HP Compaq 6735b Notebook PC and HP Compaq 6730b Notebook PC Maintenance and Service Guide

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Safety warning notice

▲ WARNING! To reduce the possibility of heat-related injuries or of overheating the computer, do not place the computer directly on your lap or obstruct the computer air vents. Use the computer 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 computer 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 Compaq 6730b Notebook PC with WWAN	HP Compaq 6730b Notebook PC without WWAN	HP Compaq 6735b Notebook PC with WWAN	HP Compaq 6735b Notebook PC without WWAN
Product Name	HP Compaq 6730b Notebook PC	V	√		
	HP Compaq 6735b Notebook PC			√	V
Processors	 Intel® Core™ 2 Duo T9600 2.80-GHz processor, 35W, 6- MB L2 cache, 800- MHz front side bus (FSB) 	V	V		
	• Intel Core 2 Duo P9500 2.53-GHz processor, 25W, 6- MB L2 cache, 800- MHz FSB	V	V		
	• Intel Core 2 Duo T9400 2.53-GHz processor, 35W, 3- MB L2 cache, 800- MHz FSB	V	V		
	 Intel Core 2 Duo P8600 2.40-GHz processor, 25W, 3- MB L2 cache, 800- MHz FSB 	V	٧		
	• Intel Core 2 Duo P8400 2.26-GHz processor, 25W, 3- MB L2 cache, 800- MHz FSB	V	V		
	 AMD Turion™ X2 Ultra Dual Core ZM-86 2.40-GHz processor, 35W, 2-MB L2 cache 			V	V
	 AMD Turion X2 Ultra Dual Core ZM-82 2.20-GHz processor, 35W, 2-MB L2 cache 			√	V

Category	Description	HP Compaq 6730b Notebook PC with WWAN	HP Compaq 6730b Notebook PC without WWAN	HP Compaq 6735b Notebook PC with WWAN	HP Compaq 6735b Notebook PC without WWAN
	 AMD Turion X2 Ultra Dual Core ZM-80 2.10-GHz processor, 35W 2-MB L2 cache 			٨	V
	 AMD Turion X2 Dual Core RM-70 2.00- GHz processor, 35W, 1-MB L2 cache 			V	√
	 AMD Athlon™ X2 QL-60 1.90-GHz processor, 35W, 1- MB L2 cache 			٧	√
	 AMD Sempron™ SI-40 2.00-GHz processor, 25W, 512-KB L2 cache 			٧	√
Chipset	Northbridge: GE45Southbridge: ICH9M	V	V		
	-			√	√
	Northbridge: M780G			V	V
	Southbridge: SB700				
Graphics	Mobile Intel® Graphics Media Accelerator 4500MHD	\checkmark	\checkmark		
	Intel Universal Memory Architecture (UMA) graphics subsystem integrated with shared video memory (dynamically allocated)	√	V		
	ATI Radeon HD 3200 Graphics			√	V
	UMA graphics subsystem integrated with shared video memory (dynamically allocated)			٧	V
Panels	All display assemblies include 2 wireless local area network (WLAN) antennae	٧	V	٧	√
	15.4-inch WXGA BrightView	√	√	V	√
	• 15.4-inch WXGA+				
	15.4-inch WXGA				
Memory	2 customer-accessible/ upgradable memory module slots	√	V	V	V

Category	Description	HP Compaq 6730b Notebook PC with WWAN	HP Compaq 6730b Notebook PC without WWAN	HP Compaq 6735b Notebook PC with WWAN	HP Compaq 6735b Noteboo PC without WWAN
	Supports dual-channel memory	\checkmark	٧	√	V
	Supports up to 4 GB of system RAM	\checkmark	V	√	V
	PC2-6400, 800-MHz, DDR2	\checkmark	V	V	V
	Supports the following configurations:	\checkmark	V	√	V
	 8192-MB total system memory (4096 × 2, dual- channel) 				
	• 4096-MB total system memory (4096 × 1)				
	 4096-MB total system memory (2048 × 2, dual- channel) 				
	 3072-MB total system memory (2048 + 1024, dual- channel) 				
	 2560-MB total system memory (2048 + 512, dual- channel) 				
	 2048-MB total system memory (2048 × 1) 				
	 2048-MB total system memory (1024 × 2, dual- channel) 				
	 1536-MB total system memory (1024 + 512, dual- channel) 				
	 1024-MB total system memory (1024 × 1) 				
Hard drives	Supports 9.5-mm, 2.5-inch hard drives	1	V	V	V
	Customer-accessible	√	√	√	√
	Serial ATA	√	√	√	√

Category	Description	HP Compaq 6730b Notebook PC with WWAN	HP Compaq 6730b Notebook PC without WWAN	HP Compaq 6735b Notebook PC with WWAN	HP Compaq 6735b Notebool PC without WWAN
	Supports the following drives:	√	V	V	V
	• 250-GB, 5400-rpm				
	• 160-GB, 5400-rpm				
	• 120-GB, 7200-rpm				
	• 120-GB, 5400-rpm				
Optical drives	Fixed (loosening of 1 screw required)	√	\checkmark	√	V
	Customer-accessible	√	\checkmark	√	\checkmark
	Parallel ATA	V	V	V	\checkmark
	12.7-mm tray load	\checkmark	\checkmark	\checkmark	\checkmark
	Supports the following drives:	\checkmark	\checkmark	√	V
	 DVD±RW and CD- RW SuperMulti Double-Layer Combo Drive with LightScribe 				
	DVD/CD-RW Combo Drive				
	DVD-ROM Drive				
Diskette drive	Supports external USB diskette drive only	√	V	√	V
	Supports boot from external USB diskette drive	V	√	√	√
	Supports 3-mode diskette drive	\checkmark	\checkmark	√	V
Audio	High-definition audio 1984A - HD	√	√	√	V
	Integrated stereo microphone	√	√	V	V
	Integrated dual array microphone with camera only	V	V	V	√
	Integrated VGA camera	√	V	V	$\sqrt{}$
	Stereo speakers (2)	V	1	V	\checkmark
Modem	No-modem option available in Japan only	√	V	√	√

Category	Description	HP Compaq 6730b Notebook PC with WWAN	HP Compaq 6730b Notebook PC without WWAN	HP Compaq 6735b Notebook PC with WWAN	HP Compaq 6735b Notebook PC without WWAN				
	56K V.92 1.5-inch data/ fax modem with digital line guard	√	V	V	V				
Ethernet	Low-cost 10/100/1000 Ethernet network interface card (NIC)	V	√	√	√				
	NIC Power Down Technology	V	√	V	V				
	S4/S5 wake on local area network (LAN) on AC power	V	V	√	V				
	Power Down Technology S4/S5 wake on LAN (on/ AC)	V	V	√	V				
Wireless	Integrated WLAN options	by way of wirele	ess module:						
	Support for no WLAN option	√							
	Intel 802.11a/b/g/n (not available with Linux operating system)	V							
	Intel 802.11a/b/g	√	V						
	Intel 802.11b/g	√	\checkmark						
	Integrated WLAN options by way of wireless module:								
	Wireless wide area network (WWAN) module	√							
	Subscriber identity module (SIM) user- accessible inside the battery bay	1							
	Integrated personal area network (PAN) options by way of Bluetooth® module:								
	No-WPAN option available	√	V						
	Broadcom Bluetooth 2.0 +EDR	√	√						
External media card	One ExpressCard/54 slot	V	\checkmark	V	\checkmark				
	Media Card Reader supporting Memory Stick, Memory Stick Pro, MultiMediaCard, MultiMediaCard Plus, Secure Digital (SD) Memory Card, SD High Capacity Memory Card, xD-Picture Card, xD-	√	V	V	V				

Category	Description	HP Compaq 6730b Notebook PC with WWAN	HP Compaq 6730b Notebook PC without WWAN	HP Compaq 6735b Notebook PC with WWAN	HP Compaq 6735b Notebook PC without WWAN
	Picture Card Type H, and xD-Picture Card Type M				
Ports	Audio-in (stereo microphone)	√	V	√	V
	 Audio-out (stereo headphone) 				
	 Docking 				
	RJ-11 (modem)				
	RJ-45 (Ethernet, includes link and activity lights)				
	 Serial 				
	S-Video-out (7 pin)				
	Travel battery				
	• USB (4)				
	VGA (Dsub 15-pin) supporting 1600 × 1200 external resolution at 75-GHz (hot plug/unplug with auto-detect)				
	• 1394a				
	3-pin HP Smart AC Adapter				
Docking	Support for HP 3-in-1 NAS Docking Station, HP Advanced Docking Station, and HP Docking Station	√	٧	√	٧
Keyboard/ pointing devices	31.20-mm (12.28-inch) keyboard with embedded numeric keypad	V	V	√	V
	TouchPad only, with 2 TouchPad buttons and vertical scrolling (taps enabled as default)	٧	V	٧	√
	Touch-sensitive controls	√	V	V	V
	Spill-resistant	V	V	V	V
Power requirements	90-W HP Smart AC Adapter with localized cable plug support (2-wire plug with ground pin, supports 2-pin DC	V	٧	V	V

Category	Description	HP Compaq 6730b Notebook PC with WWAN	HP Compaq 6730b Notebook PC without WWAN	HP Compaq 6735b Notebook PC with WWAN	HP Compaq 6735b Noteboo PC without WWAN
	connector) and HP Fast Charge Technology				
	6-cell, 55-Wh Li-ion battery	√	V	V	V
	6-cell, 47-Wh Li-ion battery	1	V	V	V
	Support for 8-cell Li-ion Extended Life Battery and 12-cell Ultra Capacity Battery	1	V	√	√
Security	Supports Kensington security lock	V	V	V	V
	Trusted platform module (TPM) v. 1.2	V	V	V	V
	Enhanced Drive Lock	V	√	√	√
	Fingerprint reader	√	V	V	√
	Integrated smart card reader	√	V	√	V
Operating system	Preinstalled: Windows Vista® 32 Home Basic Windows Vista Business 32 Windows Vista Business 32 (with Windows® XP Pro images) FreeDOS Red Flag Linux	V	V	V	V
	Restore media: Windows Vista 32 Home Basic Windows Vista Business 32 Windows Vista Business 64 Windows Vista Ultimate Windows XP Pro, Service Pack 2	V		V	√ ·

Category	Description	HP Compaq 6730b Notebook PC with WWAN	HP Compaq 6730b Notebook PC without WWAN	HP Compaq 6735b Notebook PC with WWAN	HP Compaq 6735b Notebook PC without WWAN
	Windows Vista (DRDVD)				
	 Windows XP Pro (DRDVD) 				
	Certified:	V	√	√	√
	Microsoft WHQL				
	SuSE Linux				
	Web support:	\checkmark	\checkmark	\checkmark	\checkmark
	Windows XP Pro				
	 Windows Vista Enterprise 				
Serviceability	End-user replaceable parts:	√	V	√	V
	 AC adapter 				
	 Battery (system) 				
	Hard drive				
	 Memory modules (expansion and primary) 				
	 Optical drive 				
	• SIM				
	WLAN module				
	WWAN module				

2 External component identification

Top components

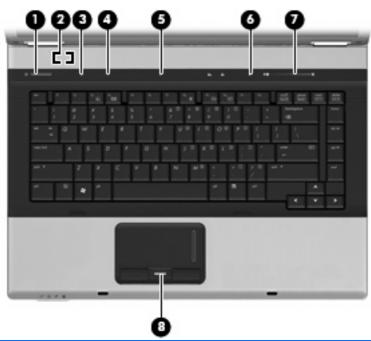
Top components



Item	Component	Function
(1)	WLAN antenna locations	Send and receive signals from one or more WLAN devices. These antennae are not visible from the outside of the computer.
(2)	Internal microphones (2) (select models only)	Record sound. NOTE: Some models have one internal microphone.
(3)	WWAN antenna locations (select models only)	Send and receive signals from one or more WWAN devices. These antennae are not visible from the outside of the computer.

Item	Component	Function
(4)	Webcam light (select models only)	On: The integrated camera is in use.
(5)	HP Webcam (select models only)	Records audio and video and captures still photographs.

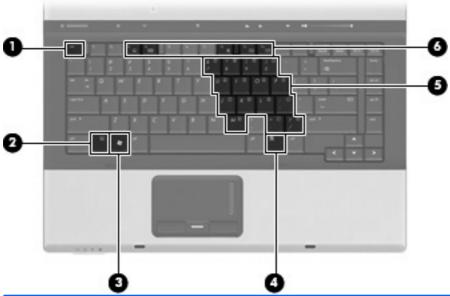
Buttons, switches, and fingerprint reader



Item	Component	Function
(1)	Power button	 When the computer is off, press the button to turn on the computer.
		 When the computer is on, press the button to initiate Hibernation.
		 When the computer is in Hibernation, press the button briefly to exit Hibernation.
		 When the computer is in the Sleep state, press the button briefly to exit Sleep.
		If the computer has stopped responding and Windows® shutdown procedures are ineffective, press and hold the power button for at least 5 seconds to turn off the computer.
		To learn more about your power settings, select Start > Control Panel > System and Maintenance > Power Options .
(2)	Internal display switch	Turns off the display if the display is closed while the power is on.

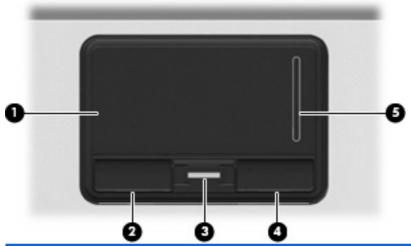
Item	Component	Function
(3)	Info button	Launches Info Center, which provides shortcuts, such as the following:
		 HP 3D DriveGuard—Controls settings for software that protects the hard drive by parking the drive when the computer is dropped or moved.
		 HP Software Setup—Installs preloaded applications to make them accessible to the user.
		 HP Wireless Assistant—Turns wireless devices on or off.
		NOTE: If a wireless device is disabled in Computer Setup, it must first be reenabled in Computer Setup before it can be turned on or off using Wireless Assistant.
		 System Information—Describes the memory, processor speed, BIOS (basic input-output system) and other essential information about your computer system.
		NOTE: Click the Advanced button to see more information about your system.
		 User Guides—Provide specific details about the computer, including your components, power, drives, multimedia, security, and wireless features.
		NOTE: After you configure QuickLook 2, you can open this feature by pressing the info button when the computer is off or in Hibernation.
(4)	Presentation button	Opens the Presentation Options window, where you can start a frequently used presentation, file, program, or Web site. You can also adjust display settings for optimum viewing.
(5)	Wireless button	Turns the wireless feature on or off but does not establish a wireless connection.
		NOTE: You must set up or access a wireless network to establish a wireless connection.
(6)	Volume mute button	Mutes and restores speaker sound.
(7)	Volume scroll zone	Adjusts speaker volume. Slide your finger to the left to decrease volume and to the right to increase volume. You can also press and hold the minus (-) sign to decrease volume, or press and hold the plus (+) sign to increase volume.
(8)	Fingerprint reader (select models only)	Allows a fingerprint logon to Windows, instead of a password logon.

Keys



Item	Component	Function
(1)	esc key	Displays system information when pressed in combination with the fn key.
(2)	fn key	Executes frequently used system functions when pressed in combination with a function key or the esc key.
(3)	Windows logo key	Displays the Windows Start menu.
(4)	Windows applications key	Displays a shortcut menu for items beneath the pointer.
(5)	Embedded numeric keypad keys	Can be used like the keys on an external numeric keypad.
(6)	Function keys	Execute frequently used system functions when pressed in combination with the fn key.

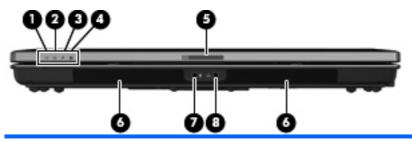
TouchPad



Item	Component	Function
(1)	TouchPad*	Moves the pointer and selects or activates items on the screen.
(2)	Left TouchPad button*	Functions like the left button on an external mouse.
(3)	Fingerprint reader (select models only)	Allows a fingerprint logon to Windows, instead of a password logon.
(4)	Right TouchPad button*	Functions like the right button on an external mouse.
(5)	TouchPad scroll zone	Functions like the right button on an external mouse.

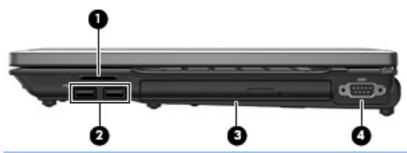
^{*}This table describes factory settings. To view or change pointing device preferences, select **Start > Control Panel > Hardware** and **Sound > Mouse**.

Front components



Item	Component	Function
(1)	Wireless light	 Blue: An integrated wireless device, such as a wireless local area network (WLAN) device, an HP Broadband Wireless Module, and/or a Bluetooth device, is on.
		Amber: All wireless devices are off.
(2)	Power light	On: The computer is on.
		Blinking: The computer is in the Sleep state.
		 Blinking rapidly: An AC adapter with a higher power rating should be connected.
		Off: The computer is off or in Hibernation.
(3)	Battery light	Amber: A battery is charging.
		Turquoise: A battery is close to full charge capacity.
		 Blinking amber: A battery that is the only available power source has reached a low battery level. When the battery reaches a critical battery level, the battery light begins blinking rapidly.
		 Off: If the computer is plugged into an external power source, the light turns off when all batteries in the computer are fully charged. If the computer is not plugged into an external power source, the light stays off until the battery reaches a low battery level.
(4)	Drive light	Blinking: The hard drive or optical drive is being accessed.
		 Amber (select models only): HP 3D DriveGuard has temporarily parked the hard drive.
(5)	Display release latch	Opens the computer.
(6)	Speakers (2)	Produce sound.
(7)	Audio-out (headphone) jack	Produces sound when connected to optional powered stereo speakers, headphones, ear buds, a headset, or television audio.
		NOTE: When a device is connected to the headphone jack, the computer speakers are disabled.
(8)	Audio-in (microphone) jack	Connects an optional computer headset microphone, stereo array microphone, or monaural microphone.

Right-side components



NOTE: Refer to the illustration that most closely matches your computer.

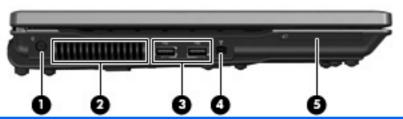
Item	Component	Function
(1)	Media Card Reader (select models only)	Supports the following optional digital card formats:
		Memory Stick
		Memory Stick Pro
		 MultiMediaCard
		MultiMediaCard Plus
		Secure Digital Memory Card
		Secure Digital High Capacity Memory Card
		xD-Picture Card
		xD-Picture Card Type H
		xD-Picture Card Type M
(2)	USB ports (2) (select models only)	Connect optional USB devices.
(3)	Optical drive	Reads an optical disc.
(4)	Serial port	Connects an optional device, such as a modem, mouse, or printer.



Item	Component	Function
(1)	Media Card Reader (select models only)	Supports the following optional digital card formats:
		Memory Stick
		Memory Stick Pro

Item	Component	Function
		MultiMediaCard
		MultiMediaCard Plus
		Secure Digital Memory Card
		Secure Digital High Capacity Memory Card
		xD-Picture Card
		xD-Picture Card Type H
		xD-Picture Card Type M
(2)	USB ports (2) (select models only)	Connect optional USB devices.
(3)	Optical drive	Connect optional USB devices.
(4)	RJ-11 (modem) jack	Connects a modem cable.
(5)	Security cable slot	Attaches an optional security cable to the computer.
		NOTE: The security cable is designed to act as a deterrent, but it may not prevent the computer from being mishandled or stolen.

Left-side components



Item	Component	Function
(1)	Power connector	Connects an AC adapter.
(2)	Vent	Enables airflow to cool internal components.
		NOTE: 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.
(3)	USB ports (2)	Connect optional USB devices.
(4)	1394 port (select models only)	Connects an optional IEEE 1394 or 1394a device, such as a camcorder.
(5)	ExpressCard slot	Supports optional ExpressCards.

Rear components

NOTE: Refer to the illustration that most closely matches your computer.

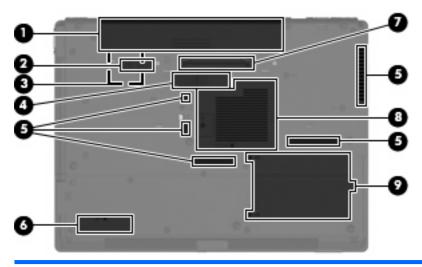


Item	Component	Function
(1)	Security cable slot	Attaches an optional security cable to the computer.
		NOTE: The security cable is designed to act as a deterrent, but it may not prevent the computer from being mishandled or stolen.
(2)	RJ-11 (modem) jack	Connects a modem cable.
(3)	RJ-45 (network) jack	Connects a network cable.
(4)	External monitor port	Connects an external VGA monitor or projector.
(5)	S-Video-out jack	Connects an optional S-Video device such as a television, VCR, camcorder, overhead projector, or video capture card.



Item	Component	Function	
(1)	RJ-45 (network) jack	Connects a network cable.	
(2)) External monitor port Connects an external VGA monitor or projector.		
(3)	S-Video-out jack	Connects an optional S-Video device such as a television, VCR, camcorder, overhead projector, or video capture card.	

Bottom components



Item	Component	Function	
(1)	Battery bay	Holds the battery.	
(2)	Battery release latch	Releases the battery from the battery bay.	
(3)	SIM slot (select models only)	Contains a WWAN SIM. The SIM slot is located inside the battery bay.	
(4)	Accessory battery connector	Connects an optional accessory battery.	
(5)	Vents (5)	Enable airflow to cool internal components.	
		NOTE: 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.	
(6)	Expansion memory module compartment	Contains the expansion memory module slot and the WLAN module.	
		CAUTION: 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.	
(7)	Bluetooth module compartment (select models only)	Contains a Bluetooth device.	
(8)	Hard drive bay	Holds the hard drive.	
(9)	Docking connector (select models only)	Connects an optional docking device.	

