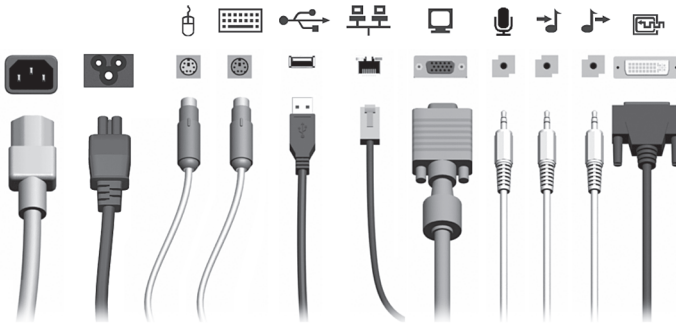


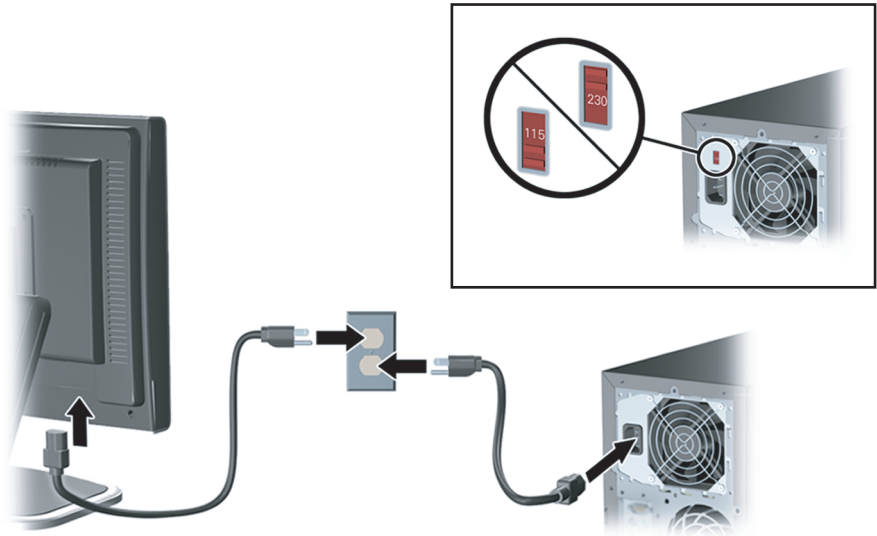
1



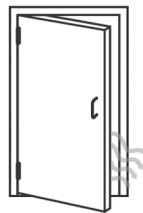
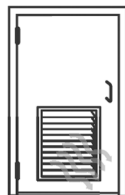
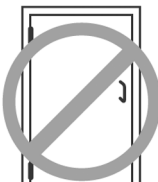
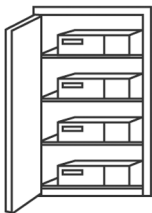
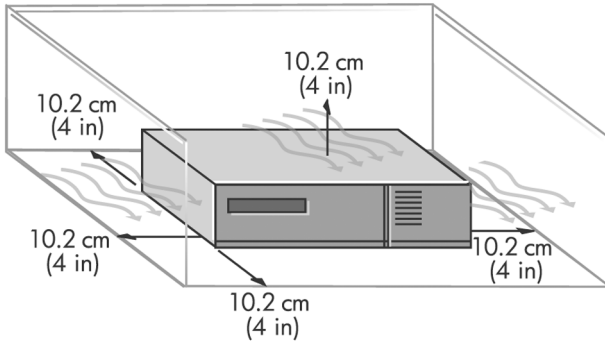
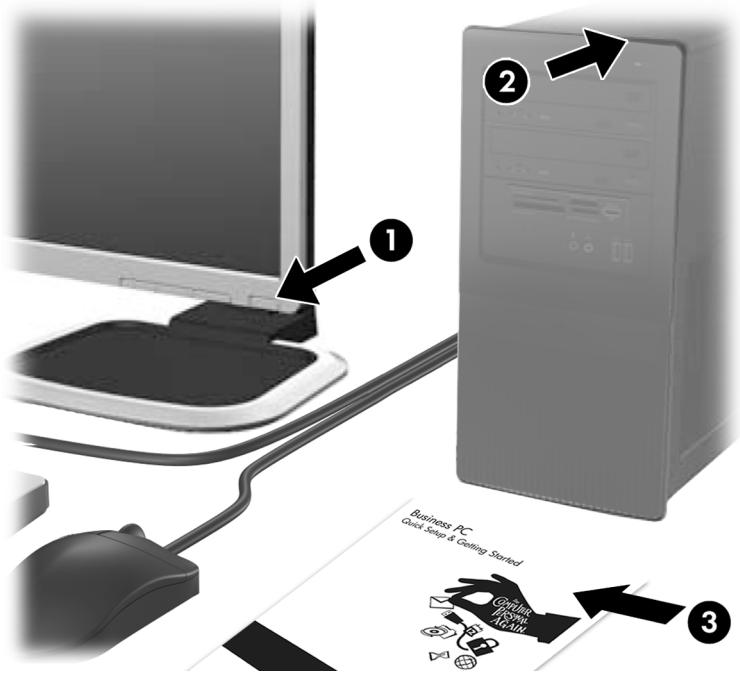
2



