Dell™ Latitude™ D531 Service Manual

Before You Begin
Media Bay Devices
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Model PP04X

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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Base

Dell™ Latitude™ D531 Service Manual

- Removing the Computer Base
- Replacing the Computer Base

Removing the Computer Base

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 Working Inside Your Computer.
2. Remove the fan (see Removing the Fan).
3. Remove the system board (see Removing the System Board Assembly).

NOTE: When removing the system board to replace the computer base, it is not necessary to remove the processor, memory, or Mini-Card.

Replacing the Computer Base

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.

To install the base, follow the procedures in Replacing the System Board Assembly).

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Battery Latch Assembly

Dell™ Latitude™ D531 Service Manual

- Removing the Battery Latch Assembly
- Replacing the Battery Latch Assembly

Removing the Battery Latch 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 Working Inside Your Computer.
2. Remove the computer base (see Removing the Computer Base).
3. Insert a plastic scribe into the notch beneath the edge of the battery latch assembly, and then carefully pry the latch assembly loose.

NOTICE: The battery latch spring is not secured to the latch assembly and can be easily misplaced. When removing the battery latch assembly, place the spring in a secure location until the latch is ready to be reinstalled.

4. Slightly lift the battery latch assembly, and then slide the assembly forward out of the base of the computer.

1	computer base	2	spring	3	battery latch assembly
4	battery release button				

NOTICE: Before you remove the battery release button, observe the orientation of the button to ensure proper installation when the button is replaced.

5. Press the tabs on the battery release button together, and then push the tabs through the base of the computer to remove the button.

Replacing the Battery Latch 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.

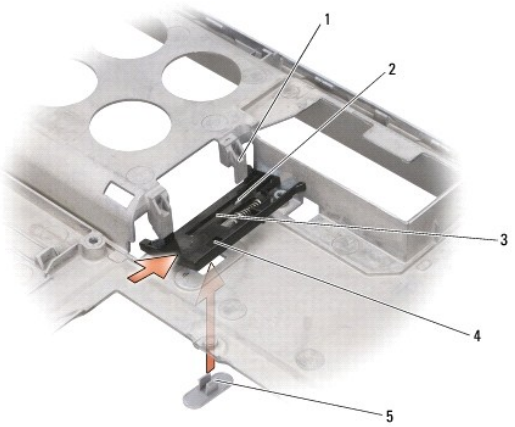
NOTICE: Ensure the battery release button is properly oriented before installing the battery latch assembly.

1. Align the tabs on the battery release button with the hole in the base of the computer, then push the tabs into the hole until they snap into place.

2. Place the battery latch spring onto the guide post on the battery latch assembly.

3. With the battery latch assembly slightly elevated, align the slot in the latch assembly with the guide posts on the base of the computer.

NOTE: Ensure that the tabs on the battery latch assembly are behind the retention tabs on the base of the computer.



1	retention tabs	2	guide post (2)	3	battery-latch assembly slot
4	battery-latch assembly hole	5	battery-release button tabs		

4. Adjust the battery latch spring, as needed, then press the latch assembly into place.

5. Align the tabs on the battery release button with the hole in the battery latch assembly.

6. Apply pressure to the battery latch assembly, then simultaneously, apply pressure to the battery release button until the tabs on the button push through the hole on the latch assembly and snap into place.

7. Replace the computer base (see Replacing the Computer Base).

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Before You Begin

Dell™ Latitude™ D531 Service Manual

- Recommended Tools
- 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:

- You have performed the steps in Before Working Inside Your Computer.
- You have read the safety information in the Dell *Product Information Guide.*
- 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:

- Small flat-blade screwdriver
- Phillips screwdriver
- Small plastic scribe
- 5-mm Hex-nut driver
- Flash BIOS update program CD

Before Working Inside Your Computer

Use the following safety guidelines to help protect your computer from potential damage and to help 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: 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: 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: When disconnecting a cable, pull on the cable's connector or on its strain-relief loop, not on the cable itself. Some cables have connectors with locking tabs; before disconnecting this type of cable, press inward on the locking tabs to release the connector. When connecting or disconnecting a cable, ensure that the connectors are correctly oriented and aligned to avoid damage to the connector and/or the connector's pins.

1. Ensure that the work surface is flat and clean to prevent the computer cover from being scratched.

NOTICE: To avoid losing data, save and close any open files and exit any open programs before you turn off your computer.

2. Save and close any open files, exit any open programs, then shut down the operating system and turn off all attached devices:

   Windows Vista: Click **Start** , click the arrow icon, and then click **Shut Down.**

   Windows XP: **Start→ Shut Down→ Shut down**.

   The computer turns off after the operating system shutdown process finishes.

   NOTE: Ensure that the computer is off and not in a power management mode. If you cannot shut down the computer using the operating system, press and hold the power button for 4 seconds.

3. Disconnect your computer and all attached devices from their electrical outlets.

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

4. Disconnect all external cables from the computer.

5. Close the display and turn the computer upside down on a flat work surface.

NOTICE: To help prevent damage to the system board, remove the main battery before working inside the computer.

6. Slide and hold the battery latch on the bottom of the computer, then lift the battery out of the battery bay.

1	battery	2	battery latch		

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Flashing the BIOS

Dell™ Latitude™ D531 Service Manual

- Flashing the BIOS From a CD
- Flashing the BIOS From the Hard Drive

If a BIOS-update program CD is provided with a new system board, flash the BIOS from the CD. If you do not have a BIOS-update program CD, flash the BIOS from the hard drive.

Flashing the BIOS From a CD

NOTICE: Plug the AC adapter into a known good power source to prevent a loss of power. Failure to do so may cause system damage.

1. Ensure that the AC adapter is plugged in and that the main battery is installed properly.

NOTE: If you use a BIOS update program CD to flash the BIOS, press <F12> before inserting the CD so that you can set up the computer to boot from a CD for one time only. Otherwise, you must enter the system setup program to change the default boot order.

2. Insert the BIOS-update program CD, and turn on the computer.

NOTICE: Do not interrupt this process once it begins. Doing so may cause system damage.

   Follow the instructions that appear on the screen. The computer continues to boot and updates the new BIOS. When the flash update is complete, the computer will automatically reboot.

3. Press <F2> during POST to enter the system setup program.
4. Press <Alt> and <f> to reset the computer defaults.
5. Press <Esc>, select **Save / Exit**, and press <Enter> to save configuration changes.
6. Remove the flash BIOS update program CD from the drive and restart the computer.

