



HP ElitePad 1000 G2

Maintenance and Service Guide

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First Edition: March 2014

Document Part Number: 741057-001

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.

Software terms

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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

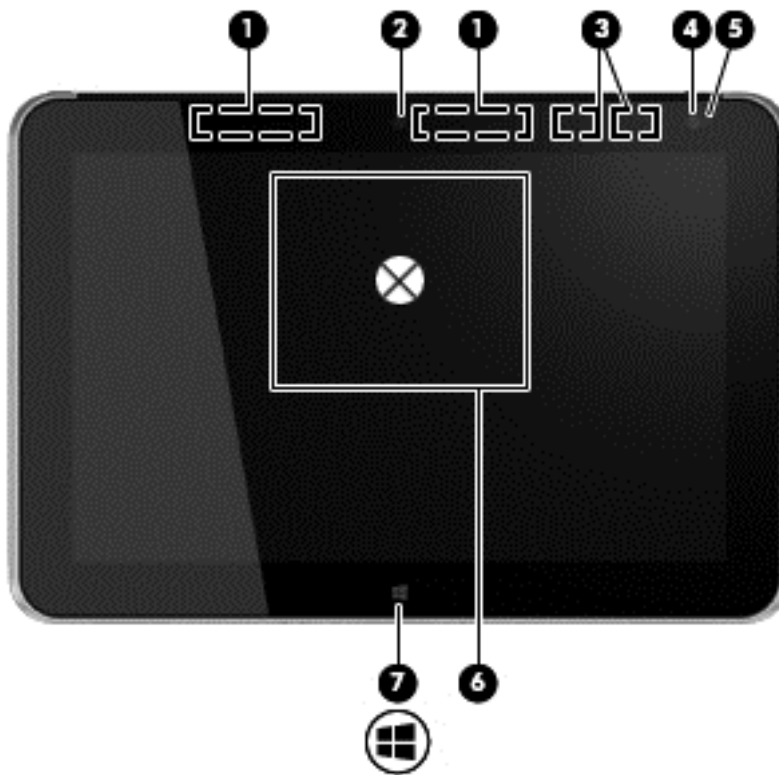
Category	Description
Product Name	HP ElitePad 1000 G2
Processor	Intel® Atom z3795 1.60-GHz processor (core burst up to 2.39-GHz), 1.60-GHz front-side bus (FSB), 2.0-MB L2 cache, up to 778-MHz graphics burst frequency, soldered to system board
Graphics	Intel HD Graphics
Panel	10.1-in., WUXGA (1900×1200), UWVA, 50% CG, 400-nit, active pen and MultiTouch capacitive digitizer, chemically-strengthened glass with anti-smudge
Memory	On-board 1067-MHz, LPDDR3, 4096-MB memory (soldered to system board); system supports a 4096-MB × 1 (4 pieces, 128 MB × 32 chips) configuration
Primary storage	128- or 64-GB embedded MultiMedia Card (eMMC), soldered to the system board
Optical drive	No internal optical drive or USB-powered optical drive is supported
Audio and video	2 integrated stereo speakers, each 1.5 W HD Audio DTS+ sound 2 digital microphones 2 fixed, integrated webcams (2.1-MP front-facing webcam; 8.0-MP rear-facing webcam with LED flash)
Ethernet	No Ethernet support
Wireless	Integrated wireless local area network (WLAN) options by way of wireless module Integrated WLAN antennas Support for the Broadcom BCM43241 802.11abgn 2x2 Wi-Fi + BT 4.0 Combo Adapter

Category	Description
Wireless <i>(continued)</i>	<p>Integrated wireless wide area network (WWAN) options by way of wireless module</p> <p>Integrated world-wide/5-band WWAN antennas</p> <p>Secured by subscriber identity module (SIM)</p> <p>Support for the following WWAN formats:</p> <ul style="list-style-type: none"> • HP hs3110 HSPA+ Mobile Broadband Module • HP lt4111 LTE/EV-DO/HSPA+ Gobi 4G Module • HP lt4112 LTE/HSPA+ Gobi 4G Module • HP lt4225 LTE/EV-DO Gobi 4G Module • HP lt4226 LTE/HSPA+ Gobi 4G Module <p>Support for no WWAN option</p>
	<p>Integrated near field communication (NFC) module and antennas</p>
External media cards	Flash Media slot (with push-push technology) supporting microHCSD cards up to 64-GB
Ports	<ul style="list-style-type: none"> • Audio-in (mono microphone)/audio-out (stereo headphone) combo jack • HP ElitePad 900-proprietary docking connector
Sensors	<ul style="list-style-type: none"> • Accelerometer + eCompass • Ambient light sensor • Gyroscope • Haptics
Docking	HP ElitePad-proprietary dock with 4 standard 2.0 USB ports, VGA port, HDMI-out port, audio in/out jacks, and HP Smart AC adapter connector (40-W HP Smart AC adapter and power cord included)
Keyboard/pointing devices	<p>No integrated keyboard or TouchPad</p> <p>Support for USB- or Bluetooth-connected external keyboard and mouse</p>
Power requirements	<p>Support for an HP ElitePad-proprietary 10-W AC adapter (RC, V, 3-wire, wall-mount); connector on AC Adapter connects to the tablet through the docking connector</p> <p>Support for 2-cell, 30-Wh, 4.0-Ah, Li-ion battery</p>

Category	Description
Security	Support for trusted platform module (TPM; Infineon TPM is SLB9656VQ1.2FW4.32)
Operating system	Preinstalled: <ul style="list-style-type: none">• Microsoft® Windows® 8.1 ML 64-bit• Microsoft Windows 8.1 EM 64-bit• Microsoft Windows 8.1 CM 64-bit• Microsoft Windows 8.1 Professional 64-bit• Microsoft Windows 8.1 Professional 64-bit MSNA• Microsoft Windows 8.1 Professional 64-bit Retail Solutions• Microsoft Windows 8.1 SST 64-bit with Home and Student DPK• Microsoft Windows 8.1 SST 64-bit China with Home and Student DPK• Microsoft Windows 8.1 SST 64-bit without Home and Student DPK• Microsoft Windows 8.1 64-bit Embedded Industry

2 External component identification

Front



Item	Component	Description
(1)	WWAN antennas (2)* (select models only)	Send and receive wireless signals to communicate with WWANs.
(2)	Front webcam	Records video and captures still photographs. To use the webcam, tap the YouCam tile on the Start screen, or swipe from the right edge of the touch screen to display the charms, tap Search , and then tap the search box. In the search box, type c , and then tap CyberLink YouCam .
(3)	WLAN antennas (2)*	Send and receive wireless signals to communicate with WLANs.

Item	Component	Description
(4)	Ambient light sensor	The ambient light sensor automatically adjusts the display brightness based on the lighting conditions in your environment.
(5)	Webcam status light (front)	On: The webcam is on.
(6)	Near Field Communications (NFC) tapping area	Allows you to touch an NFC-compatible device to this area to wirelessly connect and communicate with the tablet and transfer data back and forth.
(7)	Windows button	Displays the Start screen.

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

Rear



Item	Component	Description
(1)	Micro SD Card Reader/Micro SIM slot access hole	Allows you to insert the end of a paper clip to open the access door to insert or remove a micro SD card or micro SIM module.
(2)	Memory card reader/Micro SIM slot	Reads optional micro memory cards that store, manage, share, or access information. and supports an optional wireless micro subscriber identity module (SIM) (select models only).

Item	Component	Description
(3)	Rear webcam	Records video, captures still photographs, and allows video conferences and online chat by means of streaming video. To use the webcam, tap the YouCam tile on the Start screen, or swipe from the right edge of the touch screen to display the charms, tap Search , and then tap the search box. In the search box, type <i>c</i> , and then tap CyberLink YouCam .
(4)	Volume up button	To increase speaker volume, press the top edge of the button.
(5)	Volume down button	To decrease speaker volume, press the bottom edge of the button.
(6)	Regulatory information	Displays regulatory information (select models only).

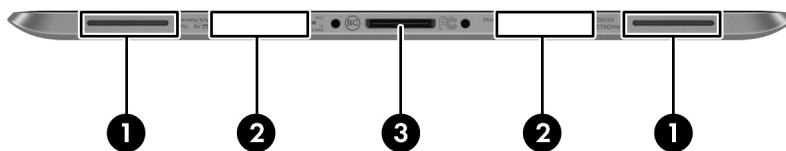
Top



Item	Component	Description
(1)	Audio-out (headphone) jack/Audio-in (microphone) jack	Produces sound when connected to optional powered stereo speakers, headphones, earbuds, a headset, or television audio. Also connects an optional headset microphone. 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 the user guides, tap the HP Support Assistant app on the Start screen, tap My computer , and then tap User guides . NOTE: When a device is connected to the jack, the computer 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).


Item	Component	Description
(2)	Autorotate switch	<p>When the tablet is on, slide the autorotate switch to lock the autorotate feature of the display. To unlock the autorotate feature, slide the switch again.</p> <p>– or –</p> <p>Swipe from the right edge of the touch screen to display the charms, tap Settings, tap the screen icon, and then tap the autorotate icon. To unlock the autorotate feature, tap the autorotate icon again.</p>
(3)	Integrated microphones (2)	Record sound.
(4)	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. <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 for at least 5 seconds to turn off the tablet.</p> <p>Swipe from the right edge of the touch screen to display the charms, tap Search, and then tap the search box. In the search box, type <code>power</code>, tap Power and sleep settings, and then select Power and sleep from the list of applications.</p>

Bottom



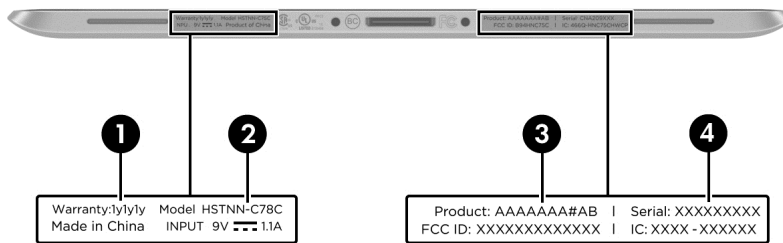
Item	Component	Description
(1)	Speakers (2)	Produce sound.
(2)	Product and regulatory information	Displays product and regulatory information (select models only).
(3)	Docking connector	Connects an AC adapter or an optional docking device.

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.

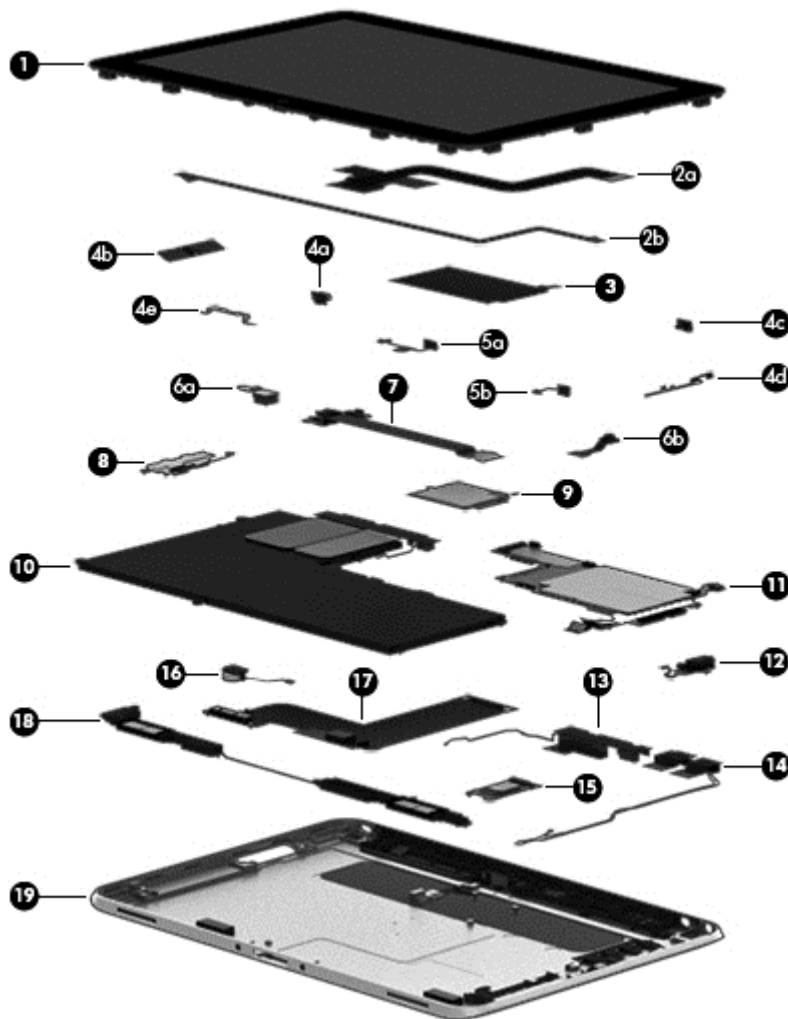
Service tag

When ordering parts or requesting information, provide the tablet serial number and model number provided on the service tag.



Item	Description	Function
(1)	Warranty period	This number describes the duration of the warranty period for the tablet.
(2)	Model description	This is the alphanumeric identifier used to locate documents, drivers, and support for the tablet.
(3)	Product name	This is the product name affixed to the front of the tablet.
(4)	Serial number (s/n)	This is an alphanumeric identifier that is unique to each product.

Tablet major components

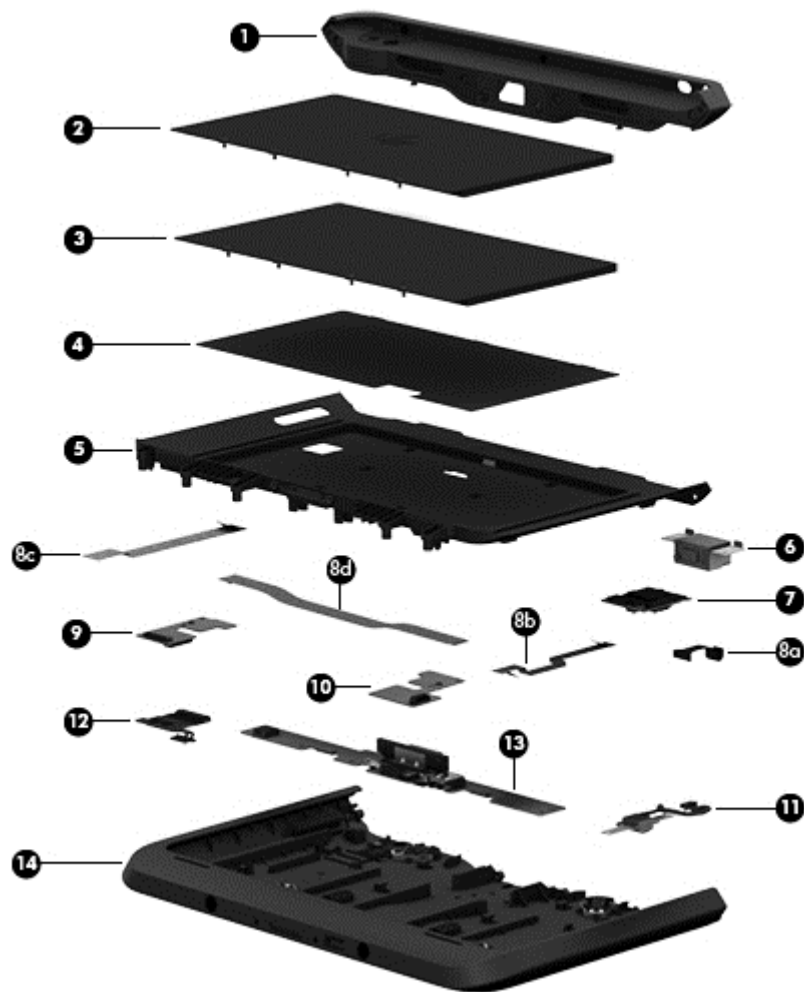


Item	Component	Spare part number
(1)	Display assembly (10.1-in., WUXGA (1900×1200), UWVA, 50% CG, 400-nit, active pen and MultiTouch capacitive digitizer, chemically-strengthened glass with anti-smudge; includes display panel, display LVDS cable, TouchScreen cable, and display panel support rubber)	747658-001
	Display Cable Kit , includes:	747625-001
(2a)	TouchScreen cable	
(2b)	Display LVDS cable	
(3)	NFC antenna (includes double-sided adhesive)	747633-001
	Button Kit , includes:	747634-001
(4a)	Power button actuator	
(4b)	Volume button actuator	

Item	Component	Spare part number
(4c)	Autorotate switch actuator	
(4d)	Slot cover hardware (slot cover, retention bracket, spring bracket)	
(4e)	Docking connector bracket	
	Webcam/Microphone Kit , includes:	762828-001
(5a)	Left microphone	
(5b)	Right microphone	
(6a)	Rear-facing webcam	
(6b)	Front-facing webcam	
(7)	Power button board (includes cable)	
	For use only on tablet models equipped with the Windows 8 Professional operating system	753976-601
	For use only on tablet models equipped with the Windows 8 Standard operating system	753976-501
	For use only on tablet models equipped with a non-Windows 8 operating system	753976-001
(8)	Volume button board (includes bracket and cable)	759031-001
(9)	WWAN module:	
	HP hs3110 HSPA+ Mobile Broadband Module	748599-005
	HP lt4111 LTE/EV-DO/HSPA+ Gobi 4G Module	704030-005
	HP lt4112 LTE/HSPA+ Gobi 4G Module	740011-005
	HP lt4225 LTE/EV-DO Gobi 4G Module	736676-005
	HP lt4226 LTE/HSPA+ Gobi 4G Module	736675-005
(10)	2-cell, 30-Wh, 4.0-Ah, Li-ion battery (includes battery cable and WWAN/GPS main transceiver and antenna cable)	728558-005
(11)	System board equipped with an Intel Atom z3795 quad core 1.60-GHz processor (burst up to 2.39-GHz; 2.0-MB L2 cache), and 4096-MB of system memory (includes processor, memory, and eMMC)	
	Equipped with 128-GB of eMMC primary storage	753741-001
	Equipped with 64-GB of eMMC primary storage	753740-001
(12)	Audio jack board (includes audio jack and cable)	747627-001
	Antenna Kit , includes:	
(13)	WWAN/GPS auxiliary antenna (includes auxiliary antenna cable and transceiver)	
(14)	WLAN antenna (includes WLAN main and auxiliary antenna cables and transceivers)	
	For use only in European countries and regions	767884-001
	For use only in Japan	767885-001
	For use only in the United States	767883-001

Item	Component	Spare part number
(15)	Broadcom BCM43241 802.11 abgn 2x2 Wi-Fi + BT 4.0 Combo Adapter	723677-005
(16)	Vibrator module (includes cable, double-sided adhesive, plastic cover)	747630-001
(17)	Docking connector cable (includes cable and double-sided adhesive)	747631-001
(18)	Speakers (include left and right speakers and cables)	747629-001
(19)	Bottom case (includes the power button actuator and the slot cover and brackets)	747628-001

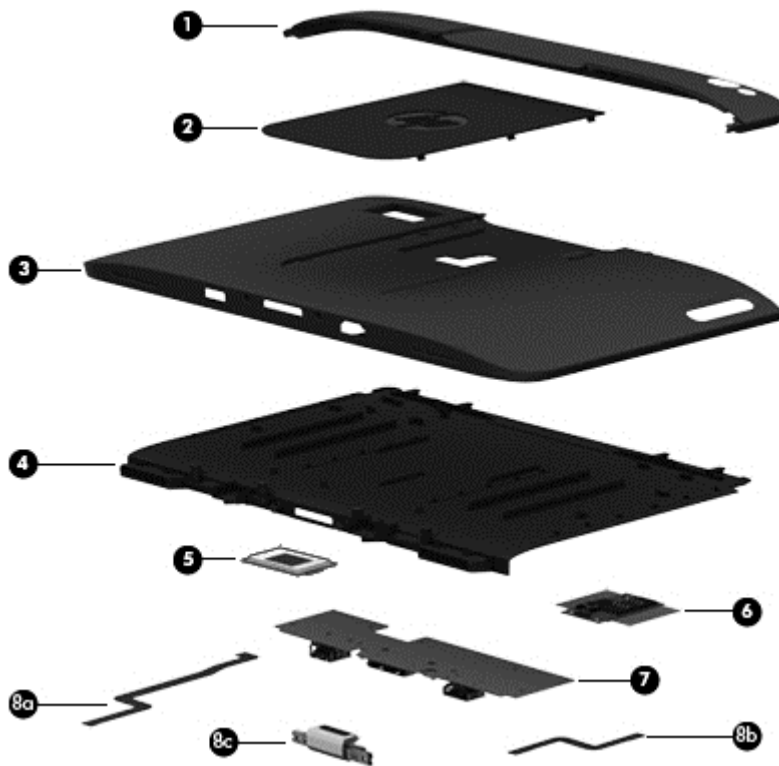
Retail Jacket components



Item	Description	Spare part number
(1)	Top cap (includes 4 captive screws, secured by C-rings)	744025-001
(2)	Battery (2-cell, 21-Wh, 2.96-Ah, Li-ion)	687946-001
(3)	Battery bay space saver	742440-001
(4)	Front cover adhesive liner (included with front cover, spare part number 744030-001)	
(5)	Front cover (includes bar code scanner lens and adhesive liner)	744030-001
(6)	Bar code scanner module	744037-001
(7)	Cable connector board	744034-001
	Cable Kit , includes:	744031-001
(8a)	Bar code scanner module cable	
(8b)	Cable connector board cable	
(8c)	Credit card reader board/left board cable	

