



HP Pro Tablet 610 and HP Omni10

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 tablet.

Not all features are available in all editions of Windows 8. This tablet 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.

Software terms

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

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

Safety warning notice

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

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1 Product description

Category	Description	HP Pro Tablet 610	HP Omni10
Product Name	HP Pro Tablet 610	×	
	HP Omni10		×
Processor	Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor	×	
	Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor		
	Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor		×
Panel	10.1-in, AntiGlare (AG), light-emitting display (LED), WUXGA (1920×1200) , multitouch, capacitive, Gorilla glass 3 TouchScreen (with antismudge and air-bonding, Windows 8 compliant); .ultraslim; 16:10 aspect ratio, typical brightness: 400 nits; 18-bit color depth with FRC; ≥80/80/80/80 viewing angle; UWVA Dual-link eDP interface	×	×
Graphics	Intel Graphics Media Accelerator	×	×
	Support for HD playback, streaming, and recording at 1080p at 30fps		
	Support for DX11		
Memory	Support for 2048-MB (1024-MB × 2), 8-GB at 1600-MHz LPDDR3 128M × 32 × 2 memory IC	×	×
Mass storage	Support for embedded MultiMediaCard (eMMC) NAND flash (v4.51)	×	×
	Support for 64- or 32-GB eMMC mass storage memory		

Category	Description	HP Pro Tablet 610	HP Omni10
Audio and video	<p>One digital microphone</p> <p>Stereo speakers</p> <p>2.0-MP front-facing webcam with webcam activity light</p> <p>8.0-MP rear-facing webcam with auto-focus</p>	×	×
Sensors	<ul style="list-style-type: none"> • Ambient light sensor • Accelerometer • eCompass • Gyro • Hall-effect sensor 	×	×
Wireless networking	<p>Integrated wireless option: Mitsumi DWM-W095A WiFi+BT 4.0 combination module with 2 antenna</p> <p>Bluetooth: Class 1 Bluetooth 4.0+LE</p> <p>Wifi: 802.11a/b/g/n 2x2 multiple-input and multiple-output (MIMO)</p>	×	×
External expansion	Integrated micro SD card, support SDXC in DDR50, SDR25 and SDR12 mode	×	×
Ports	<ul style="list-style-type: none"> • Audio: 3.5-mm headphone/microphone combo jack, support NA type headset only • HDMI type-D connector • Power connector • Micro USB 2.0 type AB connector (support for host mode only) 	×	×
Keys	<ul style="list-style-type: none"> • Power • Volume down • Volume up 	×	×
Power requirements	<p>Support for 2-cell, 3.10-WHr, 4.19-AHr, Li-ion battery (non-removable)</p> <p>Support for 18-W (12-V/1.5-A) non-PFC AC adapter with DC plug and localized cable plug support</p>	×	×
Security	Software-based Trusted Platform Module (TPM) solution	×	×

Category	Description	HP Pro Tablet 610	HP Omni10
Operating system	Preinstalled: Microsoft Windows 8.1 (32-bit)	x	x
Serviceability	End user replaceable part: AC adapter	x	x

2 External component identification

Finding your hardware and software information

Locating hardware

To find out what hardware is installed on the tablet:

1. On the Start screen, type `control panel`, and then select **Control Panel**.
2. Select **System and Security**, and then in the **System** area, tap **Device Manager**. A list displays all the devices installed on the tablet.

Locating software

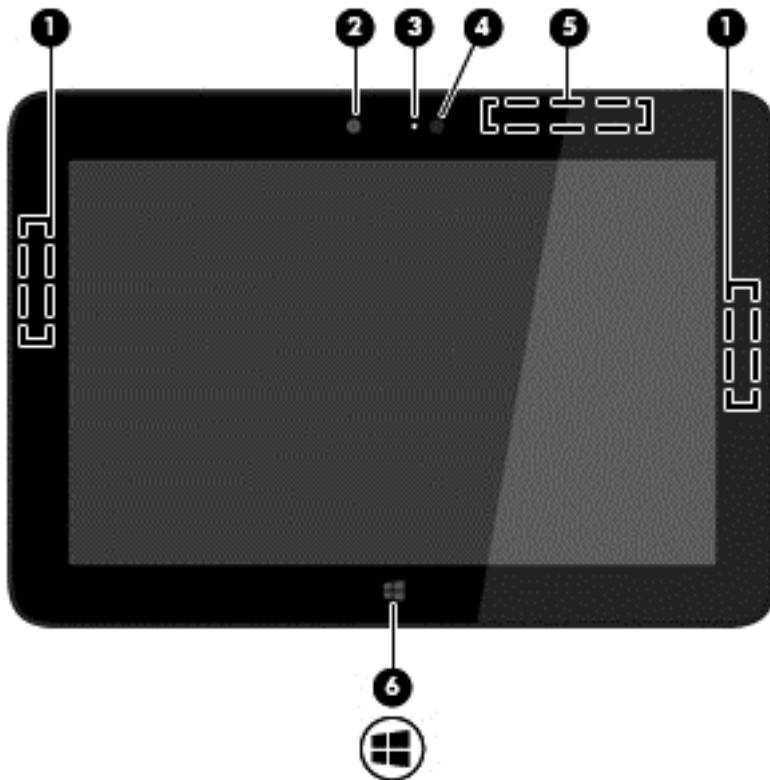
To find out what software is installed on the tablet:

- ▲ Swipe from the left until the arrow appears, and then tap the arrow in the lower-left corner of the screen.

– or –

Swipe up from the bottom to display the Apps screen.

Front



Item	Component	Description
(1)	WLAN antennas (2)*	Send and receive wireless signals to communicate with wireless local area networks.
(2)	Webcamera	Records video and captures photographs. Some models allow you to video conference and chat online using streaming video. To use the webcam, on the Start screen, tap the Camera app.
(3)	Webcamera light	On: The webcam is in use.
(4)	Ambient light sensor	Automatically adjusts the display brightness based on the lighting conditions in your environment.
(5)	WWAN antennas (2)* (select models only)	Send and receive wireless signals to communicate with wireless wide area networks.
(6)	Windows button	Minimizes all open applications and displays the Start screen.

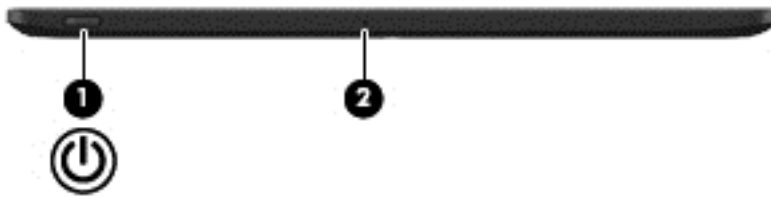
*The antennas are not visible from the outside of the tablet. For optimal transmission, keep the areas immediately around the antennas free from obstructions. For wireless regulatory notices, see the section of the *Regulatory, Safety, and Environmental Notices* that applies to your country or region. To access this guide, on the Start screen, type `support`, select the **HP Support Assistant** app, select **My Computer**, and then select **User guides**.

Back



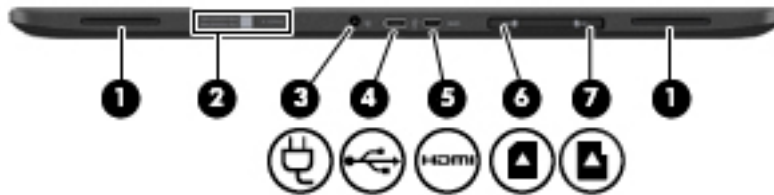
Item	Component	Description
(1)	Volume down button	To decrease speaker volume, press the bottom edge of the button.
(2)	Volume up button	To increase speaker volume, press the top edge of the button.
(3)	Webcamera	Records video and captures photographs. To use the webcam, on the Start screen, tap the Camera app.
(4)	Audio-out (headphone)/ Audio-in (microphone) jack	Connects optional powered stereo speakers, headphones, earbuds, a headset, or a television audio cable. Also connects an optional headset microphone. This jack does not support optional microphone-only devices. WARNING! To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, refer to the <i>Regulatory, Safety, and Environmental Notices</i> . To access this guide, on the Start screen, type <code>support</code> , select the HP Support Assistant app, select My computer , and then select User guides . NOTE: When a device is connected to the jack, the tablet speakers are disabled. NOTE: Be sure that the device cable has a 4-conductor connector that supports both audio-out (headphone) and audio-in (microphone).

