



HP Pro Slate 10 EE G1
HP Pro Tablet 10 EE G1

Maintenance and Service Guide
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Product notice

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

Software terms

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

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

Safety warning notice

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

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1 Product description

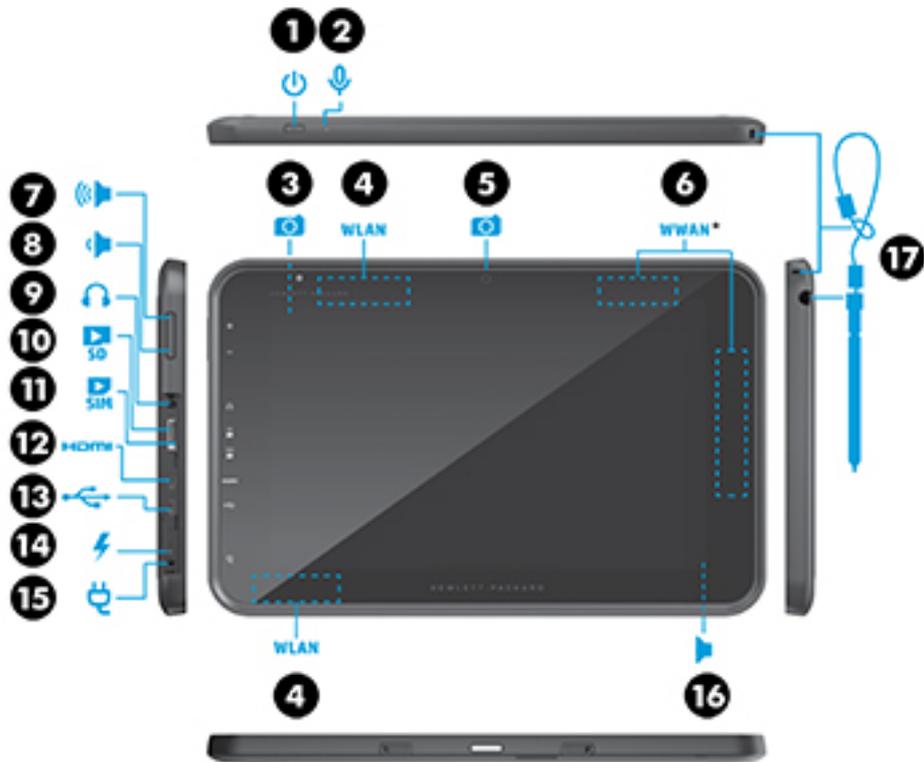
Category	Description	HP Pro Slate 10 EE G1	HP Pro Tablet 10 EE G1
Product Name	HP Pro Slate 10 EE G1	√	
	HP Pro Tablet 10 EE G1		√
Processor	Intel® Atom™ Z3735F 1.83-GHz processor (quad core)	√	√
	Intel Atom Z3735G 1.83-GHz processor (quad core)		
Panel	10.1-in, (1280×800), WXGA, AntiGlare (AG), ultraslim, light-emitting (LED) backlit, 10-point IPS capacitive Touch Screen display panel	√	√
Graphics	Intel HD Graphics with universal memory architecture (UMA)	√	√
Stylus	Support for passive stylus with 2.2-mm tip	√	√
	Stylus garage located on back cover		
Memory	Memory integrated onto system board	√	√
	Support for the following memory configurations: <ul style="list-style-type: none"> • 2.0-GB, (4-Gbit, 256-MB × 16 DDR3L, qty 4) • 1.0-GB, (4-Gbit, 256-MB × 16 DDR3L, qty 2) 		
Mass storage	Embedded MultiMedia Card (eMMC) NAND flash v 5.0, in 32.0- and 16.0-GB configurations	√	
	Embedded MultiMedia Card (eMMC) NAND flash v 5.0, in 64.0- and 32.0-GB configurations		√
Audio and video	Mono speaker, 2-W, 2-CC chamber	√	√
	One digital microphone		
	DTS Audio		
	5.0-MP, high-definition (HD), auto-focus, rear-facing webcam		

Category	Description	HP Pro Slate 10 EE G1	HP Pro Tablet 10 EE G1
Audio and video <i>(continued)</i>	2.0-MP, fixed-focus front-facing webcam	√	√
Sensor	Accelerometer eCompass	√	√
Wireless networking	Integrated WLAN + Bluetooth combination: 802.11 a\b\g\n 2×2 (Foxconn T77H462, Broadcom BCM43241) with two antennas; Bluetooth class 1 (10-meter range), Bluetooth 4.0+LE, included with WLAN module; support for Miracast	√	
	802.11 a\b\g\n 2×2 (Foxconn T77H462) with two antennas; Bluetooth class 1 (10-meter range), Bluetooth 4.0+LE, included with WLAN module; support for Miracast		√
	GPS for Android WLAN configurations only: GPS module and one antenna	√	
	Global WWAN module with GPS: 3G (HSPA+) M.2 module, data only, modem: Intel XMM6260, Huawei, MU736 2 WWAN antennas	√	√
NFC antenna	NFC antenna	√	
External expansion			
	Integrated microSD Card Reader	√	√
	Micro SIM slot (available only on products with WWAN capability)	√	√
Ports	<ul style="list-style-type: none"> • Audio: 3.5-mm headphone/microphone combo jack (supports North America-type headset only) • Micro HDMI port • Micro USB 2.0 AB type port • Power connector 	√	√
Power requirements	Supports a 2-cell, 28.49-WWhr, Li-ion battery (non-removable), USB charging battery	√	√

Category	Description	HP Pro Slate 10 EE G1	HP Pro Tablet 10 EE G1
	Supports a 18-W (12-V/1.5-A) AC adapter with DC plug and localized cable plug support		
Operating system	Preinstalled: Android 4.4.4	√	
	<p>Preinstalled:</p> <ul style="list-style-type: none"> Win 10 Home 32 Chinese Market CPPP (available only for the People's Republic of China) Win 10 Home 32 Entry Tablet + 2-in-1 Notebook (not available for Japan and the People's Republic of China) Win 10 Home 32 Entry Tablet + 2-in-1 Notebook Chinese Market (available only for the People's Republic of China) Win 10 Home 32 Entry Tablet + 2-in-1 Notebook Single Language (available for Emerging Markets only) Win 10 Pro 32 StF MSNA Win 10 Prpo 32 StF MSNA EM Win 10 Home Shape the Future OS AV for Higher Education Win 10 Pro 32 Tablet + 2-in-1 Notebook <p>OSDVD: Not supported – service only</p> <p>DRDVD: Not supported – service only</p> <p>Restore USB: Not supported – service only</p>		√
Operating system (continued)	Preinstalled:		√
	<ul style="list-style-type: none"> Windows 8.1 Professional 32-bit Windows 8.1 Professional 32-bit for Tablets Windows 8.1 Professional 32-bit for Education Windows 8.1 Professional 32-bit for Higher Education Emerging Markets 		

Category	Description	HP Pro Slate 10 EE G1	HP Pro Tablet 10 EE G1
	<ul style="list-style-type: none"> Windows 8.1 32-bit with Bing for Tablets Chinese (only available in the People's Republic of China) Windows 8.1 32-bit with Bing for Tablets Emerging Markets Windows 8.1 32-bit with Bing for Tablets Multilingual Windows 8.1 32-bit with Bing and Office 365 for Tablets (AFO) Emerging Markets (OOC; only available in the People's Republic of China) Windows 8.1 32-bit with Bing and Office 365 for Tablets (AFO) Multilingual (not available in Japan) Windows 8.1 32-bit Small Screen Touch with Office Home and Student CPPP (OOC; only available in the People's Republic of China) Windows 8.1 32-bit SST with Office 365 (AFO) Emerging Markets (OOC; only available in the People's Republic of China) Windows 8.1 32-bit SST with Office 365 (AFO) ML (not available in Japan) Windows 8.1 32-bit Small Screen Chinese (OOC; only available in the People's Republic of China) Windows 8.1 32-bit Small Screen (OOC) 		
Serviceability	End user replaceable parts: AC adapter and Stylus pen	√	√

2 External component identification



Item	Component	Item	Component
(1)	Power button	(10)	Micro SD Card Reader slot
(2)	Microphone	(11)	Micro SIM slot
(3)	Front-facing webcam	(12)	Micro HDMI jack
(4)	WLAN antenna	(13)	Micro USB 2.0 port
(5)	Rear-facing webcam	(14)	Power light
(6)	WWAN antenna	(15)	Power button
(7)	Volume up button	(16)	Speaker
(8)	Volume down button	(17)	Stylus pen and location
(9)	Audio-out (headphone)/Audio-in (microphone) jack		

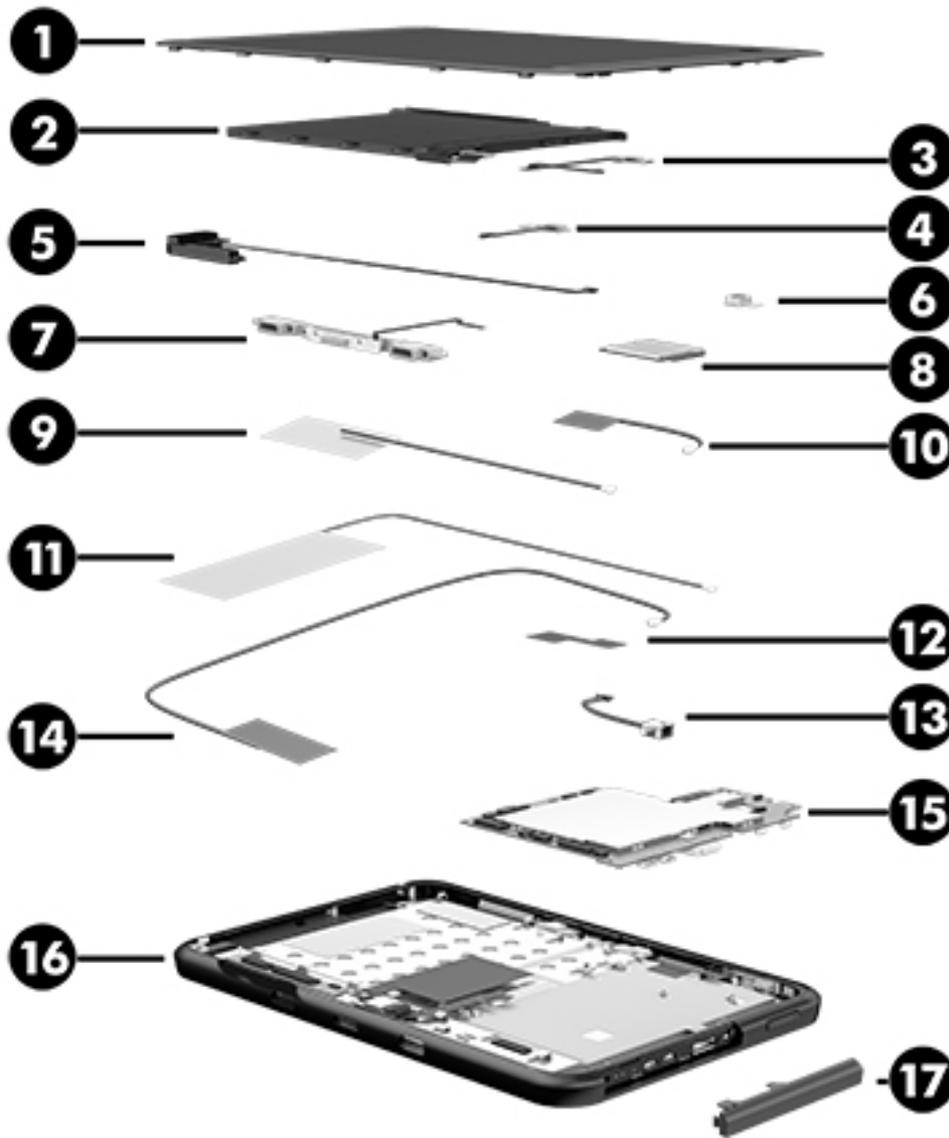
3 Illustrated parts catalog

Locating the serial number, product number, and model number

The tablet serial number and product number are located on the tablet back cover. This information may be needed when travelling internationally or when contacting support.



