HP Notebook User Guide

Product notice

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

To obtain the latest information in this guide, go to the HP Web site at http://www.hp.com/support.

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).

Table of contents

1 Welcome

- [Finding information](#)

After you set up and register the computer, take the following steps:

- **Connect to the Internet**—Set up your wired or wireless network so that you can connect to the Internet. For more information, refer to [Networking on page 10](#).

- **Get to know your computer**—Learn about your computer features. Refer to [Getting to know your computer on page 3](#) and [Keyboard and pointing devices on page 15](#) for additional information.

- **Find installed software**—Access the software that is preinstalled on the computer. Select the **Applications** icon on the MeeGo panel.

  NOTE: For details about using the software included with the computer, refer to the software manufacturer's instructions, which may be provided with the software or on the manufacturer's Web site.

- **Update programs and drivers**—Update your programs and drivers with the latest versions on a regular basis. When your computer is registered, it will automatically be updated with the latest versions. When you register, you can choose to receive automatic notifications when updates become available. The automatic notifications for operating system updates are available for 90 days. You can also go to http://www.hp.com/support to download updates from HP.

- **Create recovery discs**—Allows you to recover the operating system and software to factory settings in case of system instability or failure. You should create them soon after setting up the computer. For instructions, refer to [Backup and recovery on page 45](#).

Finding information

The computer comes with several resources to help you perform various tasks.

Resources	For information about
Quick Setup poster	- Setting up the computer - Identifying computer components
MeeGo Help To access the MeeGo Help, click the **MeeGo Help** icon in your Myzone Favorites, or click the **Applications** icon on the MeeGo panel.	- Computer software - Computer settings - Connecting to the Internet - Computer utilities
Regulatory, Safety, and Environmental Notices To access the notices, click the **Applications** icon on the MeeGo panel, and then click **Help and Support**.	- Regulatory and safety information - Battery disposal information
Safety & Comfort Guide To access this guide: Click the **Applications** icon on the MeeGo panel, and then click **Help and Support**. – or – Go to http://www.hp.com/ergo.	- Proper workstation setup, posture, health, and work habits - Electrical and mechanical safety information
Worldwide Telephone Numbers booklet This booklet is provided with your computer.	HP support telephone numbers
HP Web site To access this Web site, go to http://www.hp.com/support.	- Support information - Ordering parts and finding additional help - Software, driver, and BIOS (Setup Utility) updates - Accessories available for the device
Limited Warranty* To access the warranty: Click the **Applications** icon on the MeeGo panel, and then click **Help and Support**. – or – Go to http://www.hp.com/go/orderdocuments.	Warranty information

*You may find the expressly provided HP Limited Warranty applicable to your product located with the electronic guides on your computer and/or on the CD/DVD provided in the box. Some countries/regions may provide a printed HP Limited Warranty in the box. In countries/regions where the warranty is not provided in printed format, you may request a printed copy at http://www.hp.com/go/orderdocuments or write to:

- **North America:** Hewlett-Packard, MS POD, 11311 Chinden Blvd, Boise, ID 83714, USA

- **Europe, Middle East, Africa:** Hewlett-Packard, POD, Via G. Di Vittorio, 9, 20063, Cernusco s/Naviglio (MI), Italy

- **Asia Pacific:** Hewlett-Packard, POD, P.O. Box 200, Alexandra Post Office, Singapore 911507

Please include your product number, warranty period (found on your serial number label), name and postal address.

2 Getting to know your computer

Top
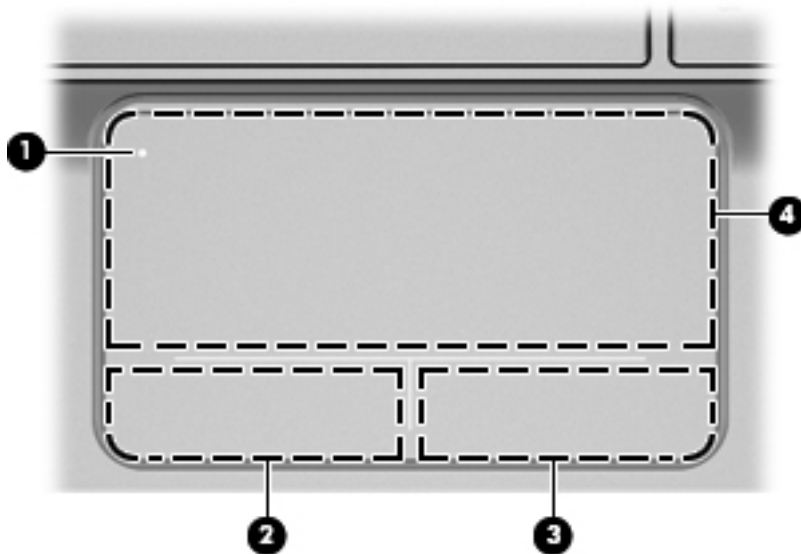
TouchPad

Component		Description
(1)	TouchPad light	Turns the TouchPad on and off. Quickly double-tap the TouchPad light to turn the TouchPad on and off.
(2)	Left TouchPad button	Functions like the left button on an external mouse.
(3)	Right TouchPad button	Functions like the right button on an external mouse.
(4)	TouchPad zone	Moves the pointer and selects or activates items on the screen.

Lights

Component		Description
(1)	TouchPad light	● On: The TouchPad is off.
		● Off: The TouchPad is on.
(2)	Caps lock light	● On: Caps lock is on.
		● Off: Caps lock is off.
(3)	Mute light	● On: Computer sound is off.
		● Off: Computer sound is on.
(4)	Wireless light	● White: An integrated wireless device, such as a wireless local area network (WLAN) device and/or a Bluetooth® device, is on.
		● Amber: All wireless devices are off.

Keys
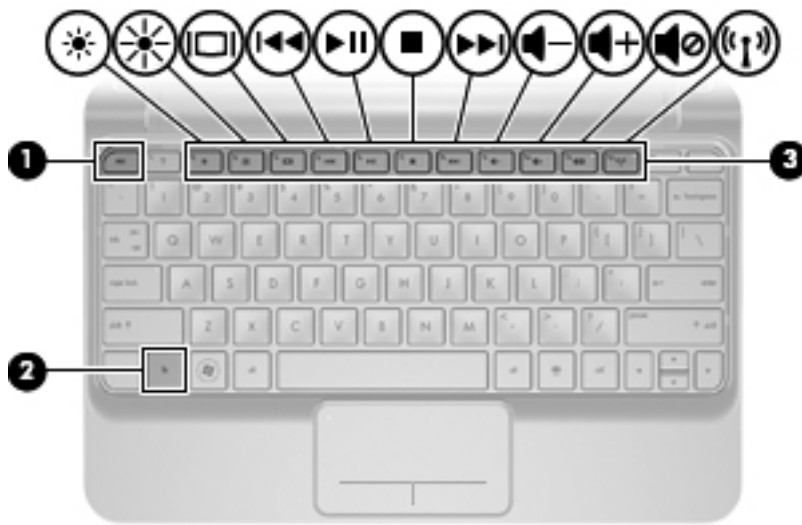
Component		Description
(1)	esc key	Displays system information when pressed in combination with the fn key.
(2)	fn key	Displays system information when pressed in combination with the esc key.
(3)	action keys	Execute frequently used system functions.

Front

Component	Description
Speakers (2)	Produce sound

Right side

Component		Description
(1)	Digital Media Slot	Supports the following digital card formats: • Memory Stick • Memory Stick Pro • MultiMediaCard • Secure Digital (SD) Card • Secure Digital High Capacity (SDHC) Memory Card • Secure Digital Extended Capacity (SDxC) Memory Card
(2)	Power light	• White: The computer is on. • Blinking white: The computer is in the Sleep state. • Off: The computer is off.
(3)	Power switch	• When the computer is off, slide the switch to turn on the computer. • When the computer is in the Sleep state, slide the switch briefly to exit Sleep. If the computer has stopped responding and operating system shutdown procedures are ineffective, slide and hold the power switch for at least 5 seconds to turn off the computer. To learn more about your power settings, select the **Devices** icon on the MeeGo panel, and then click **All settings**. Click the **Power and brightness** icon.
(4)	USB ports (2)	Connect optional USB devices.
(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.
(6)	RJ-45 (network) jack	Connects a network cable.

Left side

Component		Description
(1)	Power connector	Connects an AC adapter.
(2)	Battery light	- Off: The computer is running on battery power. - Blinking white: The battery has reached a low or critical battery level. - Amber: A battery is charging. - White: The computer is connected to external power and the battery is fully charged.
(3)	External monitor port	Connects an external VGA monitor or projector.
(4)	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.
(5)	Drive light	Blinking white: The hard drive is being accessed.
(6)	USB port	Connects an optional USB device.
(7)	Audio-out (headphone) jack/Audio-in (microphone) jack	Connects optional powered stereo speakers, headphones, earbuds, a headset, or television audio. Also connects an optional headset microphone. **WARNING!** To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, refer to the *Regulatory, Safety, and Environmental Notices*. **NOTE:** When a device is connected to the jack, the computer speakers are disabled.

Display

Component		Description
(1)	WLAN antennas (2)*	Send and receive wireless signals to communicate with wireless local area networks (WLAN).
(2)	Internal microphone	Records sound.
(3)	Webcam	Records video and captures still photographs.
(4)	Webcam light	On: The webcam is in use.

