




# Dell™ Vostro™ 1220 Service Manual

[Working on Your Computer](#)  
[Adding and Replacing Parts](#)  
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## Notes, Cautions, and Warnings

-  **NOTE:** A NOTE indicates important information that helps you make better use of your computer.
-  **CAUTION:** A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.
-  **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

If you purchased a Dell™ n Series computer, any references in this document to Microsoft® Windows® operating systems are not applicable.

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## System Setup

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• [Entering System Setup](#)

• [<F12> Boot Menu](#)

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### Entering System Setup

Press <F2> to enter System Setup and change the user-definable settings. If you have difficulty entering System Setup using this key, press <F2> when the keyboard LEDs first flash.

### Navigation

Use the following keystrokes to navigate the BIOS screens.

| Navigation Keystrokes     |  |
|---------------------------|--|
| Action                    | Keystroke  |
| Expand and collapse field | <Enter>, left- or right-arrow key                              |
| Exit BIOS                 | <Esc> or <Alt + F4> — Remain in Setup, Save/Exit, Discard/Exit |
| Change a setting          | Arrow key And <Enter>, or Arrow key and <Space>                |
| Select field to change    | <Tab>  |
| Reset defaults            | <b>Load Defaults</b> menu option                               |

### <F12> Boot Menu

Press <F12>, when the Dell logo appears, to initiate a one-time boot menu with a list of the valid boot devices for the computer. **Diagnostics** and **Enter Setup** options are also included in this menu. The devices listed on the boot menu depend on the bootable devices in the system. This menu is useful when you are attempting to boot to a particular device or to bring up the diagnostics for the system. Using the boot menu does not make any changes to the boot order stored in the BIOS.

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## Diagnostics

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- [Device Status](#)
- [Battery Status](#)
- [Keyboard Status](#)
- [LED Error Codes](#)

## Device Status LEDs

Device status LEDs are a good source for diagnosing common problems that may occur on your computer.

-  Turns on when you turn on the computer and blinks when the computer is in a power management mode.
-  Turns on when the computer reads or writes data.
-  Turns on steadily or blinks to indicate battery charge status.
-  Turns on when wireless networking is enabled.
-  Turns on when a card with Bluetooth® wireless technology is enabled. To turn off only the Bluetooth wireless technology function, right-click the icon in the system tray and select **Disable Bluetooth Radio**.

## Battery Status

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

- 1. **Alternately blinking amber light and blue light** — An unauthenticated or unsupported, non-Dell AC adapter is attached to your computer.
- 1. **Alternately blinking amber light with steady blue light** — Temporary battery failure with AC adapter present.
- 1. **Constantly blinking amber light** — Fatal battery failure with AC adapter present.
- 1. **Light off** — Battery in full charge mode with AC adapter present.
- 1. **Blue light on** — Battery in charge mode with AC adapter present.




## Battery Charge and Health

To check the battery charge, press and release the status button on the battery charge gauge to illuminate the charge-level lights. Each light represents approximately 20 percent of the total battery charge. For example, if four lights are on, the battery has 80 percent of its charge remaining. If no lights appear, the battery has no charge.



To check the battery health using the charge gauge, press and hold the status button on the battery charge gauge for at least three seconds. If no lights appear, the battery is in good condition and more than 80 percent of its original charge capacity remains. Each light represents incremental degradation. If five lights appear, less than 60 percent of the charge capacity remains, and you should consider replacing the battery.









## Keyboard Status LEDs

The green lights located above the keyboard indicate the following:

-  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.

## LED Error Codes

| Appearance   | Description          | Next Step   |
|--|----------------------|---|
| <b>ON-FLASH-FLASH</b><br> | No SODIMMs Installed | <ol style="list-style-type: none"><li>1. Install supported memory modules.</li><li>2. If memory is already present, reseat the module(s) one at time in each slot.</li><li>3. Try known good memory from another computer or replace the memory.</li><li>4. Replace the system board.</li></ol> |
| <b>FLASH-ON-ON</b><br>    | System Board Error   | <ol style="list-style-type: none"><li>1. Reseat the processor.</li><li>2. Replace the system board.</li><li>3. Replace the processor.</li></ol>   |
| <b>FLASH-ON-FLASH</b>  |                      |   |

|  |                                |  |
|--|--------------------------------|--|
|   | LCD Panel Error                | <ol style="list-style-type: none"> <li>1. Reseat the LCD cable.</li> <li>2. Replace the LCD panel.</li> <li>3. Replace the video card/system board.</li> </ol>   |
| <p style="text-align: center;">OFF-FLASH-OFF</p>      | Memory Compatibility Error     | <ol style="list-style-type: none"> <li>1. Install compatible memory modules.</li> <li>2. If two modules are installed, remove one and test.</li> <li>3. Try the second module in the same slot and test.</li> <li>4. Test the other slot with both modules.</li> <li>5. Replace the memory.</li> <li>6. Replace the system board.</li> </ol> |
| <p style="text-align: center;">ON-FLASH-ON</p>        | Memory Detected But Has Errors | <ol style="list-style-type: none"> <li>1. Reseat the memory.</li> <li>2. If two modules are installed, remove one and test.</li> <li>3. Try the second module in the same slot and test.</li> <li>4. Test the other slot with both modules.</li> <li>5. Replace the memory.</li> <li>6. Replace the system board.</li> </ol>                 |
| <p style="text-align: center;">OFF-FLASH-FLASH</p>    | Modem Error                    | <ol style="list-style-type: none"> <li>1. Reseat the modem.</li> <li>2. Replace the modem.</li> <li>3. Replace the system board.</li> </ol>  |
| <p style="text-align: center;">FLASH-FLASH-FLASH</p>  | System Board Error             | <ol style="list-style-type: none"> <li>1. Replace the system board.</li> </ol>   |
| <p style="text-align: center;">FLASH-FLASH-OFF</p>    | Option ROM Error               | <ol style="list-style-type: none"> <li>1. Reseat the device.</li> <li>2. Replace the device.</li> <li>3. Replace the system board.</li> </ol>  |
| <p style="text-align: center;">OFF-ON-OFF</p>        | Storage Device Error           | <ol style="list-style-type: none"> <li>1. Reseat the hard drive and optical drive.</li> <li>2. Test the computer with just the hard drive and just the optical drive.</li> <li>3. Replace the device that is causing the failure.</li> <li>4. Replace the system board.</li> </ol>   |
| <p style="text-align: center;">FLASH-FLASH-ON</p>   | Video Card Error               | <ol style="list-style-type: none"> <li>1. Replace the system board.</li> </ol>   |