Flashing the BIOS From the Hard Drive

NOTICE: Plug the AC adapter into a known good power source to prevent a loss of power. Failure to do so may cause system damage.

1. Ensure that the AC adapter is plugged in, the main battery is properly installed, and a network cable is attached.
2. Turn on the computer.
3. Locate the latest BIOS update file for your computer at **support.dell.com**.
4. Click **Download Now** to download the file.
5. If the **Export Compliance Disclaimer** window appears, click **Yes, I Accept this Agreement**.

   The **File Download** window appears.

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

   The **Save In** window appears.

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

   The file downloads to your desktop.

8. Click **Close** if the **Download Complete** window appears.

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

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

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Internal Card With Bluetooth® Wireless Technology

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- Removing the Card With Bluetooth Wireless Technology
- Replacing the Card With Bluetooth Wireless Technology

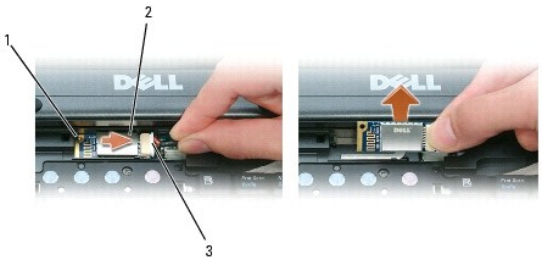
If you ordered an internal card with Bluetooth wireless technology with your computer, it is already installed.

Removing the Card With Bluetooth Wireless Technology

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

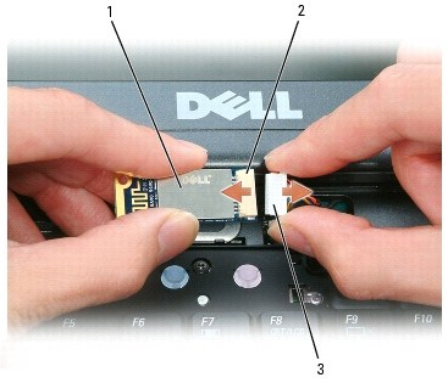
NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface, such as the back panel on the computer.

1. Follow the procedures in Before Working Inside Your Computer.
2. Remove the hinge cover (see Removing the Hinge Cover).
3. Pull the card cable connector out from the metal tab.



1	metal tab	2	card	3	cable connector

4. Pull the cable connector from the card connector.



1	card	2	card connector	3	cable connector

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

Replacing the Card With Bluetooth Wireless Technology

CAUTION: Before you perform any of the procedures in this section, 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. Connect the cable connector to the card connector.
2. Slide card cable connector beneath the metal tab.
3. Replace the hinge cover (see Replacing the Hinge Cover).

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Coin-Cell Battery

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- Removing the Coin-Cell Battery
- Replacing the Coin-Cell Battery

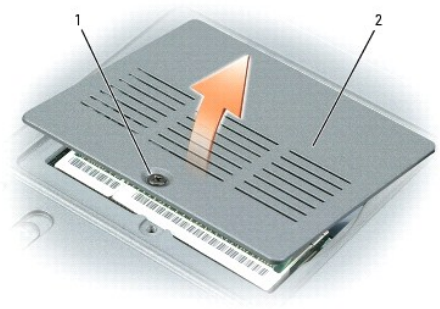
Removing the Coin-Cell Battery

CAUTION: Before you perform any of the procedures in this section, 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 procedures in Before Working Inside Your Computer.

2. Loosen the captive screw securing the memory module/coin-cell battery cover, then remove the cover and set it aside.



1	captive screw	2	memory module/coin-cell battery cover		

3. Insert a plastic scribe into the guide on the side of the coin-cell battery compartment, and then ease the battery out of the compartment.

1	coin-cell battery				

Replacing the Coin-Cell Battery

CAUTION: Before you perform any of the procedures in this section, 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. Insert the battery at a 30-degree angle under the clip with the positive (+) side up, and then push the battery into place.
2. Replace the memory module/coin-cell battery cover and tighten the screw.

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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.

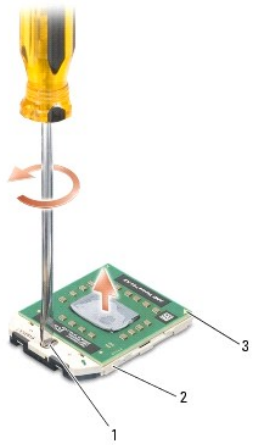
1. Follow the instructions in Before Working Inside Your Computer.

2. Remove the processor thermal-cooling assembly (see Removing the Processor Thermal-Cooling Assembly).

NOTICE: To avoid damage to the processor, hold the screwdriver so that it is perpendicular to the processor when turning the cam screw.

3. 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.

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.



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

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 can reduce the heat transfer capability of the thermal pads.

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

4. Lift the processor module from the ZIF socket.

Replacing 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: 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. A processor module that is not properly seated can result in an intermittent connection or permanent damage to the microprocessor and ZIF socket.

NOTE: If a new processor is installed, you will receive 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, then 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.

   When the processor module is properly 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 properly.

NOTICE: To avoid damage to the processor, hold the screwdriver so that it is perpendicular to the processor when turning the cam screw.

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).

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Display

Dell™ Latitude™ D531 Service Manual

- Display Assembly
- Display Bezel
- Display Panel
- Display Latch

Display Assembly

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 Working Inside Your Computer.
2. Remove the two M2.5 x 5-mm screws (labeled "D") from the bottom of the computer.

3. Remove the hinge cover (see Removing the Hinge Cover).
4. Remove the keyboard (see Removing the Keyboard).
5. Remove the two M2.5 x 5-mm screws from the back of the computer.

6. Disconnect the display cable from the display cable connector on the system board.
7. Disconnect the Mini-Card antenna cables (see Removing the Mini-Card).

NOTICE: Ensure that the display cable and the antenna cables do not get caught beneath the plastic tabs on the base of the computer.

8. Lift the display out of the computer.

1	display assembly	2	antenna cables (3)	3	display cable pull tab

Replacing the Display Assembly

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

1. Align the display hinges with the holes in the base of the computer, then lower the display into place.
2. Replace the two M2.5 x 5-mm screws that secure the display on the back of the computer.

NOTICE: Using the plastic tabs on the base of the computer, ensure that cables are properly routed and secured.

