
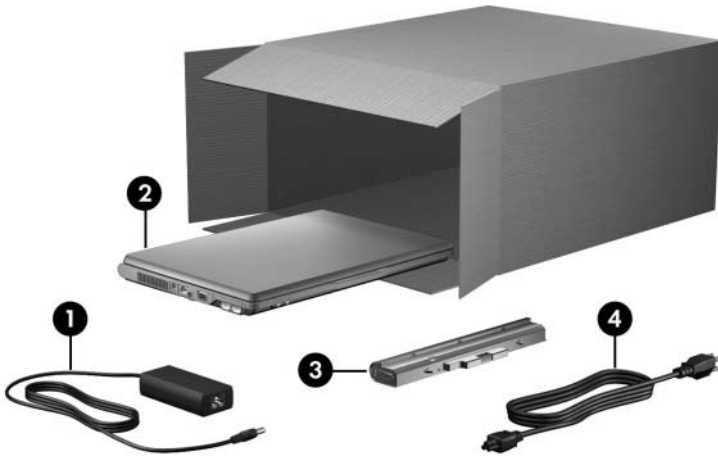



Basic Setup

1 Unpack the box

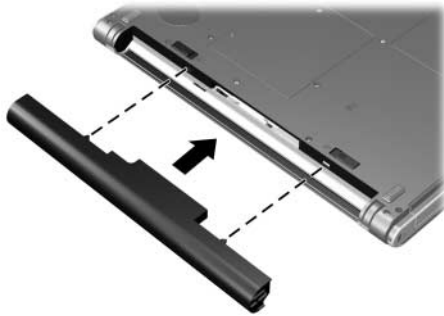
 Computer color, features, and options may vary.



Component	Component
❶ AC adapter	❸ Primary battery
❷ Computer	❹ Power cord

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

2 Insert the battery



WARNING: To reduce potential safety issues, use only the AC adapter or battery provided with the computer, a replacement AC adapter or battery provided by HP, or a compatible AC adapter or battery purchased separately as an accessory from 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 battery is fully charged and the battery 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 battery light (in the front of the computer) remains on when it is charging.

4 Open the computer



5 Turn on the computer



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

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.

Create recovery discs

After setting up the computer for the first time, be sure to create a set of recovery discs of the full factory image. The recovery discs are used to start up (boot) the computer and recover the operating system and software to factory settings in case of system instability or failure.

Note the following guidelines before creating recovery discs:

- Use any of the following types of discs: CD-R, DVD+R, DVD+R DL, DVD-R, or DVD-R DL (purchased separately). The discs you use will depend on the type of optical drive installed in your computer. Because DVDs store more information than CDs, DVDs and DVDs with double-layer (DL) support reduce the number of discs required.
 - ✎ Read-write discs, such as CD-RW, DVD+RW, and DVD-RW discs, are not compatible with HP Backup & Recovery Manager.
- The computer must be connected to AC power during the process.
- Only one set of the recovery discs can be created per computer.
- Number each disc before inserting it into the optical drive of the computer.
- If necessary, you can cancel the disc creation before you have finished creating the recovery discs. The next time you create recovery discs, you will be prompted to continue the disc creation.


To create a set of recovery discs:

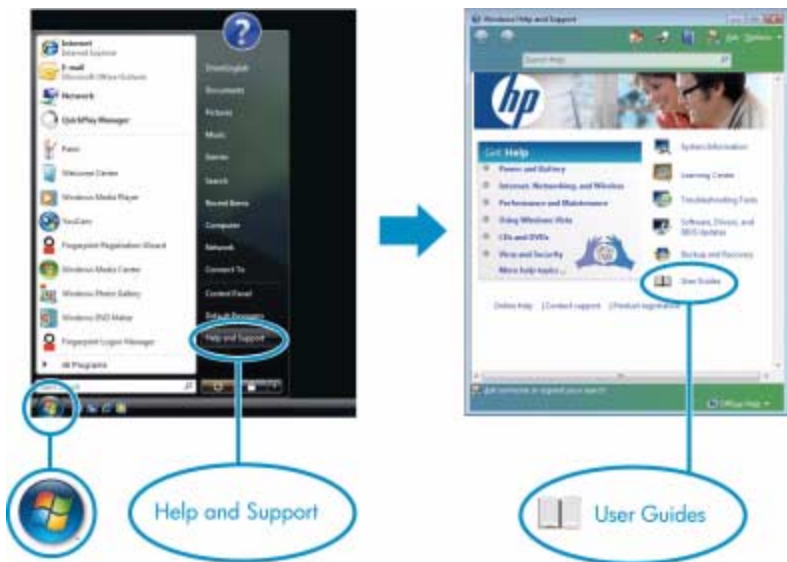
1. Click **Start**, click **All Programs**, click **HP Backup & Recovery**, and then click **Backup & Recovery Manager**.
2. Click **Next**.
3. In Windows Vista—Click **Create a set of recovery discs (Recommended)**, and then click **Next**.
In Windows XP—Click **Create factory software recovery CDs or DVDs to recover the system (Highly Recommended)**, and then click **Next**.
4. Follow the on-screen instructions.


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.

 If you are running Windows® XP, your screens may look slightly different.



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

Finding more information

In Help and Support, you can find information about the operating system, drivers, troubleshooting tools, and technical support. To access Help and Support, click **Start**, and then click **Help and Support**. For country- or region-specific support, see <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. The *Safety & Comfort Guide* is also available on the Web at <http://www.hp.com/ergo>. 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.

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 your information

Back up your files and folders on a regular basis to prevent information loss. You can only recover files that you have previously backed up. Refer to the “Backup and Recovery” section later in this guide.

Turning off the computer

In Windows Vista®, save your work and close all programs. Then, click **Start**, click the arrow next to the Lock button, and then click **Shut down**.

– or –

In Windows XP, save your work and close all programs. Then, click **Start**, click **Turn Off Computer**, and then click **Turn Off**.



In Windows XP, if you have been registered to a network domain, the button you click will be called Shut Down instead of Turn Off Computer.

Product Information and Troubleshooting

Important display information

All HP notebook display panels adhere to strict quality and reliability specifications. A small percentage of display panels may have minor cosmetic imperfections that appear as bright or dark dots (described below) in the viewable area:



This is consistent with industry standards and common to all display panel types used by notebook PC vendors and is not specific to any HP model or product line.

- A pixel consists of 1 red, 1 green, and 1 blue subpixel, each of which is commonly referred to as a dot.
- A pixel imperfection may manifest as either always turned on (a bright spot on a dark background), or as always off (a dark spot on a bright background).
- A subpixel imperfection is less visible than a whole pixel imperfection since it is small and may be visible only on a specific background.

HP expects that, over time, the industry will continue to improve its ability to produce displays with fewer cosmetic imperfections, and HP will adjust guidelines as improvements are made.

For more information about the display panel on your notebook PC, see the HP Web site: <http://www.hp.com/support>

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	18.5 V dc @ 3.5 A - 65 W
Operating current	3.5 A

Operating environment


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


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

The computer is built to go with you for work and play. For best results, follow these traveling and shipping tips.


- Prepare the computer for traveling or shipping:
 1. Back up your information.
 2. Remove all optical 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.

 **CAUTION:** 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, a Global System for Mobile Communications (GSM), 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 keyboard

 **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 order 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**.
3. For further assistance, contact technical support by clicking **Start**, clicking **Help and Support**, and then clicking **Contact support** to start a chat session with a support specialist. You can also refer to the *Worldwide Telephone Numbers* booklet included with the computer to contact technical support.

Quick troubleshooting

The computer is unable to start up

If the computer does not turn on when you press the power button, adequate power may not be available to the computer.

