

Dell™ Vostro™ 1200 Service Manual

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Model PP16S

Notes, Notices, and Cautions

-  **NOTE:** A NOTE indicates important information that helps you make better use of your computer.
 -  **NOTICE:** A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.
 -  **CAUTION:** A CAUTION indicates a potential for property damage, personal injury, or death.
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December 2007 Rev. A00

Battery

Dell™ Vostro™ 1200 Service Manual

- [Removing the Battery](#)
 - [Replacing the Battery](#)
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-

Removing the Battery

⚠ CAUTION: Using an incompatible battery may increase the risk of fire or explosion. Replace the battery only with a compatible battery purchased from Dell. The battery is designed to work with your Dell™ computer. Do not use a battery from other computers with your computer.

⚠ CAUTION: Before performing these procedures, turn off the computer, disconnect the AC adapter from the electrical outlet and the computer, disconnect the modem from the wall connector and computer, and remove any other external cables from the computer.

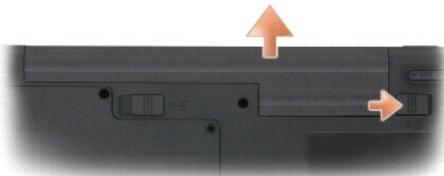
🔌 NOTICE: You must remove all external cables from the computer to avoid possible connector damage.

To remove the battery:

1. If the computer is connected to a docking device (docked), undock it. See the documentation that came with your docking device for instructions.
2. Ensure that the computer is turned off (see [Turning Off Your Computer](#)).
3. With the battery side of the computer facing away from you, slide the left latch to the unlock position.



4. Slide the right battery-bay latch release and slide the battery out of the battery bay.



Replacing the Battery

To replace the battery, follow the removal procedure in reverse order.

Coin Cell Battery

The coin cell battery is soldered to the system board and is not a replaceable part.

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Before You Begin

Dell™ Vostro™ 1200 Service Manual

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

This section provides procedures for removing and installing the components in your computer. Unless otherwise noted, each procedure assumes that the following conditions exist:

- 1 You have performed the steps in [Turning Off Your Computer](#) and [Before Working Inside Your Computer](#).
- 1 You have read the safety information in the Dell™ *Product Information Guide*.
- 1 A component can be replaced or—if purchased separately—installed by performing the removal procedure in reverse order.

Recommended Tools

The procedures in this document may require the following tools:

- 1 Small flat-blade screwdriver
- 1 A #1 and #2 Phillips screwdriver
- 1 Small plastic scribe

Turning Off Your Computer

➡ **NOTICE:** 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:
 - a. Save and close all open files and exit all open programs.
 - b. *In the Microsoft® Windows® XP operating system, click **Start**→ **Shut Down**→ **Shut down**.*

*In the Microsoft Windows Vista™ operating system, click the **Windows Vista Start** button , click the arrow in the lower-right corner of the Start menu as shown below, and then click **Shut Down**.*



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 four seconds to turn off.

Before Working Inside Your Computer

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

- ⚠ **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions in the *Product Information Guide*.
- ➡ **NOTICE:** 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.
- ➡ **NOTICE:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell is not covered by your warranty.
- ➡ **NOTICE:** 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.
- ➡ **NOTICE:** To avoid damaging the computer, perform the following steps before you begin working inside the computer.

1. Ensure that the 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. Close the display and turn the computer upside-down on a flat work surface.
 4. Remove the battery (see [Removing the Battery](#)).
 5. Turn the computer top-side up, open the display, and press the power button to ground the system board.
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Flashing the BIOS

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1. Open your web browser and go to the Dell Support website at <http://support.dell.com>.
 2. Under the **Choose a Support Option** area, select **Drivers and Downloads**.
 3. In the **Select Your Entry Method** area, select **Enter a Service Tag**.
 4. Locate your service tag from the bottom of your computer.
 5. Enter your service tag number in the **Enter a service tag** text area.
 6. Click the **Go** button.
 7. When the **Drivers and Downloads Search Criteria** page appears, click the **BIOS** and download the BIOS utility.
 8. After the download completes, double-click the BIOS utility file.
 9. Follow the BIOS utility on-screen instructions.
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Internal Card With Bluetooth® Wireless Technology

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- [Removing the Card](#)
- [Replacing the Card](#)

Removing the Card

⚠ CAUTION: Before performing the following procedures, read the safety instructions in your *Product Information Guide*.

🔌 NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching a connector on the back panel of the computer.

If you ordered an internal card with Bluetooth wireless technology with your computer, it is already installed.

1. Follow the procedures in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Remove the screw on the card cover, and remove the cover.
4. Remove the card out of the compartment.
5. Disconnect the cable from the card connector.



1	card	2	connector
3	compartment	4	cover
5	screw		

🔌 NOTICE: Be careful when removing the card to avoid damaging the card, card cable, or surrounding components.

Replacing the Card

⚠ CAUTION: Before performing the following procedures, read the safety instructions in your *Product Information Guide*.

🔌 NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by touching a connector on the back panel of the computer.

1. Connect the cable to the card connector.
2. Place the card into the compartment.



1	card	2	connector
3	compartment	4	cover
5	screw		

3. Screw the card cover back onto the compartment.

4. Replace the battery (see [Replacing the Battery](#)).

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Processor Module

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- [Removing the Processor Module](#)
- [Replacing the Processor Module](#)

Removing the Processor Module

⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

- ➡ **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.
- ➡ **NOTICE:** Do not touch the processor die. Press and hold the processor down on the substrate on which the die is mounted while turning the cam screw to prevent intermittent contact between the cam screw and processor.
- ➡ **NOTICE:** To avoid damage to the processor, hold the screwdriver so that it is perpendicular to the processor when turning the cam screw.