3. Connect the display cable to the system board.
4. Connect the Mini-Card antenna cables (see Replacing the Mini-Card).
5. Replace the keyboard (see Replacing the Keyboard).
6. Replace the hinge cover (see Replacing the Hinge Cover).
7. Close the display.
8. Replace the two M2.5 x 5-mm screws (labeled "D") that secure the display on the bottom of the computer.

Display Bezel

Removing the Display Bezel

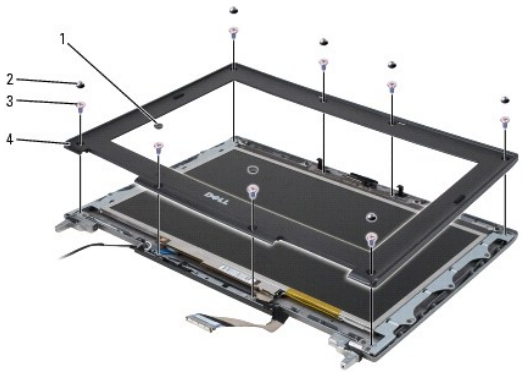
CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

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.

1. Follow the instructions in Before Working Inside Your Computer.
2. Remove the hinge cover (see Removing the Hinge Cover).
3. Remove the keyboard (see Removing the Keyboard).
4. Remove the display assembly (see Removing the Display Assembly).

5. Remove the six rubber display bumpers and two mylar screw covers from around the display bezel.

6. Remove the eight M2.5 x 4.2 x 5-mm shoulder screws from around the display bezel.



1	mylar screw covers (2)	2	rubber display bumpers (6)	3	M2.5 x 4.2 x 5-mm screws (8)
4	display bezel				

NOTICE: Removal of the bezel from the display back cover requires extreme care to avoid damage to the bezel.

7. Starting at the edges of the bottom of the display panel, use your fingers to separate the bezel from the top cover, then lift the inside edges to separate the remainder of the bezel from the top cover.

Replacing the Display Bezel

1. Starting at any corner, use your fingers to gently snap the bezel into place to secure it to the display panel.

2. Replace the eight M2.5 x 4.2 x 5-mm shoulder screws around the display bezel.

3. Replace the six rubber display bumpers and two mylar screw covers around the display bezel.

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).

Display Panel

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 periodically touching an unpainted metal surface, such as the back panel on the computer.

1. Follow the instructions in Before Working Inside Your Computer.

2. Remove the hinge cover (see Removing the Hinge Cover).

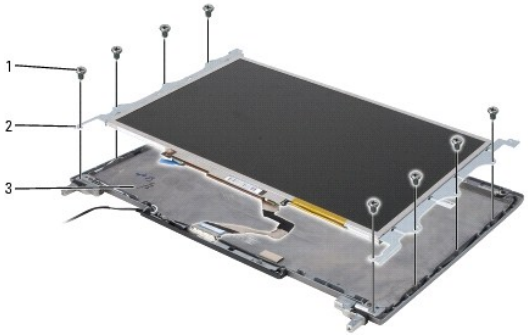
3. Remove the keyboard (see Removing the Keyboard).

4. Remove the display assembly (see Removing the Display Assembly).

5. Remove the display bezel (see Removing the Display Bezel).

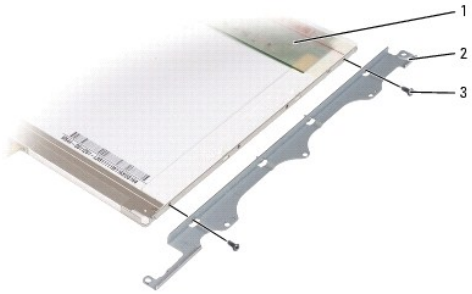
6. Remove the eight M2.5 x 5-mm screws (four on each side of the display panel) that secure the display panel to the display cover in sequential order.

7. Lift the display panel out of the display cover.



1	M2.5 x 5-mm screws (8)	2	display panel assembly	3	display cover

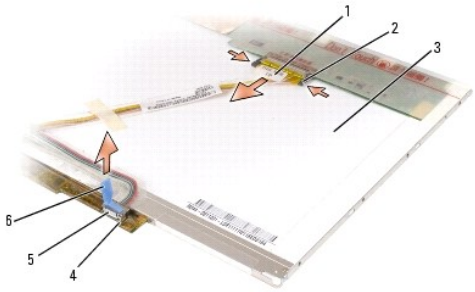
8. Remove the four M2 x 3-mm screws (two on each side of the display panel) that secure the brackets to the display panel.



1	display panel	2	bracket (2)	3	M2 x 3-mm screws (4)

9. Use the pull tab to disconnect the bottom flex-cable connector from the inverter connector.

10. Press inward on the metal clamps on both sides of the top flex-cable connector and gently pull to disconnect the top flex-cable connector from the display locking connector.



1	top flex-cable connector	2	flex-cable release levers (2)	3	back of display panel
4	inverter board	5	bottom flex-cable connector	6	pull tab on bottom flex-cable connector

Replacing the Display Panel

1. Connect the top flex-cable connector to the display connector.

2. Connect the bottom flex-cable connector to the inverter connector.

3. Align the screwholes and guide pins on the brackets with the corresponding holes on the display panel, then replace the four M2 x 3-mm screws (two on each side of the display panel) to secure the brackets to the display panel.

4. Gently place the display panel inside the display cover.

5. Replace the eight M2.5 x 5-mm screws (four on each side of the display panel) in sequential order to secure the display panel to the display cover.

6. Replace the display bezel (see Replacing the Display Bezel).

7. Replace the display assembly (see Replacing the Display Assembly).

8. Replace the keyboard (see Replacing the Keyboard).

9. Replace the hinge cover (see Replacing the Hinge Cover).

Display Latch

Removing the Display Latch

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 Working Inside Your Computer.

2. Remove the hinge cover (see Removing the Hinge Cover).

3. Remove the keyboard (see Removing the Keyboard).

4. Remove the display assembly (see Removing the Display Assembly).

5. Remove the display bezel (see Removing the Display Bezel).

6. Remove the four M2 x 3-mm screws that secure the wireless antenna cover to the display cover.

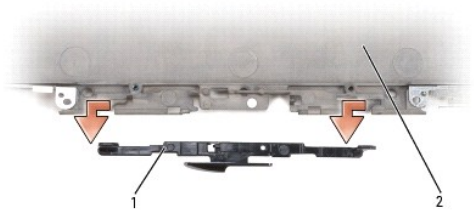
1	M2 x 3-mm screws (4)	2	display cover	3	wireless antenna cover

7. Using your fingers, gently separate the latch cover from the display cover and set it aside.

NOTICE: The display latch spring may be covered by a plastic sleeve. Neither the spring nor the plastic sleeve are secured to the latch assembly and can be easily misplaced. When removing the display latch, place the spring and plastic sleeve in a secure location.