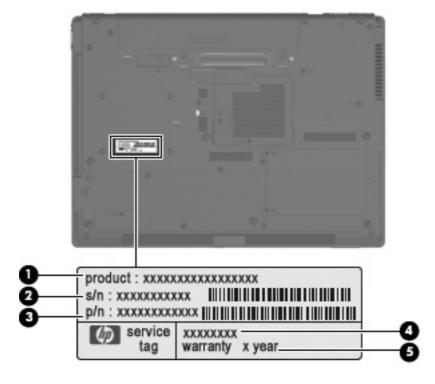
3 Illustrated parts catalog

Service tag

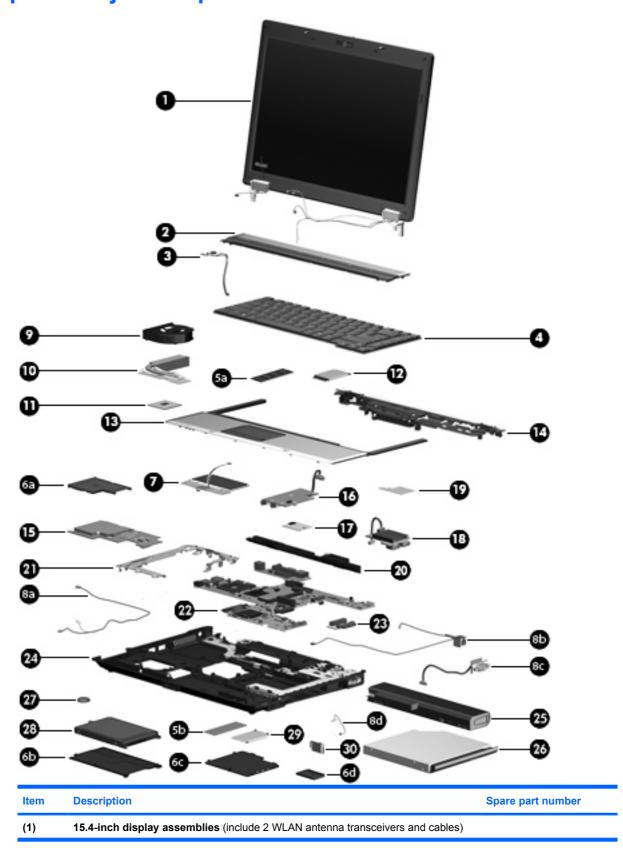
The service tag, affixed to the bottom of the computer, provides information that may be needed when troubleshooting system problems. The service tag provides the following information:

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

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



Computer major components



Item	Description	Spare part number		
	For use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules:			
	SXGA+ display assembly with 2 microphones and webcam	492177-001		
	SXGA+ display assembly with 1 microphone	492178-001		
	WXGA BrightView display assembly with 2 microphones and webcam	492181-001		
	WXGA BrightView display assembly with 1 microphone	492182-001		
	WXGA display assembly with 2 microphones and webcam	492173-001		
	WXGA display assembly with 1 microphone	492174-001		
	For use only with HP Compaq 6735b computer models equipped with a WL/ module:	AN module but not a WWAN		
	SXGA+ display assembly with 2 microphones and webcam	492179-001		
	SXGA+ display assembly with 1 microphone	492180-001		
	WXGA Brightview display assembly with 2 microphones and webcam	492183-001		
	WXGA BrightView display assembly with 1 microphone	492184-001		
	WXGA display assembly with 2 microphones and webcam	492175-001		
	WXGA display assembly with 1 microphone	492176-001		
	For use only with HP Compaq 6730b computer models equipped with both	WLAN and WWAN modules:		
	SXGA+ display assembly with 2 microphones and webcam	487126-001		
	SXGA+ display assembly with 1 microphone	487127-001		
	WXGA BrightView display assembly with 2 microphones and webcam	487130-001		
	WXGA BrightView display assembly with 1 microphone	487131-001		
	WXGA display assembly with 2 microphones and webcam	487122-001		
	WXGA display assembly with 1 microphone	487123-001		
	For use only with HP Compaq 6730b computer models equipped with a WLA module:	AN module but not a WWAN		
	SXGA+ display assembly with 2 microphones and webcam	487128-001		
	SXGA+ display assembly with 1 microphone	487129-001		
	WXGA BrightView display assembly with 2 microphones and webcam	487132-001		
	WXGA BrightView display assembly with 1 microphone	487133-001		
	WXGA display assembly with 2 microphones and webcam	487124-001		
	WXGA display assembly with 1 microphone	487125-001		
	Display internal components (not illustrated):			
	Display bezels:			
	For use only with computer models equipped with a webcam	487336-001		
	For use only with computer models not equipped with a webcam	487338-001		
	Display hinge covers (includes left and right hinge covers)	487144-001		

Item	Description	Spare part number
	Display hinges	487337-001
	Display inverters:	
	For use only with HP Compaq 6735b computer models	495086-001
	For use only with HP Compaq 6730b computer models	486773-001
	Display panel cable	488021-001
	Display Logo Kit	486290-001
	Display Rubber Kit	486775-001
	Display Screw Kit	487751-001
(2)	Switch cover (includes LED board and cable)	487139-001
(3)	Power button board (includes cable)	487118-001
(4)	Keyboards (include keyboard)	
	For use in Belgium	487136-181
	For use in Brazil	487136-201
	For use in the Czech Republic	487136-221
	For use in Denmark	487136-081
	For use in France	487136-051
	For use in French Canada	487136-121
	For use in Germany	487136-041
	For use in Greece	487136-DJ1
	For use in Hungary	487136-211
	For use in Iceland	487136-DD1
	For use in Israel	487136-BB1
	For use in Italy	487136-061
	For use in Japan	487136-291
	For use in Latin America	487136-161
	For use in the Netherlands	487136-B31
	For use in Norway	487136-091
	For use in Portugal	487136-131
	For use in Russia	487136-251
	For use in Saudi Arabia	487136-171
	For use in Slovakia	487136-231
	For use in Slovenia	487136-BA1
	For use in South Korea	487136-AD1
	For use in Spain	487136-071

Item	Description	Spare part number	
	For use in Sweden and Finland	487136-B71	
	For use in Switzerland	487136-BG1	
	For use in Taiwan	487136-AB1	
	For use in Thailand	487136-281	
	For use in Turkey	487136-141	
	For use in the United Kingdom	487136-031	
	For use in the United States	487136-001	
	Memory modules (PC2-6400, 667-MHz, DDR2)		
(5a)	Primary memory module (located under keyboard)		
(5b)	Expansion memory module (located under memory/WLAN module compartment cover)		
	2048-MB	483194-001	
	1024-MB	483193-001	
	Plastics Kit (see Plastics Kit on page 27 for more Plastics Kit spare part information):	486292-001	
(6a)	ExpressCard slot bezel		
(6b)	Hard drive bay cover		
(6c)	Memory/WLAN module compartment cover		
(6d)	Bluetooth module compartment cover		
(7)	TouchPad assemblies (include the components listed below):		
	Fingerprint reader board and cable (included only in spare part kit 487134-001)		
	TouchPad board and cable		
	TouchPad board bracket		
	For use only with computer models equipped with a fingerprint reader (includes a fingerprint reader board and cable)	487134-001	
	For use only with computer models not equipped with a fingerprint reader	487135-001	
	Cable Kit (see Cable Kit on page 28 for more Cable Kit spare part information):	487138-001	
(8a)	Microphone extension cable		
(8b)	Modem module cable		
(8c)	Serial connector and cable		
(8d)	Bluetooth module cable		
(9)	Fan	486288-001	
(10)	Heat sinks (include heat sink clip and replacement thermal material)		
	For use only with HP Compaq 6735b computer models	488315-001	
	For use only with HP Compaq 6730b computer models	486289-001	
(11)	Processors (include replacement thermal material)		

Item	Description	Spare part number		
	AMD processors for use only with HP Compaq 6735b computer models:			
	Turion 64 ZM-86 2.40-GHz processor	488198-001		
	Turion 64 ZM-82 2.20-GHz processor	488196-001		
	Turion 64 ZM-80 2.10-GHz processor	488195-001		
	Turion 64 RM-70 2.00-GHz processor	488199-001		
	Sempron SI-40 2.00-GHz processor	488197-001		
	Athlon QL-60 1.90-GHz processor	488200-001		
	Intel Core 2 Duo processors for use only with HP Compaq 6730b computer models:			
	• T9600 2.80-GHz (6-MB L2 cache, 800-MHz FSB)	486257-001		
	• T9400 2.53-GHz (6-MB L2 cache, 800-MHz FSB)	486256-001		
	• T8600 2.40-GHz (3-MB L2 cache, 800-MHz FSB)	486255-001		
	• T8400 2.26-GHz (3-MB L2 cache, 800-MHz FSB)	486254-001		
(12)	HSDPA EVDO WWAN module	483377-001		
(13)	Top cover	487140-001		
(14)	Rear cover	487143-001		
(15)	ExpressCard board (includes RTC battery)	487119-001		
(16)	Audio board (includes cable) 486250-001			
(17)	Modem modules: NOTE: The modem module spare part kits do not include a modem module cable. The modem module cable i included in the Cable Kit, spare part number 487138-001.			
	For use in all countries and regions except Australia and New Zealand	491575-001		
	For use only in Australia and New Zealand	491575-011		
(18)	USB/digital media board (includes cable)	486249-001		
(19)				
	SIM connector board	486252-001		
(20)	SIM connector board Speaker	486252-001 487137-001		
(21)	Speaker	487137-001		
(20) (21) (22)	Speaker System board bracket	487137-001		
(21)	Speaker System board bracket System boards (include replacement thermal material) For use only with HP Compaq 6735b computer models equipped with both WLAN and	487137-001 486291-001		
(21)	Speaker System board bracket System boards (include replacement thermal material) For use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules For use only with HP Compaq 6735b computer models equipped with a WLAN module	487137-001 486291-001 488193-001		
(21)	System board bracket System boards (include replacement thermal material) For use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules For use only with HP Compaq 6735b computer models equipped with a WLAN module but not a WWAN module For use only with HP Compaq 6730b computer models equipped with both WLAN and	487137-001 486291-001 488193-001 488194-001		

Item	Description		Spare part number	
(24)	Base enclosures			
	For use only v	vith computer models equipped with both WLAN and WWAN modules	487142-001	
	For use only we module	vith computer models equipped with a WLAN module but not a WWAN	487141-001	
	Rubber Kit (r	ot illustrated, includes 8 rubber feet and 2 rubber screw covers)	487145-001	
(25)	Batteries			
	6-cell, 55-Wh		486296-001	
	6-cell, 47-Wh		486295-001	
(26)	Optical drive	s (include bezel and bracket)		
	DVD±RW and	CD-RW SuperMulti Double-Layer Combo Drive	486262-001	
	DVD/CD-RW	Combo Drive	486263-001	
	DVD-ROM Dr	ive	486264-001	
(27)	RTC battery		449137-001	
(28)	Hard drives: (include hard drive bracket)			
	250-GB, 5400	-rpm	486261-001	
	160-GB, 5400	-rpm	486260-001	
	120-GB, 7200	-rpm	486259-001	
	120-GB, 5400	-rpm	486782-001	
(29)	WLAN modu	les		
	Broadcom WLAN modules for use only with HP Compaq 6735b computer models:			
	Barbado	m 4322 802.11a/b/g/n WLAN module for use in Antigua and Barbuda, s, Belize, Canada, the Cayman Islands, Guam, Puerto Rico, and Tobago, the U.S. Virgin Islands, and the United States	487330-001	
	Algeria, Australia Belarus, Bosnia a Bulgaria, the Cent Colombia the Czec East Tim Ethiopia, Germany Guinea-E Ireland, I Kiribati, I Lithuania the Mald Mexico, I Namibia, Nicaragu Papua N the Repu	m 4322 802.11a/b/g/n WLAN module for use in Afghanistan, Albania, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Aruba, Austria, Azerbaijan, the Bahamas, Bahrain, Bangladesh, Barbados, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, nd Herzegovina, Botswana, Brazil, the British Virgin Islands, Brunei, Burkina Faso, Burundi, Cameroon, Cape Verde, ral African Republic, Chad, Chile, the People's Republic of China, a, Comoros, the Congo, Costa Rica, Croatia, Cyprus, th Republic, Denmark, Djibouti, Dominica, the Dominican Republic, or, Ecuador, Egypt, El Salvador, Equitorial Guinea, Eritrea, Estonia, Fiji, Finland, France, French Guiana, Gabon, Gambia, Georgia, A, Ghana, Gibraltar, Greece, Grenada, Guadeloupe, Guatemala, Guinea, Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, srael, Italy, the Ivory Coast, Jamaica, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Liechtenstein, Luxembourg, Macedonia, Madagascar, Malawi, Malaysia, ives, Mali, Malta, the Marshall Islands, Martinique, Mauritania, Mauritius, Micronesia, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Nauru, Nepal, the Nether Antilles, the Netherlands, New Zealand, ia, Niger, Nigeria, Norway, Oman, Pakistan, Palau, Panama, ew Guinea, Paraguay, Peru, the Philippines, Poland, Portugal, iblic of Moldova, Romania, Russia, Rwanda, Samoa, San Marino, ie and Principe, Saudi Arabia, Senegal, Serbia, the Seychelles,	487330-002	

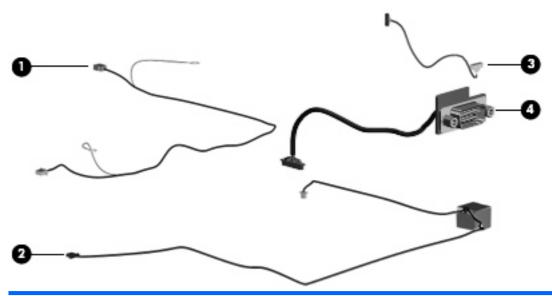
ltem	Description	Spare part number
	Sierra Leone, Singapore, Slovakia, Slovenia, the Solomon Islands, Somalia, South Africa, South Korea, Spain, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, the United Arab Emirates, the United Kingdom, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen, Zaire, Zambia, and Zimbabwe	
	 Broadcom BCM4312 802.11b/g WLAN module for use in Antigua and Barbuda, Barbados, Belize, Canada, the Cayman Islands, Guam, Puerto Rico, Trinidad and Tobago, the U.S. Virgin Islands, and the United States 	490811-001
	 Broadcom BCM4312 802.11b/g WLAN module for use in Afghanistan, Albania, Algeria, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia, Austria, Azerbaijan, the Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, the British Virgin Islands, Brunei, Bulgaria, Burkina Faso, Burundi, Cameroon, Cape Verde, the Central African Republic, Chad, Chile, the People's Republic of China, Colombia, Comoros, the Congo, Costa Rica, Croatia, Cyprus, the Czech Republic, Denmark, Djibouti, Dominica, the Dominican Republic, East Timor, Ecuador, Egypt, El Salvador, Equitorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar, Greece, Grenada, Guadeloupe, Guatemala, Guinea, Guinea-Bissau, Guyana, Halit, Honduras, Hong Kong, Hungary, Iceland, India, Ireland, Israel, Italy, the Ivory Coast, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Madagascar, Malawi, Malaysia, the Maldives, Mali, Malta, the Marshall Islands, Martinique, Mauritania, Mauritius, Mexico, Micronesia, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nauru, Nepal, the Nether Antilles, the Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, the Philippines, Poland, Portugal, the Republic of Moldova, Romania, Russia, Rwanda, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, the Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, the Solomon Islands, Somalia, South Africa, South Korea, Spain, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, the United Arab Emirates, the United Kingdo	490811-002
	Intel WLAN modules for use only with HP Compaq 6730b computer models:	
	Intel Wi-Fi Link 5100 802.11a/b/g/n WLAN module for use in all countries and regions	480985-001
	Intel Wi-Fi Link 5100 802.11a/b/g WLAN module for use in all countries and regions	482957-001
(30)	Bluetooth module (does not include Bluetooth module cable)	490809-001
	NOTE: The Bluetooth module spare part kit does not include a Bluetooth module cable. The Bluetooth module cable is included in the Cable Kit, spare part number 487138-001	

Plastics Kit



Item	Description	Spare part number
	Plastics Kit:	486292-001
(1)	ExpressCard slot bezel	
(2)	Hard drive bay cover (includes 2 captive screws, secured by C-clips)	
(3)	Memory/WLAN module compartment cover (includes one captive screw, secured by a C-clip)	
(4)	Bluetooth module compartment cover (includes one captive screw, secured by a C-clip)	

Cable Kit



Item	Description	Spare part number	
	Cable Kit:	487138-001	
(1)	Microphone extension cable, illustrated		
(2)	Modem module cable (includes RJ-11 connector)		
(3)	Bluetooth module cable		
(4)	Serial connector and cable		

Mass storage devices



Item	Description	Spare part number
(1)	Hard drives (include bracket)	
	250-GB, 5400-rpm	486261-001
	160-GB, 5400-rpm	486260-001
	120-GB, 7200-rpm	486259-001
	120-GB, 5400-rpm	486782-001
(2)	Optical drives (include bezel and bracket)	
	DVD±RW and CD-RW SuperMulti Double-Layer Combo Drive	486262-001
	DVD/CD-RW Combo Drive	486263-001
	DVD-ROM Drive	486264-001

Miscellaneous parts

Description	Spare part number
90-W HP Smart AC adapters	
For use in all countries and regions except India	463955-001
For use only in India	463956-001
Nylon carrying case	325814-001
USB 1.1 diskette drive	359118-001
Power cords:	
For use in Australia	246959-011
For use in Brazil	246959-201
For use in Denmark	246959-081
For use in Europe, the Middle East, and Africa	246959-021
For use in Israel	246959-BB1
For use in Italy	246959-061
For use in Japan	246959-291
For use in South Korea	246959-AD1
For use in Switzerland	246959-AG1
For use in the United Kingdom	246959-031
For use the United States	246959-001
Screw Kit	487146-001

- Hex HM5.0×9.0 screw lock
- Phillips PM3.0×4.0 screw
- Phillips PM2.5×10.0 captive screw
- Phillips PM2.5×9.0 captive screw
- Phillips PM2.5×7.0 captive screw
- Phillips PM2.5×5.0 screw
- Phillips PM2.5×4.0 screw
- Phillips PM2.5×3.0 screw
- Phillips PM2.5×3.0 broad-head screw
- Phillips PM2.0×5.0 screw
- Phillips PM2.0×5.0 captive screw
- Phillips PM2.0×4.0 captive screw
- Phillips PM2.0×3.0 screw
- Torx T8M2.5×9.0 screw

Description Spare part number

- Torx T8M2.5×6.0 screw
- Torx T8M2.5×4.0 screw

Sequential part number listing

Spare part number	Description	
246959-001	Power cord for use in the United States	
246959-011	Power cord for use in Australia and New Zealand	
246959-021	Power cord for use in Europe, the Middle East, and Africa	
246959-031	Power cord for use in the United Kingdom	
246959-061	Power cord for use in Italy	
246959-081	Power cord for use in Denmark	
246959-201	Power cord for use in Brazil	
246959-291	Power cord for use in Japan	
246959-AD1	Power cord for use in South Korea	
246959-AG1	Power cord for use in Switzerland	
246959-BB1	Power cord for use in Israel	
449137-001	RTC battery	
463955-001	90-W HP Smart AC adapter for use in all countries and regions except India	
463956-001	90-W HP Smart AC adapter for use only in India	
480985-001	Intel Wi-Fi Link 5100 802.11a/b/g/n WLAN module for use only with HP Compaq 6730b computer models in all countries and regions	
482957-001	Intel Wi-Fi Link 5100 802.11a/b/g WLAN module for use only with HP Compaq 6730b computer models in all countries and regions	
483193-001	1024-MB memory module (PC2-6400, 667-MHz, DDR2)	
483194-001	2048-MB memory module (PC2-6400, 667-MHz, DDR2)	
483377-001	HSDPA EVDO WWAN module	
486247-001	System board for use only with HP Compaq 6730b computer models equipped with both WLAN and WWAN modules (includes replacement thermal material)	
486248-001	System board for use only with HP Compaq 6730b computer models equipped with a WLAN module but not a WWAN module (includes replacement thermal material)	
486249-001	USB/digital media board (includes cable)	
486250-001	Audio board (includes cable)	
486252-001	SIM connector board	
486254-001	Intel Core 2 Duo T8400 2.26-GHz processor for use only with HP Compaq 6730b computer models (3-MB L2 cache, 800-MHz FSB, includes replacement thermal material)	

Spare part number	Description	
486255-001	Intel Core 2 Duo T8600 2.40-GHz processor for use only with HP Compaq 6730b computer models (3-MB L2 cache, 800-MHz FSB, includes replacement thermal material)	
486256-001	Intel Core 2 Duo T9400 2.53-GHz processor for use only with HP Compaq 6730b computer models (6-MB L2 cache, 800-MHz FSB, includes replacement thermal material)	
486257-001	Intel Core 2 Duo T9600 2.80-GHz processor for use only with HP Compaq 6730b computer models (6-MB L2 cache, 800-MHz FSB, includes replacement thermal material)	
486259-001	120-GB, 7200-rpm hard drive (includes hard drive bracket)	
486260-001	160-GB, 5400-rpm hard drive (includes hard drive bracket)	
486261-001	250-GB, 5400-rpm hard drive (includes hard drive bracket)	
486262-001	DVD±RW and CD-RW SuperMulti Double-Layer Combo Drive	
486263-001	DVD/CD-RW Combo Drive	
486264-001	DVD-ROM Drive	
486288-001	Fan	
486289-001	Heat sink for use only with HP Compaq 6730b computer models (includes heat sink clip and replacement thermal material)	
486290-001	Display Logo Kit	
486291-001	System board bracket	
486292-001	Plastics Kit (see <u>Plastics Kit on page 27</u> for more Plastics Kit spare part information):	
486295-001	6-cell, 47-Wh battery	
486296-001	6-cell, 55-Wh battery	
486773-001	Display inverter for use only with HP Compaq 6730b computer models	
486775-001	Display Rubber Kit	
486782-001	120-GB, 5400-rpm hard drive (includes hard drive bracket)	
487118-001	Power button board (includes cable)	
487119-001	ExpressCard board (includes RTC battery)	
487121-001	Optical drive connector board	
487122-001	15.4-inch WXGA display assembly with 2 microphones and webcam for use only with HP Compaq 6730b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers an cables)	
487123-001	15.4-inch WXGA display assembly with 1 microphone for use only with HP Compaq 6730b computer mode equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	
487124-001	15.4-inch WXGA display assembly with 2 microphones and webcam for use only with HP Compaq 6730b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)	
487125-001	15.4-inch WXGA display assembly with 1 microphone for use only with HP Compaq 6730b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)	
487126-001	15.4-inch SXGA+ display assembly with 2 microphones and webcam for use only with HP Compaq 6730b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	

