

Dell™ Vostro™ A100/A180 Service Manual

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Model DCMTLF

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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Before You Begin

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- [Technical Specifications](#)
- [Recommended Tools](#)
- [Turning Off Your Computer](#)
- [Safety Instructions](#)

This chapter 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 [Safety Instructions](#).
- 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.

Technical Specifications

For information on technical specifications of your computer, see the *Setup and Quick Reference Guide* that shipped with your computer or see the Dell Support website at support.dell.com.

Recommended Tools

The procedures in this document may require the use of a small Phillips screwdriver size #2.

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.
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.

Safety Instructions

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

⚠ **CAUTION:** 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](http://www.dell.com/regulatory_compliance) at www.dell.com/regulatory_compliance.

➡ **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](#)).

➡ **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug the cable from the network device.

3. Disconnect all telephone or network cables from the computer.
4. Disconnect your computer and all attached devices from their electrical outlets.
5. Press and hold the power button while the system is unplugged to ground the system board.

 **NOTICE:** 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.

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Replacing the Battery

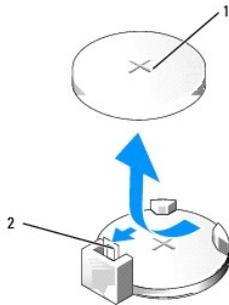
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⚠ CAUTION: Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.

⚠ CAUTION: A new battery can explode if it is incorrectly installed. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

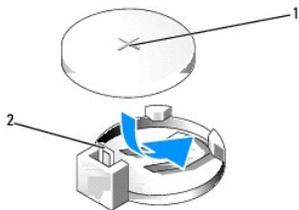
1. Record all the screens in system setup (see [System Setup](#)) so that you can restore the correct settings in [step 10](#).
2. Follow the procedures in [Before You Begin](#).
3. Remove the computer cover (see [Replacing the Computer Cover](#)).
4. Locate the battery socket (see [System Board Components](#)).

🔧 NOTICE: If you pry the battery out of its socket with a blunt object, be careful not to touch the system board with the object. Ensure that the object is inserted between the battery and the socket before you attempt to pry out the battery. Otherwise, you may damage the system board by prying off the socket or by breaking circuit traces on the system board.



1	battery (positive side)	2	battery release lever
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5. Carefully press the battery release lever away from the battery and the battery will pop out.
6. Remove the battery from the system and properly dispose of the battery.
7. Insert the new battery into the socket with the side labeled "+" facing up, then snap the battery into place.



1	battery (positive side)	2	battery release lever
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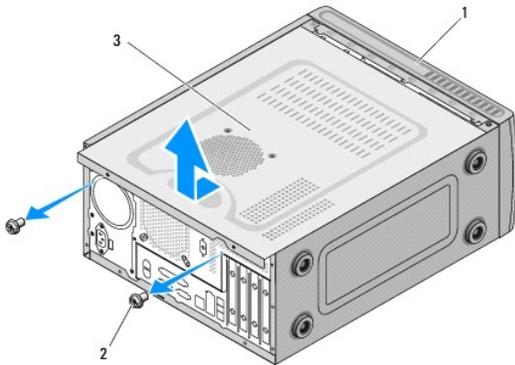
8. Replace the computer cover (see [Replacing the Computer Cover](#)).
9. Connect your computer and devices to electrical outlets, and then turn them on.
10. Enter system setup (see [System Setup](#)) and restore the settings you recorded in [step 1](#).

Replacing the Computer Cover

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-  **CAUTION:** 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:** To guard against likelihood of electric shock, laceration by moving fan blades or other unexpected injuries, always unplug your computer from the electrical outlet before removing the cover.
-  **NOTICE:** Ensure that sufficient space exists to support the system with the cover removed—at least 30 cm (1 ft.) of desk top space.

1. Follow the procedures in [Before You Begin](#).
2. Lay your computer on its side with the computer cover facing up.



1	front of computer	2	screws (2)
3	computer cover		

3. Remove the two screws securing the cover using a Phillips screwdriver.
4. Release the computer cover by pulling it away from the front of the computer and lifting it up.
5. Set the cover aside in a secure location.

 **NOTE:** To remove the computer cover on the other side, lay the computer on its side with the unremoved cover facing up, and then perform [step 3](#) to [step 5](#).

6. To replace the computer cover, perform the removal procedure in reverse order.

Replacing the Processor (Dell™ Vostro™ A180 only)

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CAUTION: 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.

NOTICE: Do not perform the following steps unless you are familiar with hardware removal and replacement. Performing these steps incorrectly could damage your system board. For technical service, see the *Setup and Quick Reference Guide*.

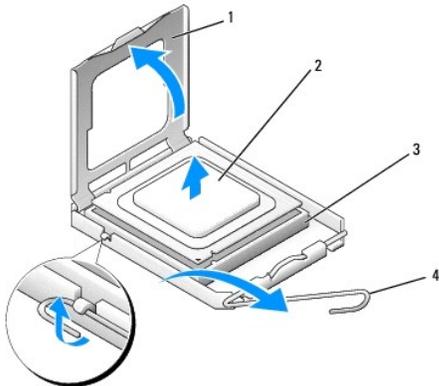
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).

CAUTION: Despite having a plastic shield, the heat sink assembly may be very hot during normal operation. Ensure that it has had sufficient time to cool before you touch it.

3. Disconnect the power cables from the ATX_POWER and ATX_CPU connectors (see [System Board Components](#)) on the system board.
4. Remove the processor fan and heat sink assembly from the computer (see [Replacing the Processor Fan and Heat Sink Assembly \(Dell™ Vostro™ A180 Only\)](#)).

