




Dell™ Vostro™ 1088 Service Manual

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[Adding and Replacing Parts](#)
[Specifications](#)
[Diagnostics](#)
[System Setup](#)

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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Access Panel

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Removing the Access Panel

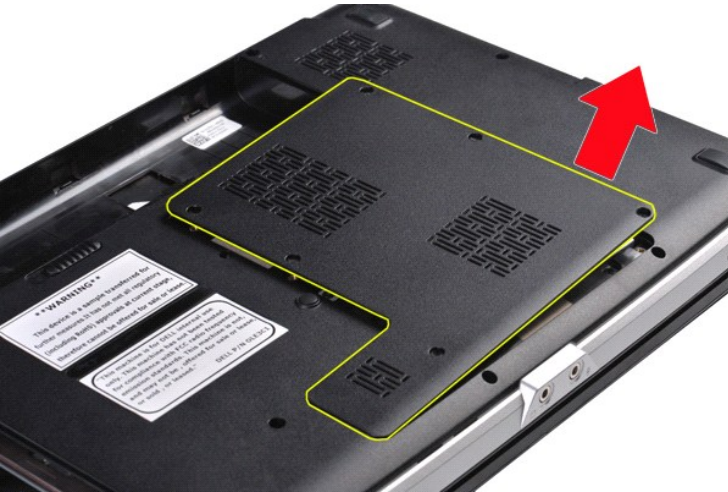
1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.



3. Remove the six screws that secure the access panel to the computer.



4. Remove the access panel from the computer.



Replacing the Access Panel

Perform the steps described above in reverse order to replace the access panel on your computer.

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Battery

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Removing the Battery

1. Follow the procedures in [Before Working Inside Your Computer](#).



2. Slide the battery latches apart while at the same time slipping your forefingers into the groove at the center of the battery and pushing outward to disengage the battery from the computer.



3. Lift the battery from the computer.



Replacing the Battery

Perform the steps described above in reverse order to replace the battery in your computer.

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Internal Card With Bluetooth® Wireless Technology

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Removing the Internal Card With Bluetooth Wireless Technology

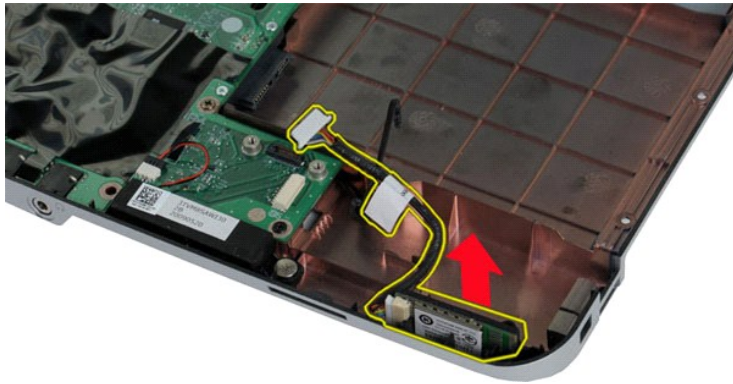
1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.
5. Remove the [WLAN card](#) from the computer.
6. Remove the [control panel cover](#) from the computer.
7. Remove the [keyboard](#) from the computer.
8. Remove the [display assembly](#) from the computer.
9. Remove the [palm rest](#) from the computer.
10. Remove the [I/O board](#) from the computer.



11. Disconnect the Bluetooth card cable from the connector on the system board.



12. Disengage the Bluetooth card cable from its routing groove, then lift and remove the Bluetooth card from the computer.



Replacing the Internal Card With Bluetooth Wireless Technology

Perform the steps described above in reverse order to replace the Bluetooth card in your computer.

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Coin-Cell Battery

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Removing the Coin-Cell Battery

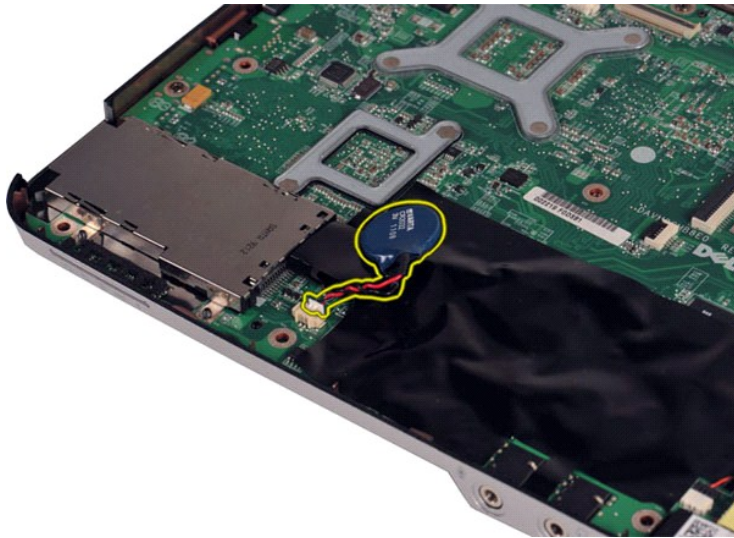
1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.
5. Remove the [WLAN card](#) from the computer.
6. Remove the [control panel cover](#) from the computer.
7. Remove the [keyboard](#) from the computer.
8. Remove the [display assembly](#) from the computer.
9. Remove the [palm rest](#) from the computer.



10. Pull the coin-cell battery from the plastic sleeve.



11. Disconnect the coin-cell battery cable from the connector on the system board, then lift and remove the coin-cell battery from the computer.



Replacing the Coin-Cell Battery

Perform the steps described above in reverse order to replace the coin-cell battery in your computer.

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Processor Fan

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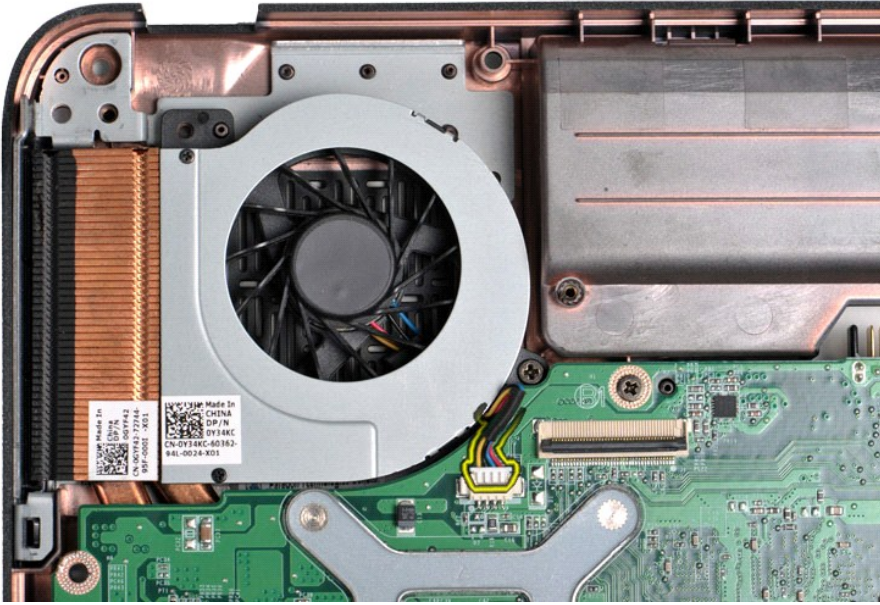


Removing the Processor Fan

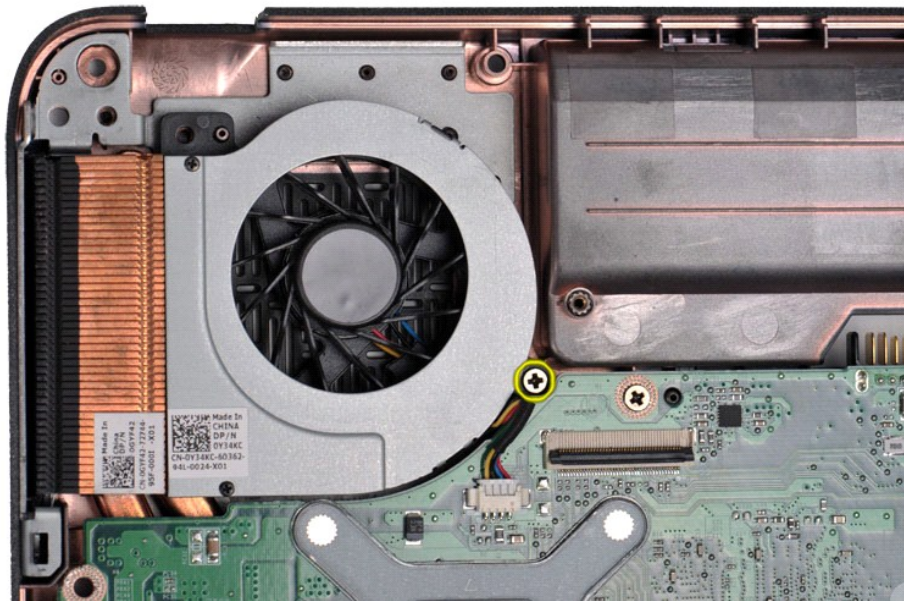
1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.
5. Remove the [WLAN card](#) from the computer.
6. Remove the [control panel cover](#) from the computer.
7. Remove the [keyboard](#) from the computer.
8. Remove the [display assembly](#) from the computer.
9. Remove the [palm rest](#) from the computer.



