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Checking Out Your Gateway 200



Tips & Tricks



To access the contents of this guide while you are traveling, download an electronic copy from <u>www.gateway.com/support/manlib/</u>.

Insert Gateway 200 Cover Shot

Chapter 1: Checking Out Your Gateway 200

Front

Insert Gateway 200 Front Shot

Component	lcon	Description
LCD panel release latch		Open the LCD panel by sliding the release latch to the right.

Left side

Insert Gateway 200 Left Side Shot

Component	lcon	Description
Modem jack	(C)	Plug a modem cable into this jack.
Ethernet jack	品	Plug a 10/100 Ethernet network cable into this jack. For more information, see "Connecting to an Ethernet network" on page 39 and "Networking Your Notebook" on page 91.
Power connector	⊕⊕⊝	Plug the AC adapter cord into this connector.
USB port	● ←	Plug USB (Universal Serial Bus) devices (such as a USB lomega [™] Zip [™] drive, printer, scanner, or camera) into this port.
IEEE 1394 port	1394	Plug an IEEE 1394 (also known as Firewire [®] or i.Link [®]) cable into this jack.
Microphone jack		Plug a microphone into this jack.
Headphone jack	$\mathbf{}$	Plug amplified speakers or headphones into this jack.

Chapter 1: Checking Out Your Gateway 200

Component	lcon	Description
PC Card eject button		Press the eject button to remove a PC Card from the PC Card slot.
PC Card slot		Insert one Type I, II, or Zoom Video PC Card into this slot. For more information, see "Adding PC Cards" on page 82.

Right side

Insert Gateway 200 Right Side Shot

Component	lcon	Description
Ventilation fan		Helps cool internal components. Do not block or insert objects into these slots.
USB port	●ᢏ	Plug USB (Universal Serial Bus) devices (such as a USB Iomega™ Zip™ drive, printer, scanner, or camera) into this port.
Monitor port		Plug an analog VGA monitor into this port.

Chapter 1: Checking Out Your Gateway 200

Back

Insert Gateway 200 Back Side Shot

Component	lcon	Description
Kensington™ lock slot	ĸ	Secure your computer to an object by connecting a Kensington cable lock to this slot.

Bottom

Component	lcon	Description
Battery release latch		Slide to release the battery.
Memory bay		Install a memory module in this bay.
Battery		Insert the battery into this bay.
Docking connector		Connect the docking station to this connector. Warning! Power is passed through this connection. This docking connection is UL certified for use only with Gateway 200 docking stations.
System identification label		Find the product model number and serial number on this label.

Chapter 1: Checking Out Your Gateway 200

Keyboard area

Component	lcon	Description
Internet	(i)	Press to open your Web browser.
Status indicators		For more information, see "Status indicators" on page 30.

Component	lcon	Description
Power button	Φ	Press to turn the power on or off. For more information on configuring the power button mode, see "Using alternate power sources" on page 65.
Keyboard		For more information, see "Using the keyboard" on page 31.
Speakers		Provide audio output when headphones or amplified speakers are not plugged in.
Touchpad		For more information, see "Using the EZ Pad touchpad" on page 36.

Identifying your model

The labels on the bottom of your computer contain information that identifies your notebook model and its features. Gateway Technical Support will need this information if you call for assistance.

Important

The label shown below is for informational purposes only. Label information varies by model.

Insert Gateway 200 Label

The following label indicates your computer contains a wireless communications device.

Insert Wireless Label

The Microsoft Certificate of Authenticity label includes the product key code for your operating system.

Insert Microsoft XP Label

www.gateway.com

Accessories

Gateway offers accessories that can help you make the most of using your notebook.

Batteries and automobile/airplane power adapters

If you run your notebook on battery power for extended periods, you may want to buy an additional battery so that you can swap batteries when necessary. See "Changing batteries" on page 63 for more information about using a second battery on your notebook.

With an automobile/airplane power adapter, you can save battery power by plugging your notebook into an automobile cigarette lighter or an airplane in-flight power receptacle.

Carrying cases

Gateway has large-capacity carrying cases if you need additional space for accessories or supplies.

Docking Station

Although you can attach devices directly to your notebook, a docking station lets you make all of those connections at once. When you travel with your notebook, you merely disconnect from the docking station instead of unplugging all the devices.

A docking station also provides additional ports and other expansion features not included with your notebook. See "Checking Out Your Docking Station" on page 13 for more information about using a docking station with your notebook.

Peripheral devices

You can attach devices such as a keyboard, mouse, printer, or monitor to your notebook or docking station.

Memory

Large programs, such as multimedia games or graphics programs, use a lot of memory. If your programs are running more slowly than you think they should, try adding more memory.

Printers

You can attach many types of printers to your notebook. The most common types are inkjet and laser printers, which print in color or black and white. See "Installing a printer, scanner, or other peripheral device" on page 41 for more information about attaching a printer to your notebook.

Inkjet printers and cartridges are relatively inexpensive, but usually they are slower than laser printers. Using an inkjet color printer, you can print pictures, banners, and greeting cards, as well as documents.

Laser printers and cartridges are more expensive, but usually they print much faster than inkjet printers. Laser printers are better than inkjet printers when you are printing large documents.

Checking Out Your Docking Station

2

The docking station gives you access to additional drives and ports not found on the notebook.

The docking station also gives you a convenient way to attach external devices such as a monitor, a full-size keyboard, or an AC adapter. Although devices can be attached directly to the ports and jacks on the notebook, the docking station lets you make all of those connections in one step. Chapter 2: Checking Out Your Docking Station

Тор

Insert Gateway 200 Docking Station Top

Component	Description
Docking connector	Connect the notebook to this connector.
	Warning! Power is passed through this connection. This docking connection is UL certified for use only with Gateway 200 notebooks.
3.5-inch module bay release latch	Slide to release the module.
5.25-inch module bay release latch	Slide to release the module.

Front

Insert Gateway 200 Docking Station Front

Component	Description	
5.25-inch module bay	Use this bay for a CD, CD-RW, or DVD drive.	
Undock button	Press this button to prepare the notebook to be undocked while the notebook is turned on.	
3.5-inch module bay	Use this bay for a diskette or second hard drive.	

Chapter 2: Checking Out Your Docking Station

Left Side

Insert Gateway 200 Docking Station Left Side

Component	lcon	Description
Docking release lever		Pull to release the notebook from the docking station.
TV out jack		Plug a cable into this jack so that you can view your computer screen on a television. For more information, see "Viewing the display on a television" on page 54.
Speaker		Provides audio output.

Right Side

Insert Gateway 200 Docking Station Right Side

Component	Description	
Speaker	Provides audio output.	
Docking release lever	Pull to release the notebook from the docking station.	

Chapter 2: Checking Out Your Docking Station

Back

Insert Gateway 200 Docking Station Back

Component	lcon	Description
PS/2 port	Ⴇ∕	Plug a PS/2 [®] (Personal System/2) device (such as a keyboard or mouse) into this port.
USB ports	●	Plug USB (Universal Serial Bus) devices (such as a USB lomega™ Zip™ drive, printer, scanner, or camera) into these ports.
IEEE 1394 port	1394	Plug an IEEE 1394 (also known as Firewire [®] or i.Link [®]) cable into this jack.
Serial port		Plug a serial device (such as a digital camera) into this port.
Parallel port	ł	Plug a parallel device such as a printer into this port.
Monitor port		Plug an analog VGA monitor into this port.

Component	lcon	Description
Ethernet jack	品	Plug a 10/100 Ethernet network cable into this jack. For more information, see "Connecting to an Ethernet network" on page 39 and "Using the Internet" on page 47.
Power connector	⊕⊕⊕	Plug the AC adapter cord into this connector.
Kensington [™] lock slot	ĸ	Secure your computer to an object by connecting a Kensington cable lock to this slot.

Chapter 2: Checking Out Your Docking Station

Bottom

Insert Gateway 200 Docking Station Bottom

Component	Description	
Docking release lever	Pull to release the notebook from the docking station.	
System identification label	Find the product model number and serial number on this label.	
5.25-inch module bay	Use this bay for a CD, CD-RW, or DVD drive.	
3.5-inch module bay	Use this bay for a diskette or second hard drive.	



Getting Started

This chapter provides basic information about your Gateway notebook. Read this chapter to find out:

- How to connect the AC adapter
- How to start and turn off your notebook
- How to connect to and separate from the docking station
- How to use the keyboard
- How to use the EZ Pad touchpad
- How to connect the modem
- How to connect to an Ethernet network
- How to install peripheral devices

Connecting the AC adapter

You can run your notebook using an AC adapter or the notebook battery. The battery was shipped to you partially charged. You should use the AC adapter right away to fully charge the battery. Allow 24 hours for the battery to fully charge.

Important

 \checkmark

If the battery is not fully charged before you use your notebook on battery power for the first time, the battery life may be much shorter than you expect. If the battery life seems short even after being charged for 24 hours, the battery may need to be recalibrated. For information on recalibrating the battery, see "Recalibrating the battery" on page 62.

\bigcirc To connect the AC adapter:

1 Connect the power cord to the AC adapter.

Insert power cord to adapter picture

Warning

0

Replace the power cord if it becomes damaged. The replacement cord must be of the same type and voltage rating as the original cord or the notebook may be damaged.

2 Connect the AC adapter to your notebook's power connector.

Insert adapter to notebook picture

-OR-

Connect the AC adapter to the docking station if the docking station is installed.

Insert adapter to docking station picture

3 Plug the power cord into a wall outlet.

The battery charging indicator light turns on. If the battery charging indicator light does not turn on, disconnect the adapter from your notebook or docking station and repeat Step 2. See "Status indicators" on page 30 for the location of the battery charging indicator.

- 4 When you finish using your notebook for the first time, turn the notebook off and leave the notebook connected to AC power for at least 24 hours. The battery charge meters may not show a charge for several hours. For more information about battery meters on your model, see "Monitoring the battery charge" on page 60.
- **5** If the battery meters do not show a full charge after 24 hours, contact Gateway Technical Support at <u>www.gateway.com/support/contact.</u>



6

Do not attempt to disassemble the AC adapter. The AC adapter has no user-replaceable or user-serviceable parts inside. The AC adapter has dangerous voltages that can cause serious injury or death. Contact Gateway about returning defective AC adapters.

Protecting from power source problems

During a power surge, the voltage level of electricity coming into your computer can increase to far above normal levels and cause data loss or system damage. Protect your computer and peripheral devices by connecting them to a *surge protector*, which absorbs voltage surges and prevents them from reaching your computer.

Warning



High voltages can enter your computer through both the power cord and the modem connection. Protect your computer by using a surge protector. If you have a telephone modem, use a surge protector that has a modem jack. If you have a cable modem, use a surge protector that has an antenna/cable TV jack. During an electrical storm, unplug both the surge protector and the modem.

Starting your notebook

\odot^{\bigcirc} To start the notebook:

- 1 Open your notebook by sliding the latch on the front of your notebook to the right and lifting the LCD panel.
- **2** Press the power button located above the keyboard.

Insert Power button picture

The power button is preset to On/Off mode. However, you can also set it to function in Standby/Resume mode. For instructions on changing the power button mode, see "Changing power settings" on page 67.

3 If you are starting your notebook for the first time, follow the on-screen instructions to set up your notebook.

F

Waking up your notebook

When you have not used your notebook for several minutes, it may enter a power-saving mode called *Standby*. While in Standby, the power indicator flashes. See "Status indicators" on page 30 for the location of the power indicator.

If your notebook is in Standby mode, "wake" it up by pressing the power button. For more information on changing power-saving settings, see "Changing power settings" on page 67.

Turning off your notebook

To turn off your notebook in Windows XP:

- 1 Click Start, then click Turn Off Computer. The *Turn Off Computer* dialog box opens.
- 2 Click Turn Off. Windows shuts down and turns off your notebook.



R

If for some reason you cannot use the Turn Off Computer option in Windows to turn off your notebook, press and hold the power button for about five seconds, then release it.



To turn off your notebook in Windows 98 or Windows 2000:

- 1 Click **Start**, then click **Shut Down**. The *Shut Down Windows* dialog box opens.
- 2 Select Shut down.
- **3** Click **OK**. Windows shuts down and turns off your notebook.

Important

{//

If for some reason you cannot use the Shut Down option in Windows to turn off your notebook, press and hold the power button for about five seconds, then release it.



8

Connecting to the docking station

You can dock your notebook while the notebook is on or off.

To attach your notebook to the docking station:

- 1 Connect external devices to the ports and jacks on the docking station.
- **2** Connect the AC adapter to the docking station.
- **3** Place the front part of the notebook on the two docking station hooks.

Insert docking picture

4 Press the back part of the notebook down until it clicks fully into the docking station.



Press down on the outside edges of the notebook. Do not press in the middle or you may damage the LCD panel.



Ø

Once the docking station is connected correctly, the "Dock Change" message may appear on your display. You can use the system once this message disappears.

Separating from the docking station

You can separate your notebook from the docking station while the notebook is on or off.

To separate the notebook from the docking station while the notebook is off:

- **1** Disconnect the AC adapter from the docking station.
- **2** Pull out the two docking release levers until they click. The notebook will pop up slightly.

Insert undocking system off picture

- **3** Tilt the back of the notebook up.
- **4** Lift the notebook off of the station.
- **5** Connect the AC adapter to the notebook.
 - ø



To separate the notebook from the docking station while the notebook is on:



Do not detach the notebook if the battery charge is less than 20%. Instead, turn off your notebook and follow the procedure "To separate the notebook from the docking station while the notebook is off:" on page 28.

1 Press the Undock button on front of the docking station for one second.

Insert undocking system on picture

- OR -

In Windows XP, click Start, then click Undock Computer. The Undock Computer menu item appears in the Start menu only while the notebook is docked.

-OR-

In Windows 98 or Windows 2000, click Start, then click Eject PC. The Eject PC menu item appears in the Start menu only while the notebook is docked.

The "Dock Change" message appears on the screen.

- **2** Pull out the two docking release levers until they click. The notebook will pop up slightly.
- **3** Tilt the back of the notebook up.
- **4** Lift the notebook off of the station.
- **5** Disconnect the AC adapter from the docking station.
- **6** Connect the AC adapter to the notebook.



Status indicators

Status indicators inform you when a drive is being used or when a button has been pressed that affects how the keyboard is used.

Insert close-up of status indicators with callouts

This light turns on	When
1	Numeric keypad is turned on. For more information, see "System key combinations" on page 33.
A	Caps Lock is turned on.
	Scroll Lock is turned on.
9	The notebook is accessing the hard drive.
-\\	The notebook is turned on. This indicator shows the notebook power status: LED on - notebook is ON. LED off - notebook is OFF. LED flashing - notebook is in Standby.
±	The notebook is monitoring the battery charge: Green - battery is fully charged or not installed Amber - battery is being charged.

Using the keyboard

Your notebook features a full-size keyboard that has the full functionary of a desktop computer keyboard. Many of the keys have been assigned alternate functions, including shortcut keys for Windows, unction keys for specific system operations, and the Pad Lock keys for the numeric keypad.

You can attach an external keyboard to the notebook using a USB or PS/2 port. You do not need to shut down the notebook to connect a keyboard.

Insert close-up of keyboard with callouts

Key types

Many different key types are located on the keyboard. Some keys perform specific actions when pressed by itself and another action when pressed in combination with another key.

Key type	lcon	Description
Function keys		Press these keys labeled F1 to F12 to perform actions in programs. For example, pressing F1 may open help. Each program uses different function keys for different purposes. Refer to the program documentation to find out more about the function key actions.
System keys		Press these green-colored keys in combination with the ${\rm FN}$ key to perform specific actions.
Navigation keys		Press these keys to move the cursor to the beginning of a line, to the end of a line, up the page, down the page, to the beginning of a document, or to the end of a document.
Fn key		Press the FN key in combination with a green-colored system key (such as REST or PAUSE) to perform a specific action.
Windows key	E	Press to open the Windows Start menu. This key can also be used in combination with other keys to open utilities like F (Search utility), R (Run utility), and E (Explorer utility).
Numeric keypad		Use these keys to type numbers when the numeric keypad is turned on. Press F_{N+PAD} LOCK to turn on the numeric keypad.
Application key	Z	Press for quick access to shortcut menus and help assistants in Windows.
Arrow keys		Press these keys to move the cursor up, down, right, or left.

