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Dell™ Inspiron™ 4150

A Tour of Your Computer

Solving Problems

Reinstalling Drivers and Utilities

Reinstalling the Microsoft® Windows® XP Operating System

Using the System Setup Program

Power Management

Using the Dell Diagnostics

Specifications

Pin Assignments for I/O Connectors

Removing and Replacing Parts

Documentation



CAUTION: Follow the safety instructions in the *Owners Manual* to help protect your computer from damage and ensure your own personal safety.

Hints, Notices, and Cautions



HINT: A HINT indicates important information that helps you make better use of your computer.



NOTICE: A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.

Abbreviations and Acronyms

For a complete list of abbreviations and acronyms, see the Tell Me How help file (see "Accessing Help").

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Model PP01L

November 2002 Rev. A01

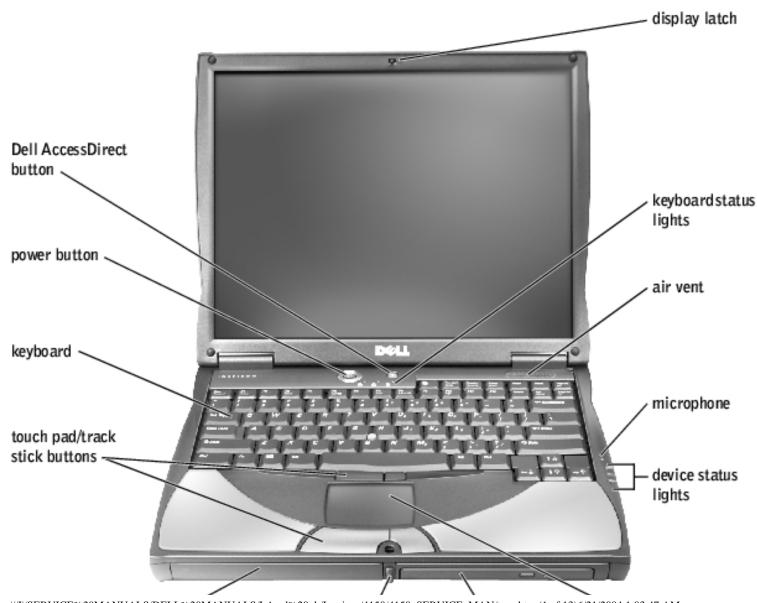
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A Tour of Your Computer

Dell™ Inspiron™ 4150

- Front View
- Left Side View
- Right Side View
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- Bottom View

Front View





Display Latch — Keeps the display closed.

Keyboard Status Lights — The green lights located above the keyboard indicate the following:

| Ø | Turns on when the numeric keypad is enabled |
|---|---|
| ◬ | Turns on when the caps lock function is enabled |
| ₫ | Turns on when the scroll lock function is enabled |



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



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.



CAUTION: Do not block, push objects into, or allow dust to accumulate in the air vents. Do not store your computer in a low-airflow environment, such as a closed briefcase, while it is running. Restricting the airflow can damage the computer or cause a fire.

Microphone — Allows you to record audio.

Device Status Lights

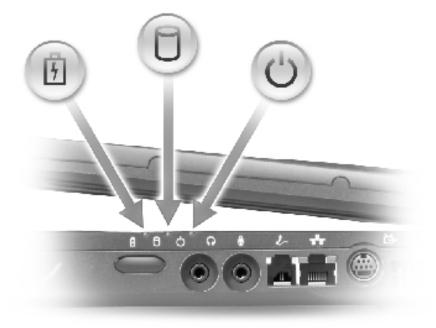
| Ŋ. | Turns on when you turn on the computer. |
|----|--|
| 0 | Turns on when the computer reads or writes data. |
| | NOTICE: To avoid loss of data, never turn off the computer while the light is flashing. |
| Ō | Turns on steadily or blinks when the computer is in a power management mode. It also blinks to indicate battery charge status. |

If the computer is connected to an electrical outlet, the **!** light operates as follows:

- Solid green: The battery is charging.
- Flashing green: The battery is fully charged.

If the computer is running on a battery, the light operates as follows:

- o Off: The battery is adequately charged (or the computer is turned off).
- o Flashing orange: The battery charge is low.
- Solid orange: The battery charge is critically low.



Touch Pad — Use the touch pad and touch pad buttons as you would use a mouse. For more information, see

the *Tell Me How* help file (see "Accessing Help").

Module Bay — You can install devices such as an optical drive or the Dell TravelLite[™] module in the module bay.

Display Latch Button — Press this button to release the display latch and open the display.

Battery Bay — When a battery is installed, you can use the computer without connecting it to an electrical outlet. For more information, see the *Tell Me How* help file (see "Accessing Help").

Touch Pad/Track Stick Buttons — Correspond to the left and right buttons on a standard mouse.

Keyboard — The keyboard includes a numeric keypad as well as the Microsoft® Windows® logo key, For information on supported keyboard shortcuts, see the *Tell Me How* help file (see "Accessing Help").



Power Button — Press the power button to turn on the computer or to enter or exit a power management mode.

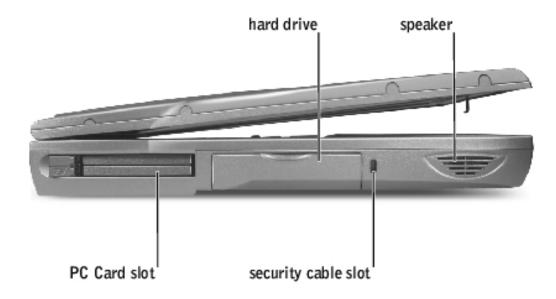
If the computer stops responding, press and hold the power button until the computer turns off completely (which may take about 4 seconds).

0

NOTICE: Turn off your computer by performing a Windows shutdown. Otherwise, you may lose data

Dell™ AccessDirect™ Button — Press this button to launch various resources, such as support and educational tools. For more information, see the *Tell Me How* help file (see "<u>Accessing Help</u>").

Left Side View

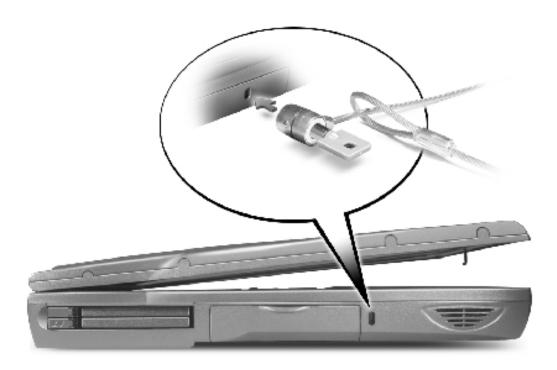


PC Card Slot — Has two connectors that support various types of PC Cards, including modems and network adapters. For more information, see the *Tell Me How* help file (see "Accessing Help").

Hard Drive — Stores software and data.

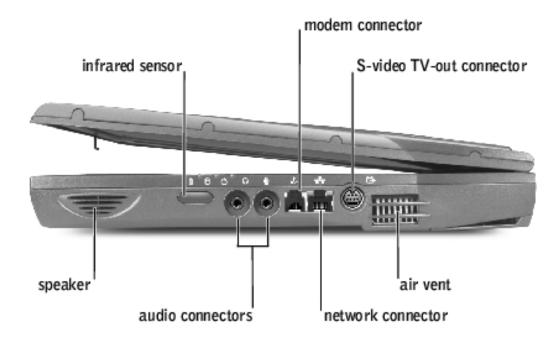
Security Cable Slot — Lets you attach a commercially available antitheft device to the computer. Instructions for installing antitheft devices are usually included with the device.

NOTICE: Before you buy an antitheft device, ensure that it will work with the security cable slot.



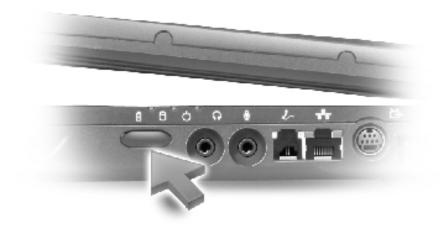
Speakers — Press the volume control keyboard shortcuts to adjust the volume of the integrated speakers. For more information, see the *Tell Me How* help file (see "<u>Accessing Help</u>").

Right Side View



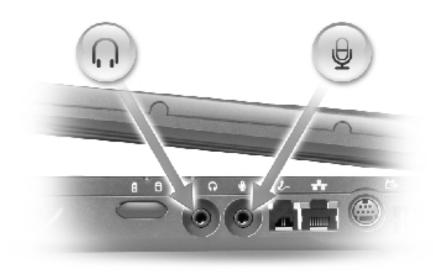
Speakers — Press the volume control keyboard shortcuts to adjust the volume of the integrated speakers. For more information, see the *Tell Me How* help file (see "<u>Accessing Help</u>").

Infrared Sensor — The infrared sensor lets you transfer files from your computer to another infrared-compatible device without using cable connections.



Audio Connectors

Attach headphones or speakers to the Ω connector.



Modem Connector



Connect the telephone line to the optional modem connector.

For information on using the modem, see the online modem documentation supplied with your computer. To access device user's guides, see "Need Additional Help?" in the *Tell Me How* help file (see "Accessing Help").

Network Connector



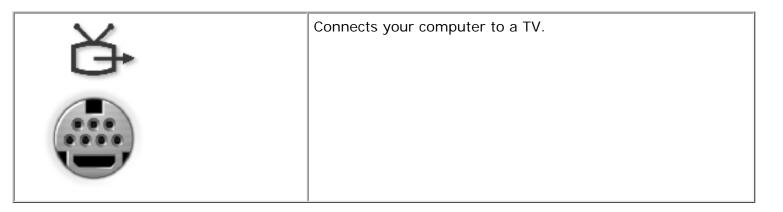
Connects the computer to a network. The lights next to the connector indicate activity for both wired and wireless network communications.