NOTE: Unless a new heat sink is required for the new processor, reuse the original heat sink assembly when you replace the processor.

5. Press and push the release lever down and out to release it from the tab that secures it.
6. Open the processor cover.



1	processor cover	2	processor
3	socket	4	release lever

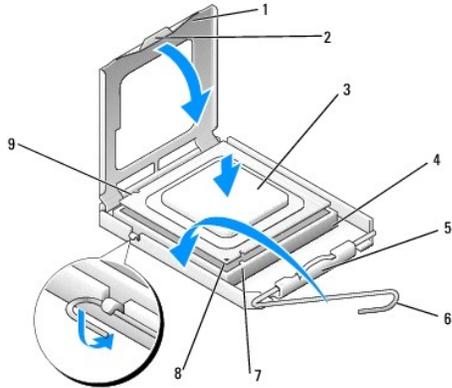
NOTICE: When replacing the processor, do not touch any of the pins inside the socket or allow any objects to fall on the pins in the socket.

7. Lift up the processor to remove it from the socket, place it aside in a safe and secure place.
Leave the release lever extended in the release position so that the socket is ready for the new processor.

NOTICE: Ground yourself by touching an unpainted metal surface on the back of the computer.

NOTICE: You must position the processor correctly in the socket to avoid permanent damage to the processor and the computer when you turn on the computer.

8. Unpack the new processor, being careful not to touch the underside of the processor.



1	processor cover	2	tab
3	processor	4	socket
5	center cover latch	6	release lever
7	front alignment notch	8	processor pin-1 indicator
9	rear alignment notch		

9. If the release lever on the socket is not fully extended, move it to that position.

➡ **NOTICE:** Socket pins are delicate. To avoid damage, ensure that the processor is aligned properly with the socket, and do not use excessive force when you install the processor. Be careful not to touch or bend the pins on the system board.

10. Orient the front and rear alignment-notches on the processor with the front and rear alignment notches on the socket.

11. Align the pin-1 corners of the processor and socket.

12. Place the processor lightly in the socket and ensure that the processor is positioned correctly.

13. When the processor is fully seated in the socket, close the processor cover.

Ensure that the tab on the processor cover is positioned underneath the center cover latch on the socket.

14. Pivot the socket release lever back towards the socket, and snap it into place to secure the processor.

15. Clean the thermal grease from the bottom of the heat sink.

➡ **NOTICE:** Ensure that you apply new thermal grease. New thermal grease is critical for ensuring adequate thermal bonding, which is a requirement for optimal processor operation.

16. Apply the new thermal grease to the top of the processor.

➡ **NOTICE:** Ensure that the processor fan and heat sink assembly is correctly seated and secure.

17. Replace the processor fan and heat sink assembly (see [Replacing the Processor Fan and Heat Sink Assembly \(Dell™ Vostro™ A180 Only\)](#)).

18. Connect the power cables from the ATX_POWER and ATX_CPU connectors (see [System Board Components](#)) on the system board.

19. Replace the computer cover (see [Replacing the Computer Cover](#)).

20. Connect your computer and devices to electrical outlets, and then turn them on.

Replacing Drives

Dell™ Vostro™ A100/A180 Service Manual

- [Replacing a Hard Drive](#)
- [Replacing an Optical Drive](#)

CAUTION: 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.

NOTE: The system does not support IDE devices.

Replacing a Hard Drive

NOTICE: If you are replacing a hard drive that contains data you want to keep, back up your files before you begin this procedure.

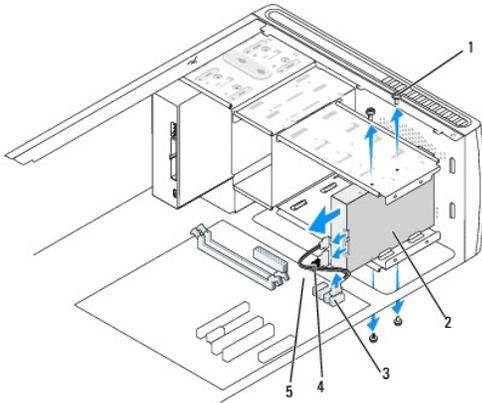
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover from both the sides (see [Replacing the Computer Cover](#)).
3. Disconnect the power and data cables from the drive.

NOTE: If you are not replacing the hard drive at this time, disconnect the other end of the data cable from the system board and set it aside. You can use the data cable to install a hard drive at a later time.

4. Remove the four screws securing the hard drive to the chassis.

NOTICE: Ensure that you do not scratch the hard disk circuit board, while removing or replacing the hard drive.

5. Slide the drive out, away from the front of the computer.



1	screws (4)	2	hard drive
3	system board connector	4	serial ATA data cable
5	power cable		

6. If you are replacing the drive or installing a new one, check the documentation for the drive to verify that it is configured for your computer.
7. Slide the hard drive into the hard drive bay.
8. Align the four screw holes in the hard drive with the screw holes in the hard drive bay.
9. Replace the four screws that secure the hard drive to the chassis.
10. Connect the power and data cables to the drive.

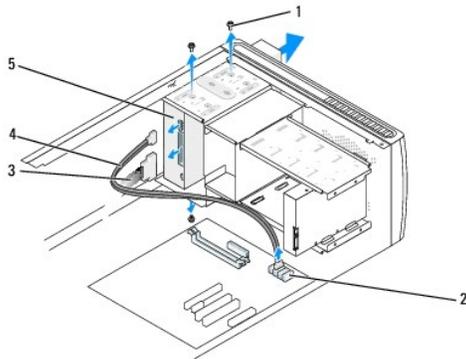
11. Ensure that all the cables are properly connected and firmly seated.
12. Replace the computer cover on both the sides (see [Replacing the Computer Cover](#)).
13. Connect your computer and devices to electrical outlets, and then turn them on.