Top edge



Item	Component	Description
(1)	Power button	<ul style="list-style-type: none">• When the tablet is off, press the button to turn on the tablet.• When the tablet is on, press the button briefly to initiate Sleep.• When the tablet is in the Sleep state, press the button briefly to exit Sleep.• When the tablet is in Hibernation, press the button briefly to exit Hibernation. <p>CAUTION: Pressing and holding down the power button will result in the loss of unsaved information.</p> <p>If the tablet 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.</p> <p>NOTE: For select models, the Intel Rapid Start Technology feature is enabled at the factory. Rapid Start Technology allows your tablet to resume quickly from inactivity.</p> <p>To learn more about your power settings, see your power options. On the Start screen, type <code>power options</code>, and then select Power Options.</p>
(2)	Internal microphone	Records sound.

Back edge



Item	Component	Description
(1)	Speakers (2)	Produce sound.
(2)	Serial number and product number	Provide important information to identify your tablet. When contacting support, you will probably be asked for the serial number, and possibly for the product number or the model number. Locate these numbers before you contact support.
(3)	Power connector	Connects an AC adapter.
(4)	Micro USB 2.0 port	Connects an optional micro USB device.
(5)	Micro HDMI port	Connects an optional video or audio device, such as a high-definition television, any compatible digital or audio component, or a high-speed HDMI device.
(6)	Micro SIM slot	Supports a wireless subscriber identity module (SIM) (select models only).
(7)	Micro memory card reader	Reads optional memory cards that store, manage, share, or access information. To insert a card: Hold the card label-side up, with connectors facing the slot, insert the card into the slot, and then push in on the card until it is firmly seated. To remove a card: Press in on the card it until it pops out.

Labels


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



IMPORTANT: All labels described in this section are located on the back of the tablet.

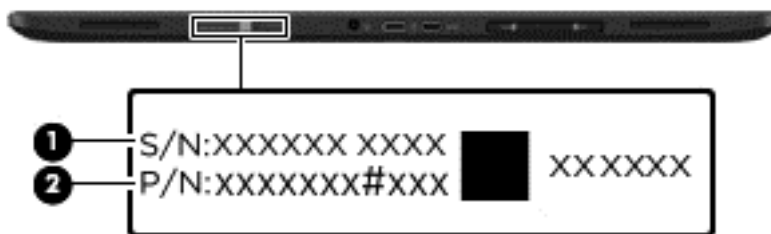
- Serial number and product number are located on the bottom edge of the tablet and/or affixed to the back of the tablet. When contacting support, you will probably be asked for the serial number, and possibly for the product number or the model number. Locate these numbers before you contact support.
- Regulatory label(s)—Provide(s) regulatory information about the tablet. Regulatory markings for your country or region are located on the back of the tablet. For regulatory identification purposes, your product is assigned a Regulatory Model Number. The regulatory number should not be confused with the marketing name or product numbers. For more information, see the Quick Start guide included with your tablet.
- Wireless certification label(s)—Provide(s) information about optional wireless devices and the approval markings for the countries or regions in which the devices have been approved for use.

3 Illustrated parts catalog

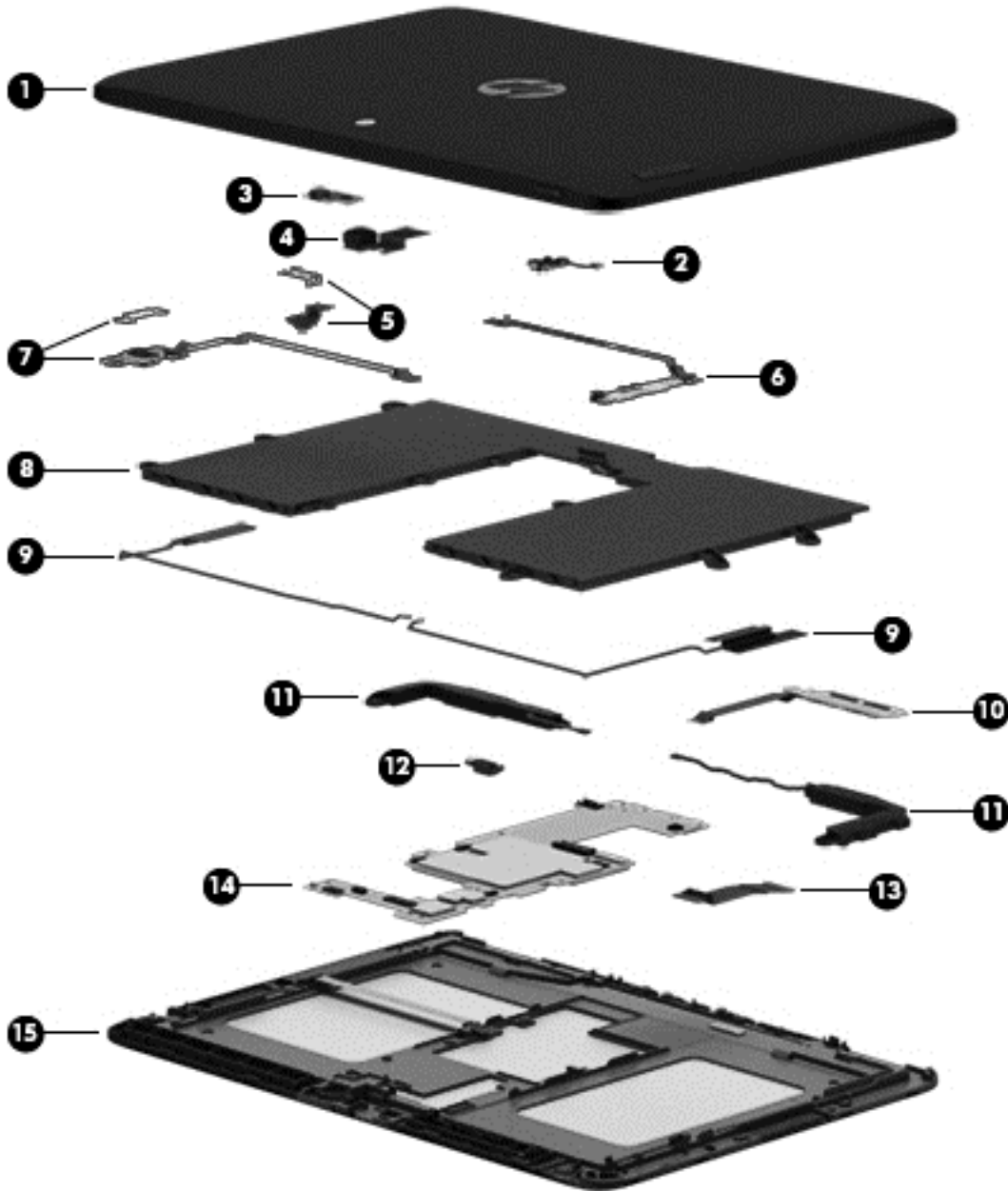
 **NOTE:** HP continually improves and changes product parts. For complete and current information on supported parts for your computer, go to <http://partsurfer.hp.com>, select your country or region, and then follow the on-screen instructions.

Locating the serial number, product number, and model number

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



Tablet major components



Item	Component	Spare part number
(1)	Back cover (includes shielding):	
	For use only on HP Pro Tablet 610 tablet models	763533-001
	For use only on HP Omni 10 tablet models	739813-001
(2)	Power button board (includes cable)	739807-001
(3)	Light sensor board (includes double-sided adhesive and microphone)	739810-001
(4)	Front-facing webcam (includes cable and double-sided adhesive)	739815-001

Item	Component	Spare part number
(5)	Rear-facing webcam (includes bracket and cable)	739816-001
(6)	Volume button board (includes cable and double-sided adhesive)	739808-001
(7)	Audio board (includes bracket and cable)	739811-001
(8)	Battery , 2-cell, 3.10-WHr, 4.19-AHr, Li-ion (includes cable)	740479-001
(9)	Antenna Kit (includes left and right wireless antenna cables and transceivers)	744496-001
(10)	SIM/card reader board (includes cable)	739809-001
(11)	Speaker Kit (includes left and right speakers and cables)	739814-001
(12)	Vibrator module (includes cable)	741075-001
(13)	Display panel cable	739817-001
(14)	System board:	
	For use only on HP Pro Tablet 610 tablet models:	
	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor, 4.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Professional operating system	764203-601
	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor, 4.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system	764203-501
	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor, 4.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems	764203-001
	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Professional operating system	764202-601
	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system	764202-501
	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems	764202-001
	For use only on HP Omni 10 tablet models:	