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## Adding and Replacing Parts

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  - [Keyboard](#)
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  - [Bluetooth Module](#)
  - [Hard Drive](#)
  - [Fan](#)
  - [Heat Sink and Processor](#)
  - [Speaker](#)
  - [LCD Inverter](#)
  - [LCD Panel](#)
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  - [Access Panel](#)
  - [WLAN Card](#)
  - [Hinge Cover](#)
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# Specifications

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 **NOTE:** Offerings may vary by region. For more information regarding the configuration of your computer, click **Start**  (or **Start** in Windows® XP)→ **Help and Support**, and then select the option to view information about your computer.

| Processors     |   |
|----------------|---|
| Processor type | Intel® Celeron®, Intel Celeron Dual Core, or Intel Core™2 Duo |

| System Information |            |
|--------------------|------------|
| Chipset            | Intel GM45 |

| ExpressCard™ The ExpressCard slot is designed only for ExpressCards. It does NOT support PC Cards. |  |
|--|--|
| ExpressCard connector  | ExpressCard slot (supports both USB and PCIe based interfaces) |
| Cards supported  | 34 mm ExpressCards   |

| Secure Digital (SD) Memory Card Reader |                    |
|--|--------------------|
| Cards supported                        | 34 mm ExpressCards |

| Memory                  |                     |
|-------------------------|---------------------|
| Memory module connector | 2 DIMM slots        |
| Memory module capacity  | 1 GB, 2 GB, or 4 GB |
| Memory type             | DDR2 800 MHz        |
| Minimum memory          | 1 GB                |
| Maximum memory          | 8 GB                |

| Communications  |   |
|-----------------|---|
| Network adapter | 10/100/1000 Ethernet LAN on system board            |
| Wireless        | WLAN half Mini-Card, Bluetooth® wireless technology |

| Connectors      |  |
|-----------------|--|
| Audio           | Microphone connector, mono headphones/speakers connector |
| Mini-Card       | One dedicated half Mini-Card slot for WLAN               |
| Network adapter | RJ-45 connector  |
| USB             | two 4-pin USB 2.0-compliant connectors                   |

|       |                       |
|-------|-----------------------|
| Video | 15-hole VGA connector |
|-------|-----------------------|

| <b>Audio</b>               |  |
|----------------------------|--|
| Audio type                 | Two-channel high-definition audio codec                            |
| Audio controller           | CONEXANT CX20583   |
| Stereo conversion          | 24-bit (analog-to-digital and digital-to-analog)                   |
| Interfaces:                |  |
| Internal                   | Internal high definition audio                                     |
| External                   | Microphone-in connector, stereo headphones/speakers mini-connector |
| Speakers                   | 2 two-watt, 4-ohm speakers   |
| Internal speaker amplifier | 2-W channel, 4 ohms  |
| Internal microphone        | Single digital microphone  |
| Volume controls            | Volume control buttons   |

| <b>Graphics</b>   |  |
|-------------------|--|
| <b>Integrated</b> |  |
| Video controller  | Mobile Intel GMA X4500 Graphics Controller |
| Data bus          | Integrated video                           |
| Video memory      | Up to 256 MB of shared memory              |
| Video output      | Video connector and multimode DisplayPort  |

| <b>Keyboard</b> |   |
|-----------------|---|
| Number of keys  | 84 (U.S. and U.K.); 84 (Europe); 87 (Japan) |
| Layout          | QWERTY/AZERTY/Kanji                         |

| <b>Display</b>                  |   |
|---------------------------------|---|
| Type (active-matrix TFT)        | WXGA  |
| Active area X/Y                 | 261.12 x 163.2                                    |
| Dimensions                      |   |
| Height                          | 178.8 mm (7.039 inches)                           |
| Width                           | 289.7 mm (11.41 inches)                           |
| Diagonal                        | 337.8 mm (13.3 inches)                            |
| Maximum Resolution              | 1280 x 800 at 262 K colors                        |
| Operating angle                 | 0° (closed) to 160°                               |
| Refresh rate                    | 60 Hz (40 Hz in All Day Battery Life (ADBL) mode) |
| Viewing angles                  |   |
| Horizontal                      | 40/40°  |
| Vertical                        | 15/30°  |
| Pixel pitch                     | 0.2235 mm (0.008799 inch)                         |
| Power Consumption               |   |
| (panel with backlight, typical) | 4.3 W (max)                                       |

