

Notebook Tour

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This guide explains the computer hardware features.

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Components

This guide explains the hardware features of the computer.

To see a list of installed hardware on the computer:

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

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



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

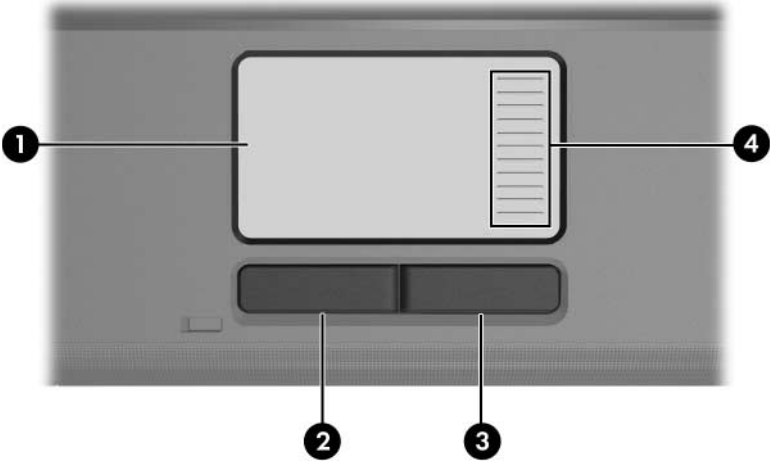
Top components

Keys



Component	Description
❶ esc key	Displays system information when pressed in combination with the fn key.
❷ fn key	Executes frequently used system functions when pressed in combination with a function key or the esc key.
❸ Windows logo key	Displays the Microsoft Windows Start menu.
❹ Windows applications key	Displays a shortcut menu for items beneath the pointer.
❺ Numeric keypad keys	Can be used like the keys on an external numeric keypad.
❻ Function keys	Execute frequently used system functions when pressed in combination with the fn key.

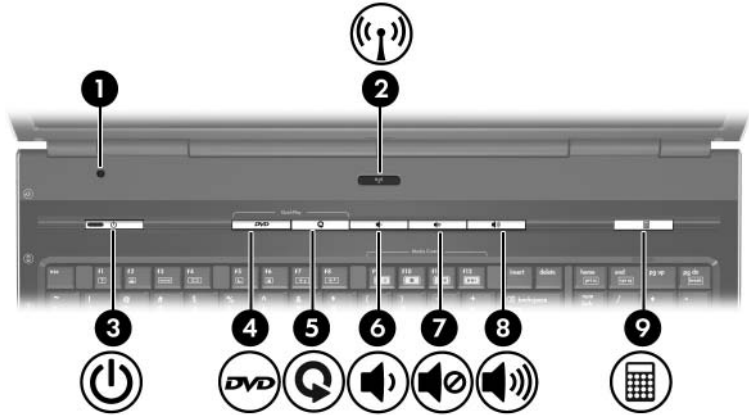
TouchPad




Component	Description
❶ 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.
❷ Left TouchPad button*	Functions like the left button on an external mouse.
❸ Right TouchPad button*	Functions like the right button on an external mouse.
❹ TouchPad scroll zone*	Scrolls up or down.

*This table describes default settings.

Buttons and switches




Component	Description
❶ Display switch	Initiates standby if the display is closed when the computer is on.
❷ Wireless button (select models only)*	Turns the wireless feature on or off, but does not create a wireless connection.  To establish a wireless connection, a wireless network must be set up.


(Continued)

Component	Description
③ 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>


(Continued)

Component	Description
<p>④ DVD button</p>	<p>If QuickPlay is <i>not</i> installed (select models only) and the computer is</p> <ul style="list-style-type: none"> ■ On, opens the default DVD application to start a DVD in the optical drive. ■ Off, no function. ■ In standby, resumes from standby into Windows. ■ In hibernation, restores from hibernation into Windows. <p>If QuickPlay <i>is</i> installed (select models only) and the computer is</p> <ul style="list-style-type: none"> ■ On, opens the default DVD application to start a DVD in the optical drive. ■ Off, opens QuickPlay to start a DVD in the optical drive. ■ In standby, resumes from standby into Windows. ■ In hibernation, restores from hibernation into Windows. <p> Refer to the QuickPlay documentation for details on using QuickPlay.</p>

(Continued)

