

# Gateway M500 Notebook



Customizing

Troubleshooting



## Contents

1	Getting Started	1
	Connecting and starting your notebook	2
	Care and maintenance	5
	Taking care of your notebook	5
	Taking care of your AC adapter	5
	Taking care of your battery	
	Cleaning and servicing	6
2	Getting Familiar with Your Notebook	7
	Тор	8
	Front	
	Left	
	Right	
	Back	
	Bottom	
	Features	
	LCD panel	
	Status indicators	
	Keyboard	
	Special keys	
	Keyboard ergonomics	
	Touchpad	
	Touchpad basics	
	Multi-function buttons	
	Storage	
	Hard drive	1
	Optical drive	1
	Connectivity options	
	Ethernet and LAN	
	Fax/data modem	5
	Wireless communication	6
	Fast infrared	7
	Audio	8
	AV control panel	9
	Securing your notebook	
	Security slot	
	Passwords 4	4

3	Managing Power	45
	Using the battery	46
	Using the battery for the first time	46
	Installing the battery	
	Removing the battery	48
	Recharging the battery	
	Checking the charge level	
	Optimizing battery life	
	Battery-low warning	
	Power management	
	Advanced Configuration and Power Interface	52
4	Using Peripheral Devices and Options	53
	External monitor	54
	Using simultaneous display	
	S-Video	
	External keyboard	
	External pointing device	
	Printer	
	Audio devices	
	PC Card	
	PC Card slot	
	IEEE 1394 devices	
	Miscellaneous options	
	Battery	
	AC adapter	
	Key component upgrades	
	Memory upgrade	
	Hard drive upgrade	
5	Moving with Your Notebook	67
	Disconnecting from peripheral devices	68
	Moving around	
	Preparing your notebook	69
	What to bring to short meetings	
	What to bring to long meetings	
	Taking the notebook home	
	Preparing your notebook	
	What to bring with you	
	Special considerations	71

	Setting up a home office Traveling with your notebook Preparing your notebook What to bring with you Special considerations Traveling internationally with your notebook Preparing your notebook What to bring with you Special considerations	72 72 72 73 73 73
6	Using Installed Programs and Utilities	75
	System software	
	Launch Manager	
	BIOS Setup utility	
	Setting a password	
		•••
7	Troubleshooting	81
	Frequently-asked questions	82
	Error messages	
	Telephone support	
	Before calling Gateway Technical Support	
	Telephone numbers	
	Tutoring and training	
	Self-help	89
	Tutoring	
	Training	90
-		
Α		
	Microprocessor	
	Memory	
	Data storage	
	Display and video	
	Audio	
	Keyboard and pointing device	
	I/O ports	
	Weight and dimensions	
	Environment	
	Operating System	
	Power	94

В	Safety, Regulatory, and Legal Information	95
Inc	dex 1	05

## **Getting Started**

Read this chapter to learn how to:

- Connect and start your notebook
- Care for your notebook



## Connecting and starting your notebook

#### To connect and start your notebook:

- **1** Turn your notebook over so the bottom is facing up.
- **2** Insert the battery at an angle (1), press gently on the battery (2) until it clicks into place. Then slide the battery lock latch into the locked position 3).



Important



When using a battery for the first time, fully recharge the battery, then disconnect the adapter to use up the battery charge before recharging again. Perform this action twice to condition the battery.

**3** Connect one end of the AC adapter to the power connector on the back of your notebook and the other end to a correctly grounded electrical outlet.



**4** Slide the cover release latch to the left (1) to open the LCD panel (2). Press the power button (3) to turn on the power. The POST (power-on self-test) routine executes and Windows begins loading.



Important



To turn off your notebook, we recommend that you use the Windows Turn Off option to shut down your notebook. If you are unable to shut down your notebook normally, press and hold the power button for more than four seconds to turn off your notebook. If you turn off your notebook and want to turn it on again, wait at least two seconds before turning it on.

## **Care and maintenance**

### Taking care of your notebook

- Do not expose your notebook to direct sunlight. Do not place it near sources of heat, such as a radiator.
- Do not expose your notebook to temperatures below 32°F (0°C) or above 122°F (50°C).
- Do not subject your notebook to magnetic fields.
- Do not expose your notebook to rain or moisture.
- Do not spill water or any liquid on your notebook.
- Do not subject your notebook to heavy shock and vibration.
- Do not expose your notebook to dust and dirt.
- Never place objects on top of your notebook.
- Never place your notebook on uneven surfaces.

### Taking care of your AC adapter

- Do not connect the adapter to any other device.
- Do not step on the power cord or place heavy objects on top of it. Carefully route the power cord and any cables away from all potential traffic.
- When unplugging the power cord, do not pull on the cord itself. Instead, pull on the plug.
- The total ampere ratings of the equipment plugged into an extension cord should not exceed the ampere rating of the cord.

## Taking care of your battery

- Use only batteries of the same kind as replacements. Turn off your notebook before removing or replacing batteries.
- Do not tamper with batteries. Keep them away from children.
- Dispose of used batteries according to local regulations. Recycle if at all possible.

## **Cleaning and servicing**

#### To clean your notebook:

- **1** Turn off your notebook, then remove the battery.
- **2** Disconnect the AC adapter.
- **3** Use a soft cloth moistened with water. Do not use liquid or aerosol cleaners.

Contact Gateway if any of the following occurs:

- Your notebook has been dropped or the case has been damaged.
- Liquid has been spilled into your notebook.
- Power cords or plugs are damaged.

# Getting Familiar with Your Notebook



Read this chapter to learn about:

- Components, ports, and jacks
- Features of your notebook



Тор



#	ltem	lcon	Description
1	LCD panel		Displays notebook output.
2	Status indicators		LEDs (light-emitting diodes) that turn on and off to show the status of your notebook and its functions and components.
3	AV control panel		Control buttons for playing audio/video media.
4	Touchpad		Touch-sensitive pointing device which functions like a mouse.
5	Palm rest		Comfortable support area for your hands when you use your notebook.

#	ltem	lcon	Description
6	Speakers		Output sound.
7	Touchpad buttons (left and right)		The left and right buttons function like the left and right mouse buttons.
8	Keyboard		Inputs data into your notebook.
9	Multi-function buttons		Buttons for opening frequently used programs. See "Multi-function buttons" on page 29 for more details.
10	Power button	Ф	Turns on your notebook power.
11	Microphone	Ĩ	Inputs sounds and voices into your notebook.

## Front



#	ltem	Description
1	Battery bay	Insert the battery into this bay.
2	Eject button	Press to eject the CD or DVD.
3	DVD/CD-RW drive indicator	This LED lights up when the DVD/CD-RW drive is in use.
4	DVD/CD-RW drive	Insert CDs or DVDs into this drive.
5	IR sensor	Sends and receives data for an IR (infrared) device, such as an IR printer.
6	Subwoofer	The subwoofer is located in this bay.
7	Cover release latch	Slide the release latch to the left to open your notebook.

## Left



#	Item	lcon	Description
1	Hard drive bay		The hard drive is located in this bay.
2	PC Card slot		Insert one Type II 16-bit PC Card or 32-bit CardBus PC Card into this slot.
3	PC Card eject button		Press to remove the PC Card from the PC card slot.
4	SD memory card slot		Insert an SD (Secured Digital) memory card into this slot.
5	Kensington™ lock slot	ф ф	Secure your notebook to an object by connecting a Kensington cable lock to this slot.

## Right



#	ltem	lcon	Description
1	USB ports	●	Plug USB (Universal Serial Bus) devices (such as a USB lomega™ Zip™ drive, printer, scanner, camera, keyboard, or mouse) into these ports.
2	Ventilation fan		Helps cool internal components. Do not block or insert objects into these slots.

## Back



#	ltem	lcon	Description
1	Power connector		Plug the AC adapter cable into this connector.
2	External monitor port		Plug an external VGA monitor into this port.
3	S-Video jack	S <del>-</del>	Plug an S-Video device (such as a television) into this jack.
4	Modem jack		Plug a modem cable into this jack.
5	Network jack		Plug a 10/100 Ethernet network cable into this jack.
6	Microphone jack	Ĩ	Plug a microphone into this jack.
7	Line-in jack	(( <del>- ))</del> -	Plug an audio device (such as a stereo) into this jack.
8	Headphone jack	(( <del>-))</del> ►	Plug amplified speakers or headphones into this jack. The built-in speakers are turned off when speakers or headphones are plugged into this jack.
9	USB port	● <u>´`</u>	Plug a USB (Universal Serial Bus) device (such as a USB lomega™ Zip™ drive, printer, scanner, camera, keyboard, or mouse) into this port.
10	Parallel port		Plug a parallel device (such as a printer) into this port.

