



## HP Pavilion 11 x<sup>2</sup> 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 for <http://www.microsoft.com> details.

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

## Safety warning notice

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

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# 1 Product description

Category	Description
<b>Product Name</b>	HP Pavilion 11 x <sup>2</sup> PC
<b>Processor</b>	<ul style="list-style-type: none"><li>• Intel Core i5-4202U 1.60-GHz processor (dual core, 4.5W)</li><li>• Intel Core i3-4012U 1.5-GHz processor (dual core, 4.5W)</li><li>• Intel® Pentium® N3510 processor (1333-MHz FSB, quad core, 4.5 W)</li><li>• Intel Celeron® N2910 processor (1066-MHz FSB, quad core, 4.5 W)</li></ul>
<b>Chipset</b>	Intel soldered on socket (SOC)
<b>Graphics</b>	<b>Internal graphics:</b> Intel HD Graphics  Supports HD playback, streaming, and recording @ 720p 30fps  Supports DX11
<b>Panel</b>	11.6-in (1366×768), high-definition (HD), IPS light-emitting diode (LED), AntiGlare, UWVA, TouchScreen with MultiTouch enabled; 16:9 ultra-wide aspect ratio; typical brightness: 400 nits; ultraslim (2.5-mm)  Supports low-voltage differential signaling (LVDS)
<b>Memory</b>	Supports DDR3L-1333-MHz (DDR3L-1600-MHz downgrade to DDR3L-1333-MHz)  Supports DDR3L-1066-MHz (DDR3L-1600-MHz downgrade to DDR3L-1066-MHz)  Supports up to 4096-MB maximum on-board system memory (8 pieces of 256-MB × 16)
<b>Storage</b>	Supports the M2 SATA-3 (NGFF) solid-state drive  Supports the following solid-state drive configurations: <ul style="list-style-type: none"><li>• 128-GB solid-state drive</li><li>• 64-GB solid-state drive</li></ul>
<b>Audio and video</b>	Front-facing webcam: 2.0-MP FHD (1080p), fixed (no tilt)  Rear-facing webcam: 2.0-MP FHD (1080p), fixed (no tilt)  Single digital microphone with appropriate echo-cancellation and noise-suppression software  Beats Audio  Two speakers  Supports MP3, AAC, AAC+, EAAC+, OGG, and MIDI formats

Category	Description
<b>Sensors</b>	<ul style="list-style-type: none"> <li>• Accelerometer</li> <li>• Ambient Light Sensor</li> <li>• Digital compass</li> <li>• Gyroscope</li> </ul>
<b>Wireless</b>	<p>Integrated wireless local area network (WLAN) options by way of wireless module</p> <p>One built-in WLAN antenna</p> <p>Supports Miracast</p> <p>Supports the following WLAN modules:</p> <ul style="list-style-type: none"> <li>• Intel Wireless-N 7260BN 802.11b/g/n 2×2 WiFi + BT 4.0 Combo Adapter</li> <li>• Ralink RT3290LE 802.11b/g/n 1×1 WiFi and Bluetooth 4.0 Combo Adapter</li> </ul>
<b>External media cards</b>	<p>HP multiformat Micro Digital Media Reader Slot with push-push technology. Reads data from and writes data to digital memory cards such as Secure Digital (SD).</p>
<b>Ports</b>	<p><b>Tablet:</b></p> <ul style="list-style-type: none"> <li>• Docking connector (supports charging/docking/audio-out/video-out)</li> <li>• Headphone/microphone combo jack</li> <li>• Power connector</li> </ul> <p><b>Keyboard base:</b></p> <ul style="list-style-type: none"> <li>• Docking connector (supports charging/docking/audio-out/video-out)</li> <li>• HDMI v1.4a supporting up to 1080p @ 60Hz</li> <li>• Headphone/microphone combo jack</li> <li>• Power connector</li> <li>• USB 3.0</li> <li>• USB 2.0</li> </ul>
<b>Keyboard/pointing devices</b>	<p>100%-size, textured, island-style keyboard</p> <p><b>Touchpad requirements:</b></p> <ul style="list-style-type: none"> <li>• Image Sensor ClickPad</li> <li>• Multitouch gestures enabled: <ul style="list-style-type: none"> <li>◦ Touch</li> <li>◦ Long touch</li> <li>◦ Swipe</li> <li>◦ Drag</li> <li>◦ Double tap</li> </ul> </li> </ul> <p>Supports Palm rejection</p> <p>Taps enabled as default</p>

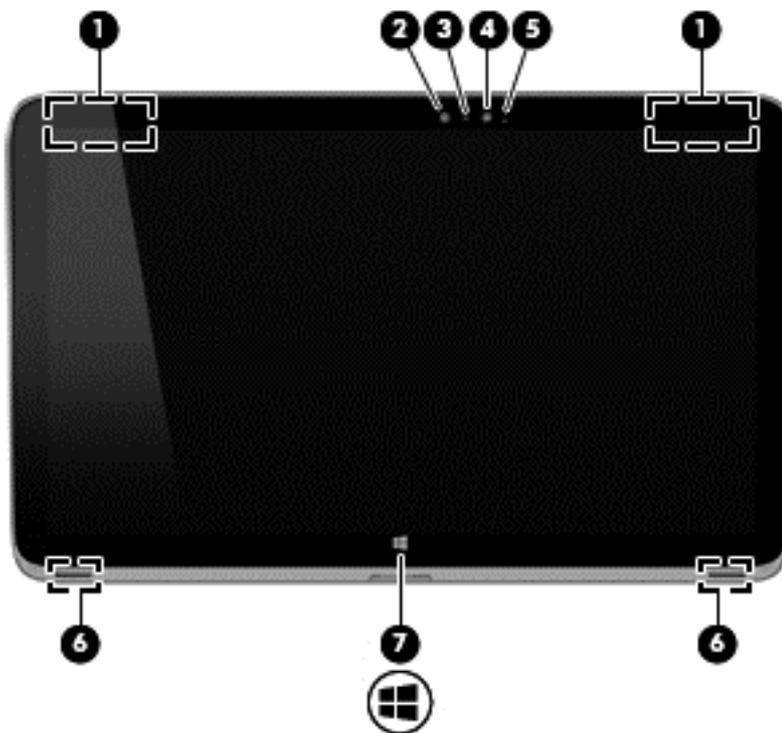
Category	Description
<b>Power requirements</b>	<p>Tablet and keyboard base support the following AC adapters:</p> <ul style="list-style-type: none"><li>• 65-W HP Smart adapter (non-PFC, EM, 3-wire, 4.5-mm)</li><li>• 45-W HP Smart adapter (non-PFC, RC, 3-wire, 4.5-mm)</li></ul> <p>Tablet supports a 2-cell, 21-Wh, 2.86-Ah, Li-ion battery</p> <p>Keyboard base supports a 2-cell, 28-Wh, 4.00-Ah, Li-ion battery</p>
<b>Security</b>	Software-based trusted platform module (TPM) solution
<b>Operating system</b>	<b>Preinstalled:</b> Microsoft® Windows 8 Standard (64-bit) and Microsoft Windows 8 Professional (64-bit)
<b>Serviceability</b>	<b>End user replaceable parts:</b> AC adapter

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## 2 External component identification

### Tablet

#### Display components

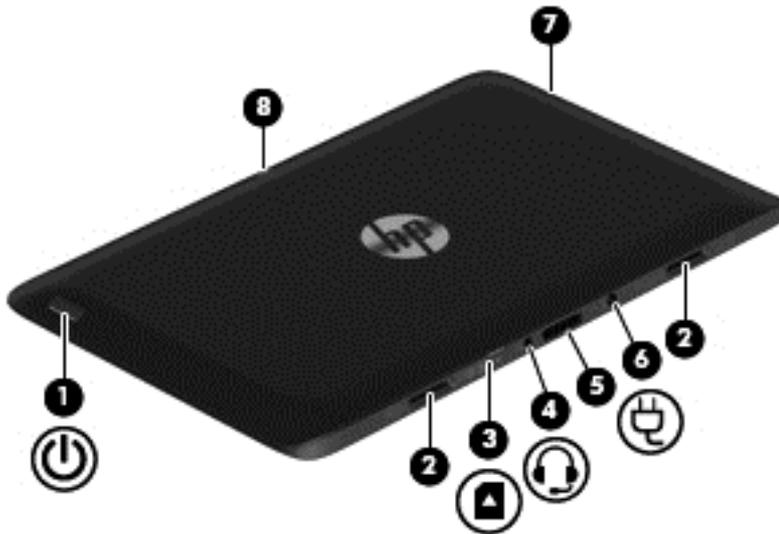


Item	Component	Description
(1)	WLAN antennas (2)*	Send and receive wireless signals to communicate with WLANs.

Item	Component	Description
(2)	HP TrueVision HD Webcamera (front)	<p>Records video, captures still photographs, and allows you to video conference and chat online using streaming video.</p> <p>Swipe from the right edge of the TouchPad or TouchScreen to display the charms, tap <b>Search</b>, and then tap the search box. Type <code>camera</code>, and then select <b>Camera</b> from the list of applications.</p> <p>– or –</p> <p>From the Start screen, type <code>camera</code>, and then select <b>Camera</b> from the list of applications.</p>
(3)	Webcamera light (front)	On: The webcam is in use.
(4)	Ambient light sensor	The ambient light sensor automatically adjusts the display brightness based on the lighting conditions in your environment.
(5)	Internal microphone	Records sound.
(6)	Speakers (2)	Produce sound. Display
(7)	Windows button	<p>Returns you to the Start screen from an open app or the</p> <p>Windows desktop.</p>

\*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, from the Start screen, type `support`, and then select the **HP Support Assistant** app.

## Edge components

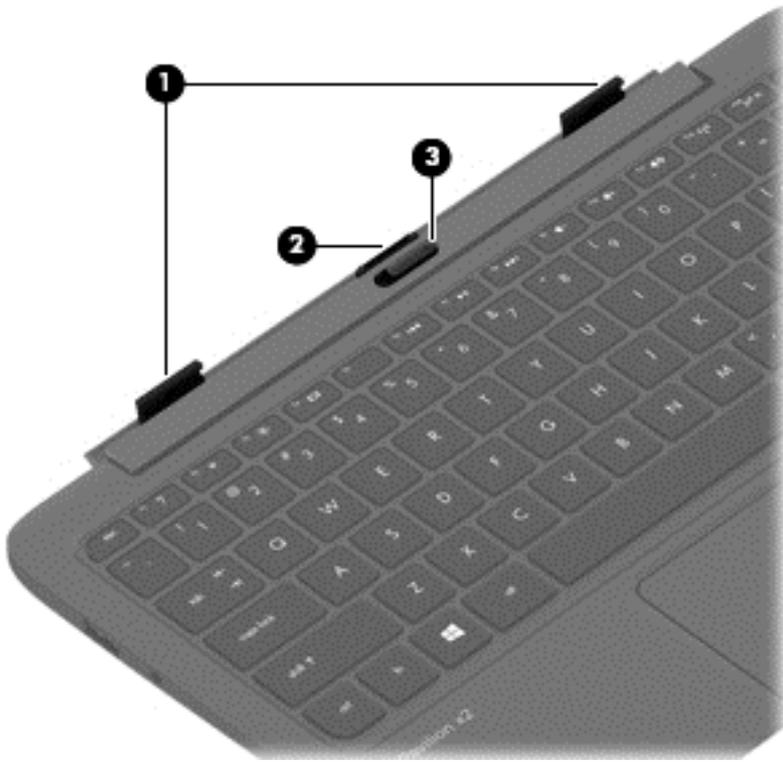


Item	Component	Description
(1)	Power button	<ul style="list-style-type: none"> <li>When the computer is off, press the button to turn on the tablet.</li> <li>When the computer is on, press the button briefly to initiate Sleep.</li> <li>When the computer is in the Sleep state, press the button briefly to exit Sleep.</li> </ul> <p><b>CAUTION:</b> Pressing and holding down the power button will result in the loss of unsaved information.</p> <ul style="list-style-type: none"> <li>If the computer has stopped responding and Windows shutdown procedures are ineffective, press and hold the power button down for at least 5 seconds to turn off the tablet.</li> </ul> <p>To learn more about your power settings, see your power options:</p> <p>Swipe from the right edge of the TouchPad or touch screen to display the charms, tap <b>Search</b>, and then tap the search box. In the search box, type <code>power</code>, select <b>Settings</b>, and then select <b>Power options</b>.</p> <p>– or –</p> <p>From the Start screen, type <code>power</code>, select <b>Power and sleep settings</b>, and then select <b>Power and sleep</b> from the list of applications.</p>
(2)	Alignment post connectors (2)	Align and attach the tablet to the keyboard base.
(3)	Micro SD Card Reader	Supports micro SD cards.

Item	Component	Description
(4)	Audio-out (headphone)/Audio-in (microphone) combo jack	<p>Connects optional powered stereo speakers, headphones, earbuds, a headset, or a television audio cable. Also connects an optional headset microphone. This jack does not support optional microphone-only devices.</p> <p><b>WARNING!</b> To reduce the risk of personal injury, adjust the volume before using headphones, earbuds, or a headset. For additional safety information, see the <i>Regulatory, Safety and Environmental Notices</i>. To access this guide, from the Start screen, type <code>support</code>, and then select the <b>HP Support Assistant</b> app.</p> <p><b>NOTE:</b> When a device is connected to the jack, the computer speakers are disabled.</p> <p><b>NOTE:</b> Be sure that the device cable has a 4-conductor connector that supports both audio-out (headphone) and audio-in (microphone).</p>
(5)	Docking port/power connector	Connects the tablet to the keyboard base and connects an AC adapter.
(6)	Power connector	Connects an AC adapter.
(7)	Volume button	<p>Controls speaker volume on the tablet.</p> <ul style="list-style-type: none"> <li>To increase speaker volume, press the + edge of the button.</li> <li>To decrease speaker volume, press the – edge of the button.</li> </ul>
(8)	Webcamera (rear)	<p>Records video, captures still photographs, and allows video conferences and online chat by means of streaming video.</p> <p>Swipe from the right edge of the TouchPad or TouchScreen to display the charms, tap <b>Search</b>, and then tap the search box. Type <code>camera</code>, and then select <b>Camera</b> from the list of applications.</p> <p>– or –</p> <p>From the Start screen, type <code>camera</code>, and then select <b>Camera</b> from the list of applications.</p>

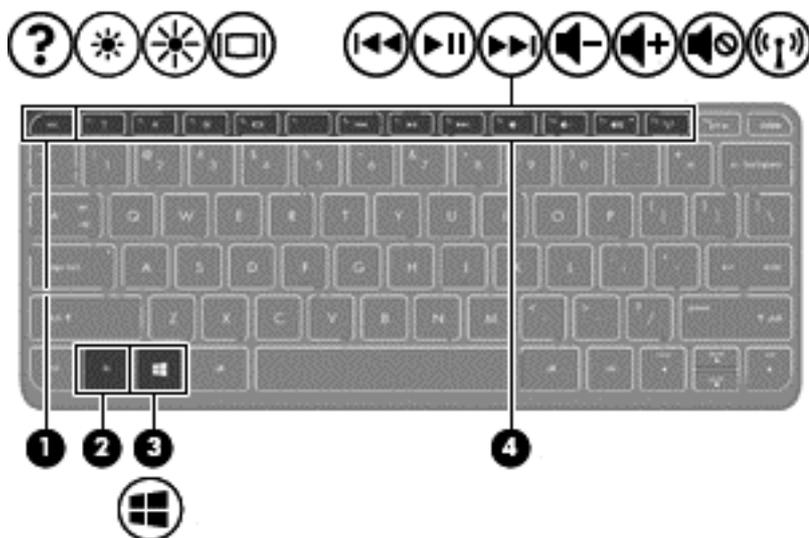
# Keyboard base

## Top



Item	Component	Description
(1)	Alignment posts	Align and attach the tablet to the keyboard base.
(2)	Docking connector	Connects the tablet to the keyboard base.
(3)	Release latch	Releases the tablet. To release the tablet, slide the release latch to the left.

## Keys



Item	Component	Description
(1)	esc key	Displays system information when pressed in combination with the <b>fn</b> key (select models only).
(2)	fn key	Executes frequently used system functions when pressed in combination with the <b>b</b> key or the <b>esc</b> key (select models only).
(3)	Windows key	Returns to the Start screen from an open app or the Windows desktop.  <b>NOTE:</b> Pressing the Windows key again will return to the previous screen.
(4)	Action keys	Execute frequently used system functions.  <b>NOTE:</b> Action keys do not display or function on the tablet on-screen keyboard.

## Lights



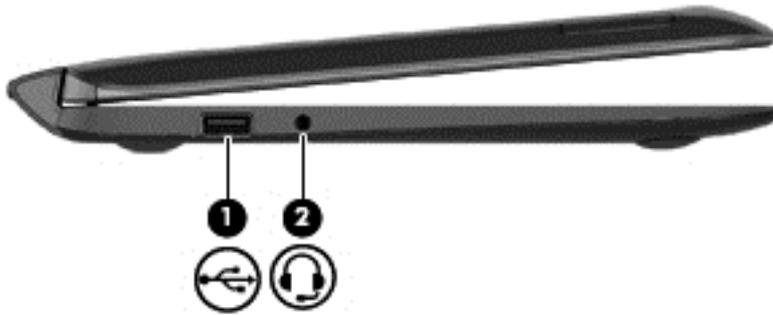
Item	Component	Description
(1)	Caps lock light	<ul style="list-style-type: none"><li>• White: Caps lock is on.</li><li>• Off: Caps lock is off.</li></ul>
(2)	Mute light	<ul style="list-style-type: none"><li>• Amber: Computer sound is off.</li><li>• Off: Computer sound is on.</li></ul>

## TouchPad



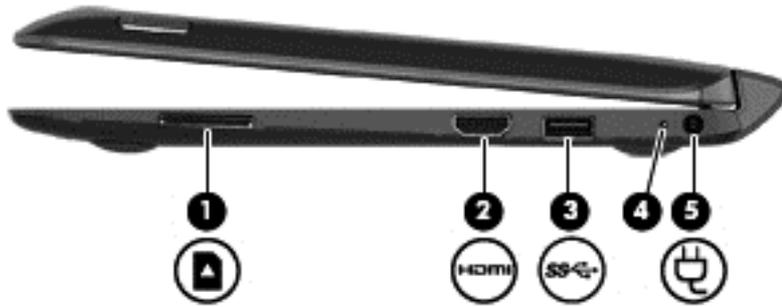
Item	Component	Description
(1)	TouchPad zone	Reads your finger gesture to move the pointer or activate items on the screen.
(2)	Left TouchPad button	Functions like the left button of an external mouse.
(3)	Right TouchPad button	Functions like the right button on an external mouse.