Spare part number	Description	
487127-001	15.4-inch SXGA+ display assembly with 1 microphone for use only with HP Compaq 6730b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	
487128-001	15.4-inch SXGA+ display assembly with 2 microphones and webcam for use only with HP Compaq 6730b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)	
487129-001	15.4-inch SXGA+ display assembly with 1 microphone for use only with HP Compaq 6730b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)	
487130-001	15.4-inch WXGA BrightView display assembly with 2 microphones and webcam for use only with HP Compaq 6730b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	
487131-001	15.4-inch WXGA BrightView display assembly with 1 microphone for use only with HP Compaq 6730b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	
487132-001	15.4-inch WXGA BrightView display assembly with 2 microphones and webcam for use only with HP Compaq 6730b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)	
487133-001	15.4-inch WXGA BrightView display assembly with 1 microphone for use only with HP Compaq 6730b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)	
487134-001	TouchPad assembly for use only with computer models equipped with a fingerprint reader (includes a fingerprint reader board and cable)	
487135-001	TouchPad assembly for use only with computer models not equipped with a fingerprint reader	
487136-001	Keyboard for use in the United States	
487136-031	Keyboard for use in the United Kingdom	
487136-041	Keyboard for use in Germany	
487136-051	Keyboard for use in France	
487136-061	Keyboard for use in Italy	
487136-071	Keyboard for use in Spain	
487136-081	Keyboard for use in Denmark	
487136-091	Keyboard for use in Norway	
487136-121	Keyboard for use in French Canada	
487136-131	Keyboard for use in Portugal	
487136-141	Keyboard for use in Turkey	
487136-161	Keyboard for use in Latin America	
487136-171	Keyboard for use in Saudi Arabia	
487136-181	Keyboard for use in Belgium	
487136-201	Keyboard for use in Brazil	
487136-211	Keyboard for use in Hungary	
487136-221	Keyboard for use in the Czech Republic	
487136-231	Keyboard for use in Slovakia	

Spare part number	Description	
487136-251	Keyboard for use in Russia	
487136-281	Keyboard for use in Thailand	
487136-291	Keyboard for use in Japan	
487136-AB1	Keyboard for use in Taiwan	
487136-AD1	Keyboard for use in South Korea	
487136-B31	Keyboard for use in the Netherlands	
487136-B71	Keyboard for use in Sweden and Finland	
487136-BA1	Keyboard for use in Slovenia	
487136-BB1	Keyboard for use in Israel	
487136-BG1	Keyboard for use in Switzerland	
487136-DD1	Keyboard for use in Iceland	
487136-DJ1	Keyboard for use in Greece	
487137-001	Speaker	
487138-001	Cable Kit (see Cable Kit on page 28 for more Cable Kit spare part information):	
487139-001	Switch cover (includes LED board and cable)	
487140-001	Top cover	
487141-001	Base enclosure for use only with computer models equipped with a WLAN module but not a WWAN module (includes 7 rubber feet)	
487142-001	Base enclosure for use only with computer models equipped with both WLAN and WWAN modules (includes 7 rubber feet)	
487143-001	Rear cover	
487144-001	Display hinge covers (includes left and right hinge covers)	
487145-001	Rubber Kit (includes 8 rubber feet and 2 rubber screw covers)	
487146-001	Screw Kit	
487330-001	Broadcom 4322 802.11a/b/g/n WLAN module for use only with HP Compaq 6735b computer models in Antigua and Barbuda, Barbados, Belize, Canada, the Cayman Islands, Guam, Puerto Rico, Trinidad and Tobago, the U.S. Virgin Islands, and the United States	
447330-002	Broadcom 4322 802.11a/b/g/n WLAN module for use only with HP Compaq 6735b computer models in Afghanistan, Albania, Algeria, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia, Austria, Azerbaijan, the Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, the British Virgin Islands, Brunei, Bulgaria, Burkina Faso, Burundi, Cameroon, Cape Verde, the Central African Republic, Chad, Chile, the People's Republic of China, Colombia, Comoros, the Congo, Costa Rica, Croatia, Cyprus, the Czech Republic, Denmark, Djibouti, Dominica, the Dominican Republic, East Timor, Ecuador, Egypt, El Salvador, Equitorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar, Greece, Grenada, Guadeloupe, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Ireland, Israel, Italy, the Ivory Coast, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Madagascar, Malawi, Malaysia, the Maldives, Mali, Malta, the Marshall Islands, Martinique, Mauritania, Mauritius, Mexico, Micronesia, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nauru, Nepal, the Nether Antilles, the Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru,	

Spare part number	Description		
	the Philippines, Poland, Portugal, the Republic of Moldova, Romania, Russia, Rwanda, Samoa, San Marino Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, the Seychelles, Sierra Leone, Singapore, Slovakia Slovenia, the Solomon Islands, Somalia, South Africa, South Korea, Spain, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, the United Arab Emirates, the United Kingdom, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen Zaire, Zambia, and Zimbabwe		
487336-001	Display bezel for use only with computer models equipped with a webcam		
487337-001	Display hinges		
487338-001	Display bezel for use only with computer models not equipped with a webcam		
487751-001	Display Screw Kit		
488021-001	Display panel cable		
488193-001	System board for use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules (includes replacement thermal material)		
488194-001	System board for use only with HP Compaq 6735b computer models equipped with a WLAN module but no a WWAN module (includes replacement thermal material)		
488195-001	AMD Turion 64 ZM-80 2.10-GHz processor for use only with HP Compaq 6735b computer models (include replacement thermal material)		
488196-001	AMD Turion 64 ZM-82 2.20-GHz processor for use only with HP Compaq 6735b computer models (inclureplacement thermal material)		
488197-001	AMD Sempron SI-40 2.00-GHz processor for use only with HP Compaq 6735b computer models (includes replacement thermal material)		
488198-001	AMD Turion 64 ZM-86 2.40-GHz processor for use only with HP Compaq 6735b computer models (includes replacement thermal material)		
488199-001	AMD Turion 64 RM-70 2.00-GHz processor for use only with HP Compaq 6735b computer models (includes replacement thermal material)		
488200-001	AMD Athlon QL-60 1.90-GHz processor for use only with HP Compaq 6735b computer models (includes replacement thermal material)		
488315-001	Heat sink for use only with HP Compaq 6735b computer models (includes heat sink clip and replacement thermal material)		
490809-001	Bluetooth module (does not include Bluetooth module cable)		
	NOTE: The Bluetooth module spare part kit does not include a Bluetooth module cable. The Bluetooth module cable is included in the Cable Kit, spare part number 487138-001		
490811-001	Broadcom BCM4312 802.11b/g WLAN module for use only with HP Compaq 6735b computer models in Antigua and Barbuda, Barbados, Belize, Canada, the Cayman Islands, Guam, Puerto Rico, Trinidad and Tobago, the U.S. Virgin Islands, and the United States		
490811-002	Broadcom BCM4312 802.11b/g WLAN module for use only with HP Compaq 6735b computer models in Afghanistan, Albania, Algeria, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia Austria, Azerbaijan, the Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, the British Virgin Islands, Brunei, Bulgaria, Burkina Faso, Burundi, Cameroon, Cape Verde, the Central African Republic, Chad, Chile, the People's Republic of China, Colombia, Comoros, the Congo, Costa Rica, Croatia, Cyprus, the Czech Republic, Denmark, Djibouti, Dominica, the Dominican Republic, East Timor, Ecuador, Egypt, El Salvador, Equitorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar, Greece, Grenada, Guadeloupe, Guatemala, Guinea, Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Ireland, Israel, Italy, the Ivory Coast		

Spare part number	Description	
	Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Madagascar, Malawi, Malaysia, the Maldives, Mali, Malta, the Marshall Islands, Martinique, Mauritania, Mauritius, Mexico, Micronesia, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nauru, Nepal, the Nether Antilles, the Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, the Philippines, Poland, Portugal, the Republic of Moldova, Romania, Russia, Rwanda, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, the Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, the Solomon Islands, Somalia, South Africa, South Korea, Spain, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, the United Arab Emirates, the United Kingdom, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen, Zaire, Zambia, and Zimbabwe	
491575-001	Modem module for use in all countries and regions except Australia and New Zealand NOTE: The modem module spare part kits do not include a modem module cable. The modem module	
	cable is included in the Cable Kit, spare part number 487138-001.	
491575-011	Modem module for use only in Australia and New Zealand	
	NOTE: The modem module spare part kits do not include a modem module cable. The modem module cable is included in the Cable Kit, spare part number 487138-001.	
492173-001	15.4-inch WXGA display assembly with 2 microphones and webcam for use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers ar cables)	
492174-001	15.4-inch WXGA display assembly with 1 microphone for use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	
492175-001	15.4-inch WXGA display assembly with 2 microphones and webcam for use only with HP Compaq 6735b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)	
492176-001	15.4-inch WXGA display assembly with 1 microphone for use only with HP Compaq 6735b computer mode equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cable	
492177-001	15.4-inch SXGA+ display assembly with 2 microphones and webcam for use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	
492178-001	15.4-inch SXGA+ display assembly with 1 microphone for use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	
492179-001	15.4-inch SXGA+ display assembly with 2 microphones and webcam for use only with HP Compaq 6735b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)	
492180-001	15.4-inch SXGA+ display assembly with 1 microphone for use only with HP Compaq 6735b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables	
492181-001	15.4-inch WXGA BrightView display assembly with 2 microphones and webcam for use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	
492182-001	15.4-inch WXGA BrightView display assembly with 1 microphone for use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules (include 2 WLAN antenna transceivers and cables)	
492183-001	15.4-inch WXGA Brightview display assembly with 2 microphones and webcam for use only with HP Compaq 6735b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)	

Spare part number	Description
492184-001	15.4-inch WXGA BrightView display assembly with 1 microphone for use only with HP Compaq 6735b computer models equipped with a WLAN module but not a WWAN module (include 2 WLAN antenna transceivers and cables)
495086-001	Display inverter for use only with HP Compaq 6735b computer models

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
- Torx T8 screwdriver
- 5.0-mm nut driver

Service considerations

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

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

Plastic parts

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

Cables and connectors

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

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

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

Before removing or inserting a hard drive, 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.

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

Before removing a diskette drive or optical drive, be sure that a diskette or disc is not in the drive and be sure that the optical drive tray is closed.

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, an optical drive, or a diskette 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."

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 computer when you are removing or installing internal components, observe these precautions:

Keep components in their electrostatic-safe containers until you are ready to install them.

Before touching an electronic component, discharge static electricity by using the guidelines described in this section.

Avoid touching pins, leads, and circuitry. Handle electronic components as little as possible.

If you remove a component, place it in an electrostatic-safe container.

The following table shows how humidity affects the electrostatic voltage levels generated by different activities.

△ CAUTION: A product can be degraded by as little as 700 V.

Typical electrostatic voltage levels			
	Relative humidity		
Event	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 ±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

Unknown user password

If the computer you are servicing has an unknown user password, follow these steps to clear the password:

- NOTE: These steps also clear CMOS.
 - 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 <u>Battery on page 46</u>).
 - 5. Remove the real-time clock (RTC) battery (see RTC battery on page 54).
 - **6.** Wait approximately 5 minutes.
 - 7. Replace the RTC battery and reassemble the computer.
 - 8. Connect AC power to the computer. Do not reinsert any batteries at this time.
 - 9. Turn on the computer.

All passwords and all CMOS settings have been cleared.

Component replacement procedures

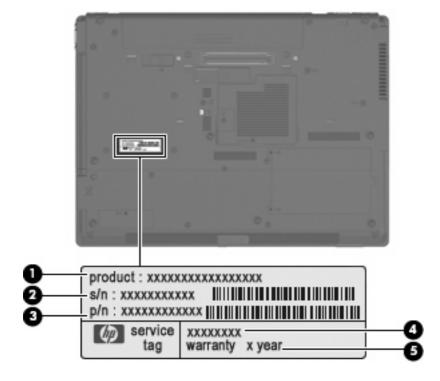
This chapter provides removal and replacement procedures.

There are as many as 96 screws and screw locks, in 16 different sizes, that must be removed, replaced, or loosened when servicing the computer. Make special note of each screw and screw lock size and location during removal and replacement.

Service tag

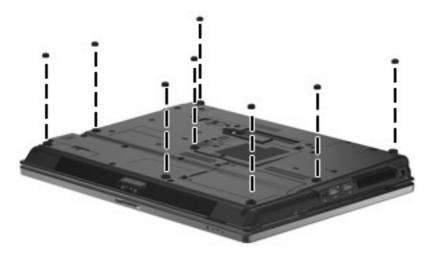
The service tag, affixed to the bottom of the computer, provides information that may be needed when troubleshooting system problems. The service tag provides the following information:

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



Computer feet

The computer feet are adhesive-backed rubber pads. The feet are included in the Rubber Kit, spare part number 487145-001. There are 8 rubber feet that attach to the base enclosure in the locations illustrated below.



Battery

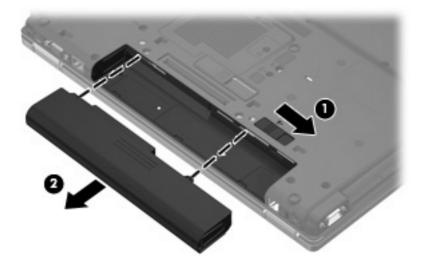
Description	Spare part number
6-cell, 55-Wh battery	486296-001
6-cell, 47-Wh battery	486295-001

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.
- Disconnect all external devices connected to the computer.
- 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.

Remove the battery:

- Turn the computer upside down on a flat surface, with the battery bay toward you.
- 2. Slide the battery release latch (1) to release the battery.
- 3. Remove the battery (2) from the computer.



Install the battery by inserting it into the battery bay until you hear a click.

SIM

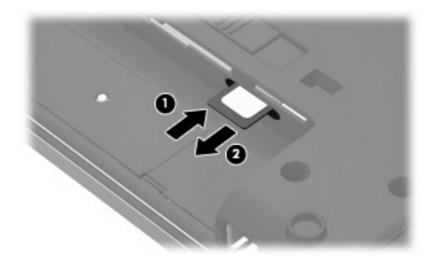
NOTE: This section applies only to computer models with WWAN capability. If there is a SIM inserted in the SIM slot, it should be removed before disassembling the computer. Be sure the SIM is reinserted in the SIM slot after reassembling the computer.

Before removing the SIM, 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 <u>Battery on page 46</u>).

Remove the SIM:

- 1. Press in on the SIM (1). (The module is partially ejected from the SIM slot.)
- 2. Remove the SIM (2) from the SIM slot.



Reverse this procedure to install the SIM.

Display inverter

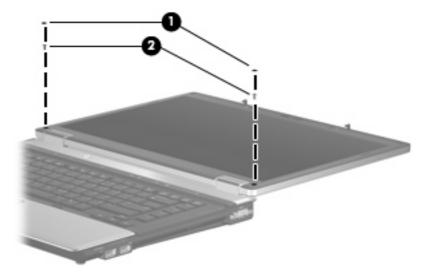
Description	Spare part number
For use only with HP Compaq 6735b computer models	495086-001
For use only with HP Compaq 6730b computer models	486773-001

Before removing the display inverter, follow these steps:

- 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.
- 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 <u>Battery on page 46</u>).

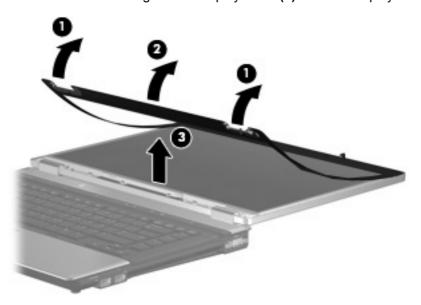
Remove the display inverter:

- 1. Turn the computer right-side up, with the front toward you.
- Open the computer as far as it will open.
- 3. Remove the two rubber screw covers (1) on the bottom edge of the display bezel. The rubber screw covers are available in the Display Rubber Kit, spare part number 486775-001.
- 4. Remove the two Torx8 T8M2.5×6.0 screws (2) that secure the bottom edge of the display bezel to the display enclosure.

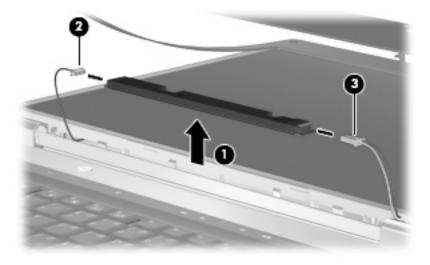


5. Flex the hinge cover areas (1) and the bottom edge (2) of the display bezel until the bezel disengages from the display enclosure.

6. Release the bottom edge of the display bezel (3) from the display assembly.



- 7. Release the inverter (1) from the display enclosure as far as the display panel cable and backlight cable allow.
- 8. Disconnect the display panel cable (2) and the backlight cable (3) from the display inverter.



9. Remove the display inverter.

Reverse this procedure to install the display inverter.

Bluetooth module

NOTE: The Bluetooth module spare part kit does not include a Bluetooth module cable. The Bluetooth module cable is included in the Cable Kit, spare part number 487138-001. See Cable Kit on page 28 for more Cable Kit spare part number information.

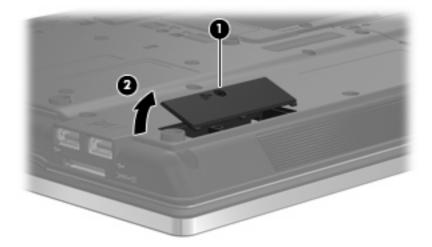
Description	Spare part number
Bluetooth module	490809-001

Before removing the Bluetooth module, follow these steps:

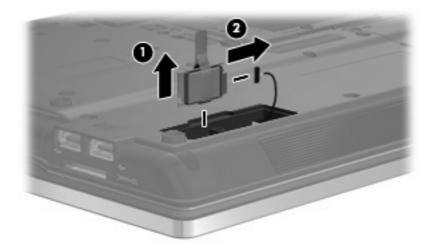
- 1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
- Disconnect all external devices connected to the computer.
- Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
- 4. Remove the battery (see <u>Battery on page 46</u>).

Remove the Bluetooth module:

- 1. Position the computer with the front toward you.
- Loosen the Phillips PM2.0×5.0 captive screw (1) that secures the Bluetooth module compartment cover to the base enclosure.
- 3. Lift the rear edge of the Bluetooth module compartment cover (2), swing it forward, and remove the cover. The Bluetooth module compartment cover is available in the Plastics Kit, spare part number 486292-001.



 Release the Bluetooth module (1) from the Bluetooth module compartment as far as the Bluetooth module cable allows. Disconnect the Bluetooth module cable (2) from the Bluetooth module.



Remove the Bluetooth module.

Reverse this procedure to install the Bluetooth module.

Hard drive

NOTE: All hard drive spare part kits include a hard drive bracket.

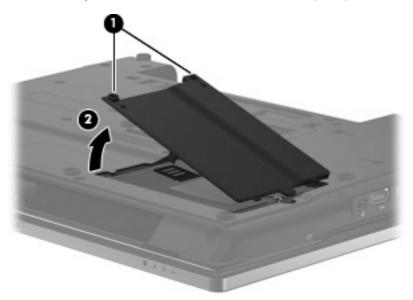
Description	Spare part number
250-GB, 5400-rpm	486261-001
160-GB, 5400-rpm	486260-001
120-GB, 7200-rpm	486259-001
120-GB, 5400-rpm	486782-001

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.
- 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 <u>Battery on page 46</u>).

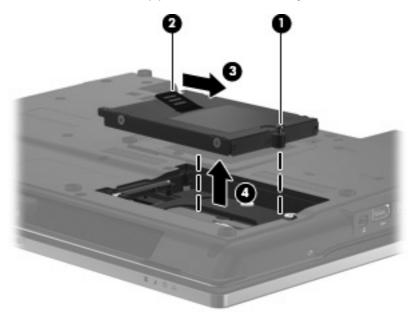
Remove the hard drive:

- 1. Position the computer with the front toward you.
- 2. Loosen the two Phillips PM2.0×5.0 captive screws (1) that secure the hard drive bay cover to the computer.
- 3. Lift the left side of the hard drive bay cover (2), swing it to the right, and remove the cover. The hard drive bay cover is included in the Plastics Kit, spare part number 486292-001.

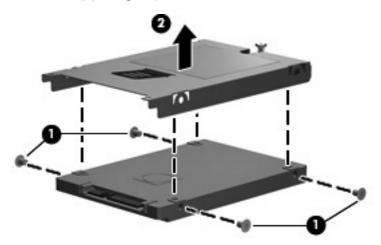


4. Loosen the Phillips PM2.5×10.0 captive screw (1) that secures the hard drive to the computer.

- 5. Grasp the Mylar tab (2) on the hard drive and slide the hard drive (3) to the right to disconnect it from the system board.
- 6. Remove the hard drive (4) from the hard drive bay.



- 7. If it is necessary to replace the hard drive bracket, remove the two Phillips PM3.0×4.0 hard drive bracket screws (1) from each side of the hard drive.
- 8. Lift the bracket (2) straight up to remove it from the hard drive.



Reverse this procedure to reassemble and install the hard drive.

RTC battery

NOTE: Removing the RTC battery and leaving it uninstalled for 5 or more minutes causes all passwords and CMOS settings to be cleared.

Description	Spare part number
RTC battery	449137-001

Before removing the RTC battery, follow these steps:

- 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.
- 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 <u>Battery on page 46</u>).
- 5. Remove the hard drive (see <u>Hard drive on page 52</u>).

Remove the RTC battery:

Remove the RTC battery from the socket on the system board.



Reverse this procedure to install the RTC battery. When installing the RTC battery, make sure the "+" sign faces up.

Optical drive

NOTE: All optical drive spare part kits include an optical drive bezel.

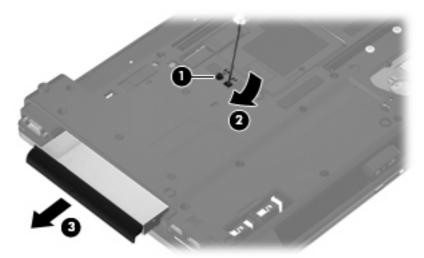
Description	Spare part number
DVD±RW and CD-RW SuperMulti Double-Layer Combo Drive	486262-001
DVD/CD-RW Combo Drive	486263-001
DVD-ROM Drive	486264-001

Before removing the optical 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 <u>Battery on page 46</u>).

