

# HP Mini 210, HP Mini 110, and Compaq Mini CQ10

Maintenance and Service Guide

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## Safety warning notice

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

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# 1 Product description

Category	Description	HP Mini 210	HP Mini 110	Compaq Mini CQ10
<b>Product Name</b>		HP Mini 210 Netbook PC	HP Mini 110 Netbook PC	Compaq Mini CQ10 Netbook PC
<b>Processor</b>	Intel® Atom™ N455 1.66 GHz single-core processor, 512 KB level 2 cache, 667 MHz front-side bus (FSB)	√	√	√
	Intel Atom N475 1.83 GHz single-core processor, 512 KB level 2 cache, 667 MHz FSB	√		
	Intel Atom N570 1.66 GHz dual-core processor, 1 MB level 2 cache, 667 MHz FSB	√	√	√
	Processor soldered on system board			
<b>Chipset</b>	Intel NM10 Express	√	√	√
<b>Graphics</b>	Intel Graphics Media Accelerator 3150 universal memory architecture (UMA) graphics subsystem	√	√	√
	Supports DVD playback from an external drive (MPEG2 up to 10 Mbps)			
	Supports streaming and playback of media files on a flash disk (drive) (MPEG4, H.264, and VC1 up to 6-8 Mbps)			
	Shared memory with up to 256 MB supported through Intel DVMT			
<b>Display Panel</b>	16:9 wide aspect ratio depends on panel options, typical brightness: 200 cd/m <sup>2</sup>			
	<b>25.7 cm</b> (10.1 in) High Definition (HD) LED Anti-Glare 1366 × 768, 5.2mm, SVA, flush glass panel cover support	√		
	<b>25.7 cm</b> (10.1 in) WSVGA, LED, Anti-Glare 1024 × 600, 5.2mm, SVA, flush glass panel cover support	√		
	<b>25.7 cm</b> (10.1 in) WSVGA, LED, Anti-Glare 1024 × 600, 5.2mm, SVA, traditional display with bezel support (non-PMMA)		√	√

Category	Description	HP Mini 210	HP Mini 110	Compaq Mini CQ10
<b>Memory</b>	One customer accessible/upgradable SODIMM memory module slot			
	DDR3-1333 MHz, single channel support			
	Supports the following configurations:			
	<ul style="list-style-type: none"> <li>1 GB total system memory (1024 MB x 1) for all supported operating systems</li> </ul>	√	√	√
	<ul style="list-style-type: none"> <li>2 GB total system memory (2048 MB x 1) supported for Microsoft® Windows® 7 Home Premium</li> </ul>	√	√	
	<ul style="list-style-type: none"> <li>2 GB total system memory (2048 MB x 1) supported for Windows 7 Starter (select models only)</li> </ul>	√	√	√
<b>Hard drives</b>	Supports the following <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm hard drives:			
	<ul style="list-style-type: none"> <li>500 GB, supported for Windows 7 Starter (select models only)</li> </ul>	√	√	√
	<ul style="list-style-type: none"> <li>500 GB, supported for Windows 7 Home Premium</li> </ul>	√	√	
	<ul style="list-style-type: none"> <li>500 GB, supported for Windows 7 Professional</li> </ul>	√		
	<ul style="list-style-type: none"> <li>500 GB, supported for FreeDOS</li> </ul>		√	√
	<ul style="list-style-type: none"> <li>500 GB, supported for Linux</li> </ul>			√
	<ul style="list-style-type: none"> <li>320 GB, supported for Windows 7 Starter</li> </ul>	√	√	√
	<ul style="list-style-type: none"> <li>320 GB, supported for Windows 7 Home Premium</li> </ul>	√	√	
	<ul style="list-style-type: none"> <li>320 GB, supported for Windows 7 Professional</li> </ul>	√		
	<ul style="list-style-type: none"> <li>320 GB, supported for Windows 7 Home Basic for the People's Republic of China</li> </ul>		√	
	<ul style="list-style-type: none"> <li>320 GB, supported for FreeDOS</li> </ul>		√	√
	<ul style="list-style-type: none"> <li>320 GB, supported for Linux</li> </ul>			√
	<ul style="list-style-type: none"> <li>250 GB, for all supported operating systems</li> </ul>	√	√	√

Category	Description	HP Mini 210	HP Mini 110	Compaq Mini CQ10
	Supports the following <b>7.0 mm</b> (0.28 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm hard drives:			
	<ul style="list-style-type: none"> <li>320 GB, supported for Windows 7 Starter</li> </ul>	√	√	√
	<ul style="list-style-type: none"> <li>320 GB, supported for Windows 7 Home Premium</li> </ul>	√	√	
	<ul style="list-style-type: none"> <li>320 GB, supported for Windows 7 Professional</li> </ul>	√		
	<ul style="list-style-type: none"> <li>320 GB, supported for Windows 7 Home Basic for the People's Republic of China</li> </ul>		√	
	<ul style="list-style-type: none"> <li>320 GB, supported for FreeDOS</li> </ul>		√	√
	<ul style="list-style-type: none"> <li>320 GB, supported for Linux</li> </ul>			√
	<ul style="list-style-type: none"> <li>250 GB, for all supported operating systems</li> </ul>	√	√	√
<b>Optical drive</b>	Supports external USB optical drives only	√	√	√
<b>Audio/Visual</b>	HP Beats Audio	√		
	High Definition Audio		√	√
	Integrated 1.5 W speakers (2)	√	√	√
	Digital microphone	√	√	√
	Fixed integrated VGA webcam, 640 × 480 resolution, F/2.8, up to 30 frames per second	√	√	√
<b>Modem</b>	Supports external USB modems only	√	√	√
<b>Ethernet</b>	Integrated Realtek RTL8105T 10/100 NIC PCIE interface	√	√	√
<b>Wireless</b>	<b>Integrated WLAN by way of the following wireless modules:</b> <ul style="list-style-type: none"> <li>Atheros AR9002WB-1NGB 802.11b/g/n 1x1 WiFi and Bluetooth® 2.1+EDR Combo Adapter (BT3.0+HS ready)</li> <li>Broadcom 4312G 802.11b/g WiFi and 2070 Bluetooth 2.1+EDR Combo Adapter (BT3.0+HS ready)</li> <li>Ralink 5390GN 802.11b/g/n 1x1 WiFi Adapter</li> <li>Realtek 8188BC8 802.11a/b/g/n 2x2 WiFi Adapter and Bluetooth 3.0+HS Combo Adapter</li> <li>Realtek 8188GN 802.11b/g/n 1x1 WiFi Adapter</li> </ul>	√	√	√

Category	Description	HP Mini 210	HP Mini 110	Compaq Mini CQ10
	2 WLAN antennas built into display assembly			
	<b>WWAN options by way of the following wireless modules</b>	√	√	√
	<ul style="list-style-type: none"> <li>HP hs2340 HSPA+ Mobile Broadband Module</li> <li>HP Ic2010 HSPA Mobile Broadband Module</li> <li>HP Ic2000 HSPA Mobile Broadband Module</li> </ul>			
	2 WWAN antennas built into display assembly (select models only)			
<b>External media cards</b>	Digital Media Slot with push-push technology, supporting: <ul style="list-style-type: none"> <li>Secure Digital (SD) Memory Card</li> <li>MultiMediaCard (MMC)</li> <li>Secure Digital High Capacity (SDHC) Memory Card</li> <li>Secure Digital Extended Capacity (SDXC) Memory Card</li> </ul> <p><b>NOTE:</b> SDXC supported for capacity; not speed</p> <p><b>NOTE:</b> Mini Cards are supported with adapter, which is not provided</p>	√	√	√
<b>Internal media cards</b>	Two Mini Card slots: <ul style="list-style-type: none"> <li>Full-size Mini Card slot (WWAN)</li> <li>Half-size Mini Card slot (WLAN or WLAN + BT combo)</li> </ul>	√	√	√
<b>Ports</b>	Headphone-out jack	√	√	√
	Microphone-in jack	√	√	√
	RJ-45 (Ethernet, includes link and activity lights)	√	√	√
	USB 2.0 (3)	√	√	√
	VGA, supporting up to 1600 x 900 external resolution @ 60 Hz, hot plug / unplug, and automatic detection for correct output to wide-aspect vs. standard-aspect video	√	√	√
	3-pin AC power	√	√	√
<b>Keyboard/ pointing device</b>	93% island-style keyboard	√		
	93% textured pocket keyboard		√	√

Category	Description	HP Mini 210	HP Mini 110	Compaq Mini CQ10
	TouchPad with multi-touch/gesture support: <ul style="list-style-type: none"> <li>2 TouchPad buttons and 2-way scrolling (pinch, zoom, and 2-finger scrolling) enabled by default</li> <li>on/off button with LED indicator (supported on Windows only)</li> </ul>	√	√	√
<b>Power requirements</b>	40 W UMA AC adapter (non-Smart) with localized cable plug support	√	√	√
	AC adapter with localized cable plug support	√	√	√
	1.0 m (3.28 ft) power cord	√	√	√
	3-cell Lithium-ion (Li-ion) battery (2.55 Ah, 28 Wh)	√	√	√
	6-cell Li-ion battery (2.55 Ah, 55 Wh)	√	√	√
<b>Security</b>	Supports security lock	√	√	√
<b>Operating system</b>	Windows 7 Professional (32-bit)	√		
	Windows 7 Home Premium (32-bit)	√	√	
	Windows 7 Home Basic (32-bit) (No support for models with 2 GB RAM or models with 500 GB hard drives)		√	
	Windows 7 Starter (32-bit) (2 GB RAM support for select models only; 500 GB hard drives support for select models only)	√	√	√
	SUSE Linux Enterprise Desktop No support for models with 2 GB RAM. No support for Energy Star 5.0, WWAN/ GPS, or HD decoder.			√
	FreeDOS No support for Energy Star 5.0, WWAN/ GPS, HD decoder, or QuickWeb		√	√
<b>Serviceability</b>	<b>End-user replaceable parts:</b>	√	√	√
	AC adapter			
	Battery (system)			
	External optical drive			
	Hard drive			
	Memory module			
	Mini-sleeve			


<b>Category</b>	<b>Description</b>	<b>HP Mini 210</b>	<b>HP Mini 110</b>	<b>Compaq Mini CQ10</b>
	Power cord			
	Service door			
	WLAN module			
	WWAN module			

## 2 External component identification

### Top

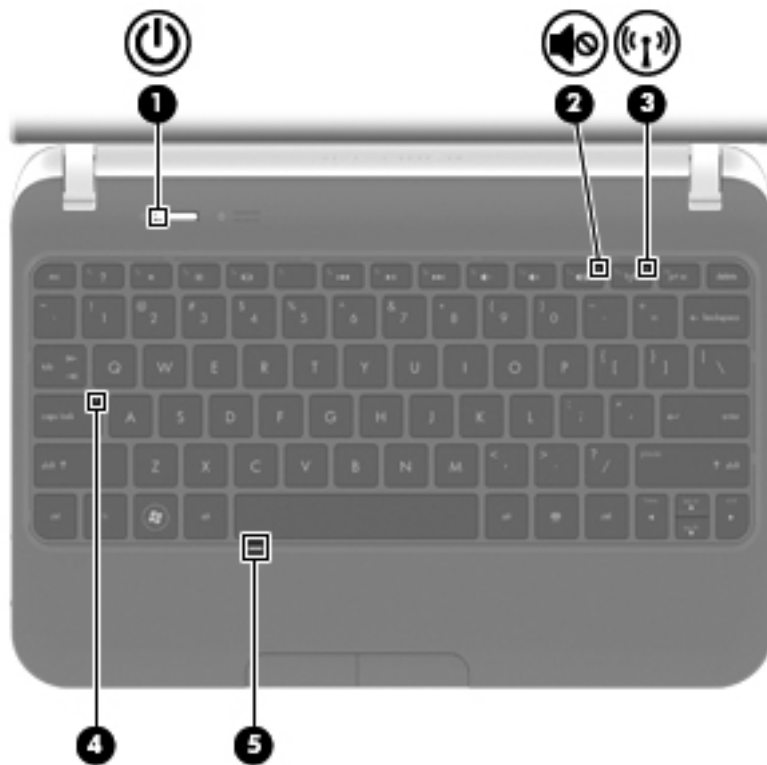
#### TouchPad






Component	Description
(1)	TouchPad light (supported on Windows only) <ul style="list-style-type: none"><li>• Off: The TouchPad is on.</li><li>• Amber: The TouchPad is off.</li></ul>
(2)	 TouchPad on/off button (supported on Windows only) Quickly double-tap the TouchPad on/off button to turn the TouchPad on or off.
(3)	TouchPad zone Moves the pointer and selects or activates items on the screen.
(4)	Left TouchPad button* Functions like the left button on an external mouse.
(5)	Right TouchPad button* Functions like the right button on an external mouse.

\* This table describes factory settings.

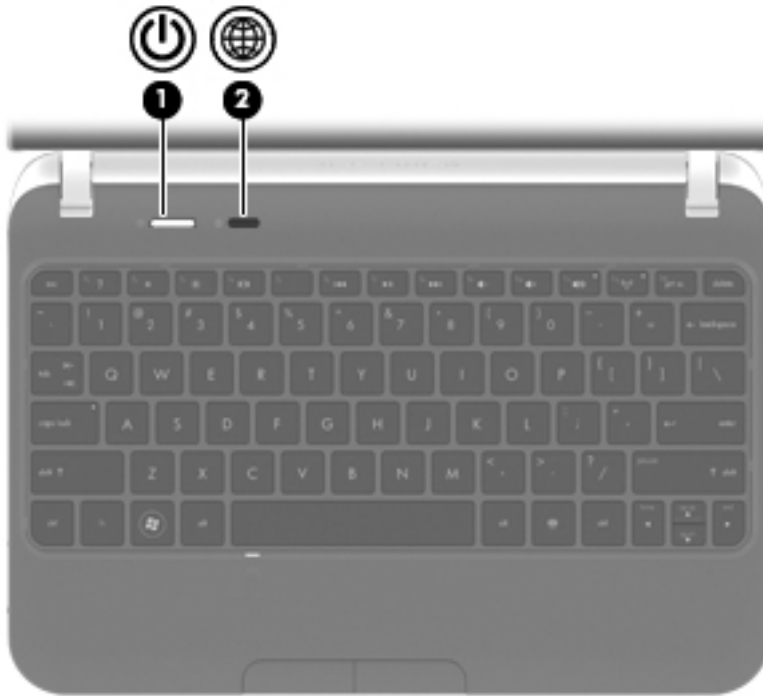
## Lights





Component	Description
(1)  Power light	<ul style="list-style-type: none"><li>• White: The computer is on.</li><li>• Blinking white: The computer is in the Sleep state.</li><li>• Off: The computer is off or in Hibernation.</li></ul>
(2)  Mute light	<ul style="list-style-type: none"><li>• Amber: Computer sound is off.</li><li>• Off: Computer sound is on.</li></ul>
(3)  Wireless light	<ul style="list-style-type: none"><li>• White: An integrated wireless device, such as a WLAN device and/or a Bluetooth device, is on.</li><li>• Amber: All wireless devices are off.</li></ul>
(4) Caps lock light	On: Caps lock is on.
(5) TouchPad light (supported on Windows only)	<ul style="list-style-type: none"><li>• Off: The TouchPad is on.</li><li>• Amber: The TouchPad is off.</li></ul>



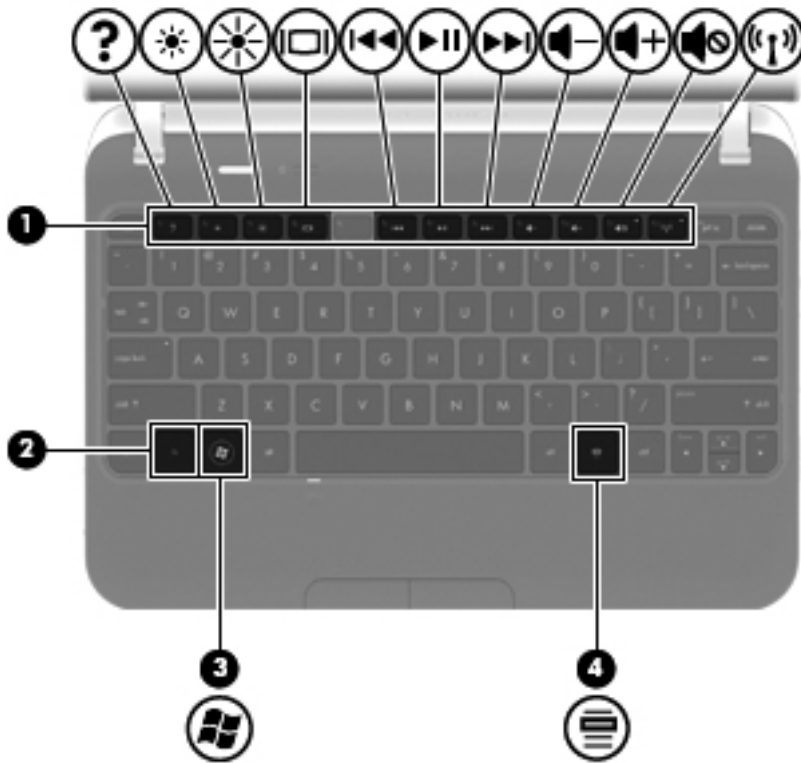
## Buttons





Component	Description
(1)  Power button*	<ul style="list-style-type: none"> <li>• When the computer is off, press the button to turn on the computer.</li> <li>• When the computer is on, press the button briefly to initiate Sleep.</li> <li>• When the computer is in the Sleep state, press the button briefly to exit Sleep.</li> <li>• When the computer is in Hibernation, press the button briefly to exit Hibernation.</li> </ul> <p>If the computer has stopped responding and shutdown procedures are ineffective, press and hold the power button for at least 5 seconds to turn off the computer.</p> <p>To learn more about the power settings:</p> <ul style="list-style-type: none"> <li>• In Windows, select <b>Start &gt; Control Panel &gt; System and Security &gt; Power Options</b></li> <li>• In Linux, select <b>Computer &gt; Control Panel &gt; System &gt; Power Management</b></li> </ul>
(2)  QuickWeb button (Supported on certain models only.)	<ul style="list-style-type: none"> <li>• When the computer is off or in Hibernation, press the button to open HP QuickWeb.</li> <li>• When the computer is in Windows, press the button to open the default Web browser.</li> <li>• When the computer is in HP QuickWeb, press the button to open the default Web browser.</li> </ul>

\* This table describes factory settings. For information about changing factory settings, press **f1** to open **Help and Support** (Windows) or **Help** (Linux).

## Keys



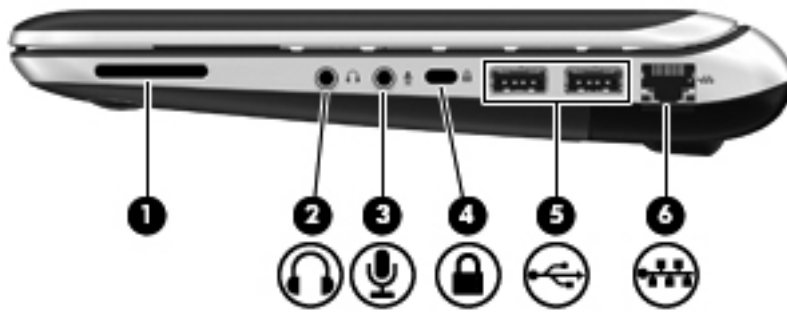
Component	Description
(1) Action keys	Execute frequently used system functions.
(2) <b>fn</b> key	Executes the following functions: <ul style="list-style-type: none"> <li>When pressed in combination with the <b>esc</b> key, system information is displayed.</li> <li>When pressed in combination with the <b>b</b> key, Beats Audio bass settings are enabled or disabled (for use with HP Mini 210 models with Windows 7 only).</li> </ul>
(3)  Operating System logo key	Displays the operating system menu.
(4)  Operating system applications key	Displays a shortcut menu for items beneath the pointer.

## Front



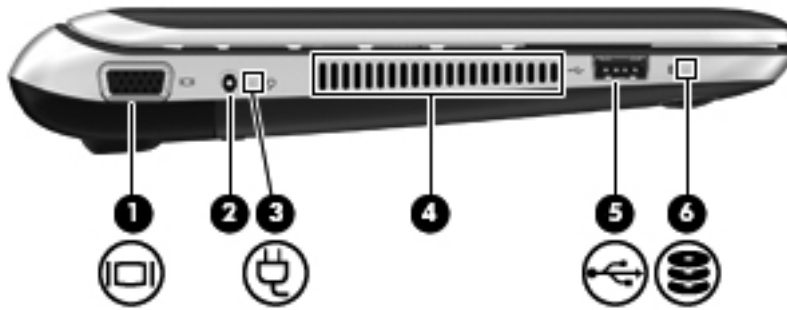
Component	Description
Speakers (2)	Produce sound.





## Right side



Component	Description
(1)	<p>Digital Media Slot</p> <p>Supports the following digital card formats:</p> <ul style="list-style-type: none"> <li>• MultiMediaCard (MMC)</li> <li>• Secure Digital (SD) Card</li> <li>• Secure Digital High Capacity Card (SDHC)</li> <li>• Secure Digital Extended Capacity (SDXC)</li> </ul> <p>Supports mini versions by use of an adapter (purchased separately).</p>
(2)	<p>Audio-out (headphone) jack</p> <p>Produces sound when connected to optional powered stereo speakers, headphones, earbuds, a headset, or television audio.</p> <p><b>WARNING!</b> To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, refer to the <i>Regulatory, Safety and Environmental Notices</i>.</p> <p><b>NOTE:</b> When a device is connected to the headphone jack, the computer speakers are disabled.</p>
(3)	<p>Audio in (microphone) jack</p> <p>Connects an optional computer headset microphone, stereo array microphone, or monaural microphone.</p>
(4)	<p>Security cable slot</p> <p>Attaches an optional security cable to the computer.</p> <p><b>NOTE:</b> The security cable is designed to act as a deterrent, but it may not prevent the computer from being mishandled or stolen.</p>
(5)	<p>USB ports (2)</p> <p>Connect optional USB devices.</p>
(6)	<p>RJ-45 (network) jack</p> <p>Connects a network cable.</p>

## Left side



Component	Description
(1) 	External monitor port Connects an external VGA monitor or projector.
(2)	Power connector Connects an AC adapter.
(3) 	AC adapter light <ul style="list-style-type: none"><li>• White: The computer is connected to external power and the battery is fully charged.</li><li>• Amber: The computer is connected to external power and the battery is charging.</li><li>• Off: The computer is not connected to external power.</li></ul>
(4)	Vent Enables airflow to cool internal components. <b>NOTE:</b> The computer fan starts up automatically to cool internal components and prevent overheating. It is normal for the internal fan to cycle on and off during routine operation.
(5) 	USB port Connects an optional USB device.
(6) 	Hard drive light On: The hard drive is being accessed.