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

Bottom
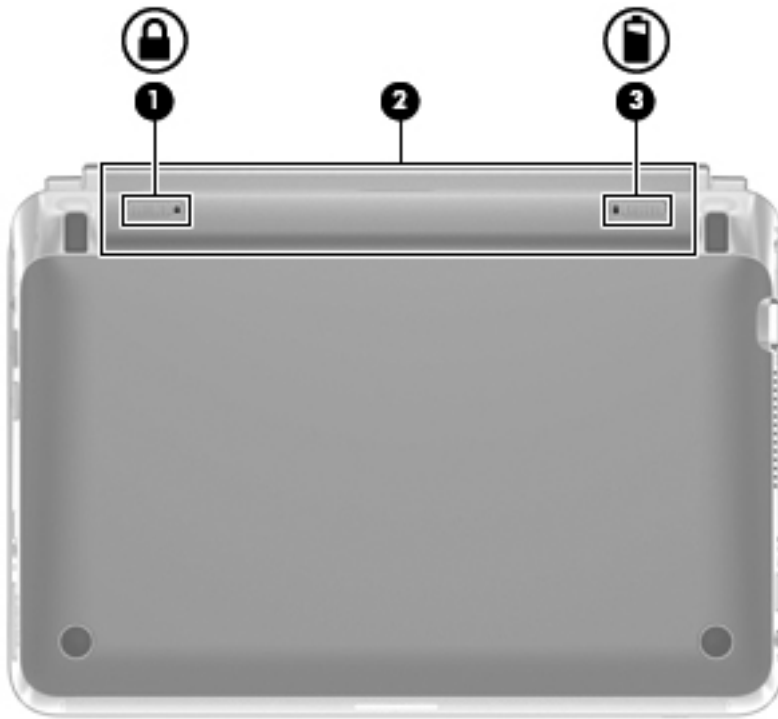
Component			Description
(1)	🔒	Battery locking latch	Locks the battery into the battery bay.
(2)		Battery bay	Holds the battery.
(3)	🔋	Battery release latch	Releases the battery from the battery bay.

3 Networking

Your computer may support one or both of the following types of Internet access:

- Wireless—For mobile Internet access, you can use a wireless connection. Refer to or .

- Wired—You can access the Internet by connecting to a wired network. For information on connecting to a wired network, refer to .

NOTE: Internet hardware and software features vary depending on computer model and your location.

Using an Internet service provider (ISP)

Before you can connect to the Internet, you must establish an ISP account. Contact a local ISP to purchase Internet service and a modem. The ISP can help set up the modem, install a network cable to connect your wireless computer to the modem, and test the Internet service.

NOTE: Your ISP will give you a user ID and password to access the Internet. Record this information and store it in a safe place.

Identifying wireless and network status icons

Icon	Name	Description
	Wireless Connection (connected)	Indicates that one or more wireless devices are connected and active.

	Network Connection (connected)	Indicates that a wired network is connected and active.
	Network Connection (disconnected)	Indicates that wired and wireless networks are not connected.

Creating a wireless connection

Your computer may be equipped with one or more of the following wireless devices:

● Wireless local area network (WLAN) device

● Bluetooth device

Turning wireless devices on and off

Using the wireless key

Use the wireless key to turn both the wireless network controller and the Bluetooth controller off or on simultaneously. They can be controlled individually through the MeeGo Network panel or Setup Utility.

NOTE: Refer to Identifying the action keys on page 16 for information on identifying the location of the wireless key on your computer.

Using the Network Panel

To enable or disable a wireless and/or wired network device:

1. Click the **Networks** icon on the right side of the MeeGo panel.

2. To enable a device, drag the control button for the device to the right, or to disable a device, drag the control button for the device to the left. You can also click the blue "I" or black "0" to enable or disable a device. The color of the button indicates the status of the device. Blue is on and white is disabled.

The following devices may be supported:

● **Wi-Fi**

● **Wired**

● **3G** (additional hardware required)

● **Bluetooth**

● **Offline mode** (all network devices)

Using a WLAN

A wireless connection connects the computer to Wi-Fi networks, or WLANs. A WLAN is composed of other computers and accessories that are linked by a wireless router or a wireless access point.

Setting up a new WLAN

Required equipment:

- A broadband modem (either DSL or cable) **(1)** and high-speed Internet service purchased from an Internet service provider (ISP)

- A wireless router (purchased separately) **(2)**

- The wireless computer **(3)**

The illustration below shows an example of a wireless network installation that is connected to the Internet.
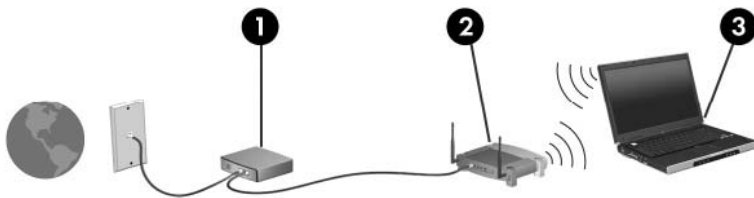
NOTE: Some cable modems include a built-in router. Check with your ISP to see if you need a separate router.

NOTE: When setting up a wireless connection, be sure that your computer and wireless router are synchronized. To synchronize your computer and wireless router, turn your computer and wireless router off and then back on.

As your network grows, additional wireless and wired computers can be connected to the network to access the Internet.

For help in setting up your WLAN, refer to the information provided by your router manufacturer or your ISP.

Connecting to a WLAN

1. Be sure that the WLAN device is on.

   NOTE: Refer to Identifying the action keys on page 16 and Getting to know your computer on page 3 for information on identifying the location of the wireless key and the wireless light on your computer.

2. Click the **Networks** icon on the MeeGo panel.

3. Click the wireless network you want to connect to.

   If the network is a security-enabled WLAN, you are prompted to enter a password. Type the password, and then click **Connect** to complete the connection.

   NOTE: To connect to a network that is not automatically detected, click the **Add new connection** button. Enter the ESSID information, and set encryption parameters, and then click the **Connect** button.

   NOTE: If no WLANs are listed, and your network is not hidden, you are out of range of a wireless router or access point.

Protecting your WLAN

When you set up a WLAN or access an existing WLAN, always enable security features to protect your network from unauthorized access. WLANs in public areas (hotspots) like coffee shops and airports may not provide any security. If you are concerned about the security of your computer in a hotspot, limit your network activities to e-mail that is not confidential and basic Internet surfing.

Wireless radio signals travel outside the network, so other WLAN devices can pick up unprotected signals. You can protect your WLAN by using wireless encryption, which is Wi-Fi Protected Access (WPA and WPA2) that encrypts and decrypts data transmitted over the network.

WPA uses Temporal Key Integrity Protocol (TKIP) to dynamically generate a new key for every packet. It also generates different sets of keys for each computer on the network.

Wired Equivalent Privacy (WEP) encrypts data before it is transmitted using a WEP key. Without the correct key, others will not be able to use the WLAN.

Roaming to another network

When you move your computer within range of another WLAN, the operating system attempts to connect to that network. If the attempt is successful, your computer is automatically connected to the new network. If the operating system does not recognize the new network, follow the same procedure you used initially to connect to your WLAN.

Using Bluetooth wireless devices (select models only)

A Bluetooth device provides short-range wireless communications that replace the physical cable connections that traditionally link electronic devices such as the following:

- Computers
- Phones
- Audio devices

The strength of Bluetooth is in synchronizing information transfers between your computer and wireless devices. The inability to consistently connect two or more computers to share the Internet through Bluetooth is a limitation of Bluetooth and the operating system.

Bluetooth devices provide peer-to-peer capability that allows you to set up a personal area network (PAN) of Bluetooth devices. For information on configuring and using Bluetooth devices, refer to the Bluetooth software Help.

Connecting to a wired network

Connecting to a local area network (LAN) requires an 8-pin, RJ-45 network cable (purchased separately). If the network cable contains noise suppression circuitry **(1)**, which prevents interference from TV and radio reception, orient the circuitry end of the cable **(2)** toward the computer.

To connect the network cable:

1. Plug the network cable into the network jack **(1)** on the computer.

2. Plug the other end of the cable into a network wall jack **(2)**.
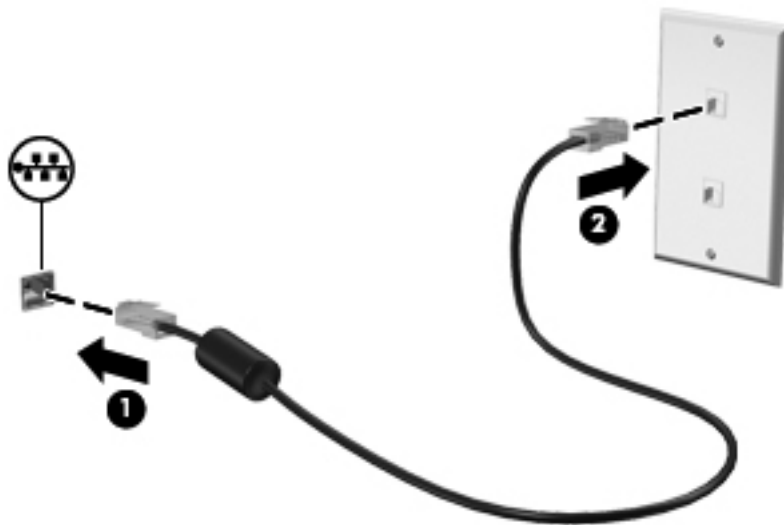
⚠ **WARNING!** To reduce the risk of electric shock, fire, or damage to the equipment, do not plug a modem or telephone cable into the RJ-45 (network) jack.

4 Keyboard and pointing devices

- Using the keyboard
- Using the TouchPad

Using the keyboard

Identifying the hotkey

A hotkey is a combination of the fn key **(1)** and the esc key **(2)**.

Hotkey	Description
fn+esc	Displays information about system hardware components and the system BIOS version number.