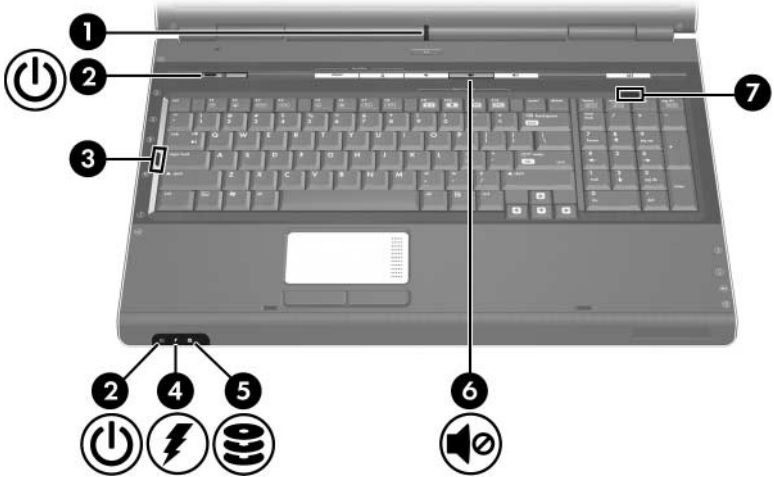
Component	Description
<p>5 Media button</p>	<p>If QuickPlay is <i>not</i> installed (select models only) and the computer is</p> <ul style="list-style-type: none"> ■ On, opens the music application or the Media menu, allowing you to select a multimedia application. ■ Off, no function. ■ In standby, resumes from standby into Windows. ■ In hibernation, restores from hibernation into Windows. <p>If QuickPlay <i>is</i> installed (select models only) and the computer is</p> <ul style="list-style-type: none"> ■ On, opens the music application or the Media menu, allowing you to select a multimedia application. ■ Off, opens the music application or the Media menu, allowing you to select a multimedia application. ■ In standby, resumes from standby into Windows. ■ In hibernation, restores from hibernation into Windows. <p> Refer to the QuickPlay documentation for details on using QuickPlay.</p>
<p>6 Volume down button</p>	<p>Decreases system volume.</p>
<p>7 Volume mute button</p>	<p>Mutes system sound.</p>

(Continued)

Component	Description
③ Volume up button	Increases system volume.
⑨ Calculator button	Opens the Microsoft Windows calculator.  To use the calculator, press either the software buttons or the buttons on the keyboard.

*This table describes default settings.

Lights



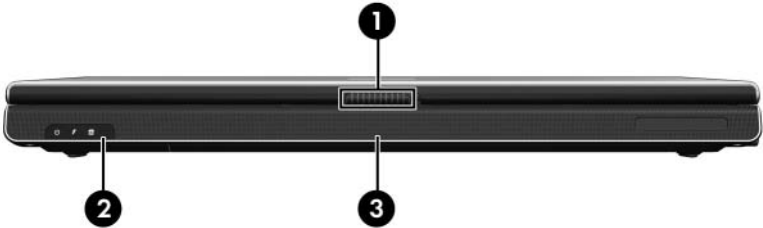
Component	Description
❶ Wireless light (select models only)	On: An integrated wireless device, such as a wireless local area network (LAN) device and/or a Bluetooth® device is turned on.
❷ Power lights* (2)	On: The computer is on. Blinking: The computer is in standby. Off: The computer is off or in hibernation.
❸ Caps lock light	On: Caps lock is on.

(Continued)

Component	Description
4 Battery light	<p>On: A battery pack is charging or is close to full charge capacity.</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 plugged into an external power source, the light stays off until the battery reaches a low-battery condition.</p> <p>Blinking: A battery pack that is the only available power source has reached a low-battery condition. When the battery reaches a critical low-battery condition, the battery light begins blinking rapidly.</p>
5 IDE (Integrated Drive Electronics) drive light	<p>Blinking: The hard drive or optical drive is being accessed.</p>
6 Volume mute light	<p>On: Computer sound is turned off.</p>
7 Num lock light	<p>On: Num lock is on.</p>

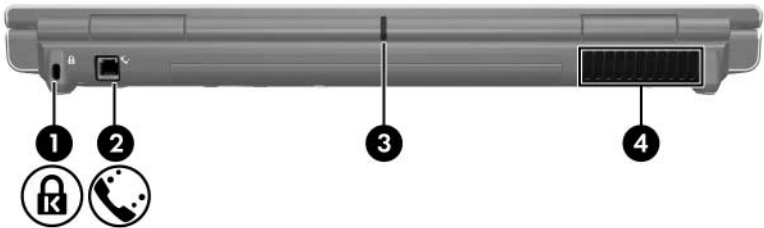
*There are 2 power lights, which display the same information. The light on the power button is visible only when the computer is open. The other power light is always visible even when the computer is closed.


Front components





Component	Description
① Display release latch	Opens the computer.
② Infrared lens	Links the computer to an optional remote control.
③ Speaker	Produces system sound.