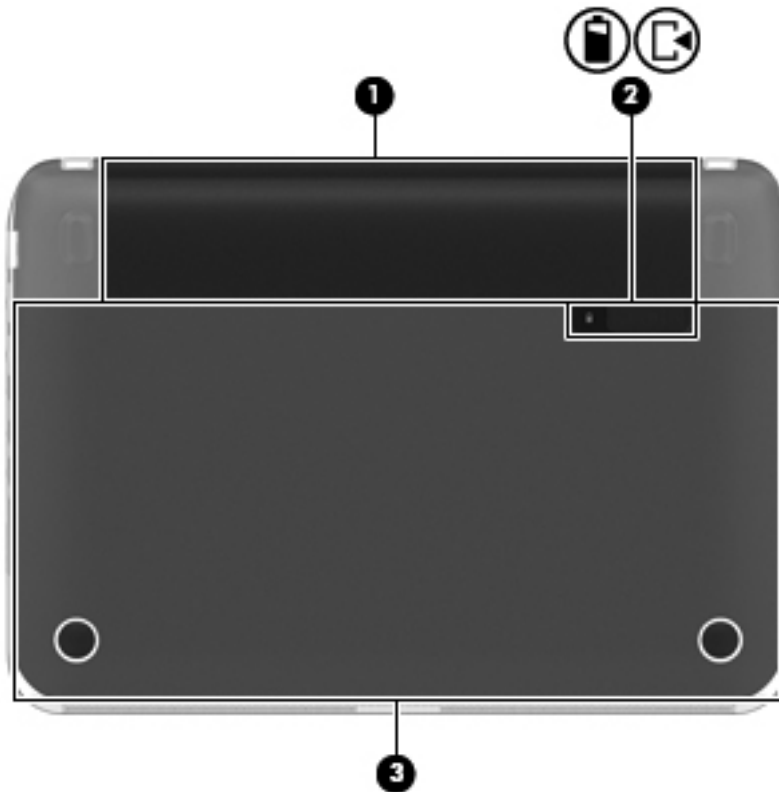
# Display




Component	Description
(1) WLAN antennas (2)*	Send and receive wireless signals to communicate with WLANs.
(2) WWAN antennas (2)* for select models only	Send and receive wireless signals to communicate with WWANs.
(3) Internal microphone	Records sound.
(4) Webcam	Records video and captures still photographs.
(5) Webcam light	On: The webcam is in use.

\*The antennas are not visible from the outside of the computer. For optimal transmission, keep the areas immediately around the antennas free from obstructions. To see wireless regulatory notices, refer to the section of the *Regulatory, Safety and Environmental Notices* that applies to your country or region. These notices are located in Help and Support.

## Bottom




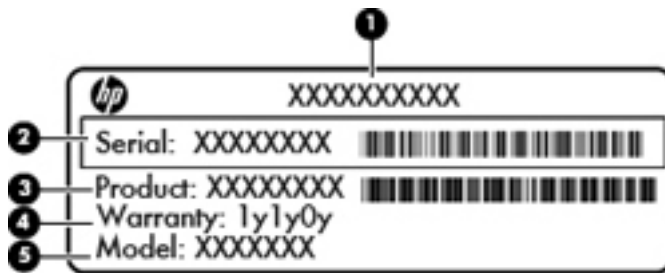
Component	Description
(1) Battery bay	Holds the battery.
(2)  Battery/service door latch	Releases the battery from the battery bay and the service door from the computer.
(3) Service door	Provides access to the hard drive bay, a memory module slot, the WLAN module, and the WWAN module.

# 3 Illustrated parts catalog

## Serial number label location

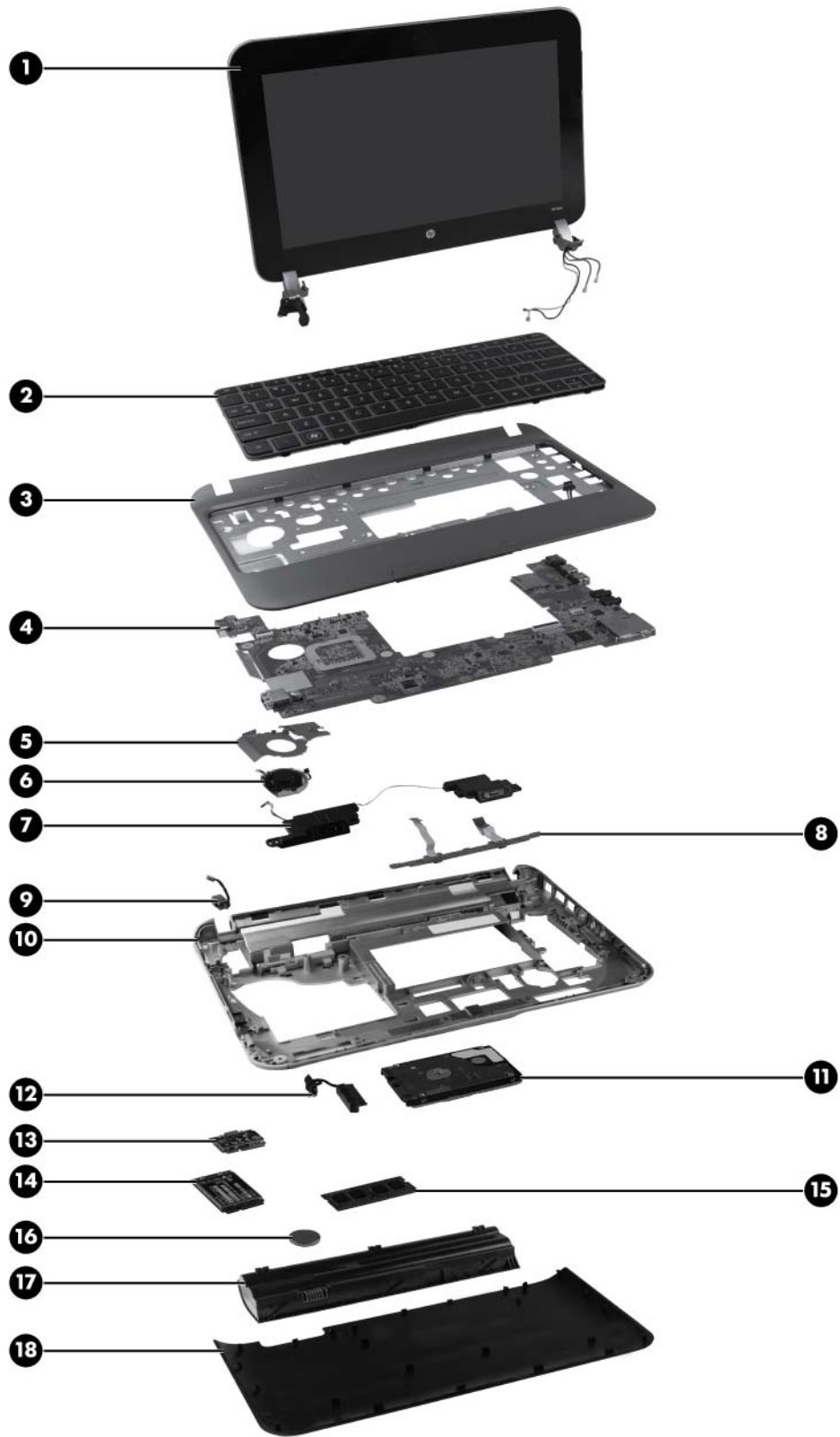
When ordering parts or requesting information, the serial number label, located inside the battery bay, provides important information that you may need when contacting technical support.

 **NOTE:** Serial number label location, format, and color vary on select models.



(1) Product name	The name affixed to the front of the computer.
(2) Serial number	An alphanumeric identifier that is unique to each product.
(3) Product number	This number provides specific information about the product's hardware components. The product number helps a service technician to determine what components and parts are needed.
(4) Warranty period	The duration of the warranty period for the computer.
(5) Model description	An alphanumeric identifier used to locate documents, drivers, and support for the computer.

# Computer major components





Item	Description	Spare part number
(1)	<b>Display assembly for HP Mini 210 models</b> , 25.7 cm (10.1 in) with display panel cable, webcam/microphone module and cable, two WLAN antenna transceivers and cables, and two 3G-WWAN antenna transceivers and cables:	
	• HD LED AntiGlare, flush glass display assembly, Charcoal	650712-001
	• HD LED AntiGlare, flush glass display assembly, Crimson Red	650717-001
	• HD LED AntiGlare, flush glass display assembly, Luminous Rose	650716-001
	• HD LED AntiGlare, flush glass display assembly, Ocean Drive	650713-001
	• HD LED AntiGlare, flush glass display assembly, Sweet Purple	654201-001
	• WSVGA LED, flush glass display assembly, Charcoal	650719-001
	• WSVGA LED, flush glass display assembly, Crimson Red	650724-001
	• WSVGA LED AntiGlare, flush glass display assembly, Luminous Rose	650723-001
	• WSVGA LED AntiGlare, flush glass display assembly, Ocean Drive	650720-001
	• WSVGA LED AntiGlare, flush glass display assembly, Sweet Purple	654202-001
	<b>Display assembly for HP Mini 210 models</b> , 25.7 cm (10.1 in) with display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables:	
	• HD LED AntiGlare, flush glass display assembly, Charcoal	668156-001
	• HD LED AntiGlare, flush glass display assembly, Crimson Red	668159-001
	• HD LED AntiGlare, flush glass display assembly, Luminous Rose	668158-001
	• HD LED AntiGlare, flush glass display assembly, Ocean Drive	668157-001
	• HD LED AntiGlare, flush glass display assembly, Sweet Purple	668160-001
	• WSVGA LED AntiGlare, flush glass display assembly, Charcoal	668161-001
	• WSVGA LED AntiGlare, flush glass display assembly, Crimson Red	668164-001
	• WSVGA LED AntiGlare, flush glass display assembly, Luminous Rose	668163-001
	• WSVGA LED AntiGlare, flush glass display assembly, Ocean Drive	668162-001
	• WSVGA LED AntiGlare, flush glass display assembly, Sweet Purple	668165-001
	<b>Display assembly for HP Mini 110 models</b> , 25.7 cm (10.1 in) with display panel cable, webcam/microphone module and cable, two WLAN antenna transceivers and cables, and two 3-G WWAN antenna transceivers and cables:	
	<b>NOTE:</b> For more information on the display assembly internal component spare parts, see <a href="#">Display components on page 25</a>	
	• WSVGA LED AntiGlare, traditional glass display with bezel assembly, Glossy Black	668166-001
	• WSVGA LED AntiGlare, traditional glass display with bezel assembly, Pacific Blue	668168-001
	• WSVGA LED AntiGlare, traditional glass display with bezel assembly, Sonoma Red	668167-001

Item	Description	Spare part number
	<p><b>Display assembly for HP Mini 110 models</b>, 25.7 cm (10.1 in) with display panel cable and webcam/microphone module and cable, 2 WLAN antenna transceivers and cables:</p> <p><b>NOTE:</b> For more information on the display assembly internal component spare parts, see <a href="#">Display components on page 25</a></p>	
	<ul style="list-style-type: none"> <li>WSVGA LED AntiGlare, traditional glass display with bezel assembly, Glossy Black</li> </ul>	658507-001
	<ul style="list-style-type: none"> <li>WSVGA LED AntiGlare, traditional glass display with bezel assembly, Pacific Blue</li> </ul>	658510-001
	<ul style="list-style-type: none"> <li>WSVGA LED AntiGlare, traditional glass display with bezel assembly, Sonoma Red</li> </ul>	658508-001
	<p><b>Display assembly for Compaq Mini CQ10 models</b>, 25.7 cm (10.1 in) with display panel cable, webcam/microphone module and cable, WSVGA LED AntiGlare, traditional glass display with bezel assembly, Glossy Black</p> <p><b>NOTE:</b> For more information on the display assembly internal component spare parts, see <a href="#">Display components on page 25</a></p>	
	<ul style="list-style-type: none"> <li>With two WLAN and two 3-G WWAN antenna transceivers and cables</li> </ul>	668169-001
	<ul style="list-style-type: none"> <li>With two WLAN antenna transceivers and cables</li> </ul>	664894-001
<b>(2)</b>	<b>Keyboard</b> (includes cable)	
	HP Mini 210 models:	
	Charcoal:	
	<ul style="list-style-type: none"> <li>For use in Belgium</li> </ul>	650726-A41
	<ul style="list-style-type: none"> <li>For use in Bulgaria</li> </ul>	650726-261
	<ul style="list-style-type: none"> <li>For use in the Czech Republic and Slovakia</li> </ul>	650726-FL1
	<ul style="list-style-type: none"> <li>For use in Denmark, Finland, and Norway</li> </ul>	650726-DH1
	<ul style="list-style-type: none"> <li>For use in France</li> </ul>	650726-051
	<ul style="list-style-type: none"> <li>For use in French Canada</li> </ul>	650726-121
	<ul style="list-style-type: none"> <li>For use in Germany</li> </ul>	650726-041
	<ul style="list-style-type: none"> <li>For use in Greece</li> </ul>	650726-DJ1
	<ul style="list-style-type: none"> <li>For use in Hungary</li> </ul>	650726-211
	<ul style="list-style-type: none"> <li>For use internationally</li> </ul>	650726-B31
	<ul style="list-style-type: none"> <li>For use in Israel</li> </ul>	650726-BB1
	<ul style="list-style-type: none"> <li>For use in Italy</li> </ul>	650726-061
	<ul style="list-style-type: none"> <li>For use in Latin America</li> </ul>	650726-161
	<ul style="list-style-type: none"> <li>For use in Portugal</li> </ul>	650726-131
	<ul style="list-style-type: none"> <li>For use in Russia</li> </ul>	650726-251
	<ul style="list-style-type: none"> <li>For use in Saudi Arabia</li> </ul>	650726-171
	<ul style="list-style-type: none"> <li>For use in Slovenia</li> </ul>	650726-BA1
	<ul style="list-style-type: none"> <li>For use in Spain</li> </ul>	650726-071
	<ul style="list-style-type: none"> <li>For use in Switzerland</li> </ul>	650726-BG1

Item	Description	Spare part number
	• For use in Turkey	650726-141
	• For use in the United Kingdom	650726-031
	• For use in the United States	650726-001
	Crimson Red:	
	• For use in Belgium	656761-A41
	• For use in Bulgaria	656761-261
	• For use in the Czech Republic and Slovakia	656761-FL1
	• For use in Denmark, Finland, and Norway	656761-DH1
	• For use in France	656761-051
	• For use in French Canada	656761-121
	• For use in Germany	656761-041
	• For use in Greece	656761-DJ1
	• For use in Hungary	656761-211
	• For use internationally	656761-B31
	• For use in Israel	656761-BB1
	• For use in Italy	656761-061
	• For use in Latin America	656761-161
	• For use in Portugal	656761-131
	• For use in Russia	656761-251
	• For use in Saudi Arabia	656761-171
	• For use in Slovenia	656761-BA1
	• For use in Spain	656761-071
	• For use in Switzerland	656761-BG1
	• For use in Turkey	656761-141
	• For use in the United Kingdom	656761-031
	• For use in the United States	656761-001
	Luminous Rose:	
	• For use in Belgium	656760-A41
	• For use in Bulgaria	656760-261
	• For use in the Czech Republic and Slovakia	656760-FL1
	• For use in Denmark, Finland, and Norway	656760-DH1
	• For use in France	656760-051
	• For use in French Canada	656760-121
	• For use in Germany	656760-041

<b>Item</b>	<b>Description</b>	<b>Spare part number</b>
	• For use in Greece	656760-DJ1
	• For use in Hungary	656760-211
	• For use internationally	656760-B31
	• For use in Israel	656760-BB1
	• For use in Italy	656760-061
	• For use in Latin America	656760-161
	• For use in Portugal	656760-131
	• For use in Russia	656760-251
	• For use in Saudi Arabia	656760-171
	• For use in Slovenia	656760-BA1
	• For use in Spain	656760-071
	• For use in Switzerland	656760-BG1
	• For use in Turkey	656760-141
	• For use in the United Kingdom	656760-031
	• For use in the United States	656760-001
	Ocean Drive:	
	• For use in Belgium	656757-A41
	• For use in Bulgaria	656757-261
	• For use in the Czech Republic and Slovakia	656757-FL1
	• For use in Denmark, Finland, and Norway	656757-DH1
	• For use in France	656757-051
	• For use in French Canada	656757-121
	• For use in Germany	656757-041
	• For use in Greece	656757-DJ1
	• For use in Hungary	656757-211
	• For use internationally	656757-B31
	• For use in Israel	656757-BB1
	• For use in Italy	656757-061
	• For use in Latin America	656757-161
	• For use in Portugal	656757-131
	• For use in Russia	656757-251
	• For use in Saudi Arabia	656757-171
	• For use in Slovenia	656757-BA1
	• For use in Spain	656757-071

Item	Description	Spare part number
	• For use in Switzerland	656757-BG1
	• For use in Turkey	656757-141
	• For use in the United Kingdom	656757-031
	• For use in the United States	656757-001
	Sweet Purple:	
	• For use in Belgium	656763-A41
	• For use in Bulgaria	656763-261
	• For use in the Czech Republic and Slovakia	656763-FL1
	• For use in Denmark, Finland, and Norway	656763-DH1
	• For use in France	656763-051
	• For use in French Canada	656763-121
	• For use in Germany	656763-041
	• For use in Greece	656763-DJ1
	• For use in Hungary	656763-211
	• For use internationally	656763-B31
	• For use in Israel	656763-BB1
	• For use in Italy	656763-061
	• For use in Latin America	656763-161
	• For use in Portugal	656763-131
	• For use in Russia	656763-251
	• For use in Saudi Arabia	656763-171
	• For use in Slovenia	656763-BA1
	• For use in Spain	656763-071
	• For use in Switzerland	656763-BG1
	• For use in Turkey	656763-141
	• For use in the United Kingdom	656763-031
	• For use in the United States	656763-001
	HP Mini 110 and Compaq Mini CQ10 models:	
	• For use in Belgium	658517-A41
	• For use in Bulgaria	658517-261
	• For use in the Czech Republic and Slovakia	658517-FL1
	• For use in Denmark, Finland, and Norway	658517-DH1
	• For use in France	658517-051
	• For use in French Canada	658517-121


Item	Description	Spare part number
	• For use in Germany	658517-041
	• For use in Greece	658517-DJ1
	• For use in Hungary	658517-211
	• For use in India	658517-D61
	• For use internationally	658517-B31
	• For use in Israel	658517-BB1
	• For use in Italy	658517-061
	• For use in Japan	658517-291
	• For use in South Korea	658517-AD1
	• For use in Latin America	658517-161
	• For use in Portugal	658517-131
	• For use in Russia	658517-251
	• For use in Saudi Arabia	658517-171
	• For use in Slovenia	658517-BA1
	• For use in Spain	658517-071
	• For use in Switzerland	658517-BG1
	• For use in Thailand	658517-281
	• For use in Taiwan	658517-AB1
	• For use in Turkey	658517-141
	• For use in the United Kingdom	658517-031
	• For use in the United States	658517-001
<b>(3)</b>	<b>Top cover</b> (includes TouchPad board and bracket)	
	HP Mini 210 models:	
	• Charcoal	650747-001
	• Crimson Red	650752-001
	• Luminous Rose	650751-001
	• Ocean Drive	650748-001
	• Sweet Purple	654204-001
	HP Mini 110 models:	
	• Glossy Black	658512-001
	• Pacific Blue	658515-001
	• Sonoma Red	658513-001
	Compaq CQ10 models:	
	• Glossy Black	663677-001

