



HP Pro 8 Advanced Rugged Tablet with Voice

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).

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1 Product description


Category	Description
Product name	HP Pro 8 Advanced Rugged Tablet with Voice
Rugged case	Provides IP65-tested protection Glass front screen, with screen protector provided in box Rubber/PC case body with configurable module products with fingerprint reader, 2D barcode scanner, and iris scanner
Processor	MediaTek MT8735V/W
Panel	8 inch (21.07 cm), 800x1280, 16:10 aspect ratio, brightness: typical 500 nits (cd/m ²) 16.7 million color depth 10-finger capacitive multi-touch
Memory	2 GB LPDDR3, integrated onto system board
Storage	16 GB eMMC
Audio and video	Support voice calls via single 1.2 W internal speaker, wired or Bluetooth® headset, and waterproof speaker Front-facing camera: 2 MP fixed focus Back camera: 5 MP auto focus with flash LED One external microphone from audio-out (headphone)/audio-in (microphone) combo jack
Sensors	Accelerometer Ambient light sensor (ALS) Proximity Sensor Gyroscope
Wireless networking	WPAN Bluetooth: Bluetooth 4.0 LE WLAN: 802.11 b/g/n, 2.4 GHz Support for Miracast GPS: GPS, A-GPS, GLONASS, Geo Tagging WWAN: GSM 850/900/1800/1900, WCDMA B1 and B8, LTE (Band 3 and Band 40) Single SIM card
External expansion	<ul style="list-style-type: none">• Supports a microSD card expandable up to 64 GB; supports SD and SDHC• On-The-Go (OTG) 2.0 extension cable to connect to USB devices. In addition to data transfer it can connect to peripherals such as a mouse or keyboard, and connect to a USB stick or external drive.

Category	Description
	<ul style="list-style-type: none"> • USB to micro-B-USB extension cable to connect to USB devices.
Ports	<ul style="list-style-type: none"> • Audio: 3.5 mm audio-out (headphone)/audio-in (microphone) combo jack for headset • Micro-B USB connector • Micro SIM card + microSD card slot supporting a single card tray • 1 barrel charger • POGO pin connector
Power requirements	<p>Battery: Non-user-removable, 6000 mAh, 3.8 V Lithium-Ion Polymer battery</p> <p>Adapter: Barrel type charger</p>
Operating system	<p>Preinstalled: Android v6.0</p> <p>Supports OTA update of Android v7.0.</p>
Serviceability	<p>End user replaceable parts:</p> <ul style="list-style-type: none"> • AC adapter

2 External component identification

Identifying components

Front

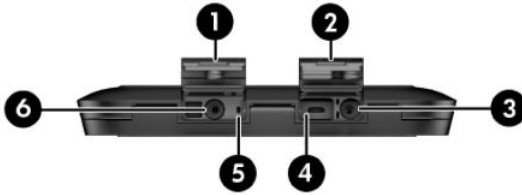
 **IMPORTANT:** Only HP service providers are authorized to open or remove the case.



Component	Description
(1) Power port cover	Covers these ports: <ul style="list-style-type: none">• Power connector• Microphone IMPORTANT: Be sure to securely close any covers you open.
(2) USB port cover	Covers these ports: <ul style="list-style-type: none">• Micro-B USB port• Audio-out (headphone)/Audio-in (microphone) combo jack IMPORTANT: Be sure to securely close any covers you open.
(3) Battery light	When AC power is connected: <ul style="list-style-type: none">• White: The battery charge is greater than 99 percent.

Component	Description
	<ul style="list-style-type: none"> Amber: The battery charge is from 0 to 99 percent. Off: The battery is not charging. <p>When AC power is not connected, the light is off.</p>
(4)	Camera Records video and captures photographs.
(5)	Case Protects the voice tablet from dust and splash water. IMPORTANT: Do not remove the case. Only HP service providers are authorized to remove the case.
(6)	Volume buttons Press to increase or decrease sound.
(7)	Power button <ul style="list-style-type: none"> When the voice tablet is off, press and hold the button for about 2 seconds to turn on the voice tablet. When the voice tablet is on, press the button briefly to initiate Sleep. When the voice tablet is in the Sleep state, press the button briefly to exit Sleep. <p>CAUTION: Pressing and holding down the power button without waiting for the Power off message can result in the loss of unsaved information.</p> <p>IMPORTANT: To make an emergency call, press the power button three times in rapid succession. The emergency call connection and service can vary, depending on your network operator.</p>
(8)	Micro SIM card/MicroSD memory card cover Covers the Micro SIM card/MicroSD memory card tray. Supports a micro subscriber identity module (SIM) card and a microSD memory card in a dual-compartment tray. IMPORTANT: Be sure to securely close any covers you open. NOTE: Your device has read/write support for microSD memory cards up to 64 GB.
(9)	Microphone Receives sound.
(10)	Speaker Produces sound and audio for phone calls.
(11)	Fingerprint reader (select products only) Allows a fingerprint recognition for biometric authentication, such as payment transactions. This feature requires a separate app.
(12)	Iris scanner (select products only) Allows iris recognition for biometric authentication, such as payment transactions. This feature requires a separate app.

Top



Component	Description
(1) Power port cover recess	Use this recess to open the power port cover. IMPORTANT: Be sure to securely close any covers you open.
(2) USB port cover recess	Use this recess to open the USB port cover. IMPORTANT: Be sure to securely close any covers you open.
(3) Audio-out (headphone)/Audio-in (microphone) combo jack	Connects the headset or optional powered stereo speakers, headphones, earbuds, or a television audio cable. Also connects an optional headset microphone. This jack does not support optional standalone microphones. WARNING! To reduce the risk of personal injury, lower the volume setting before putting on headphones, earbuds, or a headset. NOTE: When a device is connected to the jack, the speakers are disabled.
(4) Micro-B USB port	Connects a USB device, such as a mouse, keyboard, computer, cell phone, camera, activity tracker, or smartwatch, and provides data transfer. NOTE: A micro-B USB to On-the-Go (OTG) 2.0 cable is included with your voice tablet for connecting to USB devices. NOTE: This port does not provide charging.
(5) Microphone	Receives sound.
(6) Power connector	Connects an AC adapter.

Back





Component	Description
(1) WLAN antenna*	Sends and receives wireless signals to communicate with wireless local area networks (WLANs).
(2) Camera	Records video and captures photographs.
(3) Camera flash	Provides a camera flash. You can control the flash using camera apps.
(4) WWAN antennas*	Send and receive wireless signals to communicate with wireless wide area networks (WWANs).
(5) Barcode scanner and light (select products only)	Allows scanning of different standards of barcodes and QR codes. This feature requires a separate app.
(6) Barcode scanner buttons (select products only)	Activate the barcode scanner.
(7) Barcode beep speaker (select products only)	Produces barcode scanner sound.
(8) Strap access holes	Allows the installation of an accessory belt to hold the tablet. The belt is purchased separately.

