

Dell™ XPS™ 430 Service Manual

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Model DC01L

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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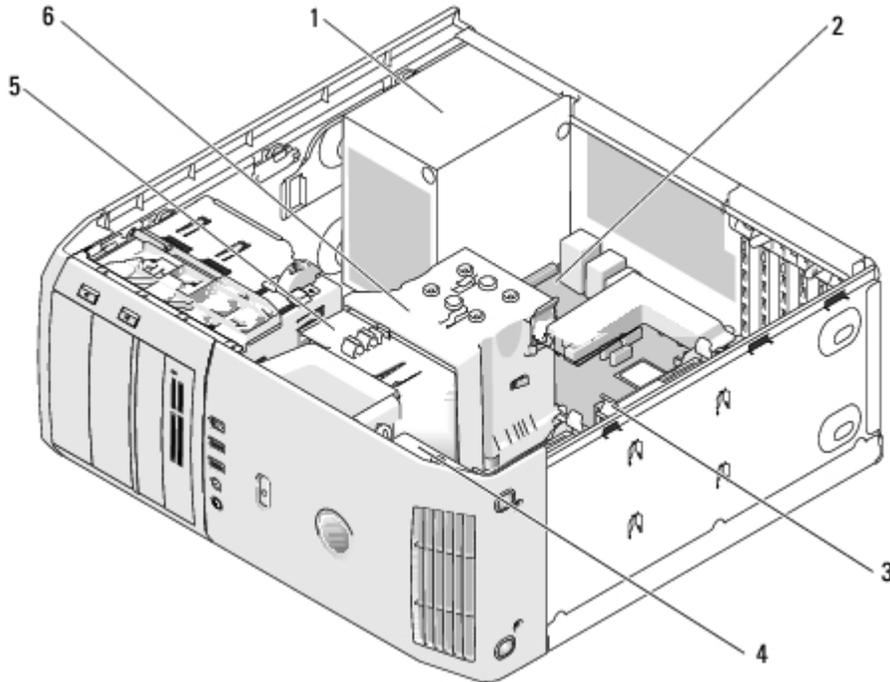
Technical Overview

Dell™ XPS™ 430 Service Manual

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

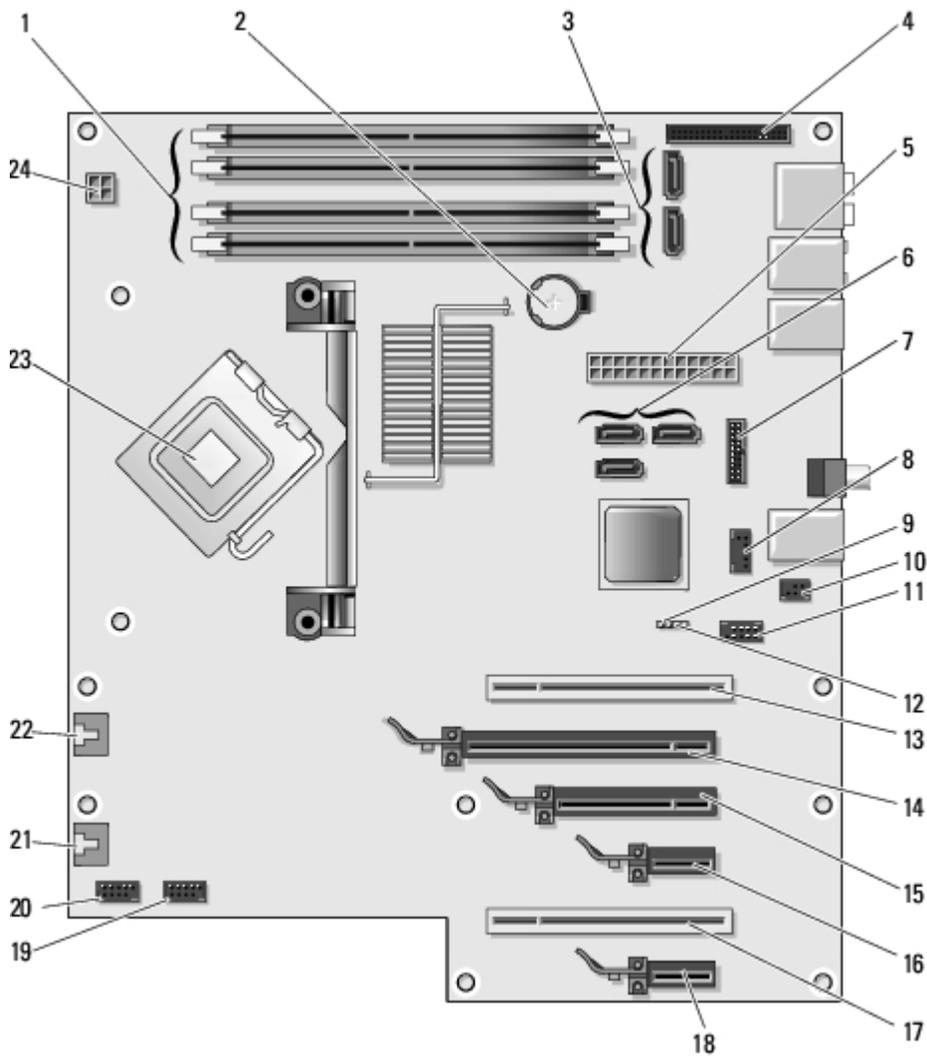
⚠ CAUTION: Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.