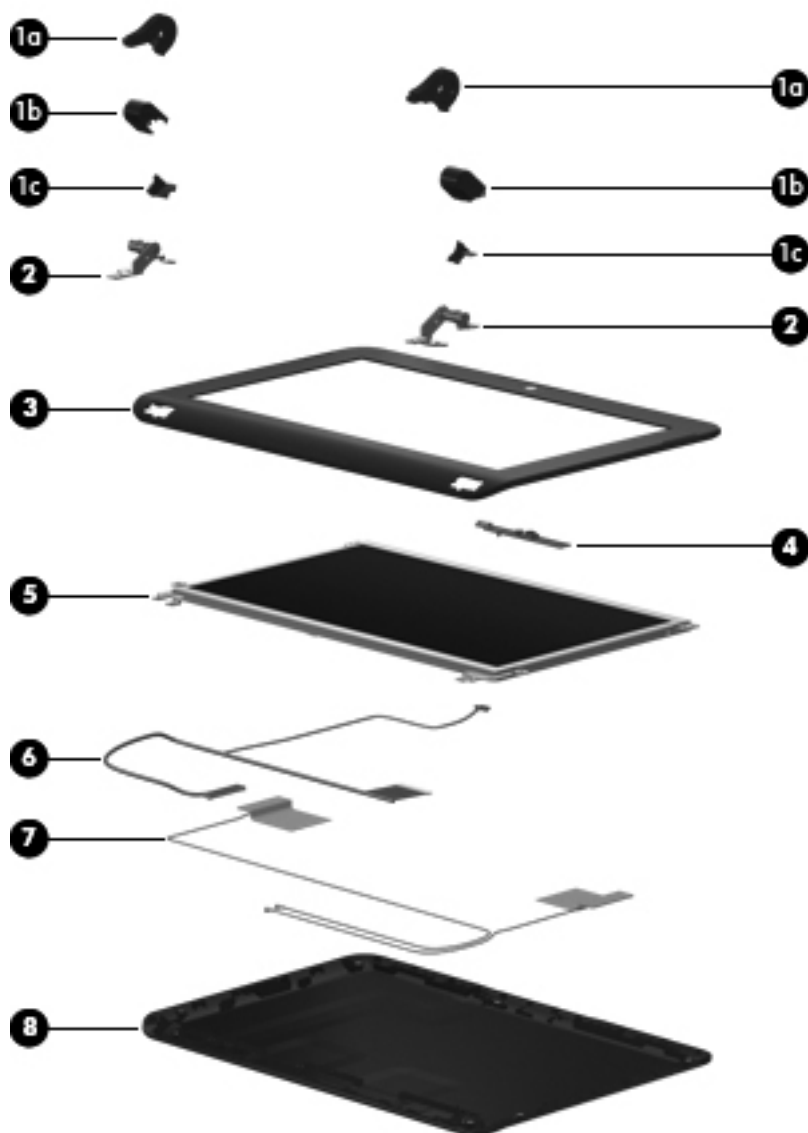
Item	Description	Spare part number
<b>(4)</b>	<b>System board</b> (includes processor and replacement thermal material)	
	Intel Atom N455 single-core, 1.66 GHz processor, 512 KB level 2 cache, 667 MHz front-side bus (FSB)	650737-001
	Intel Atom N455 single-core, 1.66 GHz processor, 512 KB level 2 cache, 667 MHz FSB, X SLOT	650740-001
	Intel Atom N475 single-core, 1.83 GHz processor, 512 KB level 2 cache, 667 MHz FSB (HP Mini 210 models only)	650738-001
	Intel Atom N475 single-core, 1.83 GHz processor, 512 KB level 2 cache, 667 MHz FSB, X SLOT (HP Mini 210 models only)	650741-001
	Intel Atom N570 dual-core, 1.66 GHz processor, 1 MB level 2 cache, 667 MHz FSB	650739-001
	Intel Atom N570 dual-core, 1.66 GHz processor, 1 MB level 2 cache, 667 MHz FSB, X SLOT	650742-001
<b>(5)</b>	<b>Heat sink</b> (includes replacement thermal material)	651898-001
<b>(6)</b>	<b>Fan</b>	651897-001
<b>(7)</b>	<b>Speakers</b> (include cables)	650736-001
<b>(8)</b>	<b>TouchPad button board</b>	651901-001
<b>(9)</b>	<b>Power connector</b>	656095-001
<b>(10)</b>	<b>Base enclosure</b>	
	<ul style="list-style-type: none"> <li>HP Mini 210 models</li> </ul>	650710-001
	<ul style="list-style-type: none"> <li>HP Mini 110 models and Compaq Mini CQ10 models</li> </ul>	663675-001
<b>(11)</b>	<b>Hard drive:</b>	
	<ul style="list-style-type: none"> <li>500 GB, <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm (select models only)</li> </ul>	634932-001
	<ul style="list-style-type: none"> <li>320 GB, <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm</li> </ul>	622643-001
	<ul style="list-style-type: none"> <li>250 GB, <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm</li> </ul>	622641-001
	<ul style="list-style-type: none"> <li>320 GB, <b>7.0 mm</b> (0.28 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm</li> </ul>	645193-001
	<ul style="list-style-type: none"> <li>250 GB, <b>7.0 mm</b> (0.28 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm</li> </ul>	645191-001
<b>(12)</b>	<b>Cable adapter</b> (included in the Hard Drive Hardware Kit, spare part number 651899-001)	
<b>(13)</b>	<b>WLAN module</b>	
	Atheros AR9002WB-1NGB 802.11b/g/n 1x1 WiFi and Bluetooth 2.1+EDR Combo Adapter (BT3.0+HS ready)	593127-001
	Broadcom 4312G 802.11b/g WiFi and 2070 Bluetooth 2.1+EDR Combo Adapter (BT3.0+HS ready)	575920-001
	Ralink 5390GN 802.11b/g/n 1x1 WiFi Adapter	630703-001
	Realtek 8188BC8 802.11a/b/g/n 1x1 WiFi and Bluetooth 3.0+HS Combo Adapter	602993-001
	Realtek 8188GN 802.11b/g/n 1x1 WiFi Adapter	640926-001

Item	Description	Spare part number
<b>(14)</b>	<b>WWAN module</b> (select models only)	
	HP hs2340 HSPA+ Mobile Broadband Module	632155-001
	HP lc2000 HSPA Mobile Broadband Module	612599-001
	HP lc2010 HSPA Mobile Broadband Module	612600-001
<b>(15)</b>	<b>Memory module</b> (PC3, 10600, 1333 MHz single channel):	
	2 GB	621565-001
<b>(16)</b>	<b>RTC battery</b>	599516-001
<b>(17)</b>	<b>Battery</b>	
	6-cell, Li-ion, 2.55 Ah, 55 Wh	646757-001
	3-cell, Li-ion, 2.55 Ah, 28 Wh	646755-001
<b>(18)</b>	<b>Service door</b>	
	HP Mini 210 models:	
	<ul style="list-style-type: none"> <li>• Charcoal</li> </ul>	650727-001
	<ul style="list-style-type: none"> <li>• Crimson Red</li> </ul>	650732-001
	<ul style="list-style-type: none"> <li>• Luminous Rose</li> </ul>	650731-001
	<ul style="list-style-type: none"> <li>• Ocean Drive</li> </ul>	650728-001
	<ul style="list-style-type: none"> <li>• Sweet Purple</li> </ul>	654203-001
	HP Mini 110 and Compaq CQ10 models	
	<ul style="list-style-type: none"> <li>• Glossy Black</li> </ul>	663676-001



## Display components

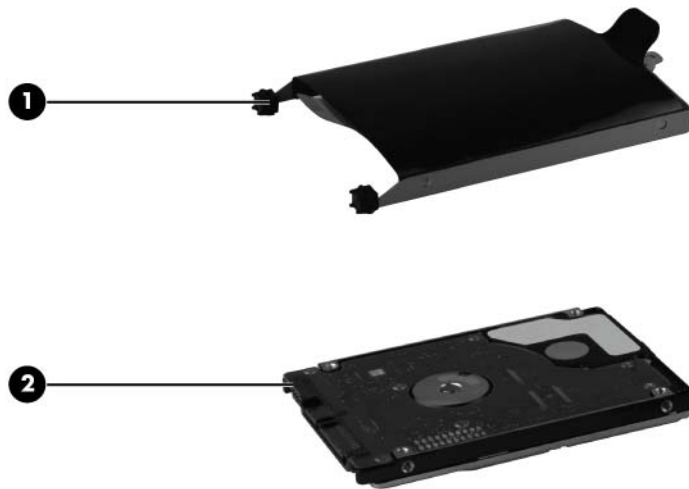
 **NOTE:** The display components are replaceable for only HP Mini 110 models and Compaq Mini CQ10 models.



Item	Description	Spare part number
	<b>Display Hinge Kit, includes:</b>	658506-001
(1a)	Left and right hinge covers	
(1b)	Left and right hinge caps	
(1c)	Left and right hinge cap wall	
(2)	Left and right hinges	
(3)	<b>Display bezel:</b>	
	For use with HP Mini 110 models	658503-001

<b>Item</b>	<b>Description</b>	<b>Spare part number</b>
	For use with Compaq Mini CQ10 models	658504-001
<b>(4)</b>	<b>Webcam module</b> for use with HP Mini 110 models and Compaq Mini CQ10 models	658516-001
<b>(5)</b>	<b>Display panel:</b>	
	10.1-in, WSVGA LED AntiGlare display panel	658511-001
<b>(6)</b>	<b>Display/webcam cable</b>	658505-001
<b>(7)</b>	<b>Antenna Kit</b> (includes WLAN and WWAN antennas)	658498-001
<b>(8)</b>	<b>Display enclosure</b>	
	Glossy Black for HP Mini 110 models	658499-001
	Glossy Black for Compaq Mini CQ10 models	658518-001
	Pacific Blue for HP Mini 110 models	658502-001
	Sonoma Red for HP Mini 110 models	658500-001

## Mass storage devices



Item	Description	Spare part number
(1)	Hard drive bracket <b>NOTE:</b> The hard drive bracket is included in the Hard Drive Hardware Kit, spare part number 651899-001.	
(2)	<b>Hard drive</b>	
	<b>9.5 mm (0.37 in) × 6.35 cm (2.50 in), parallel SATA, 5400-rpm:</b>	
	500 GB (select models only)	634932-001
	320 GB	622643-001
	250 GB	622641-001
	<b>7.0 mm (0.28 in) × 6.35 cm (2.50 in), parallel SATA, 5400-rpm:</b>	
	320 GB	645193-001
	250 GB	645191-001
	<b>External optical drive (not illustrated):</b>	
	DVD±RW and CD-RW SuperMulti Double-Layer Combo Drive for HP Mini 210 models	584383-001
	DVD+-R/RW double-layer optical drive	659940-001

## Miscellaneous parts

Description	Spare part number
<b>AC adapters:</b>	
<ul style="list-style-type: none"> <li>40 W RA AC adapter, non-Smart RC/V, 2W</li> </ul>	624502-001
<b>Power cords:</b>	
<ul style="list-style-type: none"> <li>For use in Argentina</li> </ul>	490371-D01
<ul style="list-style-type: none"> <li>For use in Australia and New Zealand</li> </ul>	490371-011
<ul style="list-style-type: none"> <li>For use in Denmark</li> </ul>	490371-081
<ul style="list-style-type: none"> <li>For use in Europe, the Middle East, and Africa</li> </ul>	490371-021
<ul style="list-style-type: none"> <li>For use in India</li> </ul>	490371-D61
<ul style="list-style-type: none"> <li>For use in Israel</li> </ul>	490371-BB1
<ul style="list-style-type: none"> <li>For use in Italy</li> </ul>	490371-061
<ul style="list-style-type: none"> <li>For use in Japan</li> </ul>	490371-291
<ul style="list-style-type: none"> <li>For use in South Korea</li> </ul>	490371-AD1
<ul style="list-style-type: none"> <li>For use in North America</li> </ul>	490371-001
<ul style="list-style-type: none"> <li>For use in The People's Republic of China</li> </ul>	490371-AA1
<ul style="list-style-type: none"> <li>For use in Singapore and the United Kingdom</li> </ul>	490371-031
<ul style="list-style-type: none"> <li>For use in South Africa</li> </ul>	490371-AR1
<ul style="list-style-type: none"> <li>For use in Switzerland</li> </ul>	490371-111
<ul style="list-style-type: none"> <li>For use in Taiwan</li> </ul>	490371-AB1
<ul style="list-style-type: none"> <li>For use in Thailand</li> </ul>	490371-201
<b>Plastics Kit</b> (includes left and right rear corner covers)	652308-001
<b>Rubber Kit</b>	650734-001
<b>Screw Kit</b>	650735-001
<b>Sleeves for use with HP Mini 210 models:</b>	
<ul style="list-style-type: none"> <li>Charcoal</li> </ul>	631188-001
<ul style="list-style-type: none"> <li>Crimson Red</li> </ul>	628348-001
<ul style="list-style-type: none"> <li>Luminous Rose</li> </ul>	628344-001
<ul style="list-style-type: none"> <li>Ocean Drive</li> </ul>	628346-001
<b>Thermal Pad Kit</b>	634431-001

## Sequential part number listing

Spare part number	Description
490371-001	Power cord for use in North America
490371-011	Power cord for use in Australia and New Zealand
490371-021	Power cord for use in Europe, the Middle East, and Africa
490371-031	Power cord for use in Singapore and the United Kingdom
490371-061	Power cord for use in Italy
490371-081	Power cord for use in Denmark
490371-111	Power cord for use in Switzerland
490371-201	Power cord for use in Thailand
490371-291	Power cord for use in Japan
490371-AA1	Power cord for use in The People's Republic of China
490371-AB1	Power cord for use in Taiwan
490371-AD1	Power cord for use in South Korea
490371-AR1	Power cord for use in South Africa
490371-BB1	Power cord for use in Israel
490371-D01	Power cord for use in Argentina
490371-D61	Power cord for use in India
575920-001	WLAN, Broadcom 4312G 802.11b/g WiFi and 2070 Bluetooth 2.1+EDR Combo Adapter (BT3.0+HS ready)
584383-001	DVD±RW and CD-RW SuperMulti Double-Layer Combo Drive for HP Mini 210 models
593127-001	WLAN, Atheros AR9002WB-1NGB 802.11b/g/n 1x1 WiFi and Bluetooth 2.1+EDR Combo Adapter (BT3.0+HS ready)
599516-001	RTC battery
602993-001	WLAN, Realtek 8188BC8 802.11a/b/g/n 1x1 WiFi and Bluetooth 3.0+HS Combo Adapter
612599-001	WWAN, HP Ic2000 HSPA Mobile Broadband Module
612600-001	WWAN, HP Ic2010 HSPA Mobile Broadband Module
621565-001	Memory module, 2 GB, PC3 10600, 1333 MHz single channel
622641-001	Hard drive, 250 GB, <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm
622643-001	Hard drive, 320 GB, <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm
624502-001	AC adapter, 40 W RA, non-Smart RC/V
628344-001	Sleeve, Luminous Rose
628346-001	Sleeve, Ocean Drive
628348-001	Sleeve, Crimson Red
630703-001	WLAN, Ralink 5390GN 802.11b/g/n 1x1 WiFi Adapter

Spare part number	Description
631188-001	Sleeve, Charcoal
632155-001	WWAN, HP hs2340 HSPA+ Mobile Broadband Module
634431-001	Thermal Pad Kit
634932-001	Hard drive, 500 GB, <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm (select models only)
640926-001	WLAN, Realtek 8188GN 802.11b/g/n 1x1 WiFi Adapter
645191-001	Hard drive, 250 GB, <b>7.0 mm</b> (0.28 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm
645193-001	Hard drive, 320 GB, <b>7.0 mm</b> (0.28 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm
646755-001	Battery, 3 cell Li-ion, 2.55 Ah, 28 Wh
646757-001	Battery, 6-cell, Li-ion, 2.55 Ah, 55 Wh
650710-001	Base enclosure
650712-001	Display assembly, 25.7 cm (10.1 in) HD LED AntiGlare, flush glass, Charcoal (includes display panel cable, two WLAN antenna transceivers and cables, two 3G-WWAN antenna transceivers and cables, and webcam/microphone module and cable)
650713-001	Display assembly, 25.7 cm (10.1 in) HD LED AntiGlare, flush glass, Ocean Drive (includes display panel cable, two WLAN antenna transceivers and cables, two 3G-WWAN antenna transceivers and cables, and webcam/microphone module and cable)
650716-001	Display assembly, 25.7 cm (10.1 in) HD LED AntiGlare, flush glass, Luminous Rose (includes display panel cable, two WLAN antenna transceivers and cables, two 3G-WWAN antenna transceivers and cables, and webcam/microphone module and cable)
650717-001	Display assembly, 25.7 cm (10.1 in) HD LED AntiGlare, flush glass, Crimson Red (includes display panel cable, two WLAN antenna transceivers and cables, two 3G-WWAN antenna transceivers and cables, and webcam/microphone module and cable)
650719-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, flush glass, Charcoal (includes display panel cable, two WLAN antenna transceivers and cables, two 3G-WWAN antenna transceivers and cables, and webcam/microphone module and cable)
650720-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, flush glass, Ocean Drive (includes display panel cable, two WLAN antenna transceivers and cables, two 3G-WWAN antenna transceivers and cables, and webcam/microphone module and cable)
650723-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, flush glass, Luminous Rose (includes display panel cable, two WLAN antenna transceivers and cables, two 3G-WWAN antenna transceivers and cables, and webcam/microphone module and cable)
650724-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, flush glass, Crimson Red (includes display panel cable, two WLAN antenna transceivers and cables, two 3G-WWAN antenna transceivers and cables, and webcam/microphone module and cable)
650726-001	Keyboard, Charcoal, for use only in the United States (includes cable)
650726-031	Keyboard, Charcoal, for use only in the United Kingdom (includes cable)
650726-041	Keyboard, Charcoal, for use only in Germany (includes cable)
650726-051	Keyboard, Charcoal, for use only in France (includes cable)
650726-061	Keyboard, Charcoal, for use only in Italy (includes cable)
650726-071	Keyboard, Charcoal, for use only in Spain (includes cable)
650726-121	Keyboard, Charcoal, for use only in French Canada (includes cable)

<b>Spare part number</b>	<b>Description</b>
650726-131	Keyboard, Charcoal, for use only in Portugal (includes cable)
650726-141	Keyboard, Charcoal, for use only in Turkey (includes cable)
650726-161	Keyboard, Charcoal, for use only in Latin America (includes cable)
650726-171	Keyboard, Charcoal, for use only in Saudi Arabia (includes cable)
650726-211	Keyboard, Charcoal, for use only in Hungary (includes cable)
650726-251	Keyboard, Charcoal, for use only in Russia (includes cable)
650726-261	Keyboard, Charcoal, for use only in Bulgaria (includes cable)
650726-A41	Keyboard, Charcoal, for use only in Belgium (includes cable)
650726-B31	Keyboard, Charcoal, for use internationally (includes cable)
650726-BA1	Keyboard, Charcoal, for use only in Slovenia (includes cable)
650726-BB1	Keyboard, Charcoal, for use only in Israel (includes cable)
650726-BG1	Keyboard, Charcoal, for use only in Switzerland (includes cable)
650726-DH1	Keyboard, Charcoal, for use only in Denmark, Finland, and Norway (includes cable)
650726-DJ1	Keyboard, Charcoal, for use only in Greece (includes cable)
650726-FL1	Keyboard, Charcoal, for use only in the Czech Republic and Slovakia (includes cable)
650727-001	Service door, Charcoal
650728-001	Service door, Ocean Drive
650731-001	Service door, Luminous Rose
650732-001	Service door, Crimson Red
650734-001	Rubber Kit (includes 2 rubber feet)
650735-001	Screw Kit
650736-001	Speakers (include cables)
650737-001	System board with Intel Atom N455 single-core, 1.66 GHz processor, 512 KB level 2 cache, 667 MHz FSB
650738-001	System board with Intel Atom N475 single-core, 1.83 GHz processor, 512 KB level 2 cache, 667 MHz FSB
650739-001	System board with Intel Atom N570 dual-core, 1.66 GHz processor, 1 MB level 2 cache, 667 MHz FSB
650740-001	System board with Intel Atom N455 single-core, 1.66 GHz processor, 512 KB level 2 cache, 667 MHz FSB, XSLOT
650741-001	System board with Intel Atom N475 single-core, 1.83 GHz processor, 512 KB level 2 cache, 667 MHz FSB, XSLOT
650742-001	System board with Intel Atom N570 dual-core, 1.66 GHz processor, 1 MB level 2 cache, 667 MHz FSB, XSLOT
650747-001	Top cover, Charcoal (includes TouchPad board and bracket)
650748-001	Top cover, Ocean Drive (includes TouchPad board and bracket)
650751-001	Top cover, Luminous Rose (includes TouchPad board and bracket)

<b>Spare part number</b>	<b>Description</b>
650752-001	Top cover, Crimson Red (includes TouchPad board and bracket)
651897-001	Fan
651898-001	Heat sink (includes replacement thermal material)
651899-001	Hard Drive Hardware Kit
651901-001	TouchPad button board (includes cables)
652308-001	Plastics Kit (includes left and right rear corner covers)
654201-001	25.7 cm (10.1 in) HD LED AntiGlare, flush glass display assembly, Sweet Purple (includes display panel cable, two WLAN antenna transceivers and cables, two 3-G WWAN antenna transceivers and cables, and webcam/microphone module and cable)
654202-001	25.7 cm (10.1 in) WSVGA LED AntiGlare, flush glass display assembly, Sweet Purple (includes display panel cable, two WLAN antenna transceivers and cables, two 3-G WWAN antenna transceivers and cables, and webcam/microphone module and cable)
654203-001	Service door, Sweet Purple
654204-001	Top cover, Sweet Purple (includes TouchPad board and bracket)
656095-001	Power connector
656757-001	Keyboard, Ocean Drive, for use only in the United States (includes cable)
656757-031	Keyboard, Ocean Drive, for use only in the United Kingdom (includes cable)
656757-041	Keyboard, Ocean Drive, for use only in Germany (includes cable)
656757-051	Keyboard, Ocean Drive, for use only in France (includes cable)
656757-061	Keyboard, Ocean Drive, for use only in Italy (includes cable)
656757-071	Keyboard, Ocean Drive, for use only in Spain (includes cable)
656757-121	Keyboard, Ocean Drive, for use only in French Canada (includes cable)
656757-131	Keyboard, Ocean Drive, for use only in Portugal (includes cable)
656757-141	Keyboard, Ocean Drive, for use only in Turkey (includes cable)
656757-161	Keyboard, Ocean Drive, for use only in Latin America (includes cable)
656757-171	Keyboard, Ocean Drive, for use only in Saudi Arabia (includes cable)
656757-211	Keyboard, Ocean Drive, for use only in Hungary (includes cable)
656757-251	Keyboard, Ocean Drive, for use only in Russia (includes cable)
656757-261	Keyboard, Ocean Drive, for use only in Bulgaria (includes cable)
656757-A41	Keyboard, Ocean Drive, for use only in Belgium (includes cable)
656757-B31	Keyboard, Ocean Drive, for use internationally (includes cable)
656757-BA1	Keyboard, Ocean Drive, for use only in Slovenia (includes cable)
656757-BB1	Keyboard, Ocean Drive, for use only in Israel (includes cable)
656757-BG1	Keyboard, Ocean Drive, for use only in Switzerland (includes cable)
656757-DH1	Keyboard, Ocean Drive, for use only in Denmark, Finland, and Norway (includes cable)
656757-DJ1	Keyboard, Ocean Drive, for use only in Greece (includes cable)