#	ltem	lcon	Description
11	IEEE 1394 port (4-pin)	1394	Plug an IEEE 1394 <sup>®</sup> (also known as FireWire <sup>®</sup> or iLink <sup>®</sup> ) device (such as a digital video camera) into this 4-pin IEEE 1394 port.
12	IEEE 1394 port (6-pin)	1394	Plug an IEEE 1394 (also known as FireWire or iLink) device (such as a digital video camera) into this 6-pin IEEE 1394 port.

## Bottom



#	ltem	lcon	Description
1	Battery lock latch		Slide to unlock the battery.
2	Battery release latch	+	Slide to remove the battery.
3	Battery bay	+	Insert the battery into this bay.
4	Hard drive bay		The hard drive is located in this bay.
5	Hard drive protector		Protects the hard drive from accidental bumps and vibrations.
6	Memory bay		The memory modules are located in this bay.

## Features

This notebook was designed with the user in mind. Here are just a few of its many features:

#### Performance

- Mobile Intel® Pentium<sup>TM</sup> 4 Processor M with Enhanced Intel® SpeedStep<sup>TM</sup> technology
- 512K on-die L2 cache
- 15.2" 15:10 SXGA (1280x854) widescreen TFT LCD panel
- nVidia® GeForce4 Go<sup>™</sup> high-performance graphics chipset with 32MB frame buffer
- Onboard memory upgradeable to 1024 MB with 2 DDR-266 SoDIMM
- High-capacity, Enhanced-IDE hard drive
- Lithium-Ion battery
- Power management system
- Dual-display capability
- Simultaneous LCD and CRT display
- LCD panel supports resolution up to 1280x854
- VGA monitor supports resolution up to 2048x1536
- Embedded TV encoder supports resolution up to 1024x768

#### Multimedia

- AV control panel
- Playback MP3 through SD, HDD, or Audio CD with system off
- Audio Codec support stereo 18-bit ADC/20-bit DAC
- AC'97 2.2 compliant stereo audio
- Headphone jack
- Enhanced audio system with 2 speakers and a subwoofer
- Built-in microphone
- Slot-loading DVD/CD-RW drive
- S-Video output jack

#### Connectivity

- High-speed fax/data software modem
- Onboard PCI 10/100 Mbps LAN support
- Fast infrared wireless communication
- 3 USB (Universal Serial Bus) ports (2.0)
- 2 IEEE 1394 ports (one unpowered 4-pin port and one powered 6-pin port)
- 802.11b wireless LAN

#### Human-centric design and ergonomics

- Sleek, smooth, and stylish design
- Full-sized keyboard
- Ergonomically-centered touchpad pointing device
- Multi-function buttons

#### Expansion

■ Upgradeable memory

## LCD panel

The graphics display offers excellent viewing, display quality, and desktop-performance graphics. Your notebook supports a widescreen Thin-Film Transistor (TFT) liquid crystal display (LCD) displaying up to 16.7 million colors at 1280 × 854 Super eXtended Graphics Array (SXGA) resolution.

#### Simultaneous display

Your notebook's crisp display and multimedia capabilities are great for giving presentations. If you prefer, you can also connect an external monitor when giving presentations. This notebook supports simultaneous LCD and CRT display. Simultaneous display allows you to control the presentation from your notebook and at the same time face your audience. You can also connect other output display devices such as LCD projection panels for large-audience presentations.

#### **Power management**

The power management system incorporates an "automatic LCD dim" feature that automatically dims the LCD when your notebook is powered by a battery to conserve battery power. See "Managing Power" on page 45 for more information on power management features.

#### Opening and closing the LCD panel

To open the display, slide the cover release latch to the left and lift up the LCD panel, then tilt it to a comfortable viewing position. See "Connecting and starting your notebook" on page 2. Your notebook employs a microswitch that turns off the LCD panel (enters Standby mode) to conserve power when you close the LCD panel, and turns it back on when you open the LCD panel.

#### Important



If an external monitor is connected, your notebook turns off the LCD panel (but does not enter Standby mode) when you close the LCD panel.

To close the LCD panel, fold it down gently until the cover release latch clicks into place.

Warning



To avoid damaging the LCD panel, do not slam it when you close it. Also, do not place any object on top of your notebook when the LCD panel is closed.

## **Status indicators**

Your notebook has seven easy-to-read status indicators (LEDs) under the LCD panel.



The Power and Standby indicators are visible even when you close the LCD panel so you can see the status of your notebook while the cover is closed.

#	Item	lcon	Description
1	Wireless communication	(((+	Lights when the Wireless LAN capabilities are enabled.
2	Power	ۍ ۲	Lights when your notebook is on. Blinks when a battery-low condition occurs.
3	Standby	È	Blinks when notebook enters Hibernation mode.
4	Media activity	٠	Lights when the hard drive or DVD/CD-RW drive is active.
5	Battery charge	4	Lights when the battery is being charged.
6	Caps Lock	Ā	Lights when Caps Lock is activated.
7	Num lock (FN+F11)	1	Lights when Numeric Lock is activated.

## Keyboard

The keyboard has full-sized keys with an embedded keypad, separate cursor keys, two Windows keys, and twelve function keys.

## **Special keys**

Lock keys

The keyboard has three lock keys which you can toggle on and off.

Lock	Description
Caps Lock	When Caps Lock is on, all alphabetic characters typed are in uppercase.
Num Lock (FN+F11)	When Num Lock is on, the embedded keypad is in numeric mode. The keys function as a calculator (complete with the arithmetic operators +, -, *, and /). Use this mode when you need to do a lot of numeric data entry. A better solution would be to connect an external keyboard. See "External keyboard" on page 56.
Scroll Lock ( <b>Fn+F12</b> )	When Scroll Lock is on, the screen moves one line up or down when you press $\uparrow$ or $\downarrow$ respectively. Scroll Lock does not work with some programs.

#### Embedded numeric keypad



The embedded numeric keypad functions like a desktop numeric keypad. It is indicated by small characters located on the upper-right corner of the key caps. To simplify the keyboard legend, cursor-control key symbols are not printed on the keys

Desired Access	Num Lock On	Num Lock Off	
Number keys on embedded keypad	Type numbers in a normal manner.		
Cursor-control keys on embedded keypad	Hold SHIFT while using cursor-control keys.	Hold FN while using cursor-control keys.	
Main keyboard keys	Hold FN while typing letters on the embedded keypad.	Type the letters in a normal manner.	

Important



If an external keyboard is connected to your notebook, the Num Lock feature automatically shifts from the internal keyboard to the external keyboard.

#### Windows keys



The keyboard has two keys that perform Windows-specific functions.

Key	Description		
Windows logo key	Start button. Combinations with this key perform special functions. Below are a few examples:		
	<ul> <li>田 + TAB (Activates next taskbar button)</li> <li>田 + E (Opens My Computer)</li> <li>田 + F (Finds a file)</li> <li>田 + M (Minimizes All)</li> <li>SHIFT + 田 + M (Undoes Minimize All)</li> <li>田 + R (Displays <i>Run</i> dialog box)</li> </ul>		
Application key	Opens the program's context menu (same as a right-click).		

#### Hotkeys

Your notebook employs hotkeys or key combinations to access most of your notebook's controls like screen contrast and brightness and the BIOS Setup utility.

Hot Key	Function	lcon	Description
FN+F1	Hotkey help	?	Displays a list of the hotkeys and their functions.
Fn+F2	Standby	Ð	Puts your notebook in StandbyStandby mode, which can be defined through the advanced section of the Power Management Properties in the Windows Control Panel.
Fn+F3	Display toggle		Switches display output between the LCD panel, an external monitor (if connected), or both the LCD panel and external monitor.
Fn+F4	Screen blank	*	Turns the LCD panel backlight off to save power. Press any key to return.
FN+F5	Speaker on/off		Turns the speakers on and off (mutes the sound).
<b>F</b> N+ ↑	Brightness up	¢	Increases the screen brightness.
Fn+↓	Brightness down		Decreases the screen brightness.