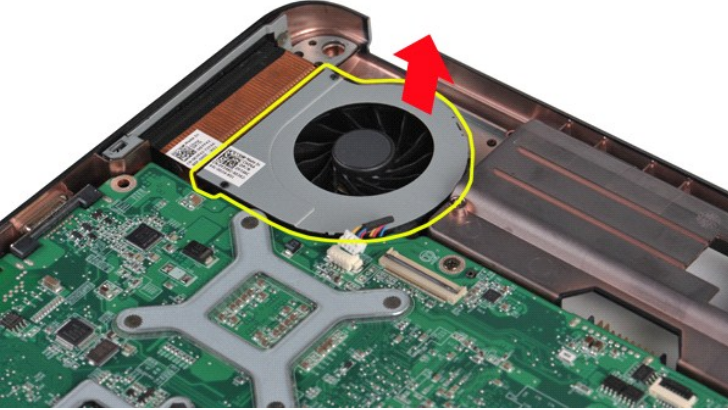
10. Disconnect the processor fan cable from the connector on the system board.



11. Remove the screw that secures the processor fan to the computer.



12. Lift the processor fan from the computer.



Replacing the Processor Fan

Perform the steps described above in reverse order to replace the processor fan in your computer.

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ExpressCard

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Removing the ExpressCard

1. Follow the procedures in [Before Working Inside Your Computer](#).



2. Press on the ExpressCard to release it from its slot in the computer.



3. Slide the ExpressCard from the computer.



Replacing the ExpressCard

Perform the steps described above in reverse order to replace the ExpressCard in your computer.

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Hard Drive

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- [Removing the Hard Drive Assembly](#)
- [Replacing the Hard Drive Assembly](#)
- [Removing the Hard Drive Bracket](#)
- [Replacing the Hard Drive Bracket](#)
- [Removing the Hard Drive Interposer](#)
- [Replacing the Hard Drive Interposer](#)

Removing the Hard Drive Assembly

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.



4. Remove the four screws that secure the hard drive assembly to the computer.



5. Pull the plastic tab toward the opposite end of the hard drive assembly to disengage the hard drive interposer from the connector on the system board, then lift the hard drive assembly from the computer.



Replacing the Hard Drive Assembly

Perform the steps described above in reverse order to replace the hard drive in your computer.

Removing the Hard Drive Bracket



1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.



5. Remove the four screws, two on either side of the bracket, that secure the hard drive to the hard drive bracket.



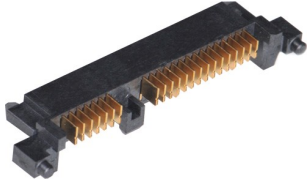
6. Lift the bracket from the hard drive.



Replacing the Hard Drive Bracket

Perform the steps described above in reverse order to replace the hard drive into the hard drive bracket.

Removing the Hard Drive Interposer



1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.



5. Tugging gently, remove the hard drive interposer from the hard drive.



Replacing the Hard Drive Interposer

Perform the steps described above in reverse order to replace the hard drive interposer on the hard drive.

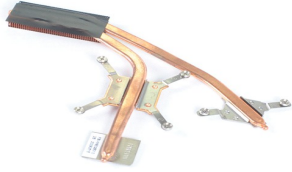
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Heat Sink

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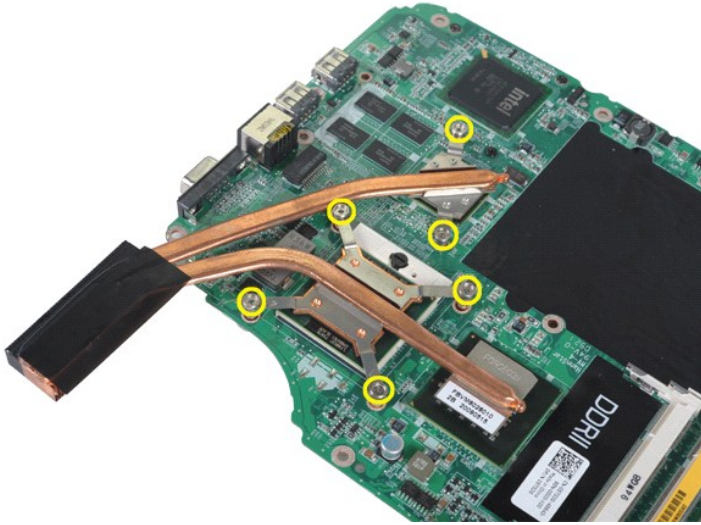


Removing the Heat Sink

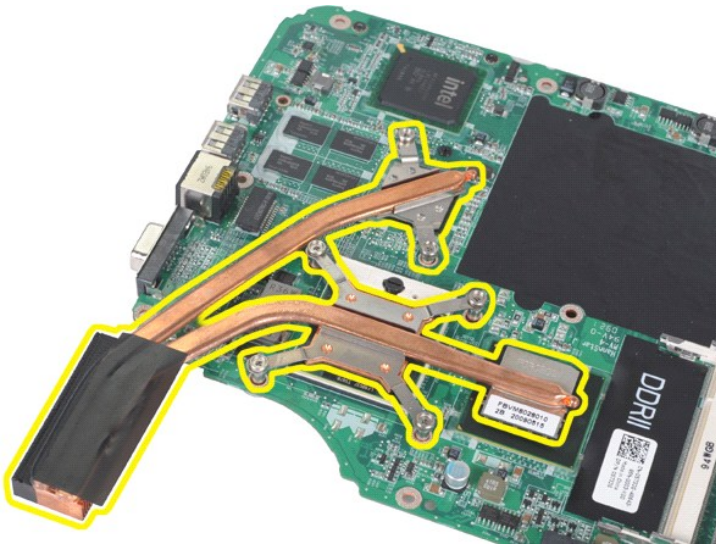
1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [ExpressCard](#) from the computer if applicable.
3. Remove the [memory card](#) from the computer if applicable.
4. Remove the [battery](#) from the computer.
5. Remove the [access panel](#) from the computer.
6. Remove the [hard drive](#) from the computer.
7. Remove the [memory modules](#) from the computer.
8. Remove the [WLAN card](#) from the computer.
9. Remove the [control panel cover](#) from the computer.
10. Remove the [keyboard](#) from the computer.
11. Remove the [display assembly](#) from the computer.
12. Remove the [palm rest](#) from the computer.
13. Remove the [processor fan](#) from the computer.
14. Remove the [I/O board](#) from the computer.
15. Remove the [Bluetooth® wireless card](#) from the computer.
16. Remove the [system board](#) from the computer.
17. Set aside the computer chassis and place the system board on a clean, dry surface.



18. Loosen the six screws that secure the heat sink to the system board.



19. Remove the heat sink from the system board.



Replacing the Heat Sink

Perform the steps described above in reverse order to replace the heat sink onto your system board.

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Control Panel Cover

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Removing the Control Panel Cover

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.



3. Remove the three control panel cover screws from the bottom of the computer.



4. Detach the four control panel cover clips located inside the battery well.



5. Remove the control panel cover from the computer.



Replacing the Control Panel Cover

Perform the steps described above in reverse order to replace the control panel cover in your computer.

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Keyboard

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Removing the Keyboard

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [control panel cover](#) from the computer.



