see [System board on page 70](#)).

Remove the solid-state drive:

1. Turn the system board upside down.
2. Remove the Phillips screw **(1)** that secures the solid-state drive to the system board. (The solid-state drive tilts up).
3. Remove the solid-state drive **(2)**.



Reverse this procedure to install the solid-state drive.

Speakers

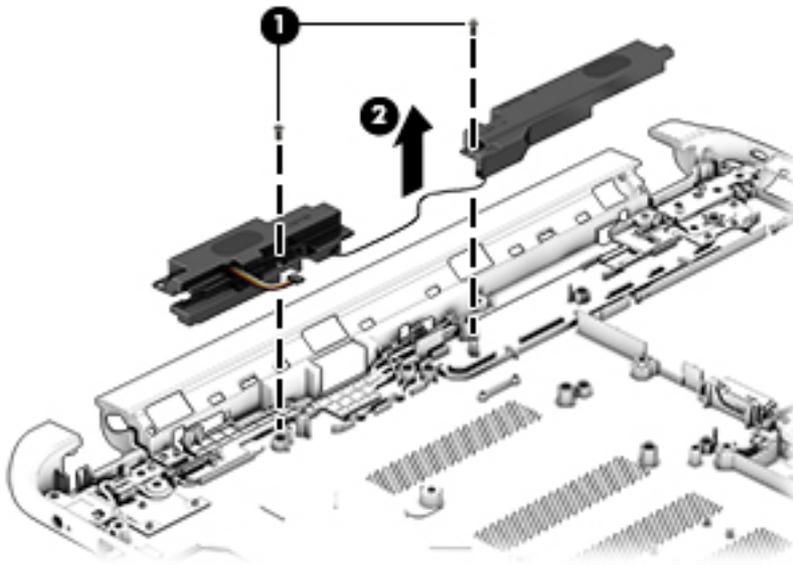
Description	Spare part number
Speaker Kit (includes left and right front speakers and cables) for HP Pavilion 17 Notebook PC computer models	763717-001
Speaker Kit (includes left and right front speakers and cables) for HP Pavilion 15 Notebook PC computer models	762502-001

Before removing the speakers, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)),
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).
7. Remove the WLAN module (see [WLAN module on page 62](#)).
8. Remove the system board (see [System board on page 70](#)).

Remove the speakers:

1. Turn the computer, with the front edge toward you.
2. Remove two screws (1).
3. Disengage the cables, and then remove the front speakers (2).



Reverse this procedure to install the speakers.

Memory modules

Description	Spare part number
2 GB memory module for use with HP Pavilion 17 computer models	691739-005
4 GB memory module for use with HP Pavilion 15 computer models and for use with HP Pavilion 17 computer models	691740-005
8 GB memory module for use with HP Pavilion 15 computer models	693374-005
2 GB memory module for use with HP Pavilion 15 computer models	652972-005
8 GB memory module for use with HP Pavilion 17 computer models	670034-005

Before removing a memory module, follow these steps:

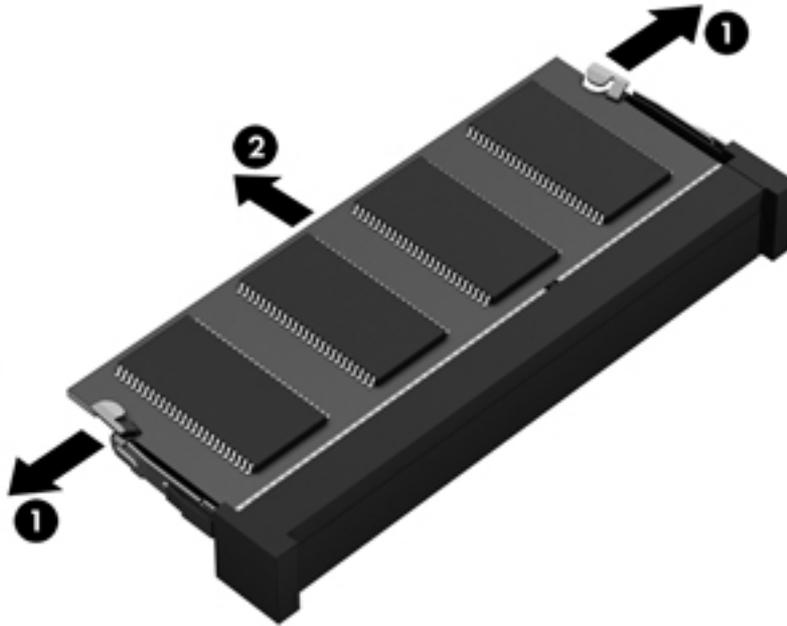
1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)),
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).
7. Remove the WLAN module (see [WLAN module on page 62](#)).
8. Remove the system board (see [System board on page 70](#)).

Remove the memory module:

1. Turn the system board over.
2. Spread the retaining tabs **(1)** on each side of the memory module slot to release the memory module. (The memory module tilts up.)

 **CAUTION:** To prevent damage to the memory module, hold it by the edges only. Do not touch the components on the memory module.

3. Slide the memory module forward **(2)** to remove it.



Reverse this procedure to install a memory module.