Identifying the action keys

Action keys, located at the top of the keyboard, execute specifically assigned functions.

Press a key to activate its assigned function.

Action key		Description
☼	f2	Decreases the screen brightness level.
☀	f3	Increases the screen brightness level.
▢	f4	Switches the screen image among display devices connected to the system. For example, if a monitor is connected to the computer, f4 alternates the screen image from computer display to monitor display to simultaneous display on both the computer and the monitor.
		Most external monitors receive video information from the computer using the external VGA video standard. The f4 action key can also alternate images among other devices that are receiving video information from the computer.
I◄◄	f5	Plays the previous track of an audio CD or the previous section of a DVD.
►II	f6	Plays, pauses, or resumes an audio CD or a DVD.
■	f7	Stops audio or video playback of a CD or a DVD.
►►I	f8	Plays the next track of an audio CD or the next section of a DVD.
◄−	f9	Decreases speaker volume.
◄+	f10	Increases speaker volume.
◄⊘	f11	Mutes or restores speaker sound.
((ᵢ))	f12	Turns the wireless feature on or off. NOTE: This key does not establish a wireless connection. To establish a wireless connection, a wireless network must be set up.

Using keypads

The computer supports an optional external numeric keypad or an optional external keyboard that includes a numeric keypad.

Using the TouchPad

To move the pointer, slide one finger across the TouchPad in the direction you want the pointer to go. Use the left and right TouchPad buttons like the buttons on an external mouse.

NOTE: In addition to the pointing devices included with your computer, you can use an external USB mouse (purchased separately) by connecting it to one of the USB ports on the computer.

Setting pointing device preferences

To customize settings for pointing devices, such as button configuration, click speed, and pointer options, select the **Devices** icon on the MeeGo panel, and then click **All settings**. Click **Trackpad and Mouse**.

5   Multimedia

-
-
-
-

Your computer may include the following:

- Integrated speakers
- Integrated microphones
- Integrated webcam
- Preinstalled multimedia software
- Multimedia buttons or keys

Using the media activity action keys

Media action keys allow you to play, pause, fast forward, or rewind a media file.

NOTE: Refer to Getting to know your computer on page 3 and Keyboard and pointing devices on page 15 for information about your computer's media activity controls.

Audio

Your computer enables you to use a variety of audio features:

- Play music.
- Record sound.
- Download music from the Internet.
- Create multimedia presentations.
- Transmit sound and images with instant messaging programs.
- Stream radio programs (select models only).
- Create (burn) audio CDs using an optional external optical drive (purchased separately).

Adjusting the volume

You can adjust the volume using the volume action keys.

WARNING! To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, refer to the *Regulatory, Safety, and Environmental Notices*.

NOTE: Volume can also be controlled through the operating system and some programs.

NOTE: Refer to <u>Getting to know your computer on page 3</u> and <u>Keyboard and pointing devices on page 15</u> for information on what type of volume controls your computer has.

Checking your audio functions

To check the system sound on your computer, follow these steps:

1. Select the **Devices** icon on the MeeGo panel.

2. Click **All settings**.

3. Click **Sound**.

4. On the **Sound Effects** tab, click on a sound under **Choose an alert sound**.

To check the recording functions of the computer, follow these steps:

1. Select the **Applications** icon on the MeeGo panel.

2. Click **Media**, and then click **Sound Recorder**.

3. Click the **Record** button and begin speaking.

4. To stop recording, click the **Stop** button.

5. To listen to your recording, click the **Play** button.

NOTE: For best results when recording, speak directly into the microphone and record sound in a setting free of background noise.

Webcam

Some computers include an integrated webcam, located at the top of the display. With the preinstalled software, you can use the webcam to take a photo or record a video. You can preview and save the photo or video recording.

The webcam software enables you to experiment with the following features:

- Capturing and sharing video

- Streaming video with instant message software

- Taking still photos

To access the webcam, follow these steps:

1. Click the **Applications** icon on the MeeGo panel.

2. Click **Media**.

3. Click **Webcam**.

NOTE: For details about using your webcam, click the Help menu in the webcam software.

Video

Your computer has an external video port, also called a monitor or VGA port. This port is an analog display interface that connects an external VGA display device, such as an external VGA monitor or a VGA projector, to the computer.

▲ To connect a VGA display device, connect the device cable to the external monitor port.
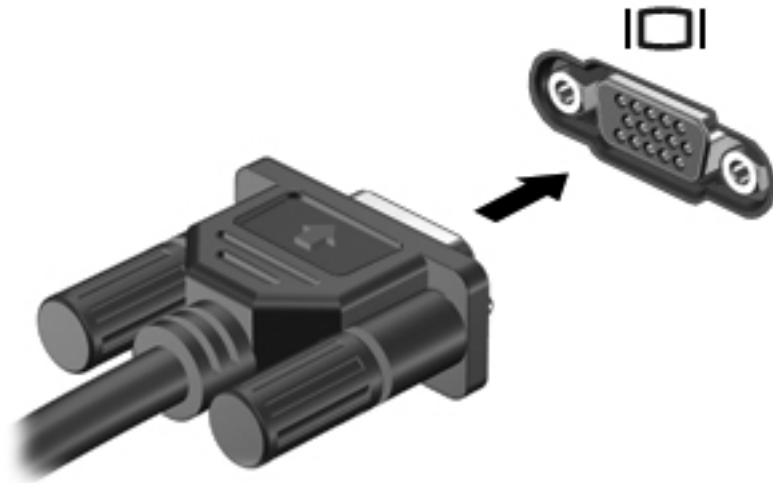
📝 **NOTE:** Press f4 to switch the image between the display devices connected to the computer.

6   Power management

-
-
-
-

Shutting down the computer

△ **CAUTION:**   Unsaved information will be lost when the computer is shut down.

Shut down the computer under any of the following conditions:

- When you need to replace the battery or access components inside the computer

- When you are connecting an external hardware device that does not connect to a USB port

- When the computer will be unused and disconnected from external power for an extended period

To shut down the computer, follow these steps:

📝 **NOTE:**   If the computer is in Sleep, turn the computer on by opening the computer or by sliding the power switch.

1. Save your work and close all open programs.

2. Briefly slide the power switch.

3. Click **Turn off**.

If the computer is unresponsive and you are unable to use the preceding shut down procedures, try the following emergency procedures in the sequence provided:

- Slide and hold the power switch for at least 5 seconds.

- Disconnect the computer from external power, and then remove the battery.

Setting power options

Using power-saving states

The computer has one power-saving state which is enabled at the factory: Sleep.

When Sleep is initiated, the power light blinks and the screen clears. Your work is saved to memory. If the computer is in the Sleep state for an extended period or if the battery reaches a critical battery level while in the Sleep state, information is saved to the hard drive, and the computer shuts down.

△ **CAUTION:**   To prevent possible audio and video degradation, loss of audio or video playback functionality, or loss of information, do not initiate Sleep while reading from or writing to a disc or an external media card.

Initiating and exiting Sleep

The system is set at the factory to initiate Sleep after a period of inactivity when running on battery power or on external power.

Power settings can be changed using the Devices icon on the MeeGo panel.

With the computer on, you can initiate Sleep by closing the display.

You can exit Sleep in either of the following ways:

● Open the display.

● Briefly slide the power switch.

When the computer exits Sleep, the power light turns on and your work returns to the screen where you stopped working.

Using power management

Power management is a collection of system settings that manages how the computer uses power. Power management can help you conserve power or maximize performance.

You can customize power management settings.

Viewing and changing the current power management settings

1. Click the **Devices** icon on the MeeGo panel.

2. Click **All settings**.

3. Click **Power and brightness**.

Using battery power

When a charged battery is in the computer and the computer is not plugged into external power, the computer runs on battery power. When a charged battery is in the computer and the computer is plugged into external AC power, the computer runs on AC power.

If the computer contains a charged battery and is running on external AC power supplied through the AC adapter, the computer switches to battery power if the AC adapter is disconnected from the computer.

You can keep a battery in the computer or in storage, depending on how you work. Keeping the battery in the computer whenever the computer is plugged into AC power charges the battery and also protects your work in case of a power outage. However, a battery in the computer slowly discharges when the computer is off and unplugged from external power.

WARNING! To reduce potential safety issues, use only the battery provided with the computer, a replacement battery provided by HP, or a compatible battery purchased from HP.

Computer battery life varies, depending on power management settings, programs running on the computer, display brightness, external devices connected to the computer, and other factors.

Displaying the remaining battery charge

▲ Place the mouse pointer over the battery meter icon on the MeeGo panel to see how much battery charge remains, or click the **Devices** icon on the MeeGo panel.

Inserting the battery

To insert the battery:

1. Save your work and shut down the computer.

2. Disconnect all external devices connected to the computer.

3. Unplug the power cord from the AC outlet.

4. With the display closed, position the computer upside down on a flat surface with the battery bay toward you.

5. Insert the battery **(1)** into the battery bay until the battery release latch **(2)** clicks.

6. Slide the battery locking latch **(3)** to the right to lock the battery into the battery bay.
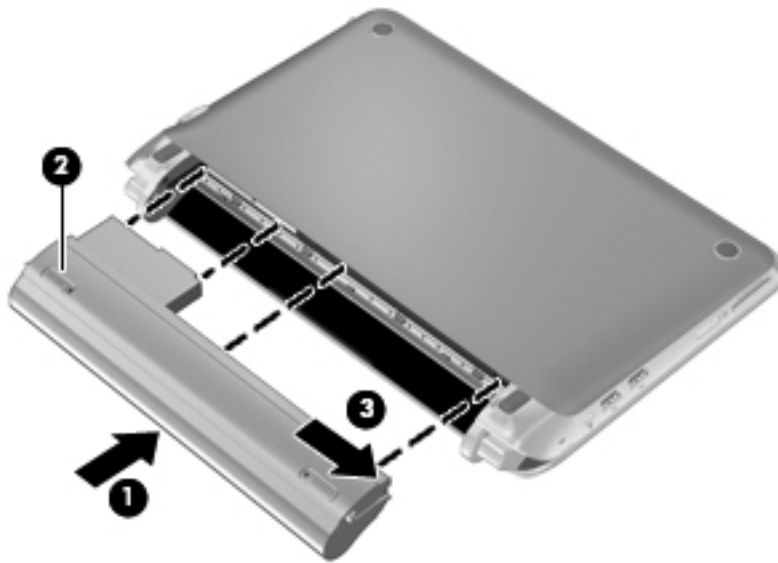
Removing the battery

To remove the battery:

△ **CAUTION:** Removing a battery that is the sole power source for the computer can cause loss of information. To prevent loss of information, save your work and shut down the computer through the operating system before removing the battery.