Rear components



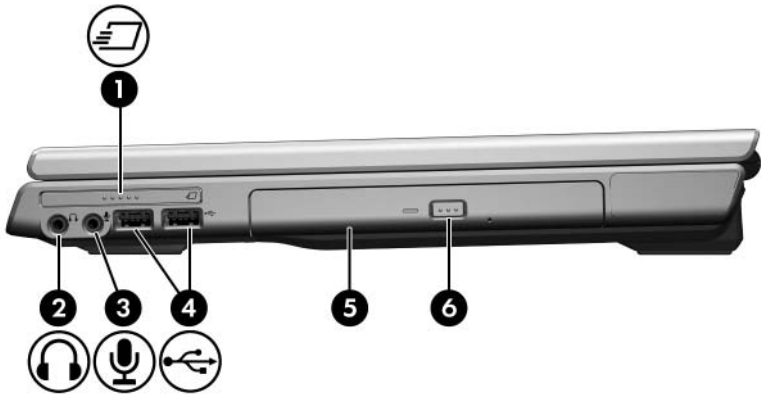
Component	Description
❶ Security cable slot	Attaches an optional security cable to the computer.  The security cable is designed to act as a deterrent, but may not prevent the computer from being mishandled or stolen.
❷ RJ-11 (modem) jack	Connects a modem cable.


(Continued)

Component	Description
③ Wireless light (select models only)	On: An integrated wireless device, such as a wireless local area network (LAN) device and/or a Bluetooth® device is turned on.
④ Exhaust vent*	<p data-bbox="533 368 966 423">Provides airflow to cool internal components.</p> <p data-bbox="533 444 966 699">  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 data-bbox="533 721 966 893">  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>

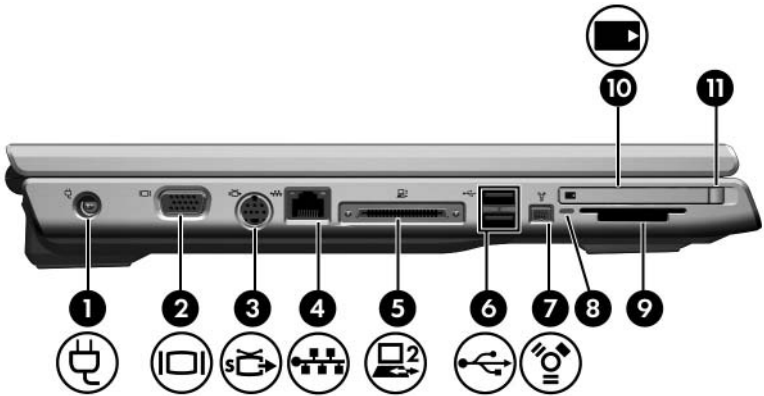
*The computer has 3 vents. The other vents are located on the bottom of the computer.

Right-side components



Component	Description
❶ ExpressCard slot	Supports optional ExpressCard/54 or ExpressCard/34 cards.
❷ Audio-out (headphone) jack	Produces system stereo sound when connected to optional powered stereo speakers, headphones, ear buds, a headset, or television audio.  This jack can also be used to output S/PDIF digital audio.
❸ Audio-in (microphone) jack	Connects an optional headset microphone or a monaural microphone.
❹ USB ports (2)	Connect an optional USB device.
❺ Optical drive	Reads an optical disc.
❻ Optical drive button	Releases the media tray.

Left-side components

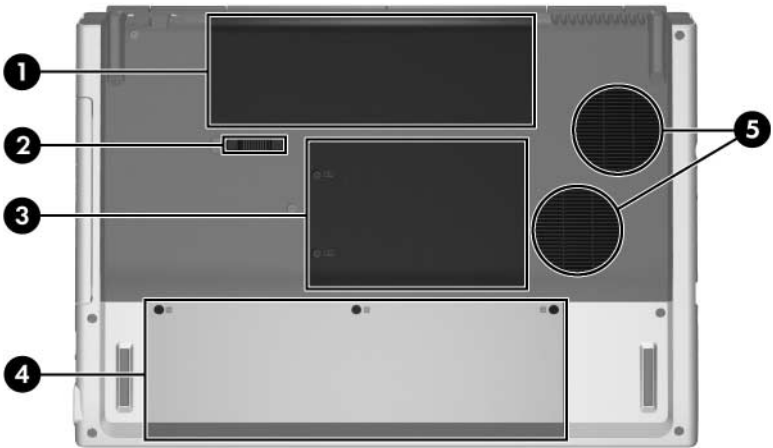


Component	Description
❶ Power connector	Connects an AC adapter or an optional power adapter.
❷ External monitor port	Connects an external monitor.
❸ S-Video-out jack	Connects an optional S-Video device such as a television, VCR, camcorder, overhead projector, or video capture card.
❹ RJ-45 (network) jack	Connects a network cable.
❺ Expansion port 2	Connects the computer to an optional docking device.
❻ USB ports (2)	Connect an optional USB device.
❼ 1394 port	Connects an optional 1394 device, such as a camcorder.
❽ Digital Media Slot light	On: A card in the Digital Media Slot is being accessed.