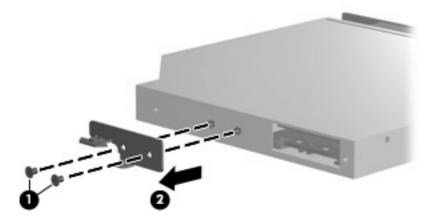
Remove the optical drive:

- 1. Position the computer with the right side toward you.
- Loosen the Phillips PM2.5×9.0 captive screw (1) that secures the optical drive to the computer.
- 3. Insert a flat-bladed screwdriver or similar tool into the optical drive tab access (2) and press the tab to the left to release the optical drive from the computer.
- 4. Remove the optical drive (3) from the computer.



- 5. If it is necessary to replace the optical drive bracket, position the optical drive with the rear toward you.
- 6. Remove the two Phillips PM2.0×3.0 screws (1) that secure the optical drive bracket to the optical drive.

7. Remove the optical drive bracket (2).



Reverse this procedure to reassemble and install an optical drive.

Expansion memory module

Description	Spare part number
2048-MB memory module (PC2-6400, 667-MHz, DDR2)	483194-001
1024-MB memory module (PC2-6400, 667-MHz, DDR2)	483193-001

Before removing the expansion 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 <u>Battery on page 46</u>).

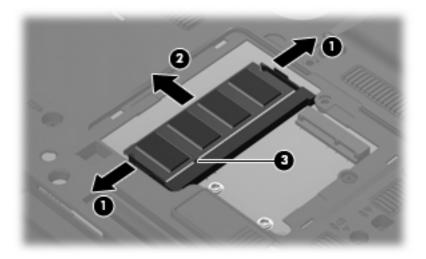
Remove the expansion memory module:

- 1. Loosen the Phillips PM2.0×5.0 captive screw (1) that secures the memory/WLAN module compartment cover to the computer.
- 2. Lift the front edge of the memory/WLAN module compartment cover (2), swing it back, and remove the cover. The memory/WLAN module compartment cover is included in the Plastics Kit, spare part number 486292-001.



3. Spread the retaining tabs (1) on each side of the memory module slot to release the expansion memory module. (The edge of the module opposite the slot rises away from the computer.)

- 4. Remove the expansion memory module (2) by pulling the module away from the slot at an angle.
- NOTE: Memory modules are designed with a notch (3) to prevent incorrect insertion into the memory module slot.



Reverse this procedure to install the expansion memory module.

WLAN module

Description Spare part number Broadcom WLAN modules for use only with HP Compag 6735b computer models: Broadcom 4322 802.11a/b/g/n WLAN module for use in Antigua and Barbuda, Barbados, 487330-001 Belize, Canada, the Cayman Islands, Guam, Puerto Rico, Trinidad and Tobago, the U.S. Virgin Islands, and the United States Broadcom 4322 802.11a/b/g/n WLAN module for use in Afghanistan, Albania, Algeria, 487330-002 Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia, Austria, Azerbaijan, the Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, the British Virgin Islands, Brunei, Bulgaria, Burkina Faso, Burundi, Cameroon, Cape Verde, the Central African Republic, Chad, Chile, the People's Republic of China, Colombia, Comoros, the Congo, Costa Rica, Croatia, Cyprus, the Czech Republic, Denmark, Djibouti, Dominica, the Dominican Republic, East Timor, Ecuador, Egypt, El Salvador, Equitorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar, Greece, Grenada, Guadeloupe, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Ireland, Israel, Italy, the Ivory Coast, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Madagascar, Malawi, Malaysia, the Maldives, Mali, Malta, the Marshall Islands, Martinique, Mauritania, Mauritius, Mexico, Micronesia, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nauru, Nepal, the Nether Antilles, the Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, the Philippines, Poland, Portugal, the Republic of Moldova, Romania, Russia, Rwanda, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, the Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, the Solomon Islands, Somalia, South Africa, South Korea, Spain, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, the United Arab Emirates, the United Kingdom, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen, Zaire, Zambia, and Zimbabwe Broadcom BCM4312 802.11b/g WLAN module for use in Antigua and Barbuda, Barbados, 490811-001 Belize, Canada, the Cayman Islands, Guam, Puerto Rico, Trinidad and Tobago, the U.S. Virgin Islands, and the United States Broadcom BCM4312 802.11b/g WLAN module for use in Afghanistan, Albania, Algeria, 490811-002 Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia, Austria, Azerbaijan, the Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, the British Virgin Islands, Brunei, Bulgaria, Burkina Faso, Burundi, Cameroon, Cape Verde, the Central African Republic, Chad, Chile, the People's Republic of China, Colombia, Comoros, the Congo, Costa Rica, Croatia, Cyprus, the Czech Republic, Denmark, Djibouti, Dominica, the Dominican Republic, East Timor, Ecuador, Egypt, El Salvador, Equitorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar, Greece, Grenada, Guadeloupe, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Ireland, Israel, Italy, the Ivory Coast, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Madagascar, Malawi, Malaysia, the Maldives, Mali, Malta, the Marshall Islands, Martinique, Mauritania, Mauritius, Mexico, Micronesia, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nauru, Nepal, the Nether Antilles, the Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, the Philippines, Poland, Portugal, the Republic of Moldova, Romania, Russia, Rwanda, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, the Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, the Solomon Islands, Somalia, South Africa, South Korea, Spain, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine,

Des	scription	Spare part number	
	the United Arab Emirates, the United Kingdom, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen, Zaire, Zambia, and Zimbabwe		
Intel WLAN modules for use only with HP Compaq 6730b computer models:			
•	Intel Wi-Fi Link 5100 802.11a/b/g/n WLAN module for use only with HP Compaq 6730b computer models in all countries and regions	480985-001	
•	Intel Wi-Fi Link 5100 802.11a/b/g WLAN module for use only with HP Compaq 6730b computer models in all countries and regions	482957-001	

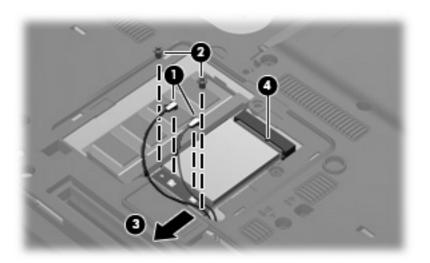
Before removing the WLAN module, follow these steps:

- 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 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 <u>Battery on page 46</u>).
- 5. Remove the memory/WLAN module compartment cover (see <u>Expansion memory module on page 56</u>).

Remove the WLAN module:

- 1. Disconnect the WLAN antenna cables (1) from the terminals on the WLAN module.
- NOTE: The black WLAN antenna cable is connected to the WLAN module "Main" terminal. The white WLAN antenna cable is connected to the WLAN module "Aux" terminal.
- 2. Remove the two Phillips PM2.5×4.0 screws (2) that secure the WLAN module to the computer. (The edge of the module opposite the slot rises away from the computer.)

- 3. Remove the WLAN module (3) by pulling the module away from the slot at an angle.
- NOTE: WLAN modules are designed with a notch (4) to prevent incorrect insertion into the WLAN module slot.



Reverse this procedure to install the WLAN module.

Keyboard

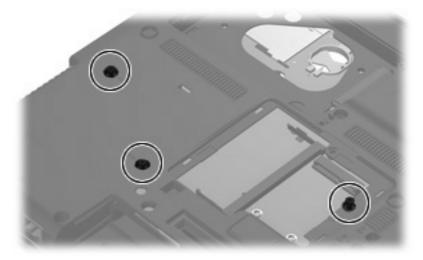
Spare part number	Country or region	Spare part number
487136-181	Norway	487136-091
487136-201	Portugal	487136-131
487136-221	Russia	487136-251
487136-081	Saudi Arabia	487136-171
487136-051	Slovakia	487136-231
487136-121	Slovenia	487136-BA1
487136-041	South Korea	487136-AD1
487136-211	Spain	487136-071
487136-DD1	Sweden and Finland	487136-B71
487136-BB1	Switzerland	487136-BG1
487136-061	Taiwan	487136-AB1
487136-291	Thailand	487136-281
487136-161	The United Kingdom	487136-031
487136-B31	The United States	487136-001
	487136-181 487136-201 487136-221 487136-081 487136-051 487136-121 487136-211 487136-DD1 487136-BB1 487136-061 487136-291 487136-161	487136-181 Norway 487136-201 Portugal 487136-221 Russia 487136-081 Saudi Arabia 487136-051 Slovakia 487136-121 Slovenia 487136-041 South Korea 487136-211 Spain 487136-BB1 Switzerland 487136-061 Taiwan 487136-291 Thailand 487136-161 The United Kingdom

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.
- Remove the battery (see <u>Battery on page 46</u>).

Remove the keyboard:

1. Loosen the three Phillips PM2.5×9.0 captive screws that secure the keyboard to the computer.

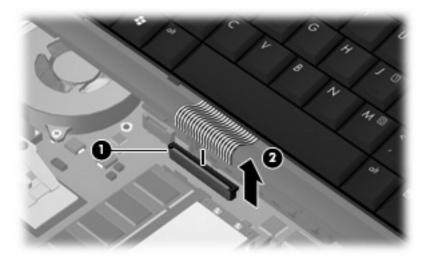


- 2. Turn the computer display-side up, with the front toward you.
- 3. Open the computer as far as possible.
- 4. Slide the four keyboard retention tabs (1) toward you. The tabs are located between the esc and f1 keys, between the f4 and f5 keys, between the f8 and f9 keys, and between the f12 and scroll keys.

5. Lift the rear edge of the keyboard (2) until it rests at an angle, and slide it back (3) until it rests on the display assembly and switch cover.



6. Release the zero insertion force (ZIF) connector (1) to which the keyboard cable is attached, and disconnect the keyboard cable (2) from the system board.



7. Remove the keyboard.

Reverse this procedure to install the keyboard.

Primary memory module

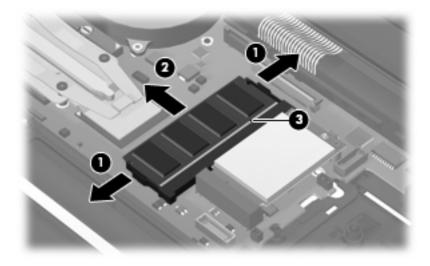
Description	Spare part number
2048-MB memory module (PC2-6400, 667-MHz, DDR2)	483194-001
1024-MB memory module (PC2-6400, 667-MHz, DDR2)	483193-001

Before removing the primary 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.
- 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 <u>Battery on page 46</u>).
- **5.** Remove the keyboard (see <u>Keyboard on page 60</u>).

Remove the primary memory module:

- Spread the retaining tabs (1) on each side of the memory module slot to release the memory module. (The edge of the module opposite the slot rises away from the computer.)
- 2. Remove the memory module (2) by pulling the module away from the slot at an angle.
- NOTE: Memory modules are designed with a notch (3) to prevent incorrect insertion into the memory module slot.



Remove the memory module.

Reverse this procedure to install the primary memory module.

WWAN module

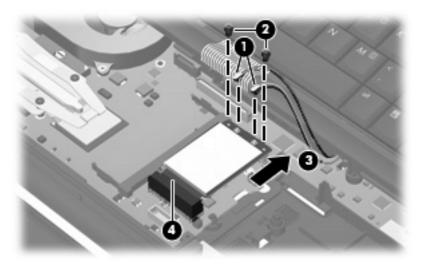
Description	Spare part number
HSDPA EVDO WWAN module	483377-001

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.
- 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 <u>Battery on page 46</u>).
- Remove the keyboard (see <u>Keyboard on page 60</u>).

Remove the WWAN module:

- 1. Disconnect the WWAN antenna cables (1) from the terminals on the WWAN module.
- NOTE: The red WWAN antenna cable is connected to the WWAN module "Main" terminal. The blue WWAN antenna cable is connected to the WWAN module "Aux" terminal.
- 2. Remove the two Phillips PM2.5×4.0 screws (2) that secure the WWAN module to the computer. (The edge of the module opposite the slot rises away from the computer.)
- 3. Remove the WWAN module (3) by pulling the module away from the slot at an angle.
- NOTE: WWAN modules are designed with a notch (4) to prevent incorrect insertion into the WWAN module slot.



4. Remove the WWAN module.

Reverse this procedure to install the WWAN module.

Switch cover

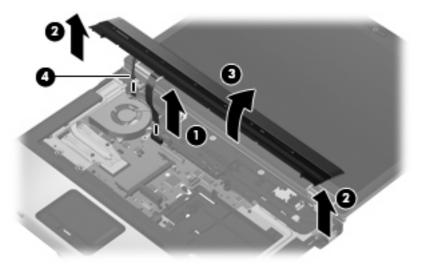
Description	Spare part number
Switch cover (includes LED board and cable)	487139-001

Before removing the switch 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 <u>Battery on page 46</u>).
- 5. Remove the keyboard (see Keyboard on page 60).

Remove the switch cover and keyboard:

- 1. Release the ZIF connector to which the LED board cable (1) is attached, and disconnect the LED board cable from the system board.
- 2. Lift the left and right sides of the switch cover (2) until it detaches from the computer.
- 3. Release the switch cover (3) as far as the power button board cable allows.
- 4. Disconnect the power button board cable (4) from the system board.



5. Remove the switch cover.

Reverse this procedure to install the switch cover.

Power button board

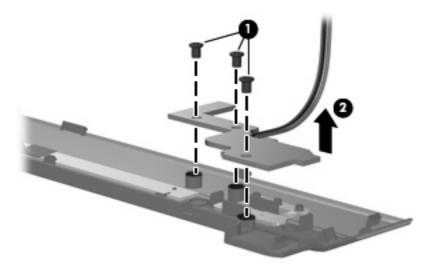
Description	Spare part number
Power button board (includes cable)	487118-001

Before removing the power 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.
- 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 <u>Battery on page 46</u>).
- **5.** Remove the keyboard (see <u>Keyboard on page 60</u>).
- 6. Remove the switch cover (see Switch cover on page 65).

Remove the power button board:

- 1. Turn the switch cover upside down, with the front toward you.
- 2. Remove the three Phillips PM2.0×5.0 screws (1) that secure the power button board to the switch cover.
- 3. Remove the power button board (2) from the switch cover.



Reverse this procedure to install the power button board.

Fan

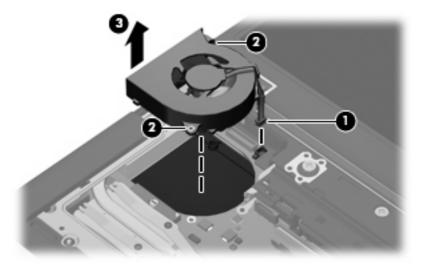
Description	Spare part number
Fan	486288-001

Before removing the fan, 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 <u>Battery on page 46</u>).
- 5. Remove the keyboard (see Keyboard on page 60).
- Remove the switch cover (see <u>Switch cover on page 65</u>).

Remove the fan:

- 1. Disconnect the fan cable (1) from the system board.
- 2. Loosen the two Phillips PM2.5×7.0 screws (2) that secure the fan to the base enclosure.
- 3. Remove the fan (3) from the base enclosure.



Reverse this procedure to install the fan.

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.

Heat sink

NOTE: The heat sink spare part kits include replacement thermal material.

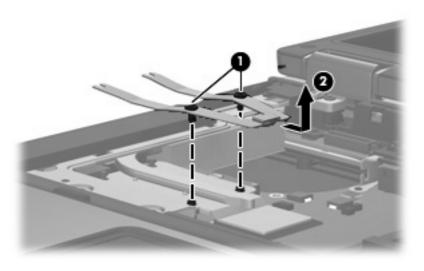
Description	Spare part number
For use only with HP Compaq 6735b computer models	488315-001
For use only with HP Compaq 6730b computer models	486289-001

Before removing the heat sink, follow these steps:

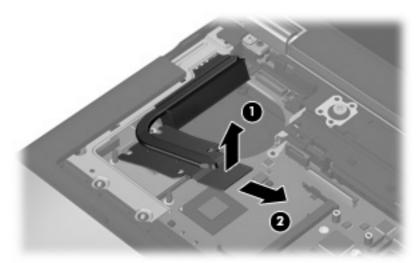
- 1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
- 2. Disconnect all external devices connected to the computer.
- 3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
- 4. Remove the battery (see <u>Battery on page 46</u>).
- Remove the following components:
 - a. Keyboard (see Keyboard on page 60)
 - **b.** Switch cover (see Switch cover on page 65)
 - c. Fan (see Fan on page 67)

Remove the heat sink:

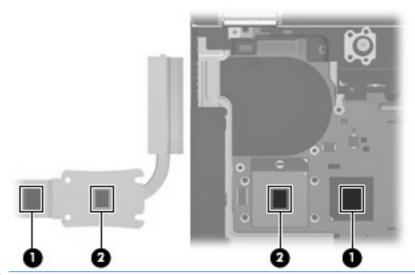
- NOTE: Steps 1 through 4 apply only to HP Compaq 6730b computer models. See steps 5 through 8 for removing the heat sink on HP Compaq 6735b computer models.
 - 1. Loosen the two Phillips PM2.0×4.0 captive screws (1) that secure the heat sink clip to the heat sink
 - 2. Remove the heat sink clip (2) by sliding it to the right, and then lifting it up.



- 3. Lift the right side of the heat sink (1) until it releases from the system board components.
 - NOTE: Due to the adhesive quality of the thermal material located between the heat sink and system board components, it may be necessary to move the heat sink from side to side to detach it.
- 4. Remove the heat sink (2) by sliding it to the right.

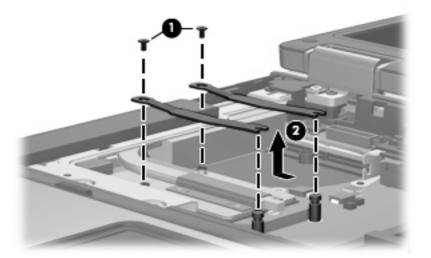


NOTE: The thermal material must be thoroughly cleaned from the surfaces of the heat sink and the system board components each time the heat sink is removed. Thermal pads are used on the Northbridge chip (1) and the section of the heat sink (1) that services it. Thermal paste is used on the processor (2) and the section of the heat sink (2) that services it. Replacement thermal material is included with all heat sink, system board, and processor spare part kits.



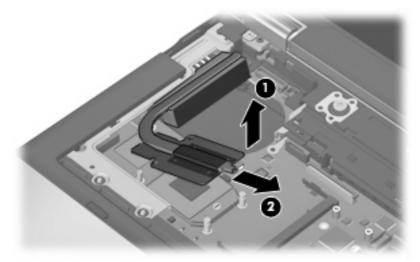
- NOTE: Steps 5 through 8 apply only to HP Compaq 6735b computer models. See steps 1 through 4 for removing the heat sink on HP Compaq 6730b computer models.
- 5. Remove the two Phillips PM2.0×4.0 screws (1) that secure the heat sink clips to the heat sink.

6. Remove the heat sink clips (2) by sliding them to left, and then lifting them up.

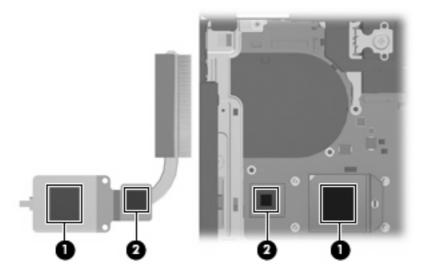


- 7. Lift the right side of the heat sink (1) until it releases from the system board components.
- NOTE: Due to the adhesive quality of the thermal material located between the heat sink and system board components, it may be necessary to move the heat sink from side to side to detach it.

8. Remove the heat sink (2) by sliding it to the right.



NOTE: The thermal material must be thoroughly cleaned from the surfaces of the heat sink and the system board components each time the heat sink is removed. Thermal paste is used on the processor (1) and the section of the heat sink (1) that services it. Thermal pads are used on the Northbridge chip (2) and the section of the heat sink (2) that services it. Replacement thermal material is included with all heat sink, system board, and processor spare part kits.



Reverse this procedure to install the heat sink.

Processor

NOTE: All processor spare part kits include replacement thermal material.

Description	Spare part number	
AMD processors for use only with HP Compaq 6735b computer models:		
AMD Turion 64 ZM-86 2.40-GHz processor	488198-001	
AMD Turion 64 ZM-82 2.20-GHz processor	488196-001	
AMD Turion 64 ZM-80 2.10-GHz processor	488195-001	
AMD Turion 64 RM-70 2.00-GHz processor	488199-001	
AMD Sempron SI-40 2.00-GHz processor	488197-001	
AMD Athlon QL-60 1.90-GHz processor	488200-001	
Intel processors for use only with HP Compaq 6730b computer models:		
Intel Core 2 Duo T9600 2.80-GHz processor (6-MB L2 cache, 800-MHz FSB)	486257-001	
Intel Core 2 Duo T9400 2.53-GHz processor (6-MB L2 cache, 800-MHz FSB)	486256-001	
Intel Core 2 Duo T8600 2.40-GHz processor (3-MB L2 cache, 800-MHz FSB)	486255-001	
Intel Core 2 Duo T8400 2.26-GHz processor (3-MB L2 cache, 800-MHz FSB)	486254-001	

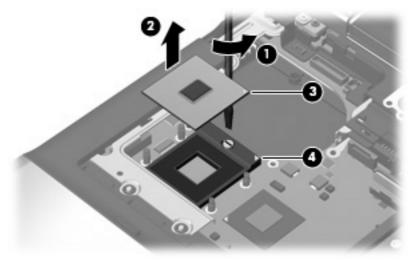
Before removing the processor, follow these steps:

- 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 <u>Battery on page 46</u>).
- Remove the following components:
 - **a.** Keyboard (see Switch cover on page 65)
 - **b.** Switch cover (see Switch cover on page 65)
 - c. Fan (see Fan on page 67)
 - **d.** Heat sink (see <u>Heat sink on page 68</u>)

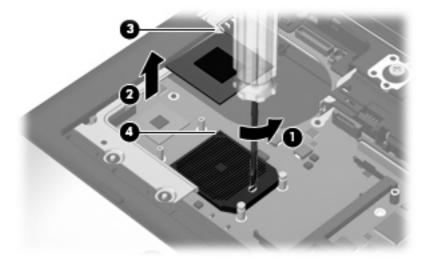
Remove the processor:

- NOTE: Steps 1 and 2 apply only to HP Compaq 6730b computer models. See steps 3 and 4 for removing the processor on HP Compaq 6735b computer models.
 - 1. Use a flat-bladed screwdriver to turn the processor locking screw (1) one-half turn counterclockwise until you hear a click.