Inside View of Your Computer



1	power supply	2	system board	3	hard drive (2)
4	card fan	5	processor fan	6	processor airflow shroud

System Board Components



1	memory module connectors (1, 2, 3, 4)	2	battery socket (BATTERY)	3	SATA connectors (2) (SATA0, SATA1)
4	front panel I/O connector	5	main power connector (POWER)	6	SATA connectors (3) (SATA2, SATA3, SATA4)
7	Hard drive activity light connector	8	FlexBay USB connector (FLEXBAY)	9	clear CMOS jumper (RTCRST)
10	S/PDIF connector	11	IEEE 1394 connector	12	password jumper (PSWD)
13	PCI card connector	14	PCI Express x16 card connector	15	PCI Express x8 card connector (x4 electrical)
16	PCI Express x1 card connector	17	PCI card connector	18	PCI Express x1 card connector
19	front USB connector (USB1)	20	front USB connector (USB2)	21	rear fan connector or card cage fan connector (FAN_CARD_CAGE)
22	Processor fan connector (FAN_CPU)	23	processor connector	24	processor power connector (12VPOWER)

Before You Begin

Dell™ XPS™ 430 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:

- You have performed the steps in [Turning Off Your Computer](#) and [Safety Instructions](#).
- You have read the safety information that shipped with your computer.
- A component can be replaced or—if purchased separately—installed by performing the removal procedure in reverse order.

Technical Specifications

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

Recommended Tools

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

Turning Off Your Computer

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

- Shut down the operating system.
- Ensure that the computer and all attached devices are turned off. If your computer and attached devices did not automatically turn off when you shut down your operating system, press and hold the power button for about 4 seconds to turn them off.

Safety Instructions

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

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

-  **NOTICE:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
-  **NOTICE:** When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.
-  **NOTICE:** To avoid damaging the computer, perform the following steps before you begin working inside the computer.
1. Ensure that the work surface is flat and clean to prevent the computer cover from being scratched.
 2. Turn off your computer (see [Turning Off Your Computer](#)).
-  **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug the cable from the network device.
3. Disconnect all telephone or network cables from the computer.
 4. Disconnect your computer and all attached devices from their electrical outlets.
 5. Press and hold the power button while the system is unplugged to ground the system board.
-  **NOTICE:** Before touching anything inside your computer, ground yourself by touching an unpainted metal surface, such as the metal at the back of the computer. While you work, periodically touch an unpainted metal surface to dissipate static electricity, which could harm internal components.
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Removing the Computer Cover