RTC battery

Description	Spare part number
RTC battery	697917-001

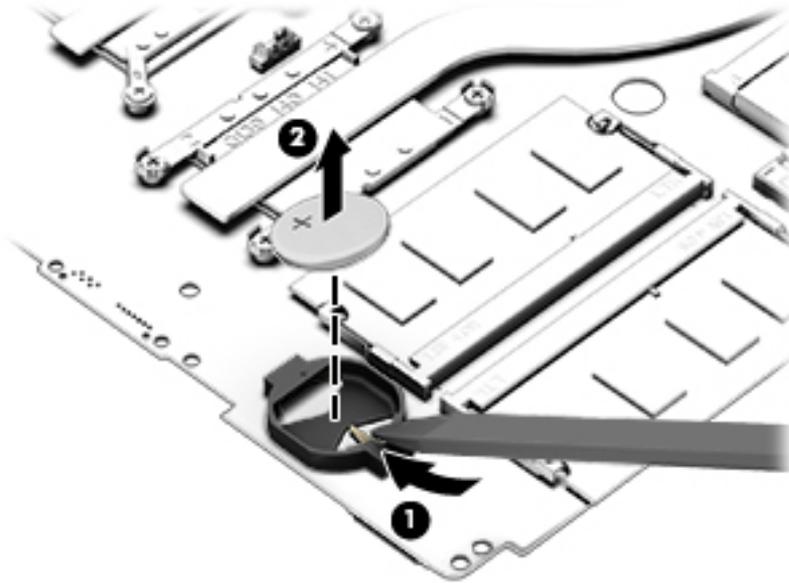
Before removing the RTC battery, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)),
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).
7. Remove the WLAN module (see [WLAN module on page 62](#)).
8. Remove the system board (see [System board on page 70](#)).

Remove the RTC battery:

1. Turn the system board upside down.

2. Use a thin, non-conductive tool to remove the RTC battery **(1)** from the socket on the system board.



Reverse this procedure to install the RTC battery on computer models. When installing the RTC battery, make sure the “+” sign faces up.

Power connector

Description	Spare part number
For use with HP Pavilion 15 Notebook PC computer models	762507-001
For use with HP Pavilion 17 Notebook PC computer models	763699-001

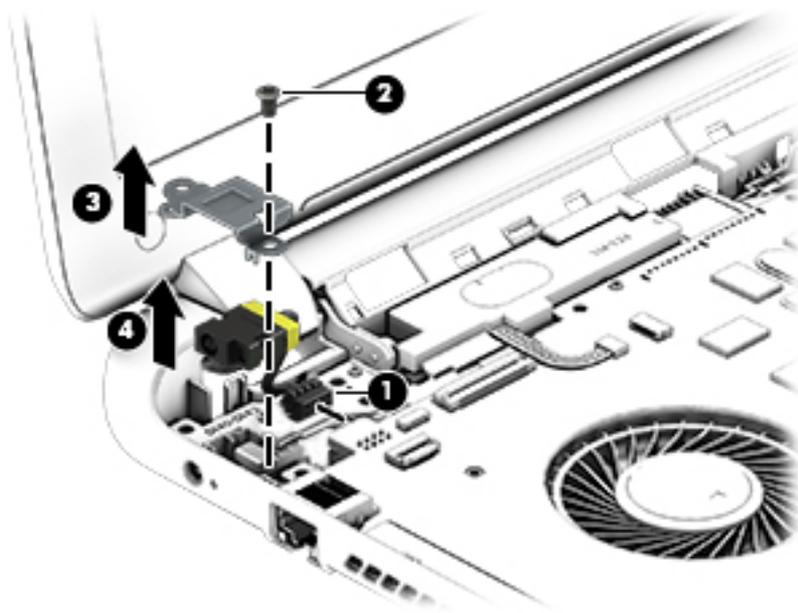
Before removing the power connector cable, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)),
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).
7. Remove the WLAN module (see [WLAN module on page 62](#)).
8. Remove the system board (see [System board on page 70](#)).

Remove the power connector cable:

 **NOTE:** The power connector cover was removed during the system board removal.

1. Release the metal clip to disconnect the power connector cable **(1)** from the system board.
2. Disengage the cable from the clips **(2)**.
3. Release the clips **(3)**, and then remove the power connector cable **(4)**.



Reverse this procedure to install the power connector cable and bracket.

Fan

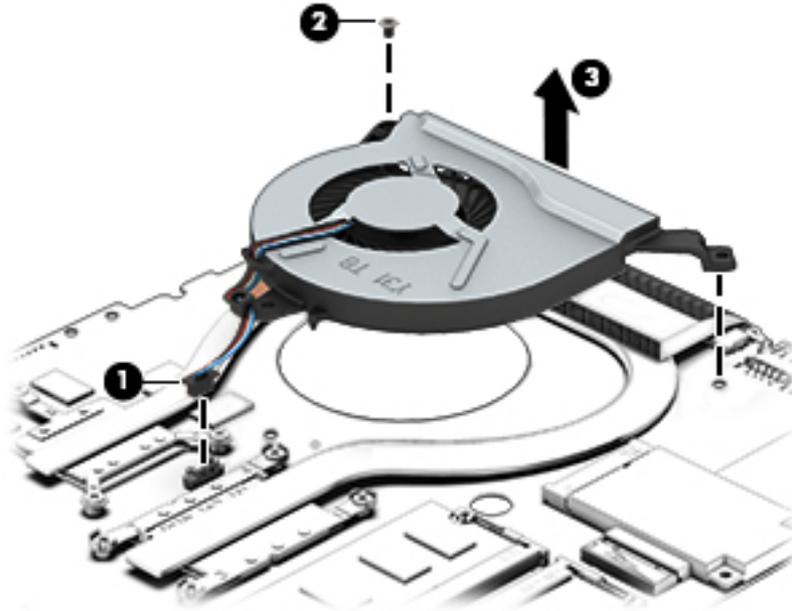
Description	Spare part number
For use with HP Pavilion 15 Notebook PC computer models	762505-001
For use with HP Pavilion 17 Notebook PC computer models	765788-001

Before removing the fan, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)),
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).
7. Remove the WLAN module (see [WLAN module on page 62](#)).
8. Remove the system board (see [System board on page 70](#)).

Remove the fan:

1. Turn the system board upside down.
2. Disconnect the fan cable from the system board, and then remove the piece of tape that secures the fan to the heat sink **(1)**.
3. Remove the 3 screws securing the fan to the unit **(2)** and lift the fan to remove it **(3)**.
4. Lift the fan **(4)** to remove it.



Reverse this procedure to install the fan.