<b>Spare part number</b>	<b>Description</b>
656757-FL1	Keyboard, Ocean Drive, for use only in the Czech Republic and Slovakia (includes cable)
656760-001	Keyboard, Luminous Rose, for use only in the United States (includes cable)
656760-031	Keyboard, Luminous Rose, for use only in the United Kingdom (includes cable)
656760-041	Keyboard, Luminous Rose, for use only in Germany (includes cable)
656760-051	Keyboard, Luminous Rose, for use only in France (includes cable)
656760-061	Keyboard, Luminous Rose, for use only in Italy (includes cable)
656760-071	Keyboard, Luminous Rose, for use only in Spain (includes cable)
656760-121	Keyboard, Luminous Rose, for use only in French Canada (includes cable)
656760-131	Keyboard, Luminous Rose, for use only in Portugal (includes cable)
656760-141	Keyboard, Luminous Rose, for use only in Turkey (includes cable)
656760-161	Keyboard, Luminous Rose, for use only in Latin America (includes cable)
656760-171	Keyboard, Luminous Rose, for use only in Saudi Arabia (includes cable)
656760-211	Keyboard, Luminous Rose, for use only in Hungary (includes cable)
656760-251	Keyboard, Luminous Rose, for use only in Russia (includes cable)
656760-261	Keyboard, Luminous Rose, for use only in Bulgaria (includes cable)
656760-A41	Keyboard, Luminous Rose, for use only in Belgium (includes cable)
656760-B31	Keyboard, Luminous Rose, for use internationally (includes cable)
656760-BA1	Keyboard, Luminous Rose, for use only in Slovenia (includes cable)
656760-BB1	Keyboard, Luminous Rose, for use only in Israel (includes cable)
656760-BG1	Keyboard, Luminous Rose, for use only in Switzerland (includes cable)
656760-DH1	Keyboard, Luminous Rose, for use only in Denmark, Finland, and Norway (includes cable)
656760-DJ1	Keyboard, Luminous Rose, for use only in Greece (includes cable)
656760-FL1	Keyboard, Luminous Rose, for use only in the Czech Republic and Slovakia (includes cable)
656761-001	Keyboard, Crimson Red, for use only in the United States (includes cable)
656761-031	Keyboard, Crimson Red, for use only in the United Kingdom (includes cable)
656761-041	Keyboard, Crimson Red, for use only in Germany (includes cable)
656761-051	Keyboard, Crimson Red, for use only in France (includes cable)
656761-061	Keyboard, Crimson Red, for use only in Italy (includes cable)
656761-071	Keyboard, Crimson Red, for use only in Spain (includes cable)
656761-121	Keyboard, Crimson Red, for use only in French Canada (includes cable)
656761-131	Keyboard, Crimson Red, for use only in Portugal (includes cable)
656761-141	Keyboard, Crimson Red, for use only in Turkey (includes cable)
656761-161	Keyboard, Crimson Red, for use only in Latin America (includes cable)
656761-171	Keyboard, Crimson Red, for use only in Saudi Arabia (includes cable)

<b>Spare part number</b>	<b>Description</b>
656761-211	Keyboard, Crimson Red, for use only in Hungary (includes cable)
656761-251	Keyboard, Crimson Red, for use only in Russia (includes cable)
656761-261	Keyboard, Crimson Red, for use only in Bulgaria (includes cable)
656761-A41	Keyboard, Crimson Red, for use only in Belgium (includes cable)
656761-B31	Keyboard, Crimson Red, for use internationally (includes cable)
656761-BA1	Keyboard, Crimson Red, for use only in Slovenia (includes cable)
656761-BB1	Keyboard, Crimson Red, for use only in Israel (includes cable)
656761-BG1	Keyboard, Crimson Red, for use only in Switzerland (includes cable)
656761-DH1	Keyboard, Crimson Red, for use only in Denmark, Finland, and Norway (includes cable)
656761-DJ1	Keyboard, Crimson Red, for use only in Greece (includes cable)
656761-FL1	Keyboard, Crimson Red, for use only in the Czech Republic and Slovakia (includes cable)
656763-001	Keyboard, Sweet Purple, for use only in the United States (includes cable)
656763-031	Keyboard, Sweet Purple, for use only in the United Kingdom (includes cable)
656763-041	Keyboard, Sweet Purple, for use only in Germany (includes cable)
656763-051	Keyboard, Sweet Purple, for use only in France (includes cable)
656763-061	Keyboard, Sweet Purple, for use only in Italy (includes cable)
656763-071	Keyboard, Sweet Purple, for use only in Spain (includes cable)
656763-121	Keyboard, Sweet Purple, for use only in French Canada (includes cable)
656763-131	Keyboard, Sweet Purple, for use only in Portugal (includes cable)
656763-141	Keyboard, Sweet Purple, for use only in Turkey (includes cable)
656763-161	Keyboard, Sweet Purple, for use only in Latin America (includes cable)
656763-171	Keyboard, Sweet Purple, for use only in Saudi Arabia (includes cable)
656763-211	Keyboard, Sweet Purple, for use only in Hungary (includes cable)
656763-251	Keyboard, Sweet Purple, for use only in Russia (includes cable)
656763-261	Keyboard, Sweet Purple, for use only in Bulgaria (includes cable)
656763-A41	Keyboard, Sweet Purple, for use only in Belgium (includes cable)
656763-B31	Keyboard, Sweet Purple, for use internationally (includes cable)
656763-BA1	Keyboard, Sweet Purple, for use only in Slovenia (includes cable)
656763-BB1	Keyboard, Sweet Purple, for use only in Israel (includes cable)
656763-BG1	Keyboard, Sweet Purple, for use only in Switzerland (includes cable)
656763-DH1	Keyboard, Sweet Purple, for use only in Denmark, Finland, and Norway (includes cable)
656763-DJ1	Keyboard, Sweet Purple, for use only in Greece (includes cable)
656763-FL1	Keyboard, Sweet Purple, for use only in the Czech Republic and Slovakia (includes cable)
658498-001	Antenna Kit (includes WLAN and WWAN antennas)

<b>Spare part number</b>	<b>Description</b>
658499-001	Display enclosure, Glossy Black
658500-001	Display enclosure, Sonoma Red
658502-001	Display enclosure, Pacific Blue
658503-001	Display bezel, HP Mini 110 models
658504-001	Display bezel, Compaq Mini CQ10 models
658505-001	Display cable
658506-001	Display Hinge Kit (includes left and right hinges)
658507-001	Display assembly, 25.7 cm (10.1 in) traditional WSVGA LED AntiGlare, Glossy Black (includes display panel cable, two WLAN antenna transceivers and cables, and webcam/microphone module and cable)
658508-001	Display assembly, 25.7 cm (10.1 in) traditional WSVGA LED AntiGlare, Sonoma Red (includes display panel cable, two WLAN antenna transceivers and cables, and webcam/microphone module and cable)
658510-001	Display assembly, 25.7 cm (10.1 in) traditional WSVGA LED AntiGlare, Pacific Blue (includes display panel cable, two WLAN antenna transceivers and cables, and webcam/microphone module and cable)
658511-001	25.7 cm (10.1 in), WSVGA LED AntiGlare display panel
658512-001	Top cover, Glossy Black (includes TouchPad board and bracket)
658513-001	Top cover, Sonoma Red (includes TouchPad board and bracket)
658515-001	Top cover, Pacific Blue (includes TouchPad board and bracket)
658516-001	Webcam module
658517-001	Keyboard, Glossy Black, for use only in the United States (includes cable)
658517-031	Keyboard, Glossy Black, for use only in the United Kingdom (includes cable)
658517-041	Keyboard, Glossy Black, for use only in Germany (includes cable)
658517-051	Keyboard, Glossy Black, for use only in France (includes cable)
658517-061	Keyboard, Glossy Black, for use only in Italy (includes cable)
658517-071	Keyboard, Glossy Black, for use only in Spain (includes cable)
658517-121	Keyboard, Glossy Black, for use only in French Canada (includes cable)
658517-131	Keyboard, Glossy Black, for use only in Portugal (includes cable)
658517-141	Keyboard, Glossy Black, for use only in Turkey (includes cable)
658517-161	Keyboard, Glossy Black, for use only in Latin America (includes cable)
658517-171	Keyboard, Glossy Black, for use only in Saudi Arabia (includes cable)
658517-211	Keyboard, Glossy Black, for use only in Hungary (includes cable)
658517-251	Keyboard, Glossy Black, for use only in Russia (includes cable)
658517-261	Keyboard, Glossy Black, for use only in Bulgaria (includes cable)
658517-281	Keyboard, Glossy Black, for use only in Thailand (includes cable)
658517-291	Keyboard, Glossy Black, for use only in Japan (includes cable)

<b>Spare part number</b>	<b>Description</b>
658517-A41	Keyboard, Glossy Black, for use only in Belgium (includes cable)
658517-AB1	Keyboard, Glossy Black, for use only in Taiwan (includes cable)
658517-AD1	Keyboard, Glossy Black, for use only in South Korea (includes cable)
658517-B31	Keyboard, Glossy Black, for use internationally (includes cable)
658517-BA1	Keyboard, Glossy Black, for use only in Slovenia (includes cable)
658517-BB1	Keyboard, Glossy Black, for use only in Israel (includes cable)
658517-BG1	Keyboard, Glossy Black, for use only in Switzerland (includes cable)
658517-D61	Keyboard, Glossy Black, for use only in India (includes cable)
658517-DH1	Keyboard, Glossy Black, for use only in Denmark, Finland, and Norway (includes cable)
658517-DJ1	Keyboard, Glossy Black, for use only in Greece (includes cable)
658517-FL1	Keyboard, Glossy Black, for use only in the Czech Republic and Slovakia (includes cable)
658518-001	Display enclosure for Compaq CQ10 models, Glossy Black
659940-001	External DVD+-R/RW double-layer optical drive
663675-001	Base enclosure
663676-001	Service door, Glossy Black
663677-001	Top cover Compaq CQ10 models, Glossy Black (includes TouchPad board and bracket)
664894-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, traditional glass, Glossy Black (includes display panel cable and webcam/microphone module and cable, with 2 WLAN antenna transceivers and cables)
668156-001	Display assembly, 25.7 cm (10.1 in) HD LED AntiGlare, flush glass, Charcoal (includes display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables)
668157-001	Display assembly, 25.7 cm (10.1 in) HD LED AntiGlare flush glass display assembly, Ocean Drive (includes display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables)
668158-001	Display assembly, 25.7 cm (10.1 in) HD LED AntiGlare flush glass display assembly, Luminous Rose (includes display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables)
668159-001	Display assembly, 25.7 cm (10.1 in) HD LED AntiGlare flush glass display assembly, Crimson Red (includes display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables)
668160-001	Display assembly, 25.7 cm (10.1 in) HD LED AntiGlare flush glass display assembly, Sweet Purple (includes display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables)
668161-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare flush glass display assembly, Charcoal (includes display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables)
668162-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare flush glass display assembly, with display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables, Ocean Drive

<b>Spare part number</b>	<b>Description</b>
668163-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare flush glass display assembly, Luminous Rose (includes display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables)
668164-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, flush glass, Crimson Red (includes display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables)
668165-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, flush glass, Sweet Purple (includes display panel cable, webcam/microphone module and cable, and two WLAN antenna transceivers and cables)
668166-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, traditional glass, Glossy Black (includes display panel cable, webcam/microphone module and cable, and two 3-G WWAN antenna transceivers and cables)
668167-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, traditional glass, Sonoma Red (includes display panel cable, webcam/microphone module and cable, and two 3-G WWAN antenna transceivers and cables)
668168-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, traditional glass, Pacific Blue (includes display panel cable, webcam/microphone module and cable, and two 3-G WWAN antenna transceivers and cables)
668169-001	Display assembly, 25.7 cm (10.1 in) WSVGA LED AntiGlare, traditional glass, Glossy Black (includes display panel cable, webcam/microphone module and cable, and two 3-G WWAN antenna transceivers and cables)

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# 4 Removal and replacement procedures

## Preliminary replacement requirements

### Tools required

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

- Flat-bladed screwdriver
- Magnetic screwdriver
- Phillips P0 and P1 screwdrivers

### Service considerations

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



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

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### Plastic parts



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

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## Cables and connectors

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

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Cables must be handled with extreme care to avoid damage. Apply only the tension required to unseat or seat the cables during removal and insertion. Handle cables by the connector whenever possible. In all cases, avoid bending, twisting, or tearing cables. Be sure that cables are routed in such a way that they cannot be caught or snagged by parts being removed or replaced. Handle flex cables with extreme care; these cables tear easily.

## Drive handling

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**⚠ CAUTION:** Drives are fragile components that must be handled with care. To prevent damage to the device, damage to a drive, or loss of information, observe these precautions:

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Before removing or inserting a hard drive, shut down the device. If you are unsure whether the device is off or in Hibernation, turn the device on, and then shut it down through the operating system.

Before handling a drive, be sure that you are discharged of static electricity. While handling a drive, avoid touching the connector.

Handle drives on surfaces covered with at least one inch of shock-proof foam.

Avoid dropping drives from any height onto any surface.

After removing a hard drive, place it in a static-proof bag.

Avoid exposing a hard drive to products that have magnetic fields, such as monitors or speakers.

Avoid exposing a drive to temperature extremes or liquids.

If a drive must be mailed, place the drive in a bubble pack mailer or other suitable form of protective packaging and label the package "FRAGILE."

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# 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 device 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.

Use nonmagnetic tools.

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, screwdrivers, 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 strips 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 plastic	Bags	1,500 V
Carbon-loaded plastic	Floor mats	7,500 V
Metallized laminate	Floor mats	5,000 V


# Component replacement procedures

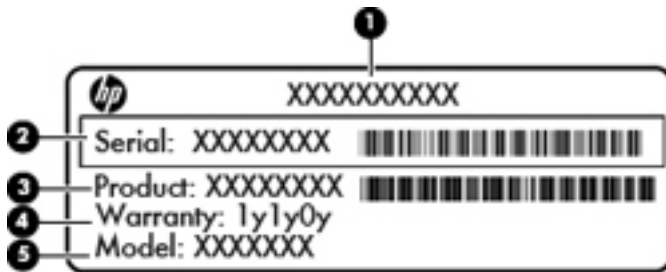
This chapter provides removal and replacement procedures.

There are as many as 33 screws, in 3 different sizes, that must be removed, replaced, or loosened when servicing the computer. Make special note of each screw size and location during removal and replacement.

## Service tag

When ordering parts or requesting information, provide the computer serial number and model number provided on the service tag, located inside the battery bay.

 **NOTE:** Serial number label location, format, and color vary on select models.

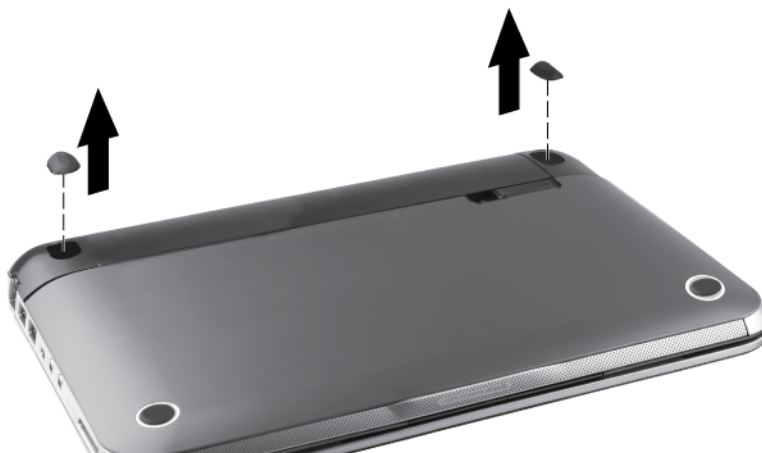


(1) Product name	(4) Warranty period
(2) Serial number	(5) Model description
(3) Product number	

## Computer feet

Description	Spare part number
Rubber Kit	650734-001

The computer feet are adhesive-backed rubber pads. Two rubber feet are attached to the base enclosure in the locations shown in the following illustration.

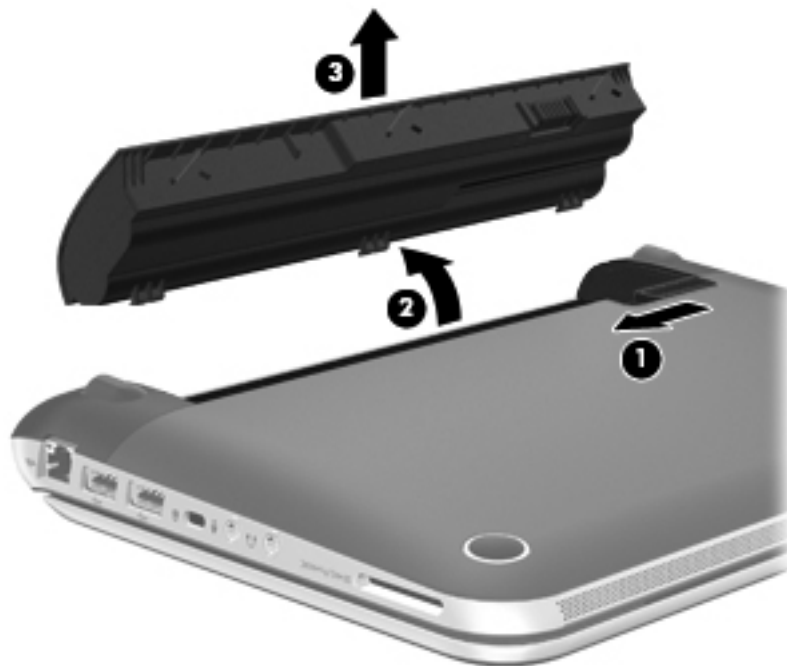


## Battery

Description	Spare part number
6-cell, Li-ion, 2.55 Ah, 55 Wh	646757-001
3-cell, Li-ion, 2.55 Ah, 28 Wh	646755-001

Before disassembling the computer, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Position the computer upside down on a flat surface.
5. Slide the battery/service door latch (1) to unlock the battery.
6. Pivot the battery (2) upward and lift it out of the computer (3).



To install the battery, insert the back edge of the battery into the battery bay and then pivot the battery downward. Press down on the battery until the latch locks.

## Service door


Description	Spare part number
Charcoal, for HP Mini 210 models	650727-001
Crimson Red, for HP Mini 210 models	650732-001
Glossy Black, for HP Mini 110 and Compaq CQ10 models	663676-001
Luminous Rose, for HP Mini 210 models	650731-001
Ocean Drive, for HP Mini 210 models	650728-001
Sweet Purple, for HP Mini 210 models	654203-001

Before removing the service door, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).

Remove the service door:

1. Slide the battery/service door latch **(1)** to release the service door.
2. Slide the service door toward the front of the computer **(2)** and then remove the door **(3)**.

 **NOTE:** It is normal for the service door to flex slightly when it is released. You may also hear some popping noises as the service door tabs disengage from the base enclosure slots.




Replace the service door:

1. Replace the service door and slide it toward the back of the computer.
2. Insert the back edge of the battery into the battery bay and then pivot the battery downward. Press down on the battery until the latch locks.

## WLAN module

Description	Spare part number
Atheros AR9002WB-1NGB 802.11b/g/n 1x1 WiFi and Bluetooth 2.1+EDR Combo Adapter (BT3.0+HS ready)	593127-001
Broadcom 4312G 802.11b/g WiFi and 2070 Bluetooth 2.1+EDR Combo Adapter (BT3.0+HS ready)	575920-001
Ralink 5390GN 802.11b/g/n 1x1 WiFi Adapter	630703-001
Realtek 8188BC8 802.11a/b/g/n 1x1 WiFi and Bluetooth 3.0+HS Combo Adapter	602993-001
Realtek 8188GN 802.11b/g/n 1x1 WiFi Adapter	640926-001

 **CAUTION:** The WWAN module and the WLAN module are not interchangeable.

To prevent an unresponsive system, replace the wireless module only with a wireless module authorized for use in the computer by the governmental agency that regulates wireless devices in your country or region. If you replace the module and then receive a warning message, remove the module to restore computer functionality, and then contact technical support through **Help and Support** (Windows) or **Help** (Linux).


Before removing the WLAN module, follow these steps:

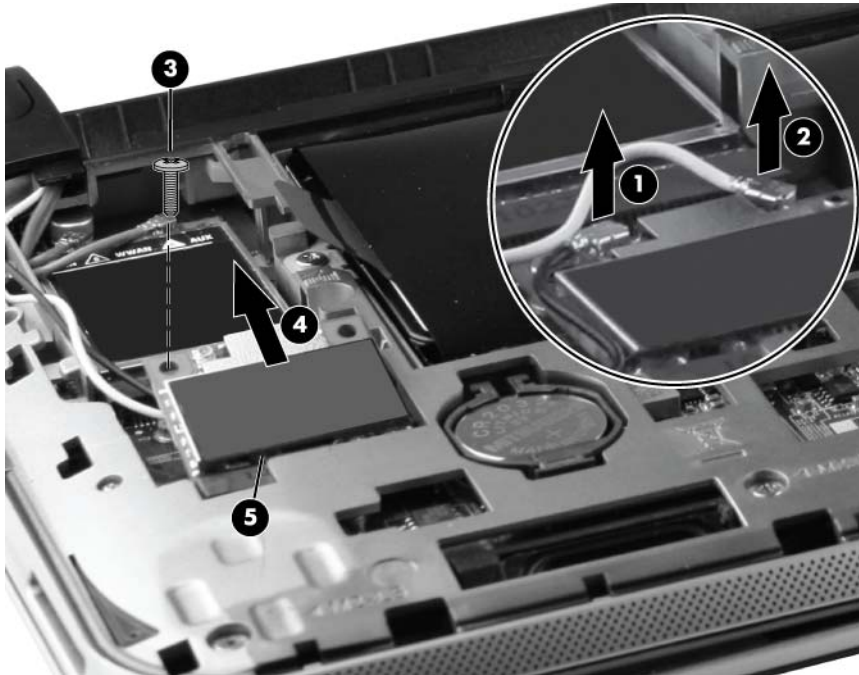
1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the device by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).