For information on using the network adapter, see the online network adapter documentation supplied with your computer. To access device user's guides, see "Need Additional Help?" in the *Tell Me How* help file (see "Accessing Help").



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

S-Video TV-Out Connector



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



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.



CAUTION: Do not block, push objects into, or allow dust to accumulate in the air vents. Do not store your computer in a low-airflow environment, such as a closed briefcase, while it is running. Restricting the airflow can damage the computer or cause a fire.

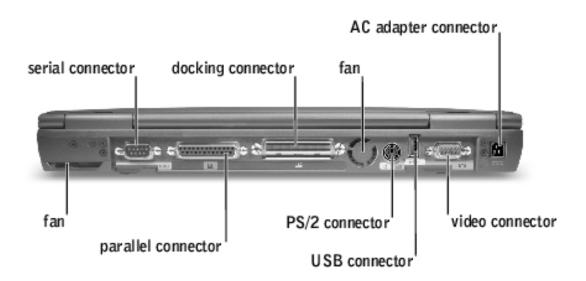
Back View



NOTICE: To avoid damaging the computer, wait 5 seconds after turning off the computer before you disconnect an external device.

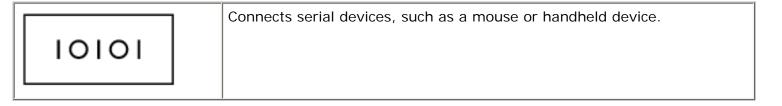


CAUTION: Do not block, push objects into, or allow dust to accumulate in the air vents. Do not store your computer in a low-airflow environment, such as a closed briefcase, while it is running. Restricting the airflow can damage the computer or cause a fire.



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

Serial Connector



Parallel Connector



Connects a parallel device, such as a printer. You can also connect the optional floppy drive directly to the parallel connector using the optional floppy drive cable.

Docking Connector



HINT: Docking devices may not be available in some countries.



Connects the optional docking device. A docking device allows you to easily use external devices with your computer, such as an external keyboard, mouse, and monitor.

See the documentation that came with your docking device for additional information.

PS/2 Connector



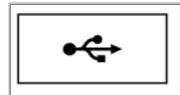
HINT: You can use the integrated keyboard and an external keyboard at the same time. When you attach a PS/2 keyboard or PS/2 numeric keypad, the integrated keypad is disabled.



Connects PS/2-compatible devices, such as a mouse, keyboard, or external numeric keypad.

Shut down the computer before attaching or removing a PS/2-compatible device. If the device does not work, install the device drivers from the floppy disk or CD that came with the device, and restart the computer.

USB Connector



Connects USB devices, such as a mouse, keyboard, or printer.

Video Connector



Connects an external monitor. For more information, see "Using the Display" in the *Tell Me How* help file (see "Accessing Help").

AC Adapter Connector — Attach the AC adapter to the computer.



The AC adapter converts AC power to the DC power required by the computer. You can connect the AC adapter with your computer turned either on or off.

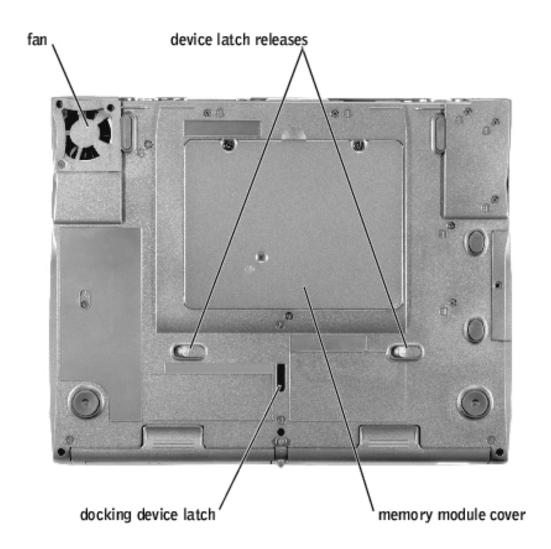


CAUTION: The AC adapter works with electrical outlets worldwide. However, power connectors and power strips vary among countries. Using an incompatible cable or improperly connecting the cable to the power strip or electrical outlet may cause fire or equipment damage.



NOTICE: When you disconnect the AC adapter from the computer, grasp the adapter cable connector, not the cable itself, and pull firmly but gently to avoid damaging the cable.

Bottom View



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

Device Latch Releases — Press a latch release to remove a device in the module or battery bay.

Memory Module Cover — Protects the memory module(s), the optional Mini PCI card, and the optional modem (see "Memory Modules, Mini PCI Card, and Modem").

Docking Device Latch — Latches onto the docking device.

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Solving Problems

Dell™ Inspiron™ 4150

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- Power Problems
- Error Messages
- Video and Display Problems
- Sound and Speaker Problems
- Printer Problems
- Modem and Internet Connection Problems
- Scanner Problems
- Touch Pad or Mouse Problems
- External Keyboard Problems

- Unexpected Characters
- Drive Problems
- PC Card Problems
- Network Problems
- General Program Problems
- E-Mail Problems
- If Your Computer Gets Wet
- If You Drop or Damage Your Computer
- Resolving Other Technical Problems

Accessing Help

To access the Tell Me How help file -

- 1. Click the **Start** button and then click **Help and Support**.
- 2. Click User and system guides and then click User's guides.
- 3. Click Tell Me How.

To access help in Microsoft® Windows® XP —

- 1. Click the **Start** button and then click **Help and Support**.
- 2. Type a word or phrase that describes your problem and then click the arrow icon.
- 3. Click the topic that describes your problem.
- 4. Follow the instructions shown on the screen.

Power Problems



HINT: See the *Tell Me How* help file for information on power management modes (see "Accessing Help").

Check the power light — When the power light is lit or blinking, the computer has power. If the light is blinking, the computer is in standby mode—press the power button to exit a standby mode. If the light is off, the computer is either in a power management mode or off—press the power button to exit a power management mode or 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.

Check the battery status light — If the battery status light flashes orange or is a steady orange, the battery charge is low or depleted. Connect the computer to an electrical outlet.

If the battery status light flashes green and orange, the battery is too hot to charge. Shut down the computer, disconnect the computer from the electrical outlet, and then let the battery and computer cool to room temperature.

If the battery status light rapidly flashes orange, the battery may be defective. Contact Dell. See your *Owner's Manual* for contact information.

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 — Your computer may be in standby or hibernate mode. For information on power management modes, see the *Tell Me How* help file, or search for the keyword *standby* or *hibernate* in the Windows XP Help and Support Center (see "Accessing Help").

Reseat the memory modules — If the computer power light turns on but the display remains blank, reseat the memory modules.

Error Messages

If the message is not listed, see the documentation for the operating system or the program that was running at the time the message appeared.

The file being copied is too large for the destination drive — The file that you are trying to copy is too large to fit on the disk, or the disk is too full. Try copying the file to a different disk or use a larger capacity disk.

Insert bootable media — The operating system is trying to boot to a nonbootable floppy disk or CD. Insert a bootable floppy disk or CD.

Non-system disk or disk error — A floppy disk is in the floppy drive. Remove the floppy disk and restart the computer.

Not enough memory or resources. Exit some programs and try again — You have too many programs open. Close all windows and open the program that you want to use.

Operating system not found — Contact Dell. See your *Owner's Manual* for contact information.

A required .DLL file was not found — The program that you are trying to open is missing an essential file. Remove and then reinstall the program.

- 1. Click the Start button and then click Control Panel.
- 2. Click Add or Remove Programs.
- 3. Select the program you want to remove.
- 4. Click **Remove** or **Change/Remove** and follow the prompts on the screen.
- 5. See the program documentation for installation instructions.

x:\ is not accessible. The device is not ready — Insert a disk into the drive and try again.

Video and Display Problems

If the display is blank



HINT: If you are using a program that requires a higher resolution than your computer supports, Dell recommends that you attach an external monitor to your computer.

Check the U light — When the U light is blinking, the computer has power.

- If the blinking, the computer is in standby mode—press the power button to exit standby mode.
- If the U light is off, press the power button.
- If the U light is on, your power management settings may have caused the display to turn off. Try pressing the power button.

Check the battery — If you are using a battery to power your computer, the battery charge may be depleted. Connect the computer to an electrical outlet using the AC adapter, and 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 it 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.

Adjust the Power Properties — Your computer may be in standby or hibernate mode. For information on power management modes, see the *Tell Me How* help file, or search for the keyword *standby* or *hibernate* in the Windows XP Help and Support Center (see "Accessing Help").

Switch the video image — If your computer is attached to an external monitor, press





to switch the video image to the display.

If the display is difficult to read

Adjust the brightness — See the *Tell Me How* help file for instructions on adjusting the brightness (see "Accessing Help").

Move the subwoofer away from the computer or monitor — If your external speaker system includes a subwoofer, ensure that the subwoofer is at least 60 cm (2 ft) away from the computer or external monitor.

Eliminate possible interference — Turn off nearby fans, fluorescent lights, halogen lamps, or other appliances.

Rotate the computer to face a different direction — Eliminate sunlight glare, which can cause poor picture quality.

Adjust the Windows display settings —

- 1. Click the Start button and then click Control Panel.
- 2. Click Appearance and Themes.
- 3. Click the area you want to change or click the **Display** icon.
- 4. Try different settings for Color quality and Screen resolution.