Item	Description	Spare part number
(8d)	Credit card reader board/right board cable	
(9)	Left-side credit card reader board	744027-001
(10)	Right-side credit card reader board	744028-001
(11)	Credit card reader (includes cable)	744026-001
(12)	Battery connector board (includes cable)	744033-001
(13)	System board (includes docking connector and USB port)	744032-001
(14)	Rear cover	744029-001
	Retail Jacket equipped with battery (not illustrated)	742441-001
	Retail Jacket equipped with a battery bay space saver (not illustrated)	742442-001
	Handle (not illustrated)	742439-001
	Miscellaneous Rocker Button Mounting Kit (not illustrated)	744038-001
	Rubber Kit for use only on the Retail Jacket (not illustrated)	742443-001
	Screw Kit for use only on the Retail Jacket (not illustrated)	744035-001

Security Jacket components



Item	Description	Spare part number
(1)	Top cap (includes rubber trim)	744047-001
(2)	Card reader cover	744039-001
(3)	Front cover	744048-001
(4)	Rear cover (includes top cap release latch assembly)	744041-001
(5)	Fingerprint reader board	744042-001
(6)	Card reader board	744043-001
(7)	System board	744044-001
	Cables/Connectors Kit , includes:	744045-001
(8a)	Fingerprint reader board cable	
(8b)	Card reader board cable	
(8c)	Docking connector cable	
	Security Jacket equipped with a card reader and a fingerprint reader (not illustrated)	742446-001
	Security Jacket equipped with a card reader (not illustrated)	742444-001

Item	Description	Spare part number
	Rubber Kit for use only on the Security Jacket (not illustrated)	744040-001
	Screw Kit for use only on the Security Jacket (not illustrated)	744046-001

Adapter cables



Item	Description	Spare part number
(1)	HDMI/VGA adapter cable	695551-001
(2)	Ethernet adapter cable	695555-001
(3)	Serial adapter cable	695556-001
(4)	HP Smart AC adapter cable	695553-001
(5)	USB adapter cable	695552-001
(6)	Card Reader adapter	695554-001

Docking station and accessories



Item	Description	Spare part number
(1)	Docking station	708621-001
(2)	40-W HP Smart AC adapter (RC, V, 3-wire)	693717-001
(3)	Power cord (3-pin, black, 1.83-m):	
	For use in Argentina	490371-D01
	For use in Australia	490371-011
	For use in Brazil	490371-202
	For use in Europe	490371-021
	For use in India	490371-D61
	For use in Israel	490371-BB1
	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 Africa	490371-AR1
	For use in South Korea	490371-AD1
	For use in Switzerland	490371-111

Item	Description	Spare part number
	For use in Taiwan	490371-AB1
	For use in the United Kingdom and Singapore	490371-031

Miscellaneous parts

Component	Spare part number
Carrying case:	
HP ElitePad dockable case	742720-001
HP ElitePad rugged carrying case	708772-001
HP ElitePad Service Tool (includes suction cup)	714222-001
HP ElitePad suction cup	714223-001
HP executive tablet pen	716117-001
Jacket:	
Slate jacket with battery slot (includes battery)	709462-001
Slate jacket without battery slot	714297-001
Jacket keyboard:	
For use in Belgium	724301-A41
For use in Brazil	724301-201
For use in Bulgaria	724301-261
For use in Canada	724301-DB1
For use in the Czech Republic and Slovakia	724301-FL1
For use in Denmark	724301-081
For use in France	724301-051
For use in Germany	724301-041
For use in Greece	724301-151
For use in Hungary	724301-211
For use in Iceland	724301-DD1
For use in India	724301-D61
For use in Israel	724301-BB1
For use in Italy	724301-061
For use in Japan	724301-291
For use in Latin America	724301-161

Component	Spare part number
For use in the Netherlands	724301-B31
For use in Norway	724301-091
For use in Northwest Africa	724301-FP1
For use in Portugal	724301-131
For use in Romania	724301-271
For use in Russia	724301-251
For use in Saudi Arabia	724301-171
For use in Slovenia	724301-BA1
For use in South Korea	724301-AD1
For use in Spain	724301-071
For use in Sweden and Finland	724301-B71
For use in Switzerland	724301-BG1
For use in Taiwan	724301-AB1
For use in Thailand	724301-281
For use in Turkey	724301-141
For use in the United Kingdom and Singapore	724301-031
For use in the United States	724301-001
Screw Kit for use only with the tablet	709461-001

Power components



Item	Component	Spare part number
(1)	10-W AC adapter for use only on the HP ElitePad 1000 G2 (RC, V, 3-wire, wall-mount)	686120-001
(2)	Duck head power adapter:	
	For use in Argentina	755184-D01
	For use in Australia	755184-011
	For use in Brazil	755184-201
	For use in Denmark	755184-081
	For use in Europe	755184-021
	For use in India	755184-D61
	For use in Israel	755184-BB1
	For use in Italy	755184-061
	For use in the People's Republic of China	755184-371
	For use in South Africa	755184-AR1
	For use in Switzerland	755184-BG1
	For use in the United Kingdom and Singapore	755184-031
	For use in the United States	755184-001
(3)	Power cord (3-pin, black, 1.83-m):	
	For use in Argentina	490371-D01
	For use in Australia	490371-011
	For use in Brazil	490371-202

Item	Component	Spare part number
	For use in Europe	490371-021
	For use in India	490371-D61
	For use in Israel	490371-BB1
	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 Africa	490371-AR1
	For use in South Korea	490371-AD1
	For use in Switzerland	490371-111
	For use in Taiwan	490371-AB1
	For use in the United Kingdom and Singapore	490371-031
	Card Reader Cover Kit (not illustrated)	747632-001
	HP Mobile Connect SIM (not illustrated)	714749-001
	Screw Kit for use only on the HP ElitePad 1000 G2 (not illustrated)	753735-001
	Tape Support Kit	762827-001

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)
490371-111	Power cord for use in Switzerland (3-pin, black, 1.83-m)
490371-202	Power cord for use in Brazil (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 South Korea (3-pin, black, 1.83-m)
490371-AD1	Power cord for use in Taiwan (3-pin, black, 1.83-m)
490371-AR1	Power cord for use in South Africa (3-pin, black, 1.83-m)

Spare part number	Description
490371-BB1	Power cord for use in Israel (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)
686120-001	10-W AC adapter (RC, V, 3-wire, wall-mount)
687946-001	2-cell, 21-Wh, 2.96-Ah, Li-ion battery for use only on the Retail Jacket
693717-001	40-W HP Smart AC adapter for use only with the docking station (RC, V, 3-wire)
695551-001	HDMI/VGA adapter cable
695552-001	USB adapter cable
695553-001	HP Smart AC adapter cable
695554-001	Card Reader adapter
695555-001	Ethernet adapter cable
695556-001	Serial adapter cable
704030-001	HP Lt4111 LTE/EV-DO/HSPA+ Gobi 4G Module
708621-001	Docking station
708772-001	Rugged carrying case
709462-001	Slate jacket with battery slot (includes battery)
714222-001	HP ElitePad Service Tool (includes suction cup)
714223-001	HP ElitePad suction cup
714297-001	Slate jacket without battery slot
714749-001	HP Mobile Connect SIM
723677-005	Broadcom BCM43241 802.11abgn 2x2 Wi-Fi + BT 4.0 Combo Adapter
724301-001	Jacket keyboard for use in the United States
724301-031	Jacket keyboard for use in the United Kingdom and Singapore
724301-041	Jacket keyboard for use in Germany
724301-051	Jacket keyboard for use in France
724301-061	Jacket keyboard for use in Italy
724301-071	Jacket keyboard for use in Spain
724301-081	Jacket keyboard for use in Denmark
724301-091	Jacket keyboard for use in Norway
724301-131	Jacket keyboard for use in Portugal
724301-141	Jacket keyboard for use in Turkey
724301-151	Jacket keyboard for use in Greece

Spare part number	Description
724301-161	Jacket keyboard for use in Latin America
724301-171	Jacket keyboard for use in Saudi Arabia
724301-201	Jacket keyboard for use in Brazil
724301-211	Jacket keyboard for use in Hungary
724301-251	Jacket keyboard for use in Russia
724301-261	Jacket keyboard for use in Bulgaria
724301-271	Jacket keyboard for use in Romania
724301-281	Jacket keyboard for use in Thailand
724301-291	Jacket keyboard for use in Japan
724301-A41	Jacket keyboard for use in Belgium
724301-AB1	Jacket keyboard for use in Taiwan
724301-AD1	Jacket keyboard for use in South Korea
724301-B31	Jacket keyboard for use in the Netherlands
724301-B71	Jacket keyboard for use in Sweden and Finland
724301-BA1	Jacket keyboard for use in Slovenia
724301-BB1	Jacket keyboard for use in Israel
724301-BG1	Jacket keyboard for use in Switzerland
724301-D61	Jacket keyboard for use in India
724301-DB1	Jacket keyboard for use in Canada
724301-DD1	Jacket keyboard for use in Iceland
724301-FL1	Jacket keyboard for use in the Czech Republic and Slovakia
724301-FP1	Jacket keyboard for use in Northwest Africa
728558-005	2-cell, 30-Wh, 4.0-Ah, Li-ion battery for use only on the HP ElitePad 1000 G2 tablet (includes battery cable and WWAN/GPS main transceiver and antenna cable)
732251-001	Digital pen tethers (10)
736675-005	HP It4226 LTE/HSPA+ Gobi 4G Module
736676-005	HP It4225 LTE/EV-DO Gobi 4G Module
736679-001	HP ElitePad Jacket cover
739321-001	HP ElitePad USB3 adapter
740011-005	HP It4112 LTE/HSPA+ Gobi 4G Module
742439-001	Retail Jacket handle
742440-001	Retail Jacket battery bay space saver
742441-001	Retail Jacket with battery

Spare part number	Description
742442-001	Retail Jacket with battery bay space saver
742443-001	Retail Jacket Rubber Kit
742444-001	Security Jacket with screws
742446-001	Security Jacket with fingerprint reader and screws
742720-001	HP ElitePad dockable case
744025-001	Retail Jacket top cap (includes 4 captive screws, secured by C-rings)
744026-001	Retail Jacket credit card reader (includes cable)
744027-001	Retail Jacket left-side credit card reader board
744028-001	Retail Jacket right-side credit card reader board
744029-001	Retail Jacket rear cover
744030-001	Retail Jacket front cover (includes bar code scanner lens and adhesive liner)
744031-001	Retail Jacket Cable Kit
744032-001	Retail Jacket system board (includes docking connector and USB port)
744033-001	Retail Jacket battery connector board (includes cable)
744034-001	Retail Jacket cable connector board
744035-001	Retail Jacket Screw Kit
744037-001	Retail Jacket bar code scanner module
744038-001	Retail Jacket Miscellaneous Rocker Button/Mount Kit
744039-001	Security Jacket card reader cover
744040-001	Security Jacket Rubber Kit
744041-001	Security Jacket rear cover (includes top cap release latch assembly)
744042-001	Security Jacket fingerprint reader
744043-001	Security Jacket card reader board
744044-001	Security Jacket system board
744045-001	Security Jacket Cables/Connectors Kit
744046-001	Security Jacket Screw Kit
744047-001	Security Jacket top cap (includes rubber trim)
744048-001	Security Jacket front cover
745882-001	Productivity Jacket Cable Retainer Kit
747625-001	Display Cable Kit (includes the display LVDS cable and the TouchScreen cable)
747627-001	Audio jack board (includes audio jack and cable)
747628-001	Bottom case (includes the power button actuator and the slot cover and brackets)

Spare part number	Description
747629-001	Speakers (include left and right speakers and cables)
747630-001	Vibrator module (includes cable, double-sided adhesive, plastic cover)
747631-001	Docking connector cable (includes double-sided adhesive)
747632-001	Smart Card Reader Cover Kit
747633-001	NFC antenna (includes double-sided adhesive)
747634-001	Button Kit (includes autorotate switch actuator, docking connector bracket, power button actuator, slot cover hardware, and volume button actuator)
747658-001	Display assembly (10.1-in., WUXGA (1900×1200), UWVA, 50% CG, 400-nit, active pen and MultiTouch capacitive digitizer, chemically-strengthened glass with anti-smudge; includes display panel, display LVDS cable, TouchScreen cable, and display panel support rubber)
748599-005	HP hs3110 HSPA+ Mobile Broadband Module
751285-001	HP Executive Tablet pen
753735-001	Screw Kit for use only on the HP ElitePad 1000 G2
753740-001	System board equipped with an Intel Atom z3795 quad core 1.60-GHz processor (burst up to 2.39-GHz; 2.0-MB L2 cache), 4096-MB of system memory, and 64-GB of eMMC primary storage (includes processor, memory, and eMMC)
753741-001	System board equipped with an Intel Atom z3795 quad core 1.60-GHz processor (burst up to 2.39-GHz; 2.0-MB L2 cache), 4096-MB of system memory, and 128-GB of eMMC primary storage (includes processor, memory, and eMMC)
753976-001	Power button board for use only on tablet models equipped with a non-Windows 8 operating system
753976-501	Power button board for use only on tablet models equipped with the Windows 8 Standard operating system
753976-601	Power button board for use only on tablet models equipped with the Windows 8 Professional operating system
755184-001	Duck head power adapter for use only in the United States
755184-011	Duck head power adapter for use only in Australia
755184-021	Duck head power adapter for use only in Europe
755184-031	Duck head power adapter for use only in the United Kingdom and Singapore
755184-061	Duck head power adapter for use only in the Italy
755184-081	Duck head power adapter for use only in the Denmark
755184-201	Duck head power adapter for use only in Brazil
755184-371	Duck head power adapter for use only in the People's Republic of China
755184-AR1	Duck head power adapter for use only in South Africa
755184-BB1	Duck head power adapter for use only in Israel
755184-BG1	Duck head power adapter for use only in Switzerland
755184-D01	Duck head power adapter for use only in Argentina

Spare part number	Description
755184-D61	Duck head power adapter for use only in India
756037-001	Security Jacket cover
759031-001	Volume button board (includes bracket and cable)
762827-001	Tape Support Kit
762828-001	Webcam/Microphone Kit (includes forward-facing and rear-facing webcams and microphones)
767882-001	3G antenna
767883-001	Antenna Kit for use only in the United States (includes WWAN/GPS auxiliary antenna cable and transceiver and WLAN main and auxiliary antenna cables and transceivers)
767884-001	Antenna Kit for use only in European countries and regions (includes WWAN/GPS auxiliary antenna cable and transceiver and WLAN main and auxiliary antenna cables and transceivers)
767885-001	Antenna Kit for use only in Japan (includes WWAN/GPS auxiliary antenna cable and transceiver and WLAN main and auxiliary antenna cables and transceivers)

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 PO 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.



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 computer or void the warranty.

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

Tablet component replacement procedures

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

There are as many as 34 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 assembly

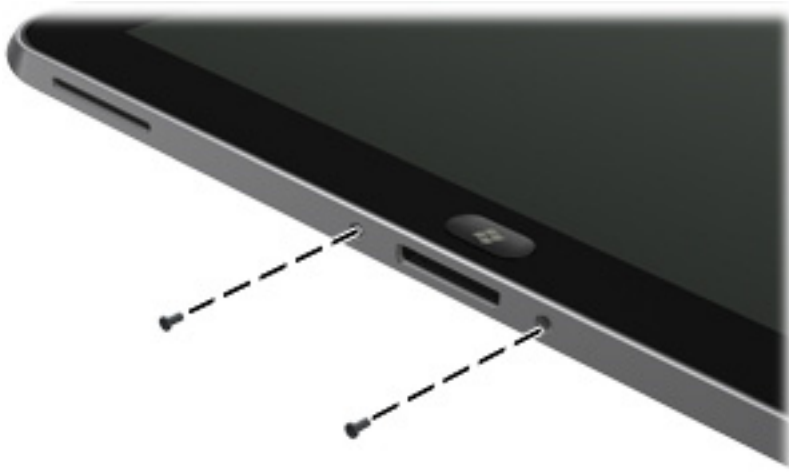
Description	Spare part number
10.1-in., WUXGA (1900×1200), UWVA, 50% CG, 400-nit, active pen and MultiTouch capacitive digitizer, chemically-strengthened glass with anti-smudge; includes display panel, display LVDS cable, TouchScreen cable, and display panel support rubber	747658-001

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 assembly:

1. Remove the two Phillips PM1.4x3.2 screws that secure the display assembly to the tablet.

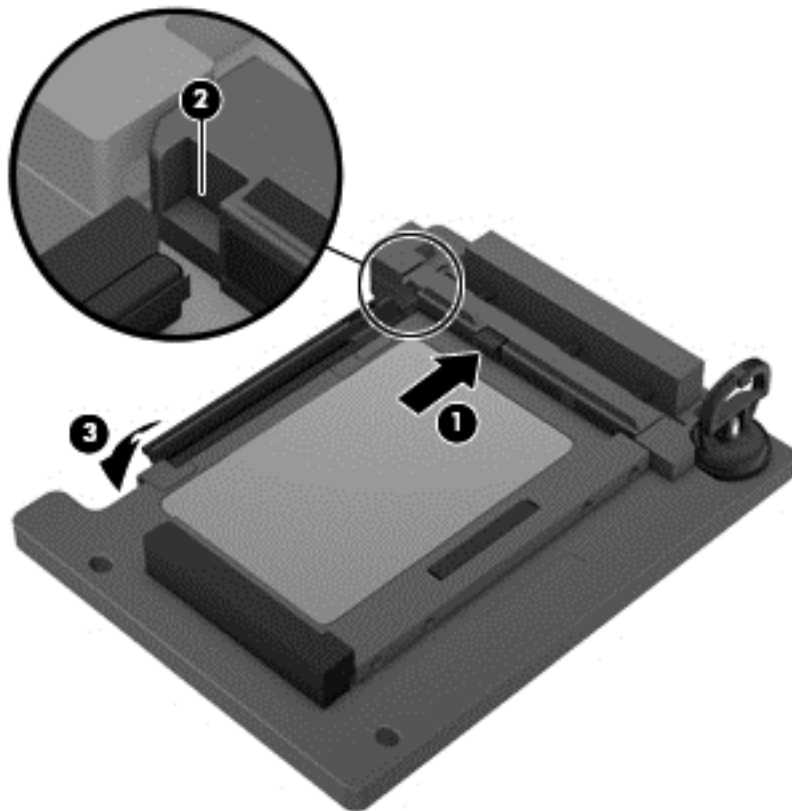


2. Place the HP ElitePad Service Tool on a flat, sturdy surface.

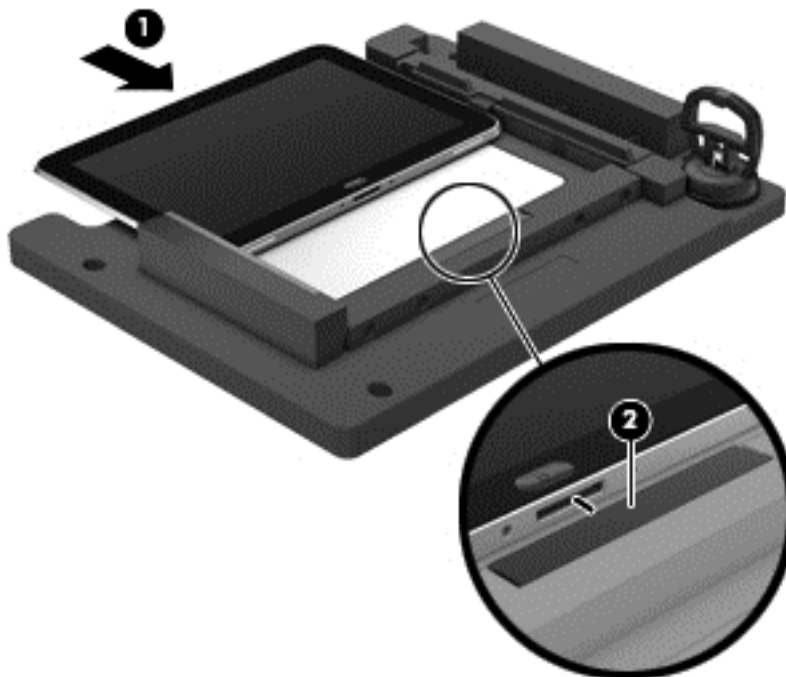
The HP ElitePad Service Tool is available using spare part number 714222-001.

3. Move the HP ElitePad Service Tool retention bar **(1)** to the left until the notch **(2)** in the retention bar allows the retention gate to open.

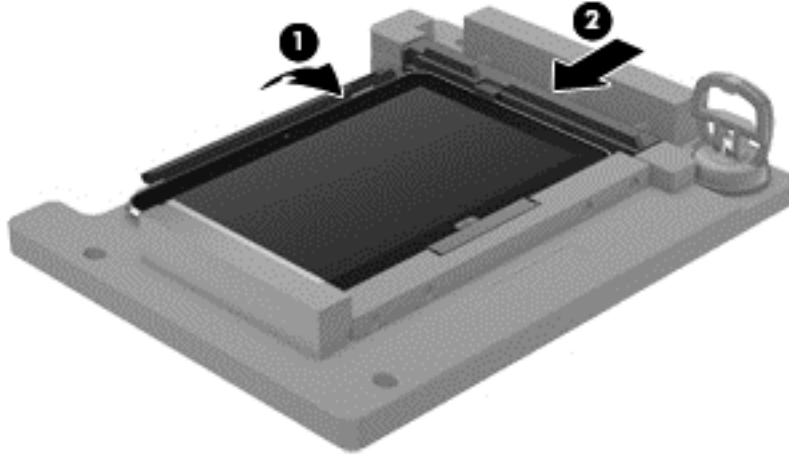
4. Open the retention gate (3).



5. Place the tablet on the service tool and slide it (1) forward until the tablet docking connector engages with the service tool docking connector (2).



