

Getting Started



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User Guides

HP is committed to reducing the environmental impact of our products. As part of this effort, we provide user guides and learning centers on your computer hard drive in Help and Support. Additional support and updates to the user guides are available on the Web.

Windows Users



Looking for more user guides? They are on your computer. Click: **Start > Help and Support > User Guides**

Linux Users



Looking for more user guides? You can find them on the *User Guides* disc that came with your computer.

Subscription Services for Business Notebook



E-mail Alert

Keep this product up to date with the latest drivers, patches, and notifications. Sign up now at www.hp.com/go/alerts to receive e-mail alert notifications.

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Contacting Customer Support

If the information provided in your User Guide or Learning Center does not address your questions, you can contact HP Customer Support at:

www.hp.com/go/contactHP

Here you can:

- Chat online with an HP technician.

 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.

Serial Number Label Information

The serial number label, located on the bottom of the computer, provides important information that you may need when contacting technical support.



①	Product name	④	Warranty period
②	Serial number	⑤	Model description (select models)
③	Product number		

Warranty Information

You may find the expressly provided HP Limited Warranty applicable to your product in the start menu on your PC and/or in 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 from 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.

Basic Setup

1 Unpack the box


 Computer color, features, and options may vary by computer model. The illustrations in this guide may look slightly different from your computer.

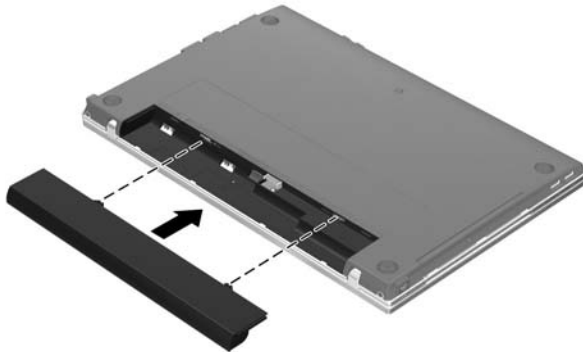


Component	Component
① AC adapter	③ Battery*
② Computer	④ Power cord*


*Batteries and power cords vary in appearance by country or region.

2 Insert the battery

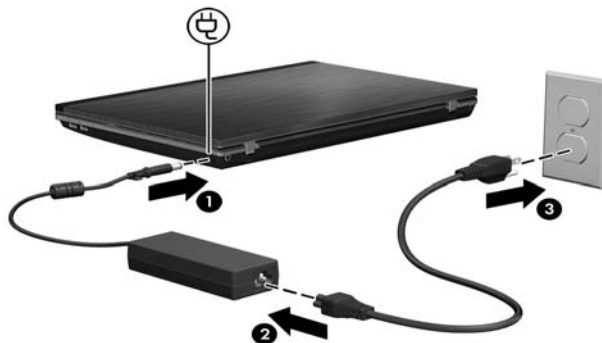
 **WARNING:** To reduce potential safety issues, use only the AC adapter or battery provided with the computer, or a replacement AC adapter or battery provided by HP.




3 Connect the computer to external power

 **WARNING:** To reduce the risk of electric shock or damage to your equipment, observe these practices:

- Plug the power cord into an AC outlet that is easily accessible at all times.
 - Disconnect power from the computer by unplugging the power cord from the AC outlet (not by unplugging the power cord from the computer).
 - If provided with a 3-pin attachment plug on your power cord, plug the cord into a grounded (earthed) 3-pin outlet. Do not disable the power cord grounding pin, for example, by attaching a 2-pin adapter. The grounding pin is an important safety feature.
-



Leave the computer connected to external power until the AC adapter light turns off.


-  A partially charged new battery can run the computer after software setup is complete, but battery charge displays will not be accurate until the new battery has been fully charged. The AC adapter light (on the right-side of the computer) remains on when it is charging.
-

4 Open the computer



5 Turn on the computer



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-  If the computer will not start up, be sure that the power cord and AC adapter connections are secure.
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6 Set up the software

After the computer is turned on, the software setup process begins. The on-screen instructions guide you through setting up and registering your computer. After you respond to the setup prompt, you must complete the entire setup process without interruption.