Heat sink

Description	Spare part number
For use only on computer models equipped with AMD processors and UMA graphics 19 W for use with HP Pavilion 17 Notebook PC computer models	767339-001
For use only on computer models equipped with AMD processors and discrete graphics 19 W for use with HP Pavilion 17 Notebook PC computer models	767340-001
Intel processors and discrete graphics KVR for use with HP Pavilion 15 Notebook PC computer models for use with HP Pavilion 17 Notebook PC computer models	795096-001
For use only on computer models equipped with AMD processors and UMA graphics 25 W for use with HP Pavilion 15 Notebook PC computer models:	764082-001
For use only on computer models equipped with AMD processors and UMA graphics 19 W for use with HP Pavilion 17 Notebook PC computer models:	767339-001
For use only on computer models with Intel processors discrete memory 19 W for use with HP Pavilion 17 Notebook PC computer models:	767340-001
For use only on computer models with Intel processors discrete memory 19 W for use with HP Pavilion 15 Notebook PC computer models	777250-001
For use only on computer models with Intel processors discrete memory 19 W for use with HP Pavilion 17 Notebook PC computer models	762524-001

Description	Spare part number
For use only on computer models equipped with AMD processors and discrete graphics 25 W for use with HP Pavilion 17 Notebook PC computer models	764083-001
Heat spreader for use with Intel computer models for use with HP Pavilion 17 Notebook PC computer models:	784982-001



NOTE: To properly ventilate the computer, allow at least 7.6 cm (3 in) of clearance on the left side of the computer. The computer uses an electric fan for ventilation. The fan is controlled by a temperature sensor and is designed to turn on automatically when high temperature conditions exist. These conditions are affected by high external temperatures, system power consumption, power management/battery conservation configurations, battery fast charging, and software requirements. Exhaust air is displaced through the ventilation grill located on the left side of the computer.

Before removing the heat sink, follow these steps:

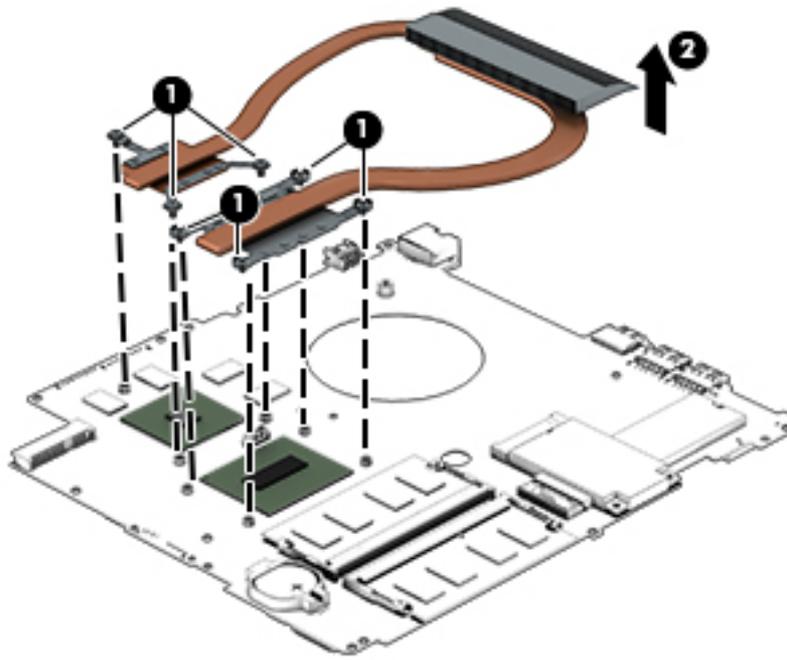
1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)),
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).
7. Remove the WLAN module (see [WLAN module on page 62](#)).
8. Remove the system board (see [System board on page 70](#)).
9. Remove the fan (see [Fan on page 84](#)).

Remove the heat sink:

- ▲ Loosen the seven captive screws in the order listed on the heat sink **(1)**, and then remove the heat sink **(2)**.



NOTE: The heat sink may vary by computer model and may have a different number of screws. The heat sink is marked with the order the screws should be removed in. Follow the order shown.



 **NOTE:** There is thermal paste between the heat sink and the processor.

Reverse this procedure to install the heat sink.

Power button board

Description	Spare part number
Power button board (includes cable) For HP Pavilion 15 Notebook PC computer models	762496-001
Power button board (includes cable) For HP Pavilion 17 Notebook PC computer models	763708-001

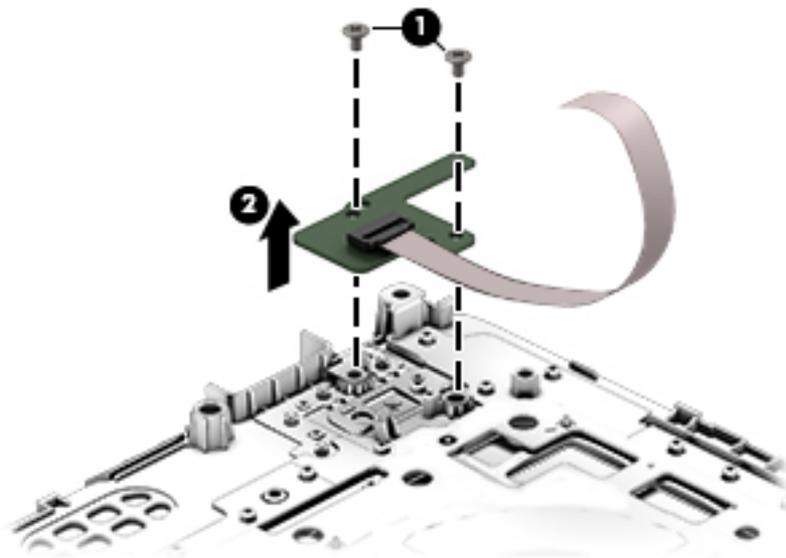
Before removing the Power button board, follow these steps:

1. 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.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 42](#)),
5. Remove the optical drive.
6. Remove the top cover from the base enclosure (see [Base enclosure on page 46](#)).
7. Remove the WLAN module (see [WLAN module on page 62](#)).
8. Remove the system board (see [System board on page 70](#)).