6. Close the retention gate **(1)** and release the retention bar **(2)** to secure the tablet in the service tool.



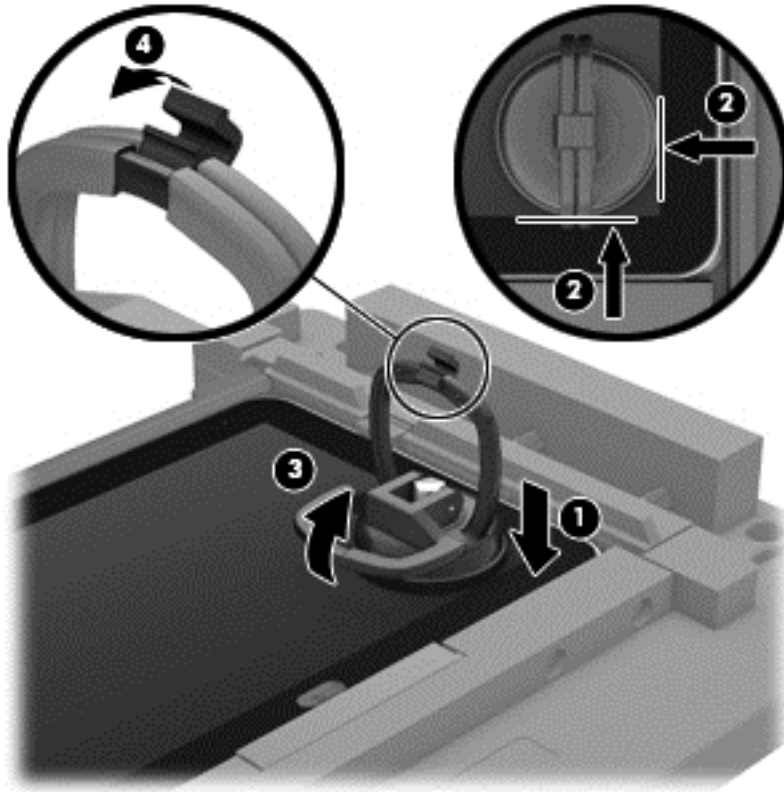
7. Place the suction cup **(1)** on the lower right corner of the tablet display glass, making sure to place the suction cup inside the edges of the border **(2)** of the display glass.

The suction cup is available using spare part number 714223-001.

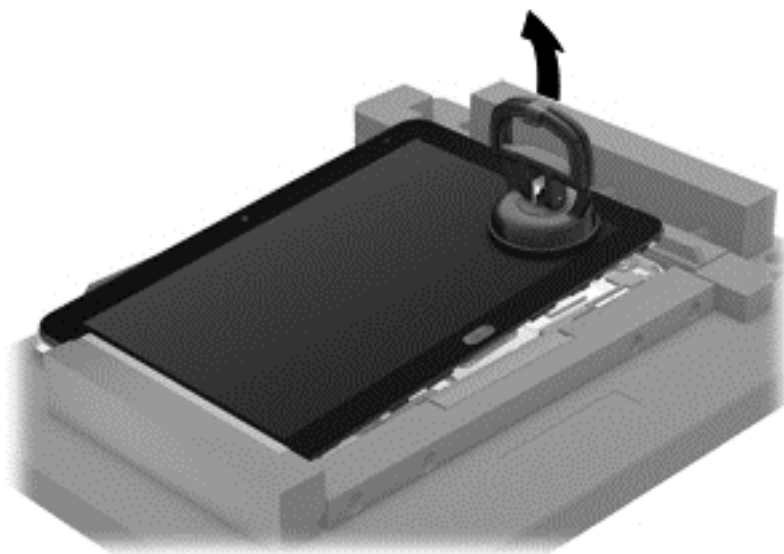
8. Raise the suction cup handle **(3)**.

9. Lock the two suction cup handles together (4).

⚠ CAUTION: Do not lift the right edge of the display assembly more than ¼-inch from the tablet when releasing the display assembly. Failure to follow this caution can result in damage to the tablet components.

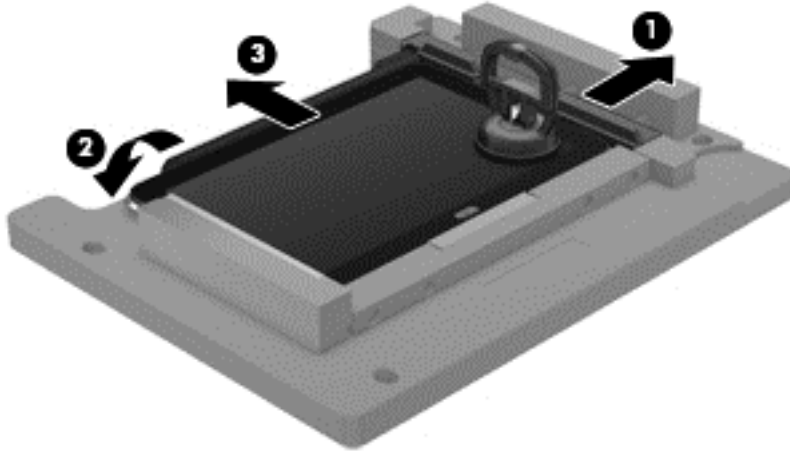


10. Firmly lift up on the suction cup to release the right side of the display assembly approximately ¼-inch from the tablet.

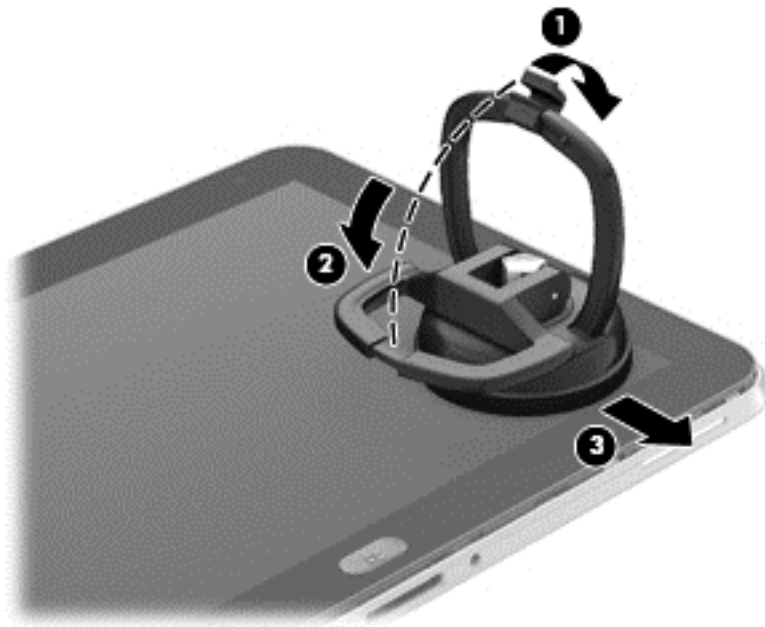


11. Move the retention bar (1) until the notch in the retention bar allows the retention gate to open.

12. Open the retention gate (2).
13. Slide the tablet out of the service tool (3).

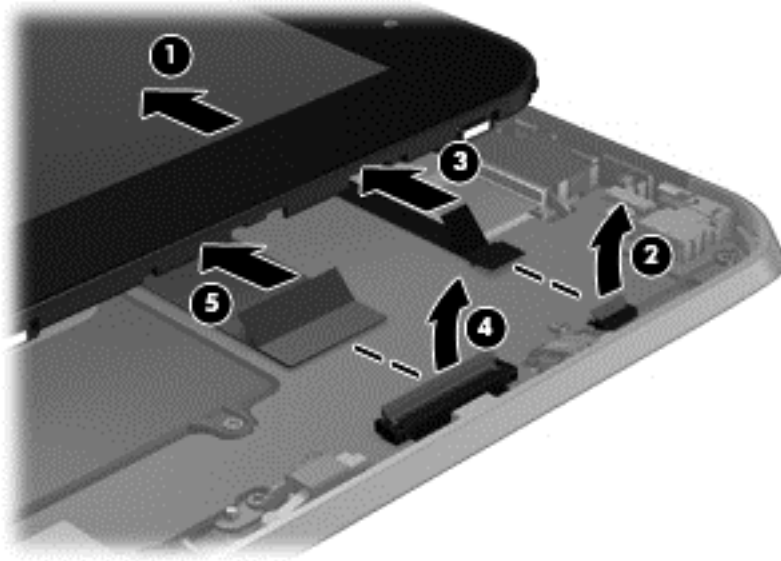


14. Disconnect the suction cup handles (1).
15. Lower the suction cup handle (2).
16. Remove the suction cup (3).



17. Slide the display assembly (1) to the left until the display assembly cables and connectors are accessible.
18. Release the zero insertion force (ZIF) connector (2) to which the TouchScreen cable is attached, and then disconnect the TouchScreen cable (3) from the system board.

19. Release the ZIF connector **(4)** to which the LVDS cable is attached, and then disconnect the LVDS cable **(5)** from the system board.



20. Remove the display assembly and cables.
21. If it is necessary to replace the display assembly cables:
 - a. Turn the display assembly upside down, with the bottom toward you.
 - b. Detach the TouchScreen cable **(1)** from the surface of the display assembly. (The TouchScreen cable is attached to the display assembly with double-sided adhesive.)
 - c. Release the ZIF connector **(2)** to which the TouchScreen cable is attached, and then disconnect the TouchScreen cable **(3)** from the display assembly.
 - d. Detach the display LVDS cable **(4)** from the surface of the display assembly. (The display LVDS cable is attached to the display assembly with double-sided adhesive.)

- e. Release the ZIF connector **(5)** to which the display LVDS cable is attached, and then disconnect the display LVDS cable **(6)** from the display assembly.

The TouchScreen and display LVDS cables are included in the Display Cable Kit, spare part number 718758-001.



To install the display assembly:

1. Reconnect the display LVDS and TouchScreen cables to the respective ZIF connectors on the display assembly.
2. Reconnect the display LVDS and TouchScreen cables to the respective ZIF connectors on the system board.
3. Toe the left side of the display assembly into the left side of the bottom case.
4. Swing the right side of the display assembly down into the right side of the bottom case.
5. Firmly press all edges of the display assembly surface to ensure it is fully engaged with the bottom case.

NFC antenna

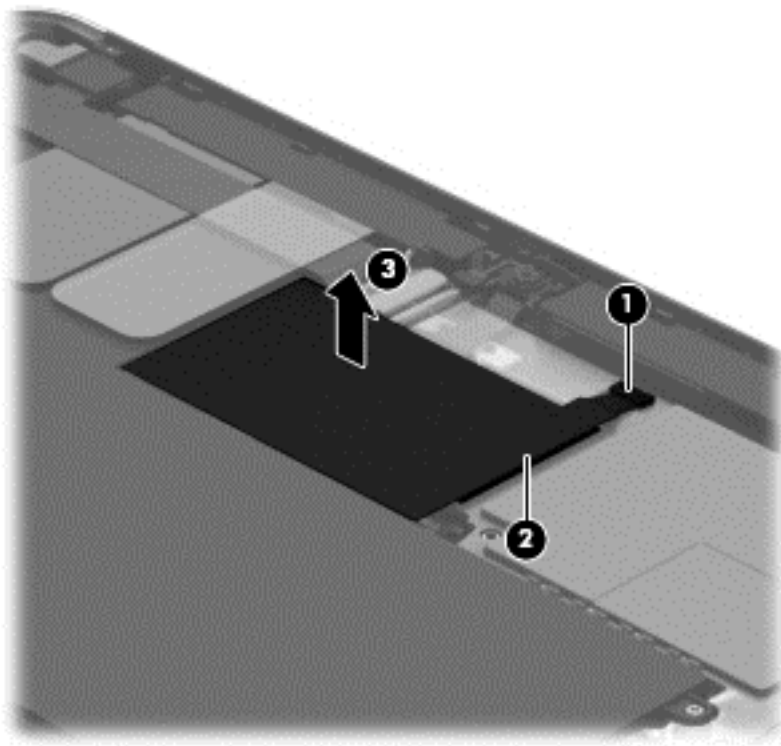
Description	Spare part number
NFC antenna	747633-001

Before removing the NFC 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 assembly (see [Display assembly on page 30](#)).

Remove the NFC antenna:

1. Release the ZIF connector **(1)** to which the NFC antenna cable is attached, and then disconnect the NFC antenna cable from the system board.
2. Detach the NFC antenna **(2)** from the surface of the system board. (The NFC antenna is attached to the system board with double-sided adhesive.)
3. Remove the NFC antenna **(3)**.



Reverse this procedure to install the NFC antenna.

WWAN module

Description	Spare part number
HP hs3110 HSPA+ Mobile Broadband Module	748599-005
HP lt4111 LTE/EV-DO/HSPA+ Gobi 4G Module	704030-005
HP lt4112 LTE/HSPA+ Gobi 4G Module	740011-005
HP lt4225 LTE/EV-DO Gobi 4G Module	736676-005
HP lt4226 LTE/HSPA+ Gobi 4G Module	736675-005

Before removing the WWAN 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 assembly (see [Display assembly on page 30](#)).
5. Remove the NFC antenna (see [NFC antenna on page 38](#)).

Remove the WWAN module:

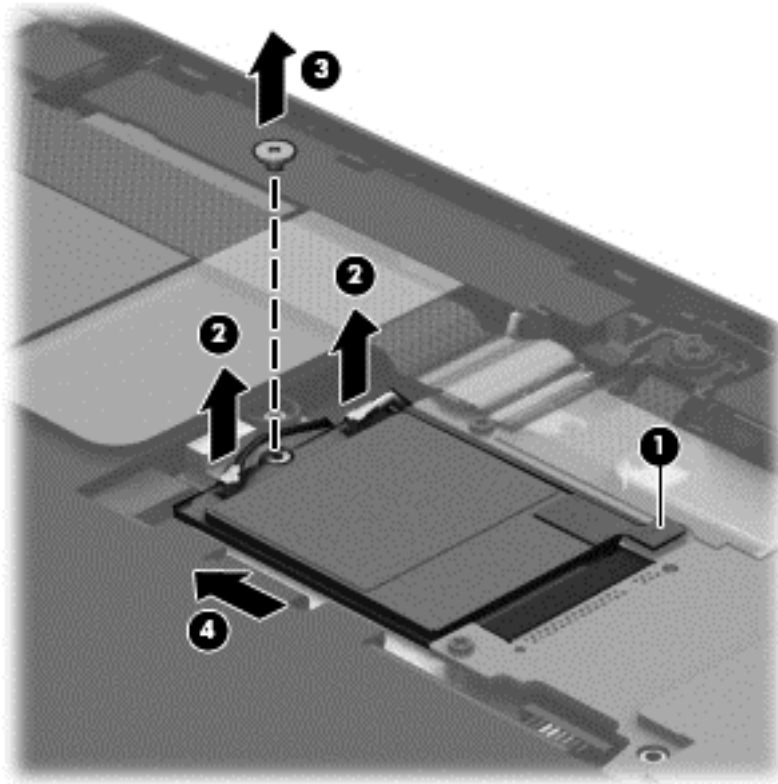
1. Release the grounding tape **(1)** that secures the WWAN module to the system board.
2. Disconnect the WWAN antenna cables **(2)** from the terminals on the WWAN module.




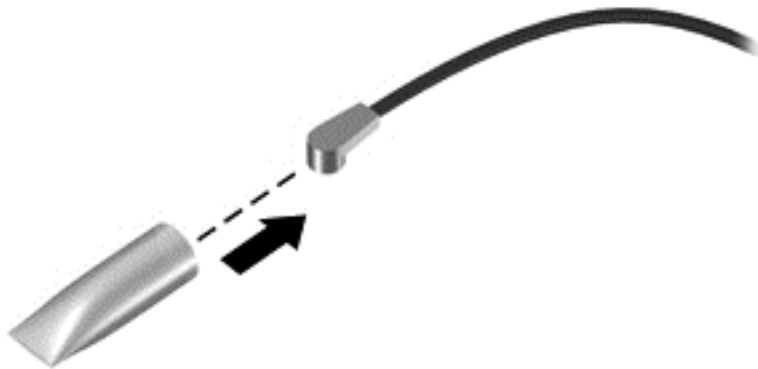
NOTE: The WWAN antenna cable labeled “5” connects to the WWAN module “MAIN” terminal labeled “5”. The WWAN antenna cable labeled “6” connects to the WWAN module “AUX/GPS” terminal labeled “6”.

3. Remove the Phillips PM1.3×1.5 broad head screw **(3)** that secures the WWAN module to the bottom cover.

4. Remove the WWAN module (4) by sliding it away from the socket on the system board.



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



Reverse this procedure to install the WWAN module.

WLAN module

Description	Spare part number
Broadcom BCM43241 802.11abgn 2x2 Wi-Fi + BT 4.0 Combo Adapter	723677-005

Before removing the WLAN 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 assembly (see [Display assembly on page 30](#)).
5. Remove the NFC antenna (see [NFC antenna on page 38](#)).

Remove the WLAN module:

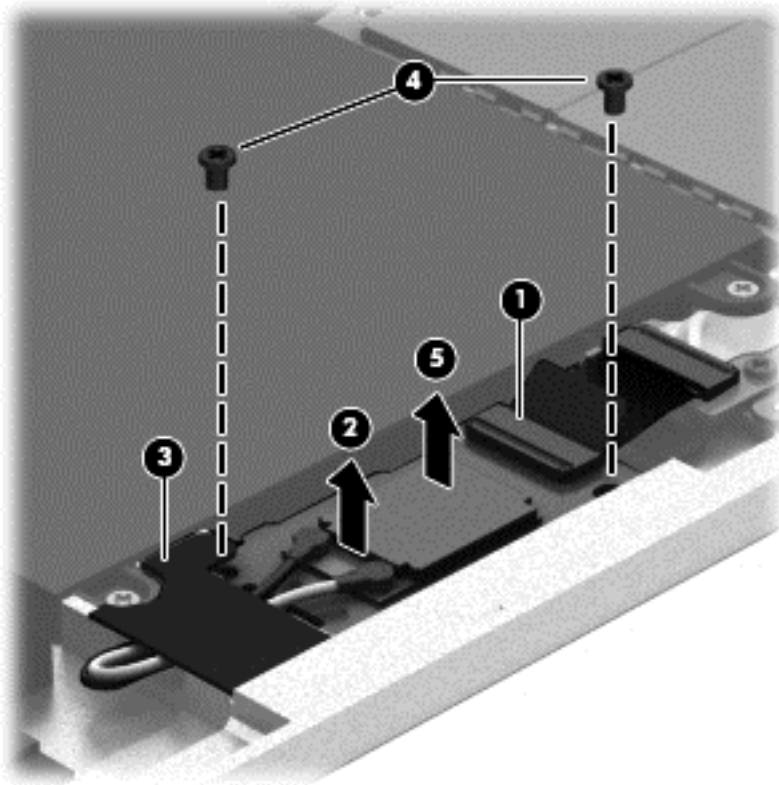
1. Release the ZIF connector **(1)** to which the WLAN ribbon cable is attached, and then disconnect the WLAN ribbon cable from the system board.
2. Disconnect the WLAN antenna cables **(2)** from the terminals on the WLAN module.




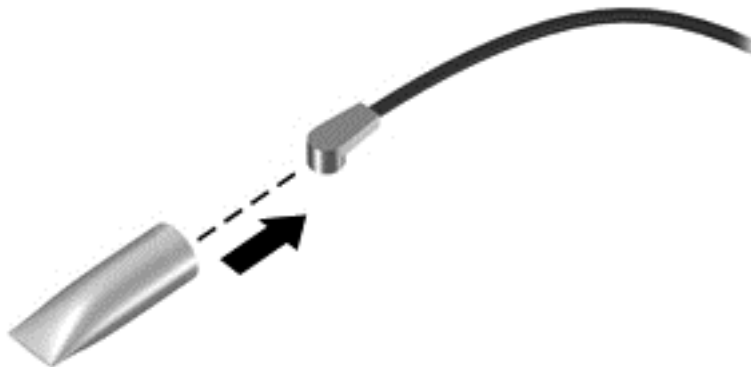
NOTE: The WLAN antenna cable labeled "1" connects to the WLAN module "MAIN" terminal labeled "1". The WLAN antenna cable labeled "2" connects to the WLAN module "AUX" terminal labeled "2".

3. Release the shielding **(3)** to gain access to the bottom screw that secures the WLAN module to the bottom cover.
4. Remove the two Phillips PM1.3×2.0 screws **(4)** that secure the WLAN module to the bottom cover.

5. Remove the WLAN module (5).




 **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 WLAN module.

Microphones

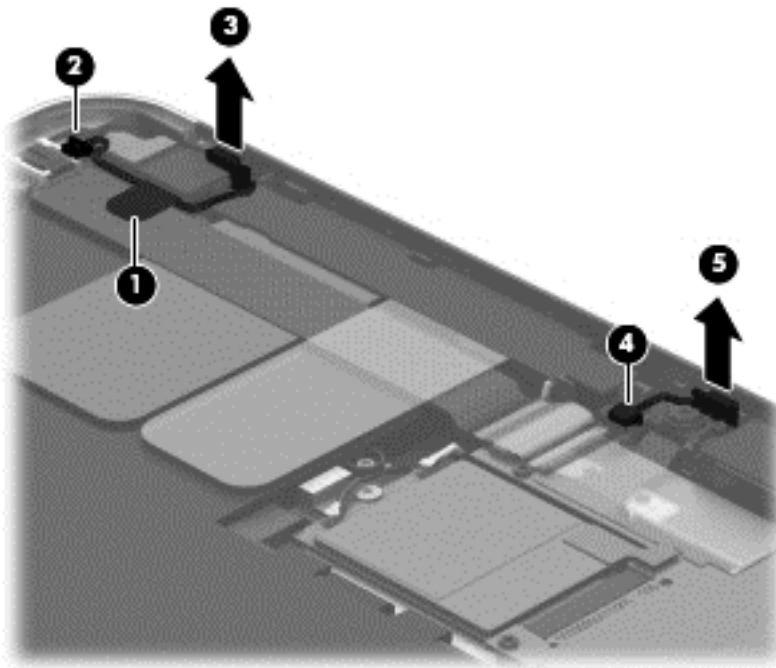
 **NOTE:** The microphones are included in the Webcam/Microphone Kit, spare part number 762828-001.