8. Remove the display latch spring and set it aside.

9. Slide the display latch to the right and remove it from the display cover.



1	display latch	2	display cover		

Replacing the Display Latch

1. Align the latch with the slots on the display cover and slide it into place.
2. Slide the latch spring into the plastic sleeve, if present, then connect the latch spring to the display latch and display cover.
3. Replace the wireless antenna cover, then replace the four M2 x 3-mm screws to secure the antenna cover to the display cover.
4. Replace the display bezel (see Replacing the Display Bezel).
5. Replace the display assembly (see Replacing the Display Assembly).
6. Replace the keyboard (see Replacing the Keyboard).
7. Replace the hinge cover (see Replacing the Hinge Cover).

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Fan

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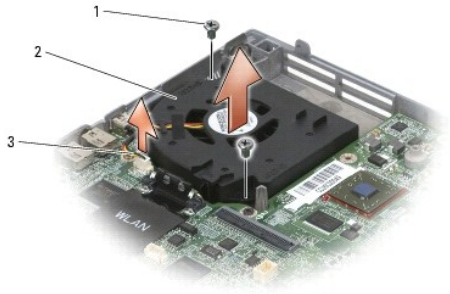
- Removing the Fan
- Replacing the Fan

Removing 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.

1. Follow the instructions in Before Working Inside Your Computer.
2. Remove the palm rest (see Removing the Palm Rest).
3. Disconnect the fan connector from the system board connector.
4. Remove the two M2.5 x 5-mm screws from the fan.
5. Remove the fan.



1	M2.5 x 5-mm screws (2)	2	fan	3	fan connector

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.

1. Align the screw holes on the fan with the holes on the base of the computer.
2. Replace the two M2.5 x 5-mm screws to secure the fan to the base of the computer.
3. Connect the fan connector to the system board connector.
4. Replace the palm rest (see Replacing the Palm Rest).

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Hard Drive

Dell™ Latitude™ D531 Service Manual

- Removing the Hard Drive
- Replacing the Hard Drive
- Returning a Hard Drive to Dell

Removing the Hard Drive

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

CAUTION: *Do not touch* **the metal housing of the hard drive if you remove the hard drive from the computer while the drive is hot.**

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 or in a power management mode.

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.

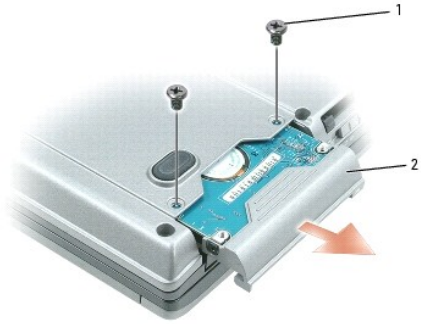
NOTICE: To avoid damaging the hard drive, handle the drive with care.

NOTE: Dell does not guarantee compatibility or provide support for hard drives obtained from sources other than Dell.

NOTE: If you are installing a hard drive obtained from a source other than Dell, you may need to install an operating system, drivers, and utilities on the new drive.

1. Follow the procedures in Before Working Inside Your Computer.

2. Remove the two M3 x 3-mm hard drive screws.



1	M3 x 3-mm screws (2)	2	hard drive		

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

3. Slide the hard drive out of the computer.

Replacing the Hard Drive

CAUTION: Before you perform any of the procedures in this section, 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. Remove the new drive from its packaging, if applicable.

   Save the original packaging for storing or shipping the hard drive.

NOTICE: Use firm and even pressure to slide the drive into place. Excessive force may result in damage to the connector.

2. Slide the hard drive into the bay until it is fully seated.

3. Replace the two M3 x 3-mm screws to secure the hard drive.

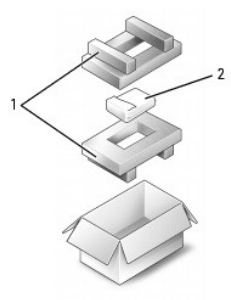
4. Install the operating system for your computer, if necessary (see "Restoring Your Operating System" in your *User's Guide*).

5. Install the drivers and utilities for your computer, if necessary (see "Reinstalling Drivers and Utilities" in your *User's Guide*).

Returning a Hard Drive to Dell

Return your hard drive to Dell in the replacement drive's foam packaging. Otherwise, the hard drive may be damaged in transit.

NOTE: The hard drive should be inserted in the replacement drive's antistatic bag before being placed in the foam packaging.



1	foam packaging	2	hard drive		

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Hinge Cover

Dell™ Latitude™ D531 Service Manual

- Removing the Hinge Cover
- Replacing the Hinge Cover

Removing the Hinge Cover

CAUTION: Before you perform any of the procedures in this section, 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. Exercise care when removing the hinge cover.

1. Follow the procedures in Before Working Inside Your Computer.
2. Turn the computer over and open the display all the way (180 degrees) so that it rests flat on your work surface.

NOTICE: To avoid damaging the hinge cover, do not lift the cover on both sides simultaneously.

3. Insert a plastic scribe into the indent along the right edge of the hinge cover, and then carefully pry the hinge cover loose.

1	hinge cover	2	indent		

4. Moving from right to left, ease the hinge cover up and remove it from the computer.

Replacing the Hinge Cover

CAUTION: Before you perform any of the procedures in this section, 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. Exercise care when replacing the hinge cover.

1. Align the two tabs along the left edge of the hinge cover with the corresponding notches in the computer.
2. Moving from left to right, press down until the hinge cover snaps into place.

