

Notebook Tour

User Guide

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1 Components

This chapter explains the hardware features of the computer.

To see a list of hardware installed in the computer:

1. Select **Start > My Computer**.
2. In the left pane of the System Tasks window, select **View system information**.
3. Select **Hardware** tab > **Device Manager**.

You can also add hardware or modify device configurations using Device Manager.



NOTE Components included with the computer may vary by region and by model. The illustrations in this chapter identify the standard features included in most computer models.

Top components

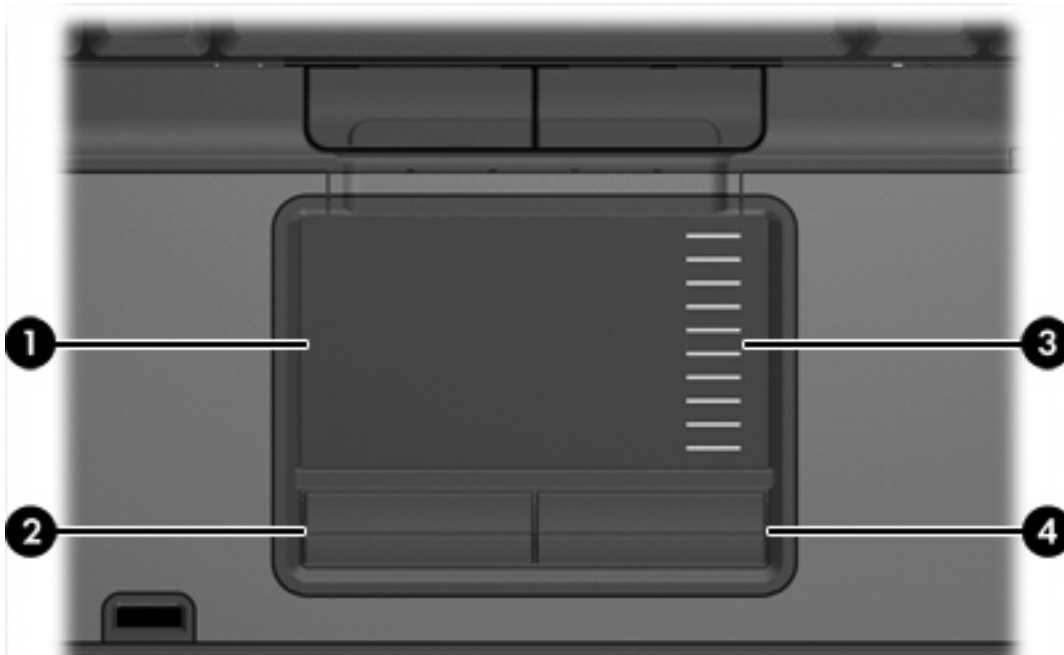
Pointing Devices



Component	Description
(1) Left pointing stick button	Functions like the left button on an external mouse.
(2) Pointing stick	Moves the pointer and selects or activates items on the screen.
(3) Right pointing stick button	Functions like the right button on an external mouse.

*This table describes factory settings. To view and change pointing device preferences, select **Start > Control Panel > Printers and Other Hardware > Mouse**.