Before removing the microphones, 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 assembly (see [Display assembly on page 30](#)).
5. Remove the NFC antenna (see [NFC antenna on page 38](#)).

Remove the microphones:


1. Detach the tape **(1)** that secures the left microphone cable to the battery.
2. Disconnect the left microphone cable **(2)** from the power button board.
3. Release the left microphone **(3)** from the molding built into the bottom cover.
4. Disconnect the right microphone cable **(4)** from the system board.
5. Release the right microphone **(5)** from the molding built into the bottom cover.



6. Remove the microphones and cables.

Reverse this procedure to install the microphones.

Rear-facing webcam

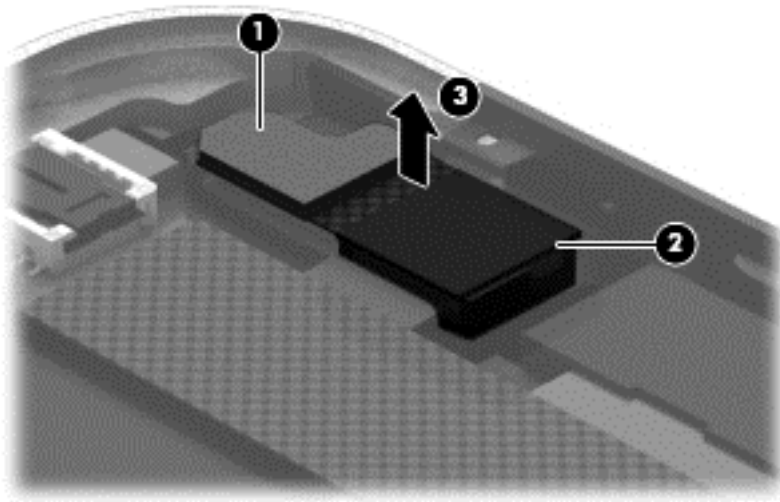
 **NOTE:** The rear-facing webcam is included in the Webcam/Microphone Kit, spare part number 762828-001.

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 assembly (see [Display assembly on page 30](#)).
5. Remove the NFC antenna (see [NFC antenna on page 38](#)).

Remove the rear-facing webcam:

1. Disconnect the rear-facing webcam cable **(1)** from the power button board.
2. Release the rear-facing webcam **(2)** from the molding built into the bottom cover.
3. Remove the rear-facing webcam **(3)** and cable.



Reverse this procedure to install the rear-facing webcam.

Power button board

Description	Spare part number
For use only on computer models equipped with the Windows 8 Professional operating system	753976-601
For use only on computer models equipped with the Windows 8 Standard operating system	753976-501
For use only on computer models equipped with a non-Windows 8 operating system	753976-001

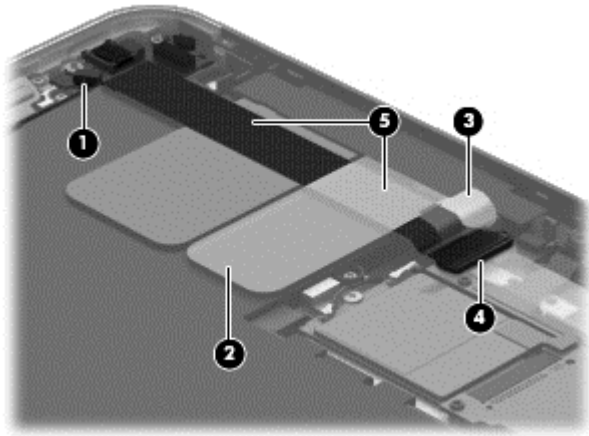
Before removing the power button board, follow these steps:

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 assembly (see [Display assembly on page 30](#)).
5. Remove the NFC antenna (see [NFC antenna on page 38](#)).
6. Disconnect the left microphone cable from the power button board (see [Microphones on page 43](#)).
7. Disconnect the rear-facing webcam cable from the power button board (see [Rear-facing webcam on page 44](#)).

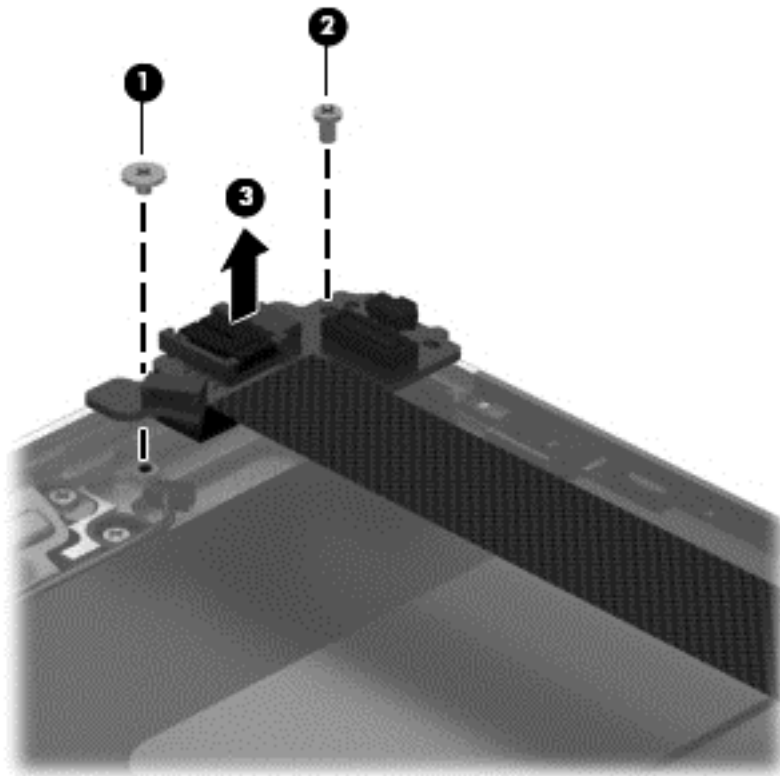
Remove the power button board:


1. Disconnect the volume button board cable **(1)** from the power button board.
2. Release the support strip **(2)** that secures the WWAN antenna transceiver to the battery.
3. Release the support strip **(3)** that secures the power button board cable to the system board.
4. Release the ZIF connector **(4)** to which the power button board cable is attached, and then disconnect the power button board cable from the system board.

5. Detach the power button board cable **(5)** from the surface of the battery. (The power button board cable is attached to the battery with double-sided adhesive.)

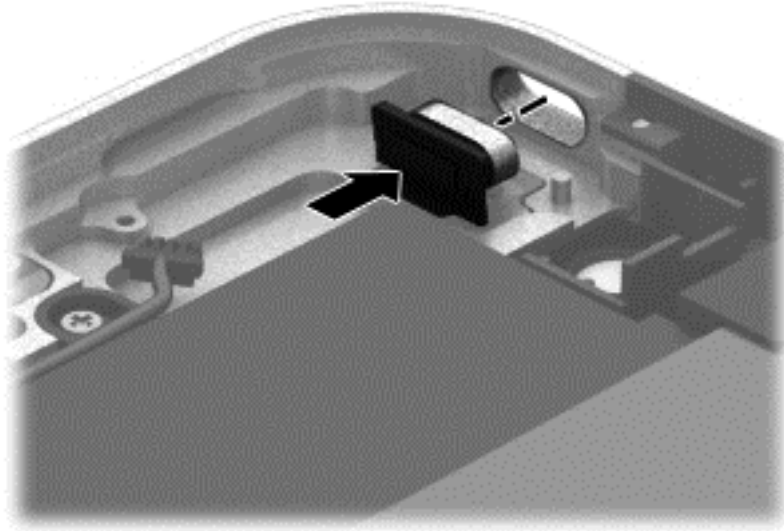


6. Remove the Phillips PM1.3x2.0 broad head screw **(1)** and the Phillips PM1.3x2.0 screw **(2)** that secure the power button board to the bottom cover.
7. Remove the power button board **(3)** and cable.



 **NOTE:** In the process of removing the power button board, the power button actuator may be accidentally dislodged from the bottom cover. To replace the power button actuator, refer to the following illustration.

The power button actuator is included in the Button Kit, spare part number 747634-001.



Reverse this procedure to install the power button board.

Volume button board

Description	Spare part number
Volume button board (includes bracket and cable)	759031-001

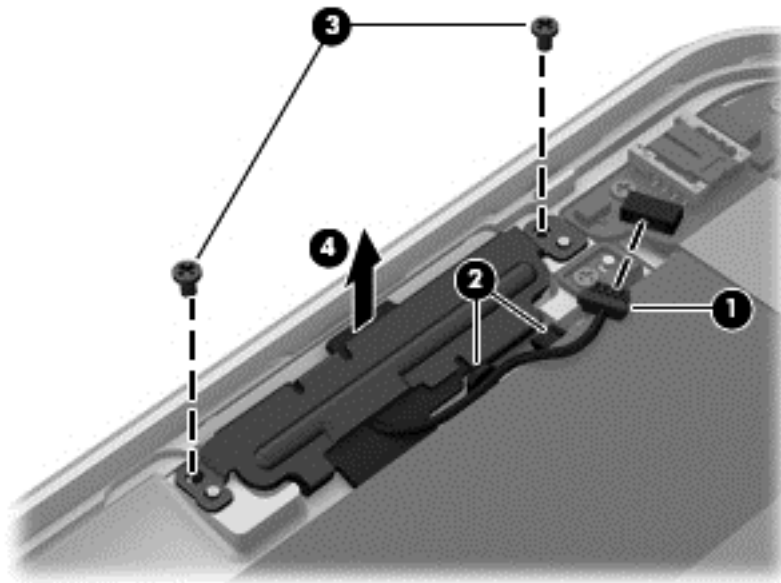
Before removing the volume button board, follow these steps:

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 assembly (see [Display assembly on page 30](#)).
5. Remove the NFC antenna (see [NFC antenna on page 38](#)).

Remove the volume button board:

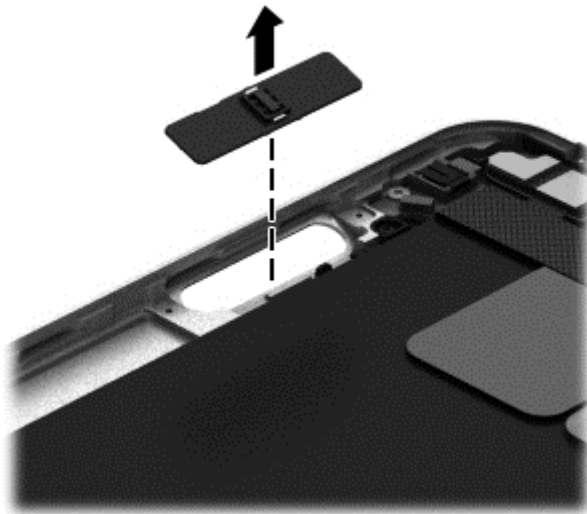
1. Disconnect the volume button board cable **(1)** from the power button board.
2. Release the volume button board cable from the retention clips **(2)** built into the battery.
3. Remove the two Phillips PM1.5×2.0 screws **(3)** that secure the volume button board to the bottom cover.

4. Remove the volume button board (4) and cable.



NOTE: In the process of removing the volume button board, the volume button actuator may be accidentally dislodged from the bottom cover. To replace the volume button actuator, refer to the following illustration.

The volume button actuator is included in the Button Kit, spare part number 747634-001.



Reverse this procedure to install the volume button board.

Audio jack board

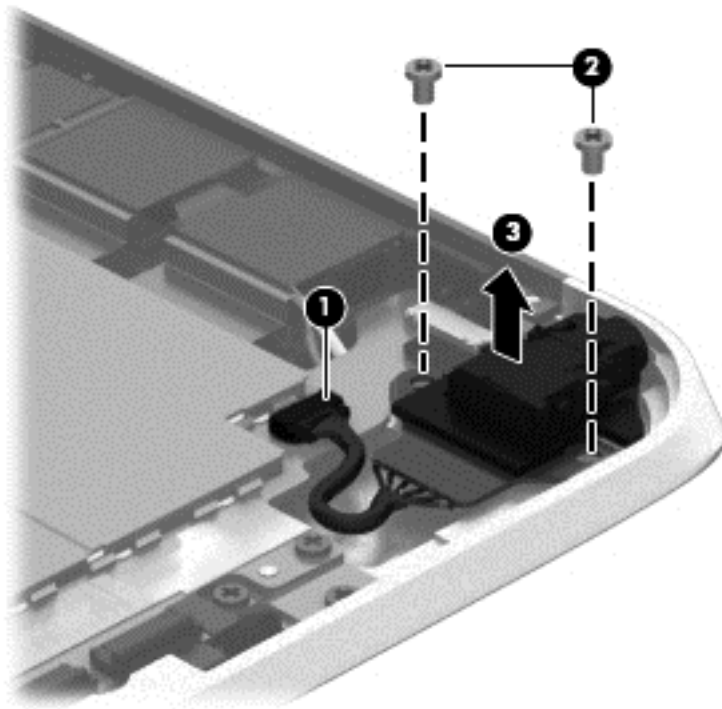
Description	Spare part number
Audio jack board (includes audio jack and cable)	747627-001

Before removing the audio jack 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 assembly (see [Display assembly on page 30](#)).
5. Remove the NFC antenna (see [NFC antenna on page 38](#)).

Remove the audio jack board:

1. Disconnect the audio jack board cable **(1)** from the system board.
2. Remove the two Phillips PM1.3x2.0 screws **(2)** that secure the audio jack board to the bottom cover.
3. Remove the audio jack board **(3)** and cable.



Reverse this procedure to install the audio jack board.

Vibrator module

Description	Spare part number
Vibrator module (includes cable, double-sided adhesive, plastic cover)	747630-001

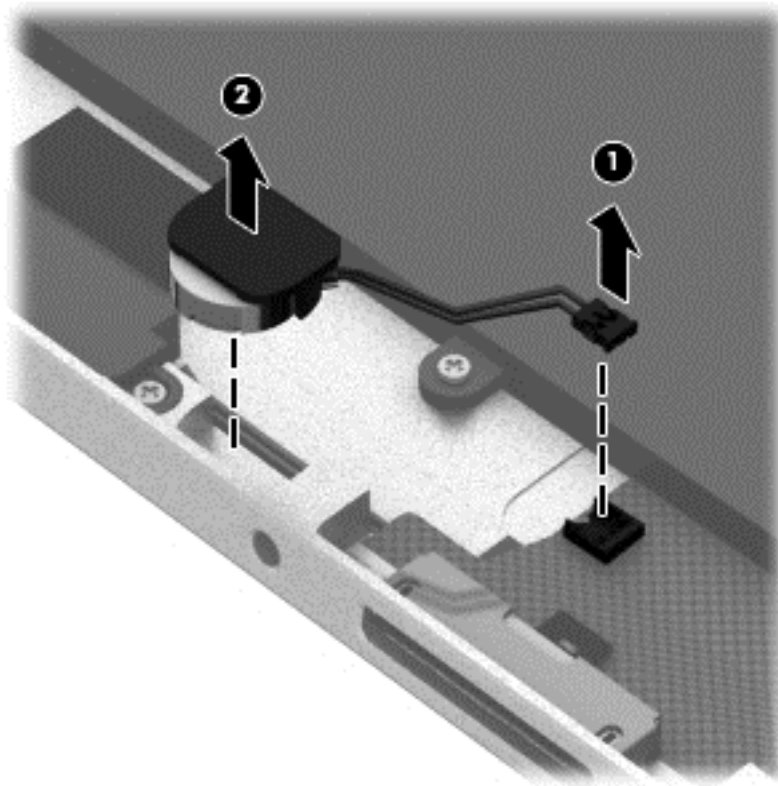
Before removing the vibrator module, follow these steps:

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 assembly (see [Display assembly on page 30](#)).
5. Remove the NFC antenna (see [NFC antenna on page 38](#)).

Remove the vibrator module:

1. Disconnect the vibrator module cable **(1)** from the system board.

2. Detach the vibrator module **(2)** from the bottom cover. (The vibrator module is attached to the bottom cover with double-sided adhesive.)



3. Remove the vibrator module and cable.



NOTE: The vibrator module cover is attached to the vibrator module with double-sided adhesive.

Reverse this procedure to install the vibrator module.

Battery

Description	Spare part number
2-cell, 30-Wh, 4.0-Ah, Li-ion battery (includes battery cable and WWAN/GPS main transceiver and antenna cable)	728558-005

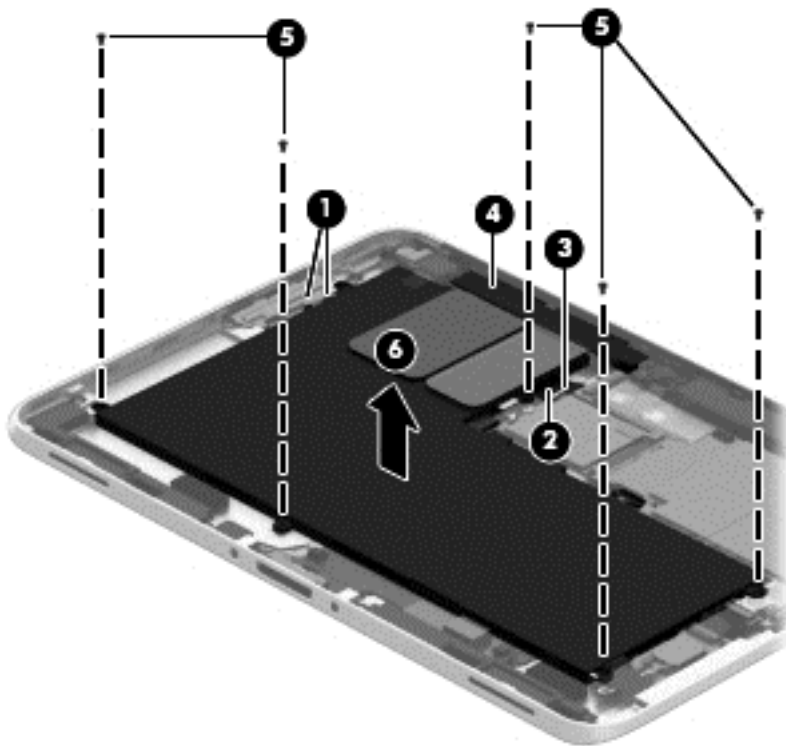
Before removing the battery, follow these steps:

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 display assembly (see [Display assembly on page 30](#)).

5. Remove the NFC antenna (see [NFC antenna on page 38](#)).
6. Remove the power button board (see [Power button board on page 45](#)).


Remove the battery:

1. Release the volume button board cable from the retention clips **(1)** built into the battery.
2. Release the tab **(2)** built into the bottom cover that secures the WWAN/GPS antenna cables, and then release the antenna cables **(3)**.
3. Detach the WWAN/GPS main transceiver **(4)** from the bottom cover. (The WWAN/GPS main transceiver is attached to the bottom cover with double-sided adhesive.)
4. Remove the six Phillips PM1.3×2.0 screws **(5)** that secure the battery to the bottom cover.
5. Remove the battery **(6)**.



Reverse this procedure to install the battery.

System board

 **NOTE:** The system board spare part kit is equipped with an Intel Atom z3795 quad core 1.60-GHz processor (burst up to 2.39-GHz; 2.0-MB L2 cache), and 4096-MB of system memory and includes the processor, memory, and eMMC.