Tablet major components



Item	Component	Spare part number
(1)	Back cover (includes rear-facing webcam lens and shielding)	802824-001
(2)	Battery , 2-cell, 28.49-WHr, LI (includes cable, stylus pen holder, and double-sided adhesive)	802833-001
(3)	2.0-MP front-facing webcam (includes cable and indicator LED)	802826-001
(4)	Sensor board (does not include cable)	802828-001
	NOTE: The sensor board cable is included in the Cable Kit, spare part number 802835-001.	
	Antenna Kit (includes:)	
(5a)	WWAN auxiliary transceiver and cable	
(5b)	WWAN main transceiver and cable	

Item	Component	Spare part number
(6a)	WLAN auxiliary transceiver and cable	
(6b)	WLAN main transceiver and cable	
	For use only on HP Pro Slate 10 EE G1 tablet models	803379-001
	For use only on HP Pro Tablet 10 EE G1 tablet models	804221-001
(7)	WWAN module:	
	Huawei MU736 3G HSPA+M.2 with GPS for use only on HP Pro Slate 10 EE G1 tablet models	801160-005
	MU736 HS3110 Gen HSPA+m.2 with GPS for use only on HP Pro Tablet 10 EE G1 tablet models	748599-005
(8)	5.0-MP, HD rear-facing webcam with auto-focus (includes cable and double-sided adhesive)	802825-001
(9)	Speaker (includes speaker and cable)	802830-001
(10)	Transfer board (includes cable)	802848-001
(11)	Display panel cable – included in the Cable Kit, spare part number 802835-001.	
(12)	System board:	
	For use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system):	
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 16-GB of system storage, NFC, and WWAN capability	802837-001
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, NFC, and WWAN capability	802838-001
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 16-GB of system storage, and WWAN capability	802839-001
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and WWAN capability	802840-001
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 16-GB of system storage, NFC, and GPS capability	802841-001
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, NFC, and GPS capability	802842-001
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 16-GB of system storage, and GPS capability	802843-001
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and GPS capability	803396-001
	For use only on HP Pro Tablet 10 EE G1 tablet models:	
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and the Windows 8 Professional operating system	803370-601

Item	Component	Spare part number
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and the Windows 8 Standard operating system	803370-501
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and a non-Windows 8 operating system	803370-001
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Professional operating system	803371-601
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Standard operating system	803371-501
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, WWAN capability, and a non-Windows 8 operating system	803371-001
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, and the Windows 8 Professional operating system	803372-601
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, and the Windows 8 Standard operating system	803372-501
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, and a non-Windows 8 operating system	803372-001
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Professional operating system	803373-601
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Standard operating system	803373-501
	Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, WWAN capability, and a non-Windows 8 operating system	803373-001
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and the Windows 8 Professional operating system	803374-601
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and the Windows 8 Standard operating system	803374-501
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and a non-Windows 8 operating system	803374-001
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Professional operating system	803375-601
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Standard operating system	803375-501

Item	Component	Spare part number
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, WWAN capability, and a non-Windows 8 operating system	803375-001
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, and the Windows 8 Professional operating system	803376-601
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, and the Windows 8 Standard operating system	803376-501
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, and a non-Windows 8 operating system	803376-001
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Professional operating system	803377-601
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Standard operating system	803377-501
	Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, WWAN capability, and a non-Windows 8 operating system	803377-001
(13)	Power connector cable	802829-001
(14)	Touch Screen display panel assembly (includes Touch Screen board and cables and microphone)	
	10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Slate 10 EE G1 tablet models equipped with WWAN capability	803619-001
	10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Slate 10 EE G1 tablet models not equipped with WWAN capability	802849-001
	10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Tablet 10 EE G1 tablet models equipped with WWAN capability	803618-001
	10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Tablet 10 EE G1 tablet models not equipped with WWAN capability	802800-001
(15)	I/O cover	802821-001

Miscellaneous parts

Component	Spare part number
18-W (12.0-V/1.5-A) non-PFC AC adapter:	
For use only in Argentina	741855-001
For use only in Australia	741855-002
For use only in Brazil	741855-012
For use only in European countries and regions	741855-009
For use only in India	741855-005
For use only in North America	741855-008
For use only in the People's Republic of China	741855-006
For use only in South Korea	741855-014
For use only in the United Kingdom and Singapore	741855-003
Cable Kit , includes:	802835-001
<ul style="list-style-type: none"> • Display panel cables (2) • Microphone • Sensor board cable 	
GPS module (includes cable)	803378-001
NFC antenna	802832-001
NFC module (includes cable)	802831-001
Screw Kit:	
For use only on HP Pro Slate 10 EE G1 tablet models	802847-001
For use only on HP Pro Tablet 10 EE G1 tablet models	805304-001
Stylus pen	802822-001

Sequential part number listing

Spare part number	Description
741855-001	18-W (12.0-V/1.5-A) non-PFC AC adapter for use only in Argentina
741855-002	18-W (12.0-V/1.5-A) non-PFC AC adapter for use only in Australia
741855-003	18-W (12.0-V/1.5-A) non-PFC AC adapter for use only in the United Kingdom and Singapore
741855-005	18-W (12.0-V/1.5-A) non-PFC AC adapter for use only in India
741855-006	18-W (12.0-V/1.5-A) non-PFC AC adapter for use only in the People's Republic of China
741855-008	18-W (12.0-V/1.5-A) non-PFC AC adapter for use only in North America
741855-009	18-W (12.0-V/1.5-A) non-PFC AC adapter for use only in European countries and regions
741855-012	18-W (12.0-V/1.5-A) non-PFC AC adapter for use only in Brazil

Spare part number	Description
741855-014	18-W (12.0-V/1.5-A) non-PFC AC adapter for use only in South Korea
748599-005	MU736 HS3110 Gen HSPA+m.2 WWAN module with GPS for use only on HP Pro Tablet 10 EE G1 tablet models
801160-005	Huawei MU736 3G HSPA+M.2 WWAN module with GPS for use only on HP Pro Slate 10 EE G1 tablet models
802800-001	Touch Screen display panel assembly (includes Touch Screen board and cables and microphone), 10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Tablet 10 EE G1 tablet models not equipped with WWAN capability
802821-001	I/O cover
802822-001	Stylus pen
802824-001	Back cover (includes rear-facing webcam lens and shielding)
802825-001	5.0-MP, HD rear-facing webcam with auto-focus (includes cable and double-sided adhesive)
802826-001	2.0-MP front-facing webcam (includes cable and indicator LED)
802828-001	Sensor board (does not include cable) NOTE: The sensor board cable is included in the Cable Kit, spare part number 802835-001.
802829-001	Power connector cable
802830-001	Speaker (includes speaker and cable)
802831-001	NFC module (includes cable)
802832-001	NFC antenna
802833-001	Battery, 2-cell, 28.49-Whr, LI (includes cable, stylus pen holder, and double-sided adhesive)
802835-001	Cable Kit, includes: display panel cables (2), microphone, and sensor board cable
802837-001	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 16-GB of system storage, NFC, and WWAN capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)
802838-001	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, NFC, and WWAN capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)
802839-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 16-GB of system storage, and WWAN capability
802840-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and WWAN capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)
802841-001	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 16-GB of system storage, NFC, and GPS capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)
802842-001	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, NFC, and GPS capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)

Spare part number	Description
802843-001	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 16-GB of system storage, and GPS capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)
802847-001	Screw Kit for use only on HP Pro Slate 10 EE G1 tablet models
802848-001	Transfer board (includes cable and adhesive)
802849-001	Touch Screen display panel assembly (includes Touch Screen board and cables and microphone), 10.1-in, L10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Slate 10 EE G1 tablet models not equipped with WWAN capability
803370-001	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and a non-Windows 8 operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803370-501	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and the Windows 8 Standard operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803370-601	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and the Windows 8 Professional operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803371-001	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, WWAN capability, and a non-Windows 8 operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803371-501	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Standard operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803371-601	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Professional operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803372-001	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, and a non-Windows 8 operating system
803372-501	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, and the Windows 8 Standard operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803372-601	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, and the Windows 8 Professional operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803373-001	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, WWAN capability, and a non-Windows 8 operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803373-501	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Standard operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803373-601	System board equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Professional operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803374-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and a non-Windows 8 operating system, for use only on HP Pro Tablet 10 EE G1 tablet models

Spare part number	Description
803374-501	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and the Windows 8 Standard operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803374-601	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and the Windows 8 Professional operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803375-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, WWAN capability, and a non-Windows 8 operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803375-501	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Standard operating system
803375-601	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Professional operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803376-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, and a non-Windows 8 operating system
803376-501	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, and the Windows 8 Standard operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803376-601	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, and the Windows 8 Professional operating system
803377-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, WWAN capability, and a non-Windows 8 operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803377-501	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Standard operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803377-601	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Professional operating system, for use only on HP Pro Tablet 10 EE G1 tablet models
803378-001	GPS module(includes cable)
803379-001	Antenna Kit (includes: WWAN auxiliary transceiver and cable, WWAN main transceiver and cable, WLAN auxiliary transceiver and cable, and WLAN main transceiver and cable) for use only on HP Pro Slate 10 EE G1 tablet models
803396-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and GPS capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)
803618-001	Touch Screen display panel assembly (includes Touch Screen board and cables and microphone), 10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Tablet 10 EE G1 tablet models equipped with WWAN capability
803619-001	Touch Screen display panel assembly (includes Touch Screen board and cables and microphone), 10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Slate 10 EE G1 tablet models equipped with WWAN capability

Spare part number	Description
804221-001	Antenna Kit (includes: WWAN auxiliary transceiver and cable, WWAN main transceiver and cable, WLAN auxiliary transceiver and cable, and WLAN main transceiver and cable) for use only on HP Pro Tablet 10 EE G1 tablet models
805304-001	Screw Kit for use only on HP Pro Tablet 10 EE G1 tablet models
808074-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and NFC and WWAN capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)
808075-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and NFC and GPS capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)
808076-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 16-GB of system storage, and GPS capability, for use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system)
808077-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 16-GB of system storage, and WWAN capability, for use only on HP Pro Slate 10 EE G1 tablet models in Asia Pacific and Japan (all system boards equipped with the Android 4.4.4 operating system)
808078-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 32-GB of system storage, and NFC and GPS capability, for use only on HP Pro Slate 10 EE G1 tablet models in Asia Pacific and Japan (all system boards equipped with the Android 4.4.4 operating system)
808079-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 32-GB of system storage, and NFC and GPS capability, for use only on HP Pro Slate 10 EE G1 tablet models in Asia Pacific and Japan (all system boards equipped with the Android 4.4.4 operating system)
808207-371	Whole unit replacement tablet - L2J88AA UUF, for use in Asia Pacific
808208-371	Whole unit replacement tablet - L2J89AA UUF, for use in Asia Pacific
809651-001	Whole unit replacement tablet - L2J90AA UUF, for use in Australia
809652-001	Whole unit replacement tablet - L5P64PA UUF, for use in Asia Pacific
809653-001	Whole unit replacement tablet - L5P64PA UUF, for use in Hong Kong
809654-001	Whole unit replacement tablet - L5P64PA ACJ, for use in India
809655-001	Whole unit replacement tablet - L5P64PA AR6, for use in Indonesia
809656-001	Whole unit replacement tablet - L5P64PA AB1, for use in South Korea
809657-001	Whole unit replacement tablet - L5P64PA AB4, for use in Singapore
809658-001	Whole unit replacement tablet - L5P64PA AB0, for use in Taiwan
809659-001	Whole unit replacement tablet - L5P64PA AKL, for use in Thailand
809660-001	Whole unit replacement tablet - L5P64PA AB2, for use in the People's Republic of China
809661-001	Whole unit replacement tablet - L5P64PA ABG, for use in Australia
809662-001	Whole unit replacement tablet - L5P64PA ABJ, for use in Japan
811344-001	Whole unit replacement tablet - L2J88AA ABA, for use in the United States