The following suggestions may help you determine why the computer will not start up:

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

Follow these suggestions if the software becomes unresponsive or responds abnormally:

- Restart the computer:
 - In Windows Vista, click **Start**, click the arrow next to the Lock button, and then click **Restart**.
 - In Windows XP Home, select **Start**, click **Turn Off Computer**, and then click **Restart**.

- ❑ In Windows XP Professional, select **Start**, click **Turn Off Computer**, click **Restart**, and then click **OK**. (If you have been registered to a domain, the button you click will be called Shut Down instead of Turn Off Computer.)

If you cannot restart the computer using this procedure, refer to the next section, “The computer is turned on but is not responding.”

- If you have antivirus software installed on your computer, run the virus scan. Refer to the documentation provided with your antivirus software for more details.

The computer is turned on but is 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 will result in the loss of unsaved information.


1. Press **ctrl+alt+delete**.
 In Windows Vista: click the **Power** button in the lower-right corner of the screen.
 – or –
 In Windows XP: Press **ctrl+alt+delete**. Then click **Shut Down**, and then click **Turn Off**.
2. Press and hold the power button on the computer for at least 5 seconds.
3. 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 WLAN connection is not working

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

- Be sure that the wireless light on the computer is on.
- Be sure that the computer wireless antennae are free from obstructions.
- Be sure that the DSL or the cable modem and its power cord are properly connected, and the lights are on.
- If applicable, be sure that the wireless router (access point) is turned on and properly connected to the DSL or the cable modem.
- 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 broadband wireless service, refer to the mobile network operator information included with your computer.

Contacting technical support

If the preceding questions and solutions did not address your problem, contact technical support.

Click **Start**, click **Help and Support**, and then click **Contact support** to start a chat session with a support specialist. You can also refer to the *Worldwide Telephone Numbers* booklet included with the computer to contact technical support.

Backup and Recovery

Backing up your information

You can only recover files that you have previously backed up. HP recommends that you use HP Backup & Recovery Manager to create an entire drive backup as soon as you set up your computer.

With HP Backup & Recovery Manager, you can perform the following tasks:

- Backing up your information regularly to protect your important system files
- Creating system recovery points that allow you to reverse undesirable changes to your computer by restoring the computer to an earlier state
- Scheduling backups at specific intervals or events

When to back up

- On a regularly scheduled basis. Set reminders to back up your information periodically.
- Before the computer is repaired or restored.
- Before you add or modify hardware or software.

Backup suggestions

- Connect the computer to external power before performing backup and recovery procedures.
- Create a set of recovery discs using HP Backup & Recovery Manager.
- Create system recovery points using HP Backup & Recovery Manager, and periodically copy them to disc.
- Store personal files in the Documents folder and back up these files periodically.
- Back up templates stored in their associated programs.
- Save customized settings in a window, toolbar, or menu bar by taking a screen shot of your settings.

The screen shot can be a time saver if you have to reset your preferences.

To copy the screen and paste it into a word-processing document:

- a. Display the screen.
- b. Copy the screen.
 - To copy only the active window, press **alt+fn+prt sc**.
 - To copy the entire screen, press **fn+prt sc**.
- c. Open a word-processing document, click **Edit**, and then click **Paste**.



Drivers, utilities, and programs installed by HP can be copied to a CD or to a DVD using HP Backup & Recovery Manager.

Backing up specific files or folders

You can back up specific files or folders to the recovery partition on the hard drive, to an optional external hard drive, or to optical discs (CDs or DVDs).



This process will take several minutes, depending on the file size and the speed of the computer.

To back up specific files or folders:

1. Click **Start**, click **All Programs**, click **HP Backup & Recovery**, and then click **Backup & Recovery Manager**.
2. Click **Next**.
3. In Windows Vista—Click **Create or manage backups**, and then click **Next**.
In Windows XP—Click **Backup to protect system settings and important data files**, and then click **Next**.
4. In Windows Vista—Click **Back up user created files and folders**, and then click **Next**.
In Windows XP—Click **Back up individual files and folders**, and then click **Next**.
5. Follow the on-screen instructions.

