Dell™ SmartPC™ 200N and 250N

Owner's Manual

Hints, No...

HINT: A HINT indicates impor...
use of your computer.

NOTICE: A NOTICE indicates either potential dam...
data and tells you how to avoid the problem.

⚠ **CAUTION: A CAUTION indicates a potential for property dam...
personal injury, or death.**

Abbreviations and Acronyms

For a complete list of abbreviations and acronyms, see the *Tell Me How* help
file (click the **Start** button on the Microsoft® Windows® desktop, point to
Help and Support→ User's Guides, and then click **Tell Me How**).

Model PP06L

Contents

3 How Do I?

4   Maintaining Your Computer

5   Adding and Replacing Parts

6 Appendix

⚠ CAUTION: Safety Instructions

Use the following safety guidelines to help ensure your own personal safety and to help protect your computer and working environment from potential damage.

General

- Do not attempt to service the computer yourself unless you are a trained service technician. Always follow installation instructions closely.

- If you use an extension power cable with your AC adapter, ensure that the total ampere rating of the products plugged in to the extension power cable does not exceed the ampere rating of the extension cable.

- Do not push objects into air vents or openings of your computer. Doing so can cause fire or electric shock by shorting out interior components.

- Do not store your computer in a low-airflow environment, such as a carrying case or a closed briefcase, while the computer is turned on. Restricting airflow can damage the computer or cause a fire.

- Keep your computer away from radiators and heat sources. Also, do not block cooling vents. Avoid placing loose papers underneath your computer; do not place your computer in a closed-in wall unit or on a bed, sofa, or rug.

- Place the AC adapter in a ventilated area, such as a desk top or on the floor, when you use it to run the computer or to charge the battery. Do not cover the AC adapter with papers or other items that will reduce cooling; also, do not use the AC adapter inside a carrying case.

- The AC adapter may become hot during normal operation of your computer. Use care when handling the adapter during or immediately after operation.

- Do not allow your portable computer to operate with the base resting directly on exposed skin for extended periods of time. The surface temperature of the base will rise during normal operation (particularly when AC power is present). Allowing sustained contact with exposed skin can cause discomfort or, eventually, a burn.

- Do not use your computer in a wet environment, for example, near a bath tub, sink, or swimming pool or in a wet basement

- If your computer includes an integrated or optional (PC Card) modem, disconnect the modem cable if an electrical storm is approaching to avoid the remote risk of electric shock from lightning via the telephone line.

⚠ CAUTION: Safety Instructions *(continued)*

- If you are using a multiple-outlet power strip, use caution when plugging the AC adapter's power cable into the power strip. Some power strips may allow you to insert the plug incorrectly. Incorrect insertion of the power plug could result in permanent damage to your computer, as well as risk of electric shock and/or fire. Ensure that the ground prong of the power plug is inserted into the mating ground contact of the power strip.

Battery

- Use only Dell™ battery modules that are approved for use with this computer. Use of other types may increase the risk of fire or explosion.

- Do not carry a battery pack in your pocket, purse, or other container where metal objects (such as car keys or paper clips) could short-circuit the battery terminals. The resulting excessive current flow can cause extremely high temperatures and may result in damage to the battery pack or cause fire or burns.

- The battery poses a burn hazard if you handle it improperly. Do not disassemble it. Handle a damaged or leaking battery pack with extreme care. If the battery is damaged, electrolyte may leak from the cells and may cause personal injury.

- Keep the battery away from children.

- Do not store or leave your computer or battery pack near a heat source such as a radiator, fireplace, stove, electric heater, or other heat-generating appliance or otherwise expose it to temperatures in excess of 60ºC (140ºF). When heated to excessive temperatures, battery cells could explode or vent, posing a risk of fire.

- Do not dispose of your computer's battery in a fire or with normal household waste. Battery cells may explode. Discard a used battery according to the manufacturer's instructions or contact your local waste disposal agency for disposal instructions. Dispose of a spent or damaged battery promptly.

CAUTION: Safety Instruction

avel

Certain Federal Aviation Administration regulations
may apply to the operation of your Dell computer
example, such regulations/restrictions may prohib
device (PED) that has the capacity for intentio
other electromagnetic signals while on an air

– In order to best comply with all such r
  equipped with Dell TrueMobile™ or
  please disable this device before yo
  provided by airline personnel with

– Additionally, the use of any PE
  aircraft during certain critical
  airlines may further define
  3050 m (10,000 ft). Pleas
  of a PED is allowed.

EMC Instructions

Use shielded signal cables
the intended environmer
can order a cable from

Static electricity ca
damage, discharg
electronic comm
metal surface

support.dell.com

When Using Your Computer

Observe the following safe-handling guidelines to prevent damage to your computer:

• When setting up the computer for work, place it on a level surface.

• When traveling, do not check the computer as baggage. You can put your computer through an X-ray security machine, but never put your computer through a metal detector. If you have the computer checked by hand, be sure to have a charged battery available in case you are asked to turn on the computer.

• When traveling with the hard drive removed from the computer, wrap the drive in a nonconducting material, such as cloth or paper. If you have the drive checked by hand, be ready to install the drive in the computer. You can put the hard drive through an X-ray security machine, but never put the drive through a metal detector.

• When traveling, do not place the computer in overhead storage compartments where it could slide around. Do not drop your computer or subject it to other mechanical shocks.

• Protect your computer, battery, and hard drive from environmental hazards such as dirt, dust, food, liquids, temperature extremes, and overexposure to sunlight.

• When you move your computer between environments with very different temperature and/or humidity ranges, condensation may form on or within the computer. To avoid

When Using Your Computer *(continued)*

- Clean the display with a soft, clean cloth and water. Apply the water to the cloth; then stroke the cloth across the display in one direction, moving from the top of the display to the bottom. Remove moisture from the display quickly and keep the display dry. Long-term exposure to moisture can damage the display. Do not use a commercial window cleaner to clean your display.

- If your computer gets wet or is damaged, follow the procedures described in the Tell Me How help file. To access the help file, see page 17. If, after following these procedures, you confirm that your computer is not operating properly, contact Dell (see "Contacting Dell" on page 79 for the appropriate contact information).

Ergonomic Computing Habits

⚠ **CAUTION: Improper or prolonged keyboard use may result in injury.**

⚠ **CAUTION: Viewing the display or external monitor screen for extended periods of time may result in eye strain.**

For comfort and efficiency, observe the ergonomic guidelines in the Tell Me How help file when setting up and using your computer. To access the help file, see page 17.

This portable computer is not designed for continuous operation as office equipment. For extended use in an office, Dell recommends that you connect an external monitor and an external keyboard.

When Working Inside Your Computer

Before removing or installing memory modules, Mini PCI cards, or modems, perform the following steps in the sequence indicated.

⬤ **NOTICE:** The only time you should ever access the inside of your computer is when you are installing memory modules, a Mini PCI card, or a modem.

⬤ **NOTICE:** Wait 5 seconds after turning off the computer before disconnecting a device or removing a memory module, Mini PCI card, or modem to help prevent possible damage to the system board.

1 Shut down your computer and turn off any attached devices.

2 Disconnect your computer and devices from electrical outlets to reduce the potential for personal injury or shock. Also, disconnect any telephone or telecommunication lines from the computer.

3 Remove the main battery from the battery bay and, if necessary, the secondary battery from the module bay.

When Using Your Computer *(continued)*

4 Ground yourself by touching the unpainted metal surface of the I/O panel on the back of the computer.

While you work, periodically touch the I/O panel to dissipate any static electricity that might harm internal components.

Protecting Against Electrostatic Discharge

Static electricity can harm electronic components inside your computer. To prevent static damage, discharge static electricity from your body before you touch any of your computer's electronic components, such as a memory module. You can do so by touching an unpainted metal surface on the computer's I/O panel.

As you continue to work inside the computer, periodically touch an I/O connector to remove any static charge your body may have accumulated.

You can also take the following steps to prevent damage from electrostatic discharge (ESD):

- When unpacking a static-sensitive component from its shipping carton, do not remove the component from the antistatic packing material until you are ready to install the component. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.

- When transporting a sensitive component, first place it in an antistatic container or packaging.

- Handle all sensitive components in a static-safe area. If possible, use antistatic floor pads and workbench pads.

Battery Disposal

Your computer uses lithium ion battery and a NiMH battery. For instructions about replacing the lithium ion battery in your computer, refer to the section about replacing the battery in your Dell computer documentation. The NiMH battery is a long-life battery, and it is very possible that you will never need to replace it. However, should you need to replace it, the procedure must be performed by an authorized service technician.

Do not dispose of the battery along with household waste. Contact your local waste disposal agency for the address of the nearest battery deposit site.
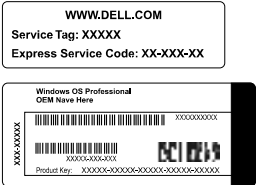
1

Information Resources

Finding Information and Assistance

Finding Information and Assistance

The following table lists the resources that Dell provides as support tools. Additional resources may be shipped with your computer.

Resource	Contents	Using the Resource
Drivers and Utilities CD DRIVERS AND UTILITES Reinstallation CD	*Drivers and Utilities* CD • Dell Diagnostics • Drivers • Utilities • Computer and device documentation	See the main menu on the *Drivers and Utilities* CD that came with your computer. Use the pull-down menu to make selections appropriate for your computer. Documentation and drivers are already installed on your computer when shipped from Dell. You can use this CD to access documentation or reinstall drivers. You can also use the CD to run diagnostic tools if you are unable to run the diagnostics located on your hard drive.
WWW.DELL.COM Service Tag: XXXXX Express Service Code: XX-XXX-XX Windows OS Professional OEM Nave Here XXXXXXXXXX XXX-XXXXX XXXXXX-XXX-XXX Product Key: XXXXX-XXXXX-XXXXX-XXXXX-XXXXX	**Service and Registration Labels** • **Express Service Code and Service Tag Sequence** • **Product Key (also called the Product ID or Certificate of Authenticity [COA])**	The Express Service Code and Service Tag Sequence are unique identifiers for your Dell™ computer. You will need the Product Key (or Product ID) number to complete the operating system setup.
Operating System CD OPERATING SYSTEM Reinstalling Dell Software	*Operating System* CD	To reinstall your operating system, use the *Operating System* CD that came with your computer. **NOTE:** The *Operating System* CD may not include all the latest drivers for your computer. If you reinstall your operating system, use the *Drivers and Utilities* CD to reinstall drivers for the devices shipped with your computer. Alternatively, you can go to **support.dell.com** to obtain the latest drivers.

Resource	Contents	Using the Resource
	Dell *Tell Me How*	See the *Tell Me How* help file on your hard drive for additional information about your computer. **NOTE:** To access the *Tell Me How* help file, click the **Start** button, click **Help and Support**, click **User's Guides**, and then click **Tell Me How**.
support.dell.com	Dell Support website • Frequently asked questions • Downloads for your computer • Documentation • Online discussions about your computer • Searchable database	Go to **support.dell.com** and complete the one-time registration: • Get help with general usage, installation, and troubleshooting questions (Ask Dudley, Dell Knowledge Base) • Access documentation about your computer and devices (Dell Documents) • Get the latest versions of the drivers for your computer (Downloads for Your Dell) • Join online discussions with other Dell customers and Dell technical professionals (Dell Talk) • Explore a list of online links to Dell's primary vendors

GO TO THE DELL SUPPORT WEBSITE — Go to **support.dell.com** for help with general usage, installation, and troubleshooting questions. See "Returning Items for Warranty Repair or Credit" on page 78 for a description of the hardware and software support provided by Dell.

E-MAIL DELL — Go to **support.dell.com** and then click **E-Mail Dell** in the **Communicate** list. Send an e-mail message to Dell about your problem; you can expect to receive an e-mail message from Dell within hours. See "Returning Items for Warranty Repair or Credit" on page 78 for a description of the hardware and software support provided by Dell.

CONTACT DELL — If you cannot solve your problem using the Dell™ support website or e-mail service, call Dell for technical assistance. See "Contacting Dell" on page 79 for a list of phone numbers and addresses.

SECTION 2

Setting Up and Usi
Your Computer

A Tour of Your Computer

Front View

display latch

easy-launch keys

status lights

power button

keyboard

touch pad

four-directional
scroll pad

touch pad
buttons

module bay

battery bay

DISPLAY LATCH — Keeps the display closed.

STATUS LIGHTS — LEDs that show the status of the computer and its functions
and components.

media activity   battery

standby   caps lock

num lock

power

![power icon]	Turns on when you turn on the computer.
![standby icon]	Turns on when the computer enters standby mode.
![media activity icon]	Flashes when the computer reads or writes data. **⊘ NOTICE:** To avoid loss of data, never shut down the computer when the ![icon] light is flashing.
![battery icon]	Turns on when the battery is being charged.
![caps lock icon]	Turns on when the uppercase letter function is enabled.
![num lock icon]	Turns on when the numeric keypad is enabled.

KEYBOARD — The keyboard includes a numeric keypad as well as the Windows logo key. For information on supported keyboard shortcuts, see the *Tell Me How* help file.

TOUCH PAD BUTTONS — Correspond to the left and right buttons on a standard mouse.

BATTERY BAY — When a battery is installed, you can use the computer without connecting the computer to an electrical outlet. For more information, see the *Tell Me How* help file. To access the help file, see page 17.

MODULE BAY — Holds optical devices such as a DVD drive or a DVD/CD-RW drive.

SCROLL PAD — Four-directional button that allows you to scroll through documents.

TOUCH PAD — Use the touch pad as you would use a mouse.

POWER BUTTON — Press the power button to turn on the computer.

EASY-LAUNCH KEYS — Launch frequently used programs.

Left View

security cable slot

IEEE 1394 port

audio connectors

floppy drive

volume wheel

speaker
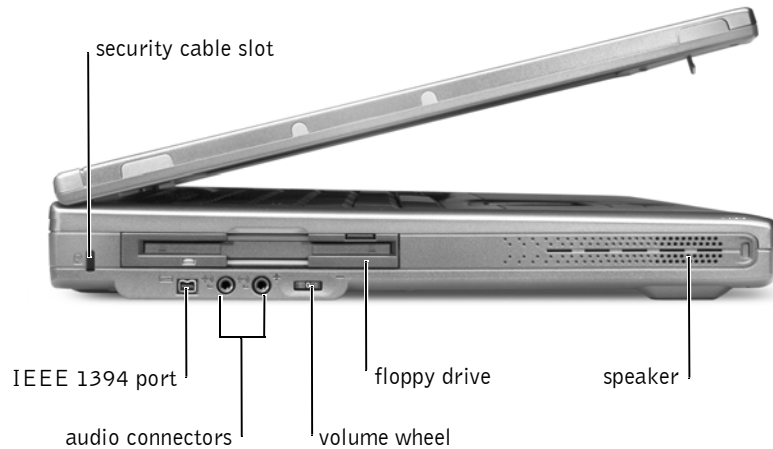
SECURITY CABLE SLOT — Lets you attach a commercially available antitheft device to the computer. For more information, see the instructions included with the device.

IEEE 1394 PORT — Connects to an IEEE 1394-compatible device, such as a digital camcorder.