System key combinations

When you press an Fn key and a system key at the same time, the notebook performs the action identified by the colored text or icon on the key.

Press and hold FN while pressing this system key	То
F1 Prt Sc	Take a picture of the whole screen, which you can then paste into a graphics program such as Paint. Pressing ALT and this key combination takes a picture of the active window, which you can then paste into a graphics program.
F2 Sys Rq	Perform an action specified by the software currently running. (This function is only available in some programs.)
F3 €	Generate the Euro mark.
F4 Q	Open the program you assign to this key combination. For more information, see "Customizing Your Notebook" on page 79.
F5 CRT/LCD	Toggle the notebook screen between the LCD, an external monitor, or both at the same time. A monitor must be plugged into the monitor port on the notebook.
F6 Mute	Mute the sound.
F7 ⊈ ▼	Decrease the speaker volume.
F8 ⊈▲	Increase the speaker volume.

Press and hold Fn while pressing this system key	То
F9 Rest	Enter Standby mode. Press the power button to leave Standby mode.
F10 ≎▼	Decrease the brightness of the LCD screen.
F11 ☆▲	Increase the brightness of the LCD screen.
F12 Scroll	Pause the text scrolling in a DOS screen. The Scroll Lock status indicator turns on when this function is turned on. Press the key combination again to continue scrolling. (This function is only available in some programs.)
Num Lock	Turn on the numeric keypad.
Insert Pause/Brk	Pause or stop execution of a DOS program. (This function is only available in some programs.)
Home	Move the cursor to the start of the line. (This function is only available in some programs.)
PgUp	Move the cursor up one screen. (This function is only available in some programs.)
PgDn ▼	Move the cursor down one screen. (This function is only available in some programs.)
End	Move the cursor to the end of the line. (This function is only available in some programs.)

User buttons and keys

Insert close-up of Internet buttons with callouts

ltem	lcon	Press
Internet	(i)	To open your Web browser.
User	F4 Q	In combination with the ${\rm FN}$ key to open the program you assign to this key combination.

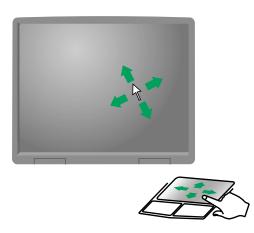
The user buttons and keys can be assigned different functions than those listed. For more information, see "Customizing Your Notebook" on page 79.

Using the EZ Pad touchpad

The EZ Pad[™] consists of a touchpad and two buttons.

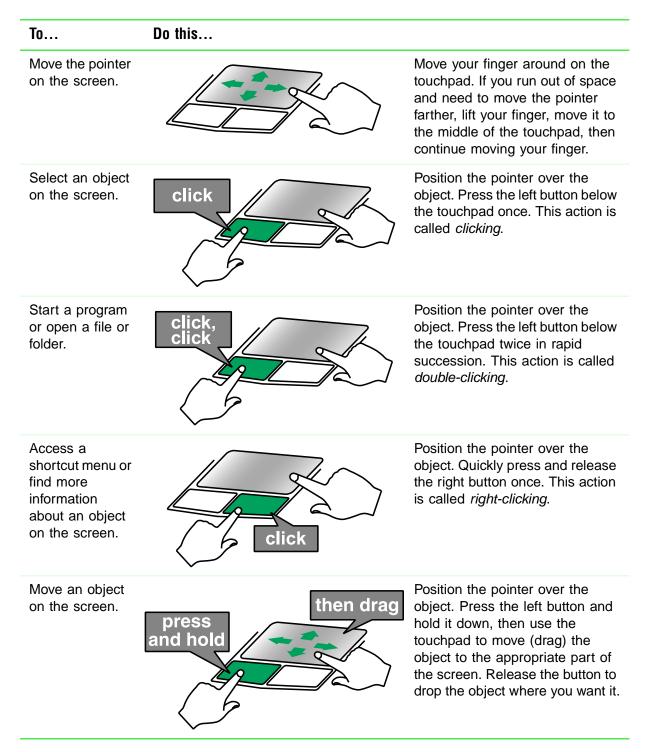
Insert graphic of touchpad

When you move your finger on the touchpad, the *pointer* (arrow) on the screen moves in the same direction.



You can use the EZ-Pad *left* and *right buttons* below the touchpad to select objects.

Using the touchpad



Connecting the modem

Your notebook has a modem jack for attaching your built-in 56K modem to a telephone line.



To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.



1 Insert one end of the modem cable into the modem jack 🔊 on the left side of the notebook. For the location of the modem jack, see "Left side" on page 3.

Insert picture of plugging in modem

- **2** Insert the other end of the modem cable into a telephone wall jack. The modem will not work with digital or PBX telephone lines.
- **3** Start your notebook, then start your communications software.



Connecting to an Ethernet network

Your notebook has a network jack so you can connect it to a 10/100 Ethernet network.



\bigcirc ^{\bigcirc} To connect to a network:

1 Insert one end of the network cable into the network jack $\frac{1}{2}$ on the left side of the notebook.

Insert picture of plugging in ethernet on notebook

-OR-

Ø

Insert one end of the network cable into the network jack $\frac{1}{2}$ on the back side of the docking station.

Insert picture of plugging in ethernet on docking station

2 Insert the other end of the network cable into a network wall jack. Ask your network administrator to help you select the correct network jack.

Your notebook is now physically connected to the network. Your network administrator can help you log onto your network.

Broadband Internet connections

You can use your notebook's Ethernet jack for more than just networking. Many broadband Internet connections, such as cable modems and DSL modems, connect to your notebook's Ethernet jack. For more information, see "Using the Internet" on page 47 and "Networking Your Notebook" on page 91.

Installing a printer, scanner, or other peripheral device

Insert Adding Peripherals module here

Chapter 3: Getting Started



Getting Help

Insert Getting Help module here

www.gateway.com

Chapter 4: Getting Help

www.gateway.com



Windows Basics

Insert Windows Basics module here Insert Working with Documents module here Chapter 5: Windows Basics

Using the Internet



Insert Using the Internet module here

www.gateway.com

Chapter 6: Using the Internet

www.gateway.com

7

Using Multimedia

This chapter provides information on using the multimedia capabilities of your notebook. Read this chapter to learn how to:

- Use the diskette drive
- Use the CD, CD-RW, or DVD drive
- Adjust the volume
- Play CDs and DVDs
- Record and play audio files
- Use Windows Media Player
- Use MusicMatch
- View the display on a television
- Capture video using the IEEE 1394 (also known as Firewire or i.Link) port

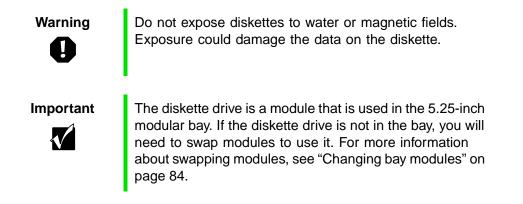
Using drives

This section explains how to use the diskette and optical drives installed in the docking station.

Insert picture of notebook and docking station with callouts

Using diskettes

The diskette drive uses 3.5-inch diskettes (sometimes called *floppy disks*). Diskettes are useful for storing files or transferring files to another computer.



Insert diskette drive picture



To use a diskette:

- **1** Insert the diskette into the diskette drive with the label facing up.
- **2** To access a file on the diskette in Windows XP, click **Start**, **My Computer**, double-click the drive letter, then double-click the file name.

- OR -

To access a file on the diskette in Windows 98 or Windows 2000, double-click the **My Computer** icon, the drive letter, then double-click the file name.

3 To remove the diskette, make sure the drive activity light is off (see "Status indicators" on page 30), then press the diskette eject button.



Using the CD, CD-RW, or DVD drive

You can use your computer to enjoy a wide variety of multimedia features, such as making recordings, listening to audio CDs, and watching DVD movies.

Important



The CD, CD-RW, or DVD drive is a module that is used in the 3.5-inch modular bay. If the drive you want to use is not in the bay, you will need to swap modules to use it. For more information about swapping modules, see "Changing bay modules" on page 84.

Insert CD drive picture

Inserting a CD, CD-RW, or DVD



To insert a CD, CD-RW, or DVD:

- 1 Press the eject button on the CD, CD-RW, or DVD drive. After the tray opens slightly, pull the disc tray completely open.
- **2** Place the disc in the tray with the label facing up, then press down carefully on the disc until it snaps into place.

Important



When you place a single-sided disc in the tray, make sure that the label side is facing up. If the disc has two playable sides, place the disc so that the name of the side you want to play is facing up.

3 Push the tray in until it is closed.



Using CDRW

Insert Using CDRW module here. Insert Using Multimedia module here. Insert MusicMatch module here.

Viewing the display on a television

The TV out (NTSC/PAL Composite Video) jack on your notebook or port replicator lets you view your notebook display on a television screen using a standard RCA video cable. The S-Video out jack on your port replicator lets you view your notebook display on a television screen using a standard S-Video cable.



To turn on external video by default, connect the television (or other external video device) before starting your notebook.

Audio is not transmitted through the TV out jack. Use the built-in speakers, a set of headphones or external powered speakers, or connect your notebook to a stereo system to hear sound while playing a DVD. DVD playback to a VCR will be scrambled by copyright protection technology.

To view your notebook display on a television:

- 1 With your notebook off, connect one end of standard RCA video cable to the TV out (Composite Video) jack on your docking station. For the location of the TV out jack on your notebook, see "Left Side" on page 16.
- **2** Connect the other end of the cable to the Video in jack on your television or VCR.
- **3** Turn on the television or VCR.
- **4** Start your notebook.

Get procedure from C sample.

Capturing video

Capturing video

Chapter 7: Using Multimedia

Sending and Receiving Faxes



Insert PhoneTools module here.

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Chapter 8: Sending and Receiving Faxes

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Managing Power

While your notebook is running on battery power, you should manage power consumption to get the most use out of the battery. This chapter shows you how to:

- Check and recharge the battery
- Recalibrate the battery
- Change batteries
- Extend the life of the battery by conserving battery power and using alternate power sources
- Change power-saving settings

Monitoring the battery charge

Closely monitor the battery charge. When the battery charge gets low, change the battery or connect to AC power immediately to prevent losing any unsaved work.

Monitor the battery charge by:

Positioning the pointer over the power cord icon battery icon in the taskbar. A battery status window opens. Move the pointer away from the icon to close the window.

Important



If the power cord or battery icon does not appear on the taskbar, click the show hidden icons 🚺 button.

Pressing the battery meter buttons on the battery. The battery meter lights indicate the percentage of battery charge remaining.

Insert picture of battery with finger on test meter.

- Looking at the battery charge indicator $\stackrel{\pm}{=}$:
 - A green light indicates the battery is fully charged
 - An orange light indicates the battery is being charged
- Waiting for a Low Battery warning message to appear.

If your battery charge indicators display what looks like an inaccurate charge, you may need to recalibrate the battery. For more information, see "Recalibrating the battery" on page 62.

Recharging the battery

The battery recharges while it is installed and your notebook is connected to AC power. While the battery is recharging, the battery indicator turns orange and the battery icon in the taskbar has a lightning bolt $\$.

Important



If the power cord or battery icon does not appear on the taskbar, click the show hidden icons 💽 button.

Recalibrating the battery

If your notebook unexpectedly goes into Standby mode while you are using it but the battery charge is not low, you may need to recalibrate your battery. You should also recalibrate the battery once a year to maintain the accuracy of the battery gauge.

To recalibrate the battery:

1 Get this procedure from the C sample.



Changing batteries

If your notebook is plugged into an AC outlet you can change the battery while the notebook is turned on. If your notebook it is not plugged into an AC outlet, you must turn it off while changing the batteries.

Warning

Danger of explosion if battery is incorrectly replaced.

Replace only with the Gateway 200 Li-Ion battery. Discard used batteries according to the manufacturer's instructions.

The battery used in this device may present a fire or chemical burn hazard if mishandled. Do not disassemble, heat above 212°F (100°C), or incinerate. Dispose of used battery promptly. Keep away from children.

$^{\mathfrak{I}}$ To replace the battery:

1 If your notebook is on and is either plugged into an AC outlet, go to step 2.

-OR-

If your notebook is on and is not plugged into an AC outlet, save your work and turn off the notebook.

- **2** Close the LCD panel, undock the notebook if it is docked, and turn your notebook over.
- **3** Slide the locking battery release latch to the unlock position.

Insert picture of notebook upside down with finger on release latch.

4 Slide and hold the remaining battery latch and slide the battery out of the bay.

Insert picture of notebook upside down with hand sliding battery out.

- **5** Slide a recharged battery into the bay. Make sure the battery is fully inserted into the bay.
- **6** Slide the locking battery latch to the locked position.
- **7** Turn the notebook over.
- **8** Dock the notebook if you are using the docking station.
- **9** Open the LCD panel and press the power button.



Extending battery life

Conserving battery power

While using the battery to power your notebook, conserve power by:

- Dimming the display as low as is comfortable.
- Removing PC Cards when you do not need them. Many PC Cards use a small amount of power while inserted, even if they are not being used.
- Modifying the Power Management settings for maximum power savings.
 For more information, see "Changing power settings" on page 67.
- Closing the LCD panel to turn off the display while you are not using your notebook. The display stays off until you open the panel again.
- Using Hibernate mode for maximum power savings while the notebook is not in use. For more information, see "Activating and Using Hibernate Mode" on page 71.
- Using the CD, DVD, CD-RW, or DVD/CD-RW drives only when necessary. These drives use a large amount of power.
- Recharge the battery often, take an extra battery, and fully recharge the batteries before traveling. For more information, see "Recharging the battery" on page 61 and "Changing batteries" on page 63.

Using alternate power sources

To extend battery life, use alternate power sources whenever possible.

- If traveling internationally, take electrical adapters. Save the battery for times when you cannot use a power adapter. If you plan on taking your AC power adapter, also take a single-plug power surge protector.
- If you will have access to an EmPower[™] in-flight power receptacle or an automobile cigarette lighter, use an airplane/automobile power adapter. Save the battery for times when you cannot use a power adapter.
- To find AC power outlets in airports, look for them next to support pillars, in large areas such as boarding gates, and under banks of telephones.

Changing power modes

You can use the following power modes to lengthen the life of your notebook's battery:

- *Standby* while your notebook is in Standby, it switches to a low power state where devices, such as the display and drives, turn off.
- *Hibernate* (also called *save to disk*) writes all current memory (RAM) information to the hard drive, then turns your notebook completely off. The next time you turn on the notebook, it reads the memory information from the hard drive and opens the programs and documents that were open when you activated Hibernate. For more information on using Hibernate mode, see "Activating and Using Hibernate Mode" on page 71.

Using Standby mode

Always save your work before using Standby mode. When in Standby, your computer reduces or turns off the power to most devices except memory. However, the information in memory is not saved to the hard drive. If power is interrupted, the information is lost.

When in Hibernate mode, your computer saves all memory information to the hard drive, then turns the power completely off.

If your computer is	and you want to	then
On	Enter Standby mode	Press FN+STANDBY.
On	Enter Hibernate mode (must be enabled)	In Windows XP, click Start, Turn Off Computer, then press and hold SHIFT and click Hibernate. - OR - In Windows 98 or Windows 2000, click Start, then click Shut Down. Click the arrow button to open the What do you want your computer to do list, then click Hibernate. Click OK.
In Standby or Hibernate mode	Exit Standby or Hibernate mode	Press the power button.

Changing power settings

You can change the function of the power button, Standby key, and power-saving timers by changing power settings on your notebook.

You can customize power settings from the Windows Control Panel by selecting power schemes, setting power alarms, adjusting advanced power settings, and activating Hibernate mode.

Power schemes (groups of power settings) let you change power saving options such as when the display or hard drive is automatically turned off. You can select one of the defined power schemes or create a custom power scheme.

Alarms can alert you when the battery charge is low.

Advanced power settings let you assign different power saving modes to the power button and Standby key. You can also select which power saving mode is activated when you close the LCD panel.



For more information about changing power settings in Windows XP, click **Start**, then click **Help and Support**.

Changing the power scheme



To change the power scheme

1 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**.

- OR -

In Windows 98 or Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.

2 Click/Double-click the **Power Options** or **Power Management** icon. The *Power Options Properties* dialog box opens.