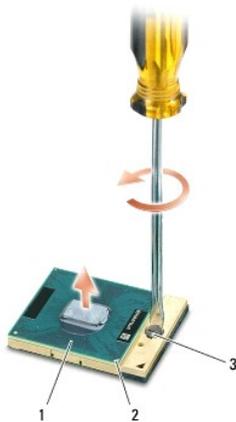
1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).

➡ **NOTICE:** To ensure maximum cooling for the processor, do not touch the heat transfer areas on the processor thermal-cooling assembly. The oils in your skin reduce the heat transfer capability of the thermal pads.

3. Remove the processor thermal-cooling assembly (see [Removing the Processor Thermal-Cooling Assembly](#)).
- The processor is located under the processor thermal-cooling assembly.

➡ **NOTICE:** When removing the processor module, pull the module straight up. Be careful not to bend the pins on the processor module.

4. To loosen the ZIF socket, use a small, flat-blade screwdriver and rotate the ZIF-socket cam screw counterclockwise until it comes to the cam stop.



1	processor module	2	pin-1 corner of microprocessor
3	ZIF-socket cam screw		

🔍 NOTE: The ZIF-socket cam screw secures the processor to the system board. Take note of the arrow on the ZIF-socket cam screw, which indicates the direction to turn the cam screw.

5. Lift the processor module from the ZIF socket.

Replacing the Processor Module

- ➡ **NOTICE:** Ensure that the cam lock is in the fully open position before seating the processor module. Seating the processor module properly in the ZIF socket does not require force.
- ➡ **NOTICE:** A processor module that is not properly seated can result in an intermittent connection or permanent damage to the processor and ZIF socket.
- 🔍 **NOTE:** If a new microprocessor is installed, you will receive either a new thermal-cooling assembly, which will include an affixed thermal pad or you will receive a new thermal pad along with a tech sheet to illustrate proper installation.

1. Align the pin-1 corner of the processor module with the pin-1 corner of the ZIF socket, and insert the processor module.

🔍 **NOTE:** The pin-1 corner of the processor module has a triangle that aligns with the triangle on the pin-1 corner of the ZIF socket.

- ➡ **NOTICE:** You must position the processor module correctly in the ZIF socket to avoid permanent damage to the module and the socket.

When the processor module is correctly seated, all four corners are aligned at the same height. If one or more corners of the module are higher than the others, the module is not seated correctly.

2. Tighten the ZIF socket by turning the cam screw clockwise to secure the processor module to the system board.
3. Replace the processor thermal-cooling assembly (see [Replacing the Processor Thermal-Cooling Assembly](#)).
4. Replace the battery (see [Replacing the Battery](#)).

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Processor Thermal-Cooling Assembly

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- [Removing the Processor Thermal-Cooling Assembly](#)
- [Replacing the Processor Thermal-Cooling Assembly](#)

⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

🔧 NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

Removing the Processor Thermal-Cooling Assembly

1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. On the bottom of the computer, remove the one M2.5x5-mm screw and nine M2.5x8-mm screws.



1	M2.5x8-mm component cover screws (9)	2	M2.5x5-mm screw
3	component cover		

4. Insert a plastic scribe into the notch on the component cover, and lift to remove the cover.

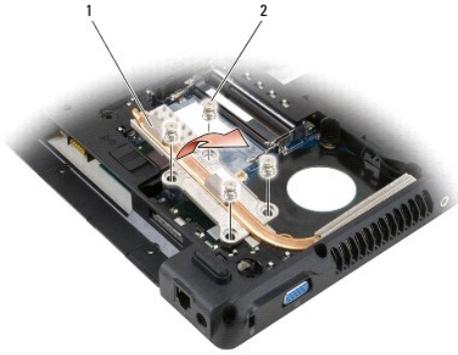


1	plastic scribe	2	component cover
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5. Loosen (in consecutive order) the four spring-loaded screws, labeled "1" through "4," that secure the processor thermal-cooling assembly to the system board.

🔧 NOTICE: To ensure maximum cooling for the processor, do not touch the heat transfer areas on the processor thermal-cooling assembly. The oils in your skin reduce the heat transfer capability of the thermal pads.

6. Lift the processor thermal-cooling assembly and remove it from the system board.



1	processor thermal-cooling assembly	2	screws (4)
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Replacing the Processor Thermal-Cooling Assembly

 **NOTE:** If you are replacing the thermal-cooling assembly without removing and replacing a new processor, you can place the new thermal pad directly on any existing thermal pad already installed on the thermal-cooling assembly. It is not necessary to remove an existing pad or to clean the surface.

1. Place the processor thermal-cooling assembly over the processor.
2. Tighten the four spring screws, labeled "1" through "4," in consecutive order.
3. Replace the battery (see [Replacing the Battery](#)).

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Display Assembly

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- [Replacing the Display Assembly](#)
- [Removing the Display Bezel](#)
- [Replacing the Display Bezel](#)
- [Removing the Display Panel](#)
- [Removing the Inverter Board](#)
- [Replacing the Display Panel](#)
- [Removing the Display Panel Bracket](#)
- [Replacing the Display Panel Bracket](#)

Removing the Display Assembly

⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

🔌 NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Remove the hinge cover (see [Removing the Hinge Cover](#)).
4. Remove the keyboard (see [Removing the Keyboard](#)).
5. Disconnect the display cable from the display cable connector on the system board.
6. Disconnect the three Mini Card antenna cables (see [Mini Cards](#)) on the bottom of the computer, pull the cables up through the system board, and unroute the cables.
7. Disconnect the left and right microphone cables.