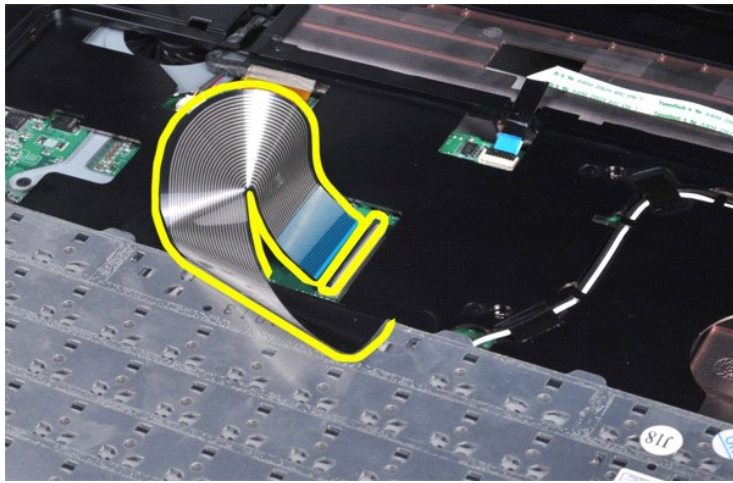
4. Remove the two screws that secure the keyboard to the computer.



5. Flip over the keyboard and lay it on the palm rest. Ensure that you do not place pressure on the keyboard cable located on the bottom of the keyboard.



6. Open the keyboard data clip and detach the keyboard cable from the system board.



7. Remove the keyboard from the computer.



Replacing the Keyboard

Perform the steps described above in reverse order to replace the keyboard in your computer.

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Display

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- [Removing the Display Assembly](#)
- [Replacing the Display Assembly](#)
- [Removing the Display Bezel](#)
- [Replacing the Display Bezel](#)
- [Removing the Display LCD Panel](#)
- [Replacing the Display LCD Panel](#)
- [Replacing the Display Camera](#)
- [Removing the Display Camera](#)
- [Replacing the Display Camera](#)
- [Removing the Display Inverter Cable](#)
- [Replacing the Display Inverter Cable](#)

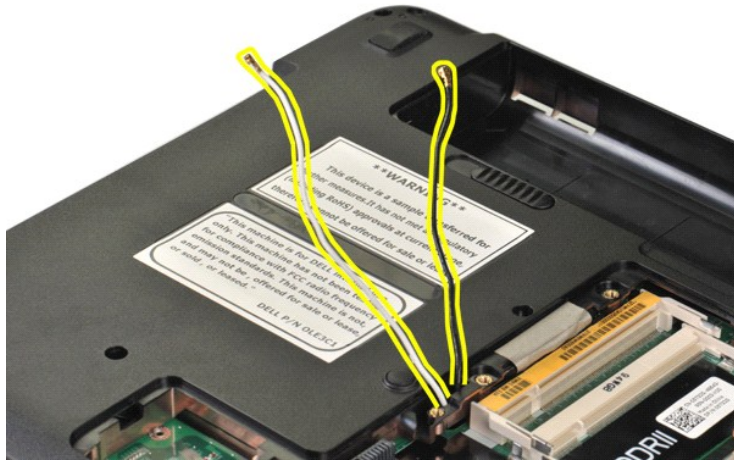
Removing the Display Assembly



1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.
5. Remove the [WLAN card](#) from the computer.
6. Remove the [control panel cover](#) from the computer.
7. Remove the [keyboard](#) from the computer.



8. Turn the computer upside-down, and free the wireless cables from their storage positions.



9. Remove the two screws that secure the display assembly to the bottom of the base of the computer.



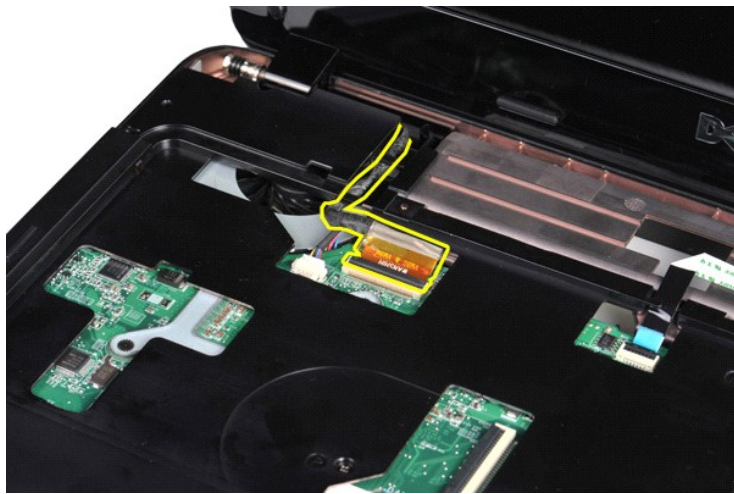
10. Turn the computer right-side up.



11. Detach the wireless cable from the palm rest.



12. Release the display inverter cable clip and draw the display inverter cable away from the palm rest.



13. Remove the two screws that secure the display assembly to the top of the base of the computer.



14. Lift the display assembly from the computer, taking care as you go that all cables are free of the computer.



Replacing the Display Assembly

Perform the steps described above in reverse order to replace the display assembly in your computer.

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Removing the Display Bezel



1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.
5. Remove the [WLAN card](#) from the computer.
6. Remove the [control panel cover](#) from the computer.
7. Remove the [keyboard](#) from the computer.
8. Remove the [display assembly](#) from the computer.



9. Remove the six rubber screw covers from the display assembly.



10. Remove the six screws from the display assembly.



11. Remove the display bezel from the display assembly.



Replacing the Display Bezel

Perform the steps described above in reverse to replace the display bezel into the display assembly.

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Removing the Display LCD Panel



1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.

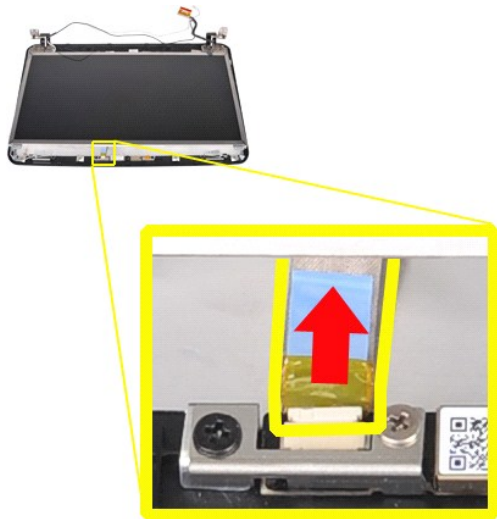
5. Remove the [WLAN card](#) from the computer.
6. Remove the [control panel cover](#) from the computer.
7. Remove the [keyboard](#) from the computer.
8. Remove the [display assembly](#) from the computer.
9. Remove the [display bezel](#) from the display assembly.



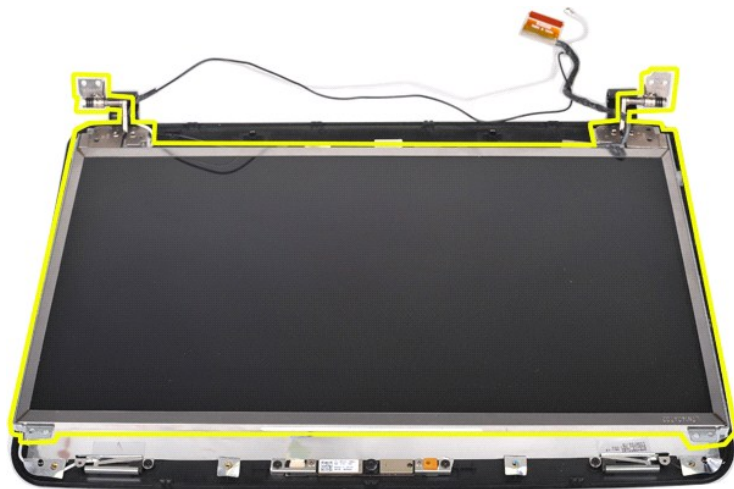
10. Remove the four screws that secure the display panel to the display assembly.



