Notebook Tour

User Guide

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Table of contents

1 Components

Top components 2
TouchPad 2
Lights 3
Buttons, switches, and speakers 6
Keys 9
Hotkey quick reference 10
Front components 11
Rear components 12
Right-side components 13
Left-side components 14
Bottom components 16
Display components 17
Wireless antennae (select models only) 18
Additional hardware components 19
Labels 20

2 Specifications

Operating environment 21
Rated input power 22

Index 23

1 Components

This chapter explains the hardware features of the computer.

To see a list of hardware installed in the computer:

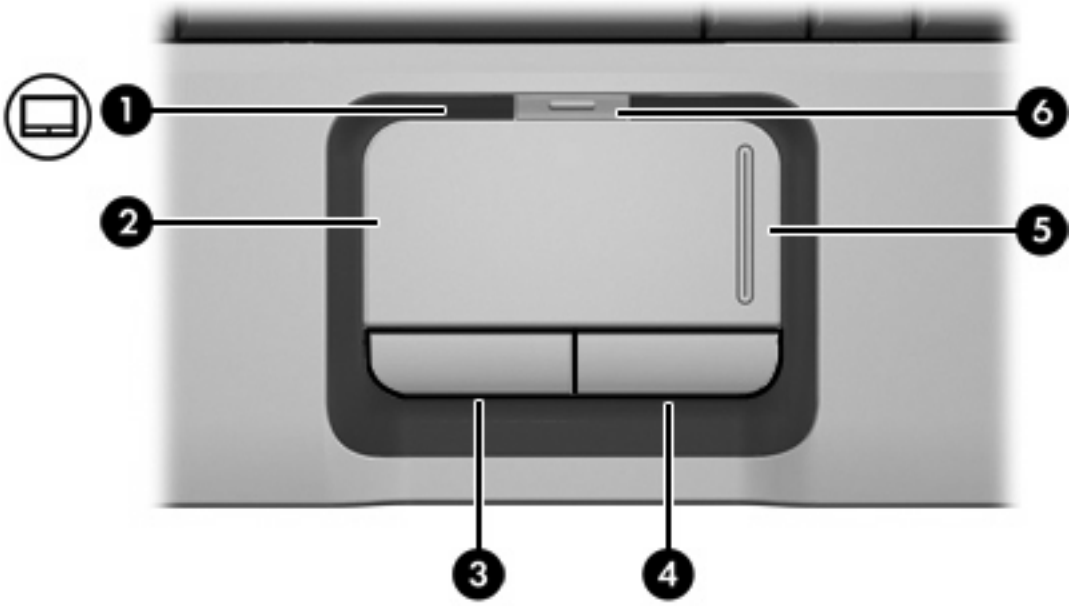
1. Select **Start > My Computer**.
2. In the left pane of the System Tasks window, select **View system information**.
3. Select **Hardware** tab **> Device Manager**.

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

TouchPad



Component		Description
(1)	TouchPad light	Blue: TouchPad is enabled. Amber: TouchPad is disabled.
(2)	TouchPad*	Moves the pointer and selects or activates items on the screen.
(3)	Left TouchPad button*	Functions like the left button on an external mouse.
(4)	Right TouchPad button*	Functions like the right button on an external mouse.
(5)	TouchPad scroll zone*	Scrolls up or down.
(6)	TouchPad on/off button	Enables/disables the TouchPad.

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

Lights

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

Component		Description
(1)	Power lights (2)*	On: The computer is on. Blinking: The computer is in standby. Off: The computer is off or in hibernation.
(2)	Battery light	On: A battery is charging. Blinking: A battery 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. 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.
(3)	Drive light	Blinking: The hard drive or optical drive is being accessed.
(4)	Caps lock light	On: Caps lock is on.
(5)	Media button light	Blinks once: The media button has been pressed.
(6)	DVD button light	Blinks once: The DVD button has been pressed.
(7)	Previous/rewind light	Blinks once: The previous/rewind button has been pressed.
(8)	Play/pause light	Blinks once: The play/pause button has been pressed.
(9)	Next/fast forward light	Blinks once: The next/fast forward button has been pressed.
(10)	Stop light	Blinks once: The stop button has been pressed.
(11)	Volume mute light	Blue: Computer sound is turned on.