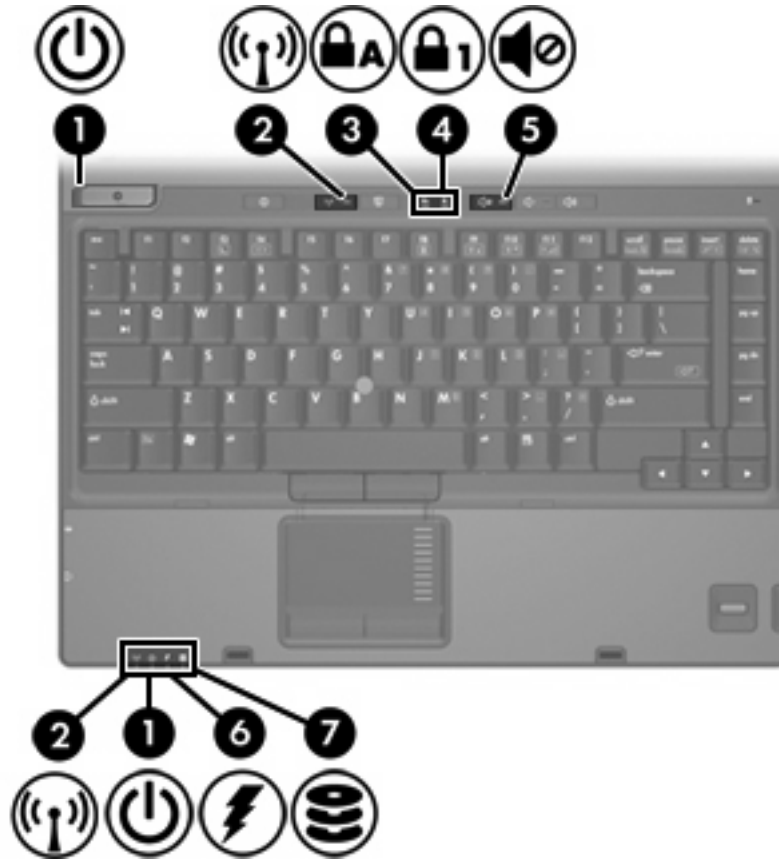
TouchPad



Component	Description
(1) TouchPad*	Moves the pointer and selects or activates items on the screen. Can be set to perform other mouse functions, such as scrolling, selecting, and double-clicking
(2) Left TouchPad button*	Functions like the left button on an external mouse.
(3) TouchPad scroll zone	Scrolls up or down.
(4) Right TouchPad button*	Functions like the right button on an external mouse.

*This table describes factory settings.

Lights



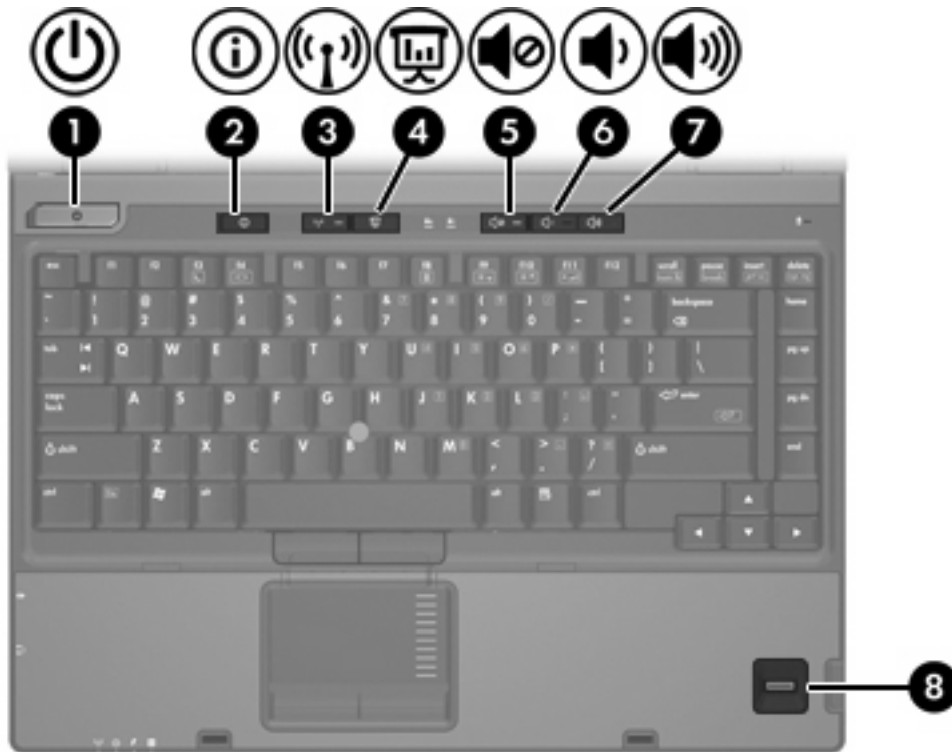
Component	Description
(1) Power lights * (2)	<p>On: The computer is on.</p> <p>Blinking: The computer is in standby.</p> <p>Blinking rapidly: An AC adapter with a higher power rating should be connected.</p> <p>Off: The computer is off or in hibernation.</p>
(2) Wireless lights† (2)	<p>On: An integrated wireless device, such as a wireless local area network (LAN) device and/or a Bluetooth® device, is turned on.</p>
(3) Caps lock light	<p>On: Caps lock is on.</p>
(4) Num lock light	<p>On: Num lock is on or the embedded numeric keypad is enabled.</p>
(5) Volume mute light	<p>On: Computer sound is turned off.</p>
(6) Battery light	<p>Amber: A battery is charging.</p> <p>Green: A battery is close to full charge capacity.</p> <p>Blinking amber: A battery that is the only available power source has reached a low-battery condition. When the battery reaches a <i>critical</i> low-battery condition, the battery light begins blinking rapidly.</p> <p>Off: If the computer is plugged into an external power source, the light is turned off when all batteries in the computer are fully charged. If the computer is not</p>