11. Disconnect the display camera cable.



12. Lift the display LCD panel from the display assembly.



Replacing the Display LCD Panel

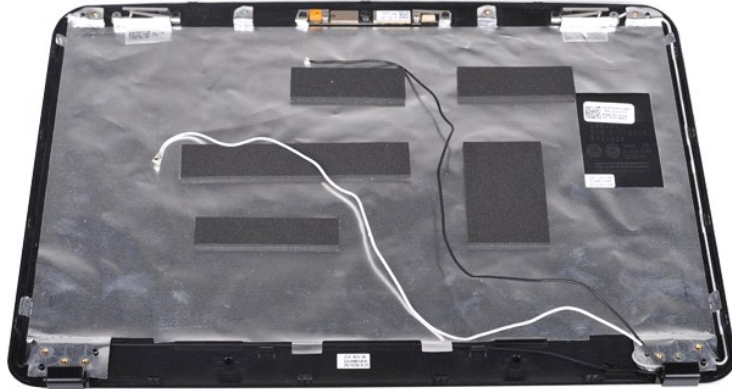
Perform the steps described above in reverse order to replace the display LCD panel in the display assembly.

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Removing the Display Camera



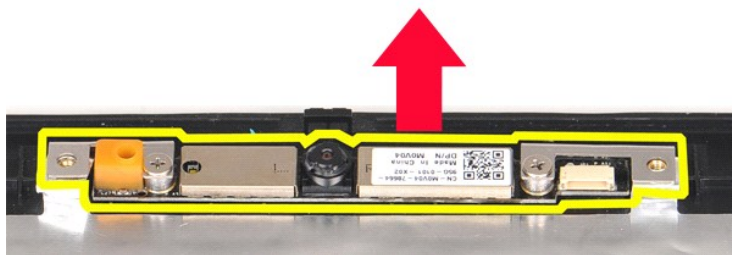
1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.
5. Remove the [WLAN card](#) from the computer.
6. Remove the [control panel cover](#) from the computer.
7. Remove the [keyboard](#) from the computer.
8. Remove the [display assembly](#) from the computer.
9. Remove the [display bezel](#) from the display assembly.
10. Remove the [display LCD panel](#) from the display assembly.



11. Remove the two screws that secure the display camera to the display assembly.



12. Lift the display camera from the display assembly.



13. Remove the two screws that secure the bracket to the display camera.



Replacing the Display Camera

Perform the steps described above in reverse order to replace the display camera into its bracket, and from there to the display assembly.

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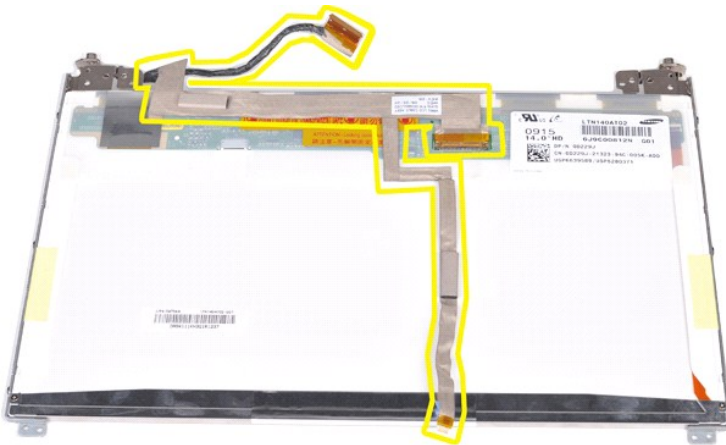
Removing the Display Inverter Cable



1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.
5. Remove the [WLAN card](#) from the computer.
6. Remove the [control panel cover](#) from the computer.
7. Remove the [keyboard](#) from the computer.
8. Remove the [display assembly](#) from the computer.
9. Remove the [display bezel](#) from the display assembly.
10. Remove the [display LCD panel](#) from the display assembly.
11. Remove the two screws that secure the display camera to the display LED panel.



12. Carefully detach and remove the display inverter cable from the display LCD panel.



Replacing the Display Inverter Cable

Perform the steps described above in reverse order to replace the display inverter cable.

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System Board

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Removing the System Board

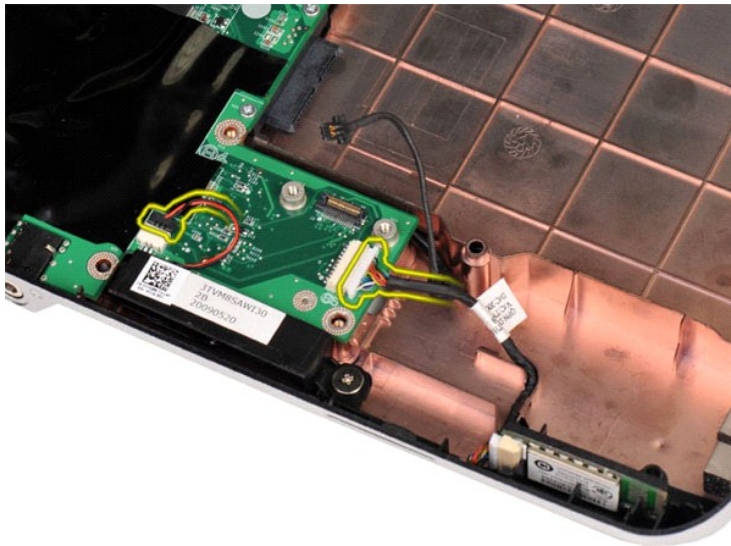
1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove AC Adapter.
3. Remove the [ExpressCard](#) from the computer if applicable.
4. Remove the [memory card](#) from the computer if applicable.
5. Remove the [battery](#) from the computer.
6. Remove the [access panel](#) from the computer.
7. Remove the [hard drive](#) from the computer.
8. Remove the [memory modules](#) from the computer.
9. Remove the [WLAN card](#) from the computer.
10. Remove the [control panel cover](#) from the computer.
11. Remove the [keyboard](#) from the computer.
12. Remove the [display assembly](#) from the computer.
13. Remove the [palm rest](#) from the computer.
14. Remove the [processor fan](#) from the computer.
15. Remove the [I/O board](#) from the computer.



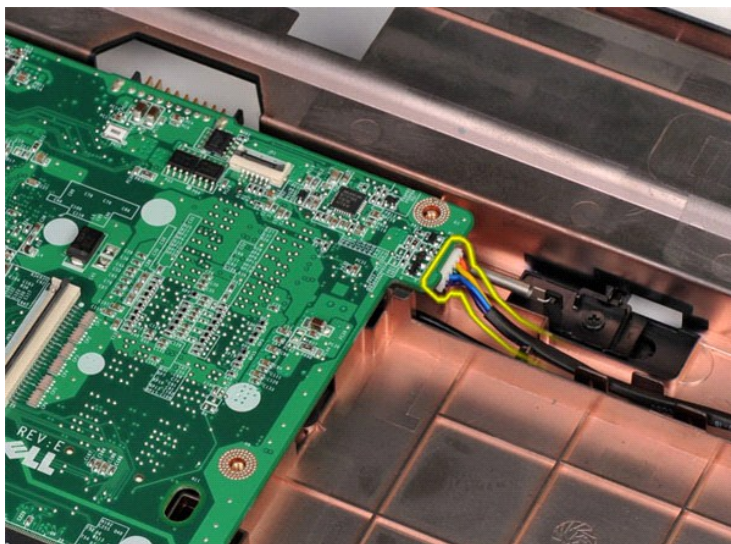
16. Remove the five screws that secure the system board to the computer chassis.



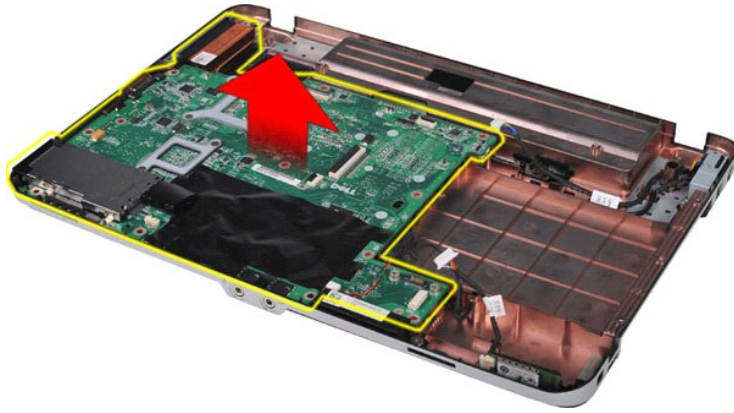
17. Disconnect the speaker and Bluetooth® cables from the connector on the system board.