#### Activating hotkeys

When activating hotkeys, press and hold the FN key before pressing the other key in the hotkey combination.

## **Keyboard ergonomics**

Located below the keyboard, the wide and curved palm rest is ergonomically designed to provide you with a comfortable place to rest your hands while you type.



## Touchpad

The built-in touchpad is a pointing device that senses movement on its surface. This means the cursor responds as you move your finger on the surface of the touchpad. The central location on the palm rest provides optimum comfort and support.



## **Touchpad basics**



Important



Keep your fingers dry and clean when using the touchpad. Also keep the touchpad dry and clean. The touchpad is sensitive to finger movements. Therefore, the lighter the touch, the better the response. Tapping too hard will not increase the touchpad's responsiveness.

To use the touchpad:

- Move your finger across the touchpad to move the cursor.
- Press the left (1) and right (2) buttons located on the edge of the touchpad to make selections and run functions. These two buttons are similar to the left and right buttons on a mouse. Tapping on the touchpad produces similar results.

Function	Left Button	<b>Right Button</b>	Тар
Execute	Click twice quickly.		Tap twice (at the same speed as double-clicking the mouse button).
Select	Click once.		Tap once.
Drag	Click and hold, then use your finger to drag the cursor on the touchpad.		Tap twice (at the same speed as double-clicking the mouse button) and hold your finger to the touchpad on the second tap to drag the cursor.
Access context menu		Click once.	

## **Multi-function buttons**

Located at the top of the keyboard are five multi-function buttons used to open frequently used programs or functions.



#	ltem	lcon	Description
1	Wireless communication	((r+	Press this button to turn the Wireless LAN function on and off. For more information, see "Wireless communication" on page 36.
2	E-mail	$\square$	Press this to open the e-mail program.
3	Internet browser		Press this button to open your Internet browser.
4	P1	P1	This button is user-programmable. For more information about programming buttons, see "Launch Manager" on page 76.
5	P2	P2	This button is user-programmable. For more information about programming buttons, see "Launch Manager" on page 76.
# Storage

This notebook supplies you with the following media storage:

- High-capacity Enhanced-IDE hard drive
- Slot-loading DVD/CD-RW drive
- Secure Digital (SD) slot

# Hard drive

The high-capacity hard drive is the answer to your storage needs. This is where your programs and data are stored.

# **Optical drive**

A high-speed optical drive (DVD/CD-RW drive) gives you portable multimedia access and at the same time lets you burn your data onto a recordable CD.

#### Inserting the disc

This notebook features a slot-loading optical drive. To insert a disc into the optical drive, gently push the disc into the slot and the drive will lock the disc in place and pull it inside.



#### Ejecting the disc

To eject the disc from the slot, press the eject button and wait for the drive to eject the disc.



#### **Playing DVD movies**

To play DVD movies in your notebook, insert the DVD into the drive and the DVD movie will automatically play after a few seconds.



When you open the DVD player for the first time, the program asks you to input the region code. DVDs are divided into 6 regions. Once your DVD drive is set to a region code, it will play DVDs of that region only. You can set the region code a maximum of five times (including the first time), after which the last region code set will remain permanent. Recovering your hard drive does not reset the number of times the region code has been set. Refer to the table below for DVD movie region code information.

Region code	Country or region
1	U.S.A., Canada
2	Europe, Middle East, South Africa, Japan
3	Southeast Asia, Taiwan, Korea (South)
4	Mexico, Latin America, Australia, New Zealand
5	Former U.S.S.R., parts of Africa, India
6	People's Republic of China

#### Important



To change the region code, insert a DVD movie of a different region into the DVD drive. Refer to the online help for more information.

# **Connectivity options**

Your notebook has built-in features for connecting to a network and communicating with other computers.

## **Ethernet and LAN**

The built-in network feature allows you to connect your notebook to an Ethernet-based (10/100 Mbps) network.

To use the network feature, connect an Ethernet cable from the network jack on the back of your notebook to a network jack or hub on your network.



## Fax/data modem

Your notebook has a built-in fax/data modem.



This modem port is not compatible with digital phone lines. Plugging this modem into a digital phone line will damage the modem.

To use the fax/data modem jack, connect a telephone cable from the modem jack to a telephone jack.





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

## **Wireless communication**

This notebook has a wireless communication feature built-in. This feature allows you to communicate with other wireless communication devices.



You can manually turn off your wireless communication feature.





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.

## **Fast infrared**

Your notebook's fast infrared (FIR) port allows you to do wireless data transfer with other IR-aware computers and peripheral devices such as PDAs (personal digital assistants), mobile phones, and infrared printers. The infrared port can transfer data at speeds of up to 4 Mb/s at a distance of up to one meter.



To use FIR, position two IR-aware devices so their IR ports are no more than one meter apart and offset no more than 15 degrees.

When the two devices are in position, begin the data transfer as you normally would. See your file transfer software for details.

# Audio

Your notebook includes 16-bit high-fidelity stereo audio. The speakers, located near the keyboard, direct sound towards you to further enhance sound output.

There are audio ports on the back of your notebook. See "Back" on page 13 for the location of these ports. Also see "Audio devices" on page 59 for more information on connecting external audio devices. Your notebook has a subwoofer on the front. See "Front" on page 10 for the location of the subwoofer.



## **AV control panel**

The AV control panel is a special feature of your notebook. Through this AV control panel, you can play most of your audio/video CD, DVD, MP3, and SD media.



#	Item	lcon	Description
1	LCD display		Liquid-crystal display (LCD) displays current media status.
2	Power button	POWER	Turns the AV control panel on or off.
3	Source button	SOURCE	Selects the playback source (DVD/CD-RW, hard drive, or SD memory card).
4	Play/pause button	►/II	Plays and pauses the media playback.
5	Volume down button	—	Turns down the volume of the speakers during playback.
6	Volume up button	+	Turns up the volume of the speakers during playback.
7	Stop/Eject button		Stops playback or ejects the CD or DVD.

#	ltem	lcon	Description
8	Repeat button	REPEAT	Selects the options: no repeat, repeat the currently playing track, or repeat all tracks during playback.
9	Mute button	MUTE	Mutes the sound coming out of the speakers.
10	Fast rewind/fast forward dial	$\checkmark$	Use this dial to fast rewind or fast forward the track currently playing.
11	Previous track button	<b> 44</b>	Lets you jump to the previous track on the playlists.
12	Next track button		Lets you jump to the next track on the playlists.

#### Understanding the AV control panel LCD panel

The AV control panel LCD panel displays all the information pertaining to the audio/video media that is being played in your notebook.



#	ltem	Description
1	Hard drive	Indicates a file on the hard drive is playing.
2	CD	Indicates a CD is playing.
3	Video	Indicates a DVD or video CD is playing.
4	Track number	Displays which track is playing.
5	Elapsed time	Displays the amount of time the track has been playing.
6	Volume/Mute	Displays the volume level and indicates if the sound has been muted.
7	SD memory card	Indicates a file on the SD memory card is playing.
8	CD playback indicator	Indicates that a CD is playing.
9	MP-3 playback indicator	Indicates that an MP-3 file is playing.
10	Playback progress indicator	Shows the progress of the of the payback.
11	Repeat indicator	Indicates if the media being played is repeat none, repeat one track, or repeat all tracks.

#### Adjusting the volume

Press the minus (-) button on the AV control panel to decrease the volume on the speaker, press the plus (+) button to increase the volume.



# Securing your notebook

Security features include hardware and software locks — a security slot and password.

## **Security slot**

A security slot located on the left side of your notebook lets you connect a Kensington-compatible notebook security lock.

Wrap a notebook security lock cable around an immovable object such as a table or locked drawer handle. Insert the lock into the slot on your notebook and turn the key to secure the lock. Some keyless models are also available.



## Passwords

Passwords protect your notebook from unauthorized access. When set, no one can access your notebook without entering the correct password.

There are three types of passwords you can set:

- Setup Password secures your notebook against unauthorized entry to and use of the BIOS Setup utility.
- Power-on Password secures your notebook against unauthorized use.
- Hard Drive Password protects your data by preventing unauthorized access to your hard drive.