Spare part number	Description
811345-001	Whole unit replacement tablet - L2J89AA ABA, , for use in the United States.
811348-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 16-GB of system storage, GPS capability, for use in North America
811349-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 16-GB of system storage, NFC and GPS capability, for use in North America
811350-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 32-GB of system storage, GPS and NFC capability, for use in North America
811351-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 32-GB of system storage, NFC and WWAN capability, for use in Asia Pacific and Japan
812750-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 32-GB of system storage, NFC and WWAN capability, for use in Asia Pacific and Japan
812751-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 16-GB of system storage, NFC and WWAN capability, for use in Asia Pacific and Japan
812752-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 16-GB of system storage, NFC and WWAN capability, for use in Asia Pacific and Japan
812753-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 16-GB of system storage, NFC and WWAN capability, for use in Asia Pacific and Japan
812754-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 316GB of system storage, NFC and GPS capability, for use in Asia Pacific and Japan
812755-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 16-GB of system storage, NFC and GPS capability, for use in Asia Pacific and Japan
812756-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 16-GB of system storage, NFC and GPS capability, for use in Asia Pacific and Japan
821122-001	Whole unit replacement tablet - L3Z85UA ABA, for use in the United States
821123-001	Whole unit replacement tablet - L3Z83UA ABA, for use in the United States
821124-001	Whole unit replacement tablet - M5G32UA ABA, for use in the United States
821125-001	Whole unit replacement tablet - M5G22UA ABA, for use in the United States
821126-001	Whole unit replacement tablet - M5G31A ABA, for use in the United States
821127-001	Whole unit replacement tablet - M5G21UA ABA, for use in the United States
821141-001	Whole unit replacement tablet - L5P68PA UUF, for use in Asia Pacific
821142-001	Whole unit replacement tablet - L9B00PA ABJ, for use in Japan
821143-001	Whole unit replacement tablet - M4Z23PA ABJ, for use in Japan
821144-001	Whole unit replacement tablet - M4Z24PA AB4, for use in Singapore

Spare part number	Description
821145-001	Whole unit replacement tablet - M4Z25PA ACJ, for use in India
821146-001	Whole unit replacement tablet - M4Z26PA AB4, for use in India
821147-001	Whole unit replacement tablet - M4Z27PA AB0, for use in Taiwan
821148-001	Whole unit replacement tablet - M4Z28PA AB4, for use in Singapore
825083-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 32-GB of system storage, and NFC capability
825084-001	System board equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2-GB of system memory, 16-GB of system storage, and NFC capability
833765-001	Tablet N0C38PA ABG - for use in Australia
833766-001	Tablet N4L85PA ABG, for use in Australia

4 Removal and replacement preliminary requirements

Tools required

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

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

Service considerations

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

 **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

Tablet component replacement procedures

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

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

There are as many as 15 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.

HP Touchpoint Manager software (HP Pro Slate 10 EE G1 tablet models only)

HP Touchpoint Manager (HPTM) is a complete cloud-based solution for managing devices. Select HP Android Slate tablets include persistent anti-theft technology that allows HP Touchpoint Manager to alert an IT administrator that the device might be stolen.

If a supported device is reset to its factory state while the device is enrolled with an HP Touchpoint Manager account, then an IT administrator is alerted that the device may have been stolen.

The IT administrator can then use the Lost Device Protection feature to locate, lock, sound an alarm, or erase data from the device (see <http://www.hptouchpointmanager.com>). If the device is recovered, then the device owner can launch HP Touchpoint Manager and sign in with their user-name and password to authenticate the device and release it from anti-theft mode.

Unlocking the device and disabling Always On Remote Management (HP Pro Tablet 10 EE G1 tablet models only)

HP Touchpoint Manager (HPTM) is a complete cloud-based solution for managing devices. For select HP devices with the Windows operating system, the Always On Remote Management (AORM) feature is automatically activated when HP Touchpoint Manager software is installed.

AORM can perform a secure BIOS level lock and can also securely erase internal drives (except for encrypted self-encrypting drives). The HP Touchpoint Manager website (<http://www.hptouchpointmanager.com>) provides access to the AORM lock feature. The device must be unlocked using an authorized PIN from the same website before you can access HP Computer Setup and start the Windows operating system.

 **IMPORTANT:** A service agent cannot retrieve the PIN from the HP Touchpoint Manager website. If a locked device is returned for service, the agent must contact the customer to obtain the PIN to unlock the device. If a PIN is not available, the entire system board must be replaced.

Before returning the device for service, be sure to unlock the device using the PIN from the HP Touchpoint Manager website (<http://www.hptouchpointmanager.com>), and also disable the AORM feature in HP Computer Setup.

To disable AORM:

1. Access HP Computer Setup (F10).

- a. Turn on or restart the device, and then press **esc** while the “Press the ESC key for Startup Menu” message is displayed at the bottom of the screen.
 - b. Press **f10** to enter Computer Setup.
-
-  **NOTE:** If the BIOS is protected with an Administrator password, enter the password.
-
2. Select **Advanced**, and then select **HP Touchpoint Manager Options**.
 3. Clear the **Allow Activation** check box.
 4. Select **Save changes and exit**.

Back cover

Description	Spare part number
Back cover (includes rear-facing webcam lens and shielding)	802824-001
Touch Screen display panel assembly (includes Touch Screen board, cables, and microphone)	
10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Slate 10 EE G1 tablet models equipped with WWAN capability	803619-001
10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Slate 10 EE G1 tablet models not equipped with WWAN capability	802849-001
10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Tablet 10 EE G1 tablet models equipped with WWAN capability	803618-001
10.1-in, LED, WUXGA, UWGA, AG display panel assembly for use only on HP Pro Tablet 10 EE G1 tablet models not equipped with WWAN capability	802800-001

Before disassembling the tablet, follow these steps:

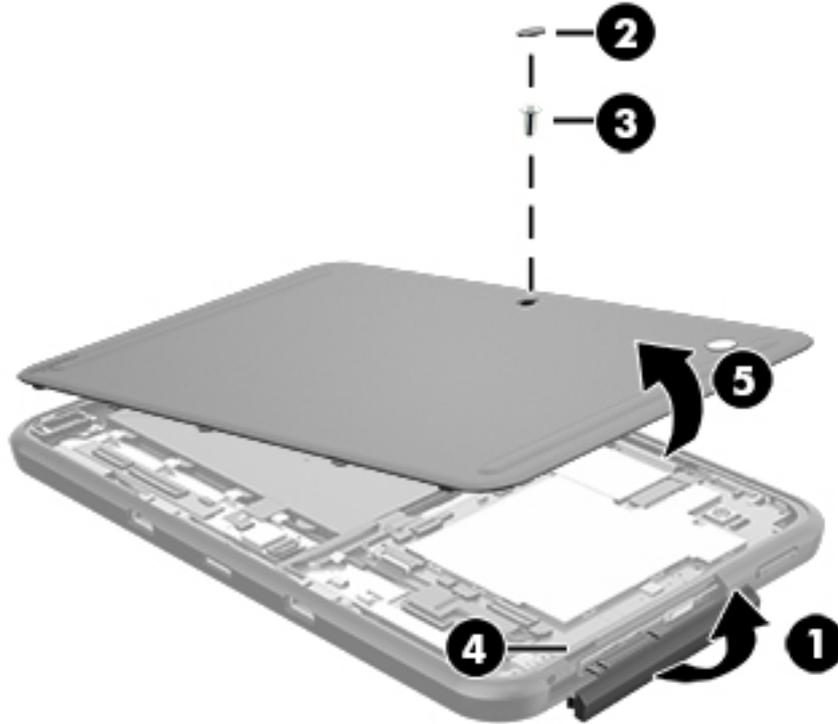
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.

Remove the back cover:

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

1. Place the tablet on a flat surface, display panel side down, with the docking connector toward you.
2. Open the I/O cover **(1)**.
3. Remove the screw cover **(2)**.
4. Remove the Torx5 TM2.0×4.7 screw **(3)** that secures the back cover to the display panel assembly.

5. Use the notch (4) inside the I/O area to release the back cover (5).



Reverse this procedure to install the back cover.

Battery

Description	Spare part number
Battery, 2-cell, 28.49-WHr, LI (includes cable, stylus pen holder, and double-sided adhesive)	802833-001

Before removing the battery, follow these steps:

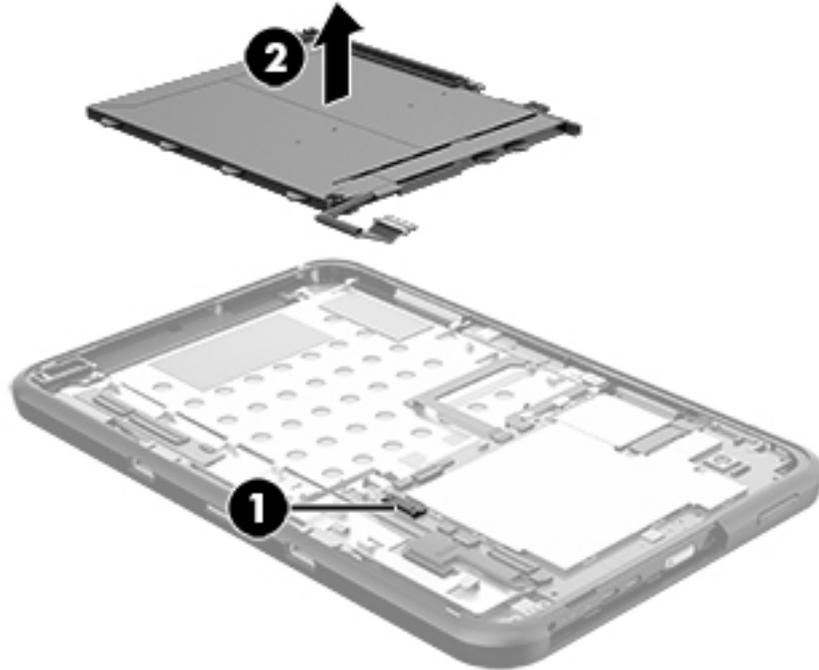
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the back cover (see [Back cover on page 23](#)).

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

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

Remove the battery:

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



3. Remove the battery.

Reverse this procedure to install the battery.

WWAN module

Description	Spare part number
Huawei MU736 HSPA+M.2 with GPS for use only on HP Pro Slate 10 EE G1 tablet models	801160-005
MU736 HS3110 Gen HSPA+m.2 with GPS for use only on HP Pro Tablet 10 EE G1 tablet models	748599-005

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 back cover (see [Back cover on page 23](#)).