	: Power Meter	Advances	d Hibernate	
	wer scheme with Note that chang scheme.			
Pgwer schemes				
Portable/Laptop				~
	ſ	Save Ar	Dele	den.
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Settings for Postable/	Laptop power sch	ene		
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	After 15 mins	~	After 3 mins	~
Turn off monitor:				
Tuan off <u>m</u> onitor: Tuan off head djsks:	After 30 mins	v	After 10 mins	Y
_	After 30 mins		After 10 mins	2 2
Tum off hard disks:		~		2 2 2

3 Click the arrow button to open the **Power Scheme** list, then click the power scheme you want.

- OR -

Set the timers, then save your custom power scheme by clicking **Save As** and typing a name for the scheme.

4 Click OK.



Changing alarm options

\bigcirc To change the alarm options:

1 In Windows XP, click Start, then click Control Panel. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**.

- OR -

In Windows 98 or Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.

- **2** Click/Double-click the **Power Options** or **Power Management** icon. The *Power Options Properties* dialog box opens.
- **3** Click the **Alarms** tab.

when pow	er level reaches:	10%
when pow	er level reaches:	10%
when pow	a leva reacher.	10.4
		100%
loation	Test	
310	No action	
Program	None	
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		- 100%
		100%
riogian	NUME	
	m when p	m: No action Phogram: None m when power level reaches: ication: Test

- **4** Adjust the alarm settings.
- 5 Click **OK**.



Changing advanced settings

To change advanced power management settings:

1 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**.

- OR -

In Windows 98 or Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.

- **2** Click/Double-click the **Power Options** or **Power Management** icon. The *Power Options Properties* dialog box opens.
- **3** Click the **Advanced** tab.

over Schemes	Alams	Power Meter	Advanced	Hibernate	
Selec	t the pow	er-saving setting	ngs jiou want	to use.	
Options					
Always sh	ом icon o	n fhe tackbar			
Dompt for	passesore	d when compu	ter resumes fr	on standby	
- Power button					
	-	ny portable co	mputer:		
Stand by					¥
	the powe	button on my	computer:		
	the powe	r button on my	computer:		v
When I press Shut down			_		~
When I press Shut down		button on my	_		>

- 4 Click the arrow button to open a Power buttons list, then click the power setting mode you want to use.
- 5 Click **OK**.



Activating and Using Hibernate Mode

\bigcirc ^{\bigcirc} To activate Hibernate mode:

1 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**.

- OR -

In Windows 98 or Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.

- **2** Click/Double-click the **Power Options** or **Power Management** icon. The *Power Options Properties* dialog box opens.
- **3** Click the **Hibernate** tab.

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Hiberna V Ena	ite ble <u>h</u> ibernation	1			
Disk.op	ace for hibers	stion			
	k space: ace required to	15.025 MB hibemate:	128 MB		

4 Click the **Enable hibernation** check box, then click **Apply**. Hibernate mode is now an option you can select on the Advanced tab in the *Power Options Properties* dialog box and in the *Turn Off Computer* dialog box.





[•] To use Hibernate mode:

- To use hibernation as a power savings mode, open the *Power Options* dialog box, click the **Power Schemes** or **Advanced** tab, click **Hibernate** as one of the power settings, then save the changes by clicking **OK**.
- To manually place your computer into hibernation:
 - In Windows XP, click Start, Turn Off Computer, then press and hold SHIFT and click Hibernate.
 - In Windows 98 or Windows 2000, click Start, then click Shut Down. Click the arrow button to open the What do you want your computer to do list, then click Hibernate. Click OK.

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Changing SpeedStep settings

The processor installed in your notebook may use Intel[®] SpeedStepTM technology to conserve battery power. A SpeedStep-equipped processor can change its operating speed according to the power source. Your notebook's default settings operate the processor at full speed while connected to AC power and at reduced speed (which uses less power) while using battery power. If you are using Windows XP, the Intel SpeedStep settings are changed in the BIOS Setup program. If you are using Windows 98 or Windows 2000, you can change the SpeedStep settings in Windows.

To change SpeedStep settings if your notebook has Windows XP:

Get procedure from C sample.

ø

To change SpeedStep settings in Windows 98 and Windows 2000:

- 1 Click Start, Settings, then click Control Panel. The *Control Panel* window opens.
- **2** Double-click the **Power Options** or **Power Management** icon. The *Power Options Properties* dialog box opens.

Power Schemes Alarms Power Meter	Advance		
Hibernate Intel[R] SpeedStep(TM)	technology		
Intel SpeedStep technology options:			
Automatically change performance when the power source changes.	int _e l.		
Ask me before automatically changing performance.			
When computer is:			
Bunning on batteries			
Battery Optimized Performance - [Recommended]	-		
B Plugged in			
Maximum Performance - [Recommended]	*		
Current Setting: Maximum Performance			
	Advanced		

3 Click the **Intel SpeedStep technology** tab.

- **4** Change any of the following settings:
 - To run the processor at full speed regardless of the power source, click the arrow button to open the **Running on batteries** list, then click **Maximum Performance**.
 - To run the processor at reduced speed (using less power) regardless of the power source, click the arrow button to open the Plugged in list, then click Battery Optimized Performance.
 - To turn off the SpeedStep technology control, click the Advanced tab, click the Disable Intel SpeedStep technology control check box, then click Apply.
 - To remove the SpeedStep icon from the taskbar, click the Advanced tab, click the Remove icon from taskbar check box, then click Apply.
- 5 Click **OK**.



Chapter 9: Managing Power

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Travel tips

These tips can make traveling with your notebook more convenient and trouble-free. This chapter provides information on:

- Using the modem
- Using your radio frequency wireless connections
- Transferring files
- Protecting your notebook from loss and theft
- Managing your notebook's power efficiently

Tips & Tricks

To access the contents of this manual while you are traveling, download an electronic copy from www.gateway.com/support/manlib/.

Modem

- Take a telephone cord to connect the modem to telephone jacks. If you are traveling internationally, take telephone jack adapters or an acoustic handset coupler.
- Take a telephone line protector.
- Take a telephone line tester to check for unsafe lines, especially if you are traveling internationally.
- Take remote access information with you so you can connect to your ISP while outside of your usual calling area. A list of country dialing codes may be especially useful if you are traveling internationally.

Radio frequency wireless connections

- Every country has different restrictions on the use of wireless devices. If your notebook is equipped with a wireless device, when traveling between countries check with the local radio approval authorities prior to your trip for any restrictions on the use of a wireless device in the destination country.
- If your notebook came equipped with an internal embedded wireless device, see "Safety, Regulatory, and Legal Information" on page 173 for general wireless regulatory guidelines.
- Wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. IEEE 802.11b (also known as wireless Ethernet or Wifi) and Bluetooth communication devices are examples of devices which use wireless to communicate. For instructions on how to turn off your wireless device, see "Networking Your Notebook" on page 91.

Files

- Copy your working files from your desktop computer to your notebook before you travel.
- If you need to access your desktop computer files from your notebook while traveling, set up the desktop computer for remote access. Contact your network system administrator for more information about remote access.
- Take extra diskettes for transferring files between computers and backing up files.

Security

- Get a locking cable for your notebook so you can attach a cable lock and leave the notebook in your hotel room while you are away.
- Always keep your notebook with you while waiting in airports, train stations, or bus terminals. Be ready to claim your notebook as soon as it passes through the x-ray machine in security checkpoints.
- Write down your notebook model number and serial number (available on the system label) in case of theft or loss, and keep the information in a safe place. Also, tape your business card or an address label to your notebook and accessories.
- Whoever sits next to you or behind you can see your notebook display. Avoid working with confidential files until you can be sure of privacy.
- Use a startup password to restrict access to your notebook.



Use a password that you can remember, but that is difficult for someone else to guess. The password feature is very secure, with no easy way to recover a forgotten password. If you forget your password, you must return your notebook to Gateway for service. Call Gateway Technical Support for instructions.

To create a startup password: <u>Get procedure from C sample.</u>



Power

- Take your AC power adapter to recharge the battery. If you are traveling internationally, take power plug adapters.
- To get the best performance from your notebook, avoid using the battery whenever possible, monitor the battery charge, and use the most efficient power management settings.
 - For information on conserving battery power, see "Conserving battery power" on page 65.
 - For information on using alternate power sources, see "Using alternate power sources" on page 65.
 - For information on monitoring the battery charge, see "Monitoring the battery charge" on page 60.

Customizing Your Notebook



Insert Customizing Your Computer module here.

Chapter 11: Customizing Your Notebook

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Upgrading Your Notebook

This chapter provides information about adding hardware devices to your notebook, including:

- PC Cards
- Bay modules
- Memory

Adding PC Cards

Your notebook has a PC Card slot (also known as PCMCIA card slots). This slot accepts a single Type I, Type II, or Zoom card.

You do not need to restart your notebook when changing most cards because your notebook supports *hot-swapping*. Hot-swapping means that you can insert a PC Card while your notebook is running. If your PC Card does not work after hot-swapping, refer to the PC Card manufacturer's documentation for further information.

Help and Support For more information about adding PC Cards in Windows XP, click **Start**, then click **Help and Support**.



¹ To insert a PC Card:

Push the card firmly into the PC Card slot label-side up until the outer edge of the card is flush with the side of the notebook.

Insert picture of inserting PC Card.

ø



\bigcirc To remove a PC Card:

1 Click the remove hardware 🛸 icon in the taskbar, then select the PC Card name and click Stop.

-OR-

Turn off the notebook.

Important \checkmark

If the remove hardware icon does not appear on the taskbar, click the show hidden icons 💽 button.

- **2** Release the eject button by pressing the PC Card eject button once.
- **3** Eject the PC Card by pressing the eject button again.

Insert picture of ejecting PC Card.



Changing bay modules

Your docking station's modular bay supports different *bay modules*, such as a CD, DVD, CD-RW, or combination DVD/CD-RW drive, a second hard drive, or a diskette drive.

Insert picture of notebook and docking station with bays called out.



$^{igodoldsymbol{\Theta}}$ To change bay modules:

- 1 Make sure your notebook is off.
- **2** Detach the notebook from the docking station.
- **3** Slide the bay module latch that corresponds to the bay you are changing (5.25-inch or 3.5-inch) toward the middle of the docking station. The module will pop out slightly.

Insert picture of docking station with fingers on latch/button.

4 Slide the bay module out.

- **5** Firmly push the new bay module straight into the bay until the latch clicks into place.
- **6** Place notebook back on the docking station.
- **7** Turn the notebook on.



Preventing static electricity discharge

The components inside your computer are extremely sensitive to static electricity, also known as *electrostatic discharge* (ESD).



ESD can permanently damage electrostatic discharge-sensitive components in the computer. Prevent ESD damage by following ESD guidelines every time you open the computer case.



To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer and unplug the power cord and modem cable before opening the case.

Before installing memory, follow these guidelines:

- Turn off the computer power.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of the computer.

Warning

To prevent risk of electric shock, do not insert any object into the vent holes of the notebook.

- Touch a bare metal surface on the back of the computer.
- Unplug the power cord and modem and network cables.
- Remove the battery.

Before working with computer components, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.

Installing memory

Your notebook uses memory modules called SO-DIMMs (Small Outline Dual Inline Memory Modules). The modules are available in various capacities and any module can be placed in any available slot. Use only memory modules designed for the Gateway 200 for upgrading your memory.

$^{igodoldsymbol{\Theta}}$ To add or replace memory modules:

- 1 Follow the instructions under "Preventing static electricity discharge" on page 86.
- **2** Shut down your notebook, then disconnect the power adapter and modem and network cables.
- **3** Turn the notebook over, then remove the battery.

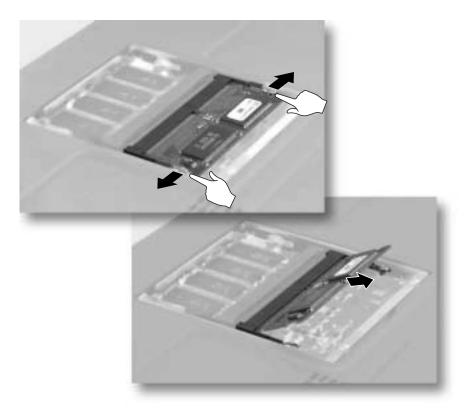


Disconnect the power adapter, disconnect the modem and network cables, and remove the battery before you remove the memory bay cover. Replace the cover before you restore power or reconnect the modem and network cables.

Insert picture of notebook upside down with memory bay called out.

4 Remove the memory bay cover screw, then remove the memory bay cover.

5 If you are removing a module, gently press outward on both clips at either end of the memory module until the module tilts upward.



6 Pull the memory module out of the slot.

7 Hold the new or replacement module at a 30-degree angle and press it into the empty memory slot. This module is keyed so that it can only be inserted in one direction. If the module does not fit, make sure the notch in the module lines up with the tab in the memory bay.



- **8** Gently push the module down until it clicks in place.
- **9** Replace the memory bay cover and cover screw, insert the battery, connect the power adapter and modem and network cables, and turn on your notebook.



Chapter 12: Upgrading Your Notebook

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Networking Your Notebook

13

Connecting your home, small office, or home office computers lets you share drives, printers, and a single Internet connection among the connected computers.

This chapter contains information about:

- Benefits of using a network in your home, small office, or home office
- Types of network connections
- Using a wireless network
- Purchasing additional network equipment

The benefits of using a network

A network lets you:

- Share a single Internet connection
- Share computer drives
- Share peripheral devices
- Stream audio and video files
- Play multi-player games

Sharing a single Internet connection

A network makes sharing the Internet easy. Each computer that is connected to the network can share the same modem and telephone line or broadband connection and access the Internet at the same time. This saves on the cost of installing another telephone line for your second computer and paying for a second Internet Service Provider (ISP) account.



 \mathbf{A}

Most ISPs allow multiple users at the same time. If you use America Online as your ISP, you can log onto America Online through one of your screen names and the other computers can access the Internet using an Internet browser.

Sharing drives

With a network, you can copy files from computer to computer by copying and pasting or dragging and dropping. You will no longer waste your time transferring files by using diskettes. In addition, you can *map* a drive from a computer on the network to a drive on another computer, and access the file as if it were located on the hard drive of the computer you are using.

Sharing peripheral devices

Each computer that is connected to the network can share the same peripheral devices, such as a printer. Select print from the computer you are currently using and your file is automatically printed on your printer no matter where it is located on your network.

Streaming audio and video files

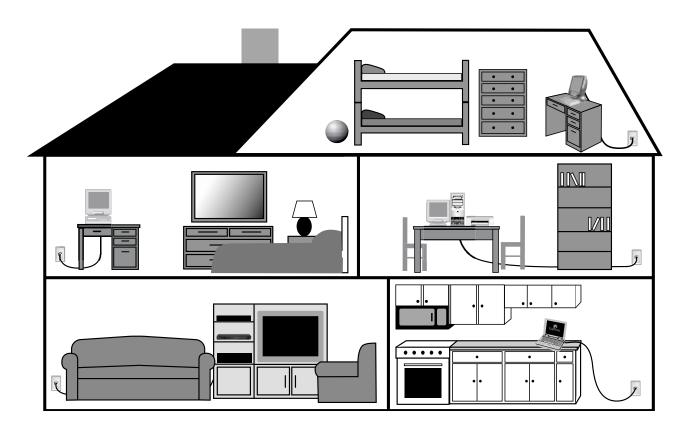
With a network, you can store audio files (such as the popular .MP3 files) and video files on any networked computer, then play them on any of the other computers or devices connected to your network, a process called *streaming*.

Playing multi-player games

With a home network, you can play multi-player games. Load a game like *Microsoft Midtown Madness 2* on your computers, and in minutes, you and your friends can race in competing cars through the streets of San Francisco.

Example network

A network connects all your computers and other devices so that you can share files, programs, peripheral devices, and much more from any computer in your home or office. The picture below shows an example of a home network.



Selecting a network connection

One of the biggest decisions you will need to make when creating your network is what type of connection you will use. Gateway supports both wired and wireless connections.

Wired connections

HPNA (Home Phoneline Networking Alliance) and Ethernet are two popular types of wired networks.

HPNA

Creating an HPNA network is as easy as knowing where your telephone jacks and computers are located. HPNA uses your home's standard telephone lines and telephone jacks instead of special cabling to connect computers. You can use your networked computers at the same time as you connect to your ISP, send a fax, or talk on your telephone. For the best performance, your computers should have HPNA 2.0 network cards or jacks for connecting to your network.