Item	Component	Spare part number
	System board equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system	739805-501
	System board equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems	739805-001
	NOTE: This system board spare part kit is also used by European, Middle Eastern, and African countries and regions for refurbishing.	
	System board equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system	739803-501
	System board equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems	739803-001
	NOTE: This system board spare part kit is also used by European, Middle Eastern, and African countries and regions for refurbishing.	
(15)	10.1-in, AG, LED, WUXGA, TouchScreen, display panel assembly	
	NOTE: The display assembly does not include the display panel cable. The display panel cable is available using spare part number 739817-001.	
	For use only on HP Pro Tablet 610 tablet models	763536-001
	For use only on HP Omni 10 tablet models	739812-001

Miscellaneous parts

Component	Spare part number
18-W AC adapter:	
For use only on HP Pro Tablet 610 tablet models in Australia	741855-002
For use on all tablet models in Europe and South Korea	741855-009
For use only on HP Pro Tablet 610 tablet models in India	741855-005
For use on all tablet models in North America	741855-008
For use on all tablet models in the United Kingdom	741855-003
Screw Kit	744498-001

Sequential part number listing

Spare part number	Description
739803-001	System board for use only on HP Omni 10 tablet models equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems NOTE: This system board spare part kit is also used by European, Middle Eastern, and African countries and regions for refurbishing.
739803-501	System board for use only on HP Omni 10 tablet models equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system
739805-001	System board for use only on HP Omni 10 tablet models equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems NOTE: This system board spare part kit is also used by European, Middle Eastern, and African countries and regions for refurbishing.
739805-501	System board for use only on HP Omni 10 tablet models equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system
739807-001	Power button board (includes cable)
739808-001	Volume button board (includes cable and double-sided adhesive)
739809-001	SIM/card board (includes cable)
739810-001	Light sensor board (includes double-sided adhesive and microphone)
739811-001	Audio board (includes bracket and cable)
739812-001	10.1-in, AG, LED, WUXGA, TouchScreen, display panel assembly for use only on HP Omni 10 tablet models
739813-001	Back cover for use only on HP Omni 10 tablet models
739814-001	Speaker Kit (includes left and right speakers and cables)
739815-001	Front-facing webcam (includes cable and double-sided adhesive)
739816-001	Rear-facing webcam (includes bracket and cable)
739817-001	Display panel cable (includes double-sided adhesive)
740479-001	Battery, 2-cell, 3.10-WHr, 4.19-AHr, Li-ion, (includes cable)
741075-001	Vibrator module (includes cable)
741855-002	18-W AC adapter for use only on HP Pro Tablet 610 tablet models in Australia (includes plug)
741855-003	18-W AC adapter for use on all tablet models in the United Kingdom (includes plug)
741855-005	18-W AC adapter for use only on HP Pro Tablet 610 tablet models in India (includes plug)

Spare part number	Description
741855-008	18-W AC adapter for use on all tablet models in North America (includes plug)
741855-009	18-W AC adapter for use on all tablet models in Europe and South Korea (includes plug)
744496-001	Antenna Kit (includes left and right wireless antenna cables and transceivers)
744497-001	Card reader bezel
744498-001	Screw Kit
763533-001	Back cover for use only on HP Pro Tablet 610 tablet models
763536-001	10.1-in, AG, LED, WUXGA, TouchScreen, display panel assembly for use only on HP Pro Tablet 610 tablet models
764202-001	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems
764202-501	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system
764202-601	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Professional operating system
764203-001	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor, 4.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Professional operating system
764203-501	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor, 4.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system
764203-601	System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor, 4.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems

4 Removal and replacement preliminary requirements


Tools required

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


- Plastic case utility tool
- Flat-bladed screw driver
- Magnetic screw driver
- Phillips PO screw driver

Service considerations


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

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

Plastic parts

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

Cables and connectors

 **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.

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

 **CAUTION:** 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.

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

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

There are as many as 19 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.

Back cover

Description	Spare part number
Back cover (includes shielding):	
For use only on HP Pro Tablet 610 tablet models	763533-001
For use only on HP Omni 10 tablet models	739813-001
10.1-in, AG, LED, WUXGA, TouchScreen, display assembly	
NOTE: The display assembly does not include the display panel cable. The display panel cable is available using spare part number 739817-001.	
For use only on HP Pro Tablet 610 tablet models	763536-001
For use only on HP Omni 10 tablet models	739812-001

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 back cover:

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

1. Place the tablet on a flat surface, display panel side down, with the power button toward you.

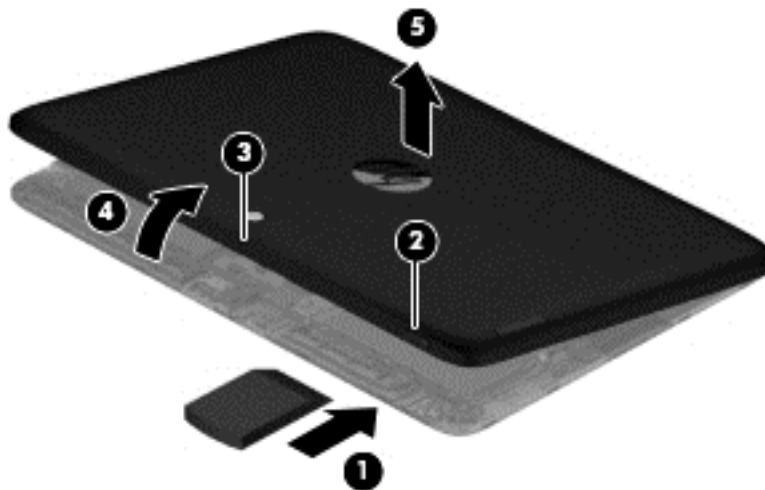
⚠ CAUTION: When inserting the plastic tool into the tablet as described in Step 2, make sure not to insert the tool into the power button area. Failure to follow this caution can result in damage to the tablet.

2. Insert a thin, plastic tool **(1)** between the back cover and the display assembly. The first insertion point should be between the power button **(2)** and the middle of the top edge **(3)** of the back cover.

3. Separate the top edge of the back cover **(4)** from the display assembly.

⚠ CAUTION: When removing the back cover, make sure the bottom edge, opposite the power button, is the last edge removed. Failure to follow this caution can result in damage to the tablet.

4. Remove the back cover **(5)**.



Reverse this procedure to install the back cover.

⚠ CAUTION: When installing the back cover, make sure the bottom edge, opposite the power button, is the first edge installed. Failure to follow this caution can result in damage to the tablet.

Power button board

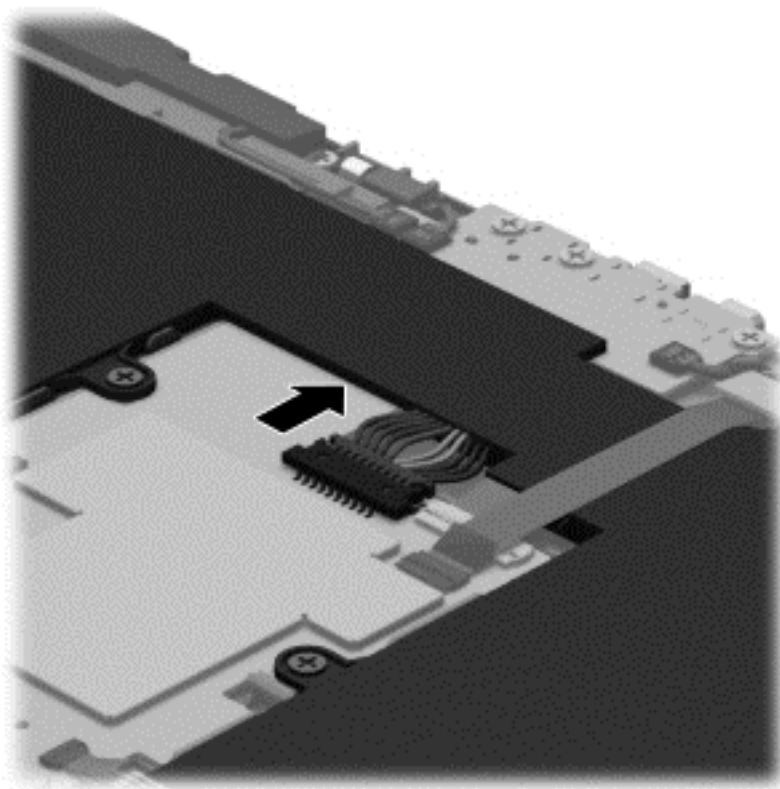
Description	Spare part number
Power button board (includes cable)	739807-001

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 back cover (see [Back cover on page 20](#)).