1. Save your work and shut down the computer.

2. Disconnect all external devices connected to the computer.

3. Unplug the power cord from the AC outlet.

4. With the display closed, position the computer upside down on a flat surface with the battery bay toward you.

5. Slide the battery locking latch **(1)** inward to unlock the battery.

 NOTE: You can identify when the battery locking latch is unlocked by the red icon that appears in the latch.

6. Slide and hold the battery release latch **(2)** while removing the battery **(3)** from the battery bay.
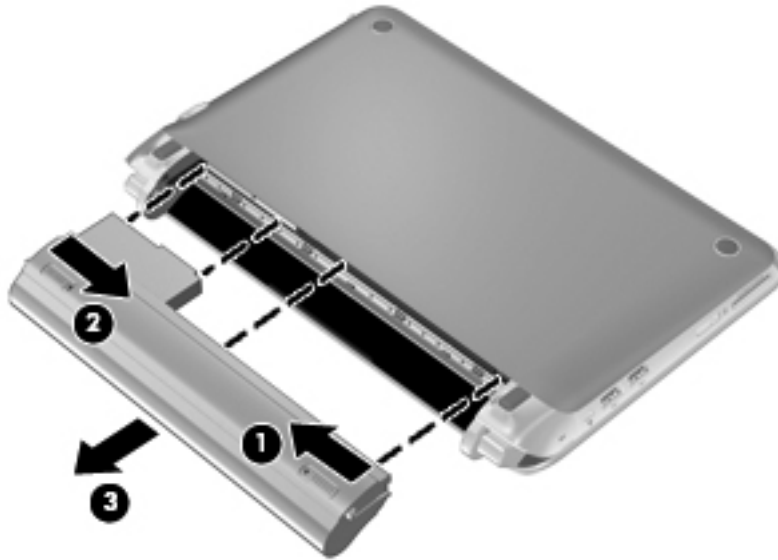
Charging a battery

⚠ **WARNING!** Do not charge the computer battery while you are onboard aircraft.

The battery charges whenever the computer is plugged into external power through an AC adapter or an optional power adapter.

The battery charges whether the computer is off or in use, but it charges faster when the computer is off.

Charging may take longer if a battery is new, has been unused for 2 weeks or more, or is much warmer or cooler than room temperature.

To prolong battery life and optimize the accuracy of battery charge displays, follow these recommendations:

- If you are charging a new battery, charge it fully before turning on the computer.

  📝 **NOTE:** If the computer is on while the battery is charging, the battery meter on the MeeGo panel may show 100 percent charge before the battery is fully charged.

- Allow the battery to discharge below 5 percent of a full charge through normal use before charging it.

- If the battery has been unused for one month or more, calibrate the battery instead of simply charging it.

Conserving and maximizing battery life

To conserve battery life:

- Turn off wireless and local area network (LAN) connections and exit modem applications when you are not using them.

- Disconnect unused external devices that are not plugged into an external power source.

- Stop, disable, or remove any external media cards that you are not using.

- Decrease brightness.

- Initiate Sleep or shut down the computer when you are not using the computer.

To maximize battery life:

1. Select the **Devices** icon on the MeeGo panel.

2. Click **All settings**.

3. Click **Power and brightness**.

4. Adjust the sliders for Idle and Sleep.

Managing low battery levels

The information in this section describes the alerts and system responses set at the factory.

Identifying low battery levels

When a battery that is the sole power source for the computer reaches a low or critical battery level, and the computer is on or in the Sleep state, the computer remains briefly in Sleep, and then shuts down and loses any unsaved information.

Resolving a low battery level

Resolving a low battery level when external power is available

▲ Connect one of the following devices:

- AC adapter
- Optional docking or expansion device
- Optional power adapter purchased as an accessory from HP

Resolving a low battery level when a charged battery is available

1. Save your work.
2. Turn off the computer or initiate Sleep.
3. Replace the discharged battery with a charged battery.
4. Turn on the computer.

Resolving a low battery level when no power source is available

- Initiate Sleep.
- Save your work and shut down the computer.

Resolving a low battery level when the computer cannot exit Sleep

When the computer lacks sufficient power to exit Sleep, follow these steps:

1. Replace the discharged battery with a charged battery, or connect the AC adapter to the computer and to external power.
2. Exit Sleep by briefly sliding the power switch.

Storing a battery

△ **CAUTION:** To reduce the risk of damage to a battery, do not expose it to high temperatures for extended periods of time.

If a computer will be unused and unplugged from external power for more than 2 weeks, remove the battery and store it separately.

To prolong the charge of a stored battery, place it in a cool, dry place.

📝 **NOTE:** A stored battery should be checked every 6 months. If the capacity is less than 50 percent, recharge the battery before returning it to storage.

Calibrate a battery before using it if it has been stored for one month or more.

Disposing of a used battery

⚠ **WARNING!** To reduce the risk of fire or burns, do not disassemble, crush, or puncture; do not short external contacts; do not dispose of in fire or water.

Refer to the *Regulatory, Safety, and Environmental Notices* for battery disposal information.

Replacing the battery

Computer battery life varies, depending on power management settings, programs running on the computer, display brightness, external devices connected to the computer, and other factors.

NOTE: To ensure that you always have battery power when you need it, HP recommends purchasing a new battery when the storage capacity indicator on the battery turns green-yellow.

Using external AC power

NOTE: For information on connecting to AC power, refer to the *Quick Setup* poster provided in the computer box.

External AC power is supplied through an approved AC adapter or an optional docking or expansion device.

WARNING! To reduce potential safety issues, use only the AC adapter provided with the computer, a replacement AC adapter provided by HP, or a compatible AC adapter purchased from HP.

Connect the computer to external AC power under any of the following conditions:

WARNING! Do not charge the battery while you are onboard aircraft.

- When you are charging or calibrating a battery
- When you are installing or modifying system software
- When writing information to a CD or DVD

When you connect the computer to external AC power, the following events occur:

- The battery begins to charge.
- If the computer is turned on, the battery meter icon on the MeeGo panel changes appearance.

When you disconnect external AC power, the computer switches to battery power.

Testing an AC adapter

Test the AC adapter if the computer exhibits any of the following symptoms when it is connected to AC power:

- The computer does not turn on.
- The display does not turn on.
- The power light is off.

To test the AC adapter:

1. Shut down the computer.
2. Remove the battery from the computer.
3. Connect the AC adapter to the computer, and then plug it into an AC outlet.
4. Turn on the computer.
   - If the power light turns **on**, the AC adapter is functioning properly.
   - If the power light remains **off**, the AC adapter is not functioning and should be replaced.

Contact technical support for information on obtaining a replacement AC power adapter.

7 Drives

Handling drives

Drives are fragile computer components that must be handled with care. Refer to the following cautions before handling drives. Additional cautions are included with the procedures to which they apply.

Observe these precautions:

- Before you move a computer that is connected to an external hard drive, initiate Sleep and allow the screen to clear, or properly disconnect the external hard drive.

- Before handling a drive, discharge static electricity by touching the unpainted metal surface of the drive.

- Do not touch the connector pins on a removable drive or on the computer.

- Handle a drive carefully; do not drop a drive or place items on it.

- Before removing or inserting a drive, shut down the computer. If you are not sure whether the computer is off or in Sleep, turn the computer on by opening the computer or by sliding the power switch. Then shut down the computer by sliding the power switch.

- Do not use excessive force when inserting a drive into a drive bay.

- Do not type on the keyboard or move the computer while an optical drive is writing to a disc. The write process is sensitive to vibration.

- When the battery is the only source of power, be sure that the battery is sufficiently charged before writing to media.

- Avoid exposing a drive to temperature or humidity extremes.

- Avoid exposing a drive to liquids. Do not spray the drive with cleaning products.

- Remove media from a drive before removing the drive from the drive bay, or traveling with, shipping, or storing a drive.

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

- Avoid exposing a drive to magnetic fields. Security devices with magnetic fields include airport walk-through devices and security wands. Airport conveyer belts and similar security devices that check carry-on baggage use X-rays instead of magnetism and do not damage drives.

Replacing the hard drive

⚠ **CAUTION:** To prevent information loss or an unresponsive system:

Shut down the computer before removing the hard drive from the hard drive bay. Do not remove the hard drive while the computer is on or in the Sleep state.

If you are not sure whether the computer is off or in Sleep, turn the computer on by sliding the power switch. Then shut down the computer by sliding the power switch.