Replacing an Optical Drive

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Disconnect the power cable and the optical drive data cable from the drive.

NOTE: If you are uninstalling the only optical drive in your computer and will not replace it at this time, disconnect the data cable from the system board and set it aside.

4. Remove the four screws securing the optical drive to the chassis.
5. Push and slide the optical drive out through the front of the computer.



1	screws (4)	2	system board connector	3	power cable
4	data cable	5	optical drive		

6. To replace the optical drive, gently slide the drive into place.
7. Align the screw holes in the optical drive with the screw holes in the optical drive bay.
8. Replace the four screws that secure the optical drive to the chassis.
9. Connect the power and data cables to the drive.
10. Replace the computer cover on both the sides (see [Replacing the Computer Cover](#)).
11. Connect your computer and devices to their electrical outlets and turn them on.

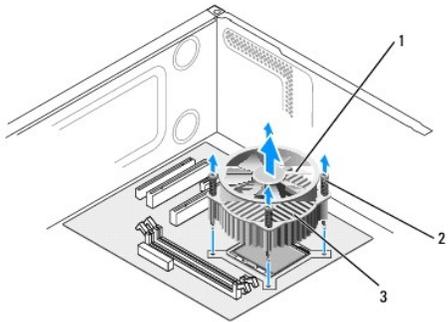
NOTE: If you installed a new drive, see the documentation that came with the drive for instructions on installing any software required for drive operation.

Replacing the Processor Fan and Heat Sink Assembly (Dell™ Vostro™ A180 Only)

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-  **CAUTION:** 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:** To guard against likelihood of electric shock, laceration by moving fan blades or other unexpected injuries, always unplug your computer from the electrical outlet before removing the cover.
-  **CAUTION:** Despite having a plastic shield, the heat sink fan assembly may be very hot during normal operation. Be sure that it has had sufficient time to cool before you touch it.
-  **NOTICE:** Do not touch the fan blades when you are removing the processor fan and heat sink assembly. This could damage the fan.
-  **NOTICE:** The processor fan with the heat sink is one single unit. Do not try to remove the fan separately.

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Disconnect the processor fan cable from the CPU_FAN connector on the system board (see [System Board Components](#)).
4. Carefully move away any cables that are routed over the processor fan and heat sink assembly.
5. Loosen the four captive screws securing the processor fan and heat sink assembly to the system board.
6. Lift the heat sink assembly upward gently and remove it from the computer. Lay the heat sink assembly down on its top, with the thermal grease facing upward.



1	processor fan	2	screws (4)	3	processor fan and heat sink assembly
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7. Clean the thermal grease from the bottom of the heat sink.
 -  **NOTE:** Ensure that you apply new thermal grease. New thermal grease is critical for ensuring adequate thermal bonding, which is a requirement for optimal processor operation.
8. To reinstall the processor fan and heat sink assembly, align the captive screws on the processor fan and heat sink assembly to the four metal screw hole projections on the system board.
9. Tighten the four captive screws that secure the heat sink assembly to the system board.
 -  **NOTE:** Ensure that the processor fan and heat sink assembly is correctly seated and secure.
-  **NOTICE:** The CPU_FAN connector on the system board has four pins and the processor fan cable has three holes. Align the holes on the processor fan cable with the pins in the CPU_FAN connector on the system board to avoid damage to the pins.
10. Connect the processor fan to the CPU_FAN system board connector (see [System Board Components](#)).
11. Replace the computer cover (see [Replacing the Computer Cover](#)).

12. Connect your computer and devices to an electrical outlet, and turn them on.

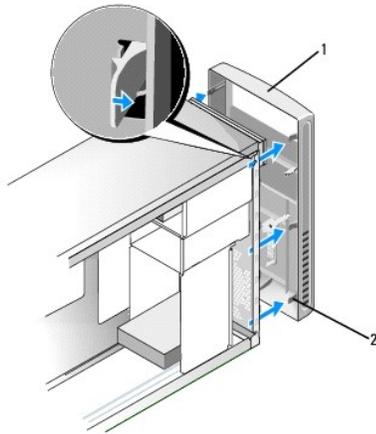
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Replacing the Front Panel

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⚠ CAUTION: 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.

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover from both the sides (see [Replacing the Computer Cover](#)).
3. Place the computer vertically on a flat surface.
4. Disconnect the power button cable and the hard disk activity light cable from the front panel connector (FP1) on the system board.
5. Cut the cable tie securing the power button cable and the hard disk activity light cable to the chassis.
6. To remove the front panel, press the tabs outwards and pull the front panel away from the computer.



1	front panel	2	front panel tabs (6)
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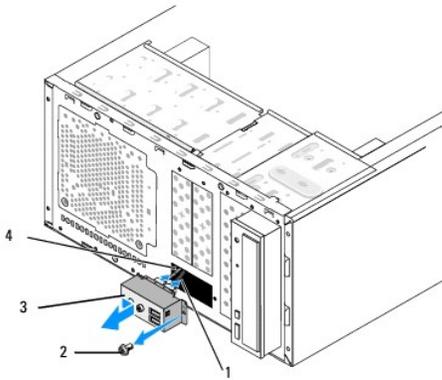
7. To replace the front panel, align and insert the six front panel tabs into the front panel hinges.
8. Push the front panel towards the front of the computer until it snaps into place.
9. Connect the power button cable and the hard disk activity light cable to the front panel connector (FP1) on the system board.
10. Replace the computer cover on both the sides (see [Replacing the Computer Cover](#)).