AUDIO CONNECTORS — You can attach audio devices, such as speakers, headphones, or a microphone.

VOLUME WHEEL — Adjusts the volume level.

FLOPPY DRIVE — Accepts a 3.5-inch floppy disk for data storage.

SPEAKER — Use the volume wheel or press the volume control keyboard shortcuts to adjust the volume of the integrated speakers. For more information, see the *Tell Me How* help file. To access the help file, see page 17.

Right View
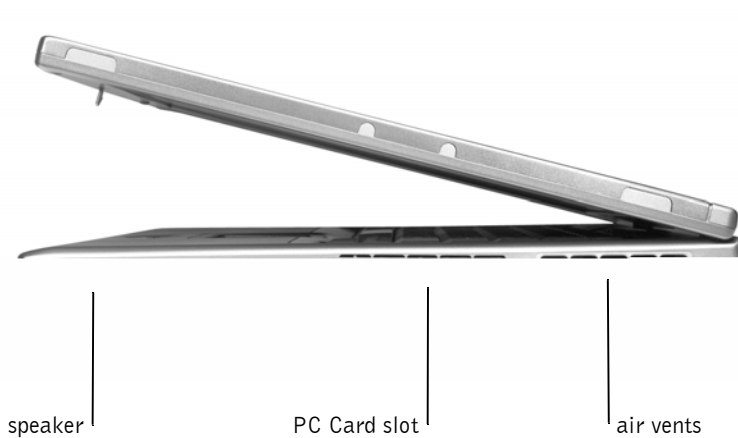
speaker   PC Card slot   air vents

SPEAKER — Use the volume wheel or press the volume control keyboard shortcuts to adjust the volume of the integrated speakers. For more information, see the *Tell Me How* help file. To access the help file, see page 17.

PC CARD SLOT — Accepts one Type III or two Type II/I PC Card(s).

AIR VENTS — The computer uses an internal fan to create airflow through the vents, which prevents the computer from overheating.

NOTICE: Do not block, push objects into, or allow dust to accumulate in the air vents. Doing so can damage the computer or cause a fire.

HINT: The computer turns on the fans when the computer gets hot. The fans may make noise, which is normal and does not indicate a problem with the fans or the computer.

Back View

AC adapter connector   serial connector   modem connector

video connector   network connector

parallel connector   S-video TV-out connector

USB connector
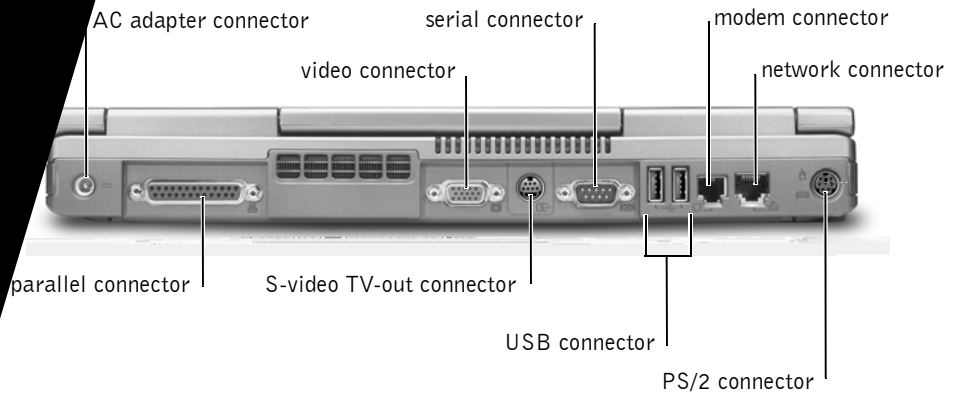
PS/2 connector

AC ADAPTER CONNECTOR — Attach the AC adapter to the computer.

VIDEO CONNECTOR — Connect your computer to an external monitor.

SERIAL CONNECTOR — Connect serial devices, such as a serial mouse.

MODEM CONNECTOR — Connect the telephone line to the modem connector.

NOTICE: The network connector is slightly larger than the modem connector. Do not plug a telephone line into the network connector.

NETWORK CONNECTOR — Connect the computer to a network.

PS/2 CONNECTOR — Connect a PS/2-compatible device, such as a PS/2 keyboard.

USB CONNECTOR — Connect USB devices, such as a USB digital camera.

S-VIDEO TV-OUT CONNECTOR — Connect a display device with S-video input, such as a TV.

PARALLEL CONNECTOR — Connect a parallel device, such as a parallel printer.

Bottom View

battery latch releases   memory module cover   device latch release   modem cover

battery bay   module bay   battery lock
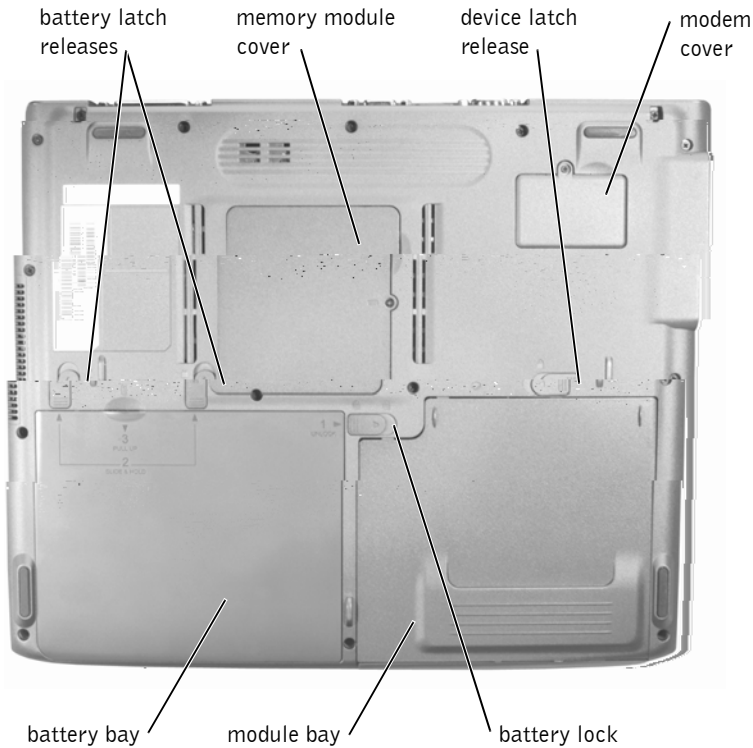
BATTERY LATCH RELEASES — Release the battery. For more information, see the *Tell Me How* help file. To access the help file, see page 17.

MEMORY MODULE COVER — Covers the memory module compartment.

DEVICE LATCH RELEASE — Releases the module bay device. For more information, see the *Tell Me How* help file. To access the help file, see page 17.

MODEM COVER — Protects the modem.

BATTERY LOCK — Locks the battery in the battery bay.

MODULE BAY — Holds optical devices, such as a DVD drive or a DVD/CD-RW drive.

BATTERY BAY — When a battery is installed and charged, you can use the computer without connecting it to an electrical outlet.

Setting Up a Printer

⊃ **NOTICE:** Complete the operating system setup before you connect a printer to the computer.

See the documentation that came with the printer for setup information, including how to:

- Obtain and install updated drivers
- Connect the printer to the computer
- Load paper and install the toner or ink cartridge
- Contact the printer manufacturer for technical assistance

Printer Cable

Your printer connects to your computer with either a USB cable or a parallel cable. Your printer may not come with a printer cable, so if you purchase a cable separately, ensure that it is compatible with your printer. If you purchased a printer cable at the same time you purchased your computer, the cable may arrive in the computer box.

Connecting a Parallel Printer

1 Complete the operating system setup, if you have not already done so.

2 Turn off the computer (see page 38).

⊃ **NOTICE:** For best results, use a 3 m (10 ft) or shorter parallel cable.

3 Attach the parallel printer cable to the parallel connector on the computer and tighten the two screws. Attach the cable to the connector on the printer and snap the two clips into the two notches.

parallel connector on computer

connector on printer

screws (2)

clips (2)

parallel printer cable

notches (2)
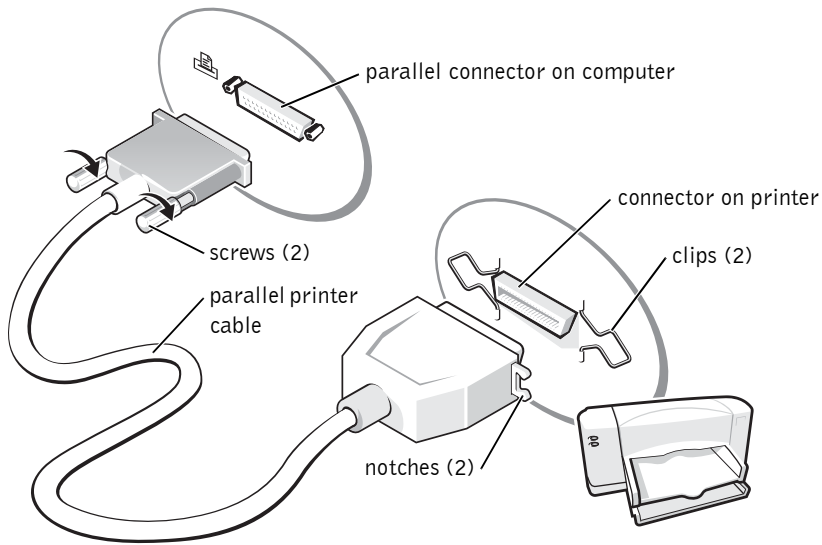
4 Turn on the printer and then turn on the computer. If the **Add New Hardware Wizard** window appears, click **Cancel**.

5 Install the printer driver if necessary. See the documentation that came with your printer.

Connecting a USB Printer

1 Complete the operating system setup, if you have not already done so.

2 Install the printer driver if necessary. See the documentation that came with your printer.

3 Attach the USB printer cable to the USB connector on the computer and the printer. The USB connectors fit only one way.

HINT: You can connect USB devices while the computer is turned on.
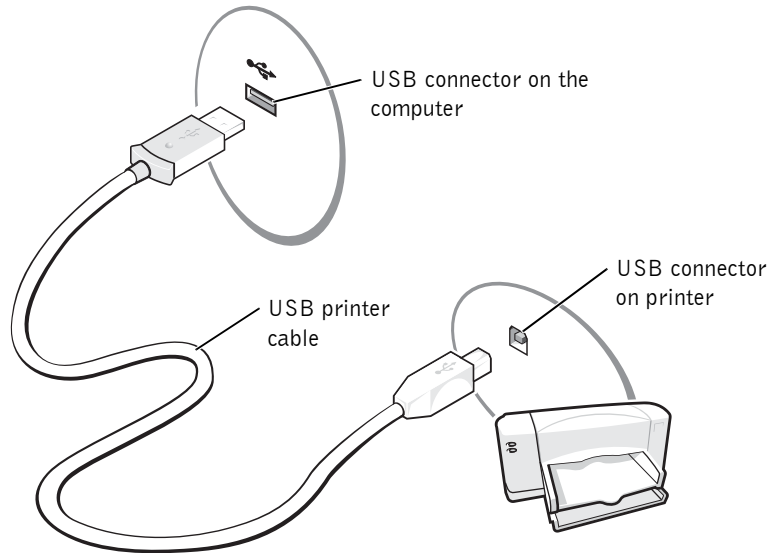
USB connector on the computer

USB connector on printer

USB printer cable

Installing the Printer Driver

To check if your printer driver is installed on a computer running the Windows® XP operating system, click the **Start** button, click **Control Panel,** click **Printers and Other Hardware**, and then click **View installed printers or fax printers**. If your printer model is listed in the **Printers** window, the printer is ready to use.

If you need to install a printer driver, insert the installation CD. Then follow the prompts on the screen, using the instructions that came with the printer.

If your printer installation CD does not automatically run, click the **Start** button, click **Run**, and then type x:\setup.exe (where x is the letter of your DVD drive [usually drive D]). Click **OK** and follow the prompts on your screen. If your printer installation CD still does not run, check the documentation that came with your printer for instructions on how to start the printer installation CD.

Printer Problems

CHECK THE PRINTER CABLE CONNECTIONS — Ensure that the printer cable is properly connected to the computer.

TEST THE ELECTRICAL OUTLET — Ensure that the electrical outlet is working by testing it with another device, such as a lamp.

ENSURE THAT THE PRINTER IS TURNED ON — See the documentation supplied with the printer.

VERIFY THAT WINDOWS® RECOGNIZES THE PRINTER
1 Click the **Start** button.
2 Click **Control Panel**.
3 Click **Printers and Other Hardware**.
4 Click **View installed printers or fax printers**. If the printer model is listed, right-click the printer icon.
5 Click **Properties,** and then click the **Ports** tab. Ensure that the **Print to the following port(s):** setting is **LPT1 (Printer Port)**.

Transferring Information to a New Computer With Microsoft® Windows® XP

The Windows XP operating system provides a **Files and Settings Transfer Wizard** to move data, such as e-mails, window sizes, toolbar settings, and Internet bookmarks, from one computer to another. First you collect the data from the source computer, and then you import the data to the new computer.

If the source computer uses another Windows operating system, you can launch the wizard from the Windows XP operating system CD or from a floppy disk created on the computer that is running Windows XP. You can

transfer the data to the new computer over a network or serial connection, or you can store it on a removable medium, such as a floppy disk, a Zip disk, or a writable CD.

1   On the computer running Windows XP, click the **Start** button, point to **All Programs**→ **Accessories**→ **System Tools**, and then click **Files and Settings Transfer Wizard**.

2   On the welcome screen, click **Next**.

3   On the **Which computer is this?** screen, select **New Computer**, and then click **Next**.

4   Follow the instructions on the screen.

Setting Up a Home and Office Network With Windows XP

Windows XP provides a **Network Setup Wizard** to guide you through the process of sharing files, printers, or an Internet connection between computers in a home or small office.

1   Click the **Start** button, point to **All Programs**→ **Accessories**→ **Communications**, and then click **Network Setup Wizard**.

2   On the welcome screen, click **Next**.

3   Click **checklist for creating a network**.

4   Complete the checklist and required preparations, and then return to the **Network Setup Wizard**.

5   Follow the instructions on the screen.

HINT: Selecting the **This computer connects directly to the Internet** connection method enables the integrated firewall provided with Windows XP.

Connecting to the Internet

To connect to the Internet, you need a modem or network connection and an Internet service provider (ISP), such as America Online or DellNet™ by MSN. Your ISP will offer one or more of the following Internet connection options:

•   Dial-up connections that provide Internet access through a phone line. Dial-up connections are considerably slower than DSL and cable modem connections.

- DSL connections that provide high-speed Internet access through your existing phone line. With a DSL connection, you can access the Internet and use your phone on the same line simultaneously.

- Cable modem connections that provide high-speed Internet access through your local cable TV line.

If you are using a dial-up connection, connect a telephone cable to the modem connector on your computer and to the telephone wall jack before you set up your Internet connection. If you are using a DSL or cable modem connection, contact your ISP for setup instructions.