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

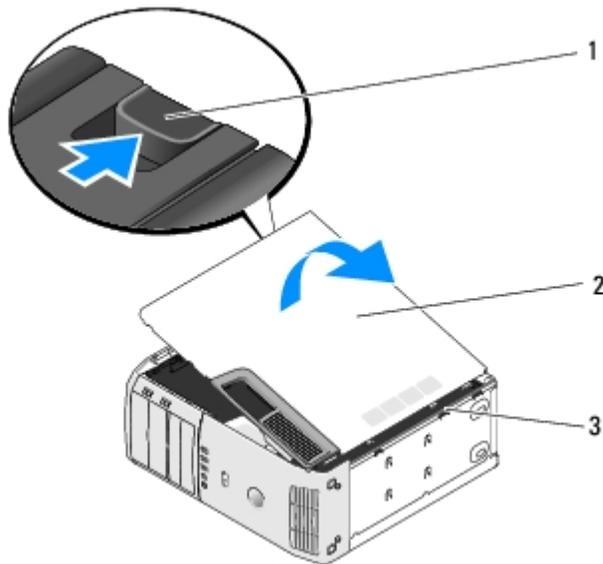
CAUTION: To guard against likelihood of electric shock, laceration by moving fan blades or other unexpected injuries, always unplug your computer from the electrical outlet before removing the cover.

NOTICE: Ensure that sufficient space exists to support the system with the cover removed—at least 30 cm (1 ft.) of desktop space.

1. Follow the procedures in [Before You Begin](#).
2. If you have installed a security cable, remove it from the security cable slot.

NOTICE: Ensure that you are working on a level, protected surface to avoid scratching either the computer or the surface on which it is resting.

3. Lay your computer on its side with the computer cover facing up.
4. Pull back the cover release latch on the top panel.



1	cover release latch	2	computer cover	3	hinge tabs (3)
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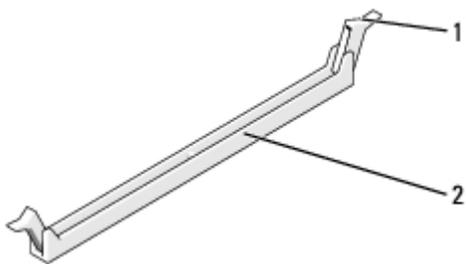
5. Grip the sides of the computer cover and pivot the cover up.
6. Lift the cover away and set it aside in a secure location.

Replacing Memory Module(s)

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

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



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

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



NOTICE: Do not install ECC memory modules.

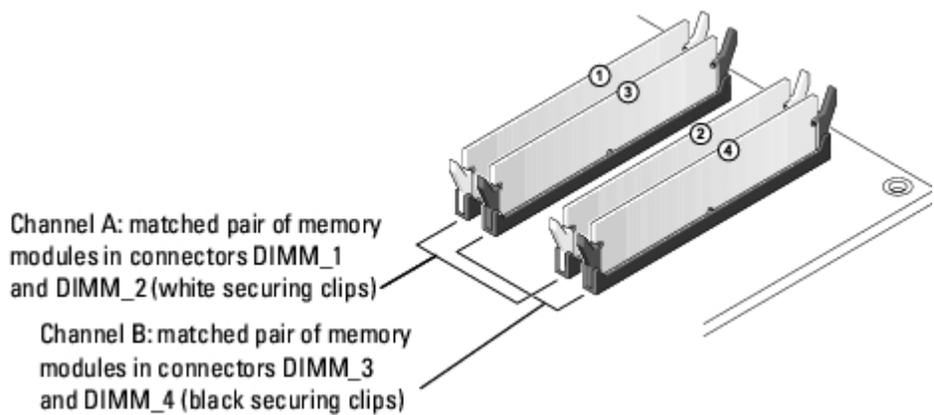


NOTICE: If you remove your original memory modules from the computer during a memory upgrade, keep them separate from any new modules that you may have, even if you purchased the new modules from Dell™. If possible, do not pair an original memory module with a new memory module. Otherwise, your computer may not start properly. The recommended memory configurations are:

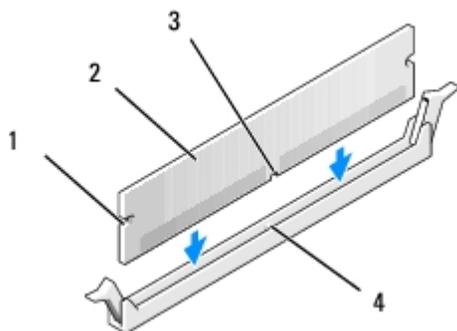
A pair of matched memory modules installed in DIMM connectors 1 and 2 or
a pair of matched memory modules installed in DIMM connectors 1 and 2 and another matched pair installed in DIMM connectors 3 and 4.



NOTE: If you install mixed pairs of PC3-8500 (DDR3 1066-MHz) and PC3-10600 (DDR3 1333-MHz) memory, the modules function at the speed of the slowest module installed.



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

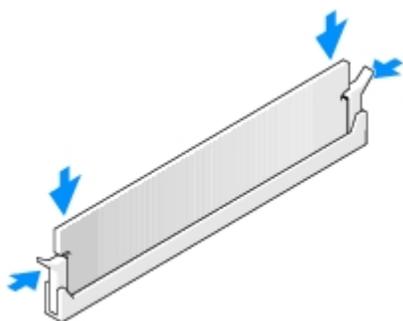


1	cutouts (2)	2	memory module
3	notch	4	tab

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

7. 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.



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

11. Log on to your computer.

12. Right-click the **My Computer** icon, then click **Properties**.
13. Click the **General** tab.
14. To verify that the memory is installed correctly, check the amount of memory (RAM) listed.

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Replacing PCI and PCI Express Cards

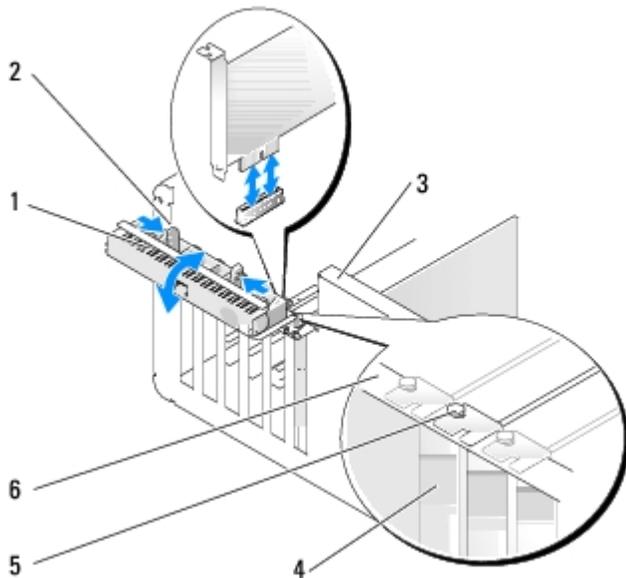
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- [Removing PCI and PCI Express Cards](#)
- [Installing PCI and PCI Express Cards](#)
- [Configuring Your Computer After Removing or Installing PCI and PCI Express Cards](#)