See "Error Messages" — If an error message appears, see "Error Messages."

If only part of the display is readable

Connect an external monitor —

- 1. Shut down your computer and connect an external monitor to the computer.
- Turn on the computer and the monitor and adjust the monitor brightness and contrast controls.

If the external monitor works, the computer display or video controller may be defective. Contact Dell. See your *Owner's Manual* for contact information.

Sound and Speaker Problems

If you have a problem with integrated speakers

Adjust the Windows® volume control — Double-click the speaker icon in the lower-right corner of your screen. Ensure that the volume is turned up and that the sound is not muted. Adjust the volume, bass, or treble controls to eliminate distortion.

Adjust the volume using keyboard shortcuts — Press or reenable the integrated speakers.



to disable (mute)

Reinstall the sound (audio) driver — See "Reinstalling Drivers and Utilities."

If you have a problem with external speakers



HINT: The volume control in some MP3 players overrides the Windows volume setting. If you have been listening to MP3 songs, make sure that you did not turn the player volume down or off.

Check the speaker cable connections — See the setup diagram supplied with the speakers.

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

Ensure that the speakers are turned on — See the setup diagram supplied with the speakers.

Adjust the Windows volume control — Double-click the speaker icon in the lower-right corner of your screen. Ensure that the volume is turned up and that the sound is not muted. Adjust the volume, bass, or treble controls to eliminate distortion.

Test the speakers — Plug the speaker audio cable into the line-out connector on the computer. Ensure that the headphone volume control is turned up. Play a music CD.

Run the speaker self-test — Some speaker systems have a self-test button on the subwoofer. See the speaker documentation for self-test instructions.

Eliminate possible interference — Turn off nearby fans, fluorescent lights, or halogen lamps to check for interference.

Reinstall the sound (audio) driver — See "Reinstalling Drivers and Utilities."

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

Reinstall the printer driver — See "Reinstalling Drivers and Utilities."

Modem and Internet Connection Problems

- **NOTICE:** Connect the modem to an analog telephone wall jack only. Connecting the modem to a digital telephone network damages the modem.
- NOTICE: Modem and network connectors look similar. Do not plug a telephone line into the network connector.
 - **HINT:** If you can connect to your Internet service provider (ISP), your modem is functioning properly. If you are sure that your modem is working properly and you still experience problems, contact your ISP.

Check the telephone wall jack — Disconnect the telephone line from the modem and connect it to a telephone. Listen for a dial tone. Ensure that you have touch tone telephone service. Try connecting the modem to a different telephone wall jack.

Slow connection speeds can be caused by telephone noise as well as by telephone line or network conditions. Contact your telephone company or network administrator for more information.

Connect the modem directly to the telephone wall jack — If you have other telephone devices sharing the line, such as an answering machine, fax machine, surge protector, or line splitter, then bypass them and use the telephone line to connect the modem directly to the telephone wall jack.

Check the connection — Verify that the telephone line is connected to the modem.

Check the telephone line — Try using a different telephone line. If you are using a line that is 3 m (10 ft) or more in length, try a shorter one.

Irregular dial tone — If you have voice mail service, you might hear an irregular dial tone when you have messages. Contact your telephone company for instructions on restoring a dial tone.

Turn off call waiting (catch-phone) — See your telephone directory for instructions on deactivating this feature. Then adjust the dial-up networking connection properties.

- 1. Click the **Start** button and click **Control Panel**.
- 2. Click **Printers and Other Hardware**, click **Phone and Modem Options**, click the **Dialing Rules** tab, and then click **Edit...**.
- 3. In the **Edit Location** window, ensure that **To disable call waiting, dial:** is checked, and then select the proper code as listed in your telephone directory.
- 4. Click **Apply** and click **OK**.
- 5. Close the **Phone and Modems Options** window.
- 6. Close the **Control Panel** window.

Verify that the modem is communicating with Windows —

- 1. Click the **Start** button and click **Control Panel**.
- 2. Click Printers and Other Hardware and click Phone and Modem Options.
- 3. Click the **Modems** tab.
- 4. Click the COM port for your modem.
- 5. Click **Properties**, click the **Diagnostics** tab, and then click **Query Modem** to verify that the modem is communicating with Windows.

If all commands receive responses, the modem is operating properly.

Scanner Problems

Check the power cable connection — Ensure that the scanner power cable is firmly connected to a working electrical outlet and that the scanner is turned on.

Check the scanner cable connection — Ensure that the scanner cable is firmly connected to the computer and to the scanner.

Unlock the scanner — Ensure that your scanner is unlocked if it has a locking tab or button.

Reinstall the scanner driver — See the scanner documentation for instructions.

Touch Pad or Mouse Problems

Check the touch pad settings —

- 1. Click the **Start** button, click **Control Panel**, and then click **Printers and Other Hardware**.
- 2. Click Mouse.
- 3. Try adjusting the settings.

Check the mouse cable — Shut down the computer. Disconnect the mouse cable and check it for damage. For PS/2 cables, check the cable connector for bent or broken pins. Firmly reconnect the cable.

If you are using a mouse extension cable, disconnect it and connect the mouse directly to the computer.

To verify that the problem is with the mouse, check the touch pad —

- 1. Shut down the computer.
- 2. Disconnect the mouse.
- 3. Turn on the computer.
- 4. At the Windows desktop, use the touch pad to move the cursor around, select an icon, and open it.

If the touch pad operates correctly, the mouse may be defective.

Reinstall the touch pad driver — See "Reinstalling Drivers and Utilities."

External Keyboard Problems



HINT: When you attach an external keyboard, the integrated keyboard remains fully functional.

Check the keyboard cable — Shut down the computer. Disconnect the keyboard cable and check it for damage. For PS/2 cables, check the cable connector for bent or broken pins. Firmly reconnect the cable.

If you are using a keyboard extension cable, disconnect it and connect the keyboard directly to the computer.

Check the external keyboard —

- 1. Shut down the computer, wait 1 minute, and turn it on again.
- 2. Verify that the numbers, capitals, and scroll lock lights on the keyboard blink during the boot routine.
- 3. From the Windows® desktop, click the **Start** button, point to **Programs**, point to **Accessories**, and click **Notepad**.
- 4. Type some characters on the external keyboard and verify that they appear on the display.

If you cannot verify these steps, you may have a defective external keyboard.

To verify that the problem is with the external keyboard, check the integrated keyboard —

- 1. Shut down the computer.
- 2. Disconnect the external keyboard.
- 3. Turn on the computer.
- 4. From the Windows desktop, click the **Start** button, point to **Programs**, point to **Accessories**, and click **Notepad**.
- 5. Type some characters on the external keyboard and verify that they appear on the display.

If the characters appear now but did not with the external keyboard, you may have a defective external keyboard. Contact Dell. See your *Owner's Manual* for contact information.

Unexpected Characters

Disable the numeric keypad — Press to disable the numeric keypad if numbers are displayed instead of letters. Verify that the numbers lock light is not lit.

Num Lk

Drive Problems



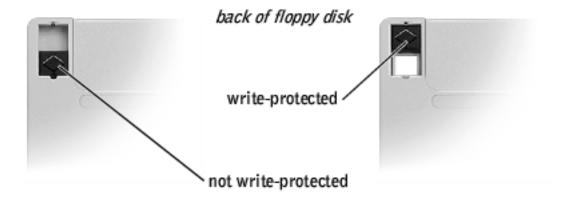
HINT: For information on saving files to a floppy disk, see the *Tell Me How* help file (see "Accessing Help").

If you cannot save a file to a floppy disk drive

Ensure that Windows® recognizes the drive — Click the **Start** button and click **My Computer**. If the drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing

the drive. Insert a bootable disk and restart the computer. Verify that the $\,\Box\,$ light is blinking, indicating normal operation.

Ensure that the disk is not write-protected — You cannot save data to a write-protected disk.



Try another floppy disk — Insert another disk to eliminate the possibility that the original disk is defective.

Reinstall the drive -

- 1. Save and close any open files, exit any open programs, and shut down the computer.
- 2. Remove the drive from the module bay.
- 3. Reinstall the drive.
- 4. Turn on the computer.

Clean the drive — See "Cleaning Your Computer" in the *Tell Me How* help file for instructions (see "Accessing Help").

If you cannot play a CD, CD-RW, or DVD



HINT: Because of different worldwide file types, not all DVD titles work in all DVD drives.

High-speed CD drive vibration is normal and may cause noise. This noise does not indicate a defect with the drive or the CD.

| Ensure that Windows® recognizes the drive — Click the Start button and click My Computer. If the drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing | |
|--|--|
| the drive. Insert a bootable disk and restart the computer. Verify that the $ \Box $ light is blinking, indicating normal operation. | |
| Try another disc — Insert another disc to eliminate the possibility that the original disc is defective. | |

Adjust the Windows volume control — Double-click the speaker icon in the lower-right corner of your screen. Ensure that the volume is turned up and that the sound is not muted.

Reinstall the drive —

- 1. Save and close any open files, exit any open programs, and shut down the computer.
- 2. Remove the drive.
- 3. Reinstall the drive.
- 4. Turn on the computer.

Clean the drive or disc — See "Cleaning Your Computer" in the *Tell Me How* help file for instructions (see "<u>Accessing Help</u>").

If you cannot eject the CD, CD-RW, or DVD drive tray

- 1. Ensure that the computer is turned off.
- 2. Straighten a paper clip and insert one end into the eject hole at the front of the drive; push firmly until the tray is partially ejected.
- 3. Gently pull out the tray until it stops.