1 | display cable connector

2 | Mini Card antenna cables (3)

3	left and right microphone cables	
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- Remove the two M2.5x5-mm screws and the two M2.5x10-mm screws from the display and remove the display from the computer.



Replacing the Display Assembly

NOTICE: Ensure the antenna cables are not twisted and that they are lying flat in the antenna cable clip.

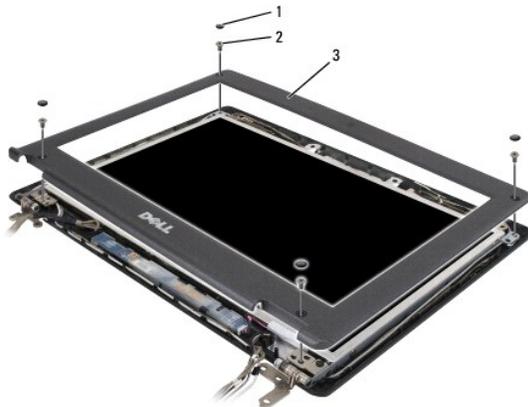
- Replace the two M2.5x5-mm screws and the two M2.5x10-mm screws that secure the display to the computer base.
- Connect the display cable to the system board.
- Connect the Mini Card antenna cables (see [Mini Cards](#)).
- Connect the left and right microphone cables.
- Replace the keyboard (see [Replacing the Keyboard](#)).
- Replace the hinge cover (see [Replacing the Hinge Cover](#)).
- Replace the battery (see [Replacing the Battery](#)).

Removing the Display Bezel

CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

- Remove the display assembly (see [Removing the Display Assembly](#)).
- Remove the four rubber display bumpers.
- Remove the four M2.5x5-mm screws around the display bezel.



1	rubber display bumpers (4)	2	M2.5x5-mm screws(4)
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3	display bezel
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➡ **NOTICE:** Removal of the bezel from the display back cover requires extreme care to avoid damage to the bezel.

- Starting at the edges of the bottom of the display panel, use your fingers to separate the bezel from the top cover by lifting the inside edge of the bezel away from the top cover.

Replacing the Display Bezel

- Starting at any corner, use your fingers to gently snap the bezel into place to secure it to the display panel.
- Replace the four M2.5x5-mm screws around the display bezel.
- Replace the four rubber display bumpers around the display bezel.

Removing the Display Panel

⚠ **CAUTION:** Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

➡ **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by touching an unpainted metal surface on the computer.

- Remove the display assembly (see [Removing the Display Assembly](#)).
- Remove the display bezel (see [Removing the Display Bezel](#)).

🔧 **NOTE:** The eight screw locations are numbered. Replace the screws in sequential order.

- Remove the two M2.5x3-mm, the two M2.5x5-mm, and the four M2x3- mm screws in sequential order (two on each side of the display panel).
- Lift the display panel out of the display back cover.



1	M2.5x5-mm screws (2)	2	display panel
3	M2.5x3-mm screws (2)	4	M2x3-mm display panel bracket screws (2 per side)

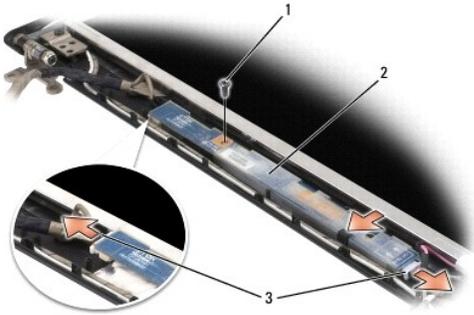
Removing the Inverter Board

⚠ **CAUTION:** Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

➡ **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by touching an unpainted metal surface on the computer.

- Remove the display assembly (see [Removing the Display Assembly](#)).

2. Remove the display bezel (see [Removing the Display Bezel](#)).
3. Remove the display panel (see [Removing the Display Panel](#)).
4. Remove the M2.5x5-mm screw.
5. Disconnect the inverter board.
6. Lift the inverter board out of the computer.



1	M2.5x5-mm screw	2	inverter board	3	inverter board connectors (2)
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Replacing the Inverter Board

1. Place the inverter board inside the display bezel.
2. Attach the inverter board connector.
3. Replace M2.5x5-mm screw.

Replacing the Display Panel

1. Reconnect the top display-cable connector to the top flex-cable connector.
2. Reconnect the bottom flex-cable connector to the inverter connector.
3. Place the display panel inside the display back cover.

 **NOTE:** The eight screw locations are numbered. Replace the screws in sequential order.

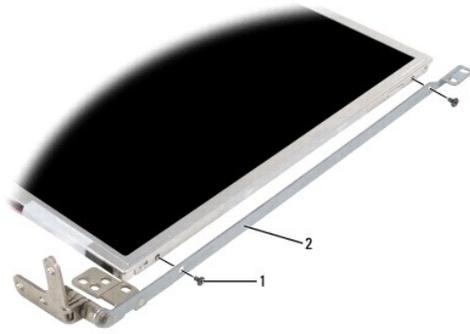
4. Replace the two M2.5x3-mm, the two M2.5x5-mm, and the four M2x3- mm screws in sequential order (two on each side of the display panel).
-

Removing the Display Panel Bracket

 **CAUTION:** Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by touching an unpainted metal surface on the computer.

1. Remove the display assembly (see [Removing the Display Assembly](#)).
2. Remove the display bezel (see [Removing the Display Bezel](#)).
3. Remove the display panel (see [Removing the Display Panel](#)).
4. Remove the M2x3-mm screws (two per side) from the display panel.