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

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

Remove the WWAN module:

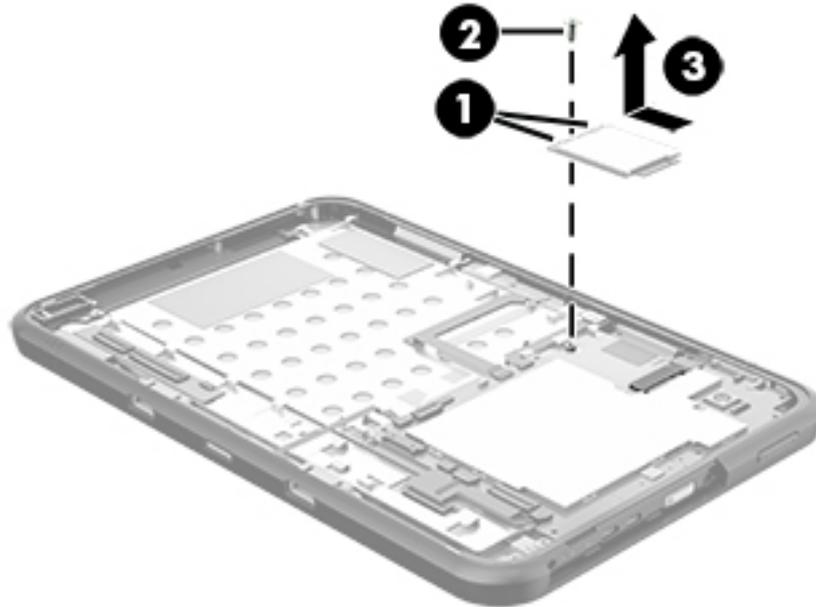
1. Disconnect the WWAN antenna cables **(1)** from the terminals on the WWAN module.

📝 NOTE: The #5/red WWAN antenna cable is connected to the WWAN module "Main" terminal. The #6/blue WWAN antenna cable is connected to the WWAN module "Aux" terminal.

2. Remove the Phillips PM2.0×4.1 screw **(2)** that secures the WWAN module to the system board. (The WWAN module tilts up.)

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

📝 NOTE: WWAN modules are designed with a notch to prevent incorrect insertion.



4. Remove the WWAN module.

Reverse this procedure to install the WWAN module.

Rear-facing webcam

Description	Spare part number
5.0-MP, HD rear-facing webcam with auto-focus (includes cable)	802825-001

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 back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).

Remove the rear-facing webcam:

1. Release the zero insertion force (ZIF) connector **(1)** to which the rear-facing webcam cable is attached, and then disconnect the rear-facing webcam cable from the system board.
2. Release the rear-facing webcam **(2)** from the molding built into the display panel assembly.



3. Remove the rear-facing webcam and cable.

Reverse this procedure to install the rear-facing webcam.

Wireless antenna

Description	Spare part number
Antenna Kit, includes WWAN antenna auxiliary and main cables and transceivers and WLAN antenna auxiliary and main cables and transceivers	
For use only on HP Pro Slate 10 EE G1 tablet models	803379-001
For use only on HP Pro Tablet 10 EE G1 tablet models	804221-001

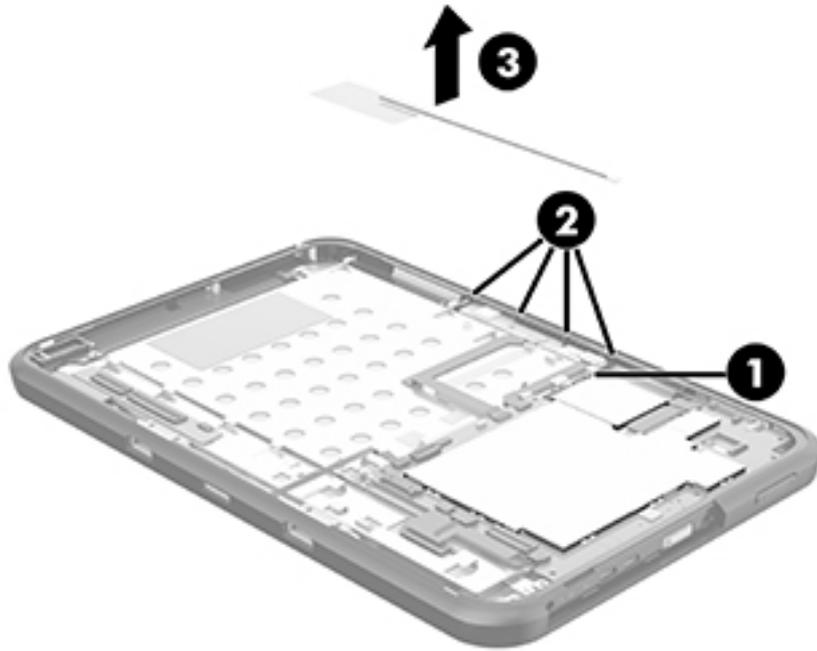
Before removing the wireless antenna, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).

Remove the wireless antenna:

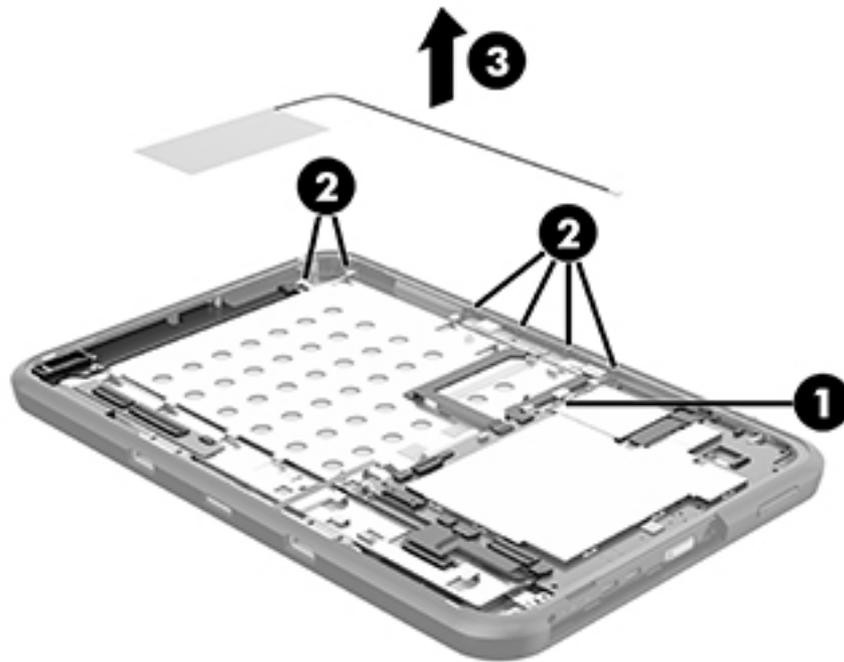
1. Disconnect the WWAN auxiliary antenna cable **(1)** from the WWAN module auxiliary terminal.
2. Release the WWAN auxiliary antenna cable from the retention clips **(2)** built into the display panel assembly.

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



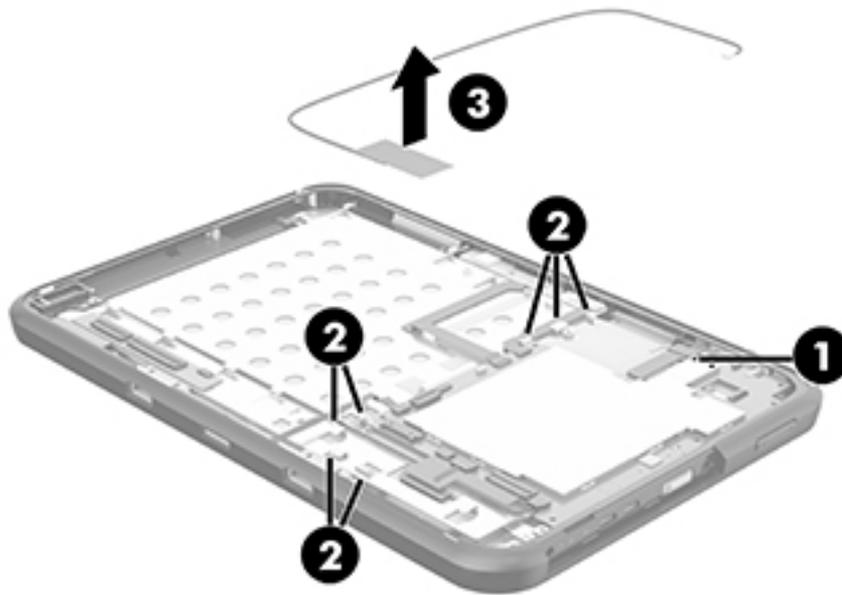
4. Remove the WWAN auxiliary antenna cable and transceiver.
5. Disconnect the WWAN main antenna cable **(1)** from the WWAN module main terminal.
6. Release the WWAN main antenna cable from the retention clips **(2)** built into the display panel assembly.

7. Detach the WWAN main antenna transceiver **(3)** from the display panel assembly. (The WWAN main antenna transceiver is attached to the display panel assembly with double-sided adhesive.)



8. Remove the WWAN main antenna cable and transceiver.
9. Disconnect the WLAN main antenna cable **(1)** from the WLAN module main terminal.
10. Release the WLAN main antenna cable from the retention clips **(2)** built into the display panel assembly.

11. Detach the WLAN main antenna transceiver **(3)** from the display panel assembly. (The WLAN main antenna transceiver is attached to the display panel assembly with double-sided adhesive.)



12. Remove the WLAN main antenna cable and transceiver.
13. Disconnect the WLAN auxiliary antenna cable **(1)** from the WLAN module auxiliary terminal.

14. Detach the WLAN auxiliary antenna transceiver (2) from the display panel assembly. (The WLAN auxiliary antenna transceiver is attached to the display panel assembly with double-sided adhesive.)



15. Remove the WLAN auxiliary antenna cable and transceiver.
Reverse this procedure to install the wireless antennas.

Sensor board

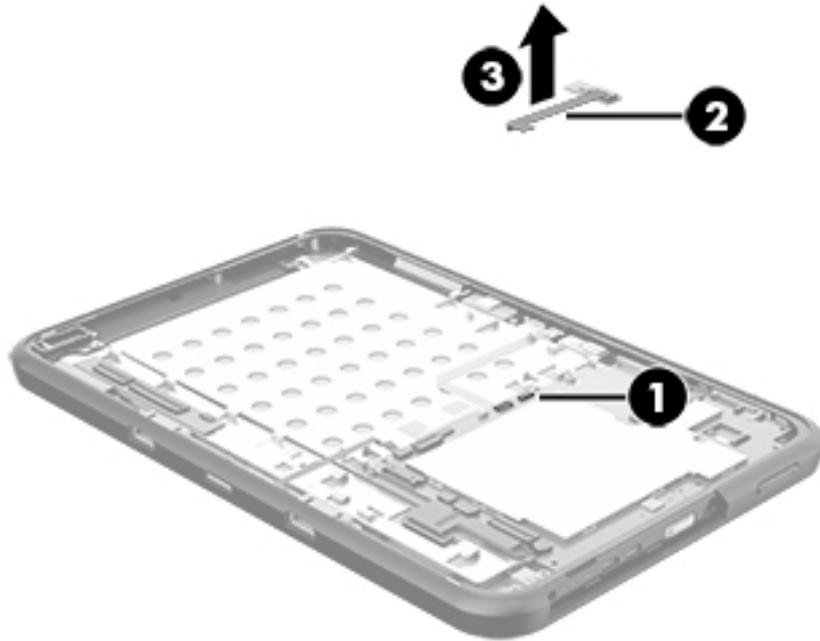
Description	Spare part number
Sensor board (includes cable and double-sided adhesive)	802828-001

Before removing the sensor board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).

Remove the sensor board:

1. Release the ZIF connector **(1)** to which the sensor board cable is attached, and then disconnect the sensor board cable from the system board.
2. Detach the sensor board cable **(2)** from the display panel assembly. (The sensor board cable is attached to the display panel assembly with double-sided adhesive.)
3. Detach the sensor board **(3)** from the display panel assembly. (The sensor board is attached to the display panel assembly with double-sided adhesive.)



4. Remove the sensor board and cable.

Reverse this procedure to install the sensor board.