If you hear an unfamiliar scraping or grinding sound

- Ensure that the sound is not caused by the program that is running.
- Ensure that the disk or disc is inserted properly.

If the CD-RW drive stops writing

Disable standby or hibernate mode in Windows before writing to a CD-RW — For more information on disabling power management modes, search for the keyword *standby* or *hibernate* in the Windows XP Help and Support Center (see "Accessing Help").

Change the write speed to a slower rate — See the help files for your CD creation software.

Exit all other open programs — Exiting all other open programs before writing to the CD-RW may alleviate the problem.

If you have problems with a hard drive

Allow the computer to cool before turning it on — A hot hard drive may prevent the operating system from starting. Try allowing the computer to return to room temperature before turning it on.

Check the drive for errors -

- 1. Click the **Start** button and click **My Computer**.
- 2. Right-click the drive letter (local disk) that you want to scan for errors, and then click **Properties**.
- 3. Click the **Tools** tab.
- 4. Under Error-checking, click Check Now.
- 5. Click Start.

PC Card Problems

Check the PC Card — Ensure that the PC Card is properly inserted into the connector. See the *Tell Me How* help file for more information (see "Accessing Help").

Ensure that the card is recognized by Windows® — Double-click the Unplug or Eject Hardware icon in the Windows taskbar. Ensure that the card is listed.

If you have problems with a Dell-provided PC Card — Contact Dell. See your *Owner's Manual* for contact information.

If you have problems with a PC Card not provided by Dell — Contact the PC Card manufacturer.

Network Problems

Check the network cable connector — Ensure that the network cable connector is firmly connected to the connector on the computer and the network wall jack.

Check the network lights on the network connector — Green indicates that the network connection is active. If the status light is not green, try replacing the network cable. Amber indicates that the network adapter driver is loaded and the adapter is detecting activity.

Restart the computer — Try to log on to the network again.

Contact your network administrator — Verify that your network settings are correct and that the network is functioning.

General Program Problems

A program crashes



HINT: Software usually includes installation instructions in its documentation or on a floppy disk or CD.

See the software documentation — Many software manufacturers maintain websites with information that may help you solve the problem. Ensure that you properly installed and configured the program. Reinstall the program if necessary.

A program stops responding

End the program —

- 1. Simultaneously press Ctrl 1 Shift Esc Suspend
- 2. Click the **Applications** tab, and then select the program that is no longer responding.
- 3. Click End Task.

If the computer does not respond to a keystroke or a proper shutdown, press the power button until the computer turns off. Press the power button again to restart the computer.

Error messages appear

Review "<u>Error Messages</u>" — Look up the message and take the appropriate action. See the software documentation.

E-Mail Problems

Ensure that you are connected to the Internet — With the Outlook Express e-mail program open, click **File**. If **Work Offline** has a check mark next to it, click the check mark to remove it and connect to the Internet.

If Your Computer Gets Wet



CAUTION: Perform this procedure only after you are certain that it is safe to do so. If the computer is connected to an electrical outlet, Dell recommends that you turn off AC power at the circuit breaker before attempting to remove the power cables from the electrical outlet. Use the utmost caution when removing wet cables from a live power source.

- 1. Shut down the computer, disconnect the AC adapter from the computer, and then disconnect the AC adapter from the electrical outlet.
- 2. Turn off any attached external devices, and disconnect them from their power sources and then from the computer.
- 3. Ground yourself by touching one of the metal connectors on the back of the computer.
- 4. Remove the module bay device and any installed PC Cards, and put them in a safe place to dry.
- 5. Remove the battery.
- 6. Wipe off the battery and put it in a safe place to dry.
- 7. Remove the hard drive.
- 8. Remove the memory module(s).
- 9. Open the display and place the computer right-side up across two books or similar props to let air circulate all around it. Let the computer dry for at least 24 hours in a dry area at room temperature.
- 0

NOTICE: Do not use artificial means, such as a hair dryer or a fan, to speed the drying process.



CAUTION: To help prevent electrical shock, verify that the computer is thoroughly dry before continuing with the rest of this procedure.

- 10. Ground yourself by touching one of the metal connectors on the back of the computer.
- 11. Replace the memory module(s), the memory module cover, and the screw(s).
- 12. Replace the hard drive.
- 13. Replace the module bay device and any PC Cards you removed.
- 14. Replace the battery.
- 15. Turn on the computer and verify that it is working properly.



HINT: See "Limited Warranties and Return Policy" in your *Owner's Manual* for information on your warranty coverage.

If the computer does not start, or if you cannot identify the damaged components, contact Dell. See your *Owner's Manual* for contact instructions.

If You Drop or Damage Your Computer

- 1. Save and close any open files, exit any open programs, and shut down the computer.
- 2. Disconnect the AC adapter from the computer and from the electrical outlet.
- 3. Turn off any attached external devices, and disconnect them from their power sources and then from the computer.
- 4. Remove and reinstall the battery.
- 5. Turn on the computer.



HINT: See "Limited Warranties and Return Policy" in your *Owner's Manual* for information on your warranty coverage.

If the computer does not start, or if you cannot identify the damaged components, contact Dell. See your *Owner's Manual* for contact instructions.

Resolving Other Technical Problems

Go to the Dell | Support website — Go to **support.dell.com** for help with general usage, installation, and troubleshooting questions. See "Dell Technical Support Policy (U. S. Only)" in your *Owner's Manual* 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 "Dell Technical Support Policy (U.S. Only)" in your *Owner's Manual* 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 your *Owner's Manual* for contact information. See "Dell Technical Support Policy (U.S. Only)" in your *Owner's Manual* for a description of the hardware and software support provided by Dell.

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Reinstalling Drivers and Utilities

Dell™ Inspiron™ 4150

- Overview
- Resolving Software and Hardware Incompatibilities
- Using Microsoft® Windows® XP System Restore

Overview

Dell ships your computer to you with required drivers and utilities already installed—no further installation or configuration is needed.



NOTICE: The *Drivers and Utilities* CD may contain drivers for operating systems that are not on your computer. Ensure that you are installing software appropriate for your operating system.

To reinstall drivers for optional devices such as wireless communications, DVD drives, and ZIP drives, you may need the CD and documentation that came with those devices.



NOTICE: The Dell | Support website, **support.dell.com**, and the *Drivers and Utilities* CD provide approved drivers for DellTM computers. If you install drivers from other sources, your computer might not work correctly.

To reinstall a driver or utility from your *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 Microsoft® 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** drop-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** drop-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



HINT: If you are reinstalling an infrared sensor driver, you must first enable the infrared sensor in the system setup program (see "<u>Using the System Setup Program</u>") before continuing with the driver installation.

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

Using Microsoft Windows XP Device Driver Rollback

If you install a new device driver that causes system instability, you can use the Windows XP Device Driver Rollback utility to replace the new device driver with the previously installed version of the device driver. If you cannot reinstall your previous driver by using the Device Driver Rollback utility, then use System Restore to return your operating system to its previous operating state before you installed the new device driver. To use Device Driver Rollback:

- 1. Click the **Start** button and right-click **My Computer**.
- 2. Click Properties.
- 3. Click the **Hardware** tab and click **Device Manager**.
- 4. In the **Device Manager** window, right-click the device for which the new driver was installed and then click **Properties**.
- 5. Click the **Drivers** tab.
- 6. Click Roll Back Driver.

Resolving Software and Hardware Incompatibilities

In the Microsoft® Windows® XP operating system, IRQ conflicts occur if a device either is not detected during the operating system setup or is detected but incorrectly configured. 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.
- 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 any conflicting device listed to bring up the **Properties** window so that you can determine what needs to be reconfigured or removed from the Device Manager.
- 6. Resolve these conflicts before checking specific devices.
- 7. Double-click the malfunctioning device type in the **Device Manager** list.

8. 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.

9. Resolve any IRQ conflicts.

You can also use the Windows XP 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**.

Using Microsoft® Windows® XP System Restore

The Microsoft Windows XP operating system provides a System Restore utility that allows you to return your computer to an earlier operating state if changes to the computer's hardware, 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 time. 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. 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, 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

In Windows XP, you can either use the System Restore Wizard or manually create a restore point.

Using the System Restore Wizard

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

- 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 <u>Device Driver Rollback</u>. 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.

- 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.

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.
 - 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**.
 - 3. Click Next.

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

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

Reinstalling the Microsoft® Windows® XP Operating System

Dell™ Inspiron™ 4150

Before reinstalling the Microsoft Windows XP operating system to correct a problem, try correcting the problem by using <u>Windows System Restore</u>.



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

- 1. Insert the Operating System CD.
- 2. Shut down the computer, and then turn on the computer.
- 3. Press any key when the Press any key to boot from CD message appears on the screen.
- 4. When the **Windows XP Setup** screen appears, press to s **Windows now**.



- 5. Read the information in the **License Agreement** window, and then press on yo keyboard to agree with the license information.
- 6. 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 go to step 15.

If you want to install a new copy of Windows XP, press to select the fresh copy option and

then press on the next screen to select the highlighted partition (recommended). Then follow the instructions on the screen.

- 7. The **Windows XP Setup** screen appears and Windows XP begins to copy files and install the device drivers. The computer automatically restarts multiple times before it requires additional input.
- 8. When the Welcome to Microsoft screen appears, click the green arrow icon at the bottom of

the screen to continue. Then follow the instructions on the screen to finish the installation.

- 9. When the **Regional Settings** screen appears, select the settings for your locale, and then click **Next**.
- 10. Enter your name and organization in the **Personalize Your Software** screen, and then click **Next**.
- 11. If you are reinstalling Windows XP Home Edition, enter a name for your computer when the Computer Name window appears, and then click Next.