Setting Up Your Internet Connection

To set up an America Online or DellNet by MSN connection:

1   Save and close any open files, and exit any open programs.

2   Double-click the **MSN Explorer** or **AOL** icon on the Windows® desktop.

3   Follow the instructions on the screen to complete the setup.

If you do not have an **MSN Explorer** or **AOL** icon on your desktop or if you want to set up an Internet connection with a different ISP:

1   Save and close any open files, and exit any open programs.

2   Click the **Start** button and click **Control Panel**.

3   Click **Network and Internet Connections**.

4   Click **Set up or change your Internet connection**.

5   In the **Internet Properties** window, click **Setup** and then click **Next**.

    The **New Connection Wizard** appears.

6   Click **Connect to the Internet**.

7   In the next window, click the appropriate option:

    - If you do not have an ISP and want to select one, click **Choose from a list of Internet service providers (ISPs)**.

    - If you have already obtained setup information from your ISP but you did not receive a setup CD, click **Set up my connection manually**.

    - If you have a CD, click **Use the CD I got from an ISP**.

8 Click **Next**.

If you selected **Set up my connection manually**, continue to step 9. Otherwise, follow the instructions on the screen to complete the setup.

9 Click the appropriate option under **How do you want to connect to the Internet?**, and then click **Next**.

10 Use the setup information provided by your ISP to complete the setup.

If you are having problems connecting to the Internet, see Internet, Modem, and E-Mail Problems in the *Tell Me How* help file. To access the help file, see page 17. If you cannot connect to the Internet but have successfully connected in the past, the ISP might have a service outage. Contact your ISP to check the service status, or try connecting again later.

Copying CDs

HINT: Ensure that you follow all copyright laws when you create CDs.

The information in this section is based on the Roxio Easy CD Creator Basic documentation that came with your computer. See the following section, "Using Easy CD Creator Basic," for instructions on how to locate that documentation.

HINT: The information in this section also applies to using Easy CD Creator Basic with a DVD+RW or a DVD+R drive.

To burn CDs, you need to use CD-burner software. Roxio Easy CD Creator Basic is your computer's CD-burner software. The software includes these project programs that enable you to record specialty CDs for different types of uses:

- DirectCD allows you to format a blank CD-R or CD-RW disc so that you can use Microsoft® Windows® Explorer to drag and drop data files to the CD-RW drive. You can use a DirectCD-formatted CD-RW disc like another hard drive on your computer because CD-RW discs are fully rewritable (CD-R discs can be used with DirectCD, but that media type has overwriting limitations—see "Using Blank CD-R Discs or Blank CD-RW Discs" for recording media differences).

- MusicCD allows you to burn custom music CDs.

- DataCD allows you to copy a variety of your documents, such as spreadsheet or accounting files, to a CD for permanent storage.

- Disc Copier allows you to make a backup copy of almost any type of CD. This program allows you to make a copy of a CD for everyday use so that you can archive and save the original copy. (Disc Copier is titled "CD Copier" in some versions of Roxio CD Creator Basic.)

All four project programs are available on the Easy CD Creator Basic **Select a Project** menu screen. To view the **Select a Project** menu screen, click the **Start** button, point to **All Programs**→ **Roxio Easy CD Creator**, and then click **Project Selector**.

Using Easy CD Creator Basic

See the Easy CD Creator Basic documentation for instructions on how to use the program, information about different recording techniques, and CD media limitations. The Easy CD Creator Basic documentation is located in the Microsoft® Windows® XP Help and Support Center. The documentation is also provided on the Roxio reinstallation CD, which is included with your computer. Each Easy CD Creator Basic project program also has thorough online help files.

Using Blank CD-R Discs or Blank CD-RW Discs

Your CD-RW drive writes to two different types of recording media—CD-R and CD-RW discs. Use blank CD-R (CD-Recordable) disks to record music or permanently store data files. After creating a CD-R disc, you cannot write to that disc again without changing your method of recording (see the Roxio documentation for more information). Use blank CD-RW (CD-ReWritable) discs when you want to write, erase, rewrite, and update your files onto CDs.

Helpful Tips

- You must use the Easy CD Creator Basic project programs to copy and record all music and data CDs. You can use Windows Explorer to drag and drop files to a CD-R or CD-RW disc only after you first use DirectCD to format the disc.

- You must use CD-R discs to burn music CDs that you want to play in regular stereos. CD-RW discs do not play in most home or car stereos.

- If you want to copy files from the Internet or files from a floppy or Zip drive, copy those files to your hard drive first, and then burn your CD. Your CD-RW drive requires a steady stream of data to properly record. Direct Internet downloads, floppy drives, and Zip drives may not be able to provide a steady data stream to your CD-RW drive.

- Music MP3 files can be played only on MP3 players or on computers that have MP3 software installed.

- Ensure that you set the sampling rate to at least 128 Kbps when you burn MP3 files to a CD. Otherwise, recording errors may occur.

- Do not burn a blank CD-R or CD-RW disc to its maximum capacity; for example, do not copy a 650-MB file to a 650-MB blank CD. The CD-RW drive needs 1 or 2 MB of the blank CD to finalize the recording.

- Use a blank CD-RW disc to practice CD recording until you are familiar with CD recording techniques. If you make a mistake, you can erase the CD-RW disc and try again. You can also use blank CD-RW discs to test music file projects before you record the project permanently to a blank CD-R disc.

- See the Roxio support website at **support.roxio.com** for additional helpful tips.

How to Copy a CD

HINT: If you have a DVD/CD-RW combo drive and experience recording problems, check the Roxio support website at **support.roxio.com** for available software patches.

The procedure assumes that your computer is equipped with a single CD-RW drive (without an additional CD drive). If your computer is equipped with both types of drives, see the Roxio documentation for instructions on how to copy CDs from a CD drive to a CD-RW drive.

1   Click the **Start** button, point to **All Programs**→ **Roxio Easy CD Creator**, and then click **Project Selector**.

    The **Select a Project** window appears.

2   Click **Disc Copier**. (Disc Copier is titled "CD Copier" in some versions of Easy CD Creator Basic.)

    The **Disc Copier** window appears and displays your CD-RW drive in the **Copy from** and the **Record to** lists.

3 Insert the source CD that you want to copy into the CD-RW drive.

The Disc Copier project program briefly checks the source CD in the CD-RW drive to ensure that it is a readable CD.

4 Click **Copy**.

Depending on the size of the files that are being copied, the copy process may take a few minutes.

5 After the source CD is copied, remove the source CD from the CD-RW drive tray.

The CD-RW drive tray opens automatically after the source CD is copied.

6 Insert a blank CD into the CD-RW drive and close the tray.

The recording starts automatically.

7 After the recording completes, click **OK**.

HINT: You must use CD-R discs to burn music CDs that you want to play in regular stereos. CD-RW discs do not play in most home or car stereos.

3

How Do I?

Turning On Your Computer

Press the power button (labeled ⏻) to turn on the computer.

Turning Off Your Computer

🡆 **NOTICE:** Turn off your computer by first shutting down your Microsoft® Windows® operating system. Otherwise, you may lose data.

1 Save and close any open files, exit any open programs, click the **Start** button, and then click **Turn Off Computer**.

2 In the **Turn off computer** window, click **Turn off**.

The computer turns off after the shutdown process finishes.

Power Problems

HINT: See the *Tell Me How* help file for information on standby mode. To access the help file, click the **Start** button, click **Help and Support**, click **User's Guides**, and then click **Tell Me How**.

CHECK THE POWER LIGHT — When the power light is lit or blinking, the computer has power. If the power light is blinking, the computer is in standby mode—press the power button to exit standby mode. If the light is off, press the power button to turn on the computer.

CHARGE THE BATTERY — The battery charge may be depleted.
 1 Reinstall the battery.
 2 Use the AC adapter to connect the computer to an electrical outlet.
 3 Turn on the computer.

TEST THE ELECTRICAL OUTLET — Ensure that the electrical outlet is working by testing it with another device, such as a lamp.

CHECK THE AC ADAPTER — Check the AC adapter cable connections. If the AC adapter has a light, ensure that the light is on.

CONNECT THE COMPUTER DIRECTLY TO AN ELECTRICAL OUTLET —

Bypass power protection devices, power strips, and the extension cable to verify that the computer turns on.

ELIMINATE POSSIBLE INTERFERENCE — Turn off nearby fans, fluorescent lights, halogen lamps, or other appliances.

ADJUST THE POWER PROPERTIES — See the *Tell Me How* help file (click the **Start** button, click **Help and Support**, click **User's Guides**, and then click **Tell Me How**.)

Installing and Removing a Battery

Use a battery to power the computer when it is not connected to an electrical outlet. One battery is supplied as standard equipment in the battery bay. For more information on your computer battery, see the *Tell Me How* help file (click the **Start** button, click **Help and Support**, click **User's Guides**, and then click **Tell Me How**.)

⚠️ **CAUTION: Using an incompatible battery may increase the risk of fire or explosion. Replace the battery only with a compatible battery purchased from Dell.**

⚠️ **CAUTION: Do not dispose of batteries with household waste. When your battery no longer holds a charge, call your local waste disposal or environmental agency for advice on disposing of a lithium-ion battery.**

⚠️ **CAUTION: Misuse of the battery may increase the risk of fire or chemical burn. Do not puncture, incinerate, disassemble, or expose the battery to temperatures above 65°C (149°F). Keep the battery away from children. Handle damaged or leaking batteries with extreme care. Damaged batteries may leak and cause personal injury or equipment damage.**

Installing a Battery

1 Insert the battery pack into the battery bay, front end first.

2 Press down on the battery pack until you feel a click.

3 Slide the battery lock to the lock position.

Removing a Battery

⚠ **CAUTION: Before performing these procedures, turn off the computer, disconnect it from the electrical outlet, and disconnect the modem from the telephone wall jack.**

1 Slide the battery lock to the unlock position.

2 Slide and hold the battery latch releases.

3 Flip up the battery pack.

4 Pull up on the battery pack to remove it.

Storing a Battery

Remove the battery when you store your computer for an extended period of time. A battery discharges during prolonged storage. After a long storage period, recharge the battery fully before you use it. For more information on charging the battery, see the *Tell Me How* help file (click the **Start** button, click **Help and Support**, click **User's Guides**, and then click **Tell Me How**.)

Swapping Modules in the Module Bay

You can install optical devices such as a DVD-ROM or a DVD/CD-RW in the module bay.

⬤ **NOTICE:** Before swapping modules in the module bay, ensure that the computer is turned off.

⬤ **NOTICE:** To prevent damage to module bay devices, place them in a safe, dry place when they are not installed in the computer. Avoid pressing down on them or placing heavy objects on top of them.

1 Slide and hold the module bay latch release.

2 Carefully pull out the module.

3 Insert a replacement module into the module bay. The module bay latch release locks in place.

Playing a CD or Movie

⬤ **NOTICE:** Do not press down on the drive tray when opening or closing it. Keep the tray closed when you are not using the drive.

NOTICE: Do not move the computer when playing CDs or movies.

1   Press the eject button on the front of the drive.

2   Pull the tray out.

3   Place the disc, label side up, in the center of the tray.

4   Snap the disc onto the spindle.

5   Push the tray back into the drive.

You can play a movie on your computer. You can write data to a blank CD on your computer if the computer includes a DVD/CD-RW combo drive. For more information about using your optical drive to play CDs or DVDs, see the *Tell Me How* help file (click the **Start** button, click **Help and Support**, click **User's Guides**, and then click **Tell Me How**.)

Connecting a Television to the Computer

Your computer has an S-video TV-out connector that enables you to connect the computer to a television, using a commercially available S-video cable.

The audio connector on the side of the computer enables you to connect the computer to your television or audio device, using a commercially available audio cable.

When you complete the cable connection, see "Enabling the Display Settings for a Television" on page 44 to ensure that the computer recognizes and works properly with the television.

HINT: Video and audio cables for connecting your computer to a television are not included with your computer. Cables may be purchased at most consumer electronics stores.
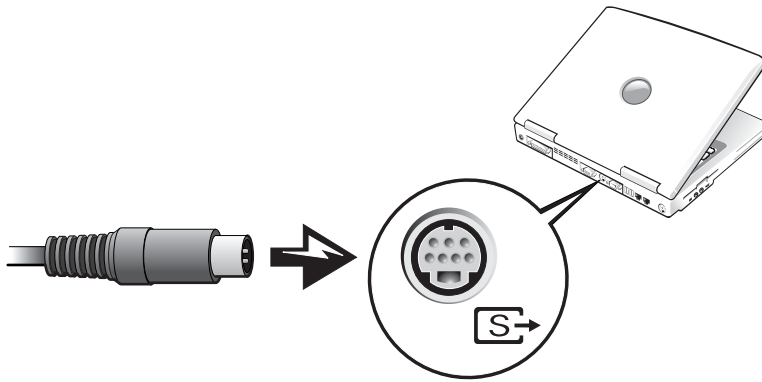
3 Plug the other end of the S-video cable into your television.

4 Plug the single-connector end of the audio cable into the headphone connector on your computer.
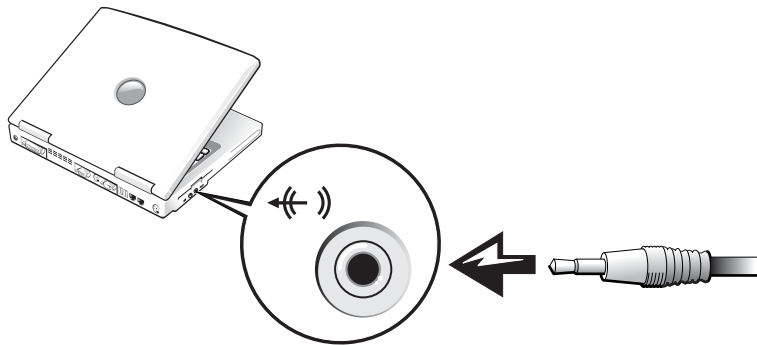
5 Plug the two RCA connectors on the other end of the audio cable into the audio input connectors on your television or other audio device.

6 Turn on the television, turn on any audio device you connected, and then turn on the computer.

7 See "Enabling the Display Settings for a Television" on page 44 to ensure that the computer recognizes and works properly with the television.

Enabling the Display Settings for a Television

ATI Video Controller

1   Open the **Control Panel** window.

    Click the **Start** button, click **Settings**, and then click the **Control Panel** icon.

2   Click **Appearance and Themes**, click the **Display** icon, click the **Settings** tab, and then click **Advanced**.
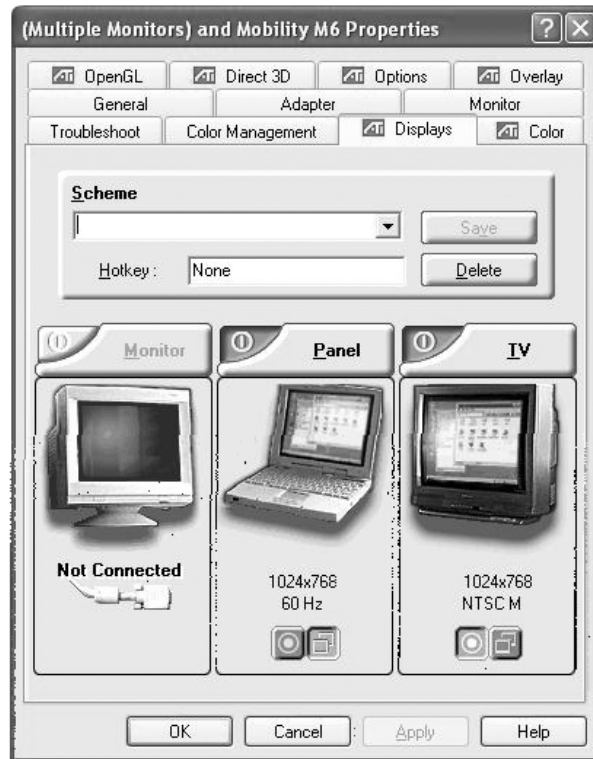
3   Click the **Displays** tab.