Display panel cable

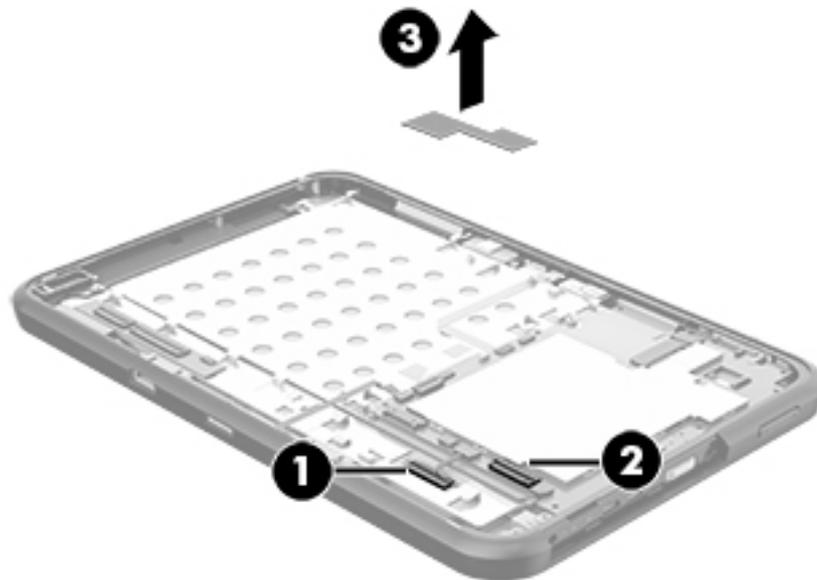
 **NOTE:** The display panel cable is included in the Cable Kit, spare part number 802835-001.

Before removing the display panel cable, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).

Remove the display panel cable:

1. Release the ZIF connector **(1)** to which the display panel cable is attached, and then disconnect the display panel cable from the display panel assembly.
2. Release the ZIF connector **(2)** to which the display panel cable is attached, and then disconnect the display panel cable from the system board.
3. Remove the display panel cable **(3)**.



Reverse this procedure to install the display panel cable.

Power connector cable

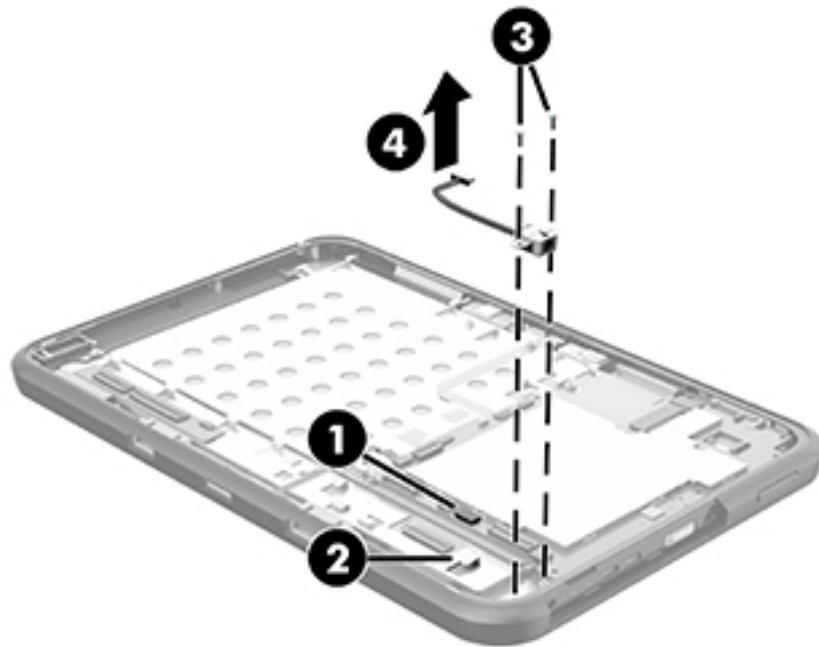
Description	Spare part number
Power connector cable	802829-001

Before removing the power 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 back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).

Remove the power connector cable:

1. Disconnect the power connector cable (1) from the system board.
2. Release the power connector cable from the retention clip (2) built into the display panel assembly.
3. Remove the two Phillips PM2.0×4.1 screws (3) that secure the power connector to the display panel assembly.
4. Remove the power connector cable (4).



Reverse this procedure to install the power connector cable.

Front-facing webcam

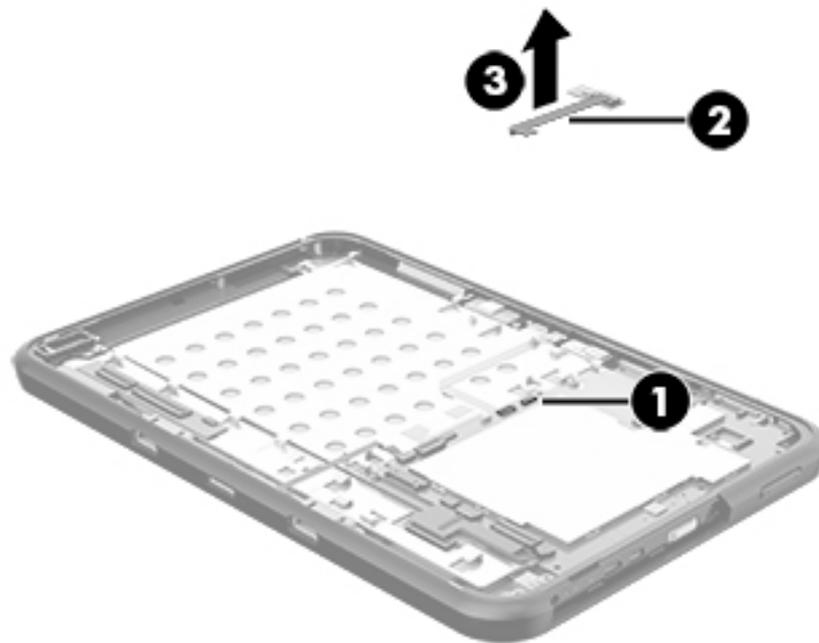
Description	Spare part number
Front-facing webcam (includes cable)	802826-001

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

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).

Remove the front-facing webcam:

1. Release the ZIF connector **(1)** to which the front-facing webcam cable is attached, and then disconnect the front-facing webcam cable from the system board.
2. Remove the Phillips PM2.0×4.1 screw **(2)** that secures the front-facing webcam to the display panel assembly.
3. Remove the front-facing webcam **(3)**.



Reverse this procedure to install the front-facing webcam.

Transfer board

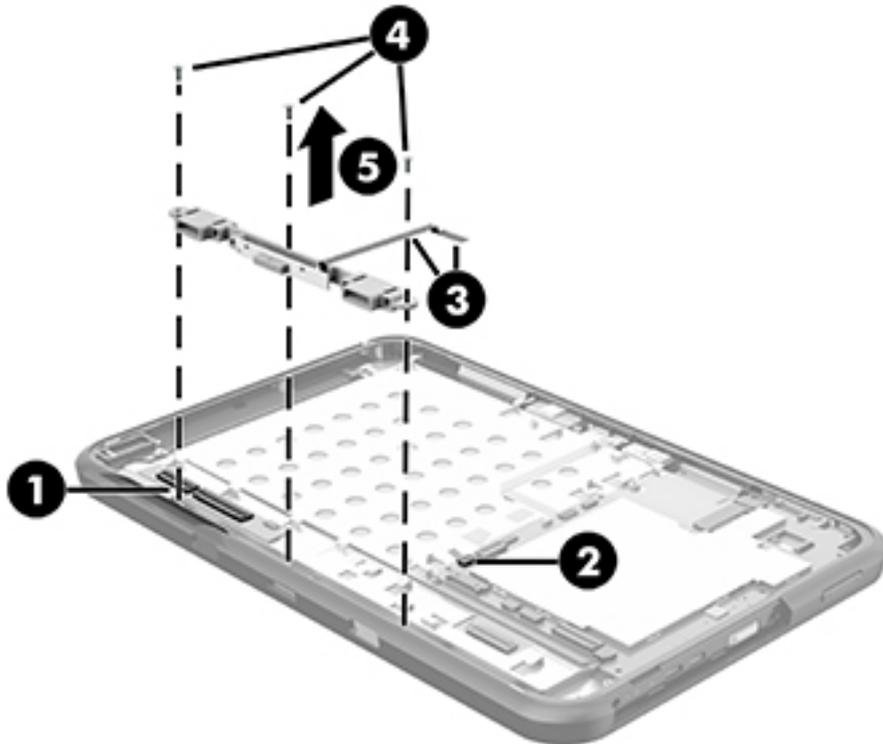
Description	Spare part number
Transfer (includes cable and double-sided adhesive)	802848-001

Before removing the transfer board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).

Remove the transfer board:

1. Detach the Touch Screen board **(1)** from the display panel assembly. (The Touch Screen board is attached to the display panel assembly with double-sided adhesive.)
2. Release the ZIF connector **(2)** to which the transfer board cable is attached, and then disconnect the transfer board cable from the system board.
3. Detach the transfer board cable **(3)** from the display panel assembly. (The transfer board cable is attached to the display panel assembly with double-sided adhesive.)
4. Remove the three Phillips PM2.0×4.1 screws **(4)** that secure the transfer board to the display panel assembly.
5. Remove the transfer board **(5)**.



6. Remove the transfer board and cable.
- Reverse this procedure to install the transfer board.

Speaker

Description	Spare part number
Speaker (includes cable)	802830-001

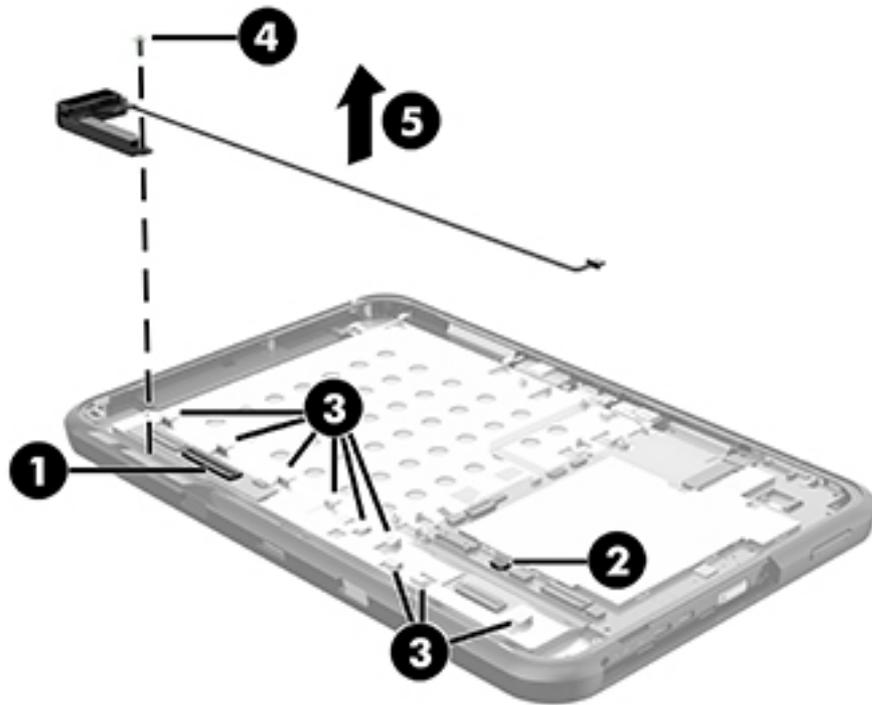
Before removing the speaker, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).

Remove the speaker:

1. Detach the Touch Screen board **(1)** from the display panel assembly. (The Touch Screen board is attached to the display panel assembly with double-sided adhesive.)
2. Disconnect the speaker cable **(2)** from the system board.
3. Release the speaker cable **(3)** from the retention clips built into the display panel assembly.
4. Remove the Phillips PM2.0×4.1 screw **(4)** that secures the speaker to the display panel assembly.