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

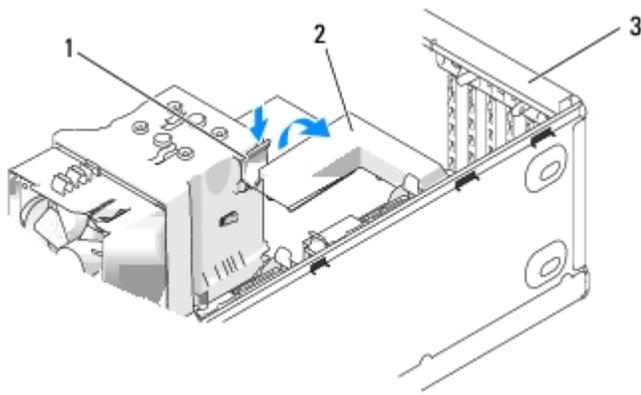
Removing PCI and PCI Express Cards

1. Follow the procedures in [Before You Begin](#).
2. Uninstall the card's driver and software from the operating system. For more information, see the *Quick Reference Guide*.
3. If necessary, disconnect any external cables connected to the card.
4. Remove the computer cover (see [Removing the Computer Cover](#)).



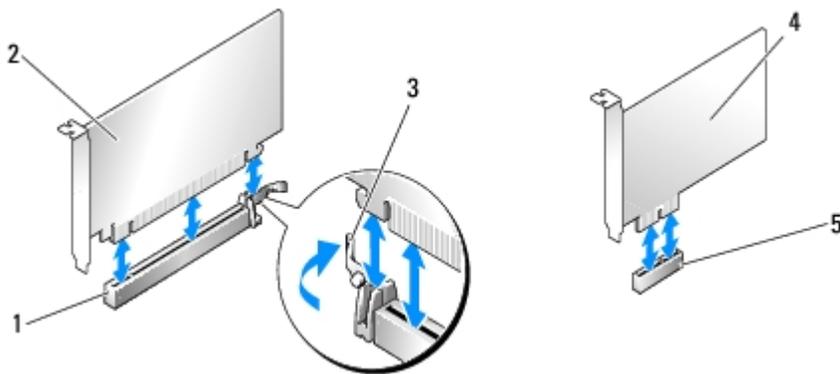
1	card retention door	2	release tabs (2)	3	lever on chassis wall (may not be present on all computers)
4	filler bracket	5	alignment guide	6	alignment bar

5. If present on your computer, rotate the lever on the chassis wall upward.
6. Press the two release tabs on the card retention door towards each other and pivot the door open. The door is hinged and remains in the open position.



1	release tab	2	card retention bracket	3	card retention door
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7. If your computer has a card retention bracket to secure the x16 card, press the release tab downward gently, and then pivot the bracket upward to access the card slots.



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

NOTICE: Ensure that you release the securing tab to unseat the card. If the card is not removed correctly, the system board may be damaged.

8. If you are removing a PCI Express card, press the securing tab on the card slot to remove the card.

9. If you are removing the card permanently, install a filler bracket in the empty card-slot opening.

If you need a filler bracket, contact Dell (see "Contacting Dell" in the *Quick Reference Guide*).

NOTE: 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.

10. Push the card retention bracket back into its original position; push the tip of the bracket so the release tab clicks into place.

11. Close the card retention door to secure the card(s).

NOTE: For full-length PCI-E cards, if a "piano" bracket is present on your computer you need to rotate it down into place.

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

13. Connect the computer and devices to electrical outlets, and then turn them on.
 14. To complete the removal procedure, see [Configuring Your Computer After Removing or Installing PCI and PCI Express Cards](#).
-

Installing PCI and PCI Express Cards

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover. See [Removing the Computer Cover](#).
3. If present on your computer, rotate the lever on the chassis wall upward.
4. Press the two release tabs on the card retention door towards each other and pivot the door open. The door is hinged and remains in the open position.
5. If your computer includes a card retention bracket to secure the x16 card, press the release tab downward gently and then pivot the bracket upward to access the card slots.
6. If you are installing a new card, remove the filler bracket to create a card-slot opening, and then go to [step 8](#).
7. If you are replacing a card that is already installed in the computer, remove the existing card. See [Removing PCI and PCI Express Cards](#).
8. Prepare the card for installation.

See the documentation that came with the card for information on configuring the card, making internal connections, or otherwise customizing it for your computer.