## Left side



Item	Component	Description
(1)	USB 2.0 port	Connects optional USB devices, such as a keyboard, mouse, external drive, printer, scanner or USB hub.
(2)	Audio-out (headphone)/Audio-in (microphone) combo jack	<p>Connects optional powered stereo speakers, headphones, earbuds, a headset, or a television audio cable. Also connects an optional headset microphone. This jack does not support optional microphone-only devices.</p> <p><b>WARNING!</b> To reduce the risk of personal injury, adjust the volume before using headphones, earbuds, or a headset. For additional safety information, see the <i>Regulatory, Safety and Environmental Notices</i>. To access this guide, from the Start screen, type <code>support</code>, and then select the <b>HP Support Assistant</b> app.</p> <p><b>NOTE:</b> When a device is connected to the jack, the computer speakers are disabled.</p> <p><b>NOTE:</b> Be sure that the device cable has a 4-conductor connector that supports both audio-out (headphone) and audio-in (microphone).</p>

## Right side



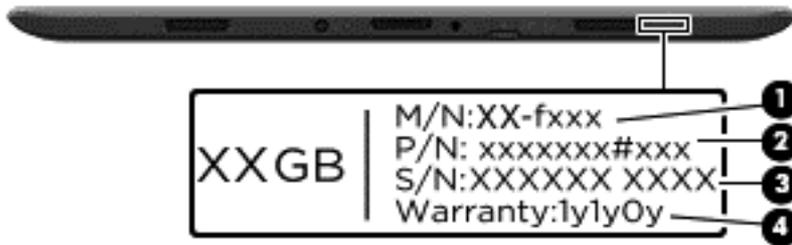
Item	Component	Description
(1)	Memory card reader	<p>Connects optional memory cards that store, manage, share, or access information.</p> <ul style="list-style-type: none"><li>• To insert the memory card, hold the card label side up with connectors facing the slot, and then push in the card until it is firmly seated.</li><li>• To remove the memory card, press in on the card and quickly release it until it pops out.</li></ul>
(2)	HDMI port	Connects an optional video or audio device, such as a highdefinition television, any compatible digital or audio component, or a high-speed HDMI device.
(3)	USB 3.0 port	Connects optional USB devices, such as a keyboard, mouse, external drive, printer, scanner or USB hub.
(4)	AC adapter light	<ul style="list-style-type: none"><li>• White: The AC adapter is connected and the battery is charged.</li><li>• Amber: The AC adapter is connected and the battery is charging.</li><li>• Off: The computer is using battery power.</li></ul>
(5)	Power connector	Connects an AC adapter.

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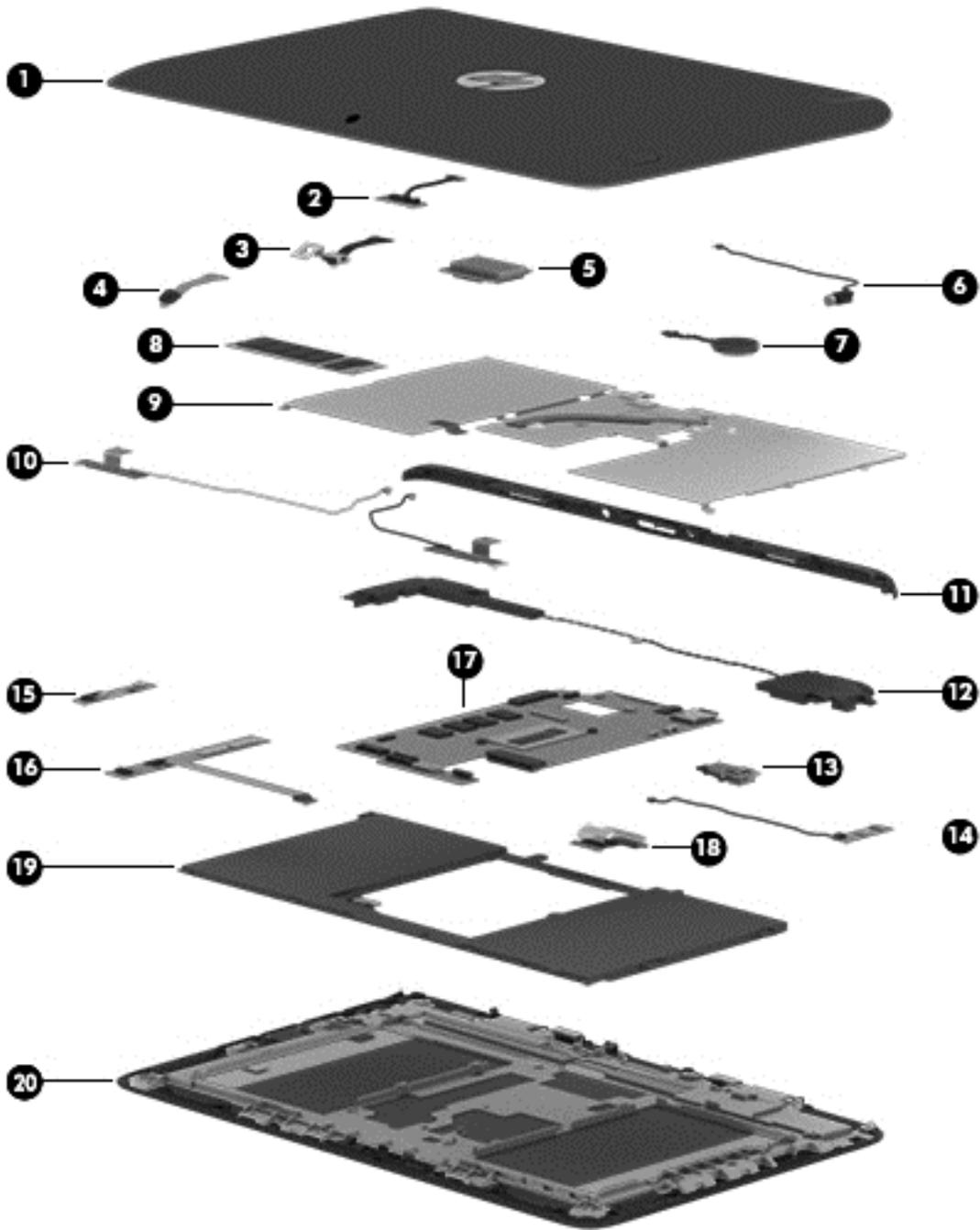
## 3 Illustrated parts catalog

### Locating the serial number, product number, and model number

The serial number and product number are located on the left edge of the tablet. You may need the information when you travel internationally or when you contact support.



# Tablet major components



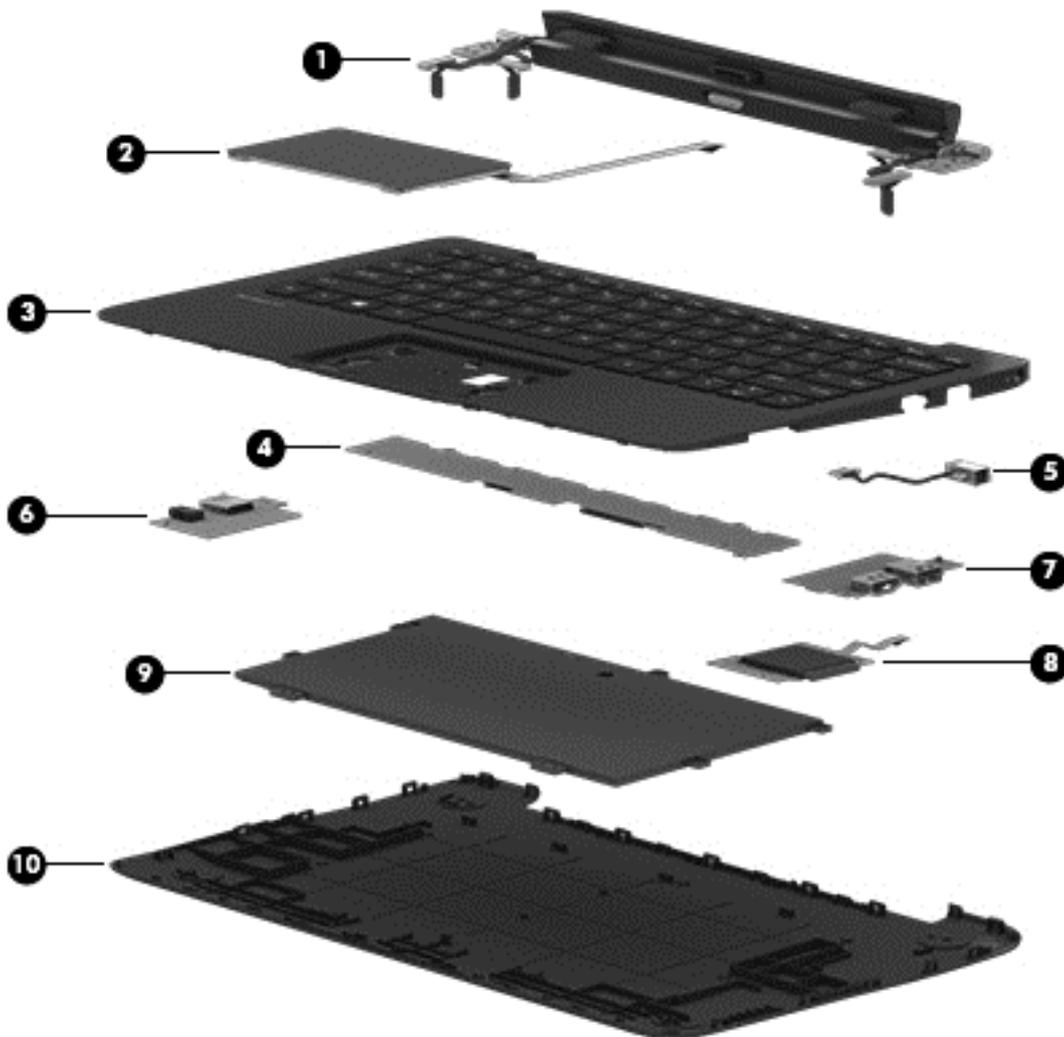
Item	Component	Spare part number
(1)	<b>Display enclosure</b> (includes power button actuator and volume button actuator):	
	In flyer red finish	740182-001
	In pearl white finish	740183-001
	In sparkling black finish	740181-001

Item	Component	Spare part number
(2)	<b>Sensor board</b> (includes cable, double-sided adhesive, and microphone)	742731-001
	<b>Webcamera Kit</b> , includes:	740191-001
(3)	Front-facing webcamera (includes bracket and cable)	
(4)	Rear-facing webcamera (includes cable and double-sided adhesive)	
(5)	<b>WLAN module:</b>	
	Intel Wireless-N 7260BN 802.11b/g/n 2x2 WiFi + BT 4.0 Combo Adapter	717384-005
	Ralink RT3290LE 802.11b/g/n 1x1 WiFi and Bluetooth 4.0 Combo Adapter	690020-005
(6)	<b>Vibrator module</b> (includes cable)	741723-001
(7)	<b>RTC battery</b> (includes cable and double-sided adhesive)	741724-001
(8)	<b>m2 SATA solid-state drive:</b>	
	128 GB	742736-001
	64 GB	742737-001
(9)	<b>Heat sink:</b>	
	For use only on computer models equipped with an Intel Pentium or Intel Celeron processor (includes replacement thermal material)	740186-001
	For use only on computer models equipped with an Intel Core processor (includes thermal material)	750355-001
(10)	<b>Antenna Kit</b> (includes left and right wireless antenna cables and transceivers)	741722-001
(11)	<b>Bezel</b> (includes power connector light pipe and regulatory label):	
	Bezel for use only on computer models equipped with the Ralink WLAN module in the Asia Pacific regions and countries and Japan	740200-001
	Bezel for use only on computer models equipped with the Ralink WLAN module in Europe, the Middle East, and Africa	740199-001
	Bezel for use only on computer models equipped with the Ralink WLAN module in Latin America	742766-001
	Bezel for use only on computer models equipped with the Ralink WLAN module in North America	740198-001
	Bezel for use only on computer models equipped with the Ralink WLAN module in the People's Republic of China	742767-001
	Bezel for use only on computer models equipped with the Ralink WLAN module in South Korea and Taiwan	740201-001
	Bezel for use only on computer models equipped with the Intel WLAN module in the Asia Pacific regions and countries and Japan	745776-001
	Bezel for use only on computer models equipped with the Intel WLAN module in Europe, the Middle East, and Africa	745775-001
	Bezel for use only on computer models equipped with the Intel WLAN module in Latin America	745778-001
	Bezel for use only on computer models equipped with the Intel WLAN module in North America	745774-001

Item	Component	Spare part number
	Bezel for use only on computer models equipped with the Intel WLAN module in the People's Republic of China	745779-001
	Bezel for use only on computer models equipped with the Intel WLAN module in South Korea and Taiwan	745777-001
(12)	<b>Speaker Kit</b> (includes left and right speakers and cables)	740193-001
(13)	<b>Power connector board</b> (includes cable)	742735-001
(14)	<b>Power button board</b> (includes cable and double-sided adhesive)	740189-001
(15)	<b>Volume button board</b> (includes cable and double-sided adhesive)	742732-001
(16)	<b>TouchScreen board</b> (includes cable and double-sided adhesive)	742734-001
(17)	<b>System board</b> equipped with a graphics subsystem with UMA memory (includes replacement thermal material)	
	Equipped with an Intel Pentium N3510 processor (1333-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system	741029-601
	Equipped with an Intel Pentium N3510 processor (1333-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system	741029-501
	Equipped with an Intel Pentium N3510 processor (1333-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system	741029-001
	Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system	741030-601
	Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system	741030-501
	Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system	741030-001
	Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 2-GB of system memory, and the Windows 8 Professional operating system	741031-601
	Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 2-GB of system memory, and the Windows 8 Standard operating system	741031-501
	Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 2-GB of system memory, and the FreeDOS or Linux operating system	741031-001
	System board equipped with an Intel Core i5-4202Y 1.60-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system	750187-601
	System board equipped with an Intel Core i5-4202Y 1.60-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system	750187-501
	System board equipped with an Intel Core i5-4202Y 1.60-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system	750187-001
	System board equipped with an Intel Core i3-4012Y 1.50-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system	750188-601
	System board equipped with an Intel Core i3-4012Y 1.50-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system	750188-501

Item	Component	Spare part number
	System board equipped with an Intel Core i3-4012Y 1.50-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system	750188-001
	System board equipped with an Intel Pentium N3520 2.17-GHz (SC turbo up to 2.42-GHz) processor (1333-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Professional operating system	754647-601
	System board equipped with an Intel Pentium N3520 2.17-GHz (SC turbo up to 2.42-GHz) processor (1333-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Standard operating system	754647-501
	System board equipped with an Intel Pentium N3520 2.17-GHz (SC turbo up to 2.42-GHz) processor (1333-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the FreeDOS or Linux operating system	754647-001
	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Professional operating system	754648-601
	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Standard operating system	754648-501
	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the [Windows 7, FreeDOS or Linux]**operating system	754648-001
	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 2-GB of system memory, and the Windows 8 Professional operating system	754649-601
	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 2-GB of system memory, and the Windows 8 Standard operating system	754649-501
	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 2-GB of system memory, and the FreeDOS or Linux operating system	754649-001
<b>(18)</b>	<b>Display panel cable</b> (includes adhesive support strips)	740197-001
<b>(19)</b>	<b>2-cell, 21-Wh, 2.86-Ah, Li-ion battery</b> (for use only in the tablet, includes cable)	722232-005
<b>(20)</b>	<b>Display panel assembly</b> (11.6-inch, AG, HD, UWVA, LED TouchScreen)	740194-001

## Keyboard base major components



Item	Component	Spare part number
(1)	<b>Hinge assembly</b> (includes alignment posts, cables, docking connector, and release latch):	
	In flyer red finish	740204-001
	In pearl white finish	740205-001
	In sparkling white finish	740203-001
(2)	<b>TouchPad</b> (includes cable)	740190-001
(3)	<b>Keyboard/top cover</b> (includes keyboard cable):	
	For use in Belgium	740184-A41
	For use in Canada	740184-DB1
	For use in the Czech Republic and Slovakia	740184-FL1
	For use in Denmark, Finland, and Norway	740184-DH1
	For use in France	740184-051

<b>Item</b>	<b>Component</b>	<b>Spare part number</b>
	For use in Germany	740184-041
	For use in Greece	740184-151
	For use in Italy	740184-061
	For use in Japan	740184-291
	For use in Latin America	740184-161
	For use in the Netherlands	740184-B31
	For use in Portugal	740184-131
	For use in Russia	740184-251
	For use in Saudi Arabia	740184-171
	For use in South Korea	740184-AD1
	For use in Spain	740184-071
	For use in Switzerland	740184-BG1
	For use in Taiwan	740184-AB1
	For use in Thailand	740184-281
	For use in Turkey	740184-141
	For use in the United Kingdom and Singapore	740184-031
	For use in the United States	740184-001
<b>(4)</b>	<b>Docking board</b>	740206-001
<b>(5)</b>	<b>Power connector cable</b>	740188-001
<b>(6)</b>	<b>Audio/USB board</b> (includes audio-out/audio-in combo jack and USB 2.0 port)	742733-001
<b>(7)</b>	<b>HDMI/USB board</b> (includes HDMI port and USB 3.0 port)	740209-001
<b>(8)</b>	<b>Card reader board</b> (includes cable)	740202-001
<b>(9)</b>	<b>2-cell, 28-Wh, 4.00-Ah, Li-ion battery</b> (for use only in the keyboard base, includes cable)	726596-005
<b>(10)</b>	<b>Bottom cover</b> (includes rubber padding, shielding, and 5 rubber feet):	
	In flyer red finish	740195-001
	In flyer red finish	757225-001
	In pearl red finish	740196-001
	In sparkling black finish	757224-001
	In sparkling black finish	740185-001
	<b>Rubber Feet Kit</b> (includes keyboard base bottom cover rubber feet)	740207-001