1	M2x3-mm screws (2 per side)	2	display panel bracket (2)
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Replacing the Display Panel Bracket

1. Place display panel on a flat surface.
2. Align each bracket to the holes on the display panel.
3. Replace the M2x3-mm screws (two per side).
4. Follow the procedures in [Before You Begin](#).
5. Replace the battery (see [Replacing the Battery](#)).

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Fan

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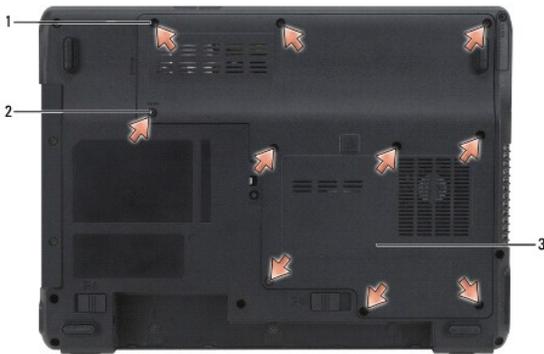
- [Removing the Fan](#)
- [Replacing the Fan](#)

⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

🔌 NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

Removing the Fan

1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. On the bottom of the computer, remove the one M2.5x5-mm screw and nine M2.5x8-mm screws.



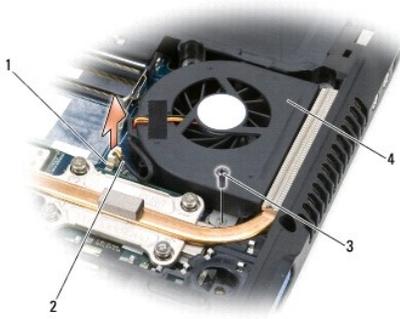
1	M2.5x8-mm component cover screws (9)	2	M2.5x5-mm screw
3	component cover		

4. Insert a plastic scribe into the notch on the component cover, and lift to remove the cover.



1	plastic scribe	2	component cover
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5. Remove the M2.5x5-mm screw from the fan.
6. Disconnect the fan cable from the connector on the system board.



1	connector on system board	2	fan cable
3	M2.5x5-mm screw	4	fan

Replacing the Fan

1. Connect the fan cable to the connector on the system board.
2. Replace the M2.5x5-mm screw in the fan.
3. Replace the component cover.
4. Replace the battery (see [Replacing the Battery](#)).

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Hard Drive

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- [Removing the Hard Drive](#)
- [Replacing the Hard Drive](#)
- [Returning a Hard Drive to Dell](#)

Removing the Hard Drive

- ⚠ **CAUTION:** If you remove the hard drive from the computer when the drive is hot, *do not touch* the metal housing of the hard drive.
- ⚠ **CAUTION:** Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.
- 🔌 **NOTICE:** To prevent data loss, turn off your computer before removing the hard drive. Do not remove the hard drive while the computer is on, in standby mode, or in hibernate mode.
- 🔌 **NOTICE:** Hard drives are extremely fragile; even a slight bump can damage the drive.
- 📄 **NOTE:** Dell does not guarantee compatibility or provide support for hard drives from sources other than Dell.

1. Follow the procedures in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. On the bottom of the computer, remove the one M2.5x5-mm screw and nine M2.5x8-mm screws.



1	M2.5x8-mm screws (9)	2	M2.5x5-mm screw
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4. Insert a plastic scribe into the notch on the component cover, and lift to remove the cover.



1	plastic scribe	2	component cover
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5. Remove the two M2.5x3-mm screws and slide the hard drive out of the computer by pulling the tab.



1	hard drive	2	M2.5x3-mm screws (2)
3	tab		

➡ **NOTICE:** When the hard drive is not in the computer, store it in protective antistatic packaging. See "Protecting Against Electrostatic Discharge" in your *Product Information Guide*.

Replacing the Hard Drive

➡ **NOTICE:** Use firm and even pressure to slide the drive into place. If you use excessive force, you may damage the connector.

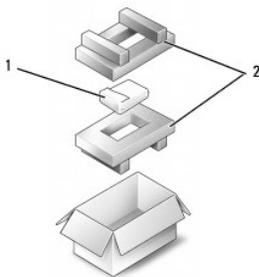
1. Slide the drive into the bay until it is fully seated.

⚠ **CAUTION:** Placing an M2.5x8-mm screw in the M2.5x5-mm socket will cause damage to the system.

2. Replace and tighten the screws.
3. If you have installed a replacement hard drive, reinstall the Microsoft® Windows® operating system. For instructions, see "Restoring Your Operating System" in the *Owner's Manual*.
4. Reinstall drivers on the new hard drive. For instructions, see "Reinstalling Drivers and Utilities" in the *Owner's Manual*.
5. Replace the battery (see [Replacing the Battery](#)).

Returning a Hard Drive to Dell

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



1	hard drive	2	foam packaging
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Hinge Cover

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- [Removing the Hinge Cover](#)
- [Replacing the Hinge Cover](#)

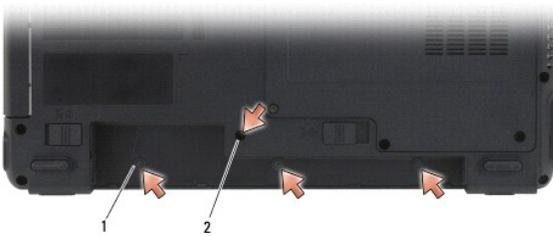
⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

🔌 NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

🔌 NOTICE: The hinge cover is fragile and can be damaged if extreme force is used. Be careful when removing the hinge cover.

Removing the Hinge Cover

1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Remove the three screws in the battery bay and the M2.5x8-mm screw on the bottom of the computer.