5. Remove the speaker (5).



6. Remove the speaker and cable.
Reverse this procedure to install the speaker.

System board

Description	Spare part number
For use only on HP Pro Slate 10 EE G1 tablet models (all system boards equipped with the Android 4.4.4 operating system):	
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 16-GB of system storage, NFC, and WWAN capability	802837-001
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, NFC, and WWAN capability	802838-001
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 16-GB of system storage, and WWAN capability	802839-001
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and WWAN capability	802840-001
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 16-GB of system storage, NFC, and GPS capability	802841-001
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, NFC, and GPS capability	802842-001
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, and 16-GB of system storage, and GPS capability	802843-001
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and GPS capability	803396-001
For use only on HP Pro Tablet 10 EE G1 tablet models:	
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and the Windows 8 Professional operating system	803370-601
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and the Windows 8 Standard operating system	803370-501
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, and a non-Windows 8 operating system	803370-001
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Professional operating system	803371-601
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Standard operating system	803371-501
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 32-GB of system storage, WWAN capability, and a non-Windows 8 operating system	803371-001
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, and the Windows 8 Professional operating system	803372-601
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, and the Windows 8 Standard operating system	803372-501
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, and a non-Windows 8 operating system	803372-001

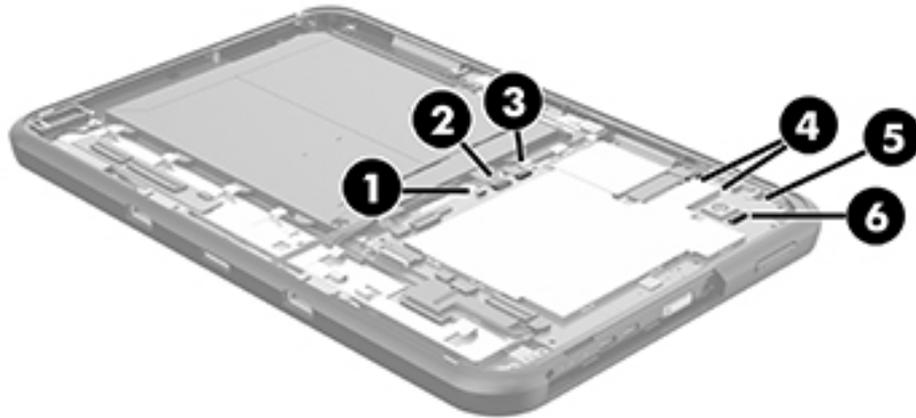
Description	Spare part number
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Professional operating system	803373-601
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Standard operating system	803373-501
Equipped with an Intel Atom Z3735F 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 2.0-GB of system memory, 64-GB of system storage, WWAN capability, and a non-Windows 8 operating system	803373-001
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and the Windows 8 Professional operating system	803374-601
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and the Windows 8 Standard operating system	803374-501
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, and a non-Windows 8 operating system	803374-001
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Professional operating system	803375-601
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, WWAN capability, and the Windows 8 Standard operating system	803375-501
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 32-GB of system storage, WWAN capability, and a non-Windows 8 operating system	803375-001
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, and the Windows 8 Professional operating system	803376-601
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, and the Windows 8 Standard operating system	803376-501
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, and a non-Windows 8 operating system	803376-001
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Professional operating system	803377-601
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, WWAN capability, and the Windows 8 Standard operating system	803377-501
Equipped with an Intel Atom Z3735G 1.83-GHz processor (quad core), a graphics subsystem with UMA memory, 1.0-GB of system memory, 64-GB of system storage, WWAN capability, and a non-Windows 8 operating system	803377-001

Before removing the system board, follow these steps:

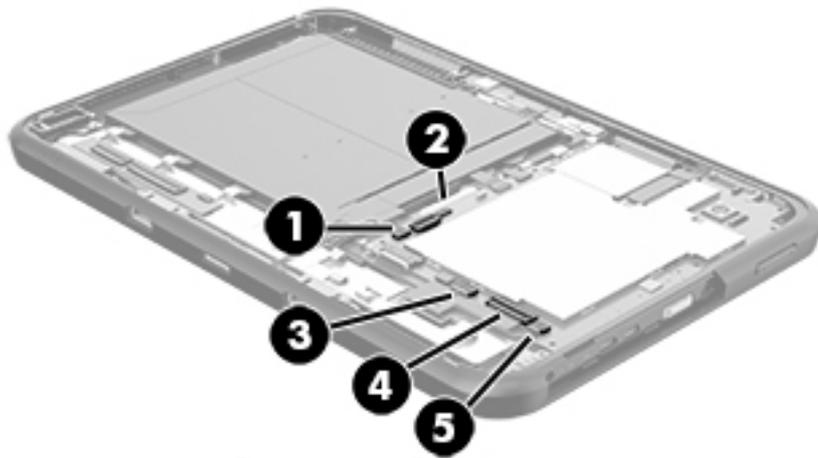
1. Turn off the tablet. If you are unsure whether the tablet is off or in Hibernation, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).

Remove the system board:

1. Disconnect the following cables from the system board:
 - (1) GPS antenna cable
 - (2) Front-facing webcam cable (see [Front-facing webcam on page 35](#))
 - (3) Sensor board cable (see [Sensor board on page 32](#))
 - (4) WLAN antenna cables
 - (5) Microphone cable
 - (6) Rear-facing webcam cable (see [Rear-facing webcam on page 27](#))

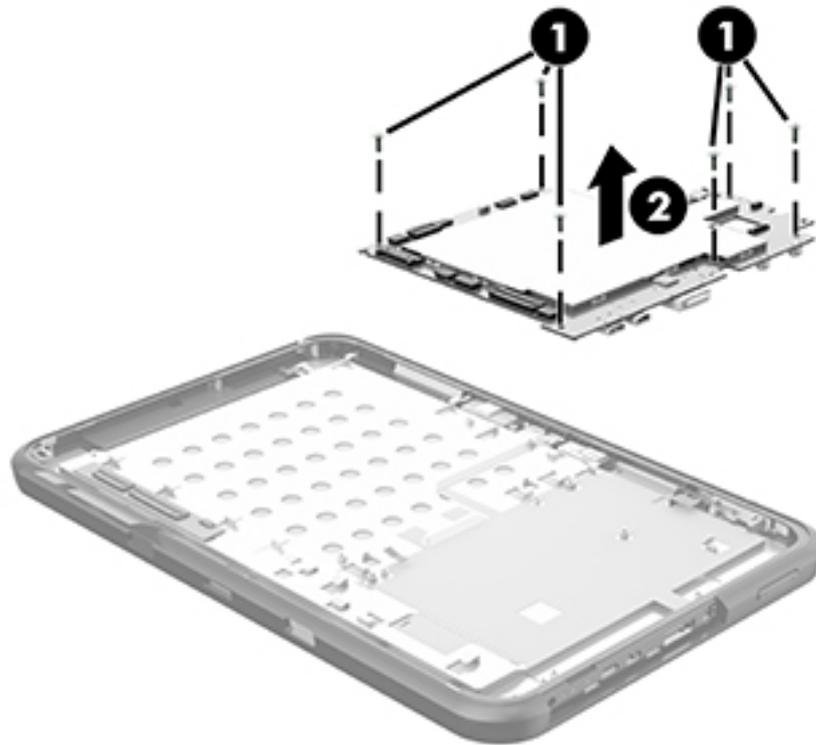


2. Disconnect the following cables from the system board:
 - (1) Transfer board cable (see [Transfer board on page 36](#))
 - (2) Touch Screen board cable
 - (3) Power connector cable (see [Power connector cable on page 34](#))
 - (4) Display panel cable (see [Display panel cable on page 33](#))
 - (5) Speaker cable (see [Speaker on page 38](#))



3. Remove the six Phillips PM2.0×4.1 screws (1) that secure the system board to the display panel assembly.

4. Remove the system board (2).



Reverse this procedure to install the system board.

I/O cover

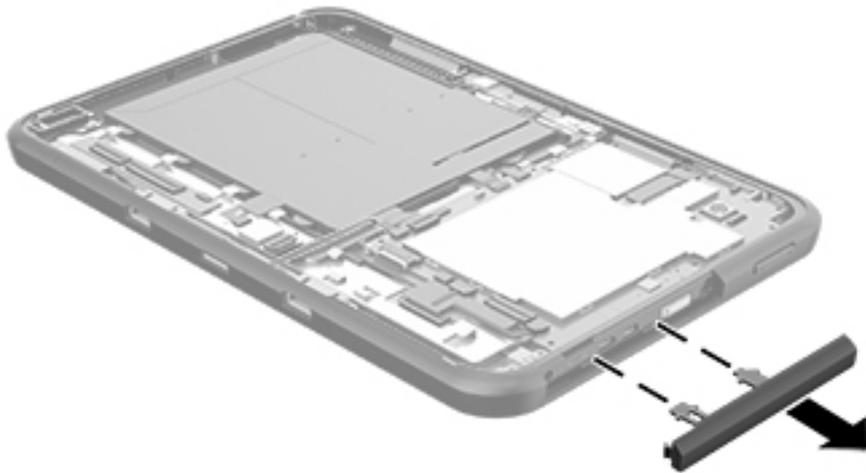
Description	Spare part number
I/O cover	802821-001

Before removing the I/O 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 back cover (see [Back cover on page 23](#)).
5. Disconnect the battery cable from the system board (see [Battery on page 24](#)).
6. Remove the system board (see [System board on page 40](#)).

Remove the I/O cover:

1. Release the I/O cover retention tabs from the openings in the display panel assembly.



2. Remove the I/O cover.

Reverse this procedure to install the I/O cover.

6 Using Computer Setup (BIOS) in Windows 10

Using Computer Setup

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

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

Starting Computer Setup

 **NOTE:** An external keyboard or mouse connected to a USB port can be used with Computer Setup only if USB legacy support is enabled.

To start Computer Setup, follow these steps:

- ▲ Start Computer Setup.
 - Computers or tablets with keyboards:
 - ▲ Turn on or restart the computer, and when the HP logo appears, press **F10** to enter Computer Setup.
 - Tablets without keyboards:
 - ▲ Turn off the tablet. Press the power button in combination with the volume down button until the Startup menu is displayed, and then tap **F10** to enter Computer Setup.

Navigating and selecting in Computer Setup

- To select a menu or a menu item, use the **tab** key and the keyboard arrow keys and then press **enter**, or use a pointing device to select the item.

 **NOTE:** On tablets without keyboards, you can use your finger to make selections.

- To scroll up and down, select the up arrow or the down arrow in the upper-right corner of the screen, or use the up arrow key or the down arrow key on the keyboard.
- To close open dialog boxes and return to the main Computer Setup screen, press **esc**, and then follow the on-screen instructions.

To exit Computer Setup menus, choose one of the following methods:

- To exit Computer Setup menus without saving your changes:

Select the **Exit** icon in the lower-right corner of the screen, and then follow the on-screen instructions.

– or –

Select **Main**, select **Ignore Changes and Exit**, and then press **enter**.
- To save your changes and exit Computer Setup menus:

Select the **Save** icon in the lower-right corner of the screen, and then follow the on-screen instructions.

– or –

Select **Main**, select **Save Changes and Exit**, and then press [enter](#).

Your changes go into effect when the computer restarts.

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. Start Computer Setup. See [Starting Computer Setup on page 46](#).
2. Select **Main**, and then select **Apply Factory Defaults and Exit**.

 **NOTE:** On select products, the selections may display **Restore Defaults** instead of **Apply Factory Defaults and Exit**.

3. Follow the on-screen instructions.
4. To save your changes and exit, select the **Save** icon in the lower-right corner of the screen, and then follow the on-screen instructions.

– or –

Select **Main**, select **Save Changes and Exit**, and then press [enter](#).

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

BIOS version information (also known as *ROM date* and *System BIOS*) can be accessed by pressing **fn+esc** (if you are already in Windows) or by using Computer Setup.

1. Start Computer Setup. See [Starting Computer Setup on page 46](#).
2. Select **Main**, and then select **System Information**.
3. To exit Computer Setup without saving your changes, select the **Exit** icon in the lower-right corner of the screen, and then follow the on-screen instructions.