Removing the hard drive

1. Save your work and shut down the computer.

2. Disconnect all external devices connected to the computer.

3. Unplug the power cord from the AC outlet.

4. Remove the battery **(1)** (see Removing the battery on page 24).

5. Remove the vanity cover:

    a. Slide the release button **(2)** inward to release the vanity cover.

    b. Lift the bottom edge **(3)** of the vanity cover, and then remove it from the computer **(4)**
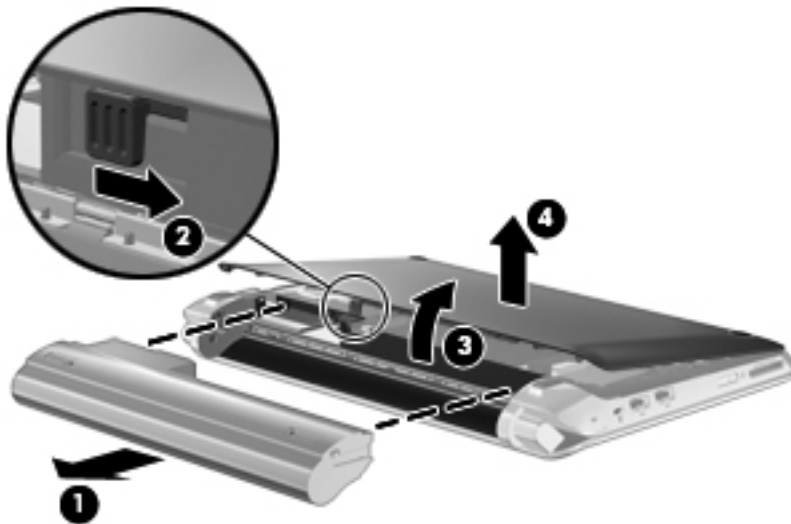
6. Grasp the tab on the hard drive cable connector **(1)** and lift it up to disconnect the hard drive cable from the system board.

7. Carefully remove the hard drive cable from the cable routing channel.

8. Remove the 3 hard drive screws **(2)**.

9. Grasp the tab on the hard drive, and lift the hard drive **(3)** out of the hard drive bay.
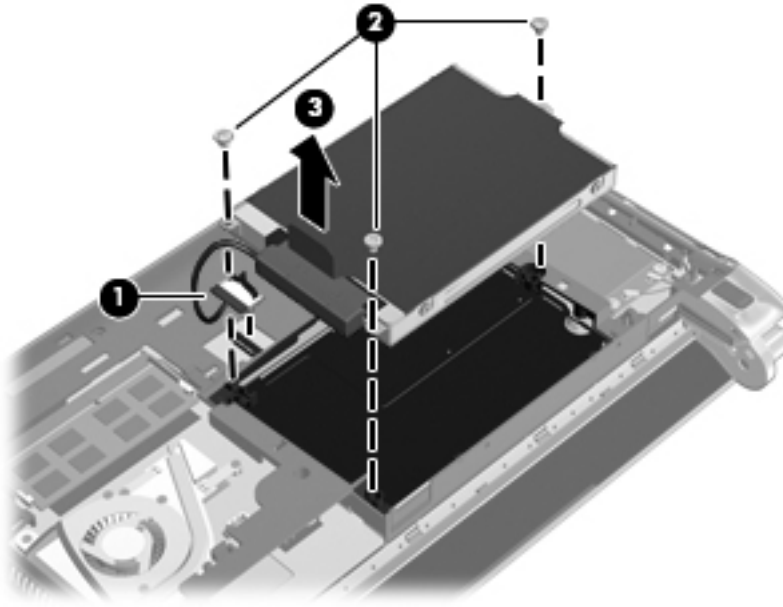
Installing a hard drive

1. Grasp the tab on the hard drive, and lower the hard drive into the hard drive bay **(1)**.

2. Replace the 3 hard drive screws **(2)**.

3. Insert the hard drive cable into the cable routing channel.

4. Grasp the tab on the hard drive cable connector **(3)**, and then carefully press the hard drive cable connector onto the system board until it snaps into place.
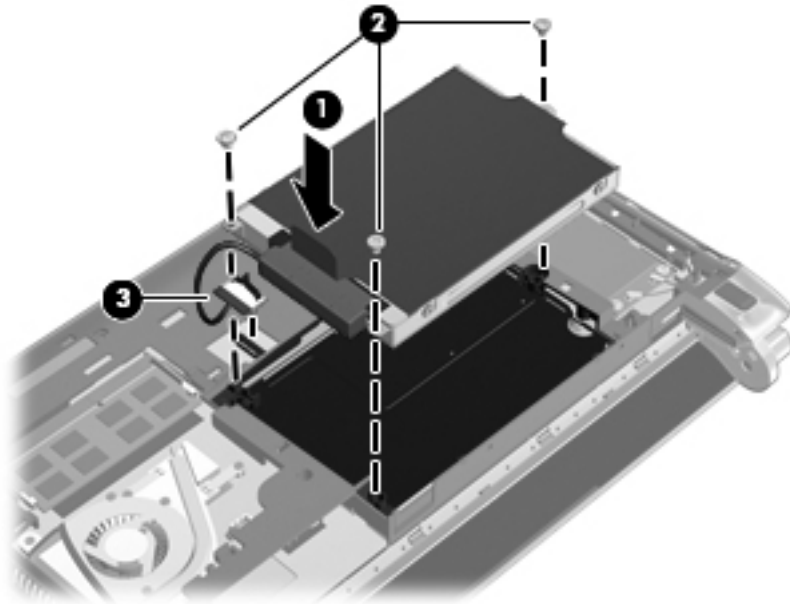
5. Replace the vanity cover:

   a. Insert the 4 tabs on the front edge of the vanity cover into the 4 slots in the base **(1)**.

   b. Rotate the back edge **(2)** of the vanity cover toward you, and then firmly press it down until it snaps into place.

6. Insert the battery **(3)** (see).
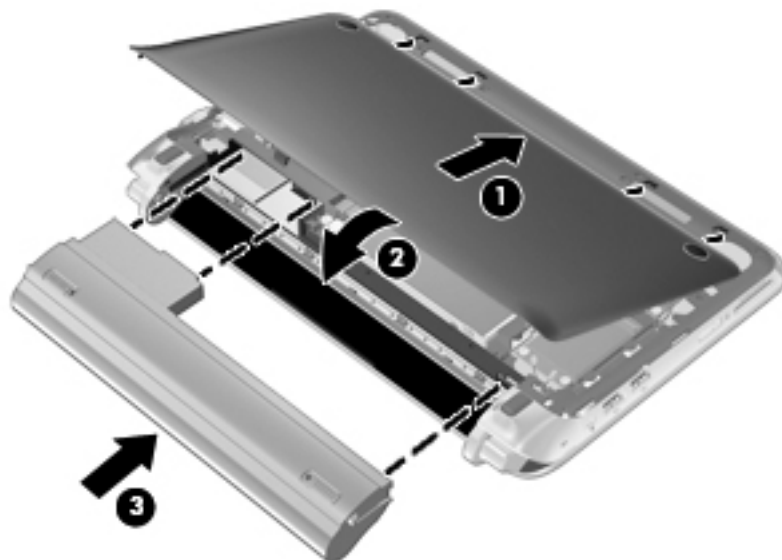
7. Reconnect external power and external devices.

8. Turn on the computer.

9. After you install the hard drive you will need to format the drive. Follow the on-screen instructions to format the hard drive.

8 External cards and devices

- Using Digital Media Slot cards
- Using a USB device
- Using optional external devices

Using Digital Media Slot cards

Optional digital cards provide secure data storage and convenient data sharing. These cards are often used with digital media-equipped cameras and PDAs as well as with other computers.

To determine which digital card formats are supported on your computer, refer to Getting to know your computer on page 3.

Inserting a digital card

△ **CAUTION:** To reduce the risk of damage to the digital card connectors, use minimal force to insert a digital card.

1. Hold the digital card label-side up, with the connectors facing the computer.

2. Insert the card into the Digital Media Slot, and then push in on the card until it is firmly seated.
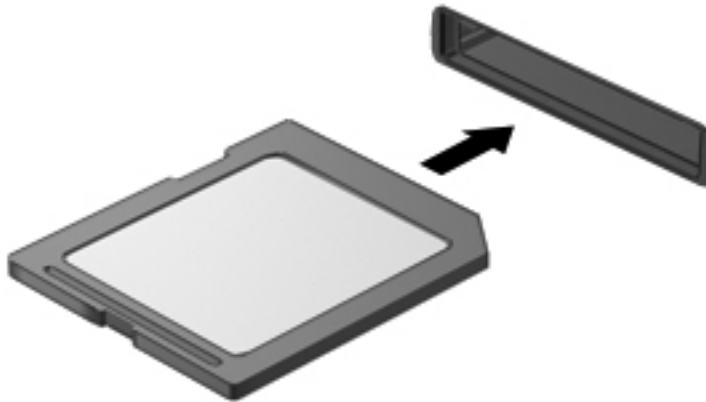
Removing a digital card

△ **CAUTION:** To reduce the risk of loss of data or an unresponsive system, use the following procedure to safely remove the digital card.

Save your information and close all programs associated with the digital card.

To remove a digital card:

1. Select the **Devices** icon on the MeeGo panel.

2. Click the **Eject** button next to the name of the digital card.

3. Either press in on the card **(1)**, and then remove it from the slot **(2)**.
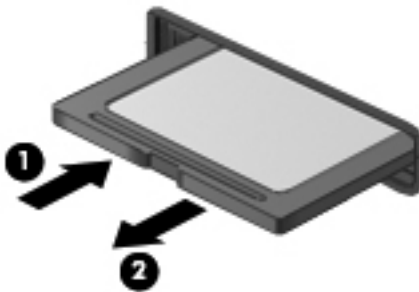
– or –

Pull the card out of the slot.
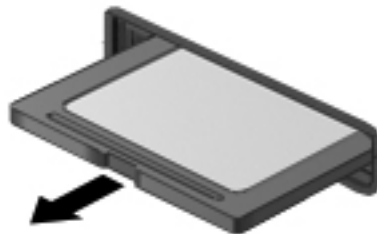
Using a USB device

Universal Serial Bus (USB) is a hardware interface that can be used to connect an optional external device, such as a USB keyboard, mouse, drive, printer, scanner, or hub. Devices can be connected to the system.