3



4



Quick Setup & Getting Started

Business PCs

© Copyright 2008 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice.

Microsoft, Windows, and Windows Vista are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

This document contains proprietary information that is protected by copyright. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of Hewlett-Packard Company.

Quick Setup & Getting Started

Business PCs

First Edition (February 2008)

Document Part Number: 464061-001

About This Book

Accessing User Guides and HP Insight Diagnostics

HP user guides and HP Insight Diagnostics are available on the hard drive (some models) and are also available at <http://www.hp.com/support>.

To access HP user guides:

- ▲ Select **Start > All Programs > HP User Manuals**.

To access HP Insight Diagnostics:

- ▲ Refer to *Accessing HP Insight Diagnostics* in this guide.

Notices




-  **WARNING!** Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.
-  **CAUTION:** Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.
-  **NOTE:** Text set off in this manner provides important supplemental information.




Table of contents

Quick Setup & Getting Started

Installing and Customizing the Software	1
Installing the Operating System	1
Downloading Microsoft Windows Updates	1
Installing or Upgrading Device Drivers	2
Customizing the Monitor Display	2
Protecting the Software	2
HP Backup and Recovery Manager	2
HP Insight Diagnostics	3
Accessing HP Insight Diagnostics	3
Downloading the Latest Version of HP Insight Diagnostics	4
Turning Off the Computer	5
Finding More Information	5
Accessing the User Guides	6
Before You Call for Technical Support	6
Helpful Hints	8
Basic Troubleshooting	9
Solving General Problems	9
Solving Hardware Installation Problems	12
Interpreting POST Diagnostic Front Panel LEDs and Audible Codes	14



Quick Setup & Getting Started

Installing and Customizing the Software

-  **NOTE:** If the computer was shipped with Windows Vista loaded, you will be prompted to register the computer with HP Total Care before installing the operating system. You will see a brief movie followed by an online registration form. Fill out the form, click the **Begin** button, and follow the instructions on the screen.
 -  **CAUTION:** Do not add optional hardware or third-party devices to the computer until the operating system is successfully installed. Doing so may cause errors and prevent the operating system from installing properly.
 -  **NOTE:** Be sure there is a 10.2-cm (4-inch) clearance at the back of the unit and above the monitor to permit the required airflow.
-

Installing the Operating System

The first time you turn on the computer, the operating system is installed automatically. This process takes about 5 to 10 minutes, depending on which operating system is being installed. Carefully read and follow the instructions on the screen to complete the installation.

-  **CAUTION:** Once the automatic installation has begun, **DO NOT TURN OFF THE COMPUTER UNTIL THE PROCESS IS COMPLETE.** Turning off the computer during the installation process may damage the software that runs the computer or prevent its proper installation.
 -  **NOTE:** If the computer shipped with more than one operating system language on the hard drive, the installation process could take up to 60 minutes.
-

If your computer was not shipped with a Microsoft operating system, some portions of this documentation do not apply. Additional information is available in online help after you install the operating system.

Downloading Microsoft Windows Updates

1. To set up your Internet connection, click **Start > Internet Explorer** and follow the instructions on the screen.
2. Once an Internet connection has been established, click the **Start** button.
3. Select the **All Programs** menu.
4. Click on the **Windows Update** link.

In Windows Vista, the **Windows Update** screen appears. Click **view available updates** and make sure all critical updates are selected. Click the **Install** button and follow the instructions on the screen.