| <b>Battery</b> |                        |
|----------------|------------------------|
| Type           | 4-cell and 6-cell      |
| Dimensions:    |                        |
| Depth          |                        |
| 4-cell         | 46.50 mm (1.83 inches) |
| 6-cell         | 46.50 mm (1.83 inches) |
| Height         |                        |
| 4-cell         | 35.85 mm (1.41 inches) |
| 6-cell         | 40.64 mm (1.60 inches) |
| Voltage        |                        |

|                    |                                  |
|--------------------|----------------------------------|
| 4-cell             | 12 V (minimum), 17.7 V (maximum) |
| 6-cell             | 9 V (minimum), 13.3 V (maximum)  |
| Temperature range: |                                  |
| Operating          | 0° to 50 °C (32° to 122°F)       |
| Storage            | -20° to 65°C (14° to 149°F)      |
| Coin-cell battery  | CR2032                           |

|   |                                       |
|---|---------------------------------------|
| <b>Touch Pad</b>                              |                                       |
| X/Y position resolution (graphics table mode) | 240 CPI                               |
| Size  |                                       |
| Width   | 68-mm (2.677-inch) sensor-active area |
| Height  | 37.63-mm (1.481-inch) rectangle       |

|                                      |           |
|--------------------------------------|-----------|
| <b>Fingerprint Reader (optional)</b> |           |
| Type                                 | Authentic |

|                         |  |
|-------------------------|--|
| <b>AC Adapter</b>       |  |
| Type                    | 65 Watt  |
| Input voltage           | 100–240 VAC  |
| Input current (maximum) | 1.5 A  |
| Input Frequency         | 50–60 Hz   |
| Output Current:         |  |
| 65 W                    | 43.34 A (maximum at 4 seconds pulse),<br>3.34 A (continuous) |
| Rated Output Voltage    | 19.5 VDC   |
| Temperature range:      |  |
| Operating               | 0° to 40° C (32° to 104° F)                                  |
| Storage                 | -40° to 70° C (-40° to 158° F)                               |

|   |                                 |
|---|---------------------------------|
| <b>Physical</b>   |                                 |
| Height:   |                                 |
| with a CCFL panel   | 23.5–37.6 mm (0.93–1.48 inches) |
| with a WLED panel   | 23.5–36.6 mm (0.93–1.44 inches) |
| Width   | 294.0 mm (11.57 inches)         |
| Depth   | 228.7 mm (9.00 inches)          |
| Weight:   |                                 |
| with a 4-cell battery, 128 GB SSD, WLED panel, and no optical drive | 152 kg (3.36 lbs)               |

|                              |                              |
|------------------------------|------------------------------|
| <b>Environmental</b>         |                              |
| 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)    |

|              |                            |
|--------------|----------------------------|
| <b>Video</b> |                            |
| Video type   | integrated on system board |
| Data bus     | integrated video           |



|                  |                        |
|------------------|------------------------|
| Video controller | Intel Extreme Graphics |
| Video memory     | up to 256 MB (shared)  |

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## Battery

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**⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

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### Removing the Battery



**🔧 NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure that all data is backed up properly.
3. Slide the battery release latches into the unlock position.
  
4. Remove the battery from the computer.



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## Access Panel

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### Removing the Access Panel



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure that all data is backed up properly.
3. Remove the [battery](#) from the computer.
4. Loosen the two captive screws securing the access panel.

5. Remove the access panel.



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## Memory

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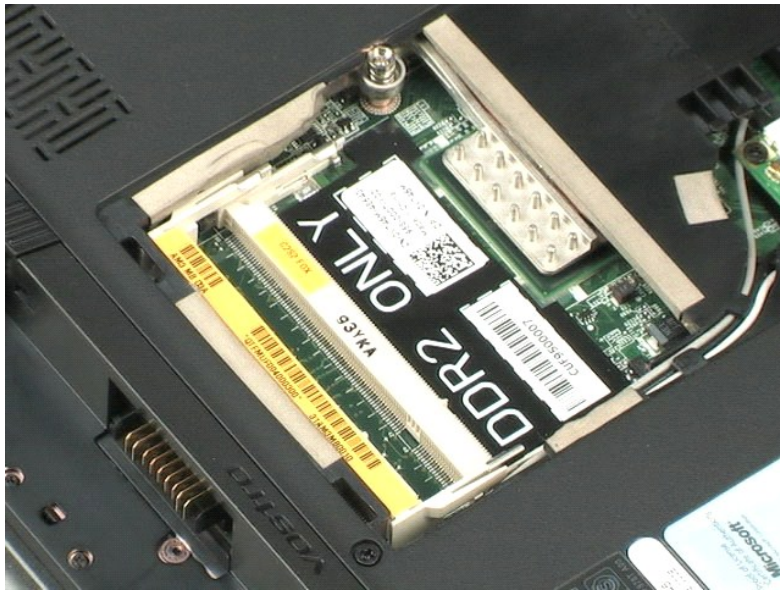
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### Removing the Memory



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the [battery](#) and the [access panel](#) from the computer.
4. Gently pry the memory retention clips away from the memory.
  
5. Remove the memory.
  
6. Repeat the previous steps for any additional memory needing servicing.



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## WLAN Card

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### Removing the WLAN Card



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the [battery](#) and the [access panel](#) from the computer.
4. Disconnect the antennas from the WLAN card.
  