Replacing the Front I/O Panel

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⚠ CAUTION: 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.

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Remove the front panel (see [Replacing the Front Panel](#)).
4. Lay the computer horizontally on a flat surface.
5. Disconnect all the cables that are connected to the I/O panel from the system board.
6. Cut the cable tie securing the cables to the chassis.
7. Remove the screw that secures the I/O panel to the chassis.
8. Carefully remove the existing I/O panel from the computer.



1	cables	2	screw
3	I/O panel	4	I/O panel clamp slot

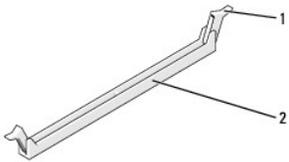
9. To install a new I/O panel, align and slide the I/O panel clamp into the bottom of the I/O panel clamp slot.
10. Replace the screw that secures the I/O panel to the chassis.
11. Reconnect the cables to the system board.
12. Replace the front panel (see [Replacing the Front Panel](#)).
13. Replace the computer cover (see [Replacing the Computer Cover](#)).
14. Connect your computer and devices to an electrical outlet, and turn them on.

Replacing Memory Module(s)

Dell™ Vostro™ A100/A180 Service Manual

⚠ CAUTION: 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.

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Locate the memory modules on the system board (see [System Board Components](#)).
4. Press out the securing clip at each end of the memory module connector.



1	securing clip	2	memory module connector
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5. Grasp the module and pull it upwards.

If the module is difficult to remove, gently ease the module back and forth to remove it from the connector.

⚠ NOTICE: Do not install ECC memory modules.

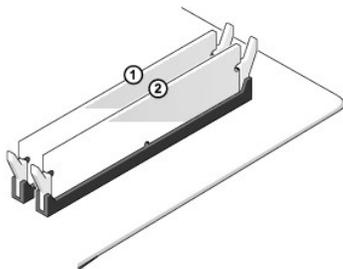
⚠ NOTICE: For Dell™ Vostro™ A180 — If you remove your original memory module(s) from the computer during a memory upgrade, keep them separate from any new module(s) that you may have, even if you purchased the new module(s) from Dell™. If possible, do not pair an original memory module with a new memory module. Otherwise, your computer may not start properly.

📌 NOTE: For Vostro A180 — If you install mixed pairs of PC2-5300 (DDR2 667-MHz) and PC2-6400 (DDR2 800-MHz) memory, the modules function at the speed of the slowest module installed.

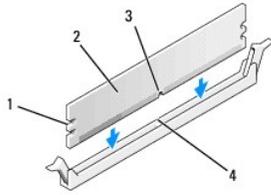
6. Follow the instructions below to install memory modules, depending on your computer model:

For Vostro A100 — Ensure that you install a single memory module in DIMM connector 1.

For Vostro A180 — Ensure that you install a single memory module in DIMM connector 1, the connector closest to the processor, before you install a module in the other connector.



7. Align the notch on the bottom of the module with the tab in the connector slot.

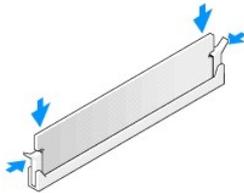


1	cutouts (2)	2	memory module
3	notch	4	tab

NOTICE: To avoid damage to the memory module, press the module straight down into the connector while you apply equal force to each end of the module.

- Insert the module into the connector until the module snaps into position.

If you insert the module correctly, the securing clips snap into the cutouts at each end of the module.



- Replace the computer cover (see [Replacing the Computer Cover](#)).
- Connect your computer and devices to electrical outlets, and then turn them on.
- When the message appears stating that memory size has changed, press <F1> to continue.
- Log on to your computer.
- Right-click the **My Computer** icon on your Microsoft® Windows® desktop and click **Properties**.
- Click the **General** tab.
- To verify that the memory is installed correctly, check the amount of memory (RAM) listed.

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Replacing the Power Supply

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⚠ CAUTION: To guard against likelihood of electric shock, laceration by moving fan blades or other unexpected injuries, always unplug your computer from the electrical outlet before removing the cover.

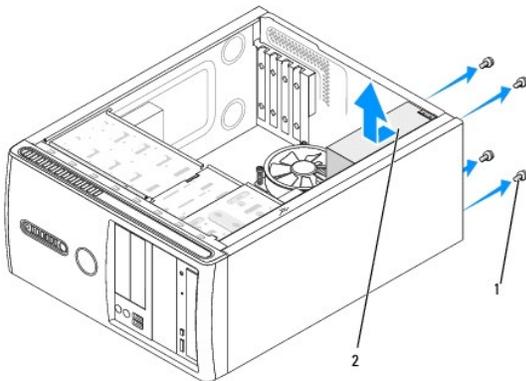
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).

➡ NOTICE: Note the location and ID of each power connector before disconnecting the power supply cables.

3. Follow the DC power cables that stem from the power supply and disconnect each connected power cable.

🔍 NOTE: Note the routing of the DC power cables underneath the tabs in the computer chassis as you remove them from the system board and drives. You must route these cables properly when you replace them to prevent them from being pinched or crimped.

4. Remove the four screws that attach the power supply to the back of the computer chassis.



1	screws (4)	2	power supply
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5. Slide the power supply and lift it out.
6. Slide the replacement power supply towards the back of the computer.

⚠ CAUTION: Failure to replace and tighten all screws may cause electrical shock as these screws are a key part of the system grounding.

7. Replace and tighten all screws that secure the power supply to the back of the computer chassis.

➡ NOTICE: Route the DC power cables under the chassis tabs. The cables must be properly routed to prevent the cables from being damaged.