Description	Spare part number
Equipped with 128-GB of eMMC primary storage	753741-001
Equipped with 64-GB of eMMC primary storage	753740-001

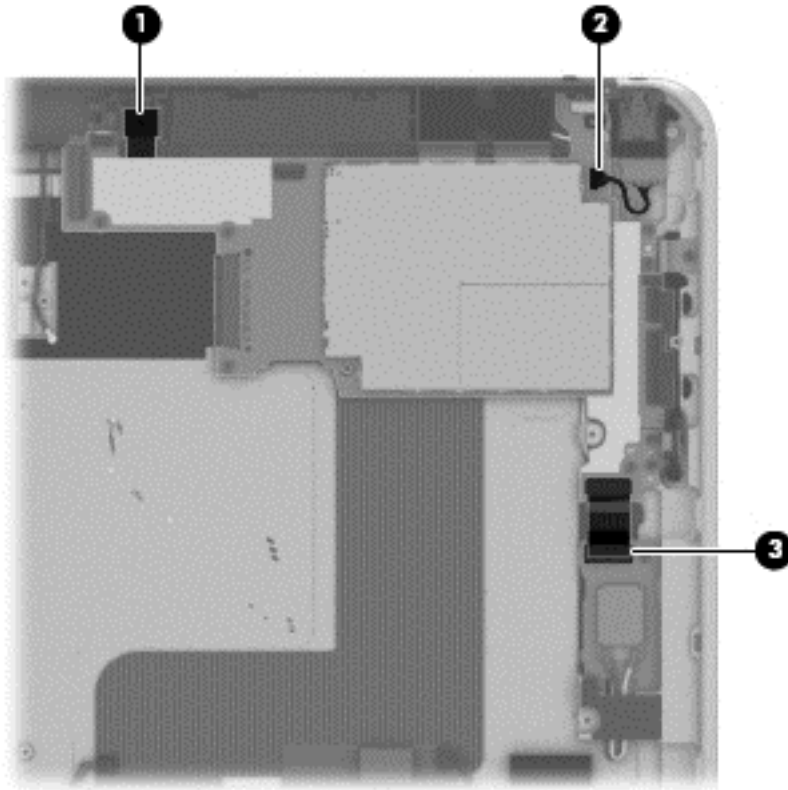
Before removing the system board, follow these steps:

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 assembly (see [Display assembly on page 30](#)), and then remove the following components:
 - a. NFC antenna (see [NFC antenna on page 38](#))
 - b. WWAN module (see [WWAN module on page 39](#))
 - c. Power button board (see [Power button board on page 45](#))
 - d. Battery (see [Battery on page 51](#))

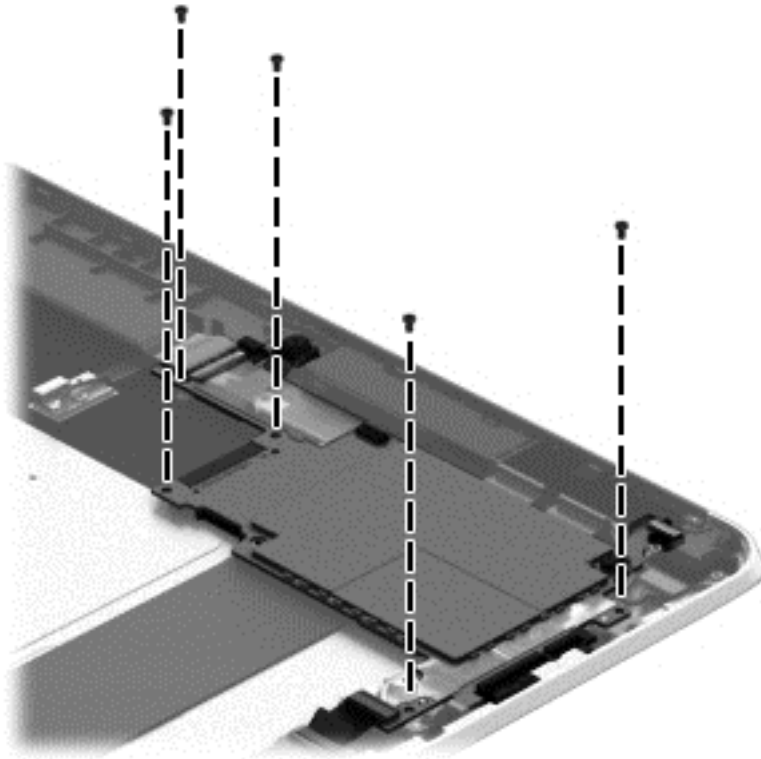
Remove the system board:

1. Release the forward-facing webcam **(1)** from the molding built into the bottom cover.
2. Disconnect the audio jack board cable **(2)** from the system board.

3. Release the ZIF connector **(3)** to which the WLAN ribbon cable is attached, and then disconnect the WLAN ribbon cable from the WLAN module.

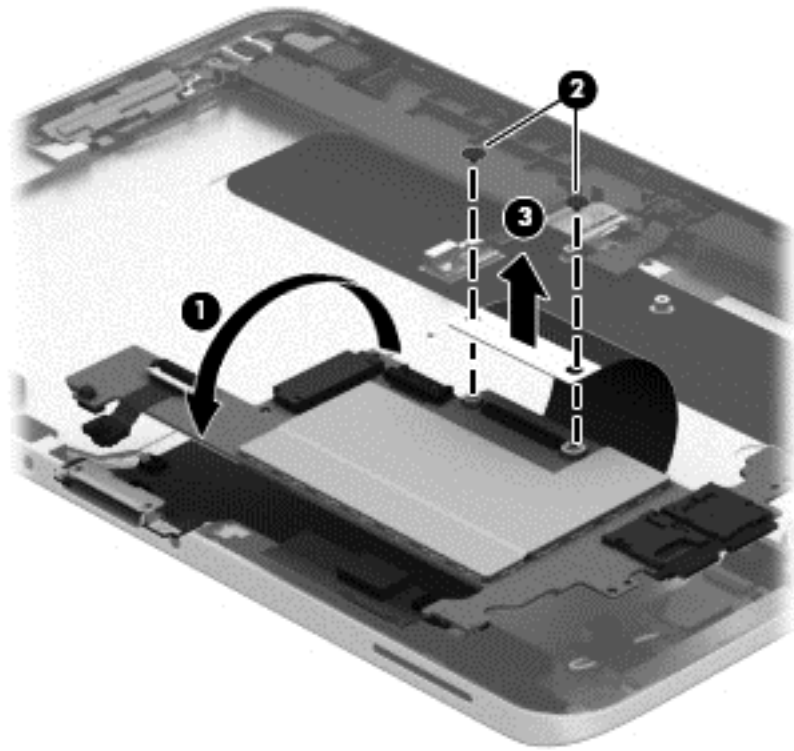


4. Remove the five Phillips PM1.3×2.0 screws that secure the battery to the bottom cover.




5. Lift the top edge of the system board **(1)** and swing it up and forward until it rests upside down above the tablet.
6. Remove the two Phillips PM1.3×1.5 broad head screws **(2)** that secure the docking connector cable to the system board.

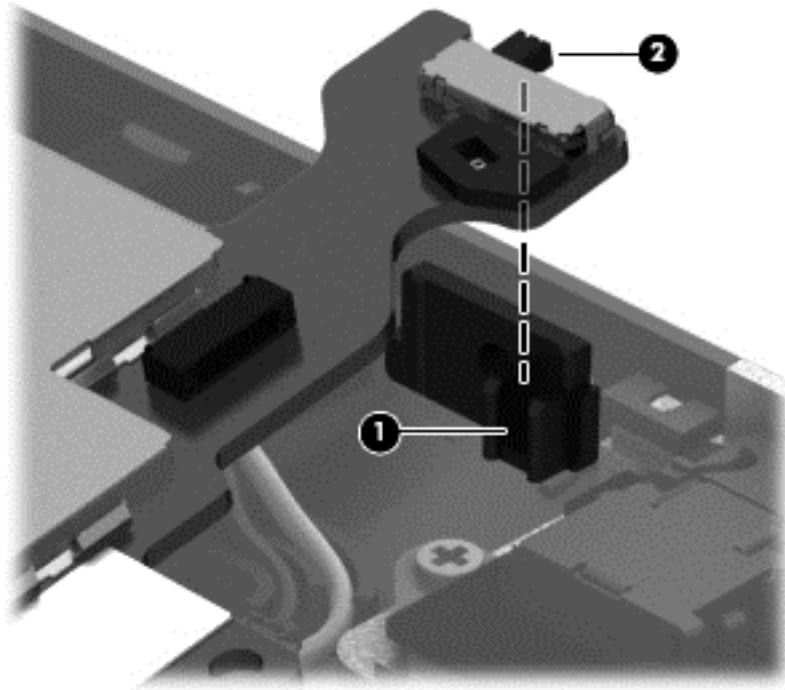
7. Disconnect the docking connector cable **(3)** from the system board.



8. Remove the system board.


 **NOTE:** In the process of removing the system board, the autorotate switch actuator may be accidentally dislodged from the bottom cover. To replace the autorotate switch actuator, refer to the following illustration. When installing the autorotate switch actuator, make sure the two tabs **(1)** on the autorotate switch actuator engage the autorotate switch **(2)** on the system board.

The autorotate switch actuator is included in the Button Kit, spare part number 747634-001.



Reverse this procedure to install the system board.

Forward-facing webcam

 **NOTE:** The forward-facing webcam is included in the Webcam/Microphone Kit, spare part number 762828-001.

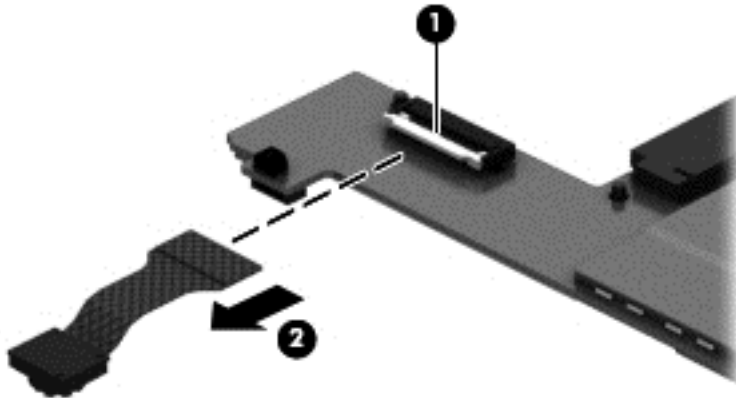
Before removing the forward-facing webcam, follow these steps:

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 assembly (see [Display assembly on page 30](#)), and then remove the following components:
 - a. NFC antenna (see [NFC antenna on page 38](#))
 - b. WWAN module (see [WWAN module on page 39](#))
 - c. Power button board (see [Power button board on page 45](#))
 - d. Battery (see [Battery on page 51](#))
 - e. System board (see [System board on page 53](#))

Remove the forward-facing webcam:

1. Turn the system board upside down, with the top toward you.


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



3. Remove the forward-facing webcam and cable.

Reverse this procedure to install the forward-facing webcam.

Slot cover

 **NOTE:** The slot cover is included in the Button Kit, spare part number 747634-001.

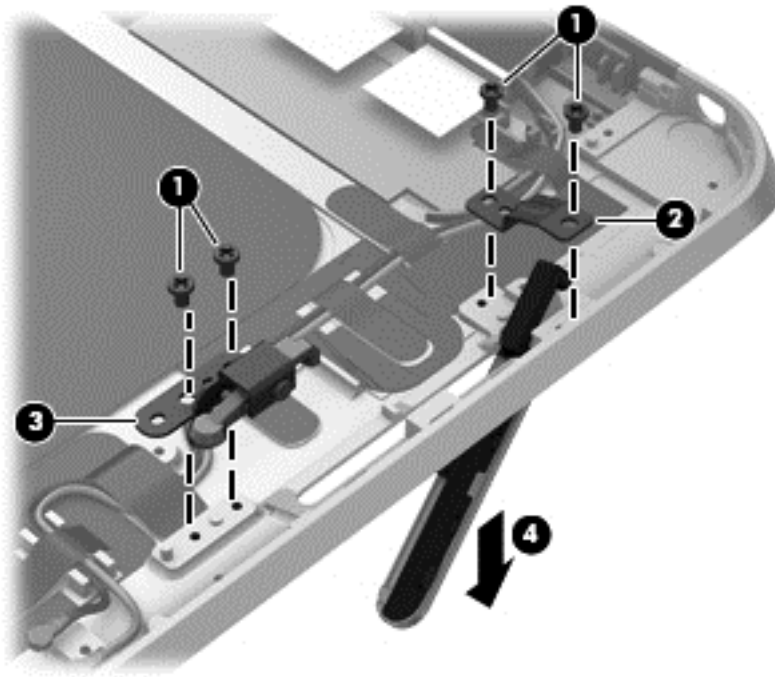
Before removing the slot cover, follow these steps:

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 assembly (see [Display assembly on page 30](#)), and then remove the following components:
 - a. NFC antenna (see [NFC antenna on page 38](#))
 - b. WWAN module (see [WWAN module on page 39](#))
 - c. Power button board (see [Power button board on page 45](#))
 - d. Battery (see [Battery on page 51](#))
 - e. System board (see [System board on page 53](#))

Remove the slot cover:

1. Remove the four Phillips PM1.3×2.0 screws **(1)** that secure the slot cover retention bracket and spring bracket to the bottom cover.
2. Remove the slot cover retention bracket **(2)** and the slot cover spring bracket **(3)**.

3. Remove the slot cover **(4)** by pressing it through the bottom cover.



4. Remove the slot cover.

Reverse this procedure to install the slot cover.

Docking connector cable

Description	Spare part number
Docking connector cable (includes double-sided adhesive)	747631-001

Before removing the docking connector cable, follow these steps:

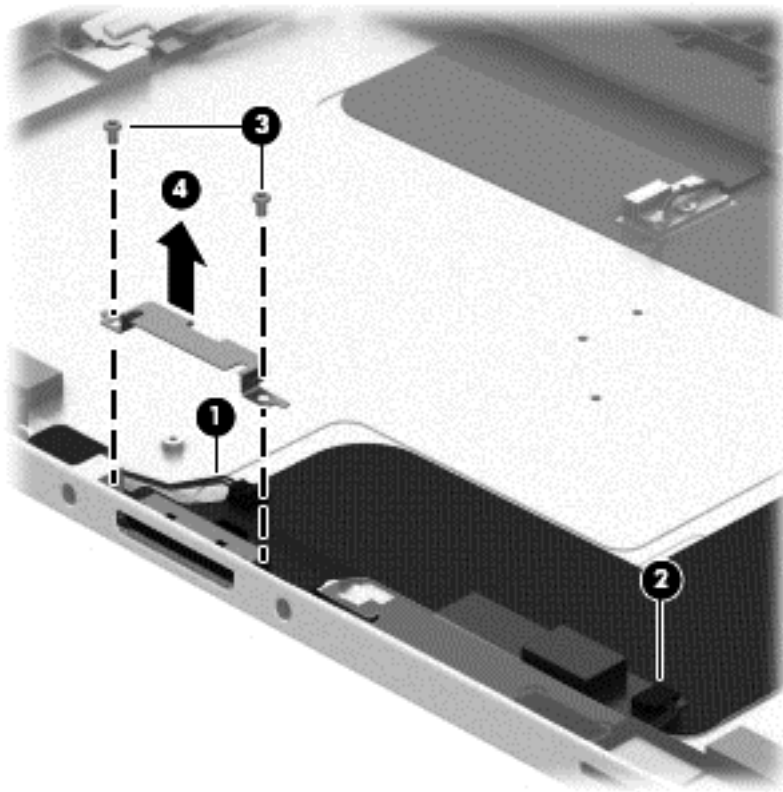
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the display assembly (see [Display assembly on page 30](#)), and then remove the following components:
 - a. NFC antenna (see [NFC antenna on page 38](#))
 - b. WWAN module (see [WWAN module on page 39](#))
 - c. Power button board (see [Power button board on page 45](#))

- d. Battery (see [Battery on page 51](#))
- e. System board (see [System board on page 53](#))

Remove the docking connector cable:

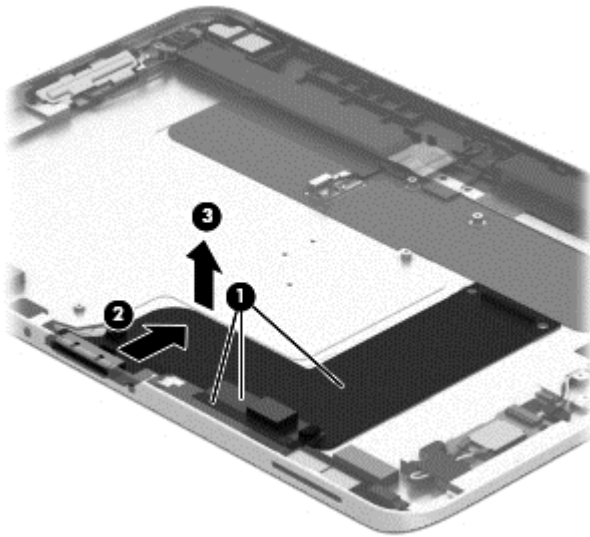
1. Disconnect the vibrator module cable **(1)** from the docking connector cable.
2. Disconnect the speaker cable **(2)** from the docking connector cable.
3. Remove the two Phillips PM1.3×2.0 screws **(3)** that secure the docking connector cable bracket to the bottom cover.
4. Remove the docking connector bracket **(4)**.

The docking connector bracket is included in the Button Kit, spare part number 747634-001.




5. Detach the docking connector cable **(1)** from the surface of the bottom cover. (The docking connector cable is attached to the bottom cover with double-sided adhesive.)
6. Release the docking connector **(2)** from the bottom cover by sliding it away from the opening in the bottom edge.

7. Remove the docking connector cable **(3)**.



Reverse this procedure to install the docking connector cable.

WLAN antenna

 **NOTE:** The WLAN antenna are included in the Antenna Kits and include the WLAN antenna main and auxiliary cables and transceivers.

Description	Spare part number
Antenna Kit for use only in European countries and regions	767884-001
Antenna Kit for use only in Japan	767885-001
Antenna Kit for use only in the United States	767883-001

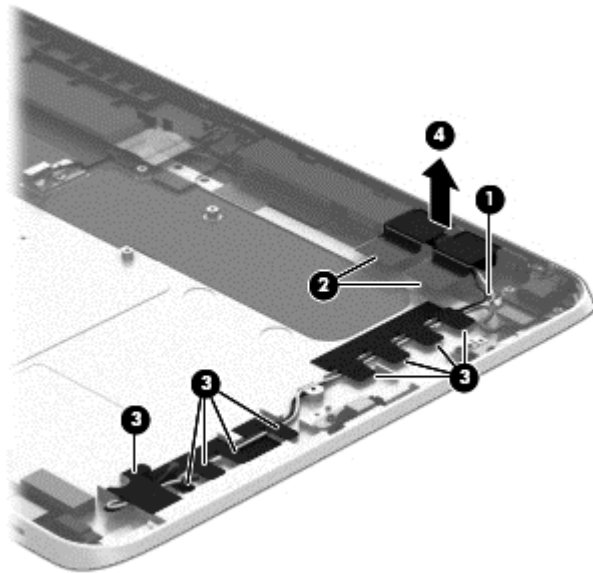
Before removing the WLAN antenna, follow these steps:

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 assembly (see [Display assembly on page 30](#)), and then remove the following components:
 - a. NFC antenna (see [NFC antenna on page 38](#))
 - b. WWAN module (see [WWAN module on page 39](#))
 - c. Power button board (see [Power button board on page 45](#))

- d. Battery (see [Battery on page 51](#))
- e. System board (see [System board on page 53](#))

Remove the WLAN antenna:

1. Release the WLAN antenna cables from the routing channel **(1)** built into the bottom cover.
2. Detach the WLAN antenna transceivers **(2)** from the bottom cover.
3. Release the tabs **(3)** built into the bottom cover that secure the speaker cable, and then release the WLAN antenna cables.
4. Remove the WLAN antenna cables and transceivers **(4)**.



Reverse this procedure to install the WLAN antenna.

WWAN/GPS auxiliary antenna



NOTE: The WWAN/GPS auxiliary antenna are included in the Antenna Kits and include the WWAN/GPS auxiliary antenna cable and transceiver.

Description	Spare part number
Antenna Kit for use only in European countries and regions	767884-001
Antenna Kit for use only in Japan	767885-001
Antenna Kit for use only in the United States	767883-001

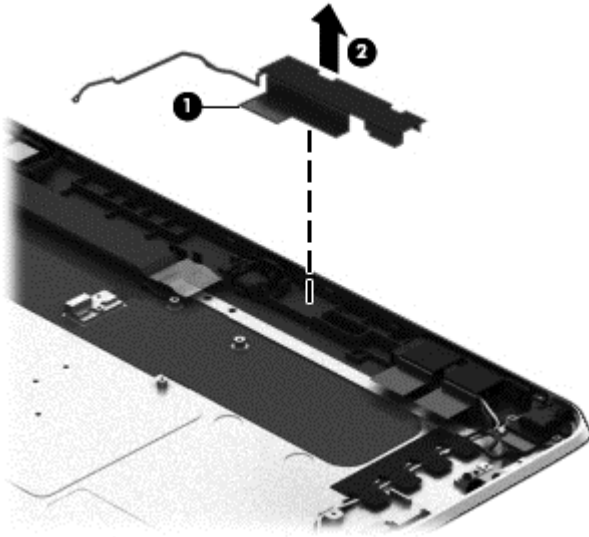
Before removing the WWAN/GPS auxiliary antenna, follow these steps:

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 assembly (see [Display assembly on page 30](#)), and then remove the following components:
 - a. NFC antenna (see [NFC antenna on page 38](#))
 - b. WWAN module (see [WWAN module on page 39](#))
 - c. Power button board (see [Power button board on page 45](#))
 - d. Battery (see [Battery on page 51](#))
 - e. System board (see [System board on page 53](#))

Remove the WWAN/GPS auxiliary antenna:

1. Detach the WWAN/GPS auxiliary antenna transceiver **(1)** from the bottom cover.

2. Remove the WWAN/GPS auxiliary antenna cable and transceiver **(2)**.



Reverse this procedure to install the WWAN/GPS auxiliary antenna.

Speakers

Description	Spare part number
Speakers (include left and right speakers and cables)	747629-001

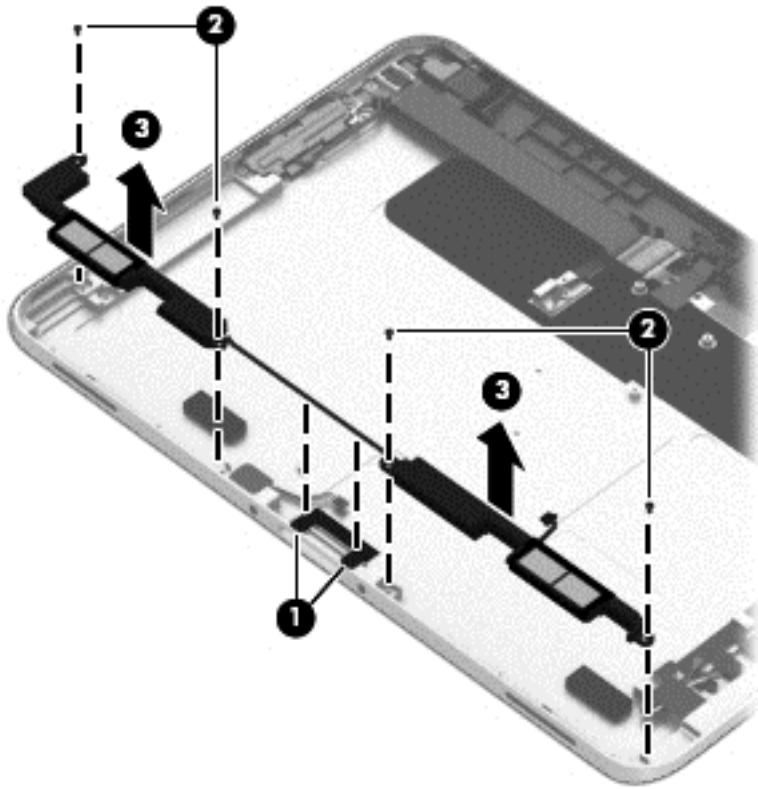
Before removing the speakers, follow these steps:

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 assembly (see [Display assembly on page 30](#)), and then remove the following components:
 - a. NFC antenna (see [NFC antenna on page 38](#))
 - b. WWAN module (see [WWAN module on page 39](#))
 - c. Power button board (see [Power button board on page 45](#))
 - d. Battery (see [Battery on page 51](#))
 - e. System board (see [System board on page 53](#))
 - f. Docking connector cable (see [Docking connector cable on page 59](#))

Remove the speakers:

1. Release the tabs **(1)** built into the bottom cover that secure the speaker cable, and then release the speaker cable.
2. Remove the four Phillips PM1.3×2.0 screws **(2)** that secure the speakers to the bottom cover.