Remove the Power button board and cable:

1. Turn the top cover upside down, with the back edge toward you.
2. Remove the 2 Phillips screws securing the Power button board to the base enclosure **(1)**.
3. Remove the Power button board **(2)**.

 **NOTE:** The power button board's cable is attached to the base enclosure.



Reverse this procedure to install the Power button board.

7 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. The on-screen keyboard, which displays in tablet mode, cannot access Setup Utility.

Starting Setup Utility (BIOS)

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

 **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. The on-screen keyboard, which displays in tablet mode, cannot access Setup Utility.

- Computers or tablets with keyboards:
 - ▲ Turn on or restart the computer, quickly press **esc**, and then press **f10**.
- Tablets without keyboards:
 1. Turn on or restart the tablet, and then quickly hold down the volume down button.
- or -
Turn on or restart the tablet, and then quickly hold down the Windows button.
 2. Tap **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*):

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

Click the question mark icon in the taskbar.

2. Select **My PC**, and then select **Specifications**.

– or –

- ▲ Use Setup Utility (BIOS).

To use Setup Utility (BIOS):

1. Start Setup Utility (BIOS) (see [Starting Setup Utility \(BIOS\) on page 89](#)).
2. Select **Main**, select System Information, and then make note of the BIOS version.
3. Select **Exit**, select **No**, and then follow the on-screen instructions.

To check for later BIOS versions, see [Downloading a BIOS update on page 90](#).

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 –

Click the question mark icon in the taskbar.

2. Click **Updates**, and then click **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. Click 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.

Synchronizing a tablet and keyboard (select products only)

For a tablet with a detachable keyboard, when you attach the tablet to the keyboard and restart the computer, Setup Utility (BIOS) checks to see if the Embedded Controller firmware on the keyboard needs to be synchronized. If so, synchronization begins. If the synchronization is interrupted, a notification screen displays for 10 seconds before the tablet restarts and attempts to synchronize again.



NOTE: The Embedded Controller firmware will synchronize **ONLY** if the tablet or keyboard battery is more than 50% charged, or if your tablet is connected to AC power.

8 Using HP PC Hardware Diagnostics (UEFI)

HP PC Hardware Diagnostics is a Unified Extensible Firmware Interface (UEFI) that 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.



NOTE: To start BIOS on a convertible computer, your computer must be in notebook mode and you must use the keyboard attached to your tablet. The on-screen keyboard, which displays in tablet mode, cannot access BIOS.

To start HP PC Hardware Diagnostics UEFI:

1. Start BIOS:
 - Computers or tablets with keyboards:
 - ▲ Turn on or restart the computer, quickly press **esc**.
 - Tablets without keyboards:
 - ▲ Turn on or restart the tablet, and then quickly hold down the volume down button.
 - or -
 - Turn on or restart the tablet, and then quickly hold down the Windows button.

2. Press or tap **f2**.

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

- a. Connected USB drive



NOTE: To download the HP PC Hardware Diagnostics (UEFI) tool to a USB drive, see [Downloading HP PC Hardware Diagnostics \(UEFI\) to a USB device on page 92](#).

- b. Hard drive
- c. BIOS

3. When the diagnostic tool opens, select the type of diagnostic test you want to run, and then follow the on-screen instructions. On a tablet, press the volume down button to stop a diagnostic test.



NOTE: If you need to stop a diagnostic test on computers or tablets with a keyboard, press **esc**.

Downloading HP PC Hardware Diagnostics (UEFI) to a USB device

There are two options to download HP PC Hardware Diagnostics to a USB device:

Download the latest UEFI version:

1. Go to <http://www.hp.com/go/techcenter/pcdiags>. The HP PC Diagnostics home page is displayed.
2. In the HP PC Hardware Diagnostics section, click the **Download** link, and then select **Run**.

Download any version of UEFI for a specific product:

1. Go to <http://www.hp.com/support>, and then select your country. The HP Support page is displayed.
2. Click **Drivers & Downloads**.
3. In the text box, enter the product name, and then click **Go**.
– or –
Click **Find Now** to let HP automatically detect your product.
4. Select your computer, and then select your operating system.
5. In the **Diagnostic** section, follow the on-screen instructions to select and download the UEFI version you want.

9 Ubuntu Linux – Using Setup Utility (BIOS) and System Diagnostics

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 includes settings for the types of peripherals installed, the startup sequence of the computer, and the amount of system and extended memory.



NOTE: Use extreme care when making changes in Setup Utility. Errors can prevent the computer from operating properly.

Starting Setup Utility

- ▲ Turn on or restart the computer. While the computer is booting press `esc`. When the Startup menu is displayed, press `f10`.

Using Setup Utility

Changing the language of Setup Utility

1. Start Setup Utility.
2. Use the arrow keys to select **System Configuration > Language**, and then press `enter`.
3. Use the arrow keys to select a language, and then press `enter`.
4. When a confirmation prompt with your language selected is displayed, press `enter`.
5. To save your change and exit Setup Utility, use the arrow keys to select **Exit > Exit Saving Changes**, and then press `enter`.

Your change takes effect immediately.

Navigating and selecting in Setup Utility

Setup Utility does not support the TouchPad. Navigation and selection are by keystroke.

- To choose a menu or a menu item, use the arrow keys.
- To choose an item in a list or to toggle a field—for example an Enable/Disable field—use either the arrow keys or `f5` and `f6`.
- To select an item, press `enter`.
- To close a text box or return to the menu display, press `esc`.
- To display additional navigation and selection information while Setup Utility is open, press `f1`.