- 2. Lift the processor (2) straight up and remove it.
- NOTE: When you install the processor, the gold triangle (3) on the processor must be aligned with the triangle (4) embossed on the processor socket.



- NOTE: Steps 3 and 4 apply only to HP Compaq 6735b computer models. See steps 1 and 2 for removing the processor on HP Compaq 6730b computer models.
- 3. Use a flat-bladed screwdriver to turn the processor locking screw (1) one-half turn counterclockwise until you hear a click.
- 4. Lift the processor (2) straight up and remove it.
- NOTE: When you install the processor, the gold triangle (3) on the processor must be aligned with the triangle (4) embossed on the processor socket.



Reverse this procedure to install the processor.

Display assembly

NOTE: All display assembly spare part kits include 2 WLAN antenna transceivers and cables.

Des	scription	Spare part number
Dis	play assemblies for use only with HP Compaq 6735b computer models:	
	15.4-inch SXGA+ display assembly with 2 microphones and webcam for use only with computer models equipped with both WLAN and WWAN modules	492177-001
	15.4-inch SXGA+ display assembly with 1 microphone for use only with computer models equipped with both WLAN and WWAN modules	492178-001
	15.4-inch SXGA+ display assembly with 2 microphones and webcam for use only with computer models equipped with a WLAN module but not a WWAN module	492179-001
)	15.4-inch SXGA+ display assembly with 1 microphone for use only with computer models equipped with a WLAN module but not a WWAN module	492180-001
	15.4-inch WXGA BrightView display assembly with 2 microphones and webcam for use only with computer models equipped with both WLAN and WWAN modules	492181-001
	15.4-inch WXGA BrightView display assembly with 1 microphone for use only with computer models equipped with both WLAN and WWAN modules	492182-001
	15.4-inch WXGA Brightview display assembly with 2 microphones and webcam for use only with computer models equipped with a WLAN module but not a WWAN module	492183-001
•	15.4-inch WXGA Brightview display assembly with 1 microphone for use only with computer models equipped with a WLAN module but not a WWAN module	492184-001
	15.4-inch WXGA display assembly with 2 microphones and webcam for use only with computer models equipped with both WLAN and WWAN modules	492173-001
	15.4-inch WXGA display assembly with 1 microphone for use only with computer models equipped with both WLAN and WWAN modules	492174-001
•	15.4-inch WXGA display assembly with 2 microphones and webcam for use only with computer models equipped with a WLAN module but not a WWAN module	492175-001
•	15.4-inch WXGA display assembly with 1 microphone for use only with computer models equipped with a WLAN module but not a WWAN module	492176-001
Dis	play assemblies for use only with HP Compaq 6730b computer models:	
	15.4-inch SXGA+ display assembly with 2 microphones and webcam for use only with computer models equipped with both WLAN and WWAN modules	487126-001
•	15.4-inch SXGA+ display assembly with 1 microphone for use only with computer models equipped with both WLAN and WWAN modules	487127-001
	15.4-inch SXGA+ display assembly with 2 microphones and webcam for use only with computer models equipped with a WLAN module but not a WWAN module	487128-001
	15.4-inch SXGA+ display assembly with 1 microphone for use only with computer models equipped with a WLAN module but not a WWAN module	487129-001
	15.4-inch WXGA BrightView display assembly with 2 microphones and webcam for use only with computer models equipped with both WLAN and WWAN modules	487130-001
	15.4-inch WXGA BrightView display assembly with 1 microphone for use only with computer models equipped with both WLAN and WWAN modules	487131-001
)	15.4-inch WXGA BrightView display assembly with 2 microphones and webcam for use only with computer models equipped with a WLAN module but not a WWAN module	487132-001

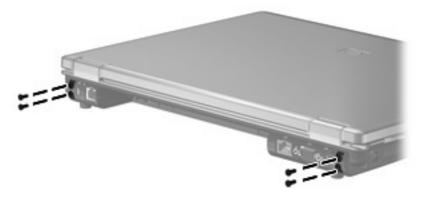
Des	scription	Spare part number
•	15.4-inch WXGA BrightView display assembly with 1 microphone for use only with computer models equipped with a WLAN module but not a WWAN module	487133-001
•	15.4-inch WXGA display assembly with 2 microphones and webcam for use only with computer models equipped with both WLAN and WWAN modules	487122-001
•	15.4-inch WXGA display assembly with 1 microphone for use only with computer models equipped with both WLAN and WWAN modules	487123-001
•	15.4-inch WXGA display assembly with 2 microphones and webcam for use only with computer models equipped with a WLAN module but not a WWAN module	487124-001
•	15.4-inch WXGA display assembly with 1 microphone for use only with computer models equipped with a WLAN module but not a WWAN module	487125-001

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 <u>Battery on page 46</u>).
- 5. Disconnect the wireless antenna cables from the WLAN module (see WLAN module on page 58).
- Disconnect the wireless antenna cables from the WWAN module (see <u>WWAN module</u> on page 64).
- 7. Remove the fan (see Fan on page 67).
- 8. Remove the switch cover (see Switch cover on page 65).

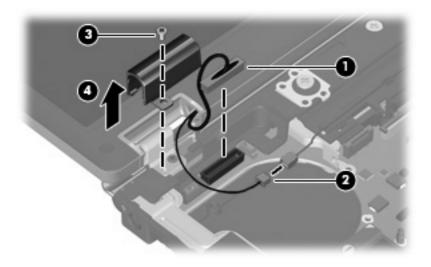
Remove the display assembly:

- 1. Close the computer and position it with the rear panel toward you.
- 2. Remove the four Torx T8M2.5×9.0 screws that secure the display assembly to the computer.

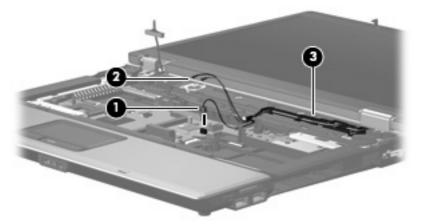


Position the computer with the front toward you.

- Open the computer as far as possible.
- 5. Disconnect the display panel cable (1) from the system board.
- **6.** Disconnect the microphone cable **(2)** from the microphone extension cable.
- 7. Remove the Torx8 T8M2.5×4.0 screw (3) that secures the left display hinge cover to the computer.
- 8. Remove the left display hinge cover (4).
 - NOTE: The left and right hinge covers are available using spare part number 487144-001.

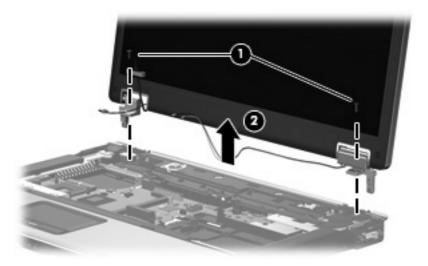


- 9. Disconnect the camera cable (1) from the system board.
- 10. Remove the wireless antenna cables (2) from the clips (3) and routing channel built into the top cover.

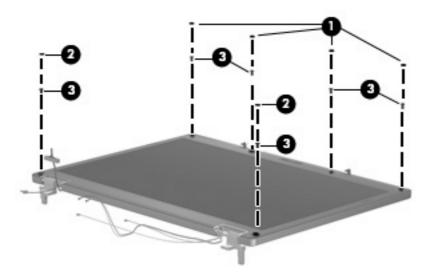


- △ CAUTION: The display assembly will be unsupported when the following screws are removed. To prevent damage to the display assembly, support it before removing the screws.
- 11. Remove the two T8M2.5×9.0 screws (1) that secure the display assembly to the computer.
- NOTE: The screw on the left display assembly hinge secures a display panel cable ground loop.

12. Lift the display assembly (2) straight up and remove it.

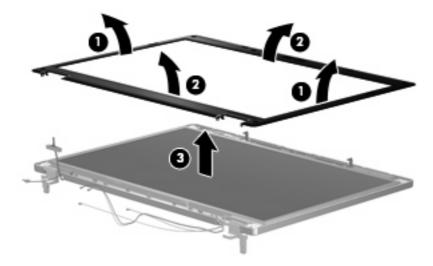


- 13. If it is necessary to replace the display bezel or display hinges, remove the following:
 - (1) Four beveled rubber screw covers on the display bezel top edge. All rubber screw covers are available in the Display Rubber Kit, spare part number 486775-001.
 - **(2)** Two flat rubber screw covers on the display bezel bottom edge. All rubber screw covers are available in the Display Rubber Kit, spare part number 486775-001.
 - (3) Six Torx T8M2.5×7.0 screws that secure the display bezel to the display assembly.

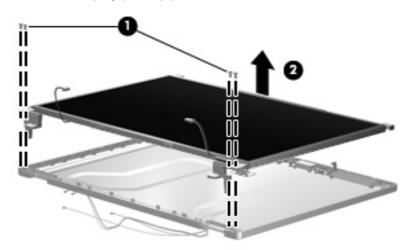


14. Flex the inside edges of the left and right sides (1) and the top and bottom sides (2) of the display bezel until the bezel disengages from the display enclosure.

15. Remove the display bezel (3). The display bezel is available using spare part numbers 487336-001 (for use with computer models equipped with a webcam) and 487338-001 (for use with computer models not equipped with a webcam).

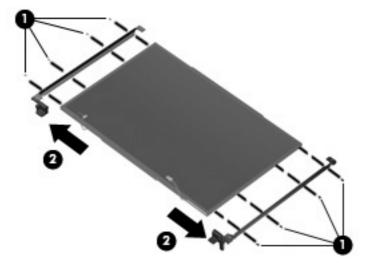


- **16.** If it is necessary to replace the display hinges, remove the two four T8M2.5×7.0 screws **(1)** that secure the display panel to the display enclosure.
- 17. Remove the display panel (2).



18. Remove the four Phillips PM2.0×4.0 screws **(1)** that secure each display hinge to the display panel.

19. Remove the display hinges (2). The left and right display hinges are available using spare part number 487337-001.



Reverse this procedure to reassemble and install the display assembly.

Top cover

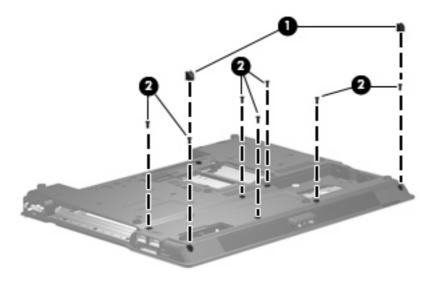
Description	Spare part number
Top cover	487140-001

Before removing the top cover, follow these steps:

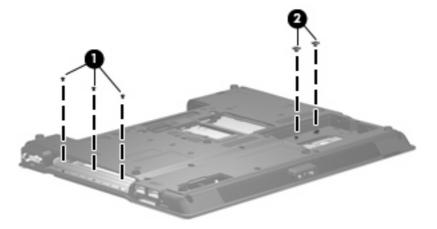
- 1. Shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
- Disconnect all external devices connected to the computer.
- 3. Disconnect the power from the computer by first unplugging the power cord from the AC outlet and then unplugging the AC adapter from the computer.
- **4.** Remove the battery (see <u>Battery on page 46</u>).
- **5.** Remove the following components:
 - **a.** Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - **c.** Keyboard (see <u>Keyboard on page 60</u>)
 - **d.** Switch cover (see Switch cover on page 65)
 - e. Display assembly (see <u>Display assembly on page 74</u>)

Remove the top cover:

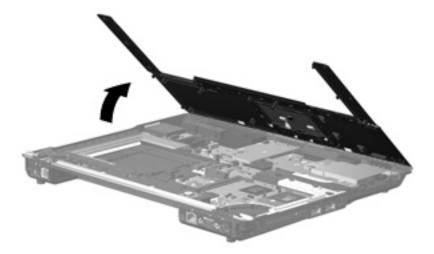
- 1. Turn the computer upside down, with the front toward you.
- 2. Remove the two rubber screw covers (1) and the seven Torx8 T8M2.5×9.0 screws (2) that secure top cover to the base enclosure.
- NOTE: All rubber screw covers are included in the Rubber Kit, spare part number 487145-001.



3. Remove the three Phillips PM2.5×3.0 screws (1) and the two Phillips PM2.5×3.0 broad-head screws (2) that secure the top cover to the computer.

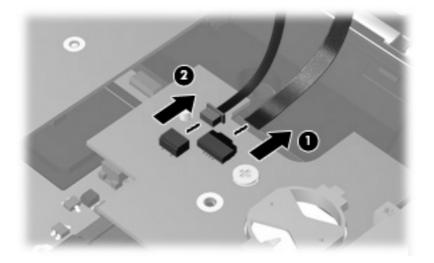


- 4. Turn the computer right side up, with rear panel toward you.
- **5.** Lift the rear edge of the top cover until it rests at an angle.



- 6. Release the ZIF connector to which the TouchPad cable (1) is attached, and disconnect the TouchPad cable from the ExpressCard board.
 - NOTE: The fingerprint reader board is available only on select models.

7. Disconnect the fingerprint reader board cable (2) from the ExpressCard board.



Remove the top cover.

Reverse this procedure to install the top cover.

TouchPad assembly

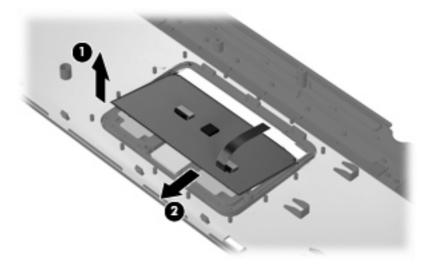
Description	Spare part number
For use only with computer models equipped with a fingerprint reader (includes a fingerprint reader board and cable)	487134-001
For use only with computer models not equipped with a fingerprint reader	487135-001

Before removing the TouchPad 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.
- Disconnect all external devices connected to the computer.
- 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 <u>Battery on page 46</u>).
- 5. Remove the following:
 - a. Hard drive (see Hard drive on page 52)
 - **b.** Optical drive (see Optical drive on page 55)
 - c. Keyboard (see Keyboard on page 60)
 - **d.** Switch cover (see Switch cover on page 65)
 - e. Display assembly (see <u>Display assembly on page 74</u>)
 - f. Top cover (see Top cover on page 80)

Remove the TouchPad assembly:

- Hold the top cover above the work surface.
- 2. Release the TouchPad assembly (1) by pushing up on the front edge of the assembly from underneath the top cover.
- 3. Remove the TouchPad assembly (2) by sliding it up and forward at an angle



Reverse this procedure to install the TouchPad assembly.

ExpressCard board

Description	Spare part number
ExpressCard board (includes RTC battery)	487119-001

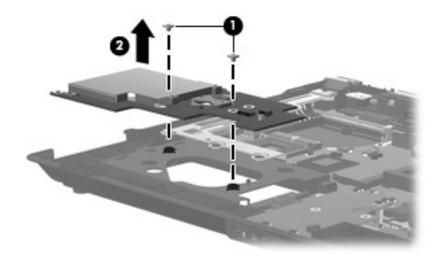
Before removing the ExpressCard board, follow these steps:

- 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 <u>Battery on page 46</u>).
- **5.** Remove the following:
 - a. Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - c. Keyboard (see Keyboard on page 60)
 - **d.** Switch cover (see Switch cover on page 65)

- e. Display assembly (see Display assembly on page 74)
- f. Top cover (see <u>Top cover on page 80</u>)

Remove the ExpressCard board:

- Remove the two Phillips PM2.5×3.0 broad-head screws (1) that secure the ExpressCard board to the computer.
- 2. Remove the ExpressCard board (2).



Reverse this procedure to install the ExpressCard board.

Audio board

Description	Spare part number
Audio board (includes cable)	486250-001

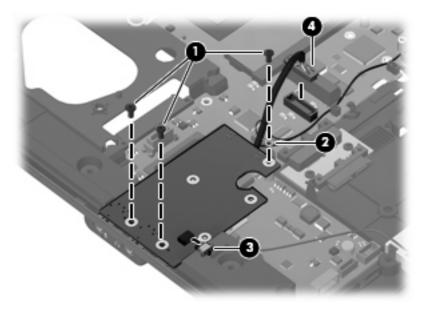
Before removing the audio board, follow these steps:

- 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 <u>Battery on page 46</u>).
- 5. Remove the following:
 - a. Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - c. Keyboard (see Keyboard on page 60)
 - **d.** Switch cover (see Switch cover on page 65)

- **e.** Display assembly (see <u>Display assembly on page 74</u>)
- **f.** Top cover (see <u>Top cover on page 80</u>)
- g. ExpressCard board (see ExpressCard board on page 83)

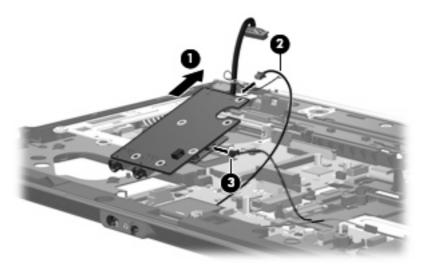
Remove the audio board:

- 1. Remove the three Phillips PM2.5×5.0 screws (1) that secure the audio board to the system board.
- NOTE: The audio board cable ground loop (2) is secured by the audio board rear screw.
- 2. Disconnect the speaker cable (3) from the audio board.
- 3. Disconnect the audio board cable (4) from the system board.



- 4. Release the audio board (1) by sliding it up and away from the front edge of the base enclosure.
- 5. Disconnect the microphone cable (2) from the audio board.

6. Disconnect the modem module cable (3) from the modem module.



Remove the audio board.

Reverse this procedure to install the audio board.

Modem module

NOTE: The modem module spare part kits do not include a modem module cable. The modem module cable is included in the Cable Kit, spare part number 487138-001.

Description	Spare part number
For use in all countries and regions except Australia and New Zealand	491575-001
For use only in Australia and New Zealand	491575-011

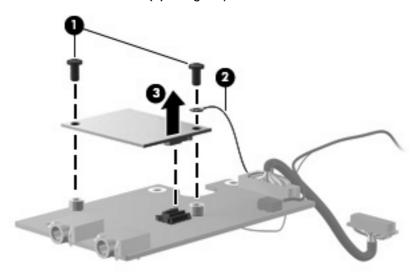
Before removing the modem module, follow these steps:

- 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.
- 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.
- Remove the battery (see <u>Battery on page 46</u>).
- Remove the following:
 - **a.** Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - **c.** Keyboard (see <u>Keyboard on page 60</u>)
 - d. Switch cover (see Switch cover on page 65)
 - e. Display assembly (see <u>Display assembly on page 74</u>)

- **f.** Top cover (see <u>Top cover on page 80</u>)
- g. ExpressCard board (see ExpressCard board on page 83)
- **h.** Audio board (see <u>Audio board on page 84</u>)

Remove the modem module:

- 1. Turn the audio board upside down, with the audio connectors toward you.
- 2. Remove the two Phillips PM2.5×3.0 screws (1) that secure the modem module to the audio board.
 - NOTE: The audio board cable ground loop (2) is secured by the modem module rear screw.
- 3. Lift the modem module (3) straight up to disconnect it from the audio board.



Remove the audio board.

Reverse this procedure to install the modem module.

Speaker

Description	Spare part number
Speaker	487137-001

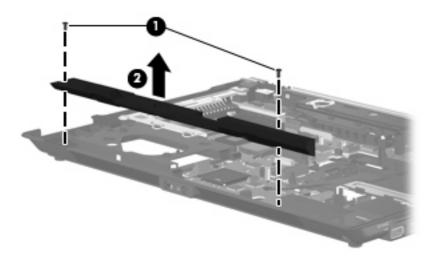
Before removing the speaker, follow these steps:

- 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.
- 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 <u>Battery on page 46</u>).
- **5.** Remove the following:
 - **a.** Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - **c.** Keyboard (see Keyboard on page 60)
 - **d.** Switch cover (see Switch cover on page 65)
 - e. Display assembly (see <u>Display assembly on page 74</u>)
 - **f.** Top cover (see <u>Top cover on page 80</u>)
 - g. ExpressCard board (see ExpressCard board on page 83)
 - h. Audio board (see Audio board on page 84)

Remove the speaker:

- 1. Remove the two Phillips PM2.5×5.0 screws (1) that secure the speaker to the base enclosure.
- 2. Remove the speaker (2).



Reverse this procedure to install the speaker.

USB/digital media board

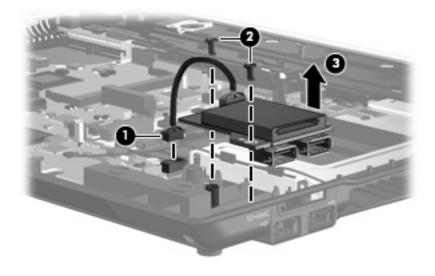
Description	Spare part number
USB/digital media board (includes cable)	486249-001

Before removing the USB/digital media 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 <u>Battery on page 46</u>).
- **5.** Remove the following:
 - **a.** Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - **c.** Keyboard (see <u>Keyboard on page 60</u>)
 - **d.** Switch cover (see Switch cover on page 65)
 - **e.** Display assembly (see <u>Display assembly on page 74</u>)
 - **f.** Top cover (see <u>Top cover on page 80</u>)

Remove the USB/digital media board cable:

- 1. Disconnect the USB/digital media board cable (1) from the system board.
- Remove the two Phillips PM2.5×5.0 screws (2) that secure the USB/digital media board to the base enclosure.
- Remove the USB/digital media board (3).



Reverse this procedure to install the USB/digital media board.

Bluetooth module cable

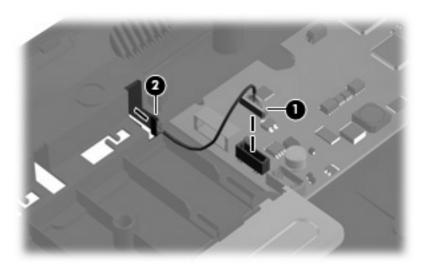
NOTE: The Bluetooth module cable is included in the Cable Kit, spare part number 487138-001.