18. Disconnect the power cable from the system board.



19. Remove the system board from the computer chassis.



Replacing the System Board

Perform the steps described above in reverse order to replace the system board in your computer.

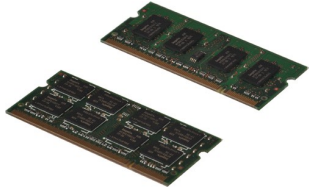
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Memory

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Removing Memory Modules

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.



4. Use your fingertips to carefully spread apart the securing clips on each end of the first memory module connector until the first module pops up.



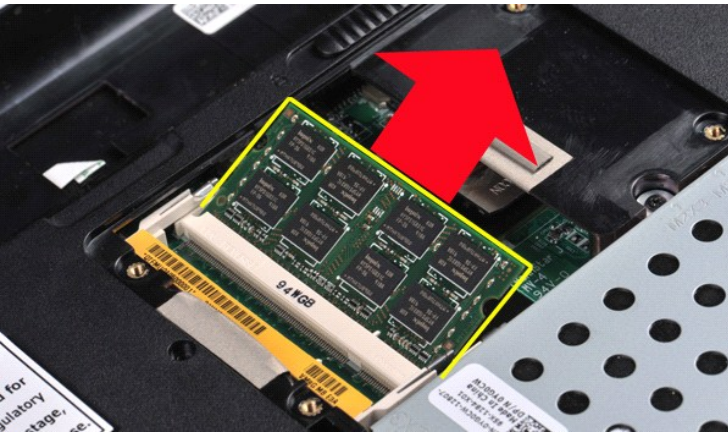
5. Slide the first memory module from its socket and remove the module from the computer.



6. Repeat the last two steps to remove the second memory module: once again, spread apart the securing clips at each end of the memory module connector until the module pops up.



7. Slide the second memory module from its socket and remove the module from the computer.



Replacing a Memory Module

⚠ **CAUTION:** Insert memory modules at a 45-degree angle to avoid damaging the connector.

1. Ground yourself before touching the memory module you are installing, then align the notch in the module edge connector with the tab in the connector slot.
2. Slide the module firmly into the slot at a 45-degree angle and then rotate the module down until it clicks into place. If you do not feel the click, remove the module and reinstall it.
3. Replace the [access panel](#).
4. Replace the [battery](#).

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Memory Card

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Removing the Memory Card

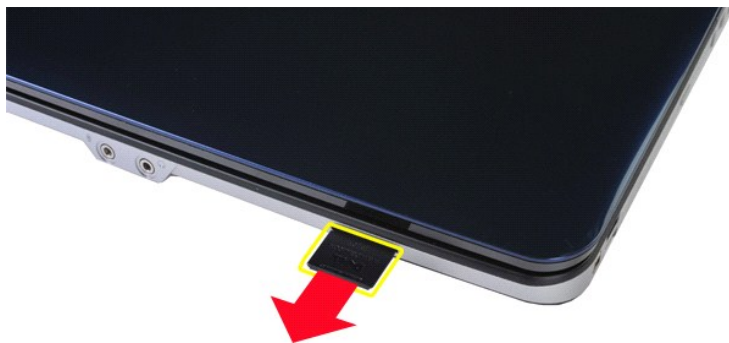
1. Follow the procedures in [Before Working Inside Your Computer](#).



2. Press on the memory card to release it from its slot in the computer.



3. Slide the memory card from the computer.



Replacing the Memory Card

Perform the steps described above in reverse order to replace a memory card in your computer.

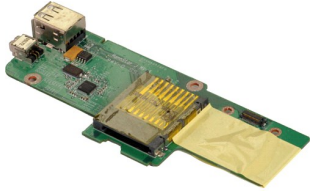
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I/O Board

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Removing the I/O Board

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.
4. Remove the [hard drive](#) from the computer.
5. Remove the [WLAN card](#) from the computer.
6. Remove the [control panel cover](#) from the computer.
7. Remove the [keyboard](#) from the computer.
8. Remove the [display assembly](#) from the computer.
9. Remove the [palm rest](#) from the computer.



10. Remove the two screws that connect the I/O board to the computer chassis.



11. Disconnect the modem cable from the connector on the I/O board.



12. Lift and remove the I/O board from the computer.



Replacing the I/O Board

Perform the steps described above in reverse order to replace the I/O board in your computer.

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Optical Drive

Dell™ Vostro™ 1088 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.



Removing the Optical Drive

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.



3. Remove the screw that secures the optical drive to the computer.



4. Remove the optical drive from the computer.



Replacing the Optical Drive

Perform the steps described above in reverse order to replace the optical drive in your computer.

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Palm Rest

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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.



Removing the Palm Rest

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [optical drive](#) from the computer.
4. Remove the [access panel](#) from the computer.
5. Remove the [hard drive](#) from the computer.
6. Remove the [WLAN card](#) from the computer.
7. Remove the [control panel cover](#) from the computer.
8. Remove the [keyboard](#) from the computer.
9. Remove the [display assembly](#) from the computer.



10. From the bottom of the computer, remove the seven screws that secure the palm rest to the computer.



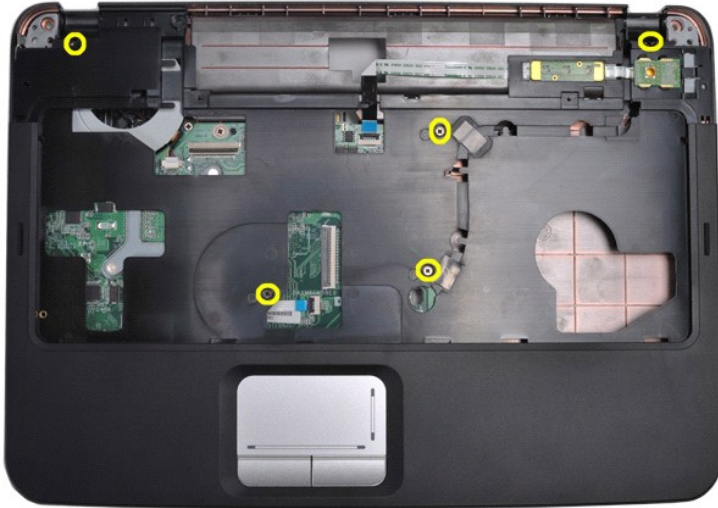
11. Remove three screws from the media bay.



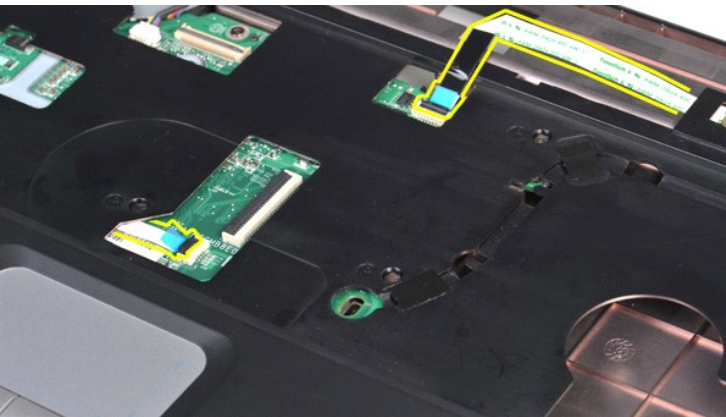
12. Turn the computer right-side up.



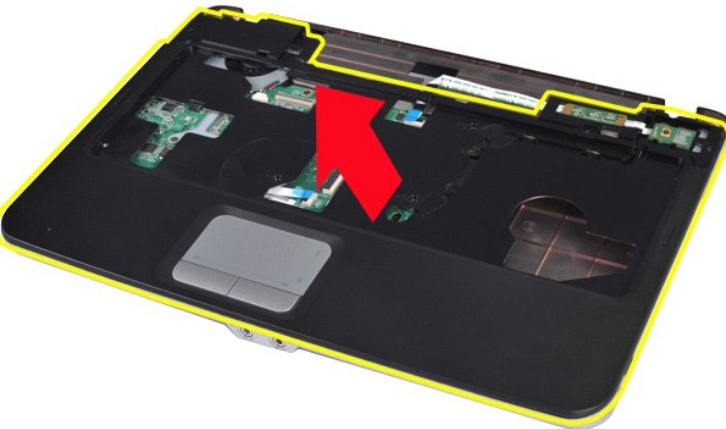
13. Remove the five screws that secure the palm rest to the computer.