4   Click the upper left corner of the **TV** button to enable the television.

5   To play a DVD on the television, click the small "primary" button (resembles a bull's-eye) at bottom left under the **TV** picture.

6 Click **Apply**.

7 Click **Yes** to keep the new settings.

8 Click **OK**.

DVD video is visible only on the display that is set to primary. While the DVD is playing, the DVD player window on your computer display is blank or (if the DVD player window is set to full-screen mode) the entire computer display screen is blank.

Using the Keyboard

Numeric Keypad

The keypad numbers and symbols are outlined in squares on the right of the keypad keys.

- To enable the keypad, press <Fn><NumLk>. Below the display, the green light above the icon labeled ⑨ lights up, indicating that the keypad is active.

- To disable the keypad, press <Fn><NumLk> again.

- To use the other function of a dual-function key when the numeric keypad is enabled, press <Fn> and the desired key. To use the uppercase letter or the shift function of the key, press <Fn><Shift> and the desired key.

Easy-Launch Keys

Located above the keyboard are five easy-launch keys that perform various functions. You can set them to launch frequently used programs.

To configure the easy-launch keys, click the **Start** button—> **All Programs**—> **Launch Manager**, and then click **Launch Manager**.

Click **Add** to assign a program to a launch key; click **Delete** to clear a launch key assignment.
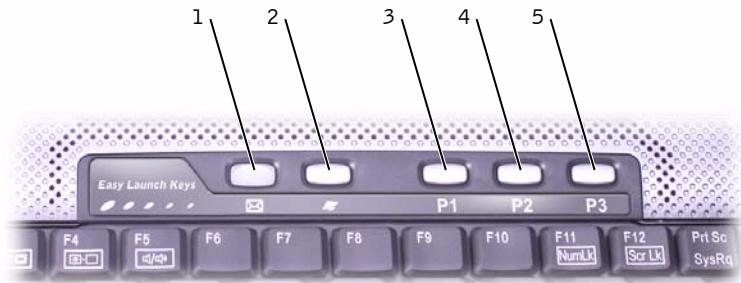
Easy-Launch Keys

1	By default, is used to launch the e-mail program; lights up when incoming e-mail is received
2	By default, is used to launch the Internet browser program
3	User-configurable
4	User-configurable
5	User-configurable

	icrosoft® Windows® Task Manager
	disables the numeric keypad
	disables scroll lock
	e video image to the next display in the quence: the integrated display, an external d both displays simultaneously
	brightness on the integrated display only external monitor)
	s brightness on the integrated display only n external monitor)
	he speakers on/off

ch as the character repeat rate, click
nd then click **Keyboard** in the Control Panel.

4

Maintaining Your Computer

Using Microsoft® Windows® System Restore

Drivers

Resolving Software and Hardware Incompatibilities

Reinstalling Microsoft® Windows® XP

Using Microsoft® Windows® System Restore

The Windows® XP operating system provides a System Restore feature that allows you to return your computer to an earlier operating state if changes to the computer hardware or software (including new hardware or program installations) or system settings, have left the computer in an undesirable operating state. You can also undo the last *system restore*.

System Restore automatically creates system checkpoints. You can also manually create your own checkpoints by creating *restore points*. To limit the amount of hard disk space used, older restore points will be automatically purged.

To resolve an operating system problem, you can use System Restore from Safe Mode or Normal Mode to return your computer to an earlier operating state.

System Restore does not cause you to lose personal files stored in the **My Documents** folder, data files, or e-mail messages after restoring the computer to an earlier state. If you restore the computer to an operating state that existed before you installed a program, the program's data files are not lost, but you must reinstall the actual program again.

🚫 **NOTICE:** It is important to make regular backups of your data files. System Restore does not monitor changes to or recover your data files. If the original data on the hard disk is accidentally erased or overwritten, or if it becomes inaccessible because of a hard disk malfunction, use your backup files to recover the lost or damaged data.

System Restore is enabled on your new computer when you receive it. However, if you reinstall Windows XP with less than 200 MB of free hard-disk space available, System Restore is automatically disabled. Before you use System Restore, see the following procedure to confirm that it is enabled.

1   Click the **Start** button and click **Control Panel**.

2   Click the **Performance and Maintenance**.

3   Click **System**.

4   Click the **System Restore** tab.

5   Ensure that **Turn off System Restore** is not checked.

Creating a Restore Point

Using the System Restore Wizard

You can either use the System Restore Wizard or manually create a restore point. To use the System Restore Wizard, click the **Start** button, click **Help and Support**, click **System Restore,** and then follow the instructions in the **System Restore Wizard** window. You can also create and name a restore point if you are logged on as the computer administrator or a user with administrator rights.

Manually Creating a Restore Point

1 Click the **Start** button, point to **All Programs**→
   Accessories→ **System Tools**, and then click **System Restore**.

2 Click **Create a restore point**.

3 Click **Next**.

4 Type a name for the new restore point in the **Restore point description** field.

   The present date and time are automatically added to the description of the new restore point.

5 Click **Create**.

6 Click **OK.**

Restoring the Computer to an Earlier Operating State

If problems occur after installing a device driver, first try using Device Driver Rollback (see page 54). If Device Driver Rollback does not resolve the problem, then use System Restore.

 NOTICE: Before restoring the computer to an earlier operating state, save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

1 Click the **Start** button, point to **All Programs**→
   Accessories→ **System Tools**, and then click **System Restore**.

2 Ensure that **Restore my computer to an earlier time** is selected and click **Next**.

3 Click a calendar date to which you want to restore your computer.

The **Select a Restore Point** screen provides a calendar that allows you to see and select restore points. All calendar dates with available restore points appear in bold.

4 Select a restore point and click **Next**.

If a calendar date has only one restore point, then that restore point is automatically selected. If two or more restore points are available, click the restore point that you want to use.

⬤ **NOTICE:** Save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

5 Click **Next**.

The **Restoration Complete** screen appears after System Restore finishes collecting data, and then the computer automatically restarts.

6 After the computer restarts, click **OK**.

To change the restore point, you can either repeat the steps using a different restore point, or you can undo the restoration.

Undoing the Last System Restore

⬤ **NOTICE:** Save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

1 Click the **Start** button, point to **All Programs**→ **Accessories**→ **System Tools**, and then click **System Restore**.

2 Select **Undo my last restoration** and click **Next**.

⬤ **NOTICE:** Save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

3 Click **Next**.

The **System Restore** screen appears, and then the computer automatically restarts.

4 After the computer restarts, click **OK**.

Drivers

What Is a Driver?

A driver is a program that controls a device such as a printer, mouse, or keyboard. All devices require a driver program.

A driver acts like a translator between the device and the programs that use the device. Each device has its own set of specialized commands that only its driver recognizes.

Many drivers such as the keyboard driver come with your Microsoft® Windows® operating system. You may need to install drivers if:

- You upgrade your operating system.
- You reinstall your operating system.
- You connect or install a new device.

If you experience a problem with any device, perform the steps in the following sections to identify whether the driver is the source of your problem and to update the driver, if necessary.

Identifying Drivers

1 Click the **Start** button and click **Control Panel**.

2 In the **Control Panel** window, under **Pick a Category**, click **Performance and Maintenance**.

3 In the **Performance and Maintenance** window, click **System**.

4 In the **System Properties** screen, click the **Hardware** tab.

5 Click **Device Manager**.

6 In the **Device Manager** window, scroll down the list to see if any device has an exclamation point (a yellow circle with a [!]) on the device icon.

   If an exclamation point is next to the device name, you may need to reinstall the driver or install a new driver.

Reinstalling Drivers

NOTICE: The Dell Support website and your *Drivers and Utilities* CD provide approved drivers for Dell™ computers. If you install drivers obtained from other sources, your computer might not work correctly.

Using Windows XP Device Driver Rollback

If a problem occurs on your computer after you install or update a driver, use Windows XP Device Driver Rollback to replace the driver with the previously installed version.

To use Device Driver Rollback:

1 Click the **Start** button and click **Control Panel**.

2 In the **Control Panel** window, under **Pick a Category**, click **Performance and Maintenance**.

3 In the **Performance and Maintenance** window, click **System**.

4 In the **System Properties** screen, click the **Hardware** tab.

5 Click **Device Manager**.

6 In the **Device Manager** window, right-click the device for which the new driver was installed, and then click **Properties**.

7 Click the **Drivers** tab.

8 Click **Roll Back Driver**.

If Device Driver Rollback does not resolve the problem, then use System Restore (see page 50) to return your operating system to the operating state it was in before you installed the new driver.

Using the Drivers and Utilities CD

If using Device Driver Rollback or System Restore (see page 50) does not resolve the problem, then reinstall the driver from the *Drivers and Utilities* CD:

1 Save and close any open files, and exit any open programs.

2 Insert the *Drivers and Utilities* CD.

In most cases, the CD starts running automatically. If it does not, start Windows Explorer, click your CD drive directory to display the CD contents, and then double-click the **autocd.exe** file. The first time that

you run the CD, it might prompt you to install setup files. Click **OK**, and follow the instructions on the screen to continue.

3   From the **Language** pull-down menu in the toolbar, select your preferred language for the driver or utility (if available).

A welcome screen appears.

4   Click **Next**. The CD automatically scans your hardware to detect drivers and utilities used by your computer.

After the CD completes the hardware scan, you can also detect other drivers and utilities. Under **Search Criteria**, select the appropriate categories from the **System Model**, **Operating System**, and **Topic** pull-down menus.

A link or links appear(s) for the specific drivers and utilities used by your computer.

5   Click the link of a specific driver or utility to display information about the driver or utility that you want to install.

6   Click the **Install** button (if present) to begin installing the driver or utility. At the welcome screen, follow the screen prompts to complete the installation.

If no **Install** button is present, automatic installation is not an option. For installation instructions, either see the appropriate instructions in the following subsections, or click **Extract**, follow the extracting instructions, and read the readme file.

If instructed to navigate to the driver files, click the CD directory on the driver information window to display the files associated with that driver.

Manually Reinstalling Drivers for Windows XP

1   After extracting the driver files to your hard drive as described in the previous section, click the **Start** button, point to **Settings**, and click **Control Panel**.

2   Click the **Start** button and right-click **My Computer**.

3   Click **Properties**.

4   Click the **Hardware** tab and click **Device Manager**.

5   Double-click the type of device for which you are installing the driver (for example, **Modems** or **Infrared devices**).

HINT: If you are reinstalling an infrared sensor driver, you must first enable the infrared sensor in the system setup program (see page 76) before continuing with the driver installation.

6 Double-click the name of the device for which you are installing the driver.

7 Click the **Driver** tab and then click **Update Driver**.

8 Click **Install from a list or specific location (Advanced)**, and then click **Next**.

9 Click **Browse**, and browse to the location to which you previously extracted the driver files.

10 When the name of the appropriate driver appears, click **Next**.

11 Click **Finish** and restart your computer.

Resolving Software and Hardware Incompatibilities

IRQ conflicts occur if a device either is not detected during the operating system setup or is detected but incorrectly configured. See the following procedure to check for IRQ conflicts on your computer.

1 Click the **Start** button and click **Control Panel**.

2 Click **Performance and Maintenance** and click **System**.

3 Click the **Hardware** tab and click **Device Manager**.

4 In the **Device Manager** list, check for conflicts with the other devices.

   Conflicts are indicated by a yellow exclamation point (!) beside the conflicting device or a red X if the device has been disabled.

5 Double-click the malfunctioning device type in the **Device Manager** list.

6 Double-click the icon for the specific device in the expanded list.

   The **Properties** window appears.

   If an IRQ conflict exists, the **Device status** area in the **Properties** window reports what other devices are sharing the device's IRQ.

7 Resolve any IRQ conflicts by reconfiguring one device from the conflicting pair.

You can also use the Hardware Troubleshooter. To use the troubleshooter, click the **Start** button and click **Help and Support**. Type hardware troubleshooter in the **Search** field, and then click the arrow to start the search. Click **Hardware Troubleshooter** in the **Search Results** list. In the **Hardware Troubleshooter** list, click **I need to resolve a hardware conflict on my computer**, and then click **Next**.

Reinstalling Microsoft® Windows® XP

Before You Reinstall

If you are reinstalling the Windows XP operating system to correct a problem with a newly installed driver, use Windows XP Device Driver Rollback (see page 54) to replace the device driver with the previously installed version.

If Device Driver Rollback does not resolve the problem, then use System Restore (see page 50) to return your operating system to the operating state it was in before you installed the new device driver.

Reinstalling Windows XP

To reinstall Windows XP, perform the steps in the following sections in the order in which they are listed.

The reinstallation process can take 1 to 2 hours to complete. After the reinstallation is complete, you will need to reinstall the device drivers, virus protection program, and other software.

NOTICE: The *Operating System* CD provides options for reinstalling Windows XP. The options can overwrite files and possibly affect programs installed on your hard drive. Therefore, do not reinstall Windows XP unless instructed to do so by a Dell technical support representative.

NOTICE: To prevent conflicts with Windows XP, disable any virus protection software installed on your computer before you reinstall Windows XP. See the documentation that came with the software for instructions.

Preparing to Boot From the Operating System CD

1 Insert the *Operating System CD* into the CD or DVD drive.

2 Exit any program or utility that might run after you insert the CD.

3   Shut down (see page 38) and restart the computer.

4   Press <F12> immediately after the Dell™ logo appears.

    If the operating system logo appears, wait until you see the Windows
    desktop, and then shut down the computer and try again.

5   Use the arrow keys to select CD-ROM, and then press <Enter>.

6   Press any key when the `Press any key to boot from CD` message
    appears on the screen.

Starting Windows XP Setup

1   When the **Windows XP Setup** screen appears, press <Enter> to
    select **To set up Windows now**.

2   Read the information in the **Microsoft Windows Licensing
    Agreement** screen, and then press <F8> on your keyboard to accept
    the license agreement.

3   If your computer already has Windows XP installed and you want to
    recover your current Windows XP data, type `r` to select the repair
    option, and then remove the CD from the drive.

4   If you want to install a new copy of Windows XP, press <Esc> to
    select the fresh copy option.

5   Press <Enter> to select the highlighted partition (recommended),
    and then follow the instructions on the screen.

    The **Windows XP Setup** screen appears, and the operating system
    begins to copy files and install the devices. The computer
    automatically restarts multiple times.

Completing the GUI Setup

🖉 **HINT:** The time required
to complete the setup
depends on the size of the
hard drive and the speed
of your computer. You can
step away from the
computer at this time if
you need to do so.