3. Remove the speakers (3).



Reverse this procedure to install the speakers.

Retail Jacket component replacement procedures

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

Top cap

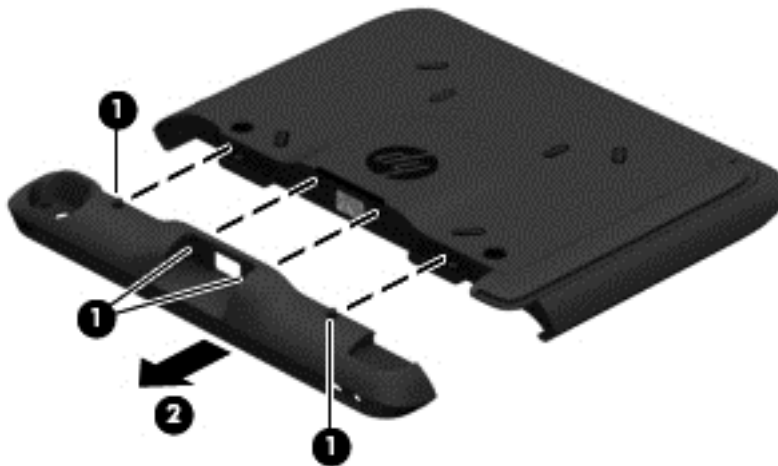
Description	Spare part number
Top cap (includes 4 captive screws, secured by C-rings)	744025-001

Before disassembling the Retail Jacket, 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 or the Retail Jacket.
3. Disconnect all external devices from the Retail Jacket.

Remove the top cap:

1. Place the Retail Jacket face down on the work surface with the top cap toward you.
2. Loosen the 4 captive screws **(1)** that secure the top cap to the Retail Jacket.
3. Remove the top cap **(2)** from the Retail Jacket.



⚠ CAUTION: Before positioning the Retail Jacket with the tablet display panel 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 panel.

4. Turn the Retail Jacket right side up with the bottom toward you.

5. If installed, slide the tablet out of the Retail Jacket.



Reverse this procedure to install the top cap.

Battery

Description	Spare part number
Battery (2-cell, 21-Wh, 2.96-Ah, Li-ion)	687946-001

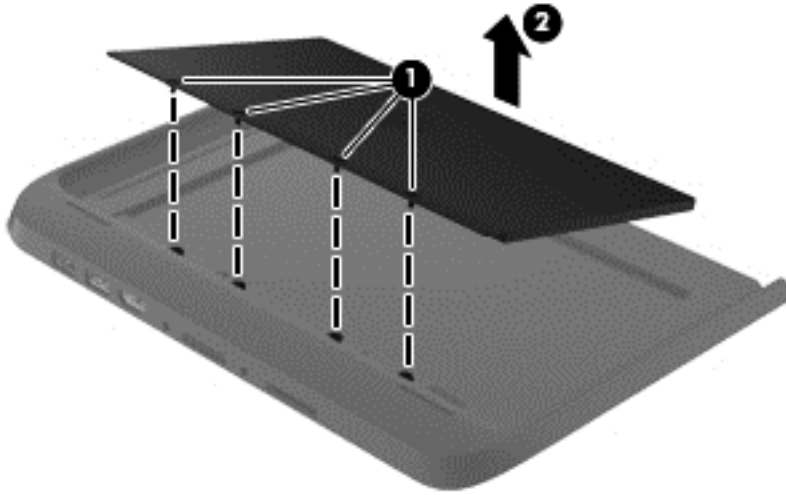
Before removing the battery, follow these steps:

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 or the Retail Jacket.
3. Disconnect all external devices from the Retail Jacket.
4. If installed, remove the tablet from the Retail Jacket (see [Top cap on page 67](#)).

Remove the battery:

1. Loosen the 4 captive screws **(1)** that secure the battery to the Retail Jacket.

2. Remove the battery **(2)** from the Retail Jacket.




Reverse this procedure to install the battery.

Front cover

Description	Spare part number
Front cover (includes bar code scanner lens and adhesive liner)	744030-001

Before removing the front cover, follow these steps:

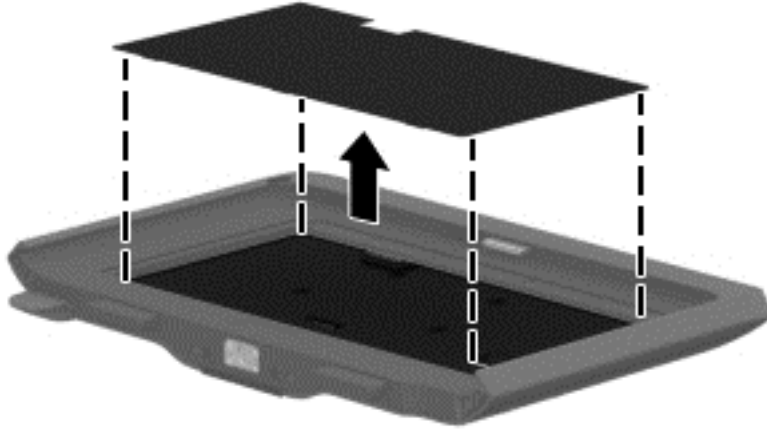
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet or the Retail Jacket.
3. Disconnect all external devices from the Retail Jacket.
4. Remove the top cap (see [Top cap on page 67](#)).
5. If installed, remove the tablet from the Retail Jacket (see [Top cap on page 67](#)).

 **NOTE:** When replacing the front cover, be sure the following components are removed from the defective front cover and installed on the replacement front cover:

- Bar code scanner module (see [Bar code scanner module and Cable connector board on page 73](#))
- Card connector board (see [Bar code scanner module and Cable connector board on page 73](#))
- Battery connector board (see [Battery connector board on page 75](#))
- System board (see [System board on page 76](#))

Remove the front cover:

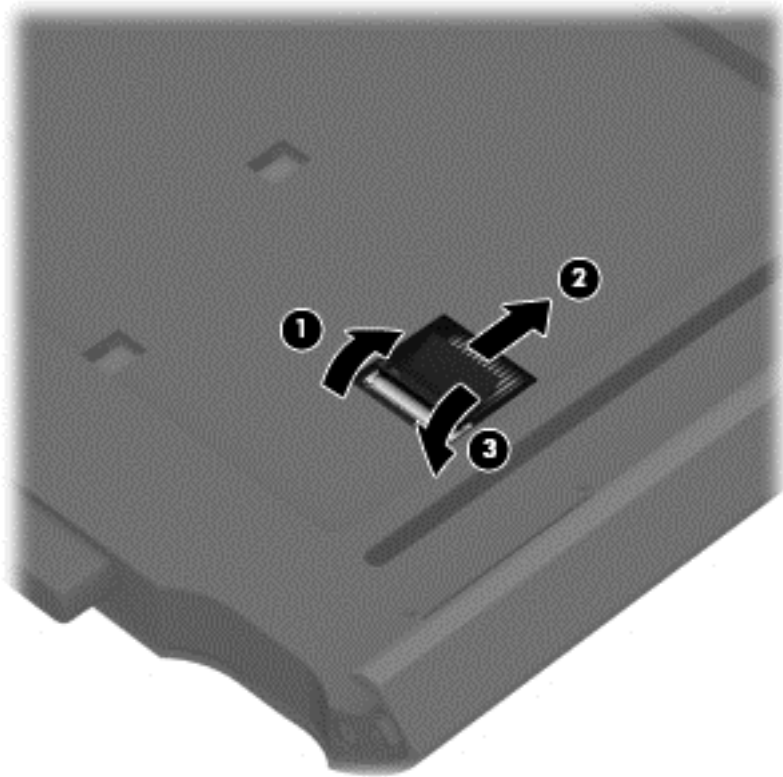
1. Position the Retail Jacket with the top toward you.
2. Remove the adhesive-backed liner that covers the front cover.



3. Release the ZIF connector **(1)** to which the left-side credit card reader board cable is attached, and then disconnect the left-side credit card reader board cable **(2)** from the left-side credit card reader board.

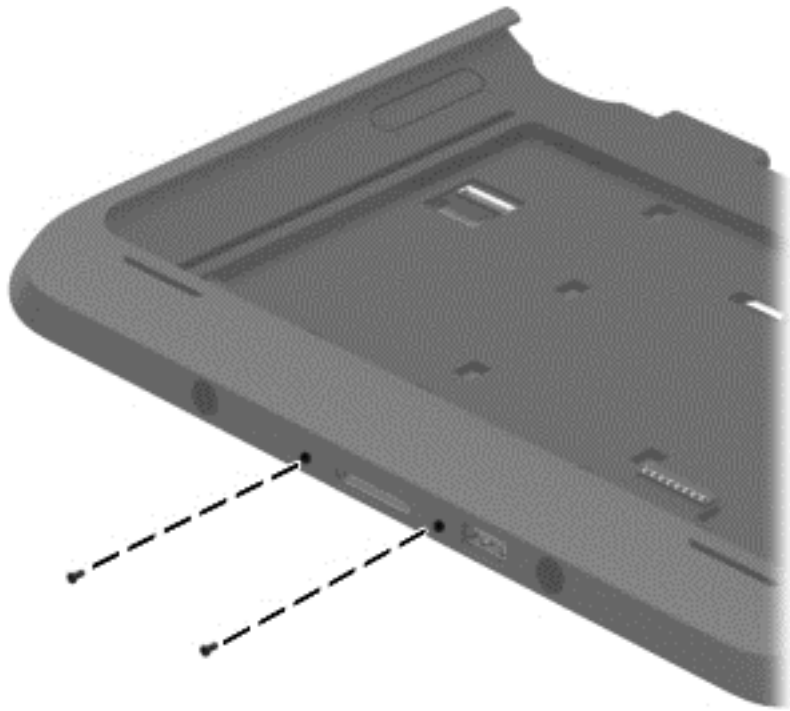
4. Close the ZIF connector **(3)**.

⚠ CAUTION: Failure to close the ZIF connector as instructed in step 4 can lead to damage to Retail Jacket components.

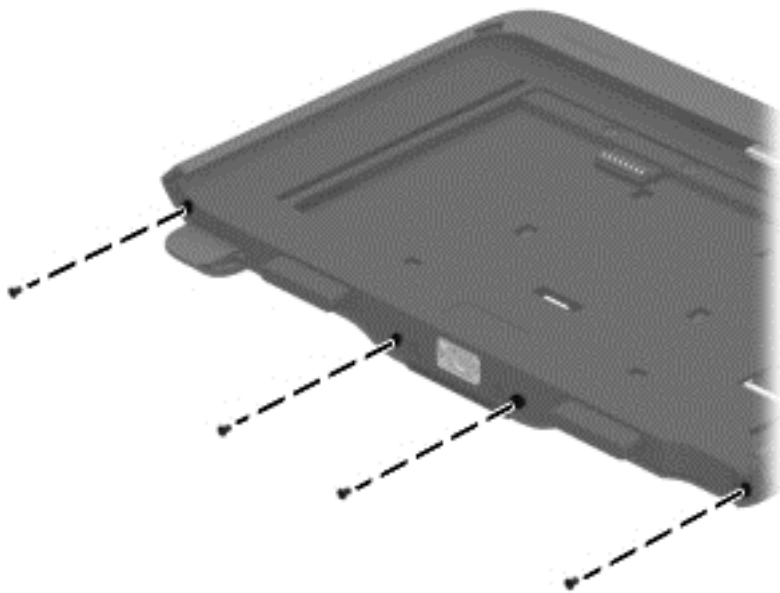


5. Position the Retail Jacket with the bottom toward you.

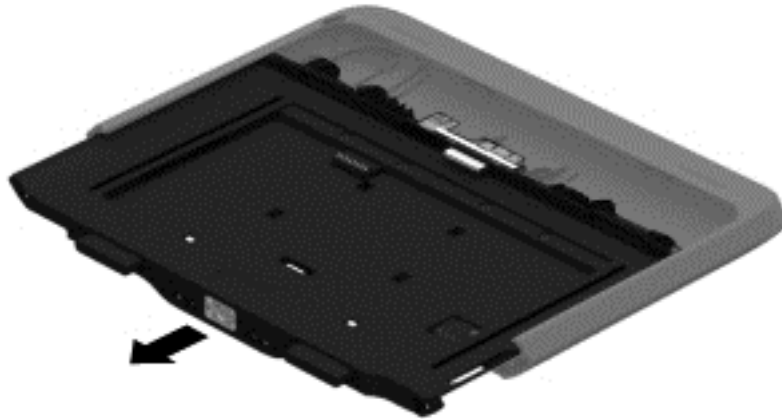
6. Remove the two Phillips PM1.3×3.0 screws that secure the front cover to the Retail Jacket.



7. Position the Retail Jacket with the top toward you.
8. Remove the four Phillips PM1.9×3.0 screws that secure the front cover to the Retail Jacket.




9. Remove the front cover by sliding it away from the Retail Jacket.



Reverse this procedure to install the front cover.

Bar code scanner module and Cable connector board

 **NOTE:** The bar code scanner module and cable connector board spare part kits do not include the respective cables. The cables are included in the Cable Kit, spare part number 744031-001.

Description	Spare part number
Bar code scanner module	744037-001
Cable connector board	744034-001

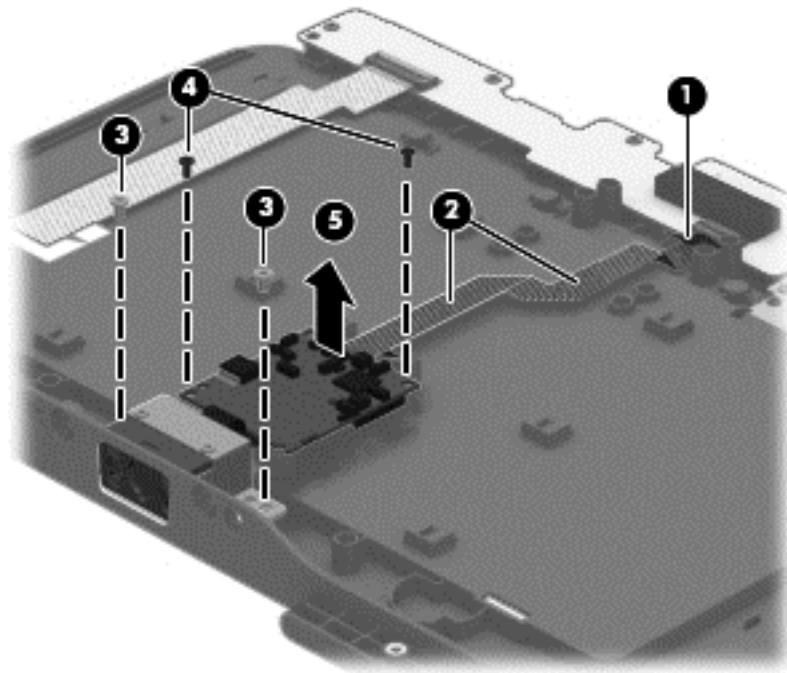
Before removing the bar code scanner module and cable connector board, follow these steps:

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 or the Retail Jacket.
3. Disconnect all external devices from the Retail Jacket.
4. Remove the top cap (see [Top cap on page 67](#)).
5. If installed, remove the tablet from the Retail Jacket (see [Top cap on page 67](#)).
6. Remove the front cover (see [Front cover on page 69](#)).

Remove the bar code scanner module and cable connector board:

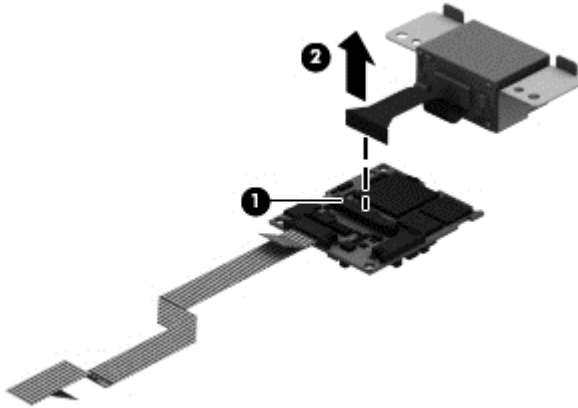
1. Turn the front cover upside down with the top toward you.
2. Release the ZIF connector **(1)** to which the cable connector board cable is attached, and then disconnect the cable connector board cable from the system board.

3. Detach the cable connector board cable **(2)** from the front cover. (The cable connector board cable is attached to the front cover with double-sided adhesive.)
4. Remove the two Phillips PM1.3×3.0 screws **(3)** that secure the bar code scanner module to the front cover.
5. Remove the two Phillips PM1.9×3.0 screws **(4)** that secure the cable connector board to the front cover.
6. Remove the bar code scanner module **(5)** and the cable connector board and cable.



7. Turn the bar code scanner module and the cable connector board over so the ZIF connector on the back of the cable connector board is accessible.

8. Release the ZIF connector **(1)** to which the bar code scanner module cable is attached, and then disconnect the bar code scanner module cable **(2)** from the cable connector board.



Reverse this procedure to install the bar code scanner module and cable connector board.

Battery connector board

Description	Spare part number
Battery connector board (includes cable)	744033-001

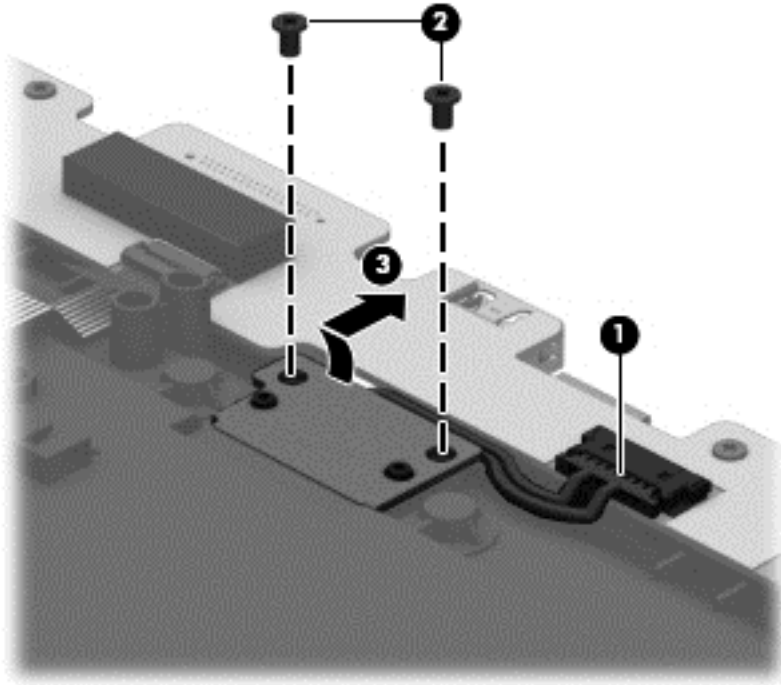
Before removing the battery connector board, follow these steps:

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 or the Retail Jacket.
3. Disconnect all external devices from the Retail Jacket.
4. Remove the top cap (see [Top cap on page 67](#)).
5. If installed, remove the tablet from the Retail Jacket (see [Top cap on page 67](#)).
6. Remove the front cover (see [Front cover on page 69](#)).

Remove the battery connector board:

1. Turn the front cover upside down with the top toward you.
2. Disconnect the battery connector board cable **(1)** from the system board.
3. Remove the two Phillips PM1.9×3.0 screws **(2)** that secure the battery connector board to the front cover.

4. Lift the bottom edge of the battery connector board **(3)** until the board rests at an angle, and then slide the board out of the opening in the front cover.



5. Remove the battery connector board and cable.

Reverse this procedure to install the battery connector board.

System board

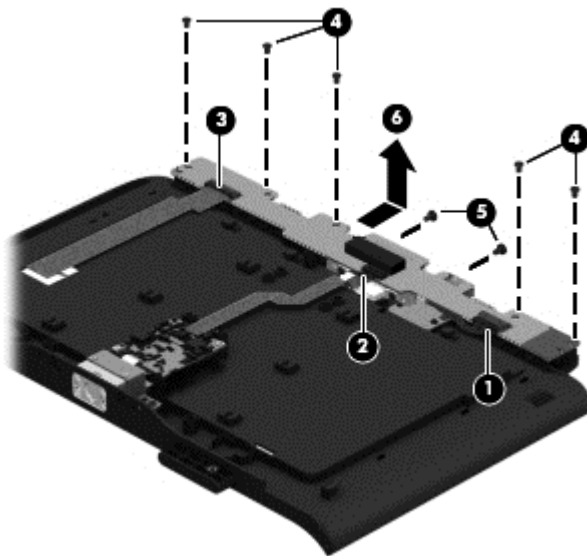
Description	Spare part number
System board (includes docking connector and USB port)	744032-001

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 or the Retail Jacket.
3. Disconnect all external devices from the Retail Jacket.
4. Remove the top cap (see [Top cap on page 67](#)).
5. If installed, remove the tablet from the Retail Jacket (see [Top cap on page 67](#)).
6. Remove the front cover (see [Front cover on page 69](#)).