8. Connect the DC power cables to the system board and drives.

🔍 NOTE: Check all cable connections to ensure that they are secure.

9. Replace the computer cover (see [Replacing the Computer Cover](#)).
10. Connect your computer and devices to an electrical outlet and turn them on.

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Replacing the System Board

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CAUTION: 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.

NOTICE: Do not perform the following steps unless you are familiar with hardware removal and replacement. Performing these steps incorrectly could damage your system board. For technical service, see the *Setup and Quick Reference Guide*.

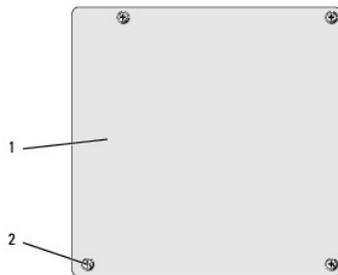
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).

CAUTION: The processor heat sink can get very hot during normal operation. Be sure that the heat sink has had sufficient time to cool before you touch it.

3. If applicable, remove the processor (see [Replacing the Processor \(Dell™ Vostro™ A180 only\)](#)).
4. Remove the memory modules (see [Replacing Memory Module\(s\)](#)) and document which memory module is removed from each memory module connector so that the memory modules can be installed in the same location after the board is replaced.

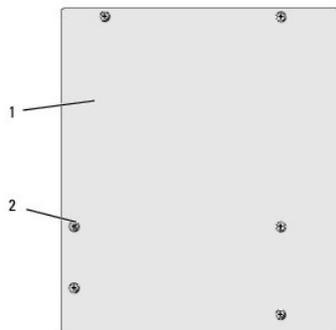
NOTICE: Carefully note the routing and location of each cable before you disconnect it, so that you are sure to re-route cables correctly. An incorrectly routed or a disconnected cable could lead to computer problems.

5. Disconnect all cables from the system board.
6. Remove the screws securing the system board as appropriate.
 - 1 For Dell™ Vostro™ A100, remove the four screws securing the system board.



1	system board	2	screws (4)
---	--------------	---	------------

- 1 For Dell Vostro A180, remove the six screws securing the system board.



1	system board	2	screws (6)
---	--------------	---	------------

7. Lift the system board away from the chassis.

 **NOTICE:** If you are replacing the system board, visually compare the replacement system board to the existing system board to ensure that you have the correct part.

 **NOTE:** Some components and connectors on replacement system boards may be in different locations than corresponding connectors on the existing system board.

 **NOTE:** Jumper settings on replacement system boards are preset at the factory.

8. Align the screw holes on the system board with the screw holes on the chassis.

9. Replace the screws that secure the system board to the chassis.

10. Connect the cables that you removed from the system board.

11. If applicable, replace the processor (see [Replacing the Processor \(Dell™ Vostro™ A180 only\)](#)).

 **NOTICE:** Ensure that the heat sink assembly is correctly seated and secure.

12. Replace the memory modules into the memory module connectors at the same locations from which you removed them (see [Replacing Memory Module\(s\)](#)).

13. Replace any add-in cards on the system board.

14. Replace the computer cover (see [Replacing the Computer Cover](#)).

15. Connect your computer and devices to an electrical outlet, and turn them on.

16. Flash the system BIOS, as needed.

 **NOTE:** For information on flashing the system BIOS, see [Flashing the BIOS](#).

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System Setup

Dell™ Vostro™ A100/A180 Service Manual

- [Overview](#)
- [Clearing CMOS Settings](#)
- [Flashing the BIOS](#)

Overview

Use system setup to:

- 1 Change the system configuration information after you add, change, or remove any hardware in your computer
- 1 Set or change a user-selectable option such as the user password
- 1 Read the current amount of memory or set the type of hard drive installed

 **NOTICE:** Unless you are an expert computer user, do not change the settings for this program. Certain changes can make your computer work incorrectly.

 **NOTE:** Before you use system setup, it is recommended that you write down the system setup screen information for future reference.

Entering System Setup

1. Turn on (or restart) your computer.
2. When the blue DELL™ logo is displayed, watch for the F2 prompt to appear and then press <F2> immediately.

 **NOTE:** The F2 prompt indicates that the keyboard has initialized. This prompt can appear very quickly, so you must watch for it to display, and then press <F2>. If you press <F2> before you are prompted, this keystroke will be lost. If you wait too long and the operating system logo appears, continue to wait until you see the Microsoft® Windows® desktop. Then, shut down your computer (see [Turning Off Your Computer](#)) and try again.

System Setup Screens

The system setup screen displays current or changeable configuration information for your computer. Information on the screen is divided into three areas: the options list, active options field, and key functions.

Options List — This field appears on the top of the system setup window. The tabbed options contain features that define the configuration of your computer, including installed hardware, power conservation, and security features.

Option Field — This field contains information about each option. In this field you can view your current settings and make changes to your settings. Use the right- and left-arrow keys to highlight an option. Press <Enter> to make that selection active.

Help Field — This field provides context sensitive help based on the options selected.

Key Functions — This field appears below the Option Field and lists keys and their functions within the active system setup field.

System Setup Options — Dell™ Vostro™ A100

 **NOTE:** Depending on your computer and installed devices, the items listed in this section may not appear, or may not appear exactly as listed.

