

# Dell Studio XPS™ 435T/9000 Service Manual

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## Notes, Cautions, and Warnings



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



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



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

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Model: DCRM

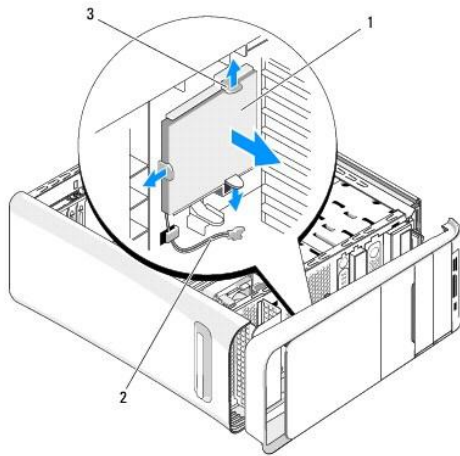
July 2009 Rev. A01

## Replacing the Badge Back Light

### Dell Studio XPS™ 435T/9000 Service Manual

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

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. Press the tabs away from the badge back light and lift the badge back light away from the front panel.



1	badge back light	2	badge back light cable
3	tabs (3)		

5. To replace the badge back light, align the holes in the badge back light to the projections on the front panel.
6. Press the badge back light down until it clicks in place.
7. Reconnect the badge back light cable.
8. Replace the front panel (see [Replacing the Front Panel](#)).
9. Replace the computer cover (see [Replacing the Computer Cover](#)).

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## Before You Begin

### Dell Studio XPS™ 435T/9000 Service Manual

- [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.

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## Technical Specifications

For information on technical specifications of your computer, see the *Setup Guide* that shipped with your computer or see the Dell Support website at [support.dell.com](http://support.dell.com).

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## Recommended Tools



The procedures in this document may require the following tools:

- 1 Small flat-blade screwdriver
- 1 Small Phillips screwdriver
- 1 BIOS upgrade CD or the BIOS executable update program available on the Dell Support website at [support.dell.com](http://support.dell.com)

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## Turning Off Your Computer


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


1. Save and close all open files and exit all open programs.
2. Click the Windows Vista Start button , in the lower-left corner of the desktop, click the arrow , in the lower-right corner of the Start menu, and then click **Shut Down**.
3. The computer turns off after the operating system shutdown process is complete.
4. Ensure that the computer and all attached devices are turned off. If your computer and attached devices did not automatically turn off when you shut down your operating system, press and hold the power button for about 4 seconds to turn them off.


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## Safety Instructions

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

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

 **CAUTION:** 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.


 **CAUTION:** When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.

 **CAUTION:** 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](#)).

 **CAUTION:** 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 computer is unplugged to ground the system board.

 **CAUTION:** Before touching anything inside your computer, ground yourself by touching an unpainted metal surface, such as the metal at the back of the computer. While you work, periodically touch an unpainted metal surface to dissipate static electricity, which could harm internal components.

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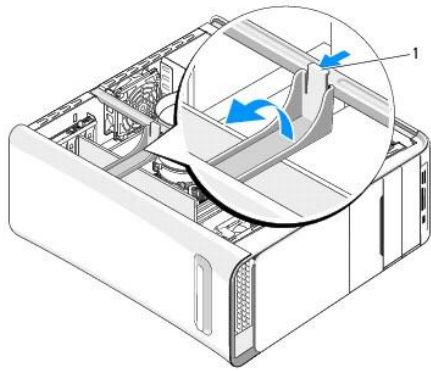
## Replacing a PCI Express Card

### Dell Studio XPS™ 435T/9000 Service Manual

#### ● [Configuring Your Computer After Removing or Installing a PCI Express Card](#)

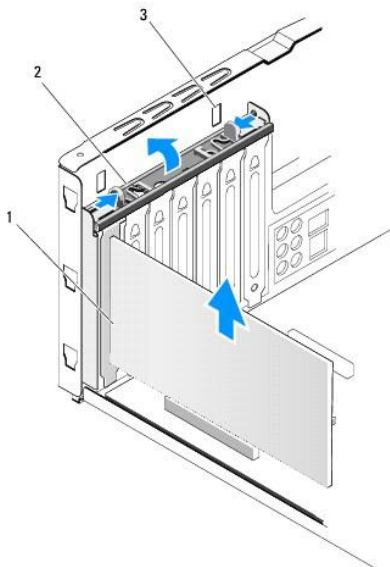
**⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

1. To remove a PCI card, uninstall the PCI Express card's driver and software from the operating system.
2. Follow the procedures in [Before You Begin](#).
3. Remove the computer cover (see [Replacing the Computer Cover](#)).
4. Pull and lift the expansion card retainer away from the computer. If applicable, disconnect any cables connected to the card.



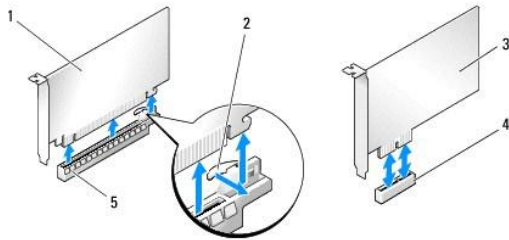
1	expansion card retainer
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5. Press the tabs of the PCI support bracket and push the bracket to the back of the computer until it clicks into the slots on the back of the computer.



1	PCI card	2	PCI support bracket
3	slots (2)		

6. For a PCI card, grasp the card by its top corners, and then ease it out of its connector.
7. For a PCI Express x16 card, push the securing tab and grasp the card by its top corners. Ease the card out of its connector.



1	PCI Express x16 card	2	securing tab
3	PCI Express x1 card	4	PCI Express x1 card slot
5	PCI Express x16 card slot		

**CAUTION:** Installing filler brackets over empty card-slot openings is necessary to maintain FCC certification of the computer. The brackets also keep dust and dirt out of your computer.

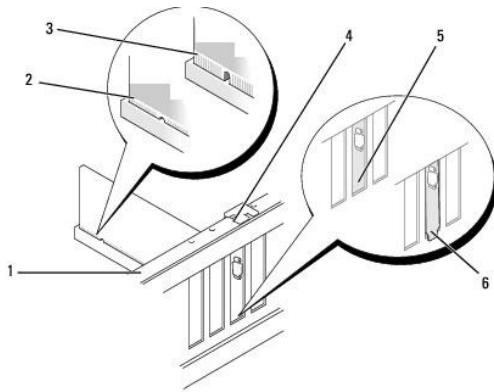
8. If you are not replacing a card install a filler bracket in empty card-slot opening.
9. Remove the filler bracket to create a card-slot opening (if applicable).
10. Prepare the card for installation.

See the documentation that came with the card for information on configuring, customizing, and making internal connections on the card.

11. Align the card with the connector.

**NOTE:** If you are installing a PCI Express card into the x16 connector, ensure that the securing slot is aligned with the securing tab.