5. Remove the screw that secures the WLAN card to the computer.
  
6. Remove the WLAN card from the computer.



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## Coin-Cell Battery

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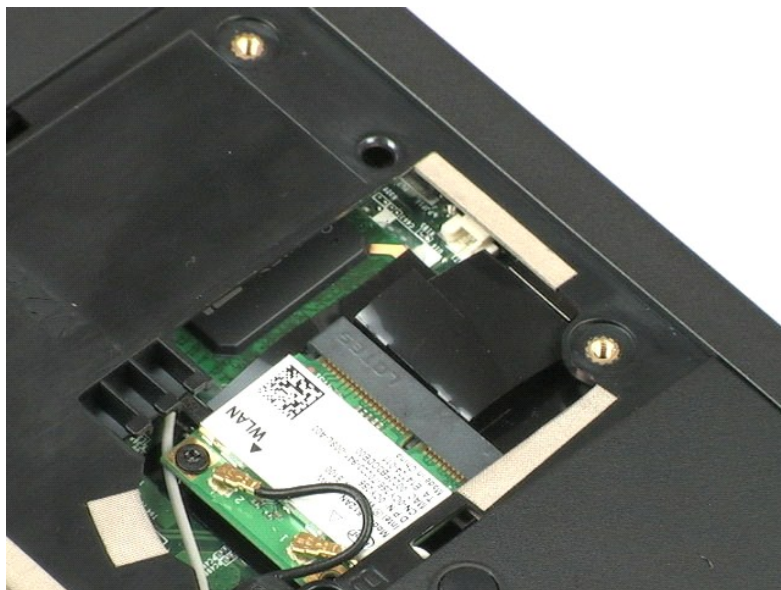
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### Removing the Coin-Cell Battery



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the [battery](#) and the [access panel](#) from the computer.
4. Disconnect the battery cable.
5. Remove the coin-cell battery.



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## Hinge Cover

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### Removing the Hinge Cover



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the [battery](#) from the computer.
4. Gently pry up the hinge cover.
  
5. Flip over the hinge cover toward the keyboard.
  
6. Disconnect the multimedia board cable.
  
7. Remove the hinge cover.



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## Keyboard

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### Removing the Keyboard



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery and the hinge cover from the system.
4. Remove the three screws securing the keyboard.
  
5. Flip over the keyboard.
  
6. Disconnect the keyboard cable.
  
7. Lift the keyboard away from the system.



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## Media Bay Device

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### Removing the Media Bay Device



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the [battery](#) from the computer.
4. Remove the one screw securing the media bay device in place.

5. Slide the media bay device out of the system.



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## LCD Assembly

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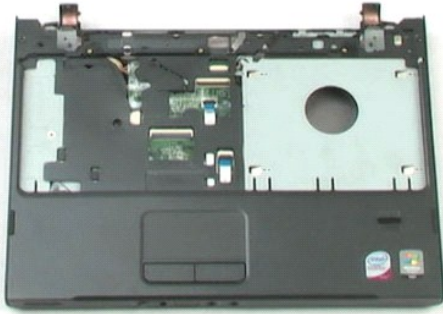
### Removing the LCD Assembly



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, and optical drive from the system.
4. Disconnect the antennas from the WLAN card (if installed).
  
5. Unroute the antenna cables.
  
  
  
  
  
  
  
  
  
  
6. Flip the system over and open the LCD.
  
  
  
  
  
  
  
  
  
  
7. Remove the screw securing the grounding cable.
  
  
  
  
  
  
  
  
  
  
8. Disconnect the LCD cable from the system board.
  
  
  
  
  
  
  
  
  
  
9. Finish unrouting the antenna cables.
  
  
  
  
  
  
  
  
  
  
10. Remove the six screws securing the LCD assembly.

11. Lift the LCD assembly away from the system.



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## Palm Rest

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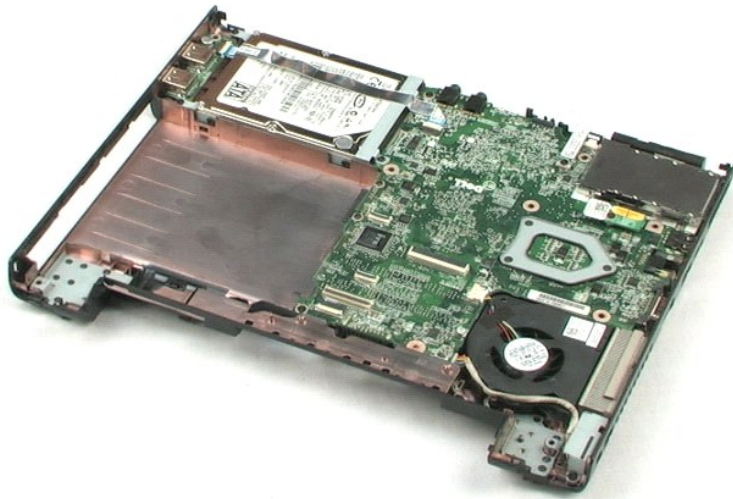
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### Removing Palm Rest



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, and LCD assembly from the system.
4. Remove the nine screws that secure the palm rest to the bottom of the computer.
  
5. Turn the computer over.
  
6. Remove the three screws that secure the palm rest to the top of the computer.
  
7. Disconnect the palm rest cable from the system board.
  
8. Disconnect the palm rest cable from the system board.
  
9. Carefully remove the palm rest from the computer.



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## Internal Module With Bluetooth® Wireless Technology

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### Removing the Bluetooth Module



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, and palm rest from the system.
4. Remove the screw securing the Bluetooth module.