14. Disconnect the control panel and palm rest cables from the system board.



15. Lift the palm rest from the base of the computer.



Replacing the Palm Rest

Perform the steps described above in reverse order to replace the palm rest in your computer.

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Processor Module

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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.

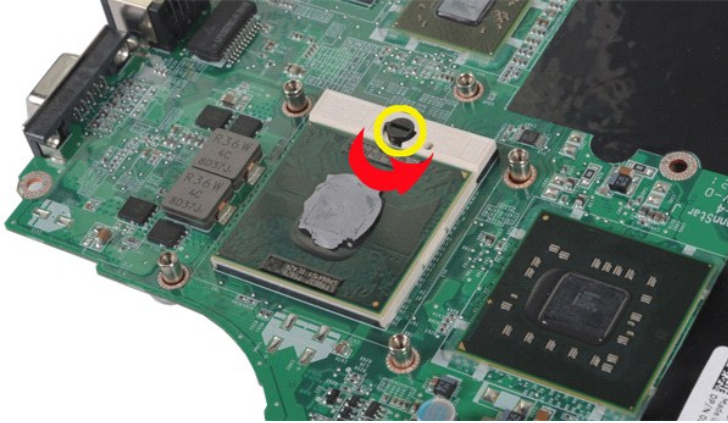


Removing the Processor Module

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [ExpressCard](#) from the computer if applicable.
3. Remove the [memory card](#) from the computer if applicable.
4. Remove the [battery](#) from the computer.
5. Remove the [access panel](#) from the computer.
6. Remove the [hard drive](#) from the computer.
7. Remove the [memory modules](#) from the computer.
8. Remove the [WLAN card](#) from the computer.
9. Remove the [control panel cover](#) from the computer.
10. Remove the [keyboard](#) from the computer.
11. Remove the [display assembly](#) from the computer.
12. Remove the [palm rest](#) from the computer.
13. Remove the [processor fan](#) from the computer.
14. Remove the [I/O board](#) from the computer.
15. Remove the [system board](#) from the computer.
16. Remove the [heat sink](#) from the system board.
17. Set aside the computer chassis and place the system board on a clean, dry surface.



18. Using a small, flat-blade screwdriver, rotate the ZIF-socket cam screw counterclockwise until it comes to the cam stop position.



19. Lift and remove the processor from the system board.



Replacing the Processor Module

Perform the steps described above in reverse order to replace the processor module onto your system board.

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Speaker

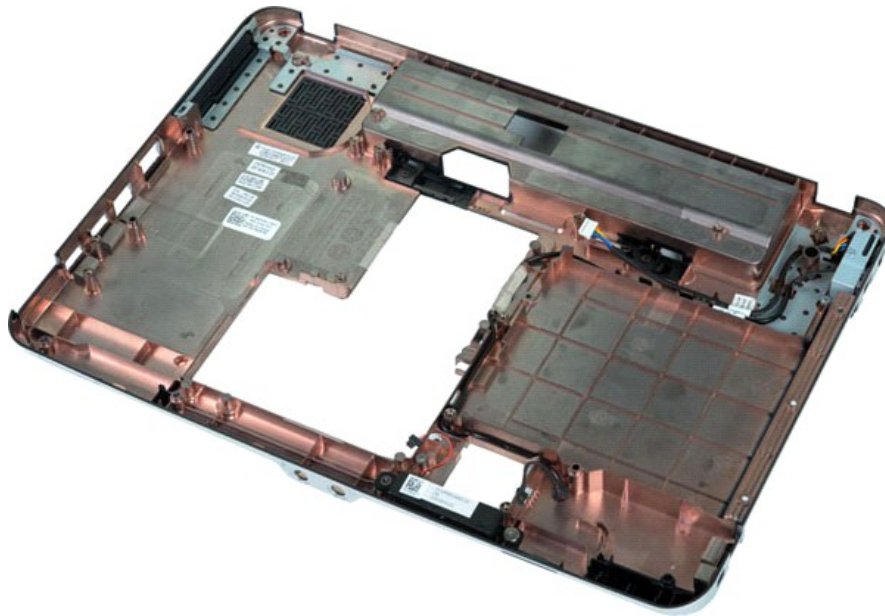
Dell™ Vostro™ 1088 Service Manual

⚠ 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.

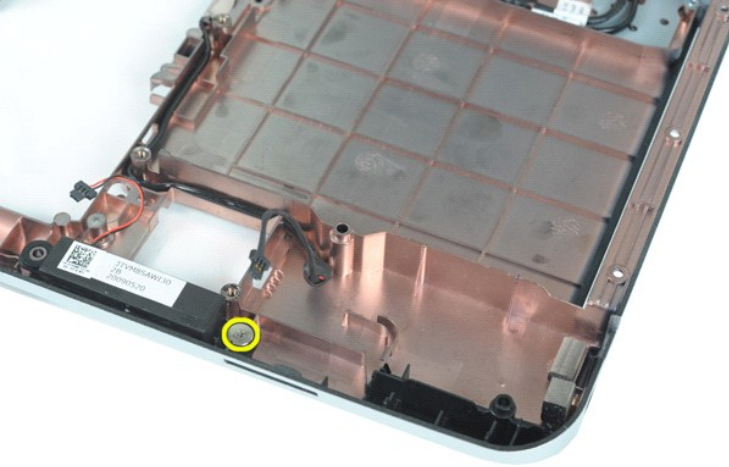


Removing the Speaker

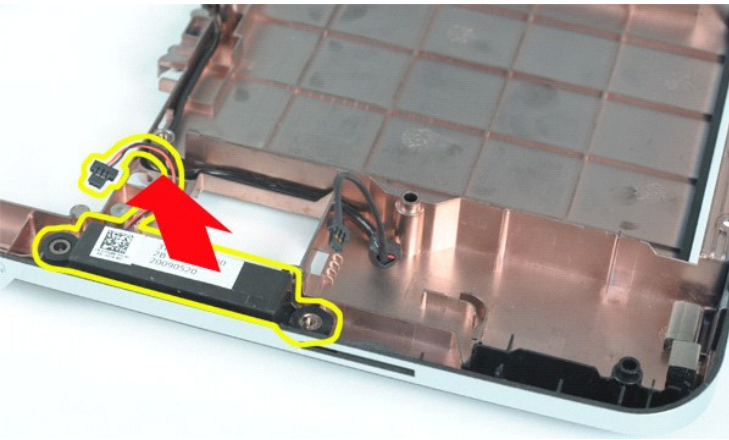
1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [ExpressCard](#) from the computer if applicable.
3. Remove the [memory card](#) from the computer if applicable.
4. Remove the [battery](#) from the computer.
5. Remove the [access panel](#) from the computer.
6. Remove the [hard drive](#) from the computer.
7. Remove the [memory modules](#) from the computer.
8. Remove the [WLAN card](#) from the computer.
9. Remove the [control panel cover](#) from the computer.
10. Remove the [keyboard](#) from the computer.
11. Remove the [display assembly](#) from the computer.
12. Remove the [palm rest](#) from the computer.
13. Remove the [processor fan](#) from the computer.
14. Remove the [I/O board](#) from the computer.
15. Remove the [Bluetooth@ wireless card](#) from the computer.
16. Remove the [system board](#) from the computer.



17. Remove the screw that secures the speaker to the computer chassis.



18. Remove the speaker from the computer.



Replacing the Speaker

Perform the steps described above in reverse order to replace the speaker in your computer.

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WLAN Card

Dell™ Vostro™ 1088 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.



Removing a WLAN Card

1. Follow the procedures in [Before Working Inside Your Computer](#).
2. Remove the [battery](#) from the computer.
3. Remove the [access panel](#) from the computer.



4. Disconnect the antenna cables from the WLAN card.



5. Remove the screw that secures the WLAN card to the computer.



6. Lift the WLAN card from the computer.



Replacing a WLAN Card

Perform the steps described above in reverse order to replace WLAN card in your computer.

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System Setup

Dell™ Vostro™ 1088 Service Manual

- [Entering System Setup](#)
- [Initiating the Boot Menu](#)
- [System Setup Menu Options](#)

Your computer offers the following BIOS and System Setup options:

- 1 Access System Setup by pressing <F2>
- 1 Bring up a one-time boot menu by pressing <F12>

Entering System Setup

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

Initiating the 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 that are installed in the computer.