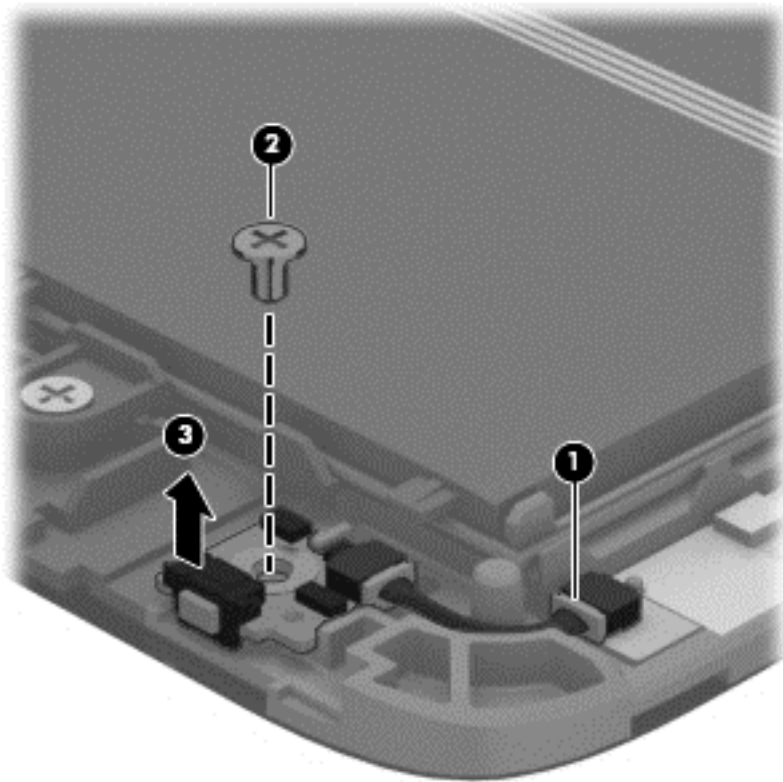
Remove the power button board:

1. Disconnect the battery cable from the system board.



2. Disconnect the power button board cable **(1)** from the volume button board.
3. Remove the Phillips PM2.0×3.0 screw **(2)** that secures the power button board to the display assembly.

4. Remove the power button board **(3)** and cable.



Reverse this procedure to install the power button board.

Volume button board

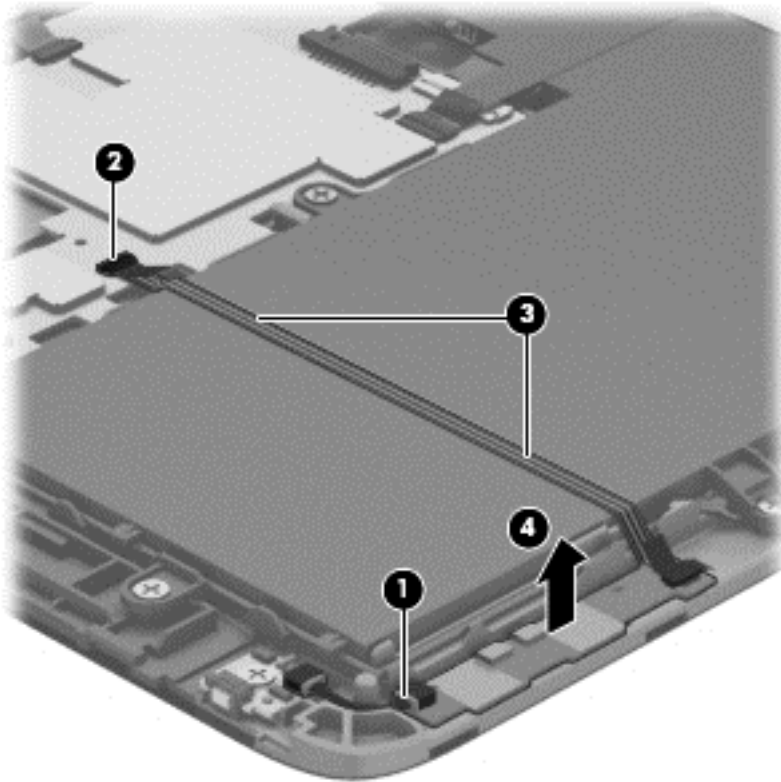
Description	Spare part number
Volume button board (includes cable)	739808-001

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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)).

Remove the volume button board:

1. Disconnect the power button board cable **(1)** from the volume button board.
2. Release the zero insertion force (ZIF) connector **(2)** to which the volume button board cable is attached, and then disconnect the volume button board cable from the system board.
3. Detach the volume button board cable **(3)** from the battery. (The volume button board cable is attached to the battery with double-sided adhesive.)
4. Detach the volume button board **(4)** from the display assembly. (The volume button board is attached to the display assembly with double-sided adhesive.)



5. Remove the volume button board and cable.

Reverse this procedure to install the volume button board.

Front-facing webcam

Description	Spare part number
Front-facing webcam (includes cable and double-sided adhesive)	739815-001

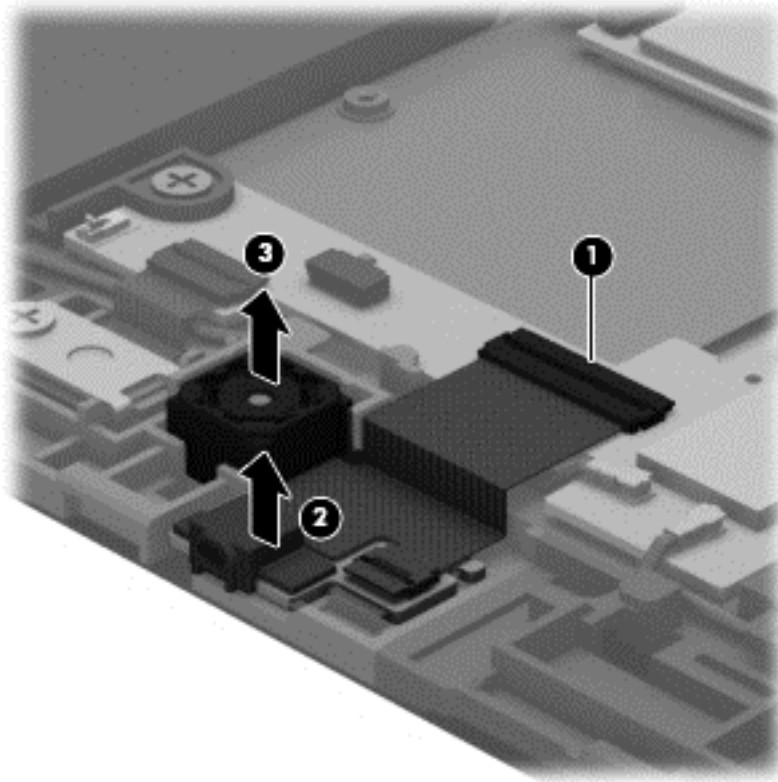
Before removing the front-facing webcam, follow these steps:

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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)).

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. Release the microphone **(2)** from the mold built into the display assembly.

3. Detach the front-facing webcam (3) from the display assembly. (The front-facing webcam is attached to the display assembly with double-sided adhesive.)



4. Remove the front-facing webcam, microphone, and cable.
Reverse this procedure to install the front-facing webcam.

Light sensor board

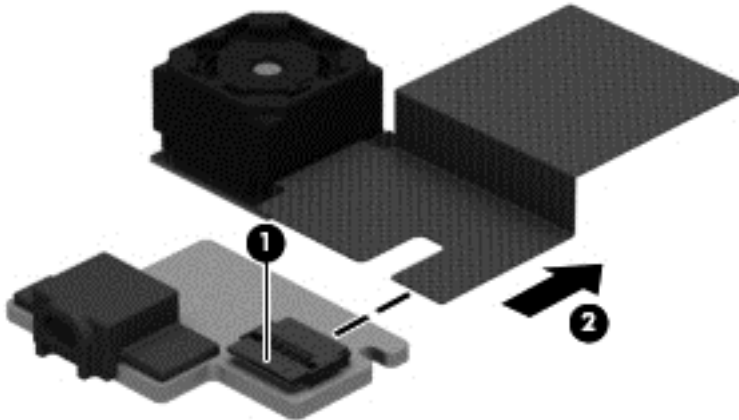
Description	Spare part number
Light sensor board (includes double-sided adhesive and microphone)	739810-001

Before removing the light 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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)).
6. Remove the rear-facing webcam (see [Rear-facing webcam on page 28](#)).