12. Place the card in the connector and press down firmly. Ensure that the card is fully seated in the slot.



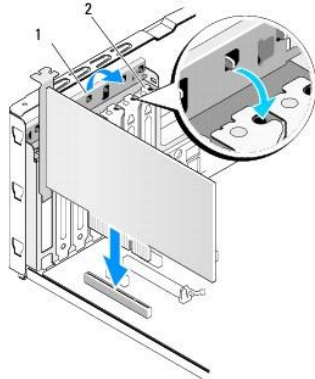
1	alignment bar	2	fully-seated card
3	not fully-seated card	4	alignment guide
5	bracket within slot	6	bracket caught outside of slot

**CAUTION:** Do not route card cables over or behind the cards. Cables routed over the cards can prevent the computer cover from closing properly or cause damage to the equipment.

13. If applicable, connect any cables that should be attached to the card.

See the documentation for the card for information about the card's cable connections.

14. Press and push the tabs of the PCI support bracket until its clicks into the filler brackets.



1	PCI support bracket	2	filler bracket
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15. Press the tabs and push the expansion card retainer until it clicks into place.
16. Replace the computer cover (see [Replacing the Computer Cover](#)).
17. Connect the computer and devices to electrical outlets, and then turn them on.
18. To complete the installation, see [Configuring Your Computer After Removing or Installing a PCI Express Card](#).

## Configuring Your Computer After Removing or Installing a PCI Express Card

**NOTE:** For information on location of connectors, see the *Setup Guide*. For information on installing drivers and software for your card, see the documentation that shipped with the card.

	Installed	Removed
<b>Sound Card</b>	<ol style="list-style-type: none"> <li>1. Enter system setup (see <a href="#">System Setup</a>).</li> <li>2. Go to <b>Advanced Chipset Features</b> and select <b>Onboard Audio Controller</b>, and then change the setting to <b>Disabled</b>.</li> <li>3. Connect the external audio devices to the sound card's connectors.</li> </ol>	<ol style="list-style-type: none"> <li>1. Enter system setup (see <a href="#">System Setup</a>).</li> <li>2. Go to <b>Advanced Chipset Features</b> and select <b>Onboard Audio Controller</b>, and then change the setting to <b>Enabled</b>.</li> <li>3. Connect the external audio devices to the computer's back panel connectors.</li> </ol>
<b>Network Card</b>	<ol style="list-style-type: none"> <li>1. Enter system setup (see <a href="#">System Setup</a>).</li> <li>2. Go to <b>Advanced Chipset Features</b> and select <b>Onboard LAN Controller</b>, and then change the setting to <b>Disabled</b>.</li> <li>3. Connect the network cable to the network card's connector.</li> </ol>	<ol style="list-style-type: none"> <li>1. Enter system setup (see <a href="#">System Setup</a>).</li> <li>2. Go to <b>Advanced Chipset Features</b> and select <b>Onboard LAN Controller</b>, and then change the setting to <b>Enabled</b>.</li> <li>3. Connect the network cable to the integrated network connector.</li> </ol>

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## Replacing the Battery

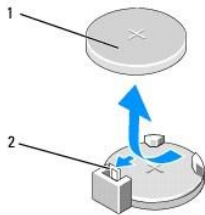
### Dell Studio XPS™ 435T/9000 Service Manual

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

**⚠ WARNING:** 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.

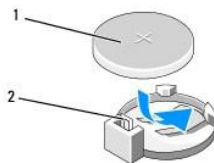
1. Record all the screens in system setup (see [System Setup](#)) so that you can restore the correct settings in [step 10](#).
2. Follow the procedures in [Before You Begin](#).
3. Remove the computer cover (see [Replacing the Computer Cover](#)).
4. Locate the battery socket (see [System Board Components](#)).

**⚠ CAUTION:** 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

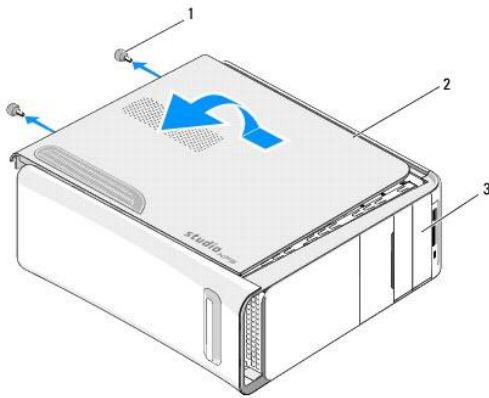
### Dell Studio XPS™ 435T/9000 Service Manual

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

**WARNING:** 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:** Ensure that sufficient space exists to support the computer with the cover removed—at least 30 cm (1 ft.) of desk top space.

1. Follow the procedures in [Before You Begin](#).
2. Lay the computer on its side with the computer cover facing up.
3. Open the padlock, if applicable.
4. Remove the two thumb screws securing the computer cover.



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

5. Slide the cover towards the back of the computer, and lift the computer cover away from the computer.
6. Set the computer cover aside in a secure location.
7. To replace the computer cover, perform the removal procedure in reverse order.

## Replacing the Processor

### Dell Studio XPS™ 435T/9000 Service Manual

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

**CAUTION:** Do not perform the following steps unless you are familiar with hardware removal and replacement. Performing these steps incorrectly could damage your system board. To call for technical assistance, see the *Setup Guide*.

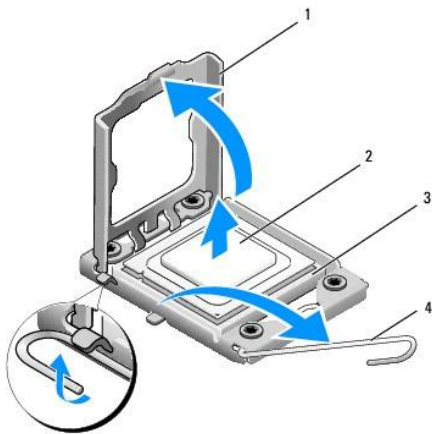
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).

**WARNING:** Despite having a plastic shield, the processor fan and 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 power connector for the processor (PWR2) and main power connector (PWR1) on the system board (see [System Board Components](#)).
4. Remove the processor fan and heat sink assembly from the computer (see [Replacing the Processor Fan and Heat Sink Assembly](#)).

**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

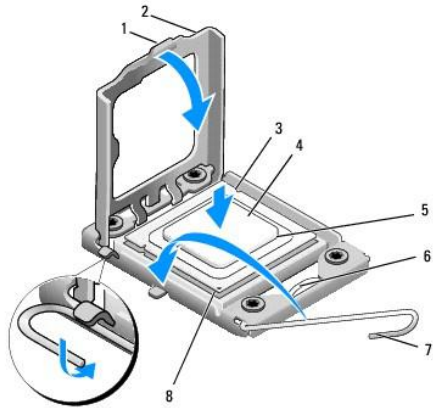
7. Lift up the processor to remove it from the socket, and place it aside in a safe and secure place.

Leave the release lever extended in the release position so that the socket is ready for the new processor.

**CAUTION:** When removing or 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.

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

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



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

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

**CAUTION:** 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.

**CAUTION:** 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 replace the processor. Be careful not to touch or bend the pins on the system board.

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

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

**CAUTION:** To avoid damage, ensure that the processor aligns properly with the socket, and do not use excessive force when you install the processor.