The boot menu typically includes the following options:

- Internal HDD
- CD/DVD/CD-RW Drive
- Onboard NIC
- BIOS Setup
- Diagnostics

This menu is useful when you are attempting to boot to a particular device or to bring up the diagnostics for the system. Making changes in the boot menu does not make any changes to the boot order stored in the BIOS.

To navigate the boot menu:

- 1 Use the up- and down-arrow keys to move the pointer to the desired boot device.
- 1 Press ENTER to attempt the boot or ESC to cancel the action.

System Setup Menu Options

The following tables describe the menu options for the System Setup BIOS.

General	
Option	Description
System Information	This section lists the primary hardware features of your computer. There are no configurable options in this section.
	<ol style="list-style-type: none"> 1 System Information <ul style="list-style-type: none"> ○ BIOS Version ○ Service Tag ○ Asset Tag ○ Ownership Tag 1 Memory Information <ul style="list-style-type: none"> ○ Memory Installed ○ Memory Available ○ Memory Speed ○ Memory Channel Mode ○ Memory Technology ○ DIMM A Size ○ DIMM B Size 1 Processor Information <ul style="list-style-type: none"> ○ Processor Type ○ Core Count ○ Processor ID ○ Current Clock Speed ○ Minimum Clock Speed ○ Maximum Clock Speed 1 Device Information <ul style="list-style-type: none"> ○ Primary Hard Drive ○ Fixed Bay Device ○ Video Controller ○ Video BIOS Version ○ Video Memory ○ Panel Type ○ Native Resolution ○ Audio Controller ○ Modem Controller ○ Wi-Fi Device ○ Bluetooth® Device

Battery Information	Indicates the primary battery and the media bay battery status. Also displays the type of AC adapter connected to the computer.
Boot Sequence	<p>The computer attempts to boot from the sequence of devices specified in this list:</p> <ul style="list-style-type: none"> 1 Diskette drive 1 USB Storage Device 1 CD/DVD/CD-RW Drive 1 Internal HDD (IRRT) 1 Cardbus NIC 1 Onboard NIC <p>This list specifies the order that the BIOS searches devices when trying to find an operating system to boot. To change the boot order, select the device to be changed in the list then click the up/down arrows or use the keyboard PgUp/PgDn keys to change the boot order of the device. The boot devices can also be de-selected from the list using the check boxes.</p>
Date/Time	Displays current date and time settings.

System Configuration	
Option	Description
NOTE:	The System Configuration group contains options an settings relater to integrated system devices. (Depending on your computer and installed devices, the items listed in this section may or may not appear.)
Integrated NIC	<p>Enables or disables the onboard LAN controller.</p> <p>Default setting: Enabled w/PXE</p>
SATA Operation	<p>This option configures the operating mode of the internal SATA hard drive controller. The settings are Disabled, ATA, and AHCI.</p> <p>Default setting: AHCI</p>
Miscellaneous Devices	<p>Use the check boxes to enable/disable the following devices:</p> <ul style="list-style-type: none"> 1 Internal Modem 1 Microphone 1 Camera 1 Media Card, PC Card and 1394 1 External USB Port 1 ExpressCard <p>Default setting: All enabled</p>

Video	
Option	Description
LCD Brightness	This option (represented by a slider bar for On Battery and On AC) sets the panel brightness when the ambient light sensor is off.

Security	
Option	Description
Admin Password	<p>This field lets you set, change, or delete the administrator (admin) password (sometimes called the "setup" password). The admin password enables several security features when set including:</p> <ul style="list-style-type: none"> 1 Restricts changes to the settings in Setup. 1 Restricts the boot devices listed in the <F12> Boot Menu to those enabled in the "Boot Sequence" field. 1 Prohibits changes to the owner and asset tags. 1 Substitutes for the system password if the system prompts for a password during power on. <p>Successful changes to this password take effect immediately.</p> <p>If you delete the admin password, the system password is also deleted. Also, the admin password can be used to delete the HDD password. For this reason, you cannot set an admin password if a system password or HDD is already set. The admin password must be set first if used in conjunction with a system and/or HDD password.</p>
System Password	This field lets you set, change, or delete the system password (previously called the "Primary" password).
Internal HDD PW	This field lets you set, change, or delete the password on the system's internal hard disk drive (HDD). Successful changes take place immediately and require a system restart. The HDD password travels with the hard drive, so the HDD is protected even when installed in another system.
Password Bypass	<p>This option lets you bypass the system and internal HDD password prompts during a system restart or when resuming from a standby state. Settings are Disabled, Reboot Bypass, Resume Bypass, and Reboot & Resume Bypass.</p> <p>The system will always prompt for the set system and internal HDD password when powered on from an off state (cold boot).</p> <p>Default setting: Disabled</p>
Password Change	<p>This option lets you determine whether changes to the System and HDD passwords are permitted when an Admin password is set. Use the check box to allow or disallow changes.</p> <p>Default setting: Allow Non-Admin Password Changes</p>
Computrace®	<p>This field lets you activate or disable the BIOS module interface of the optional Computrace software. The settings are Deactivate, Disable, and Activate.</p> <p>The Activate and Disable options will permanently activate or disable the feature and no further changes will be allowed.</p>

Performance	
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Option	Description
Multi Core Support	Use the check box to enable/disable multi core support for the CPU. Default setting: Enabled Multi Core Support checked
HDD Acoustic Mode	This option allows you to optimize your HDD's performance and acoustic noise level based on your personal preferences. Settings are Bypass, Quiet, and Performance . Default setting: Bypass

Power Management	
Option	Description
USB Wake Support	Use the check box to enable/disable the ability for USB devices to wake the system from Standby. This feature is only functional when the AC power adapter is connected. If the AC power adapter is removed during Standby, the BIOS will remove power from all of the USB ports to conserve battery power.
Wake on LAN	This field allows the computer to power up from the off state when triggered by a special LAN signal or from the Hibernate state when triggered by a special wireless LAN signal. Wake-up from the Standby state is unaffected by this setting and must be enabled in the operating system. <ul style="list-style-type: none"> 1 Disabled — Do not allow the system to power on when it receives a wake-up signal from the LAN or wireless LAN. 1 LAN Only — Allow the system to be powered on by special LAN signals. Default setting: Disabled

POST Behavior	
Option	Description
Adapter Warnings	Use the check box to enable/disable the BIOS warning messages when you use certain power adapters. The BIOS displays these messages if you attempt to use a power adapter that has too little capacity for your configuration. Default setting: Enabled
Keypad (Embedded)	This option lets you choose one of two methods to enable the keypad that is embedded in the internal keyboard. <ul style="list-style-type: none"> 1 Fn Key Only — The keypad is only enabled when you hold down the <Fn> key. 1 By Num Lk — The keypad is enabled when (1) the Num Lock LED is on and (2) no external keyboard is attached. Note that the system might not notice immediately when an external keyboard is detached. When Setup is running, this field has no effect—Setup works in the Fn Key Only mode. Default setting: Fn Key Only
Numlock LED	Use the check box to enable/disable the Num Lock LED when the system boots. Default setting: Enabled
USB Emulation	This option defines how the BIOS, in the absence of a USB-aware operating system, handles USB devices. USB emulation is always enabled during POST. Use the check box to enable/disable this feature. Default setting: Enabled
Fn Key Emulation	This field lets you use the <Scroll Lock> key on an external PS/2 keyboard the same way you use the <Fn> key on the computer's internal keyboard. Use the check box to enable/disable this feature. USB keyboards cannot emulate the <Fn> key if you are running an ACPI operating system such as Microsoft® Windows® XP. USB keyboards will only emulate the <Fn> key in non-ACPI mode (e.g., when you are running in DOS). Default setting: Enabled
Fast Boot	This field can speed up the boot process by bypassing some compatibility steps. <ul style="list-style-type: none"> 1 Minimal — Boot quickly unless the BIOS has been updated, memory changed, or the previous POST did not complete. 1 Thorough — Do not skip any steps in the boot process. 1 Auto — Allow the operating system to control this setting (this works only when the operating system supports Simple Boot Flag). Default setting: Minimal

Wireless	
Option	Description
Wireless Devices	Use the check boxes to enable/disable any available wireless devices. The available options are Internal WLAN and Internal Bluetooth . Default setting: Enabled

Maintenance	
Option	Description
Service Tag	This field displays your system's Service Tag. If for some reason the Service Tag was not already set, you would be able to use this field to set it. If a Service Tag has not been set for this system, the computer will automatically bring up this screen when users enter the BIOS. You will be prompted to enter the Service Tag.
Asset Tag	This field allows you to create a system Asset Tag. The field can only be updated if the Asset Tag is not already set.