Component	Description
(7) Drive light	<p>plugged into an external power source, the light stays off until the battery reaches a low-battery condition.</p> <ul style="list-style-type: none"> <li data-bbox="683 302 1286 327">• Blinking: The hard drive or optical drive is being accessed. <li data-bbox="683 352 1398 405">• Amber: HP Mobile Data Protection has temporarily parked the internal hard drive.

*There are 2 power lights. Both display the same information. The light on the power button is visible only when the computer is open; the other power light is always visible on the front of the computer.

†There are 2 wireless lights. Both display the same information. The light on the wireless button is visible only when the computer is open; the other wireless light is always visible on the front of the computer.

Buttons, switches, and readers

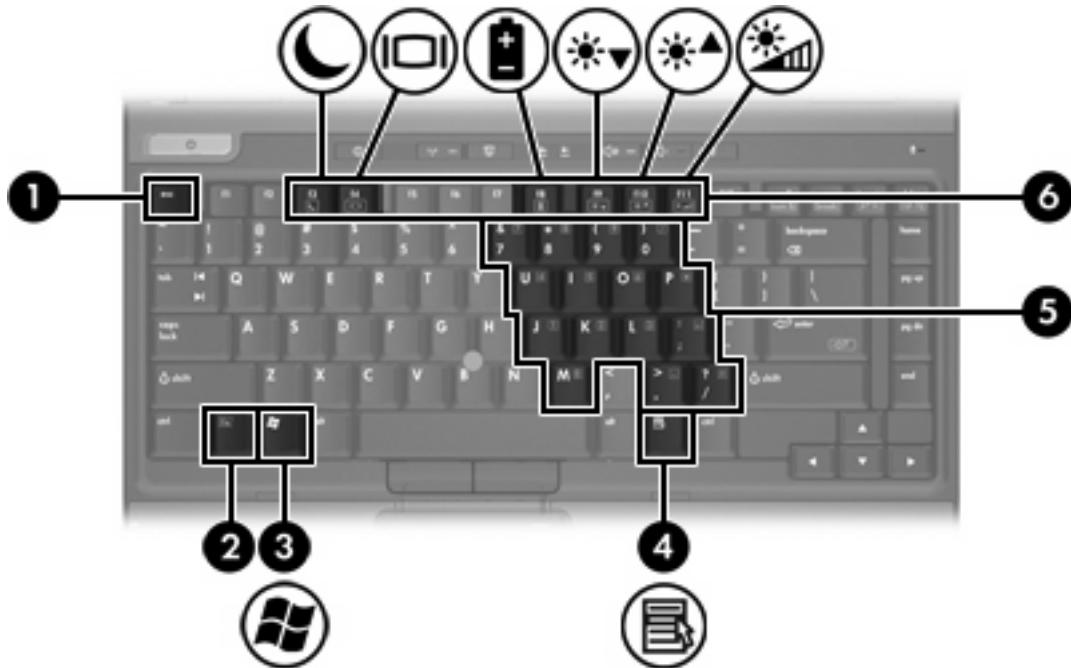


Component	Description
(1) Power button*	<p>When the computer is</p> <ul style="list-style-type: none"> Off, press to turn on the computer. On, press to enter hibernation. In standby, briefly press to exit standby. In hibernation, briefly press to exit hibernation. <p>If the computer has stopped responding and Microsoft® Windows® shutdown procedures cannot be used, press and hold the power button for at least 5 seconds to turn off the computer.</p>
(2) Info Center button	Launches Info Center, which enables you to open various software solutions.
(3) Wireless button*	Turns the wireless feature on or off, but does not create a wireless connection.
	<p> NOTE To establish a wireless connection, a wireless network must already be set up.</p>
(4) Presentation button	Starts the Presentation feature.
(5) Volume mute button	Mutes and restores computer sound.
(6) Volume down button	Decreases speaker volume.
(7) Volume up button	Increases speaker volume

Component	Description
(8) Fingerprint reader	Allows a fingerprint logon to Windows, instead of a password logon.