System Info	
System	Displays the system name
BIOS Info	Shows the BIOS version number and date information
Service Tag	Shows the service tag of the computer
CPU Info	Lists the processor bus speed, processor ID, clock speed, and L2 cache
System Time	Displays current date settings in mm:dd:yy format
System Date	Displays current time settings in hh:mm:ss format
SATA Channel 1 Master	Displays the status of auto detection of IDE devices Hard Disk; ATAPI CDROM: Not Detected
SATA Channel 1 Slave	Displays the status of auto detection of IDE devices Hard Disk; ATAPI CDROM: Not Detected
Halt: On	All Error; All, But Keyboard (All, But Keyboard by default)

Advanced BIOS Features	
CPU Configuration	<ul style="list-style-type: none"> 1 Execute-Disable Bit — Disabled; Enabled (Enabled by default) 1 Hyper Threading Technology — Disabled; Enabled (Enabled by default)
Quick Boot	Allows BIOS to skip certain tests while booting Disabled; Enabled (Enabled by default)
Boot Up NumLock	Off; On (On by default)
Boot Device Configuration	
Hard Disk Drives	Specifies the boot device priority sequence from available hard drives
Removable Drives	Specifies the boot device priority sequence from available removable drives
CD/DVD Drives	Specifies the boot device priority sequence from available CD/DVD drives
First Boot Device	Specifies the boot sequence from the available devices Removable; CD/DVD; Hard Disk; Disabled (Removable by default)
Second Boot Device	Specifies the boot sequence from the available devices Removable, CD/DVD, Hard Disk, Disabled (Hard Disk by default)
Third Boot Device	Specifies the boot sequence from the available devices Removable; CD/DVD; Hard Disk; Disabled (CD/DVD by default)
Boot Other Device	Disabled; Enabled (Enabled by default)
Boot Menu Security	Disabled; Enabled (Disabled by default)
Advanced Chipset Features	
Initiate Graphic Adapter	Select which graphics controller to use as the primary boot device IGD; PCI/IGD (PCI/IGD Slot by default)
DVMT Mode Select	Fixed Mode; DVMT Mode; Combo Mode (DVMT Mode by default)
DVMT/FIXED Memory	64 MB; 128 MB; Maximum DVMT (128 MB by default)
Integrated Peripherals	
IDE Configuration	SATA Controller — Disabled; Compatible; Enhanced (Enhanced by default)
Onboard Configuration	<ul style="list-style-type: none"> 1 Onboard Audio Controller — Enabled; Disabled (Enabled by default) 1 Onboard LAN Controller — Enabled; Disabled (Enabled by default) 1 Onboard LAN Boot ROM — Enabled; Disabled (Enabled by default)
SuperIO Configuration	Serial Port1 Address — Disabled; 3F8/IRQ4; 2F8/IRQ3; 3E8/IRQ4; 2E8/IRQ3 (Disable by default)
USB Configuration	<ul style="list-style-type: none"> 1 USB Controller — Enabled; Disabled (Enabled by default) 1 USB 2.0 Controller — Enabled; Disabled (Enabled by default) 1 Legacy USB support — Enabled; Disabled (Enabled by default) 1 USB Storage Device Support — Enabled; Disabled (Enabled by default)
USB Controller	Disabled; Enabled (Enabled by default)
Onboard Audio Controller	Disabled; Enabled (Enabled by default)
Onboard LAN Controller	Disabled; Enabled (Enabled by default)
Power Management Setup	
ACPI Suspend Type	S1(POS); S3(STR) (S3(STR) by default)
Restore on AC Power Loss	Power Off; Power On; Last State (Power Off by default)
Resume by LAN	Disabled; Enabled (Enabled by default)
Resume by RTC	Disabled; Enabled (Enabled by default)
Set Supervisor Password	Allows you to set the supervisor password
Set User Password	Allows you to set user passwords when the supervisor password has been set

System Setup Options — Dell Vostro A180

 **NOTE:** Depending on your computer and installed devices, the items listed in this section may not appear, or may not appear exactly as listed.

System Info	
BIOS Info	Shows the BIOS version number and date information
Service Tag	Shows the service tag of the computer
Processor Type	Shows the processor type
Processor L2 Cache	Shows the processor L2 cache size
Memory Installed	Indicates amount of installed memory, available memory, memory speed, channel mode (dual or single), and type of memory installed

Memory Available	Shows the amount of memory available
Memory Speed	Shows the clock speed of the memory installed
Memory Channel Mode	Shows the type of memory channel
Memory Technology	Shows the type of memory installed
Standard CMOS Features	
System Date	Displays current date settings in mm:dd:yy format
System Time	Displays current time settings in hh:mm:ss format
IDE Channel 0 Master	Displays the status of auto detection of IDE devices Hard Disk; CD/DVD; None
IDE Channel 0 Slave	Displays the status of auto detection of IDE devices Hard Disk; CD/DVD; None
SATA-0	Hard Disk; CD/DVD; None
SATA-1	Hard Disk; CD/DVD; None
SATA-2	Hard Disk; CD/DVD; None
SATA-3	Hard Disk; CD/DVD; None
Drive A	None; 1.44M 3.5 in (None by default)
Halt On	All Errors; All, But Keyboard (All, But Keyboard by default)
Advanced BIOS Features	
CPU Feature	<ul style="list-style-type: none"> 1 Limit CPUID Value — Disabled; Enabled (Disabled by default) 1 Execute Disable Bit — Disabled; Enabled (Enabled by default) 1 Core Multi-Processing — Disabled; Enabled (Enabled by default)
Boot Up Floppy Seek	Disabled; Enabled (Disabled by default)
Boot Up NumLock Status	Off; On (On by default)
Boot Device Configuration	
Hard Disk Boot Priority	Used to set the device priority of hard drives. The items displayed are dynamically updated according to the hard drives detected
First Boot Device	Specifies the boot sequence from the available devices Removable; Hard Disk; CDROM; USB-CDROM; Disabled (Removable by default)
Second Boot Device	Specifies the boot sequence from the available devices Removable; Hard Disk; CDROM; USB-CDROM; Disabled (Hard Disk by default)
Third Boot Device	Specifies the boot sequence from the available devices Removable; Hard Disk; CDROM; USB-CDROM; Disabled (CDROM by default)
Boot Other Device	Disabled; Enabled (Enabled by default)
Boot Menu Security	Disabled; Enabled (Disabled by default)
Advanced Chipset Features	
Init Display First	PCI Slot; Onboard (PCI Slot by default)
Video Memory Size	1 MB; 8 MB (8 MB by default)
DVMT Mode	FIXED; DVMT (DVMT by default)
DVMT/FIXED Memory Size	128 MB; 256 MB (128 MB by default)
Power Management Setup	
ACPI Suspend Type	S1(POS); S3(STR) (S3(STR) by default)
Auto Power On	Disabled; Enabled (Disabled by default)
AC recovery	Last; Off; On (Off by default)
Remote Wake Up	On; Off (On by default)
Integrated Peripherals	
USB Controller	Disabled; Enabled (Enabled by default)
USB Storage Function	Disabled; Enabled (Enabled by default)
Onboard FDC Controller	Disabled; Enabled (Enabled by default)
Onboard Audio Controller	Disabled; Enabled (Enabled by default)
Onboard LAN Controller	Disabled; Enabled (Enabled by default)
Onboard LAN Boot ROM	Disabled; Enabled (Disabled by default)