Displaying system information

1. Start Setup Utility.
2. Select the **Main** menu. System information such as the system time and date, and identification information about the computer is displayed.
3. To exit Setup Utility without changing any settings, use the arrow keys to select **Exit > Exit Discarding Changes**, and then press [enter](#).

Restoring factory default settings in Setup Utility

1. Start Setup Utility.
2. Use the arrow keys to select **Exit > Load Setup Defaults**, and then press [enter](#).
3. When the Setup Confirmation is displayed, press [enter](#).
4. To save your change and exit Setup Utility, use the arrow keys to select **Exit > Exit Saving Changes**, and then press [enter](#).

The Setup Utility factory settings take effect when the computer restarts.



NOTE: Your password, security, and language settings are not changed when you restore the factory settings.

Exiting Setup Utility

- To exit Setup Utility and save your changes from the current session:
If the Setup Utility menus are not visible, press [esc](#) to return to the menu display. Then use the arrow keys to select **Exit > Exit Saving Changes**, and then press [enter](#).
- To exit Setup Utility without saving your changes from the current session:
If the Setup Utility menus are not visible, press [esc](#) to return to the menu display. Then use the arrow keys to select **Exit > Exit Discarding Changes**, and then press [enter](#).

Updating the BIOS

Updated versions of the 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 determine whether available BIOS updates contain later BIOS versions than those currently installed on the computer, you need to know the version of the system BIOS currently installed.

BIOS version information (also known as *ROM date* and *System BIOS*) can be displayed by using Setup Utility.

1. Start Setup Utility.
2. If the system information is not displayed, use the arrow keys to select the **Main** menu.
BIOS and other system information is displayed.
3. To exit Setup Utility, use the arrow keys to select **Exit > Exit Discarding Changes**, and then press `enter`.

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, 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 Suspend or Hibernation.

Do not insert, remove, connect, or disconnect any device, cable, or cord.

1. Access the page on the HP website that provides software for your computer.
2. Follow the on-screen instructions to identify your computer and access the BIOS update you want to download.
3. At the download area, follow these steps:
 - a. Identify the BIOS update that is later than the BIOS version currently installed on your computer. 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.

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

BIOS installation procedures vary. Follow any instructions that are displayed on the screen after the download is complete.

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

Using Advanced System Diagnostics

Advanced System Diagnostics allows you to run diagnostic tests to determine if the computer hardware is functioning properly. The following diagnostic tests are available in Advanced System Diagnostics:

- **Start-up test**—This test analyzes the main computer components that are required to start the computer.
- **Run-in test**—This test repeats the start-up test and checks for intermittent problems that the start-up test does not detect.
- **Hard disk test**—This test analyzes the physical condition of the hard drive, and then checks all data in every sector of the hard drive. If the test detects a damaged sector, it attempts to move the data to a good sector.
- **Memory test**—This test analyzes the physical condition of the memory modules. If it reports an error, replace the memory modules immediately.
- **Battery test**—This test analyzes the condition of the battery and calibrates the battery if necessary. If the battery fails the test, contact support to report the issue and purchase a replacement battery.
- **System Tune-Up**—This group of additional tests checks your computer to make sure that the main components are functioning correctly. System Tune-Up runs longer and more comprehensive tests on memory modules, hard drive SMART attributes, the hard drive surface, the battery (and battery calibration), video memory, and the WLAN module status.

You can view system information and error logs in the Advanced System Diagnostics window.

To start Advanced System Diagnostics:

1. Turn on or restart the computer. While the computer is booting press **esc**. When the Startup menu is displayed, press **f2**.
2. Click the diagnostic test you want to run, and then follow the on-screen instructions.



NOTE: If you need to stop a diagnostics test while it is running, press **esc**.

10 Specifications

Computer specifications

	Metric	U.S.
Dimensions:		
Width for HP Pavilion 17 Notebook PC	41.95 cm	16.5 in
Width for HP Pavilion 15 Notebook PC	38.45 cm	15.9 in
Depth for HP Pavilion 17 Notebook PC	27.9 cm	10.7 in
Depth for HP Pavilion 15 Notebook PC	26.09 cm	10.3 in
Height for HP Pavilion 17 Notebook PC	2.67 cm	1.1 in
Height for HP Pavilion 15 Notebook PC	2.49 cm	1 in
Weight:		
NOTE: Actual weight varies by features.		
Height for HP Pavilion 17 Notebook PC	2.9 kg	6.0 lbs
Height for HP Pavilion 15 Notebook PC	2.44 kg	5.0 lbs
Input power		
Operating voltage and current	19.5 V dc @ 3.33 A – 65 W	
	19.5 V dc @ 4.62 A – 90 W	
	19.5 V dc @ 2.31 A – 45 W	
Temperature		
Operating (writing to optical disc)	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F
Relative humidity		
Operating	10% to 90%	
Nonoperating	5% to 95%	
Maximum altitude (unpressurized)		
Operating (14.7 to 10.1 psia)	-15 m to 3,048 m	-50 ft to 10,000 ft
Nonoperating (14.7 to 4.4 psia)	-15 m to 12,192 m	-50 ft to 40,000 ft
Shock		
Operating	125 g, 2 ms, half-sine	
Nonoperating	200 g, 2 ms, half-sine	
Random vibration		
Operating	0.75 g zero-to-peak, 10 Hz to 500 Hz, 0.25 oct/min sweep rate	

	Metric	U.S.
Nonoperating	1.50 g zero-to-peak, 10 Hz to 500 Hz, 0.5 oct/min sweep rate	

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

Display Specifications (17.3)

	Metric	U.S.
Dimensions		
Width	32.4 cm	12.8 in
Height	19.3 cm	7.6 in
Diagonal	35.56 cm	14.0 in
Number of colors	262K (6 bit)	
Contrast ratio	500:1 (typical)	
Brightness	200 cd/m ² (nits) (typical)	
Backlight	WLED	
Total power consumption	3.2 W (max)	
Viewing angle	±45° horizontal, +15° up & -35° down vertical (typical)	