1	screws in battery bay (3)	2	M2.5x8-mm screw (1)
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4. Turn the computer topside-up and open the display as far as it will open.
5. Using a small scribe, insert the scribe on the left side of the hinge cover to gently pry the hinge cover loose.
6. Pulling up from left to right, gently lift the hinge cover.
7. Disconnect the cable and remove the hinge cover.



1	hinge cover	2	connector
3	cable		

Replacing the Hinge Cover

1. Connect the cable to the connector.
 2. Starting from left to right, snap the cover back into place.
 3. Replace the screws on the bottom of the computer.
 4. Replace the battery (see [Replacing the Battery](#)).
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Keyboard

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- [Removing the Keyboard](#)
- [Replacing the Keyboard](#)

⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

➡ NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

Removing the Keyboard

1. Follow the procedures in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Open the display.
4. Remove the hinge cover (see [Removing the Hinge Cover](#)).

➡ NOTICE: The keycaps on the keyboard are fragile, easily dislodged, and time-consuming to replace. Be careful when removing and handling the keyboard.

5. Lift the keyboard and hold it up and slightly forward to provide access to the keyboard connector.
6. To disconnect the keyboard cable, gently put out the connector latch and slide the keyboard cable out of the keyboard connector on the system board.
7. Remove the keyboard.



1	keyboard	2	tabs (4)
3	keyboard connector latch	4	keyboard cable

Replacing the Keyboard

1. Holding the keyboard slightly above the computer, slide the keyboard cable into the connector on the system board and close the connector latch.
 2. Slide the tabs on the keyboard under the palm rest.
 3. Press lightly on the top edges of the keyboard to snap it into place.
 4. Replace the battery (see [Replacing the Battery](#)).
-

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Memory

Dell™ Vostro™ 1200 Service Manual

● [Replacing the Memory Module](#)

You can increase your computer memory by installing memory modules on the system board. Install only memory modules that are intended for your computer.

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions located in the *Product Information Guide*.

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

Replacing the Memory Module

1. Follow the procedures in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. On the bottom of the computer, remove the one M2.5x5-mm screw and nine M2.5x8-mm screws.



1	M2.5x8-mm screws (9)	2	M2.5x5-mm screw
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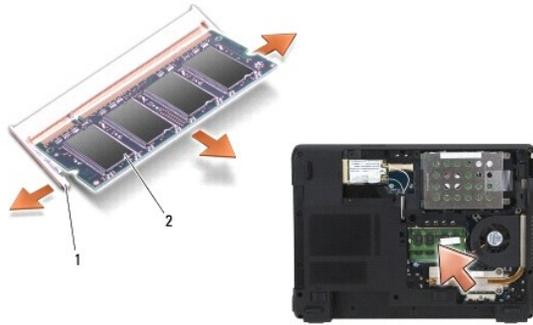
4. Insert a plastic scribe into the notch on the component cover, and lift to remove the cover.



1	plastic scribe	2	component cover
---	----------------	---	-----------------

🔄 NOTICE: To prevent damage to the memory module connector, do not use tools to spread the memory-module securing clips.

5. If you are replacing a memory module, remove the existing module:
 - a. Use your fingertips to carefully spread the securing clips apart on each end of the memory module connector until the module pops up.
 - b. Remove the module from the connector.



1	securing clips (2)	2	memory module
---	--------------------	---	---------------

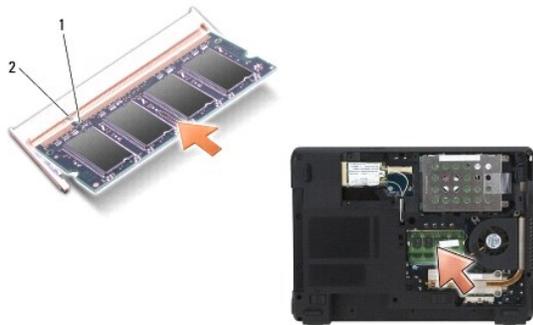
➡ **NOTICE:** If you need to install memory modules in two connectors, install a memory module in the connector labeled "DIMMA" before you install a module in the connector labeled "DIMMB." Insert memory modules at a 45-degree angle to avoid damaging the connector.

🔍 **NOTE:** For optimal performance, identical memory modules should be used in each connector.

6. Ground yourself and install the new memory module:

🔍 **NOTE:** If the memory module is not installed properly, the computer may not boot properly. No error message indicates this failure.

- a. Align the notch in the module edge connector with the tab in the connector slot.
- b. Slide the module firmly into the slot at a 45-degree angle, and rotate the module down until it clicks into place. If you do not feel the click, remove the module and try again.



1	notch	2	tab
---	-------	---	-----

7. Replace the cover.

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

8. Insert the battery into the battery bay (see [Replacing the Battery](#)), or connect the AC adapter to your computer and an electrical outlet.

9. Turn on the computer.

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

To confirm the amount of memory installed in the computer:

- 1 In the Microsoft® Windows® XP operating system, right-click the **My Computer** icon on your desktop. Click **Properties**→ **General**.
- 1 In the Microsoft Windows Vista™ operating system, click the Windows Vista Start button , and right-click **Computer**→ **Properties**.

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Mini Cards

Dell™ Vostro™ 1200 Service Manual

- [Removing a WLAN Card](#)
- [Replacing a WLAN Card](#)
- [Removing a Flash Cache Memory Card](#)
- [Replacing a Flash Cache Memory Card](#)

If you ordered a WLAN and/or a flash cache memory (FCM) card with your computer, these cards will already be installed.

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions located in the *Product Information Guide*.

🔌 NOTICE: To prevent damage to the system board, remove the battery before you service the computer.

1. Follow the procedures in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Turn the computer upside-down and remove the one M2.5x5-mm screw and nine M2.5x8-mm screws.