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Keyboard

Dell™ Latitude™ D531 Service Manual

- Removing the Keyboard
- Replacing the Keyboard

Removing the Keyboard

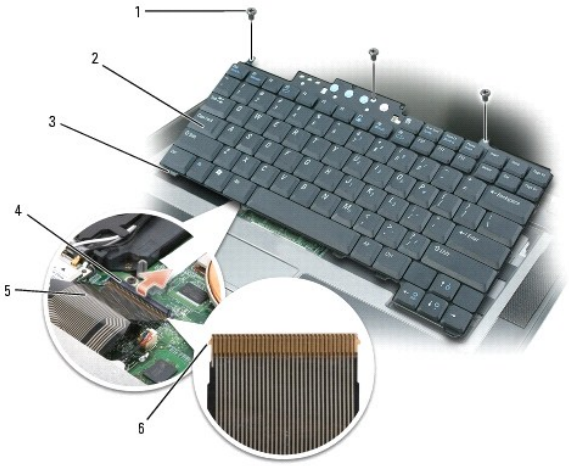
CAUTION: Before you perform any of the procedures in this section, follow the safety instructions in the *Product Information Guide*.

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 procedures in Before Working Inside Your Computer.
2. Remove the hinge cover (see Removing the Hinge Cover).
3. Remove the three M2 x 3-mm screws at the top of the keyboard.

NOTICE: The key caps on the keyboard are fragile, easily dislodged, and time consuming to replace. Exercise care when removing and handling the keyboard.

4. Lift the keyboard only enough to hold it up and slightly forward to allow access to the keyboard connector on the system board.
5. Rotate the latch on the system board connector up to disconnect the keyboard cable.



1	M2 x 3-mm screws (3)	2	keyboard	3	keyboard tabs (5)
4	latch	5	keyboard cable	6	keyboard connector tabs (2)

Replacing the Keyboard

CAUTION: Before you perform any of the procedures in this section, 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: Before securing the latch on the system board connector, ensure that the keyboard connector is seated and the tabs on the connector are properly aligned with the slots on the system board connector. Failure to align the tabs could result in a malfunction of the computer or damage to the cable and/or the cable connector.

1. Align the tabs on the keyboard cable connector with the corresponding slots on the system board connector, then press the latch on the system board connector down to lock the keyboard cable into place.

NOTICE: To avoid scratching the palm rest when replacing the keyboard, hook the tabs along the front edge of the keyboard into the palm rest, and then secure the keyboard in place.

2. Place the tabs along the front edge of the keyboard beneath the front-inside edge of the palm rest, then carefully lower the keyboard into place.

   NOTE: You may need to push the bottom of the keyboard down slightly to slide the keyboard tabs into place.

3. Replace the three M2 x 3-mm screws to secure the keyboard.

4. Replace the hinge cover (see Replacing the Hinge Cover).

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Memory

Dell™ Latitude™ D531 Service Manual

- Removing a Memory Module
- Replacing a Memory Module

Your Dell computer is equipped with two memory slots/connectors, DIMM A and DIMM B. DIMM A (located under the keyboard) holds the primary memory module as configured from the factory. DIMM B (located on the bottom of the computer) holds any additional memory you may have ordered. If you did not order additional memory, DIMM B is empty.

You can increase your computer memory by installing additional memory modules. For information on the memory supported by your computer, see "Specifications" in your *User's Guide*. Install only memory modules that are intended for your computer.

Generally, when adding a single memory module, install the additional memory module in DIMM B. If you are upgrading the memory, you may need to install memory modules in both DIMM A and DIMM B, depending on the extent of the upgrade.

NOTICE: If you need to install memory modules in two connectors, install a memory module in DIMM A before you install a module in DIMM B.

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

Removing a Memory Module

CAUTION: Before you perform any of the procedures in this section, 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.

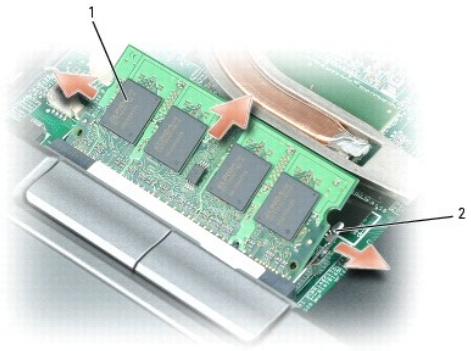
DIMM A Connector

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

1. Follow the procedures in Before Working Inside Your Computer.
2. Remove the hinge cover (see Removing the Hinge Cover).
3. Remove the keyboard (see Removing the Keyboard).

NOTICE: To prevent damage to the memory module connector, do not use tools of any kind to spread the metal clips that secure the module.

4. Use your fingertips to carefully spread apart the metal clips securing each end of the memory module until the module pops up.
5. Remove the memory module from the connector at a 45-degree angle.

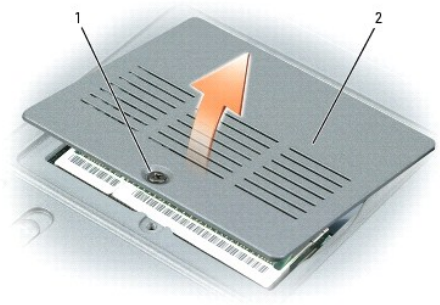


1	memory module	2	metal retention clips (2)		

DIMM B Connector

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

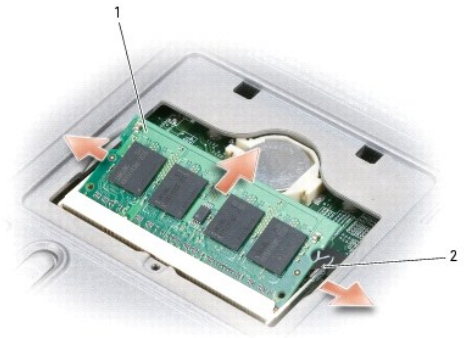
1. Follow the procedures in Before Working Inside Your Computer.
2. Loosen the captive screw securing the memory module cover, then remove the cover and set it aside.



1	captive screw	2	memory module cover		

NOTICE: To prevent damage to the memory module connector, do not use tools of any kind to spread the metal clips that secure the module.

3. Use your fingertips to carefully spread apart the metal clips securing each end of the memory module until the module pops up.
4. Remove the memory module from the connector at a 45-degree angle.



1	memory module	2	metal retention clips (2)		

Replacing a Memory Module

CAUTION: Before you perform any of the procedures in this section, 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: If you need to install memory modules in two connectors, install a memory module in DIMM A before you install a module in DIMM B.

NOTICE: Insert memory modules at a 45-degree angle to avoid damaging the connector. If the memory module is not installed properly, the computer may not boot. No error message is displayed to indicate this type of failure.

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

To remove a memory module, see Removing a Memory Module.