If you have more than one telephone line in your home or office, make sure that all the computers in your network are connected to jacks that share the same telephone number.

Ethernet or Fast Ethernet

Ethernet is a type of connection commonly used in offices around the world. This type of connection can also be used to build small computer networks in the home. Ethernet is available at two different speeds: standard Ethernet, which runs at the same speed as HPNA 2.0, and Fast Ethernet, which runs up to ten times faster. To create an Ethernet network, you or your electrician must install special cables in your home or office. Your computers must have Ethernet cards or jacks for connecting to a 10 or 10/100 Ethernet switch or hub. If you are connecting just two computers, you can eliminate the switch or hub and use a special *crossover* cable.

Important



Check local code requirements before installing Ethernet cable or other wiring in your home or office. Your municipality may require you to obtain a permit and hire a licensed installer.

Broadband Internet connections

You can use your computer's Ethernet or USB jack for more than just networking. Many broadband Internet connections, such as cable modems and DSL modems, connect to your computer's Ethernet or USB jack. Typically, if one computer is connected to the Internet, other networked computers can access the Internet through the shared Internet connection. A broadband, versus dial-up, connection adds speed and an "always on" connection to your home network.

Wireless Connections

Instead of connecting your computers with wires, you can consider a wireless network. Wireless Ethernet is ideal for creating a home or office network.



Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. IEEE 802.11b (also known as wireless Ethernet or WiFi) communication devices are examples of devices that provide wireless communication.

If your notebook came equipped with an internal radio frequency wireless device, see "Safety, Regulatory, and Legal Information" on page 173 for general wireless regulatory and safety guidelines. To find out if your notebook has an internal wireless device, check the label (see "Identifying your model" on page 10).

Wireless Ethernet

A wireless Ethernet network (also known as IEEE 802.11b or WiFi) exceeds the speed of either HPNA 2.0 or standard Ethernet. In addition, this type of network allows you the freedom to move about your home or office with your computer. For example, you can take your notebook from your home office to your patio without having a telephone or Ethernet jack available.

Assessing your connection needs

To select the type of network that will work best for you, consider how you will use your network.

HPNA

An HPNA network is appropriate if:

- Your home, small office, or home office has a telephone jack with the same telephone number in each room that has a device you want to connect
- You have several Windows-based computers that are used for drive sharing, printing to a single printer, or surfing the Internet
- Your computer has one of the following:
 - An HPNA jack for connecting to a telephone jack
 - A USB port to connect to a HPNA adapter
- Cost savings is more important than network speed
- Your connection speed needs are less than 10000 Kbps (see "Comparing data transfer speed" on page 98)

Ethernet

An Ethernet or Fast Ethernet network is appropriate if:

- You are building a new home or your existing home already has Ethernet cable installed in each room that has a device you want to connect
- You are creating a network in an office or business
- Network speed is more important than cost savings
- You have a combination of Windows-based computers and non-Windows-based computers that are used for drive sharing, printing to a single printer, or surfing the Internet
- Your computer has an Ethernet jack for connecting to the network

Wireless Ethernet (IEEE 802.11b, WiFi)

A wireless Ethernet network is appropriate if:

- You are looking for an alternative to using your telephone line or installing cable for connectivity
- The ability to move about with your computer is as important as network speed
- You have several Windows-based computers that are used for drive sharing, printing to a single printer, or surfing the Internet
- Your computer has wireless Ethernet (IEEE 802.11b) for networking
- Your connection speed needs are less than 11000 Kbps (see "Comparing data transfer speed" on page 98)

Comparing data transfer speed

When deciding between connection types, compare the different data transfer speeds of by each type to the programs you plan to run on your network.

Type of Program	Speed Required
Voice over IP (VoIP)	5-20 Kbps
Multiplayer Game	20-80 Kbps
Dial-up Internet	24-56 Kbps
MP3 Audio Streaming	80-200 Kbps
Printer Sharing	80-200 Kbps
Broadband Internet	100-1000 Kbps
File Sharing	300-40000 Kbps
MPEG Video Streaming	4000-8000 Kbps

Connection	Туре	Rated Maximum Speed
HPNA 2.0	Wired	10000 Kbps
Ethernet	Wired	10000 Kbps
Wireless Ethernet (IEEE 802.11b or WiFi)	Wireless	11000 Kbps
Fast Ethernet	Wired	100,000 Kbps

Compare the Gateway-supported network types and the maximum speed of each.

When comparing the speed at which your network will need to run to the speed you can get from the connection type, you should consider which programs may run at the same time on your network.

For example, you have stored several MP3 audio files on your network. You typically play music on your desktop, and at the same time your teenager may play music on a notebook. Playing two MP3 audio files simultaneously requires 200 Kbps + 200 Kbps = 400 Kbps. If at the same time you are playing two MP3 audio files, you also print a file to your printer, the speed required increases to 200 Kbps + 200 Kbps + 200 Kbps = 600 Kbps.

A comparison of the two previous tables shows that HPNA 2.0, Ethernet, and wireless Ethernet can handle most programs on a network. If you anticipate using a combination of programs that regularly exceed 10000 Kbps, you should consider installing Fast Ethernet for your connection.

Using a wireless network

Your notebook may have wireless Ethernet networking built-in. The information in this section tells you how to set up and access a wireless network. If your notebook does not have wireless networking built-in and you are interested in getting networking hardware for your notebook or other computers to set up a network in your home or office, go to "Purchasing additional network equipment" on page 138.

Warning



Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. IEEE 802.11b (also known as wireless Ethernet or WiFi) communication devices are examples of devices that provide wireless communication. For instructions to turn wireless Ethernet on and off, see "Turning your wireless Ethernet on or off in Windows XP" on page 108 and "Turning your wireless Ethernet on or off in Windows 98 and Windows 2000" on page 126.

Important



If your system came equipped with an internal radio frequency wireless device, see "Safety, Regulatory, and Legal Information" on page 173 for general wireless regulatory and safety guidelines. To find out if your system has an internal wireless device, check the label (see "Identifying your model" on page 10).

Using wireless Ethernet in Windows XP

If your system does not use Windows XP, follow the instructions under "Using wireless Ethernet in Windows 98 and Windows 2000" on page 126.

Setting up wireless Ethernet networking in Windows XP

If you have wireless Ethernet, the first time you start your notebook, your system automatically installs the wireless Ethernet drivers. Immediately following the initial startup, you may be instructed to run the Network Setup Wizard.



Important



The network setup procedure uses the Windows XP Network Setup Wizard. The example screens show those screens that typically appear in the course of using the wizard. If your network situation differs from that used in this example, you may encounter additional screens or screens with different selections. Make sure you read each screen in the wizard and make your selections based on your particular network situation.

To run the Windows XP Network Setup Wizard:

1 Click on the Network Setup Wizard icon 🚮 on the Windows XP taskbar.

-OR-

Click Start, All Programs, Accessories, Communications, then click Network Setup Wizard. The *Network Setup Wizard* opens.



2 Click **Next** to continue through the wizard.

3 Click **Next**. The *wizard found disconnected network hardware* screen opens.

twork Setup Wizard			
The wizard found disconnected network hardware.			
The network connections listed below otherwise connect your network hardw	are disconnected. Plug in your network cables or are, and then click Next.		
編: Network Bridge (Network Bridge) 堂 Local Area Connection 3 違, Local Area Connection	NAC Bridge Minipot ORINOCO Wireless LAN PC Card (3.3 volt) Intel(R) PRD/100 P Mobile Adapter		
Ignore disconnected network hardw	sae		
	Cancel		

4 Click to select the **Ignore disconnected network hardware** check box, then click **Next**. The *Select a connection method* screen opens.

Network Setup Wizard				
Select a connection method.				
Select the statement that best describes this computer.				
This computer connects directly to the Internet. The other computers on my network connect to the Internet through this computer. <u>View an example.</u>				
O This cogputer connects to the Internet through another computer on my network or through a residential gateway. <u>View on example.</u>				
⊙ <u>D</u> thei				
Learn more about home or small office network configurations.				
< Back Next> Cancel				

5 Click the method that the notebook uses to access the Internet, then click **Next**. The *Your computer has multiple connections* screen opens.

-OR-

Click **Other**, then click **Next** for a list of additional methods. Make a selection, then click **Next**. The *Your computer has multiple connections* screen opens.

Network Setup Wizard				
Your computer has multiple connection	S			
You have more than one connection on this computer. The wisard can "bridge" these connections, so that other computers using them can communicate.				
The wizard needs to know which connections are for your network.				
 Determine the appropriate connections for a Let me choose the connections to my network 				
Learn more about <u>network bridging</u>				
	Cancel			

6 Click Let me choose the connections to my network, then click Next. The *Select the connections to bridge* screen opens.

Select the connections to bridge.	6
elect the check box for each connection computers.	n that connects this computer to your other network
lear the check box for connections that	connect this computer directly to the Internet.
annections: 「業 Local Area Connection 3 DRIN 「主 Local Area Connection Intell	
earn more about network bridgind.	

7 Click to select the Wireless Network Connection check box, then click Next. The *Give this computer a description and name* screen opens.

Give this computer a	description and name.	Ş
Computer description:	John's Computer	
	Examples: Family Room Computer or Monica's Computer	
Computer name:	ALDYSIUS	
	Examples: FAMILY or MONICA	
The current computer ne	ane is 00171.	
	Jer names and descriptions.	

8 Type a description of the computer in the **Computer description** box.

9 Type the name by which the computer will be identified on the network in the **Computer name** box, then click **Next**. The *Name your network* screen opens.

twork Setup Wiza	rð
Name your network	
Name your network by should have the same	
Workgroup name:	SALES
	Examples: HOME or DFFICE
	(Back Next> Cancel

- **10** Type the name of the workgroup this notebook belongs to in the **Workgroup name** box. This name is usually assigned by the network system administrator and identifies which group of computers this notebook is most likely to communicate with.
- **11** Click **Next**. The *Ready to apply network settings* screen opens.

Click **Next** to apply the network settings. The *You're almost done* screen opens.



- If you are setting up a wireless Ethernet network on other computers, you may want to use the Network Setup Wizard to do so. Click a method for installing and configuring the network on your other computers, then click **Next**.
- Click Finish.



Turning your wireless Ethernet on or off in Windows XP

There are times, such as when you are flying in an aircraft, when you should turn off your wireless Ethernet network. You can also turn off wireless Ethernet to conserve the battery charge on your notebook.

To turn wireless Ethernet on or off in Windows XP using the Start menu:

- Click Start, then click Control Panel. The *Control Panel* window opens. If your Control Panel is in Category View, click Network and Internet Connections. The *Network and Internet Connections* window opens.
- 2 Click/Double-click **Network Connections**. The *Network Connections* window opens.
- **3** Right-click **Wireless Network Connection**, then click **Enable** to turn on wireless Ethernet or click **Disable** to turn off wireless Ethernet.

Ø

<<u>Also document any methods of turning wireless on or off using the</u> <u>hardware.></u>

Configuring Windows XP for wireless Ethernet

To configure Windows XP to use the wireless Ethernet network:

- Click Start, then click Control Panel. The *Control Panel* window opens. If your Control Panel is in Category View, click Network and Internet Connections. The *Network and Internet Connections* window opens.
- 2 Click/Double-click **Network Connections**. The *Network Connections* window opens.

3 Right-click **Wireless Network Connection**, then click **Properties**. The *Wireless Network Connection Properties* dialog box opens.

Wirek	ess Network Con	nection 2 Pro	perties	2
General	Wireless Networks	Authentication	Advanced	
Connec	t using:			
110 C	RNOCO Wireless LA	AN PC Card (3.3	volt)	
			Configue	e
This og	nnection uses the fall	owing items:		_
	Client for Microsoft 1	Networks		
-	File and Printer Sha	-	Networko	
	QoS Packet Sched			
N Y	Internet Photocol [T	CP/IP[
	ostal	<u>U</u> ninstal	Propertie	6
Desc	iption			
wide	smission Control Proto area network protoco s diverse interconne	ol that provides o		8
₩ Sho	wicon in notification	area when conne	scted	
		0	K C	ancel

4 Click Internet Protocol (TCP/IP), then click Properties. The Internet Protocol (TCP/IP) Properties dialog box opens.

5 Click the **General** tab.

	twork (admini		
ly.			
- a			
	Ad	yano	ed.
	, , , ,	A	

6 If you are using a DHCP server, click **Obtain an IP address automatically**.

- OR -

If you are not using a DHCP server, click **Use the following IP address**, then type the IP address in the **IP address** box and Subnet mask in the **Subnet mask** box.

Important



If you are required to type an IP Address and Subnet Mask, ask your network system administrator for the correct values.

- 7 Click **OK** to close the *Internet Protocol (TCP/IP) Properties* dialog box.
- **8** Click **OK** to close the *Wireless Network Connection Properties* dialog box.
- **9** Click **X** to close the *Network Connections* window.

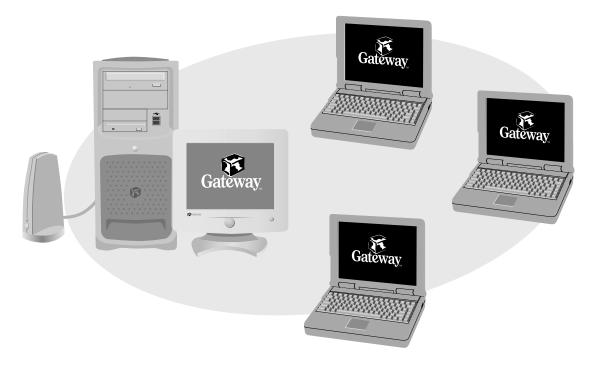


Creating a wireless Ethernet network in Windows XP

After you have turned on wireless Ethernet networks, you may want to create a new wireless Ethernet network. You can create either an access point or peer-to-peer wireless Ethernet network.

Access Point

An *access point* is a device that allows you to join both a wireless network and access a wired network at the same time. You can create an access point wireless network if you purchased an RG1000 or equivalent access point. This illustration shows an example of an access point network.





To create an access point wireless Ethernet network:

- Click Start, then click Control Panel. The *Control Panel* window opens. If your Control Panel is in Category View, click Network and Internet Connections. The *Network and Internet Connections* window opens.
- 2 Click/Double-click **Network Connections**. The *Network Connections* window opens.

3 Right-click Wireless Network Connection, then click View Available Wireless Networks. The *Connect to Wireless Network* dialog box opens.

Connect to Wireless Network
The following network(s) are evailable. To access a network, select it from the list, and then click Connect.
Available networks:
dutnet WeweLAN Network
This network requires the use of a network key (WEP). To access this network, type the key, and then click Connect.
Network gey:
If you are having difficulty connecting to a network, click Advanced.
Advanced Qonnect Cancel

4 Click **Advanced**. The *Wireless Network Connection Properties* dialog box opens.

21 Wireless Network Connection 3 Properties General Wireless Networks Authentication Use Windows to configure my wireless network settings Available petworks: To connect to an available network, click Configure. 1 dvmet Configure WaveLAN Network Retresh Preferred networks: Automatically connect to available networks in the order listed below: JIMSDESK.
 Move <u>up</u> \tilde{Q}^{μ} Move down

Bemove

Learn about setting up wireless network

Properties 8 1

OK.

Advanced

Cancel

5 Click the **Wireless Networks** tab.

Add..

configuration

6 Click Add. The Wireless Network Properties dialog box opens.

Wireless Network Pro	perties ? 🔀				
Network name (SSID):	RG1000 1#60a				
Wireless network key (WEP)					
This network requires a k	ey for the following:				
Data encryption (W	/EP enabled)				
Network Authentic	ation (Shared mode)				
Network key	ff60a				
Key <u>f</u> ormat:	ASCII characters 🗸				
Key Jength:	40 bits (5 characters) 🛛 🛩				
Key inde <u>s</u> [advanced]:	0				
The key is provided f	or me automatically				
This is a computer-to-co access points are not u	omputer (ad hoc) network; wireless sed				

- **7** Type the name of the network in the **Network name (SSID)** box. For an access point network, we recommend using the name of the access point device followed by the SSID name found on the back of the access point. Example: **RG1000 1ff60a**.
- 8 Click the Data encryption (WEP enabled) check box.
- **9** Click to clear the **The key is provided for me automatically** check box.
- **10** Type the network key in the **Network key** box. This key must be the last five digits of the network name, for example **ff60a**.
- **11** Click the arrow button to open the **Key format** list, then click **ASCII** characters.
- 12 Click the arrow button to open the Key length list, then click 40 bits (5 characters).
- **13** Click the up or down arrow button to select **0** from the **Key index** (advanced) list.
- **14** Make sure that the **Network Authentication (Shared mode)** check box is not selected.