*This table describes factory settings. For information about changing factory settings, refer to the user guides located in the Help and Support Center.

Keys



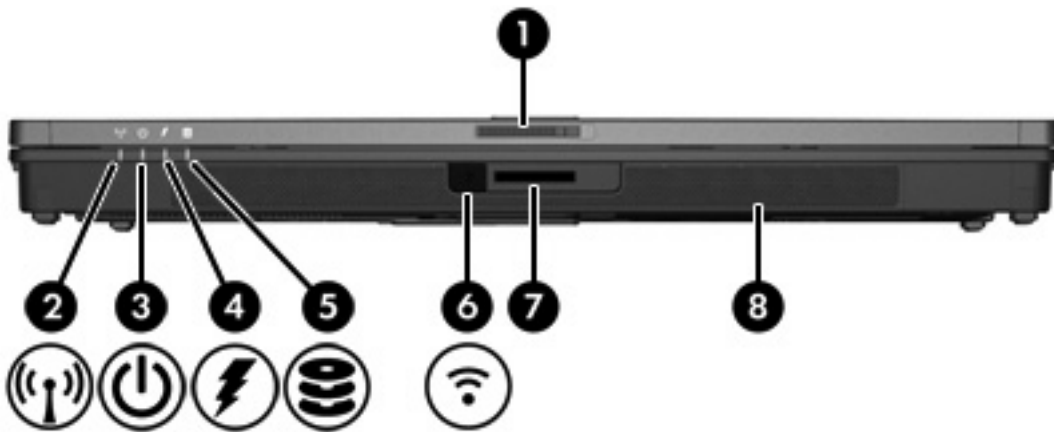
Component	Description
(1) <code>esc</code> key	Displays system information when pressed in combination with the <code>fn</code> key.
(2) <code>fn</code> key	Executes frequently used system functions when pressed in combination with a function key or the <code>esc</code> key.
(3) Windows logo key	Displays the Microsoft 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 <code>fn</code> key.

Hotkey quick reference

Function	Key Combination
Display system information	<code>fn+esc</code>
Clear system information	<code>fn+esc</code> or click OK
Initiate standby	<code>fn+f3</code>

Function	Key Combination
Alternate image between the computer display and external display	fn+f4
Display battery information	fn+f8
Clear battery information	fn+f8
Decrease screen brightness	fn+f9
Increase screen brightness	fn+f10
Turn on and off the ambient light sensor	fn+f11


Front components



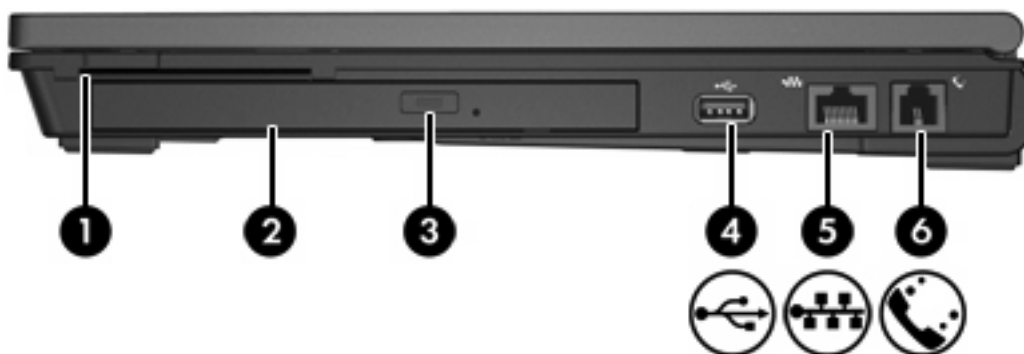
Component	Description
(1) Display release latch	Opens the computer.
(2) Wireless light	On: An integrated wireless device, such as a wireless local area network (LAN) device and/or a Bluetooth® device is turned on.
(3) Power light	On: The computer is on. Blinking: The computer is in standby. Blinking rapidly: An AC adapter with a higher power rating should be connected. Off: The computer is off or in hibernation.
(4) Battery light	Amber: A battery is charging. Green: A battery is close to full charge capacity. Blinking amber: A battery that is the only available power source has reached a low-battery condition. When the battery reaches a <i>critical</i> low-battery condition, the battery light begins blinking rapidly. Off: If the computer is plugged into an external power source, the light is turned 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 condition.
(5) Drive light	<ul style="list-style-type: none"> Blinking: The hard drive or optical drive is being accessed. Amber: HP Mobile Data Protection has temporarily parked the hard drive.
(6) Infrared port	Provides wireless communication between the computer and an optional IrDA-compliant device.
(7) Digital Media Slot	Supports SD (Secure Digital) Memory Cards.
(8) Speakers	Produce computer sound.