#### Important



Do not forget your Setup and Hard Drive password! If you forget your password, contact Gateway.

#### Setting a password

You can set the password using the BIOS Setup utility. See "BIOS Setup utility" on page 77.

# Managing Power 3

Read this chapter to learn how to:

- Install and remove the battery
- Recharge the battery
- Manage power usage



# Using the battery

Your notebook's battery lets you use your notebook without having to plug it into an electrical outlet. The battery recharges when the AC adapter is plugged into your notebook and an electrical outlet.

The battery has the following characteristics:

■ Employs current battery technology standards

The computer uses a Lithium-Ion (Li-Ion) battery which does not have the memory effect problem of Nickel Cadmium (NiCd) batteries. Li-Ion batteries consistently provide the longest battery life.

■ Battery-low warning

When the battery charge level becomes low, the status indicator on your notebook flashes at regular intervals. This tells you that the battery power is critically low (and you should save your work). You can correct this situation by recharging the battery.

Whenever possible, use the AC adapter. The battery will come in handy when you travel or during a power failure. We recommend that you have an extra, fully-charged battery available as backup.

## Using the battery for the first time



#### To use the battery for the first time:

- **1** Plug the AC adapter into the notebook and an electrical outlet, and let the battery fully recharge.
- **2** Disconnect the AC adapter and run the notebook on the battery until the charge is used up before recharging again.

You only need to do this once or twice with a new battery or with a battery that's been stored without being used for a long time. If the computer is to be stored for more than two weeks, we suggest you remove the battery. Battery power from a fully charged battery depletes in roughly a day with the computer in Standby mode or a month in Hibernation mode or when power is off.



Warning



Do not expose batteries to temperatures below  $32^{\circ}F(0^{\circ}C)$  or above 140°F (60°C). This may adversely affect the battery.

## Installing the battery



#### To install a battery:

Insert the battery at an angle (1), press gently on the battery (2) until it clicks into place, then slide the battery lock latch into the locked position (3).



# **Removing the battery**

#### Important



Before removing the battery, make sure that you have an AC adapter connected to the computer. Otherwise, turn off the computer.

#### To remove the battery:

 Slide the battery lock latch into the unlocked position (1), slide and hold the battery release latch (2), then lift the battery by using the built-in slot in the battery (3) and pull the battery out of the bay (4).



## **Recharging the battery**



#### To charge the battery:

■ Install the battery, then plug the AC adapter into your notebook and an electrical outlet.



#### **Charging modes**

The adapter has two charging modes:

Rapid mode

Your notebook uses rapid charging when power is turned off and the AC adapter is connected to your notebook and an electrical outlet. In rapid mode, a fully depleted battery gets 95% charged in approximately 1.5 hours.

■ Charge-in-use mode

When your notebook is in use with the AC adapter plugged in, the computer also charges the battery, if installed. This mode will take longer to fully charge a battery than rapid mode. In charge-in-use mode, a fully depleted battery gets 95% charged in approximately 4 hours.





We suggest that you connect the AC adapter at the end of your day to recharge overnight. This ensures a fully charged battery for use the next day.

## Checking the charge level

The Windows battery meter indicates the current charge level. Rest your cursor on the battery meter (or AC plug) icon on the taskbar to see the current charge level of your battery.

# **Optimizing battery life**

Optimizing battery life prolongs the charge/recharge cycle and improves recharge efficiency. Follow these suggestions to optimize and maximize battery power:

- Purchase an extra battery.
- Use the AC adapter whenever possible so the battery is reserved for on-the-go computing.
- Keep the battery in the your notebook when you are using the AC adapter. The constant trickle charge maintains the battery level to eliminate the battery self-discharge effect. The charge-in-use function also charges the battery.
- Eject the PC card from the card slot when it is not in use because the PC card uses power even when the card is not in use.
- Store the battery in a cool, dry place. The recommended storage temperature for batteries ranges from 50° to 86°F (10° to 30°C). The higher the storage temperature, the faster the battery self-discharges.
- The batteries can be recharged about 400 times when used as directed. Excessive recharging decreases battery life.
- Take care of your battery and AC adapter. See "Care and maintenance" on page 5.

## **Battery-low warning**

You never have to worry about battery power as long as you are using the AC adapter. However, when you operate the computer on battery power, pay extra attention to the power indicator on the LCD panel.

During a battery-low condition, the power indicator flashes at regular intervals until battery power is depleted.

Caution



Connect the AC adapter to your notebook as soon as possible. Data is lost when notebook power is cut off during Standby mode.

Situation	Recommended Action
AC adapter and electrical outlet available	<ol> <li>Connect the AC adapter to the computer.</li> <li>Save all necessary files.</li> <li>Resume work.</li> <li>Turn off the computer if you want to recharge the battery rapidly.</li> </ol>
An extra fully-charged battery available	<ol> <li>Save all necessary files.</li> <li>Close the program.</li> <li>Shut down Windows and turn off you notebook.</li> <li>Replace the battery.</li> <li>Turn on the computer and resume work.</li> </ol>
AC adapter or electrical outlet not available	<ol> <li>Save all necessary files.</li> <li>Close the program.</li> <li>Shut down Windows and turn off your notebook.</li> </ol>

The following table shows the recommended course of action to take when you encounter a battery-low condition.

# **Power management**

Your notebook has a built-in power management unit that monitors system activity. System activity refers to any activity involving one or more of the following devices: keyboard, mouse, hard drive, a peripheral device connected to the parallel port, and video memory. If no activity is detected for a period of time (called an inactivity timeout), your notebook stops some or all of these devices in order to conserve energy.

Your notebook employs a power management scheme that supports ACPI (Advanced Configuration and Power Interface) which allows for maximum power conservation and maximum performance at the same time. Windows handles all power-saving chores for your computer.

## **Advanced Configuration and Power Interface**

Advanced Configuration and Power Interface (ACPI) is a power management specification jointly developed by Compaq/Intel/Microsoft/Phoenix/Toshiba. ACPI enables Windows to control the amount of power given to each device attached to your notebook. With ACPI, Windows can turn off peripheral devices when they are not in use to save power.

Tips & Tricks



We recommend you enable power management to prolong your battery life. See the Windows help for more details.

# Using Peripheral Devices and **Options**

Read this chapter to learn how to:

- Connect peripheral devices
- Use hardware options
- Upgrade your notebook



# **External monitor**

You can connect an external monitor to the CRT port. Read the monitor manual for additional instructions.



Important



If an external monitor is not connected, closing the display cover puts your notebook into Standby mode.

# Using simultaneous display

Your notebook takes advantage of Windows multi-display capability, allowing you to use your notebook for presentation purposes. So whatever is displayed in your notebook will likewise be displayed on the other external display.

To use simultaneous display, you can choose to connect other display devices to your notebook through the monitor port.

# S-Video

The S-Video jack allows you to output to a television or display devices that support S-Video input.



# **External keyboard**

This notebook has a keyboard with full-sized keys and an embedded keypad. If you feel more comfortable using a desktop keyboard, you can connect a USB external keyboard.

To connect an external keyboard, plug the external keyboard into the USB port.



# **External pointing device**

This notebook accepts a USB mouse or a similar pointing device.



# Printer

You can connect a printer to your notebook's parallel or USB port. See your printer manual for operating instructions.



# **Audio devices**

Audio devices connect to the audio ports on the back of your notebook. You can plug an external microphone into the microphone jack, an audio line-in device into the line-in jack, and amplified speakers or headphones into the microphone jack. See "Back" on page 13 for information about port location.



The subwoofer is located on the front of your notebook. See "Front" on page 10 for the location of the subwoofer. The subwoofer carries low-frequency sound to give a bass boost and create a rumbling effect for certain special effects sounds, such as explosions and trains.

# PC Card

Your notebook has a built-in CardBus PC Card slot that can accommodate one type II PC Card. Contact Gateway for PC Card options available that you can purchase for your notebook.

# **PC Card slot**

The type II CardBus PC Card slot found on the left side of your notebook accepts credit-card-sized cards that enhance the usability and expandability of your notebook.

PC Cards (formerly PCMCIA) are add-on cards for notebooks, giving you expansion possibilities long afforded by desktop PCs. Popular type II cards include flash memory, SRAM, and SCSI cards. CardBus improves on the 16-bit PC card technology by expanding the data path to 32 bits.