(Continued)



Component	Description
⑨ Digital Media Slot	Supports 7 optional digital card formats: Secure Digital (SD) Memory Card, Secure Digital Input/Output (SD I/O), MultiMediaCard, Memory Stick, Memory Stick Pro, SmartMedia card, and xD-Picture Card.
⑩ PC Card slot	Supports optional Type I or Type II PC Cards.
⑪ PC Card slot eject button	Ejects the PC Card from the PC Card slot.

Bottom components



Component	Description
❶ Battery bay*	Holds the battery pack.
❷ Primary battery pack release latch	Releases the battery pack from the battery bay.
❸ Memory module compartment	Contains the memory module slots.

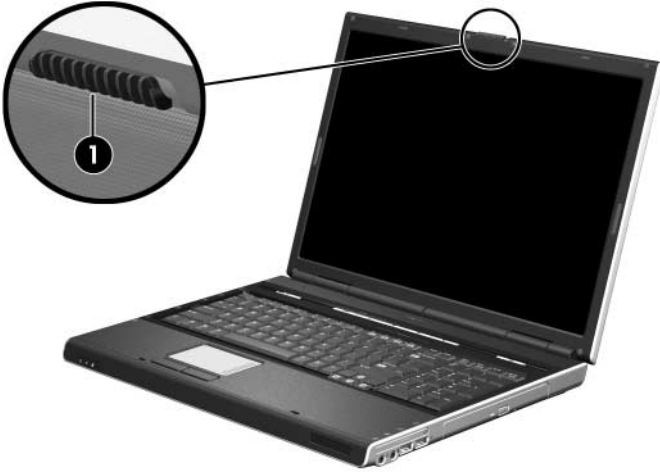
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Component	Description
<p>④ Hard drive bay</p>	<p>Holds the internal primary hard drive. The hard drive bay also supports an optional secondary hard drive.</p>
<p>⑤ Exhaust vents (2)[†]</p>	<p>Enable airflow to cool internal components.</p> <p> To prevent 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> 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>

*Battery packs vary by model.

[†]The computer has 3 vents. One other vent is located on the rear of the computer.

Display components



Component	Description
❶ Display release latch	Opens the computer.

Wireless antennae (select models only)

On select computer models, there are at least 2 wireless antennae that send and receive wireless device signals. They are not visible from the outside of the computer. For optimal transmission, keep the areas immediately around the antennae free from obstructions.

For wireless regulatory notices in your region, refer to the *Regulatory, Safety and Environmental Notices* guide.



Additional hardware components



Component	Description
❶ AC adapter	Converts AC power to DC power.
❷ Power cord*	Connects an AC adapter to an AC outlet.
❸ Battery pack*	Powers the computer when it is not plugged into external power.

*Battery packs 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.



The appearance and position of labels varies by model.

- **Service tag**—Provides the product name, serial number (s/n), and other specifics about the 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 labels**—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 the computer model includes one or more wireless devices, certification labels are included with the computer. You may need this information when traveling internationally. Wireless certification labels are affixed to the bottom of the computer.

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	10°C to 35°C	50°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	-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

Rated input power

The power information in this section may be helpful if you plan to travel internationally with the 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 cord supplied by or approved for an HP computer.

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

Input Power	Rating
Operating voltage	18.5 V dc to 19.0 V dc
Operating current	4.74 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.

Expansion port input/output signals

The expansion port signal information in this section may be helpful if you plan to use an optional expansion product that connects to the expansion port on your computer.

The expansion port is illustrated in the “[Left-side components](#)” section.

The following table identifies the input and output signals supported by the expansion port on your computer.

Feature	Support
USB 2.0	Yes
10/100 Ethernet	Yes
Gigabit Ethernet	No
IEEE 1394 (4-pin port)	Yes
Consumer IR (for remote control only)	Yes
Power inputs	65-135W maximum
Composite TV*	Yes
S-Video TV	Yes
Component TV	No
S/PDIF audio	Yes
DVI	No
Headphone/speaker audio-out	Yes
Microphone audio-in	Yes
*Requires the use of an optional expansion product.	

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