Boot Sequence

This feature allows you to change the boot sequence for devices.

Boot Options

1. **Hard Drive** — The computer attempts to boot from the primary hard drive. If no operating system is on the drive, the computer generates an error message.
1. **CD/DVD Drive** — The computer attempts to boot from the CD/DVD drive. If no CD/DVD is in the drive, or if the CD/DVD has no operating system, the computer generates an error message.
1. **USB Flash Device** — Insert the memory device into a USB port and restart the computer. When **F12 = Boot Menu** appears in the upper-right corner of the screen, press <F12>. The BIOS detects the device and adds the USB flash option to the boot menu.

 **NOTE:** To boot to a USB device, the device must be bootable. To ensure that your device is bootable, check the device documentation.

Changing Boot Sequence for the Current Boot

You can use this feature, for example, to tell the computer to boot from the CD drive so that you can run the Dell Diagnostics on the *Drivers and Utilities* media, but you want the computer to boot from the hard drive when the diagnostic tests are complete. You can also use this feature to restart your computer to a USB device such as a USB floppy drive, or a memory key.

1. If you are booting to a USB device, connect the USB device to a USB connector.
2. Turn on (or restart) your computer.
3. When **F2 = Setup**, **F12 = Boot Menu** appears in the upper-right corner of the screen, press <F12>.

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

The **Boot Device Menu** appears, listing all available boot devices. Each device has a number next to it.

4. On the **Boot Device Menu** choose the device you want to boot from.

For example, if you are booting to a USB memory key, highlight **USB Flash Device** and press <Enter>.

 **NOTE:** To boot to a USB device, the device must be bootable. To ensure your device is bootable, check the device documentation.

Changing Boot Sequence for Future Boots

1. Enter system setup (see [Entering System Setup](#)).
2. Use the arrow keys to highlight the **Boot Device Configuration** menu option and press <Enter> to access the menu.

 **NOTE:** Write down your current boot sequence in case you want to restore it.

3. Press the up- and down-arrow keys to move through the list of devices.
4. Press plus (+) or minus (-) to change the boot priority of device.

Clearing CMOS Settings

 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions that shipped with your computer.

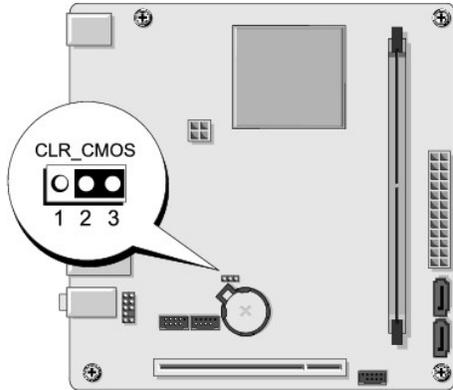
1. Follow the procedures in [Before You Begin](#).

 **CAUTION:** The computer must be disconnected from the electrical outlet to clear the CMOS setting.

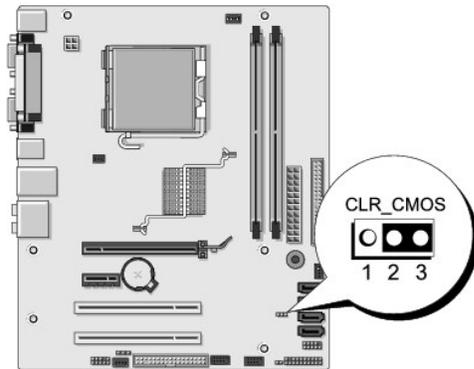
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Reset the current CMOS settings:
 - a. Locate the 2-pin CMOS jumper plug (CLR_CMOS) on the system board (see [System Board Components](#)).
 - b. Remove the jumper plug from the CMOS jumper (CLR_CMOS) pins 2 and 3.
 - c. Place the jumper plug on the CMOS jumper (CLR_CMOS) pins 1 and 2 and wait approximately five seconds.

- d. Remove the jumper plug and replace it on the CMOS jumper (CLR_CMOS) pins 2 and 3.

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4. Replace the computer cover (see [Replacing the Computer Cover](#)).
5. Connect your computer and devices to electrical outlets, and turn them on.

Flashing the BIOS

The BIOS may require flashing when an update is available or when replacing the system board.