If you are reinstalling Windows XP Professional, enter a name for your computer and a password when the Computer Name and Administrator Password window appears, and then click Next.

- 12. If you have a modem installed, the **Modem Dialing Information** screen appears. Enter the requested information and click **Next**.
- 13. Enter the date, time, and time zone in the **Date and Time Settings** window and click **Next**.
- 14. If your computer has a network adapter, select the appropriate network settings. If your computer does not have a network adapter, you do not see this option.

Windows XP begins to install its components and configure the computer. The computer automatically restarts.

- 15. When the **Welcome to Microsoft** screen appears, click the green arrow icon at the bottom of the screen to continue. Then follow the instructions on the screen to complete the installation.
- 16. Remove the CD from the drive.
- 17. Reinstall the appropriate drivers.
- 18. Reinstall your virus protection software.

Using the System Setup Program

Dell™ Inspiron™ 4150

- Overview
- Viewing the System Setup Screens
- System Setup Screens
- Commonly Used Options

Overview

The system setup program contains the standard settings for your computer.



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 immediately

If you wait too long and the 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. On each screen, the system setup options are 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 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.

A box in the upper-right corner of the screen displays help information for the currently highlighted option; a box in the lower-right corner displays information about the computer. System setup key functions are listed across the bottom of the screen.

The screens display such information as:

- System configuration
- Boot Order
- Boot (start-up) configuration and docking-device configuration settings
- Basic device configuration settings
- Battery charge status
- Power management settings
- System security and hard-drive password settings

Commonly Used Options



HINT: 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 **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:

- Diskette Drive
- Modular bay HDD
- 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 (by pressing the and keys) and then enable or disable the device or change their order in the list.

- To enable or disable a device, highlight the item and press . Enabled items appear as white and display a small triangle to the left; disabled items appear blue or dimmed without a triangle.
- To reorder a device in the list, highlight the device and then press or (not case-sensitive) to move the highlighted device up or down.

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

Performing a One-Time Boot

You can set a one-time-only boot sequence without going into the system setup program. (You can also use this procedure to boot to the Dell Diagnostics on the Diagnostics utility partition on your hard drive.)

- 1. Turn off the computer.
- 2. If the computer is connected to a docking device (docked), undock it. See the documentation that came with the docking device for instructions.
- 3. Connect the computer to an electrical outlet.
- 4. Turn on the computer. When the Dell logo appears, press immediately

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

5. When the boot device list appears, highlight the device from which you want to boot and press

The computer boots to the selected device.

The next time you reboot the computer, the normal boot order is restored.



HINT: You can only boot (start up) your computer from a CD, CD-RW, or DVD drive installed as a fixed optical drive. You cannot boot from one of these modules installed in the module bay.

Changing Printer Modes

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.

Power Management: Dell Inspiron 4150

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Power Management

Dell™ Inspiron™ 4150

- Power Management Tips
- Power Management Modes
- Power Options Properties

Power Management Tips



HINT: See "Using a Battery" in the *Tell Me How* help file for more information on conserving battery power (see "Accessing Help").

- Connect the computer to an electrical outlet when possible because the battery life expectancy is largely determined by the number of times the battery is charged.
- Place the computer in <u>standby mode</u> or <u>hibernate mode</u> when you leave the computer unattended for long periods of time.
- To exit a power management mode, press the power button.

Power Management Modes

Standby Mode

Standby mode conserves power by turning off the display and the hard drive after a predetermined period of inactivity (a time-out). When the computer exits standby mode, it returns to the same operating state it was in before entering standby mode.



NOTICE: If your computer loses AC and battery power while in standby mode, it may lose data.

To enter standby mode:

Power Management: Dell Inspiron 4150

Click the Start button, click Turn off computer, and then click Stand by.

or

- Depending on how you set the power management options on the <u>Advanced tab</u> in the <u>Power</u>
 Options Properties window, use one of the following methods:
 - Press the power button.
 - Close the display.
 - o Press Fn Esc Suspend

To exit standby mode, press the power button or open the display depending on how you set the options on the <u>Advanced tab</u>. You cannot make the computer exit standby mode by pressing a key or touching the touch pad or track stick.

Hibernate Mode

Hibernate mode conserves power by copying system data to a reserved area on the hard drive and then completely turning off the computer. When the computer exits hibernate mode, it returns to the same operating state it was in before entering hibernate mode.



NOTICE: You cannot remove devices or undock your computer while your computer is in hibernate mode.

Your computer enters hibernate mode if the battery charge level becomes critically low.

Depending on how you set the power management options on the <u>Advanced tab</u> in the **Power Options Properties** window, use one of the following methods to enter hibernate mode:

- Press the power button.
- Close the display.
- Press Fn Esc Suspend



HINT: Some PC Cards may not operate correctly after the computer exits hibernate mode. Remove and reinsert the card, or simply restart (reboot) your computer.

To exit hibernate mode, press the power button. The computer may take a short time to exit hibernate mode. You cannot make the computer exit hibernate mode by pressing a key or touching the touch pad or track stick. For more information on hibernate mode, see the documentation that came with your operating system.

Power Options Properties

To access the Microsoft® Windows® **Power Options Properties** window:

- 1. Click the **Start** button and click **Control Panel**.
- 2. Under Pick a category, click Performance and Maintenance.
- 3. Under or pick a Control Panel icon, click Power Options.

Power Schemes Tab

The **Power schemes** drop-down menu displays the selected preset power scheme. Depending on your operating system, typical power schemes are:

- Portable/Laptop
- Home/Office
- Always On
- Presentation
- Minimal Power Management
- Max Battery



HINT: Use the **Portable/Laptop** power scheme to maximize battery power.

Windows XP controls the performance level of the processor depending on the power scheme you select. You do not need to make any further adjustments to set the performance level.

Each preset power scheme has different time-out settings for entering standby mode, turning off the display, and turning off the hard drive. For more information on power management options, see the Windows XP Help and Support Center (see "Accessing Help").

Alarms Tab



HINT: To enable audible alarms, click each **Alarm Action** button and select **Sound** alarm.

The Low battery alarm and Critical battery alarm settings alert you with a message when the

battery charge falls below a certain percentage. When you receive your computer, the **Low battery** alarm and **Critical battery alarm** check boxes are selected. Dell recommends that you continue to use these settings.

Power Meter Tab

The **Power Meter** tab displays the current power source and amount of battery charge remaining.

Advanced Tab

The **Advanced** tab allows you to:

- Set power icon and standby mode password options.
- Program the following functions (depending on your operating system):
 - o Prompt a user for an action (Ask me what to do).
 - Enter standby mode.
 - Enter hibernate mode.
 - Shut down Windows and turn off the computer.
 - Choose no action (None or Do nothing).

To program these functions, click an option from the corresponding drop-down menu and then click **OK**.

Hibernate Tab

The **Hibernate** tab lets you enable hibernate mode by clicking the **Enable hibernate support** check box.

Using the Dell Diagnostics

Dell™ Inspiron™ 4150

- When to Use the Dell Diagnostics
- Features of the Dell Diagnostics
- Starting the Dell Diagnostics
- Advanced Testing
- Confirming the System Configuration Information

When to Use the Dell Diagnostics

Whenever a major component or device in your computer does not function properly, you may have a component failure. If you are experiencing a problem with your computer, perform the checks in "Solving Problems" and run the Dell Diagnostics before you call Dell for technical assistance. Running the Dell Diagnostics may help you to resolve the problem yourself quickly without having to contact Dell for assistance.

If you are experienced with computers and know what component(s) you need to test, simply select the appropriate diagnostic test group(s) or subtest(s). If you are unsure about how to begin diagnosing a problem, see "Starting the Dell Diagnostics" and "Advanced Testing."

Features of the Dell Diagnostics

The Dell Diagnostics helps you check your computer's hardware without any additional equipment and without destroying any data. By using the diagnostics, you can have confidence in your computer's operation. And if you find a problem you cannot solve by yourself, the diagnostic tests can provide you with important information you will need when talking to Dell's service and support personnel.



NOTICE: Use the Dell Diagnostics to test only your Dell[™] computer. Using this program with other computers may cause incorrect computer responses or result in error messages.

The diagnostic test groups or subtests also have these helpful features:

- Options that let you perform quick checks or extensive tests on one or all devices
- An option that allows you to choose the number of times a test group or subtest is repeated
- The ability to display test results or to save them in a file
- Options to temporarily suspend testing if an error is detected, or to terminate testing when an adjustable error limit is reached
- Extensive online Help screens that describe the tests and how to run them
- Status messages that inform you whether test groups or subtests were completed successfully
- Error messages that appear if any problems are detected

Starting the Dell Diagnostics

The Dell Diagnostics are located on a hidden Diagnostic utility partition on your hard drive.



HINT: If your computer cannot display a screen image, contact Dell. See your *Owner's Manual* for contact information.

- 1. Turn off the computer.
- 2. If the computer is connected to a docking device (docked), undock it. See the documentation that came with the docking device for instructions.
- 3. Connect the computer to an electrical outlet.
- 4. Press and hold down the <u>Dell AccessDirect™ button</u> while you turn on the computer.



HINT: An alternate way of starting the Dell Diagnostics is to select **Diagnostics** from the <u>one-time boot menu</u>.

The computer begins to run the Pre-boot System Assessment, a series of embedded diagnostics that perform initial testing on your system board, keyboard, hard drive, and display.