Some USB devices may require additional support software, which is usually included with the device. For more information about device-specific software, refer to the manufacturer's instructions.

The computer has 3 USB ports, which support USB 1.0, USB 1.1, and USB 2.0 devices. An optional USB hub provides additional USB ports that can be used with the computer.

Connecting a USB device

△ **CAUTION:** To prevent damage to a USB connector, use minimal force to connect a USB device.

▲ To connect a USB device to the computer, connect the USB cable for the device to the USB port.

Removing a USB device

△ **CAUTION:** To prevent damage to a USB connector, do not pull on the cable to remove the USB device.

CAUTION: To prevent loss of information or an unresponsive system, use the following procedure to safely remove a USB device.

To remove a USB device:

1. Select the **Devices** icon on the MeeGo panel.

2. Click the **Eject** button next to the name of the USB device.

3. Remove the device.

Using optional external devices

📝 **NOTE:** For more information about required software and drivers, or to learn which computer port to use, refer to the manufacturer's instructions.

To connect an external device to the computer:

△ **CAUTION:** To reduce the risk of damage to the equipment when connecting a powered device, be sure that the device is turned off and the AC power cord is unplugged.

1. Connect the device to the computer.

2. If you are connecting a powered device, plug the device power cord into a grounded AC outlet.

3. Turn on the device.

To disconnect an unpowered external device, turn off the device, and then disconnect it from the computer. To disconnect a powered external device, turn off the device, disconnect it from the computer, and then unplug the AC power cord.

Using optional external drives

Removable external drives expand your options for storing and accessing information. A USB drive can be added by connecting the drive to a USB port on the computer.

NOTE: HP external USB optical drives should be connected to the powered USB port on the computer.

USB drives include the following types:

- Hard drive module (a hard drive with an adapter attached)
- External optical drive (CD and DVD)
- MultiBay device

9 Memory modules

The computer memory module compartment is located on the bottom of the computer.

⚠ **WARNING!**   To reduce the risk of electric shock and damage to the equipment, unplug the power cord and remove all batteries before installing a memory module.

⚠ **CAUTION:**   Electrostatic discharge (ESD) can damage electronic components. Before beginning any procedure, ensure that you are discharged of static electricity by touching a grounded metal object.

To replace a memory module:

⚠ **CAUTION:**   To prevent information loss or an unresponsive system:

Shut down the computer before replacing memory modules. Do not remove a memory module while the computer is on or in the Sleep state.

If you are not sure whether the computer is off or in Sleep, turn the computer on by sliding the power switch. Then shut down the computer by sliding the power switch.

1.   Save your work and shut down the computer.

2.   Disconnect all external devices connected to the computer.

3.   Unplug the power cord from the AC outlet.

4.   Remove the battery **(1)** (see Removing the battery on page 24).

5.   Remove the vanity cover:

   a.   Slide the release button **(2)** inward to release the vanity cover.

   b.   Lift the bottom edge **(3)** of the vanity cover, and then remove it from the computer **(4)**.
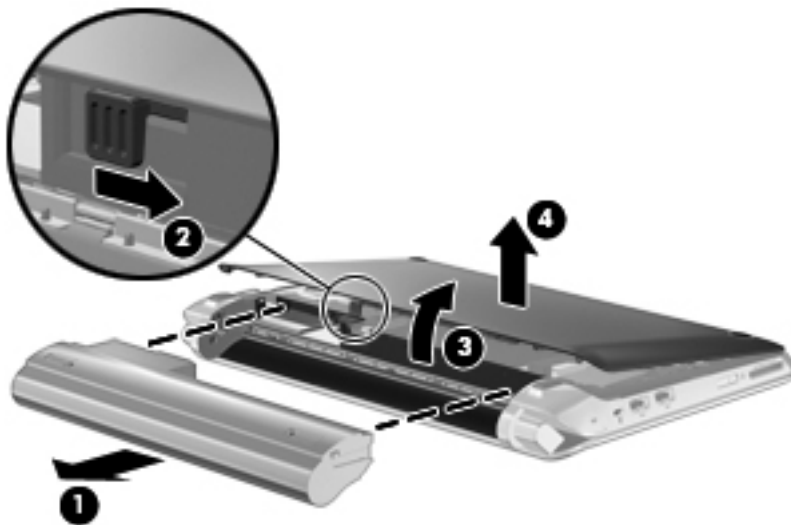
6. Remove the existing memory module:

    a. Pull away the retention clips **(1)** on each side of the memory module.

       The memory module tilts up.

    b. Grasp the edge of the memory module **(2)**, and then gently pull the memory module out of the memory module slot.

       △ **CAUTION:** To prevent damage to the memory module, hold the memory module by the edges only. Do not touch the components on the memory module.
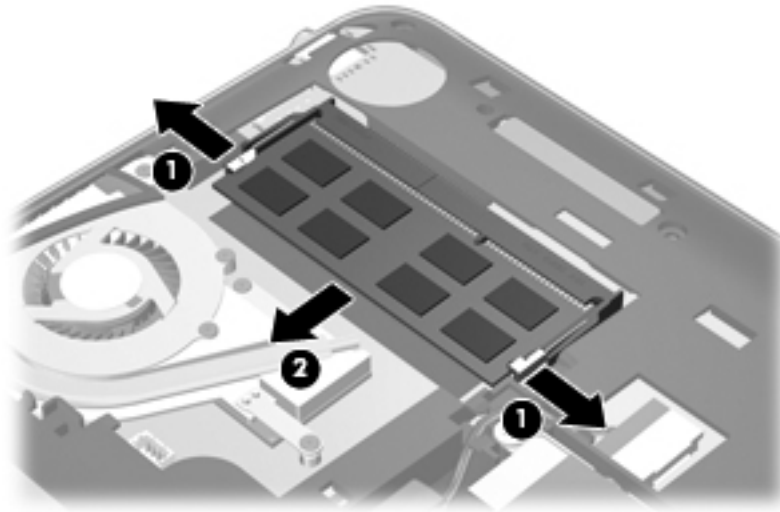
    c. To protect a memory module after removal, place it in an electrostatic-safe container.

7. Insert a new memory module:

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

   **a.** Align the notched edge **(1)** of the memory module with the tab in the memory module slot.

    b. With the memory module at a 45-degree angle from the surface of the memory module compartment, press the module **(2)** into the memory module slot until it is seated.

c. Gently press the memory module **(3)** down, applying pressure to both the left and right edges of the memory module, until the retention clips snap into place.

⚠ **CAUTION:** To prevent damage to the memory module, be sure that you do not bend the memory module.
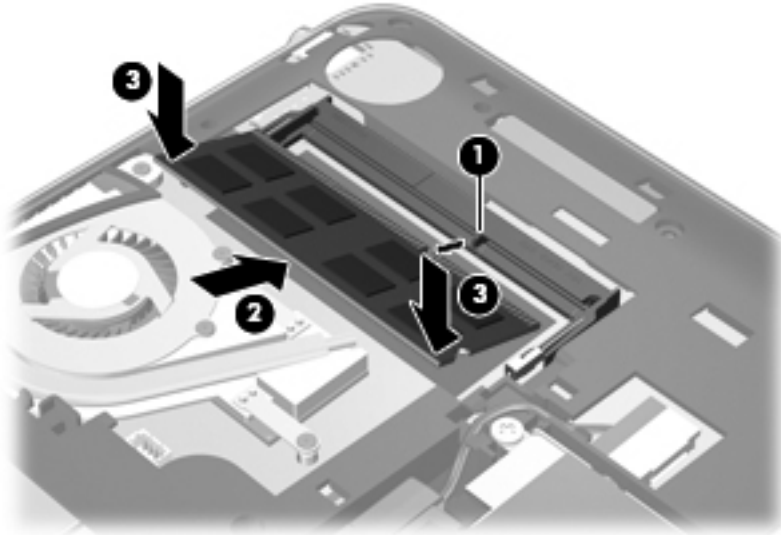
8. Replace the vanity cover:

a. Insert the 4 tabs on the front edge of the vanity cover into the 4 slots in the base **(1)**.

b. Rotate the back edge **(2)** of the vanity cover toward you, and then firmly press it down until it snaps into place.

9. Replace the battery **(3)**.
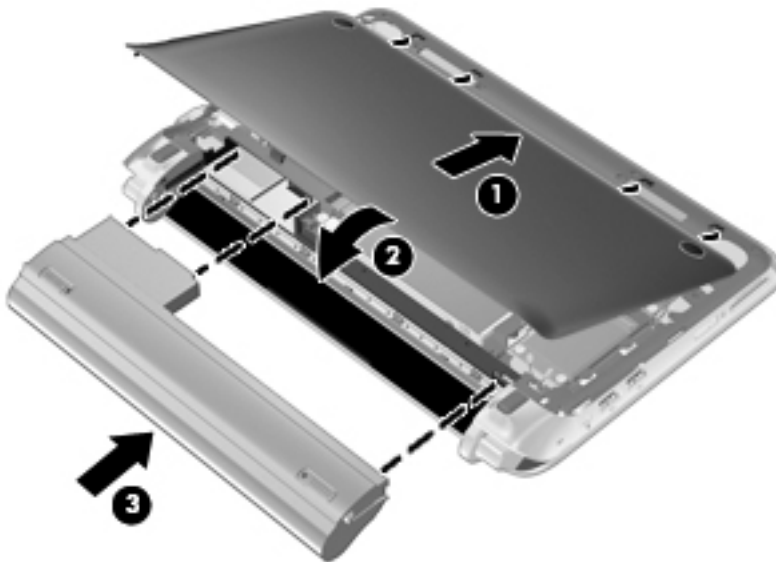
10. Reconnect external power and external devices.