Before removing the Bluetooth module cable, 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.
- Disconnect all external devices connected to the computer.
- 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 <u>Battery on page 46</u>).
- Remove the following:
 - a. Hard drive (see Hard drive on page 52)
 - **b.** Optical drive (see Optical drive on page 55)
 - c. Keyboard (see Keyboard on page 60)
 - **d.** Switch cover (see Switch cover on page 65)
 - e. Display assembly (see Display assembly on page 74)
 - **f.** Top cover (see Top cover on page 80)

Remove the Bluetooth module cable:

- 1. Disconnect the Bluetooth module cable (1) from the system board.
- 2. Remove the Bluetooth module cable (2) from the opening built into the base enclosure.



Remove the Bluetooth module cable.

Reverse this procedure to install the Bluetooth module cable.

Rear cover

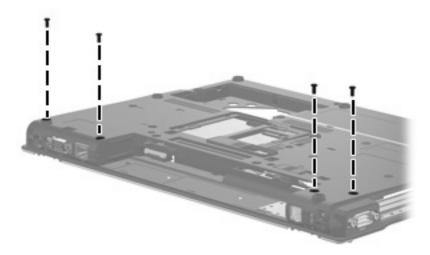
Description	Spare part number
Rear cover	487143-001

Before removing the rear 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 <u>Battery on page 46</u>).
- **5.** Remove the following:
 - **a.** Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - c. Keyboard (see Keyboard on page 60)
 - **d.** Switch cover (see Switch cover on page 65)
 - **e.** Display assembly (see <u>Display assembly on page 74</u>)
 - **f.** Top cover (see <u>Top cover on page 80</u>)

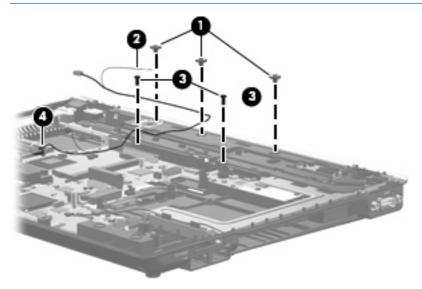
Remove the rear cover:

- 1. Turn the computer upside down, with the rear panel toward you.
- 2. Remove the four Torx8 T8M2.5×9.0 screws that secure the rear cover to the base enclosure.

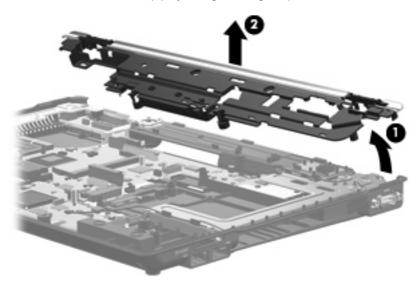


3. Turn the computer right side up, with the front toward you.

- Remove the three Phillips PM2.5×3.0 broad-head screws (1) that secure the rear cover to the base enclosure.
- NOTE: The microphone extension cable ground loop (2) is secured the computer by the left-most broad-head screw.
- 5. Remove the two Phillips PM2.5×5.0 screws (3) that secure the rear cover to the base enclosure.
- **6.** Remove the microphone extension cable **(4)** from the clips and routing channel built into the rear cover.
 - NOTE: The microphone extension cable is included in the Cable Kit, spare part number 487138-001.



- 7. Lift the rear edge of the rear cover (1) until it disengages from the base enclosure.
- 8. Remove the rear cover (2) by lifting it straight up.



Reverse this procedure to install the rear cover.

SIM connector board

NOTE: This section applies only to computer models equipped with a WWAN module.

Description	Spare part number
SIM connector board	486252-001

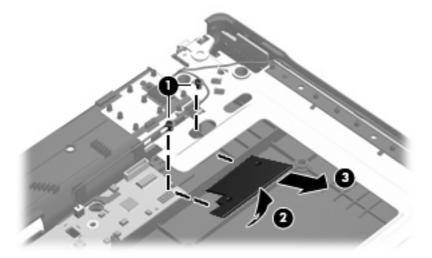
Before removing the SIM connector board, follow these steps:

- 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 46).
- Remove the following:
 - a. Hard drive (see Hard drive on page 52)
 - **b.** Optical drive (see Optical drive on page 55)
 - c. Keyboard (see Keyboard on page 60)
 - d. Switch cover (see Switch cover on page 65)
 - e. Display assembly (see <u>Display assembly on page 74</u>)
 - **f.** Top cover (see <u>Top cover on page 80</u>)
 - g. Rear cover (see Rear cover on page 91)

Remove the SIM connector board:

- 1. Remove the two Phillips PM2.5×5.0 screws (1) that secure the SIM connector board to the base enclosure.
- Lift the left side of the SIM connector board (2) to disconnect it from the system board.

3. Remove the SIM connector board (3) by sliding it forward and out of the base enclosure.



Reverse this procedure to install the SIM connector board.

Modem module cable

NOTE: The modern module cable is included in the Cable Kit, spare part number 487138-001.

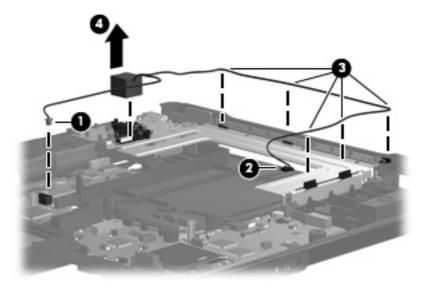
Before removing the modem module cable, follow these steps:

- 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 <u>Battery on page 46</u>).
- 5. Remove the following:
 - **a.** Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - **c.** Keyboard (see <u>Keyboard on page 60</u>)
 - **d.** Switch cover (see Switch cover on page 65)
 - e. Display assembly (see <u>Display assembly on page 74</u>)
 - **f.** Top cover (see <u>Top cover on page 80</u>)
 - **g.** Rear cover (see Rear cover on page 91)

Remove the modem module cable:

- 1. Disconnect the modem module cable (1) from the system board.
- 2. Remove the modem module cable (2) from the clips and routing channel (3) built into the system board bracket.

3. Release the RJ-11 connector (4) from the clip built into the base enclosure.



Remove the modem module cable.

Reverse this procedure to install the modem module cable.

Serial connector and cable

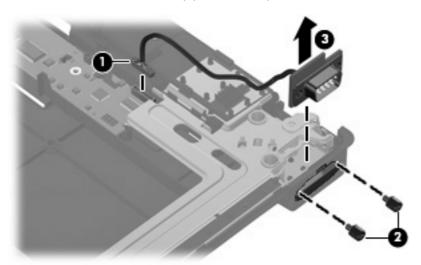
NOTE: The serial connector and cable is included in the Cable Kit, spare part number 487138-001.

Before removing the serial connector and cable, 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.
- Disconnect all external devices connected to the computer.
- 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 46).
- **5.** Remove the following:
 - a. Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - **c.** Keyboard (see Keyboard on page 60)
 - **d.** Switch cover (see Switch cover on page 65)
 - e. Display assembly (see Display assembly on page 74)
 - **f.** Top cover (see Top cover on page 80)
 - g. Rear cover (see Rear cover on page 91)

Remove the serial connector and cable:

- Disconnect the serial connector cable (1) from the system board.
- 2. Remove the two HM5.0×9.0 screw locks (2) that secure the serial connector to the base enclosure.
- 3. Remove the serial connector (3) from the clip built into the base enclosure.



Remove the serial connector and cable.

Reverse this procedure to install the serial connector and cable.

System board

NOTE: All system board spare part kits include replacement thermal material.

Description	Spare part number
For use only with HP Compaq 6735b computer models equipped with both WLAN and WWAN modules	488193-001
For use only with HP Compaq 6735b computer models equipped with a WLAN module but not a WWAN module	488194-001
For use only with HP Compaq 6730b computer models equipped with both WLAN and WWAN modules	486247-001
For use only with HP Compaq 6730b computer models equipped with a WLAN module but not a WWAN module	486248-001

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 46).
- **5.** Remove the following:
 - **a.** Hard drive (see <u>Hard drive on page 52</u>)
 - **b.** Optical drive (see Optical drive on page 55)
 - c. Keyboard (see Keyboard on page 60)
 - **d.** Switch cover (see Switch cover on page 65)
 - e. Fan (see Fan on page 67)
 - **f.** Heat sink (see <u>Heat sink on page 68</u>)
 - g. Display assembly (see Display assembly on page 74)
 - h. Top cover (see Top cover on page 80)
 - i. ExpressCard board (see ExpressCard board on page 83)
 - j. Audio board (see Audio board on page 84)
 - **k.** Speaker (see Speaker on page 87)
 - I. Rear cover (see Rear cover on page 91)
 - m. SIM connector board (see SIM connector board on page 93)

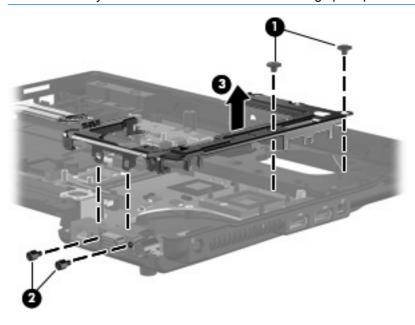
When replacing the system board, be sure that the following components are removed from the defective system board and installed on the replacement system board:

- SIM (see SIM on page 47)
- RTC battery (see <u>RTC battery on page 54</u>)
- Memory modules (see <u>Primary memory module on page 63</u> and <u>Expansion memory module</u> on page 56)
- WLAN module (see WLAN module on page 58)
- WWAN module (see WWAN module on page 64)
- Processor (see <u>Processor on page 72</u>)
- Optical drive connector board (see <u>Optical drive connector board on page 100</u>)

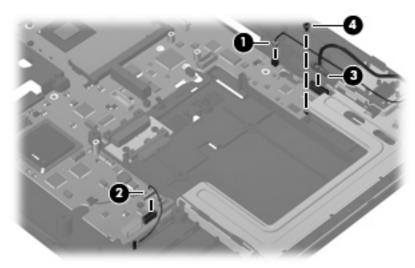
Remove the system board:

- 1. Position the base enclosure with the rear panel toward you.
- Remove the two Phillips PM2.5×3.0 broad-head screws (1) that secure the system board bracket to the base enclosure.
- Remove the two HM5.0×9.0 screw locks (2) that secure the system board bracket to the base enclosure.

- Remove the system board bracket (3).
- NOTE: The system board bracket is available using spare part number 486291-001.

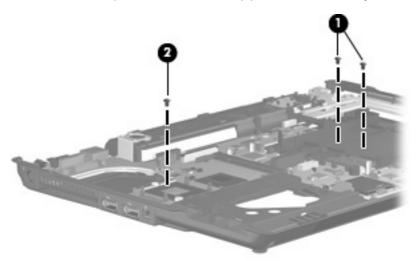


- 5. Position the base enclosure with the front toward you.
- **6.** Disconnect the following cables from the system board:
 - (1) Modem module cable
 - (2) Bluetooth module cable
 - (3) Serial connector cable
 - NOTE: Step 7 applies only to computer models not equipped with WWAN capability.
- 7. Remove the Phillips PM2.5×5.0 screw (4) that secures the system board to the base enclosure.

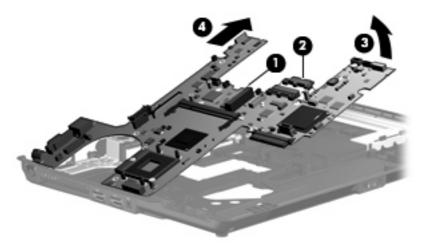


8. Remove the two Phillips PM2.5×5.0 screws (1) that secure the optical drive connector board to the base enclosure

9. Remove the Phillips PM2.5×5.0 screw (2) that secures the system board to the base enclosure.



- 10. Use the right side of the system board (1) immediately behind the optical drive connector board (2) to lift the right side of the system board (3) until it rests at an angle.
- △ CAUTION: When lifting the system board, do not exert any pressure on the optical drive connector board (2). Failure to follow this caution can result in damage to the system board and optical drive connector.
- 11. Remove the system board (4) by sliding it up and away from the base enclosure at an angle.



Reverse this procedure to install the system board.

Optical drive connector board

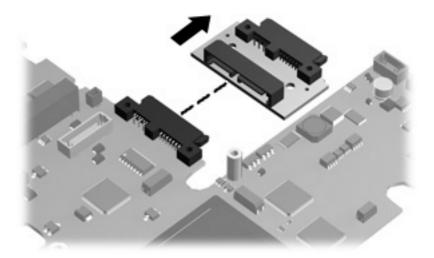
Description	Spare part number
Optical drive connector board	487121-001

Before removing the optical drive connector board, follow these steps:

- 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 <u>Battery on page 46</u>).
- 5. Remove the following:
 - Hard drive (see Hard drive on page 52) a.
 - b. Optical drive (see Optical drive on page 55)
 - Keyboard (see Keyboard on page 60) C.
 - d. Switch cover (see <u>Switch cover on page 65</u>)
 - Fan (see Fan on page 67) e.
 - f. Heat sink (see <u>Heat sink on page 68</u>)
 - Display assembly (see Display assembly on page 74) g.
 - Top cover (see Top cover on page 80) h.
 - i. ExpressCard board (see ExpressCard board on page 83)
 - j. Audio board (see Audio board on page 84)
 - Speaker (see Speaker on page 87) k.
 - I. Rear cover (see Rear cover on page 91)
 - SIM connector board (see SIM connector board on page 93) m.
 - System board (see System board on page 96) n.

Remove the optical drive connector board:

Remove the optical drive connector board by sliding it off of the system board.



Reverse this procedure to install the optical drive connector board.

5 Computer Setup

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

Starting Computer Setup

Computer Setup is a preinstalled, ROM-based utility that can be used even when the operating system is not working or will not load.

NOTE: Some of the Computer Setup menu items listed in this guide may not be supported by your computer.

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

To start Computer Setup, follow these steps:

- 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.
- Press f10 to enter BIOS Setup.

Using Computer Setup

Navigating and selecting in Computer Setup

The information and settings in Computer Setup are accessed from the File, Security, Diagnostics, and System Configuration menus.

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

 Turn on or restart the computer, and then press esc while the "Press the ESC key for Startup Menu" message is displayed at the bottom of the screen.

- NOTE: You can use either a pointing device (TouchPad, pointing stick, or USB mouse) or the keyboard to navigate and make selections in Computer Setup.
 - To select a menu or a menu item, use the keyboard arrow keys and then press enter, or use a pointing device to click the item.
 - To scroll up and down, click the plus sign (+) or the minus sign (-) in the upper-right corner of the screen.
 - To close open dialog boxes and return to the main Computer Setup screen, press esc, and then follow the on-screen instructions.
- 2. Press f10 to enter BIOS Setup.
- Select the File, Security, Diagnostics, or System Configuration menu. 3.

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

- To exit Computer Setup menus without saving your changes, click Exit in the lower-left corner of the screen, and then follow the on-screen instructions.
 - or -

Use the arrow keys to select **File > Ignore changes and exit**, and then press enter.

- or -
- To save your changes and exit Computer Setup menus, click Save in the lower-left corner of the screen, and then follow the on-screen instructions.
 - or -

Use the arrow keys to select **File > Save changes and exit**, and then press enter.

Your changes go into effect when the computer restarts.

Restoring factory settings in Computer Setup

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

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

- 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.
- Press f10 to enter BIOS Setup. 2.
- Use a pointing device or the arrow keys to select **File > Restore defaults**. 3.
- Follow the on-screen instructions.
- To save your changes and exit, click Save in the lower-left corner of the screen, and then follow the on-screen instructions.
 - or -

Use the arrow keys to select **File > Save changes and exit**, and then press enter.

Your changes go into effect when the computer restarts.

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

Computer Setup Menus

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

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

File menu

Select	To do this	
System Information	 View identification information for the computer and the batteries in the system. View specification information for the processor, cache and memory size, system ROM, video revision, and keyboard controller version. 	
Set System Date and Time	Set or change the date and time on the computer.	
Restore defaults	Replace the configuration settings in Computer Setup with the original factory settings. (Hard drive mode, password settings, and security settings are not changed when you restore the factory settings.)	
Ignore changes and exit	Cancel any changes entered during the current session. Then exit and restart the computer.	
Save changes and exit	Save changes and exit Save any changes entered during the current session. Then exit and restart the computer. Your changes go into effect when the computer restarts.	

Security menu

NOTE: Some of the menu items listed in this section may not be supported by your computer.

Select	To do this		
User Management (requires an	Create a new BIOS user account.		
administrator password)	View a list of ProtectTools users.		
Password Policy (requires an administrator password)	Revise password policy criteria.		
Allow HP SpareKey Enrollment	Enable/disable permission to enroll or reset HP SpareKey.		
HP SpareKey	Enable/disable HP SpareKey (enabled by default).		
Fingerprint Reset on Reboot (if Present)	Enable/disable the fingerprint reader (select models only; disabled by default).		
Change Password	Enter, change, or delete a BIOS administrator password.		
DriveLock Passwords	Enable/disable DriveLock on any computer hard drive (enabled by default).		
	Change a DriveLock user password or master password.		
	NOTE: DriveLock settings are accessible only when you enter Computer Setup by turning on (not restarting) the computer.		
Automatic DriveLock	Enable/disable Automatic DriveLock support.		

Select	To do this		
TPM Embedded Security (requires an administrator	 Change TPM (Trusted Platform Module) Embedded Security device state at restart. The following options are available: 		
password)	 Do Nothing (enabled by default) 		
	Available and Disabled		
	Available and Enabled		
	Factory Defaults		
	Reset Authentication Credential.		
	Enable/disable support for the following:		
	 Power-on authentication support (enabled by default) 		
	 Operating system TPM management (enabled by default) 		
	 Reset of TPM from operating system (disabled by default) 		
Disk Sanitizer	Run Disk Sanitizer to destroy all existing data on the primary hard drive.		
	CAUTION: If you run Disk Sanitizer, the data on the primary hard drive is destroyed permanently.		
System IDs	Enter a user-defined computer asset tracking number and ownership tag.		

Diagnostics menu

Select	To do this		
System Diagnostics menu	•	F1 System Information—Displays the following information:	
		$_{\circ}$ $$ Identification information for the computer and the batteries in the system.	
		 Specification information for the processor, cache and memory size, system ROM, video revision, and keyboard controller version. 	
	•	F2 Start-up Test—Verifies the system components needed for starting the computer.	
	•	F3 Run-In Test—Runs a comprehensive check on system memory.	
	•	F4 Hard Disk Test—Runs a comprehensive self-test on any hard drive in the system.	

System Configuration menu

NOTE: Some of the listed System Configuration options may not be supported by your computer.

Select	To do this		
Language	Cha	Change the Computer Setup language.	
Boot Options	•	Set a Startup Menu delay (in seconds).	
	•	Enable/disable Custom Logo (disabled by default).	
	•	Enable/disable Display Diagnostic URL (disabled by default).	

Select	To do this				
	Enable/disable CD-ROM boot (enabled by default).				
	Enable/disable SD Card boot (enabled by default).				
	Enable/disable diskette boot (enabled by default).				
	 Enable/disable boot from Extensible Firmware Interface (EFI) File (select models only enabled by default). 				
	 Enable/disable internal network adapter boot and set the Preboot eXecution Environment (PXE) (enabled by default). 				
	Set the Express Boot Popup delay in seconds.				
	Set the boot order.				
Device Configurations	 Enable/Disable Unified Extensible Firmware Interface (UEFI) mode (disabled by default). 				
	 Enable/disable USB legacy support (enabled by default). When enabled, USB legac support allows the following: 				
	 Use of a USB keyboard in Computer Setup even when a Windows® operating system is not running. 				
	 Startup from bootable USB devices, including a hard drive, diskette drive, or optical drive connected by a USB port to the computer. 				
	 Select a parallel port mode: ECP (Enhanced Capabilities Port), standard, bidirectiona or EPP (Enhanced Parallel Port). 				
	 Enable/disable BIOS DMA data transfers (select models only; enabled by default). 				
	 Enable/disable fan always on while connected to an AC outlet (disabled by default). 				
	 Enable/disable LAN Power Save. When enabled, saves power by turning off the LAN when not in use (enabled by default). 				
	 Enable/disable Data Execution Prevention. When enabled, the processor can disable some virus code execution, which helps to improve computer security. 				
	 SATA (Serial Advanced Technology Attachment) device mode. The following option are available: 				
	AHCI (Advanced Host Controller Interface)				
	IDE (Integrated Drive Electronics)				
	NOTE: Availability of the options above varies by computer model.				
	Enable/disable secondary battery fast charge (enabled by default).				
	Enable/disable HP QuickLook 2 (enabled by default).				
	Enable/disable Virtualization Technology (select models only; enabled by default).				
	 Enable/disable TXT (Intel® Trusted Execution Technology) (select models only; enabled by default). 				
	Enable/disable Dual Core CPU (select models only; enabled by default).				
Built-In Device Options	Enable/disable the wireless button state (enabled by default).				
	 Enable/disable embedded WWAN device radio (select models only; enabled by default). 				

Select	To do this		
	Enable/disable embedded Bluetooth® device radio (enabled by default).		
	Enable/disable the Network Interface Controller (LAN) (enabled by default).		
	Set the wake on LAN state. Options include the following:		
	Disabled		
	 Boot to Network (set by default) 		
	• Follow Boot Order		
	Enable/disable the fingerprint device (enabled by default).		
	Enable/disable a modern device (enabled by default).		
Port Options (all are enabled by	NOTE: All port options are enabled by default.		
default)	Enable/disable the smart card slot.		
	Enable/disable the ExpressCard slot.		
	Enable/disable the serial port.		
	Enable/disable the parallel port.		
	Enable/disable the flash media reader.		
	Enable/disable the USB port.		
	CAUTION: Disabling the USB port also disables MultiBay devices and ExpressCard devices on the advanced port replicator.		
	Enable/disable the 1394 port.		
Set Security Level	Change, view, or hide security levels for all BIOS menu items.		
Restore Security Defaults	Restore the default security settings.		