Backing up the entire hard drive

When you perform a complete backup of the hard drive, you are saving the full factory image, including the Windows operating system, programs, and all personal files and folders. This process may take over an hour, depending on your computer speed and the amount of data being stored.




A copy of the entire hard drive image can be stored on another hard drive, on a network drive, or on recovery discs that you create.

To back up your entire hard drive:

1. Click **Start**, click **All Programs**, click **HP Backup & Recovery**, and then click **Backup & Recovery Manager**.
2. Click **Next**.
3. In Windows Vista—Click **Create or manage backups**, and then click **Next**.
In Windows XP—Click **Backup to protect system settings and important data files**, and then click **Next**.
4. In Windows Vista—Click **Create or manage Entire Drive Backups**, and then click **Next**.
In Windows XP—Click **Back up entire hard drive**, and then click **Next**.
5. Follow the on-screen instructions.


Creating recovery points

When you back up modifications since your last backup, you are creating system recovery points. This allows you to save a snapshot of your hard drive at a specific point in time. You can then recover back to that point if you want to reverse subsequent changes made to your system.

 The first system recovery point, a snapshot of the entire image, is automatically created the first time you perform a backup. Subsequent recovery points make copies of changes made after that time.

HP recommends that you create recovery points at the following times:

- Before you add or extensively modify software or hardware
 - Periodically, whenever the system is performing optimally
-

 Recovering to an earlier recovery point does not affect data files or e-mails created since that recovery point.

To create a system recovery point:

1. Click **Start**, click **All Programs**, click **HP Backup & Recovery**, and then click **Backup & Recovery Manager**.
2. Click **Next**.
3. In Windows Vista—Click **Create or manage backups**, and then click **Next**.
In Windows XP—Click **Backup to protect system settings and important data files**, and then click **Next**.
4. Click **Create or manage Recovery Points**, and then click **Next**.
5. Follow the on-screen instructions.

Scheduling backups

Use HP Backup Scheduler to schedule backups for the entire system, for recovery points, or for specific files and folders. With this tool, you can schedule backups at specific intervals (daily, weekly, or monthly) or at specific events, such as at system restart or when you dock to an optional docking station (select models only).

To schedule backups:

1. Click **Start**, click **All Programs**, click **HP Backup & Recovery**, and then click **HP Backup Scheduler**.
2. Follow the on-screen instructions.

Performing a recovery

You can only recover files that you have previously backed up.

HP Backup & Recovery Manager helps you with the following tasks for safeguarding your information and restoring it in case of a system failure:

- Recovering important files—This feature helps you reinstall important files without performing a full system recovery.
- Performing a full system recovery—With HP Backup & Recovery Manager, you can recover your full factory image if you experience system failure or instability. HP Backup & Recovery Manager works from a dedicated recovery partition on the hard drive or from recovery discs you create.

Performing a recovery from the recovery discs

To perform a recovery from the recovery discs, follow these steps:

1. Back up all personal files.
2. Insert the first recovery disc into the optical drive and restart the computer.
3. Follow the on-screen instructions.

Performing a recovery from the hard drive

There are 2 ways to initiate a recovery from the hard drive:

- From within Windows
- From the recovery partition

Initiating a recovery in Windows

To initiate a recovery in Windows, follow these steps:

1. Back up all personal files.
2. Click **Start**, click **All Programs**, click **HP Backup & Recovery**, and then click **Backup & Recovery Manager**.
3. Click **Next**.
4. In Windows Vista—Click **Perform a recovery**, and then click **Next**.
In Windows XP—Click **Recover important files or the entire system**, and then click **Next**.
5. Follow the on-screen instructions.

Initiating a recovery from the hard drive recovery partition

To initiate a recovery from the hard drive recovery partition, follow these steps:

1. Back up all personal files.
2. Restart the computer, and then press **f11** before the Windows operating system loads.
3. Click a recovery option, and then click **Next**.
4. Follow the on-screen instructions.