## Miscellaneous parts

Component	Spare part number
<b>AC adapter:</b>	
65-W HP Smart adapter (non-PFC, EM, 3-wire, 4.5-mm)	714657-001
45-W HP Smart adapter (non-PFC, RC, 3-wire, 4.5-mm)	721092-001
45-W HP Smart adapter (non-PFC, non-slim, RC, 3-wire, 4.5-mm)	741727-001
<b>HP HDMI-to-VGA adapter</b>	701943-001
<b>HP RJ-45-to-USB adapter dongle</b>	539614-001
<b>Power cord (3-pin, black, 1.83-m):</b>	
For use in Argentina	490371-D01
For use in Australia	490371-011
For use in Denmark	490371-081
For use in Europe	490371-021
For use in India	490371-D61
For use in Italy	490371-061
For use in Japan	490371-291
For use in North America	490371-001
For use in the People's Republic of China	490371-AA1
For use in South Korea	490371-AD1
For use in Switzerland	490371-111
For use in Taiwan	490371-AB1
For use in Thailand	490371-201
For use in the United Kingdom and Singapore	490371-031
<b>Rubber Feet Kit (includes keyboard base base enclosure rubber feet)</b>	740207-001
<b>Screw Kit</b>	740208-001

## Sequential part number listing

Spare part number	Description
490371-001	Power cord for use in North America (3-pin, black, 1.83-m)
490371-011	Power cord for use in Australia (3-pin, black, 1.83-m)
490371-021	Power cord for use in Europe (3-pin, black, 1.83-m)
490371-031	Power cord for use in the United Kingdom and Singapore (3-pin, black, 1.83-m)
490371-061	Power cord for use in Italy (3-pin, black, 1.83-m)
490371-081	Power cord for use in Denmark (3-pin, black, 1.83-m)
490371-111	Power cord for use in Switzerland (3-pin, black, 1.83-m)
490371-201	Power cord for use in Thailand (3-pin, black, 1.83-m)
490371-291	Power cord for use in Japan (3-pin, black, 1.83-m)
490371-AA1	Power cord for use in the People's Republic of China (3-pin, black, 1.83-m)
490371-AB1	Power cord for use in Taiwan (3-pin, black, 1.83-m)
490371-AD1	Power cord for use in South Korea (3-pin, black, 1.83-m)
490371-D01	Power cord for use in Argentina (3-pin, black, 1.83-m)
490371-D61	Power cord for use in India (3-pin, black, 1.83-m)
539614-001	RJ-45-to-USB adapter dongle
690020-005	Ralink RT3290LE 802.11b/g/n 1×1 WiFi and Bluetooth 4.0 Combo Adapter
701943-001	HDMI-to-VGA adapter
714657-001	65-W HP Smart adapter (non-PFC, EM, 3-wire, 4.5-mm)
717384-005	Intel Wireless-N 7260BN 802.11b/g/n 2×2 WiFi + BT 4.0 Combo Adapter
721092-001	45-W HP Smart adapter (non-PFC, RC, 3-wire, 4.5-mm)
722232-005	2-cell, 21-Wh, 2.86-Ah, Li-ion battery for use only in the tablet (includes cable)
726596-005	2-cell, 28-Wh, 4.00-Ah, Li-ion battery for use only in the keyboard/base (includes cable)
740181-001	Display enclosure in sparkling black finish (includes power button actuator and volume button actuator)
740182-001	Display enclosure in flyer red finish (includes power button actuator and volume button actuator)
740183-001	Display enclosure in pearl white finish (includes power button actuator and volume button actuator)
740184-001	Keyboard/top cover with TouchPad for use in the United States (includes keyboard cable and TouchPad cable)
740184-031	Keyboard/top cover with TouchPad for use in the United Kingdom and Singapore (includes keyboard cable and TouchPad cable)
740184-041	Keyboard/top cover with TouchPad for use in Germany (includes keyboard cable and TouchPad cable)
740184-051	Keyboard/top cover with TouchPad for use in France (includes keyboard cable and TouchPad cable)

<b>Spare part number</b>	<b>Description</b>
740184-061	Keyboard/top cover with TouchPad for use in Italy (includes keyboard cable and TouchPad cable)
740184-071	Keyboard/top cover with TouchPad for use in Spain (includes keyboard cable and TouchPad cable)
740184-131	Keyboard/top cover with TouchPad for use in Portugal (includes keyboard cable and TouchPad cable)
740184-141	Keyboard/top cover with TouchPad for use in Turkey (includes keyboard cable and TouchPad cable)
740184-151	Keyboard/top cover with TouchPad for use in Greece (includes keyboard cable and TouchPad cable)
740184-161	Keyboard/top cover with TouchPad for use in Latin America (includes keyboard cable and TouchPad cable)
740184-171	Keyboard/top cover with TouchPad for use in Saudi Arabia (includes keyboard cable and TouchPad cable)
740184-251	Keyboard/top cover with TouchPad for use in Russia (includes keyboard cable and TouchPad cable)
740184-281	Keyboard/top cover with TouchPad for use in Thailand (includes keyboard cable and TouchPad cable)
740184-291	Keyboard/top cover with TouchPad for use in Japan (includes keyboard cable and TouchPad cable)
740184-A41	Keyboard/top cover with TouchPad for use in Belgium (includes keyboard cable and TouchPad cable)
740184-AB1	Keyboard/top cover with TouchPad for use in Taiwan (includes keyboard cable and TouchPad cable)
740184-AD1	Keyboard/top cover with TouchPad for use in South Korea (includes keyboard cable and TouchPad cable)
740184-B31	Keyboard/top cover with TouchPad for use in the Netherlands (includes keyboard cable and TouchPad cable)
740184-BG1	Keyboard/top cover with TouchPad for use in Switzerland (includes keyboard cable and TouchPad cable)
740184-DB1	Keyboard/top cover with TouchPad for use in Canada (includes keyboard cable and TouchPad cable)
740184-DH1	Keyboard/top cover with TouchPad for use in Denmark, Finland, and Norway (includes keyboard cable and TouchPad cable)
740184-FL1	Keyboard/top cover with TouchPad for use in the Czech Republic and Slovakia (includes keyboard cable and TouchPad cable)
740185-001	Bottom cover in sparkling black trim (includes rubber padding, shielding, and 5 rubber feet)
740186-001	Heat sink for use only on computer models equipped with Intel Pentium or Intel Celeron processors (includes replacement thermal material)
740188-001	Power connector cable
740189-001	Power button board (includes cable and double-sided adhesive)
740190-001	TouchPad (includes cable)
740191-001	Webcamera Kit (includes front-facing webcam, bracket and cable and rear-facing webcam and cable)

<b>Spare part number</b>	<b>Description</b>
740193-001	Speaker Kit (includes left and right speakers and cables)
740194-001	11.6-inch, AG, HD, UWVA, LED TouchScreen display panel assembly
740195-001	Bottom cover in flyer red finish (includes rubber padding, shielding, and 5 rubber feet)
740196-001	Bottom cover in pearl white finish (includes rubber padding, shielding, and 5 rubber feet)
740197-001	Display panel cable (includes adhesive support strips)
740198-001	Bezel for use only on computer models equipped with the Ralink WLAN module in North America (includes power connector light pipe and regulatory label)
740199-001	Bezel for use only on computer models equipped with the Ralink WLAN module in Europe, the Middle East, and Africa (includes power connector light pipe and regulatory label)
740200-001	Bezel for use only on computer models equipped with the Ralink WLAN module in the Asia Pacific regions and countries and Japan (includes power connector light pipe and regulatory label)
740201-001	Bezel for use only on computer models equipped with the Ralink WLAN module in the South Korea and Taiwan (includes power connector light pipe and regulatory label)
740202-001	Card reader board (includes cable)
740203-001	Hinge assembly for use on computer models in sparkling black finish (includes alignment posts, cables, docking connector, and release latch)
740204-001	Hinge assembly for use on computer models in flyer red finish (includes alignment posts, cables, docking connector, and release latch)
740205-001	Hinge assembly for use on computer models in pearl white finish (includes alignment posts, cables, docking connector, and release latch)
740206-001	Docking board
740207-001	Rubber Feet Kit (includes keyboard base base enclosure rubber feet)
740208-001	Screw Kit
740209-001	HDMI/USB board (includes HDMI port and USB 3.0 port)
741029-001	System board equipped with an Intel Pentium N3510 processor (1333-MHz FSB, quad core, 4.5 W), 4-GB of system memory, a graphics subsystem with UMA memory, and the FreeDOS or Linux operating system (includes replacement thermal material)
741029-501	System board equipped with an Intel Pentium N3510 processor (1333-MHz FSB, quad core, 4.5 W), 4-GB of system memory, a graphics subsystem with UMA memory, and the Windows 8 Standard operating system (includes replacement thermal material)
741029-601	System board equipped with an Intel Pentium N3510 processor (1333-MHz FSB, quad core, 4.5 W), 4-GB of system memory, a graphics subsystem with UMA memory, and the Windows 8 Professional operating system (includes replacement thermal material)
741030-001	System board equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 4-GB of system memory, a graphics subsystem with UMA memory, and the FreeDOS or Linux operating system (includes replacement thermal material)
741030-501	System board equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 4-GB of system memory, a graphics subsystem with UMA memory, and the Windows 8 Standard operating system (includes replacement thermal material)
741030-601	System board equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 4-GB of system memory, a graphics subsystem with UMA memory, and the Windows 8 Professional operating system (includes replacement thermal material)

Spare part number	Description
741031-001	System board equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 2-GB of system memory, a graphics subsystem with UMA memory, and the FreeDOS or Linux operating system (includes replacement thermal material)
741031-501	System board equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 2-GB of system memory, a graphics subsystem with UMA memory, and the Windows 8 Standard operating system (includes replacement thermal material)
741031-601	System board equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 2-GB of system memory, a graphics subsystem with UMA memory, and the Windows 8 Professional operating system (includes replacement thermal material)
741722-001	Antenna Kit (includes left and right wireless antenna cables and transceivers)
741723-001	Vibrator module (includes cable)
741724-001	RTC battery (includes cable and double-sided adhesive)
741727-001	45-W HP Smart adapter (non-PFC, non-slim, RC, 3-wire, 4.5-mm)
742731-001	Sensor board (includes cable, double-sided adhesive, and microphone)
742732-001	Volume button board (includes cable and double-sided adhesive)
742733-001	Audio/USB board (includes audio-out/audio-in combo jack and USB 2.0 port)
742734-001	TouchScreen board (includes cable and double-sided adhesive)
742735-001	Power connector board (includes cable)
742736-001	128-GB m2 SATA solid-state drive
742737-001	64-GB m2 SATA solid-state drive
742766-001	Bezel for use only on computer models equipped with the Ralink WLAN module in Latin America (includes power connector light pipe and regulatory label)
742767-001	Bezel for use only on computer models equipped with the Ralink WLAN module in the People's Republic of China (includes power connector light pipe and regulatory label)
745774-001	Bezel for use only on computer models equipped with the Intel WLAN module in North America (includes power connector light pipe and regulatory label)
745775-001	Bezel for use only on computer models equipped with the Intel WLAN module in Europe, the Middle East, and Africa (includes power connector light pipe and regulatory label)
745776-001	Bezel for use only on computer models equipped with the Intel WLAN module in the Asia Pacific regions and countries and Japan (includes power connector light pipe and regulatory label)
745777-001	Bezel for use only on computer models equipped with the Intel WLAN module in South Korea and Taiwan (includes power connector light pipe and regulatory label)
745778-001	Bezel for use only on computer models equipped with the Intel WLAN module in Latin America (includes power connector light pipe and regulatory label)
745779-001	Bezel for use only on computer models equipped with the Intel WLAN module in the People's Republic of China (includes power connector light pipe and regulatory label)
750187-001	System board equipped with an Intel Core i5-4202Y 1.60-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system
750187-501	System board equipped with an Intel Core i5-4202Y 1.60-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system
750187-601	System board equipped with an Intel Core i5-4202Y 1.60-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system

<b>Spare part number</b>	<b>Description</b>
750188–001	System board equipped with an Intel Core i3-4012Y 1.50-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system
750188–501	System board equipped with an Intel Core i3-4012Y 1.50-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system
750188–601	System board equipped with an Intel Core i3-4012Y 1.50-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system
750355–001	Heat sink for use only on computer models equipped with an Intel Core processors (includes replacement thermal material)
754647–001	System board equipped with an Intel Pentium N3520 2.17-GHz (SC turbo up to 2.42-GHz) processor (1333-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the FreeDOS or Linux operating system
754647–501	System board equipped with an Intel Pentium N3520 2.17-GHz (SC turbo up to 2.42-GHz) processor (1333-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Standard operating system
754647–601	System board equipped with an Intel Pentium N3520 2.17-GHz (SC turbo up to 2.42-GHz) processor (1333-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Professional operating system
754648–001	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the FreeDOS or Linux operating system
754648–501	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Standard operating system
754648–601	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Professional operating system
754649–001	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 2-GB of system memory, and the FreeDOS or Linux operating system
754649–501	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 2-GB of system memory, and the Windows 8 Standard operating system
754649–601	System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 2-GB of system memory, and the Windows 8 Professional operating system
757224–001	Bottom cover in sparkling black finish (includes rubber padding, shielding, and 5 rubber feet)
757225–001	Bottom cover in flyer red finish (includes rubber padding, shielding, and 5 rubber feet)

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# 4 Removal and replacement preliminary requirements

## Tools required

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

- Magnetic screw driver
- Phillips P0 screw driver
- Plastic case utility tool

## Service considerations

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

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

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## Plastic parts

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 **CAUTION:** Using excessive force during disassembly and reassembly can damage plastic parts. Use care when handling the plastic parts. Apply pressure only at the points designated in the maintenance instructions.

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## Cables and connectors

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

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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.

# 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 tablet when you are removing or installing internal components, observe these precautions:

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

Before touching an electronic component, discharge static electricity by using the guidelines described in this section.

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

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

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

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

Typical electrostatic voltage levels			
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, screw drivers, and vacuums.
- When fixtures must directly contact dissipative surfaces, use fixtures made only of static-safe materials.
- Keep the work area free of nonconductive materials, such as ordinary plastic assembly aids and Styrofoam.
- Handle ESD-sensitive components, parts, and assemblies by the case or PCM laminate. Handle these items only at static-free workstations.
- Avoid contact with pins, leads, or circuitry.
- Turn off power and input signals before inserting or removing connectors or test equipment.

## Equipment guidelines

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

- When seated, wear a wrist strap connected to a grounded system. Wrist straps are flexible straps with a minimum of one megohm  $\pm 10\%$  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

## Tablet component replacement procedures

 **CAUTION:** Tablet components described in this chapter should only be accessed by an authorized service provider. Accessing these parts can damage the tablet and void the warranty.

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

There are as many as 30 screws that must be removed, replaced, and/or loosened when servicing the tablet. Make special note of each screw size and location during removal and replacement.

## Display enclosure

 **NOTE:** The display enclosure spare part kit includes the power button actuator and the volume button actuator.

Description	Spare part number
In flyer red finish	740182-001
In pearl white finish	740183-001
In sparkling black finish	740181-001

Before disassembling the tablet, follow these steps:

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

Remove the display enclosure:

 **CAUTION:** Before positioning the tablet with the display screen facing down, make sure the work surface is clear of tools, screws, and any other foreign objects. Failure to follow this caution can result in damage to the display screen.

1. Place the tablet on a flat work surface, with the display screen facing down and the rear-facing webcam toward you.
2. Lift up on the top edge of the display enclosure (1) until the tabs built into the enclosure release from the display panel assembly.

3. Remove the display enclosure (2) from the tablet.



4. Remove the display enclosure.

Reverse this procedure to install the display enclosure.

## Sensor board

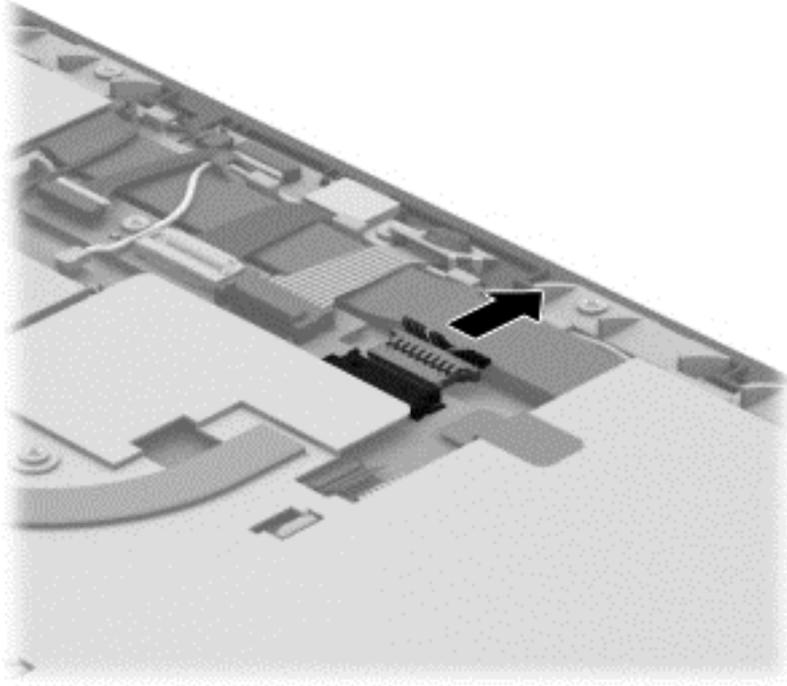
Description	Spare part number
Sensor board (includes cable, double-sided adhesive, and microphone)	742731-001

Before removing the sensor board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).