Rear components



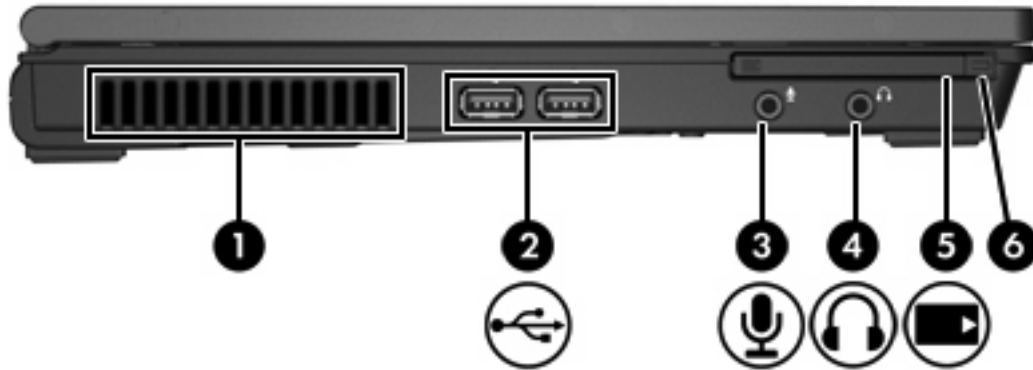
Component	Description
(1) Security cable slot	Attaches an optional security cable to the computer.  NOTE The security cable is designed to act as a deterrent, but may not prevent the computer from being mishandled or stolen.
(2) Power connector	Connects an AC adapter.
(3) S-Video-out jack	Connects an optional S-Video device such as a television, VCR, camcorder, overhead projector, or video capture card.
(4) External monitor port	Connects an external VGA monitor or projector.

Right-side components



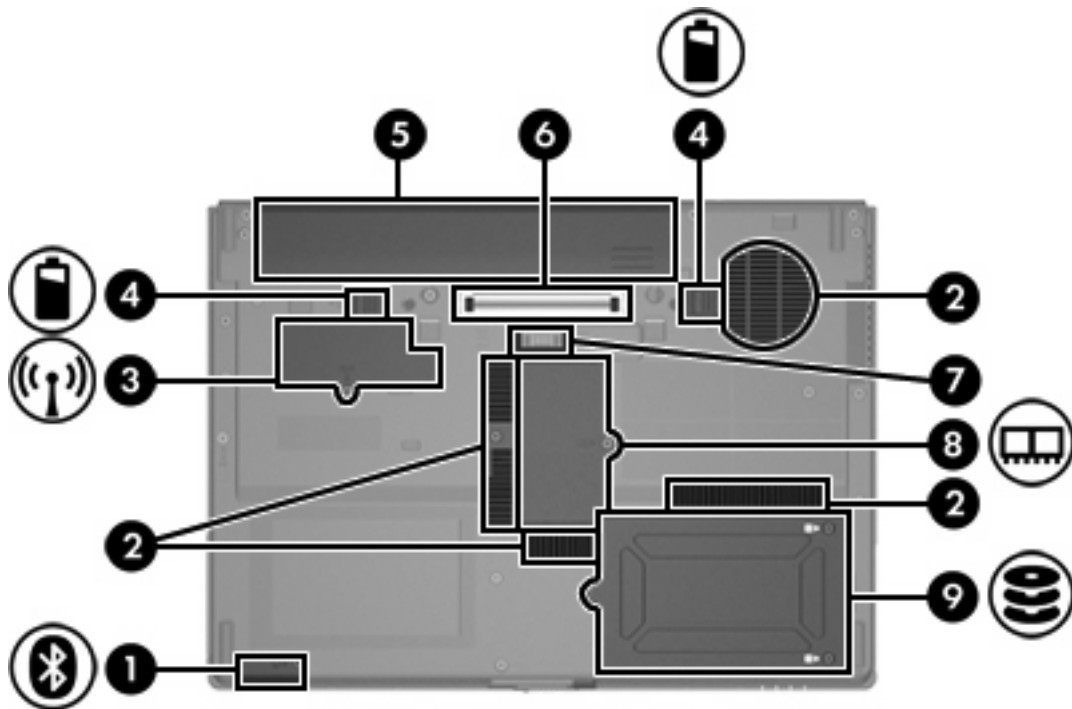
Component	Description
(1) Smart card reader	Supports smart cards and Java™ Cards.
(2) MultiBay optical drive	Reads an optical disc.
(3) USB port	Connects an optional USB device.
(4) RJ-45 (network) jack	Connects a network cable.
(5) RJ-11 (modem) jack	Connects a modem cable.