Component		Description
		Amber: Computer sound is turned off.
(12)	Volume down light	Blinking: The volume scroll zone is being used to decrease speaker volume.
(13)	Volume up light	Blinking: The volume scroll zone is being used to increase speaker volume.
(14)	Num lock light	On: Num lock is on or the embedded numeric keypad is enabled.
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.		

Component		Description
(1)	Power lights (2)*	On: The computer is on. Blinking: The computer is in standby. Off: The computer is off or in hibernation.
(2)	Battery light	On: A battery is charging. Blinking: A battery that is the only available power source has reached a low-battery condition or a*critical* low-battery condition. 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.
(3)	Drive light	Blinking: The hard drive or optical drive is being accessed.
(4)	Caps lock light	On: Caps lock is on.
(5)	Media button light	Blinks once: The media button has been pressed.
(6)	Volume mute light	Blue: Computer sound is turned on.

Component		Description
		Red: Computer sound is turned off.
(7)	Volume down light	Blinking: The volume scroll zone is being used to decrease speaker sound.
(8)	Volume up light	Blinking: The volume scroll zone is being used to increase speaker sound.
(9)	Num lock light	Blinking: Num lock is on or the embedded numeric keypad is enabled.
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.		

Buttons, switches, and speakers

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

Component		Description
(1)	Power button*	When the computer is • 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. 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.
(2)	Speakers (2)	Produce sound.
(3)	Media button	If QuickPlay is not installed and the computer is • On, the media opens the music program or Media menu, allowing you to select a multimedia program. • Off, the media button does not function. • In standby, the media button resumes from standby into Windows. If QuickPlay is installed and the computer is • On, the media button opens the music program or Media menu, allowing you to select a multimedia program. • Off, the media button opens the music program or the Media menu, allowing you to select a multimedia program. • In standby, the media button resumes from standby into Windows.

Component		Description
		NOTE The media button does not affect the hibernation file or the procedure for restoring from hibernation.
(4)	DVD button	When the computer is • On, the DVD button opens the default DVD program to start a DVD in the optical drive. • Off, the DVD button opens QuickPlay to start a DVD in the optical drive. If the QuickPlay software is not installed, the computer starts in Windows. • In hibernation, opens QuickPlay to start a DVD in the optical drive. If the QuickPlay software is not installed, the computer resumes from hibernation. **NOTE** Refer to the QuickPlay online Help for details on using QuickPlay.
(5)	Previous/rewind button	When a disc is playing in the optical drive: • Press to play the previous track or chapter. • Press **fn+** this button to rewind.
(6)	Play/pause button	When a disc is in the optical drive and is • Not playing, press to play the disc. • Playing, press to pause the disc.
(7)	Next/fast forward button	When a disc is playing in the optical drive: • Press once to play the next track or chapter. • Press **fn+** this button to fast forward.
(8)	Stop button	When a disc is playing in the optical drive, press to stop the current disc activity.
(9)	Volume mute button	Mutes and restores speaker sound.
(10)	Volume scroll zone	Adjusts volume. Slide your finger to the left to decrease volume and to the right to increase volume. Alternatively, you can tap the left half of the scroll zone to decrease volume, or you can tap the right half of the scroll zone to increase volume.
*This table describes factory settings. For information about changing factory settings, refer to the user guides located in the Help and Support Center.		