12. Set 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.

**NOTE:** 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.

**CAUTION:** 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.

17. Replace the processor fan and heat sink assembly (see [Replacing the Processor Fan and Heat Sink Assembly](#)).

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

18. Connect the power cables to the power for processor connector (PWR2) and the main power connector (PWR1) on the system board (see [System Board Components](#)).

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

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

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## Replacing Drives

### Dell Studio XPS™ 435T/9000 Service Manual

- [Replacing the Hard Drive](#)
- [Replacing the Optical Drive](#)
- [Replacing the Media Card Reader](#)
- [Replacing the FlexDock](#)
- [Replacing the FlexDock Drive Insert](#)
- [Replacing the Metal Filler](#)

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

**🔧 NOTE:** The system board does not support IDE devices.

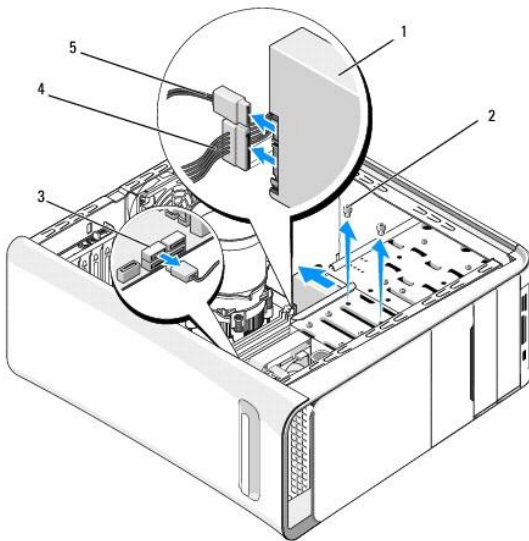
**🔧 NOTE:** The 3.5-inch FlexDock is not interchangeable with the hard drive carrier.

## Replacing the Hard Drive

**⚠ CAUTION:** 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 (see [Replacing the Computer Cover](#)).
3. Disconnect the power and data cables from the hard 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.



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


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

**⚠ CAUTION:** Ensure that you do not scratch the hard disk's circuit board, while removing or replacing the hard drive.

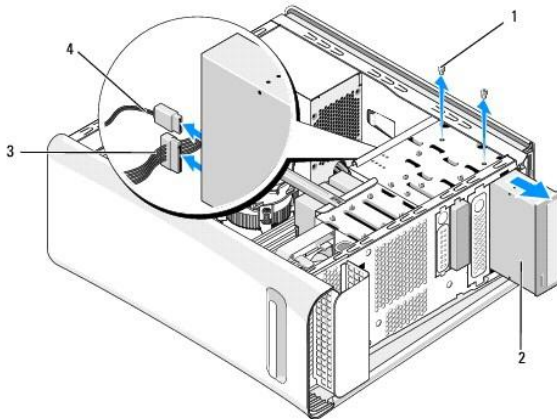
5. Slide the drive out towards the back of the computer.
6. To replace the hard drive, check the documentation for the drive to verify that it is configured for your computer.
7. Slide the hard drive into the hard drive bay.
8. Align the two screw holes on the hard drive with the screw holes on the hard drive bay.
9. Replace the two screws that secure the hard drive to the chassis.
10. Connect the power and data cables to the hard drive.
11. Ensure that all the cables are properly connected and firmly seated.
12. Replace the computer cover (see [Replacing the Computer Cover](#)).
13. Connect your computer and devices to electrical outlets, and then turn them on.

## Replacing the Optical Drive

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. Disconnect the power and data cables from the optical drive.

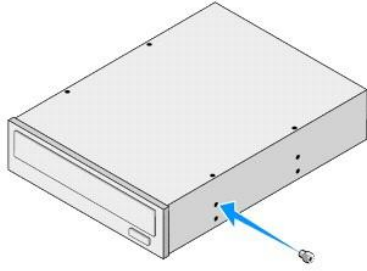
 **NOTE:** If you are uninstalling the only optical drive in your computer and will not replace it at this time, disconnect the data cable from the system board and set it aside.

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




1	screws (2)	2	optical drive
3	power cable	4	data cable

7. If you are not replacing the drive:
  - a. Replace the drive panel insert (see [Replacing the Metal Filler](#)).
  - b. Go to [step 13](#).
8. If you are replacing the optical drive or installing a new one, remove the screw from the old optical drive and insert it into the new drive.




9. Insert the optical drive into the chassis and slide it into place.
10. Align the screw holes in the optical drive with the screw holes in the optical drive bay.
11. Replace the two screws that secure the optical drive to the chassis.
12. Connect the power and data cables to the optical drive.
13. Replace the front panel (see [Replacing the Front Panel](#)).
14. Replace the computer cover (see [Replacing the Computer Cover](#)).
15. Connect your computer and devices to their electrical outlets, and turn them on.

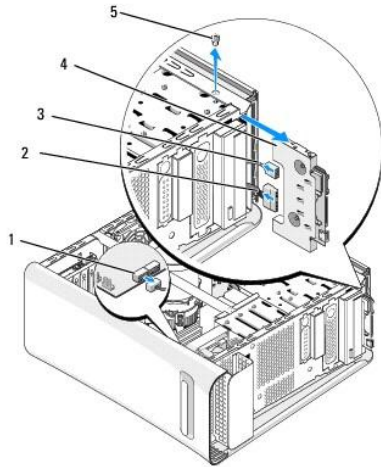
 **NOTE:** If you installed a new drive, see the documentation that came with the drive for instructions on installing any software required for drive operation.

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## Replacing the Media Card Reader

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. Remove the screw that secures the Media Card Reader to the chassis.
5. Push and slide the Media Card Reader out through the front of the computer.
6. Disconnect the power and data cables from the back of the Media Card Reader.

 **NOTE:** If you are removing the Media Card Reader in your computer and will not replace it at this time, disconnect the data cable from the system board and set it aside.




1	system board connector	2	power cable
3	data cable	4	Media Card Reader
5	screw		

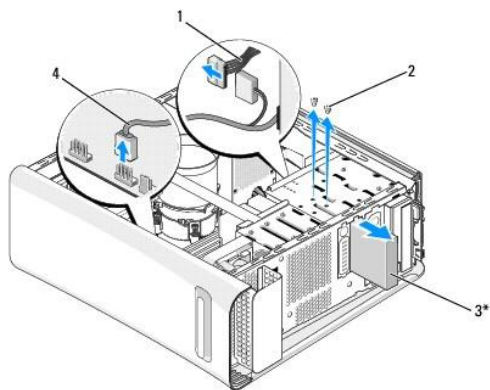
7. If you are not replacing the Media Card Reader go to [step 12](#).
8. If you are replacing the Media Card Reader or installing a new one, slide the Media Card Reader into place.
9. Align the screw hole in the Media Card Reader with the screw hole in the chassis.
10. Replace the screw that secures the Media Card Reader to the chassis.
11. Connect the power and data cables to the Media Card Reader.
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 their electrical outlets, and turn them on.