1	M2.5x8-mm component cover screws (9)	2	M2.5x5-mm screw
3	component cover		

4. Insert a plastic scribe into the notch on the component cover, and lift to remove the cover.



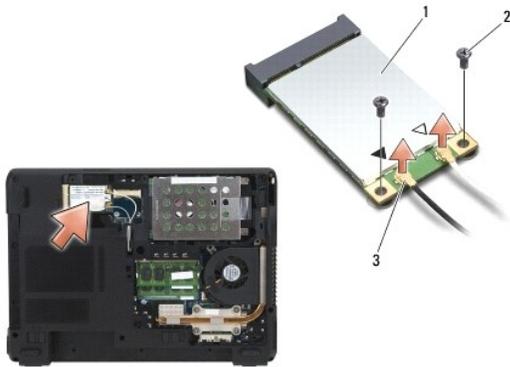
5. Ground yourself by touching one of the metal connectors on the back of the computer.

Removing a WLAN Card

🔌 NOTE: If you leave the area, ground yourself again when you return to the computer.

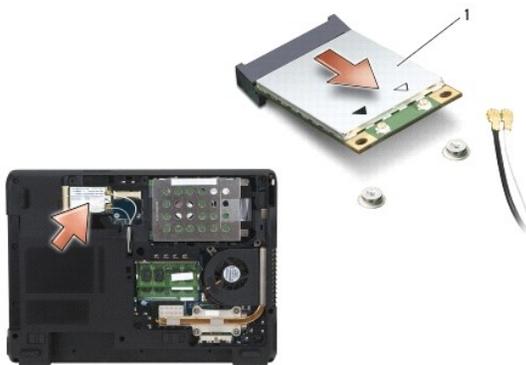
🔌 NOTE: Depending on the type of card, not all cables may be in use.

1. Disconnect the cables from the card.
2. Remove the screws.



1	WLAN card	2	screws (2)
3	antenna cables (2)		

3. Slide the card at a 45-degree angle out of its connector.



1	WLAN card
---	-----------

Replacing a WLAN Card

- ➔ **NOTICE:** The connectors are keyed to ensure correct insertion. If you feel resistance, check the connectors and realign the card.
 - ➔ **NOTICE:** To avoid damaging a card, never place cables on top of or under the card.
 - 🔧 **NOTE:** The card may have two or three connectors, depending on the type of card you ordered.
1. Move any cables out of the way to make space for the WLAN card.
 2. Align the card with the connector at a 45-degree angle, and press the card into the connector until it clicks.
 - 🔧 **NOTE:** For more specific information about which cable to connect to which connector, see the documentation that came with your Mini Card.
 3. Connect the cables to the WLAN card.
 4. Replace the screws on the WLAN card.
 5. Replace the cover.

6. Replace the battery (see [Replacing the Battery](#)).

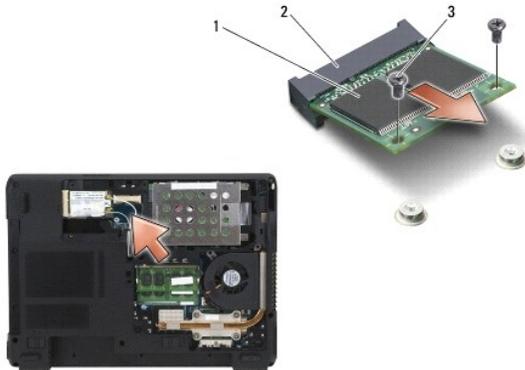
Removing a Flash Cache Memory Card

1. Ground yourself by touching one of the metal connectors on the back of the computer.

 **NOTE:** If you leave the area, ground yourself again when you return to the computer.

 **NOTE:** Depending on the type of card, not all cables may be in use.

2. Disconnect the cables from the flash cache memory (FCM) card.
3. Remove the screws.
4. Slide the card at a 45-degree angle out of its connector.



1	FCM card	2	connector
3	screws (2)		

Replacing a Flash Cache Memory Card

 **NOTICE:** The connectors are keyed to ensure correct insertion. If you feel resistance, check the connectors and realign the card.

 **NOTICE:** To avoid damaging the card, never place cables on top of or under the card.

 **NOTE:** The card may have two or three connectors, depending on the type of card you ordered.

1. Move any cables out of the way to make space for the FCM card.
2. Align the card with the connector at a 45-degree angle, and press the card into the connector until it clicks.

 **NOTE:** For more specific information about which cable to connect to which connector, see the documentation that came with your card.

3. Replace the screws on the FCM card.
4. Connect the cables to the FCM card.
5. Replace the cover.
6. Replace the Battery (see [Removing the Battery](#)).

Modem

Dell™ Vostro™ 1200 Service Manual

- [Removing the Modem](#)
- [Replacing the Modem](#)

Removing the Modem

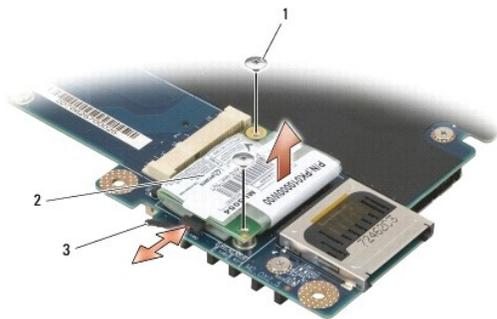
⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

🕒 NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Remove the optical drive (see [Removing the Optical Drive](#)).
4. Remove the hard drive (see [Removing the Hard Drive](#)).

📌 NOTE: It is not required but is highly recommended that you remove the fan.