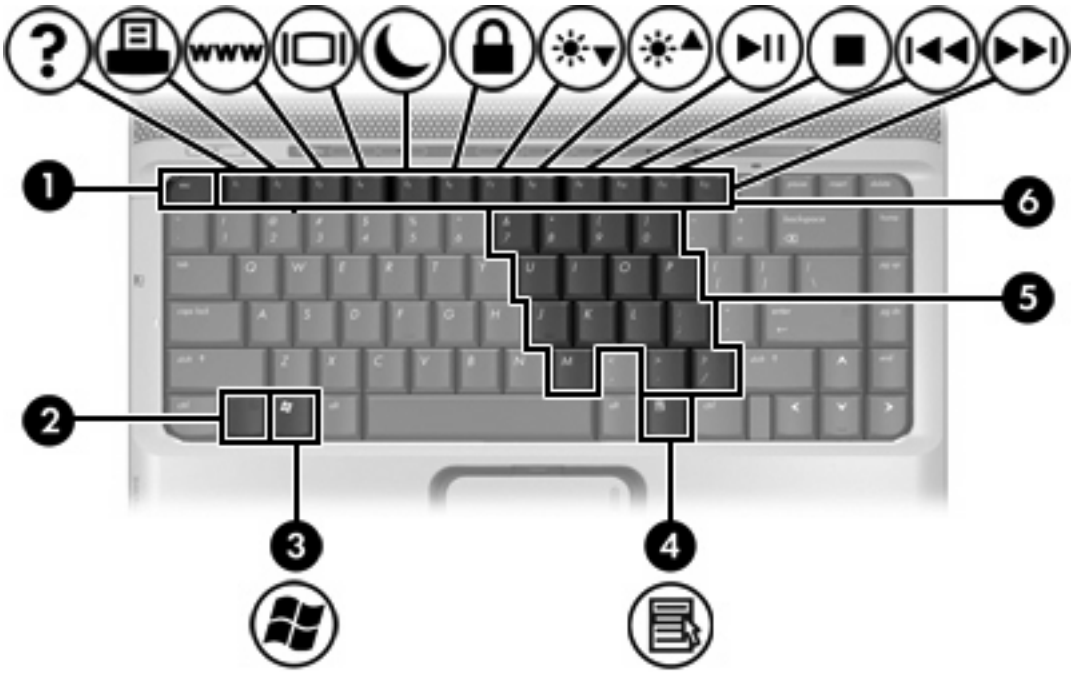
Component		Description
(1)	Power button*	When the computer is • Off, press to turn on the computer. • On, press to enter hibernation. • In standby, briefly press to exit standby. • In hibernation, briefly press to exit hibernation. If the computer has stopped responding and Microsoft® Windows® shutdown procedures cannot be used, press and hold the power button for at least 5 seconds to turn off the computer.
(2)	Speakers (2)	Produce system sound.
(3)	Media button	If QuickPlay is not installed and the computer is • On, the media button opens the music program or Media menu, allowing you to select a multimedia program. • Off, the media button does not function. • In standby, the media button resumes from standby into Windows. If QuickPlay is installed and the computer is • On, the media button opens the music program or Media menu, allowing you to select a multimedia program. • Off, the media button opens the music program or the Media menu, allowing you to select a multimedia program. • In standby, the media button resumes from standby into Windows. **NOTE** The media button does not affect the hibernation file or the procedure for restoring from hibernation.
(4)	Volume mute button	Mutes and restores speaker sound.

Component		Description
(5)	Volume scroll zone	Adjusts volume. Slide your finger to the left to decrease volume and to the right to increase volume. Alternatively, you can tap the left half of the scroll zone to decrease volume, or you can tap the right half of the scroll zone to increase volume.

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

Keys

NOTE Your computer may look slightly different from the illustration in this section.



Component		Description
(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 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 fn key.