## Replacing the FlexDock

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. Remove the two screws securing the FlexDock.
5. Disconnect the power cable from the FlexDock Power connector.
6. Disconnect the FlexDock USB cable from the connector (JUSB4 or JUSB5) on the system board (see [System Board Components](#)).
7. Slide the FlexDock out through the front of the computer.

 **NOTE:** If you are not replacing the FlexDock 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 FlexDock at a later time.





\* Not present on all computers

1	power cable	2	screws (2)
3	FlexDock	4	USB cable

8. If you are not replacing the FlexDock, replace the metal filler if applicable (see [Replacing the Metal Filler](#)) and proceed with [step 15](#).
9. If you are installing a new FlexDock:
  - a. Remove the metal filler, if applicable (see [Replacing the Metal Filler](#)).
  - b. Remove the FlexDock drive insert, if applicable (see [Replacing the FlexDock Drive Insert](#)).
  - c. Remove the FlexDock from its packaging.
10. Gently slide the FlexDock into place in the FlexDock bay.
11. Connect the FlexDock USB cable to the connector (JUSB4 or JUSB5) on the system board (see [System Board Components](#)).
12. Connect the power cable to the FlexDock power connector.
13. Align the screw holes on the FlexDock with the screw holes on the FlexDock bay.
14. Replace the two screws that secure the FlexDock to the chassis.
15. Replace the front panel (see [Replacing the Front Panel](#)).
16. Replace the computer cover (see [Replacing the Computer Cover](#)).
17. Connect your computer and devices to electrical outlets, and then turn them on.

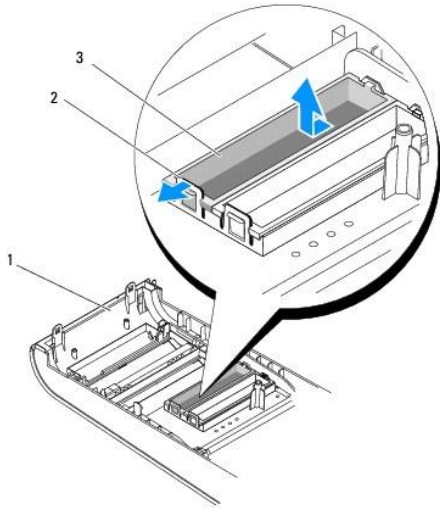
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## Replacing the FlexDock Drive Insert

**CAUTION:** To comply with FCC regulations, it is recommended that you replace the FlexDock drive insert whenever the FlexDock is removed from the computer.

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. To remove the FlexDock drive insert, spread the tabs apart and pull the FlexDock drive insert away from the front panel.
5. To replace the FlexDock drive insert, align the FlexDock drive insert with the FlexDock drive insert slot in the front panel.

6. Push the tabs to lock the FlexDock drive insert.

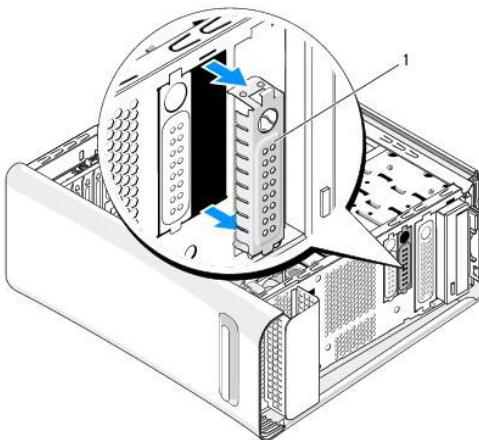


1	front panel	2	tabs(2)
3	FlexDock drive insert		

## Replacing the Metal Filler

**CAUTION:** To comply with FCC regulations, it is recommended that you replace the metal filler whenever the FlexDock or optical drive is removed from the computer.

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. To remove the metal filler, pull the metal filler away from the computer.



1	metal filler
---	--------------

5. To replace the metal filler, align the metal filler along the edges of the empty slot of the FlexDock or an optical drive and push the metal filler until it locks into place.

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## Replacing Fans

### Dell Studio XPS™ 435T/9000 Service Manual

- [Replacing the Chassis Fan](#)
- [Replacing the Processor Fan and Heat Sink Assembly](#)
- [Replacing the Front Fan](#)

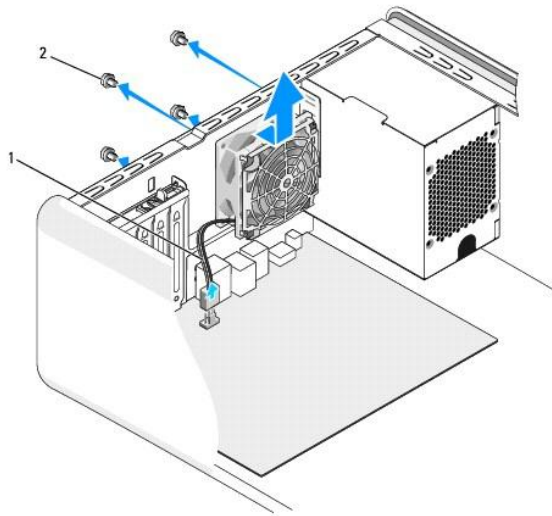
**⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

---

## Replacing the Chassis Fan

**⚠ CAUTION:** Do not touch the fan blades when you are removing the chassis fan. This could damage the fan.

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Disconnect the chassis fan cable from the fan connector (SYSFAN1) on the system board (see [System Board Components](#)).
4. Remove the four screws securing the chassis fan.
5. Lift the chassis fan away from the computer.



1	chassis fan cable	2	screws (4)
---	-------------------	---	------------

6. To replace the chassis fan, slide it in place towards the back of the computer.
  7. Replace the four screws that secure the chassis fan.
  8. Connect the chassis fan cable to the fan connector (SYSFAN1) on the system board (see [System Board Components](#)).
  9. Replace the computer cover (see [Replacing the Computer Cover](#)).
- 

## Replacing the Processor Fan and Heat Sink Assembly

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

**⚠ CAUTION:** The processor fan and heat sink assembly is a single unit. Do not try to remove the fan separately.

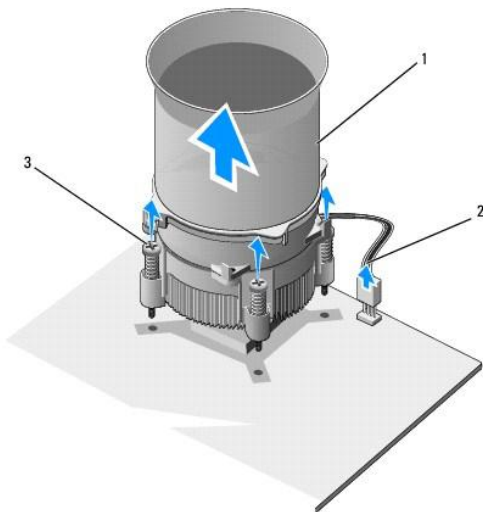
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Disconnect the processor fan cable from the connector (CPUFAN1) on the system board (see [System Board Components](#)).
4. Carefully move away any cables that are routed over the processor fan and heat sink assembly.