6 **Specifications**

Computer specifications

	Metric	U.S.
Dimensions		
Depth	26.56 cm	10.46 in
Width	35.60 cm	14.02 in
Height (front to rear)	3.36 cm	1.32 in
Weight (equipped with optical drive, hard drive, and battery)	2.69 kg	5.93 lbs
Input power		
Operating voltage	18.5 V dc @ 3.5 A - 65 W or 1	9.0 V dc @ 4.74 A - 90 W
Operating current	3.5 A or 4.74 A	
Temperature		
Operating (not writing to optical disc)	0°C to 35°C	32°F to 95°F
Operating (writing to optical disc)	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F
Relative humidity (noncondensing)		
Operating	10% to 90%	
Nonoperating	5% to 95%	
Maximum altitude (unpressurized)		
Operating	-15 m to 3,048 m	-50 ft to 10,000 ft
Nonoperating	-15 m to 12,192 m	-50 ft to 40,000 ft
Shock		
Operating	125 g, 2 ms, half-sine	
Nonoperating	200 g, 2 ms, half-sine	
Random vibration		
Operating	0.75 g zero-to-peak, 10 Hz to	500 Hz, 0.25 oct/min sweep r

	Metric	U.S.
Nonoperating	1.50 g zero-to-pea	k, 10 Hz to 500 Hz, 0.5 oct/min sweep rate
NOTE: Applicable product safety standards specify thermal range of temperatures.	limits for plastic surfa	aces. The computer operates well within this

15.4-inch, WSXGA display specifications

	Metric	U.S.	
Dimensions			
Height	20.7 cm	8.15 in	
Width	33.1 cm	13.03 in	
Diagonal	39.1 cm	15.39 in	
Number of colors	Up to 16.8 million		
Contrast ratio	200:1 (typical)		
Brightness	180 nits (typical)		
Pixel resolution			
Pitch	0.197 × 0.197 mm		
Format	1680 × 1050		
Configuration	RGB vertical stripe		
Backlight	CCFT		
Character display	80 × 25		
Total power consumption	7.0 W		
Viewing angle	+/-40 horizontal, +/–50° vertical (typical)		

15.4-inch, WXGA display specifications

	Metric	U.S.		
Dimensions				
Height	20.7 cm	8.15 in		
Width	33.1 cm	13.03 in		
Diagonal	39.1 cm	15.39 in		
Number of colors	Up to 16.8 million			
Contrast ratio	200:1 (typical)	200:1 (typical)		
Brightness	180 nits (typical)	180 nits (typical)		
Pixel resolution				
Pitch	0.259 × 0.259 mm			
Format	1440 × 900	1440 × 900		
Configuration	RGB vertical stripe	RGB vertical stripe		
Backlight	CCFT	CCFT		
Character display	80 × 25	80 × 25		
Total power consumption	6.5 W	6.5 W		
Viewing angle	+/-45° horizontal, +15	+/-45° horizontal, +15/-35° vertical (typical)		

Hard drive specifications

	250-GB*	160-GB*	120-GB*
Dimensions			
Height	9.5 mm	9.5 mm	9.5 mm
Width	70 mm	70 mm	70 mm
Weight	101 g	101 g	101 g
Interface type	SATA	SATA	SATA
Transfer rate	100 MB/sec	100 MB/sec	100 MB/sec
Security	ATA security	ATA security	ATA security
Seek times (typical read, including setting)			
Single track	3 ms	3 ms	3 ms
Average	13 ms	13 ms	13 ms
Maximum	24 ms	24 ms	24 ms
Logical blocks	488,376,280	312,560,640	234,420,480
Disc rotational speed	5400 rpm	5400 rpm	7200 rpm and 5400 rpm
Operating temperature	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 for details.

DVD±RW and **CD-RW** Double-Layer Combo Drive specifications

Applicable disc	Read:	Write:	
	CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE	CD-R and CD-RW	
	CD-ROW, CD-ROW XX, MIXED MODE CD, CD-I, CD-I Bidge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD- EXTRA, Portfolio, CD-R, CD-RW), CD- R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM	DVD+R, DVD+RW, DVD-R, DVD-RW, DVD-RAM	
Access time	CD	DVD	
Random	< 175 ms	< 230 ms	
Cache buffer	2 MB		
Data transfer rate			
24X CD-ROM	3,600 KB/sec		
8X DVD-ROM	10,800 KB/sec		
24X CD-R	3,600 KB/sec		
16X CD-RW	2,400 KB/sec		
8X DVD+R	10,800 KB/sec		
4X DVD+RW	5,400 KB/sec		
8X DVD-R	10,800 KB/sec		
4X DVD-RW	5,400 KB/sec		
2.4X DVD+R(9)	2,700 KB/sec		
5X DVD-RAM	6,750 KB/sec		

DVD/CD-RW Combo Drive specifications

Applicable disc	Read:	Write:
	CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW, DVD+R, DVD+RW, DVD-RAM	CD-R and CD-RW
Access time	CD	DVD
Random	< 110 ms	< 130 ms
Audio output level	Line-out, 0.7 Vrms	
Cache buffer	2 MB	
Data transfer rate		
24X CD-ROM	3,600 KB/sec	
8X DVD	3,600 KB/sec	
24X CD-R	3,600 KB/sec	
24X CD-RW	3,600 KB/sec	

DVD-ROM Drive

Applicable disc	DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18, CD-ROM (Mode 1 and 2), CD Digital Audio, CD-XA ready (Mode 2, Form 1 and Form 2), CD-I (Mode 2, Form 1 and Form 2), CD-R, CD-RW, Photo CD (single and multisession), CD-Bridge		
Access time	CD	DVD	
Random	< 100 ms	< 125 ms	
Cache buffer	512 KB		
Data transfer rate			
CD-R (24X)	3600 KB/s (150 KB/s at 1X CD rate)		
CD-RW (10X)	1500 KB/s (150 KB/s at 1X CD rate)		
CD-ROM (24X)	3600 KB/s (150 KB/s at 1X CD rate)		
DVD (8X)	10,800 KB/s (1,352 KB/s at 1X DVD rate)		
Multiword DMA mode 2	16.6 MB/s		

System DMA specifications

Hardware DMA	System function		
DMA0	Not applicable		
DMA1*	Not applicable		
DMA2*	Not applicable		
DMA3	Not applicable		
DMA4	Direct memory access controller		
DMA5*	Available for ExpressCard		
DMA6	Not assigned		
DMA7	Not assigned		
*ExpressCard controller can use DMA 1, 2, or 5.			

System interrupt specifications

Hardware IRQ	System function		
IRQ0	System timer		
IRQ1	Standard 101-/102-Key or Microsoft® Natural Keyboard		
IRQ2	Cascaded		
IRQ3	Intel 82801DB/DBM USB2 Enhanced Host Controller—24CD		
IRQ4	COM1		
IRQ5*	Conexant AC—Link Audio Intel 82801DB/DBM SMBus Controller—24C3 Data Fax Modem with SmartCP		
IRQ6	Diskette drive		
IRQ7*	Parallel port		
IRQ8	System CMOS/real-time clock		
IRQ9*	Microsoft ACPI-compliant system		
IRQ10*	Intel USB UHCl controller—24C2		
	Intel 82852/82855 GM/GME Graphic Controller		
	Realtek RTL8139 Family PCI Fast Ethernet Controller		
IRQ11	Intel USB EHCI controller—24CD		
	Intel USB UHCI controller—24C4		
	Intel USB UHCl controller—24C7		
	Intel Pro/Wireless 2200BG		
	TI OHCI 1394 host controller		
	TI PCI1410 CardBus controller		
IRQ12	Synaptics PS/2 TouchPad		
IRQ13	Numeric data processor		
IRQ14	Primary IDE channel		
IRQ15	Secondary IDE channel		
*Default configuration; audio possible co	onfigurations are IRQ5, IRQ7, IRQ9, IRQ10, or none.		

NOTE: ExpressCards may assert IRQ3, IRQ4, IRQ5, IRQ7, IRQ9, IRQ10, IRQ11, or IRQ15. Either the infrared or the serial port may assert IRQ3 or IRQ4.

System I/O address specifications

I/O address (hex)	System function (shipping configuration)
000 - 00F	DMA controller no. 1
010 - 01F	Unused
020 - 021	Interrupt controller no. 1
022 - 024	Opti chipset configuration registers
025 - 03F	Unused
02E - 02F	87334 "Super I/O" configuration for CPU
040 - 05F	Counter/timer registers
044 - 05F	Unused
060	Keyboard controller
061	Port B
062 - 063	Unused
064	Keyboard controller
065 - 06F	Unused
070 - 071	NMI enable/RTC
072 - 07F	Unused
080 - 08F	DMA page registers
090 - 091	Unused
092	Port A
093 - 09F	Unused
0A0 - 0A1	Interrupt controller no. 2
I/O Address (hex)	System Function (shipping configuration)
0A2 - 0BF	Unused
0C0 - 0DF	DMA controller no. 2
0E0 - 0EF	Unused
0F0 - 0F1	Coprocessor busy clear/reset
0F2 - 0FF	Unused
100 - 16F	Unused
170 - 177	Secondary fixed disk controller
178 - 1EF	Unused
1F0 - 1F7	Primary fixed disk controller
1F8 - 200	Unused
201	JoyStick (decoded in ESS1688)
202 - 21F	Unused

I/O address (hex)	System function (shipping configuration)
220 - 22F	Entertainment audio
230 - 26D	Unused
26E - 26	Unused
278 - 27F	Unused
280 - 2AB	Unused
2A0 - 2A7	Unused
2A8 - 2E7	Unused
2E8 - 2EF	Reserved serial port
2F0 - 2F7	Unused
2F8 - 2FF	Infrared port
300 - 31F	Unused
320 - 36F	Unused
370 - 377	Secondary diskette drive controller
378 - 37F	Parallel port (LPT1/default)
380 - 387	Unused
388 - 38B	FM synthesizer—OPL3
38C - 3AF	Unused
3B0 - 3BB	VGA
3BC - 3BF	Reserved (parallel port/no EPP support)
3C0 - 3DF	VGA
3E0 - 3E1	ExpressCard controller in CPU
3E2 - 3E3	Unused
3E8 - 3EF	Internal modem
3F0 - 3F7	"A" diskette controller
3F8 - 3FF	Serial port (COM1/default)
CF8 - CFB	PCI configuration index register (PCIDIVO-1)
CFC - CFF	PCI configuration data register (PCIDIVO-1)

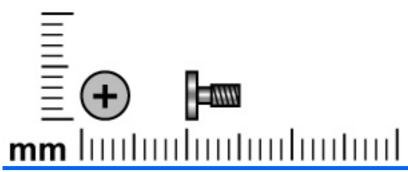
System memory map specifications

Size	Memory address	System function	
640 KB	00000000-0009FFFF	Base memory	
128 KB	000A0000-000BFFFF	Video memory	
48 KB	000C0000-000CBFFF	Video BIOS	
160 KB	000C8000-000E7FFF	Unused	
64 KB	000E8000-000FFFF	System BIOS	
15 MB	00100000-00FFFFF	Extended memory	
58 MB	04800000-07FFFFFF	Super extended memory	
58 MB	04800000-07FFFFFF	Unused	
2 MB	08000000-080FFFFF	Video memory (direct access)	
4 GB	08200000-FFFEFFFF	Unused	
64 KB	FFFF0000-FFFFFFF	System BIOS	

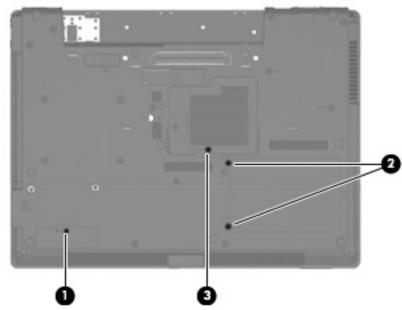
7 Screw listing

This section provides specification and reference information for the screws and screw locks used in the computer. All screws listed in this section are available in the Screw Kit, spare part number 487146-001, and the Display Screw Kit, spare part number 487751-001.

Phillips PM2.0×5.0 captive screw



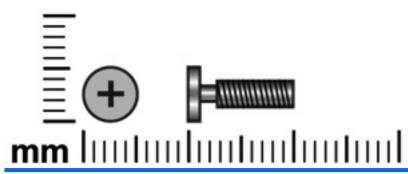
Color	Quantity	Length	Thread	Head diameter
Black	4	5.0 mm	2.0 mm	5.0 mm



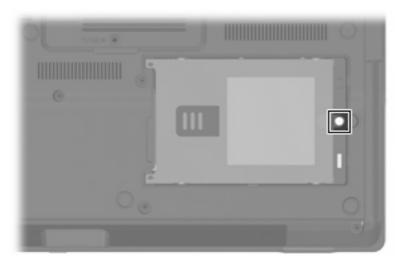
Where used:

- (1) One captive screw that secures the Bluetooth module compartment cover to the computer (screw is secured by a C-clip)
- (2) Two captive screws that secure the hard drive bay cover to the computer (screws are secured by Cclips)
- (3) One captive screw that secures the memory/WLAN module compartment cover to the computer (screw is secured by a C-clip)

Phillips PM2.5×10.0 captive screw

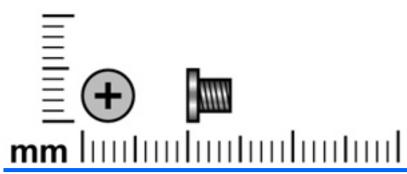


Color	Quantity	Length	Thread	Head diameter
Black	1	10.0 mm	2.5 mm	5.0 mm



Where used: One captive screw that secures the hard drive to the computer (screw is secured by a Cclip)

Phillips PM3.0×4.0 screw

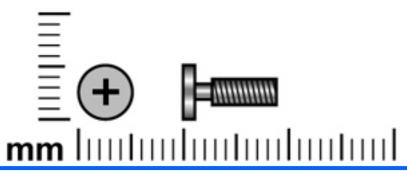


Color	Quantity	Length	Thread	Head diameter
Silver	4	4.0 mm	3.0 mm	5.0 mm

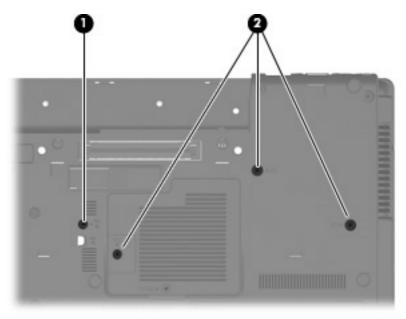


Where used: 4 screws that secure the hard drive bracket to the hard drive

Phillips PM2.5×9.0 captive screw



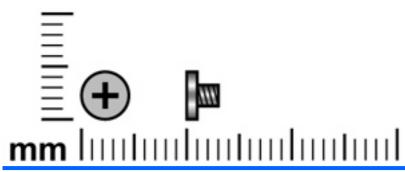
Color	Quantity	Length	Thread	Head diameter
Black	4	9.0 mm	2.5 mm	5.0 mm



Where used:

- (1) One captive screw that secures the optical drive to the computer (screw is secured by a C-clip)
- (2) Three captive screws that secure the keyboard to the computer (screws are secured by C-clips)

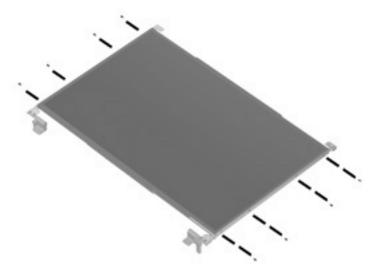
Phillips PM2.0×3.0 screw



Color	Quantity	Length	Thread	Head diameter
Silver	10	3.0 mm	2.0 mm	4.5 mm

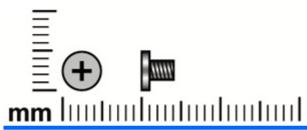


Where used: 2 screws that secure the optical drive bracket to the optical drive

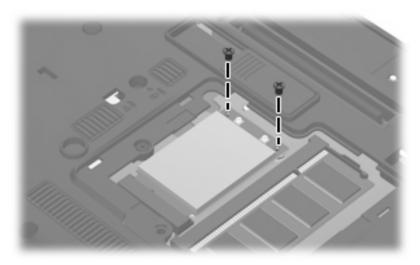


Where used: 8 screws that secure the display hinges to the display panel

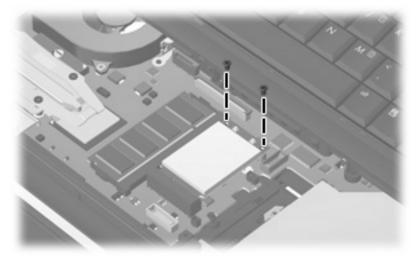
Phillips PM2.5×4.0 screw



Color	Quantity	Length	Thread	Head diameter
Silver	4	4.0 mm	2.5 mm	5.0 mm

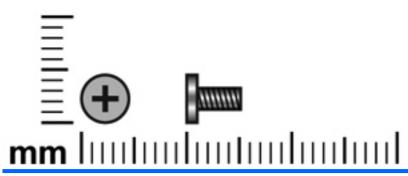


Where used: 2 screws that secure the WLAN module to the system board

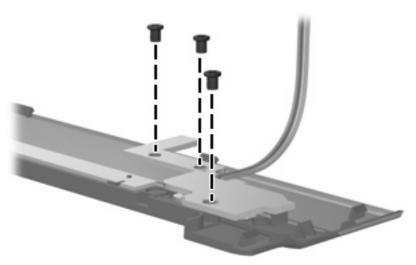


Where used: 2 screws that secure the WWAN module to the system board

Phillips PM2.0×5.0 screw

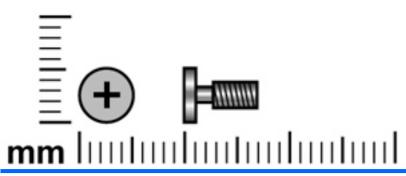


Color	Quantity	Length	Thread	Head diameter
Silver	3	5.0 mm	2.0 mm	4.5 mm

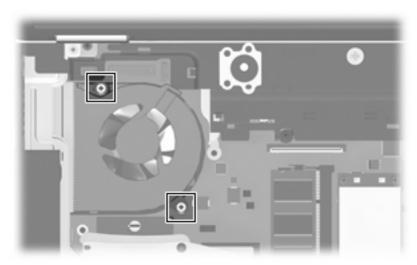


Where used: 3 screws that secure the power button board to the switch cover

Phillips PM2.5×7.0 captive screw

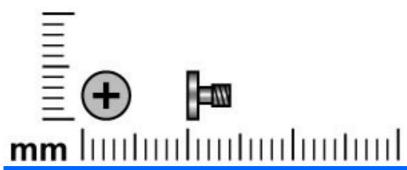


Color	Quantity	Length	Thread	Head diameter
Silver	2	7.0 mm	2.5 mm	5.0 mm

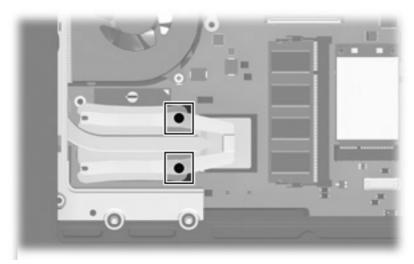


Where used: 2 captive screws that secure the fan to the base enclosure (screws are secured by Cclips)

Phillips PM2.0×4.0 captive screw

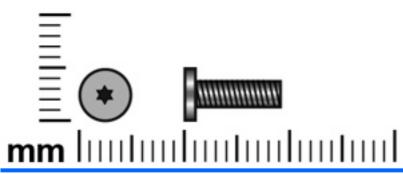


Color	Quantity	Length	Thread	Head diameter
Black	2	4.0 mm	2.0 mm	4.5 mm



Where used: 2 captive screws that secure the heat sink clips to the system board (screws are secured by C-clips)

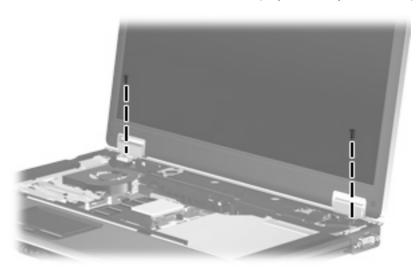
Torx8 T8M2.5×9.0 screw



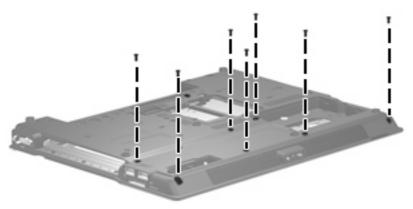
Color	Quantity	Length	Thread	Head diameter
Black	17	9.0 mm	2.5 mm	5.0 mm



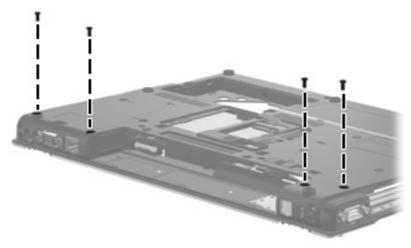
Where used: 4 screws that secure the display assembly to the computer



Where used: 2 screws that secure the display assembly to the computer

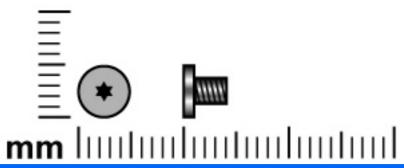


Where used: 7 screws that secure the top cover to the base enclosure

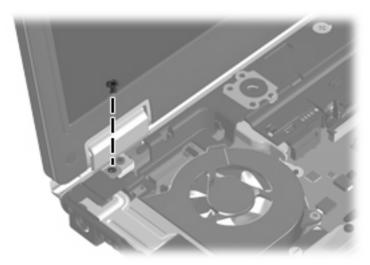


Where used: 4 screws that secure the rear cover to the base enclosure

Torx8 T8M2.5×4.0 screw

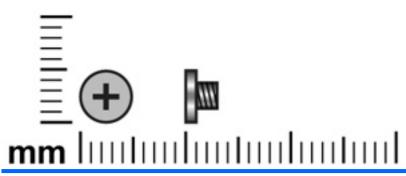


Color	Quantity	Length	Thread	Head diameter
Silver	1	4.0 mm	2.5 mm	5.0 mm

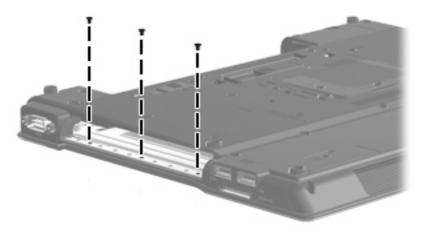


Where used: One screw that secures the display left hinge cover to the display assembly