Hotkey quick reference

To perform this function	Press
Display information.	fn+esc
Clear system information.	fn+esc or press enter
Open the Help and Support Center.	fn+f1
Open the Print Options window.	fn+f2
Open a Web browser.	fn+f3
Alternate between computer display and external display.	fn+f4
Initiate standby.	fn+f5
Initiate QuickLock.	fn+f6
Decrease screen brightness.	fn+f7
Increase screen brightness.	fn+f8
Play, pause, or resume an audio CD or a DVD.	fn+f9
Stop an audio CD or a DVD.	fn+f10
Play the previous track or section on an audio CD or a DVD.	fn+f11
Play the next track on an audio CD or a DVD.	fn+12

Front components

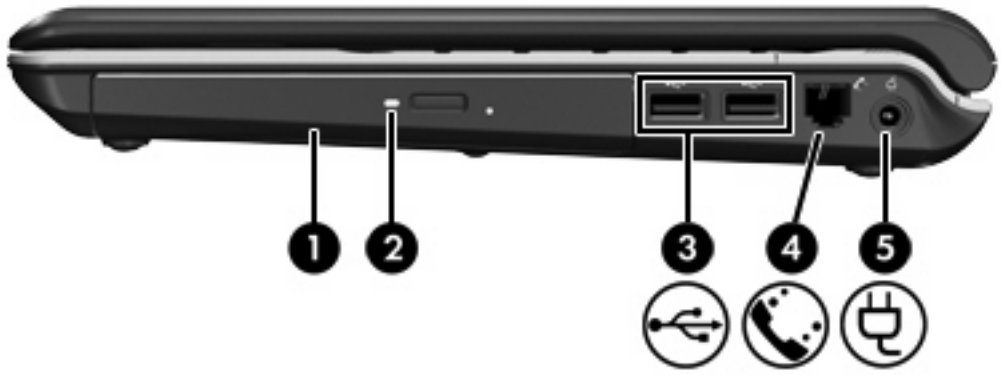
NOTE Your computer may look slightly different from the illustration in this section.

Component		Description
(1)	Wireless switch (select models only)*	Turns the wireless feature on or off, but does not create a wireless connection. **NOTE** To establish a wireless connection, a wireless network must already be set up.
(2)	Wireless light	Blue: An integrated wireless device, such as a wireless local area network (LAN) device and/or a Bluetooth® device, is turned on. Amber: an integrated wireless device is turned off.
(3)	Consumer infrared lens	Links the computer to the HP Remote Control.
(4)	Audio-in (microphone) jack	Connects an optional computer headset microphone, stereo array microphone, or monaural microphone.
(5)	Audio-out (headphone) jacks (2)	Produce sound when connected to optional powered stereo speakers, headphones, ear buds, a headset, or television audio. **NOTE** Depending on your computer model, the computer may have 1 or 2 audio-out (headphone) jacks.

Rear components

Component	Description
Vent	Enables airflow to cool internal components. **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. **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.