Display Specifications (15.6-in)

	Metric	U.S.
Active diagonal size	39.6-cm	15.6-in
Resolution	1600x900 (HD+)	
Active area	309.399x173.952	
PPI	112	
Surface treatment	Anti-glare	
Contrast ratio	300:1 (typical)	
Response time	8 ms	
Brightness	200 nits (typical)	
Viewing angle	SVA	
Backlight	LED	
Luminance uniformity @ 13 points	1.4 (typ), 1.6 (max)	
Lifetime (1/2 luminance)	12,000 hours	
Color coordinate (white)	(0.313, 0.329)	
Color tolerance (White)	+/- 0.02	
Color tolerance (W, R, G, B)	+/- 0.03	
Color gamut	45% typical	

Hard drive specifications

	1.5 TB, 5400 rpm*	1 TB*	750 GB*	500 GB*
Dimensions				
Height	9.5 mm	9.5 mm	9.5 mm	7 mm
Width	70 mm	70 mm	70 mm	70 mm
Weight	107 g	107 g max	107 g max	107 g max
Interface type	SATA	SATA	SATA	SATA
Transfer rate	145 MB/sec	300 MB/sec	300 MB/sec	300 MB/sec
Security	ATA security	ATA security	ATA security	ATA security
Seek times (typical read, including setting)				
Single track	2.0 ms	1.5 ms	1.0 ms	1.5 ms
Average	12 ms	11.0 ms	14.0 ms	12.0 ms
Maximum	22 ms	22.0 ms	24.0 ms	22.0 ms
Logical blocks	2,930,277,168	1,953,525,168	1,465,128,359	976,752,240
Disk rotational speed	5400 rpm	5400 rpm	7200 and 5400 rpm	7200 and 5400 rpm
Operating temperature	5°C to 55°C (41°F to 131°F)			
*Size refers to hard drive storage capacity. Actual accessible capacity is less. Actual drive specifications may differ slightly.				
NOTE: Certain restrictions and exclusions apply. Contact support for details.				

DVD±RW SuperMulti Double-Layer Combination Drive specifications

Applicable disc	
Read	CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM
Write	CD-R and CD-RW, DVD+R, DVD+RW, DVD-R, DVD-RW, DVD-RAM
Random access time	
DVD	< 230 ms
CD	< 175 ms
Cache buffer	2 MB
Data transfer rate	
24X CD-ROM	3,600 KB/sec
8X DVD-ROM	10,800 KB/sec

24X CD-R	3,600 KB/sec
16X CD-RW	2,400 KB/sec
8X DVD+R	10,800 KB/sec
4X DVD+RW	5,400 KB/sec
8X DVD-R	10,800 KB/sec
4X DVD-RW	5,400 KB/sec
2.4X DVD+R(9)	2,700 KB/sec
5X DVD-RAM	6,750 KB/sec
Transfer mode	Multiword DMA Mode

11 Backing up, restoring, and recovering

This chapter provides information about the following processes. The information in the chapter is standard procedure for most products.

- Creating recovery media and backups
- Restoring and recovering your system

For additional information, refer to the HP support assistant app.

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

– or –

Click the question mark icon in the taskbar.



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 keyboard to the keyboard dock before beginning any recovery process.

Creating recovery media and backups

The following methods of creating recovery media and backups are available on select products only. Choose the available method according to your computer model.

- Use HP Recovery Manager to create HP Recovery media after you successfully set up the computer. This step creates a backup of the HP Recovery partition on the computer. The backup can be used to reinstall the original operating system in cases where the hard drive is corrupted or has been replaced. For information on creating recovery media, see [Creating HP Recovery media \(select products only\) on page 103](#). For information on the recovery options that are available using the recovery media, see [Using Windows tools on page 104](#).
- Use Windows tools to create system restore points and create backups of personal information.

For more information, see [Recovering using HP Recovery Manager on page 105](#).



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

Creating HP Recovery media (select products only)

If possible, check for the presence of the Recovery partition and the Windows partition. From the **Start** menu, select **File Explorer**, and then select **This PC**.

- If your computer does not list the Windows partition and the Recovery partition, you can obtain recovery media for your system from support. See the *Worldwide Telephone Numbers* booklet included with the computer. You can also find contact information on the HP website. Go to <http://www.hp.com/support>, select your country or region, and follow the on-screen instructions.

You can use Windows tools to create system restore points and create backups of personal information, see [Using Windows tools on page 104](#).

- If your computer does list the Recovery partition and the Windows partition, you can use HP Recovery Manager to create recovery media after you successfully set up the computer. HP Recovery media can be used to perform system recovery if the hard drive becomes corrupted. System recovery reinstalls the original operating system and software programs that were installed at the factory and then configures the settings for the programs. HP Recovery media can also be used to customize the system or restore the factory image if you replace the hard drive.
 - Only one set of recovery media can be created. Handle these recovery tools carefully, and keep them in a safe place.
 - HP Recovery Manager examines the computer and determines the required storage capacity for the media that will be required.
 - To create recovery discs, your computer must have an optical drive with DVD writer capability, and you must use only high-quality blank DVD-R, DVD+R, DVD-R DL, or DVD+R DL discs. Do not use rewritable discs such as CD±RW, DVD±RW, double-layer DVD±RW, or BD-RE (rewritable Blu-ray) discs; they are not compatible with HP Recovery Manager software. Or, instead, you can use a high-quality blank USB flash drive.
 - If your computer does not include an integrated optical drive with DVD writer capability, but you would like to create DVD recovery media, you can use an external optical drive (purchased separately) to create recovery discs. If you use an external optical drive, it must be connected directly to a USB port on the computer; the drive cannot be connected to a USB port on an external device, such as a USB hub. If you cannot create DVD media yourself, you can obtain recovery discs for your computer from HP. See the *Worldwide Telephone Numbers* booklet included with the computer. You can also find contact information on the HP website. Go to <http://www.hp.com/support>, select your country or region, and follow the on-screen instructions.
 - Be sure that the computer is connected to AC power before you begin creating the recovery media.
 - The creation process can take an hour or more. Do not interrupt the creation process.
 - If necessary, you can exit the program before you have finished creating all of the recovery DVDs. HP Recovery Manager will finish burning the current DVD. The next time you start HP Recovery Manager, you will be prompted to continue.