*The antennas are not visible from the outside of the voice tablet. For optimal transmission, keep the areas immediately around the antennas free from obstructions.

For wireless regulatory notices, see the section of the *Product Notices* that applies to your country or region.

To access this guide:

- ▲ On the Home screen, touch the **All Apps** icon , and then touch the **HP Documentation** app . Select the document.

Locating product information

The serial number **(1)** and product number **(2)** of your tablet are located on the back of the tablet case.




Locating system information

System information is also available from two apps: Settings and HP Device Hub.



The About tablet option of the Settings app provides information about the serial number, product number, and IMEI.

To access the About tablet setting:


1. On the Home screen, touch the **All Apps** icon .
2. Touch **Settings**, and then touch **About tablet**.
View the model number and version information.
3. To view IMEI and serial number information, touch **Status**.

The HP Device Hub app also provides access to system information, warranty information, support, operating system updates.

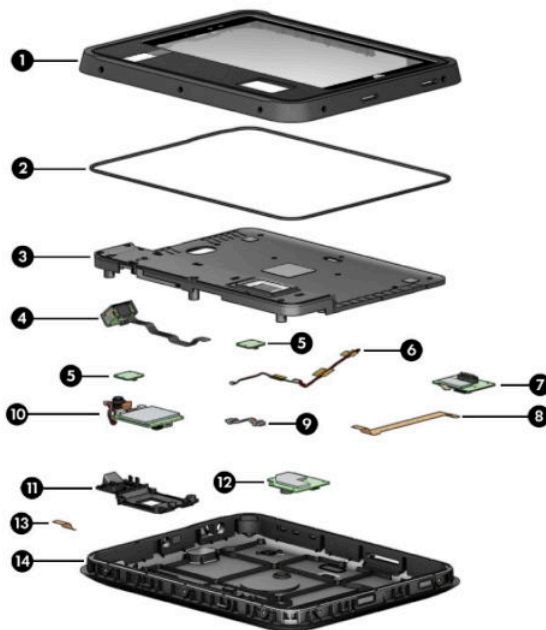
To access the HP Device Hub app:

1. On the Home screen, touch the **All Apps** icon .
2. Touch the **HP Device Hub** icon .

3 Illustrated parts catalog

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

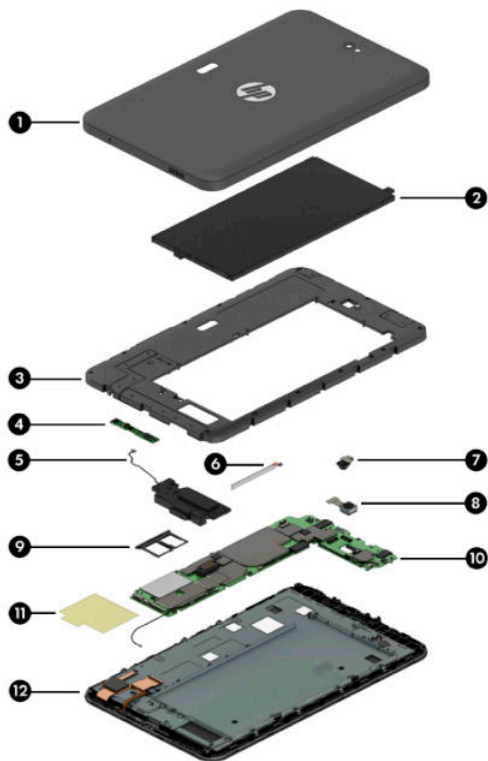
Tablet case



Item	Component	Spare part number
(1), (3), and (14)	Case	
	<ul style="list-style-type: none"> With fingerprint reader only 	L06402-001
	<ul style="list-style-type: none"> With barcode scanner only 	L06403-001
	<ul style="list-style-type: none"> With fingerprint reader and iris scanner only 	L06404-001
	<ul style="list-style-type: none"> With fingerprint reader, iris scanner, and barcode scanner 	L06405-001
(2)	Waterproof gasket	L06423-001
(4)	Barcode scanning module	L06408-001
	Barcode scanning cable	L06409-001
(5)	Beep button board (contains a single board)	L06418-001
(6)	Beep boards twisted cable	L06419-001
(7)	POGO board	L06421-001
(8)	Main cable	L06415-001

Item	Component	Spare part number
(9)	Iris scanner 5-wire cable	L06420-001
(10)	Iris scanner board	L06410-001
(11)	Iris scanner/barcode scanner cover	L06412-001
(12)	Main board	L06411-001
(13)	Fingerprint cable	L06413-001
	Conductive tape	L06406-001

Tablet major components



Item	Component	Spare part number
(1)	Back cover	L07035-001
(2)	Battery, 6000 mAh, 3.8 V Lithium-Ion Polymer	928848-001
(3)	Middle frame cover (includes graphite heat sink, camera light guide, Wi-Fi antennas, GPS, Bluetooth, and touch sensor)	926158-001
(4)	Antenna board	926160-001
(5)	Speaker kit (includes speaker and cables)	L02618-001
(6)	Volume and power button board	926161-001
(7)	Front-facing webcam (includes cable)	926165-001
(8)	Rear-facing webcam (includes cable)	926166-001
(9)	Micro SIM/microSD card tray	926162-001
(10)	System board (includes motor, coaxial line, and strobe light)	L09773-001
(11)	Plastic protective tape for insulation	L03729-001
(12)	Touchscreen display panel assembly	L04872-001

Miscellaneous parts

Component	Spare part number
AC adapter 100-240 V input, 9 V/3 A output	922504-001
AC adapter 100-240 V input, 5 V/3 A output	928873-001
Antenna board conductive cloth	L03730-001
Battery cover compressed foam	L03726-001
Cable micro-B USB to USB	931553-001
Cable micro-OTG	937898-001
Headset	L02461-001
Screw kit	L06428-001
System board conductive tape	L03728-001

4 Removal and replacement preliminary requirements


Tools required

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


- Magnetic Phillips 000 and 00 screwdrivers
- Plastic pry tool
- Cyanoacrylate bonding adhesive glue is required for replacing the port covers. Contact your HP service contact for additional details.

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.

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

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

There are as many as 63 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.

Card tray

CAUTION: To reduce the risk of loss of data or an unresponsive system, save your information and close all programs associated with the microSD card.

Description	Spare part number
Micro SIM/microSD card tray	926162-001

Remove the card tray:

CAUTION: To prevent damage to the card or the voice tablet, do not use force to remove or replace the tray.

CAUTION: Before turning the voice tablet screen facedown, be sure that the work surface is clear of tools, screws, and any other foreign objects. Failure to follow this caution can result in damage to the screen.

1. Place the voice tablet screen facedown.
2. Place your fingernail in the small recess **(1)** of the micro SIM card/microSD memory card cover and pull up to release the cover.
3. Insert a small straightened paper clip **(2)** into the card tray access hole.
4. Press in gently only until the card tray is ejected.
5. Remove the tray **(3)** from the voice tablet.



Reverse the steps to replace the tray.