- During the assessment, answer any questions that appear.
- If a component failure is detected, the computer stops and beeps. To stop the assessment and reboot to the operating system, press; to continue to the next test, press; to retest the component that failed, press.
- If failures are detected during the Pre-boot System Assessment, write down the error

code(s) and then contact Dell before continuing on to the Dell Diagnostics. See your *Owner's Manual* for contact information.

• If you receive a message stating that no Diagnostics utility partition has been found, follow the instructions on the screen to run the Dell Diagnostics from your *Drivers and Utilities* CD.

If the Pre-boot System Assessment completes successfully, you receive the message Booting Dell Diagnostic Utility Partition. Press any key to continue.

- 5. Press any key to start the Dell Diagnostics from the Diagnostics utility partition on your hard drive.
- 6. After the Dell Diagnostics loads, the **Diagnostics Menu** appears. To select an option, highlight the option and press , or press the key that corresponds to the highlighted letter in the option you choose.
- 7. When you have finished running the Dell Diagnostics, press until you return to the Diagnostics Menu. To exit the Dell Diagnostics and reboot the computer, either type or highlight Exit and press .

Diagnostics Menu

| Option | Function |
|-------------------------|---|
| Test All Devices | Performs extensive diagnostic tests or quick diagnostic tests on all devices. |
| Test One Device | Performs extensive diagnostic tests or quick diagnostic tests on one device after you select it from a list of device groups. After you select Test One Device, press for more information about a test. |
| Advanced Testing | Allows you to modify the parameters of a test and select a group of tests to perform. You can access online Help for more information about Advanced Testing . |
| Information and Results | Provides test results, test errors, version numbers of the subtests used by the Dell Diagnostics, and additional help on the Dell Diagnostics. |
| Program Options | Allows you to change the settings of the Dell Diagnostics. |

| Exit | If the Dell Diagnostics are being run from the Diagnostics utility partition on the hard drive, reboots the computer. |
|------|---|
| | If the Dell Diagnostics are being run from a CD or floppy disk, exits to the MS-DOS® prompt. |

For a quick check of your computer, select **Quick Tests** from the **Test All Devices** or **Test One Device** option. **Quick Tests** runs only the subtests that do not require user interaction and that do not take a long time to run. Dell recommends that you choose **Quick Tests** first to increase the odds of tracing the source of the problem quickly.

For a thorough check of your computer, select **Extended Tests** from the **Test All Devices** option.

To check a particular area of your computer, select **Extended Tests** from the **Test One Device** option, or select the **Advanced Testing** option to customize your test(s).

Advanced Testing

When you select **Advanced Testing** from the **Diagnostics Menu**, the following screen appears, listing the diagnostic test groups and devices of the selected device group, and the screen allows you

to select categories from a menu. Press the arrow keys or



to navigate the screen.

Advanced Testing Main Screen



HINT: The test groups reflect the configuration of your computer.

Information in the **Advanced Testing** screen is presented as follows:

- On the left side of the screen, the **Device Group**s area lists the diagnostic test groups in the order they will run if you select **All** from the **Run tests** menu category. Press to highlight a test group.
- On the right side of the screen, the **Devices for Highlighted Group** area lists the computer's currently detected hardware and some of the relevant settings.
- Two lines at the bottom of the screen make up the menu area (see "Advanced Testing Help

Menu"). The first line lists the categories you can select; press or to highlight a menu category. The second line gives information about the category currently highlighted.

Advanced Testing Help Menu

For more information on using the **Advanced Testing** option:



2. Highlight the **Help** category and press , or press the key that corresponds to the highlighted letter in the category you choose.

Advanced Testing Help Categories

| Help Category | Description |
|---------------|---|
| Menu | Provides descriptions of the main menu screen area, the device groups, and the different diagnostic menus and commands and instructions on how to use them. |
| Keys | Explains the functions of the keystrokes that you can use in the Dell Diagnostics. |
| Device Group | Describes the test group that is presently highlighted in the Device Groups area on the main menu screen. It also provides reasoning for using some tests. |
| Device | Describes the function and purpose of the highlighted device in the Device Groups area. For example, the following information appears when you select the Device Help category for Diskette in the Device Groups area: |
| | Diskette |
| | Drive A |
| | The diskette disk drive device reads and writes data to and from diskettes. Diskettes are flexible recording media, sometimes contained in hard shells. Diskette recording capacities are small and access times are slow relative to hard disk drives, but they provide a convenient means of storing and transferring data. |

| Test | Provides a thorough explanation of the test procedure of each highlighted test group subtest. An example of the Diskette subtest floppy drive Seek Test is as follows: |
|----------|--|
| | Diskette |
| | Drive A - floppy drive Seek Test |
| | This test verifies the drive's ability to position its read/write heads. The test operates in two passes: first, seeking from the beginning to ending cylinders inclusively, and second, seeking alternately from the beginning to ending cylinders with convergence towards the middle. |
| Versions | Lists the version numbers of the subtests that are used by the Dell Diagnostics. |

Confirming the System Configuration Information

When you boot your computer from your *Drivers and Utilities* CD, the diagnostics checks your system configuration information and displays it in the **Device Groups** area on the main screen.

The following sources supply this configuration information for the diagnostics:

- The system configuration information settings (stored in NVRAM) that you selected while using the system setup program
- Identification tests of the microprocessor, the video controller, the keyboard controller, and other key components
- BIOS configuration information temporarily saved in RAM

Do not be concerned if the **Device Groups** area does not list the names of all the components or devices you know are part of your computer. For example, you may not see a printer listed, although you know one is attached to your computer. Instead, the printer is listed as a parallel port. The computer recognizes the parallel port as LPT1, which is an address that tells the computer where to send outgoing information and where to look for incoming information. Because your printer is a parallel communications device, the computer recognizes the printer by its LPT1 address and identifies it as a parallel port. You can test your printer connection in the **Parallel Ports** tests.

Specifications

Dell™ Inspiron™ 4150

- Microprocessor
- System Information
- PC Card
- Memory
- Ports and Connectors
- Communications
- Video
- Audio

- Display
- Keyboard
- Touch Pad
- Track Stick
- Battery
- AC Adapter
- Physical
- Environmental

| Microprocessor | |
|------------------------|---|
| Microprocessor type | Intel® Mobile Pentium® 4M microprocessor that runs at 1.6, 1.7, 1.9, or 2.0 GHz |
| L1 cache | 8KB (internal) |
| L2 cache | 512 KB (on die) |
| External bus frequency | 400 MHz |

| System Information | |
|----------------------------------|-------------|
| System chip set | Intel 845MP |
| Data bus width | 64 bits |
| DRAM bus width | 64 bits |
| Microprocessor address bus width | 32 bits |

| PC Card | |
|------------------------|---|
| CardBus controller | Texas Instruments PCI 1420 CardBus controller |
| 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 | 266-MHz DDR SDRAM |
| Standard memory | 128 MB |
| Maximum memory | 1 GB |

| 9-pin connector; 16550C-compatible, 16-byte buffer connector |
|--|
| 25-hole connector; unidirectional, bidirectional, or ECP |
| 15-hole connector |
| microphone connector, stereo headphone/speakers connector |
| 6-pin mini-DIN connector |
| 4-pin USB-compliant connector |
| sensor compatible with IrDA Standard 1.1 (Fast IR) and IrDA Standard 1.0 (Slow IR) |
| |

| Docking | 200-pin connector for a Dell™ docking device |
|-----------------|--|
| S-video TV-out | 7-pin mini-DIN connector (optional S-video to composite video adapter cable) |
| Mini PCI | Type IIIA Mini PCI card slot with Wi-Fi (802.11b) wireless support |
| Modem | RJ-11 port |
| Network adapter | RJ-45 port |

| Communications | |
|-----------------|---------------------|
| Modem: | |
| Туре | v.92 56K MDC |
| Controller | softmodem |
| Interface | internal AC 97 bus |
| Network adapter | 10/100 Ethernet LOM |

| Video | |
|------------------|--|
| Video type | 64-bit hardware accelerated |
| Data bus | 4X AGP |
| Video controller | ATI Mobility RADEON 7500C |
| Video memory | 16 MB or 32 MB |
| LCD interface | LVDS |
| TV support | NTSC or PAL in S-video and composite modes |

| Audio | |
|-------------------|--|
| Audio type | AC97 (Soft Audio) |
| Audio controller | Cirrus Logic CS4205 |
| 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 | keyboard shortcuts, program menus |

| Display | |
|--------------------------------|---|
| Type (active-matrix TFT) | XGA; SXGA+; UXGA |
| Dimensions: | |
| Height | 214.3 mm (8.4 inches) |
| Width | 285.7 mm (11.3 inches) |
| Diagonal | 357.1 mm (14.1 inches) |
| Maximum resolutions | 1024 x 768 at 16.8 million colors (XGA) 1400 x 1050 at 16.8 million colors (SXGA+) 1600 x 1200 at 16.8 million colors (UXGA) |
| Response time (typical) | 20-ms rise (maximum), 30-ms fall (maximum) |
| Refresh rate | 60 Hz |
| Operating angle | 0° (closed) to 180° |
| Viewing angles: | |
| Horizontal | ±40° |
| Vertical | +10°/-30° |
| Pixel pitch | 0.28 x 0.28 mm (XGA) 0.20 x 0.20 mm (SXGA+) 0.18 x 0.18 mm (UXGA) |
| Power Consumption: | |
| Panel with backlight (typical) | 6.5 W (XGA) 7.0 W (SXGA+) 7.5 W (UXGA) |

| Controls | brightness can be controlled through keyboard shortcuts |
|----------|---|
| | 1 |