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Diagnostics






Dell™ Vostro™ 1088 Service Manual

- [Device Status Lights](#)
- [Battery Status Lights](#)
- [Keyboard Status Lights](#)


Device Status Lights

The small indicator lights on the computer are known as LEDs or light-emitting diodes. They serve as device status lights. The various LED indicator lights specify the following:



-  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.
△ **CAUTION:** To avoid data loss, do not turn off the computer while the light is flashing.
-  Turns solid blue or blinks amber to indicate battery charge status.
-  Turns on when wireless networking is enabled.
-  Turns on when a card with Bluetooth® wireless technology is enabled.

Battery Status Lights

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

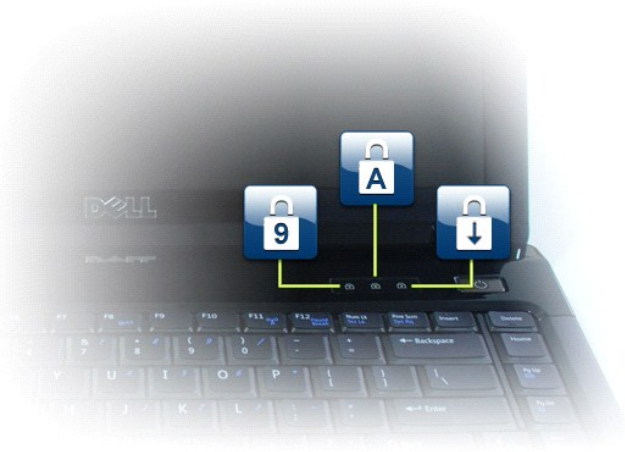
- 1 **Solid blue** — The battery is charging.
- 1 **Flashing blue** — The battery is almost fully charged.
- 1 **Off** — The battery is adequately charged or external power is not available to charge the battery.

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

- 1 **Off** — The battery is adequately charged, or the computer is turned off.
- 1 **Flashing orange** — The battery charge is low.
- 1 **Solid orange** — The battery charge is critically low.

Keyboard Status Lights

The blue 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.

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[Working on Your Computer](#)
[Adding and Replacing Parts](#)
[Specifications](#)
[Diagnostics](#)
[System Setup](#)

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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Adding and Replacing Parts

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- [ExpressCard](#)
 - [Battery](#)
 - [Access Panel](#)
 - [Memory](#)
 - [Control Panel Cover](#)
 - [Display Assembly](#)
 - [Processor Fan](#)
 - [I/O Board](#)
 - [System Board](#)
 - [Heat Sink](#)
 - [Memory Card](#)
 - [Optical Drive](#)
 - [Hard Drive](#)
 - [WLAN Card](#)
 - [Keyboard](#)
 - [Palm Rest](#)
 - [Coin-Cell Battery](#)
 - [Internal Card with Bluetooth® Wireless Technology](#)
 - [Speaker](#)
 - [Processor](#)
-



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Specifications

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- [Memory](#)
- [Audio](#)
- [Battery](#)
- [Ports and Connectors](#)
- [Video](#)
- [Touch Pad](#)
- [AC Adapter](#)
- [Processor](#)
- [Communications](#)
- [Keyboard](#)
- [Physical](#)
- [5-in-1 Memory Card Reader](#)
- [Display](#)
- [Camera \(Optional\)](#)
- [Environmental](#)

 **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.

System Information	
System chipset	Intel® GM45 + ICH9M
Data bus width	64 bits
DRAM bus width	Dual-channel (2) 64 bit buses
Processor address bus width	36 bits
Flash EPROM	1 MB

Processor	
Processor	Intel® Core™ 2 Duo Intel® Celeron™ (Socket P)
Level 2 (L2) cache	3 MB or 6 MB
Front Side Bus	1066 MHz

Memory	
Memory module connector	2 DIMM slots
Memory module capacity	1 GB (one DIMM) 2 GB (one or two DIMMs) 4 GB (two DIMMs)
Memory type	DDR2 667 or 800 MHz
Min to Max Memory	1 GB to 4 GB. To Support 8 GB, requires 64-bit Vista Operating System)

Communications	
Modem:	
Type	v.92 Data/Fax MDC Modem
Controller	Soft Modem
Interface	HDA Bus
Network Adapter	10/100/1000 Ethernet LAN on system board
Wireless	Internal support for PCI-e Mini-Card WLAN Bluetooth® V2.0 wireless technology

Audio	
Audio type	Two-channel high-definition audio codec (HDA)
Audio controller	Conexant CX20583-10Z
Stereo conversion	24-Bit (stereo digital-to-analog) 24-Bit (stereo analog-to-digital)
Interfaces:	
Internal	High definition audio
External	Microphone-in connector, stereo headphones/speakers mini-connector

Speakers	One 2-watt speaker
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Keyboard	
Number of keys	86 (United States and Canada); 87 (Europe); 90 (Japan)
Layout	QWERTY / AZERTY / Kanji

Battery	
Type	6-cell "smart" lithium ion
Dimensions:	
Depth	53.39 mm (2.1 inches)
Height	20.44 mm (0.8 inch)
Width	206.44 mm (8.12 inches)
Weight	0.33 kg (0.73 lb)
Voltage	11.1 VDC (6 cell)
Charge Time (approximate)	4 hours (when computer is off)
Operating Time	Battery operating time varies depending on operating conditions and can be significantly reduced under certain power-intensive conditions.
Life Span (approximate)	300 charge/discharge cycles
Temperature Range:	
Operating	0° to 35°C (32° to 95°F)
Storage	-20° to 65°C (-4° to 149°F)
Coin-cell Battery	CR-2032

Physical	
Height	25 – 35.6 mm (0.98 – 1.4 inches)
Width	340 mm (13.38 inches)
Depth	242.5 mm (9.54 inches)
Weight	minimum 2.30 kg (5.066 lbs) with a 6-cell battery

Ports and Connectors	
Express Card	
Controller	Integrated
Connector	34-mm ExpressCard slot (USB and PCI Express-based interfaces)
Supported card	34-mm ExpressCards
Audio	One microphone connector One headphone connector
IEEE 1394	One 4-pin connector
Internal Expansion Minicard Support	One dedicated half Mini-Card slot for WLAN
Network Adapter	One RJ-45 connector
USB	Four 4-pins USB 2.0 Connectors
Video	15-pin VGA video connector

5-in-1 Memory Card Reader	
Media card controller	Ricoh CardReader R5U230
Cards Supported	High-density SecureDigital (SD) High-capacity SD Mini SD Micro SD Memory Stick Pro Memory Stick Duo MultiMediaCare (MMC)

Video	
Video type	Discrete graphics

Data bus	PCI Express Graphic
Video controller	AMD ATI Mobility Radeon HD 4330
Video memory	512 MB DDR2
Video Output	VGA Connector

Display	
Type (active-matrix TFT)	Two-channel high-definition audio codec (HDA)
Active Area	309.4 mm (H) x 173.9 mm (V)
Dimensions:	
Height	192.5 mm
Width	324 mm
Diagonal	14.14 mm
Operating Angle	0° to 135°
Viewing Angle: WXGA Horizontal WXGA Vertical	40 / 40° 15 / 30°
Pixel Pitch	0.252
Operating Angle	0° to 135°

Touch Pad	
X/Y position resolution (graphics table mode)	240 cpi
Size: Width Height	71.2 mm 36.4 mm

Camera (optional)	
Resolution	2.0 MP with integrated microphone

AC Adapter	
Type	90 W
Input voltage	100 – 240 VAC
Input current (maximum)	1.50 A
Input frequency	50 – 60 Hz
Output current	5.62 A (maximum at 4 seconds pulse) 4.62 A (continuous)
Rated output voltage	19.50 VDC +/- 1.0 VDC
Operating Temperature	0 to 35°C (32° to 95°F)
Storage Temperature	-40° to 65°C (-40° to 149°F)

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)

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Working on Your Computer







Dell™ Vostro™ 1088 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 in [Working on Your Computer](#).
- 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.
-  **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), 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. Where applicable, disconnect any adapters from the computer.
 - 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 [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 [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.
-

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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