NOTE: Be sure the card tray access hole is aligned with the access hole on the tablet before replacing the tray.

Case

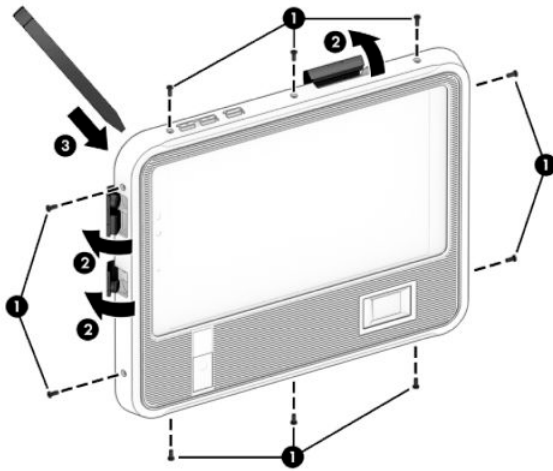
Description	Spare part number
Case	
• With fingerprint reader only	L06402-001
• With barcode scanner only	L06403-001
• With fingerprint reader and iris scanner only	L06404-001
• With fingerprint reader, iris scanner, and barcode scanner	L06405-001
Waterproof gasket	L06423-001

Before removing the case, follow these steps:

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

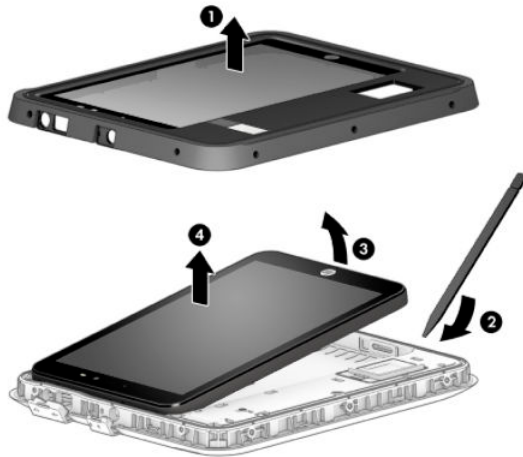
Remove the case:

1. Place the voice tablet case screen face up.
2. Remove the ten Torx screws **(1)** from the voice tablet case.
3. Open the 3 port covers **(2)**.
4. Insert a thin tool in the case seam **(3)** and slide the tool all around the seam to open the case.



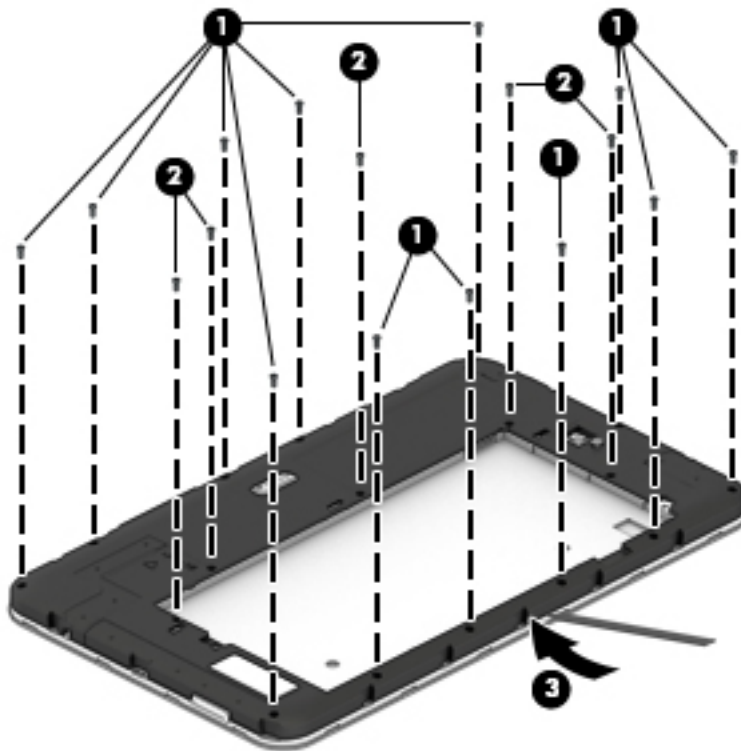
5. Lift up the top of the display cover **(1)**.
6. Insert a thin tool **(2)** between the tablet and the case.
7. Lift up the tablet **(3)** at an angle.

8. Remove the tablet **(4)** from the case.

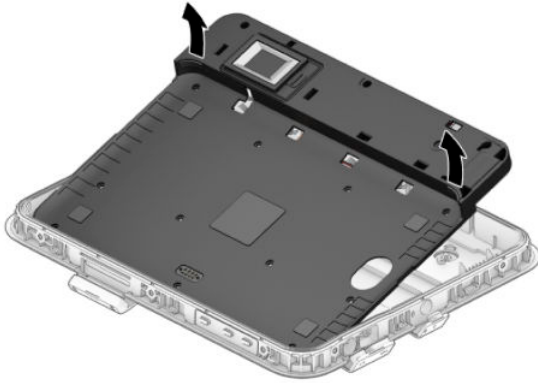


To remove the bottom frame of the case:

1. Remove the 11 Torx 4 screws **(1)** from the bottom frame.
2. Remove the 5 Torx 4 screws **(2)** from the recessed holes.
3. Insert a thin tool in the seam **(3)** and slide the tool all around the seam to release the bottom frame.



4. Lift up the frame at an angle to remove it from the bottom case.



Reverse the steps to replace the case.

Main board

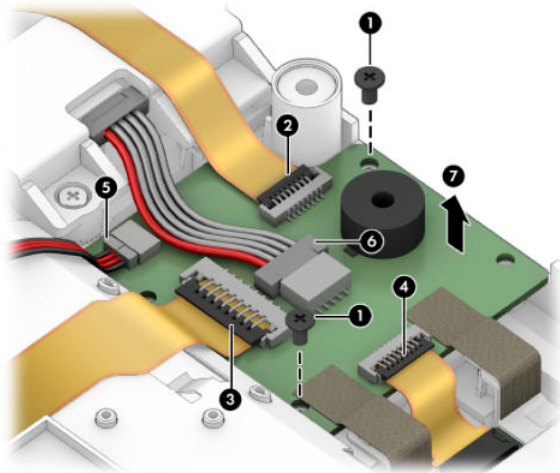
Description	Spare part number
Main board	L06411-001
Main cable	L06415-001
Iris scanner 5-wire cable	L06420-001
Fingerprint reader cable	L06413-001

Before removing the main board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the case and bottom frame of the case (see [Case on page 18](#)).

Remove the main board:

1. Remove the 2 Phillips screws (1) securing the board.
2. Release the ZIF connector (2) securing the barcode scanner wide ribbon cable.
3. Release the ZIF connector (3) securing the main wide ribbon cable.
4. Release the ZIF connector (4) securing the fingerprint reader wide ribbon cable.
5. Release the twisted wire cable (5).
6. Release the 5-wire cable (6).
7. Lift the board (7) to remove it.