– or –

Select **Main**, select **Ignore Changes and Exit**, and then press **enter**.

To check for later BIOS versions, see [Downloading a BIOS update on page 48](#).

Downloading a BIOS update

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

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

Do not shut down the computer or initiate Sleep.

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

1. Type `support` in the taskbar search box, and then select the HP Support Assistant app.
– or –
Select the question mark icon in the taskbar.
2. Select **Updates**, and then select **Check for updates and messages**.
3. Follow the on-screen instructions.
4. At the download area, follow these steps:
 - a. Identify the most recent BIOS update and compare it to the BIOS version currently installed on your computer. Make a note of the date, name, or other identifier. You may need this information to locate the update later, after it has been downloaded to your hard drive.
 - b. Follow the on-screen instructions to download your selection to the hard drive.

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

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

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

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

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

Changing the boot order using the f9 prompt

To dynamically choose a boot device for the current startup sequence, follow these steps:

1. Access the Boot Device Options menu:
 - Computers or tablets with keyboards:
 - ▲ Turn on or restart the computer, and when the HP logo appears, press **f9** to enter the Boot Device Options menu.
 - Tablets without keyboards:
 - ▲ Turn off the tablet. Press the power button in combination with the volume down button until the Startup menu is displayed, and then tap **F9** to enter the Boot Device Options menu.
2. Select a boot device, then press `enter`.

7 Using HP PC Hardware Diagnostics (UEFI) in Windows 10

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

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

To start HP PC Hardware Diagnostics UEFI:

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

2. Press or tap [f2](#).

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

- a. Connected USB drive

 **NOTE:** To download the HP PC Hardware Diagnostics (UEFI) tool to a USB drive, see [Downloading HP PC Hardware Diagnostics \(UEFI\) to a USB device on page 50](#).

- b. Hard drive

- c. BIOS

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

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

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

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

Download the latest UEFI version:

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

Download any version of UEFI for a specific product:

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

8 Using HP PC Hardware Diagnostics (UEFI) in Windows 8.1

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

To start HP PC Hardware Diagnostics (UEFI):

1. Turn off the tablet.
2. Press and hold the **Power** and **Volume down** buttons at the same time until the tablet turns on and “Esc...pause at startup” is displayed at the bottom of the screen.

The Startup menu is displayed.

3. Select **System Diagnostics**.
4. When the diagnostic tool opens, select the type of diagnostic test you want to run, and then follow the on-screen instructions.

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

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

 **NOTE:** Instructions for downloading HP PC Hardware Diagnostics (UEFI) are provided in English only.

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

Option 1: HP PC Diagnostics home page— Provides access to the latest UEFI version

1. Go to <http://hp.com/go/techcenter/pcdiags>.
2. Tap the UEFI **Download** link, and then select **Run**.

Option 2: Support and Drivers pages—Provide downloads for a specific product for earlier and later versions

1. Go to <http://www.hp.com>.
2. Tap **Support**, located at the top of the page, and then tap **Download Drivers**.
3. In the text box, enter the product name, and then tap **Go**.

– or –

Tap **Find Now** to let HP automatically detect your product.

4. In the **Diagnostic** section, tap **HP UEFI Support Environment**.

– or –

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

9 Specifications

	Metric	U.S.
Dimensions (landscape orientation)		
Width	28.0 cm	11.02 in
Height	18.2 cm	7.17 in
Thickness	1.4 cm	0.57 in
Weight (lowest weight configuration)	0.90 g	1.98 lb
Input power		
The tablet operates on DC power, which can be supplied by an AC or a DC power source. The AC power source must be rated at 100—240 V, 50/60 Hz, 0.3-1.0 A.		
NOTE: The HP 12V dc @ 1.5A - 18W adapter included with your tablet is recommended for charging the tablet.		
Temperature		
Operating	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F
Relative humidity (non-condensing)		
Operating	10% to 90%	
Nonoperating	5% to 95%	
Maximum altitude (unpressurized)		
Operating	-15 m to 3,048 m	-50 ft to 10,000 ft
Nonoperating	-15 m to 12,192 m	-50 ft to 40,000 ft
NOTE: Applicable product safety standards specify thermal limits for plastic surfaces. The device operates well within this range of temperatures.		

10 Backup and recovery in Windows 10

To protect your information, create recovery media by using an optional external flash drive and use Windows backup and restore utilities to back up and create system restore points. In case of system failure, you can use the backup files to restore the contents of your tablet.

 **IMPORTANT:** If you will be creating recovery media or using recovery media to recover your system, the tablet battery must be at least 70% charged before you start the process.

 **NOTE:** For detailed instructions on various backup and restore options, see the Get started app.

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 the Get started app.

Creating recovery media and backups

The following methods of creating recovery media and backups are available.

- Use HP Recovery Manager to create recovery media after you successfully set up the tablet. This step creates a Windows Reset image that can be used to reinstall the original operating system in cases where the hard drive is corrupted or has been replaced. For information on creating recovery media, see [Creating recovery media on page 54](#).
- Use Windows tools to create system restore points and create backups of personal information. For more information, see [Backing up your information on page 55](#).

Creating recovery media

HP Recovery Manager is a software program that allows you to create recovery media (using a flash drive) after you successfully set up the tablet. The recovery media can be used to perform system recovery if the hard drive becomes corrupted. System recovery reinstalls the original operating system. Recovery media can also be used to repair the system if you replace the hard drive.

- Handle these recovery tools carefully, and keep them in a safe place.
- HP Recovery Manager examines the tablet and determines the required storage capacity for the media that will be required.
- The creation process can take an hour or more. Do not interrupt the creation process.

To create recovery media:

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

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 the Get started app.

Performing a system recovery

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

- 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. For more information, see the Get started app.
 - Select the **Start** button, and then select the **Get started** app.
- Windows recovery tools: You can use Windows Backup and Restore to recover information you have previously backed up. You can also use Windows Startup Repair to fix problems that might prevent Windows from starting correctly. See [Using the Windows recovery tools on page 55](#).
- 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 the Get started app.
 - Select the **Start** button, and then select the **Get started** app.

 **NOTE:** If you are unable to boot (start up) your tablet, contact support.

Using the Windows recovery tools

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.

Windows recovery tools offer you the ability to recover information you previously backed up as well as refresh the tablet.

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 the Get started app.

To recover information you previously backed up, see the Get started app for steps on restoring files and folders.

To recover your information using Windows Startup 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 tablet 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 flash drive may be required to perform this procedure.

1. If possible, back up all personal files.
2. Press the power button and when the **Press and hold the Volume down button or the ESC key on external Keyboard to enter Startup Menu** message displays, press the volume down button.
The Startup menu is displayed.
3. Tap **F11 HP Recovery**.
4. Select **Troubleshoot**, select **Advanced Options**, and then select **Startup Repair**.
5. Follow the on-screen instructions.



NOTE: For additional information on recovering information using the Windows tools, see the Get started app.

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. Turn off the tablet.
5. Press the power button and when the **Press and hold the Volume down button or the ESC key on external Keyboard to enter Startup Menu** message displays, press the volume down button.
The Startup menu is displayed.
6. Tap **F9 Boot Options**.
7. Select the external flash drive as the boot device.
8. Restart the tablet.

11 Backup and recovery in Windows 8.1

To protect your information, use Windows backup and restore utilities to back up individual files and folders, back up your entire hard 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. Tap , 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 tablet 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.



NOTE: If you are unable to boot (start up) your tablet, contact support.

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. Turn off the tablet.
5. Press and hold the **Power** and **Volume down** buttons at the same time until the tablet turns on and “Esc...pause at startup” is displayed at the bottom of the screen.

The Startup menu is displayed.

6. Tap **F9 Boot Options**.
7. Select the external flash drive as the boot device.
8. 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.

12 Backup and recovery in Android Lollipop

Automatically updating apps

Some online marketplaces update your apps automatically. Some keep a record of your purchases as well as your last synced settings. If you should need to perform a recovery on your tablet, this record will be available to retrieve all of your settings, favorites, and apps.



NOTE: The auto-update feature is a setting in the online marketplace, not on your tablet. The online marketplace available to you will vary based on your tablet and country.

Manually updating apps, widgets, and the operating system

HP recommends that you update your apps, widgets, and the operating system on a regular basis to the latest versions. Updates can resolve issues and bring new features and options to your tablet. Technology is always changing, and updating apps, widgets, and the operating system allows your tablet to run the latest technology available. For example, older apps and widgets may not be compatible with the most recent operating system.

If you download the latest versions of HP and third-party apps and widgets, the operating system will download updates automatically and notify you when it is ready to install these updates. For more information:

1. Go to <http://www.hp.com/support>, and follow the on-screen instructions to select your country and your product.
2. Follow the on-screen instructions to access your Android operating system software.

Back up and reset

HP strongly encourages that you periodically back up your personal data on your tablet to another device, a dedicated storage device, or to the cloud using one of several commercially available solutions.

You can select preferences for backing up and restoring your data in case of loss.

1. Swipe down twice from the top edge, and then touch the **Settings** icon .
2. Under **Personal**, touch **Back up & reset**.
3. Under **Backup & restore**, select one or more of the following:
 - **Back up my data**—Touch **Back up my data** to enable backing up app data, Wi-Fi passwords, and other settings to Internet servers.
 - **Backup account**—Select an email account for backing up data.
 - **Automatic restore**—Touch **Automatic restore** to enable backed up settings and data to be restored when an app is reinstalled.

Factory data reset

Resetting with the tablet turned on

If the tablet starts normally, and if you are able to sign in to the owner account (the first account added to the tablet), follow the steps in this section.

To reset all settings and delete all data on the tablet:

1. Swipe down twice from the top edge, and then touch the **Settings** icon .
2. Under **Personal**, touch **Back up & reset**.
3. Under **Personal data**, touch **Factory data reset**.

 **CAUTION:** All data saved on your tablet is deleted when you perform a factory reset. All apps are uninstalled. It may be possible to restore data in your email account. Back up all important files with an external storage device or to the cloud using one of several commercially available solutions, before resetting the tablet.

4. Touch **RESET TABLET**.
5. If you set a lock screen password for your tablet, enter your password when prompted.
6. Touch **ERASE EVERYTHING** to begin the reset.

The tablet turns off. When the reset is complete, the tablet starts.

Resetting with the tablet turned off

If the tablet does not start normally, or if you do not remember the lock screen password, you can reset the tablet without turning it on.

 **CAUTION:** All data saved on your tablet is deleted when you perform a factory reset. All apps are uninstalled, but it may be possible to restore data in your email account. Back up all important files with an external storage device or to the cloud using one of several commercially available solutions, before resetting the tablet.

 **NOTE:** The touch screen is disabled when the tablet is in recovery mode. Use the volume up (+) and volume down (-) buttons to navigate up or down in the recovery menu.

1. To provide enough power to complete the factory reset process, charge the tablet for at least half an hour, and then disconnect the AC adapter from the tablet.
2. If a microSD card is installed in the tablet, remove the card before resetting the tablet.
3. With the tablet turned off, press and hold the volume up (+) button and the power button at the same time.
4. When the system recovery menu appears, use the volume down (-) button to highlight **wipe data/factory reset**.
5. Press the power button to select.

The screen displays **Confirm wipe of all user data? THIS CAN NOT BE UNDONE**.

6. Use the volume down (-) button to highlight **Yes -- delete all user data**.

7. Press the power button to begin the reset.
A recovery system screen shows the reset process.
8. When the screen displays the message **Data wipe complete**, press the volume down (-) button to highlight **reboot system now**, and then press the power button to select.
the tablet restarts.

Starting up using the recovery menu

If your tablet is unable to boot into the operating system, you can perform a system recovery by directly accessing the Recovery menu.