In Windows XP, you will be directed to the **Microsoft Windows Update Web site**. If you see one or more pop-up windows that ask you to install a program

from <http://www.microsoft.com>, click **Yes** to install the program. Follow the instructions on the Microsoft Web site to scan for updates and install critical updates and service packs.

It is recommended that you install all of the critical updates and service packs.

5. After the updates have been installed, Windows will prompt you to reboot the machine. Be sure to save any files or documents that you may have open before rebooting. Then select **Yes** to reboot the machine.

Installing or Upgrading Device Drivers

When installing optional hardware devices after the operating system installation is complete, you must also install the drivers for each of the devices.

If prompted for the i386 directory, replace the path specification with `C:\i386`, or use the **Browse** button in the dialog box to locate the i386 folder. This action points the operating system to the appropriate drivers.

Obtain the latest support software, including support software for the operating system from <http://www.hp.com/support>. Select your country and language, select **Download drivers and software**, enter the model number of the computer, and press **Enter**.

Customizing the Monitor Display

If you wish, you can select or change the monitor model, refresh rates, screen resolution, color settings, font sizes, and power management settings. To do so, right-click on the Windows Desktop, then click **Personalize** in Windows Vista or **Properties** in Windows XP to change display settings. For more information, refer to the online documentation provided with the graphics controller utility or the documentation that came with your monitor.

Protecting the Software

To protect the software from loss or damage, keep a backup copy of all system software, applications, and related files stored on the hard drive. Refer to the operating system or backup utility documentation for instructions on making backup copies of your data files.

HP Backup and Recovery Manager

The HP Backup and Recovery Manager is an easy-to-use, versatile application that allows you to back up and recover the primary hard drive on the PC. The application works within Windows to create backups of Windows, all applications, and all data files. Backups can be scheduled to occur automatically at designated intervals, or they can be initiated manually. Important files can be archived separately from regular backups.

HP Backup and Recovery Manager is preinstalled on the C: drive and creates a Recovery Partition.

Recovery Points and file backups can be copied to CD or DVD discs, while all backups can be copied to network or secondary hard disks.

HP highly recommends that you create a Recovery Disc Set immediately before using the computer and schedule regular automatic Recovery Point backups.

To create the Recovery Disc Set:

1. Click **Start > HP Backup and Recovery > HP Backup and Recovery Manager** to open the Backup and Recovery Wizard, then click **Next**.
2. Select **Create a set of recovery discs (Recommended)** and click **Next**.
3. Follow the instructions in the wizard.

For more information on using HP Backup and Recovery Manager, refer to the *HP Backup and Recovery Manager User Guide* by selecting **Start > HP Backup and Recovery > HP Backup and Recovery Manager Manual**.



NOTE: You can order a Recovery Disc Set from HP by calling the HP support center. Go to the following Web site, select your region, and click the **Technical support after you buy** link under the **Call HP** heading to obtain the support center telephone number for your region.

http://welcome.hp.com/country/us/en/wwcontact_us.html

HP Insight Diagnostics



NOTE: HP Insight Diagnostics is included with some computer models only.

The HP Insight Diagnostics utility allows you to view information about the hardware configuration of the computer and perform hardware diagnostic tests on the subsystems of the computer. The utility simplifies the process of effectively identifying, diagnosing, and isolating hardware issues.

The Survey tab is displayed when you invoke HP Insight Diagnostics. This tab shows the current configuration of the computer. From the Survey tab, there is access to several categories of information about the computer. Other tabs provide additional information, including diagnostic test options and test results. The information in each screen of the utility can be saved as an html file and stored on a diskette or USB HP Drive Key.

Use HP Insight Diagnostics to determine if all the devices installed on the computer are recognized by the system and functioning properly. Running tests is optional but recommended after installing or connecting a new device.

You should run tests, save the test results, and print them so that you have printed reports available before placing a call to the Customer Support Center.



NOTE: Third party devices may not be detected by HP Insight Diagnostics.

Accessing HP Insight Diagnostics

To access HP Insight Diagnostics, you must create a Recovery Disc Set then boot to the CD containing the utility. It can also be downloaded from <http://www.hp.com>. See [Downloading the Latest Version of HP Insight Diagnostics on page 4](#) for more information.



NOTE: HP Insight Diagnostics is included as part of the Recovery Disk Set with some computer models only.