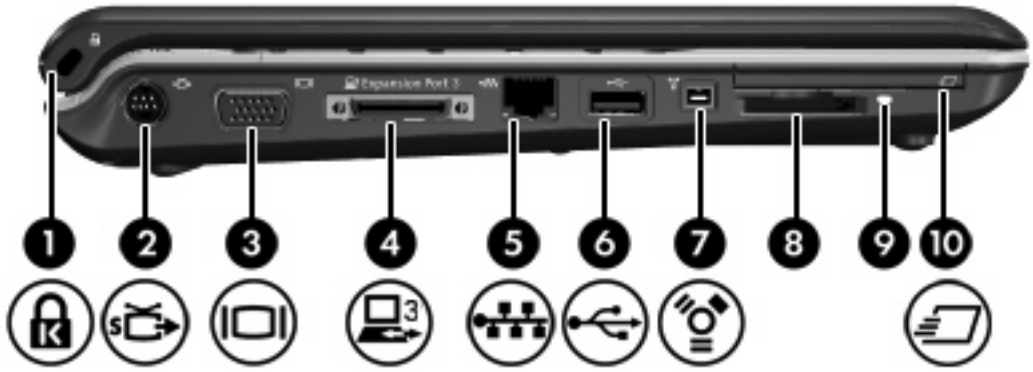
Right-side components



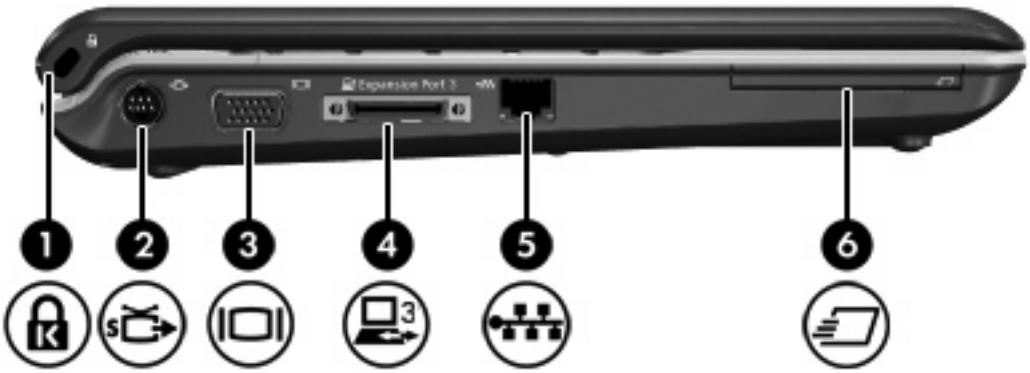
Component		Description
(1)	Optical drive	Reads an optical disc.
(2)	Optical drive light	Blinking: The optical drive is being accessed.
(3)	USB ports (2)	Connect optional USB devices.
(4)	RJ-11 (modem) jack	Connects a modem cable.
(5)	Power connector	Connects an AC adapter.

Left-side components

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

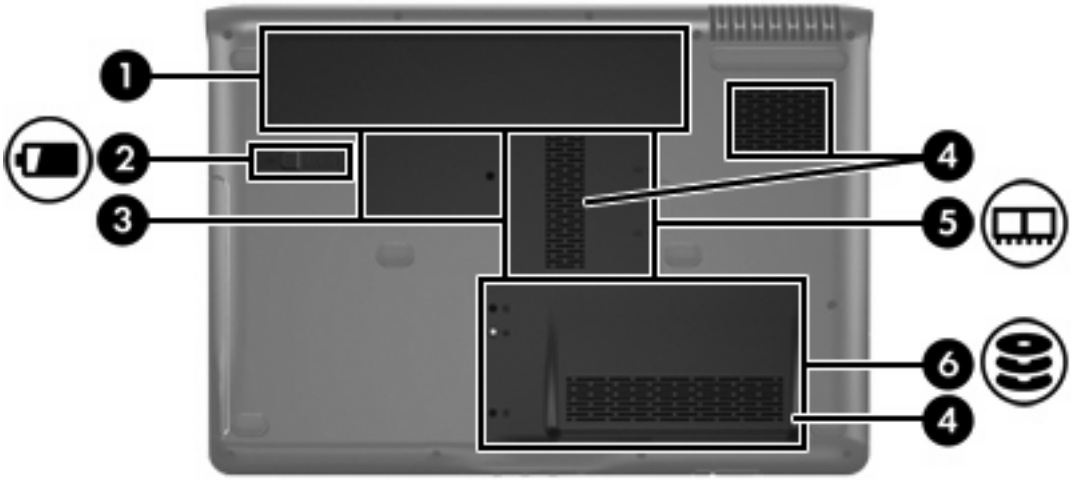


Component		Description
(1)	Security cable slot	Attaches an optional security cable to the computer. **NOTE** The security cable is designed to act as a deterrent, but may not prevent the computer from being mishandled or stolen.
(2)	S-Video-out jack	Connects an optional S-Video device such as a television, VCR, camcorder, overhead projector, or video capture card.
(3)	External monitor port	Connects an external VGA monitor or projector.
(4)	Expansion port 3	Connects the computer to an optional expansion product. **NOTE** The computer has only one expansion port. The term *expansion port 3* describes the type of expansion port.
(5)	RJ-45 (network) jack	Connects a network cable.
(6)	USB port	Connects an optional USB device.
(7)	1394 port	Connects an optional IEEE 1394 or 1394a device, such as a camcorder.
(8)	Digital Media Slot	Supports the following optional digital card formats: Secure Digital (SD) Memory Card, MultiMediaCard (MMC), Secure Digital Input/Output (SD I/O), Memory Stick (MS), Memory Stick Pro (MSP), xD-Picture Card (XD), xD-Picture Card (XD) Type M.
(9)	Digital Media Slot light	On: A digital card is being accessed.
(10)	ExpressCard slot	Supports optional ExpressCard/54 cards.