To create HP Recovery media:



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

1. Type `recovery` in the taskbar search box, and then select **HP Recovery Manager**.
2. Select **Create recovery media**, and then follow the on-screen instructions.

If you ever need to recover the system, see [Recovering using HP Recovery Manager on page 105](#).

Using Windows tools

You can create recovery media, system restore points, and backups of personal information using Windows tools.



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

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

- ▲ Select the **Start** button, and then select the **Get started** app.

Restore and recovery

There are several options for recovering your system. Choose the method that best matches your situation and level of expertise:



IMPORTANT: Not all methods are available on all products.

- Windows offers several options for restoring from backup, refreshing the computer, and resetting the computer to its original state. For more information see the Get started app.
 - ▲ Select the **Start** button, and then select the **Get started** app.
- If you need to correct a problem with a preinstalled application or driver, use the Reinstall drivers and/or applications option (select products only) of HP Recovery Manager to reinstall the individual application or driver.
 - ▲ Type `recovery` in the taskbar search box, select **HP Recovery Manager**, select **Reinstall drivers and/or applications**, and then follow the on-screen instructions.
- If you want to recover the Windows partition to original factory content, you can choose the System Recovery option from the HP Recovery partition (select products only) or use the HP Recovery media. For more information, see [Recovering using HP Recovery Manager on page 105](#). If you have not already created recovery media, see [Creating HP Recovery media \(select products only\) on page 103](#).
- On select products, if you want to recover the computer's original factory partition and content, or if you have replaced the hard drive, you can use the Factory Reset option of HP Recovery media. For more information, see [Recovering using HP Recovery Manager on page 105](#).
- On select products, if you want to remove the recovery partition to reclaim hard drive space, HP Recovery Manager offers the Remove Recovery Partition option.

For more information, see [Removing the HP Recovery partition \(select products only\) on page 108](#).

Recovering using HP Recovery Manager

HP Recovery Manager software allows you to recover the computer to its original factory state by using the HP Recovery media that you either created or that you obtained from HP, or by using the HP Recovery partition (select products only). If you have not already created recovery media, see [Creating HP Recovery media \(select products only\) on page 103](#).

What you need to know before you get started

- HP Recovery Manager recovers only software that was installed at the factory. For software not provided with this computer, you must either download the software from the manufacturer's website or reinstall the software from the media provided by the manufacturer.



IMPORTANT: Recovery through HP Recovery Manager should be used as a final attempt to correct computer issues.

- HP Recovery media must be used if the computer hard drive fails. If you have not already created recovery media, see [Creating HP Recovery media \(select products only\) on page 103](#).
- To use the Factory Reset option (select products only), you must use HP Recovery media. If you have not already created recovery media, see [Creating HP Recovery media \(select products only\) on page 103](#).
- If your computer does not allow the creation of HP Recovery media or if the HP Recovery media does not work, you can obtain recovery media for your system from support. See the *Worldwide Telephone Numbers* booklet included with the computer. You can also find contact information from the HP

website. Go to <http://www.hp.com/support>, select your country or region, and follow the on-screen instructions.



IMPORTANT: HP Recovery Manager does not automatically provide backups of your personal data. Before beginning recovery, back up any personal data you want to retain.

Using HP Recovery media, you can choose from one of the following recovery options:



NOTE: Only the options available for your computer display when you start the recovery process.

- System Recovery—Reinstalls the original operating system, and then configures the settings for the programs that were installed at the factory.
- Factory Reset—Restores the computer to its original factory state by deleting all information from the hard drive and re-creating the partitions. Then it reinstalls the operating system and the software that was installed at the factory.

The HP Recovery partition (select products only) allows System Recovery only.

Using the HP Recovery partition (select products only)

The HP Recovery partition allows you to perform a system recovery without the need for recovery discs or a recovery USB flash drive. This type of recovery can be used only if the hard drive is still working.

To start HP Recovery Manager from the HP Recovery partition:



IMPORTANT: For a tablet with a detachable keyboard, connect the keyboard to the keyboard dock before beginning these steps (select products only).

1. Type `recovery` in the taskbar search box, select **Recovery Manager**, and then select **HP Recovery Environment**.

- or -

For computers or tablets with keyboards attached, press **f11** while the computer boots, or press and hold **f11** as you press the power button.

For tablets without keyboards:

Turn on or restart the tablet, and then quickly hold down the volume down button; then select **f11**.

- or -

Turn on or restart the tablet, and then quickly hold down the Windows button; then select **f11**.

2. Select **Troubleshoot** from the boot options menu.
3. Select **Recovery Manager**, and then follow the on-screen instructions.

Using HP Recovery media to recover

You can use HP Recovery media to recover the original system. This method can be used if your system does not have an HP Recovery partition or if the hard drive is not working properly.

1. If possible, back up all personal files.
2. Insert the HP Recovery media, and then restart the computer.



NOTE: If the computer does not automatically restart in HP Recovery Manager, change the computer boot order. See [Changing the computer boot order on page 107](#).

3. Follow the on-screen instructions.

Changing the computer boot order

If your computer does not restart in HP Recovery Manager, you can change the computer boot order, which 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.

To change the boot order:



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

1. Insert the HP Recovery media.
2. Access BIOS:

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, and then quickly hold down the volume down button; then select **f9**.

- or -

Turn on or restart the tablet, and then quickly hold down the Windows button; then select **f9**.