If you have already created a Recovery Disc Set, begin the following procedure at step 4.

1. Click **Start > HP Backup and Recovery > HP Backup and Recovery Manager** to open the Backup and Recovery Wizard, then click **Next**.
2. Select **Create a set of recovery discs (Recommended)** and click **Next**.
3. Follow the instructions in the wizard to create a Recovery Disc Set.
4. Use Windows Explorer to search the Recovery Disc Set for the CD with the **compaqhpdia** directory.
5. While the computer is on, insert the CD into an optical drive on the computer.
6. Shut down the operating system and turn off the computer.
7. Turn on the computer. The system will boot to the CD.



NOTE: If the system does not boot to the CD in the optical drive, you may need to change the boot order in the Computer Setup (F10) utility so that the system attempts to boot to the optical drive before booting to the hard drive. Refer to the *Computer Setup (F10) Utility Guide* for more information.

8. Select the appropriate language and click **Continue**.



NOTE: It is recommended that you accept the assigned default keyboard for your language unless you want to test your specific keyboard.

9. In the End User License Agreement page, click **Agree** if you agree with the terms. The HP Insight Diagnostics utility launches with the Survey tab displayed.

Downloading the Latest Version of HP Insight Diagnostics

1. Go to <http://www.hp.com>.
2. Click the **Software & Driver Downloads** link.
3. Enter your product number (for example, dc7700) in the text box and press the **Enter** key.
4. Select your specific computer model.
5. Select your OS.
6. Click the **Diagnostic** link.
7. Click **HP Insight Diagnostics Offline Edition**.
8. Select a language and click **Download**.



NOTE: The download includes instructions on how to create the bootable CD.

Turning Off the Computer

To properly turn off the computer, first shut down the operating system software. In Windows Vista, click **Start**, click the arrow on the lower right corner of the Start menu, then select **Shut Down**. The computer automatically shuts down. In Windows XP Professional, click **Start > Shut Down**. In Windows XP Home, click **Start > Turn Off Computer**.

Depending on the operating system, pressing the power button may cause the computer to enter a low-power or “standby” state instead of automatically turning the power off. This allows you to conserve energy without closing software applications; later, you can start using the computer immediately without having to restart the operating system and without losing any data.

△ **CAUTION:** Manually forcing the computer off will cause the loss of any unsaved data.

To force the computer off manually and bypass the “standby state,” press and hold the power button for four seconds.

On some models, you can reconfigure the power button to work in On/Off mode by running Computer Setup. Refer to the *Computer Setup (F10) Utility Guide* for more information about using the Computer Setup utility.

Finding More Information

The following publications are available on the computer hard drive:

- *Quick Setup & Getting Started* (also available in print)—Helps you connect the computer and peripheral devices and set up factory-provided software; also includes basic troubleshooting information should you encounter any problems during initial startup.
- *Hardware Reference Guide*—Provides an overview of the product hardware, as well as instructions for upgrading this series of computers; includes information on RTC batteries, memory, and power supply.
- *Computer Setup (F10) Utility Guide*—Provides instructions on using this tool to reconfigure or modify default settings for maintenance purposes or when installing new hardware devices.
- *Troubleshooting Guide*—A comprehensive guide that provides helpful hints for troubleshooting this computer and scenarios for resolving possible hardware or software problems; includes information about diagnostic codes, as well as information on running the diagnostics utility.
- *Safety & Regulatory Information Guide*—Provides safety and regulatory information that ensures compliance with U.S., Canadian, and various international regulations.

Accessing the User Guides

HP user guides and HP Insight Diagnostics are available on the hard drive (some models) and are also available at <http://www.hp.com/support>.

To access HP user guides:

- ▲ Select **Start > All Programs > HP User Manuals**.

To access HP Insight Diagnostics:

- ▲ Refer to *Accessing HP Insight Diagnostics* in this guide.

To access the *HP Backup and Recovery Manager User Guide*:

- ▲ Select **Start > HP Backup and Recovery > HP Backup and Recovery Manager Manual**.

To access the *Safety and Comfort Guide*:

- ▲ Select **Start > All Programs > HP Safety and Comfort Guide**.

The menu and books are displayed in the language chosen during initial system setup or as specified later in the Windows Regional Settings. If the Regional Settings do not match one of the supported languages, the menu and books are displayed in English.