Remove the light sensor board:

1. Release the ZIF connector **(1)** to which the rear-facing webcam cable is attached, and then disconnect the rear-facing webcam cable **(2)** from the light sensor board.



2. Remove the light sensor board.

Reverse this procedure to install the light sensor board.

Rear-facing webcamera

Description	Spare part number
Rear-facing webcamera (includes bracket and cable)	739816-001

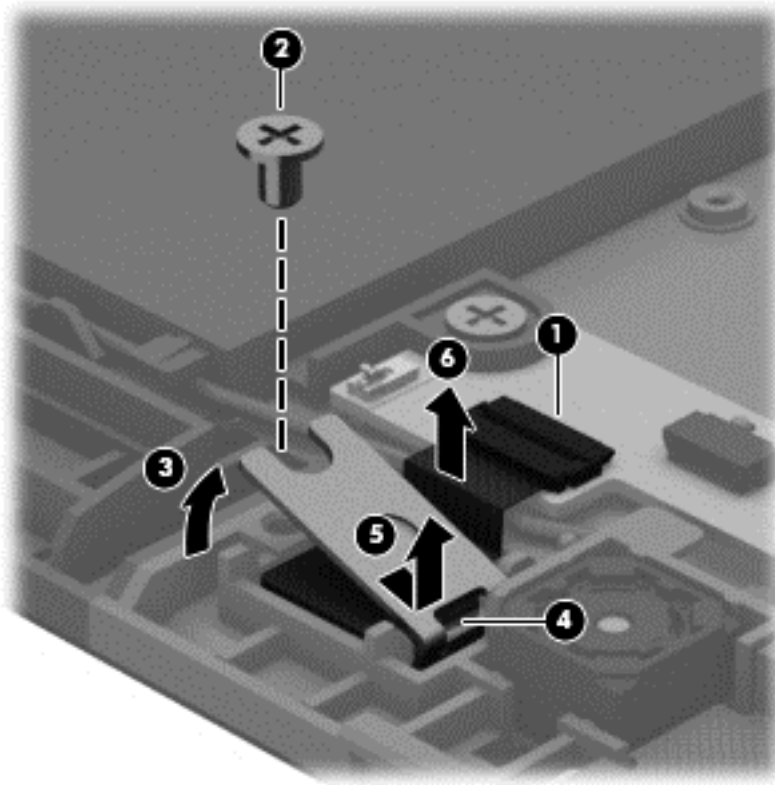
Before removing the rear-facing webcamera, follow these steps:

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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)).

Remove the rear-facing webcamera:

1. Release the ZIF connector **(1)** to which the rear-facing webcamera cable is attached, and then disconnect the rear-facing webcamera cable from the system board.
2. Remove the Phillips PM2.0×3.0 screw **(2)** that secures the rear-facing webcamera bracket to the tablet.
3. Lift the left side of the bracket **(3)** until it releases from the tab **(4)**, and then remove the bracket **(5)**.

4. Remove the rear-facing webcam and cable (6).



Reverse this procedure to install the rear-facing webcam.

Audio board

Description	Spare part number
Audio board (includes bracket and cable)	739811-001

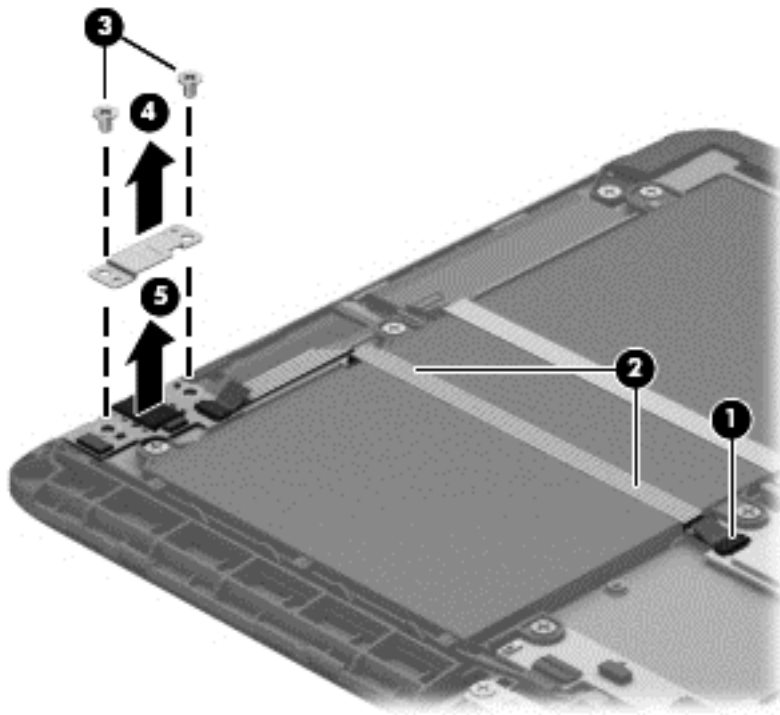
Before removing the audio board, follow these steps:

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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)).

Remove the audio board:

1. Release the ZIF connector **(1)** to which the audio board cable is attached, and then disconnect the audio board cable from the system board.
2. Detach the audio board cable **(2)** from the battery. (The audio board cable is attached to the battery with double-sided adhesive.)
3. Remove the two Phillips PM2.0×3.0 screws **(3)** that secure the audio board and bracket to the display assembly.
4. Remove the audio board bracket **(4)**.

5. Remove the audio board and cable (5).



Reverse this procedure to install the audio board.

Vibrator module

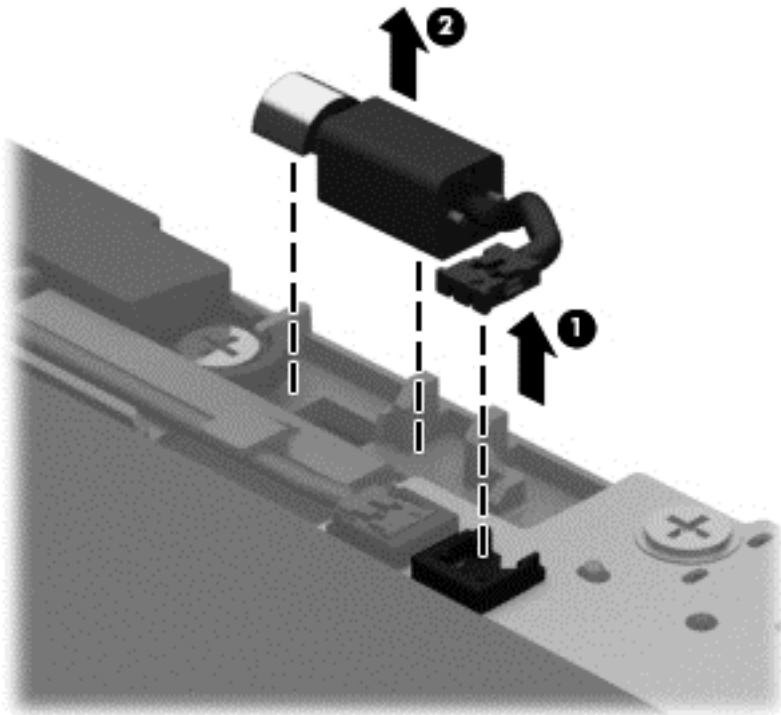
Description	Spare part number
Vibrator module (includes cable)	741075-001

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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)).

Remove the vibrator module:

1. Disconnect the vibrator module cable **(1)** from the system board.
2. Release the vibrator module **(2)** from the clip molded into the display assembly.



3. Remove the vibrator module and cable.


Reverse this procedure to install the vibrator module.


Battery

Description	Spare part number
Battery, 2-cell, 3.10-WHr, 4.19-AHr, Li-ion (includes cable)	739807-001

Before removing the 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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)).
6. Remove the volume button board (see [Volume button board on page 23](#)).
7. Remove the audio board (see [Audio board on page 30](#)).