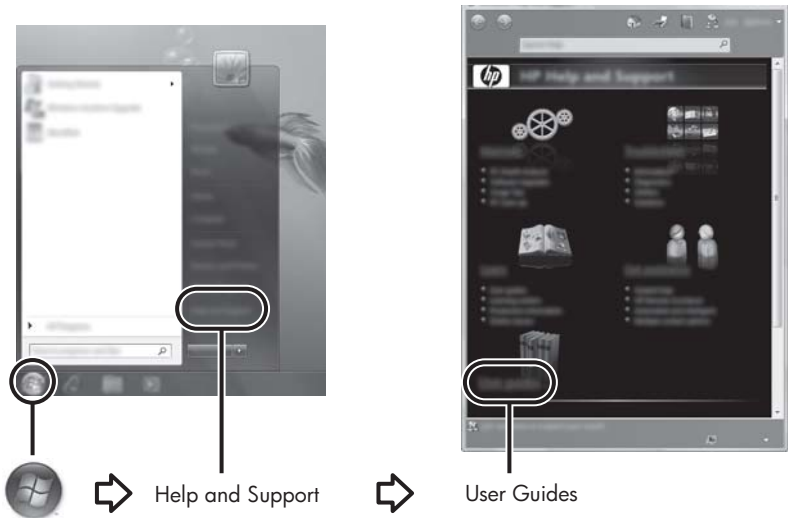



Please select your language carefully. On some models, the languages you do not choose are deleted from the system and cannot be restored during software setup.

What's Next?

Locating the electronic manuals

For detailed information about your computer, such as power management, drives, memory, security, and other features, click **Start**, click **Help and Support**, and then click **User Guides**. You do not need to connect to the Internet to access the user guides in Help and Support.



 A *User Guides* disc may have also been included with your computer.

Finding more information

In Help and Support, you can find information about technical support and about the operating system, drivers, and troubleshooting tools. To access Help and Support, click **Start**, and then click **Help and Support**. For country- or region-specific support, go to <http://www.hp.com/support>, select your country or region, and follow the on-screen instructions.



WARNING: To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation setup and proper posture, health, and work habits for computer users. The *Safety & Comfort Guide* also provides important electrical and mechanical safety information. To access this document, click **Start**, click **Help and Support**, and then click **User Guides**, or refer to the *User Guides* disc included with some models. The *Safety & Comfort Guide* is also available on the Web at <http://www.hp.com/ergo>.

For more safety and regulatory information, and for battery disposal information, refer to the *Regulatory, Safety and Environmental Notices*. To access the notices, click **Start**, click **Help and Support**, and then click **User Guides**, or refer to the *User Guides* disc included with some models.

Backing up and recovering

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

Windows provides the following advanced backup and recovery options:

- Backing up individual files and folders
- Backing up the entire hard drive (select models only)
- Scheduling automatic backups (select models only)
- Creating system restore points
- Recovering individual files
- Restoring the computer to a previous state
- Recovering information using recovery tools



For instructions on these procedures, go to Help and Support.



For additional information, go to the “Backup and Recovery” section of the online user guide.


Backing up


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


Use the Backup and Restore Center to create a backup. Click **Start**, click **All Programs**, click **Maintenance**, and then click **Backup and Restore Center**. Follow the on-screen instructions to back up your entire computer (select models only) or your files.


Recovering


In case of system failure, use the **f11** recovery tool to recover your original hard drive image.

 The image includes the Windows operating system and software programs installed at the factory.

 **CAUTION:** Using **f11** completely erases hard drive contents and reformats the hard drive. All files you have created and any software installed on the computer are permanently removed. The **f11** recovery tool reinstalls the operating system and HP programs and drivers that were installed at the factory. Software, drivers, and updates not installed at the factory must be reinstalled. Personal files must be restored from a backup.

1. If possible, back up all personal files.
2. If possible, check for the presence of the HP Recovery partition. To find the partition, click **Start**, and then click **Computer**.
 -  If the HP Recovery partition is not listed, you must recover your operating system and programs using the *Windows Vista Operating System DVD* and the *Driver Recovery* disc. To purchase these discs, contact technical support. Refer to the “Contacting technical support” section in the back of this guide.
3. If the HP Recovery partition is listed, restart the computer, and then press **esc** while the “Press the ESC key for Startup Menu” message is displayed at the bottom of the screen.
4. Press **f11** while the “Press <F11> for recovery” message is displayed on the screen.
5. Follow the on-screen instructions.

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

 If you are unable to boot (start up) your computer, you must purchase a *Windows Vista Operating System DVD* to reboot the computer and repair the operating system. For additional information, contact technical support. Refer to the “Contacting technical support” section in the back of this guide.

Turning off the computer

To turn off the computer:

1. Save your work and close all programs.
2. Click **Start**, click the arrow next to the Lock button, and then click **Shut down**.