Before You Call for Technical Support

If you are having problems with the computer, try the appropriate solutions below to try to isolate the exact problem before calling for technical support.

- Run the diagnostics utility. Refer to the *Troubleshooting Guide* for more information.
- Run the Drive Protection System (DPS) Self-Test in Computer Setup. Refer to the *Computer Setup (F10) Utility Guide* for more information.



NOTE: The Drive Protection System (DPS) Self-Test software is available on some models only.

- Check the power LED on the front of the computer to see if it is flashing red. The flashing lights are error codes that will help you diagnose the problem. Refer to [Interpreting POST Diagnostic Front Panel LEDs and Audible Codes on page 14](#) in this guide for details.
- If the screen is blank, plug the monitor into a different video port on the computer if one is available. Or, change out the monitor with a monitor that you know is functioning properly.
- If you are working on a network, plug another computer with a different cable into the network connection. There may be a problem with the network plug or cable.
- If you recently added new hardware, remove the hardware and see if the computer functions properly.

- If you recently installed new software, uninstall the software and see if the computer functions properly.
- Boot the computer to the Safe Mode to see if it will boot without all of the drivers loaded. When booting the operating system, use “Last Known Configuration.”
- Refer to the comprehensive online technical support at <http://www.hp.com/support>.
- Refer to [Helpful Hints on page 8](#) in this guide for more general suggestions.
- Refer to the comprehensive *Troubleshooting Guide* for more detailed information.
- Restore the system from the Recovery Disc Set that you created or restore the system to its original factory condition in HP Backup and Recovery Manager.

△ **CAUTION:** Restoring the system will erase all data on the hard drive. Be sure to back up all data files before running the restore process.


To assist you in resolving problems online, HP Instant Support Professional Edition provides you with self-solve diagnostics. If you need to contact HP support, use HP Instant Support Professional Edition’s online chat feature. Access HP Instant Support Professional Edition at: <http://www.hp.com/go/ispe>.

Access the Business Support Center (BSC) at <http://www.hp.com/go/bizsupport> for the latest online support information, software and drivers, proactive notification, and worldwide community of peers and HP experts.

If it becomes necessary to call for technical assistance, be prepared to do the following to ensure that your service call is handled properly:

- Be in front of your computer when you call.
- Write down the computer serial number and product ID number, and the monitor serial number before calling.
- Spend time troubleshooting the problem with the service technician.
- Remove any hardware that was recently added to your system.
- Remove any software that was recently installed.
- Restore the system from the Recovery Disc Set that you created or restore the system to its original factory condition in HP Backup and Recovery Manager.

△ **CAUTION:** Restoring the system will erase all data on the hard drive. Be sure to back up all data files before running the restore process.

 **NOTE:** For sales information and warranty upgrades (HP Care Pack), call your local authorized service provider or dealer.

Helpful Hints

If you encounter problems with the computer, monitor, or software, see the following list of general suggestions before taking further action:

- Check that the computer and monitor are plugged into a working electrical outlet.
- Check to see that the voltage select switch (some models) is set to the appropriate voltage for your region (115V or 230V).
- Check to see that the computer is turned on and the green power light is on.
- Check to see that the monitor is turned on and the green monitor light is on.
- Check the Power LED on the front of the computer to see if it is flashing. The flashing lights are error codes that will help you diagnose the problem. Refer to [Interpreting POST Diagnostic Front Panel LEDs and Audible Codes on page 14](#) in this guide for details.
- Turn up the brightness and contrast controls of the monitor if the monitor is dim.
- Press and hold any key. If the system beeps, then the keyboard should be operating correctly.
- Check all cable connections for loose connections or incorrect connections.
- Wake the computer by pressing any key on the keyboard or pressing the power button. If the system remains in suspend mode, shut down the computer by pressing and holding the power button for at least four seconds. Then press the power button again to restart the computer. If the system will not shut down, unplug the power cord, wait a few seconds, then plug it in again. The computer will restart if automatic start on power loss is set in Computer Setup. If it does not restart, press the power button to start the computer.
- Reconfigure your computer after installing a non–plug and play expansion board or other option. See [Solving Hardware Installation Problems on page 12](#) for instructions.
- Be sure that all the needed device drivers have been installed. For example, if you are using a printer, you need a driver for that model printer.
- Remove all bootable media (diskette, CD, or USB device) from the system before turning it on.
- If you have installed an operating system other than the factory-installed operating system, check to be sure that it is supported on the system.
- If the system has multiple video sources (embedded, PCI, or PCI-Express adapters) installed (embedded video on some models only) and a single monitor, the monitor must be plugged into the monitor connector on the source selected as the primary VGA adapter. During boot, the other monitor connectors are disabled and if the monitor is connected into these ports, the monitor will not function. You can select which source will be the default VGA source in Computer Setup.