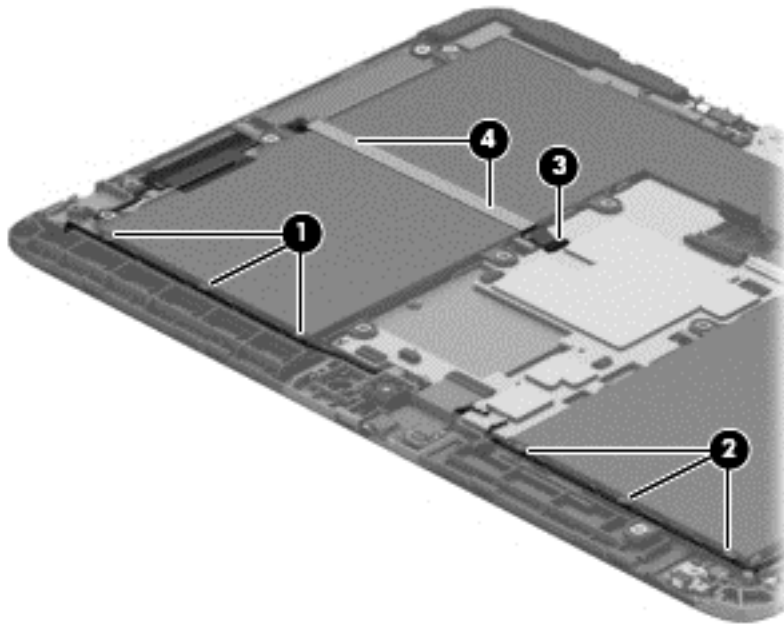
 **WARNING!** To reduce potential safety issues, use only the battery provided with the tablet, a replacement battery provided by HP, or a compatible battery purchased from HP.

 **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.

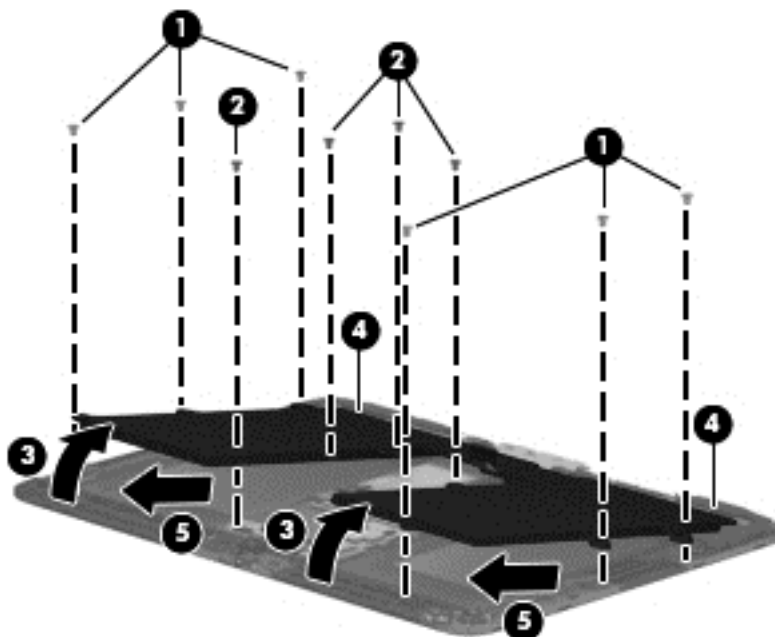
Remove the battery:

1. Release the wireless antenna cables **(1)** and **(2)** from the routing clips and channels built into the battery.
2. Release the ZIF connector **(3)** to which the TouchScreen board cable is attached, and then disconnect the TouchScreen board cable from the system board.

3. Detach the TouchScreen board cable **(4)** from the battery. (The TouchScreen board cable is attached to the battery with double-sided adhesive.)



4. Remove the six Phillips PM2.0×3.0 screws **(1)** and the four Phillips PM2.0×3.25 screws **(2)** that secure the battery to the display assembly.
5. Lift the front edge of the battery **(3)** until the tabs **(4)** on the back edge of the battery disengage from the display assembly.
6. Remove the battery **(5)** by sliding it forward.



Reverse this procedure to install the battery.

Wireless antennas

Description	Spare part number
Antenna Kit (includes WLAN antenna cables and transceivers and WLAN antenna cables and transceivers)	744496-001

Before removing the wireless antenna cables and transceivers, 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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)), and then remove the following components:
 - a. Volume button board (see [Volume button board on page 23](#))
 - b. Audio board (see [Audio board on page 30](#))
 - c. Battery (see [Battery on page 33](#))

Remove the wireless antenna cables and transceivers:

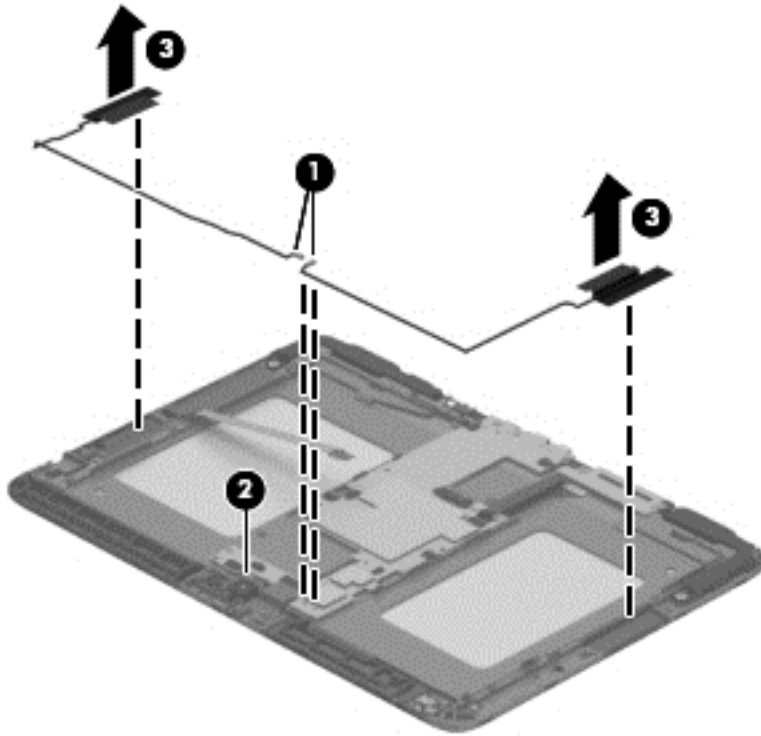
1. Disconnect the wireless antenna cables **(1)** from the system board.



NOTE: The wireless antenna cable labeled "1" connects to the "Main" terminal labeled "1". The wireless antenna cable labeled "2" connects to the "Aux" terminal labeled "2".

2. Release the wireless antenna cables from the retention clip **(2)** built into the display assembly.

3. Detach the wireless antenna transceivers **(3)** from the display assembly. (The wireless antenna transceivers are attached to the display assembly with double-sided adhesive.)



4. Remove the wireless antenna cables and transceivers.

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

SIM/card reader board

Description	Spare part number
SIM/card reader board (includes cable)	739809-001

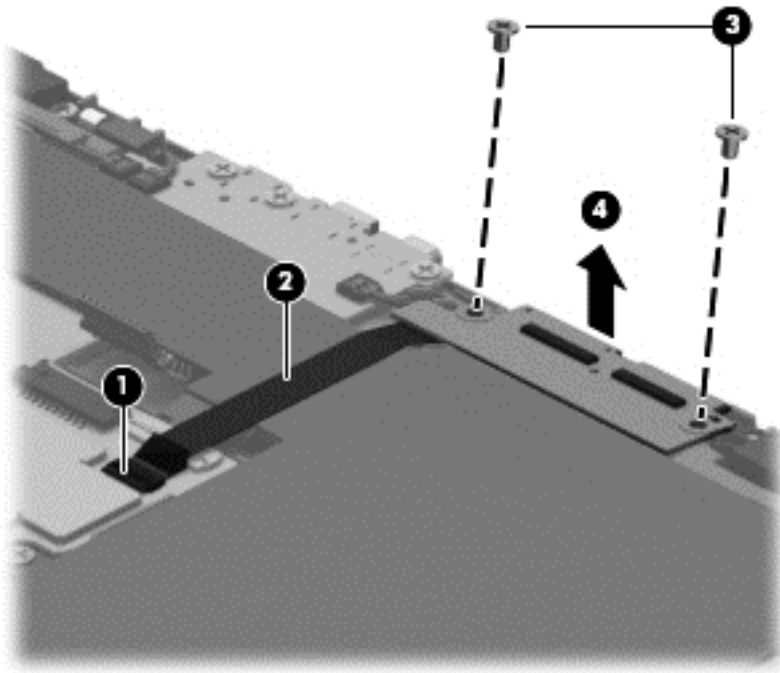
Before removing the SIM/card reader board, follow these steps:

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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)), and then remove the following components:
 - a. Volume button board (see [Volume button board on page 23](#))
 - b. Audio board (see [Audio board on page 30](#))
 - c. Battery (see [Battery on page 33](#))

Remove the SIM/card reader board:

1. Release the ZIF connector **(1)** to which the SIM/card reader board cable is attached, and then disconnect the SIM/card reader board cable from the system board.
2. Detach the SIM/card reader board **(2)** from the display assembly. (The SIM/card reader board is attached to the display assembly with double-sided adhesive.)
3. Remove the two Phillips PM2.0×3.0 screws **(3)** that secure the SIM/card reader board to the display assembly.