5. Remove the fan (see [Removing the Fan](#)).
6. Disconnect the Mini Card cable (see [Removing a WLAN Card](#)).
7. Remove the hinge cover (see [Removing the Hinge Cover](#)).
8. Remove the keyboard (see [Removing the Keyboard](#)).
9. Remove the display assembly (see [Removing the Display Assembly](#)).
10. Remove the palm rest (see [Removing the Palm Rest](#)).
11. Remove the remaining M2.5x5-mm screw from the system board.
12. Pull out slightly on the back right side of the computer to release the connectors on the system board from the base.
13. Lift the front of the system board and slowly ease the connectors out of the computer base and remove the system board.
14. Place the system board upside down on a clean, flat surface.
15. Using a #1 Phillips type screwdriver, remove the two M2x3-mm screws on the modem.
16. Disconnect the modem cable.
17. Remove the modem from the system.



1	M2x3-mm screws (2)	2	modem
3	modem cable		

Replacing the Modem

1. Connect the modem cable to the modem.

 **NOTICE:** Ensure that the modem cable is routed correctly when you replace the modem.

2. Align the connector on the bottom of the modem with the modem connector on the system board, and press down on the right side of the modem.
 3. Replace the M2x3-mm screw.
 4. Replace the system board (see [Replacing the System Board](#)).
 5. Replace the palm rest (see [Replacing the Palm Rest](#)).
 6. Replace the display assembly (see [Replacing the Display Assembly](#)).
 7. Replace the keyboard (see [Replacing the Keyboard](#)).
 8. Replace the hinge cover (see [Replacing the Hinge Cover](#)).
 9. Replace the hard drive (see [Replacing the Hard Drive](#)).
 10. If removed, replace the system fan (see [Replacing the Fan](#)).
 11. Replace the optical drive (see [Replacing the Optical Drive](#)).
 12. Replace the battery (see [Replacing the Battery](#)) and turn the computer on.
-

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Optical Drive

Dell™ Vostro™ 1200 Service Manual

- [Removing the Optical Drive](#)
- [Replacing the Optical Drive](#)

⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

Removing the Optical Drive

1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Remove the device security screw on the bottom of the computer.
4. Using a plastic scribe, push the notch to release the optical drive from the bay.
5. Slide the optical drive out of the bay.



1	optical drive	2	notch
3	device security screw		

Replacing the Optical Drive

1. Slide the optical drive into the bay.
 2. Replace and tighten the device security screw.
 3. Replace the battery (see [Replacing the Battery](#)).
-

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Palm Rest

Dell™ Vostro™ 1200 Service Manual

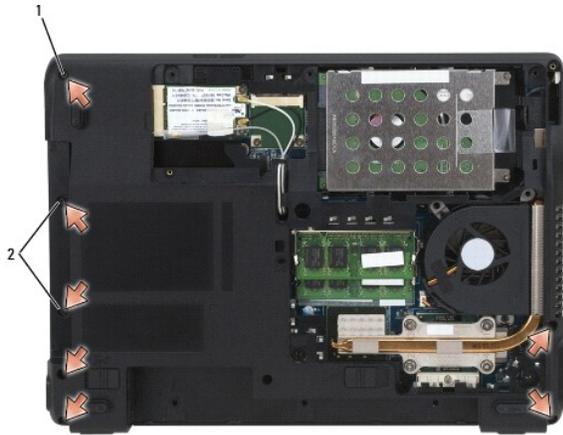
- [Removing the Palm Rest](#)
- [Replacing the Palm Rest](#)

⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

🔄 NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

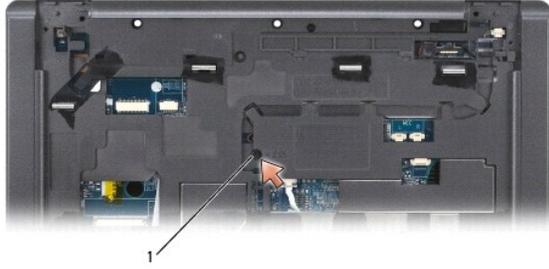
Removing the Palm Rest

1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Remove the hinge cover (see [Removing the Hinge Cover](#)).
4. Remove the keyboard (see [Removing the Keyboard](#)).
5. Remove the display assembly (see [Removing the Display Assembly](#)).
6. Remove the fan (see [Removing the Fan](#)).
7. Remove the optical drive (see [Removing the Optical Drive](#)).
8. Remove the hard drive (see [Removing the Hard Drive](#)).
9. Remove the five M2.5x8-mm screws and the two M2.5x3-mm screws on the bottom of the computer.



1	M2.5x8-mm screws (5)	2	M2.5x3-mm screws (2)
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10. Turn the computer top-side up and remove the M2.5x5-mm screw on the palm rest.



1	M2.5x5-mm screw
---	-----------------

11. Disconnect the touch pad cable from the system board using the cable release levers.



1	touch pad cable	2	cable release levers
---	-----------------	---	----------------------

12. Lift the palm rest and remove it from the computer.

Replacing the Palm Rest

1. Align the palm rest with the computer base and gently snap it into place.
 2. Connect the touch pad cable to the system board.
 3. Replace the M2.5x5-mm screw on the palm rest.
 4. Replace the display assembly (see [Replacing the Display Assembly](#)).
 5. Replace the keyboard (see [Replacing the Keyboard](#)).
 6. Replace the hinge cover (see [Replacing the Hinge Cover](#)).
 7. Replace the hard drive (see [Replacing the Hard Drive](#)).
 8. Replace the fan (see [Replacing the Fan](#)).
 9. Connect the Mini Card cables to the WLAN card (see [Replacing a WLAN Card](#)).
 10. Replace the nine M2.5x8-mm screws and the M2.5x5-mm screw on the component cover on the bottom of the computer.
 11. Replace the five M2.5x8-mm and the two M2x3-mm screws on the bottom of the computer.
 12. Replace the optical drive (see [Replacing the Optical Drive](#)).
 13. Replace the battery (see [Replacing the Battery](#)).
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Pin Assignments for I/O Connectors