Reverse the steps to replace the main board.

POGO board

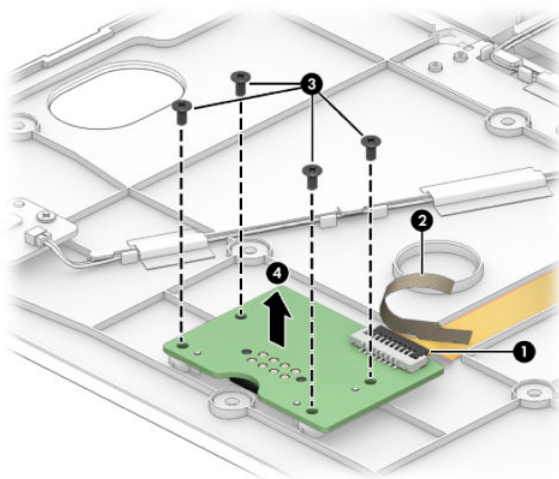
Description	Spare part number
POGO board	L06421-001
Conductive tape	L06406-001

Before removing the POGO board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the case and bottom frame of the case (see [Case on page 18](#)).

Remove the POGO board:

1. Release the ZIF connector **(1)** securing the wide ribbon cable to the POGO board.
2. Release the conductor tape **(2)**.
3. Remove the 4 Phillips screws **(3)** securing the POGO board.
4. Release the ZIF connector **(4)** securing the fingerprint reader wide ribbon.
5. Lift the board **(4)** to remove it.



Reverse the steps to replace the POGO board.

Beep button board

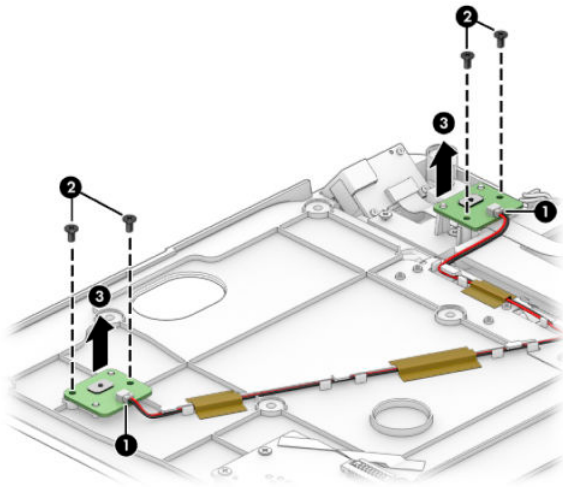
Description	Spare part number
Beep button board (contains a single board)	L06418-001
Beep button twisted cables	L06419-001

Before removing the beep button board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the case and bottom frame of the case (see [Case on page 18](#)).

Remove the beep button board:

1. Release the twisted pair cable **(1)** from the beep button board.
2. Remove the 2 Phillips screws **(2)** securing the beep button board.
3. Lift the board **(3)** to remove it.



To replace the twisted pair cable, lift the tape securing the cable, and then lift the cable to remove it.

Reverse the steps to replace the beep button boards.

Barcode scanner board and cable

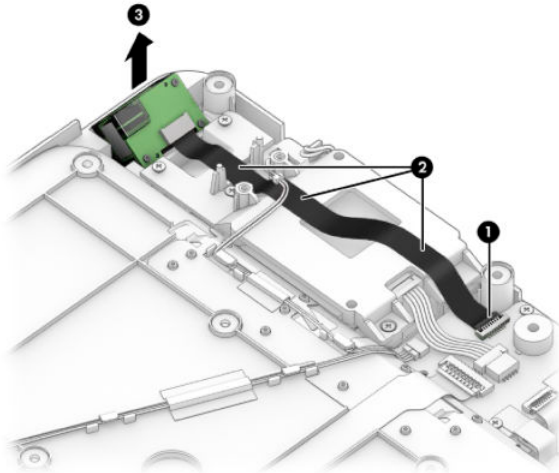
Description	Spare part number
Barcode scanning module	L06408-001
Barcode scanning cable	L06409-001

Before removing the barcode scanner board and cable, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the case and bottom frame of the case (see [Case on page 18](#)).
5. Remove the right beep button board (see [Beep button board on page 23](#)).

Remove the barcode scanner board and cable:

1. Release the ZIF connector **(1)** securing the barcode scanner board cable.
2. Release the barcode scanner board cable **(2)** from the adhesive securing it.
3. Lift the board **(3)** to remove it.



Reverse the steps to replace the barcode scanner board and cable.

Iris scanner/barcode scanner cover

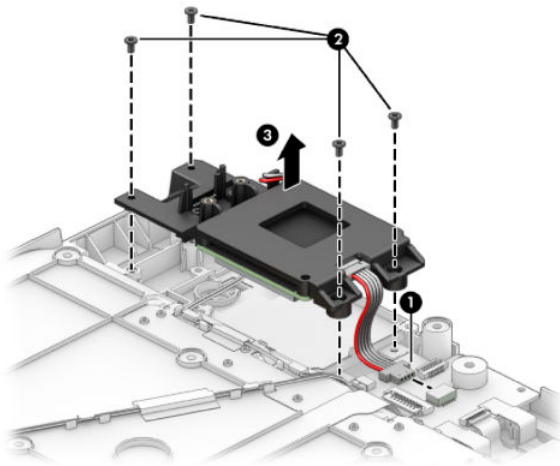
Description	Spare part number
Iris scanner/barcode scanner cover	L06412-001

Before removing the iris scanner/barcode scanner cover, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the case and bottom frame of the case (see [Case on page 18](#)).
5. Remove the right beep button board (see [Beep button board on page 23](#)).

Remove the iris scanner/barcode scanner cover:

1. Release the cable connector **(1)** securing the cable.
2. Remove the 4 Phillips screws **(2)** securing the cover.
3. Lift the cover **(3)** to remove it.



Reverse the steps to replace the iris scanner/barcode scanner cover.

Iris scanner board

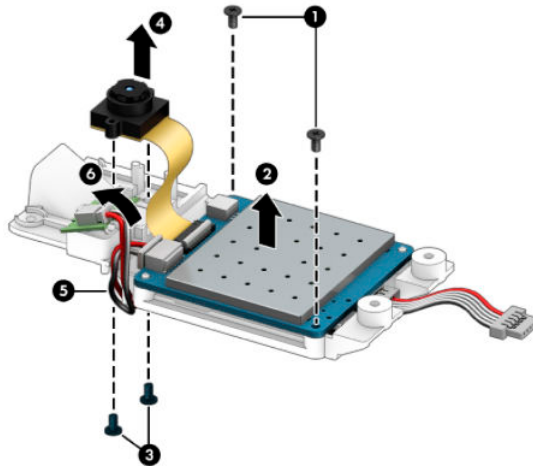
Description	Spare part number
Iris scanner board	L06410-001

Before removing the iris scanner board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the case and bottom frame of the case (see [Case on page 18](#)).
5. Remove the right beep button board (see [Beep button board on page 23](#)).
6. Remove the iris scanner/barcode scanner cover (see [Iris scanner/barcode scanner cover on page 25](#)).