Refer to your card's manual for details on how to install and use the card and its functions.

#### Inserting a card

Insert the card into the slot and make the correct connections (for example, a network cable), if necessary. See your card manual for details.



#### Ejecting a card

Before ejecting a PC Card:

- Exit the program using the card
- Left-click the PC Card icon on the taskbar and stop the card operation

Press the slot eject button once to pop it out, then press it again to eject the PC Card.



# **USB** devices

Your notebook has three USB (Universal Serial Bus) (2.0) ports that allow you to connect peripheral devices. Common USB devices include a mouse, keyboard, or digital camera.



# **IEEE 1394 devices**

Your notebook's fast IEEE 1394 ports allow you to connect IEEE 1394 supported devices like a digital video camera or optical drive. Your notebook comes with two IEEE 1394 ports: a 4-pin port and 6-pin port.



See your peripheral device's documentation for details.

# **Miscellaneous options**

## Additional AC adapters and batteries

You can order an AC adapter and spare batteries from Gateway.

## Battery

It is a good practice to have a spare battery around, especially when you travel. The Li-Ion battery, coupled with the power management features of your notebook, supplies you with more power on-the-go.

## AC adapter

The compact AC adapter charges your battery and supplies power to your notebook. You can order a spare AC adapter so you do not need to carry it from the office to your home or destination.

# Key component upgrades

Your notebook delivers superior power and performance. However, some users and the programs they use may demand more. This notebook allows you to upgrade key components when you need increased performance.



Contact Gateway if you decide to perform a key component upgrade.

## Memory upgrade

This notebook comes with two DDR-266 SoDIMM (Small Outline Dual Inline Memory Module) sockets that accept 128/256/512 MB Synchronous Dynamic Random Access Memory (SDRAM) module. Contact Gateway if you need to add more memory.

## Hard drive upgrade

It is possible to upgrade your hard drive with a higher capacity drive when you need more storage space. Your notebook uses a 9.5 mm, 2.5-inch Enhanced-IDE hard drive. Contact Gateway if you need to upgrade your hard drive.

Chapter 4: Using Peripheral Devices and Options
# Moving with Your 5 Notebook

Read this chapter to learn about:

- Moving your notebook
- Traveling with your notebook



# Disconnecting from peripheral devices

#### To disconnect your notebook from peripheral devices:

- **1** Save your work in progress.
- **2** Shut down Windows and turn off your notebook.
- **3** Disconnect the cord from the AC adapter.
- **4** Disconnect the keyboard, pointing device, printer, external monitor, and other external devices.
- **5** Disconnect the Kensington lock if you are using one to secure your notebook.



## **Moving around**

Follow these tips when you are taking your notebook to a meeting.

## **Preparing your notebook**

Before moving your notebook, close and latch the LCD panel to place it in Standby mode. You can now safely take your notebook anywhere you go within the building.

To bring your notebook out of Standby mode, open the display.

## What to bring to short meetings

A fully charged battery runs your notebook for three hours under most circumstances. If your meeting is shorter than that, you probably do not need to bring anything with you other than your notebook.

## What to bring to long meetings

If your meeting will last longer than 3 hours or if your battery is not fully charged, you may want to bring the AC adapter with you to plug in your notebook in the meeting room.

If the meeting room does not have an electrical outlet, reduce the drain on the battery by putting your notebook in Standby mode. Press FN+F2 or close the LCD panel whenever you are not actively using your notebook. Tap any key or open the LCD panel to resume.

## Taking the notebook home

Follow these tips when you are moving your notebook from one location to another, for example from your office to your home.

## **Preparing your notebook**



#### To prepare your notebook for transport:

- **1** Remove all media from the drives. Failure to remove the media can damage the drive.
- **2** Shut down Windows and turn off your notebook.
- **3** Pack your notebook in a protective case that can prevent your notebook from sliding around and cushion it if it should fall.

Warning



Avoid packing items next to the top cover of your notebook. Pressure against the top cover could damage the screen.

## What to bring with you

Unless you already have some items at home, bring the AC adapter and power cord with you.

## **Special considerations**

Follow these guidelines to protect your notebook while traveling to and from work:

- Minimize the effect of temperature changes by keeping your notebook with you.
- If you need to stop for an extended period of time and cannot bring your notebook with you, leave your notebook in the trunk of the car to avoid exposing your notebook to excessive heat.
- Changes in temperature and humidity can cause condensation. Allow your notebook to return to room temperature, and inspect the screen for condensation before turning on your notebook. If the temperature change is greater than 18°F (10°C), allow your notebook to come to room temperature slowly. If possible, leave your notebook for 30 minutes in an environment with a temperature between outside and room temperature.

## Setting up a home office

If you frequently work on your notebook at home, it may be worthwhile to purchase a second AC adapter for use at home. With a second AC adapter, you can avoid transporting the extra weight to and from home.

If you use your notebook at home for significant periods of time, you might also want to add an external keyboard, monitor, or mouse.

## Traveling with your notebook

Follow these tips when you are traveling locally with your notebook.

## **Preparing your notebook**

Prepare your notebook as if you were taking it home. Be sure the battery in your notebook is charged. Airport security may require you to turn on your notebook when bringing it into the gate area.

## What to bring with you

Bring the following items with you:

- AC adapter
- Spare, fully charged batteries
- Additional printer driver files if you plan to use another printer

## **Special considerations**

In addition to the guidelines for taking your notebook home, follow these guidelines to protect your notebook while traveling:

- Always take your notebook as carry-on luggage.
- If possible, have your notebook inspected by hand. Your notebook can safely pass through security X-ray machines, but never expose your notebook to a metal detector.
- Avoid exposing diskettes to hand-held metal detectors.

# Traveling internationally with your notebook

Follow these tips when you are traveling from country to country

## Preparing your notebook

Prepare your notebook as you would normally prepare it for traveling.

## What to bring with you

Bring the following items with you.

- AC adapter
- Power cords that are appropriate to the country to which you are traveling
- Spare, fully charged batteries
- Additional printer driver files if you plan to use another printer

## **Special considerations**

Follow the same special considerations as when traveling with your notebook. In addition, these tips are useful when traveling internationally.

- When traveling in another country, check that the local AC voltage and the AC adapter power cord specifications are compatible. If not, purchase a power cord that is compatible with the local AC voltage (power rating). Do not use converter kits sold for appliances to power your notebook.
- If you are using the modem, check if the modem and connector are compatible with the telecommunication system of the country you are traveling in.

Chapter 5: Moving with Your Notebook

# Using Installed Programs and Utilities

Read this chapter to learn how to:

- Access programs in Windows
- Program the multi-function buttons
- Use the BIOS Setup utility



## System software

Your notebook comes preloaded with the following software:

- Windows XP operating system
- DMI (Desktop Management Interface)-compliant hardware BIOS Setup utility
- System utilities, drivers, and programs





To access Windows programs, click **Start**, then click the program folder. Click the program icon to open the selected program. To learn about the software and utility, use the online help provided by the software.

## Launch Manager

Launch Manager allows you to program the four multi-function buttons and the wireless button located above the keyboard. See "Multi-function buttons" on page 29 for the location of these keys.

You can access the Launch Manager by clicking **Start**, **Programs**, and then clicking **Launch Manager** to start the program.

## **BIOS Setup utility**

The BIOS Setup utility is a hardware configuration program built into your notebook's BIOS (basic input/output system).

Your notebook is already correctly configured and optimized, and you do not need to run this utility. You can use the BIOS Setup utility to create passwords to limit access to your notebook.

To open the BIOS Setup utility, press F2 during startup.

Information Main	Advanced	Security	Boot	Exit
CPU Type CPU Typed System Memory: Extended Memory: HDDI Serial Number HDD2 Serial Number System BIOS Version KGC Version Serial Number Asset Tag Number Product Name Manufacture Name	1400 Mhz 640 KB 129535 KB XXXXXXXXXX None R01-A0e 4.17.0.48.00 05.03.02 XXXXXXXXXXXXXX			GHz
UUID Number 1 Help <sup>†↓</sup> Select It		-0000-0000-0000 e Values		p Def

Use the navigation keys displayed at the bottom of the BIOS Setup utility screen to move through the BIOS menus and make selections. Press F1 to get more help about options.