⊘ **NOTICE:** When the computer restarts, you will see the following message:
`Press any key to boot from the CD`. Do not press any key when this
message appears.

1   When the **Regional and Language Options** screen appears, select the
    settings for your location, and then click **Next**.

2   Enter your name and organization (optional) in the **Personalize Your
    Software** screen, and then click **Next**.

3 If you are reinstalling Windows XP Home Edition, at the **What's your computer's name** window, enter a name for your computer (or accept the name provided), and then click **Next**.

If you are reinstalling Windows XP Professional, at the **Computer Name and Administrator Password** window, enter a name for your computer (or accept the one provided) and a password, and then click **Next**.

4 If your computer has a modem installed, the **Modem Dialing Information** screen appears. Enter the requested information and click **Next**.

5 Enter the date, time, and time zone in the **Date and Time Settings** window and click **Next**.

6 If your computer has a network adapter, select **Typical** in the **Networking Settings** screen and click **Next**.

If your computer does not have a network adapter, you do not see this option.

7 If you are reinstalling Windows XP Professional, you may be prompted to provide further network information regarding your network configuration, such as the domain name or workgroup name. If you are unsure of your settings, accept the default selections.

Windows XP installs the operating system components and configures the computer. The computer automatically restarts.

Completing the Operating System Setup

NOTICE: When the computer restarts, you will see the following message: `Press any key to boot from the CD.` Do not press any key when this message appears.

1 When the **Welcome to Microsoft** screen appears, click **Next**.

2 When the `How will this computer connect to the Internet?` message appears, click **Skip**.

3 When the **Ready to register with Microsoft?** screen appears, select **No, not at this time,** and then click **Next**.

4 When the **Who will use this computer?** screen appears, you can enter up to five users.

5 Click **Next**.

6 Click **Finish** to complete the setup, and remove the CD from the drive.

Reinstalling Drivers and Software

1 Reinstall the appropriate drivers (see page 54).

2 Reinstall your virus protection software. See the documentation that came with the software for instructions.

3 Reinstall your other software programs. See the documentation that came with the software for instructions.

SECTION 5

Adding and Replacing Parts

Adding Memory

Replacing the Hard Drive

Adding Memory

You can increase your computer memory by installing memory modules on the system board. See "Specifications" on page 70 for information on the memory supported by your computer. Add only memory modules that are intended for your computer.

HINT: Memory modules purchased from Dell are covered under your computer warranty.

⚠ **CAUTION: Before working inside your computer, read the safety instructions at the front of this document.**

1 Save and close any open files, exit any open programs, and shut down the computer.

2 Remove any installed PC Cards.

3 Remove all installed batteries, and disconnect the AC adapter cable and any external devices from the computer. Wait 5 seconds before proceeding.

4 Ground yourself by touching a metal connector on the back of the computer, and continue to do so periodically during this procedure.

⊙ **NOTICE:** While you work, periodically touch unpainted metal on the computer to dissipate static electricity that might harm internal components.

5 Turn the computer over, loosen the captive screw in the memory module cover, and lift the cover.

7 Ground yourself and install the new memory module:

HINT: If the memory module is not installed properly, the computer

message indicates this failure.

a

8 Replace the cover and tighten the captive screw.

🚫 **NOTICE:** If the memory module cover is difficult to close, remove the module and reinstall it. Forcing the cover to close may damage your computer.
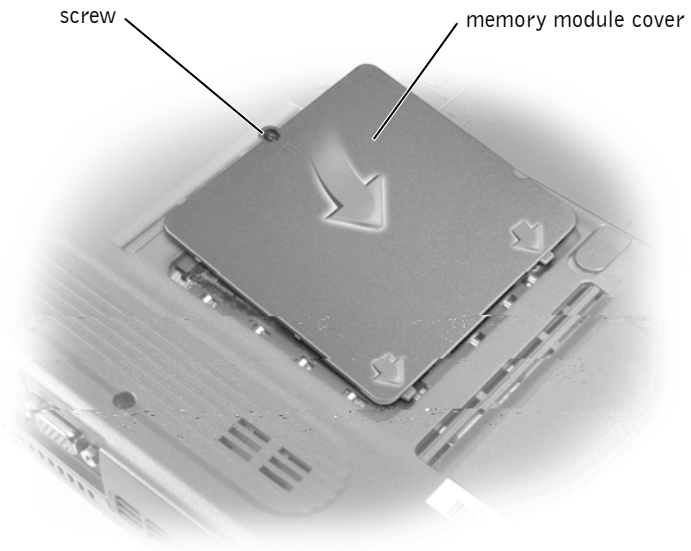
screw

memory module cover

9 Insert the battery into the battery bay, or connect the AC adapter to your computer and an electrical outlet.

10 Turn on the computer.

As the computer boots, it detects the additional memory and automatically updates the system configuration information.

Replacing the Hard Drive

⚠ **CAUTION: If you remove the hard drive from the computer when the drive is hot, *do not touch* the metal housing of the hard drive.**

⚠ **CAUTION: Before working inside your computer, read the safety instructions at the front of this document.**

🔴 **NOTICE:** To prevent data loss, turn off your computer before removing the hard drive. Do not remove the hard drive while the computer is on, in standby mode, or in hibernate mode.

🔴 **NOTICE:** Hard drives are extremely fragile; even a slight bump can damage the drive.

To replace the hard drive:

1 Ensure that the work surface is flat and clean to prevent scratching the computer cover.

2 Save and close any open files, exit any open programs, and then shut down the computer.

3 Disconnect the computer from the electrical outlet.

4 Wait 10 to 20 seconds, and then disconnect any attached devices.

5 Remove any installed PC Cards, batteries, and module bay modules.

   Handle components and cards by their edges, and avoid touching pins and contacts.

6 Ground yourself by touching a metal connector on the back of the computer. Continue to ground yourself periodically during this procedure.

7 Turn the computer over, and remove the module from the module bay (see page 40).

HINT: You need the *Operating System* CD to install the Microsoft® Windows® operating system. You also need the Dell™ *Drivers and Utilities* CD for your computer to install the drivers and utilities on the new hard drive.

HINT: Dell does not guarantee compatibility or provide support for hard drives from sources other than Dell.

NOTICE: When the hard drive is not in the computer, store it in protective antistatic packaging. See "Protecting Against Electrostatic Discharge" on page 13.

screw (4)

hard drive
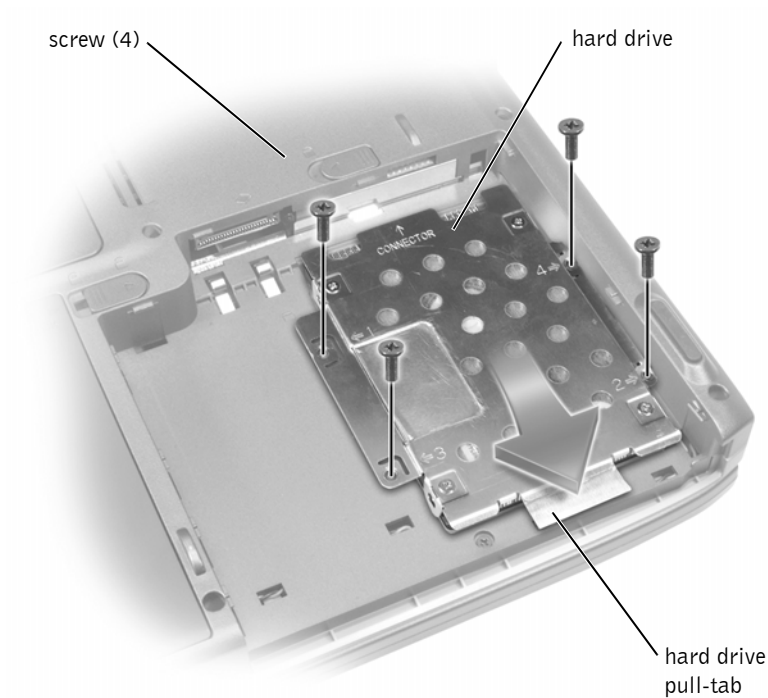
hard drive
pull-tab

8 Use a screwdriver to remove the four black, numbered screws holding the hard drive in place in the upper side of the empty module bay.

9 Pull straight out on the pull-tab located at the front of the hard drive; pull the hard drive out of its connector and lift the hard drive out of its bay.

10 Remove the new drive from its packaging.

Save the original packaging for storing or shipping the hard drive.

11 Line up the connectors on one end of the new drive with the connectors at the rear of the hard drive bay. At an angle of approximately 30 degrees, gently push the new hard drive into place.

12 Replace the four screws in the hard drive cover, then slide the module back into the module bay.

13 Use the **Operating System** CD to install the operating system for your computer.

14 Use the **Drivers and Utilities** CD to install the drivers and utilities for your computer.

Returning a Hard Drive to Dell

Return your old hard drive to Dell in its original or comparable foam packaging. Otherwise, the hard drive may be damaged in transit.

foam packaging

hard drive
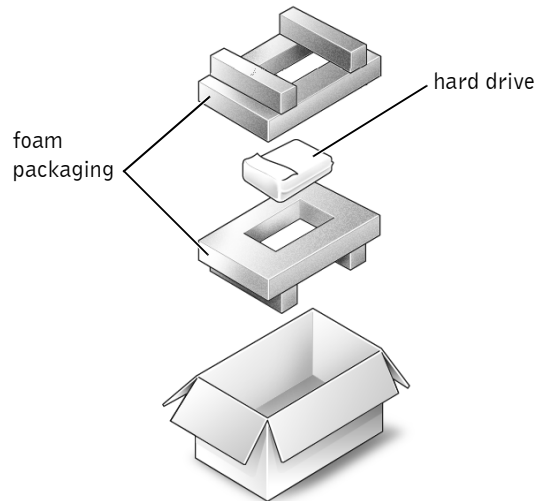
6

Appendix

Specifications

BIOS and Standard Settings

Returning Items for Warranty Repair or Credit

Before You Call

Contacting Dell

Regulatory Notices

Limited Warranties and Return Policy

Specifications

Microprocessor

Microprocessor types	Intel® Pentium® 4
L1 cache	8 KB (internal)
L2 cache	512 KB
System bus frequency	400 MHz

System Information

System chip set	Intel 845
Data bus width	64 bits
DRAM bus width	64 bits
Microprocessor address bus width	32 bits

PC Card

PCMCIA controller	TI PCI 1520
PC Card connector	two (supports two Type I or Type II cards or one Type III card)
Cards supported	3.3 V and 5 V
PC Card connector size	68 pins
Data width (maximum)	PCMCIA 16 bits CardBus 32 bits

Memory

Memory module connector	two user-accessible SODIMM sockets
Memory module capacities	128, 256, and 512 MB
Memory type	3.3-V SODIMM DDR
Standard memory	256 MB
Maximum memory	1024 MB (1 GB)

Ports and Connectors

Serial	9-pin connector; 16550C-compatible, 16-byte buffer connector
Parallel	25-hole connector; unidirectional, bidirectional, or ECP
Video	15-hole connector
Audio	microphone connector, stereo headphone/speakers connector
PS/2 keyboard/mouse	6-pin mini-DIN connector
USB (2)	4-pin USB-compliant connector
S-video TV-out	7-pin mini-DIN connector (optional S-video to composite video adapter cable)
Modem	RJ-11 port
Network adapter	RJ-45 port
IEEE 1394	4-pin serial connector

Communications

Modem:	
Type	v.92 56K MDC
Controller	softmodem
Interface	internal AC 97 bus
Network adapter	10/100 Ethernet LAN on system board

Video

Video type	128-bit hardware accelerated
Data bus	4X AGP
Video controller	ATI Rage Mobility - M6
Video memory	32 MB DDR

LCD interface	LVDS
TV support	NTSC or PAL in S-video and composite modes

Audio

Audio type	AC97 (Soft Audio)
Audio controller	Integrated in chip set
Stereo conversion	18-bit (analog-to-digital and digital-to-analog)
Interfaces:	
Internal	PCI bus/AC 97
External	microphone-in connector, stereo headphones/speakers connector
Speaker	two 4-ohm speakers
Internal speaker amplifier	1.0-W channel into 4 ohms
Volume controls	volume thumb wheel

Display

Type (active-matrix TFT)	XGA; SXGA+
Dimensions:	
Height	228.1 mm (8.98 inches)
Width	304.1 mm (11.97 inches)
Diagonal	381 mm (15 inches)
Maximum resolutions	1024 x 768 at 16.8 million colors (XGA); 1400 x 1050 at 16.8 million colors (SXGA+)

Display *(continued)*

Viewing angles:	
Horizontal	±40°
Vertical	+20°/–40°
Pixel pitch	0.297 x 0.297 mm (XGA) 0.2175 x 0.2175 mm (SXGA+)
Power consumption:	
Panel with backlight (typical)	4.4 W (XGA) 5.2 W (SXGA+)
Controls	brightness can be controlled through keyboard shortcuts

Keyboard

Number of keys	84 (U.S. and Canada); 85 (U.K., France, Germany); 84 (China)
Key travel	2.7 mm ± 0.3 (0.11 inch ± 0.016 inch)
Key spacing	19.05 mm ± 0.3 mm (0.75 inch ± 0.012 inch)
Layout	QWERTY/AZERTY

Touch Pad

X/Y position resolution (graphics table mode)	240 cpi
Size:	
Width	64.88 mm (2.55-inch) sensor-active area
Height	48.88-mm (1.92-inch) rectangle

Scroll Pad

Orientation	four-directional

Battery

Type	12-cell lithium ion
Dimensions:	
Depth	122.5 mm (4.8 inches)
Height	19.2 mm (0.76 inch)
Width	145.0 mm (5.7 inches)
Weight	0.63 kg (1.38 lb) (12-cell)
Voltage	14.8 VDC
Charge time (approximate):	
Computer on	3 to 4 hours
Computer off	2 to 3 hour
Operating life	approximately 2 to 3 hours with 12-cell battery, depending on usage
Life span (approximate)	500 discharge/charge cycles
Temperature range:	
Operating	0° to 35°C (32° to 95°F)
Storage	–40° to 65°C (–40° to 149°F)

AC Adapter

Input voltage	100–240 VAC
Input current (maximum)	1.5 A
Input frequency	50–60 Hz (90 W)
Output current	4.5 A (90 W)
Output power	90 W
Rated output voltage	20 VDC (90 W)

AC Adapter *(continued)*

Dimensions:

Height	29 mm (1.4 inches)
Width	51 mm (2.0 inches)
Depth	115 mm (4.52 inches)

Weight (with cables)	0.3 kg (0.66 lb)

Temperature range:

Operating	0° to 35°C (32° to 95°F)
Storage	–40° to 65°C (–40° to 149°F)

Physical

Height	46.1 mm (1.8 inches)
Width	326 mm (12.8 inches)
Depth	275 mm (10.8 inches)

Weight:

With XGA display	3.56 Kg (7.84 lb)
With SXGA+ display	3.62 KG (7.97 lb)

Environmental

Temperature range:

Operating	5° to 35°C (41° to 95°F)
Storage	–10° to 60°C (24° to 140°F)

Relative humidity (maximum):

Operating	20% to 80% (noncondensing)
Storage	20% to 80% (noncondensing)

Environmental *(continued)*

Maximum vibration (using a random-vibration spectrum that simulates user environment):

Operating	0.9 GRMS
Storage	1.04 GRMS

Maximum shock (measured with HDD in head-parked position and 2 ms half-sine pulse):

Operating	122 G
Storage	163 G

Altitude (maximum):

Operating	–15.2 to 3048 m (–50 to 10,000 ft)
Storage	–15.2 to 10,668 m (–50 to 35,000 ft)

BIOS and Standard Settings

◐ NOTICE: Unless you are an expert computer user or are directed to do so by Dell technical support, do not change the settings for this program. Certain changes might make your computer work incorrectly.