Remove the system board:

1. Turn the front cover upside down with the top toward you.
2. Disconnect the battery connector board cable **(1)** from the system board.
3. Release the ZIF connector **(2)** to which the cable connector board cable is attached, and then disconnect the cable connector board cable from the system board.
4. Release the ZIF connector **(3)** to which the credit card reader/left board cable is attached, and then disconnect the credit card reader/left board cable from the system board.
5. Remove the five Phillips PM1.9×3.0 screws **(4)** that secure the system board to the front cover.
6. Remove the two Phillips PM1.9×3.0 screws **(5)** that secure the system board to the front cover.
7. Slide the docking connector **(6)** out of the opening in the front cover, and then remove the system board.



Reverse this procedure to install the system board.

Credit card reader board



NOTE: The credit card reader board spare part kits do not include the respective cables. The cables are included in the Cable Kit, spare part number 744031-001.

Description	Spare part number
Left-side credit card reader board	744027-001
Right-side credit card reader board	744028-001

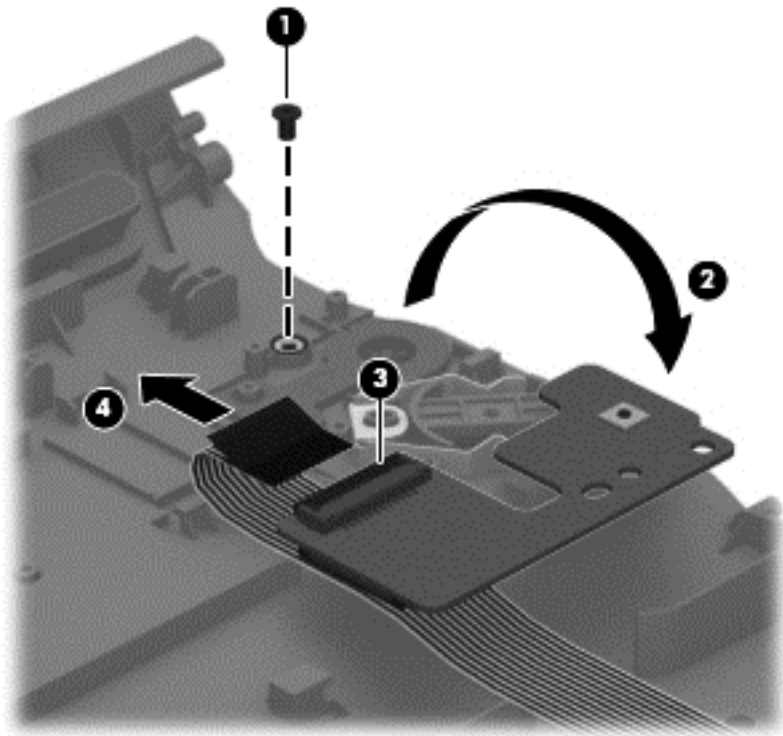
Before removing the credit card reader boards, follow these steps:

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 or the Retail Jacket.
3. Disconnect all external devices from the Retail Jacket.
4. Remove the top cap (see [Top cap on page 67](#)).
5. If installed, remove the tablet from the Retail Jacket (see [Top cap on page 67](#)).
6. Remove the front cover (see [Front cover on page 69](#)).

Remove the credit card reader boards:

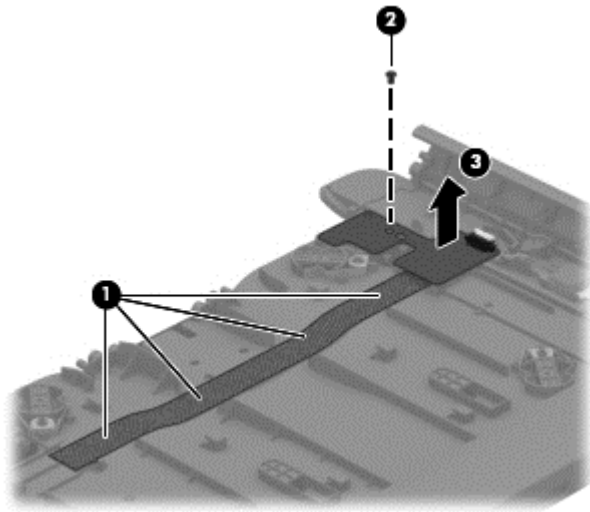
1. Remove the Phillips PM1.9×3.0 screw **(1)** that secures the left-side credit card reader board to the rear cover.
2. Turn the left-side credit card reader board **(2)** over so the ZIF connector on the back of the board is accessible.

3. Release the ZIF connector **(3)** to which the right-side credit card reader board cable is attached, and then disconnect the right-side credit card reader board cable **(4)** from the left-side credit card reader board.



4. Remove the left-side credit card reader board.
5. Detach the right-side credit card reader board cable **(1)** from the rear cover. (The right-side credit card reader board cable is attached to the rear cover with double-sided adhesive.)
6. Remove the Phillips PM1.9×3.0 screw **(2)** that secures the right-side credit card reader board to the rear cover.

7. Remove the right-side credit card reader board **(3)** and cable.



Reverse this procedure to install the credit card reader boards.

Credit card reader

Description	Spare part number
Credit card reader	744026-001

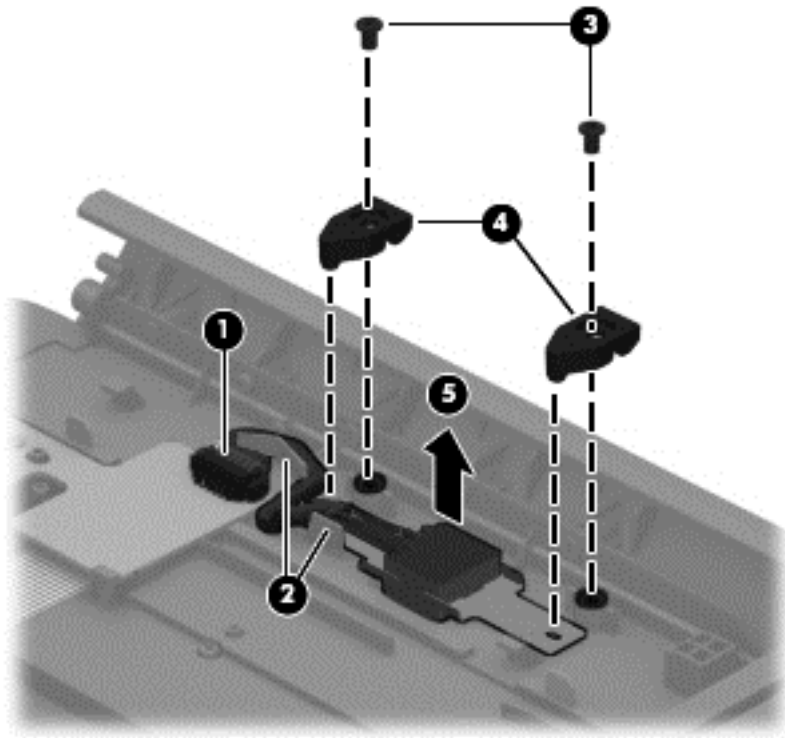
Before removing the credit card reader, follow these steps:

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 or the Retail Jacket.
3. Disconnect all external devices from the Retail Jacket.
4. Remove the top cap (see [Top cap on page 67](#)).
5. If installed, remove the tablet from the Retail Jacket (see [Top cap on page 67](#)).
6. Remove the front cover (see [Front cover on page 69](#)).

Remove the credit card reader:

1. Disconnect the credit card reader cable **(1)** from the right-side credit card reader board.
2. Release the credit card reader cable **(2)** from the routing channel built into the rear cover.
3. Remove the two Phillips PM1.9×3.0 screws **(3)** that secure the retention tabs and the credit card reader to the rear cover.
4. Remove the two retention tabs **(4)**.

5. Remove the credit card reader (5).



Reverse this procedure to install the credit card reader.

Security Jacket component replacement procedures

There are as many as 13 screws that must be removed, replaced, and/or loosened when servicing the Security Jacket. Make special note of each screw size and location during removal and replacement.

Card reader cover and Top cap

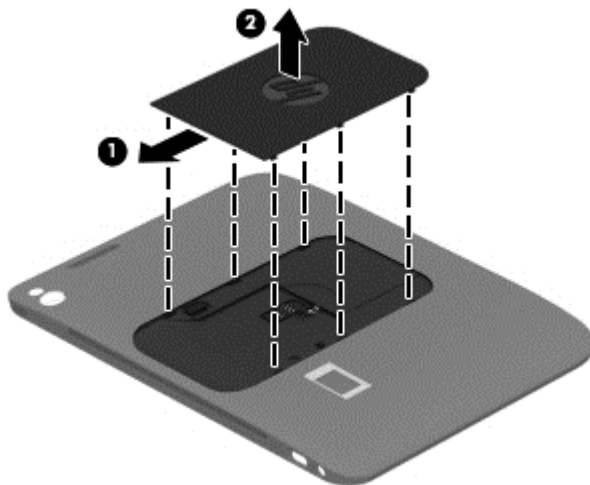
Description	Spare part number
Card reader cover	744039-001
Top cap (includes rubber trim)	744047-001

Before disassembling the Security Jacket, 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 or the Security Jacket.
3. Disconnect all external devices from the Security Jacket.

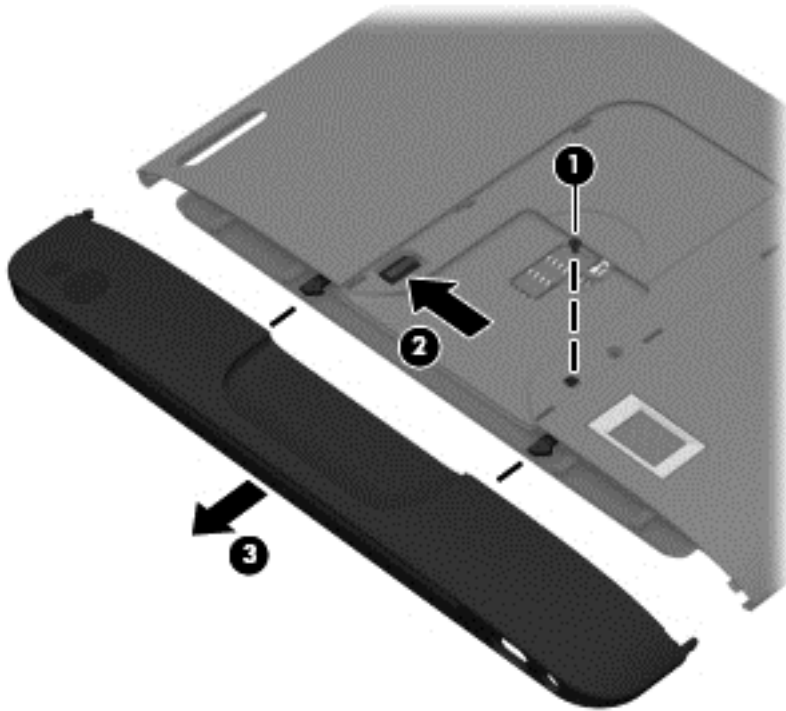
Remove the card reader cover and top cap:

1. Place the Security Jacket face down on the work surface with the top cap toward you.
2. Release the card reader cover **(1)** by sliding it toward the top of the Security Jacket.
3. Remove the card reader cover **(2)** by lifting it away from the Security Jacket.



4. Remove the Phillips PM1.9×3.0 screw **(1)** that secures the top cap to the Security Jacket.
5. Slide the top cap release latch **(2)** to release the top cap from the Security Jacket.

6. Remove the top cap **(3)** from the Security Jacket.



⚠ CAUTION: Before positioning the Security Jacket with the tablet display panel 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 panel.

7. Turn the Security Jacket right side up with the bottom toward you.
8. If installed, slide the tablet out of the Security Jacket.



Reverse this procedure to install the top cap.

Front cover

Description	Spare part number
Front cover	744048-001

Before removing the front cover, follow these steps:

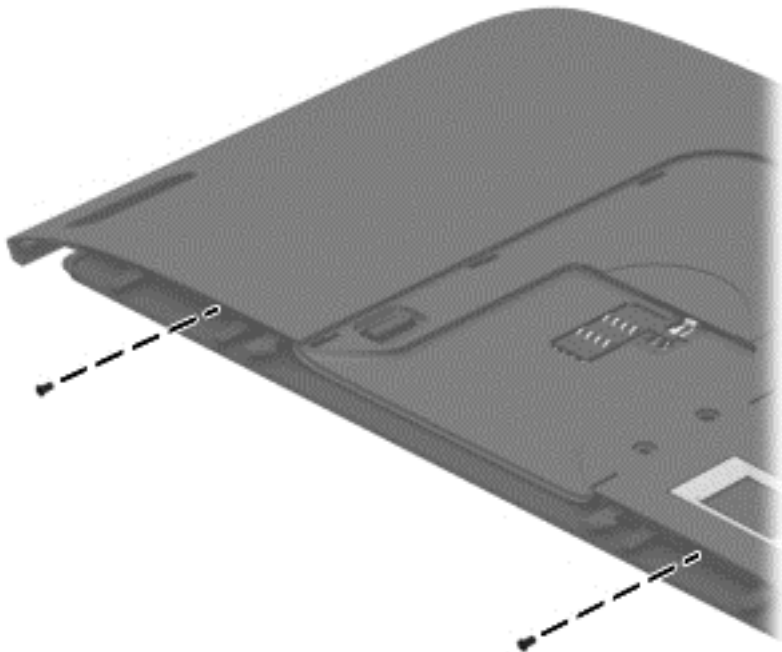
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet or the Security Jacket.
3. Disconnect all external devices from the Security Jacket.
4. Remove the card reader cover and top cap (see [Card reader cover and Top cap on page 82](#)).
5. If installed, remove the tablet from the Security Jacket (see [Card reader cover and Top cap on page 82](#)).



NOTE: When replacing the front cover, be sure the system board is removed from the defective top cover and installed on the replacement front cover (see [System board on page 76](#)).

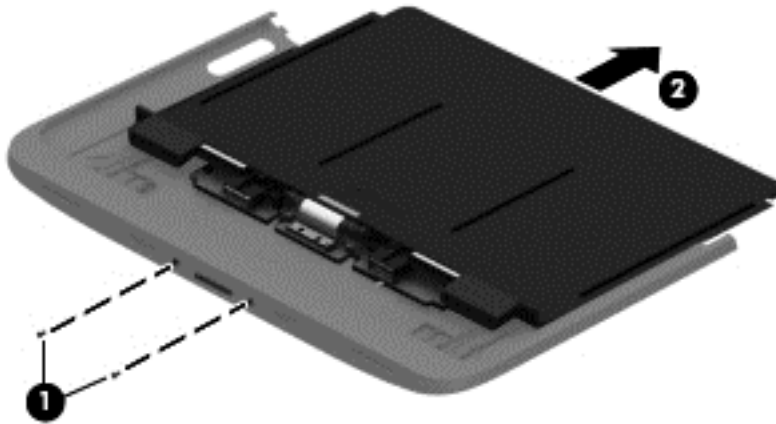
Remove the front cover:

1. Turn the Security Jacket upside down with the top toward you.
2. Remove the two Phillips PM1 .5x3.4 screws that secure the front cover to the Security Jacket.

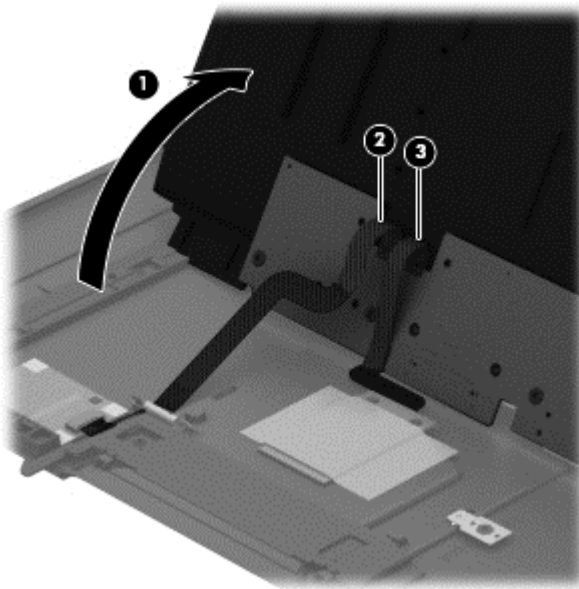


3. Turn the Security Jacket right side up with the bottom toward you.

4. Remove the two Phillips PM1.3×3.4 screws **(1)** that secure the front cover to the Security Jacket.
5. Release the front cover **(2)** by sliding it partially away from the Security Jacket.



6. Lift the bottom edge of the front cover **(1)** and swing it up and back until it rests upside down on the Security Jacket.
7. Disconnect the fingerprint reader board cable **(2)** from the low insertion force (LIF) connector on the system board.
8. Disconnect the card reader board cable **(3)** from the LIF connector on the system board.



9. Remove the front cover.

Reverse this procedure to install the front cover.

System board

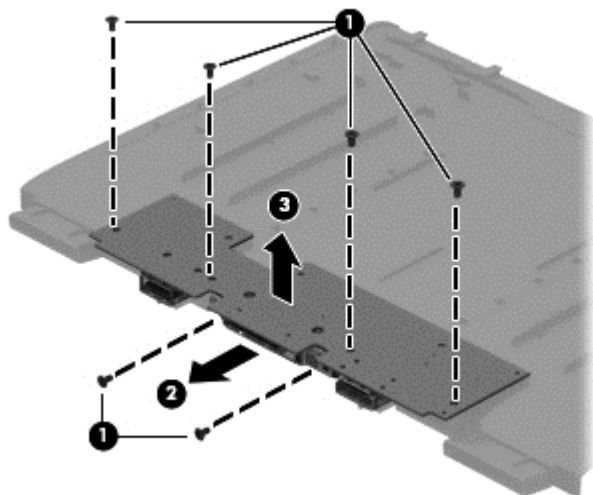
Description	Spare part number
System board (includes docking connector, HDMI port, and USB port)	744044-001

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 or the Security Jacket.
3. Disconnect all external devices from the Security Jacket.
4. Remove the card reader cover and top cap (see [Card reader cover and Top cap on page 82](#)).
5. If installed, remove the tablet from the Security Jacket (see [Card reader cover and Top cap on page 82](#)).
6. Remove the front cover (see [Front cover on page 84](#)).


Remove the system board:

1. Place the front cover face down on the work surface with the bottom toward you.
2. Remove the six Phillips PM1.9×3.4 screws **(1)** that secure the system board to the front cover.
3. Release the docking connector **(2)** from the opening in the front cover.
4. Remove the system board **(3)**.



Reverse this procedure to install the system board.

Docking connector cable

 **NOTE:** The docking connector cable is included in the Cables/Connectors Kit, spare part number 744045-001.

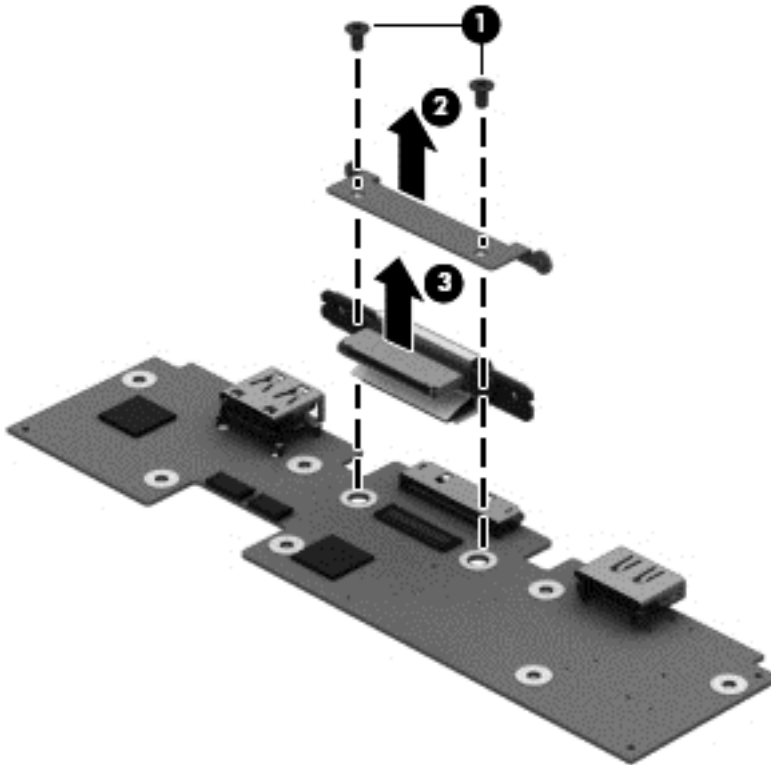
Before removing the docking connector cable, follow these steps:

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 or the Security Jacket.
3. Disconnect all external devices from the Security Jacket.
4. Remove the card reader cover and top cap (see [Card reader cover and Top cap on page 82](#)).
5. If installed, remove the tablet from the Security Jacket (see [Card reader cover and Top cap on page 82](#)).
6. Remove the front cover (see [Front cover on page 84](#)).
7. Remove the system board (see [System board on page 86](#)).

Remove the docking connector cable:

1. Turn the system board upside down with the top toward you.
2. Remove the two Phillips PM1.9×3.4 screws **(1)** that secure the docking connector cable to the system board.
3. Remove the docking connector bracket **(2)**.

4. Remove the docking connector cable (3).



Reverse this procedure to install the docking connector cable.