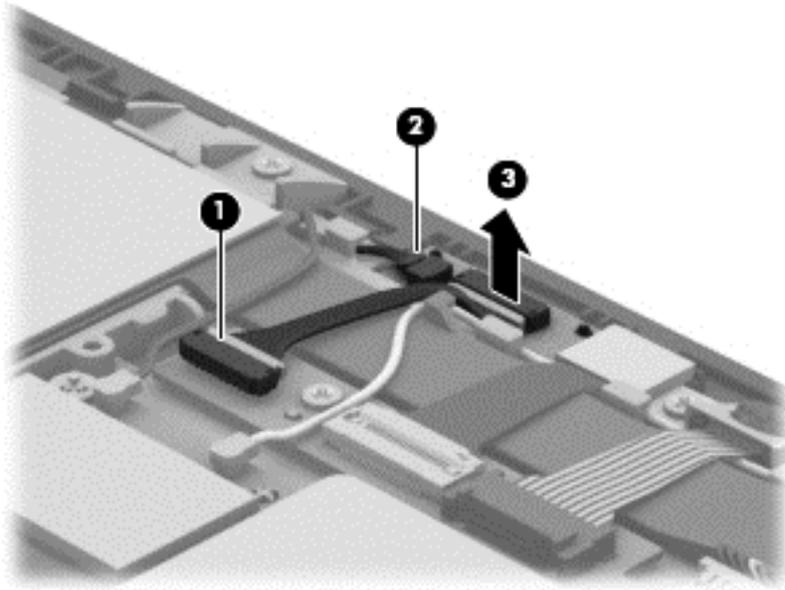
Remove the sensor board:

1. Disconnect the tablet battery cable from the system board.



2. Disconnect the sensor board cable (1) from the system board.
3. Disconnect the power button board cable (2) from the sensor board.

4. Detach the sensor board (3) from the display panel assembly. (The sensor board is attached to the display panel assembly with double-sided tape.)



5. Remove the sensor board.

Reverse this procedure to install the sensor board.

## Wireless antenna

Description	Spare part number
Antenna Kit (includes left and right wireless antenna cables and transceivers)	741722-001

Before removing the wireless antenna, follow these steps:

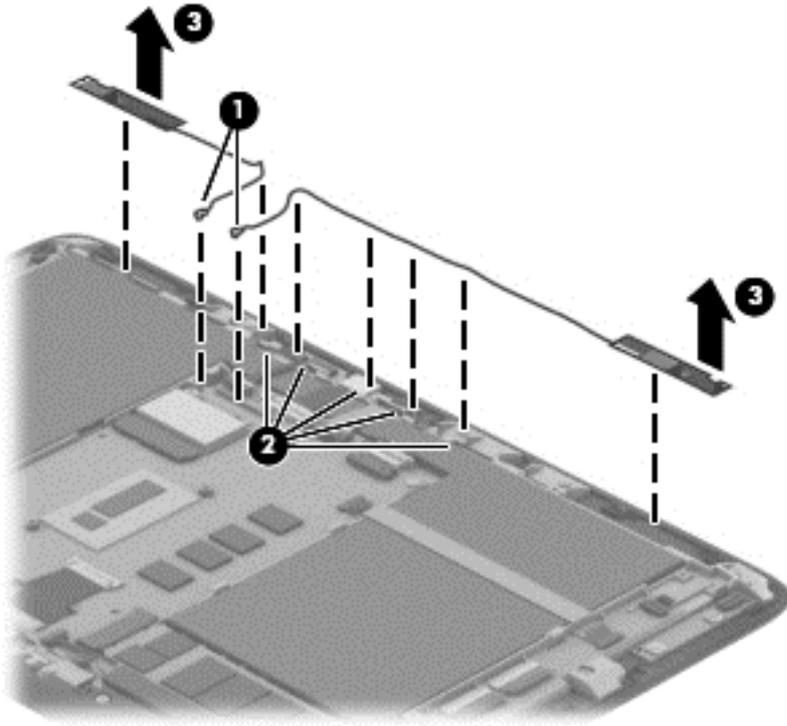
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

Remove the wireless antenna:

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

 **NOTE:** The WLAN antenna cable labeled “1” connects to the WLAN module “Main” terminal labeled “1”. The WLAN antenna cable labeled “2” connects to the WLAN module “Aux” terminal labeled “2”.

2. Release the wireless antenna cables from the routing clips (2) built into the display panel assembly.
3. Detach the wireless antenna transceivers (3) from the heat sink. (The wireless antenna transceiver is attached to the heat sink with double-sided tape.)



4. Remove the wireless antenna cables and transceivers.

Reverse this procedure to install the wireless antenna cables and transceivers.

## Front-facing webcam

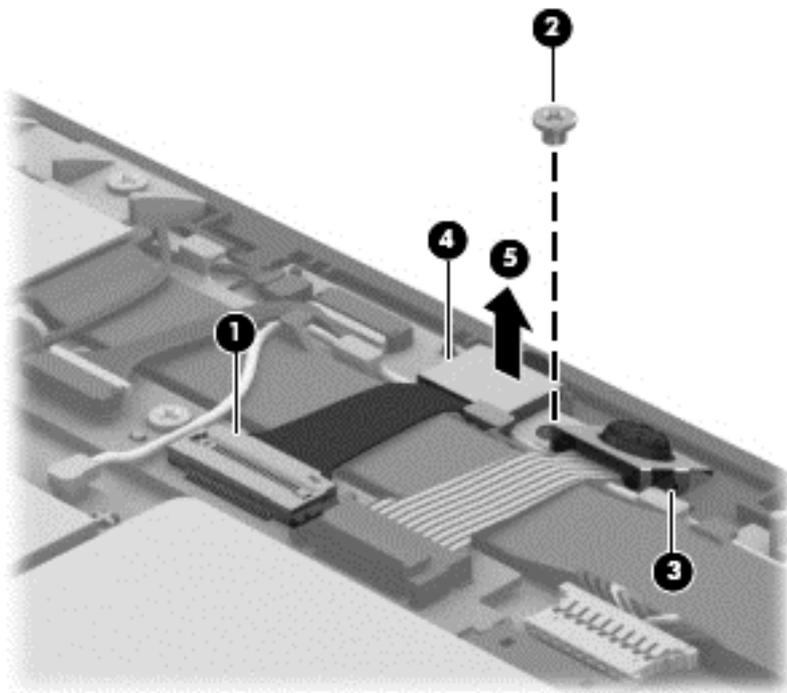
 **NOTE:** The front-facing webcam, bracket, and cable are included in the Webcam Kit, spare part number 740191-001.

Before removing the front-facing webcam, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

Remove the front-facing webcam:

1. Release the ZIF connector (1) to which the front-facing webcam cable is attached, and then disconnect the front-facing webcam cable from the system board.
2. Remove the Phillips PM1.85×1.60 screw (2) that secures the front-facing webcam bracket to the display panel assembly.
3. Swing the right side of the bracket (3) up and to the left until the bracket releases from the tab (4) built into the display panel assembly.
4. Remove the front-facing webcam (5).



Reverse this procedure to install the front-facing webcam, bracket, and cable.

## Rear-facing webcam

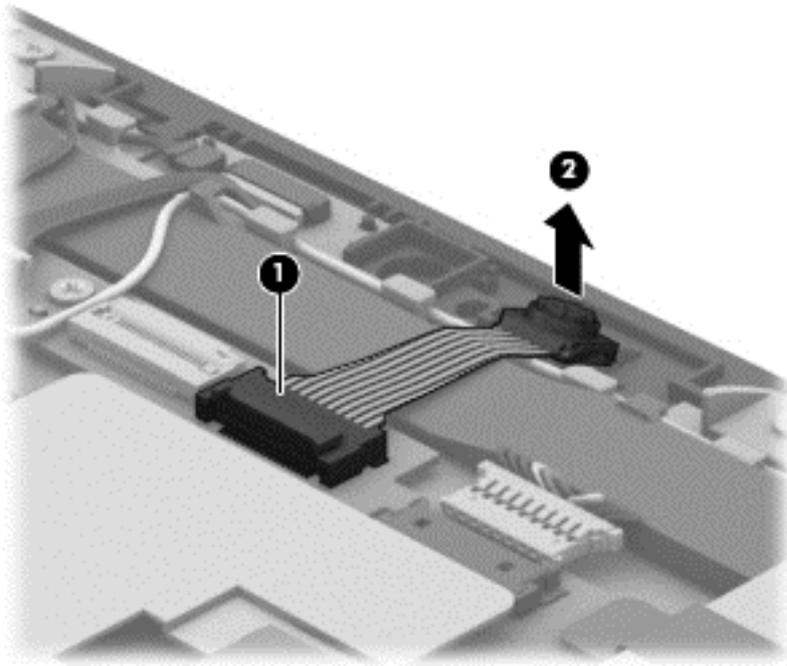
 **NOTE:** The rear-facing webcam and cable are included in the Webcam Kit, spare part number 740191-001.

Before removing the rear-facing webcam, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Remove the front-facing webcam (see [Front-facing webcam on page 36](#)).

Remove the rear-facing webcam:

1. Release the ZIF connector (1) to which the rear-facing webcam cable is attached, and then disconnect the rear-facing webcam cable from the system board.
2. Detach the rear-facing webcam ribbon cable (2) from the display panel assembly. (The rear-facing webcam ribbon cable is attached to the display panel assembly with double-sided adhesive.)



3. Remove the rear-facing webcam and cable.

Reverse this procedure to install the rear-facing webcam.

## WLAN module

Description	Spare part number
Intel Wireless-N 7260BN 802.11b/g/n 2×2 WiFi + BT 4.0 Combo Adapter	717384-005
Ralink RT3290LE 802.11b/g/n 1×1 WiFi and Bluetooth 4.0 Combo Adapter	690020-005

Before removing the rear-facing webcam, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

 **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.

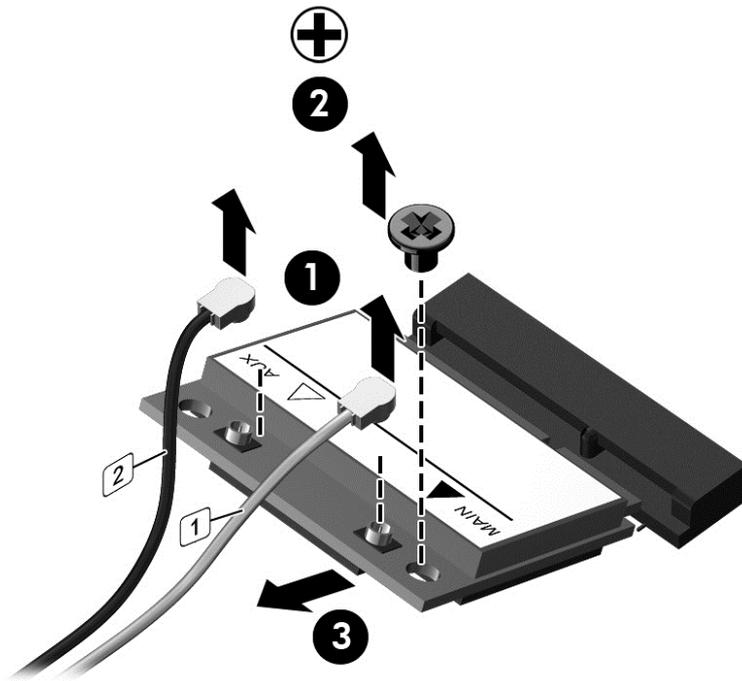
Remove the WLAN module:

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

 **NOTE:** The WLAN antenna cable labeled “1” connects to the WLAN module “Main” terminal labeled “1”. The WLAN antenna cable labeled “2” connects to the WLAN module “Aux” terminal labeled “2”.

2. Remove the Phillips PM1.85×3.00 screw **(2)** that secures the WLAN module to the system board. (The WLAN module tilts up.)

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



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



Reverse this procedure to install the rear WLAN module.

## Power button board

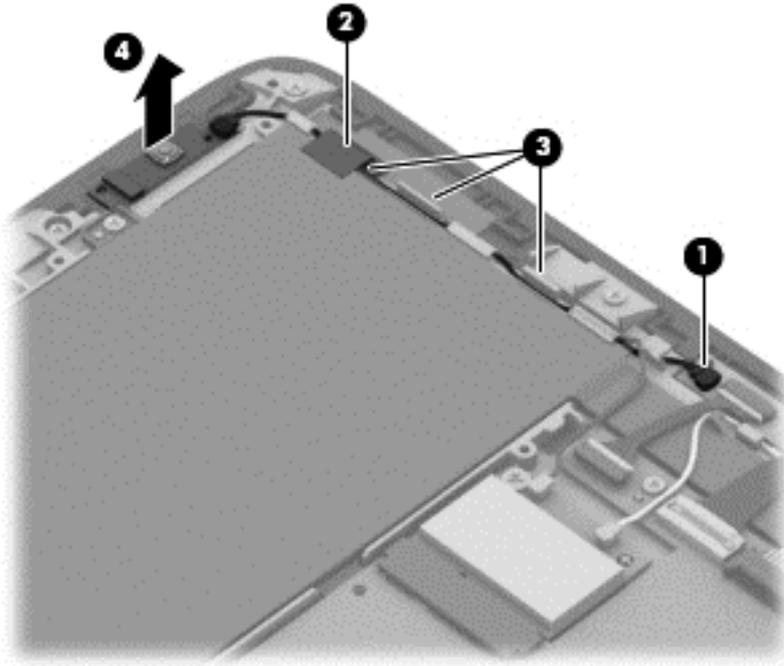
Description	Spare part number
Power button board (includes cable and double-sided adhesive)	740189-001

Before removing the power button board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

Remove the power button board:

1. Disconnect the power button board cable (1) from the sensor board.
2. Detach the left wireless antenna transceiver (2) from the heat sink. (The wireless antenna transceiver is attached to the heat sink with double-sided tape.)
3. Release the power button board cable from the routing clips (3) built into the display panel assembly.
4. Detach the power button board (4) from the display panel assembly. (The power button board is attached to the display panel assembly with double-sided tape.)



5. Remove the power button board and cable.

Reverse this procedure to install the power button board.

## Volume button board

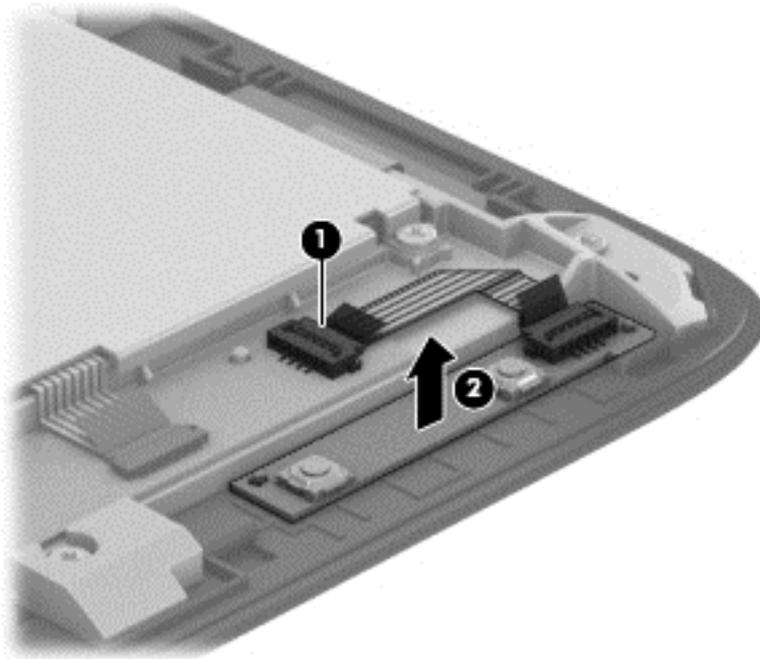
Description	Spare part number
Volume button board (includes cable and double-sided adhesive)	742732-001

Before removing the volume button board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

Remove the volume button board:

1. Release the ZIF connector (**1**) to which the volume button board cable is attached, and then disconnect the volume button board cable from the TouchScreen board.
2. Detach the volume button board (**2**) from the display panel assembly. (The power button board is attached to the display panel assembly with double-sided tape.)



3. Remove the volume button board and cable.

Reverse this procedure to install the volume button board.

## Vibrator module

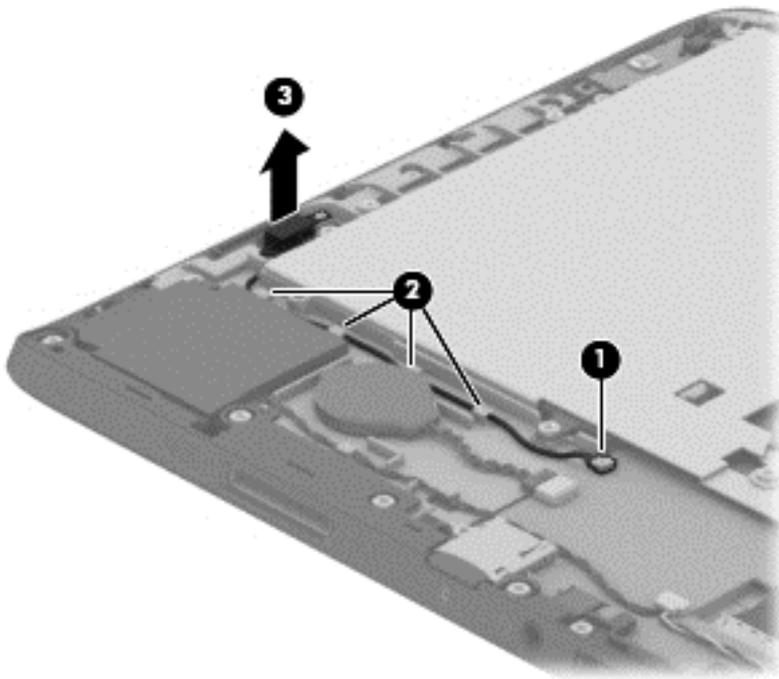
Description	Spare part number
Vibrator module (includes cable)	741723-001

Before removing the vibrator module, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

Remove the vibrator module:

1. Disconnect the vibrator module cable (1) from the system board.
2. Release the vibrator module cable from the routing clips (2) built into the display panel assembly.
3. Release the vibrator module (3) from the mold built into the display panel assembly.