3. Select the optical drive or USB flash drive from which you want to boot.
4. Follow the on-screen instructions.

Removing the HP Recovery partition (select products only)

HP Recovery Manager software allows you to remove the HP Recovery partition to free up hard drive space.



IMPORTANT: After you remove the HP Recovery partition, you will not be able to perform System Recovery or create HP recovery media from the HP Recovery partition. So before you remove the Recovery partition, create HP Recovery media; see [Creating HP Recovery media \(select products only\) on page 103](#).



NOTE: The Remove Recovery Partition option is only available on products that support this function.

Follow these steps to remove the HP Recovery partition:

1. Type `recovery` in the taskbar search box, and then select **HP Recovery Manager**.
2. Select **Remove Recovery Partition**, and then follow the on-screen instructions.

12 Ubuntu Linux – Backing up, restoring, and recovering

Recovery after a system failure is as good as your most recent backup. As you add new software and data files, you should continue to back up your system on a regular basis to maintain a reasonably current backup.

Performing a system recovery

The Deja Dup Restore Tool allows you to repair or restore the computer to its original factory state. You can create an image restore DVD using an optional external DVD±RW optical drive. You can also create a restore image on a USB storage device.

 **CAUTION:** Using Restore completely erases hard drive contents and reformats the hard drive. All files you have created and any software installed on the computer are permanently removed. The recovery tool reinstalls the original operating system and programs and drivers that were installed at the factory. Software, drivers, and updates not installed at the factory must be manually reinstalled. Personal files must be restored from a backup.

 **NOTE:** HP recommends that you create the image restore in the event of a system failure.

Creating the restore DVDs

The restore creation software creates a set of system restore discs using blank, writable DVDs (DVD-R or DVD+R). HP recommends using blank DVD+R discs from a manufacturer you trust, because these recovery DVDs are so important. You need approximately 3 blank DVD+R discs. The program states how many discs are needed at the beginning of the process.

To create restore DVDs:

1. Click the **System menu** icon at the far right of the top panel, and then click **System Settings > Backup**.
2. Select **Storage** from the panel on the left side of the window, click the down-arrow next to **Backup Location**, and select the DVD from the drop-down list.
3. Select **Overview** from the panel on the left side of the window, and then click **Back Up Now**.
4. Follow the on-screen instructions.

Creating a restore image on a USB device

 **NOTE:** Be sure AC power is connected to the computer you begin.

Verify the exact amount of free space on your storage device before you begin the creation process. For most models, you will need at least 8 GB of free space on the storage device. However, depending on the drivers and software installed on your computer, you may need slightly more than 8 GB of space. **HP recommends that you use a 16 GB device or above for best results.**

 **IMPORTANT:** Remember to insert your USB device into the USB port on the computer before starting this procedure.

To create the restore image:

1. Click the **System menu** icon at the far right of the top panel, and then click **System Settings > Backup**.
2. Select **Storage** from the panel on the left side of the window, click the down-arrow next to **Backup location**, and select the USB device from the drop-down list.

 **NOTE:** If the USB device is not listed in the drop-down list for Backup Location, select **Local Folder**, and then click the **Choose Folder** button. Select the USB device from the panel on the left side of the **Choose Folder** window, and click **OK**.

3. Select **Overview** from the panel on the left side of the window, and then click **Backup Now**.
4. Follow the on-screen instructions.

Performing recovery using the restore media

 **NOTE:** The following procedure uses the F11 BIOS Recovery feature to perform the recovery.

1. If possible, back up all personal files.
2. Shut down the computer.
3. Be sure the restore DVD or USB device is connected to the computer.
4. Restart the computer.
5. Using the arrow keys, select **Recovery**, and then press [enter](#).
6. Follow the on-screen instructions.

 **NOTE:** If you are unable to boot (start up) your computer with the primary operating system, and you did not create a system recovery disc, you must purchase an *Ubuntu Operating System* DVD to reinstall the operating system. For additional information, refer to the *Worldwide Telephone Numbers* booklet for more information.

Backing up your information

You should back up your computer files on a regular schedule to maintain a current backup. You can manually back up your information to an optional external drive, a network drive, discs, or the Ubuntu One website. Back up your system at the following times:

- At regularly scheduled times
- Before the computer is repaired or restored
- Before you add or modify hardware or software

To back up your home directory files to the Ubuntu website using the Deja Dup Backup Tool:

 **NOTE:** Before you back up your information, be sure you have designated a location to save the backup files.

1. Click the **System menu** icon at the far right of the top panel, and then click **System Settings > Backup** icon.
2. Select **Folders** from the panel on the left side of the window, and beneath **Folders to back up**, select the folders to back up.

3. Select **Storage** from the panel on the left side of the window, click the down-arrow next to **Backup Location**, and select **Ubuntu One** from the drop-down list.
4. Select **Overview** from the panel on the left side of the window, and then click **Back Up Now**.



NOTE: The first time you backup your files to Ubuntu One, you will need to create an account to sign into Ubuntu One. Enter your email address and password into the account sign-in boxes and follow the on-screen instructions to complete the sign-in process.

To restore backup files:

1. Click the **System menu** icon at the far right of the top panel, and then click **System Settings > Backup** icon.
2. Click **Restore**, select the location of the backup files and the folder name, and then click **Forward**.
3. Under **Restore from When?**, select the date of the files to be restored and click **Forward**.
4. Select the location and folder where the files are to be restored and click **Forward**.
5. Follow the on-line instructions.
6. Click **Restore** to start restoring the files, or click **Cancel** to cancel the operation.



NOTE: You may also back up to cloud storage services provided by various companies. For a small fee, they will keep your backup for you. A cloud service is recommended since it is an easy way to keep your backups off-site and safe from any disaster.

13 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	ISI	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 H05VV-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.

Country/region	Accredited agency	Applicable note number
		<p>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.</p>
		<p>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.</p>
		<p>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.</p>
		<p>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.</p>
		<p>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.</p>
		<p>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.</p>

14 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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