Remove the WLAN module:

1. Disconnect the black WLAN antenna cable **(1)** from the WLAN module “Main” terminal.
2. Disconnect the gray WLAN antenna cable **(2)** from the WLAN module “Aux” terminal.
3. Remove the Phillips M2.0×3.0 screw **(3)** that secures the WLAN module to the system board. (The WLAN module tilts up.)

4. Remove the WLAN module (4) by pulling the module away from the slot at an angle.


 **NOTE:** WLAN modules are designed with a notch (5) to prevent incorrect insertion.



Reverse this procedure to install a WLAN module.

## WWAN module

Description	Spare part number
HP hs2340 HSPA+ Mobile Broadband Module	632155-001
HP Ic2000 HSPA Mobile Broadband Module	612599-001
HP Ic2010 HSPA Mobile Broadband Module	612600-001

 **CAUTION:** The WWAN module and the WLAN module are not interchangeable.

To prevent an unresponsive system, replace the wireless module only with a wireless module authorized for use in the computer by the governmental agency that regulates wireless devices in your country or region. If you replace the module and then receive a warning message, remove the module to restore device functionality, and then contact technical support through **Help and Support** (Windows) or **Help** (Linux).


Before removing the WWAN module, follow these steps:

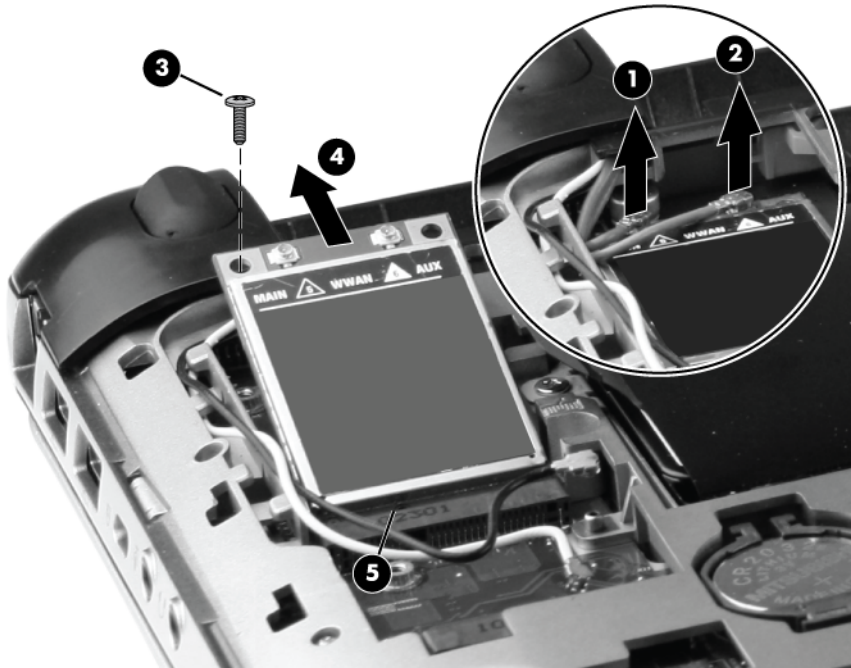
1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.

4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).

Remove the WWAN module:

1. Disconnect the red WWAN antenna cable (1) from the WWAN module “Main” terminal.
2. Disconnect the blue WWAN antenna cable (2) from the WWAN module “Aux” terminal.
3. Remove the Phillips M2.0×3.0 screw (3) that secures the WWAN module to the system board. (The WWAN module tilts up.)
4. Remove the WWAN module (4) by pulling the module away from the slot at an angle.

 **NOTE:** WWAN modules are designed with a notch (5) to prevent incorrect insertion.



Reverse this procedure to install a WWAN module.

## Memory module

Description	Spare part number
2 GB memory module (PC3 10600 1333 MHz, single channel)	621565-001

Before removing the memory module, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.



4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).

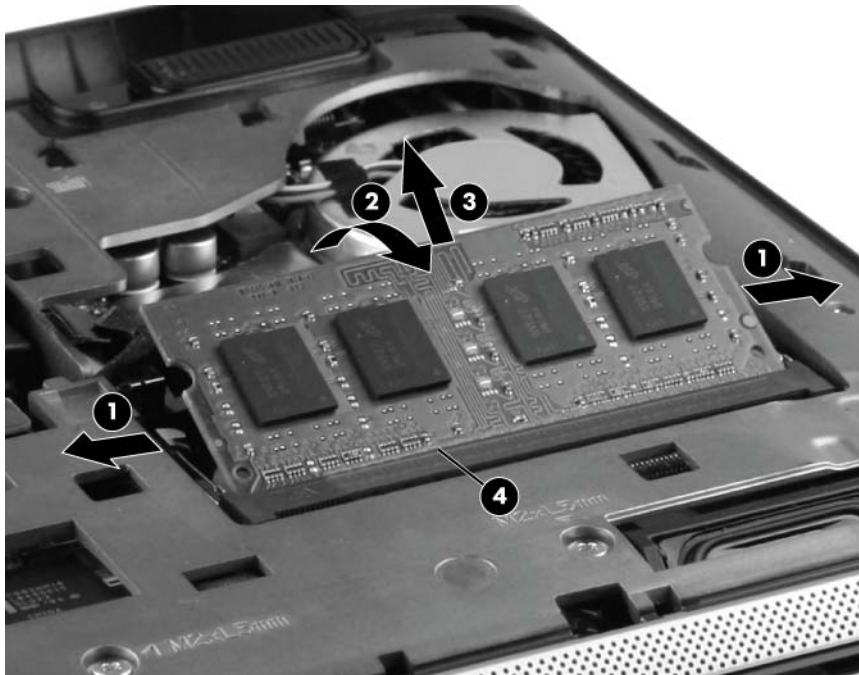
Remove the memory module:

1. Pull away the retention clip (1) on each side of the memory module to release the module. (The memory module (2) tilts up.)

**CAUTION:** To prevent damage to the memory module, hold it by the edges only. Do not touch the components on the memory module.

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

**NOTE:** Memory modules are designed with a notch (4) to prevent incorrect insertion.



Reverse this procedure to install the memory module.

## RTC battery

Description	Spare part number
RTC battery	599516-001

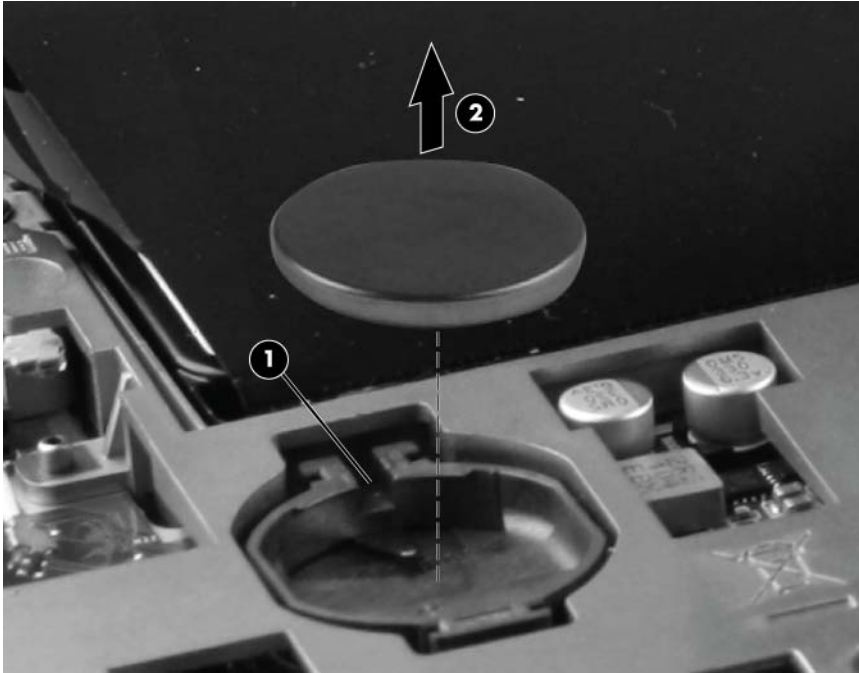
Before removing the RTC battery, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.

4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).

Remove the RTC battery:

1. Lift the edge (1) of the battery from the system board.
2. Remove the RTC battery (2) from the socket on the system board.



Reverse this procedure to install the RTC battery. When installing the RTC battery, be sure the “+” sign faces up.

## Hard drive



**NOTE:** The hard drive bracket is included in the Hard Drive Hardware Kit, spare part number 651899-001.

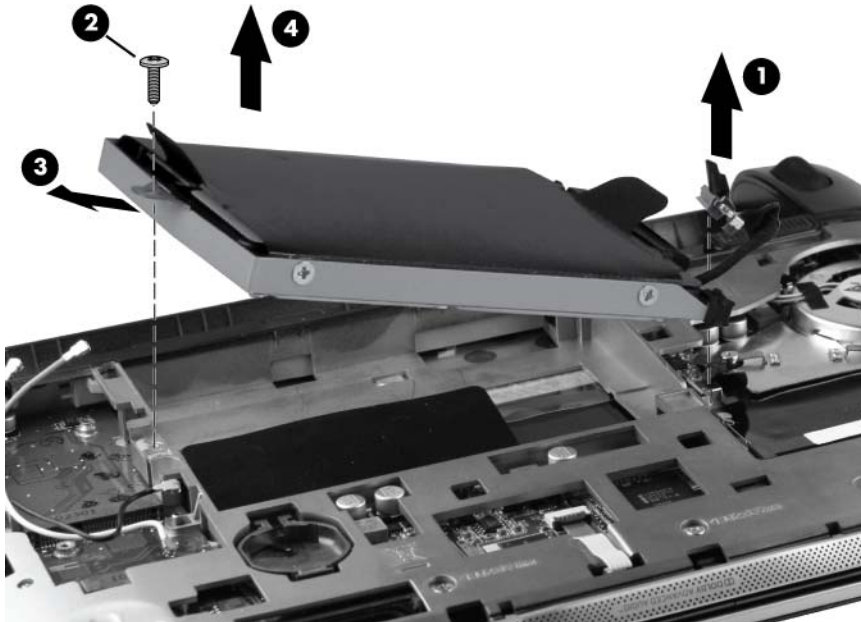
Description	Spare part number
Hard drive:	
500 GB, <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm (select models only)	634932-001
320 GB, <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm	622643-001
250 GB, <b>9.5 mm</b> (0.37 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm	622641-001
320 GB, <b>7.0 mm</b> (0.28 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm	645193-001
250 GB, <b>7.0 mm</b> (0.28 in) × <b>6.35 cm</b> (2.50 in), parallel SATA, 5400-rpm	645191-001
Hard Drive Hardware Kit	651899-001

Before removing the hard drive, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).

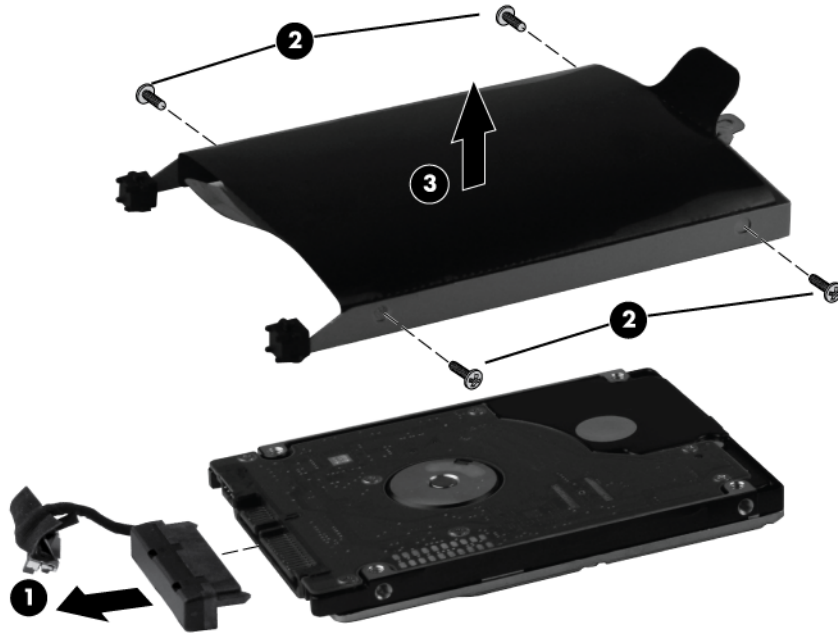
Remove the hard drive:

1. Disconnect the hard drive connector cable (1).
2. Remove the Phillips M2.0x5.0 screw (2) that secures the hard drive to the computer.
3. Pull up on the hard drive tab (3) until the hard drive rests at about a 45-degree angle.
4. Remove the hard drive (4) from the hard drive bay at the same angle.




5. If it is necessary to replace the hard drive bracket, follow these steps:
  - a. Disconnect the cable adapter (1) from the hard drive.
  - b. Remove the four Phillips M3.0x3.0 screws (2) that secure the hard drive bracket to the drive.

- c. Remove the hard drive bracket (3).



Reverse this procedure to reassemble and install the hard drive.

## Keyboard

 **NOTE:** For the complete list of available keyboards, see [Computer major components on page 16](#).

Before removing the keyboard, follow these steps:


1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).

Remove the keyboard:

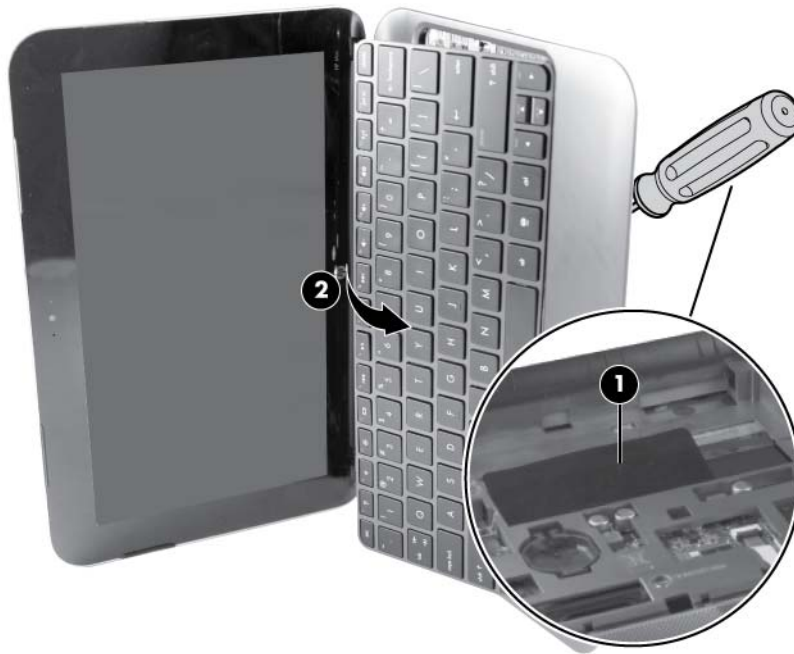
1. Position the computer upside down on a flat surface.
2. Remove the two Phillips M2.0x5.0 screws that secure the keyboard to the computer.



3. Position the computer on its side. Using a screwdriver or a similar tool, push firmly through the bottom of the base enclosure **(1)** to release the keyboard **(2)**.

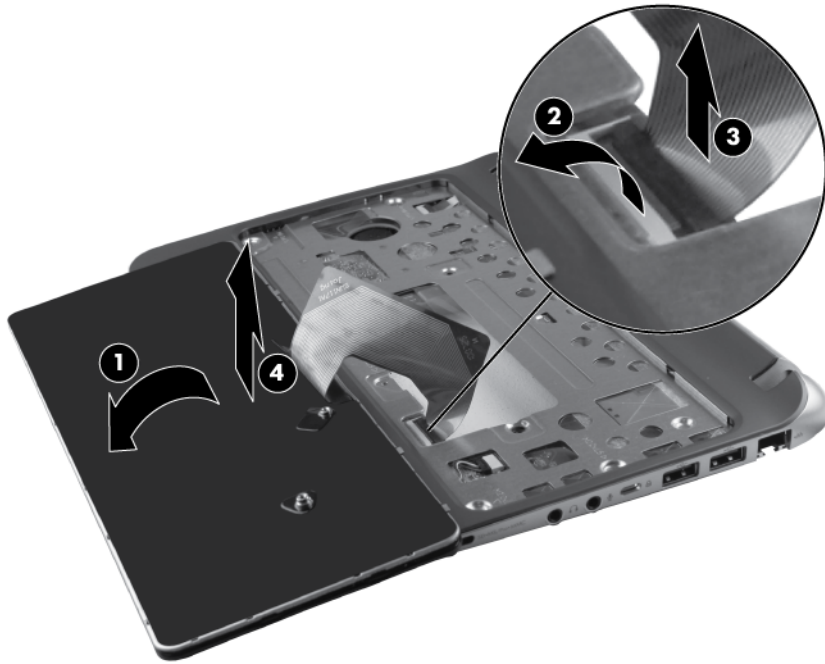
 **NOTE:** Extra effort may be required to release the keyboard.

---



4. Position the computer right-side up.
5. Rotate the keyboard over onto the palm rest **(1)**.
6. Release the zero insertion force (ZIF) connector **(2)** for the keyboard cable, and then disconnect the cable **(3)** from the system board.

7. Lift the keyboard **(4)** straight up to remove it from the computer.



Reverse this procedure to install the keyboard.

## Top cover



**NOTE:** The top cover includes the TouchPad board and bracket.

Description	Spare part number
Charcoal, for HP Mini 210 models	650747-001
Crimson Red, for HP Mini 210 models	650752-001
Glossy Black, for HP Mini 110 models	658512-001
Glossy Black, for Compaq Mini CQ10 models	663677-001
Luminous Rose, for HP Mini 210 models	650751-001
Ocean Drive, for HP Mini 210 models	650748-001
Pacific Blue, for HP Mini 110 models	658515-001
Sonoma Red, for HP Mini 110 models	658513-001
Sweet Purple, for HP Mini 210 models	654204-001

Before removing the top cover, follow these steps:

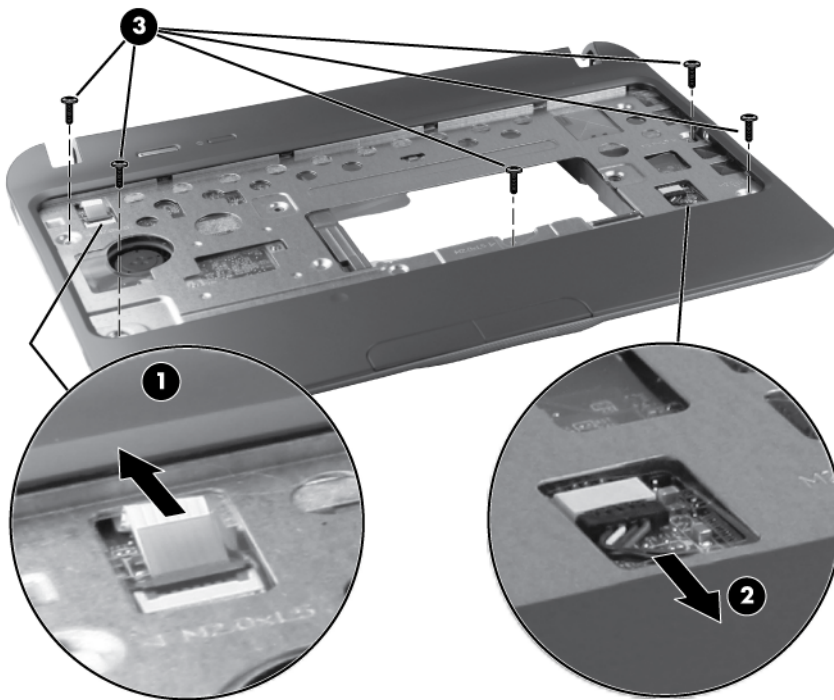
1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).
6. Remove the keyboard (see [Keyboard on page 53](#)).

Remove the top cover:

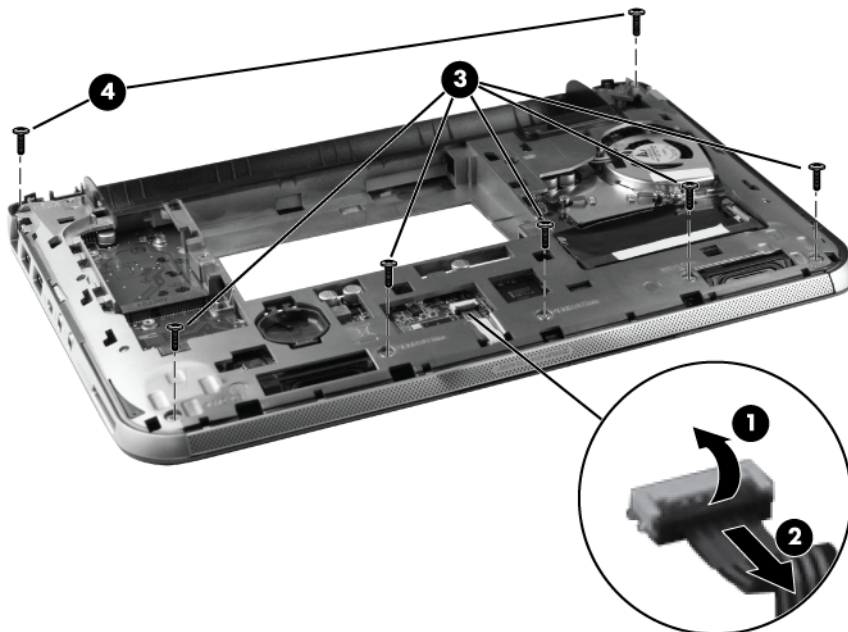
1. Position the computer right-side up, with the front toward you.
2. Release the ZIF connector for the power button cable, and then disconnect the cable **(1)**.
3. Release the ZIF connector for the speaker cable, and then disconnect the speaker cable **(2)**.