4. Remove the vibrator module and cable.

Reverse this procedure to install the vibrator module.

## RTC battery

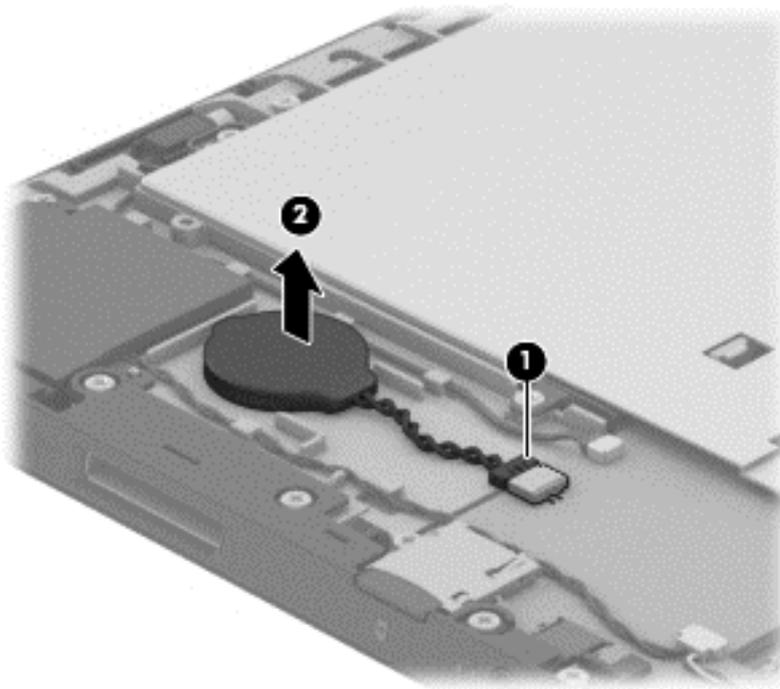
Description	Spare part number
RTC battery (includes cable and double-sided adhesive)	741724-001

Before removing the RTC battery, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

Remove the RTC battery:

1. Disconnect the RTC battery cable (1) from the system board.
2. Detach the RTC battery (2) from the display panel assembly. (The RTC battery is attached to the display panel assembly with double-sided tape.)



3. Remove the RTC battery.

Reverse this procedure to install the RTC battery.

## Solid-state drive

Description	Spare part number
128-MB m2 SATA solid-state drive	742736-001
64-MB m2 SATA solid-state drive	742737-001

Before removing the solid-state drive, follow these steps:

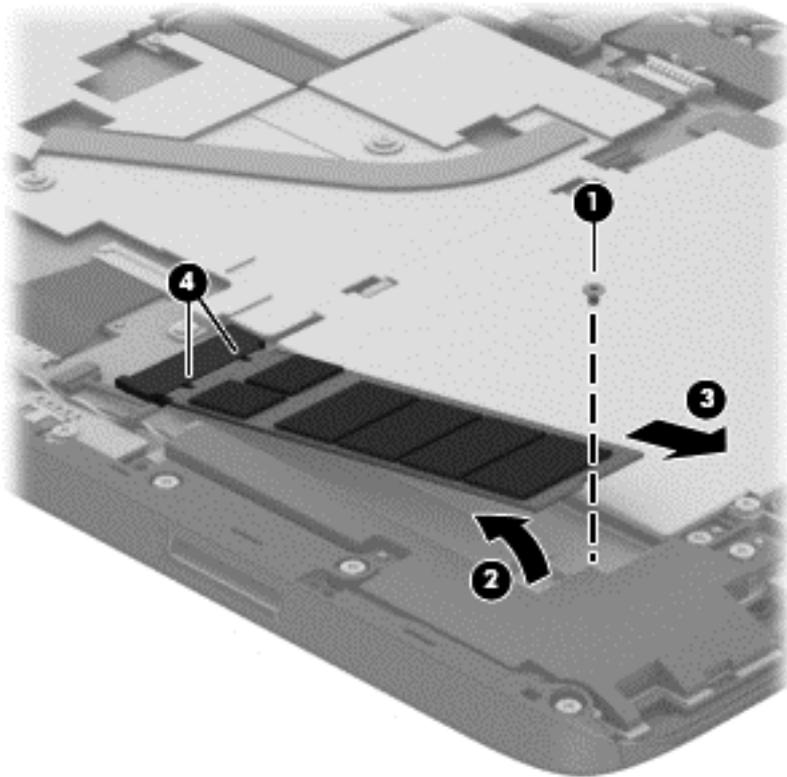
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

Remove the solid-state drive:

1. Remove the Phillips PM1.85×3.00 screw **(1)** that secures the solid-state drive to the system board.
2. Lift the side of the solid-state drive **(2)** opposite the slot until it rests at an angle.

3. Remove the solid-state drive (3) by pulling the drive away from the slot at an angle.

 **NOTE:** The solid-state drive connector is designed with 2 notches (4) to ensure proper installation into the slot.



4. Remove the solid-state drive.

Reverse this procedure to install the solid-state drive.

## Heat sink

Description	Spare part number
Heat sink for use only on computer models equipped with an Intel Pentium or Intel Celeron processor (includes replacement thermal material)	740186-001
Heat sink for use only on computer models equipped with an Intel Core processor (includes replacement thermal material)	750355-001

Before removing the heat sink, follow these steps:

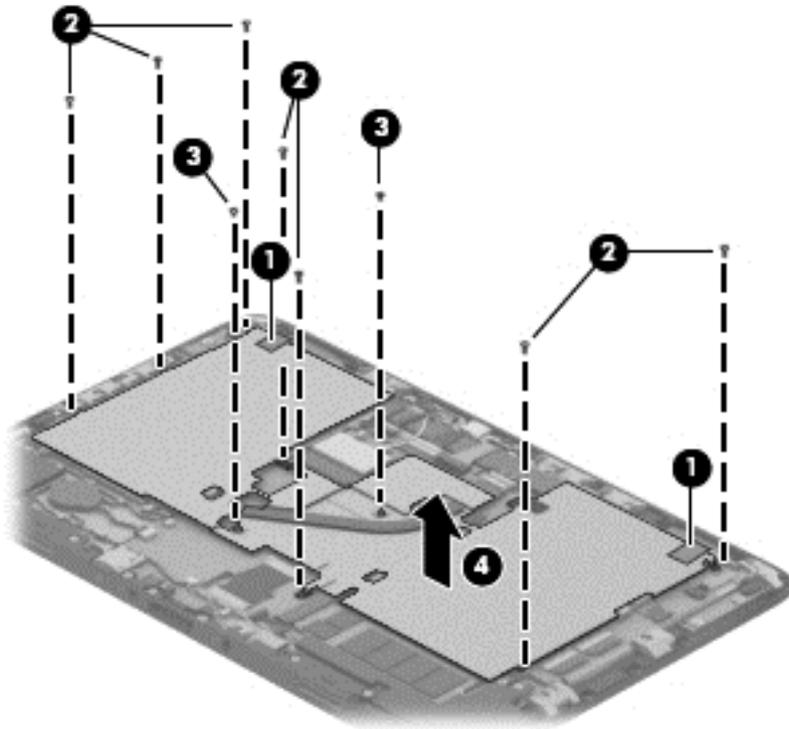
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

Remove the heat sink:

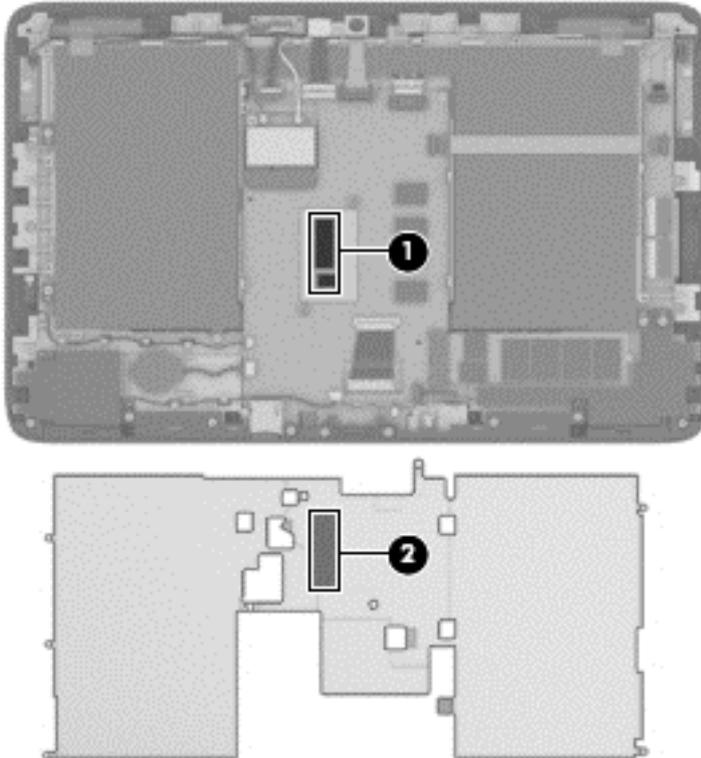
1. Detach the wireless antenna transceivers **(1)** from the heat sink. (The wireless antenna transceivers are attached to the heat sink with double-sided tape.)
2. Remove the seven Phillips PM1.85×3.35 screws **(2)** and the two Phillips PM1.85×1.60 screws **(3)** that secure the heat sink to the display panel assembly.

3. Remove the heat sink (4).

 **NOTE:** Due to the adhesive quality of the thermal material located between the heat sink and the system board components, it may be necessary to move the heat sink from side to side to detach it.



 **NOTE:** The thermal material must be thoroughly cleaned from the surfaces of the system board (1) and the heat sink (2) each time the heat sink is removed. Replacement thermal material is included with the heat sink and system board spare part kits.



Reverse this procedure to install the heat sink.

## TouchScreen board

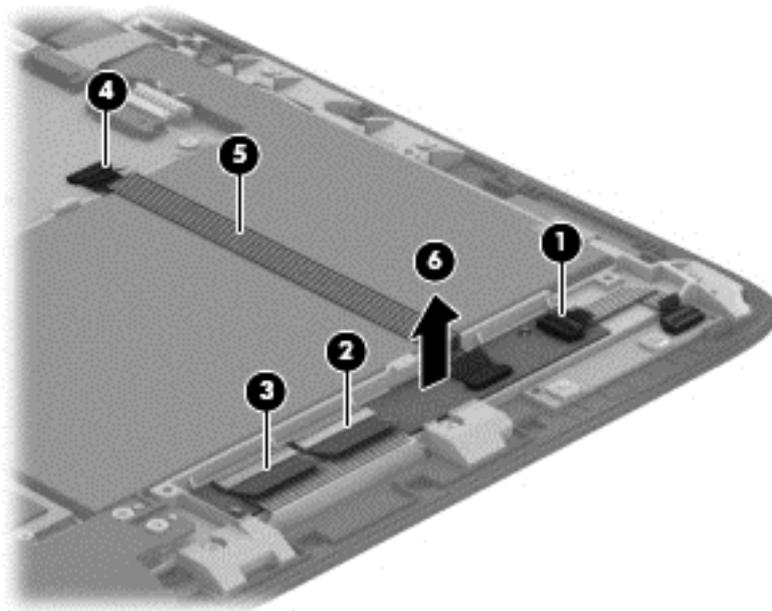
Description	Spare part number
TouchScreen board (includes cable and double-sided adhesive)	742734-001

Before removing the TouchScreen board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).
6. Remove the heat sink (see [Heat sink on page 46](#)).

Remove the TouchScreen board:

1. Release the ZIF connector **(1)** to which the volume button board cable is attached, and then disconnect the volume button board cable from the TouchScreen board.
2. Release the two ZIF connectors **(2)** and **(3)** to which the display panel TouchScreen cables are attached, and then disconnect the display panel TouchScreen cables from the TouchScreen board.
3. Release the ZIF connector **(4)** to which the TouchScreen cable is attached, and then disconnect the TouchScreen cable from the system board.
4. Detach the TouchScreen cable **(5)** from the battery. (The TouchScreen cable is attached to the battery with double-sided tape.)
5. Detach the TouchScreen board **(6)** from the display panel assembly. (The TouchScreen board is attached to the display panel assembly with double-sided tape.)



6. Remove the TouchScreen board and cable.

Reverse this procedure to install the TouchScreen board.

## Bezel



**NOTE:** The bezel spare part kit includes the power connector light pipe and the regulatory label.

Description	Spare part number
Bezel for use only on computer models equipped with the Ralink WLAN module in the Asia Pacific regions and countries and Japan	740200-001
Bezel for use only on computer models equipped with the Ralink WLAN module in Europe, the Middle East, and Africa	740199-001
Bezel for use only on computer models equipped with the Ralink WLAN module in Latin America	742766-001
Bezel for use only on computer models equipped with the Ralink WLAN module in North America	740198-001
Bezel for use only on computer models equipped with the Ralink WLAN module in the People's Republic of China	742767-001
Bezel for use only on computer models equipped with the Ralink WLAN module in South Korea and Taiwan	740201-001
Bezel for use only on computer models equipped with the Intel WLAN module in the Asia Pacific regions and countries and Japan	745776-001
Bezel for use only on computer models equipped with the Intel WLAN module in Europe, the Middle East, and Africa	745775-001
Bezel for use only on computer models equipped with the Intel WLAN module in Latin America	745778-001
Bezel for use only on computer models equipped with the Intel WLAN module in North America	745774-001
Bezel for use only on computer models equipped with the Intel WLAN module in the People's Republic of China	745779-001
Bezel for use only on computer models equipped with the Intel WLAN module in South Korea and Taiwan	745777-001

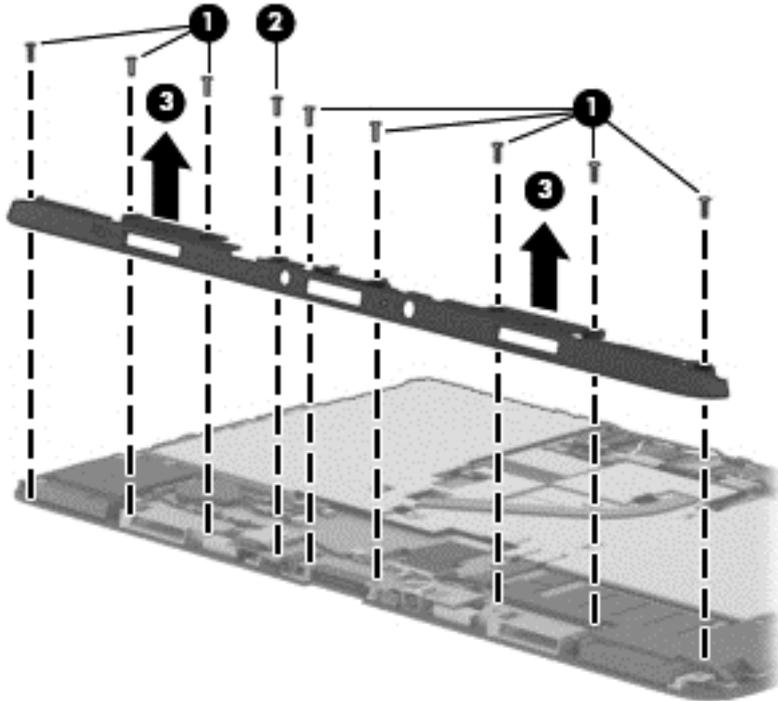
Before removing the TouchScreen board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).

Remove the bezel:

1. Remove the eight Phillips PM1.85×4.50 screws **(1)** and the Phillips PM1.85×5.65 screw **(2)** that secure the bezel to the display panel assembly.

2. Remove the bezel (3).



Reverse this procedure to install the bezel.

## Speakers

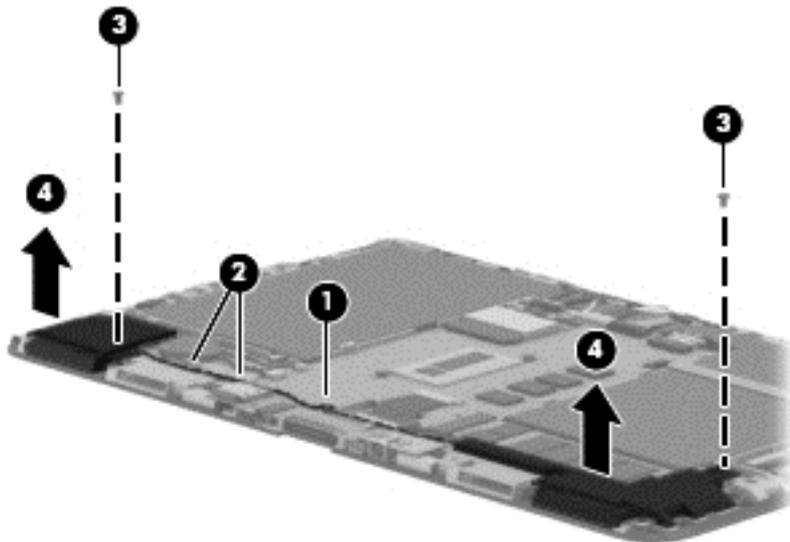
Description	Spare part number
Speaker Kit (includes left and right speakers and cables)	740193-001

Before removing the speakers, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).
6. Remove the bezel (see [Bezel on page 50](#)).

Remove the speakers:

1. Disconnect the speaker cable **(1)** from the system board.
2. Release the left speaker cable from the clips **(2)** built into the display panel assembly.
3. Remove the two Phillips PM1.85×3.35 screws **(3)** that secure the speakers to the display panel assembly.
4. Remove the speakers **(4)**.



Reverse this procedure to install the speakers.