DIMM A Connector

1. Align the notch in the memory module edge connector with the tab in the connector slot, then slide the module firmly into the slot at a 45-degree angle.
2. Rotate the module down until it clicks into place. If you do not feel the click, remove the module and reinstall it.
3. Replace the keyboard (see Replacing the Keyboard).
4. Replace the hinge cover (see Replacing the Hinge Cover).
5. Insert the battery into the battery bay, or connect the AC adapter to your computer and an electrical outlet.
6. Turn on the computer.

   The computer detects the additional memory during startup and automatically updates the system configuration information.

7. To confirm the amount of memory installed in the computer:
   - *In the Microsoft® Windows® XP operating system*, click **Start**, right-click the **My Computer** icon, click **Properties**, and then click **General**.
   - *In the Microsoft Windows Vista™ operating system*, click **Start** → **Help and Support**→ **Computer Information**.

DIMM B Connector

1. Align the notch in the module edge connector with the tab in the connector slot, then slide the module firmly into the slot at a 45-degree angle.
2. Rotate the module down until it clicks into place. If you do not feel the click, remove the module and reinstall it.
3. Replace the memory module cover and tighten the screw.

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

4. Insert the battery into the battery bay, or connect the AC adapter to your computer and an electrical outlet.
5. Turn on the computer.

   The computer detects the additional memory during startup and automatically updates the system configuration information.

6. To confirm the amount of memory installed in the computer:
   - *In the Microsoft® Windows® XP operating system,* click **Start**, right-click the **My Computer** icon, click **Properties**, and then click **General.**
   - *In the Microsoft Windows Vista™ operating system*, click **Start** → **Help and Support**→ **Computer Information**.

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Mini-Card

Dell™ Latitude™ D531 Service Manual

- Removing the Mini-Card
- Replacing the Mini-Card

If you ordered a Mini-Card with your computer, the card is already installed.

Removing the Mini-Card

CAUTION: Before you perform any of the procedures in this section, 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.

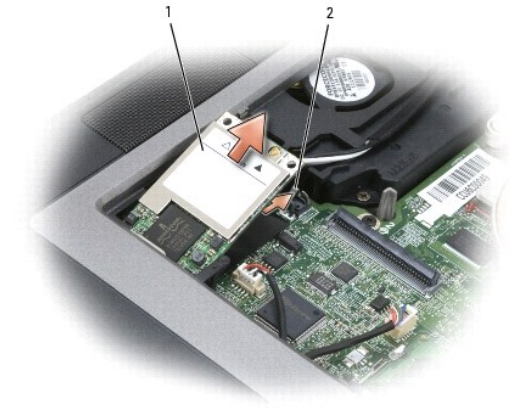
1. Follow the procedures in Before Working Inside Your Computer.
2. Remove the hinge cover (see Removing the Hinge Cover).
3. Remove the keyboard (see Removing the Keyboard).
4. Disconnect the antenna cables from the card.

   NOTE: Depending on the type of Mini-Card you have, not all cables may be in use.

1	Mini-Card	2	antenna cables		

NOTICE: To prevent damage to the memory module connector, do not use tools of any kind to spread the metal clips that secure the module.

5. Use your fingertips to carefully push the metal retention bracket away from the card until the card pops up.



1	Mini-Card	2	metal retention bracket		

6. Remove the Mini-Card from the connector at a 45-degree angle.

Replacing the Mini-Card

CAUTION: Before you perform any of the procedures in this section, 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 card connector is keyed to ensure correct insertion. If you feel resistance, realign the card.

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

NOTICE: Do not insert a Mobile Broadband (WWAN) network card into the WLAN card connector.

NOTE: The Mini-Card may have two or three antenna connectors, depending on the type of card you ordered.

1. Align the Mini-Card edge connector with the system board connector, then slide the card firmly into the connector at a 45-degree angle.
2. Rotate the Mini-Card down until it clicks into place. If you do not feel the click, remove the card and reinstall it.
3. Connect the cables to the Mini-Card, ensuring that you route the cables correctly.

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

4. Replace the keyboard (see Replacing the Keyboard).
5. Replace the hinge cover (see Replacing the Hinge Cover).

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Modem

Dell™ Latitude™ D531 Service Manual

- Removing the Modem
- Replacing the Modem

Removing the Modem

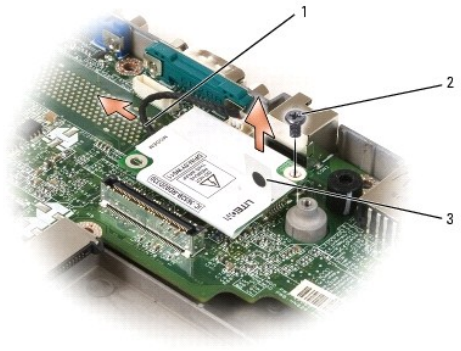
CAUTION: Before you begin the following procedure, follow the safety instructions in the *Product Information Guide*.

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 Working Inside Your Computer.
2. Remove the palm rest (see Removing the Palm Rest).
3. Remove the M2 x 3-mm screw that attaches the modem to the system board.
4. Pull up on the pull tab to disconnect the modem from the modem connector on the system board.

NOTICE: Do not disconnect the modem cable from the system board.

5. Disconnect the modem cable from the modem.



1	modem cable	2	M2 x 3-mm screw	3	modem pull tab

Replacing the Modem

NOTICE: The modem connectors are keyed to ensure correct insertion. If you feel resistance, check the connectors for proper alignment.

1. Connect the modem cable to the new modem.
2. Connect the modem to the system board.

   Align the modem with the screw hole and press the modem into the connector on the system board.
3. Replace the M2 x 3-mm screw and secure the modem to the system board.
4. Replace the palm rest (see Replacing the Palm Rest).

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Media Bay Devices

Dell™ Latitude™ D531 Service Manual

- About the Device Security Screw
- Removing and Installing Media Bay Devices

You can install devices such as a floppy drive, optical drive, second battery, or second hard drive in the media bay.

About the Device Security Screw

When you install a device in the media bay, you can install a device security screw, available separately from Dell, to prevent the device from being easily removed.

NOTE: You do not need to install the device security screw unless you want to prevent the media from being easily removed.

Removing and Installing Media Bay Devices

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

NOTICE: When removing or installing a media bay device, handle the device with care. Store the device in a safe, dry place when it is not installed in the computer. Avoid pressing down on the device or placing heavy objects on top of it.

NOTE: If the device security screw is installed, you must remove the screw to remove the media bay device from the bay.