Dell™ Vostro™ 1200 Service Manual

- [USB Connector](#)
- [Video Connector](#)

USB Connector



Pin	Signal
1	USB5V+
2	USBP-
3	USBP+
4	GND

Video Connector



Pin	Signal	Pin	Signal
1	CRT_R	9	5V+
2	CRT_G	10	GND
3	CRT_B	11	MONITOR_DETECT-
4	NC	12	DDC_DATA
5	GND	13	CRT_HS
6	GND	14	CRT_VS
7	GND	15	DDC_CLK
8	GND		

Speakers

Dell™ Vostro™ 1200 Service Manual

- [Removing a Speaker](#)
- [Replacing the Speaker](#)

⚠ CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

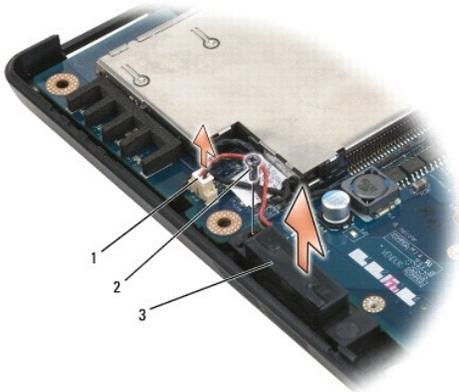
➡ NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

Removing a Speaker

1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Remove the hinge cover (see [Removing the Hinge Cover](#)).
4. Remove the keyboard (see [Removing the Keyboard](#)).
5. Remove the display assembly (see [Removing the Display Assembly](#)).
6. Remove the palm rest (see [Removing the Palm Rest](#)).

➡ NOTICE: Handle the speakers with care to help prevent damaging them.

7. Disconnect the speaker cables for both the left and right speaker from the system board.
8. Remove the M2.5x5-mm screws from both speakers.



1	speaker cables (2)	2	M2.5x5-mm screws (2)
3	speakers (2)		

9. Remove the speaker cables from the routing clips and remove the speakers.
-

Replacing the Speaker

➡ NOTICE: Handle the speakers with care to help prevent damaging them.

1. Route the speaker cables back through the routing clips and connect the speaker cables to the system board.

2. Align the speakers with the screw holes and replace the M2.5x5-mm screws to secure the speakers in place.
 3. Replace the palm rest (see [Replacing the Palm Rest](#)).
 4. Replace the display assembly (see [Replacing the Display Assembly](#)).
 5. Replace the keyboard (see [Replacing the Keyboard](#)).
 6. Replace the hinge cover (see [Replacing the Hinge Cover](#)).
 7. Replace the battery (see [Replacing the Battery](#)).
-

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System Board

Dell™ Vostro™ 1200 Service Manual

- [Removing the System Board](#)
- [Replacing the System Board](#)

 **CAUTION:** Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

The system board BIOS chip contains the Service Tag, which is visible on a barcode label on the bottom of the computer. The replacement kit for the system board includes a CD that provides a utility for transferring the Service Tag to the replacement system board.

 **NOTE:** The coin cell battery is soldered to the system board and is not a replaceable part.

Removing the System Board

1. Follow the instructions in [Before You Begin](#).
2. Remove the battery (see [Removing the Battery](#)).
3. Remove the hard drive (see [Removing the Hard Drive](#)).
4. Remove the memory module(s) (see [Memory](#)).
5. Remove the hinge cover (see [Removing the Hinge Cover](#)).
6. Remove the keyboard (see [Removing the Keyboard](#)).
7. Remove the Mini Card (see [Removing a WLAN Card](#)).
8. Remove the display assembly (see [Removing the Display Assembly](#)).
9. Remove the palm rest (see [Removing the Palm Rest](#)).

 **NOTE:** It is not required but is highly recommended that you remove the fan.

10. Remove the fan (see [Removing the Fan](#)).
11. Remove the processor thermal-cooling assembly (see [Removing the Processor Thermal-Cooling Assembly](#)).
12. Remove the processor (see [Removing the Processor Module](#)).
13. Remove the remaining M2.5x5-mm screw from the system board.
14. Pull out slightly on the back right side of the computer to release the connectors on the system board from the base.
15. Lift the front of the system board and slowly ease the connectors out of the computer base and remove the system board.



1 M2.5x5-mm screw

Replacing the System Board

1. Carefully place the system board into the computer base.
 2. Replace the one M2.5x5-mm screws in the system board.
 3. Replace the processor (see [Replacing the Processor Module](#)).
 4. Replace the processor thermal-cooling assembly (see [Replacing the Processor Thermal-Cooling Assembly](#)).
 5. Replace the fan (see [Replacing the Fan](#)).
 6. Replace the palm rest (see [Replacing the Palm Rest](#)).
 7. Replace the display assembly (see [Replacing the Display Assembly](#)).
 8. Replace the Mini Card (see [Mini Cards](#)).
 9. Replace the keyboard (see [Replacing the Keyboard](#)).
 10. Replace the hinge cover (see [Replacing the Hinge Cover](#)).
 11. Replace the memory module(s) (see [Replacing the Memory Module](#)).
 12. Replace the hard drive (see [Replacing the Hard Drive](#)).
 13. Replace the battery (see [Replacing the Battery](#)).
- ➡ **NOTICE:** Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.
14. Turn the computer over and turn it on.
-

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Dell™ Vostro™ 1200 Service Manual



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



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



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

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