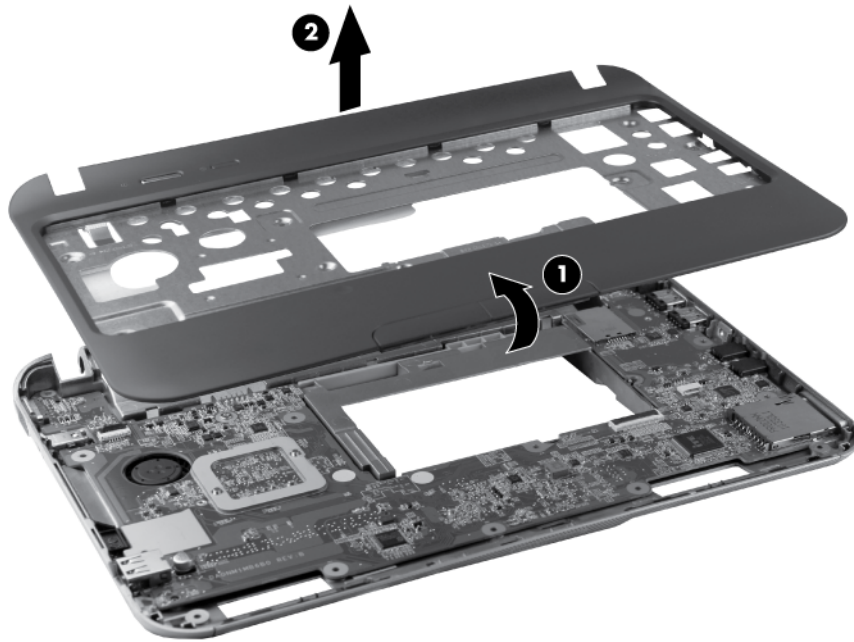
4. Remove the five Phillips M2.0x5.0 screws (3) from the top cover .



5. Position the computer upside down, with the front toward you.
6. Release the TouchPad ZIF connector (1) and disconnect the TouchPad cable (2). (The ZIF cable is secured with double-sided adhesive tape.)
7. Remove the five Phillips M2.0x5.0 screws (3) along the front edge of the base enclosure.
8. Remove the two Phillips M2.0x5.0 screws (4) from underneath the rear corner plates, one in each corner.



9. Lift the front edge (1) of the top cover until it disengages from the base enclosure, and then remove the top cover (2) by lifting it straight up.



Reverse this procedure to install the top cover.

## Speakers

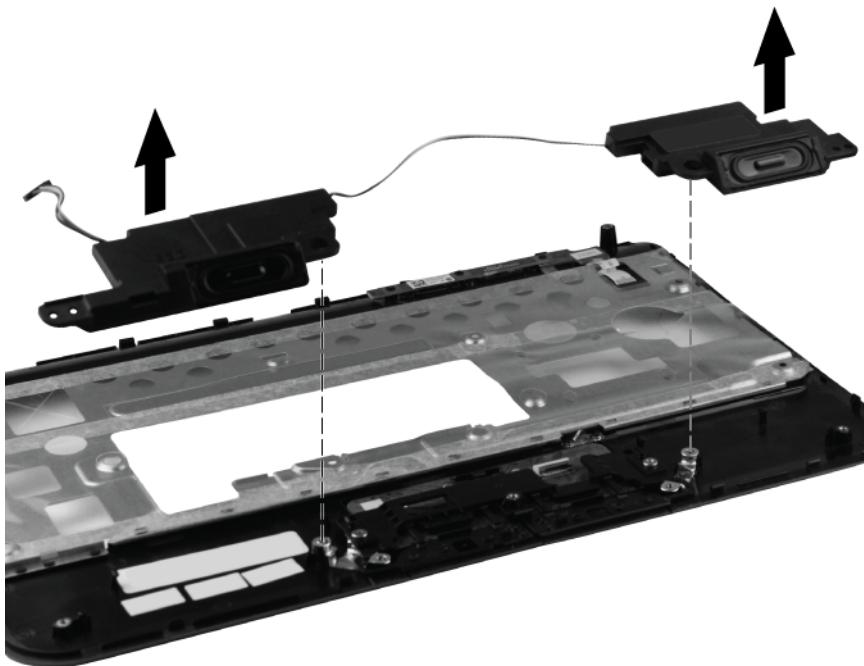
Description	Spare part number
Speakers (include cables)	650736-001

Before removing the speakers, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the following components:
  - a. Service door (see [Service door on page 45](#)).
  - b. Keyboard (see [Keyboard on page 53](#)).
  - c. Top cover (see [Top cover on page 56](#)).

Remove the speakers:

1. Position the top cover upside down, with the front toward you.
2. Release the speaker cable from the clips built into the TouchPad bracket, and then remove the speakers.



Reverse this procedure to install the speakers.

## TouchPad button board

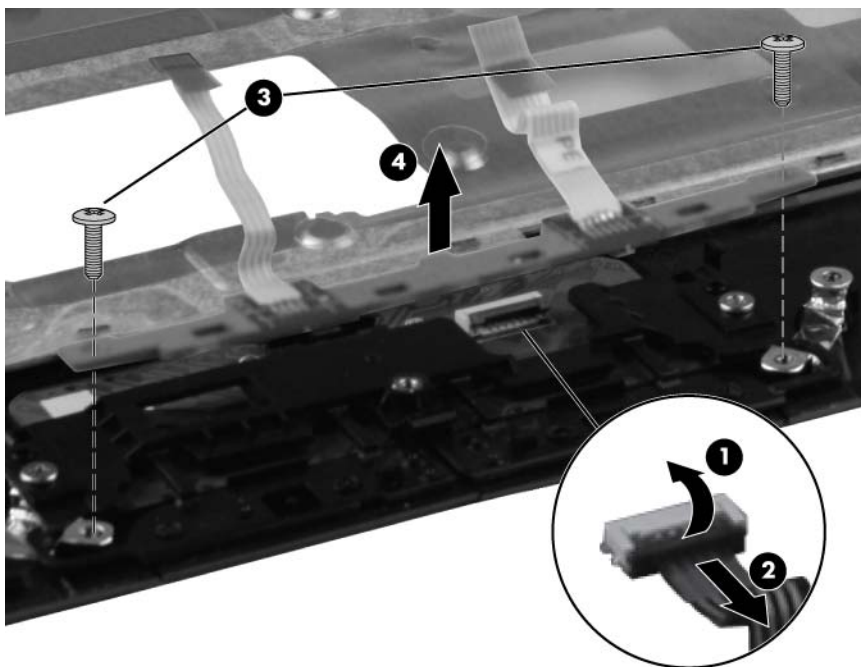
Description	Spare part number
TouchPad button board	651901-001

Before removing the TouchPad button board, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the following components:
  - a. Service door (see [Service door on page 45](#)).
  - b. Keyboard (see [Keyboard on page 53](#)).
  - c. Top cover (see [Top cover on page 56](#)).

Remove the TouchPad button board:

1. Position the top cover upside down, with the front toward you.
2. Release the TouchPad button board ZIF connector (1), and then disconnect the TouchPad button board cable (2).
3. Remove the two Phillips M2.0x3.0 screws (3).
4. Remove the TouchPad button board (4).



Reverse this procedure to install the TouchPad button board.

## Display assembly



**NOTE:** For a complete list of display assemblies, refer to [Display components on page 25](#).

Before removing the display assembly, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).
6. Disconnect the WLAN antenna cables from the WLAN module (see [WLAN module on page 46](#)).
7. Disconnect the WWAN antenna cables from the WWAN module (see [WWAN module on page 47](#)).
8. Remove the keyboard (see [Keyboard on page 53](#)).
9. Remove the top cover (see [Top cover on page 56](#)).

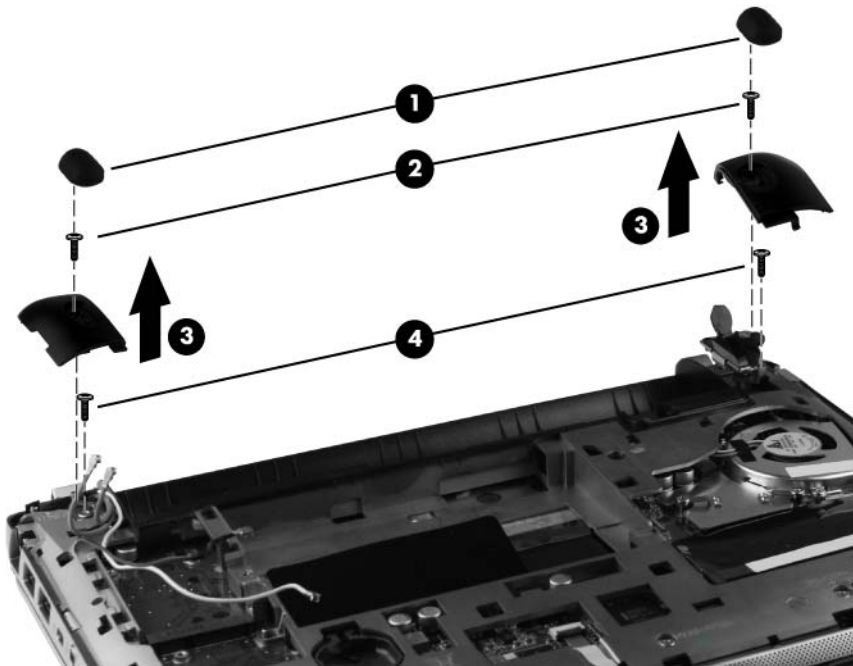
Remove the display assembly:

1. Close the computer.
2. Position the computer upside down, with the front toward you.
3. Remove the back corner rubber feet **(1)**.
4. Remove the two Phillips M2.0x5.0 screws **(2)**, one beneath each rubber foot.
5. Remove the plastic rear corner covers **(3)**.

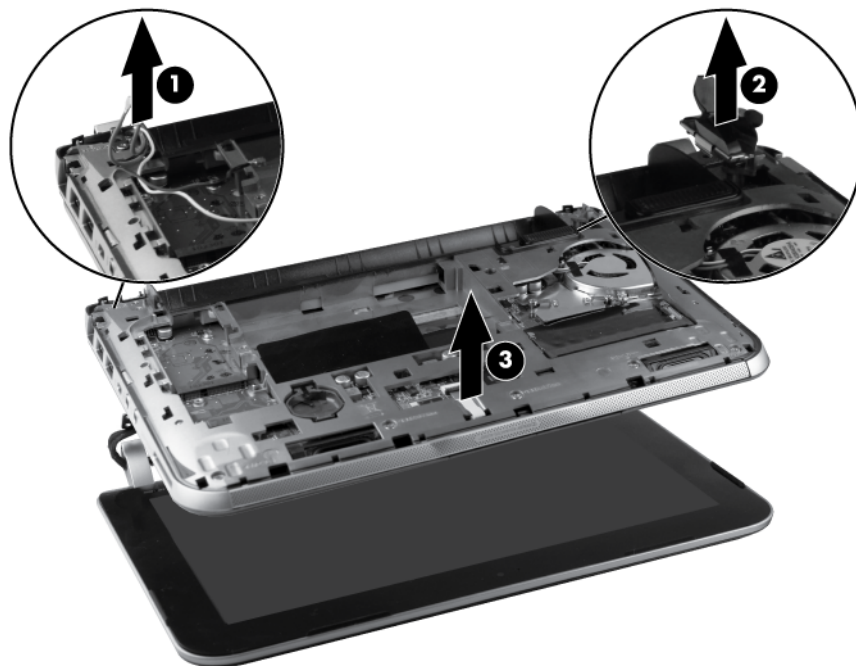


**NOTE:** The rear corner covers are included in the Plastics Kit, spare part number 652308-001.

6. Remove the two Phillips M2.0x5.0 screws (4), one beneath each rear corner cover.



7. Remove the WLAN antenna cables (1) from the routing channel.
8. Disconnect the display panel cable (2) from the system board.
9. Carefully lift the base enclosure away from the display assembly (3).



Reverse this procedure to reassemble and install the display assembly.

## Display assembly components



**NOTE:** These procedures are for replacing the display assembly internal components for HP Mini 110 and Compaq Mini CQ10 models.

Description	Spare part number
Display assembly hinges and covers	658506-001
Display bezel for HP Mini 110 models	658503-001
Display bezel for Compaq Mini CQ10 models	658504-001
Webcam module	658516-001
Display panel	658511-001
Display/webcam cable	658505-001
Antenna cables	658498-001
Display enclosure, Glossy Black for use with HP Mini 110 models	658499-001
Display enclosure, Glossy Black for use with Compaq Mini CQ10 models	658518-001
Display enclosure, Pacific Blue for use with HP Mini 110 models	658502-001
Display enclosure, Sonoma Red for use with HP Mini 110 models	658500-001

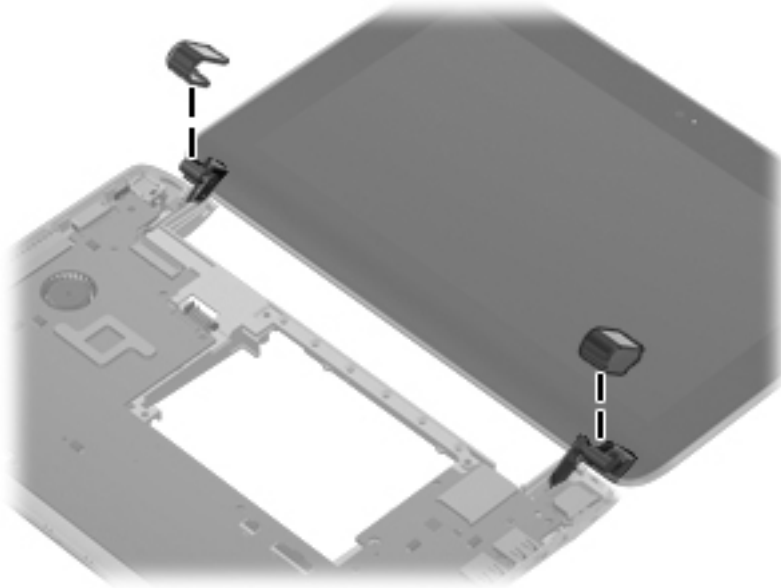
Before removing the display assembly components, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).
6. Disconnect the WLAN antenna cables from the WLAN module (see [WLAN module on page 46](#)).
7. Disconnect the WWAN antenna cables from the WWAN module (see [WWAN module on page 47](#)).
8. Remove the keyboard (see [Keyboard on page 53](#)).
9. Remove the top cover (see [Top cover on page 56](#)).
10. Remove the display assembly (see [Display assembly on page 61](#)).

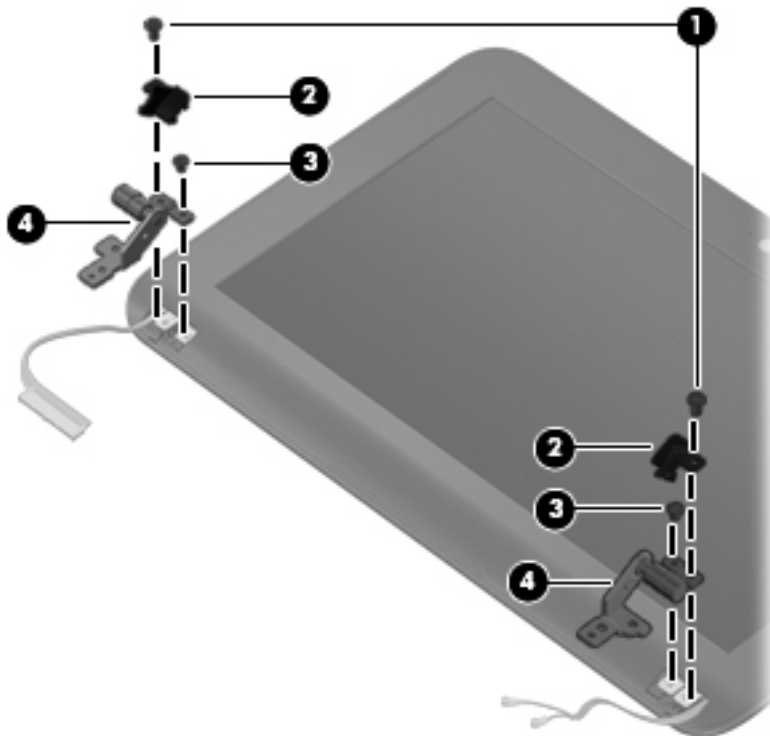


Remove the display assembly components:

1. Remove the hinge covers from the hinges.

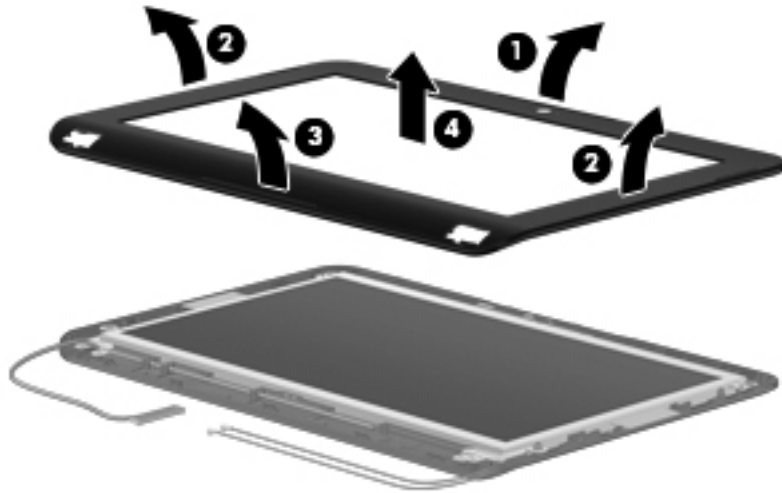


2. Remove the two Phillips M2.0×5.0 screws (1) that secure the black plastic covers to the display assembly, and then lift the covers from the display (2).
3. Remove the two Phillips M2.0×4.0 screws (3) that secure the hinges to the display assembly.
4. Remove the display hinges (4).

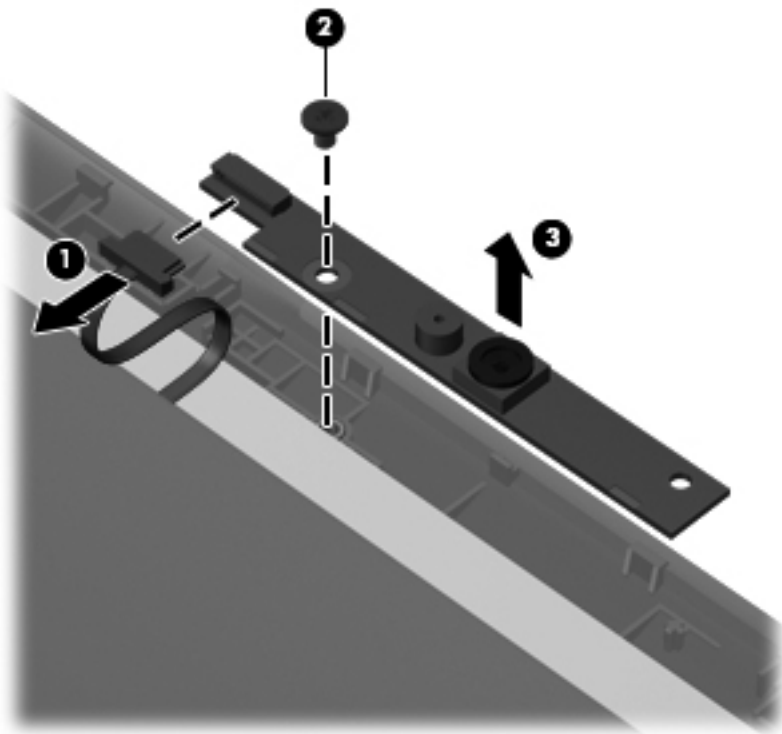




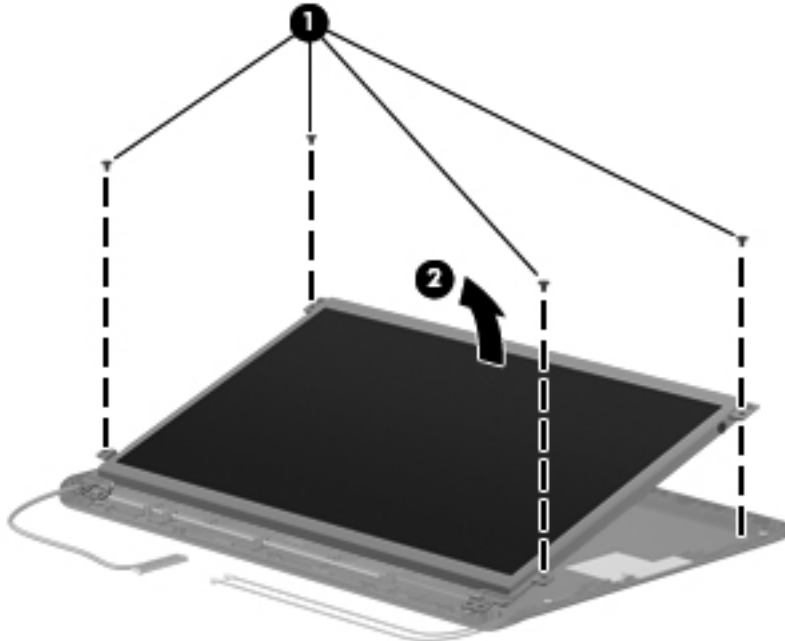
5. To remove the display bezel, loosen the top of the bezel (1), loosen the left and right sides of the bezel (2), loosen the bottom of the bezel (3), and then lift the bezel from the display (4).