5. Lift the Bluetooth module away from the system board.



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## TPM Module

Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

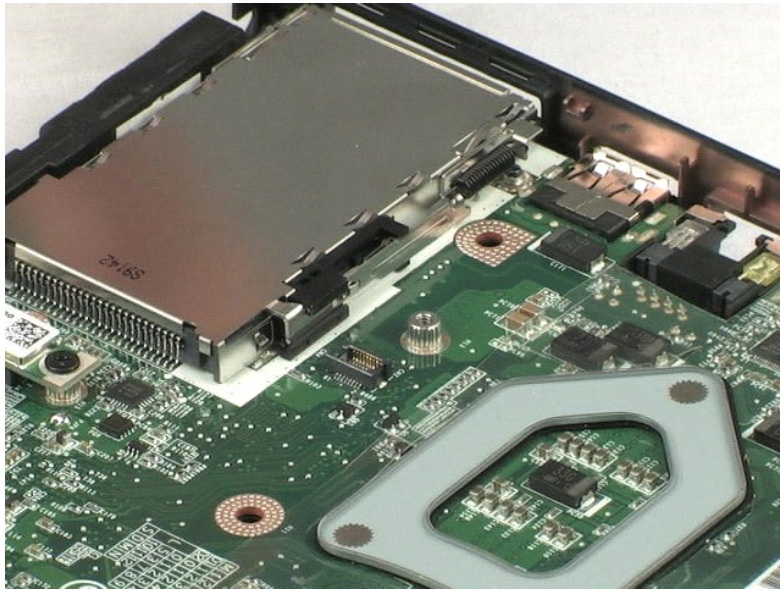
### Removing the TPM Module



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, and palm rest from the system.
4. Remove the screw securing the TPM module.

5. Lift the TPM module away from the system board.



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## Hard Drive

### Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

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## Removing the Hard Drive



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, and palm rest from the system.
4. Disconnect the USB cable that has been routed across the hard drive.
  
5. Remove the two screws that secure the back of the hard drive assembly to the computer.
  
6. Remove the two screws that secure the front of the hard drive assembly to the computer.
  
7. Slide the drive toward the I/O panel.
  
8. Lift the drive from the computer.
  
9. Remove the two screws that secure the hard drive bracket to one side of the hard drive.
  
10. Turn the drive around.
  
11. Remove the two screws that secure the hard drive bracket to the other side of the hard drive.
  
12. Lift the hard drive bracket from the hard drive.



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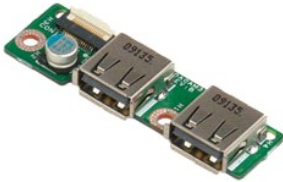
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## I/O Panel

Dell™ Vostro™ 1220 Service Manual

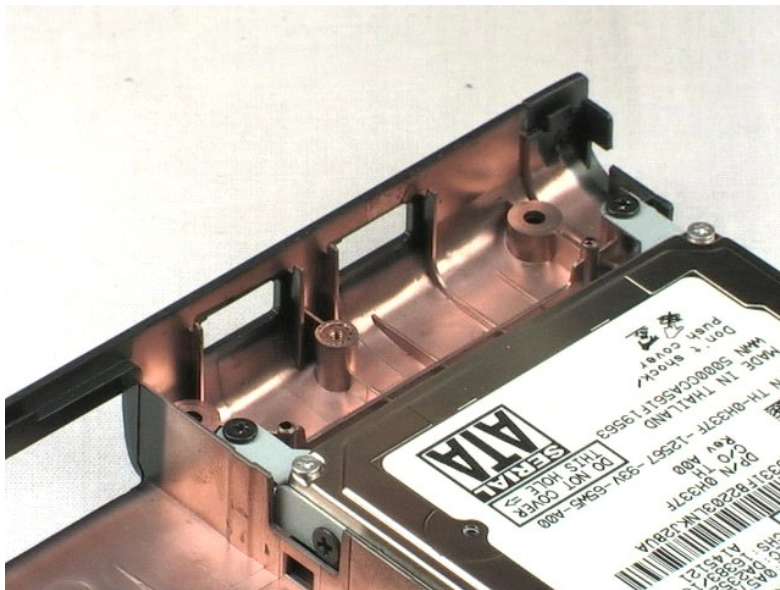
**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

### Removing the I/O Panel



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, and palm rest from the system.
4. Disconnect the I/O panel cable.
5. Remove the screw securing the I/O panel board.
6. Remove the I/O panel board from the system.



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## Fan

### Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

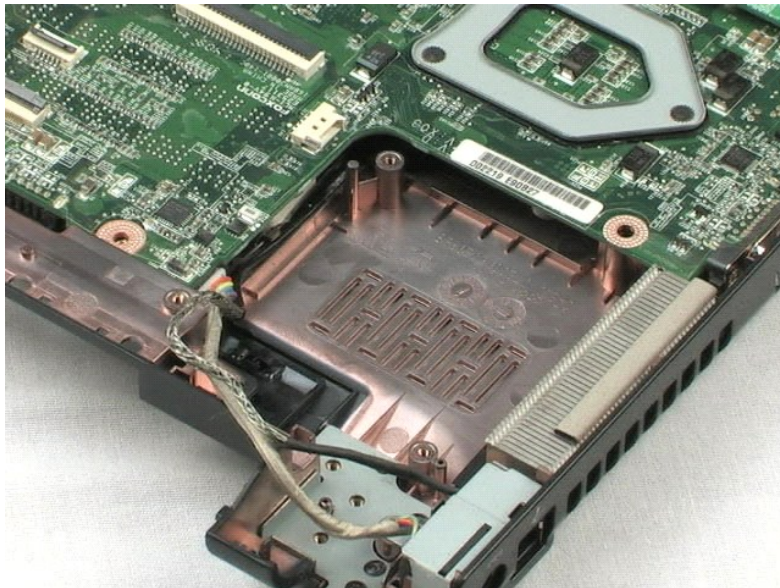
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## Removing the Fan



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, and palm rest from the system.
4. Disconnect the fan cable.
5. Unroute the cables routed through the fan.
6. Remove the screw securing the fan to the system.
7. Lift the fan out of the system.