## Setting a password

Important



Do not forget your password. If you forget your password, you may have to return your notebook to Gateway to reset it.



#### To set a password:

1 Use the up arrow and down arrow keys to highlight a password parameter (Setup, Power-on, or Hard Disk) and press the Enter key. The password box opens.

**2** Type a password. The password can consist of as many as eight alphanumeric characters (A-Z, a-z, 0-9).



Be very careful when typing your password because the characters do not appear on the screen.

**3** Press Enter. The retype password box opens.



**4** Retype the password to verify your first entry and press **Enter**.

After setting the password, your notebook automatically sets the chosen password parameter to Present.

- **5** Press Esc to return to the main menu.
- **6** Press **Esc**. The following dialog box appears.



**7** Select **Yes** and press **Enter** to save the password and exit the BIOS Setup utility.

#### Removing a password

To remove a password, use the up or down arrow key to highlight a password parameter and press the left or right arrow key to select **None**.

#### **Changing a password**

To change a password, you have to first remove the password and then follow the instructions in "Setting a password" on page 77.

Chapter 6: Using Installed Programs and Utilities

## Troubleshooting

7

Read this chapter to learn how to troubleshoot common problems.

#### Warning



Do not attempt to open and service your notebook by yourself. Contact Gateway for assistance.



## **Frequently-asked questions**

This is a list of possible situations that may arise during the use of your notebook, and it gives easy answers and solutions to these questions.

#### I press the power button, but the notebook does not start or boot-up.

Look at the Power indicator:

- If it is not lit, your notebook is not getting power. Check the following:
  - If you are running on battery power, it may be low and unable to power your notebook. Connect the AC adapter to recharge the battery.
  - Make sure the AC adapter is plugged in correctly to your notebook and to the power outlet.
- If it is lit, check the Standby indicator is lit. if the Standby indicator is lit, your notebook is in Standby mode. Press any key or tap on the touchpad to resume.

#### Nothing appears on the screen.

Your notebook's power management system automatically blanks the screen to save power. Press any key to turn the display back on.

If pressing a key does not turn the display back on, two things might be the cause:

- The brightness level might be too low. Press  $FN+ \leftarrow$  and  $FN+ \rightarrow$  to adjust the brightness level.
- The display device might be set to an external monitor. Press the display toggle hotkey FN+F3 to toggle the display back to your notebook.

#### Image is not full-screen.

Make sure the resolution is set to a resolution your system supports. Right-click your Windows desktop, then click **Properties** to open the *Display Properties* dialog box. Click the **Settings** tab to make sure the resolution is set to the appropriate resolution. Resolutions lower than the specified resolution are not full-screen on your notebook or on an external monitor.

#### No audio from the notebook.

Check the following:

- The volume may be muted. In Windows, look at the volume control icon on the taskbar. If it is crossed-out, click the icon and deselect the Mute option.
- The speakers may be turned off. Press FN+F5 to turn the speakers on (this hotkey also turns the speakers off).
- The volume level may be too low. In Windows, look at the volume control icon on the taskbar. Click the icon and adjust the level.

If headphones or external speakers are connected to the headphone jack on the back of your notebook, the internal speakers automatically turn off.

#### External microphone does not work.

Check the following:

- Make sure that the external microphone is connected to the microphone jack on the left side of your notebook.
- If you cannot hear playback, the speakers may be muted.

#### The keyboard does not respond.

Try attaching an external keyboard to the USB connector on the back of your notebook. If it works, contact Gateway because the internal keyboard cable may be loose.

#### The printer does not work.

Check the following:

- Make sure that the printer is connected to a power outlet and it is turned on.
- Make sure the printer cable is connected securely to your notebook's USB or parallel port and the corresponding port on the printer.

#### I want to set up my location to use the internal modem.



#### To set up your location:

- **1** Open the Windows Control Panel and double-click the Modems icon.
- **2** Click **Dialing Properties** and begin setting up your location.

Refer to the Windows on-line help.

## Why can't I charge my battery to 100% charged when it is 99-95% charged?

To preserve the life of the battery, the system only lets you charge the battery when its capacity falls below 95%. However, it is recommended that you bring an extra battery and let the battery in the system use up its power before charging it.

## **Error messages**

If you receive an error message, note the message and take the corrective action. The following table lists the error messages in alphabetical order together with the recommended course of action.

Error Messages	Corrective Action	
CMOS Battery Bad	Contact Gateway.	
CMOS Checksum Error	Contact Gateway.	
Equipment Configuration Error	Press <b>F2</b> (during startup) to open the BIOS Setup utility, then press <b>Esc</b> to exit and reconfigure your notebook.	
Hard Disk 0 Error	Contact Gateway.	
Hard Disk 0 Extended Type Error	Contact Gateway.	
I/O Parity Error	Contact gateway.	
Keyboard Error or No Keyboard Connected	Contact Gateway.	
Keyboard Interface Error	Contact Gateway.	
Memory Size Mismatch	Press <b>F2</b> (during startup) to enter the BIOS Setup utility, then press <b>Esc</b> to exit and reconfigure your notebook.	
Missing operating system	<ul> <li>Follow these steps:</li> <li>1 Press F2 (during startup) to enter the BIOS Setup utility.</li> <li>2 Exit the BIOS Setup utility (saving the changes).</li> </ul>	
Pointing Device Error	Contact Gateway.	
Pointing Device Interface Error	Contact Gateway.	
Protected Mode Test Fail	Contact Gateway.	

#### Chapter 7: Troubleshooting

Error Messages	Corrective Action
RAM BIOS Bad	Contact Gateway.
RAM Parity Error	Contact Gateway.
Real-Time Clock Error	Press $F2$ (during startup) to reconfigure your notebook.
Video RAM BIOS Bad	Contact Gateway.

## **Telephone support**

## **Before calling Gateway Technical Support**

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

- Make sure that your notebook is connected correctly to a grounded AC outlet that is supplying power. If you use a surge protector, make sure that it is turned 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, see the manufacturer's documentation and technical support resources.
- If you have "how to" questions about using a program, see:
  - Online Help
  - Printed documentation
  - The Microsoft Windows documentation
  - The software publisher's Web site
- See the troubleshooting section of this chapter.

#### Warning

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

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

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

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

## **Telephone numbers**

Gateway offers a wide range of customer service, technical support, and information services.

#### Automated troubleshooting system

Service description	How to reach
Use an automated menu system and your telephone keypad to find answers to common problems.	800-846-2118 (US) 877-709-2945 (Canada)

#### **Telephone numbers**

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

Resource	Service description	How to reach
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. (See "Before calling Gateway Technical Support" on page 87 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, see 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



For more how-to information about Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **practice** in the HelpSpot **Search** box Search \_\_\_\_\_\_\_, then click the arrow.

## **Tutoring**

For help on using hardware or software that came with your Gateway notebook, 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 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
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 notebook.	www.learnatgateway.com/

# Specifications

Read this chapter to learn about specifications for your notebook.



## Microprocessor

■ Mobile Intel<sup>®</sup> Pentium<sup>™</sup> 4 Processor-M with Enhanced Intel<sup>®</sup> SpeedStep<sup>™</sup> technology

## Memory

- Onboard memory upgradeable to 1024 MB with 2 DDR-266 SoDIMM
- 512K on-die L2 cache

## Data storage

- One high-capacity, Enhanced-IDE hard drive
- Slot-loading DVD/CD-RW drive
- Secure Digital (SD) slot

## **Display and video**

- 15.2" 15:10 SXGA (Super eXtended Graphic Array) widescreen TFT LCD panel
- 1280 × 854 (SXGA) resolution, 16.7 million colors
- nVidia<sup>®</sup> GeForce4 Go<sup>™</sup> high-performance graphics chipset with 32MB frame buffer
- Simultaneous LCD and CRT display
- Dual display support
- LCD panel supports resolution up to 1280 × 854
- VGA monitor supports resolution up to 2048 × 1536
- Embedded TV encoder supports resolution up to 1024 × 768

## Audio

- Built-in speaker and microphone
- Sound Blaster Pro- and Windows Sound System-compatible
- Built-in subwoofer
- Separate audio ports for line-in/microphone, and line-out/headphones

## Keyboard and pointing device

- 84-/85-/88-key Windows keyboard
- Ergonomically-centered touchpad pointing device