## Power connector board

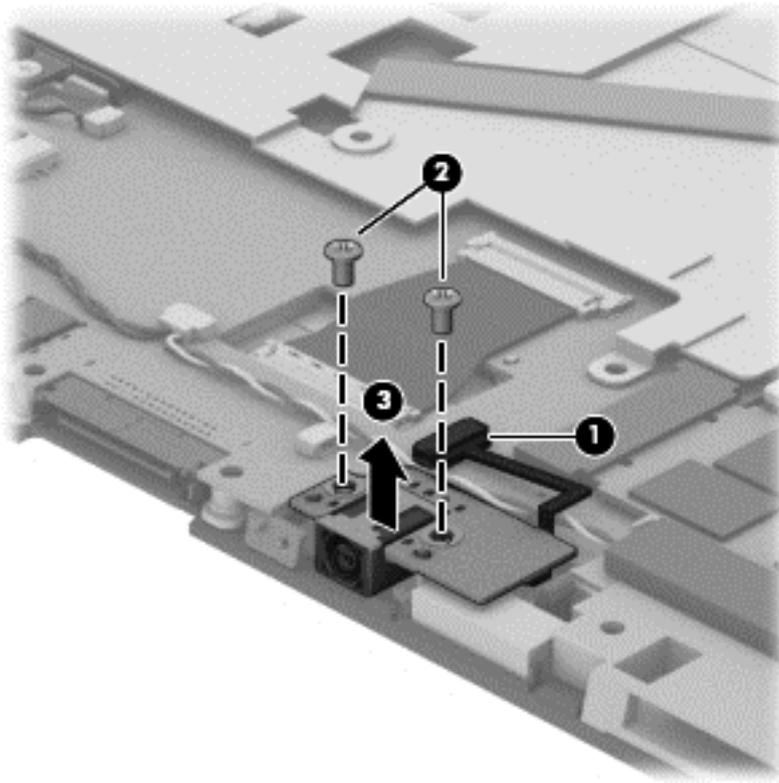
Description	Spare part number
Power connector board (includes cable)	742735-001

Before removing the power connector board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).
6. Remove the bezel (see [Bezel on page 50](#)).

Remove the power connector board:

1. Disconnect the power connector board cable (1) from the system board.
2. Remove the two Phillips PM1.85×3.35 screws (2) that secure the power connector board to the display panel assembly.
3. Remove the power connector board (3) and cable.



Reverse this procedure to install the power connector board.

## System board

Description	Spare part number
Equipped with an Intel Pentium N3510 processor (1333-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system	741029-601
Equipped with an Intel Pentium N3510 processor (1333-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system	741029-501
Equipped with an Intel Pentium N3510 processor (1333-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system	741029-001
Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system	741030-601
Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system	741030-501
Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system	741030-001
Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 2-GB of system memory, and the Windows 8 Professional operating system	741031-601
Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 2-GB of system memory, and the Windows 8 Standard operating system	741031-501
Equipped with an Intel Celeron N2910 processor (1066-MHz FSB, quad core, 4.5 W), 2-GB of system memory, and the FreeDOS or Linux operating system	741031-001
System board equipped with an Intel Core i5-4202Y 1.60-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system	750187-001
System board equipped with an Intel Core i5-4202Y 1.60-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system	750187-501
System board equipped with an Intel Core i5-4202Y 1.60-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system	750187-601
System board equipped with an Intel Core i3-4012Y 1.50-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the FreeDOS or Linux operating system	750188-001
System board equipped with an Intel Core i3-4012Y 1.50-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Standard operating system	750188-501
System board equipped with an Intel Core i3-4012Y 1.50-GHz processor (3.00-MB L3 cache, dual core, 4.5 W), 4-GB of system memory, and the Windows 8 Professional operating system	750188-601
System board equipped with an Intel Pentium N3520 2.17-GHz (SC turbo up to 2.42-GHz) processor (1333-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the FreeDOS or Linux operating system	754647-001
System board equipped with an Intel Pentium N3520 2.17-GHz (SC turbo up to 2.42-GHz) processor (1333-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Standard operating system	754647-501
System board equipped with an Intel Pentium N3520 2.17-GHz (SC turbo up to 2.42-GHz) processor (1333-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Professional operating system	754647-601
System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the FreeDOS or Linux operating system	754648-001

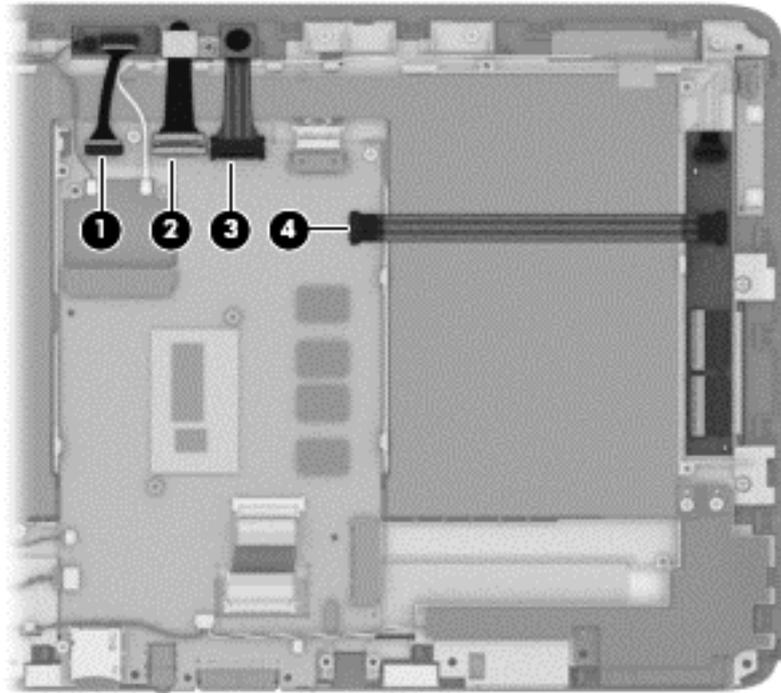
Description	Spare part number
System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Standard operating system	754648–501
System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 4-GB of system memory, and the Windows 8 Professional operating system	754648–601
System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 2-GB of system memory, and the FreeDOS or Linux operating system	754649–001
System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 2-GB of system memory, and the Windows 8 Standard operating system	754649–501
System board equipped with an Intel Celeron N2920 1.86-GHz (SC turbo up to 2.00-GHz) processor (1066-MHz FSB, 2.0-MB L2 cache, quad core, 4.5 W) , 2-GB of system memory, and the Windows 8 Professional operating system	754649–601

Before removing the system board, follow these steps:

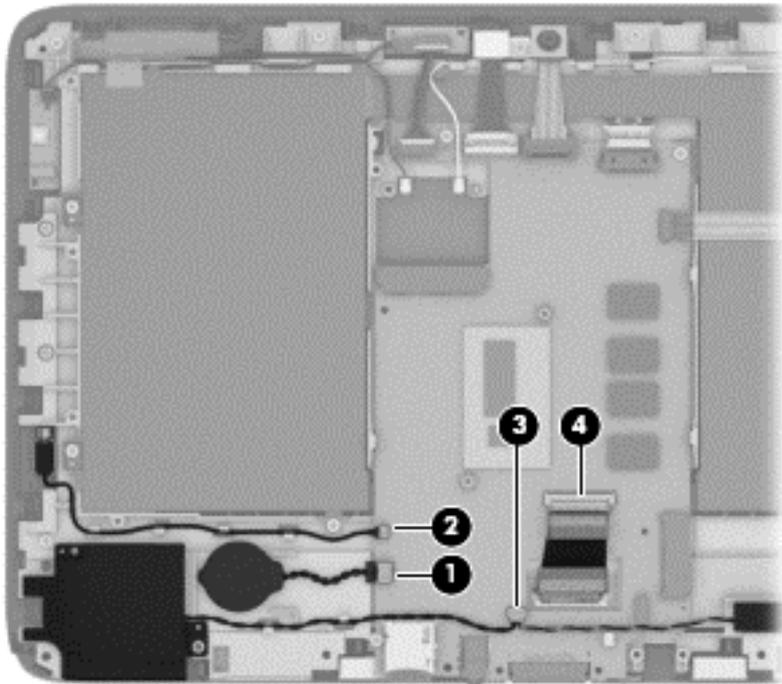
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)), and then remove the following components:
  - a. WLAN module (see [WLAN module on page 38](#))
  - b. Solid-state drive (see [Solid-state drive on page 44](#))
  - c. Heat sink (see [Heat sink on page 46](#))
  - d. Power connector board (see [Power connector board on page 53](#))

Remove the system board:

1. Disconnect the following cables from the system board:
  - (1) Sensor board cable
  - (2) Front-facing webcam cable
  - (3) Rear-facing webcam cable
  - (4) TouchScreen board cable

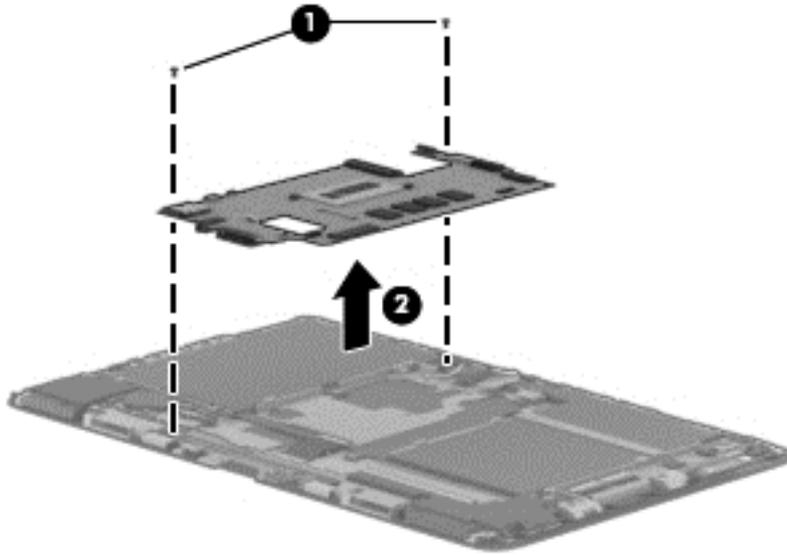


2. Disconnect the following cables from the system board:
  - (1) Vibrator module cable
  - (2) RTC battery cable
  - (3) Speaker cable
  - (4) Display panel cable
  - (5) Windows button cable



3. Remove the two Phillips PM1.85×3.00 screws (1) that secure the system board to the display panel assembly.

4. Remove the system board (2).



Reverse this procedure to install the system board.

## Display panel cable

Description	Spare part number
Display panel cable (includes adhesive support strips)	740197-001

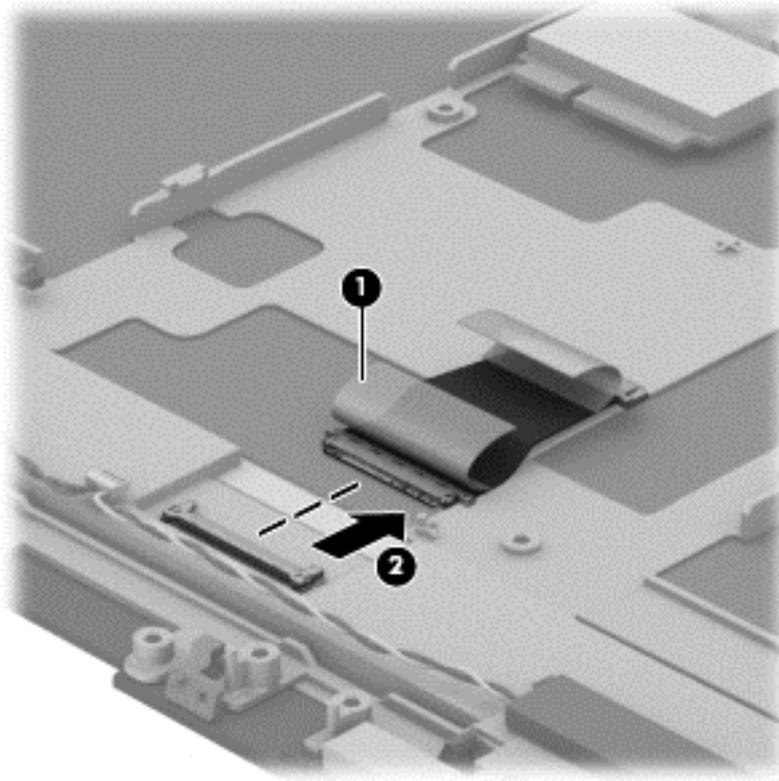
Before removing the display panel cable, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).
6. Remove the bezel (see [Bezel on page 50](#)).
7. Remove the system board (see [System board on page 54](#)).

Remove the display panel cable:

1. Release the adhesive support strip (1) that secures the display panel cable to the display panel assembly.

2. Disconnect the display panel cable (2) from the display panel.



Reverse this procedure to install the display panel cable.

## Tablet battery

Description	Spare part number
2-cell, 21-Wh, 2.86-Ah, Li-ion battery for use only in the tablet (includes cable)	722232-005

Before removing the tablet battery, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display enclosure (see [Display enclosure on page 31](#)).
5. Disconnect the tablet battery cable from the system board (see [Sensor board on page 32](#)).
6. Remove the heat sink (see [Heat sink on page 46](#)).

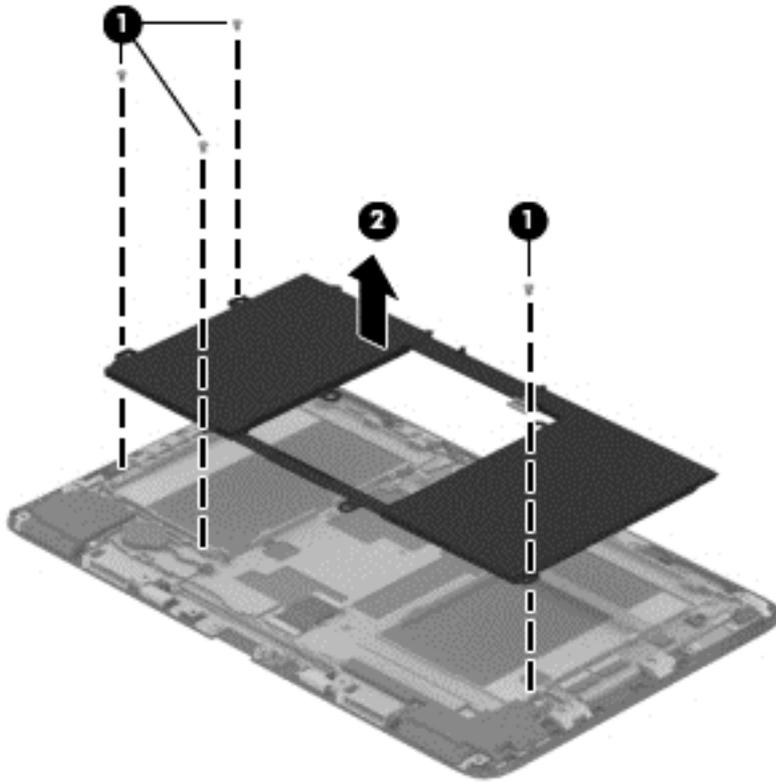
**⚠ WARNING!** To reduce potential safety issues, use only the battery provided with the tablet, a replacement battery provided by HP, or a compatible battery purchased from HP.

**⚠ CAUTION:** Removing a battery that is the sole power source for the tablet can cause loss of information. To prevent loss of information, save your work or shut down the tablet through Windows before removing the battery.

---

Remove the tablet battery:

1. Remove the four Phillips PM1.85×3.35 screws (1) that secure the tablet battery to the display panel assembly.
2. Remove the tablet battery (2).



3. Remove the tablet battery.

Reverse this procedure to install the tablet battery.

# Keyboard base component replacement procedures

 **CAUTION:** Keyboard base components described in this chapter should only be accessed by an authorized service provider. Accessing these parts can damage the keyboard base and void the warranty.

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

There are as many as 31 screws that must be removed, replaced, and/or loosened when servicing the keyboard base. Make special note of each screw size and location during removal and replacement.

## Bottom cover

 **NOTE:** The bottom cover includes rubber padding, shielding, and 5 rubber feet. The five rubber feet are included in the Rubber Feet Kit, spare part number 740207-001.

Description	Spare part number
In flyer red finish	740195-001
In flyer red finish	757225-001
In pearl red finish	740196-001
In sparkling black finish	740185-001
In sparkling black finish	757224-001

Before disassembling the keyboard base, follow these steps:

1. Turn off the tablet and keyboard base. If you are unsure whether the tablet and keyboard base are off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet and keyboard base by unplugging the power cord from the tablet and keyboard base.
3. Disconnect the tablet from the keyboard base.

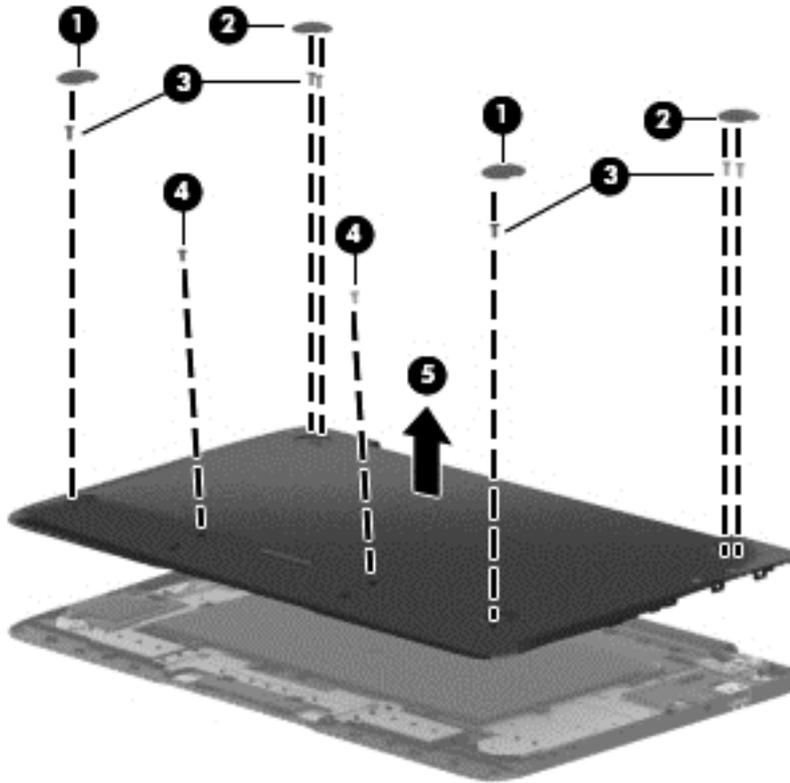
Remove the bottom cover:

1. Remove the front **(1)** and rear rubber feet **(2)**.

 **NOTE:** The front and rear rubber feet are different shaped and sized and are available in the Rubber Feet Kit, spare part number 740207-001.