- ⚠ **CAUTION:** When the computer is plugged into an AC power source, there is always voltage applied to the system board. You must disconnect the power cord from the power source before opening the computer to prevent system board or component damage.

Basic Troubleshooting

This section concentrates on problems that you might encounter during the initial set up process. A comprehensive *Troubleshooting Guide* is available on the hard drive and under the reference library at <http://www.hp.com/support>. Select your country and language, select **See support and troubleshooting information**, enter the model number of the computer, and press [Enter](#).

Solving General Problems

You may be able to easily resolve the general problems described in this section. If a problem persists and you are unable to resolve it yourself or if you feel uncomfortable about performing the operation, contact an authorized dealer or reseller.

- ⚠ **WARNING!** When the computer is plugged into an AC power source, voltage is always applied to the system board. To reduce the risk of personal injury from electrical shock and/or hot surfaces, be sure to disconnect the power cord from the wall outlet and allow the internal system components to cool before touching.

Table 1 Solving General Problems

Computer will not turn on.

Cause	Solution
Cables to the external power source are unplugged.	Ensure that cables connecting the computer to the external power source are plugged in properly and the wall outlet is active.
Voltage selector switch on rear of computer chassis (some models) not switched to correct line voltage (115V or 230V).	Select the proper AC voltage using the selector switch.
A defective PCI card has been installed.	Remove any expansion board that was just installed.
Drive data or power supply cables may not be properly connected.	Reseat drive data and power supply cables.
The unit temperature was exceeded. The fan may be blocked.	<ol style="list-style-type: none">1. Unit is in an exceedingly hot environment. Let it cool down.2. Ensure that computer air vents are not blocked and the internal fan is running.3. Contact an HP authorized reseller or service provider.

Table 1 Solving General Problems (continued)

Computer appears locked up and will not turn off when the power button is pressed.

Cause	Solution
Software control of the power switch is not functional.	<ol style="list-style-type: none">1. Press and hold the power button for at least four seconds until the computer turns off.2. Disconnect the power cord from the electrical outlet.

Computer will not respond to USB keyboard or mouse.

Cause	Solution
System has locked up.	Restart computer.
Keyboard or mouse is not connected to computer.	Connect keyboard and mouse cables to computer.
Computer is in standby mode.	To resume from standby mode, press the power button or press any key. CAUTION: When attempting to resume from standby mode, do not hold down the power button for more than four seconds. Otherwise, the computer will shut down and you will lose any unsaved data.

Computer date and time display is incorrect.

Cause	Solution
RTC (real-time clock) battery may need to be replaced. NOTE: Connecting the computer to a live AC outlet prolongs the life of the RTC battery.	First, reset the date and time under Control Panel (Computer Setup can also be used to update the RTC date and time). If the problem persists, replace the RTC battery. See the <i>Hardware Reference Guide</i> for instructions on installing a new battery, or contact an authorized dealer or reseller for RTC battery replacement.

Cursor will not move using the arrow keys on the keypad.

Cause	Solution
The Num Lock key may be on.	Press the Num Lock key. The Num Lock light should not be on if you want to use the arrow keys. The Num Lock key can be disabled (or enabled) in Computer Setup.