## I/O ports

- One Type II CardBus PC Card slot
- One RJ-11 phone jack (V.90)
- One RJ-45 network jack (Ethernet 10/100)
- One power connector
- One external monitor port (DDC 2.0)
- One line-out jack (headphone or external speaker) (3.5 mm mini-jack)
- One audio line-in/ microphone jack (3.5 mm mini-jack)
- Three USB ports (2.0)
- Two IEEE 1394 port One 4-pin (unpowered) and one 6-pin (powered)
- Wireless LAN

## Weight and dimensions

- 6.7 lbs (3 kg)
- 13.43 × 9.53 × 1.29 in. (341 × 242 × 31.2 mm)

## Environment

- Temperature
  - Operating: 5°C ~ 35°C
  - Non-operating: -10°C ~ 65°C
- Humidity (non-condensing)
  - Operating: 20% ~ 80% RH
  - Non-operating: 20% ~ 80% RH

## **Operating System**

■ Windows XP Home edition

## Power

- Battery
  - 59.2-WattHour Li-Ion battery
  - 1.5-hour rapid charge/4-hour charge-in-use
- AC adapter
  - 70-Watt
  - Auto sensing 100~240Vac, 50~60Hz

#### Options

- 128/256/512 MB DDR 266 SoDIMM memory upgrade module
- Additional AC adapter

## Safety, Regulatory, and Legal Information

# B

## Important safety information

Your Gateway 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 Gateway 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 from the type of power source indicated on the rating label.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area. The voltage selector switch is set at the factory to the correct voltage.
- 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.
- Some products are equipped with a three-wire power cord to make sure that the product is properly grounded when in use. The plug on this cord will fit only into a grounding-type outlet. This is a safety feature. If you are unable to insert the plug into an outlet, contact an electrician to install the appropriate outlet.
- 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.
- If your system is fitted with a TV Tuner, cable, or satellite receiver card, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and buildup of static charges.

#### 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 avoid eating and drinking 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.
- 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 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 cabinet is damaged.
  - The system performance changes.

#### **Replacement parts and accessories**

Use only replacement parts and accessories recommended by Gateway.

#### Important



Do not use Gateway products in areas classified as hazardous locations. Such areas include patient care areas of medical and dental facilities, oxygen-laden environments, or industrial facilities.

Warning



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

## Regulatory compliance statements

## **Wireless Guidance**

Low power, Radio transmitting type devices (radio frequency (RF) wireless communication devices), may be present (embedded) in your notebook system. These devices may operate in the 2.4 GHz (i.e. 802.11B/G LAN & Bluetooth), 5.2 GHz (i.e. 802.11A LAN), and traditional cellular or PCS cellular bands (i.e. Cellular data modem). 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, Gateway believes these devices are safe for use. Regardless of the power levels, care should be taken to minimize human contact during normal operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment of a portable device.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The wireless devices installed in this system are intended to be used indoors. In some areas, use of these devices outdoors is prohibited.

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

#### 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. 802.11B (also known as wireless Ethernet or Wifi) and Bluetooth communication devices are examples of devices that provide wireless communication.



## **United States of America**

#### Federal Communications Commission (FCC) Intentional emitter per FCC Part 15

Low power, Radio transmitter type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz band and/or 5.15 – 5.35 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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment of a portable device.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The wireless devices installed in this system are intended to be used indoors. In some areas, use of these devices outdoors is prohibited.

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.

#### Warning



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 Gateway for service.

#### **Unintentional emitter per FCC Part 15**

This device 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 generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and 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.

**Compliance Accessories**: The accessories associated with this equipment are: shielded video cable when an external monitor is connected. These accessories are required to be used in order to ensure compliance with FCC rules.

#### FCC declaration of conformity

#### **Responsible party:**

Gateway Companies, Inc. 610 Gateway Drive, North Sioux City, SD 57049 (605) 232-2000 Fax: (605) 232-2023

#### Product:

M500B1

This device complies with Part 15 of the FCC Rules. Operation of this product 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.



Changes or modifications not expressly approved by Gateway could void the FCC compliance and negate your authority to operate the product.

#### Telecommunications per FCC part 68 (applicable to products fitted with USA modems)

Your modem complies with Part 68 of the Federal Communications Commission (FCC) rules. On the computer or modem card is a label that contains the FCC registration number and Ringer Equivalence Number (REN) for this device. If requested, this information must be provided to the telephone company.

An FCC-compliant telephone line cord with a modular plug is required for use with this device. The modem is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68-compliant. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices which may be connected to the telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most 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 the total RENs, contact the local telephone company.

If this device causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. The telephone company may request that you disconnect the equipment until the problem is resolved.

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

This equipment cannot be used on telephone company-provided coin service. Connection to party line service is subject to state tariffs. Contact the state public utility commission or public service commission for information.

When programming or making test calls to emergency numbers:

- Remain on the line and briefly explain to the dispatcher the reason for the call.
- Perform such activities in the off-peak hours such as early morning or late evenings.

The United States Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine 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, an identification of the business, other entity, or other individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual. Refer to your fax communication software documentation for details on how to comply with the fax-branding requirement.

## Laser safety statement

All Gateway systems equipped with CD and 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.



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.

## **California Proposition 65 Warning**





This product contains chemicals, including lead, known to the State of California to cause cancer and/or birth defects or reproductive harm.

## Notices

Copyright © 2003 Gateway, Inc. All Rights Reserved 14303 Gateway Place Poway, CA 92064 USA

#### **All Rights Reserved**

This publication is protected by copyright and all rights are reserved. No part of it may be reproduced or transmitted by any means or in any form, without prior consent in writing from Gateway.

The information in this manual has been carefully checked and is believed to be accurate. However, changes are made periodically. These changes are incorporated in newer publication editions. Gateway may improve and/or change products described in this publication at any time. Due to continuing system improvements, Gateway is not responsible for inaccurate information which may appear in this manual. For the latest product updates, consult the Gateway Web site at <u>www.gateway.com</u>. In no event will Gateway be liable for direct, indirect, special, exemplary, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages.

In the interest of continued product development, Gateway reserves the right to make improvements in this manual and the products it describes at any time, without notices or obligation.

#### **Trademark Acknowledgments**

1-800-GATEWAY, ActiveCPR, ALR, AnyKey, black-and-white spot design, CrystalScan, Destination, DestiVu, EZ Pad, EZ Point, Field Mouse, Gateway 2000, Gateway Country, gateway.net, Gateway stylized logo, Perfect Scholar, Solo, TelePath, Vivitron, stylized "G" design, and "You've got a friend in the business" slogan are registered trademarks and black-and-white spotted box logo, GATEWAY, Gateway Astro, Gateway @Work, Gateway Connected touch pad, Gateway Connected music player, Gateway Cyber:)Ware, Gateway @Work, Gateway Connected touch pad, Gateway Connected music player, Gateway GoBack, Gateway Gold, Gateway Education:)Ware, Gateway Flex Case, Gateway Gaming:)Ware, Gateway GoBack, Gateway Music:)Ware, Gateway Networking Solutions, Gateway Online Network (O.N.) solution, Gateway Photo:)Ware, Gateway Music: Professional PCs, Gateway Profile, Gateway Solo, green stylized GATEWAY, green stylized Gateway logo, Gateway Teacher:)Ware, Gateway Video:)Ware, HelpSpot, InforManager, Just click itl, Learn@Gateway, Kids BackPack, SERVE-TO-ORDER, Server Watchdog, the Spotted G Gateway Logo and the Spotted G Logo, SpotShop, Spotshop.com, and Your:)Ware are trademarks of Gateway, Inc. Intel, Intel Inside logo, and Pentium are registered trademarks and MMX is a trademark of Intel Corporation. Microsoft, MS, MS-DOS, and Windows are trademarks or registered trademarks of Microsoft Corporation. All other product names mentioned herein are used for identification purposes only, and may be the trademarks 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.