Remove the iris scanner board:

1. Remove the 2 Phillips screws **(1)** securing the board.
2. Lift the main board **(2)** to remove it.
3. Remove the 2 Phillips screws **(3)** on the bottom.
4. Lift the scanner camera **(4)** to remove it. There is adhesive securing the ribbon cable; lift it carefully.
5. Release the LED board twisted cables **(5)**.
6. Lift the LED board **(6)** to remove it.



Reverse the steps to replace the iris scanner board.

Tablet back cover

Description	Spare part number
Back cover	L07035-001
Battery cover compressed foam	L03726-001

Before removing the back cover, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the card tray (see [Card tray on page 17](#)).
5. Remove the case (see [Case on page 18](#)).

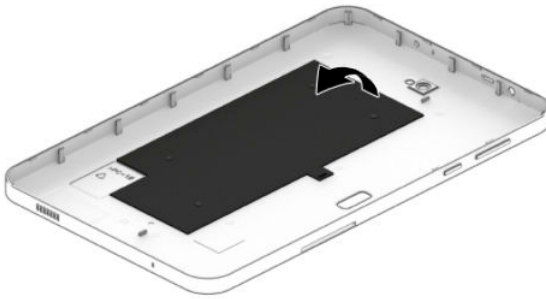
Remove the back cover:

CAUTION: Before turning the voice tablet screen facedown, be sure that the work surface is clear of tools, screws, and any other foreign objects. Failure to follow this caution can result in damage to the screen.

1. Place the tablet on a flat surface, screen facedown.
2. Use a plastic pry tool **(1)** in the space between the back cover and screen, above the power on button.
3. Slide the tool **(2)** clockwise around the tablet to release the 18 plastics snaps securing the back cover to the display panel assembly.
4. Lift the back cover **(3)**, and then remove the back cover.



5. If the battery cover compressed foam requires replacement, lift the existing foam to remove it.



Reverse this procedure to install the back cover.

Battery

Description	Spare part number
Battery, 6000 mAh 3.8 V Lithium-Ion Polymer	928848-001

Before removing the battery, follow these steps:


1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the card tray (see [Card tray on page 17](#)).
5. Remove the case (see [Case on page 18](#)).
6. Remove the back cover (see [Tablet back cover on page 27](#)).

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.

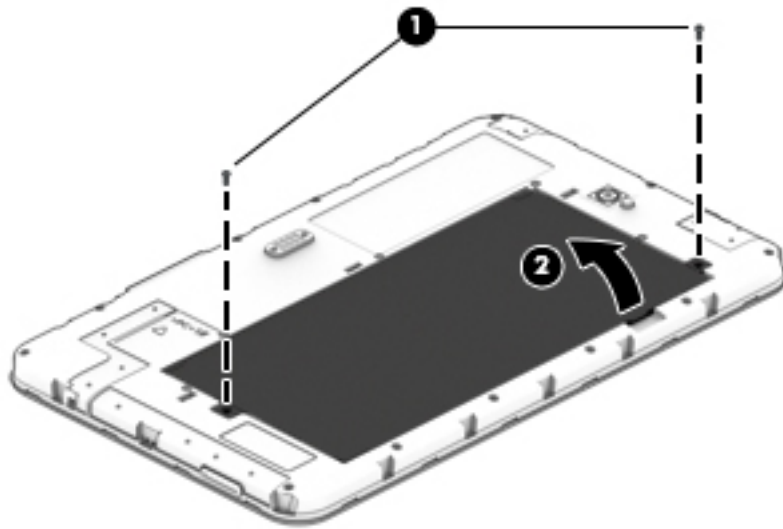
CAUTION: Removing a battery that is the sole power source for the tablet can cause loss of information. To prevent loss of information, save your work or shut down the tablet through the operating system before disconnecting and removing the battery.

Remove the battery:

1. Remove the 2 M00 x 5.0 Phillips screws **(1)** securing the battery.

 **NOTE:** Be careful not to bend the battery as you lift it.

2. Use the battery notch **(2)** to lift and then remove the battery.



Reverse this procedure to install the battery.

Middle frame cover

Description	Spare part number
Middle frame cover (includes graphite heat sink, camera light guide, Wi-Fi antennas, GPS, Bluetooth, and touch sensor)	926158-001

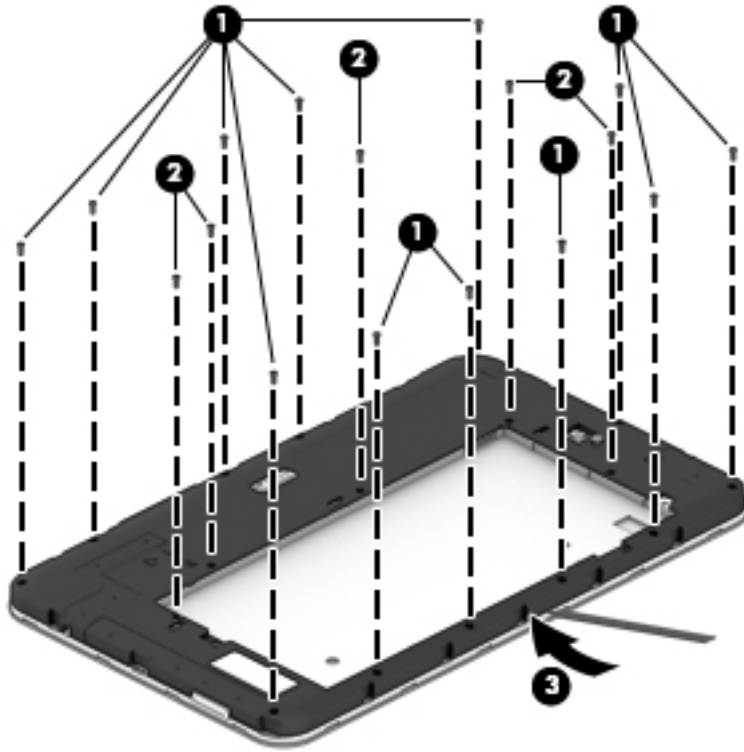
Before removing the middle frame cover, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the card tray (see [Card tray on page 17](#)).
5. Remove the case (see [Case on page 18](#)).
6. Remove the back cover (see [Tablet back cover on page 27](#)).
7. Remove the battery (see [Battery on page 28](#)).

Remove the middle frame cover:

1. Remove the 12 Phillips screws **(1)** securing the outside edges of the middle frame cover.
2. Remove the 5 Phillips screws **(2)** securing the inside edges of the middle frame cover.

3. Insert a thin tool **(3)** in the thin side of the frame to release the snaps securing the frame, and then remove the frame.



Reverse this procedure to install the middle frame cover.