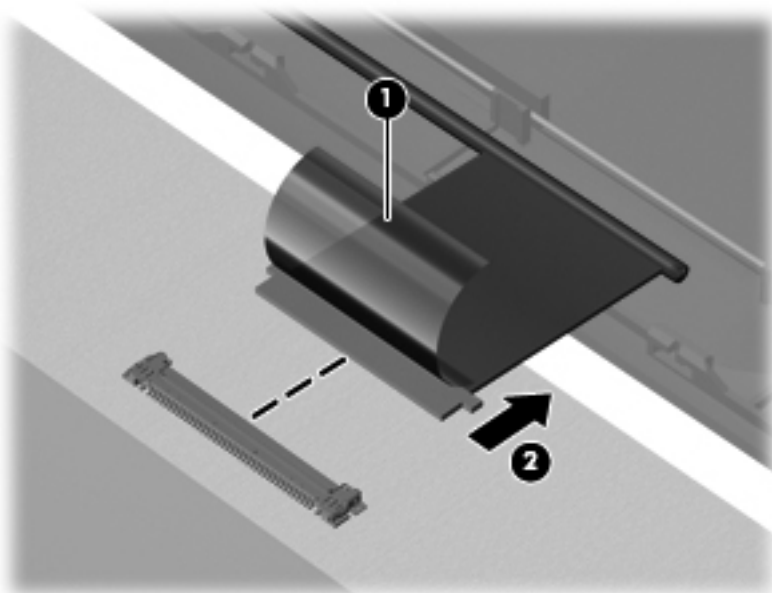
6. To remove the webcam module, unplug the cable from the webcam module (1), remove the silver Phillips M2.0x3.0 screw (2), and then lift the module from the display (3).



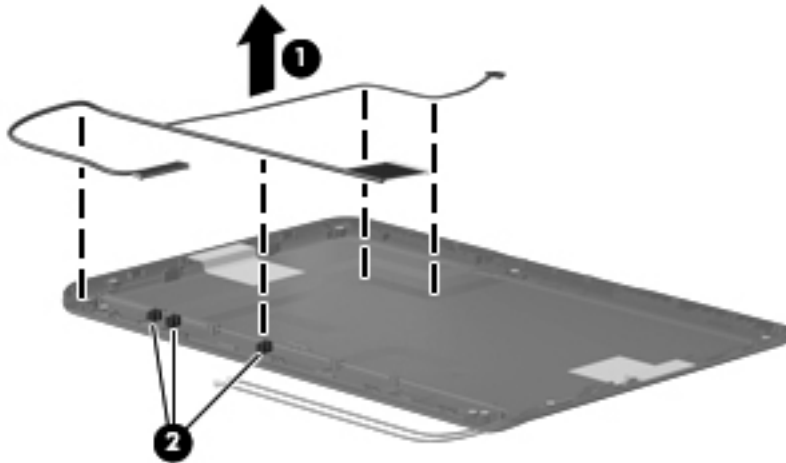
7. To remove the display panel from the display enclosure, remove the 4 Phillips M2.0×4.0 screws (1) that secure the panel to the enclosure, lift the top of the display panel (2), and then rotate it up and out of the display enclosure.



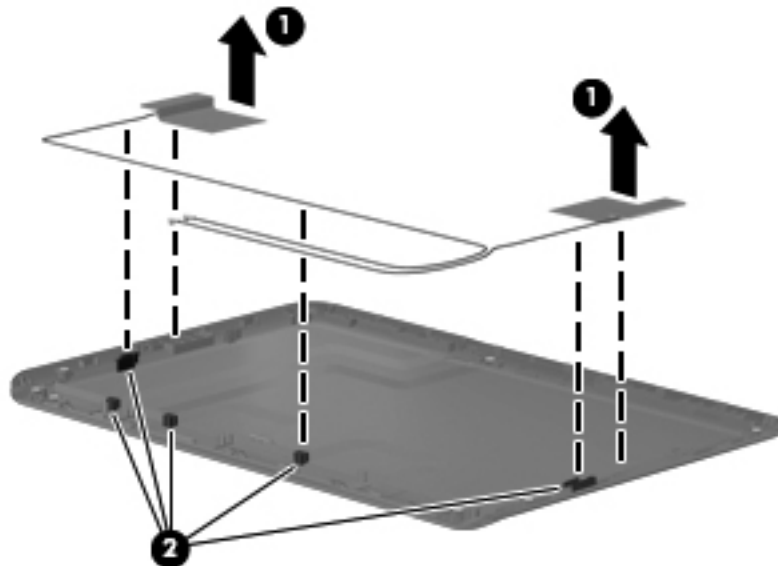
8. To remove the display/webcam cable assembly, disconnect the display cable (1) from the connector (2) on the back of the display panel.



- Lift the display/webcam cable (1) from its routing path (2) in the display enclosure.




- To remove the antenna cables, lift the cables (1) from the routing path (2) in the display enclosure. The antenna cables are available using spare part number 658498-001.



- The display enclosure can be replaced at this step.

Reverse this procedure to reassemble and install the display assembly components.

## System board

 **NOTE:** The system board spare part kit includes replacement thermal material.

Description	Spare part number
Intel Atom N455 single-core, 1.66 GHz processor, 512 KB level 2 cache, 667 MHz front-side bus (FSB)	650737-001
Intel Atom N455 single-core 1.66 GHz processor, 512 KB level 2 cache, 667 MHz FSB, XSLOT	650740-001
Intel Atom N475 single-core, 1.83 GHz processor, 512 KB level 2 cache, 667 MHz FSB (HP Mini 210 models)	650738-001

Description	Spare part number
Intel Atom N475 single-core, 1.83 GHz processor, 512 KB level 2 cache, 667 MHz FSB, XSLOT (HP Mini 210 models)	650741-001
Intel Atom N570 dual-core 1.66 GHz processor, 1 MB level 2 cache, 667 MHz FSB	650739-001
Intel Atom N570 dual-core 1.66 GHz processor, 1 MB level 2 cache, 667 MHz FSB, XSLOT	650742-001

Before removing the system board, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).
6. Disconnect the hard drive cable from the system board (see [Hard drive on page 50](#)).
7. Disconnect the WLAN antenna cables from the WLAN module (see [WLAN module on page 46](#)).
8. Disconnect the WWAN antenna cables from the WWAN module (see [WWAN module on page 47](#)).
9. Remove the keyboard (see [Keyboard on page 53](#)).
10. Remove the top cover (see [Top cover on page 56](#)).

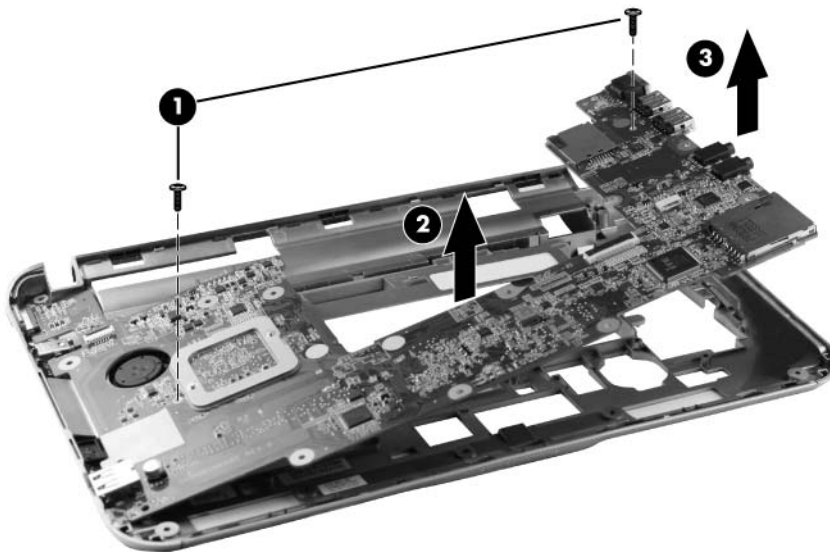
When replacing the system board, be sure that the following components are removed from the defective system board and installed on the replacement system board:

- WLAN module (see [WLAN module on page 46](#))
- WWAN module (see [WWAN module on page 47](#))
- Memory module (see [Memory module on page 48](#))
- RTC battery (see [RTC battery on page 49](#))

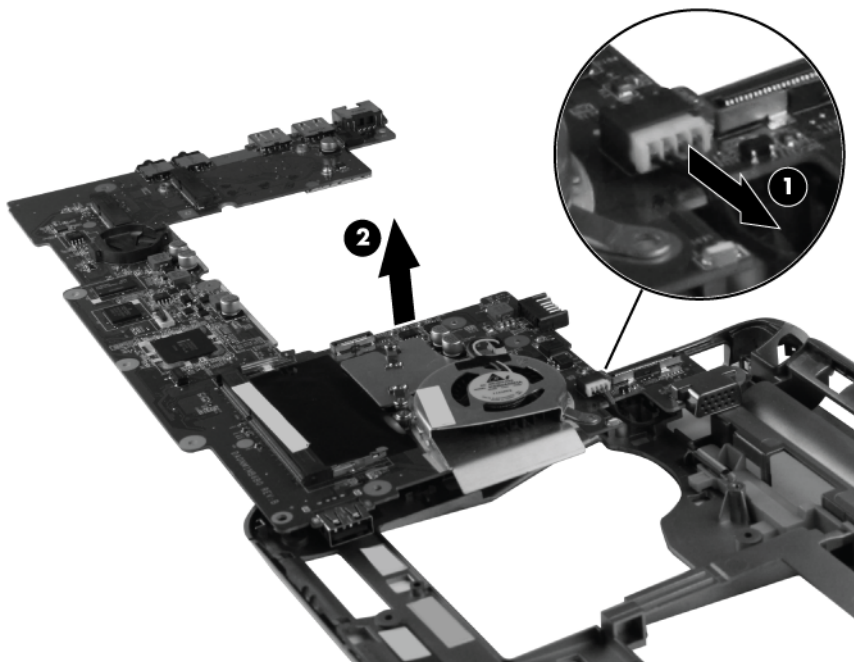
Remove the system board:

1. Remove the 2 Phillips M2.0x5.0 screws **(1)** that secure the system board to the base enclosure .
2. Starting in the middle of the system board, lift the system board up, and then lift the right side of the system board **(2)** until it rests at an angle.

3. Tilt the system board away from the base enclosure (3).



4. Disconnect the power cable (1) from the system board.
5. Remove the system board (2) by sliding it up and away from the base enclosure.



Reverse this procedure to install the system board.

## Fan and sink

Description	Spare part number
Fan	651897-001
Heat sink (includes replacement thermal material)	651898-001



**NOTE:** To properly ventilate the computer, allow at least a 7.6-cm (3 inch) clearance on the left side of the computer. The computer uses an electric fan for ventilation. The fan is controlled by a temperature sensor and is designed to turn on automatically when high temperature conditions exist. These conditions are affected by high external temperatures, system power consumption, power management/battery conservation configurations, battery fast charging, and software requirements. Exhaust air is displaced through the ventilation grill located on the left side of the computer.


Before removing the fan or heat sink, follow these steps:

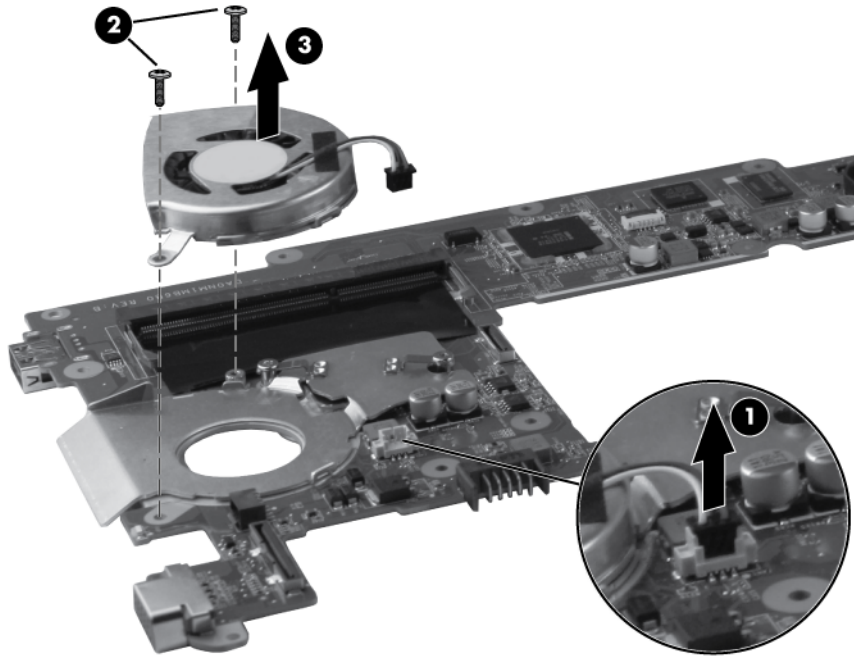
1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).
6. Disconnect the hard drive cable from the system board (see [Hard drive on page 50](#)).
7. Disconnect the WLAN antenna cables from the WLAN module (see [WLAN module on page 46](#)).
8. Disconnect the WWAN antenna cables from the WWAN module (see [WWAN module on page 47](#)).
9. Remove the following components:
  - a. Keyboard (see [Keyboard on page 53](#)).
  - b. Top cover (see [Top cover on page 56](#)).
  - c. System board (see [System board on page 67](#)).

Remove the fan:

1. Position the system board upside down, with the front toward you.
2. Disconnect the fan cable **(1)** from the system board.
3. Remove the two Phillips M2.0x4.0 screws **(2)** that secure the fan to the system board .

4. Remove the fan (3) from the system board.


 **NOTE:** Due to the adhesive quality of the thermal material between the fan and system board components, you may need to move the fan from side to side to detach it from the system board.

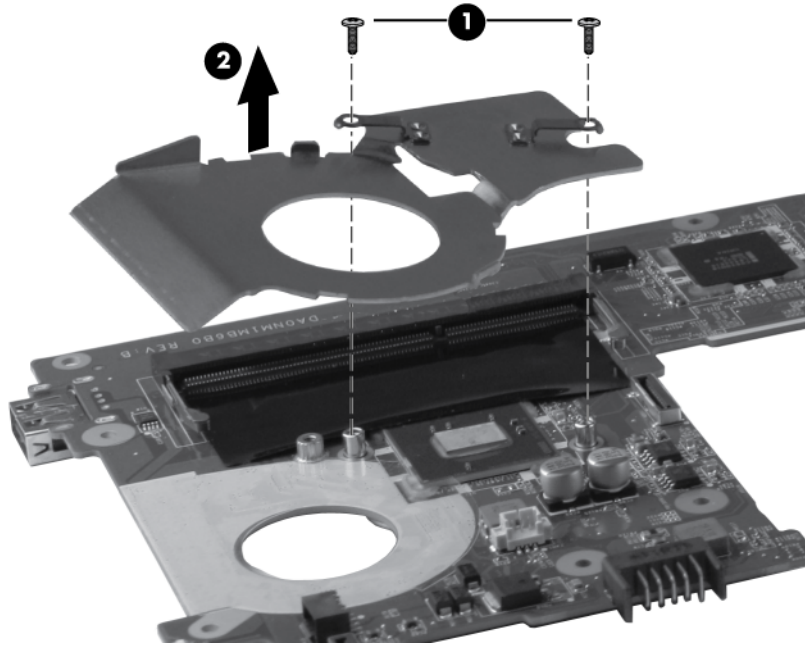



Remove the heat sink:

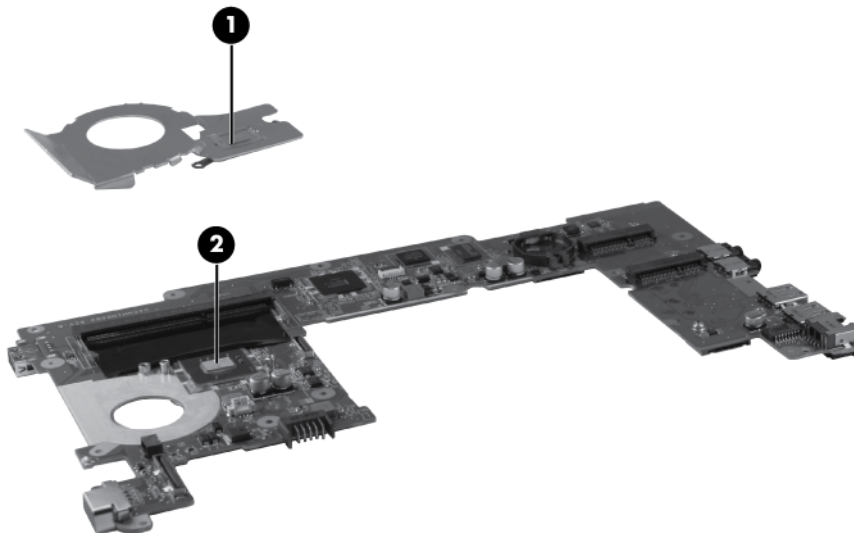
1. Remove the two Phillips M2.0x4.0 screws (1) that secure the heat sink to the system board.

2. Remove the heat sink **(2)** by lifting it straight up from the system board.

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



 **NOTE:** Thermal paste located on the surfaces of the heat sink **(1)** and processor **(2)** must be thoroughly removed and replaced each time the heat sink is removed.



Reverse this procedure to install the Fan and sink.



## Power connector

Description	Spare part number
Power connector	656095-001

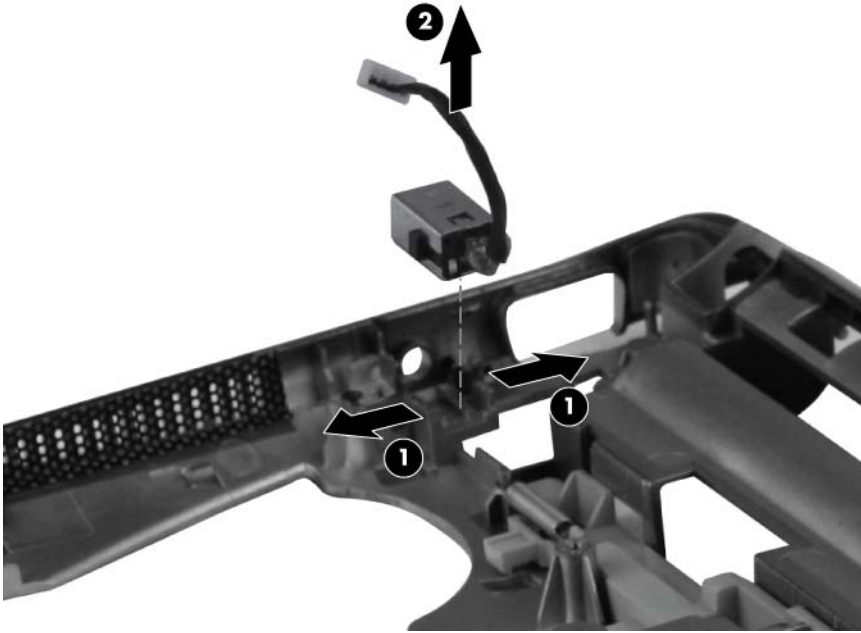
Before removing the power connector, follow these steps:

1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the computer.
3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
4. Remove the battery (see [Battery on page 44](#)).
5. Remove the service door (see [Service door on page 45](#)).
6. Disconnect the hard drive cable from the system board (see [Hard drive on page 50](#)).
7. Disconnect the WLAN antenna cables from the WLAN module (see [WLAN module on page 46](#)).
8. Disconnect the WWAN antenna cables from the WWAN module (see [WWAN module on page 47](#)).
9. Remove the following components:
  - a. Keyboard (see [Keyboard on page 53](#)).
  - b. Top cover (see [Top cover on page 56](#)).
  - c. Display assembly (see [Display assembly on page 61](#)).
  - d. System board (see [System board on page 67](#)).

Remove the power connector:

1. Loosen the tabs **(1)** that secure the power connector to the base enclosure.

2. Remove the power connector (2) by lifting it straight up from the base enclosure.



Reverse this procedure to install the power connector.

---

# 5 Setup Utility

## Starting Setup Utility

Setup Utility is a ROM-based information and customization utility that can be used even when your operating system is not working.

The utility reports information about the computer and provides settings for startup, security, and other preferences.

To start Setup Utility:

- ▲ Open Setup Utility by turning on or restarting the computer, and then pressing **f10** while the “F10=BIOS Setup Options” message is displayed in the lower-left corner of the screen.

## Using Setup Utility

### Changing the language of Setup Utility

The following procedure explains how to change the language of Setup Utility. If Setup Utility is not already running, begin at step 1. If Setup Utility is already running, begin at step 2.

1. Open Setup Utility by turning on or restarting the computer, and then pressing **f10** while the “F10=BIOS Setup Options” message is displayed in the lower-left corner of the screen.
2. Use the arrow keys to select **System Configuration > Language**, and then press **enter**.
3. Use the arrow keys to select a language, and then press **enter**.
4. When a confirmation prompt with your language selected is displayed, press **enter**.
5. To save your change and exit Setup Utility, use the arrow keys to select **Exit > Exit Saving Changes**, and then press **enter**. Your change goes into effect immediately.

Your change goes into effect immediately.

## Navigating and selecting in Setup Utility

Setup Utility does not support the TouchPad. Navigation and selection are by keystroke.

- To choose a menu or a menu item, use the arrow keys.
- To choose an item in a list or to toggle a field, for example an Enable/Disable field, use either the arrow keys or **f5** or **f6**.
- To select an item, press **enter**.
- To close a text box or return to the menu display, press **esc**.
- To display additional navigation and selection information while Setup Utility is open, press **f1**.

## Displaying system information

The following procedure explains how to display system information in Setup Utility. If Setup Utility is not open, begin at step 1. If Setup Utility is open, begin at step 2.

1. Open Setup Utility by turning on or restarting the computer, and then pressing **f10** while the “F10=BIOS Setup Options” message is displayed in the lower-left corner of the screen.
2. Select the **Main** menu. System information such as the system time and date, and identification information about the computer is displayed.
3. To exit Setup Utility without changing any settings, use the arrow keys to select **Exit > Exit Discarding Changes**, and then press **enter**.

## Restoring default settings in Setup Utility

The following procedure explains how to restore the Setup Utility default settings. If Setup Utility is not already running, begin at step 1. If Setup Utility is already running, begin at step 2.