	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)	S-Video-out jack	Connects an optional S-Video device such as a television, VCR, camcorder, overhead projector, or video capture card.
(3)	External monitor port	Connects an external VGA monitor or projector.
(4)	Expansion port 3	Connects the computer to an optional expansion product. **NOTE** The computer has only one expansion port. The term *expansion port 3* describes the type of expansion port.
(5)	RJ-45 (network) jack	Connects a network cable.
(6)	ExpressCard slot	Supports optional ExpressCard/54 cards.

Bottom components



Component		Description
(1)	Battery bay	Holds the battery.
(2)	Battery release latch	Releases the battery from the battery bay.
(3)	Mini Card compartment	Holds a wireless LAN device (select models only). **NOTE** To prevent an unresponsive system and the display of a warning message, replace with only a Mini Card device 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. Then contact Customer Care through the Help and Support Center.
(4)	Vents (3)	Enable airflow to cool internal components. **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. **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.
(5)	Memory module compartment	Contains the memory module slots.
(6)	Hard drive bay	Holds the hard drive.

Display components

Component		Description
(1)	Internal microphones (2) (select models only)	Record sound. **NOTE** If there is a microphone icon next to each microphone opening, your computer has internal microphones.
(2)	Integrated camera light (select models only)	On: The integrated camera is in use.
(3)	Integrated camera (select models only)	Records video and captures still photographs.
(4)	Internal display switch	Turns off the display if the display is closed while the computer is turned on.

Wireless antennae (select models only)

On select computer models, at least 2 wireless antennae send and receive wireless device signals. 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.

Additional hardware components

Component		Description
(1)	Power cord*	Connects an AC adapter to an AC outlet.
(2)	AC adapter	Converts AC power to DC power.
(3)	Battery*	Powers the computer when the computer is not plugged into external power.
(4)	Modem cable*	Connects the internal modem to an RJ-11 telephone jack or to a country-specific modem adapter.
(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 inside the memory module compartment.
- 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 inside the memory module compartment.

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	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 (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 standalone 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 to 19.0 V dc
Operating current	3.5 A or 4.74 A

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

Index

Symbols/Numerics
1394 port, identifying 14

A
AC adapter, identifying 19
altitude specifications 21
antennae 18
applications key, Windows 9
audio-in (microphone) jack, identifying 11
audio-out (headphone) jack, identifying 11

B
battery bay 16, 20
battery light, identifying 3, 4
battery release latch, identifying 16
battery, identifying 19
bays
  battery 16, 20
  hard drive 16
Bluetooth label 20
buttons
  DVD 7
  media 6, 8
  next/fast forward 7
  play/pause 7
  power 6, 8
  previous/rewind 7
  stop 7
  TouchPad 2
  TouchPad on/off 2
  volume mute 7, 8

C
cable, RJ-11 (modem) 19
camera, identifying 17
caps lock light, identifying 3, 4
Certificate of Authenticity label 20
compartments
  memory module 16
  Mini Card 16
components
  additional hardware 19
  bottom 16
  display 17
  front 11
  left-side 14
  rear 12
  right-side 13
  top 2
connector, power 13
cord, power 19

D
Digital Media Slot light, identifying 14
Digital Media Slot, identifying 14
display switch, identifying 17
drive light, identifying 3, 4
drives
  hard 16
  optical 13
DVD button light, identifying 3
DVD button, identifying 7