Viewing the System Setup Screens

1 Turn on (or restart) your computer.

2 When the Dell™ logo appears, press <F2> immediately.

   If you wait too long and the Microsoft® Windows® logo appears, continue to wait until you see the Windows desktop. Then shut down your computer and try again.

System Setup Screens

HINT: To see information about a specific item on a system setup screen, highlight the item and refer to the **Help** area on the screen.

The system setup screens display the current setup information and settings for your computer. Each screen is laid out with the system setup options listed at the left. To the right of each option is a field that displays the setting or value for that option. You can change some of the settings that appear as white type on the screen. Options or values that you cannot change (because they are determined by the computer) appear less bright.

System setup key functions are listed across the bottom of the screen.

The screens display such information as:

- System information
- Basic system settings
- Start-up (boot) configuration
- Onboard devices configuration
- System security and password settings

Commonly Used Options

Certain options require that you reboot the computer for new settings to take effect.

Changing the Boot Sequence

The **boot sequence,** or **boot order,** tells the computer where to look to find the software needed to start the operating system. You can control the boot sequence using the Start-up configuration (boot order) page of the system setup program.

The boot order page displays a general list of the bootable devices that may be installed in your computer, including but not limited to the following:

- **Floppy Disk**
- **Internal HDD**
- **CD/DVD/CD-RW drive**

During the boot routine, the computer starts at the top of the list and scans each enabled device for the operating system start-up files. When the computer finds the files, it stops searching and starts the operating system.

To control the boot sequence, you can select (highlight) devices using the the <Up Arrow> and <Down Arrow> keys and then change their order in the list using the <Left Arrow> and <Right Arrow> keys.

Boot sequence changes take effect as soon as you save the changes and exit the system setup program.

Changing Printer Modes

Under onboard devices configuration, set the **Parallel Mode** option according to the type of printer or device connected to the parallel connector. To determine the correct mode to use, see the documentation that came with the device.

Setting **Parallel Mode** to **Disabled** disables the parallel port and the port's LPT address, freeing its interrupt for another device to use.

Changing COM Ports

Serial Port allows you to map the serial port COM address or disable the serial port and its address, freeing that interrupt for another device to use.

Returning Items for Warranty Repair or Credit

Prepare all items being returned, whether for repair or credit, as follows:

1   Call Dell to obtain a Return Material Authorization Number, and write it clearly and prominently on the outside of the box.

    For the telephone number to call, see the contact numbers for your region.

2   Include a copy of the invoice and a letter describing the reason for the return.

3   Include any accessories that belong with the item(s) being returned (power cables, software floppy disks, guides, and so on) if the return is for credit.

4   Pack the equipment to be returned in the original (or equivalent) packing materials.

You are responsible for paying shipping expenses. You are also responsible for insuring any product returned, and you assume the risk of loss during shipment to Dell. Collect On Delivery (C.O.D.) packages are not accepted.

Returns that are missing any of the preceding requirements will be refused at Dell's receiving dock and returned to you.

Before You Call

NOTE: Have your Express Service Code ready when you call. The code helps Dell's automated-support telephone system direct your call more efficiently.

If possible, turn on your computer before you call Dell for technical assistance and call from a telephone at or near the computer. You may be asked to type some commands at the keyboard, relay detailed information during operations, or try other troubleshooting steps possible only at the computer itself. Ensure that the computer documentation is available.

⚠ **CAUTION: Before working inside your computer, read the safety instructions at the beginning of this document.**

Contacting Dell

To contact Dell electronically, you can access the following websites:

- **www.dell.com**
- **support.dell.com** (technical support)
- **premiersupport.dell.com** (technical support for educational, government, healthcare, and medium/large business customers, including Premier, Platinum, and Gold customers)

For specific web addresses for your country, find the appropriate country section in the table below.

NOTE: Toll-free numbers are for use within the country for which they are listed.

When you need to contact Dell, use the electronic addresses, telephone numbers, and codes provided in the following table. If you need assistance in determining which codes to use, contact a local or an international operator.

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Anguilla	General Support	toll-free: 800-335-0031
Antigua and Barbuda	General Support	1-800-805-5924
Argentina (Buenos Aires)	Website: **www.dell.com.ar**	
International Access Code: **00**	Tech Support and Customer Care	toll-free: 0-800-444-0733
Country Code: **54**	Sales	0-810-444-3355
City Code: **11**	Tech Support Fax	11 4515 7139
	Customer Care Fax	11 4515 7138
Aruba	General Support	toll-free: 800-1578
Australia (Sydney)	E-mail (Australia): au_tech_support@dell.com	
International Access Code: **0011**	E-mail (New Zealand): nz_tech_support@dell.com	
Country Code: **61**	Home and Small Business	1-300-65-55-33
City Code: **2**	Government and Business	toll-free: 1-800-633-559
	Preferred Accounts Division (PAD)	toll-free: 1-800-060-889
	Customer Care	toll-free: 1-800-819-339
	Corporate Sales	toll-free: 1-800-808-385
	Transaction Sales	toll-free: 1-800-808-312
	Fax	toll-free: 1-800-818-341
Austria (Vienna)	Website: **support.euro.dell.com**	
International Access Code: **900**	E-mail: tech_support_central_europe@dell.com	
Country Code: **43**	Home/Small Business Sales	01 795 67602
City Code: **1**	Home/Small Business Fax	01 795 67605
	Home/Small Business Customer Care	01 795 67603
	Preferred Accounts/Corporate Customer Care	0660 8056
	Home/Small Business Technical Support	01 795 67604
	Preferred Accounts/Corporate Technical Support	0660 8779
	Switchboard	01 491 04 0
Bahamas	General Support	toll-free: 1-866-278-6818
Barbados	General Support	1-800-534-3066

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Belgium (Brussels)	Website: **support.euro.dell.com**	
International Access Code: **00**	E-mail: tech_be@dell.com	
Country Code: **32** City Code: **2**	E-mail for French Speaking Customers: **support.euro.dell.com/be/fr/emaildell/**	
	Technical Support	02 481 92 88
	Customer Care	02 481 91 19
	Home/Small Business Sales	toll-free: 0800 16884
	Corporate Sales	02 481 91 00
	Fax	02 481 92 99
	Switchboard	02 481 91 00
Bermuda	General Support	1-800-342-0671
Bolivia	General Support	toll-free: 800-10-0238
Brazil	Website: **www.dell.com/br**	
International Access Code: **00**	Customer Support, Technical Support	0800 90 3355
Country Code: **55**	Tech Support Fax	51 481 5470
City Code: **51**	Customer Care Fax	51 481 5480
	Sales	0800 90 3390
British Virgin Islands	General Support	toll-free: 1-866-278-6820
Brunei	Customer Technical Support (Penang, Malaysia)	604 633 4966
Country Code: **673**	Customer Service (Penang, Malaysia)	604 633 4949
	Transaction Sales (Penang, Malaysia)	604 633 4955

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Canada (North York, Ontario)	Automated Order-Status System	toll-free: 1-800-433-9014
International Access Code: **011**	AutoTech (automated technical support)	toll-free: 1-800-247-9362
	Customer Care (from outside Toronto)	toll-free: 1-800-326-9463
	Customer Care (from within Toronto)	416 758-2400
	Customer Technical Support	toll-free: 1-800-847-4096
	Sales (direct sales—from outside Toronto)	toll-free: 1-800-387-5752
	Sales (direct sales—from within Toronto)	416 758-2200
	Sales (federal government, education, and medical)	toll-free: 1-800-567-7542
	Sales (major accounts)	toll-free: 1-800-387-5755
	TechFax	toll-free: 1-800-950-1329
Cayman Islands	General Support	1-800-805-7541
Chile (Santiago) Country Code: **56** City Code: **2**	Sales, Customer Support, and Technical Support	toll-free: 1230-020-4823

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
China (Xiamen)	Tech Support website: **support.ap.dell.com/china**	
Country Code: 86	Tech Support E-mail: cn_support@dell.com	
City Code: 592	Tech Support Fax	818 1350
	Home and Small Business Technical Support	toll-free: 800 858 2437
	Corporate Accounts Technical Support	toll-free: 800 858 2333
	Customer Experience	toll-free: 800 858 2060
	Home and Small Business	toll-free: 800 858 2222
	Preferred Accounts Division	toll-free: 800 858 2062
	Large Corporate Accounts GCP	toll-free: 800 858 2055
	Large Corporate Accounts Key Accounts	toll-free: 800 858 2628
	Large Corporate Accounts North	toll-free: 800 858 2999
	Large Corporate Accounts North Government and Education	toll-free: 800 858 2955
	Large Corporate Accounts East	toll-free: 800 858 2020
	Large Corporate Accounts East Government and Education	toll-free: 800 858 2669
	Large Corporate Accounts Queue Team	toll-free: 800 858 2572
	Large Corporate Accounts South	toll-free: 800 858 2355
	Large Corporate Accounts West	toll-free: 800 858 2811
	Large Corporate Accounts Spare Parts	toll-free: 800 858 2621
Colombia	General Support	980-9-15-3978
Costa Rica	General Support	0800-012-0435
Czech Republic (Prague)	Website: **support.euro.dell.com**	
International Access Code: 00	E-mail: czech_dell@dell.com	
Country Code: 420	Technical Support	02 22 83 27 27
City Code: 2	Customer Care	02 22 83 27 11
	Fax	02 22 83 27 14
	TechFax	02 22 83 27 28
	Switchboard	02 22 83 27 11

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Denmark (Copenhagen) International Access Code: **00** Country Code: **45**	Website: **support.euro.dell.com**	
	E-mail Support (portable computers): den_nbk_support@dell.com	
	E-mail Support (desktop computers): den_support@dell.com	
	E-mail Support (servers): Nordic_server_support@dell.com	
	Technical Support	7023 0182
	Customer Care (Relational)	7023 0184
	Home/Small Business Customer Care	3287 5505
	Switchboard (Relational)	3287 1200
	Fax Switchboard (Relational)	3287 1201
	Switchboard (Home/Small Business)	3287 5000
	Fax Switchboard (Home/Small Business)	3287 5001
Dominica	General Support	toll-free: 1-866-278-6821
Dominican Republic	General Support	1-800-148-0530
Ecuador	General Support	toll-free: 999-119
El Salvador	General Support	01-899-753-0777
Finland (Helsinki) International Access Code: **990** Country Code: **358** City Code: **9**	Website: **support.euro.dell.com**	
	E-mail: fin_support@dell.com	
	E-mail Support (servers): Nordic_support@dell.com	
	Technical Support	09 253 313 60
	Technical Support Fax	09 253 313 81
	Relational Customer Care	09 253 313 38
	Home/Small Business Customer Care	09 693 791 94
	Fax	09 253 313 99
	Switchboard	09 253 313 00

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
France (Paris) (Montpellier)	Website: **support.euro.dell.com**	
International Access Code: **00**	E-mail: **support.euro.dell.com/fr/fr/emaildell/**	
Country Code: **33**	**Home and Small Business**	
City Codes: **(1) (4)**	Technical Support	0825 387 270
	Customer Care	0825 823 833
	Switchboard	0825 004 700
	Switchboard (calls from outside of France)	04 99 75 40 00
	Sales	0825 004 700
	Fax	0825 004 701
	Fax (calls from outside of France)	04 99 75 40 01
	Corporate	
	Technical Support	0825 004 719
	Customer Care	0825 338 339
	Switchboard	01 55 94 71 00
	Sales	01 55 94 71 00
	Fax	01 55 94 71 01
Germany (Langen)	Website: **support.euro.dell.com**	
International Access Code: **00**	E-mail: tech_support_central_europe@dell.com	
Country Code: **49**	Technical Support	06103 766-7200
City Code: **6103**	Home/Small Business Customer Care	0180-5-224400
	Global Segment Customer Care	06103 766-9570
	Preferred Accounts Customer Care	06103 766-9420
	Large Accounts Customer Care	06103 766-9560
	Public Accounts Customer Care	06103 766-9555
	Switchboard	06103 766-7000
Grenada	General Support	toll-free: 1-866-540-3355
Guatemala	General Support	1-800-999-0136
Guyana	General Support	toll-free: 1-877-270-4609

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Hong Kong	Technical Support (Dimension™ and Inspiron™)	296 93188
International Access Code: **001**	Technical Support (OptiPlex™, Latitude™, and Dell Precision™)	296 93191
Country Code: **852**	Customer Service (non-technical, post-sales issues)	800 93 8291
	Transaction Sales	toll-free: 800 96 4109
	Large Corporate Accounts HK	toll-free: 800 96 4108
	Large Corporate Accounts GCP HK	toll-free: 800 90 3708
India	Technical Support	1600 33 8045
	Sales	1600 33 8044
Ireland (Cherrywood)	Website: **support.euro.dell.com**	
International Access Code: **16**	E-mail: **dell_direct_support@dell.com**	
Country Code: **353**	Ireland Technical Support	1850 543 543
City Code: **1**	U.K. Technical Support (dial within U.K. only)	0870 908 0800
	Home User Customer Care	01 204 4095
	Small Business Customer Care	01 204 4444
	U.K. Customer Care (dial within U.K. only)	0870 906 0010
	Corporate Customer Care	01 204 4003
	Ireland Sales	01 204 4444
	U.K. Sales (dial within U.K. only)	0870 907 4000
	SalesFax	01 204 0144
	Fax	01 204 5960
	Switchboard	01 204 4444

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Italy (Milan)	Website: **support.euro.dell.com**	
International Access Code: 00	E-mail: **support.euro.dell.com/it/it/emaildell/**	
Country Code: 39	**Home and Small Business**	
City Code: 02	Technical Support	02 577 826 90
	Customer Care	02 696 821 14
	Fax	02 696 821 13
	Switchboard	02 696 821 12
	Corporate	
	Technical Support	02 577 826 90
	Customer Care	02 577 825 55
	Fax	02 575 035 30
	Switchboard	02 577 821
Jamaica	General Support (dial from within Jamaica only)	1-800-682-3639

Country (City) International Access Code Country Code City Code	D
Japan (Kawasaki) International Access Code: **001** Country Code: **81** City Code: **44**	Website
	Technica
	Technica
	Technica
	Technical Inspiron)
	Technical and Latitu
	Technical S OptiPlex, a
	24-Hour Au
	Customer C
	Business Sale
	Preferred Ac employees)
	Large Corpora employees)
	Public Sales (g institutions, ar
	Global Segmen
	Individual User
	Faxbox Service
	Switchboard
Korea (Seoul) International Access Code: **001** Country Code: **82** City Code: **2**	Technical Suppo
	Sales
	Customer Service
	Customer Service
	Fax
	Switchboard