1. Open Setup Utility by turning on or restarting the computer, and then pressing **f10** while the “F10=BIOS Setup Options” message is displayed in the lower-left corner of the screen.
2. Use the arrow keys to select **Exit > Load Setup Defaults**, and then press **enter**.
3. When the Setup Confirmation is displayed, press **enter**.
4. To save your change and exit Setup Utility, use the arrow keys to select **Exit > Exit Saving Changes**, and then press **enter**.

The Setup Utility default settings go into effect when the computer restarts.



---

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

---

# Exiting Setup Utility

You can exit Setup Utility with or without saving changes.

- To exit Setup Utility and save your changes from the current session:

If the Setup Utility menus are not visible, press **esc** to return to the menu display. Then use the arrow keys to select **Exit > Exit Saving Changes**, and then press **enter**.

- To exit Setup Utility without saving your changes from the current session:

If the Setup Utility menus are not visible, press **esc** to return to the menu display. Then use the arrow keys to select **Exit > Exit Discarding Changes**, and then press **enter**. After either choice, the computer restarts in the operating system.

# Setup Utility Menus

## Main Menu

The menu tables in this section provide an overview of the Setup Utility options.



**NOTE:** Some of the Setup Utility menu items listed in this chapter may not be supported by your computer.

Select	To do this
System information	<ul style="list-style-type: none"><li>• View and change the system time and date.</li><li>• View identification information about the computer.</li><li>• View specification information about the processor, memory size, and system BIOS.</li></ul>

## Security Menu

Select	To do this
Administrator password	Enter, change, or delete an administrator password.
Power-On password	Enter, change, or delete a power-on password.

## System Configuration Menu

Select	To do this
Language	Change the Setup Utility language.
Fan Always On	Enable/disable Fan Always On. When enabled, the computer fan will always be on (enabled by default).
Action Keys Mode	Enable/disable Action Keys Mode (enabled by default).
Boot Options	<p>Set the following boot options:</p> <ul style="list-style-type: none"><li>• <b>f10</b> and <b>f12</b> Delay (sec.)—Set the delay for the <b>f10</b> and <b>f12</b> functions of Setup Utility in intervals of 5 seconds each (0, 5, 10, 15, 20).</li><li>• Floppy boot—Enable/disable floppy boot (disabled by default).</li><li>• Internal Network Adapter boot—Enable/disable boot from Internal Network Adapter (disabled by default).</li><li>• Boot Device Priority—Set the boot device priority for:<ul style="list-style-type: none"><li>◦ Internal hard drive</li><li>◦ USB Diskette on Key/USB hard drive</li><li>◦ USB CD/DVD ROM drive</li><li>◦ USB floppy</li><li>◦ Network adapter</li></ul></li></ul> <p><b>NOTE:</b> Only the devices attached to the system will appear in the boot order menu.</p>

## Diagnostics Menu

Select	To do this
Hard Disk Self Test (select models only)	Run a comprehensive self-test on the hard drive.
Memory Test	Run a diagnostic test on the system memory.

# 6 Specifications

## Device specifications

	Metric	U.S.
<b>Dimensions</b>		
Depth	19 cm	7.5 in
Width	27 cm	11 in
Height	2.3-3.2 cm	0.91-0.93 in
<b>Weight</b>		
25.7-cm (10.1-in) LCD, equipped with a 3-cell battery, hard drive, 1-GB memory, WLAN module, and 2 wireless antennas	1.26 kg	2.78lb
25.7-cm (10.1-in). LCD, equipped with a 6-cell battery, hard drive, 1-GB memory, WLAN module, and 2 wireless antennas	1.4 kg	3.09 lb
<b>Input power</b>		
Operating voltage	19.5 V dc @ 2.05A – 40 W	
Operating current	2.05 A	
<b>Temperature</b>		
Operating	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 65°C	-4°F to 140°F
<b>Relative humidity (noncondensing)</b>		
Operating	10% to 90%	
Nonoperating	5% to 95%	
<b>Maximum altitude (unpressurized)</b>		
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
<b>NOTE:</b> Applicable product safety standards specify thermal limits for plastic surfaces. The device operates well within this range of temperatures.		

## 25.7-cm (10.1-in) high-definition AntiGlare display specifications

	Metric	U.S.
<b>Dimensions</b>		
Height	23.45 cm	9.23 in
Width	14.3 cm	5.62 in
Diagonal	25.7 cm	10.1 in
<b>Number of colors</b>	262,144	
<b>Contrast ratio</b>	400:1 (typical)	
<b>Brightness</b>	200 cd/m <sup>2</sup> (typical)	
<b>Pixel resolution</b>		
Pitch	0.16305 × 0.16305 mm	
Format	High-definition: 1366 × 768	
Configuration	RGB vertical stripe	
<b>Backlight</b>	LED	
<b>Character display</b>	80 × 25	
<b>Total power consumption</b>	3.46 W	
<b>Viewing angle</b>	+/-30° horizontal, +10/-20° vertical (typical)	



## 25.7-cm (10.1-in) WSVGA LED AntiGlare display specifications

	Metric	U.S.
<b>Dimensions</b>		
Height	23.5 cm	9.3 in
Width	14.3 cm	5.6 in
Diagonal	25.7 cm	10.1 in
<b>Number of colors</b>	262,144	
<b>Contrast ratio</b>	500:1 (typical)	
<b>Brightness</b>	200 cd/m <sup>2</sup> (typical)	
<b>Pixel resolution</b>		
Pitch	0.2175 × 0.2088 mm	
Format	1024 × 600	
Configuration	RGB vertical stripe	
<b>Backlight</b>	LED	
<b>Character display</b>	80 × 25	
<b>Total power consumption</b> (varies by display)	3.46 W	
<b>Viewing angle</b>	+/-45° horizontal, +15/-35° vertical (typical)	

## Hard drive specifications

	500 GB*	320 GB*	250 GB*
<b>Dimensions</b>			
Height	9.5 mm	9.5 mm	9.5 mm
Width	70 mm	70 mm	70 mm
Weight	101 g	101 g	101 g
<b>Interface type</b>	SATA	SATA	SATA
<b>I/O data transfer rate (maximum)</b>	100 Gb/s	100 Gb/s	100 Gb/s
<b>Security</b>	ATA security	ATA security	ATA security
<b>Seek times</b> (typical read, including setting)			
Single track	3 ms	3 ms	3 ms
Average (read/write)	13 ms	13 ms	13 ms
Maximum	24 ms	24 ms	24 ms
<b>Logical blocks</b>	1,048,576,000	625,141,400	488,397,168
<b>Disc rotational speed</b>	5400-rpm	5400-rpm	5400-rpm
<b>Operating temperature</b>	5°C to 55°C (41°F to 151°F)	5°C to 55°C (41°F to 131°F)	5°C to 55°C (41°F to 131°F)

\*1 GB = 1 billion bytes when referring to hard drive storage capacity. Actual accessible capacity is less. Actual drive specifications may differ slightly.

**NOTE:** Certain restrictions and exclusions apply. Contact technical support through **Help and Support** (Windows) or **Help** (Linux) for details.


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# 7 Backup and recovery

## Backing up and recovering your information


It is very important to back up your files and keep any new software in a safe place. As you add new software and data files, continue to create backups on a regular basis.

How completely you are able to recover your system depends on how recent your backup is.

 **NOTE:** A recovery from your most recent backup needs to be performed if the computer has a virus attack or if any major system components fail. To correct computer issues, a recovery should first be attempted before a system restore is attempted.

You can back up your information to an optional external hard drive, a network drive, or flash drive. Back up your system at the following times:

- At regularly scheduled times

 **TIP:** Set reminders to back up your information periodically.

- Before the computer is repaired or restored
- Before you add or modify hardware or software

## Windows 7 backup and recovery

- [Restore](#)
- [Creating restore media](#)
- [Performing a system restore](#)
- [Backing up and recovering your information](#)

Your computer includes tools provided by the operating system and HP to help you safeguard your information and restore it if ever needed.


This section provides information on the following topics:

- Creating a set of recovery discs or a recovery flash drive (HP Recovery Manager software feature)
- Performing a system restore (from the partition, recovery discs, or a recovery flash drive)
- Backing up your information
- Recovering a program or driver

## Restore


In the event of hard drive failure, to restore your system to its factory image you will need a set of recovery discs or a recovery flash drive that you can create using HP Recovery Manager. HP recommends that you use this software to create either a set of recovery discs or a recovery flash drive immediately after software setup.


If for some other reason you need to restore your system, this can be achieved using the HP Recovery partition, without the need for recovery discs or a recovery flash drive. To check for the presence of a recovery partition, click **Start**, right-click **Computer**, click **Manage**, and then click **Disk Management**. If the recovery partition is present, a Recovery drive is listed in the window.

 **CAUTION:** HP Recovery Manager (partition or discs/flash drive) restores only software that was preinstalled at the factory. Software not provided with this computer must be reinstalled manually.

## Creating restore media


HP recommends that you create either a set of recovery discs or a recovery flash drive to be sure that you can restore your computer to its original factory state if the hard drive fails, or if for any reason you cannot restore using the recovery partition tools. Create these discs or the flash drive after setting up the computer for the first time.

 **NOTE:** HP Recovery Manager allows the creation of only one set of recovery discs or one recovery flash drive. Handle these discs or flash drive carefully and keep them in a safe place.


 **NOTE:** You can use an optional external optical drive (purchased separately) to create recovery discs, or you can use a flash drive. For information about purchasing recovery media for your computer, refer to the HP web site. If you use an external optical drive, it must be connected directly to a USB port on the computer, not to a USB port on an external device, such as a USB hub.

Guidelines:

- Purchase high-quality DVD-R, DVD+R, DVD-R DL, or DVD+R DL discs.

 **NOTE:** Read-write discs, such as CD-RW, DVD±RW, double-layer DVD±RW, and BD-RE (rewritable Blu-ray) discs, are not compatible with the HP Recovery Manager software.

- The computer must be connected to AC power during this process.
- Only one set of recovery discs or one recovery flash drive can be created per computer.

 **NOTE:** If you are creating recovery discs, number each disc before inserting it into the optical drive.

- If you using a flash drive, you will need at least 8 GB of free space on the storage device. However, depending on the drivers and software installed on your computer, you may need slightly more than 8 GB of space. **HP recommends that you use a 16 GB device for best results.**
- If necessary, you can exit the program before you have finished creating the recovery discs or recovery flash drive. The next time you open HP Recovery Manager, you will be prompted to continue the backup creation process.


To create a set of recovery discs or a recovery flash drive:

1. Select **Start > All Programs > HP > HP Recovery Manager > HP Recovery Media Creation**.
2. Follow the on-screen instructions.

## Performing a system restore

HP Recovery Manager software allows you to repair or restore the computer to its original factory state. Recovery Manager works from recovery discs or from a dedicated recovery partition on the hard drive.

---

 **NOTE:** A system restore needs to be performed if the computer hard drive has failed or if all attempts to correct any functional computer issues fail. A system restore should be used as a final attempt to correct computer issues.

---

Note the following when performing a system recovery:

- You can recover only files that you have previously backed up. HP recommends that you use HP Recovery Manager to create a set of recovery discs or a recovery flash drive as soon as you set up the computer.
- Windows has its own built-in repair features, such as System Restore. If you have not already tried these features, try them before using Recovery Manager.
- HP Recovery Manager recovers only software that was preinstalled at the factory. Software not provided with this computer must be downloaded from the manufacturer's web site or reinstalled from the media provided by the manufacturer.

## Recovering using the dedicated recovery partition

When using the dedicated recovery partition, there is an option to back up pictures, music and other audio, videos and movies, recorded TV shows, documents, spreadsheets and presentations, e-mails, Internet favorites and settings during this process.

To restore the computer from the partition, follow these steps:

1. Access Recovery Manager in either of the following ways:
  - Select **Start > All Programs > Recovery Manager > Recovery Manager**.
  - or –
  - 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. Then, press **f11** while the “F11 (HP Recovery)” message is displayed on the screen.
2. Click **System Recovery** in the **Recovery Manager** window.
3. Follow the on-screen instructions.


## Recovering using the restore media

1. If possible, back up all personal files.
2. Insert the recovery flash drive into a USB port on your computer, and then restart the computer.

– or –

Insert the first recovery disc into the optical drive on your computer or an optional external optical drive, and then restart the computer.

---

 **NOTE:** If the computer does not automatically restart in the HP Recovery Manager, the computer boot order needs to be changed.

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3. Press **f9** at system bootup.

4. Select the optical drive or the flash drive.
5. Follow the on-screen instructions.

## Changing the computer boot order

To change the boot order for recovery flash drive:

1. Insert the flash drive into a USB port.
2. Restart the computer.
3. Press **esc** while the computer is restarting, and then press **f9** for boot options.
4. Select the flash drive from the boot options window.

To change the boot order for recovery discs:

1. Restart the computer.
2. Press **esc** while the computer is restarting, and then press **f9** for boot options.
3. Select **External CD/DVD ROM Drive** from the boot options window.

## Backing up and recovering your information

You should back up your computer files on a regular schedule to maintain a current backup. You can back up your information to an optional external hard drive, a network drive, or discs. Back up your system at the following times:

- At regularly scheduled times



**NOTE:** Set reminders to back up your information periodically.

---

- Before the computer is repaired or restored
- Before you add or modify hardware or software

Guidelines:

- Create system restore points using the Windows System Restore feature, and periodically copy them to an optical disc or an external hard drive. For more information on using system restore points, refer to [Using Windows system restore points on page 87](#).
- Store personal files in the Documents library and back up this folder periodically.
- Save customized settings in a window, toolbar, or menu bar by taking a screen shot of your settings. The screen shot can be a time-saver if you have to reset your preferences.

To create a screen shot:

1. Display the screen you want to save.
2. Copy the screen image:
  - To copy only the active window, press **alt+fn+prt sc**.
  - To copy the entire screen, press **prt sc**.
3. Open a word-processing document, and then select **Edit > Paste**. The screen image is added to the document.
4. Save and print the document.

## Using Windows Backup and Restore

Windows Backup and Restore allows you to back up individual files or back up the entire computer image.


Guidelines:

- Be sure that the computer is connected to AC power before you start the backup process.
- Allow enough time to complete the backup process. Depending on file sizes, it may take over an hour.

To create a backup:

1. Select **Start > Control Panel > System and Security > Backup and Restore**.
2. Follow the on-screen instructions to schedule and create a backup.

---


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

---

## Using Windows system restore points

A system restore point allows you to save and name a snapshot of your hard drive at a specific point in time. You can then recover back to that point if you want to reverse subsequent changes.

---

 **NOTE:** Recovering to an earlier restore point does not affect data files saved or e-mails created since the last restore point.


---

You also can create additional restore points to provide increased protection for your files and settings.

### When to create restore points

- Before you add or extensively modify software or hardware
- Periodically, whenever the computer is functioning optimally

---

 **NOTE:** If you revert to a restore point and then change your mind, you can reverse the restoration.

---

### Create a system restore point

1. Select **Start > Control Panel > System and Security > System**.
2. In the left pane, click **System Protection**.
3. Click the **System Protection** tab.
4. Follow the on-screen instructions.

### Restore to a previous date and time

To revert to a restore point (created at a previous date and time), when the computer was functioning optimally, follow these steps:


1. Select **Start > Control Panel > System and Security > System**.
2. In the left pane, click **System Protection**.
3. Click the **System Protection** tab.


4. Click **System Restore**.
5. Follow the on-screen instructions.

## Linux backup and recovery

### Performing a system recovery

Recovery allows you to repair or restore the computer to its original factory state. You can create an HP factory image restore DVD, using an external DVD±RW optical drive. You can also create an HP factory restore image on a USB storage device.

 **CAUTION:** Using Recovery completely erases hard drive contents and reformats the hard drive. All files you have created and any software installed on the computer are permanently removed. The recovery tool reinstalls the original operating system and HP programs and drivers that were installed at the factory. Software, drivers, and updates not installed by HP must be manually reinstalled. Personal files must be restored from a backup.

 **NOTE:** HP recommends that you create the HP factory image restore in the event of a system failure.


### Creating the restore DVDs

The restore creation software creates a set of system restore discs using blank, writable DVDs (DVD-R or DVD+R). HP recommends using blank DVD+R discs from a manufacturer you trust, because these recovery DVDs are so important. You need approximately 3 blank DVD+R discs. The program states how many discs are needed at the beginning of the process.

To create restore DVDs:

1. Select **Computer > More Applications**.
2. Click **Tools**, and then click **Create Restore DVDs**.
3. Follow the on-screen instructions.

### Creating a restore image on a USB device

 **NOTE:** Be sure AC power is connected to the computer you begin.

Verify the exact amount of free space on your storage device before you begin the creation process. For most models, you will need at least 8 GB of free space on the storage device. However, depending on the drivers and software installed on your computer, you may need slightly more than 8 GB of space. **HP recommends that you use a 16 GB device for best results.**

To create the restore image:

1. Select **Computer > More Applications**.
2. Click **Tools**, and then click **Create Restore USB**.
3. Follow the on-screen instructions.


### Performing recovery using the restore DVD

1. If possible, back up all personal files.
2. Shut down the computer.
3. Be sure the restore DVD or USB device is connected to the computer.



4. Restart the computer.
5. Using the arrow keys, select **Recovery**, and then press [enter](#).
6. Follow the on-screen instructions.

---

 **NOTE:** If you are unable to boot (start up) your computer with the primary operating system, and you did not create a system recovery disc, you must purchase a *SUSE Linux Enterprise Desktop Operating System DVD* to reinstall the operating system. For additional information, refer to the *Worldwide Telephone Numbers* booklet.

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## Backing up your information

You should back up your computer files on a regular schedule to maintain a current backup. You can manually back up your information to an optional external drive, a network drive, or discs. Back up your system at the following times:


- At regularly scheduled times
- Before the computer is repaired or restored
- Before you add or modify hardware or software

To back up your home directory files using Backup Manager Settings:

1. Select **Computer > More Applications > Backup Manager Settings**, and then click **Backup my home directory**.
2. Click the **Storage Destination Location** menu and select a location to back up your information.
3. Click the **Schedule** menu and select a time schedule to perform backups at a regularly scheduled time.

To immediately back up your information, select the **Backup Now** check box.

---

 **NOTE:** Before you back up your information, be sure you have designated a location to save the backup files.


---

4. Click **Save and Backup** to start the backup and to save the backup settings.

To restore backup files:

1. Select **Computer > More Applications > Backup Manager Restore**.
2. Click the **Backup Source** menu and select the location of the backup files.
3. Click the **Restore Destination** menu and select the destination to restore the files.
4. To restore all files from the selected location, click **Restore all files**. To restore selected files only, click **Restore selected files**, click **Select Files**, and then select the files to be restored.
5. Under **Restore Point**, click the time and date of the backup.

---

 **NOTE:** If multiple backups have been performed, click **Use the latest version** to restore the latest version.

---

6. Click **Restore** to start restoring the files, or click **Cancel** to cancel the operation.

---

## 8 Power cord set requirements

The wide-range input feature of the computer permits it to operate from any line voltage from 100 to 120 V ac, or from 220 to 240 V ac.

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

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

### Requirements for all countries

The following requirements are applicable to all countries and regions:

- The length of the power cord set must be at least **1.5 m** (5.0 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 A and a nominal voltage rating of 125 or 250 V ac, as required by the power system of each country or region.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector for mating with the appliance inlet on the back of the computer.

## Requirements for specific countries and regions

Country/region	Accredited agency	Applicable note number
Argentina	IRAM	1
Australia	SAA	1
Austria	OVE	1
Belgium	CEBEC	1
Brazil	ABNT	1
Canada	CSA	2
Chile	IMQ	1
Denmark	DEMKO	1
Finland	FIMKO	1
France	UTE	1
Germany	VDE	1
India	ISI	1
Israel	SII	1
Italy	IMQ	1
Japan	JIS	3
The Netherlands	KEMA	1
New Zealand	SANZ	1
Norway	NEMKO	1
The People's Republic of China	CCC	4
Saudi Arabia	SASO	7
Singapore	PSB	1
South Africa	SABS	1
South Korea	KTL	5
Sweden	SEMKO	1
Switzerland	SEV	1
Taiwan	BSMI	6
Thailand	TISI	1
The United Kingdom	ASTA	1

Country/region	Accredited agency	Applicable note number
The United States	UL	2
<ol style="list-style-type: none"> <li>1. The flexible cord must be Type HO5VV-F, 3-conductor, 0.75 mm<sup>2</sup> conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.</li> <li>2. The flexible cord must be Type SVT/SJT 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 ac) or NEMA 6-15P (15 A, 250 V ac) configuration. CSA or C-UL mark. UL file number must be on each element.</li> <li>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 VCTF, 3-conductor, 0.75 mm<sup>2</sup> or 1.25 mm<sup>2</sup> conductor size. The wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (7 A, 125 V ac) configuration.</li> <li>4. The flexible cord must be Type RVV, 3-conductor, 0.75 mm<sup>2</sup> conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the CCC certification mark.</li> <li>5. The flexible cord must be Type H05VV-F 3-conductor, 0.75 mm<sup>2</sup> conductor size. KTL logo and individual approval number must be on each element. Corset approval number and logo must be printed on a flag label.</li> <li>6. The flexible cord must be Type HVCTF 3-conductor, 1.25 mm<sup>2</sup> conductor size. Power cord set fittings (appliance coupler, cable, and wall plug) must bear the BSMI certification mark.</li> <li>7. For 127 V ac, the flexible cord must be Type SVT or SJT 3-conductor, 18 AWG, with plug NEMA 5-15P (15 A, 125 V ac), with UL and CSA or C-UL marks. For 240 V ac, the flexible cord must be Type H05VV-F 3-conductor, 0.75 mm<sup>2</sup> or 1.00 mm<sup>2</sup> conductor size, with plug BS 1363/A with BSI or ASTA marks.</li> </ol>		

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## 9 Recycling

When a 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 website at [www.hp.com/recycle](http://www.hp.com/recycle).

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