Left-side components



Component	Description
(1) Vent	<p>Enables airflow to cool internal components.</p> <p>CAUTION To prevent overheating, do not obstruct 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 thick rugs or clothing, to block airflow.</p> <p>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.</p>
(2) USB ports (2)	Connects an optional USB device.
(3) Audio-in (microphone) jack	Connects an optional computer headset microphone, stereo array microphone, or monoaural microphone.
(4) Audio-out (headphone) jack	Produces computer sound when connected to optional powered stereo speakers, headphones, ear buds, a headset, or television audio.
(5) PC Card slot	Supports optional Type I or Type II 32-bit (CardBus) or 16-bit PC Cards.

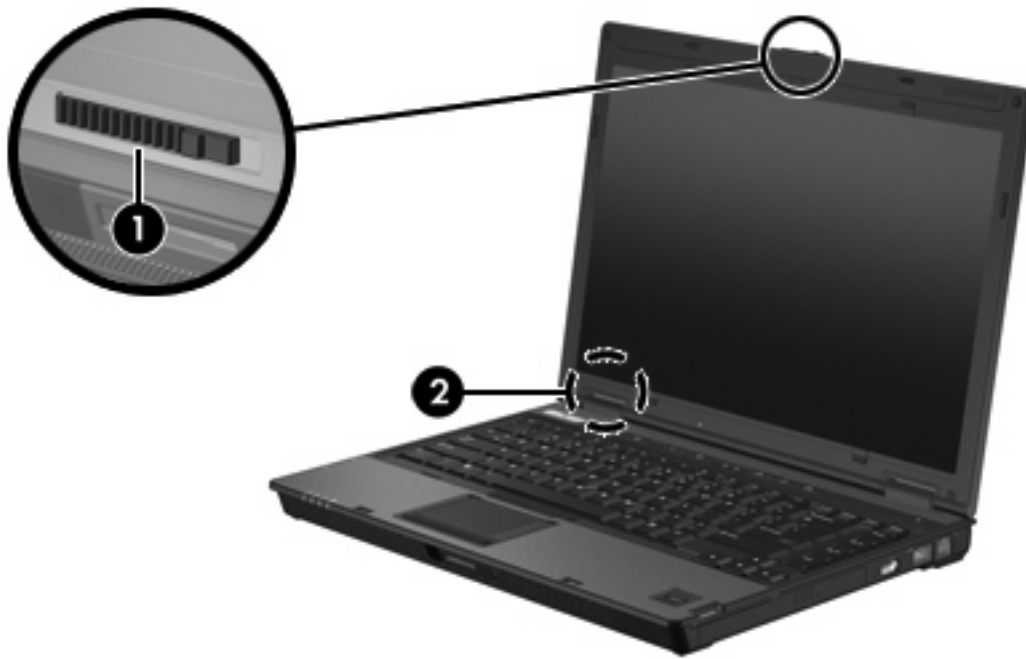
Bottom components




Component	Description
(1) Bluetooth compartment	Contains a Bluetooth device (select models only).
(2) Vents (4)	Enable airflow to cool internal components. <p>CAUTION To prevent overheating, do not obstruct 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 thick rugs or clothing, to block airflow.</p> <p>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.</p>
(3) Mini Card compartment	Contains a wireless LAN device (select models only) <p>CAUTION To prevent an unresponsive system and the display of a warning message, replace the devices with only a Mini Card authorized for use in the computer by the governmental agency that regulates wireless devices in your country. If you replace the device and then receive a warning message, remove the device to restore computer functionality, and then contact Customer Care through the Help and Support Center.</p>
(4) Battery release latches	Release the battery from the battery bay.
(5) Battery bay	Holds the battery.
(6) Docking connector	Connects an optional docking device.
(7) Accessory battery connector	Connects an optional accessory battery.