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Latin America	Customer Technical Support (Austin, Texas, U.S.A.)	512 728-4093
	Customer Service (Austin, Texas, U.S.A.)	512 728-3619
	Fax (Technical Support and Customer Service) (Austin, Texas, U.S.A.)	512 728-3883
	Sales (Austin, Texas, U.S.A.)	512 728-4397
	SalesFax (Austin, Texas, U.S.A.)	512 728-4600
		or 512 728-3772
Luxembourg	Website: **support.euro.dell.com**	
International Access Code: **00**	E-mail: tech_be@dell.com	
Country Code: **352**	Technical Support (Brussels, Belgium)	02 481 92 88
	Home/Small Business Sales (Brussels, Belgium)	toll-free: 080016884
	Corporate Sales (Brussels, Belgium)	02 481 91 00
	Customer Care (Brussels, Belgium)	02 481 91 19
	Fax (Brussels, Belgium)	02 481 92 99
	Switchboard (Brussels, Belgium)	02 481 91 00
Macao	Technical Support	toll-free: 0800 582
Country Code: **853**	Customer Service (Penang, Malaysia)	604 633 4949
	Transaction Sales	toll-free: 0800 581
Malaysia (Penang)	Technical Support	toll-free: 1 800 888 298
International Access Code: **00**	Customer Service	04 633 4949
Country Code: **60**	Transaction Sales	toll-free: 1 800 888 202
City Code: **4**	Corporate Sales	toll-free: 1 800 888 213

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Mexico International Access Code: **00** Country Code: **52**	Customer Technical Support	001-877-384-8979 or 001-877-269-3383
	Sales	50-81-8800 or 01-800-888-3355
	Customer Service	001-877-384-8979 or 001-877-269-3383
	Main	50-81-8800 or 01-800-888-3355
Montserrat	General Support	toll-free: 1-866-278-6822
Netherlands Antilles	General Support	001-800-882-1519
Netherlands (Amsterdam) International Access Code: **00** Country Code: **31** City Code: **20**	Website: **support.euro.dell.com**	
	E-mail: **support.euro.dell.com/nl/nl/emaildell/**	
	Technical Support	020 674 45 00
	Home/Small and Medium Business	020 674 55 00
	Home/Small and Medium Business Fax	020 674 47 75
	Home/Small and Medium Business Customer Care	020 674 42 00
	Corporate	020 674 50 00
	Corporate Fax	020 674 47 79
	Corporate Customer Care	020 674 43 25
New Zealand International Access Code: **00** Country Code: **64**	E-mail (New Zealand): nz_tech_support@dell.com	
	E-mail (Australia): au_tech_support@dell.com	
	Home and Small Business	0800 446 255
	Government and Business	0800 444 617
	Sales	0800 441 567
	Fax	0800 441 566
Nicaragua	General Support	001-800-220-1006

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Norway (Lysaker)	Website: **support.euro.dell.com**	
International Access Code: **00**	E-mail Support (portable computers):	
Country Code: **47**	nor_nbk_support@dell.com	
	E-mail Support (desktop computers):	
	nor_support@dell.com	
	E-mail Support (servers):	
	nordic_server_support@dell.com	
	Technical Support	671 16882
	Relational Customer Care	671 17514
	Home/Small Business Customer Care	23162298
	Switchboard	671 16800
	Fax Switchboard	671 16865
Panama	General Support	001-800-507-0962
Peru	General Support	0800-50-669
Poland (Warsaw)	Website: **support.euro.dell.com**	
International Access Code: **011**	E-mail: pl_support@dell.com	
Country Code: **48**	Customer Service Phone	57 95 700
City Code: **22**	Customer Care	57 95 999
	Sales	57 95 999
	Customer Service Fax	57 95 806
	Reception Desk Fax	57 95 998
	Switchboard	57 95 999
Portugal	E-mail: **support.euro.dell.com/es/es/emaildell/**	
International Access Code: **00**	Technical Support	800 834 077
Country Code: **35**	Customer Care	800 300 415 or 800 834 075
	Sales	800 300 410 or 800 300 411 or 800 300 412 or 121 422 07 10
	Fax	121 424 01 12

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Puerto Rico	General Support	1-800-805-7545
St. Kitts and Nevis	General Support	toll-free: 1-877-441-4731
St. Lucia	General Support	1-800-882-1521
St. Vincent and the Grenadines	General Support	toll-free: 1-877-270-4609
Singapore (Singapore)	Technical Support	toll-free: 800 6011 051
International Access Code: 005	Customer Service (Penang, Malaysia)	604 633 4949
Country Code: 65	Transaction Sales	toll-free: 800 6011 054
	Corporate Sales	toll-free: 800 6011 053
South Africa (Johannesburg)	Website: support.euro.dell.com	
International Access Code:	E-mail: dell_za_support@dell.com	
09/091	Technical Support	011 709 7710
Country Code: 27	Customer Care	011 709 7707
City Code: 11	Sales	011 709 7700
	Fax	011 706 0495
	Switchboard	011 709 7700
Southeast Asian and Pacific Countries	Customer Technical Support, Customer Service, and Sales (Penang, Malaysia)	604 633 4810
Spain (Madrid)	Website: support.euro.dell.com	
International Access Code: 00	E-mail: support.euro.dell.com/es/es/emaildell/	
Country Code: 34	Home and Small Business	
City Code: 91	Technical Support	902 100 130
	Customer Care	902 118 540
	Sales	902 118 541
	Switchboard	902 118 541
	Fax	902 118 539
	Corporate	
	Technical Support	902 100 130
	Customer Care	902 118 546
	Switchboard	91 722 92 00
	Fax	91 722 95 83

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Sweden (Upplands Vasby) International Access Code: **00** Country Code: **46** City Code: **8**	Website: **support.euro.dell.com**	
	E-mail: swe_support@dell.com	
	E-mail Support for Latitude and Inspiron: Swe-nbk_kats@dell.com	
	E-mail Support for OptiPlex: Swe_kats@dell.com	
	E-mail Support for Servers: Nordic_server_support@dell.com	
	Technical Support	08 590 05 199
	Relational Customer Care	08 590 05 642
	Home/Small Business Customer Care	08 587 70 527
	Employee Purchase Program (EPP) Support	20 140 14 44
	Fax Technical Support	08 590 05 594
	Sales	08 590 05 185
Switzerland (Geneva) International Access Code: **00** Country Code: **41** City Code: **22**	Website: **support.euro.dell.com**	
	E-mail: swisstech@dell.com	
	E-mail for French-speaking HSB and Corporate Customers: **support.euro.dell.com/ch/fr/emaildell/**	
	Technical Support (Home and Small Business)	0844 811 411
	Technical Support (Corporate)	0844 822 844
	Customer Care (Home and Small Business)	0848 802 202
	Customer Care (Corporate)	0848 821 721
	Fax	022 799 01 90
	Switchboard	022 799 01 01
Taiwan International Access Code: **002** Country Code: **886**	Technical Support (portable and desktop computers)	toll-free: 00801 86 1011
	Technical Support (servers)	toll-free: 0080 60 1256
	Transaction Sales	toll-free: 0080 651 228 or 0800 33 556
	Corporate Sales	toll-free: 0080 651 227 or 0800 33 555

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Thailand	Technical Support	toll-free: 0880 060 07
International Access Code: **001**	Customer Service (Penang, Malaysia)	604 633 4949
Country Code: **66**	Sales	toll-free: 0880 060 09
Trinidad/Tobago	General Support	1-800-805-8035
Turks and Caicos Islands	General Support	toll-free: 1-866-540-3355
U.K. (Bracknell)	Website: **support.euro.dell.com**	
International Access Code: **00**	Customer Care website: **dell.co.uk/lca/customerservices**	
Country Code: **44**	E-mail: dell_direct_support@dell.com	
City Code: **1344**	Technical Support (Corporate/Preferred Accounts/PAD [1000+ employees])	0870 908 0500
	Technical Support (direct/PAD and general)	0870 908 0800
	Global Accounts Customer Care	01344 373 185
		or 01344 373 186
	Home and Small Business Customer Care	0870 906 0010
	Corporate Customer Care	0870 908 0500
	Preferred Accounts (500–5000 employees) Customer Care	01344 373 196
	Central Government Customer Care	01344 373 193
	Local Government & Education Customer Care	01344 373 199
	Health Customer Care	01344 373 194
	Home and Small Business Sales	0870 907 4000
	Corporate/Public Sector Sales	01344 860 456
Uruguay	General Support	toll-free: 000-413-598-2521

U.S.A. (Austin, Texas)	Automated Order-Status Service	toll-free: 1-800-433-9014
International Access Code: **011**	AutoTech (portable and desktop computers)	toll-free: 1-800-247-9362
Country Code: **1**	**Consumer** (Home and Home Office)	
	Technical Support	toll-free: 1-800-624-9896
	Customer Service	toll-free: 1-800-624-9897
	DellNet™ Service and Support	toll-free: 1-877-Dellnet
		(1-877-335-5638)
	Software Application Support	toll-free: 1-800-433-9005
	Employee Purchase Program (EPP) Customers	toll-free: 1-800-695-8133
	Financial Services website:	

Regulatory Notices

Electromagnetic Interference (EMI) is any signal or emission, radiated in free space or conducted along power or signal leads, that endangers the functioning of a radio navigation or other safety service or seriously degrades, obstructs, or repeatedly interrupts a licensed radio communications service. Radio communications services include but are not limited to AM/FM commercial broadcast, television, cellular services, radar, air-traffic control, pager, and Personal Communication Services (PCS). These licensed services, along with unintentional radiators such as digital devices, including computers, contribute to the electromagnetic environment.

Electromagnetic Compatibility (EMC) is the ability of items of electronic equipment to function properly together in the electronic environment. While this computer has been designed and determined to be compliant with regulatory agency limits for EMI, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference with radio communications services, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the computer with respect to the receiver.
- Move the computer away from the receiver.
- Plug the computer into a different outlet so that the computer and the receiver are on different branch circuits.

If necessary, consult a Dell Technical Support representative or an experienced radio/television technician for additional suggestions.

For additional regulatory information, see the *Tell Me How* help file that accompanied your computer. To access the help file, see page 17.

Limited Warranties and Return Policy

Dell-branded hardware products purchased in the U.S. or Canada come with either a 90-day (U.S. only), one-year, two-year, three-year, or four-year limited warranty. To determine which warranty you purchased, see the Dell invoice that accompanied your computer. The following sections describe the limited warranties and return policy for the U.S., the limited warranties and return policy for Canada, and the manufacturer guarantee for Latin America and the Caribbean.

Limited Warranty Terms for Canada

What is covered by this limited warranty?

This limited warranty covers defects in materials and workmanship in your—our end-user customer's—Dell-branded hardware products, including Dell-branded monitors, keyboards, and pointing devices (mice).

What is not covered by this limited warranty?

This limited warranty does not cover:

- Software, including the operating system and software added to the Dell-branded hardware products through our factory-integration system, or the reloading of the software
- Non-Dell branded products and accessories
- Problems that result from:
    - External causes such as accident, abuse, misuse, or problems with electrical power
    - Servicing not authorized by us
    - Usage that is not in accordance with product instructions
    - Failure to follow the product instructions or failure to perform preventive maintenance
    - Problems caused by using accessories, parts, or components not supplied by us
- Products with missing or altered service tags or serial numbers
- Products for which we have not received payment

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM PROVINCE TO PROVINCE. DELL'S RESPONSIBILITY FOR MALFUNCTIONS AND DEFECTS IN PRODUCT IS LIMITED TO REPAIR AND REPLACEMENT AS SET FORTH IN THIS WARRANTY STATEMENT, FOR THE TERM OF THE WARRANTY PERIOD REFLECTED ON YOUR INVOICE. EXCEPT FOR THE EXPRESS WARRANTIES CONTAINED IN THIS WARRANTY STATEMENT, DELL DISCLAIMS ALL OTHER WARRANTIES AND CONDITIONS, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, STATUTORY OR OTHERWISE. SOME PROVINCES DO NOT ALLOW THE EXCLUSION OF CERTAIN IMPLIED WARRANTIES OR CONDITIONS, OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY OR CONDITION LASTS. THEREFORE, THE FOREGOING EXCLUSIONS AND LIMITATIONS MAY NOT APPLY TO YOU.

WE DO NOT ACCEPT LIABILITY BEYOND THE REMEDIES PROVIDED FOR IN THIS WARRANTY STATEMENT OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY LIABILTY FOR THIRD PARTY CLAIMS AGAINST YOU FOR DAMAGES, FOR PRODUCTS NOT BEING AVAILABLE FOR USE, OR FOR LOST DATA OR LOST SOFTWARE. OUR LIABILITY WILL BE NO MORE THAN THE AMOUNT YOU PAID FOR THE PRODUCT THAT IS THE SUBJECT OF A CLAIM. THIS IS THE MAXIMUM AMOUNT FOR WHICH WE ARE RESPONSIBLE.

SOME PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

How long does this limited warranty last?

This limited warranty lasts for the time period indicated on your invoice, except that the limited warranty on Dell-branded batteries lasts only one year and the limited warranty on the lamps for Dell-branded projectors lasts only ninety days. The limited warranty begins on the date of the invoice. The warranty period is not extended if we repair or replace a warranted product or any parts. Dell may change the terms and availability of limited warranties, at its discretion, but any changes will not be retroactive (that is, the warranty terms in place at the time of purchase will apply to your purchase).

What do I do if I need warranty service?

Before the warranty expires, please call us at the relevant number listed in the following table. Please also have your Dell service tag number or order number available.

Individual Home Consumers; Home Office and Small Business Customers:	
Technical Support and Customer Service	1-800-847-4096
Medium, Large, and Global Commercial Customers; Government, Education, and Healthcare Customers; and Value Added Resellers (VARs):	
Technical Support	1-800-387-5757
Customer Service	1-800-326-9463
Government or Education Customers, or Individual Home Consumers who purchased through an Employee Purchase Program:	
Technical Support	1-800-387-5757
Customer Service	1-800-326-9463 (Extension 8221 for Individual Consumers)
Dell-Branded Memory	1-888-363-5150

What will Dell do?

During the first year of all limited warranties: During the first year of all limited warranties, we will repair any Dell-branded hardware products returned to us that prove to be defective in materials or workmanship. If we are not able to repair the product, we will replace it with a comparable product that is new or refurbished.

When you contact us, we will issue a Return Material Authorization Number for you to include with your return. You must return the products to us in their original or equivalent packaging, prepay shipping charges, and insure the shipment or accept the risk if the product is lost or damaged in shipment. We will return the repaired or replacement products to you. We will pay to ship the repaired or replaced products to you if you use an address in Canada. Otherwise, we will ship the product to you freight collect.

If we determine that the problem is not covered under this warranty, we will notify you and inform you of service alternatives that are available to you on a fee basis.

NOTE: Before you ship the product(s) to us, make sure to back up the data on the hard drive(s) and any other storage device(s) in the product(s). Remove any confidential, proprietary or personal information, removable media, such as floppy disks, CDs, or PC Cards. We are not responsible for any of your confidential, proprietary or personal information; lost or corrupted data; or damaged or lost removable media.