**⚠ CAUTION:** To ensure maximum cooling for the processor, do not touch the heat transfer areas on the processor heat sink. The oils in your skin can reduce the heat transfer capability of the thermal pads.

5. Loosen the four captive screws securing the processor fan and heat sink assembly.

**⚠ CAUTION:** When you remove the processor fan and heat sink assembly, lay it upside down or on its side to avoid damaging the heat sink thermal interface.

6. Lift the processor fan and heat sink assembly out of the computer, and set it aside.



1	processor fan and heat sink assembly	2	processor fan and heat sink assembly cable
3	captive screws (4)		

**🔍 NOTE:** The processor fan and heat sink assembly in your computer may not look exactly as shown in the illustration above.

7. To replace the processor fan and heat sink assembly, clean the thermal grease from the bottom of the heat sink.

**⚠ CAUTION:** 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. Apply new thermal grease to the top of the processor.
9. Align the four captive screws on the processor fan and heat sink assembly with the holes on the system board.
10. Tighten the four captive screws that secure the processor fan and heat sink assembly.

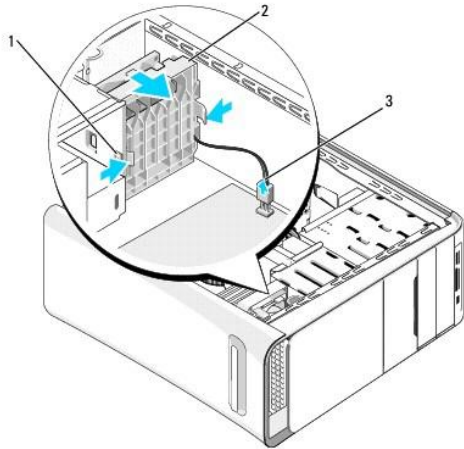
**🔍 NOTE:** Ensure that the processor fan and heat sink assembly is correctly seated and secure.

11. Connect the processor fan and heat sink assembly cable to the connector (CPUFAN1) on the system board (see [System Board Components](#)).
  12. Replace the computer cover (see [Replacing the Computer Cover](#)).
  13. Connect your computer and devices to electrical outlets, and turn them on.
- 

## Replacing the Front Fan

**⚠ CAUTION:** Do not touch the fan blades when you are removing the front fan. This could damage the fan.

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Disconnect the fan cable from the fan connector (SYSFAN2) on the system board (see [System Board Components](#)).
4. Press the tabs and pull the fan away from the front of the computer.
5. Lift the fan out of the computer, and set it aside.



1	tabs (2)	2	front fan
3	front fan cable		

6. To replace the fan follow the steps in reverse order.
- 

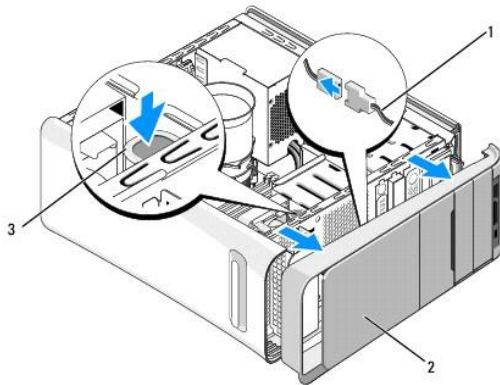
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## Replacing the Front Panel

### Dell Studio XPS™ 435T/9000 Service Manual

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

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Push the lever to release the front panel from the computer.
4. Pivot the front panel away from the computer.
5. Disconnect the badge back light cable from the front panel.



1	badge back light cable	2	front panel
3	lever		

6. Remove the badge back light (see [Replacing the Badge Back Light](#)).
7. Set the front panel aside in a secure location.

**🔍 NOTE:** Make a note of your computer's Service Tag/Express Service Code located on a label under the FlexBay panel. You will need the Service Tag/Express Service Code to identify your computer when you call Technical Support.

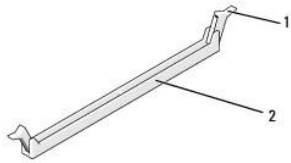
8. To replace the front panel, replace the badge back light (see [Replacing the Badge Back Light](#)).
9. Align the front panel with the front of the computer.
10. Push the front panel towards the front of the computer until it snaps into place.
11. Replace the computer cover (see [Replacing the Computer Cover](#)).

## Replacing Memory Module(s)

### Dell Studio XPS™ 435T/9000 Service Manual

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

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.



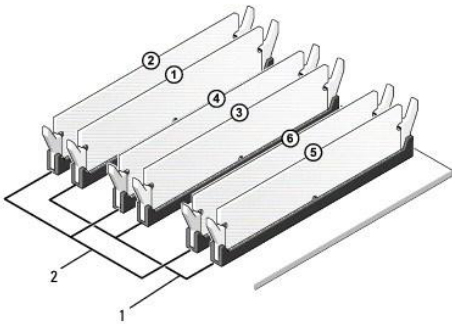
1	securing clip	2	memory module connector
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5. Grasp the module and pull it upwards.  
If the module is difficult to remove, gently ease the module back and forth to remove it from the connector.

**CAUTION:** Do not install ECC memory modules.

**CAUTION:** If you remove your original memory modules from the computer during a memory upgrade, keep them separate from any new modules that you may have, even if you purchased the new modules from Dell™. If possible, do not pair an original memory module with a new memory module. Otherwise, your computer may not start properly. The recommended memory configurations are: Matched memory modules installed in DIMM connectors 2, 4, and 6 and another matched memory modules installed in DIMM connectors 1, 3, and 5.

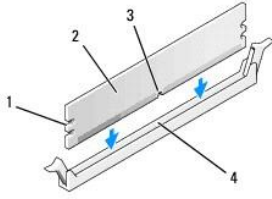
6. Ensure that you install a single memory module in DIMM connector 1 (blue connector), the second closest connector to the processor, before you install modules in any other connector.



1	matched memory modules in connectors DIMM_1, DIMM_3, and DIMM_5 (blue connectors)	2	matched memory modules in connectors DIMM_2, DIMM_4, and DIMM_6 (pink connectors)
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7. Align the notch on the bottom of the module with the tab on the memory module connector.



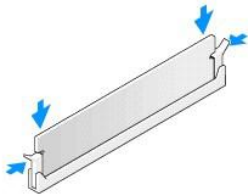


1	cutouts (2)	2	memory module
3	notch	4	tab on the memory module connector

**CAUTION:** 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.

8. 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.



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

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

11. If a message appears stating that memory size has changed, press <F1> to continue.

12. Log on to your computer.

13. Right-click the **My Computer** icon on your Microsoft®Windows® desktop and click **Properties**.

14. Click the **General** tab.

15. To verify that the memory is installed correctly, check the amount of memory (RAM) listed.

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## Replacing the Power Supply

### Dell Studio XPS™ 435T/9000 Service Manual

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

**WARNING:** 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:** Do not perform the following steps unless you are familiar with hardware removal and replacement. Performing these steps incorrectly could damage your computer. To call for technical assistance, see the *Setup Guide*.