1. Turn off your tablet, and then plug in the AC adapter.
2. With the tablet turned off, press and hold the volume up (+) button and the power button at the same time.
3. When the system recovery menu appears, use the volume (+) up and volume (-) down buttons to highlight **wipe data/factory reset**, and then press the power button to confirm the selection.
4. Use the volume (+) up and volume (-) down buttons to highlight **Yes — delete all user data**, and then press the power button to confirm the selection.
5. Use the volume (+) up and volume (-) down buttons to highlight **reboot system now**, and then press the power button to confirm the selection.

Updating the tablet using an over-the-air (OTA) update

1. Turn off your tablet and, if a battery powered device, plug in the AC adapter.
2. Turn on your tablet, and then connect to the Internet.
3. Swipe down twice from the top edge, and then touch the **Settings** icon .
4. Touch **About tablet**, touch **System updates**, and then touch **CHECK FOR UPDATE**.
5. Follow the on-screen instructions to finish the process. The tablet may restart as updates are applied.

Updating the tablet using a file-based update

 **NOTE:** Before performing the following procedure, plug in the AC adapter for your tablet, if one has been provided.

1. Download the latest operating system restore image for your tablet.
 - a. Go to <http://www.hp.com/support>, and follow the on-screen instructions to select your country and your product.
 - b. Follow the on-screen instructions to access your Android operating system software.
2. Locate **update.zip** and copy it to a microSD card.
3. Turn off the tablet, and then insert the microSD card containing the **update.zip** file.
4. To power on the tablet, press and hold the volume up (+) button and the power button.
5. Select **apply update from sdcard**.
6. Follow the on-screen instructions to finish the process and restart the tablet.

13 Statement of memory volatility

The purpose of this chapter is to provide general information regarding nonvolatile memory in HP Business Notebook PCs. This chapter also provides 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. Use the steps below to remove personal data from the notebook PC, including the nonvolatile memory found in Intel-based and AMD-based system boards.



NOTE: If your tablet has a keyboard base, connect to the keyboard base before beginning steps in this chapter.

1. Follow steps (a) through (j) below to restore the nonvolatile memory that can contain personal data. Restoring or reprogramming nonvolatile memory that does not store personal data is neither necessary nor recommended.
 - a. Turn on or restart the computer, and then press **esc** while the “Press the ESC key for Startup Menu” message is displayed at the bottom of the screen.



NOTE: If the system has a BIOS administrator password, enter the password at the prompt.

- b. Select **Main**, select **Restore Defaults**, and then select **Yes** to load defaults.
- c. Select the **Security** menu, select **Restore Security Level Defaults**, and then select **Yes** to restore security level 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 **Asset Tracking Number**. Clear the tag, and then make the selection to return to the prior menu.
- e. If a DriveLock password is set, select the **Security** menu, and scroll down to **Hard Drive Tools** under the **Utilities** menu. Select **Hard Drive Tools**, select **DriveLock**, then uncheck the checkbox for **DriveLock password on restart**. Select **OK** to proceed.
- f. If an Automatic DriveLock password is set, select the **Security** menu, scroll down to **Hard Drive Tools** under the **Utilities** menu. Select **Hard Drive Tools**, scroll down to **Automatic DriveLock**, then select the desired hard drive and disable protection. At the automatic drive lock warning screen, select **Yes** to continue. Repeat this procedure if more than one hard drive has an Automatic DriveLock password.
- g. Select the **Main** menu, and then select **Reset BIOS Security to factory default**. Click **Yes** at the warning message.
- h. Select the **Main** menu, select **Save Changes and Exit**, select **Yes** to save changes and exit, and then select **Shutdown**.

- i. Reboot the system. If the system has a Trusted Platform Module (TPM) and/or fingerprint reader, one or two prompts will appear—one to clear the TPM and the other to Reset Fingerprint Sensor; press or tap **F1** to accept or **F2** to reject.
- j. Remove all power and system batteries for at least 24 hours.

2. Complete one of the following:

- Remove and retain the storage drive.
– or –
- Clear the drive contents by using a third party utility designed to erase data from an SSD.
– or –
- Clear the contents of the drive by using the following BIOS Setup Secure Erase command option steps:

 **IMPORTANT:** If you clear data using Secure Erase, it cannot be recovered.

- a. Turn on or restart the computer, and then press **esc** while the “Press the ESC key for Startup Menu” message is displayed at the bottom of the screen.
- b. Select the **Security** menu and scroll down to the Utilities menu.
- c. Select **Hard Drive Tools**.
- d. Under **Utilities**, select **Secure Erase**, select the hard drive storing the data you want to clear, and then follow the on-screen instructions to continue.

– or –

- Clear the contents of the drive by using the following Disk Sanitizer command steps:

 **IMPORTANT:** If you clear data using Disk Sanitizer, it cannot be recovered.

 **NOTE:** The amount of time it takes for Disk Sanitizer to run can take several hours. Plug the computer into an AC outlet before starting.

- a. Turn on or restart the computer, and then press **esc** while the “Press the ESC key for Startup Menu” message is displayed at the bottom of the screen.
- b. Select the **Security** menu and scroll down to the **Utilities** menu.
- c. Select **Hard Drive Tools**.
- d. Under **Utilities**, select **Disk Sanitizer**, select the hard drive holding the data you want to clear, and then follow the on-screen instructions to continue.

Nonvolatile 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?
HP Sure Start flash (select models only)	2 MBytes	No	Yes	Provides protected backup of critical System BIOS code, EC firmware, and critical PC configuration data for select platforms that support HP Sure Start.	Data cannot be written to this device via the host processor. The content is managed solely by the HP Sure Start Embedded Controller.	This memory is protected by the HP Sure Start Embedded Controller.
Real Time Clock (RTC) battery backed-up CMOS configuration memory (CMOS)	256 bytes	No	Yes	Stores system date and time and noncritical data.	RTC battery backed-up CMOS is programmed using the Computer Setup (BIOS), or changing the Microsoft Windows date & time.	This memory is not write-protected.
Controller (NIC) EEPROM	64 KBytes (not customer accessible)	No	Yes	Store NIC configuration and NIC firmware.	NIC EEPROM is programmed 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 non-functional.
DIMM Serial Presence Detect (SPD) configuration data	256 bytes per memory module, 128 bytes programmable (not customer accessible)	No	Yes	Stores memory module information.	DIMM SPD is 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.
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 Computer Setup (BIOS) or a custom utility.	A utility is required for writing data to this memory and is available on the HP website; go to http://www.hp.com/support , and select your country. Select Drivers & Downloads , and then follow the on-screen instructions. NOTE: Writing data to this ROM in an inappropriate manner can render the PC non-functional.
Intel Management Engine Firmware (present in only)	1.5 MBytes or 5 MBytes	Yes	Yes	Stores Management Engine Code,	Management Engine Code is programmed at the factory. Code is updated via Intel	The Intel chipset is configured to enforce hardware protection to

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?
specific ZBook and EliteBook models. For more information, go to http://www.hp.com/support , and select your country. Select Drivers & Downloads , and then follow the on-screen instructions.)				Settings, Provisioning Data and iAMT third-party data store.	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 that have been registered by an administrator to have access to the space.	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.
Bluetooth flash	2Mbit	No	Yes	Stores Bluetooth configuration and firmware.	Bluetooth flash is 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 whenever the flash requires an upgrade.
802.11 WLAN EEPROM	4 Kbit to 8 Kbit	No	Yes	Stores configuration and calibration data.	802.11 WLAN EEPROM is 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	64K bit	No	Yes	Store webcam configuration and firmware.	Webcam memory is programmed 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 KByte flash	Yes	Yes	Stores fingerprint templates.	Fingerprint reader memory is programmed by user enrollment 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 factory settings)?



IMPORTANT: Restore defaults does not securely erase any data on your hard drive. See question and answer 6 for steps to securely erase data.

Restore defaults does not reset the Customer Secure Boot key. See question and answer 7 for information about resetting the key.

- a. Turn on or restart the computer, and then press **esc** while the “Press the ESC key for Startup Menu” message is displayed at the bottom of the screen.
- b. Select **Main**, and then select **Restore defaults**.

The Unified Extensible Firmware Interface (UEFI) BIOS is an industry-standard software interface between the platform firmware and an operating system (OS). It is a replacement for the older BIOS architecture, but supports much of the legacy BIOS functionality.

Like the legacy BIOS, the UEFI BIOS provides an interface to display the system information, configuration settings, and change the configuration of your computer before an OS is loaded. BIOS also provides a secure run-time environment that supports a Graphic User Interface (GUI). In this environment, you can use either a pointing device (Touch Screen, TouchPad, pointing stick, or USB mouse) or the keyboard to navigate and make menu and configuration selections. The UEFI BIOS also contains basic system diagnostics.

The UEFI BIOS provides functionality beyond that of the legacy BIOS. In addition, the UEFI BIOS works to initialize the computer's hardware before loading and executing the OS, the run-time environment allows the loading and execution of software programs from storage devices to provide more functionality, such as advanced hardware diagnostics (with the ability to display more detailed system information) and advanced firmware management and recovery software.

- c. Follow the on-screen instructions.
The UEFI BIOS resides on a flash memory chip. A utility is required to write to the chip.
- d. Select **Main**, select **Save Changes and Exit**, and then follow the on-screen instructions.

2. What is a UEFI BIOS, and how is it different from a legacy BIOS?

3. Where does the UEFI BIOS reside?

4. 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. Various third-party tools are available to read SPD memory.

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

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

6. How can the BIOS security be reset to factory defaults and data erased?



IMPORTANT: Resetting will result in the loss of information. These steps will not reset a Customer Secure Boot Key.

See question and answer 7 for information about resetting the key.

- a. Turn on or restart the computer, and then press **esc** while the “Press the ESC key for Startup Menu” message is displayed at the bottom of the screen.
 - b. Select **Main**, and then select **Reset BIOS Security to Factory Default**.
 - c. Follow the on-screen instructions.
 - d. Select **Main**, select **Save Changes and Exit**, and then follow the on-screen instructions.
- 7. How can the Customer Secure Boot Key be reset?**

Secure Boot is a feature to ensure that only authenticated code can start on a platform. If you enabled Secure Boot and created a Customer Secure Boot Key, simply disabling Secure Boot will not clear the keys. You must also select to clear the Secure Boot Keys. Use the same procedure you used to create the Secure Boot Keys, but make the selection to clear or delete all Secure Boot Keys.

Using HP Sure Start (select models only)

Select computer models are configured with HP Sure Start, a technology that continuously monitors your computer's BIOS for attacks or corruption. If the BIOS becomes corrupted or is attacked, HP Sure Start restores the BIOS to its previously safe state, without user intervention. Those select computer models ship with HP Sure Start configured and enabled. HP Sure Start is configured and already enabled so that most users can use the HP Sure Start default configuration. The default configuration can be customized by advanced users.

To access the latest documentation on HP Sure Start, go to <http://www.hp.com/support>, and select your country. Select **Drivers & Downloads**, and then follow the on-screen instructions.

14 Power cord set requirements

The wide-range input feature of the tablet permits it to operate from any line voltage from 100 to 120 volts AC, or from 220 to 240 volts AC.

The 3-conductor power cord set included with the tablet meets the requirements for use in the country or region where the equipment is purchased.

Power cord sets for use in other countries and regions must meet the requirements of the country or region where the tablet is used.

Requirements for all countries

The following requirements are applicable to all countries and regions:

- The length of the power cord set must be at least 1.0 m (3.3 ft) and no more than 2.0 m (6.5 ft).
- All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country or region where the power cord set will be used.
- The power cord sets must have a minimum current capacity of 10 amps and a nominal voltage rating of 125 or 250 V AC, as required by the power system of each country or region.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector for mating with the appliance inlet on the back of the tablet.

Requirements for specific countries and regions

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

Country/region	Accredited agency	Applicable note number
Sweden	CEMKO	1
Switzerland	SEV	1
Taiwan	BSMI	4
The United Kingdom	BSI	1
The United States	UL	2

1. The flexible cord must be Type H05VV-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.

15 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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