2. Remove the six Phillips PM1.85×5.50 screws **(3)** and the two Phillips PM1.85×4.80 screws **(4)** that secure the bottom cover to the keyboard/top cover.

3. Remove the bottom cover (5).



Reverse this procedure to install the bottom cover.

## Keyboard base battery

Description	Spare part number
2-cell, 28-Wh, 4.00-Ah, Li-ion battery for use only in the keyboard base (includes cable)	726596-005

Before removing the keyboard base battery, follow these steps:

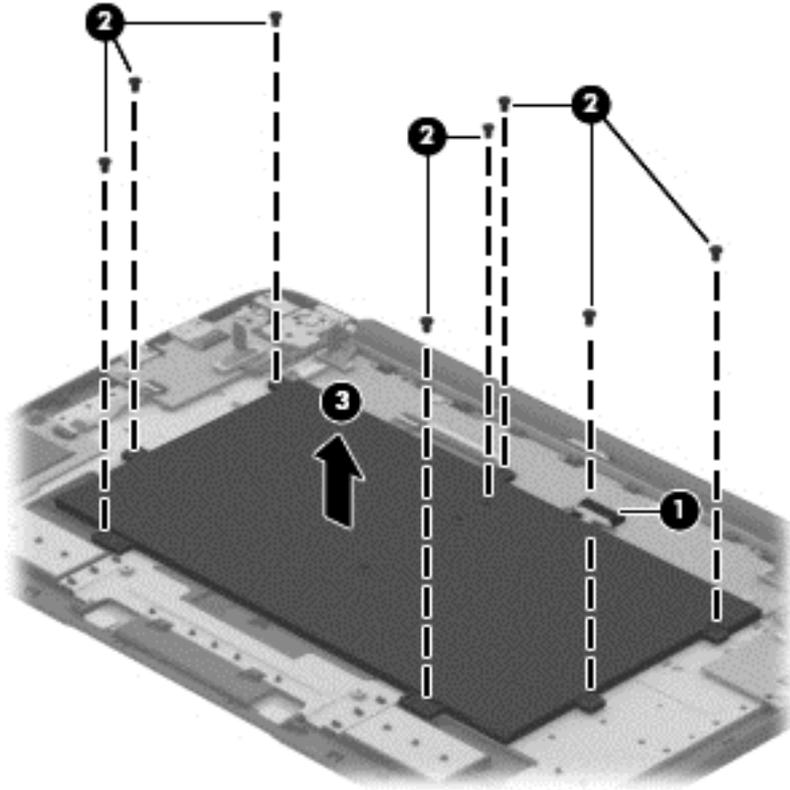
1. Turn off the tablet and keyboard base. If you are unsure whether the tablet and keyboard base are off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet and keyboard base by unplugging the power cord from the tablet and keyboard base.
3. Disconnect the tablet from the keyboard base.
4. Remove the bottom cover (see [Bottom cover on page 61](#)).

**⚠ WARNING!** To reduce potential safety issues, use only the battery provided with the keyboard base, a replacement battery provided by HP, or a compatible battery purchased from HP.

**⚠ CAUTION:** Removing a battery that is the sole power source for the tablet can cause loss of information. To prevent loss of information, save your work or shut down the tablet through Windows before removing the battery.

Remove the keyboard base battery:

1. Disconnect the battery cable (1) from the docking board.
2. Remove the eight Phillips PM1.85×3.00 screws (2) that secure the battery to the keyboard/top cover.
3. Remove the keyboard base battery (3).



Reverse this procedure to install the keyboard base battery.

## TouchPad

Description	Spare part number
TouchPad (includes cable)	740190-001

Before removing the TouchPad, follow these steps:

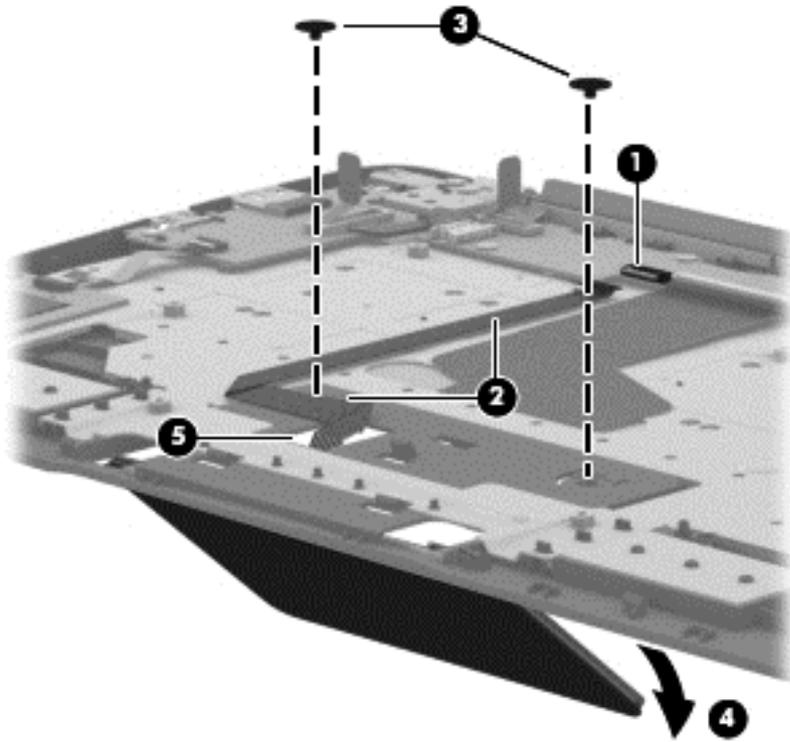
1. Turn off the tablet and keyboard base. If you are unsure whether the tablet and keyboard base are off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet and keyboard base by unplugging the power cord from the tablet and keyboard base.
3. Disconnect the tablet from the keyboard base.
4. Remove the bottom cover (see [Bottom cover on page 61](#)).
5. Remove the keyboard base battery (see [Keyboard base battery on page 62](#)).

Remove the TouchPad:

1. Release the ZIF connector **(1)** to which the TouchPad cable is attached, and then disconnect the TouchPad cable from the docking board.
2. Detach the TouchPad cable **(2)** from the keyboard/top cover. (The TouchPad cable is attached to the keyboard/top cover with double-sided adhesive.)
3. Remove the two Phillips PM1.85×2.75 broad head screws **(3)** that secure the TouchPad to the keyboard/top cover.

4. Remove the TouchPad (4) by pressing it through the keyboard/top cover.

 **NOTE:** When removing the TouchPad, make sure the TouchPad cable routes cleanly through the opening (5) in the keyboard/top cover.



Reverse this procedure to install the TouchPad.

## Card reader board

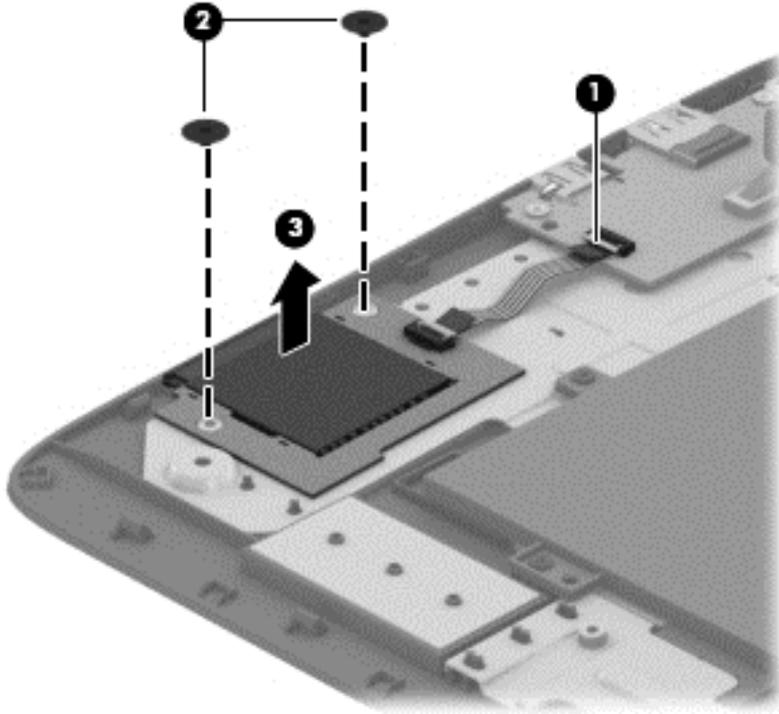
Description	Spare part number
Card reader board (includes cable)	740202-001

Before removing the card reader board, follow these steps:

1. Turn off the tablet and keyboard base. If you are unsure whether the tablet and keyboard base are off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet and keyboard base by unplugging the power cord from the tablet and keyboard base.
3. Disconnect the tablet from the keyboard base.
4. Remove the bottom cover (see [Bottom cover on page 61](#)).
5. Disconnect the keyboard base battery cable from the docking board (see [Keyboard base battery on page 62](#)).

Remove the card reader board:

1. Release the ZIF connector (1) to which the card reader board cable is attached, and then disconnect the card reader board cable from the HDMI/USB board.
2. Remove the two Phillips PM1.85×2.75 broad head screws (2) that secure the card reader board to the keyboard/top cover.
3. Remove the card reader board (3) and cable.



Reverse this procedure to install the card reader board.

## HDMI/USB board

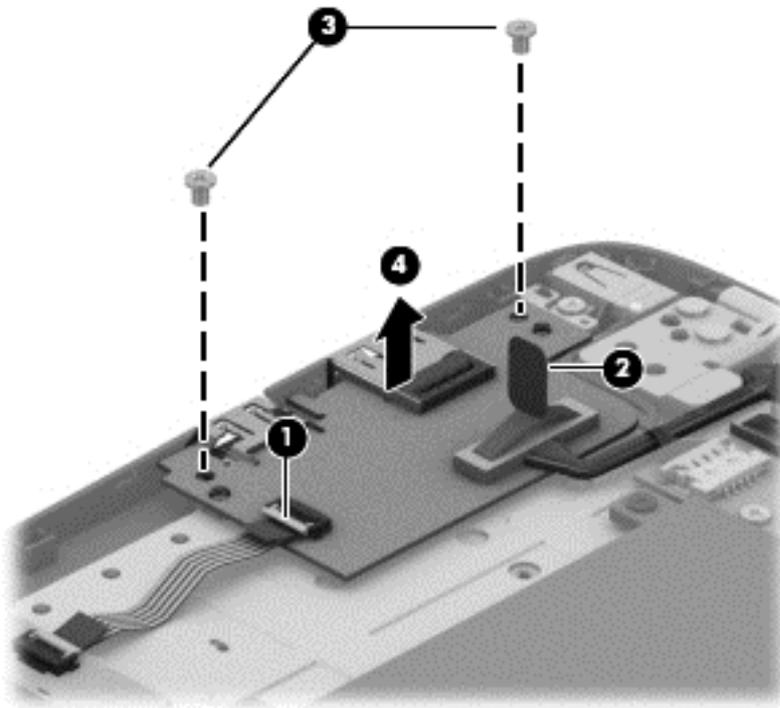
Description	Spare part number
HDMI/USB board (includes HDMI port and USB 3.0 port)	740209-001

Before removing the HDMI/USB board, follow these steps:

1. Turn off the tablet and keyboard base. If you are unsure whether the tablet and keyboard base are off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet and keyboard base by unplugging the power cord from the tablet and keyboard base.
3. Disconnect the tablet from the keyboard base.
4. Remove the bottom cover (see [Bottom cover on page 61](#)).
5. Disconnect the keyboard base battery cable from the docking board (see [Keyboard base battery on page 62](#)).

Remove the HDMI/USB board:

1. Release the ZIF connector (1) to which the card reader board cable is attached, and then disconnect the card reader board cable from the HDMI/USB board.
2. Disconnect the hinge assembly “HDMI side” cable (2) from the HDMI/USB board.
3. Remove the two Phillips PM1.85×3.00 screws (3) that secure the HDMI/USB board to the keyboard/top cover.
4. Remove the HDMI/USB board (4).



Reverse this procedure to install the HDMI/USB board.

## Power connector cable

Description	Spare part number
Power connector cable	740188-001

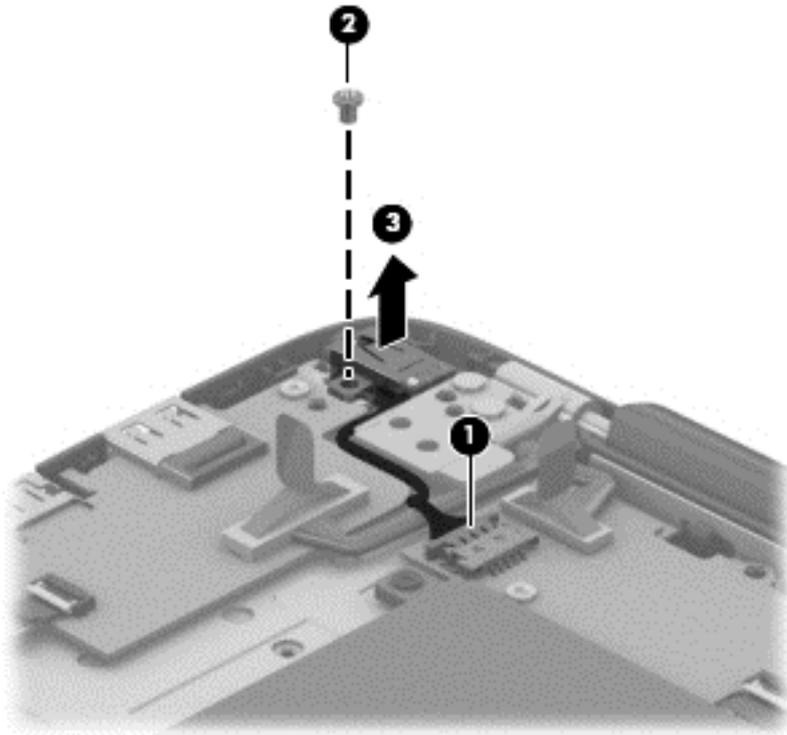
Before removing the power connector cable, follow these steps:

1. Turn off the tablet and keyboard base. If you are unsure whether the tablet and keyboard base are off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet and keyboard base by unplugging the power cord from the tablet and keyboard base.
3. Disconnect the tablet from the keyboard base.
4. Remove the bottom cover (see [Bottom cover on page 61](#)).
5. Disconnect the keyboard base battery cable from the docking board (see [Keyboard base battery on page 62](#)).

Remove the power connector cable:

1. Disconnect the power connector cable **(1)** from the docking board.
2. Remove the Phillips PM1.50×2.25 screw **(2)** that secures the power connector to the keyboard/top cover.

3. Remove the power connector cable (3).



Reverse this procedure to install the power connector cable.

## Audio/USB board

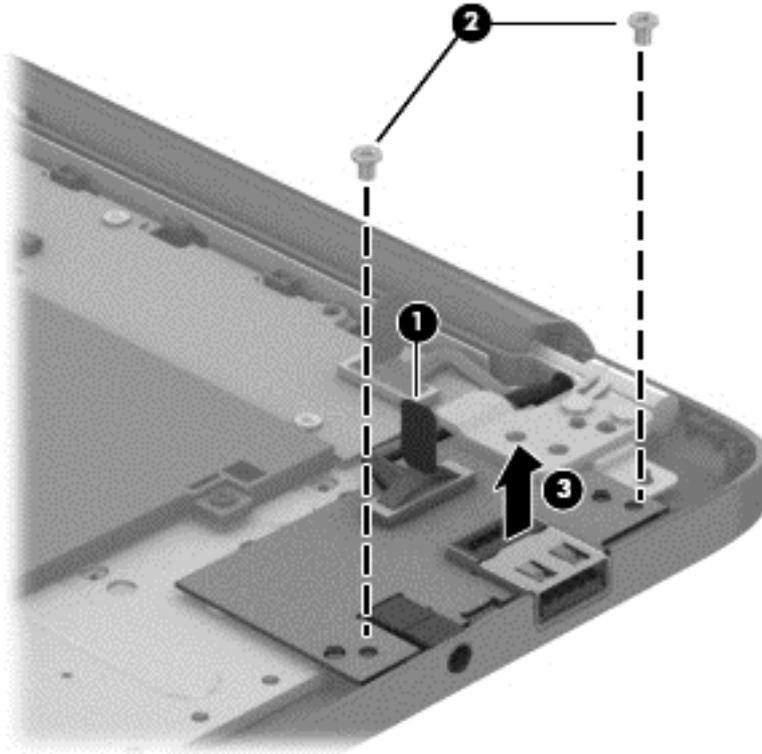
Description	Spare part number
Audio/USB board (includes audio-out/audio-in combo jack and USB 2.0 port)	742733-001

Before removing the audio/USB board, follow these steps:

1. Turn off the tablet and keyboard base. If you are unsure whether the tablet and keyboard base are off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet and keyboard base by unplugging the power cord from the tablet and keyboard base.
3. Disconnect the tablet from the keyboard base.
4. Remove the bottom cover (see [Bottom cover on page 61](#)).
5. Disconnect the keyboard base battery cable from the docking board (see [Keyboard base battery on page 62](#)).

Remove the audio/USB board:

1. Disconnect the hinge assembly “Audio side” cable (1) from the audio/USB board.
2. Remove the two Phillips PM1.85×3.00 screws (2) that secure the audio/USB board to the keyboard/top cover.
3. Remove the audio/USB board (3) and cable.



Reverse this procedure to install the audio/USB board.