11. Turn on the computer.

10 Security

- [Protecting the computer](#)
- [Using passwords](#)
- [Installing an optional security cable](#)

Protecting the computer

NOTE: Security solutions are designed to act as deterrents, but they may not deter software attacks or prevent the computer from being mishandled or stolen.

Security features provided with your computer can protect the computer, personal information, and data from a variety of risks. The way you use your computer will determine which security features you need to use.

The operating system offers certain security features. Additional security features are listed in the following table. Most of these additional security features can be configured in Setup Utility.

To protect against	Use this security feature
Unauthorized use of the computer	Power-on authentication using passwords.
Unauthorized access to Setup Utility (f10)	Administrator password in Setup Utility*
Unauthorized reset of Setup Utility (f10) passwords	Stringent security feature in Setup Utility*
Unauthorized startup from an optical drive, diskette drive, or internal network adapter	Boot options feature in Setup Utility*
Unauthorized access to data	Operating system updates
Unauthorized access to Setup Utility (f10) settings and other system identification information	Administrator password in Setup Utility*
Unauthorized removal of the computer	Security cable slot (used with an optional security cable)

*Setup Utility is a utility accessed by pressing f10 when the computer is turned on or restarted. When using Setup Utility, you must use the keys on your computer to navigate and make selections.

Using passwords

A password is a group of characters that you choose to secure your computer information. Several types of passwords can be set, depending on how you want to control access to your information. Passwords can be set in the operating system or in Setup Utility that is preinstalled on the computer.

NOTE: To reduce the risk of being locked out of the computer, record each password and store it in a secure place.

Setting a password in the operating system

The operating system allows you to set a user password that is used to exit the Idle and Sleep states. For additional information, refer to the MeeGo Help.

Setting passwords in Setup Utility

Setup Utility passwords	Function
Administrator password*	● Protects access to Setup Utility. ● After this password is set, it must be entered each time you access Setup Utility. **CAUTION:** If you forget your administrator password, you cannot access Setup Utility. **NOTE:** The administrator password can be used in place of the power-on password. **NOTE:** Your administrator password is not displayed as it is set, entered, changed, or deleted. **NOTE:** If you enter the power-on password at the first password check before the "Press the ESC key for Startup Menu" message is displayed, you must enter the administrator password to access Setup Utility.
Power-on password*	● Protects access to the computer contents. ● After this password is set, it must be entered each time you turn on or restart the computer, or exit Sleep. **CAUTION:** If you forget your power-on password, you cannot turn on or restart the computer, or exit Sleep. **NOTE:** The administrator password can be used in place of the power-on password. **NOTE:** A power-on password is not displayed as it is set, entered, changed, or deleted.

*For details about each of these passwords, refer to the following topics.

Managing an administrator password

To set, change, or delete this password, follow these steps:

1. Open Setup Utility by turning on or restarting the computer. While the "Press the ESC key for Startup Menu" message is displayed in the lower-left corner of the screen, press esc. When the Startup Menu is displayed, press f10.

2. Use the arrow keys to select **Security > Set Administrator password**, and then press enter.

   ● To set an administrator password, type your password in the **Enter New Password** and **Confirm New Password** fields, and then press enter.

   ● To change an administrator password, type your current password in the **Enter Current Password** field, type a new password in the **Enter New Password** and **Confirm New Password** fields, and then press enter.

   ● To delete an administrator password, type your current password in the **Enter Password** field, and then press enter 4 times.

3. To save your changes and exit Setup Utility, use the arrow keys to select **Exit > Exit Saving Changes**.

Your changes take effect when the computer restarts.

Entering an administrator password

At the **Enter password** prompt, type your administrator password, and then press enter. After 3 unsuccessful attempts to enter the administrator password, you must restart the computer and try again.

Managing a power-on password

To set, change, or delete this password, follow these steps:

1. Open Setup Utility by turning on or restarting the computer. While the "Press the ESC key for Startup Menu" message is displayed in the lower-left corner of the screen, press esc. When the Startup Menu is displayed, press f10.

2. Use the arrow keys to select **Security > Set Power-On Password**, and then press enter.

   - To set a power-on password, type your password in the **Enter New Password** and **Confirm New Password** fields, and then press enter.

   - To change a power-on password, type your current password in the **Enter Current Password** field, type a new password in the **Enter New Password** and **Confirm New Password** fields, and then press enter.

   - To delete a power-on password, type your current password in the **Enter Current Password** field, and then press enter 4 times.

3. To save your changes and exit Setup Utility, use the arrow keys to select **Exit > Exit Saving Changes**.

Your changes take effect when the computer restarts.

Entering a power-on password

At the **Enter Password** prompt, type your password, and then press enter. After 3 unsuccessful attempts to enter the password, you must restart the computer and try again.

Installing an optional security cable

NOTE: A security cable is designed to act as a deterrent, but it may not prevent the computer from being mishandled or stolen.

NOTE: The security cable slot on your computer may look different from the illustration in this section. Refer to Getting to know your computer on page 3 for the location of the security cable slot on your computer.

1. Loop the security cable around a secured object.

2. Insert the key **(1)** into the cable lock **(2)**.

3. Insert the cable lock into the security cable slot on the computer **(3)**, and then lock the cable lock with the key.
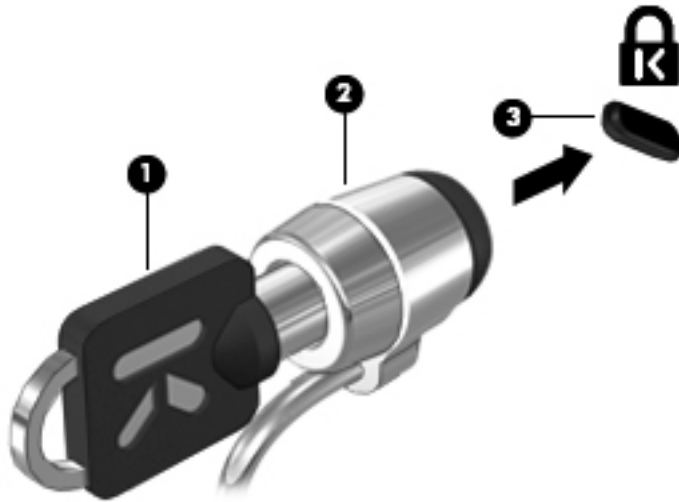
4. Remove the key and keep it in a safe place.

11 Backup and recovery

Recovery after a system failure is as good as your most recent backup. HP recommends that you regularly back up your files to ensure you have the latest data.

Performing a system recovery

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

To recover the original hard drive image follow these steps:

1. If possible, back up all personal files.

2. Turn on or restart the computer.

3. Press esc while the "Press the ESC key for Startup Menu" message is displayed at the bottom of the screen.

4. Press f11 while the "F11 (HP Recovery)" message is displayed on the screen.

5. Follow the on-screen instructions.

12 Setup Utility (BIOS)

-
-
-

Setup Utility, or Basic Input/Output System (BIOS), controls communication between all the input and output devices on the system (such as disk drives, display, keyboard, mouse, and printer). Setup Utility includes settings for the types of peripherals installed, the startup sequence of the computer, and the amount of system and extended memory.

△ **CAUTION:**   Use extreme care when making changes in Setup Utility. Errors can prevent the computer from operating properly.

Starting Setup Utility

▲ Turn on or restart the computer. While the "Press the ESC key for Startup Menu" message is displayed in the lower-left corner of the screen, press esc. When the Startup Menu is displayed, press f10.

Using Setup Utility

Changing the language of Setup Utility

1. Start Setup Utility.

2. Use the arrow keys to select **System Configuration > Language**, and then press enter.

3. Use the arrow keys to select a language, and then press enter.

4. When a confirmation prompt with your language selected is displayed, press enter.

5. To save your change and exit Setup Utility, use the arrow keys to select **Exit > Exit Saving Changes**, and then press enter.

Your change takes effect immediately.

Navigating and selecting in Setup Utility

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

- To choose a menu or a menu item, use the arrow keys.

- To choose an item in a list or to toggle a field—for example an Enable/Disable field—use either the arrow keys or f5 and f6.

- To select an item, press enter.

- To close a text box or return to the menu display, press esc.

- To display additional navigation and selection information while Setup Utility is open, press f1.

Displaying system information

1. Start Setup Utility.

2. Select the **Main** menu. System information such as the system time and date, and identification information about the computer is displayed.

3. To exit Setup Utility without changing any settings, use the arrow keys to select **Exit > Exit Discarding Changes**, and then press enter.

Restoring factory default settings in Setup Utility

1. Start Setup Utility.

2. Use the arrow keys to select **Exit > Load Setup Defaults**, and then press enter.

3. When the Setup Confirmation is displayed, press enter.

4. To save your change and exit Setup Utility, use the arrow keys to select **Exit > Exit Saving Changes**, and then press enter.

The Setup Utility factory settings take effect when the computer restarts.

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

Exiting Setup Utility

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

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

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

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

Updating the BIOS

Updated versions of the BIOS may be available on the HP Web site.

The computer will periodically check for updated versions of the BIOS when a network connection is available. You will be notified if an update is available. Follow the on-screen instructions to complete the update.