Component	Description
(8) Memory module compartment	Contains the memory module slot.
(9) Hard drive bay	Holds the hard drive.

Display components



Component	Description
(1) Display release latch	Opens the computer.
(2) Internal display switch	Turns off the display if the display is closed while the computer is turned on.

 **NOTE** This switch is not visible from the outside of the computer.

WLAN antennae

Two wireless antennae send and receive wireless device signals over wireless local area networks (WLANs). These antennae are not visible from the outside of the computer.

For wireless regulatory notices pertaining to your region, refer to the *Regulatory, Safety, and Environmental Notices* located in the Help and Support Center.



NOTE For optimal transmission, keep the areas immediately around the antennae free from obstructions.

NOTE The computer display must be open before you can connect to a wireless network.



WWAN antenna


The wireless antenna inside the display enclosure allows you to connect to a wireless wide-area network (WWAN), and then to the Internet, using the integrated HP Broadband Wireless module and service from a supported cellular network operator.

For more information on HP Broadband Wireless and how to sign up for service, refer to the *HP Broadband Wireless Getting Started* guide included with your computer.



Additional hardware components



Component	Description
(1) Power cord*	Connects an AC adapter to an AC outlet.
(2) HP Smart AC Adapter	Converts AC power to DC power.
	<p> NOTE The computer operates on DC power, which can be supplied by an AC or a DC power source. Although the computer can be powered from a stand alone DC power source, it should be powered only with an AC adapter or a DC power source supplied and approved by HP for use with the computer.</p>
(3) Modem cable*	Connects the internal modem to an RJ-11 telephone jack or to a country-specific modem adapter.
(4) Battery*	Powers the computer when the computer is not plugged into external power.
(5) Country-specific modem cable adapter (select models only)	Adapts the modem cable to a non-RJ-11 telephone jack.

*Modem cables, batteries, and power cords vary in appearance by region and country.

Labels

The labels affixed to the computer provide information you may need when you troubleshoot system problems or travel internationally with the computer.

- Service tag—Provides the product brand and series name, serial number (s/n), and product number (p/n) of your computer. Have this information available when you contact Customer Care. The service tag label is affixed to the bottom of the computer.
- Microsoft Certificate of Authenticity—Contains the Microsoft® Windows® Product Key. You may need the Product Key to update or troubleshoot the operating system. This certificate is affixed to the bottom of the computer.
- Regulatory label—Provides regulatory information about the computer. The regulatory label is affixed to the bottom of the computer.
- Modem approval label—Provides regulatory information about the modem and lists the agency approval markings required by some of the countries in which the modem has been approved for use. You may need this information when traveling internationally. The modem approval label is affixed to the bottom of the computer.
- Wireless certification label(s)—Provide information about optional wireless devices available on select models, and the approval markings of some of the countries in which the devices have been approved for use. An optional device may be a wireless local area network (WLAN) device or an optional Bluetooth® device. If your computer model includes one or more wireless devices, one or more certification labels are included with your computer. You may need this information when traveling internationally. Wireless certification labels are affixed to the bottom of the computer.

2 Specifications

Operating environment

The operating environment information in the following table may be helpful if you plan to use or transport the computer in extreme environments.

Factor	Metric	U.S.
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%	10% to 90%
Nonoperating	5% to 95%	5% to 95%
Maximum altitude (unpressurized)		
Operating (14.7 to 10.1 psia*)	-15 m to 3,048 m	-50 ft to 10,000 ft
Nonoperating (14.7 to 4.4 psia*)	-15 m to 12,192 m	-50 ft to 40,000 ft

*Pounds per square inch absolute (psia) is another unit of measurement for altitude.

Rated input power

The power information in this section may be helpful if you plan to travel internationally with your computer.

The computer operates on DC power, which can be supplied by an AC or a DC power source. Although the computer can be powered from a stand alone DC power source, it should be powered only with an AC adapter or a DC power source supplied and approved by HP for use with the computer.

The computer is capable of accepting DC power within the following specifications.

Input power	Rating
Operating voltage	18.5 V dc @ 3.5 A – 65 W; 19.0 V dc @ 4.74 A – 90W
Operating current	3.5 A; or 4.9 A

This product is designed for IT power systems in Norway with phase-to-phase voltage not exceeding 240 V rms.

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