4. Remove the SIM/card reader board (4) and cable.



Reverse this procedure to install the SIM/card reader board.

Speakers

Description	Spare part number
Speaker Kit (includes left and right speakers and cables)	739814-001

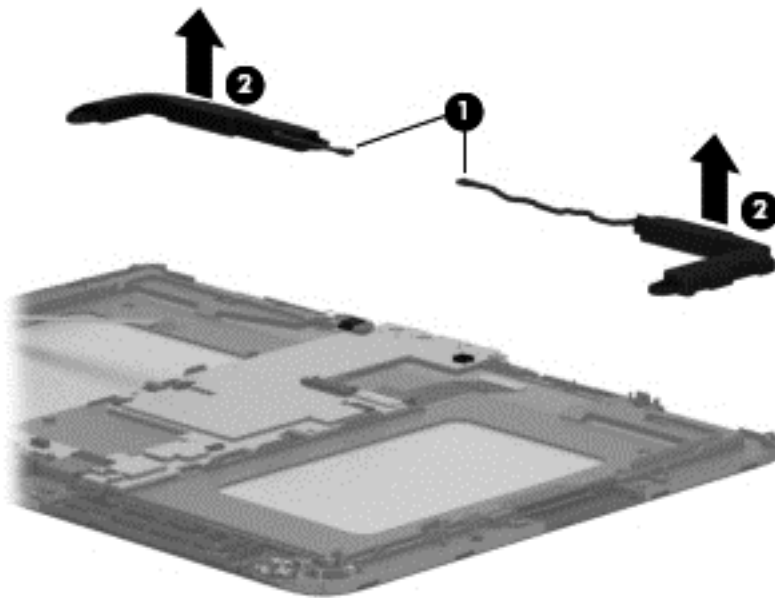
Before removing the speakers, follow these steps:

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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)), and then remove the following components:
 - a. Volume button board (see [Volume button board on page 23](#))
 - b. Audio board (see [Audio board on page 30](#))

- c. Battery (see [Battery on page 33](#))
- d. SIM/card reader board (see [SIM/card reader board on page 37](#))

Remove the speakers:

1. Disconnect the speaker cables (1) from the system board.
2. Remove the speakers (2) and cables.



Reverse this procedure to install the speakers.

Display panel cable

Description	Spare part number
Display panel cable	739817-001

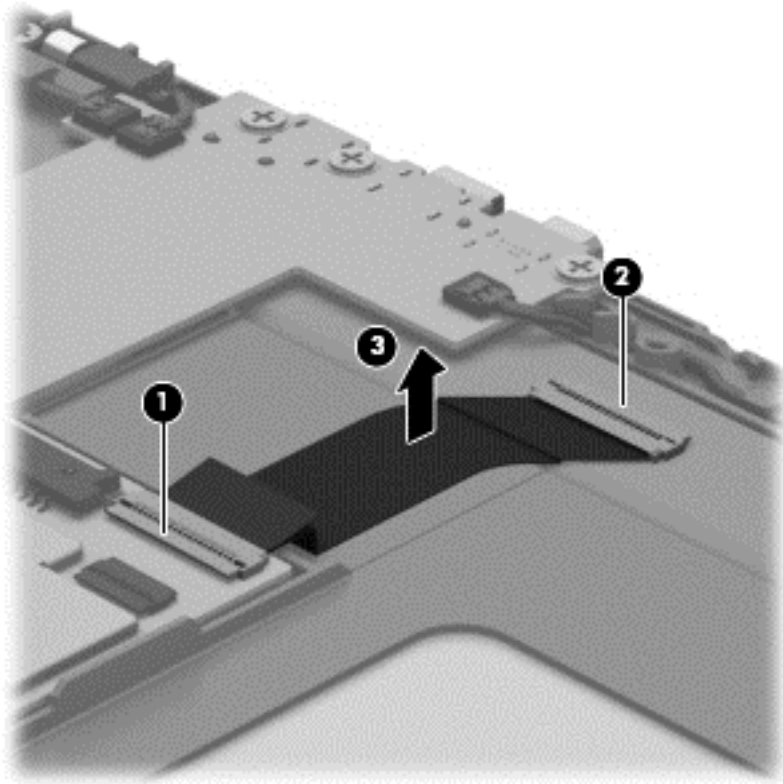
Before removing the display panel cable, follow these steps:

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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)), and then remove the following components:
 - a. Volume button board (see [Volume button board on page 23](#))
 - b. Audio board (see [Audio board on page 30](#))
 - c. Battery (see [Battery on page 33](#))
 - d. SIM/card reader board (see [SIM/card reader board on page 37](#))

Remove the display panel cable:

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

3. Detach the display panel cable **(3)** from the display assembly. (The display panel cable is attached to the display assembly with double-sided adhesive.)



4. Remove the display panel cable.

Reverse this procedure to install the display panel cable.

System board

Description	Spare part number
For use only on HP Pro Tablet 610 tablet models:	
System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor, 4.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Professional operating system	764203-601
System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor, 4.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system	764203-501
System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3795 1.60-GHz (turbo up to 2.39-GHz) processor, 4.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems	764203-001
System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Professional operating system	764202-601
System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system	764202-501
System board for use only on HP Pro Tablet 610 tablet models equipped with an Intel Quad Core Z3775 1.46-GHz (turbo up to 2.39-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems	764202-001
For use only on HP Omni 10 tablet models:	
System board equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system	739805-501
System board equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 64-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems	739805-001
NOTE: This system board spare part kit is also used by European, Middle Eastern, and African countries and regions for refurbishing.	

Description	Spare part number
System board equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the Windows 8 Standard operating system	739803-501
System board equipped with an Intel Quad Core Z3770 1.46-GHz (turbo up to 2.40-GHz) processor, 2.0-GB of system memory, 32-GB eMMC system storage, and a graphics subsystem with UMA memory for use only on tablet models equipped with the FreeDOS or Linux operating systems	739803-001


NOTE: This system board spare part kit is also used by European, Middle Eastern, and African countries and regions for refurbishing.

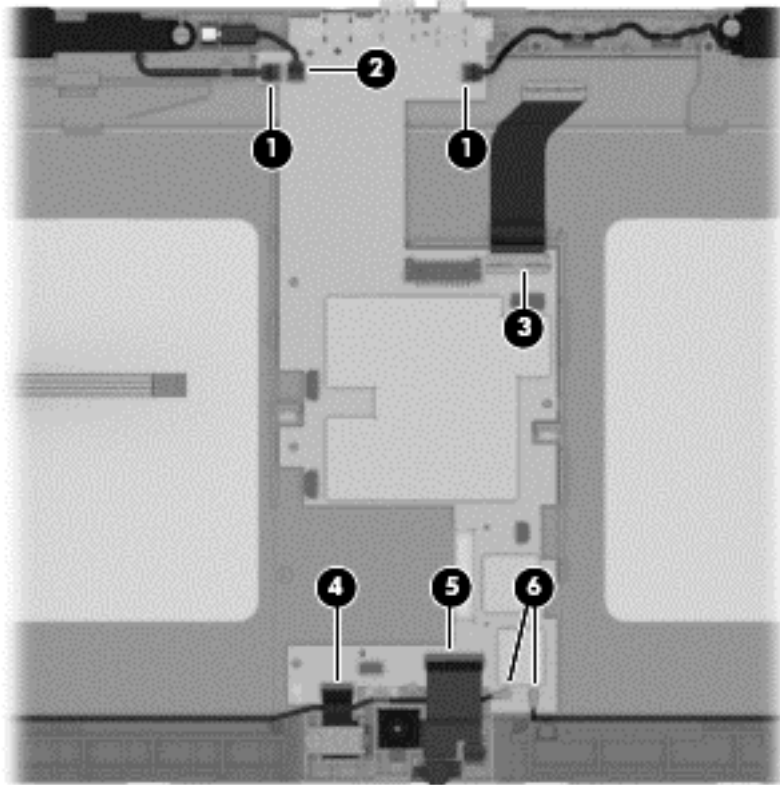
Before removing the system board, follow these steps:

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 back cover (see [Back cover on page 20](#)).
5. Disconnect the battery cable from the system board (see [Power button board on page 22](#)), and then remove the following components:
 - a. Volume button board (see [Volume button board on page 23](#))
 - b. Audio board (see [Audio board on page 30](#))
 - c. Battery (see [Battery on page 33](#))