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## System Board

Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

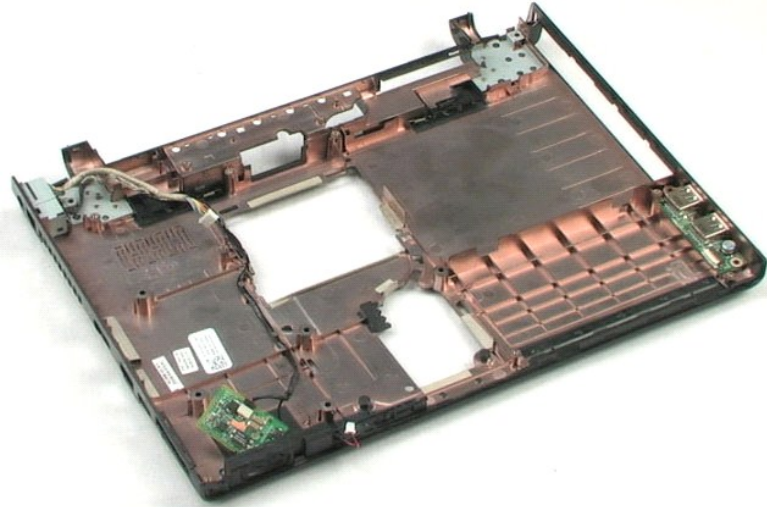
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### Removing the System Board



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, palm rest, Bluetooth® module, TPM module, hard drive, I/O panel board, and system fan from the system.
4. Disconnect the speaker cable from the system board.
  
5. Disconnect the power cable from the system board.
  
6. Remove the three screws securing the system board to the bottom plastics.
  
7. Gently flip the system board over.
  
8. Remove the screw securing the modem grounding cable.
  
9. Lift the modem away from the system board.
  
10. Lift the system board away from the system.



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## Heat Sink and Processor

Dell™ Vostro™ 1220 Service Manual

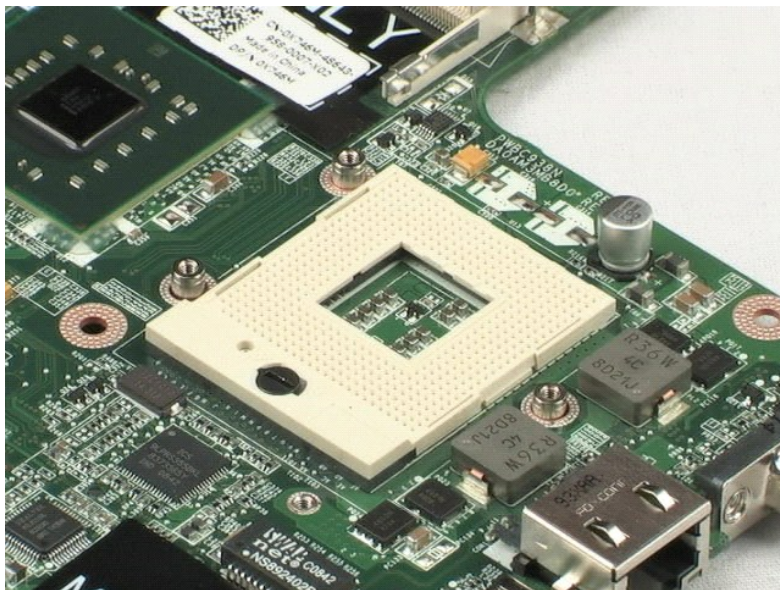
**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

### Removing the Heat Sink and Processor



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, palm rest, Bluetooth® module, TPM module, hard drive, I/O panel board, system fan, and system board from the computer.
4. Loosen the three screws securing the heat sink to the system board.
5. Lift the heat sink away from the system board.
6. Using a flathead screwdriver, rotate the locking cam counter clockwise.
7. Lift and remove the processor out of its socket.



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## Modem

### Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

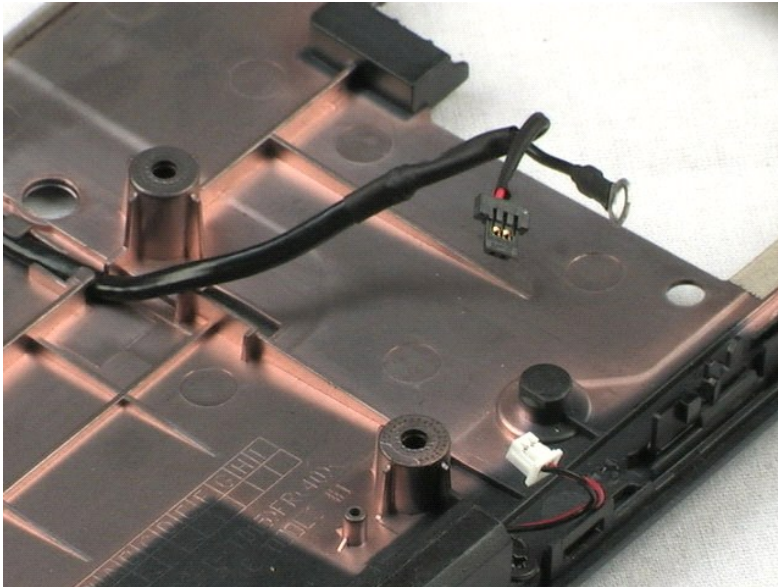
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## Removing the Modem



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, palm rest, Bluetooth® module, TPM module, hard drive, I/O panel board, system fan, and system board from the system.
4. Disconnect the modem cable from the modem and remove from the system.