NOTE: To set how often the BIOS updates are checked, click the **Applications** icon on the MeeGo panel. Click **System Tools**, and then click **Update System**.

To manually install BIOS updates, follow these steps:

1. Click the **Applications** icon on the MeeGo panel.

2. Click **System Tools**, and then click **Update System**.

3. Follow the on-screen instructions.

Determining the BIOS version

To determine whether available BIOS updates contain later BIOS versions than those currently installed on the computer, you need to know the version of the system BIOS currently installed.

BIOS version information (also known as *ROM date* and *System BIOS*) can be displayed using Setup Utility.

1. Start Setup Utility.

2. If the system information is not displayed, use the arrow keys to select the **Main** menu.

   BIOS and other system information is displayed.

3. To exit Setup Utility, use the arrow keys to select **Exit > Exit Discarding Changes**, and then press enter.

Downloading a BIOS update

CAUTION: To reduce the risk of damage to the computer or an unsuccessful installation, download and install a BIOS update only when the computer is connected to reliable external power using the AC adapter. Do not download or install a BIOS update while the computer is running on battery power, docked in an optional docking device, or connected to an optional power source. During the download and installation, follow these instructions:

Do not disconnect power from the computer by unplugging the power cord from the AC outlet.

Do not shut down the computer or initiate Sleep.

Do not insert, remove, connect, or disconnect any device, cable, or cord.

1. Access the page on the HP Web site that provides software for your computer.

2. Follow the on-screen instructions to identify your computer and access the BIOS update you want to download.

3. At the download area, follow these steps:

   a. Identify the BIOS update that is later than the BIOS version currently installed on your computer. Make a note of the date, name, or other identifier. You may need this information to locate the update later, after it has been downloaded to your hard drive.

   b. Follow the on-screen instructions to download your selection to the hard drive.

Make a note of the path to the location on your hard drive where the BIOS update is downloaded. You will need to access this path when you are ready to install the update.

NOTE: If you connect your computer to a network, consult the network administrator before installing any software updates, especially system BIOS updates.

BIOS installation procedures vary. Follow any instructions that are displayed on the screen after the download is complete.

NOTE: After a message on the screen reports a successful installation, you can delete the downloaded file from your hard drive.

A   Troubleshooting and support

Troubleshooting

The following sections describe several common issues and solutions.

The computer is unable to start up

If the computer does not turn on when you slide the power switch, the following suggestions may help you determine why the computer does not start up:

- If the computer is plugged into an AC outlet, plug another electrical device into the outlet to be sure that the outlet is providing adequate power.

  NOTE: Use only the AC adapter provided with the computer or one approved by HP for this computer.

- If the computer is plugged into an external power source other than an AC outlet, plug the computer into an AC outlet using the AC adapter. Be sure that the power cord and AC adapter connections are secure.

The computer screen is blank

If the screen is blank but you have not turned off the computer, one or more of these settings may be the cause:

- The computer may be in the Sleep state. To exit Sleep, briefly slide the power switch. Sleep is an energy-saving feature that turns off the display. Sleep can be initiated by the system while the computer is on but is not in use, or when the computer has reached a low battery level. To change these and other power settings, click the **Devices** icon on the MeeGo panel.

- The computer may not be set to display the image on the computer screen. To transfer the image to the computer screen, press f4. On most models, when an optional external display, such as a monitor, is connected to the computer, the image can be displayed on the computer screen or the external display, or on both devices simultaneously. When you press f4 repeatedly, the image alternates among the computer display, one or more external displays, and simultaneous display on all devices.

Software is functioning abnormally

If the software is unresponsive or responds abnormally, shut down the computer sliding the power switch, and then restart it. If you cannot restart the computer using this procedure, refer to the next section, .

The computer is on but not responding

If the computer is turned on but is not responding to software or keyboard commands, try the following emergency shutdown procedures, in the sequence provided, until shutdown occurs:

△ **CAUTION:** Emergency shutdown procedures result in the loss of unsaved information.

- Slide and hold the power switch for at least 5 seconds.
- Disconnect the computer from external power and remove the battery.

The computer is unusually warm

It is normal for the computer to feel warm to the touch while it is in use. But if the computer feels *unusually* warm, it may be overheating because a vent is blocked.

If you suspect that the computer is overheating, allow the computer to cool to room temperature. Then be sure to keep all vents free from obstructions while you are using the computer.

⚠ **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).

✎ **NOTE:** The fan in the computer starts up automatically to cool internal components and prevent overheating. It is normal for the internal fan to cycle on and off during operation.

An external device is not working

Follow these suggestions if an external device does not function as expected:

- Turn on the device according to the manufacturer's instructions.
- Be sure that all device connections are secure.
- Be sure that the device is receiving electrical power.
- Be sure that the device, especially if it is older, is compatible with the operating system.
- Be sure that the correct drivers are installed and updated.

The wireless network connection is not working

If a wireless network connection is not working as expected, follow these suggestions:

- To enable or disable a wireless and/or wired network device, click the **Networks** icon on the MeeGo panel. To enable a device, drag the control button for the device to the right, or to disable a device, drag the control button for the device to the left. You can also click the blue "I" or black "0" to enable or disable a device. The color of the button indicates the status of the device. Blue is on and white is disabled.
- Be sure that the wireless device is turned on.
- Be sure that the computer wireless antennas are free from obstructions.
- Be sure that the cable or DSL modem and its power cord are properly connected and that the lights are on.

- Be sure that the wireless router or access point is properly connected to its power adapter and to the cable or DSL modem, and that the lights are on.

- Disconnect and then reconnect all cables, and turn the power off and then back on.

Contacting customer support

If the information provided in this guide does not address your questions, you can contact HP Customer Support at:

http://www.hp.com/go/contactHP

NOTE: For worldwide support, click **Contact HP worldwide** on the left side of the page, or go to http://welcome.hp.com/country/us/en/wwcontact_us.html.

Here you can:

- Chat online with an HP technician.

    NOTE: When technical support chat is not available in a particular language, it is available in English.

- E-mail HP Customer Support.

- Find HP Customer Support worldwide telephone numbers.

- Locate an HP service center.

Labels

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

- Serial number label—Provides important information, including the following:
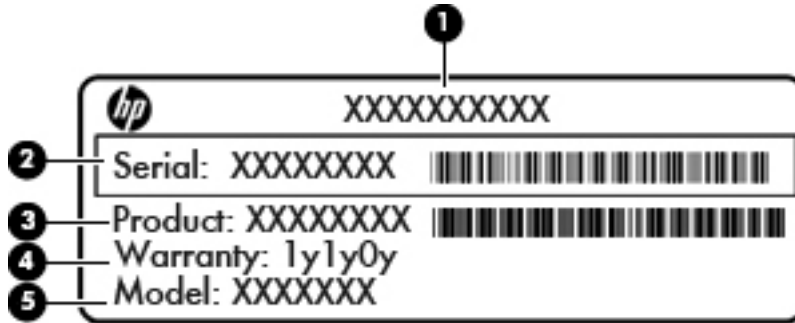
	Component
(1)	Product name
(2)	Serial number (s/n)
(3)	Part number/Product number (p/n)
(4)	Warranty period
(5)	Model description

Have this information available when you contact technical support. The serial number label is affixed to the bottom of the computer.

- Regulatory label—Provides regulatory information about the computer. The regulatory label is affixed inside the battery bay.

- Wireless certification label or labels (select models only)—Provide information about optional wireless devices and the approval markings of some of the countries or regions in which the devices have been approved for use. 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.

B   Routine care

Cleaning the display

△ **CAUTION:**   To prevent permanent damage to the computer, never spray water, cleaning fluids, or chemicals on the display.

To remove smudges and lint, frequently clean the display with a soft damp, lint-free cloth. If the screen requires additional cleaning, use premoistened antistatic wipes or an antistatic screen cleaner.

Cleaning the TouchPad and keyboard

Dirt and grease on the TouchPad can cause the pointer to jump around on the screen. To avoid this, clean the TouchPad with a damp cloth, and wash your hands frequently when using the computer.

⚠ **WARNING!**   To reduce the risk of electric shock or damage to internal components, do not use a vacuum cleaner attachment to clean the keyboard. A vacuum cleaner can deposit household debris on the keyboard surface.

Clean the keyboard regularly to prevent keys from sticking, and to remove dust, lint, and particles that can become trapped beneath the keys. A can of compressed air with a straw extension can be used to blow air around and under the keys to loosen and remove debris.

C   Specifications

- [Input power](#)
- [Operating environment](#)

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. The AC power source must be rated at 100–240 V, 50–60 Hz. 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 this computer.

The computer can operate on DC power within the following specifications.

Input power	Rating
Operating voltage and current	19.5 V dc @ 2.05 A – 40W

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

NOTE: The computer operating voltage and current can be found on the system regulatory label inside the battery bay of the computer.

Operating environment

Factor	Metric	U.S.
Temperature		
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	**-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

D Electrostatic discharge

Electrostatic discharge is the release of static electricity when two objects come into contact—for example, the shock you receive when you walk across the carpet and touch a metal door knob.

A discharge of static electricity from fingers or other electrostatic conductors may damage electronic components. To prevent damage to the computer, damage to a drive, or loss of information, observe these precautions:

- If removal or installation instructions direct you to unplug the computer, unplug it after being properly grounded and before removing a cover.
- Keep components in their electrostatic-safe containers until you are ready to install them.
- Avoid touching pins, leads, and circuitry. Handle electronic components as little as possible.
- Use nonmagnetic tools.
- Before handling components, discharge static electricity by touching an unpainted metal surface of the component.
- If you remove a component, place it in an electrostatic-safe container.

If you need more information about static electricity or assistance with component removal or installation, contact Customer Support.

Index