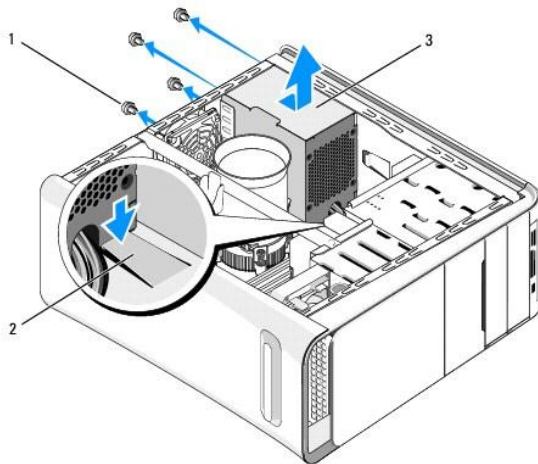
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).

**CAUTION:** 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 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 secure the power supply to the back of the computer chassis.



1	screws (4)	2	tab
3	power supply		


5. Push the tab down and slide the power supply towards the front of the computer and lift it out.
6. Slide the replacement power supply towards the back of the computer.

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

7. Replace the four screws that secure the power supply to the back of the computer chassis.

**CAUTION:** The cables must be properly routed to prevent the cables from being damaged.

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

 **NOTE:** Double-check all cable connections to make sure they are secure.

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

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

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## Replacing the System Board

### Dell Studio XPS™ 435T/9000 Service Manual

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

**CAUTION:** Do not perform the following steps unless you are familiar with hardware removal and replacement. Performing these steps incorrectly could damage your system board. To call for technical assistance, see the *Setup Guide*.

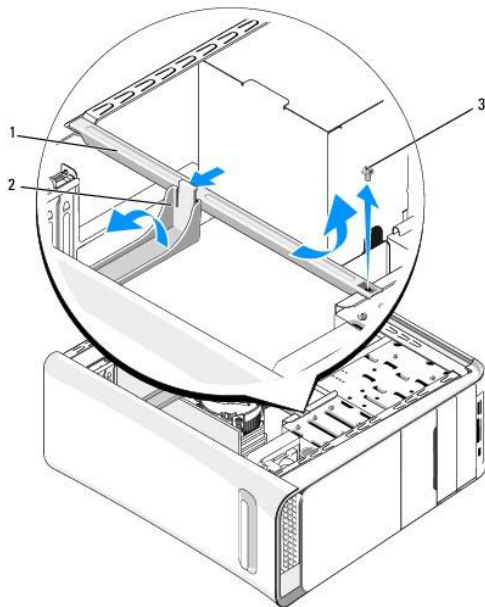
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Remove any expansion cards on the system board (see [Replacing a PCI Express Card](#)).

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

4. Remove the processor (see [Replacing the Processor](#)).
5. Remove the memory modules (see [Replacing Memory Module\(s\)](#)). Make a note of which memory module is removed from each memory socket so that the memory modules can be installed in the same location after the system board is replaced.

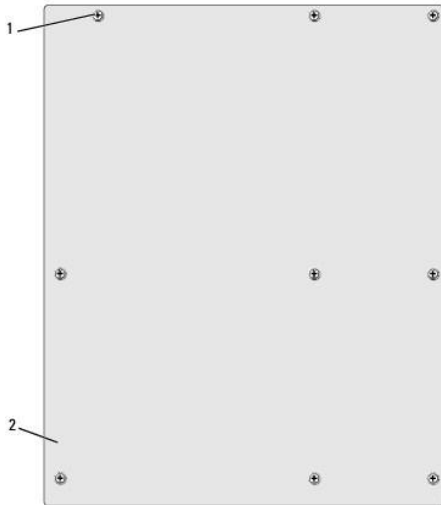
**CAUTION:** Carefully note the routing and location of each cable before you disconnect it, so that you are sure to re-route cables correctly. An incorrectly routed or a disconnected cable could lead to computer problems.

6. Disconnect all cables from the system board.
7. Pull and lift the expansion card retainer away from the computer (if applicable).
8. Remove the screw that secures the alignment bar to the chassis.



1	alignment bar	2	expansion card retainer
3	screw		

- Remove the nine screws that secure the system board to the chassis.



1	screws (9)	2	system board
---	------------	---	--------------

- Lift the system board up and out.

**CAUTION:** 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 compared to the components and connectors on the existing system board.

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

- Orient the new or replacement system board by aligning the screw holes on the system board with the screw holes on the chassis.
- Replace the nine screws that secure the system board to the chassis.
- Connect the cables that you removed from the system board.
- Replace the memory modules (see [Replacing Memory Module\(s\)](#)).
- Replace the processor (see [Replacing the Processor](#)).

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

- Replace any expansion cards on the system board (see [Replacing a PCI Express Card](#)).
- Replace the computer cover (see [Replacing the Computer Cover](#)).
- Connect your computer and devices to electrical outlets, and turn them on.
- Flash the system BIOS, as needed.

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

# System Setup


## Dell Studio XPS™ 435T/9000 Service Manual


- [Overview](#)
- [Clearing Forgotten Passwords](#)
- [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

 **CAUTION:** 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 change 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.

<p><b>Options List</b> — This field appears on the left side of the system setup window. The field is a scrollable list containing features that define the configuration of your computer, including installed hardware, power conservation, and security features.</p> <p>Scroll up and down the list with the up- and down-arrow keys. As an option is highlighted, the <b>Options Field</b> displays more information about that option and the option's current and available settings.</p>	<p><b>Options Field</b> — This field appears on the right side of the system setup window and contains information about each option listed in the <b>Options List</b>. In this field you can view information about your computer and make changes to your current settings.</p> <p>Press the up-arrow and down-arrow keys to highlight an option. Press &lt;Enter&gt; to make that selection active and return to the <b>Options List</b>.</p> <p><b>NOTE:</b> Not all settings listed in the Options Field are changeable.</p>
<p><b>Key Functions</b> — This field appears below the <b>Options Field</b> and lists keys and their functions within the active system setup field.</p>	

## System Setup Options

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

<b>System Info</b>	
Product name	Displays the product name.
Bios Version	Displays the BIOS version number.
<b>Input Service Tag</b>	
Service Tag	Displays the service tag of the computer.
Asset Tag	Displays the asset tag of the computer if present.
<b>Memory Information</b>	