- Make sure that the **This is a computer-to-computer (ad hoc) network** check box is not selected.
- Click **OK** to close the *Wireless Network Properties* dialog box.
- Click the **General** tab.

+ Wireless Network Connection 2 Properties 🛛 🔋 🗵
General Wireless Networks Authentication Advanced
Connect using
IB OR NOCO Wreless LAN PC Card (3.3 volt)
Configure
This connection uses the following items:
Bit Client for Microsoft Networks Bit and Printer Sharing for Microsoft Networks
R Bus Packet Scheduler
Internet Photocol [TCP/IP]
Igstal Uninstal Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected
OK Cancel

- Click to select Internet Protocol (TCP/IP) in the This connection uses the following items list. If you do not see Internet Protocol (TCP/IP), drag the scroll bar to see more choices.
- **19** Click **Properties**. The *Internet Protocol (TCP/IP) Properties* dialog box opens.

20 Click the **General** tab.

Alternate Conliguration				
rou can get IP settings assigned a his capability. Otherwise, you neer he appropriate IP settings.				
⊙ <u>0</u> btain an IP address automa	fically			
O Uge the following IP address:				
P address:				
Sybriet mask:				
Delault gateway.				
Ottain DNS server address a	utomatica	sly		
OUse the following DNS server	address	9K		
Enterned DNS server:				
Alternate DNS server:				
			Ady	enced.

21 If you are using a DHCP server, click **Obtain an IP address automatically**.

- OR -

If you are not using a DHCP server, click **Use the following IP address**, then type the IP address in the **IP address** box and Subnet mask in the **Subnet mask** box.



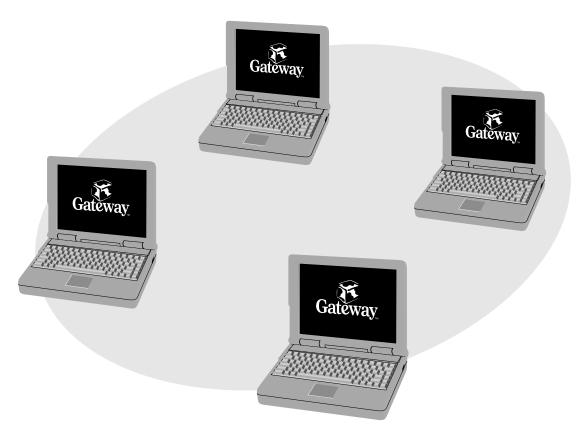
ø

If you are required to type an IP Address and Subnet Mask, ask your network system administrator for the correct values.

- **22** Click **OK** to close the *Internet Protocol (TCP/IP) Properties* dialog box.
- **23** Click **OK** to close the Wireless Network Connection Properties dialog box.

Peer-to-peer (ad hoc)

Use a peer-to-peer (ad hoc) network if you are setting up or joining a temporary or permanent computer-to-computer network for sharing files and peripheral devices. This type of network does not include an access point into a wired network.





To create a peer-to-peer wireless Ethernet network in Windows XP:

- Click Start, then click Control Panel. The *Control Panel* window opens. If your Control Panel is in Category View, click Network and Internet Connections. The *Network and Internet Connections* window opens.
- 2 Click/Double-click **Network Connections**. The *Network Connections* window opens.

3 Right-click Wireless Network Connection, then click View Available Wireless Networks. The *Connect to Wireless Network* dialog box opens.

Connect to Wireless Network
The following network(s) are evailable. To access a network, select it from the list, and then click Connect.
Available <u>n</u> etworks:
I dutnet I WeweLAN Network
This network requires the use of a network key (WEP). To access this network, type the key, and then click Connect.
Network gey:
If you are having difficulty connecting to a network, click Advanced.
Advanced Qonnect Cancel

4 Click **Advanced**. The *Wireless Network Connection Properties* dialog box opens.

21

Move <u>up</u>

Move down

Advanced

Cancel

Properties 8 1

OK.

Wireless Network Connection 3 Properties
 General Wireless Networks Authentication
 Use Windows to configure my wireless network settings
 Available petworks:
 To connect to an available network, click Configure.
 i dvinet
 WaveLAN Network
 Pigtresh
 Preferred networks:
 Automatically connect to available networks in the order listed below:

Bemove

Learn about setting up wireless network

5 Click the Wireless Networks tab.

JIMSDESK.

Add..

configuration

 \tilde{Q}^{μ}

6 Click Add. The Wireless Network Properties dialog box opens.

letwork name (SSID);	Adhoc	
Wireless network key (W	EP)	
This network requires a k	ey for the following:	
Data encryption (W	'EP enabled)	
Network Authentica	ation (Shared mode)	
Network <u>key</u> :		
Key format:	ASCII characters	v
Key length:	104 bits (13 characters)	v
Kauladau Indonesadh	0	
Key inde <u>x</u> (advanced):		

- 7 Type the name of the network in the **Network (SSID)** box. For a peer-to-peer network, this can be any network name not already in use, for example **Adhoc**.
- 8 Click the This is a computer-to-computer (ad hoc) network check box.
- **9** If an encryption key has been agreed to by the other members of your network, go to step 10.

-OR-

If your network is not using an encryption key, go to step 16.

- **10** Click the **Data encryption (WEP enabled)** check box.
- **11** Click to clear the **The key is provided for me automatically** check box.
- **12** Type the network key in the **Network key** box.
- **13** Click the arrow button to open the **Key format** list, then click the key format you have agreed to.
- **14** Click the arrow button to open the **Key length** list, then click the key length you have agreed to.

- **15** Click the up or down arrow button to select the key index you have agreed to from the **Key index (advanced)** list.
- **16** Click **OK** to close the *Wireless Network Properties* dialog box.
- **17** Click the **General** tab.

🕂 Wireless Network Connection 2 Properties 🛛 🔋 🔀
General Wireless Networks Authentication Advanced
Connect using
IB OR NOCO Wreless LAN PC Card (3.3 volt)
Configure
Elient for Microsoft Networks Elient for Microsoft Networks Elie and Printer Sharing for Microsoft Networks Elient Scheduler Elient Record (IERIE)
Igstal Uninstal Properties Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected
OK Cancel

- **18** Click to select Internet Protocol (TCP/IP) in the This connection uses the following items list. If you do not see Internet Protocol (TCP/IP), drag the scroll bar to see more choices.
- **19** Click **Properties**. The *Internet Protocol (TCP/IP) Properties* dialog box opens.

20 Click the **General** tab.

eneral	Alternate Con	liguration				
his dep	n get IP setting ability. Othermi ropriate IP sett	ce, you ne				
OD	stain an IP add	ress auton	natically			
OU	e the following	IP addres	- XF			
JP as	iderr:					
Sybr	set mask:					
Dela	ult gateway.					
© 0j	tain DNS serv	er address	automati	cally		
OU	e the following	DNS serv	/er addrei	3960		
But	med DNS perv					
Ales	nate DNS serv	80				
					Ad	enced.

21 Click Use the following IP address.

22 Type an IP Address value in the **IP Address** box and a Subnet Mask value in the **Subnet Mask** box for each wireless computer on your ad hoc network. The IP Address for computer 1 should end with a 1 and the IP Address for computer 2 should end with a 2.

Internet Protocol (TCP/IP)	Properties ?X	Internet Protocol (TCP/IP) Pro	operties ? X		
General		General			
	ed automatically if your network supports eeed to ask your network administrator for matically		utomatically if your network supports d to ask your network administrator for fically		
⊙ Uge the following IP address	385	 Uge the following IP address: 			
JP addess:	192.168.100.1	IP addess:	192.168.100.2		
Sybnet mask:	255.255.255.0	Sybnet mask:	255.255.255.0		
Default gateway:	· · ·	Delauit gateway:			
O Distain DNS server addres	is automotically	O thain DNS server address a	Ottain DNS server address automatically		
O Use the following DNS set	rver addresses:	 Use the following DNS server 	O Use the following DNS server addresses:		
Evelened DNS server:		Evelened DNS perver			
Alternate DNS server:		Alternate DNS server:	· · ·		
	Adganced		Adyanced		
	OK Cancel		OK Cancel		
Example IP add	ress	Example I	P address		
and subnet masl	k for	and subne	et mask for		
wireless compute	er 1	wireless c	omputer 2		

- **23** Click **OK** to close the *Internet Protocol (TCP/IP) Properties* dialog box.
- **24** Click **OK** to close the *Wireless Network Connection Properties* dialog box.

Ø

Connecting to a wireless Ethernet network in Windows XP

To connect to an existing wireless Ethernet network:

- Click Start, then click Control Panel. The *Control Panel* window opens. If your Control Panel is in Category View, click Network and Internet Connections. The Network and Internet Connections window opens.
- 2 Click/Double-click **Network Connections**. The *Network Connections* window opens.

3 Right-click Wireless Network Connection, then click View Available Wireless Networks. The *Connect to Wireless Network* dialog box opens.

Connect to Wireless	Network	?×
The following network(s) from the list, and then clic	are available. To access a n ck Connect.	etwork, select it
Available <u>n</u> etworks:		
L dutnet WaveLAN Network		
This network requires the network, type the key, an	e use of a network key (WEP). Ind then click Connect.	To access this
Network gey:		
lf you are having difficulty	y connecting to a network, clic	k Advanced.
Advanced	Connect	Cancel

4 Click the network you want to connect to, then click **Connect**.

ø

Checking network signal strength in Windows XP

If your wireless Ethernet network is running slower than you expect, you should check your network signal strength. If you find the signal strength is low, try moving to a new location to increase the signal strength.



To check the signal strength of your wireless Ethernet network:

- 1 Click Start, then click Control Panel. The *Control Panel* window opens. If your Control Panel is in Category View, click Network and Internet Connections. The *Network and Internet Connections* window opens.
- 2 Click/Double-click **Network Connections**. The *Network Connections* window opens.

3 Right-click **Wireless Network Connection**, then click **Status**. The *Wireless Network Connection Status* dialog box opens. The meter shows the signal strength for wireless Ethernet on your notebook if other computers with the same network name are within range of your notebook.

* Wireless Network Connec	tion 3 Status 🛛 🔋 🗙
General Support	
Connection	
Status:	Connected
Duration	00:16:53
Speed:	2.0 Mbps
Signal Strength:	₹
Activity Sent	Received
Packets: 27	5 0
Properties Disable]
	Dose

F

Important



Signal strength is affected by the distance between your wireless network devices, by radio interference, and by interference from natural obstructions such as walls, floors, and doors.

Using wireless Ethernet in Windows 98 and Windows 2000

If your system uses Windows XP, use the instructions under "Using wireless Ethernet in Windows XP" on page 101.

Installing the ORiNOCO Client Manager in Windows 98 and Windows 2000

If you have wireless Ethernet, the first time you start your notebook, your system automatically installs the wireless Ethernet drivers. Immediately following the initial startup, you may be asked to install the ORiNOCO Client Manager. You may also need to install the ORiNOCO Client Manager if it has not already been installed on your computer.



To see if the ORiNOCO Client Manager is installed:

■ Click Start, Programs, then click ORiNOCO. If Client Manager is not listed in the submenu, you will need to install it.

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To install the ORiNOCO Client Manager:

■ Complete the instructions in "Restoring Software" on page 145.

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Turning your wireless Ethernet on or off in Windows 98 and Windows 2000

There are times, such as when you are flying in an aircraft, when you should turn off your wireless Ethernet network. You can also turn off wireless Ethernet to conserve the battery charge on your notebook.

To turn wireless Ethernet on or off using the Client Manager:

- **1** Right-click the ORiNOCO Client Manager icon _____ on the taskbar.
- 2 Click Enable Radio to turn on wireless Ethernet or Disable Radio to turn off wireless Ethernet.

Ø

<<u>Also document any methods of turning wireless on or off using the</u> <u>hardware.></u>

Configuring the ORiNOCO client manager in Windows 98 and Windows 2000

If you have wireless Ethernet, you need to configure your network settings.

To configure the ORiNOCO Client Manager:

1 Click Start, Programs, ORiNOCO, then click Client Manager. The ORiNOCO *Client Manager* window opens.

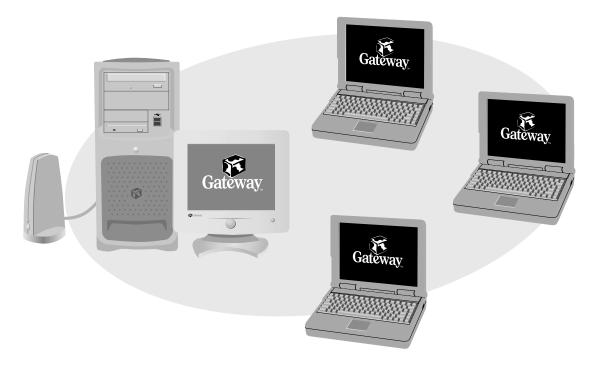
٩ 0	RiNOCO	Client Ma	nager		_ 🗆 X
<u>F</u> ile	Actions	Advanced	<u>H</u> elp		
	Ì		Current configuration profile	Default	•
	•		Status Your card has been disabled		
				<u> </u>	H <u>e</u> lp

2 Click **Actions**, then click **Add/Edit Profile**. The *Add/Edit Configuration Profile* dialog box opens.

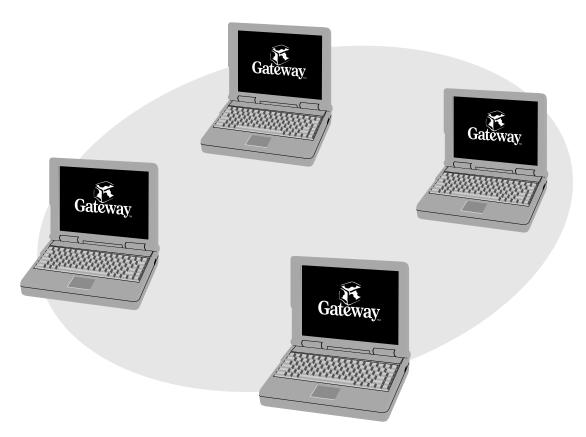
Add/Edit Configuration Profile	? X
Select Profile	
Default	Access Point
•	Access Point
•	Access Point
•	Access Point
	<u>E</u> dit Profile
<u></u> K	<u>Cancel</u> <u>H</u> elp

- **3** Type the name of the profile you are creating. When you create the first profile, you should rename the Default profile to the name of your profile. For example, if you will be using your computer on two different networks, such as at home and at work, you may want to name one profile **Home** and the other one **Work**.
- 4 Click the arrow button to open the type of network list, then click the type of network associated with this profile. Your options include:

Access Point - Use this network type if you are joining a wireless network and accessing a wired network through an access point. Contact your network system administrator or refer to the access point documentation for more information about using this network type.



- Residential Gateway Use this network type if you are setting up or joining a wireless network that is using a residential gateway to access the Internet.
- Peer-to-Peer Group Use this network type if you are setting up or joining a temporary or permanent computer-to-computer network for sharing files and peripheral devices. This type of network does not include an access point into a wired network.



5 Click Edit Profile . The <i>Edit Configuration</i> dialog box op	bens.
--	-------

Sedit Configuration [Default]	? X
Basic Encryption Advanced Admin	
Network Name My network	
The Network Name should match the Network Name value of the Access Point(s). Consult your LAN administrator for the correct value.	
OK Cancel H	elp

6 Type the name of your network and the encryption key (if required).

- If you are connecting to an access point network, type ANY in the Network Name box to connect to any wireless Ethernet network within range of your notebook, or type the exact network name of the network you are joining.
- If you are connecting to a residential gateway network, type the residential gateway identifier number for the network name and the last five characters of the residential gateway identifier number as the encryption key.
- If you are connecting to a peer-to-peer network, type the exact network name for the network you are joining. If an encryption key has been agreed to by the other members of the network, type this value as well.