## Docking board

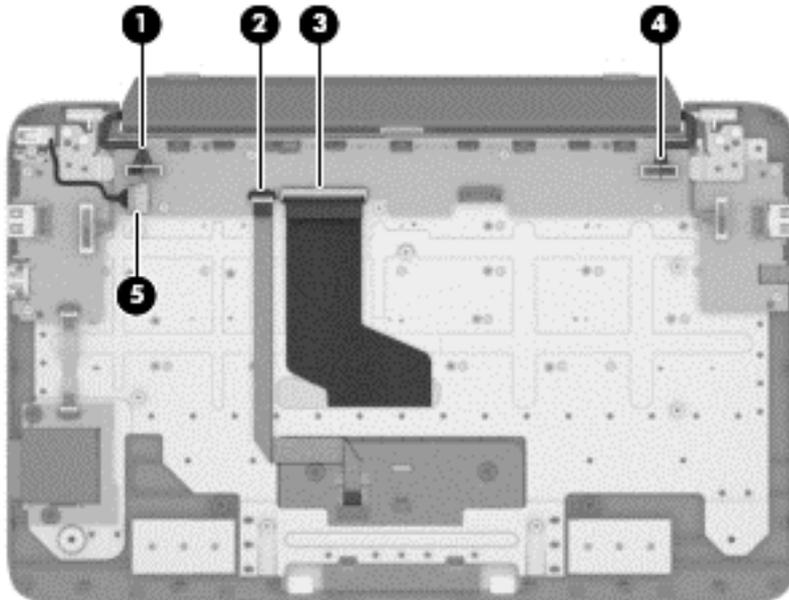
Description	Spare part number
Docking board	740206-001

Before removing the docking board, follow these steps:

1. Turn off the tablet and keyboard base. If you are unsure whether the tablet and keyboard base are off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet and keyboard base by unplugging the power cord from the tablet and keyboard base.
3. Disconnect the tablet from the keyboard base.
4. Remove the bottom cover (see [Bottom cover on page 61](#)).
5. Remove the keyboard base battery (see [Keyboard base battery on page 62](#)).

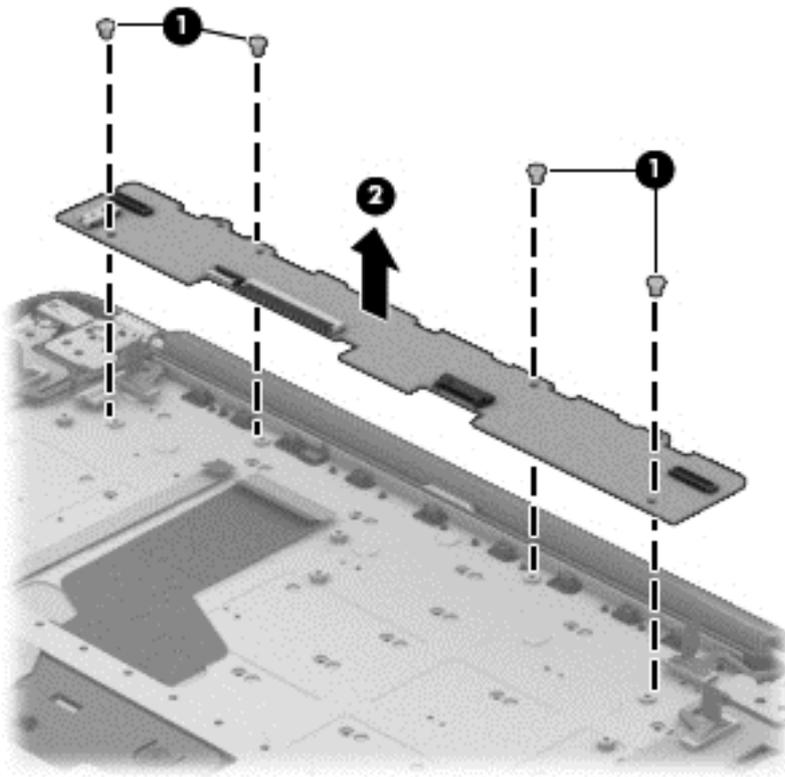
Remove the docking board:

1. Disconnect the following cables from the docking board:
  - (1) and (4) Hinge assembly cables
  - (2) TouchPad cable
  - (3) Keyboard cable
  - (5) Power connector cable



2. Remove the four Phillips PM1.85×2.75 screws (1) that secure the docking board to the keyboard/top cover.

3. Remove the docking board (2).



Reverse this procedure to install the docking board.

## Hinge assembly

 **NOTE:** The hinge assembly spare part kit includes two cables and two rubber feet.

Description	Spare part number
In flyer red finish	740204-001
In pearl white finish	740205-001
In sparkling white finish	740203-001

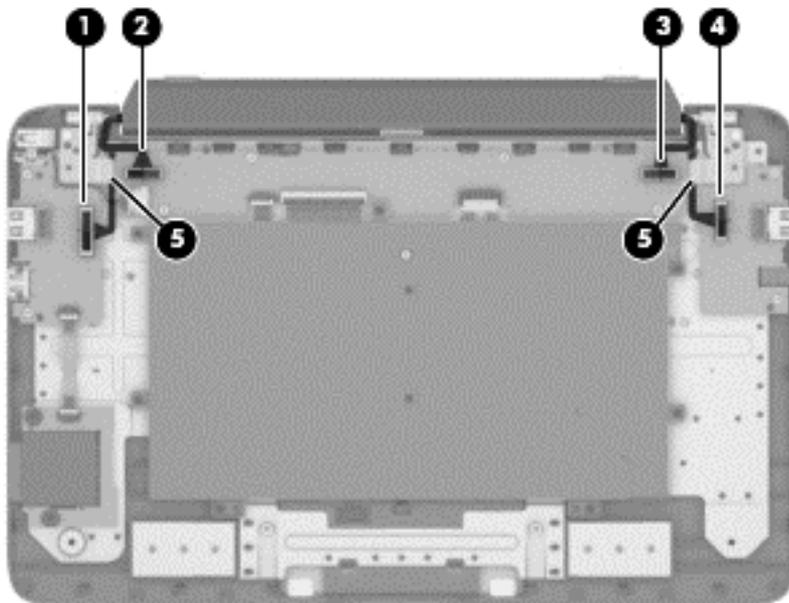
Before removing the hinge assembly, follow these steps:

1. Turn off the tablet and keyboard base. If you are unsure whether the tablet and keyboard base are off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet and keyboard base by unplugging the power cord from the tablet and keyboard base.
3. Disconnect the tablet from the keyboard base.

4. Remove the bottom cover (see [Bottom cover on page 61](#)).
5. Disconnect the keyboard base battery cable from the docking board (see [Keyboard base battery on page 62](#)).

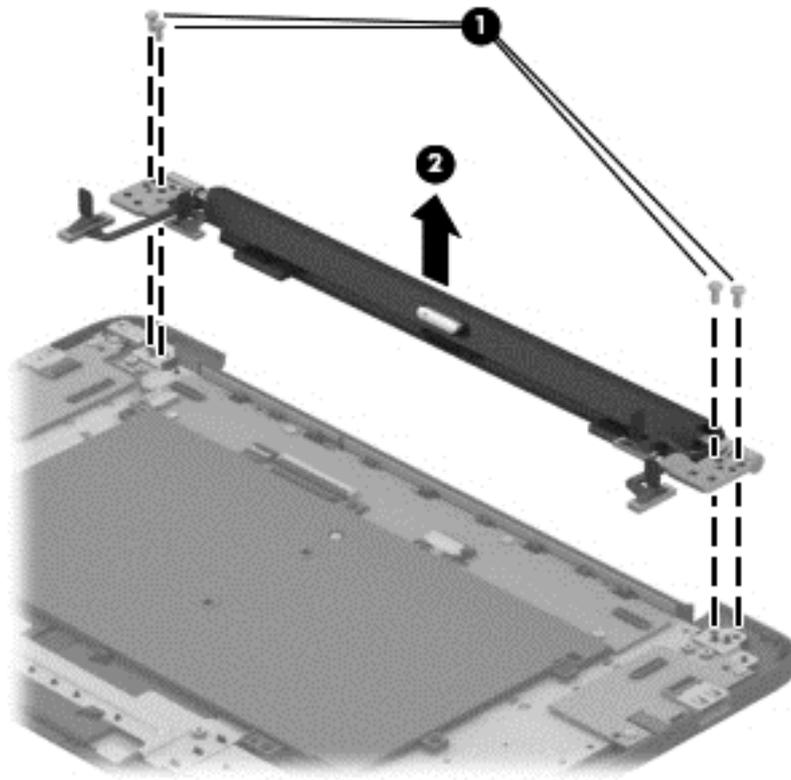
Remove the hinge assembly:

1. Disconnect the following cables:
  - (1) Hinge assembly “HDMI side” cable from the HDMI/USB board
  - (2) and (3) Hinge assembly cables from the docking board
  - (4) Hinge assembly “Audio side” cable from the audio/USB board
2. Release the hinge assembly “HDMI side” cable and “Audio side” cable from the retention clips (5) built into the hinges.



3. Remove the two Phillips PM1.85×5.50 screws (1) that secure the hinge assembly to the keyboard/top cover.

4. Remove the hinge assembly (2) and cables.



Reverse this procedure to install the hinge assembly.

---

# 6 Using Setup Utility (BIOS) and HP PC Hardware Diagnostics (UEFI)

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.

## Starting Setup Utility (BIOS)

To start Setup Utility (BIOS), turn on or restart the computer, quickly press **esc**, and then press **f10**.

Information about how to navigate in Setup Utility (BIOS) is located at the bottom of the screen.



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

---

## 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 revealed by pressing **fn+esc** (if you are already in Windows) or by using Setup Utility (BIOS).

1. Start Setup Utility (BIOS) (see [Starting Setup Utility \(BIOS\) on page 75](#)).
2. Use the arrow keys to select **Main**.
3. To exit Setup Utility (BIOS) without saving your changes, use the arrow keys to select **Exit**, select **Exit Discarding Changes**, and then press **enter**.
4. Select **Yes**.

## 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.

1. From the Start screen, type `support`, and then select the **HP Support Assistant** app.
2. Click **Updates and tune-ups**, and then click **Check for HP updates** now.
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, 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.

If the update is more recent than your BIOS, 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 revealed on the screen after the download is complete. If no instructions are revealed, follow these steps:

1. From the Start screen, type `file`, 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 on your hard drive 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.

# 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.

To start HP PC Hardware Diagnostics UEFI:

1. Turn on or restart the computer, quickly press **esc**, and then press **f2**.

The BIOS searches three places for the HP PC Hardware Diagnostics (UEFI) 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 77](#).

- b. Hard drive
- c. BIOS

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



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

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



**NOTE:** The HP PC Hardware Diagnostics (UEFI) download instructions are provided in English only.

1. Go to <http://www.hp.com>.
2. Click **Support & Drivers**, and then click the **Drivers & Software** tab.
3. Enter the product name in the text box, and then click **Go**.
4. Select your computer model, and then select your operating system.
5. In the **Diagnostic** section, click **HP UEFI Support Environment**.

– or –

Click **Download**, and then select **Run**.

# 7 Specifications

	Metric	U.S.
<b>Tablet dimensions</b>		
Width	30.3 cm	11.9 in
Depth	19.3 cm	7.6 in
Height	1.2 cm	0.5 in
Weight	0.78 kg	1.72 lbs
<b>Keyboard base dimensions</b>		
Width	30.3 cm	11.9 in
Depth	14.7 cm	5.8 in
Height	1.0 cm	0.4 in
Weight	0.71 kg	1.57 lbs
<b>Computer dimensions</b> (tablet and keyboard base)		
Width	30.3 cm	11.9 in
Depth	19.3 cm	7.6 in
Height (includes gaps between tablet and keyboard base)	2.2 cm	0.9 in
Weight	1.49 kg	3.29 lbs
<b>Input power</b>		
Operating voltage and current	19.5 V dc @ 3.33 A – 65 W	
	19.5 V dc @ 2.31 A – 45 W	
<b>Temperature</b>		
Operating	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F
<b>Relative humidity</b> (noncondensing)		
Operating	10% to 90%	
Nonoperating	5% to 95%	
<b>Maximum altitude</b> (unpressurized)		
Operating	-15 m to 3,048 m	-50 ft to 10,000 ft

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	<b>Metric</b>	<b>U.S.</b>
Nonoperating	<b>-15 m to 12,192 m</b>	-50 ft to 40,000 ft

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

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# 8 Backing up, restoring, and recovering

This chapter provides information about the following processes:

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

## Creating recovery media and backups

1. After you successfully set up the computer, create HP Recovery media. 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.

HP Recovery media you create will provide the following recovery options:

- System Recovery—Reinstalls the original operating system and the programs that were installed at the factory.
- Minimized Image Recovery—Reinstalls the operating system and all hardware-related drivers and software, but not other software applications.
- 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.

See [Creating HP Recovery media on page 81](#).

2. Use the Windows tools to create system restore points and create backups of personal information. For more information and steps, see Help and Support. From the Start screen, type `help`, and then select **Help and Support**.

## Creating HP Recovery media

HP Recovery Manager is a software program that offers a way 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 the software programs 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 HP 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 blank USB flash drive or the number of blank DVD discs 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, or you can obtain recovery discs 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. 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.
- Be sure that the computer is connected to AC power before you begin creating the recovery media.

- The creation process can take up to 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, and the remaining discs will be burned.

To create HP Recovery media:



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**IMPORTANT:** For tablets, connect to the keyboard dock before beginning these steps (select models only).

---

1. From the Start screen, type `recovery`, and then select **HP Recovery Manager**.
2. Select **Recovery Media Creation**, and then follow the on-screen instructions.

If you ever need to recover the system, see [Recovering using HP Recovery Manager on page 83](#).

## Restore and recovery

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

- Windows offers several options for restoring from backup, refreshing the computer, and resetting the computer to its original state. For more information and steps, see Help and Support. From the Start screen, type `help`, and then select **Help and Support**.
- If you need to correct a problem with a preinstalled application or driver, use the Drivers and Applications Reinstall option of HP Recovery Manager to reinstall the individual application or driver.

From the Start screen, type `recovery`, select **HP Recovery Manager**, select **Drivers and Applications Reinstall**, and then follow the on-screen instructions.

- If you want to reset your computer using a minimized image, you can choose the HP Minimized Image Recovery option from the HP Recovery partition (select models only) or HP Recovery media. Minimized Image Recovery installs only drivers and hardware-enabling applications. Other applications included in the image continue to be available for installation through the Drivers and Applications Reinstall option in HP Recovery Manager.

For more information, see [Recovering using HP Recovery Manager on page 83](#)

- If you want to recover the computer's original factory partitioning and content, you can choose the System Recovery option from the HP Recovery partition (select models only) or use the HP Recovery media that you have created. For more information, see [Recovering using HP Recovery Manager on page 83](#). If you have not already created recovery media, see [Creating HP Recovery media on page 81](#).
- If you have replaced the hard drive, you can use the Factory Reset option of HP Recovery media to restore the factory image to the replacement drive. For more information, see [Recovering using HP Recovery Manager on page 83](#).
- If you wish 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 on page 85](#).

## 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 created or by using the HP Recovery partition (select models only). If you have not already created recovery media, see [Creating HP Recovery media on page 81](#).

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

- System Recovery—Reinstalls the original operating system, and then configures the settings for the programs that were installed at the factory.
- Minimized Image Recovery (select models only)—Reinstalls the operating system and all hardware-related drivers and software, but not other software applications.
- 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 models only) allows System Recovery and Minimized Image Recovery.

## What you need to know

- 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.
- 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 on page 81](#).
- To use the Factory Reset option, you must use HP Recovery media. If you have not already created recovery media, see [Creating HP Recovery media on page 81](#).
- 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.



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

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## Using the HP Recovery partition (select models only)

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

To start HP Recovery Manager from the HP Recovery partition:



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**IMPORTANT:** For tablets, connect to the keyboard dock before beginning these steps (select models only).

---

1. Press **f11** while the computer boots.  
– or –  
Press and hold **f11** as you press the power button.
2. Choose your keyboard layout.
3. Select **Troubleshoot** from the boot options menu.
4. 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 disc you created, 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 85](#).

3. Follow the on-screen instructions.

## Changing the computer boot order

If 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 for an optical drive or a USB flash drive.

To change the boot order:

1. Insert the HP Recovery media you created.
2. Restart the computer, quickly press **esc**, and then press **f9** for boot options.
3. Select the optical drive or USB flash drive you want to boot from.
4. Follow the on-screen instructions.

## Removing the HP Recovery partition

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 can no longer use the Windows Refresh option, the Windows option to remove everything and reinstall Windows, or the HP Recovery Manager option. So before you remove the Recovery partition, create HP Recovery media; see [Creating HP Recovery media on page 81](#).

Follow these steps to remove the HP Recovery partition:

1. From the Start screen, type `recovery`, and then select **HP Recovery Manager**.
2. Select **Remove Recovery Partition**, and then follow the on-screen instructions.

# 9 Power cord set requirements

The wide-range input feature of the computer permits it to operate from any line voltage from 100 to 120 volts AC, or from 220 to 240 volts 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 and regions must meet the requirements of the country or 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 amps 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 all countries 113

## Requirements for specific countries and regions

Country/region	Accredited agency	Applicable note number
Australia	EANSW	1
Austria	OVE	1
Belgium	CEBC	1
Canada	CSA	2
Denmark	DEMKO	1
Finland	FIMKO	1
France	UTE	1
Germany	VDE	1
Italy	IMQ	1

Country/region	Accredited agency	Applicable note number
Japan	METI	3
The Netherlands	KEMA	1
Norway	NEMKO	1
The People's Republic of China	COC	5
South Korea	EK	4
Sweden	CEMKO	1
Switzerland	SEV	1
Taiwan	BSMI	4
The United Kingdom	BSI	1
The United States	UL	2

1. The flexible cord must be Type HO5VV-F, 3-conductor, 1.0-mm<sup>2</sup> conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.
2. The flexible cord must be Type SPT-3 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) or NEMA 6-15P (15 A, 250 V) configuration.
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 VCT or VCTF, 3-conductor, 1.00-mm<sup>2</sup> conductor size. The wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (7 A, 125 V) configuration.
4. The flexible cord must be Type RVV, 3-conductor, 0.75-mm<sup>2</sup> conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.
5. The flexible cord must be Type VCTF, 3-conductor, 0.75-mm<sup>2</sup> conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.

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# 10 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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