| Keyboard | |
|----------------|---|
| Number of keys | 87 (U.S. and Canada); 88 (Europe); 91 (Japan) |
| Key travel | 2.7 mm \pm 0.3 (0.11 inch \pm 0.016 inch) |
| Key spacing | 19.05 mm ± 0.3 mm (0.75 inch ± 0.012 inch) |
| Layout | QWERTY/AZERTY/Kanji |

| Touch Pad | |
|---|--|
| X/Y position resolution (graphics table mode) | 240 cpi |
| Size: | |
| Width | 64.8-mm (2.55-inch) sensor- active area |
| Height | 48.88-mm (1.92-inch) rectangle |

| Track Stick | |
|---|--|
| X/Y position resolution (graphics table mode) | 250 count/sec @ 100 gf |
| Size | protrudes 0.5 mm higher than surrounding keycaps |

| Battery | |
|-------------|---------------------------------------|
| Туре | 8-cell "smart" lithium ion (4460 mAh) |
| Dimensions: | |
| Depth | 88.5 mm (3.48 inches) |
| Height | 21.5 mm (0.83 inch) |

| Width | 139.0 mm (5.47 inches) |
|----------------------------|--|
| Weight | 0.43 kg (0.95 lb) |
| Voltage | 14.8 VDC |
| Charge time (approximate): | |
| Computer on | 2.5 hours |
| Computer off | 1 hour |
| Operating time | 3 to 4 hours with average usage; can be significantly reduced under certain power-intensive conditions See the <i>Tell Me How</i> help file for more information on battery life. See "Accessing Help." |
| Life span (approximate) | 400 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 | 90–264 VAC |
| Input current (maximum) | 1.5 A |
| Input frequency | 47–63 Hz |
| Output current | 3.5 A |
| Output power | 70 W |
| Rated output voltage | 20 VDC |
| Dimensions: | |
| Height | 27.94 mm (1.1 inches) |
| Width | 58.42 mm (2.3 inches) |
| Depth | 130.80 mm (5.15 inches) |
| Weight (with cables) | 0.4 kg (0.9 lb) |
| Temperature range: | |
| Operating | 0° to 35°C (32° to 95°F) |

| | Storage | –40° to 65°C (–40° to 149°F) |
|-----|---------|------------------------------|
| - 1 | | , |

| Physical | |
|-------------------------------|------------------------|
| Height | 36.8 mm (1.4 inches) |
| Width | 319.5 mm (12.5 inches) |
| Depth | 253.6 mm (9.9 inches) |
| Weight (with 8-cell battery): | |
| With travel module | 2.4 kg (5.3 lb) |
| With floppy disk drive | 2.6 kg (5.7 lb) |
| With CD drive | 2.6 kg (5.8 lb) |

| Environmental | | | |
|--|------------------------------------|--|--|
| Temperature range: | | | |
| Operating | 0° to 35°C (32° to 95°F) | | |
| Storage | -40° to 65°C (-40° to 149°F) | | |
| Relative humidity (maximum): | | | |
| Operating | 10% to 90% (noncondensing) | | |
| Storage | 5% to 95% (noncondensing) | | |
| Maximum vibration (using a random-vibration spectrum that simulates user environment): | | | |
| Operating | 0.9 GRMS | | |
| Storage | 1.3 GRMS | | |
| Maximum shock (measured with the hard drive in head-parked position and a 2-ms half-sine pulse): | | | |
| Operating | 122 G | | |
| Storage | 163 G | | |
| Altitude (maximum): | | | |
| Operating | -15.2 to 3048 m (-50 to 10,000 ft) | | |

Specifications: Dell Inspiron 4150

| | –15.2 to 10,668 m (–50 to 35,000 ft) |
|--|---|
|--|---|

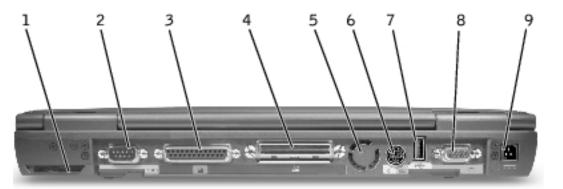
Pin Assignments for I/O Connectors

Dell™ Inspiron™ 4150

- Port Locations
- Serial Connector
- Parallel Connector
- Docking Connector

- PS/2 Connector
- USB Connector
- Video Connector
- S-Video TV-Out Connector

Port Locations



| 1 | air intake | 6 | PS/2 connector |
|---|--------------------|---|----------------------|
| 2 | serial connector | 7 | USB connector |
| 3 | parallel connector | 8 | video connector |
| 4 | docking connector | 9 | AC adapter connector |
| 5 | air vent | | |

Serial Connector

Use the 9-pin serial connector to attach a serial device to the computer. The serial connector passes

data in serial format (1 bit at a time over one line). This connector supports a variety of devices, including a serial mouse, that require serial data transmission. If you reconfigure your hardware, you may need pin number and signal information for the serial connector.



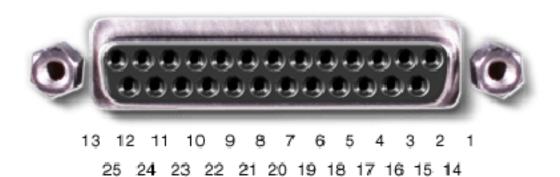
| Pin | Signal | 1/0 | Definition |
|-------|--------|-----|---------------------|
| 1 | DCD | I | Data carrier detect |
| 2 | RXDA | I | Receive data |
| 3 | TXDA | О | Transmit data |
| 4 | DTR | О | Data terminal ready |
| 5 | GND | N/A | Signal ground |
| 6 | DSR | I | Data set ready |
| 7 | RTS | О | Request to send |
| 8 | CTS | I | Clear to send |
| 9 | RI | I | Ring indicator |
| Shell | N/A | N/A | Frame ground |

Parallel Connector

Use the 25-hole parallel connector to attach a parallel device to the computer. The parallel connector is used primarily for printers. The parallel connector transmits data in parallel format, where 8 data bits (one byte) are sent simultaneously over eight separate lines.

The parallel connector can also be configured for compatibility with the PS/2 standard. Support for the EPP feature improves network adapter performance (adapters connect to the computer's parallel connector and require the appropriate software drivers from the adapter's manufacturer).

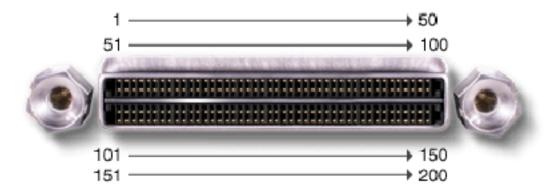
If you reconfigure your hardware, you may need pin number and signal information for the parallel connector.



| Pin | Signal | 1/0 | Definition |
|-------|--------|-----|--------------------|
| 1 | STB# | I/O | Strobe |
| 2 | D0 | 1/0 | Printer data bit 0 |
| 3 | PD1 | 1/0 | Printer data bit 1 |
| 4 | PD2 | 1/0 | Printer data bit 2 |
| 5 | PD3 | 1/0 | Printer data bit 3 |
| 6 | PD4 | 1/0 | Printer data bit 4 |
| 7 | PD5 | 1/0 | Printer data bit 5 |
| 8 | PD6 | 1/0 | Printer data bit 6 |
| 9 | PD7 | 1/0 | Printer data bit 7 |
| 10 | ACK# | I | Acknowledge |
| 11 | BUSY | I | Busy |
| 12 | PE | I | Paper end |
| 13 | SLCT | I | Select |
| 14 | AFD# | 0 | Automatic feed |
| 15 | ERR# | I | Error |
| 16 | INIT# | О | Initialize printer |
| 17 | SLIN# | 0 | Select in |
| 18-25 | N/A | N/A | Ground signal |
| Shell | N/A | N/A | Frame ground |

Docking Connector

Use this connector to attach your computer to the optional docking device.



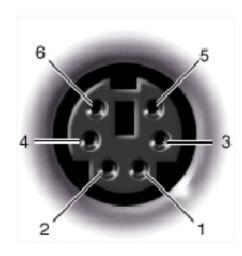
| Pin | Signal | Pin | Signal | Pin | Signal | Pin | Signal |
|-----|------------|-----|-----------|-----|--------------|-----|----------|
| 1 | STRB#/5V | 51 | HSYNC | 101 | VGA_GRN | 151 | GND |
| 2 | PD0 | 52 | VSYNC | 102 | GND | 152 | CLK_SPCI |
| 3 | PD1 | 53 | GND | 103 | VGA_RED | 153 | GND |
| 4 | PD2 | 54 | DOCKED | 104 | GND | 154 | SAD0 |
| 5 | PD3 | 55 | USB_VD1+ | 105 | VGA_BLU | 155 | SAD1 |
| 6 | PD4 | 56 | USB_VD1- | 106 | DOCK_SD/MODE | 156 | SAD2 |
| 7 | PD5 | 57 | GND | 107 | D_IRTX | 157 | SAD3 |
| 8 | PD6 | 58 | USB_VD2+ | 108 | D_IRRX | 158 | SAD4 |
| 9 | PD7 | 59 | USB_VD2- | 109 | GND | 159 | SAD5 |
| 10 | GND | 60 | DOCKOC1# | 110 | SPIRQB# | 160 | SAD6 |
| 11 | DOC_SPKR | 61 | RUN_ON# | 111 | SPIRQC# | 161 | GND |
| 12 | DOCK_MIC | 62 | GND | 112 | DAT_DDC2 | 162 | SAD7 |
| 13 | DOCK_LINE | 63 | NC | 113 | CLK_DDC2 | 163 | SAD8 |
| 14 | DOCK_CDROM | 64 | DOCK_SCLK | 114 | SPAR | 164 | SC/BE0# |
| 15 | GND | 65 | DOCK_LRCK | 115 | SPME# | 165 | SAD9 |
| 16 | M_SEN# | 66 | DOCK_MCLK | 116 | GND | 166 | SAD10 |