Rear-facing webcam

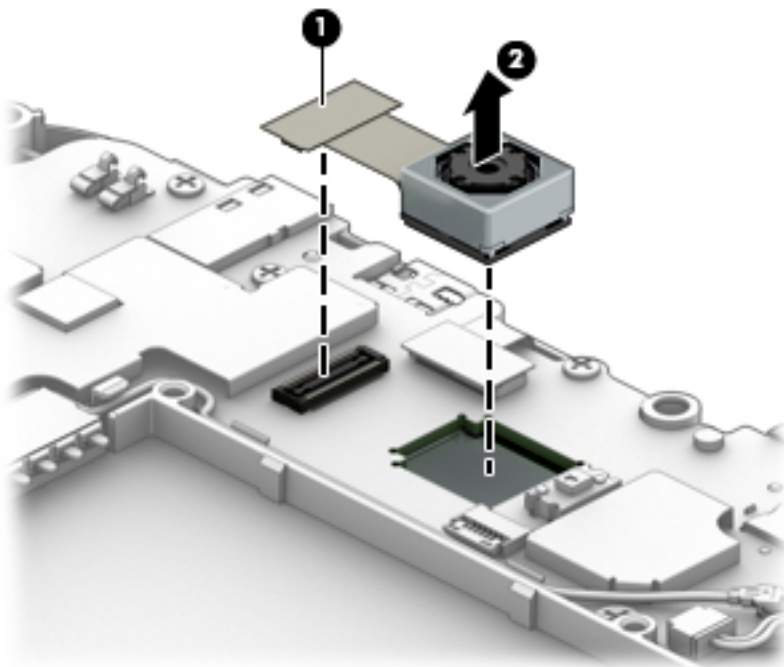
Description	Spare part number
Rear-facing webcam (includes cable)	926166-001

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

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the card tray (see [Card tray on page 17](#)).
5. Remove the case (see [Case on page 18](#)).
6. Remove the back cover (see [Tablet back cover on page 27](#)).
7. Remove the battery (see [Battery on page 28](#)).
8. Remove the middle frame cover (see [Middle frame cover on page 29](#)).

Remove the rear-facing webcam:

1. Disconnect the rear-facing webcam cable (1) from the system board.
2. Lift and then remove the rear-facing webcam (2).



Reverse this procedure to install the rear-facing webcam.

Antenna board

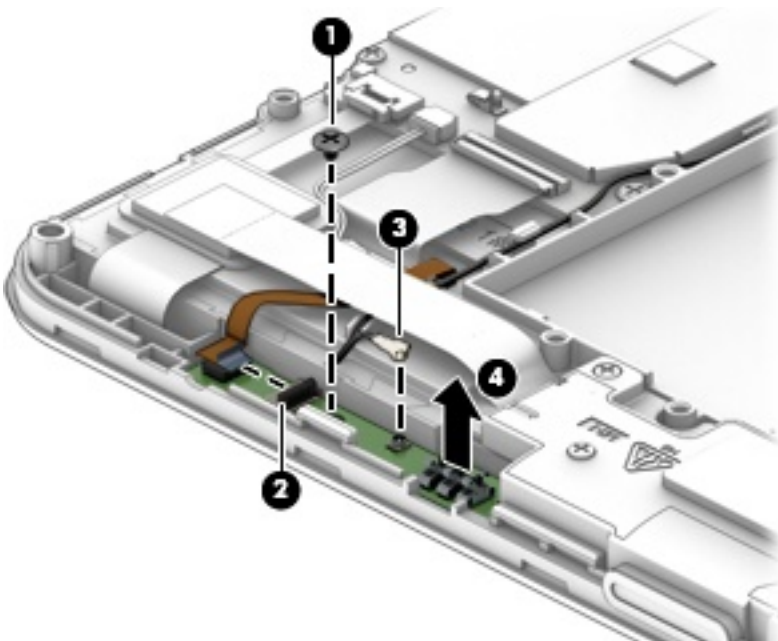
Description	Spare part number
Antenna board	926160-001
Antenna board conductive cloth	L03730-001

Before removing the antenna board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the card tray (see [Card tray on page 17](#)).
5. Remove the case (see [Case on page 18](#)).
6. Remove the back cover (see [Tablet back cover on page 27](#)).
7. Remove the battery (see [Battery on page 28](#)).
8. Remove the middle frame cover (see [Middle frame cover on page 29](#)).

Remove the antenna board:

1. Remove the Phillips M00x3 screw **(1)** securing the antenna board.
2. Open the ZIF connector **(2)** to release the ribbon cable.
3. Detach the antenna **(3)** from the board, and then lift the board **(4)** to remove it.



4. If the antenna board conductive cloth requires replacement, lift the existing cloth to remove it.

Reverse this procedure to install the antenna board.

Speaker

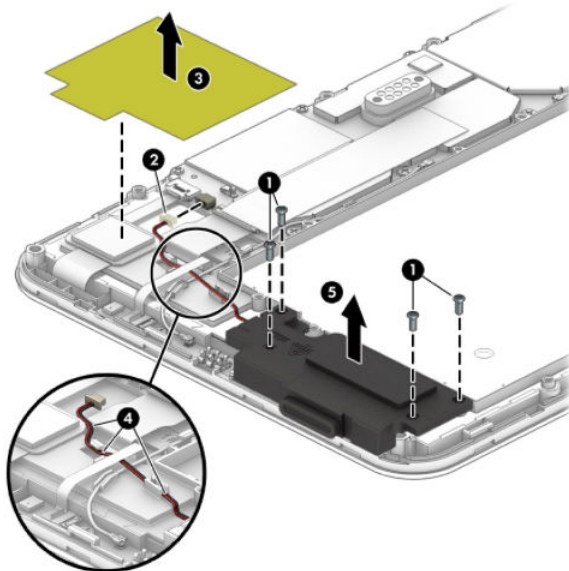
Description	Spare part number
Speaker kit (includes speaker and cables)	L02618-001
Plastic protective tape for insulation	L03729-001

Before removing the speaker, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the card tray (see [Card tray on page 17](#)).
5. Remove the case (see [Case on page 18](#)).
6. Remove the back cover (see [Tablet back cover on page 27](#)).
7. Remove the battery (see [Battery on page 28](#)).
8. Remove the middle frame cover (see [Middle frame cover on page 29](#)).

Remove the speaker:

1. Remove the 4 Phillips M00x 5.0 screws **(1)** securing the speaker to the frame.
2. Disconnect the speaker cable **(2)** from the system board.
3. Remove the plastic protective tape **(3)**, and then carefully route the cable **(4)** through the routing channels and under the ribbon cable.
4. Lift and remove the speaker **(5)**.



Reverse this procedure to install the speaker.