During the remaining years following the first year of all limited warranties: We will replace any defective part with new or refurbished parts, if we agree that it needs to be replaced. When you contact us, we will require a valid credit card number at the time you request a replacement part, but we will not charge you for the replacement part as long as you return the original part to us within thirty days after we ship the replacement part to you. If we do not receive the original part within thirty days, we will charge to your credit card the then-current standard price for that part.

We will pay to ship the part to you if you use an address in Canada. Otherwise, we will ship the part freight collect. We will also include a prepaid shipping container with each replacement part for your use in returning the replaced part to us.

NOTE: Before you replace parts, make sure to back up the data on the hard drive(s) and any other storage device(s) in the product(s). We are not responsible for lost or corrupted data.

What if I purchased an on-site service contract?

If your service contract is with Dell, service will be provided to you under the terms of the service contract. Please refer to that contract for details on how to obtain service. Dell's service contracts can be found online at **www.dell.ca** or by calling Customer Care at 1-800-847-4096. If you purchased through us a service contract with one of our third-party service providers, please refer to that contract (mailed to you with your invoice) for details on how to obtain service.

How will you fix my product?

We use new and refurbished parts made by various manufacturers in performing warranty repairs and in building replacement parts and systems. Refurbished parts and systems are parts or systems that have been returned to Dell, some of which were never used by a customer. All parts and systems are inspected and tested for quality. Replacement parts and systems are covered for the remaining period of the limited warranty for the product you bought. Dell owns all parts removed from repaired products.

What do I do if I am not satisfied?

We pride ourselves on our great customer service. If you are not satisfied with the service you receive under this limited warranty, please let us know. We have found that the best way to resolve issues regarding our limited warranty is to work together. If, after those discussions, you are still not satisfied, we believe arbitration is the most expeditious way to resolve your concerns. Therefore, **ANY CLAIM, DISPUTE, OR CONTROVERSY (WHETHER IN CONTRACT, TORT, OR OTHERWISE, WHETHER PREEXISTING, PRESENT OR FUTURE, AND INCLUDING STATUTORY, COMMON LAW, INTENTIONAL TORT, AND EQUITABLE CLAIMS) AGAINST DELL** arising from or relating to this limited warranty, its interpretation, or the breach, termination or validity thereof, the relationships which result from this limited warranty (including, to the full extent permitted by applicable law, relationships with third parties), Dell's advertising, or any related purchase **SHALL BE RESOLVED EXCLUSIVELY AND FINALLY BY BINDING ARBITRATION ADMINISTERED BY THE NATIONAL ARBITRATION FORUM (NAF)** under its Code of Procedure then in effect (available via the Internet at **www.arb-forum.com/**, or via telephone at 1-800-474-2371). The arbitration will be limited solely to the dispute or controversy between you and Dell. Any award of the arbitrator(s) shall be final and binding on each of the parties, and may be entered as a judgment in any court of competent jurisdiction. Information may be obtained and claims may be filed with the NAF at P.O. Box 50191, Minneapolis, MN 55405.

on yo[...]
[...]ise proh[...]
[...]eement wi[...]
[...]pecified by t[...]

To [...] call Dell Custo[...]
Retu[...]er. To expedite the[...]
you t[...]o Dell in their origina[...]
Dell iss[...]di[...]n Authorization Numbe[...]
and in[...]pr[...]ccept the risk of loss or da[...]
softw[...]un[...]t only if the sealed package [...]
is un[...]he [...]etur[...]ucts must be in as-new condit[...]
disk[...]CD[...], po[...], and other items included with a[...]
it. [...] custo[...]ers [...]o return, for refund or credit only, [...]
sy[...]n softw[...]e t[...]di[...]n installed by Dell, the whole system [...]
a[...]edia[...]d[...]on that may have been included in the [...]

[...] "To[...]sfa[...]urn Policy does not apply to Dell | EMC st[...]
[...]es n[...] to pr[...]urchased through Dell's Software and Periphe[...]
[...]ose [...]s, pleas[...]d refer to Dell's Software and Peripheral's then-[...]
[...]oli[...]e followi[...]tion, "Dell Software and Peripherals").

Dell Software and Peripherals

Third-Party Software and Peripherals Products

Similar to other resellers of software and peripherals, Dell does not warrant third-party products. Third-party software and peripheral products are covered by the warranties provided by the original manufacturer or publisher only. Third party manufacturer warranties vary from product to product. Consult your product documentation for specific warranty information. More information may also be available from the manufacturer or publisher.

While Dell offers a wide selection of software and peripheral products, we do not specifically test or guarantee that all of the products we offer work with any or all of the various models of Dell computers, nor do we test or guarantee all of the products we sell on the hundreds of different brands of computers available today. If you have questions about compatibility, we recommend and encourage you to contact the third-party software and peripheral product manufacturer or publisher directly.

Dell-Branded Peripheral Products

Dell does provide a limited warranty for new Dell-branded peripheral products (products for which Dell is listed as the manufacturer) such as monitors, batteries, memory, docking stations, and projectors). To determine which limited warranty applies to the product you purchased, see the Dell invoice and/or the product documentation that accompanied your product. Descriptions of Dell's limited warranties are described in preceding sections.

Return Policy

If you are an end-user customer who bought Dell Software and Peripherals products directly from a Dell company, you may return Dell Software and Peripherals products that are in as-new condition to Dell up to 30 days from the date of invoice for a refund of the product purchase price if already paid. This refund will not include any shipping and handling charges shown on your invoice; you are responsible for those.

To return products, you must call Dell Customer Service at 1-800-387-5759 to receive a Credit Return Authorization Number. You must ship the Dell Software and Peripherals products back to Dell in their original manufacturer's packaging (which must be in as-new condition), prepay shipping charges, and insure the shipment or accept the risk of loss or damage during shipment.

To qualify for refund or replacement, returned products must be in as-new condition, software products must be unopened, and all of the manuals, floppy disk(s), CD(s), power cables, and other items included with a product must be returned with it.

Intel® Warranty Statement for Pentium® and Celeron® Processors Only (U.S. and Canada Only)

Intel's Three Year Limited Warranty

Limited Warranty

Intel warrants that its family of Pentium® and Celeron® processors, if properly used and installed, will be free from defects in materials and workmanship and will substantially conform to Intel's publicly available specifications for a period of three (3) years after the date the Pentium or Celeron processor was purchased (whether purchased separately or as part of a computer system).

If the Pentium or Celeron processor, which is the subject of this Limited Warranty, fails during the warranty period for reasons covered by this Limited Warranty, Intel, at its option, will:

- REPAIR the Pentium or Celeron processor by means of hardware and/or software; OR
- REPLACE the Pentium or Celeron processor with another Pentium or Celeron processor; OR
  if Intel is unable to repair or replace the particular Pentium or Celeron processor,
- REFUND the then-current value of the Pentium or Celeron processor.

THIS LIMITED WARRANTY, AND ANY IMPLIED WARRANTIES THAT MAY EXIST UNDER STATE LAW, APPLY ONLY TO THE ORIGINAL PURCHASER OF THE PENTIUM OR CELERON PROCESSOR, OR PENTIUM OR CELERON PROCESSOR-BASED COMPUTER AND LAST ONLY FOR AS LONG AS SUCH PURCHASER CONTINUES TO OWN THE PROCESSOR.

Extent of Limited Warranty

Intel does not warrant that your Pentium or Celeron processor will be free from design defects or errors known as "errata". Current characterized errata are available upon request. This limited warranty is for purchasers in the United States and Canada only. The limited warranty does not cover any costs relating to removal or replacement of any Pentium or Celeron processors that are soldered or otherwise permanently affixed to your system's motherboard.

This limited warranty does not cover damages due to external causes, including accident, problems with electrical power, usage not in accordance with product instructions, misuse, neglect, alteration, repair, improper installation, or improper testing.

How to Obtain Warranty Service

To obtain warranty service for your Pentium or Celeron processor, you may contact your computer system manufacturer in accordance with its instructions, or you may contact Intel.

To request warranty service from Intel, you should call Intel at 1-800-628-8686 during the warranty period during normal business hours (Pacific Time), excluding holidays. Please be prepared to provide:
- (1) your name, address, and telephone numbers;
- (2) proof of purchase;
- (3) this Intel warranty card;
- (4) a description of the computer system including the brand and model; and
- (5) an explanation of the problem.

[Note: The Customer Service Representative may need additional information from you depending on the nature of the problem.]

The replacement processor is warranted under this written warranty and is subject to the same limitations and exclusions for the remainder of the original warranty period or one (1) year, whichever is longer.

WARRANTY LIMITATIONS AND EXCLUSIONS

THESE WARRANTIES REPLACE ALL OTHER WARRANTIES, EXPRESS OR IMPLIED INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. INTEL MAKES NO EXPRESS WARRANTIES BEYOND THOSE STATED HERE. INTEL DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

SOME LAWS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES SO THIS LIMITATION MAY NOT APPLY TO YOU. IF THESE LAWS APPLY, THEN ALL EXPRESS AND IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIMITED WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD. SOME LAWS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THIS LIMITATION MAY NOT APPLY TO YOU.

LIMITATIONS OF LIABILITY

INTEL'S RESPONSIBILITY UNDER THIS, OR ANY OTHER WARRANTY, IMPLIED OR EXPRESS, IS LIMITED TO REPAIR, REPLACEMENT OR REFUND, AS SET FORTH ABOVE. THESE REMEDIES ARE THE SOLE AND EXCLUSIVE REMEDIES FOR ANY BREACH OF WARRANTY. INTEL IS NOT RESPONSIBLE FOR INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE TO OR REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING, REPROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH A SYSTEM CONTAINING YOUR PENTIUM PROCESSOR. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM JURISDICTION TO JURISDICTION.

Intel Pentium® and Celeron® Processors are backed by a three-year limited warranty.
Please refer to the reverse side of this card for complete warranty details.

Intel's Commitment to Quality

Intel is committed to producing the highest quality processors available. That's why we have hundreds of people dedicated to continuously improve our design, manufacturing, and testing technology.

We put every one of our Pentium® and Celeron® processors through a rigorous battery of tests during the design and manufacturing processes.

To verify that the new chip will correctly run the software written for Intel Architecture processors, a team of Intel engineers is dedicated to compatibility testing. In a state-of-art lab, this group runs an extensive set of operating systems, applications, network tests and stress tests repeatedly to ensure that the processor is compatible with representative software.

Just as importantly, we work with hardware and software companies in the computer industry to ensure that our processors are compatible with their products.

Additionally, a sampling of Intel processors are subjected to a rigorous "burn-in" test whereby the chip is operated at higher-than-normal temperatures and voltages. During this burn-in period, the processor experiences the equivalent of weeks of normal usage. These units are monitored for failures as part of our ongoing quality assurance process.

As a result, today's microprocessors from Intel are among the most reliable components in computers.

What are 'Errata'?

Exhaustive product testing can highlight differences between the actual behavior of the microprocessor and its specifications. Sometimes the discrepancies are caused by a design defect or error, which we call *errata*. Rigorous validation identifies most errata during the development of the processor, but we do detect additional errata during the life cycle of a microprocessor.

When an erratum is identified, our engineers work to characterize it and find a solution. We work with system designers and software developers to ensure that the discrepancy does not affect their products. If necessary, special software or hardware solutions (sometimes known as "work arounds") are implemented in the system design to prevent computer users from encountering the problem. Errata may then be corrected in future revisions of the microprocessor.

No microprocessor is perfect, and Intel recognizes that some customers want to know about any errata, whether or not the errata affect them. Intel makes documentation of all characterized Pentium and Celeron processor errata publicly available through our Technical Documentation Service.

At Intel, our goal is to make every computer user satisfied with his or her Pentium or Celeron processor. Should you have any questions, comments or concerns about your Intel microprocessor, please call us at 1-800-628-8686.

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DELL INFORMATION DEVELOPMENT

Postscript Imaging and Printing Specifications

	ENGLISH (Completed by Information Development)	LOCALIZATION (Heavily outlined boxes completed by Agency)
MILESTONE NAME:	Sputnik Owner' Manual ROW	
PATH:	(S:\SYSTEMS\Sputnik\owner\A01\english-ROW)	
LANGUAGES:	English	
----------------------		Agency:
PART and REVISION NUMBER:	7T097 A01	
SPEC SHEET PREPARED BY:	Gloria Salinas	
DATE SPEC SHEET COMPLETED:	09/25/02	
CONTACTS:	Cathy Brown Cathy_Brown@Dell.com 512-723-9330	Karen Johnson Karen_Johnson@Dell.com 512-728-0218
AMF PRINT VENDOR AND/OR REGIONS:	EMF, CCC	Same as English
COMPUTER SOURCE:	_X_Dell PC Other_____	___Dell PC Other_____
APPLICATION SFTWR FOR BOOK:	_X_ Frame ___ Word ___ Quark Other_____	___ Frame ___ Word ___ Quark Other_____
APPLICATION SFTWR FOR COVER:	___ Frame ___ Word _X_ Quark Other_____	___ Frame ___ Word ___ Quark Other_____
FILE TYPE:	_X_Postscript Other_____	___Postscript Other_____
.PS DRIVER USED:	_X_Scitex Dolev400 PSM L2	___Scitex Dolev400 PSM L2
COLORS/ SEPARATIONS:	Book COVER: _X_CMYK ___Gray Scale Book INTERIOR: Print all as Gray Scale (Graphics Included) OTHER: ___CMYK ___Gray Scale Pantone #s_____	*Book COVER: ___CMYK ___Gray Scale Book INTERIOR: Print all as Gray Scale (Graphics Included) OTHER: ___CMYK ___Gray Scale Pantone #s_____
FOR PROOF ONLY PDF:	___YES _X_ NO	___YES ___ NO
COMPRESSED & TESTED:	_X_YES	___YES
PAGE SIZE:	7.5 x 9	Same as English
PAGE SIZE FOLDED:	N/A	Same as English
PAPER STOCK:	_X_Dell Standard Other_____	Same as English
LINE SCREEN:	133 lpi	Same as English
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Owner: Mike Whale
Last Revised: 04/19/02

* Refer to deliverables matrix in supplier tool kit

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FILE NAME(S) & PAGE COUNT:	Section	Filename	Page Count	Page Numbers
* Localization Supplier: **Revise file name, page count, and page number columns**	Full Cover (EMF):	7T097em1.ps	2	(Inside Blank)
	or			
	Full Cover (CCC):	7T097cc1.ps		
	Title Page:	7T097tp1.ps	2	Includes Copyright
	TOC:	7T097tc1.ps	4	3 – 6
	Safety:	7T097si1.ps	8	7 – 14
	Section 1:	7T097c11.ps	4	15 – 18
	Section 2:	7T097c21.ps	18	19 – 36
	Section 3:	7T097c31.ps	12	37 – 48
	Section 4:	7T097c41.ps	12	49 – 60
	Section 5:	7T097c51.ps	8	61 – 68
	Section 6:	7T097c61.ps	28	69 – 96
	Section 7:	7T097c71.ps	8	97 – 104
	Index:	7T097ix1.ps	2	105 – 106
TOTAL PAGE COUNT:			**108**	

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