Remove the system board:

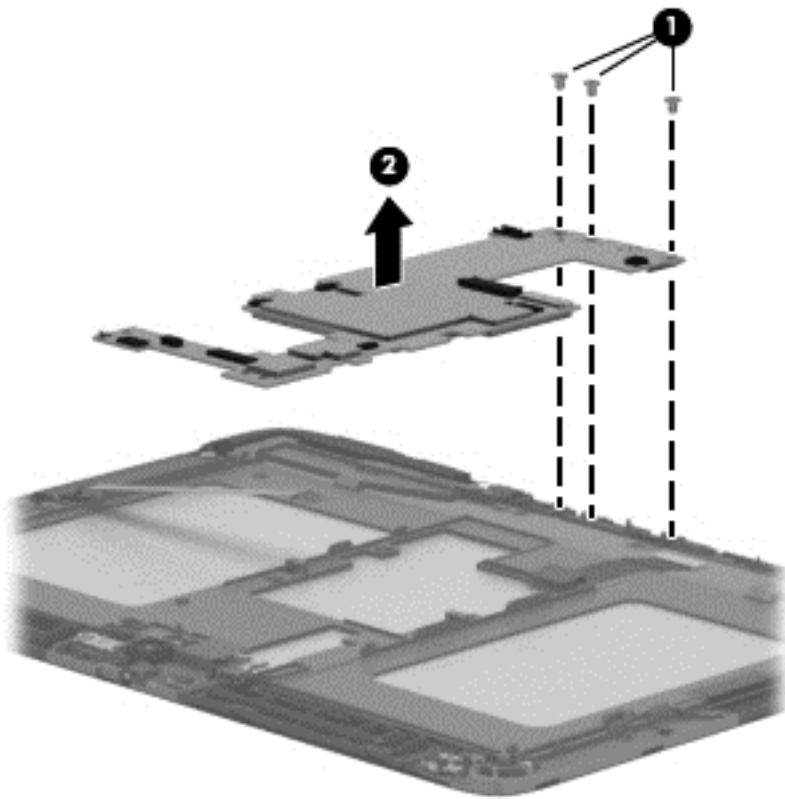
1. Disconnect the following cables from the system board:
 - (1) Speaker cables
 - (2) Vibrator module cable
 - (3) Display panel cable from the system board ZIF connector
 - (4) Rear-facing webcam cable from the system board ZIF connector
 - (5) Front-facing webcam cable from the system board ZIF connector
 - (6) Wireless antenna cables from the system board terminals

 **NOTE:** The wireless antenna cable labeled "1" connects to the "Main" terminal labeled "1". The wireless antenna cable labeled "2" connects to the "Aux" terminal labeled "2".



2. Remove the three Phillips PM2.0×2.5 screws (1) that secure the system board to the display assembly.

3. Remove the system board (2).




Reverse this procedure to install the system board.

6 Using Setup Utility (BIOS)

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

Starting Setup Utility (BIOS)

To start Setup Utility (BIOS), turn on or restart the tablet, quickly press the volume down button, and then press the power button.

 **NOTE:** Use extreme care when making changes in Setup Utility (BIOS). Errors can prevent the tablet 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 tablet, 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).
2. Select **Main**.
3. To exit Setup Utility (BIOS) without saving your changes, tap **Exit**, tap **Exit Discarding Changes**, and then tap **enter**.
4. Tap **Yes**.

Downloading a BIOS update

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


Do not disconnect power from the tablet by unplugging the power cord from the AC outlet.

Do not shut down the tablet or initiate Sleep.

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

1. From the Start screen, type `hp support assistant`, and then select the **HP Support Assistant** app.
2. Tap **Updates and tune-ups**, and then tap **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 tablet. 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 tablet 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. On the Start screen, type `file`, and then select **File Explorer**.
2. Tap 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.

7 Specifications

	Metric	U.S.
Dimensions		
Width	25.96 cm	10.22 in
Depth	18.18 cm	7.16 in
Height	0.99 cm	0.39 in
Weight (lowest weight configuration)	0.65 g	1.44 lb
Input power		
Operating voltage and current	12V dc @ 1.5A - 18W	
Temperature		
Operating	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F
Relative humidity (non-condensing)		
Operating	10% to 90%	
Nonoperating	5% to 95%	
Maximum altitude (unpressurized)		
Operating	-15 m to 3,048 m	-50 ft to 10,000 ft
Nonoperating	-15 m to 12,192 m	-50 ft to 40,000 ft
NOTE: Applicable product safety standards specify thermal limits for plastic surfaces. The device operates well within this range of temperatures.		

8 Backing up, restoring, and recovering

Your tablet includes tools provided by Windows to help you safeguard your information and retrieve it if you ever need to. These tools will help you return your tablet to a proper working state or even back to the original factory state, all with simple steps.

This chapter provides information about the following processes:


- Creating a Microsoft recovery drive (select models only)
- Using Microsoft's Refresh your PC or Remove everything and reinstall Windows options to address issues with your tablet
- Backing up data using File History




NOTE: This chapter describes an overview of backing up, restoring and recovering options. For more details about the tools provided, see Help and Support. On the Start screen, type `help`, and then select **Help and Support**.

Creating a Microsoft recovery drive (select models only)

After you successfully set up the tablet, create a Microsoft recovery drive. The MS recovery drive backs up the recovery partition on the tablet and ensure access to the Refresh your PC and Remove everything and reinstall Windows options even if the recovery partition on the tablet has been corrupted or removed.

 **NOTE:** On select models, a recovery drive can be created on a USB flash drive (purchased separately). A micro USB to USB adapter cable (purchased separately) with a micro USB male (Btype) connector and a USB female (A-type) connector is also required.


1. On the Start screen, type `create recovery drive`, and then select **Create a recovery drive**.


 **IMPORTANT:** Be sure that the check box labeled **Copy the recovery partition from the PC to the recovery drive** is selected.


2. After you have created the recovery drive, a prompt is displayed asking if you want to remove the recovery partition. If you select **No** and later reconsider, you must complete the entire process again before the prompt will be displayed a second time.

Using Windows Refresh for quick and easy recovery

When your tablet is not working properly and you need to regain system stability, the Windows Refresh option allows you to start fresh and keep what is important to you.

 **IMPORTANT:** Refresh removes any traditional applications that were not originally installed on the system at the factory. Any Windows 8 apps that came preinstalled on your tablet and any that were purchased from the Windows Store will be saved.

 **NOTE:** During Refresh, a list of removed traditional applications will be saved so that you have a quick way to see what you might need to reinstall. See Help and Support for instructions on reinstalling traditional applications. From the Start screen, type `h`, and then select **Help and Support**.


 **NOTE:** You may be prompted for your permission or password when using Refresh. See Help and Support for more information. From the Start screen, type `h`, and then select **Help and Support**.

To start Refresh:

1. On the Start screen, type `recover`, and then select **Refresh your PC without affecting your files**.
2. Select **Get started**, and then follow the on-screen instructions.

Removing everything and reinstalling Windows

Sometimes you want to perform detailed reformatting of your tablet, or you want to remove personal information before you give away or recycle your tablet. The process described in this section provides a speedy, simple way to return the tablet to its original state. This option removes all personal data, apps, and settings from your tablet, and reinstalls Windows.

 **IMPORTANT:** This option does not provide backups of your information. Before using this option, back up any personal information you wish to retain.

You can initiate this option from the Start screen:

1. On the Start screen, type `recover`, and then select **Remove everything and reinstall Windows**.
2. Select **Get started**, and then follow the on-screen instructions.

Backing up data using File History

Recovery after a system failure is only as good as your most recent backup.

As you add photos, video, music, and other personal files, create a backup of your personal information. Windows File History can be set to regularly and automatically back up files from libraries, desktop, contacts, and favorites. If files are accidentally deleted from the hard drive and they can no longer be restored from the Recycle Bin, or if files become corrupted, you can restore the files that you backed up using File History. Restoring files is also useful if you ever choose to reset the tablet by reinstalling Windows.

File History is not enabled by default, so you must turn it on as follows:

- ▲ On the Start screen, type `file history`, select **File History**, and then follow the on-screen instructions.

9 Power cord set requirements

The wide-range input feature of the tablet 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 tablet 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 tablet 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 tablet.

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

Country/region	Accredited agency	Applicable note number
Germany	VDE	1
Italy	IMQ	1
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-mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.
2. The flexible cord must be Type 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-mm² 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-mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.
5. The flexible cord must be Type VCTF, 3-conductor, 0.75-mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.

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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