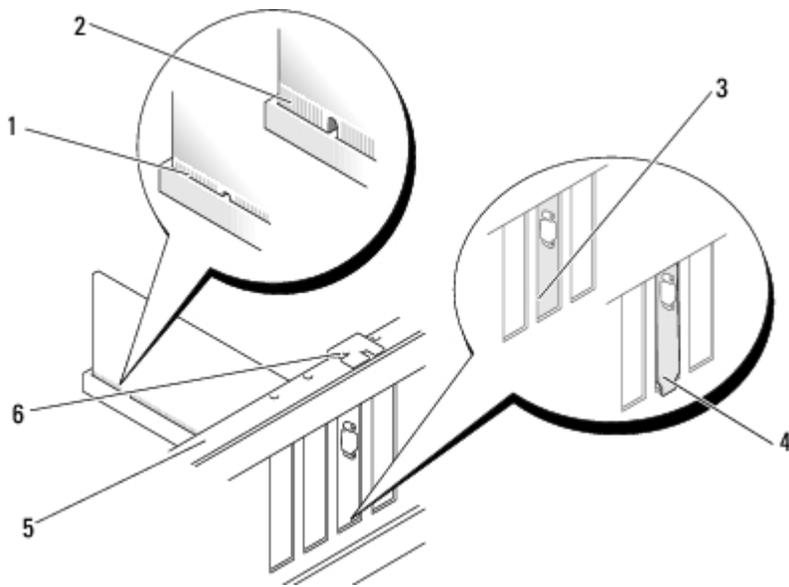
CAUTION: Some network adapters automatically start the computer when they are connected to a network. To guard against electrical shock, be sure to unplug your computer from its electrical outlet before installing any cards.

9. If you are installing the card into the x16 card connector, position the card so that the securing slot is aligned with the securing tab.



NOTICE: Ensure that you release the securing tab to seat the card. If the card is not installed correctly, you may damage the system board.

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

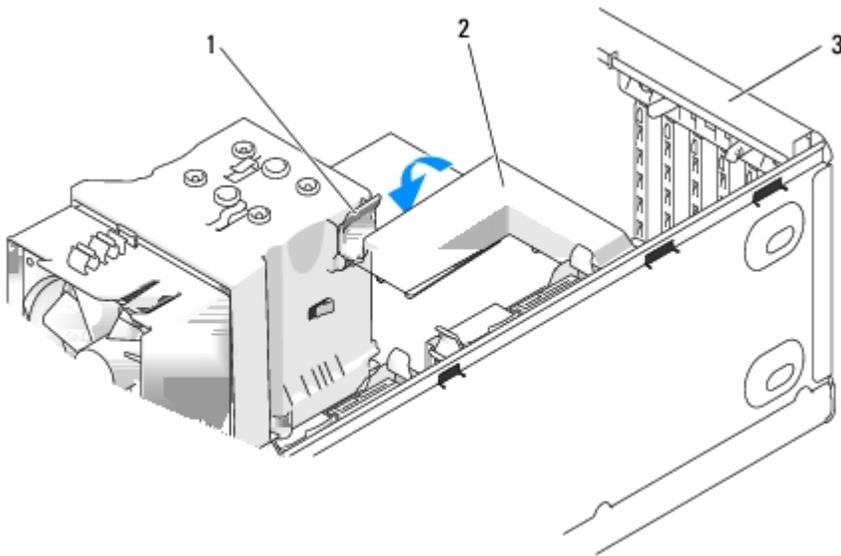


1	fully seated card	2	not fully seated card	3	bracket within slot
4	bracket caught outside of slot	5	alignment bar	6	alignment guide

11. Ensure that:

- The tops of all cards and filler brackets are flush with the alignment bar.
- The notch in the top of the card or filler bracket fits around the alignment guide.

12. If you removed a card retention bracket, snap it into place, securing the PCI Express card.



1	release tab	2	card retention bracket	3	card retention door
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➡ **NOTICE:** 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.

➡ **NOTICE:** To connect a network cable, first plug the cable into the network device and then plug the cable into the computer.