Card reader board

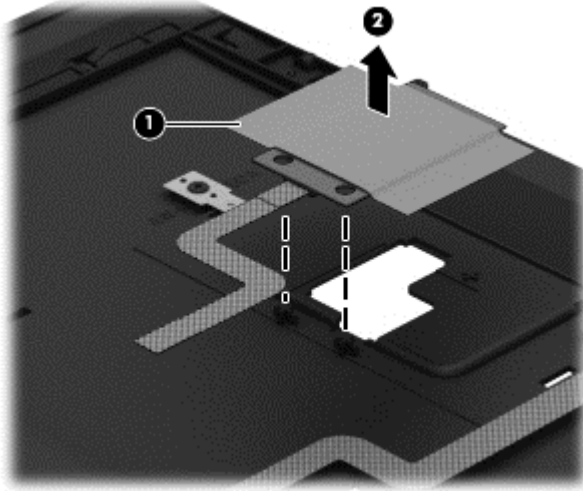
Description	Spare part number
Card reader board	744043-001

Before removing the 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 or the Security Jacket.
3. Disconnect all external devices from the Security Jacket.
4. Remove the card reader cover and top cap (see [Card reader cover and Top cap on page 82](#)).
5. If installed, remove the tablet from the Security Jacket (see [Card reader cover and Top cap on page 82](#)).
6. Remove the front cover (see [Front cover on page 84](#)).

Remove the card reader board:

1. Position the rear cover with the bottom toward you.
2. Detach the tape **(1)** that secures the card reader board to the rear cover.
3. Remove the card reader board **(2)** and cable.



Reverse this procedure to install the card reader board.

Fingerprint reader board

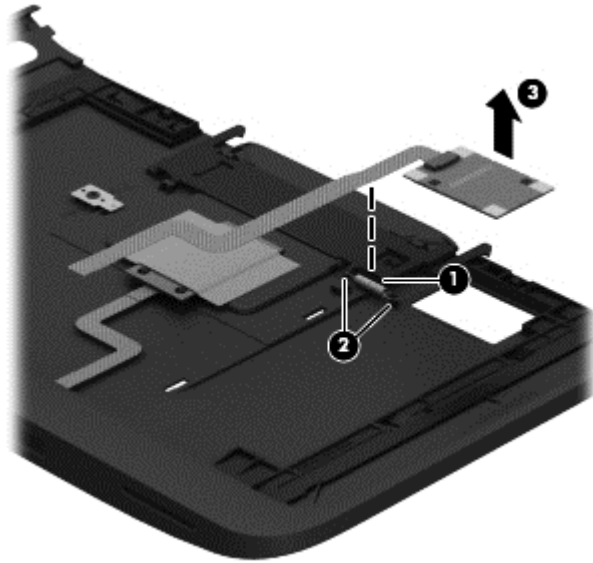
Description	Spare part number
Fingerprint reader board	744042-001

Before removing the fingerprint 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 or the Security Jacket.
3. Disconnect all external devices from the Security Jacket.
4. Remove the card reader cover and top cap (see [Card reader cover and Top cap on page 82](#)).
5. If installed, remove the tablet from the Security Jacket (see [Card reader cover and Top cap on page 82](#)).
6. Remove the front cover (see [Front cover on page 84](#)).

Remove the fingerprint reader board:

1. Position the rear cover with the bottom toward you.
2. Remove the spring **(1)** from the spring retention tabs **(2)**.
3. Remove the fingerprint reader board **(3)** and cable.




Reverse this procedure to install the fingerprint reader board.

6 Computer Setup and HP PC Hardware Diagnostics (UEFI)

Using Computer Setup

Computer Setup, or F10 BIOS Setup (Basic Input/Output System), controls communication between all the input and output devices on the system (such as disk drives, display, keyboard, mouse, and printer). Computer Setup includes settings for the types of devices installed, the startup sequence of the tablet, and the amount of system and extended memory.

 **NOTE:** Use extreme care when making changes in Computer Setup. Errors can prevent the tablet from operating properly.

Starting Computer Setup

To start Computer Setup, follow these steps:


1. Shut down the tablet.
2. To power on the tablet, press the **Power** button and **Volume down** button simultaneously. The Startup menu is displayed.
3. Press **f10** to enter Computer Setup.

Navigating and selecting in Computer Setup

To navigate and select in Computer Setup, follow these steps:

1. Shut down the tablet.
2. To power on the tablet, press the **Power** button and **Volume down** button simultaneously.
The Startup menu is displayed.
3. Press **f10** to enter Computer Setup.
 - Tap a menu or a menu item to select it.
 - To close open dialog boxes and return to the main Computer Setup screen, tap **Escape**, and then follow the on-screen instructions.
4. To exit Computer Setup menus without saving your changes, select **Main**, select **Ignore Changes and Exit**, and then follow the on-screen instructions.
5. To save your changes and exit, select **Main**, select **Save Changes and Exit**, and then follow the on-screen instructions.


Restoring factory settings in Computer Setup

 **NOTE:** Restoring defaults will not change the hard drive mode.

To return all settings in Computer Setup to the values that were set at the factory, follow these steps:

1. Shut down the tablet.
2. To power on the tablet, press the **Power** button and **Volume down** button simultaneously.
The Startup menu is displayed.
3. Press **f10** to enter Computer Setup.
4. Select **Main**, and then tap **Restore Defaults**.
5. Follow the on-screen instructions.
6. To save your changes and exit, select **Save Changes and Exit**, and then follow the on-screen instructions.

Your changes go into effect when the computer restarts.

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

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.

To display BIOS version information (also known as ROM date and System BIOS), see [Using Computer Setup on page 91](#).

1. Shut down the tablet.
2. To power on the tablet, press the **Power** button and **Volume down** button simultaneously.
The Startup menu is displayed.
3. Press **f10** to enter Computer Setup.
4. Select **Main**, and then select **System Information**.
5. Follow the on-screen instructions.
6. To exit Computer Setup menus without saving your changes, select **Main**, select **Ignore Changes and Exit**, and then follow the on-screen instructions.

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, 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 on 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. To access HP Support Assistant on the Start screen, tap 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. 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. Swipe from the right edge of the touch screen, tap **Search**, and then tap the search box. Type *file*, and then tap **File Explorer**.
2. Select your hard drive designation. The hard drive designation is typically Local Disk (C:).
3. Using the hard drive path you recorded earlier, open the folder on your hard drive that contains the update.
4. Double-tap 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 if the computer hardware is functioning properly. The tool runs outside of the operating system to isolate hardware failures from issues that may be caused by the operating system or other software components.

To start HP PC Hardware Diagnostics UEFI:

1. Shut down the tablet if it is not already powered off.
2. To power on the tablet, press the **Power** button and **Volume down** button simultaneously.
3. Select **System Diagnostics**.
4. Select the type of diagnostic test that you want to run, and then follow the on-screen instructions.

 **NOTE:** If you need to stop a diagnostic test while it is running, press anywhere on the screen.

7 Specifications

Tablet specifications

	Metric	U.S.
Dimensions		
Width	17.80 cm	7.0 in
Depth	26.10 cm	10.28 in
Height	0.92 cm	0.36 in
Weight	0.68 kg	1.50 lbs
Input power		
Operating voltage and current	9 V DC @ 1.1A – 10W	
Temperature		
Operating	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F
Relative humidity (noncondensing)		
Operating	10% to 90%	
Nonoperating	5% to 95%	
Maximum altitude (unpressurized)		
Operating	-15 m to 3,048 m	-50 ft to 10,000 ft
Nonoperating	-15 m to 12,192 m	-50 ft to 40,000 ft
NOTE: Applicable product safety standards specify thermal limits for plastic surfaces. The device operates well within this range of temperatures.		

8 Backup and recovery

To protect your information, use Windows backup and restore utilities to back up individual files and folders, back up your entire hard drive, create system repair media (select models only) by using an optional external flash drive, or an optional external optical drive, or create system restore points. In case of system failure, you can use the backup files to restore the contents of your tablet.

1. Swipe from the right edge of the touch screen to display the charms, tap **Search**, and then tap the search box.
2. In the search box, type `restore`, and then select from the list of displayed options.



NOTE: For detailed instructions on various backup and restore options, perform a search for these topics in Windows Help and Support.

In case of system instability, HP recommends that you print the recovery procedures and save them for later use.



NOTE: Windows includes the User Account Control feature to improve the security of your tablet. You may be prompted for your permission or password for tasks such as installing software, running utilities, or changing Windows settings. For more information, see Windows Help and Support.

Backing up your information


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

For more information on the Windows backup features, see Windows Help and Support.

Performing a system recovery

In case of system failure or instability, the computer provides the following tools to recover your files:


- Windows recovery tools: You can use Windows Backup and Restore to recover information you have previously backed up. You can also use Windows Automatic Repair to fix problems that might prevent Windows from starting correctly.
- f11 recovery tools: You can use the [f11](#) recovery tools to recover your original hard drive image. The image includes the Windows operating system and software programs installed at the factory.


 **NOTE:** If you are unable to boot (start up) your tablet and you cannot use the system repair media you previously created (select models only), contact support.

Using the Windows recovery tools


To recover information you previously backed up, see Windows Help and Support for steps on restoring files and folders.

To recover your information using Automatic Repair, follow these steps:


 **CAUTION:** Some Startup Repair options will completely erase and reformat the hard drive. All files you have created and any software installed on the computer are permanently removed. When reformatting is complete, the recovery process restores the operating system, as well as the drivers, software, and utilities from the backup used for recovery.


 **NOTE:** An external keyboard, mouse, and external flash drive may be required to perform this procedure.

1. If possible, back up all personal files.
2. If possible, check for the presence of the Recovery Image partition and the Windows partition. Swipe from the right edge of the touch screen, tap **Search**, and then tap the search box. Type `file`, and then tap **File Explorer**.
3. If the Windows partition and the Recovery Image partition are listed, shut down the tablet.
4. To power on the tablet, press the **Power** button and **Volume down** button simultaneously. The Startup menu is displayed.
5. Select **Troubleshoot**, select **Advanced Options**, and then select **Startup Repair**.
6. Follow the on-screen instructions.

 **NOTE:** For additional information on recovering information using the Windows tools, perform a search for these topics in Windows Help and Support.

Using f11 recovery tools

 **CAUTION:** Using **f11** completely erases hard drive contents and reformats the hard drive. All files that you have created and any software that you have installed on the tablet are permanently removed. The **f11** recovery tool reinstalls the operating system, drivers, Windows updates, and language packs that were installed at the factory. All other software applications must be downloaded from HP.com or the Windows Store.


 **NOTE:** An external keyboard, mouse, and external flash drive may be required to perform this procedure.

To recover the original hard drive image using **f11**:

1. If possible, back up all personal files.
2. If possible, check for the presence of the HP Recovery partition: Swipe from the right edge of the touch screen, tap **Search**, and then tap the search box. Type **pc**, and then tap **This PC**.
3. If the HP Recovery partition is listed, shut down the tablet.
4. To power on the tablet, press the **Power** button and **Volume down** button simultaneously. The Startup menu is displayed.
5. Tap **F11 HP Recovery**, and then follow the on-screen instructions.

Changing the boot device order

To change the boot order so that you can boot from an external device:

 **NOTE:** An external flash drive is required to perform this procedure.

1. If possible, back up all personal files.
2. Shut down the tablet.
3. Connect the external flash drive.
4. To power on the tablet, press the **Power** button and **Volume down** button simultaneously. The Startup menu is displayed.
5. Tap **F9 Boot Options**.
6. Select the external flash drive as the boot device.
7. Restart the tablet.

Using Windows Refresh or Windows Reset

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.

The Windows Reset option allows you to perform detailed reformatting of your tablet, or remove personal information before you give away or recycle your tablet. For more information on these features, see Windows Help and Support.

9 Statement of Volatility

The purpose of this document is to provide general information regarding non-volatile memory in industry-standards based HP Business Notebook PC systems and provide general instructions for restoring nonvolatile memory that can contain personal data after the system has been powered off and the hard drive has been removed.

HP Business Notebook PC products that use Intel-based or AMD®-based system boards contain volatile DDR memory. The amount of nonvolatile memory present in the system depends upon the system configuration. Intel-based and AMD-based system boards contain nonvolatile memory subcomponents as originally shipped from HP assuming that no subsequent modifications have been made to the system and assuming that no applications, features, or functionality have been added to or installed on the system.

Following system shutdown and removal of all power sources from an HP Business Notebook PC system, personal data can remain on volatile system memory (DIMMs) for a finite period of time and will also remain in nonvolatile memory. The steps below will remove personal data from the notebook PC, including the nonvolatile memory found in Intel-based and AMD-based system boards. Some of these steps are disclosed in the Maintenance and Service Guides available for HP PC products available on the product support pages at www.hp.com.

1. Follow steps (a) through (l) below to restore the nonvolatile memory that can contain personal data. Restoring or re-programming nonvolatile memory that does not store personal data is neither necessary nor recommended.
 - a. Enter BIOS (F10) Setup by powering on the system and pressing **F10** when prompted near the bottom of the display, or press the **ESC** key to display the start up menu, then press **F10** . If the system has a BIOS administrator password, enter the password at the prompt.
 - b. Select the **File** menu, then **Restore Defaults**.
 - c. Select the **System Configuration** menu, then **Restore Security Defaults**.
 - d. If an asset or ownership tag is set, select the **Security** menu and scroll down to the **Utilities** menu. Select **System IDs**, and then select the tag that has been set. Press the spacebar once to clear the tag, then press **Enter** to return to the prior menu.
 - e. If a DriveLock password is set, select the **Security** menu, scroll down to **DriveLock**, then select **DriveLock password**. Select the desired hard drive. Click **Disable protection**, enter the existing master DriveLock password, then press **Enter** to confirm and return to the prior menu. Repeat this procedure if more than one hard drive has a DriveLock password.


- f. If an Automatic DriveLock password is set, select the **Security menu**, scroll down to **Automatic DriveLock**, then select the desired hard drive and disable protection. Repeat this procedure if more than one hard drive has an Automatic DriveLock password.
 - g. Select the **File** menu, then **Reset BIOS Security** to factory default. Click **yes** at the warning message.
 - h. Select the **File** menu, then **Save Changes and Exit**.
 - i. Reboot the system. If the system has a Trusted Platform Module and/or fingerprint sensor, one or two prompts will appear: one to clear the TPM and the other to reset fingerprint sensor. Press **F1** to accept or **F2** to reject.

If the HP notebook model number ends in a 'p' or 'w' and includes Intel Centrino with VPro™, reboot the PC and enter BIOS Setup by pressing **F10** when prompted. Select **System Configuration**, then **AMT Options**. Then select **Un-configure AMT on next boot**. Select **Save**, then **Yes**. Select the **File** menu, and then select **Save Changes and Exit**. Reboot the system and confirm that you want to un-configure AMT.
 - j. If the optional Intel Anti-Theft Technology (AT) was activated, contact the provider to deactivate it.
 - k. If the optional Absolute® Software Computrace® management and tracking service was activated on the notebook PC, contact the provider to deactivate it.
 - l. Remove all power and system batteries for at least 24 hours.
2. Remove and retain the storage drive or clear the contents of the drive.

- a. **Hard Disk Drive (HDD)**

Clear the HDD contents by using the HP Disk Sanitizer® utility or a third party application that, ideally, is U.S. Department of Defense (DOD) 5220.22-M approved.

To run HP Disk Sanitizer, enter BIOS Setup by powering on the system and pressing **F10** when prompted near the bottom of the display, or press **ESC** to display the start up menu, then press **F10**. Select the **Security** menu and scroll down to the **Utilities** menu. Select **Disk Sanitizer** and select the desired drive. For a higher level of protection, select **Optimum**.

 **NOTE:** This process will take a long time, and the amount of time varies based on the hard drive capacity.

- b. **Solid State Drive (SSD)**

Clear the SSD contents by using the BIOS Setup Secure Erase command option, or by using a third party utility designed to erase data from an SSD. To run Secure Erase, enter BIOS Setup by powering on the system and pressing **F10** when prompted near the bottom of the display. Select the **Security** menu and scroll down to the **Utilities** menu. Select **Secure Erase** and select the desired hard drive.

Non-volatile memory usage

Non Volatile Memory Type	Amount (Size)	Does this memory store customer data?	Does this memory retain data when power is removed?	What is the purpose of this memory?	How is data input into this memory?	How is this memory write protected?
Real Time Clock (RTC) battery backed-up CMOS configuration memory (CMOS)	256 Bytes	No	Yes	Stores system date and time and limited keyboard controller data.	Using the F10 Setup utility or changing the Microsoft Windows date and time.	This memory is not write-protected. HP recommends password protecting the F10 Setup utility.
Controller (NIC) EEPROM	64 KBytes (not customer accessible)	No	Yes	Store NIC configuration and NIC firmware.	Using a utility from the NIC vendor that can be run from DOS.	A utility is required to write data to this memory and is available from NIC vendor. Writing data to this ROM in an inappropriate manner will render the NIC nonfunctional.
Keyboard ROM	64 KBytes (not customer accessible)	No	Yes	Stores firmware code (keyboard, mouse, & battery management).	Programmed at the factory. Code is updated when the system BIOS is updated.	A utility is required for writing data to this memory and is available on the HP website. Writing data to this ROM in an inappropriate manner can render the PC nonfunctional.
DIMM Serial Presence Detect (SPD) configuration data	256 Bytes per memory module, 128 Bytes programmable (not customer accessible)	No	Yes	Stores memory module information.	Programmed by the memory vendor.	Data cannot be written to this memory when the module is installed in a PC. The specific write protection method varies by memory vendor.

Non Volatile Memory Type	Amount (Size)	Does this memory store customer data?	Does this memory retain data when power is removed?	What is the purpose of this memory?	How is data input into this memory?	How is this memory write protected?
System BIOS	4 to 5 MBytes	Yes	Yes	Store system BIOS code and PC configuration data.	System BIOS code is programmed at the factory. Code is updated when the system BIOS is updated. Configuration data and settings are input using the F10 setup utility or a custom utility.	A utility is required for writing data to this memory and is available on the HP website. Writing data to this ROM in an inappropriate manner can render the PC nonfunctional.
Intel Management Engine Firmware (present only in models ending in a 'p' or 'w' or with Intel Centrino Pro technology)	1.5 or 5 MBytes	Yes	Yes	Stores Management Engine Code, Settings, Provisioning Data and iAMT third party data store.	Management Engine Code is programmed at the factory. Code is updated via Intel secure firmware update utility. Unique Provisioning Data can be entered at the factory or by an administrator using the Management Engine (MEBx) setup utility. The third party data store contents can be populated by a remote management console or local applications registered by an administrator to have access to the space.	The Intel chipset is configured to enforce hardware protection to block all direct read/write access to this area. An Intel utility is required for updating the firmware. Only firmware updates digitally signed by Intel can be applied using this utility.

Non Volatile Memory Type	Amount (Size)	Does this memory store customer data?	Does this memory retain data when power is removed?	What is the purpose of this memory?	How is data input into this memory?	How is this memory write protected?
Bluetooth flash	2 MBits	No	Yes	Stores Bluetooth configuration and firmware.	Programmed at the factory. Tools for writing data to this memory are not publicly available but can be obtained from the silicon vendor.	A utility is required for writing data to this memory and is made available through newer versions of the driver if the flash requires an upgrade.
802.11 WLAN EEPROM	4 KBytes to 8 KBytes	No	Yes	Stores configuration and calibration data.	Programmed at the factory. Tools for writing data to this memory are not made public.	A utility is required for writing data to this memory and is typically not made available to the public unless a firmware upgrade is necessary to address a unique issue.
Webcam	64 KBits	No	Yes	Store webcam configuration and firmware.	Using a utility from the device manufacturer that can be run from Windows.	A utility is required for writing data to this memory and is typically not made available to the public unless a firmware upgrade is necessary to address a unique issue.
Fingerprint reader	512 KBytes flash	Yes	Yes	Stores fingerprint templates.	By enrolling in HP ProtectTools Security Manager.	Only a digitally signed application can make the call to write to the flash.

Questions and answers

1. How can the BIOS settings be restored (returned to default settings)?

- a. Turn on or restart the computer and press **F10** when prompted near the bottom of the display.
- b. Select **File**, then select **Restore defaults**.
- c. Follow the on-screen instructions.
- d. Select **File**, save changes and exit, then press **Enter**.

2. What kind of configuration data is stored on the DIMM Serial Presence Detect (SPD) memory module? How would this data be written?

The DIMM SPD memory contains information about the memory module such as size, serial number, data width, speed/timing, voltage and thermal information. This information is written by the module manufacturer and stored on an EEPROM. This EEPROM cannot be written to when the memory module is installed in a PC. Third party tools do exist that can write to the EEPROM when the memory module is not installed in a PC. There are various third party tools available to read SPD memory.

3. Does the “Firmware Hub for System BIOS” contain the BIOS program? Is this chip writable, and if so how?

The Firmware Hub does contain the BIOS program and is writable. A utility is required to perform the write function.

4. In some PC systems, the Firmware Hub for System BIOS is a flash memory chip so that updates can be written by the customer. Is this true for these BIOS chips?

Yes, they are flash memory chips.

5. What is meant by “Restore the nonvolatile memory found in Intel-based system boards?”

This relates to clearing the Real Time Clock (RTC) CMOS memory that contains PC configuration data.

6. Does resetting the CMOS configuration memory return the PC back to factory defaults?

The process of resetting the CMOS will return certain system settings to factory default but will not reset many of the system data and configuration defaults to their default settings. To return these system data and configuration defaults to default settings, refer to question and answer 1 and follow the instructions for returning the BIOS settings to factory defaults.

10 Power cord set requirements

The wide-range input feature of the computer permits it to operate from any line voltage from 100 to 120 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 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
Japan	METI	3
The Netherlands	KEMA	1
Norway	NEMKO	1
The People's Republic of China	COC	5
South Korea	EK	4
Sweden	SEMKO	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.

11 Recycling

When a non-rechargeable or rechargeable battery has reached the end of its useful life, do not dispose of the battery in general household waste. Follow the local laws and regulations in your area for battery disposal.

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

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