1. Turn on the computer.
2. Locate the BIOS update file for your computer at the Dell Support website at support.dell.com.

 **NOTE:** For non U.S. regions, choose your country or region from the drop-down list at the bottom of the Dell support website and then locate the BIOS update file for your computer.

3. Click **Download Now** to download the file.
4. If the **Export Compliance Disclaimer** window appears, click **Yes, I Accept this Agreement**.

The **File Download** window appears.

5. Click **Save this program to disk**, and then click **OK**.

The **Save In** window appears.

6. Click the down arrow to view the **Save In** menu, select **Desktop**, and then click **Save**.

The file downloads to your desktop.

7. Click **Close** when the **Download Complete** window appears.

The file icon appears on your desktop and is titled the same as the download BIOS update file.

8. Double-click the file icon on the desktop and follow the instructions on the screen.

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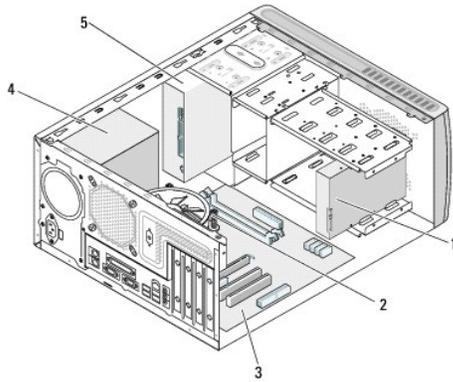
Technical Overview

Dell™ Vostro™ A100/A180 Service Manual

- [Inside View of Your Computer](#)
- [System Board Components](#)

⚠ CAUTION: 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.

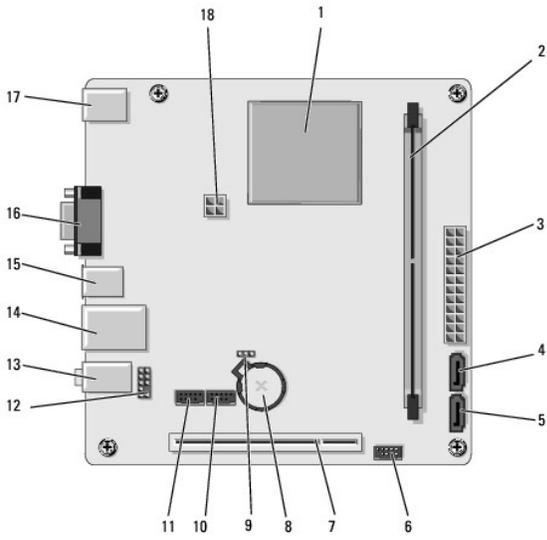
Inside View of Your Computer



1	hard drive	2	processor fan (<i>Vostro A180 only</i>)
3	system board	4	power supply
5	optical drive		

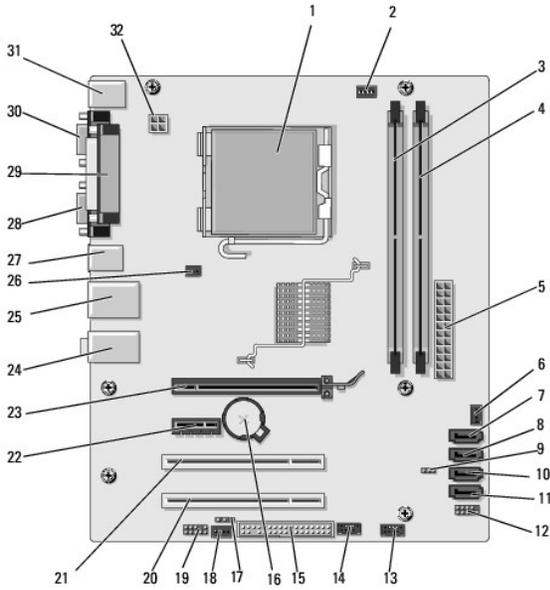
System Board Components

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1	processor (CPU)	2	memory module connector (DIMM_1)
3	main power connector (ATX_POWER)	4	serial ATA drive connector (SATA2)
5	serial ATA drive connector (SATA1)	6	front panel connector (FP1)
7	PCI connector (PCI 2.3)	8	battery socket
9	clear CMOS jumper (CLR_CMOS)	10	front USB connector (F_USB1)
11	front USB connector (F_USB2)	12	front panel audio connectors
13	audio connectors	14	2 USB connectors and 1 LAN connector
15	USB connectors (2)	16	video connector (VGA)
17	keyboard and mouse connector	18	processor fan connector (CPU_FAN)

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1	processor socket (CPU)	2	processor fan connector (CPU_FAN)
3	memory module connector (DIMM_1)	4	memory module connector (DIMM_2)
5	main power connector (ATX_POWER)	6	chassis fan connector
7	serial ATA drive connector (SATA4)	8	serial ATA drive connector (SATA2)
9	clear CMOS jumper (CLR_CMOS)	10	serial ATA drive connector (SATA3)
11	serial ATA drive connector (SATA1)	12	Front panel connector (FP1)
13	front USB connector (F_USB2)	14	front USB connector (F_USB1)
15	floppy drive connector	16	battery socket
17	SPDIF_OUT	18	CD IN
19	Front panel audio connector	20	PCI connector (PCI 2.3)
21	PCI connector (PCI 2.3)	22	PCI Express x1 connector (PCIE_X1)
23	PCI Express x16 connector (PCIE_X16)	24	audio connectors
25	2 USB connectors and 1 LAN connector	26	chassis fan connector
27	USB connectors (2)	28	video connector (VGA)
29	parallel connector	30	serial connector
31	keyboard and mouse connector	32	power for processor (ATX_CPU)

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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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