E
environmental specifications 21
esc key, identifying 9
expansion port, identifying 14, 15
ExpressCard slot, identifying 14, 15
external monitor port, identifying 14, 15

F
fn key, identifying 9
function keys, identifying 9

H
hard drive bay, identifying 16
headphone (audio-out) jack 11
hotkeys, quick reference 10
humidity specifications 21

I
IEEE 1394 port, identifying 14
infrared lens, identifying 11
integrated camera light, identifying 17
integrated camera, identifying 17
internal display switch, identifying 17
internal microphones, identifying 17

J
jacks
  audio-in (microphone) 11
  audio-out (headphone) 11
  RJ-11 (modem) 13
  RJ-45 (network 14, 15
  S-Video-out 14, 15

K
keypad keys, identifying 9
keys
  esc 9
  fn 9
  function 9
  keypad 9
  Windows applications 9
  Windows logo 9

L
labels
  Bluetooth 20
  Microsoft Certificate of Authenticity 20

modem approval 20
regulatory 20
service tag 20
wireless certification 20
WLAN 20
latch, battery release 16
lights
battery 3, 4
caps lock 3, 4
Digital Media Slot 14
drive 3, 4
DVD button 3
integrated camera 17
media button 3, 4
mute 3, 4
next/fast forward 3
num lock 4, 5
optical drive 13
play/pause 3
power 3, 4
previous/rewind 3
stop 3
TouchPad 2
volume down 4, 5
volume mute 3, 4
volume up 4, 5
wireless 11

M
media activity buttons, identifying 7
media activity lights, identifying 3
media button light, identifying 3, 4
media button, identifying 6, 8
memory module compartment, identifying 16
microphone (audio-in) jack 11
Microsoft Certificate of Authenticity label 20
Mini Card compartment, identifying 16
modem approval label 20
modem cable adapter, identifying 19
monitor port, external 14, 15
mute button, identifying 7, 8
mute light, identifying 3, 4

N
next/fast forward button, identifying 7
next/fast forward light, identifying 3
num lock light, identifying 4, 5

O
operating environment specifications 21
operating system
Microsoft Certificate of Authenticity label 20
Product Key 20
optical drive light, identifying 13
optical drive, identifying 13

P
play/pause button, identifying 7
play/pause light, identifying 3
ports
1394 14
expansion 14, 15
external monitor 14, 15
USB 13, 14
power button, identifying 6, 8
power connector, identifying 13
power cord, identifying 19
power lights, identifying 3, 4
Previous/rewind button, identifying 7
previous/rewind light, identifying 3
Product Key 20
product name and number, computer 20

R
rated input power specifications 22
regulatory information
modem approval label 20
regulatory label 20
wireless certification labels 20
release latch, battery 16
RJ-11 (modem) cable, identifying 19
RJ-11 (modem) jack, identifying 13
RJ-45 (network) jack, identifying 14, 15

S
S-Video-out jack, identifying 14, 15
scrolling regions, TouchPad 2
security cable slot, identifying 14, 15
serial number, computer 20
service tag 20
slots
Digital Media 14
ExpressCard 14, 15
memory module 16
security cable 14, 15
speakers, identifying 6, 8
specifications
operating environment 21
rated input power 22
stop button, identifying 7
stop light, identifying 3

T
temperature specifications 21
TouchPad
buttons 2
identifying 2
scrolling regions 2
TouchPad light, identifying 2
TouchPad on/off button 2
traveling with the computer
environmental specifications 22
modem approval label 20
wireless certification labels 20

U
USB ports, identifying 13, 14

V
vents, identifying 12, 16
volume down light, identifying 4, 5
volume mute button, identifying 7, 8
volume mute light, identifying 3, 4
volume scroll zone, identifying 7, 9
volume up light, identifying 4, 5

W
Windows applications key, identifying 9
Windows logo key, identifying 9

wireless antennae 18
wireless certification label 20
wireless light, identifying 11
wireless switch, identifying 11
WLAN device 20
WLAN label 20