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## Speaker

### Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

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## Removing the Speaker



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, keyboard, access panel, LCD assembly and system board from the system.
4. Disconnect the speaker cable from the system board.

5. Remove the two screws securing the speaker to the bottom plastics.

6. Remove the speaker from the system.



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## LCD Bezel

Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

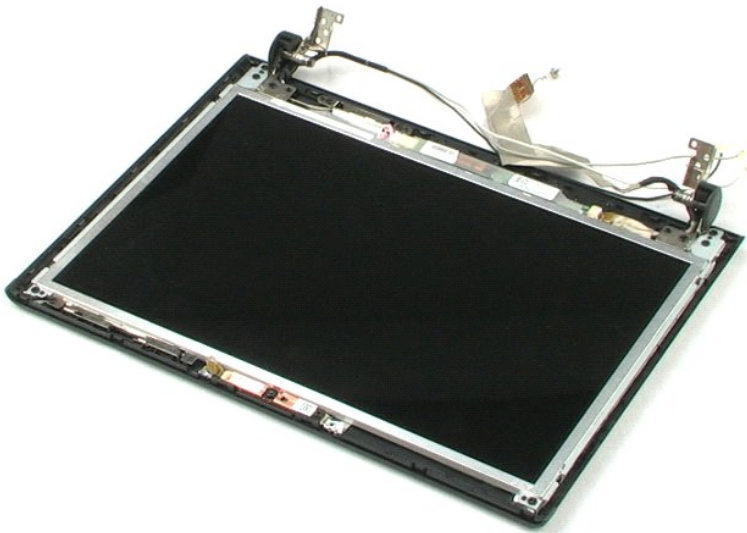
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### Removing the LCD Bezel



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, and LCD assembly from the system.
4. Gently pry the LCD bezel from the LCD assembly.
  
5. Lift the LCD bezel away from the LCD assembly.



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## LCD Inverter

Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

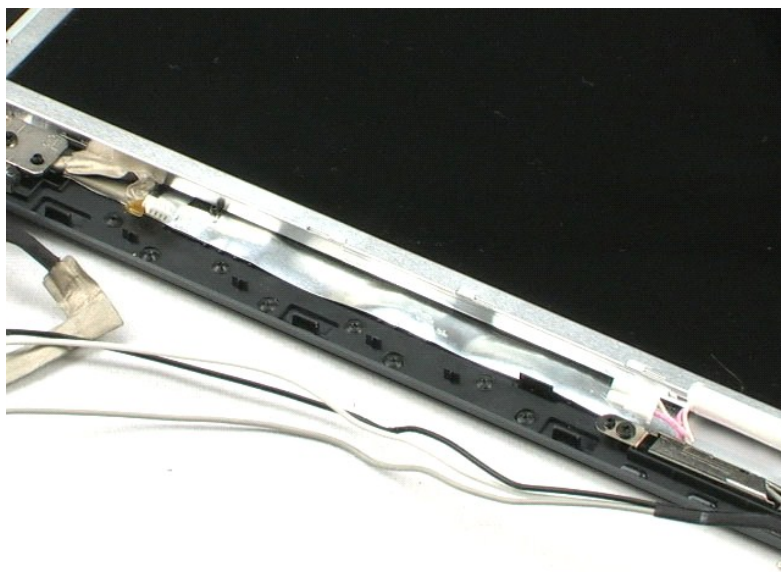
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### Removing the LCD Inverter



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, and LCD bezel from the system.
4. Disconnect the cable from the inverter.
5. Disconnect the other cable from the inverter.
6. Peel the LCD inverter away from the LCD assembly.



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## LCD Camera

Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

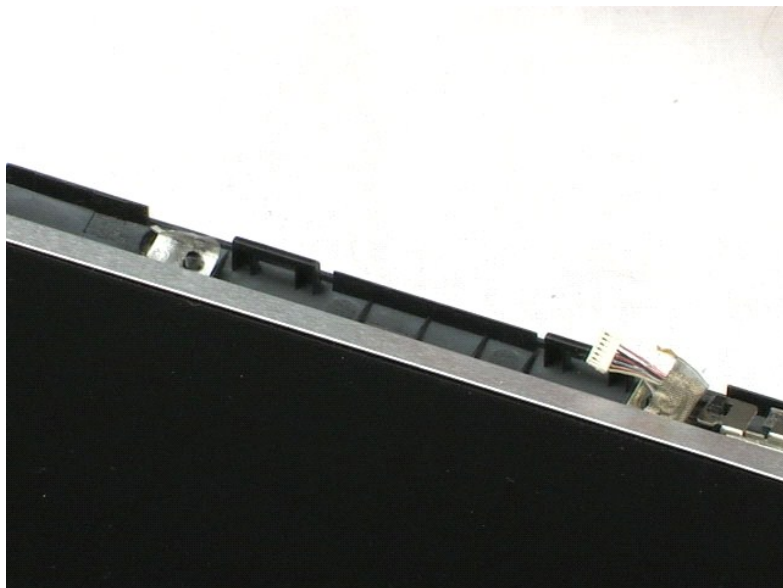
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### Removing the LCD Camera



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, and LCD bezel from the system.
4. Disconnect the camera cable from the camera.
  
5. Peel the camera away from the LCD assembly.



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## LCD Panel

Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

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### Removing the LCD Panel



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, and LCD bezel from the system.
4. Disconnect the camera cable from the camera.
  