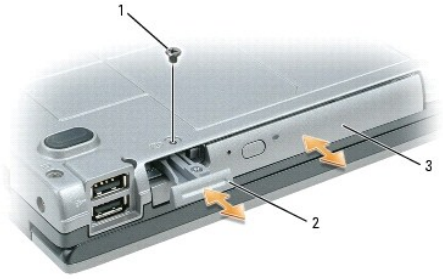
NOTE: If the device security screw is not installed, you can remove and install a media bay device while the computer is running and/or connected to a docking device.

1. *If you are swapping a device while the computer is turned on*, double-click the **Safely Remove Hardware** icon on the taskbar, click the device that you want to eject, and then click **Stop**.

   If you are swapping a device while the computer is turned off, proceed to the next step.

2. Remove the device security screw, if installed.

3. Press the device release latch, and then pull the device out of the media bay.



1	device security screw	2	device release latch	3	media bay device

4. Push the new device into the media bay until it clicks.

   NOTE: Ensure that the device release latch is in the *closed* position.

   If you swapped the device with the computer running, the operating system automatically recognizes the device.

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Palm Rest

Dell™ Latitude™ D531 Service Manual

- Removing the Palm Rest
- Replacing the Palm Rest

Removing the Palm Rest

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

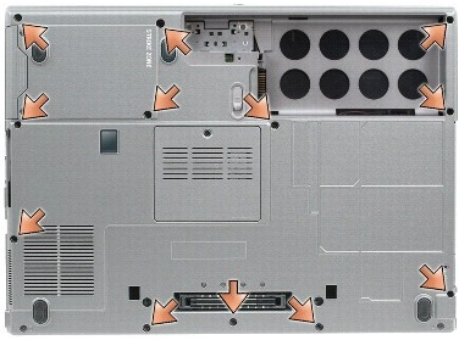
NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface, such as the back panel on the computer.

1. Follow the instructions in Before Working Inside Your Computer.
2. Remove the media bay device (see Removing and Installing Media Bay Devices).
3. Remove the hard drive (see Removing the Hard Drive).
4. Remove the hinge cover (see Removing the Hinge Cover).
5. Remove the keyboard (see Removing the Keyboard).
6. Remove the display assembly (see Removing the Display Assembly).
7. Remove the internal card with Bluetooth wireless technology, if installed (see Removing the Card With Bluetooth Wireless Technology).

   NOTE: It is not necessary to remove the Bluetooth cable connector from the system board connector.

8. Remove the twelve M2.5 x 5-mm screws from the bottom of the computer.

   NOTE: The screw locations may vary slightly from the image shown below.



9. Turn the computer over and remove the three M2.5 x 5-mm screws securing the top of the palm rest.

10. Disconnect the touch pad connector from the system board.

11. Disconnect the speaker connector from the system board.

1	touch pad connector	2	speaker connector	3	palm rest
4	computer base				

NOTICE: Do not use force to separate the palm rest from the computer. If you encounter resistance, gently *flex* or apply pressure to the palm rest, or move along the edge, working away from the area of resistance, until the palm rest is free.

12. Moving from left to right, carefully lift the palm rest along the rear edge, near the hinge brackets, then gently lift the palm rest to remove it from the computer.

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.

1. Align the palm rest with the bottom plastics and gently snap it into place.
2. Connect the speaker connector to the system board.
3. Connect the touch pad connector to the system board.
4. Replace the three M2.5 x 5-mm screws on the top of the palm rest.
5. Turn the computer over and replace the twelve M2.5 x 5-mm screws on the bottom of the computer to secure the palm rest.
6. Replace the internal card with Bluetooth wireless technology, if applicable (see Replacing the Card With Bluetooth Wireless Technology).
7. Replace the display assembly (see Replacing the Display Assembly).
8. Replace the keyboard (see Replacing the Keyboard).
9. Replace the hinge cover (see Replacing the Hinge Cover).
10. Replace the hard drive (see Replacing the Hard Drive).
11. Replace the media bay device (see Removing and Installing Media Bay Devices).

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Using Cards

Dell™ Latitude™ D531 Service Manual

- Card Types
- Removing a PC Card or ExpressCard
- Installing a PC Card or an ExpressCard

Card Types

PC Cards

See "Specifications" in your *User's Guide* for information on supported PC Cards.

NOTE: A PC Card is not a bootable device.

The PC Card slot has one connector that supports a single Type I or Type II card. The PC Card slot supports CardBus technology and extended PC Cards. *Type* of card refers to its thickness, not its functionality.

PC Card Blanks

Your computer shipped with a plastic blank installed in the PC Card slot. Blanks protect unused slots from dust and other particles. Save the blank for use when no PC Card is installed in the slot; blanks from other computers may not fit your computer.

Extended PC Cards

An extended PC Card (for example, a wireless network adapter) is longer than a standard PC Card and extends outside the computer. Follow these precautions when using extended PC Cards:

- Protect the exposed end of an installed card. Striking the end of the card can damage the system board.
- Always remove an extended PC Card before you pack the computer in its carrying case.

Removing a PC Card or ExpressCard

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

NOTICE: Use the PC Card configuration utility (click the icon in the taskbar) to select a card and stop it from functioning before you remove it from the computer. If you do not stop the card in the configuration utility, you could lose data. Do not attempt to eject a card by pulling its cable, if one is attached.

Press the release button and remove the card or blank. You may be required to press the release button twice, once to pop the button out, and then a second time to pop the card out.

Save a blank to use when no PC Card is installed in a slot. Blanks protect unused slots from dust and other particles.

1	PC Card	2	release button		

Installing a PC Card or an ExpressCard

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

You can install a PC Card or ExpressCard in the computer while the computer is running. The computer automatically detects the card.

PC Cards and ExpressCards are generally marked with a symbol (such as a triangle or an arrow) to indicate which end to insert into the slot. The cards are keyed to prevent incorrect insertion. If card orientation is not clear, see the documentation that came with the card.

PC Card

1. Hold the card with its orientation symbol pointing into the slot and the top side of the card facing up. The button may need to be in the *in* position before you insert the card.

2. Slide the card into the slot until the card is completely seated in its connector.

   If you encounter too much resistance, do not force the card. Check the card orientation and try again.