## Index

### A

AC adapter caring for 5 connecting 3 connector 13 international adapters 73 accessories hard drive upgrade 65 memory upgrade 65 PC cards 60 safety precautions 97 spare AC adapter 64 spare battery 64 audio 38 connecting devices 59 connecting externally 59 headphone jack 13 microphone jack 13 muting 40, 41 playing 38 speakers 38 specifications 93 subwoofer 38 troubleshooting 83 AV control panel 8, 39 eiect button 39 fast forward button 40 fast rewind button 40 LCD panel 40 mute button 40 next track button 40 pause button 39 play button 39 power button 39 previous track button 40 repeat button 40 source button 39 stop button 39 volume down button 39 volume up button 39

#### В

back view 13 battery battery-low warning 50 bay 15 caring for 6 changing 47, 48 characteristics 46 charge indicator 20 charging modes 49 checking charge level 49 conditioning 46 installing 2, 47 location 10 lock latch 15, 47 low conditions 51 monitoring charge 49 optimizing 50 recharging 49 release latch 15, 47 removing 48 replacing 47, 48 troubleshooting 84 using first time 46 bays battery 10, 15 hard drive 11, 15 memory 15 subwoofer 10 BIOS Setup utility 77 opening 77 setting password 77 bottom view 15 brightness hotkeys 24 browser button 30

### С

cable lock 43 Caps Lock 21 status indicator 20 card PC slot 11 using PC 60 care AC adapter 5 battery 6 notebook 5 carrying case 70 CD ejecting 32 inserting 31 CD drive eject button 10 location 10 status indicator 10, 20 using 31 charging checking level 49 modes 49 cleaning notebook 6 clicking 28 closing LCD panel 18 notebook 18 connections AC adapter 3, 13 audio 59 digital camera 62 digital video camera 63 Ethernet 13 external audio 13 external keyboard 56 external speakers 13 Firewire 63 headphone 13 IEEE 1394 14 iLink 63 keyboard 56 LAN 13 line-in 13 microphone 13 modem 13 monitor 13, 54

mouse 57 network 13 parallel 13 power 13 printer 58 speaker 13 specifications 93 S-Video 13 USB 12, 13, 62 **VGA 13** video camera 63 connectivity options 34 copyright notice 104 cover release latch 10 Customer Service Accounting 88 Sales 88 Warranty 88 customizing 76

### D

data storage specifications 92 data transfer 37 digital camera connecting 62 digital video camera connecting 63 disc ejecting 32 inserting 31 display 18 hotkeys 24 power management 18 simultaneous 18 specifications 92 troubleshooting 82 double-clicking 28 dragging 28 drives CD 10, 31 DVD 10, 31 hard drive 11, 31 optical 31

recordable 31 status indicator 20 DVD ejecting 32 inserting 31 playing movies 33 regional codes 33 DVD drive eject button 10 location 10 regional codes 33 status indicator 10, 20 using 31

### Ε

eject button CD drive 10 DVD drive 10 PC Card 11 e-mail button 30 error messages 85 Ethernet connecting 34 jack 13 turning wireless on or off 30, 36 external monitor 54

### F

fan 12 FAQ 82 fax connecting modem 35 features 16 Firewire port 14, 63 Fn key 20, 21, 22, 23, 24 frequently-asked questions 82 front view 10

#### Η

hard drive 31 bay 15 location 11 upgrading 65 headphone jack 13, 83 help hotkey 24 hotkeys 23 using 24

#### I

**IEEE 1394** connecting 63 port 14 IEEE 802.11b 30, 36 iLink port 14, 63 indicator lights 8, 19 inserting disc 31 installing battery 2, 47 digital camera 62 digital video camera 63 hard drive 65 memory 65 peripheral devices 53 printer 58 Internet browser button 30 IR port using 37 IR sensor 10

#### Κ

Kensington lock slot 11 key combinations 23, 24 keyboard 21 connecting external 56 embedded numeric keypad 22 ergonomics 25 hotkeys 23 location 9 lock keys 21 specifications 93 troubleshooting 83 Windows keys 23 keys brightness 24 Cap Lock 21 display 24

hotkey help 24 hotkeys 23 mute 24 Num Lock 21 numeric keypad 22 screen blank 24 Scroll Lock 21 Standby 24 Windows 23

## L

LAN connecting 34 jack 13 latch battery 2, 4, 47, 48 LCD panel release 18 Launch Manager 76 LCD brightness key 24 LCD panel location 8 opening and closing 18 power management 18 release latch 4, 18 simultaneous display 18 specifications 92 troubleshooting 82 LEDs 19 left view 11 lights 19 line-in jack 13 lock Kensington slot 11, 43

#### Μ

maintenance 5 memory bay 15 specifications 92 upgrading 65 messages error 85 microphone

jack 13 location 9 troubleshooting 83 microprocessor specifications 92 modem 35 connecting 35 jack 13 troubleshooting 84 monitor connecting 54 port 13 simultaneous display 18, 54 mouse connecting external 57 multi-function buttons 9, 29 browser 30 e-mail 30 Internet browser 30 programmable 30, 76 wireless communication 30 muting sound 24, 40

#### Ν

network connecting 34 jack 13 non-technical support Accounting 88 Sales 88 Warranty 88 Num Lock 21 status indicator 20 numeric keypad embedded 22

#### 0

opening LCD panel 18 notebook 18 options hard drive upgrade 65 memory upgrade 65 PC cards 60 spare AC adapter 64 spare battery 64

#### Ρ

palm rest 8, 25 parallel port 13, 58 password 44 changing in BIOS Setup utility 79 removing in BIOS Setup utility 79 setting in BIOS Setup utility 77 types 44 PC Card eject button 11 ejecting 61 inserting 61 slot 11 using 60 playing CD 39, 40 DVD 39, 40 music CD 39, 40 pointer moving 26, 27 power AC adapter 3, 5, 13, 46, 48, 49, 50, 70, 71, 73 battery 2, 15, 46, 47, 48, 49, 50 button 9 connector 13 conserving battery power 50, 52 indicator 20 management 18, 45, 52 Standby mode 20, 24 status indicator 20 troubleshooting 82 turning on 4 printer connecting 58 troubleshooting 84 programmable buttons 30, 76

### R

recharging battery 49 regional codes DVD 33 right view 12 right-clicking 28

## S

safetv general precautions 95 screen blank hotkey 24 Scroll Lock key 21 SD memory card slot 11 Secured Digital memory card slot 11 security keylock 43 passwords 44 slot 43 service when to call 6 setting up safety precautions 96 simultaneous display 18, 54 SO-DIMM 65 software bundled 76 sound 93 adjusting 39, 42 controls 39, 42 muting 24, 40 speakers 38 specifications 93 subwoofer 38 troubleshooting 83 speaker jack 13 speakers hotkey 24 location 9 troubleshooting 83 specifications 91, 93 audio 93 connections 93 data storage 92

dimensions 93 display 92 jacks 93 keyboard 93 LCD panel 92 memory 92 microprocessor 92 ports 93 size 93 touchpad 93 video 92 weight 93 Standby mode hotkey 24 status indicator 20 starting notebook 2 status indicators 8, 19 battery charge 20 Caps Lock 20 CD drive 20 DVD drive 20 Num Lock 20 power 20 Standby 20 wireless communication 20 storage 31 subwoofer 10 S-Video connecting 55 jack 13

## Т

Technical Support 88 technical support automated troubleshooting 88 FaxBack support 88 Technical Support 88 tips before contacting 87 tutorial service 88 telephone support 87 television TV out jack 13, 55 touchpad 8, 26

buttons 9 clicking 28 double-clicking 28 dragging screen objects 28 moving pointer 27 moving screen objects 28 opening shortcut menu 28 right-clicking 28 selecting screen objects 28 specifications 93 using 27 training CD 90 classroom 90 Gateway Learning Libraries 90 Learn@Gateway 90 travel tips 67 troubleshooting audio 83 automated system 88 battery 84 display 82 error messages 85 faxed answers 88 keyboard 83 LCD panel 82 microphone 83 modem 84 power 82 printer 84 sound 83 technical support 87 telephone support 87 turning on notebook 4 tutoring fee-based 89 TV out (S-Video) jack 13, 55

#### U

upgrading 65 USB connecting 62 port 12, 13

#### V

ventilation fan 12 VGA port 13 video S-Video out jack 13, 55 video camera connecting 63 video specifications 92 volume adjusting 42 controls 24, 39 muting 24, 40

#### W

Web browser button 30 Windows keys 23 wireless communication 36 button 30 status indicator 20 wireless data transfer 37



MAN SYS M500 USR GDE R0 4/03