5. Disconnect the white and pink cable from the LCD inverter.
  
6. Remove the six screws securing the LCD panel to the LCD assembly.
  
7. Flip the LCD panel over.
  
8. Disconnect the LCD cable from the LCD panel.
  
9. Lift the LCD panel away from the LCD plastics.





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## LCD Rails

Dell™ Vostro™ 1220 Service Manual

**WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

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### Removing the LCD Rails



**NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, LCD bezel and LCD panel from the system.
4. Remove the two screws from one of the LCD rails.
5. Remove the LCD rail away from the LCD panel.
6. Turn the LCD panel around.
7. Remove the two screws from the other LCD rail.
8. Remove the remaining LCD rail away from the LCD panel.



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## LCD Hinges

Dell™ Vostro™ 1220 Service Manual

**⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

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### Removing the LCD Hinges



**🔍 NOTE:** You may need to install Adobe Flash Player from [Adobe.com](http://Adobe.com) in order to view the illustrations below.

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. During installation or removal of ANY hardware, always ensure all data is backed up properly.
3. Remove the battery, hinge cover, keyboard, optical drive, LCD assembly, LCD bezel and LCD panel from the system.
4. Remove the screw securing the right hinge.
5. Remove the right hinge.
6. Remove the screw securing the left hinge.
7. Remove the left hinge.



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## Working on Your Computer







Dell™ Vostro™ 1220 Service Manual

- [Before Working Inside Your Computer](#)
  - [Recommended Tools](#)
  - [Turning Off Your Computer](#)
  - [After Working Inside Your Computer](#)
- 





### Before Working Inside Your Computer

Use the following safety guidelines to help protect your computer from potential damage and to help to ensure your personal safety. Unless otherwise noted, each procedure included in this document assumes that the following conditions exist:

- 1 You have performed the steps provided below.
- 1 You have read the safety information that shipped with your computer.
- 1 A component can be replaced or--if purchased separately--installed by performing the removal procedure in reverse order.

-  **WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).
-  **CAUTION:** Many repairs may only be done by a certified service technician. You should only perform troubleshooting and simple repairs as authorized in your product documentation, or as directed by the online or telephone service and support team. Damage due to servicing that is not authorized by Dell is not covered by your warranty. Read and follow the safety instructions that came with the product.
-  **CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface, such as a connector on the back of the computer.
-  **CAUTION:** Handle components and cards with care. Do not touch the components or contacts on a card. Hold a card by its edges or by its metal mounting bracket. Hold a component such as a processor by its edges, not by its pins.
-  **CAUTION:** When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.
-  **NOTE:** The color of your computer and certain components may appear differently than shown in this document.

To avoid damaging your computer, perform the following steps before you begin working inside the computer.

1. Ensure that your work surface is flat and clean to prevent the computer cover from being scratched.
  2. Turn off your computer (see [Turning Off Your Computer](#)).
  3. If the computer is connected to a docking device (docked) such as the optional Media Base or Battery Slice, undock it.
-  **CAUTION:** To disconnect a network cable, first unplug the cable from your computer and then unplug the cable from the network device.
4. Disconnect all network cables from the computer.
  5. Disconnect your computer and all attached devices from their electrical outlets.
  6. Close the display and turn the computer upside-down on a flat work surface.
-  **CAUTION:** To avoid damaging the system board, you must remove the main battery before you service the computer.
7. Remove the main battery (see [Removing the Battery](#)).
  8. Turn the computer top-side up.
  9. Open the display.
  10. Press the power button to ground the system board.
-  **CAUTION:** To guard against electrical shock, always unplug your computer from the electrical outlet before opening the display.
  -  **CAUTION:** Before touching anything inside your computer, ground yourself by touching an unpainted metal surface, such as the metal at the back of the computer. While you work, periodically touch an unpainted metal surface to dissipate static electricity, which could harm internal components.
11. Remove any installed ExpressCards or Smart Cards from the appropriate slots.
  12. Remove the hard drive (see [Removing the Hard Drive](#)).

### Recommended Tools

The procedures in this document may require the following tools:


- 1 Small flat-blade screwdriver
- 1 #0 Phillips screwdriver
- 1 #1 Phillips screwdriver
- 1 Small plastic scribe
- 1 Flash BIOS update program CD

### Turning Off Your Computer

-  **CAUTION:** To avoid losing data, save and close all open files and exit all open programs before you turn off your computer.

1. Shut down the operating system:

- 1 In Windows Vista®:

Click **Start** , then click the arrow in the lower-right corner of the **Start** menu as shown below, and then click **Shut Down**.



- 1 In Windows® XP:

Click **Start**→ **Turn Off Computer**→ **Turn Off**.

The computer turns off after the operating system shutdown process is complete.

2. Ensure that the computer and all attached devices are turned off. If your computer and attached devices did not automatically turn off when you shut down your operating system, press and hold the power button for about 4 seconds to turn them off.


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## After Working Inside Your Computer

After you complete any replacement procedure, ensure you connect any external devices, cards, and cables before turning on your computer.

 **CAUTION:** To avoid damage to the computer, use only the battery designed for this particular Dell computer. Do not use batteries designed for other Dell computers.

1. Connect any external devices, such as a port replicator, battery slice, or media base, and replace any cards, such as an ExpressCard.
2. Connect any telephone or network cables to your computer.

 **CAUTION:** To connect a network cable, first plug the cable into the network device and then plug it into the computer.

3. Replace the [battery](#).
4. Connect your computer and all attached devices to their electrical outlets.
5. Turn on your computer.

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