Important



All computers on your network must have the same network name and encryption key. For help, ask your network system administrator.

- 7 If you are configuring your notebook for an access point network, tabs are available to enter additional configuration information as necessary. Contact your network system administrator or refer to the access point documentation before typing this information.
- **8** Click **OK** to close the *Edit Configuration* dialog box.
- **9** If you are setting up your notebook for more than one network, repeat steps 3 through 8 to create additional profiles.
- **10** Click **OK** to close the *Add/Edit Configuration Profile* dialog box.

Ø

Identifying this notebook on the network in Windows 98 and Windows 2000

If this is the first time you have used networking on your notebook, you need to provide Windows with the name of the notebook and the workgroup to which it belongs.

To identify this notebook on the network:

- 1 Click Start, Settings, then click Control Panel. The *Control Panel* window opens.
- **2** Double-click the **Network** icon. The *Network* dialog box opens.

3 Click the **Identification** tab.

Network		? ×
Configuration Iden	dilication Access Control	
comput	vs uses the following information to identify er on the network. Please type a name for er, the workgroup it will appear in, and a st tion of the computer.	this
Computer name:	Aloysius	
Wgrkgroup	Salez	
Computer Description	John's Notebook	- 1
	OK C	ancel

- **4** Type a unique computer name in the **Computer name** box. This name identifies this notebook on the network.
- **5** Type the name of the workgroup this notebook belongs to in the **Workgroup** box. This name is usually assigned by the network system administrator and identifies which group of computers this notebook is most likely to communicate with.
- **6** Type a description of the notebook in the **Computer Description** box. This description lets other network users identify who this notebook belongs to.
- 7 Click OK.



Configuring Windows 98 and Windows 2000 for wireless Ethernet

To configure Windows to use the wireless Ethernet network:

- 1 Click Start, Settings, then click Control Panel. The *Control Panel* window opens.
- **2** Double-click the **Network** icon. The *Network* dialog box opens.

Network					
Configuration Identification Access Control					
The following network components are installed: NetBEUI -> VIA PCI 10/100Mb Fast Ethernet Adapter TCP/IP -> Dial-Up Adapter TCP/IP -> Dial-Up Adapter #2 (VPN Support) TCP/IP -> Dial-Up Adapter #2 (VPN Support) TCP/IP -> ORiNOCO Mini PCI Card TCP/IP -> VIA PCI 10/100Mb Fast Ethernet Adapter					
Add Remove Properties Primary Network Logon:					
Windows Logon					
Eile and Print Sharing Description TCP/IP is the protocol you use to connect to the Internet and wide-area networks.					
OK Cancel					

3 Click to select TCP/IP -> ORiNOCO Mini PCI Card in the The following network components are installed items list. If you do not see Internet Protocol (TCP/IP), drag the scroll bar to see more choices.

4 Click **Properties**. The *TCP/IP Properties* dialog box opens.

TCP/IP Properties		? ×				
Bindings	Advanced	NetBIOS				
DNS Configuration	Gateway WINS Confi	iguration IP Address				
If your network doe	An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.					
◯ <u>O</u> btain an IP	address automatically					
_⊡ <u>S</u> pecify an IF	address:					
<u>I</u> P Address:	· ·					
S <u>u</u> bnet Mas	k: 🔽 .					
_	ection to network media					
	OK	Cancel				

- **5** Click the **IP Address** tab.
- **6** If you are using a DHCP server, click **Obtain an IP address automatically**.

- OR -

If you are not using a DHCP server, click **Specify an IP address**, then type the IP address in the **IP address** box and the Subnet mask in the **Subnet mask** box.

Important

If you are required to type an IP Address and Subnet Mask, ask your network system administrator for the correct values.

- **7** Click **OK** to close the *TCP/IP Properties* dialog box.
- **8** Click **OK** to close the *Network* dialog box.



Connecting to a wireless Ethernet network in Windows 98 and Windows 2000

Once you have set up your profiles for all the possible wireless Ethernet networks you may want to connect to, it is easy to select which network to access.

To connect to a wireless Ethernet network:

- **1** Right-click the ORiNOCO Client Manager icon in the taskbar.
- 2 Click **Configuration Profile**, then click the profile for the network you want to access.

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Checking network signal strength in Windows 98 and Windows 2000

If your wireless Ethernet network is running slower than you expect, you should check your network signal strength. If you find the signal strength is low, try moving to a new location to increase the signal strength.



To check the signal strength of your wireless Ethernet network:

 Click Start, Programs, ORiNOCO, then click Client Manager. The ORiNOCO Client Manager window opens.

The meter on the left side shows the signal strength for wireless Ethernet on your notebook if other computers with the same network name are within range of your notebook.

The status box in the middle provides status and error messages.

🔍 O	RiNOCO	Client Ma	nager		_ 🗆 🗙
<u>F</u> ile	Actions	Advanced	<u>H</u> elp		
Ĺ			Current configuration pro	ofile Default	•
	Signal		Status Connected to network Radio connection Access Point name Channel Encryption	: My Network : Excellent : AP-1000_00UT46250837 : 10 : Off	
	-			<u> </u>	H <u>e</u> lp



Signal strength is affected by the distance between your wireless network devices, by radio interference, and by interference due to natural obstructions such as walls, floors, and doors.

Purchasing additional network equipment

Use the following shopping lists when purchasing equipment for your network.

HPNA

For an HPNA network you need:

■ An HPNA card installed in each desktop computer

- OR -

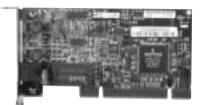
An HPNA/V.90 combination card installed in each desktop computer

- OR -

A USB HPNA adapter attached to each desktop or notebook

- OR -

An HPNA PC Card installed in each notebook



HPNA card



USB HPNA adapter

■ Modem cable going from each computer to the closest telephone jack

Important



All HPNA components should be HPNA 2.0. A mixture of HPNA 1.0 and HPNA 2.0 components will result in your network running at a slower speed.

Ethernet

For an Ethernet network you need:

 An Ethernet card installed in each desktop computer

- OR -

An Ethernet jack on each desktop and notebook





Ethernet card and hub

An Ethernet PC Card installed in each notebook

- An Ethernet hub or switch with enough ports for each computer and device in the network (hubs are slightly cheaper than switches but may run slower than switches)
- Ethernet cable going from each computer to the hub or switch

Important



All Ethernet components should be either standard Ethernet (10 Mbps) or Fast Ethernet (100 Mbps). A mixture of Ethernet and Fast Ethernet components will result in your network running at the slower speed.

Wireless Ethernet

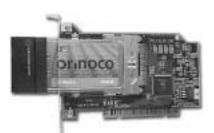
For a wireless Ethernet network you need:

 A wireless Ethernet (IEEE 802.11b) PCI card installed in each desktop computer

- OR -

A wireless Ethernet (IEEE 802.11b) PC Card installed in each notebook that does not have wireless Ethernet built-in

 A wireless Ethernet (IEEE 802.11b) Access Point if you want to connect your wireless Ethernet to the Internet or a wired network



Wireless Ethernet PCI card



Wireless Ethernet PC card



Wireless Ethernet Access Point

For more information

For more information about networking your home or office, discuss your particular needs with your Gateway Country Store representative. In addition, several books and Internet sites are dedicated to networking. Refer to these sources for more information about networking your home or office with HPNA, Ethernet, or Wireless Ethernet.

Moving From Your Old Computer



Insert Data Migration Overview module here.

Chapter 14: Moving From Your Old Computer

www.gateway.com

Maintaining Your Notebook



Insert Maintaining Your Computer module here.

www.gateway.com

Chapter 15: Maintaining Your Notebook

www.gateway.com

Restoring Software



Insert Restoring Software module here.

Chapter 16: Restoring Software

17

Troubleshooting

This chapter provides some solutions to common computer problems. Use the information to troubleshoot and correct typical hardware and software issues.

This chapter also includes information about:

- Telephone support
- Automated troubleshooting systems
- Tutoring and training

If the suggestions in this chapter do not correct the problem, see "Getting Help" on page 43 for more information about how to get help.



For more information about troubleshooting your notebook in Windows XP, click **Start**, then click **Help and Support**.

Safety guidelines

While troubleshooting your computer, follow these safety guidelines:

- Never remove the memory bay cover while your computer is turned on, while the battery is installed, and while the modem cable, network cable, and AC power adapter are connected.
- Make sure you are correctly grounded before accessing internal components. For more information about preventing damage from static electricity, see "Preventing static electricity discharge" on page 86.

First steps

If you have problems with your computer, try these things first:

- Make sure that the AC power adapter is connected to your computer and an AC outlet and that the AC outlet is supplying power.
- If you use a power strip or surge protector, make sure it is turned on.
- If a peripheral device (such as a keyboard or mouse) does not work, make sure that all connections are secure.
- Make sure that your hard drive is not full.
- If an error message appears on the screen, write down the exact message. The message may help Gateway Technical Support in diagnosing and fixing the problem.
- If you added or removed modules or peripheral devices, review the installation procedures you performed and make sure you followed each instruction.
- If an error occurs in a program, consult the program's printed documentation or the online help.



Do not try to troubleshoot your problem if power cords or plugs are damaged, if your computer was dropped, or if the cabinet was damaged. Instead, unplug your computer and contact a qualified computer technician.

Help and Support For more information about troubleshooting your notebook in Windows XP, click **Start**, then click **Help and Support**.

Software support tools

Your system *may* include the following support tool to help you diagnose and fix problems:

■ *PC Doctor* is a comprehensive hardware diagnostic and system information tool that can test your computer and determine its configuration. PC Doctor provides 85 professional diagnostic tests directly from your computer.

This support tool is available from HelpSpot or by clicking **Start**, **All Programs**, then clicking **Gateway Utilities**.



For more information on using PC Doctor in Windows XP, click **Start**, then click **Help and Support**.

Troubleshooting

CD, DVD, CD-RW, or DVD/CD-RW drives

The computer does not recognize a disc or the drive

- The disc may not be correctly seated in the tray. When you place a disc on the tray, make sure that you press the disc firmly onto the spindle so that the retainers hold the disc in place.
- The modular drive may not be completely inserted into the drive bay. Press the drive into the bay, then try to access the disc again.
- Make sure the disc label is facing up.
- Try a different disc. Occasionally discs are flawed and cannot be read by the drive.
- Clean the disc. For more information, see "To clean a CD or DVD:" on page 152.
- Your computer may be experiencing some temporary memory problems. Shut down and restart your computer.

An audio CD does not produce sound

- Make sure the CD label is facing up.
- Make sure the volume control on your notebook is turned up. For more information, see <a href="mailto:<a href="mailto:separation-separat
- Make sure the Windows volume control is turned up. For more information, see <<u>adjusting volume references></u>.
- Make sure that **Mute** is not selected. For more information, see <<u>adjusting</u> <u>volume references</u>.
- Clean the CD. For more information, see "To clean a CD or DVD:" on page 152.
- Your computer may be experiencing some temporary memory problems. Shut down and restart your computer.
- Reinstall the audio device drivers. For more information, see <<u>Reinstalling</u> device drivers references>.

A DVD movie will not play

■ Make sure the label or side you want to play is facing up.

- Shut down and restart your computer.
- The DVD's regional code and your computer's regional code may not match. *Regional codes* help control DVD title exports and help reduce illegal disc distribution. To be able to play a DVD, the regional code on the disc and the regional code for the DVD drive must match.

The regional code on your DVD drive is determined by delivery address for your computer. The regional code for the disc is on the disc, disc documentation, or packaging.

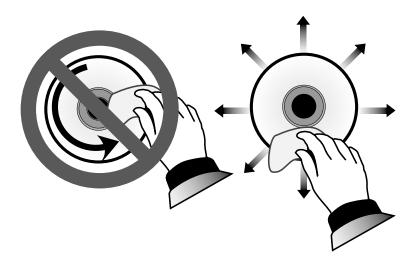
A DVD does not produce sound on a TV

■ Audio is not transmitted through the TV out jack. Use the built-in speakers, a set of headphones or external powered speakers, or connect your notebook to a stereo system to hear sound while playing a DVD.



To clean a CD or DVD:

 Wipe from the center to the edge, not around in a circle, using a product made especially for the purpose.



1

Device installation

You have computer problems after adding a new device

Sometimes a new device, such as a PC Card, can cause a system resource (IRQ) conflict. Check IRQ usage to determine if there is an IRQ conflict.



To check IRQ usage in Windows XP:

- 1 Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click Performance and Maintenance.
- **2** Click/Double-click **System**, click the **Hardware** tab, then click **Device** Manager. The *Device Manager* window opens.
- **3** Click View, Resources by type, then double-click Interrupt request (IRQ). All IRQs and their hardware assignments are displayed.

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🗭 To check IRQ usage in Windows 2000:

- 1 Click Start, Settings, then click Control Panel. The Control Panel window opens.
- **2** Double-click **System**, click the **Hardware** tab, then click **Device** Manager. The Device Manager window opens.
- **3** Click View, Resources by type, then double-click Interrupt request (IRQ). All IRQs and their hardware assignments are displayed.

6



To check IRQ usage in Windows 98:

- 1 Click Start, Settings, then click Control Panel. The Control Panel window opens.
- **2** Double-click the **System** icon, then click the **Device Manager** tab. The Device Manager window opens.
- **3** Click **Computer**, then click **Properties**. The *Computer Properties* dialog box opens and displays the IRQs and their hardware assignments.



To free IRQ resources for the new device in Windows XP and Windows 2000:

- 1 In the *Device Manager* window, check the device list for a resource conflict. A resource conflict appears as a black exclamation point in a yellow circle.
- **2** Remove the device you are trying to install, then determine which one of the existing devices or ports you can disable.
- **3** Right-click the device or port you want to disable, then click **Disable**. The device or port is disabled.

(7)



To free IRQ resources for the new device in Windows 98:

- 1 In the *Device Manager* window, check the device properties for a resource conflict. A resource conflict appears as a black exclamation point in a yellow circle.
- **2** Remove the device you are trying to install, then determine which one of the existing devices or ports you can disable.
- **3** In the Device Manager, double-click **Ports**, click the port you want to disable, then click **Properties**.
- **4** In the **Device usage** area, click to select the **Disabled in this hardware profile** check box, then click **OK**.

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Diskette drive

The diskette drive is not recognized

- Shut down and restart your computer.
- The modular drive may not be completely inserted into the drive bay. Press the drive into the bay, then try to access the diskette again.

You receive a "Access Denied" or "Write protect" error message

- Move the write-protection tab in the upper-right corner of the diskette down (unprotected).
- The diskette may be full. Delete unnecessary files on the diskette and try again.

- Not all diskettes are IBM-compatible. Make sure the diskette you are using is IBM-compatible.
- Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.

You receive a "Disk is full" error message

- Delete unnecessary files on the diskette.
- Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.
- Run Error checking or ScanDisk on the diskette. For more information, see <scanning the hard drive for errors reference>. If errors are detected and corrected, try using the diskette again.

You receive a "Non-system disk" or "Disk error" error message

- Eject the diskette from the diskette drive, then press ENTER.
- Make sure the diskette you are using is IBM-compatible.

The light on the diskette drive is lit continuously

■ Remove the diskette from the drive. If the light stays on, try restarting your computer.

File management

A file was accidentally deleted



To restore deleted files:

- **1** Double-click the **Recycle Bin** icon.
- **2** Right-click the file you want to restore, then click **Restore**. The file is restored to the place where it was originally deleted from.

If the Recycle Bin was emptied before you tried to restore a file, the file cannot be recovered.

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Hard drive

You receive an "Insufficient disk space" error message

- Delete unnecessary files from the hard drive using Disk Cleanup. For more information, see <<u>Using Disk Cleanup reference></u>.
- Empty the Recycle Bin by right-clicking the Recycle Bin icon and clicking Empty Recycle Bin.

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Caution
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All deleted files will be lost when you empty the Recycle Bin.

- If possible, save your files to a diskette or another drive.
- If the hard drive is full, copy any files not regularly used to diskettes or other backup media, then delete them from the hard drive.

You receive a "Data error" message

This may be the result of a defective area on the hard drive. To fix hard drive problems, run the Error checking or the ScanDisk program. For more information, see <scanning the hard drive for errors reference>

The hard drive cannot be accessed, or you receive a "General failure reading drive C" error message

- If a diskette is in the diskette drive, eject it and restart the computer.
- If your computer has been subjected to static electricity or physical shock, you may need to reinstall the operating system.