Product Information and Troubleshooting


Input power


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

The computer operates on DC power, which can be supplied by an AC or a DC power source. Although the computer can be powered from a 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, current, and power	18.5 V dc @ 3.5 A - 65W 19 V dc @ 4.74 A - 90W

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

 The computer operating voltage and current can be found on the system regulatory label on the bottom of the computer.

Operating environment

Factor	Metric	U.S.
Temperature		
Operating (not writing to optical disc)	0°C to 35°C	32°F to 95°F
Operating (writing to optical disc)	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F
Relative humidity (noncondensing)		
Operating	10% to 90%	10% to 90%
Nonoperating	5% to 95%	5% to 95%


(Continued)

Factor	Metric	U.S.
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

Traveling with the computer


For best results, follow these traveling and shipping tips:

- Prepare the computer for traveling or shipping:
 1. Back up your information.
 2. Remove all discs and all external media cards, such as digital cards and ExpressCards.
 - △ To reduce the risk of damage to the computer, damage to a drive, or loss of information, remove the media from a drive before removing the drive from a drive bay, and before shipping, storing, or traveling with a drive.
 3. Turn off and then disconnect all external devices.
 4. Shut down the computer.
- Take along a backup of your information. Keep the backup separate from the computer.
- When traveling by air, carry the computer as hand luggage, and do not check it in with the rest of your bags.
 - △ Avoid exposing a drive to magnetic fields. Security devices with magnetic fields include airport walk-through devices and security wands. The airport security devices that check carry-on luggage, such as conveyor belts, use X-rays instead of magnetism and will not damage a drive.
- In-flight computer use is at the discretion of the airline. If you plan to use the computer during a flight, check with the airline in advance.
- If the computer will be unused and disconnected from external power for more than 2 weeks, remove the battery and store it separately.
- If you are shipping the computer or a drive, use suitable protective packaging and label the package "FRAGILE."
- If the computer has a wireless device or a cell phone device installed, such as an 802.11b/g device, a Global System for Mobile Communications (GSM) device, or a General Packet Radio Service (GPRS) device, the use of these devices may be restricted in some environments. Such restrictions may apply onboard aircraft, in hospitals, near explosives, and in hazardous locations. If you are uncertain of the policy that applies to the use of a particular device, ask for authorization to use it before you turn it on.

- If you are traveling internationally, follow these suggestions:
 - Check the computer-related customs regulations for each country on your itinerary.
 - Check the power cord and adapter requirements for each location in which you plan to use the computer. Voltage, frequency, and plug configurations vary.
-  To reduce the risk of electric shock, fire, or damage to the equipment, do not attempt to power the computer with a voltage converter kit sold for appliances.

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.

Troubleshooting resources

If you experience computer problems, perform these troubleshooting steps in the sequence provided until the problem is resolved:


1. Refer to “Quick troubleshooting,” the next section in this chapter.
2. Access Web site links and additional information about the computer through Help and Support. Click **Start**, and then click **Help and Support**.

 Although many checkup and repair tools require an Internet connection, other tools, like Help and Support, can help you fix a problem when the computer is offline.

Quick troubleshooting

The computer is unable to start up

If the computer does not turn on when you press the power button, the following suggestions may help you resolve the problem:

- If the computer is plugged into an AC outlet, unplug the computer and then plug another electrical device into the outlet to be sure that the outlet is providing adequate power.
 -  Use only the AC adapter provided with the computer or one approved by HP for this computer.
- If the computer is running on battery power or 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 the computer is on and the power light is lit, the computer may not be set to display the image on the computer screen. To transfer the image to the computer screen, press **fn+f4**.

Software is functioning abnormally


If the software is unresponsive or responds abnormally, follow these suggestions:

- Restart the computer. Click **Start**, click the arrow next to the Lock button, and then click **Restart**.

If you cannot restart the computer using this procedure, refer to the next section, “The computer is on but is not responding.”
- Run a virus scan. For information about using the antivirus resources on the computer, refer to the antivirus software Help for more details.

The computer is on but is not responding

If the computer is 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 will result in the loss of unsaved information.

- Press and hold the power button on the computer 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, turn off the computer to 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).



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 routine 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:



If you are connecting to a corporate network, contact the IT administrator.

- Click **Start**, click **Network**, click **Network and Sharing Center**, click **Diagnose and repair**, and then follow the on-screen instructions.
- Be sure that the wireless device is turned on and the wireless light on the computer is white. If the light is amber, press the wireless button to turn on the wireless device.
- 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 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.



For more information on wireless technology, refer to the relevant help topics and Web site links in Help and Support.



For information on activating mobile broadband service, refer to the mobile network operator information included with your computer.