Volume and power button board

Description	Spare part number
Volume and power button board	926161-001

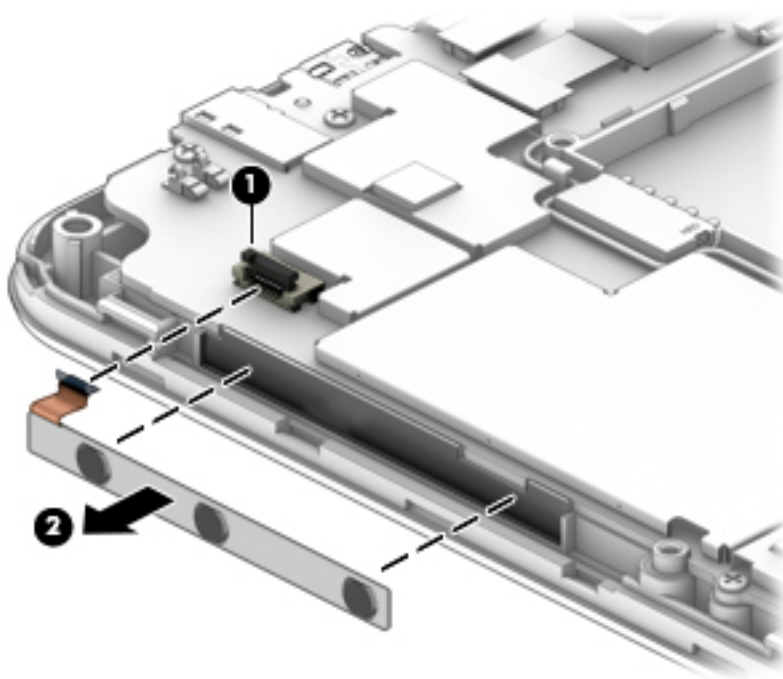
Before removing the volume and power button board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the card tray (see [Card tray on page 17](#)).
5. Remove the case (see [Case on page 18](#)).
6. Remove the back cover (see [Tablet back cover on page 27](#)).
7. Remove the battery (see [Battery on page 28](#)).
8. Remove the middle frame cover (see [Middle frame cover on page 29](#)).

Remove the volume and power button board:

CAUTION: Use care to prevent damaging the ZIF connector and ribbon cable.

1. Open the ZIF connector **(1)** to release the ribbon cable.
2. Remove the volume and power button board **(2)**.



Reverse this procedure to install the volume and power button board.

System board

Description	Spare part number
System board (includes motor, coaxial line, and strobe light)	L09773-001
System board conductive tape	L03728-001



IMPORTANT: Before removing and replacing the system board, contact your HP service contact for additional details on firmware, IMEI, and other system board replacement requirements.

Before removing the system board, follow these steps:

1. Turn off the tablet. If you are unsure whether the tablet is off, turn the tablet on, and then shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the card tray (see [Card tray on page 17](#)).
5. Remove the case (see [Case on page 18](#)).
6. Remove the back cover (see [Tablet back cover on page 27](#)).
7. Remove the battery (see [Battery on page 28](#)).
8. Remove the middle frame cover (see [Middle frame cover on page 29](#)).

Remove the system board:

1. Remove the system board conductive tape **(1)**.

2. Release the system board ZIF connectors to which the following cables are connected, and then disconnect the following cables from the system board. Use a thin tool to help release the cables.

(2) Antenna

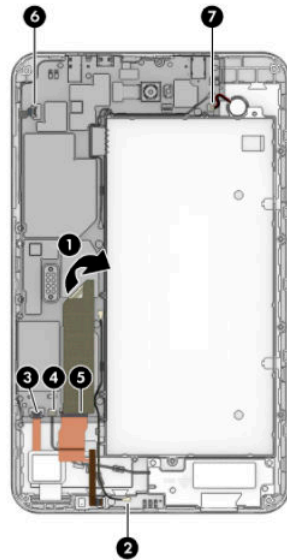
(3) Touch controller

(4) Speaker


(5) Display

(6) Button board

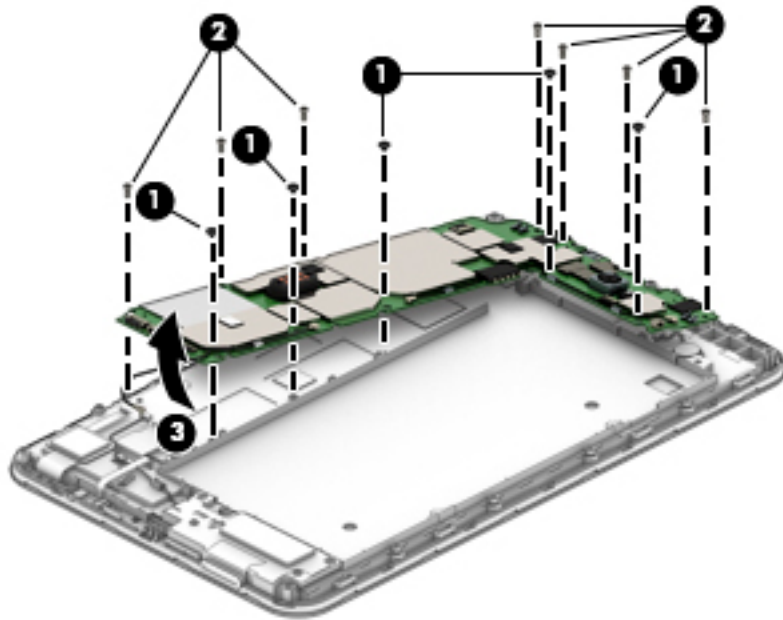
(7) Motor



3. Remove the 5 black Phillips M00 x 3 screws (1) that secure the system board to the display panel assembly.

 **NOTE:** There is a magnet holding the board; you may have to gently pull the board to remove it.

4. Remove the 7 Phillips M00x5 screws **(2)** that secure the system board to the display panel assembly, and then remove the system board **(3)**.



Reverse this procedure to install the system board.

Front-facing webcam

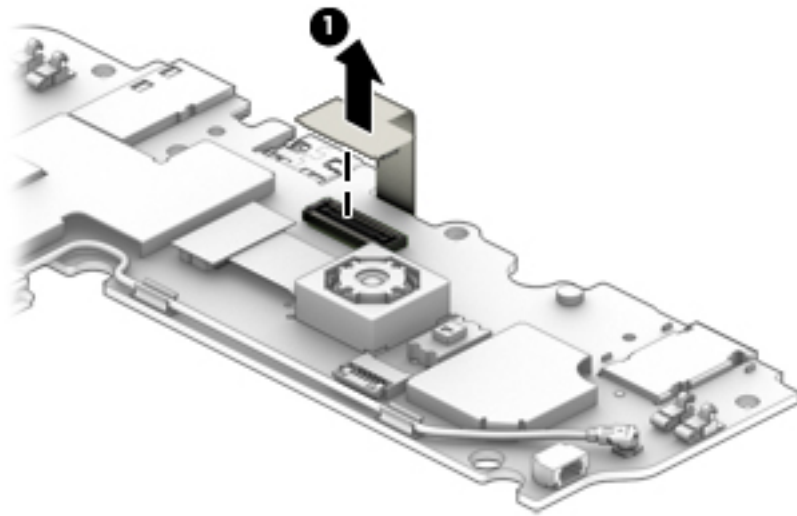
Description	Spare part number
Front-facing webcam (includes cable)	926165-001