| 17 | POWER_SW# | 67 | GND | 117 | SSERR# | 167 | SAD11 |
|----|--------------|----|-------------|-----|--------------|-----|---------|
| 18 | QPCIEN# | 68 | +12V | 118 | SPERR# | 168 | SAD12 |
| 19 | S1.6M_EN# | 69 | AFD# | 119 | SLOCK# | 169 | GND |
| 20 | DFDD/LPT# | 70 | ERROR# | 120 | SSTOP# | 170 | SAD13 |
| 21 | GND | 71 | ACK# | 121 | GND | 171 | SAD14 |
| 22 | NC | 72 | GND | 122 | SDEVSEL# | 172 | SAD15 |
| 23 | NC | 73 | INIT# | 123 | STRDY# | 173 | SAD16 |
| 24 | D_ATCTLED | 74 | SLCT_IN# | 124 | SIRDY# | 174 | SC/BE1# |
| 25 | D_PWRLED | 75 | BUSY | 125 | SFRAME# | 175 | SC/BE2# |
| 26 | DOCK_PWR_SRC | 76 | PE | 126 | SCLKRUN# | 176 | GND |
| 27 | DOCK_PWR_SRC | 77 | SLCT | 127 | GND | 177 | SAD17 |
| 28 | DOCK_PWR_SRC | 78 | GND | 128 | SGNTA# | 178 | SAD18 |
| 29 | GND | 79 | DAT_SMB | 129 | SREQA# | 179 | SAD19 |
| 30 | +5VDOCK | 80 | DCLK_SMB | 130 | SGNTO# | 180 | SAD20 |
| 31 | +5VDOCK | 81 | SMB_INIT# | 131 | SREQ0# | 181 | SAD21 |
| 32 | +5VDOCK | 82 | GND | 132 | SPCIRST# | 182 | GND |
| 33 | +5VDOCK | 83 | DAT_DOCSM1 | 133 | SH1SEL# | 183 | SAD22 |
| 34 | +5VDOCK | 84 | CLK_DOCKSM1 | 134 | GND | 184 | SAD23 |
| 35 | GND | 85 | DAT_DOCKBD | 135 | SWRPRT# | 185 | SAD24 |
| 36 | DOCK_PWR_SRC | 86 | CLK_DOCKBD | 136 | SDSKCHG#/DRQ | 186 | SC/BE3# |
| 37 | DOCK_PWR_SRC | 87 | GND | 137 | SDIR# | 187 | SAD25 |
| 38 | DOCK_PWR_SRC | 88 | R10 | 138 | STRKO# | 188 | GND |
| 39 | DOCK_PWR_SRC | 89 | CTS0 | 139 | SSTEP# | 189 | SAD26 |
| 40 | GND | 90 | RTS0 | 140 | SDRV1# | 190 | SAD27 |
| 41 | DOCK_+DC_IN | 91 | DSR0 | 141 | GND | 191 | SAD28 |
| 42 | DOCK_+DC_IN | 92 | GND | 142 | SMRT1# | 192 | SAD29 |
| 43 | DOCK_+DC_IN | 93 | DTR0 | 143 | SWRDATA# | 193 | SAD30 |
| 44 | DOCK_+DC_IN | 94 | TXD0# | 144 | SWGATE# | 194 | SAD31 |
| 45 | DOCK_+DC_IN | 95 | RXD0# | 145 | SRDATA# | 195 | GND |
| 46 | DOCK_+DC_IN | 96 | DCD0 | 146 | SINDEX# | 196 | NC |
| 47 | DOCK_+DC_IN | 97 | NC | 147 | GND | 197 | NC |

| 48 | DOCK_+DC_IN | 98 | +5VSUS | 148 | NC | 198 | NC |
|----|-------------|-----|--------|-----|--------|-----|-----|
| 49 | GND | 99 | NC | 149 | +5VALW | 199 | NC |
| 50 | LOW_PWR | 100 | NC | 150 | NC | 200 | GND |

PS/2 Connector

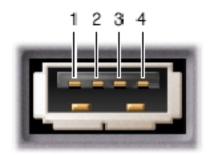
Use the 6-hole, miniature DIN PS/2 connector to attach PS/2-compatible devices such as a mouse, keyboard, or external numeric keypad. If you reconfigure your hardware, you may need pin number and signal information for the PS/2 connector.



| Pin | Signal | 1/0 | Definition | |
|-------|--------------|------|---|--|
| | EVIZ NACDATA | 1.40 | | |
| 1 | EXK_MSDATA | 1/0 | External keyboard/keypad/mouse data | |
| 2 | KBD_DATA | I | Keyboard data | |
| 3 | GND | N/A | Signal ground | |
| 4 | EXK_MSPWR | N/A | External keyboard/keypad/mouse supply voltage | |
| 5 | EXK_MSCLK | 1/0 | External keyboard/keypad/mouse clock | |
| 6 | KBD_CLK | I | Keyboard clock | |
| Shell | N/A | N/A | Chassis ground | |

USB Connector

Use the USB connector to attach one or more USB devices, such as a mouse, to the computer. USB is a peripheral standard that enables automatic detection of USB-compliant peripheral devices.



| Pin | Signal | Definition |
|-----|--------|--------------|
| 1 | VCC | Cable power |
| 2 | – Data | N/A |
| 3 | +Data | N/A |
| 4 | Ground | Cable ground |

Video Connector

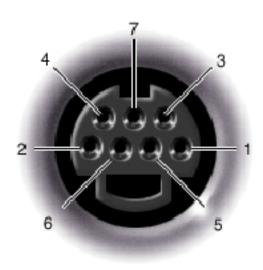
Use the 15-pin video connector to attach an external monitor to the computer. If the image does not appear on the monitor immediately, press



| Pin | Signal | 1/0 | Definition |
|-------|-------------|-----|--|
| | | | |
| 1 | RED | О | Red video |
| 2 | GREEN | О | Green video |
| 3 | BLUE | О | Blue video |
| 4 | DDC2_MONID2 | I | Monitor detect ID2 |
| 5 | GND | N/A | Signal ground |
| 6 | GND | N/A | Signal ground |
| 7 | GND | N/A | Signal ground |
| 8 | GND | N/A | Signal ground |
| 9 | CRTVCC | О | 5-V power source for CRT |
| 10 | GND | N/A | Signal ground |
| 11 | M-SEN# | I | Digital monitor sense/monitor detect ID1 |
| 12 | DDC_DATA | I | Monitor detect serial data |
| 13 | HSYNC | О | Horizontal synchronization |
| 14 | VSYNC | О | Vertical synchronization |
| 15 | DDC_CLK | 1 | Monitor Detect serial clock |
| Shell | N/A | N/A | Frame ground |

S-Video TV-Out Connector

Use this connector to connect your computer to a television.



| S-Video | | | | | |
|---------|---------|--|--|--|--|
| Pin | Signal | | | | |
| 1 | GND | | | | |
| 2 | GND | | | | |
| 3 | DLUMA-L | | | | |
| 4 | DCRMA-L | | | | |

| Composite Video | |
|-----------------|---------|
| Pin | Signal |
| 5 | NC |
| 6 | DCMPS-L |
| 7 | GND |

Removing and Replacing Parts

Dell™ Inspiron™ 4150

- Before You Remove or Replace Parts
- System Components
- Palm Rest and Display Cover Inserts
- Hard Drive
- Memory Modules, Mini PCI Card, and Modem
- Keyboard
- Display, Display Assembly,Display Latch, and Hinge Covers
- Palm Rest

- Microprocessor Thermal Cooling Assembly
- Microprocessor
- Hybrid Cooling Fan
- Reserve Battery
- Speakers
- System Board
- Battery and Module Bay Latches

Documentation: Dell Inspiron 4150

Back to Contents Page

Documentation

Dell™ Inspiron™ 4150

- Printed Documentation
- Online Documentation

Printed Documentation



You must right-click the link for a portable document format (PDF) file and save the file to your hard drive. Attempting to open large PDF files through your browser causes your computer to stop responding.

To save PDF files (files with an extension of .pdf) to your hard drive, right-click the document title, click **Save Target As** in Microsoft® Internet Explorer or **Save Link As** in Netscape Navigator, and specify a location on your hard drive.

Right-click only the following link:

<u>Getting Started sheet</u> (.pdf) (2.75 MB)

<u>Dell Inspiron 4150 Owner's Manual</u> (.pdf) (2.34 MB)

Dell Inspiron 4150 Removing and Installing Parts (.pdf) (657 KB)



HINT: PDF files require Adobe[™] Acrobat Reader, which can be downloaded from the Adobe website at: **www.adobe.com**. To view a PDF file, launch Acrobat Reader. Click **File**→ **Open** and select the PDF file.

Online Documentation



Compiled HTML Help files (files with an extension of .chm) require Microsoft Internet Explorer 4.0 or later.

Downloading the Inspiron 4150 Tell Me How Help File

1. Click the appropriate button to download the zipped file and save it to your hard drive.



- 2. Go to the directory location you specified when you saved the file.
- 3. Double-click the .exe file you downloaded. The WinZip Self-Extractor dialog box appears.
- 4. Specify the location to save the unzipped files to and click **Unzip**. A message appears, stating that the files unzipped successfully.
- 5. Click OK.
- 6. Click Close.

Viewing Tell Me How

- 1. Open the folder in which you saved the file.
- 2. Double-click the filename.