The secondary hard drive is not recognized

■ The modular drive may not be completely inserted into the drive bay. Press the drive into the bay, then try to access the hard drive again.

Internet

You cannot connect to the Internet

Make sure the modem cable is plugged into the modem jack and not the Ethernet network jack. See "Back" on page 6 to make sure that the connections have been made correctly.

- Make sure your computer is connected to the telephone line and the telephone line has a dial tone.
- If you have the call waiting feature on your telephone line, make sure it is disabled.
- Make sure your account with your Internet Service Provider (ISP) is set up correctly. Contact your ISP technical support for help.
- Make sure you do not have a problem with your modem. For information about solving modem problems, see "Modem" on page 159.

You receive an "Unable to locate host" message and are unable to browse the Internet

This problem can occur when you have typed a URL (Web address) incorrectly, you have lost your Internet connection, or your ISP is having technical difficulties.

- Double-check the URL or try a different URL.
- If the error message still appears, disconnect from the ISP connection and close your browser, then reconnect and open the browser. If you still get the error, your ISP may be having technical difficulties.

Connecting to a Web site takes too long

Many factors can affect Internet performance:

- The condition of the telephone lines in your residence or at your local telephone company
- The condition of the Internet computers to which you connect and the number of users accessing those computers
- The complexity of graphics and multimedia on Web pages
- Having multiple Web browsers open, performing multiple downloads, and having multiple programs open on your computer

People are sending you e-mail messages, but you have not received any mail

- Click the receive button in your e-mail program.
- Make sure your account with your Internet Service Provider (ISP) is set up correctly. Contact your ISP technical support for help.

Keyboard

The external keyboard does not work

- Make sure the keyboard cable is plugged in correctly.
- Try a keyboard that you know works to make sure the keyboard port works.
- If you spilled liquid in the keyboard, turn off the computer and unplug the keyboard. Clean the keyboard and turn it upside down to drain it. Let the keyboard dry before using it again.

A keyboard character keeps repeating or you receive a "Keyboard stuck" or "Key failure" error message

- Make sure that nothing is resting on the keyboard.
- Make sure a key is not stuck. Press each key to loosen a key that might be stuck, then restart the computer.

LCD panel

The screen is too dark

■ Adjust the brightness using the function keys.

The screen resolution is not correct

Change the screen resolution and color depth from the *Display Properties* dialog box. For more information, see <<u>Adjusting the color depth</u> reference> and <<u>adjusting the screen area reference></u>.

The text on the display is dim or difficult to read

- Adjust the brightness controls.
- Move the computer away from sources of electrical interference such as televisions, unshielded speakers, microwaves, fluorescent lights, and metal beams or shelves.
- Change the display settings. For more information, see <<u>Adjusting the</u> screen and desktop settings reference.>

The LCD panel has pixels that are always dark or too bright

This condition is normal and inherent in the TFT technology used in active-matrix LCD screens. Gateway's inspection standards keep these to a minimum. If you feel these pixels are unacceptably numerous or dense on your display, contact Gateway Technical Support to identify whether a repair or replacement is justified based on the number of pixels affected.

Memory

You receive a "Memory error" message

- Make sure the memory modules are inserted correctly in the memory bay slot. For more information, see "Installing memory" on page 87.
- Use diagnostic programs to help determine if a memory module is failing. For more information, see "Installing memory" on page 87.

You receive a "Not enough memory" error message

■ Close all programs, then restart the computer.

Modem

Your modem does not dial or does not connect

- Make sure the modem cable is plugged into the modem jack and not the Ethernet network jack. See "Back" on page 6 to make sure that the connections have been made correctly.
- Make sure your computer is connected to the telephone line and the telephone line has a dial tone.
- Make sure that the modem cable is less than 6 feet (1.8 meters) long.
- Remove any line splitters or surge protectors from your telephone line, then check for a dial tone by plugging a working telephone into the telephone wall jack.
- If you have additional telephone services such as call waiting, call messaging, or voice mail, make sure that all messages are cleared and call waiting is disabled before using the modem. Contact your telephone service to get the correct code to temporarily disable the service. Also make sure the modem dialing properties are set appropriately.



1 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.

- OR -

In Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.

- 2 Click/Double-click the Phone and Modem Options icon, then click the Dialing Rules tab.
- **3** Select the location from which you are dialing, then click **Edit**.
- **4** Make sure all settings are correct.

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To check the dialing properties in Windows 98:

- **1** Click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.
- 2 Click/Double-click the **Modems** icon, then click **Dialing Properties**. The *Dialing Properties* window opens.
- **3** Make sure all settings are correct.

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- Disconnect any answering machine, fax machine, or printer that is on the same line as the modem. You should not have these devices plugged into the same telephone line as the modem.
- Make sure that you are not using a digital, rollover, or PBX line. These lines do not work with your modem.
- Check for line noise (scratchy, crackling, or popping sounds). Line noise is a common problem that can cause the modem to connect at a slower rate, abort downloads, or even disconnect. The faster the modem, the less line noise it can tolerate and still work correctly.
- Listen to the line using your telephone. Dial a single number (such as 1). When the dial tone stops, listen for line noise. Wiggle the modem cable to see if that makes a difference. Make sure the connectors are free from corrosion and all screws in the wall or telephone wall jack are secure.

- You can also call your telephone service and have them check the telephone line for noise or low line levels.
- Try another telephone line (either a different telephone number in your house or a telephone line at a different location). If you can connect on this line, call your telephone company.
- Try connecting with the modem at a lower connection speed. If reducing the connect speed lets you connect, contact your telephone company. The telephone line may be too noisy.

You cannot connect to the Internet

- The ISP may be having technical difficulties. Contact your ISP technical support for help.
- See if the modem works with a different communications program. The problem may be with just one program.

Your 56K modem does not connect at 56K

Current FCC regulations restrict actual data transfer rates over public telephone lines to 53K. Other factors, such as line noise, telephone service provider equipment, or ISP limitations, may lower the speed even further.

If your system has a v.90 modem, the speed at which you can upload (send) data is limited to 33.6K. If your system has a v.92 modem, the speed at which you can upload data is limited to 48K. Your ISP may not support 48K uploads.

You can check modem connection speeds and dial-up network (DUN) connections by accessing the *gateway.your.way dial-up server*. The server also contains drivers, patches, and updates for current Gateway hardware and software.

The server provides a secure connection and is a stand-alone server. You cannot use it to access the Internet. The server cannot be accessed Mondays from 8:00 a.m. to 12:00 p.m. CST.

To access the gateway.your.way dial-up server:

- 1 Insert the red *Drivers* CD of the *System Restoration Kit*.
- **2** Click Help.
- **3** Click **Support Web Site**, then follow the on-screen instructions.

4 To check your modem connection speed, select the **Direct Dial** option. After your modem connects, move the mouse pointer over the **Dial-Up Networking** icon (located next to the clock on your Taskbar), your modem connection speed appears.

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Your fax communications program only sends and receives faxes at 14,400 bps when you have a 56K modem

Current fax technology only supports a maximum send and receive rate of 14,400 bps.

The modem is not recognized by the computer

- Make sure the line connected to the modem is working and plugged into the appropriate port on the modem. See "Back" on page 6 to make sure that the connections have been made correctly.
- If the modem shares the telephone line with another device, make sure the telephone line is not in use (for example, someone is on the telephone, or another modem is in use).
- Use the modem cable that came with your computer. Some telephone cables do not meet required cable standards and may cause problems with the modem connection.
- Shut down and restart your computer.
- Run Windows modem diagnostics.



To run modem diagnostics in Windows XP and Windows 2000:

- 1 Close all open programs.
- 2 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.

- OR -

In Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.

- **3** Click/Double-click the **Phone and Modem Options** icon, then click the **Modems** tab.
- **4** Click to select your modem, then click **Properties**. The *Modem Properties* window opens.

5 Click the **Diagnostic** tab, then click **Query Modem**. If information about the modem appears, the modem passed diagnostics. If no modem information is available, a white screen appears with no data, or if you get an error such as "*port already open*" or "*the modem has failed to respond*," the modem did not pass diagnostics.

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To run modem diagnostics in Windows 98:

- 1 Close all open programs.
- **2** Click **Start**, then **Settings**, then click **Control Panel**. The *Control Panel* window opens.
- **3** Double-click the **Modems** icon. The *Modems Properties* dialog box opens.
- 4 Click the **Diagnostic** tab, click the COM port next to the name of the modem, then click **More Info**. The *Modem Info* dialog box opens.

If information about the modem appears, the modem passed diagnostics. If no modem information is available, if a white screen appears with no data, or if you get an error, the modem did not pass diagnostics. Contact Gateway Technical Support.

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The modem is noisy when it dials and connects

When your modem tries to connect to another modem, it begins *handshaking*. Handshaking is a digital "getting acquainted" conversation between the two modems that establishes connection speeds and communication protocols. You may hear unusual handshaking sounds when the modems first connect. If the handshaking sounds are too loud, you can turn down the modem volume.

\odot To turn down the modem volume in Windows XP and Windows 2000:

1 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.

- OR -

In Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.

- **2** Click/Double-click the **Phone and Modem Options** icon, then click the **Modems** tab.
- **3** Select the modem you want to adjust, then click **Properties**.
- **4** Click the **Modem** tab, then adjust the **Speaker volume** control.
- **5** Click **OK** twice to exit Phone and Modem Options.

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To turn down the modem volume in Windows 98:

- **1** Click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.
- **2** Double-click the **Modems** icon. The *Modems Properties* dialog box appears.
- **3** Click the **General** tab, select your modem, then click **Properties**.
- **4** Adjust the **Speaker volume** control.
- 5 Click **OK**.



Mouse

The external mouse does not work

- Make sure that the mouse cable is plugged in correctly.
- Try a mouse you know is working to make sure the mouse port works.
- Shut down and restart your computer.

The external mouse works erratically

Clean the mouse. For more information, see <<u>cleaning the mouse</u> <u>reference></u>.

Networks

You cannot connect to your company network

■ Every network is unique. Contact your company computer department or network administrator for help.

Passwords

The computer does not accept your password

■ Make sure that CAPS LOCK and PAD LOCK are turned off, then retype the password.

You forgot your startup password

■ The password feature (which is set in the BIOS Setup utility) is very secure, with no easy way to recover a forgotten password. You must return your computer for repair. Call Gateway Technical Support for instructions.

PC Cards

You installed a PC Card and now your computer is having problems

- Make sure you have correctly installed required software for the PC Card. For more information, see your PC Card's documentation.
- Make sure that the PC Card you installed is not causing a system resource conflict. For more information on resource conflicts, see "Device installation" on page 153.

Power

Your computer is not working on AC power

- Make sure your AC power adapter is connected correctly to your computer. For more information, see "Connecting the AC adapter" on page 22.
- If your system is plugged into a surge protector, make sure the surge protector is securely connected to an electrical outlet, switched on, and working correctly. To test the outlet, plug a working device, such as a lamp, into the outlet and turn it on.
- Make sure the AC power adapter cables are free from cuts or damage. Replace any damaged cables.

Your computer is not working on battery power

 Make sure the battery is installed correctly. For more information, see "Changing batteries" on page 63.

- Make sure the battery is fully recharged. For more information, see "Recharging the battery" on page 61.
- Make sure the battery is calibrated correctly. For more information, see "Recalibrating the battery" on page 62.

Your computer will not turn off, even after pressing the power button for five seconds

■ If your system has "frozen," and pressing the power button for five seconds does not turn it off, insert a straightened paper clip into the reset hole on the bottom of your notebook. For the location of the reset hole, see "Bottom" on page 7.

Printer

The printer will not turn on

■ Make sure the power cable is plugged into an AC power source.

The printer is on but will not print

- Check the cable between the printer and the computer. Make sure it is connected to the proper port.
- Most printers have an online/offline button that you may need to press so the printer can start printing. Press the button to put the printer online.
- Check the connector and cable for bent or broken pins.
- If the printer you want to print to is not the default printer, make sure you have selected it in the printer setup.



To set a default printer in Windows XP:

- 1 Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click Printers and Other Hardware.
- **2** Click/Double-click the **Printers and Faxes** icon. The *Printers and Faxes* window opens.
- **3** Right-click the name of the printer you want to be the default printer, then click Set as Default Printer.



\mathbb{Y}^{2} To set a default printer in Windows 98 and Windows 2000:

- **1** Click Start, Settings, then click Printers.
- **2** Right-click on the name of the printer you want to be the default printer, then click Set as Default.

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■ Reinstall the printer driver. Use the manual that came with your printer for instructions on installing the printer driver.

You receive a "Printer queue is full" error message

■ Make sure the printer is not set to work offline.



To make sure the printer is not set to work offline in Windows XP:

- 1 Click Start, then click Control Panel. The *Control Panel* window opens. If your Control Panel is in Category View, click Printers and Other Hardware.
- **2** Click/Double-click the **Printers and Faxes** icon. The *Printers and Faxes* window opens.
- **3** Right-click the name of the printer you want to use. If the menu shows a check mark next to Use Printer Offline. click Use Printer Offline to clear the check mark.

Ø



\mathbb{C}^{\odot} To make sure the printer is not set to work offline in Windows 98 and Windows 2000:

- 1 Click Start, Settings, then click Printer.
- **2** Double-click the icon for the printer you want to use.
- **3** Right-click the name of the printer you want to use. If the menu shows a check mark next to Use Printer Offline, click Use Printer Offline to clear the check mark.



■ Wait until files have been printed before sending additional files to the printer.

■ If you print large files or many files at one time, you may want to add additional memory to the printer. Consult the printer documentation for instructions for adding additional memory.

You receive a "Printer is out of paper" error message

■ After adding paper, make sure the printer is online. Most printers have an online/offline button that you need to press after adding paper.

Sound

You are not getting sound from the built-in speakers

- Make sure headphones are not plugged into the headphone jack. For the location of the headphone jack, see "Left side" on page 3.
- Make sure the volume control on your notebook is turned up. For more information, see <a href="mailto:separation-separ
- Make sure the Windows volume control is turned up. For more information, see <a href="mailto:
- Make sure that **Mute** is not selected. For more information, see <<u>adjusting</u> <u>volume references></u>.

Video

The external monitor is not working

- Make sure you have pressed FN+LCD/CRT to activate the external monitor option.
- Make sure that the monitor power is turned on and that the video cable is correctly connected.

TV out is not working

- Make sure you have turned on TV out. For more information, see "Viewing the display on a television" on page 54.
- Make sure that the television power is turned on and that the RCA video cable is correctly connected.
- Televisions in different countries use different standards. If you are traveling, you may need to change the TV Out Mode. For more information, see "Viewing the display on a television" on page 54.

Telephone support

Before calling Gateway Technical Support

If you have a technical problem with your computer, follow these recommendations before contacting Gateway Technical Support:

- Make sure that your computer is connected correctly to a grounded AC outlet that is supplying power. If you use a power strip, make sure that it is switched on.
- If a peripheral device, such as a keyboard or mouse does not appear to work, make sure that all cables are plugged in securely.
- If you have recently installed hardware or software, make sure that you have installed it according to the instructions provided with it. If you did not purchase the hardware or software from Gateway, refer to the manufacturer's documentation and technical support resources.
- If you have "how to" questions about using a program, consult:
 - Online Help
 - Printed documentation
 - The Microsoft Windows documentation
 - The software publisher's Web site
- Consult the troubleshooting section of this chapter.



To avoid bodily injury, do not attempt to troubleshoot your computer problem if:

- Power cords or plugs are damaged
- Liquid has been spilled into your computer
- Your computer was dropped
- The cabinet was damaged

Instead, unplug your computer and contact a qualified computer technician.

- Have your customer ID, serial number, and order number available, along with a detailed description of your issue, including the exact text of any error messages, and the steps you have taken.
- Make sure that the computer is nearby at the time of your call. The technician may have you follow appropriate troubleshooting steps while on the line.