Memory Installed	Indicates the amount of installed memory in MB.
Memory Available	Indicates the amount of memory available in MB.
Memory Technology	Indicates the memory technology: DDR3.
Memory Speed	Indicates the memory speed in MHz.
<b>CPU Information</b>	
Genuine Intel (R) CPU	Displays type of CPU.
CPU ID/uCode ID	Displays the CPU ID/micro code.
CPU Speed	Displays the processor speed.
Current QPI speed	Displays the current QPI speed.
Cache L2	Displays the processor L2 cache size.
<b>Standard CMOS Features</b>	
System Time	Displays current time in hh:mm:ss format.
System Date	Displays the current date in mm:dd:yy format.
SATA1	Displays the SATA1 drive integrated in the computer.
SATA2	Displays the SATA2 drive integrated in the computer.
SATA3	Displays the SATA3 drive integrated in the computer.
SATA4	Displays the SATA4 drive integrated in the computer.
SATA5	Displays the SATA5 drive integrated in the computer.
ESATA	Displays the ESATA drive integrated in the computer.
<b>Advanced Bios Features</b>	
Bootup Num Lock	ON or OFF (ON by default).
ACPI APIC support	Enabled or Disabled (Enabled by default).
<b>Boot Configuration Features</b>	
First Boot Device	Specifies the boot sequence from the available devices. Removable; CD/DVD; Hard Drive; Disabled (Removable by default).
Second Boot Device	Specifies the boot sequence from the available devices. Removable; CD/DVD; Hard Drive; Disabled (CD/DVD by default).
Hard Disk Drives	Set boot hard disk drive from the available list.
CD/DVD Drives	Set boot CD/DVD drive from the available list.
<b>CPU Configuration</b>	
XD Bit Capacity	Enabled or Disabled (Enabled by default).
Intel(R)Speed Step(tm) Tech	Enabled or Disabled (Enabled by default).
Intel(R) C State Tech	Enabled or Disabled (Enabled by default).
C State package limit	Auto, C1, C3, or C6 (Auto by default).
<b>Integrated Devices</b>	
USB Functions	Enabled or Disabled (Enabled by default).
HD Audio Controller	Enabled, Disabled, or HDMI only (Enabled by default).
Onboard IEBE1394 Controller	Enabled, Disabled or Auto (Enabled by default).
LAN RTL 8111C Device	Enabled or Disabled (Enabled by default).
LAN Option ROM	Enabled or Disabled (Disabled by default).
JMicon 363 ATA Controller	Enabled or Disabled (Disabled by default).
<b>ICH SATA Configuration</b>	
Configure SATA 1-5 as	AHCI or RAID (AHCI by default).
AHCI CD/DVD Boot Time Out	Some SATA CD/DVD in AHCI mode need more time to boot.
<b>Power Management Setup</b>	
Suspend Mode	Specifies the suspend type. The default is S3.


AC Recovery	Specifies the behavior of the computer after recovering from a power failure.  On — The computer turns on after it recovers from a power failure.  Off — The computer remains turned off. This is the default state.  Last — The computer returns to the power state it was in before the power failure.
Remote Wake Up	This option turns on the computer when a user tries to access the computer through the LAN (enabled by default).
Auto Power On	Enables you to set an alarm to turn on the computer automatically (disabled by default).
<b>Frequency/Voltage Control</b>	
QPI frequency	Displays QPI Bus transition speed.
Memory Ratio	Sets the ratio between memory clock and the base frequency.
CPU Core(Non Turbo) Ratio	Sets the ratio between the CPU Core Clock and the FSB frequency.
Advance DRAM Configuration	
Intel(R) Turbo Mode Tech	Enabled or Disabled (enabled by default).
<b>BIOS Security Features</b>	
Supervisor Password	Status of supervisor password installed.
User Password	Status of user password installed.
Change Supervisor Password	Allows to set the desired supervisor password.
Change User Password	Allows to set the desired user passwords only if the supervisor password is set.
<b>Exit</b>	
Exit Options	Provides options to <b>Load Optimal Default, Save Changes and Exit, and Exit Without Saving.</b>

## 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 to change the current boot sequence, for example, to boot from the CD/DVD drive to run the Dell Diagnostics on the *Drivers and Utilities* media. On completion of diagnostic tests, the previous boot sequence is restored.


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.

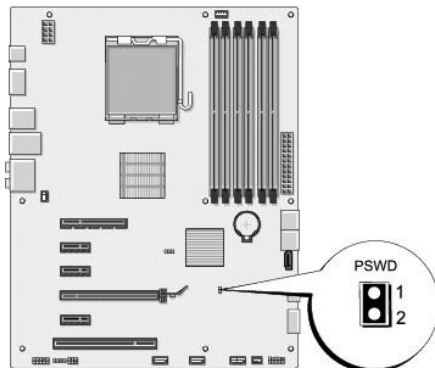
3. Press the up- and down-arrow keys to move through the list of devices.
  4. Press plus (+) or minus (-) to change the boot priority of device.
- 

## Clearing Forgotten Passwords

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

 **WARNING:** The computer must be disconnected from the electrical outlet to clear the Password setting.


1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Locate the 2-pin password connector (PSWD) on the system board (see [System Board Components](#)).



4. Remove the 2-pin jumper plug from the connector.
  5. Power on the system to clear the password.
  6. Turn off the computer and disconnect your computer and all attached devices from their electrical outlets.
  7. Replace the 2-pin jumper plug to enable the password feature.
  8. Replace the computer cover (see [Replacing the Computer Cover](#)).
  9. Connect your computer and devices to electrical outlets, and turn them on.
- 

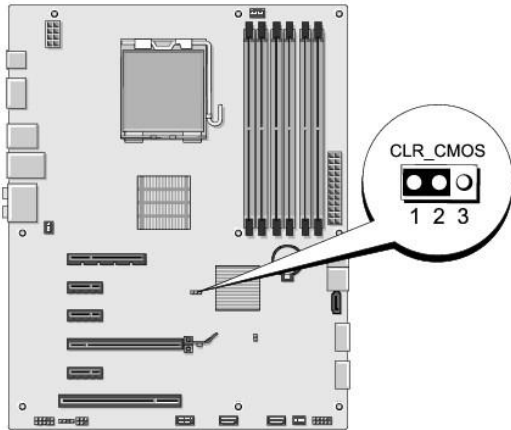
## Clearing CMOS Settings

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

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

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

2. Remove the computer cover (see [Replacing the Computer Cover](#)).
3. Locate the 3-pin CMOS connector (CLR\_CMOS) on the system board (see [System Board Components](#)).




4. Remove the 2-pin jumper plug from pins 2 and 3 and fix it on 1 and 2.
5. Wait for approximately five seconds to clear the CMOS setting.
6. Remove the 2-pin jumper plug from pins 1 and 2 and replace it on pins 2 and 3.
7. Replace the computer cover (see [Replacing the Computer Cover](#)).
8. Connect your computer and devices to electrical outlets, and turn them on.

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## Flashing the BIOS

If a BIOS upgrade CD is provided with the new processor or new system board, flash the BIOS from the CD. If you do not have a BIOS upgrade CD, flash the BIOS from the hard drive.

### Flashing the BIOS From the Hard Drive


1. Turn on the computer.
2. Locate the BIOS update file for your computer at the Dell Support website at [support.dell.com](http://support.dell.com).  
 **NOTE:** For non U.S. regions, choose your country/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.

## Flashing the BIOS From a CD

1. Turn on the computer

 **NOTE:** If you use a BIOS upgrade CD to flash the BIOS, set up the computer to boot from a CD before inserting the CD.

2. Insert the BIOS upgrade CD, and restart the computer.

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. Click **Load Defaults** and click **OK** in pop-up window to reset the computer defaults.
5. Remove the BIOS upgrade CD from the drive.
6. Press <Esc> and click **Yes** in the pop-up window to save configuration changes.
7. The BIOS upgrade finishes and the computer restarts automatically.