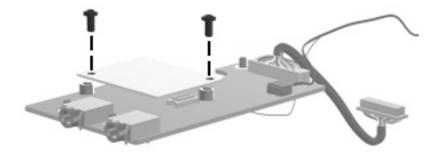
Phillips PM2.5×3.0 screw



Color	Quantity	Length	Thread	Head diameter
Black	5	3.0 mm	2.5 mm	5.0 mm

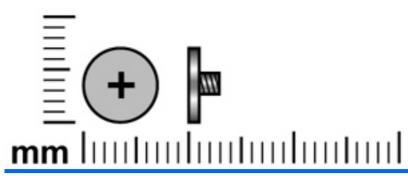


Where used: 3 screws that secure the top cover to the base enclosure

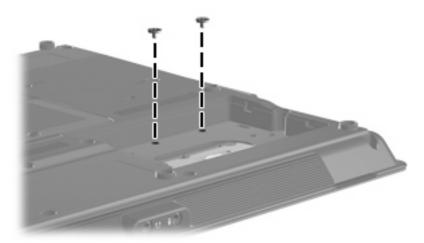


Where used: 2 screws that secure the modem module to the audio board

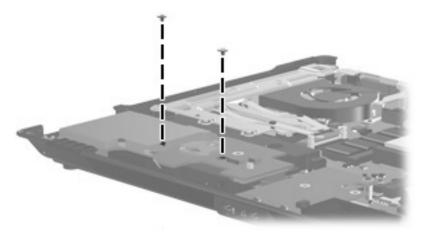
Phillips PM2.5×3.0 broad-head screw



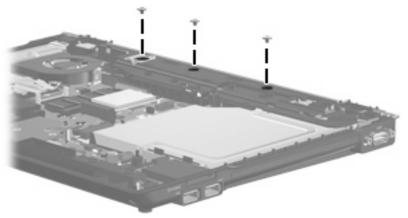
Color	Quantity	Length	Thread	Head diameter
Silver	9	3.0 mm	2.5 mm	7.0 mm



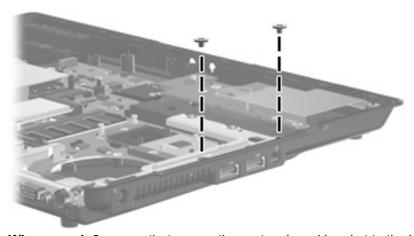
Where used: 2 screws that secure the top cover to the base enclosure



Where used: 2 screws that secure the ExpressCard board to the system board

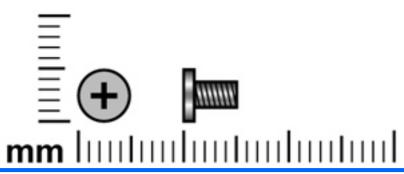


Where used: 3 screws that secure the rear cover to the base enclosure

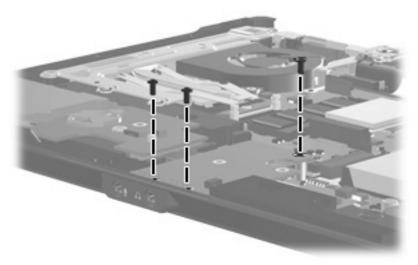


Where used: 2 screws that secure the system board bracket to the base enclosure

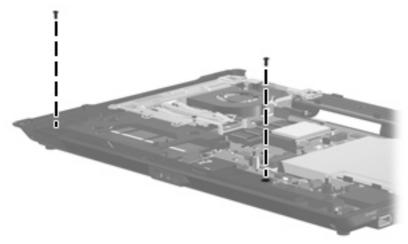
Phillips PM2.5×5.0 screw



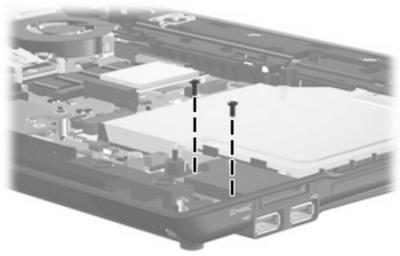
Color	Quantity	Length	Thread	Head diameter
Black	12	5.0 mm	2.5 mm	5.0 mm



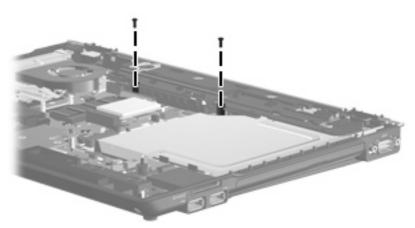
Where used: 3 screws that secure the audio board to the system board



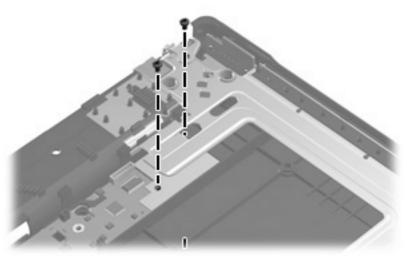
Where used: 2 screws that secure the speaker to the base enclosure



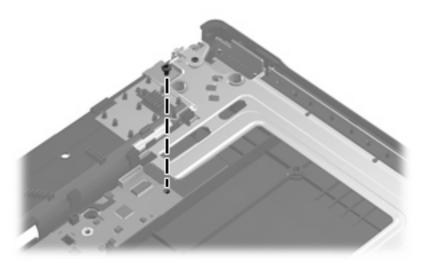
Where used: 2 screws that secure the USB/digital media board to the base enclosure



Where used: 2 screws that secure the rear cover to the base enclosure

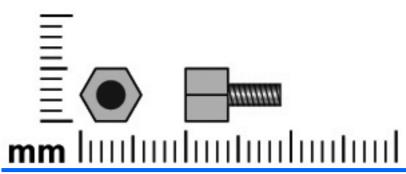


Where used: 2 screws that secure the SIM connector board to the system board (only on computer models equipped with a WWAN module)

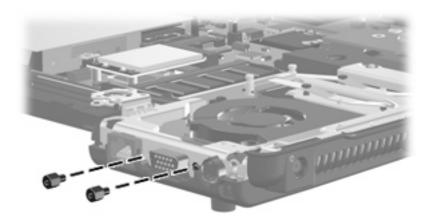


Where used: 1 screw that secures the system board to the base enclosure (only on computer models not equipped with a WWAN module)

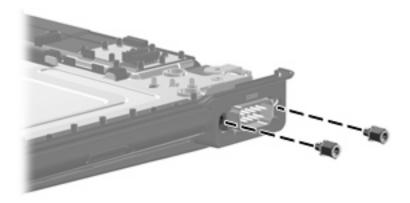
Hex HM5.0×9.0 screw lock



Color	Quantity	Length	Thread	Head diameter
Silver	4	9.0 mm	2.5 mm	5.0 mm

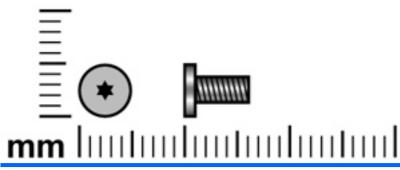


Where used: 2 screw locks that secure the system board bracket to the base enclosure

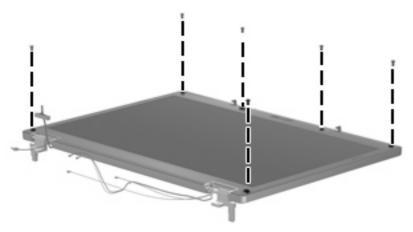


Where used: 2 screw locks that secure the serial connector to the base enclosure

Torx8 T8M2.5×6.0 screw



Color	Quantity	Length	Thread	Head diameter
Black	10	6.0 mm	2.5 mm	5.0 mm



Where used: 6 screws that secure the display bezel to the display enclosure



Where used: 4 screws that secure the display panel to the display enclosure

8 Backup and recovery

Overview

To protect your information, use the Backup and Restore Center to back up individual files and folders, back up your entire hard drive (select models only), or create system restore points. In case of system failure, you can use the backup files to restore the contents of your computer.

Windows Vista provides the following advanced backup and recovery options:

- Backing up individual files and folders
- Backing up the entire hard drive (select models only)
- Scheduling automatic backups (select models only)
- Creating system restore points
- Recovering individual files
- Restoring the computer to a previous state
- Recovering information using recovery tools
- NOTE: For detailed instructions, perform a search for these topics in Help and Support.

Backing up

Backup tips

- Connect the computer to AC power during the backup process.
- Store personal files in the Documents folder and back them up regularly.
- Back up templates that are stored in their associated programs.
- Save customized settings that appear 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:

- 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 **fn+prt sc**.

Open a word-processing document, and then select **Edit > Paste**.

The screen image is added to the document.

Save the document.

Backing up your information

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

To create a backup using Backup and Restore Center, follow these steps:

- Select Start > All Programs > Maintenance > Backup and Restore Center.
- Follow the on-screen instructions to back up your entire computer (select models only) or your files.
 - NOTE: Windows includes the User Account Control feature to improve the security of your 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.

Performing a recovery

In case of system failure, use the f11 recovery tool to recover your original hard drive image. The image includes the Windows operating system and software programs installed at the factory.

NOTE: Windows Vista provides additional recovery tools through the operating system. For additional information, go to Help and Support.

NOTE: If you are unable to boot (start up) your computer, you must purchase a Windows Vista operating system DVD to reboot the computer and repair the operating system. For additional information, refer to the "Recovering information using a Windows Vista operating system DVD (purchased separately)" section in this guide.

Recovering the hard drive using f11

△ CAUTION: Using f11 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 f11 recovery tool reinstalls the original operating system and HP programs and drivers that were installed at the factory. Software not installed at the factory must be manually reinstalled. Personal files must be restored from a backup.

To recover the original hard drive image, follow these steps:

- If possible, back up all personal files.
- If possible, check for the presence of the HP Recovery partition. To find the partition, select Start > Computer.
 - NOTE: If the HP Recovery partition has been deleted, you will need to recover your operating system and programs using the Windows Vista operating system DVD and the *Driver Recovery* disc (purchased separately). For additional information, refer to the "Recovering information using a Windows Vista operating system DVD (purchased separately)" section in this guide.
- 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.
- Press f11 while the "Press for recovery" message is displayed on the screen. 4
- Follow the on-screen instructions.

Recovering information using a Windows Vista operating system DVD (purchased separately)

If you are unable to boot (start up) your computer, you must purchase a Windows Vista operating system DVD to reboot the computer and repair the operating system. Make sure that your most recent backup (stored on discs or on an external drive) is easily accessible. To order a Windows Vista operating system DVD, go to http://www.hp.com/support, select your country or region, and follow the on-screen instructions. You can also order the DVD by calling technical support. For contact information, refer to the Worldwide Telephone Numbers booklet included with the computer.

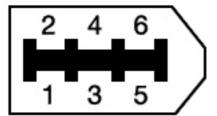
△ CAUTION: Using a Windows Vista operating system DVD will completely erase hard drive contents and reformat the hard drive. All files you have created and any software installed on the computer will be permanently removed. When reformatting is complete, the recovery process will help you restore the operating system, as well as drivers, software, and utilities.

To initiate recovery using a Windows Vista operating system DVD, follow these steps:

- NOTE: This process will take several minutes.
 - If possible, back up all personal files.
 - Restart the computer, and then insert the Windows Vista operating system DVD into the optical drive before the Windows operating system loads.
 - When prompted, press any keyboard key.
 - Follow the on-screen instructions.
 - 5. Click Next.
 - Select Repair your computer.
 - 7. Follow the on-screen instructions.

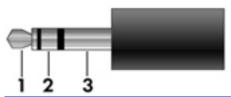
9 Connector pin assignments

1394



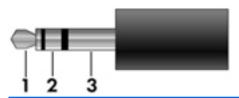
Pin	Assignment
1	Power
2	Ground
3	TPB-
4	TPB+
5	TPA-
6	TPA+

Audio-in (microphone)



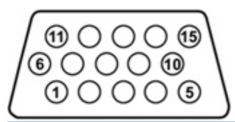
Pin	Signal
1	Audio signal in
2	Audio signal in
3	Ground

Audio-out (headphone)



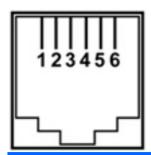
Pin	Signal
1	Audio out, left channel
2	Audio out, right channel
3	Ground

External monitor



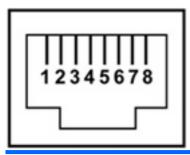
Pin	Signal
1	Red analog
2	Green analog
3	Blue analog
4	Not connected
5	Ground
6	Ground analog
7	Ground analog
8	Ground analog
9	+5 VDC
10	Ground
11	Monitor detect
12	DDC 2B data
13	Horizontal sync
14	Vertical sync
15	DDC 2B clock

RJ-11 (modem)



Pin	Signal
1	Unused
2	Tip
3	Ring
4	Unused
5	Unused
6	Unused

RJ-45 (network)



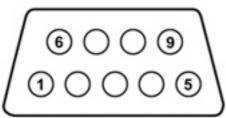
Pin	Signal
1	Transmit +
2	Transmit -
3	Receive +
4	Unused
5	Unused
6	Receive -
7	Unused
8	Unused

S-Video-out



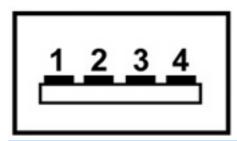
Pin	Signal
1	Ground (Y)
2	Ground (C)
3	Y intensity (luminance)
4	C color (Chrominance

Serial port



Pin	Signal
1	Data carrier detect
2	Received data
3	Transmitted data
4	Data terminal ready
5	Signal ground
6	Data set ready
7	Request to send
8	Clear to send
9	Ring indicator

Universal Serial Bus



Pin	Signal
1	+5 VDC
2	Data -
3	Data +
4	Ground

10 Power cord set requirements

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

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

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

Requirements for all countries and regions

The requirements listed below 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 amps and a nominal voltage rating of 125 or 250 V AC, as required by the power system of each country or region.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector for mating with the appliance inlet on the back of the computer.

Requirements for specific countries and regions

Country/region	Accredited agency	Applicable note number
Australia	EANSW	1
Austria	OVE	1
Belgium	CEBC	1
Canada	CSA	2
Denmark	DEMKO	1
Finland	FIMKO	1
France	UTE	1
Germany	VDE	1
Italy	IMQ	1
Japan	METI	3
The Netherlands	KEMA	1
Norway	NEMKO	1
The People's Republic of China	CCC	5
Sweden	SEMKO	1
South Korea	EK	1
Switzerland	SEV	1
Taiwan	BSMI	4
The United Kingdom	BSI	1
The United States	UL	2

- 1. The flexible cord must be Type HO5VV-F, 3-conductor, 1.0-mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.
- 2. The flexible cord must be Type SPT-3 or equivalent, No. 18 AWG, 3-conductor. The wall plug must be a two-pole grounding type with a NEMA 5-15P (15 A, 125 V) or NEMA 6-15P (15 A, 250 V) configuration.
- 3. The appliance coupler, flexible cord, and wall plug must bear a "T" mark and registration number in accordance with the Japanese Dentori Law. The flexible cord must be Type VCT or VCTF, 3-conductor, 1.00-mm² conductor size. The wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (7 A, 125 V) configuration.
- 4. The flexible cord must be Type RVV, 3-conductor, 0.75-mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.
- 5. The flexible cord must be Type VCTF, 3-conductor, 0.75-mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.

11 Recycling

Battery

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 computer battery disposal.

Display

- △ WARNING! The backlight contains mercury. Exercise caution when removing and handling the backlight to avoid damaging this component and causing exposure to the mercury.
- △ CAUTION: The procedures in this appendix can result in damage to display components. The only components intended for recycling purposes are the liquid crystal display (LCD) panel and the backlight. Careful handling must be exercised when removing these components. When you remove these components, handle them carefully.
- NOTE: Materials Disposal. This HP product contains mercury in the backlight in the display assembly that might require special handling at end-of-life. Disposal of mercury may be regulated because of environmental considerations. For disposal or recycling information, contact your local authorities, or see the Electronic Industries Alliance (EIA) Web site at http://www.eiae.org.

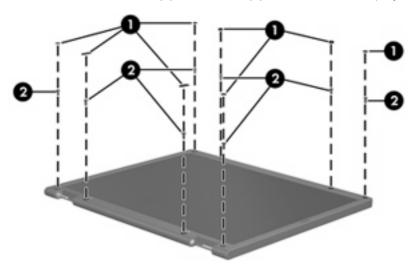
This section provides disassembly instructions for the display assembly. The display assembly must be disassembled to gain access to the backlight (1) and the liquid crystal display (LCD) panel (2).



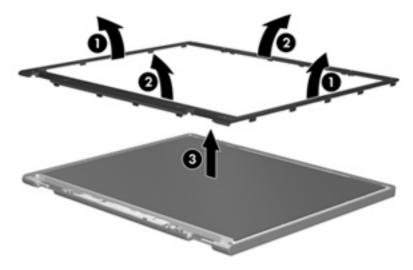
NOTE: The procedures provided in this appendix are general disassembly instructions. Specific details, such as screw sizes, quantities, and locations, and component shapes and sizes, can vary from one computer model to another.

Perform the following steps to disassemble the display assembly:

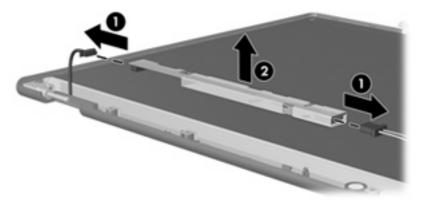
1. Remove all screw covers (1) and screws (2) that secure the display bezel to the display assembly.



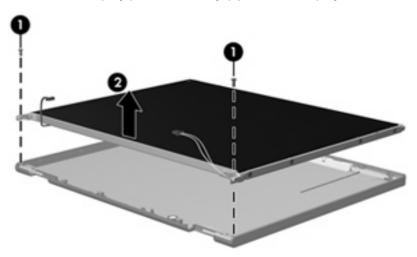
- 2. Lift up and out on the left and right inside edges (1) and the top and bottom inside edges (2) of the display bezel until the bezel disengages from the display assembly.
- 3. Remove the display bezel (3).



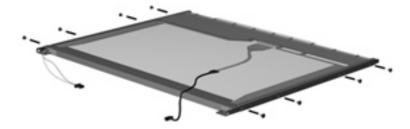
Disconnect all display panel cables (1) from the display inverter and remove the inverter (2).



- Remove all screws (1) that secure the display panel assembly to the display enclosure.
- 6. Remove the display panel assembly (2) from the display enclosure.

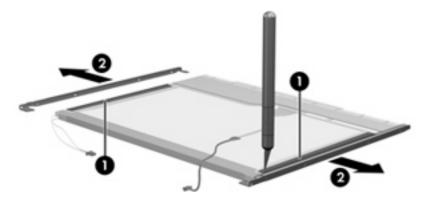


- **7**. Turn the display panel assembly upside down.
- 8. Remove all screws that secure the display panel frame to the display panel.

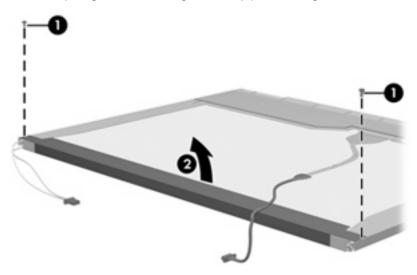


Use a sharp-edged tool to cut the tape (1) that secures the sides of the display panel to the display panel frame.

10. Remove the display panel frame (2) from the display panel.

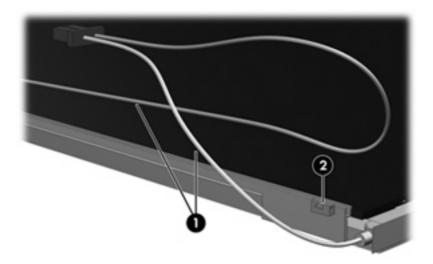


- **11.** Remove the screws **(1)** that secure the backlight cover to the display panel.
- 12. Lift the top edge of the backlight cover (2) and swing it outward.

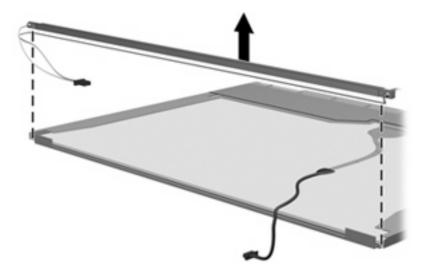


- 13. Remove the backlight cover.
- **14.** Turn the display panel right-side up.

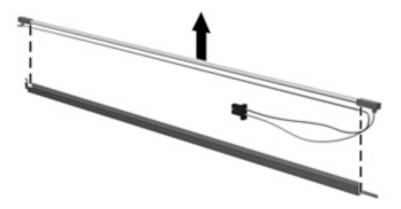
15. Remove the backlight cables **(1)** from the clip **(2)** in the display panel.



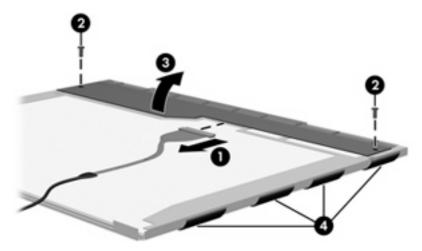
- **16.** Turn the display panel upside down.
- riangle WARNING! The backlight contains mercury. Exercise caution when removing and handling the backlight to avoid damaging this component and causing exposure to the mercury.
- 17. Remove the backlight frame from the display panel.



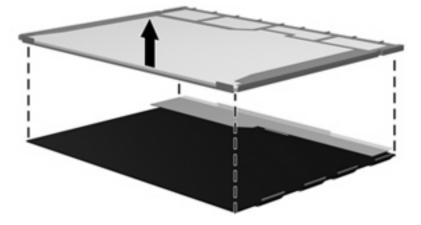
18. Remove the backlight from the backlight frame.



- **19.** Disconnect the display panel cable **(1)** from the LCD panel.
- **20.** Remove the screws **(2)** that secure the LCD panel to the display rear panel.
- **21.** Release the LCD panel **(3)** from the display rear panel.
- 22. Release the tape (4) that secures the LCD panel to the display rear panel.



23. Remove the LCD panel.



24. Recycle the LCD panel and backlight.

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