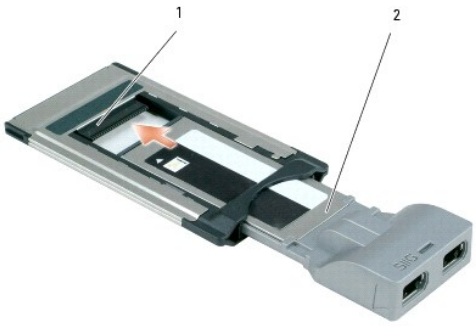
1	PC Card	2	release button		

The computer recognizes most PC Cards and automatically loads the appropriate device driver. If the configuration program tells you to load the manufacturer's drivers, use the floppy disk or CD that came with the PC Card.

ExpressCard

1. Place the ExpressCard in the PC Card adapter (the adapter is included with the ExpressCard).

2. Install the ExpressCard with adapter the same way as a PC Card (see Installing a PC Card or an ExpressCard).



1	adapter slot	2	ExpressCard		

The computer recognizes most ExpressCards and automatically loads the appropriate device driver. If the configuration program tells you to load the manufacturer's drivers, use the floppy disk or CD that came with the ExpressCard.

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System Board Assembly

Dell™ Latitude™ D531 Service Manual

- Removing the System Board Assembly
- Replacing the System Board Assembly

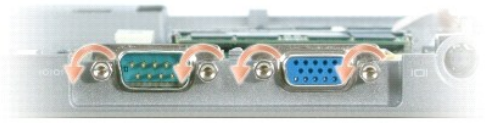
Removing the System Board Assembly

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

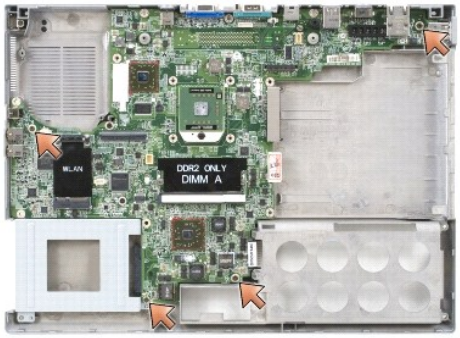
NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface, such as the back panel on the computer.

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

1. Follow the instructions in Before Working Inside Your Computer.
2. Remove the media bay device (see Removing and Installing Media Bay Devices).
3. Remove the hard drive (see Removing the Hard Drive).
4. Remove any installed PC Cards (see Removing a PC Card or ExpressCard).
5. Remove the hinge cover (see Removing the Hinge Cover).
6. Remove the keyboard (see Removing the Keyboard).
7. Remove the display assembly (see Removing the Display Assembly).
8. Remove the palm rest (see Removing the Palm Rest).
9. Remove all memory modules (see Removing a Memory Module).
10. Remove the Mini-Card (see Removing the Mini-Card).
11. Remove the modem (see Removing the Modem).
12. Remove the processor thermal-cooling assembly (see Removing the Processor Thermal-Cooling Assembly).
13. Remove the processor (see Removing the Processor Module).
14. Remove the fan (see Removing the Fan).
15. Remove the four 5-mm hex screws at the back of the computer.



16. Remove the four M2.5 x 5-mm screws from the top of the system board.



17. Lift the right side of the system board, and then carefully lift the system board out of the computer.

Replacing the System Board 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. Insert the left side of the system board into the base of the computer at an angle until the audio connectors on the system board are aligned with the holes on the base of the computer, then carefully lower the system board into place.
2. Replace the four M2.5 x 5-mm screws on the top of the system board.
3. Replace the four 5-mm hex screws at the back of the computer.
4. Replace the fan (see Replacing the Fan).
5. Replace the processor (see Replacing the Processor Module).
6. Replace the processor thermal-cooling assembly (see Replacing the Processor Thermal-Cooling Assembly).
7. Replace the modem (see Replacing the Modem).
8. Replace the Mini-Card (see Replacing the Mini-Card).
9. Replace all memory modules (see Replacing a Memory Module).
10. Replace the palm rest (see Replacing the Palm Rest).
11. Replace the display assembly (see Replacing the Display Assembly).
12. Replace the keyboard (see Replacing the Keyboard).
13. Replace the hinge cover (see Replacing the Hinge Cover).
14. Replace any installed PC Cards (see Installing a PC Card or an ExpressCard).

15. Replace the hard drive (see Replacing the Hard Drive).

16. Replace the media bay device (see Removing and Installing Media Bay Devices).

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.

17. Turn on the computer.

NOTE: If you use a BIOS update program CD to flash the BIOS, press <F12> before inserting the CD in order to set the computer to boot from the CD for one time only. Otherwise, you must enter the system setup program to change the default boot order.

18. Flash update the BIOS (see Flashing the BIOS for more information).

19. Enter the system setup program to update the BIOS on the new system board with the computer Service Tag.

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Processor Thermal-Cooling Assembly

Dell™ Latitude™ D531 Service Manual

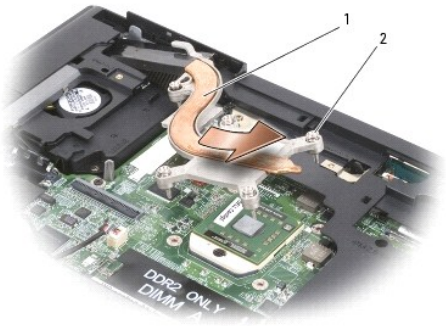
- Removing the Processor Thermal-Cooling Assembly
- Replacing the Processor Thermal-Cooling Assembly

Removing 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.

1. Follow the instructions in Before Working Inside Your Computer.
2. Remove the hinge cover (see Removing the Hinge Cover).
3. Remove the keyboard (see Removing the Keyboard).
4. Disconnect the Mini-Card antenna cables (see Removing the Mini-Card).
5. In sequential order, loosen the five captive screws that secure the processor thermal-cooling assembly to the system board, then carefully lift the processor thermal-cooling assembly out of the computer.



1	processor thermal-cooling assembly	2	captive screws (5)		

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.

1. Insert the heat sink on the processor thermal-cooling assembly into the slot above the fan at a 45- degree angle, then lower the assembly into place.
2. Align the five captive screws on the processor thermal-cooling assembly with the screw holes on the system board.
3. In sequential order, tighten the five captive screws to secure the processor thermal-cooling assembly to the system board.
4. Connect the Mini-Card antenna cables (see Replacing the Mini-Card).
5. Replace the keyboard (see Replacing the Keyboard).
6. Replace the hinge cover (see Replacing the Hinge Cover).

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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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