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## Technical Overview

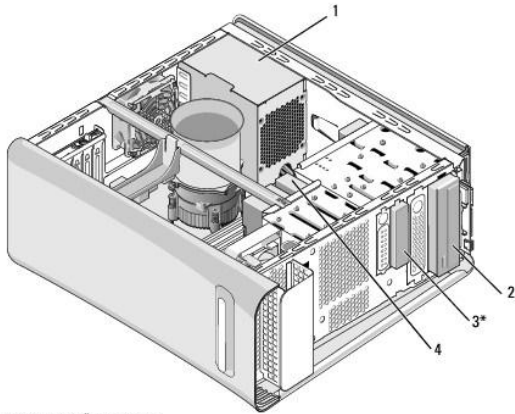
### Dell Studio XPS™ 435T/9000 Service Manual

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

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

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## Inside View of Your Computer

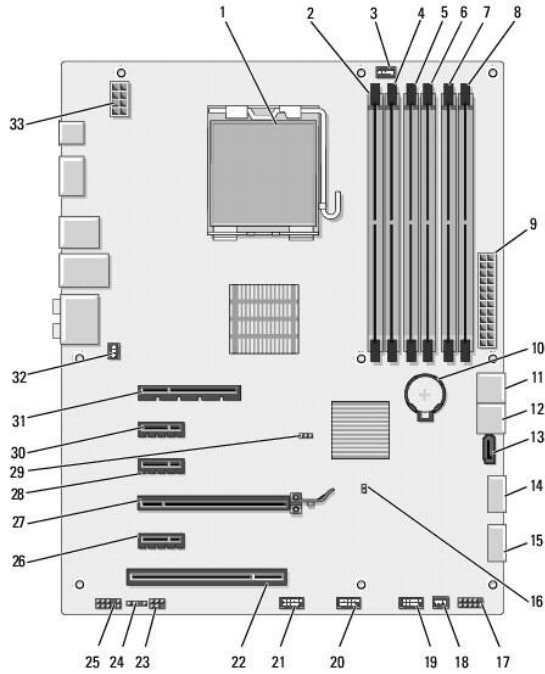


\* Not present on all computers

1	power supply	2	optical drive
3	FlexBay	4	hard drive

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## System Board Components



1	processor socket (CPU)	2	memory module connector (DIMM2)
3	processor fan connector (CPUFAN1)	4	memory module connector (DIMM1)
5	memory module connector (DIMM4)	6	memory module connector (DIMM3)
7	memory module connector (DIMM6)	8	memory module connector (DIMM5)
9	main power connector (PWR2)	10	battery socket (BAT1)
11	serial ATA drive connector (SATA1_2)	12	serial ATA drive connector (SATA3_4)
13	serial ATA drive connector (SATA5)	14	front USB connector (JUSB1)
15	front USB connector (JUSB2)	16	password jumper (PSWD)
17	power button and HDD LED connector (JFP1)	18	fan connector (SYSFAN2)
19	FlexBay connector (JUSB4)	20	FlexBay connector (JUSB5)
21	Media Card Reader connector (JUSB3)	22	PCI connector (PCI1)
23	internal SPDIF (JSP1)	24	power for badge back light (JPWR1)
25	front audio connector (JAUD1)	26	PCI Express x1 connector (PCI_E5)
27	PCI Express x16 connector (PCI_E4)	28	PCI Express x1 connector (PCI_E3)
29	CMOS jumper (CLR_CMOS)	30	PCI Express x1 connector (PCI_E2)
31	PCI Express x8 connector (PCI_E1)	32	fan connector (SYSFAN1)
33	power for processor (PWR1)		

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## **Dell Studio XPS™ 435T/9000 Service Manual**



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



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



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

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March 2009 Rev. A00

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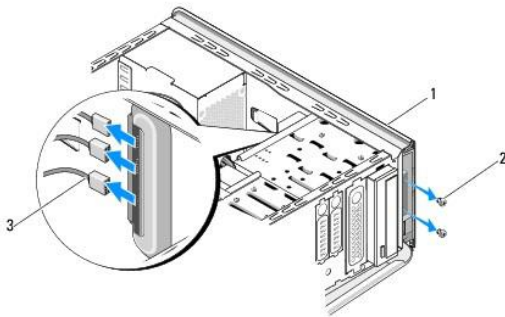
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## Replacing the Top Cover

### Dell Studio XPS™ 435T/9000 Service Manual

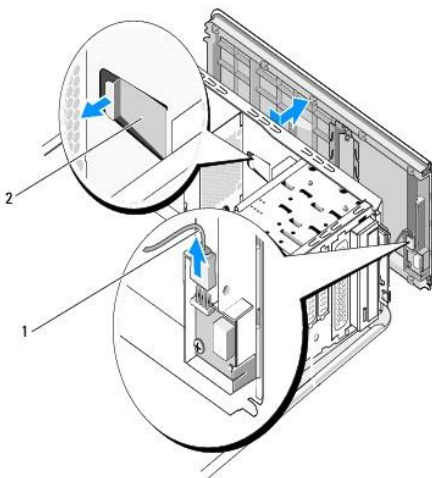
**⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

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. Remove the two screws that secure the top cover to the computer.
5. Disconnect the cables from the top I/O panel.



1	top cover	2	screws (2)
3	I/O panel cables		

6. Pull the release tab with one hand and slide the top cover away from the chassis.
7. Disconnect the power LED cable from the top cover.



1	power LED cable	2	release tab
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8. Remove the I/O panel (see [Replacing the I/O Panel](#)).
  9. Set the computer top cover aside in a secure location.
  10. To replace the top cover, perform the removal procedure in reverse order.
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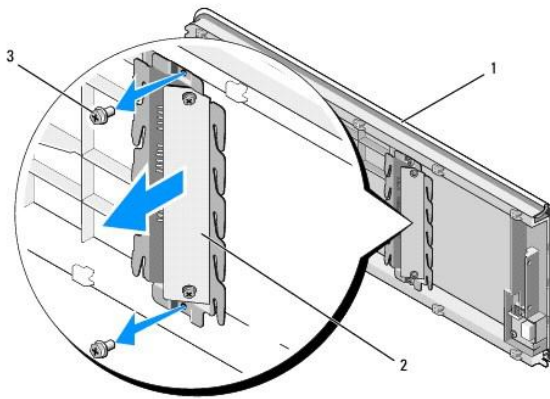


## Replacing the I/O Panel

### Dell Studio XPS™ 435T/9000 Service Manual

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

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. Remove the top cover (see [Replacing the Top Cover](#)).
5. Disconnect the cables connected to the I/O panel from the system board.
6. Remove the two screws that secure the I/O panel to the top cover.
7. Carefully remove the I/O panel from the computer.



1	top cover	2	I/O panel
3	screws (2)		

8. To replace the I/O panel, replace the screws that secures the I/O panel to the top cover.
9. Replace the top cover (see [Replacing the Top Cover](#)).
10. Replace the cables.
11. Replace the front panel (see [Replacing the Front Panel](#)).
12. Replace the computer cover (see [Replacing the Computer Cover](#)).
13. Connect your computer and devices to electrical outlets, and turn them on.