Telephone numbers

You can access the following services through your telephone to get answers to your questions:

Resource	Service description	How to reach
Automated troubleshooting system (ATS)	Use an automated menu system and your telephone keypad to find answers to common problems.	800-846-2118 (US) 877-709-2945 (Canada)
Fax on demand support	Order a catalog of documents on common problems, then order documents by document numbers. The documents will be faxed to you.	800-846-4526 (US) 877-709-2951 (Canada)
Gateway's fee-based software tutorial service	Get tutorial assistance for software issues billed by the minute.	800-229-1103 (charged to your credit card) 900-555-4695 (charged to your telephone bill)
Gateway Technical Support	Talk to a Gateway Technical Support representative about a non-tutorial technical support question. (Refer to "Before calling Gateway Technical Support" on page 169 before calling.) TDD Technical Support (for hearing impaired) is available: Weekdays 6:00 a.m 8:00 p.m. Central Time Weekends 6:00 a.m 5:00 p.m. Central Time	800-846-2301 (US) 800-846-3609 (Canada and Puerto Rico) 605-232-2191 (all other countries) 800-846-1778 (TDD)
America Online	Get support for your America Online ISP account	800-827-6364 (US) 888-265-4357 (Canada)
CompuServe	Get support for your CompuServe ISP account	800-848-8990 (US)
Sales, accounting, and warranty	Get information about available systems, pricing orders, billing statements, warranty service, or other non-technical issues.	800-846-2000 (US) 888-888-2037 (Canada)

Tutoring and training

Gateway's Technical Support professionals cannot provide hardware and software training or tutorial services. Instead, Gateway recommends the following tutoring and training resources.

Self-help

If you have *how-to* questions about using your Gateway-supplied hardware or software, consult the following resources:

- The printed or online documentation that came with your hardware or software. In many cases, additional product information and online documentation for Gateway-supplied hardware can be found in our Web site's Documentation Library
- This user's guide
- The software publisher's Web site

Tutoring

For help on using hardware or software that came with your Gateway computer, contact Gateway's fee-based tutorial hotline:

- 800-229-1103 (rate charged per minute; charged to a major credit card)
- 900-555-4695 (rate charged per minute; charged to your telephone bill)

Training

Gateway provides the following in-person and computerized training:

Resource	Service description	For more information
In-Store Training at Gateway Country stores	Our friendly and knowledgeable software trainers can teach you how to use the Internet and the most popular software programs, including Microsoft Word, Excel, and PowerPoint.	www.gateway.com/country

Resource	Service description	For more information
Gateway Learning Libraries	A variety of courses and tutorials are available on CD. Select from several easy-to-use learning libraries.	www.gateway.com/training
Online Training from Learn@Gateway	More than 450 online courses are available from Learn@Gateway. All you have to do is go online and log in. You select the subject matter, and the learning format (self-paced tutorials or virtual classrooms), all from the comfort of your computer.	www.learnatgateway.com/

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Microsoft Windows is a registered trademark of the Microsoft Corporation.

Product names mentioned herein are for identification purposes only, and may be trademarks and/or registered trademarks of their respective companies.

Macrovision Statement

If your computer has a DVD drive and an analog TV Out port, the following paragraph applies:

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

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Important Safety Information

Safety Instructions

Your system is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.



Always follow these instructions to help guard against personal injury and damage to your system.

Setting Up your System

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable work surface.
- The product should be operated only with the type of power source indicated on the rating label.
- Ensure that the electrical outlet you are using to power your equipment is easily accessible in case of fire or short circuit.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area.
- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the computer ventilation openings.
- Ensure that the fan vents on the bottom of the casing are clear at all times. Do not place the computer on a soft surface, doing so will block the bottom vents.
- If you use an extension cord with this system, make sure that the total ampere rating on the products plugged into the extension cord does not exceed the extension cord ampere rating.

Care During Use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the system. The best way to avoid spills is to not eat or drink near your system.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturer's instructions. If the CMOS battery requires replacement insure that a qualified technician performs the task
- When the computer is turned off, a small amount of electrical current still flows through the computer. To avoid electrical shock, always unplug all power cables, remove the battery and modem cables from the wall outlets before cleaning the system.
- Unplug the system from the wall outlet and refer servicing to qualified personnel if:
 - The power cord or plug is damaged.
 - Liquid has been spilled into the system.
 - The system does not operate properly when the operating instructions are followed.
 - The system was dropped or the casing is damaged.
 - The system performance changes.

Replacement Parts and Accessories

Use only replacement parts and accessories recommended by manufacturer.



To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.



Do not use this product in areas classified as hazardous. Such areas include patient care areas of medical and dental facilities, oxygen rich environments, or industrial areas.

Battery Disposal



Do not put rechargeable batteries or products powered by non-removable rechargeable batteries in the garbage.

Contact the Samsung Helpline for information on how to dispose of batteries that you cannot use or recharge any longer.

Follow all local regulations when disposing of old batteries.

Regulatory Compliance Statements

Wireless Guidance

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. The following section is a general overview of considerations while operating a wireless device.

Additional limitations, cautions, and concerns for specific countries are listed in the specific country sections (or country group sections). The wireless devices in your system are only qualified for use in the countries identified by the Radio Approval Marks on the system rating label. If the country you will be using the wireless device in, is not listed, please contact your local Radio Approval agency for requirements. Wireless devices are closely regulated and use may not be allowed.

The power output of the wireless device or devices that may be embedded in your notebook is well below the RF exposure limits as known at this time. Because the wireless devices (which may be embedded into your notebook) emit less energy than is allowed in radio frequency safety standards and recommendations, manufacturer believes these devices are safe for use. Regardless of the power levels, care should be taken to minimize human contact during normal operation.

As a general guideline, a separation of 20 cm (8 inches) between the wireless device and the body, for use of a wireless device near the body (this does not include extremities) is typical. This device should be used more than 20 cm (8 inches) from the body when wireless devices are on and transmitting.

This transmitter must not be collocated or operation in conjunction with any other antenna or transmitter.

Some circumstances require restrictions on wireless devices. Examples of common restrictions are listed below:



Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. 802.11B (also known as wireless Ethernet or Wifi) and Bluetooth communication devices are examples of devices that provide wireless communication.



In environments where the risk of interference to other devices or services is harmful or perceived as harmful, the option to use a wireless device may be restricted or eliminated. Airports, Hospitals, and Oxygen or flammable gas laden atmospheres are limited examples where use of wireless devices may be restricted or eliminated. When in environments where you are uncertain of the sanction to use wireless devices, ask the applicable authority for authorization prior to use or turning on the wireless device.



Every country has different restrictions on the use of wireless devices. Since your system is equipped with a wireless device, when traveling between countries with your system, check with the local Radio Approval authorities prior to any move or trip for any restrictions on the use of a wireless device in the destination country.



If your system came equipped with an internal embedded wireless device, do not operate the wireless device unless all covers and shields are in place and the system is fully assembled.



Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Please contact manufacturer for service.



Only use drivers approved for the country in which the device will be used. See the manufacturer System Restoration Kit, or contact manufacturer Technical Support for additional information.

Federal Communications Commission (FCC)

Intentional emitter per FCC Part 15

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the United States of America if an FCC ID number is on the system label.

The FCC has set a general guideline of 20 cm (8 inches) separation between the device and the body, for use of a wireless device near the body (this does not include extremities). This device should be used more than 20 cm (8 inches) from the body when wireless devices are on. The power output of the wireless device (or devices), which may be embedded in your notebook, is well below the RF exposure limits as set by the FCC.

This transmitter must not be collocated or operation in conjunction with any other antenna or transmitter.

Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.



Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.



FCC Statement for Wireless LAN use:

"While installing and operating this transmitter and antenna combination the radio frequency exposure limit of 1mW/cm2 may be exceeded at distances close to the antenna installed. Therefore, the user must maintain a minimum distance of 20cm from the antenna at all times. This device can not be colocated with another transmitter and transmitting antenna."

Unintentional Emitter per FCC Part 15

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause harmful interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet helpful: "Something About Interference." This is available at FCC local regional offices. Our company is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by our company. The correction will be the responsibility of the user. Use only shielded data cables with this system.

Federal Communications Commission Part 68 Statement

This equipment compiles with part of the FCC rules. On the back of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

This equipment uses the following USOC jacks : RJ11C

An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or promises wiring using a compatible modular jack which is Part 68 compliant. See Installation Instructions for details. The REN is used to determine the quantity of devices which may be connected to telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by total RENs, contact the local telephone company to determine the maximum REN for the calling area.

If the terminal equipment causes harm to the telephone network, the Telephone Company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advanced notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment (Modem) for repair or warranty information, please contact your local distributor. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

The user must use the accessories and cables supplied by the manufacturer to get optimum performance from the product.

No repairs may be done by the customer.

This equipment cannot be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs.

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be any number for which charges exceed local or long-distance transmission charges.)

In order to program this information into your fax machine, refer to your communications software user manual.

Industry Canada (IC)

Intentional Emitter per RSS 210

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in Canada if an Industry Canada ID number is on the system label.

As a general guideline, a separation of 20 cm (8 inches) between the wireless device and the body, for use of a wireless device near the body (this does not include extremities) is typical. This device should be used more than 20 cm (8 inches) from the body when wireless devices are on.

The power output of the wireless device (or devices), which may be embedded in your notebook, is well below the RF exposure limits as set by Industry Canada. This transmitter must not be collocated or operation in conjunction with any other antenna or transmitter.

Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.



To prevent radio interference to licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.



Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.

Unintentional Emitter per ICES-003

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limitesapplicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

European Union

The following information is only applicable to systems labeled with the CE mark \mathbf{CE} .

European Directives

This Information Technology Equipment has been tested and found to comply with the following European directives:

- EMC Directive 89/336/EEC with amending directives 92/31/EEC & 93/68/ EEC as per
 - EN 55022 Class B
 - EN 61000-3-2
 - EN 61000-3-3
 - EN 55024
- Low Voltage Directive (Safety) 73/23/EEC as per EN 60950(A1/A2/A3/A4/A11)
- Radio and Telecom Terminal Equipment Directive 199/5/EC as per
 - CTR21 (if fitted with a modem device)
 - ETS 300 328 (if fitted with a 2.4 GHz band embedded wireless device)
 - ETS 301 489-1 (if fitted with a 2.4 GHz band embedded wireless device)
 - ETS 301 489-17 (if fitted with a 2.4 GHz band embedded wireless device)

European Radio Approval Information (for products fitted with EU-approved radio devices)

This Product is a Notebook computer; low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz band, may be present (embedded) in your notebook system which is intended for home or office use. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the European Union or associated areas if a CE mark $\mathbf{C}\mathbf{E}$ with a Notified Body Registration Number and the Alert Symbol is on the system label.

The power output of the wireless device or devices that may be embedded in you notebook is well below the RF exposure limits as set by the European Commission through the R&TTE directive.

European States qualified under wireless approvals:

- EU Austria, Belgium, Denmark, Finland, France (with frequency restrictions), Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden and the United Kingdom.
- Accept EU Iceland, Liechtenstein, Norway and Switzerland

European States with restrictions on use:

- EU In France, the frequency range is restricted to 2446.5-2483.5 MHz for devices above 10 mW transmitting power such as wireless LAN.
- Accept EU No limitations at this time.

European Telecommunication Information (for products fitted with EU-approved modems)

Marking by the symbol $\mathbf{C} \in$ indicates compliance of this equipment to the Radio and Telecom Terminal Equipment Directive 1999/5/EC. Such marking is indicative that this equipment meets or exceeds the following technical standards:

CTR 21 – Attachment requirements for pan-European approval for connection to the analogue Public Switched Telephone Networks (PSTNs) of TE (excluding TE supporting voice telephony services) in which network addressing, if provided, is by means of Dual Tone Multi-Frequency (DTMF) signaling.



Although this equipment can use either loop disconnect (pulse) or DTMF (tone) signaling, only the performance of the DTMF signaling is subject to regulatory requirements for correct operation. It is therefore strongly recommended that the equipment is set to use DTMF signaling for access to public or private emergency services. DTMF signaling also provides faster call setup.

This equipment has been approved to Council Decision 98/482/EEC—"CTR 21" for Pan-European single terminal connection to the Public Switched Telephone Network (PSTN).

However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN termination point. In the event of problems, you should contact manufacturer Technical Support.

Wireless Devices

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in Japan if a TELEC ID is on the system label.

Operational guidelines for 2.4 GHz band wireless equipment (if equipped)

This equipment uses the 2.4 GHz ISM frequency band. The ISM band is the industrial, scientific, and medical device band. Devices that might also use this band are microwave ovens, other LAN devices, amateur radio stations, licensed premises radio stations, and non-licensed specified low-power radio stations.

Prior to setting up your device:

- 1. Make sure that there are no other devices in your area using the same frequency band.
- **2.** Change the channel, location, or discontinue device use if you are interfering with any other radio station.
- 3. Contact manufacturer if you have any problems with this device.

この機器の使用上の注意

この機器の使用周波数は2.4GHz帯です。この周波数では電子レンジ等の産業・科学・医療 用機器のほか、他の同種無線局、工場の製造ライン等で使用されている免許を要する移動 体識別用の横内無線局、免許を要しない特定小電力無線局、アマチュア無線局(以下「他 の無線局」と略す)が運用されています。

- この機器を使用する前に、近くで「他の無縁局」が運用されていないことを確認して 下さい。
- 万一、この機場と「他の無線局」との間に電波干渉が発生した場合には、速やかにこの機器の運用を停止(電波の発射の停止)をして下さい。
- 不明な点、その他お困りのことがおきたときは、この機器をお求めになった販売代 理店までお問い合わせください。



この無線機器は2.4GHz帯周波数、DSSS変調方式を採用して おり、与干渉距離は約40mです。

Regulatory Compliance Statements xiii

VCCI Statement

This equipment is in the Class B category (Information Technology Equipment to be used in a residential area or an adjacent area thereto) and conforms to the standards set by the Voluntary Control Council for Interference by Information Technology Equipment aimed at preventing radio interference in such residential areas. When used near a radio or TV receiver, it may become the cause of radio interference. Read instructions for correct handling.

電波障害について

この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準 に基づくクラスB情報技術装置です。この装置は、家庭環境で使用すること を目的としていますが、この装置がラジオやテレビジョン受信機に近接して 使用されると、受信障害を引き起こすことがあります。 取扱説明書に従って正しい取り扱いをして下さい。

Laser Safety

All systems equipped with CD or DVD drives comply with the appropriate safety standards, including IEC 825. The laser devices in these components are classified as "Class 1 Laser Products" under a US Department of Health and Human Services (DHHS) Radiation Performance Standard. Should the unit ever need servicing, contact an authorized service location.



Laser Safety Note:

Use of controls or adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure. To prevent exposure to laser beams, do not try to open the enclosure of a CD or DVD drive.

Power Cord Requirements

The power cord set (wall plug, cable and AC adapter plug) you received with your computer meets the requirements for use in the country where you purchased your equipment.

Power cord sets for use in other countries must meet the requirements of the country where you use the computer. For more information on power cord set requirements, contact your authorized dealer, reseller, or service provider.

General Requirements

The requirements listed below are applicable to all countries:

- The length of the power cord set must be at least 6.00 feet (1.8m) and a maximum of 9.75 feet (3.0m).
- All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country where the power cord set will be used.
- The power cord set must have a minimum current capacity of 7 A and a nominal voltage rating of 125 or 250 volts AC, as required by each country's power system.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector, for mating with appliance inlet on the computer.

Country-Specific Power Cord Set Requirements

Country	Accrediting Agency	Applicable Note Numbers
Australia	EANSW	1
Austria	OVE	1
Belgium	CEBC	1
Canada	CSA	2
Denmark	DEMKO	1
Finland	FIMKO	1
France	UTE	1
Germany	VDE	1
Italy	IMQ	1
Japan	JIS	3
The Netherlands	KEMA	1
Norway	NEMKO	1
Sweden	SEMKO	1
Switzerland	SEV	1
United Kingdom	BSI	1
United States	UL	2

The requirements listed below are applicable to the specific country listed:



Notes:

- 1. Flexible cord must be Type HO5VV-F, 2-conductor, 1.0 mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country where it will be used.
- **2.** Flexible cord must be Type SVT or equivalent, No.18 AWG. Wall plug must be a two-pole grounding type.
- Appliance coupler, flexible cord, and wall plug must bear a "T" mark and registration number in accordance with the Japanese Dentori Law. Flexible cord must be Type VCT or VCTF, 2-conductor, 0.75 mm² conductor size. Wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (15 A, 125V) configuration.

Appendix A: Safety, Regulatory, and Legal Information

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