Table 1 Solving General Problems (continued)**Poor performance is experienced.**

Cause	Solution
Processor is hot.	<ol style="list-style-type: none">1. Make sure airflow to the computer is not blocked. Leave a 10.2-cm (4-inch) clearance on all vented sides of the computer and above the monitor to permit the required airflow.2. Make sure fans are connected and working properly (some fans only operate when needed).3. Make sure the processor heatsink is installed properly.
Hard drive is full.	Transfer data from the hard drive to create more space on the hard drive.
Low on memory.	Add more memory.
Hard drive fragmented.	Defragment hard drive.
Program previously accessed did not release reserved memory back to the system.	Restart the computer.
Virus resident on the hard drive.	Run virus protection program.
Too many applications running.	<ol style="list-style-type: none">1. Close unnecessary applications to free up memory. Some applications run in the background and can be closed by right-clicking on their corresponding icons in the task tray. To prevent these applications from launching at startup, go to Start > Run (Microsoft Windows XP) or Start > All Programs > Accessories > Run (Microsoft Windows Vista) and type <code>msconfig</code>. On the Startup tab of the System Configuration Utility, uncheck applications that you do not want to launch automatically. CAUTION: Do not prevent applications from launching at startup that are required for proper system operation.2. Add more memory.
Some software applications, especially games, are stressful on the graphics subsystem	<ol style="list-style-type: none">1. Lower the display resolution for the current application or consult the documentation that came with the application for suggestions on how to improve performance by adjusting parameters in the application.2. Add more memory.3. Upgrade the graphics solution.
Cause unknown.	Restart the computer.

Table 1 Solving General Problems (continued)

Blank screen (no video).

Cause	Solution
Monitor is not turned on and the monitor light is not on.	Turn on the monitor and check that the monitor light is on.
The cable connections are not correct.	Check the cable connection from the monitor to the computer and to the electrical outlet.
You may have a screen blanking utility installed or energy saver features are enabled.	Press any key or click the mouse button and, if set, type your password.
Computer is in standby mode.	Press the power button to resume from standby mode. CAUTION: When attempting to resume from standby mode, do not hold down the power button for more than four seconds. Otherwise, the computer will shut down and you will lose any unsaved data.
You are using a fixed-sync monitor and it will not sync at the resolution chosen.	Be sure that the monitor can accept the same horizontal scan rate as the resolution chosen.
Monitor cable is plugged into the wrong connector.	Ensure that the monitor is plugged into an active connector on the rear of the computer. If another connector is available, connect the monitor to that connector and reboot the system.
Bad monitor.	Try a different monitor.

Computer is beeping and will not start.

Cause	Solution
Internal error has occurred and the computer is beeping a code.	Refer to the <i>Troubleshooting Guide</i> to interpret the error code.

Solving Hardware Installation Problems

You may need to reconfigure the computer when you add or remove hardware, such as an additional drive or expansion card. If you install a plug and play device, Windows automatically recognizes the device and configures the computer. If you install a non–plug and play device, you must reconfigure the computer after completing installation of the new hardware. In Windows, use the **Add Hardware Wizard** and follow the instructions that appear on the screen.

⚠ WARNING! When the computer is plugged into an AC power source, voltage is always applied to the system board. To reduce the risk of personal injury from electrical shock and/or hot surfaces, be sure to disconnect the power cord from the wall outlet and allow the internal system components to cool before touching.

Table 2 Solving Hardware Installation Problems

A new device is not recognized as part of the system.

Cause	Solution
Device is not seated or connected properly.	Ensure that the device is properly and securely connected and that pins in the connector are not bent down.
Cable(s) of new external device are loose or power cables are unplugged.	Ensure that all cables are properly and securely connected and that pins in the cable or connector are not bent down.
Power switch of new external device is not turned on.	Turn off the computer, turn on the external device, then turn on the computer to integrate the device with the computer system.
When the system advised you of changes to the configuration, you did not accept them.	Reboot the computer and follow the instructions for accepting the changes.
A plug and play board may not automatically configure when added if the default configuration conflicts with other devices.	Use Windows Device Manager to deselect the automatic settings for the board and choose a basic configuration that does not cause a resource conflict. You can also use Computer Setup to reconfigure or disable devices to resolve the resource conflict.
USB ports on the computer are disabled in Computer Setup.	Enter Computer Setup (F10) and enable the USB ports.

Computer will not start.

Cause	Solution
Wrong memory modules were used in the upgrade or memory modules were installed in the wrong location.	<ol style="list-style-type: none">1. Review the documentation that came with the system to determine if you are using the correct memory modules and to verify the proper installation.2. Listen for beeps from the computer. See the <i>Troubleshooting Guide</i> to determine possible causes.3. If you still cannot resolve the issue, contact Customer Support.

Interpreting POST Diagnostic Front Panel LEDs and Audible Codes

If you see flashing LEDs on the front of the computer or if you hear beeps, see the *Troubleshooting Guide* for interpretation and recommended action.