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

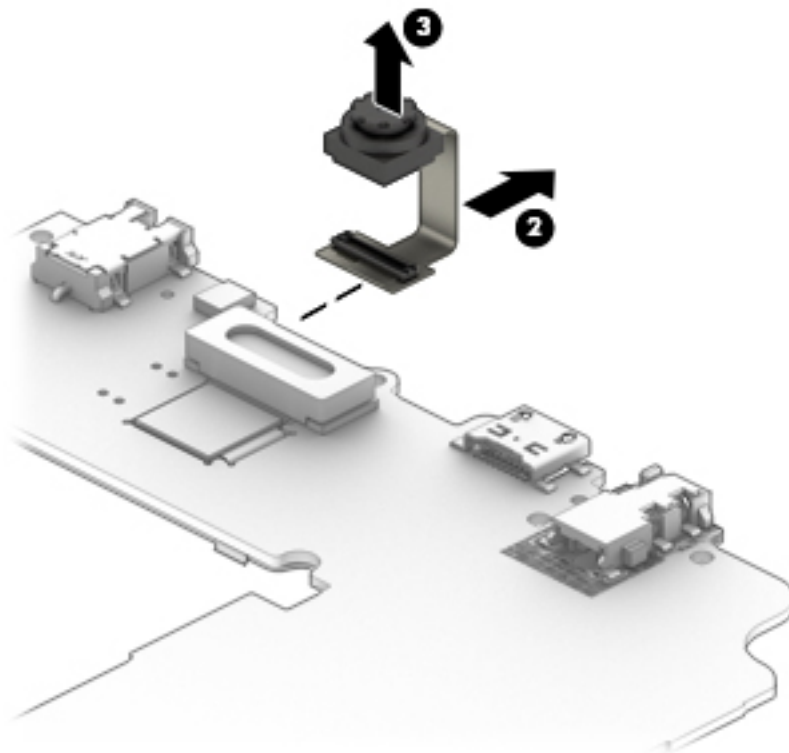
1. Turn off the tablet. If you are unsure whether the tablet is off, shut it down through the operating system.
2. Disconnect the power from the tablet by unplugging the power adapter cord from the tablet.
3. Disconnect all external devices from the tablet.
4. Remove the card tray (see [Card tray on page 17](#)).
5. Remove the case (see [Case on page 18](#)).
6. Remove the back cover (see [Tablet back cover on page 27](#)).
7. Remove the battery (see [Battery on page 28](#)).
8. Remove the middle frame cover (see [Middle frame cover on page 29](#)).
9. Remove the system board (see [System board on page 35](#)).

Remove the front-facing webcam:

1. Place the system board face down, and then release the zero-insertion force (ZIF) connector **(1)** to which the front-facing webcam cable is attached on the rear of the system board.



2. Place the system board face up, release the cable (2), and then lift up the webcam (3) to remove it.



Reverse this procedure to install the front-facing webcam.

Touchscreen display panel assembly

The touchscreen display panel assembly remains after disassembling the voice tablet.

Description	Spare part number
Touchscreen display panel assembly	L04872-001

6 Specifications

	Metric
Dimensions (portrait orientation in case)	
Height	23.15 cm
Width	18.75 cm
Depth	2.45 cm
Weight (tablet and case with fingerprint reader)	0.958 kg
Weight (tablet and case with fingerprint reader and iris scanner)	0.971 kg
Weight (tablet and case with fingerprint reader, iris scanner, and barcode reader)	0.976 kg
Weight (tablet and case with barcode reader)	0.960 kg
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 adapter included with your tablet is recommended for charging the tablet.	
Temperature	
Operating	0° C to 40° C
Special operating*	-10° C to 50° C
Nonoperating	-20° C to 60° C
Relative humidity (non-condensing)	
Operating	0% to 90%
Nonoperating	0% to 95%
Maximum altitude (unpressurized)	
Operating	-15.24 to 4,572 m
NOTE: Applicable product safety standards specify thermal limits for plastic surfaces. The device operates well within this range of temperatures.	
* Test performed for two hours on a device with a fully charged battery that was stored for 30 minutes. Tested using continuous 720p video playback, with middle level brightness, system audio level at 100%, and no adapter. Not meant to operate for more than two hours under these conditions; product will automatically shut down. IP65 test results are not a guarantee of future performance under these test conditions. Any accidental damage requires the purchase of an optional HP Accidental Damage Protection Care Pack.	

7 Backing up and recovering your data

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.

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 might not work well 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 computer, 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 & reset**, select one or more of the following:
 - **Back up my data**—Slide the switch to the right 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**—Slide the switch to the right to enable backed up settings and data to be restored when an app is reinstalled.


Factory data reset

Resetting with your tablet turned on

If your 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 your tablet:

1. Swipe down twice from the top edge, and then touch the **Settings** icon .
2. Under **Personal**, touch **Back up & reset**.
3. 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 your 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 your tablet without the operating system

If your 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. 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 power button and the volume up (+) button at the same time.
4. When the Recovery menu appears, use the volume up (+) and volume down (-) buttons 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 up (+) and volume down (-) buttons 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**, use the volume up (+) and volume down (-) buttons to highlight **Reboot system now**, and then press the power button to select.
The tablet will restart.

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

1. Turn off your tablet, and then connect it to AC power.
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. Your tablet may restart as updates are applied.

Updating your tablet using a file-based update



NOTE: Before performing the following procedure, connect your tablet to AC power.

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 and download your Android operating system software.
2. Locate **update.zip** and copy it to a microSD card.
3. Turn off your tablet, and then insert the microSD card containing the **update.zip** file.
4. To power on your 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 your tablet.

8 Power adapter 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 2-conductor power adapter included with the tablet meets the requirements for use in the country or region where the equipment is purchased.

Power adapters 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 adapter cord set must be at least **1.0 m** (3.3 ft) and no more than **2.0 m** (6.5 ft).
- All power adapters must be approved by an acceptable accredited agency responsible for evaluation in the country or region where the adapter will be used.

Requirements for specific countries and regions

Country/region	Accredited agency
Argentina	IRAM
Australia	SAA
Austria	OVE
Belgium	CEBEC
Brazil	ABNT
Canada	CSA
Chile	IMQ
Denmark	DEMKO
Finland	FIMKO
France	UTE
Germany	VDE
India	BIS
Israel	SII
Italy	IMQ
Japan	JIS
The Netherlands	KEMA
New Zealand	SANZ

Country/region	Accredited agency
Norway	NEMKO
The People's Republic of China	CCC
Saudi Arabia	SASO
Singapore	PSB
South Africa	SABS
South Korea	KTL
Sweden	SEMKO
Switzerland	SEV
Taiwan	BSMI
Thailand	TISI
The United Kingdom	ASTA
The United States	UL

9 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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