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

14. Connect the computer and devices to electrical outlets, and then turn them on.

15. To complete the installation, see [Configuring Your Computer After Removing or Installing PCI and PCI Express Cards](#).

Configuring Your Computer After Removing or Installing PCI and PCI Express Cards

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

	Installed	Removed
Sound Card	<ol style="list-style-type: none">1. Enter system setup (see System Setup).2. Go to Onboard Devices and select Integrated Audio, and then change the setting to Off.3. Connect the external audio devices to the sound card's connectors.	<ol style="list-style-type: none">1. Enter system setup (see System Setup).2. Go to Onboard Devices and select Integrated Audio, and then change the setting to On.3. Connect the external audio devices to the computer's back panel connectors.
Network Card	<ol style="list-style-type: none">1. Enter system setup (see System Setup).2. Go to Onboard Devices and select Integrated NIC, and then change the setting to Off.3. Connect the network cable to the network card's connector.	<ol style="list-style-type: none">1. Enter system setup (see System Setup).2. Go to Onboard Devices and select Integrated NIC, and then change the setting to On.3. Connect the network cable to the integrated network connector.

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Replacing Drives

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- [Replacing a Hard Drive](#)
- [Replacing the Drive Panel](#)
- [Replacing an Optical Drive](#)
- [Replacing a Media Card Reader](#)

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

NOTE: The system does not support IDE devices.

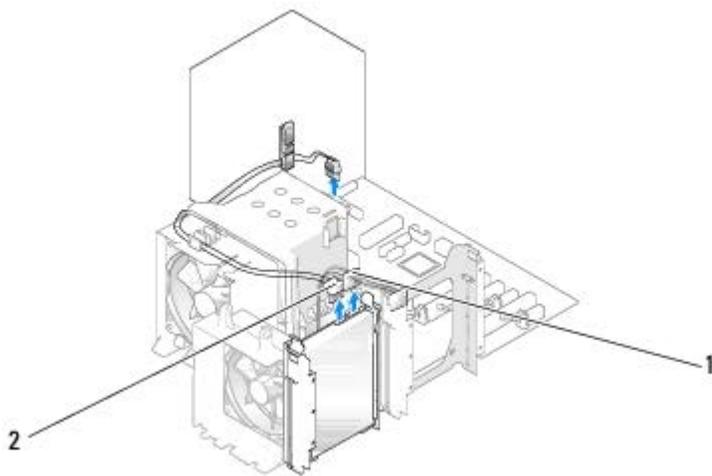
NOTE: The 3.5-inch Media Card Reader is not interchangeable with the hard drive carrier.

Replacing a Hard Drive

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

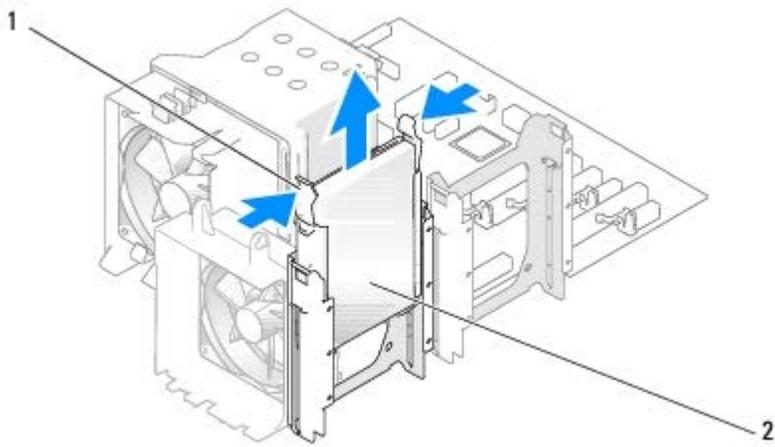
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Disconnect the power and data cables from the drive.

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



1	power cable	2	hard drive cable
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4. Press in on the tabs on each side of the drive and slide the drive up and out.



1	tabs (2)	2	hard drive
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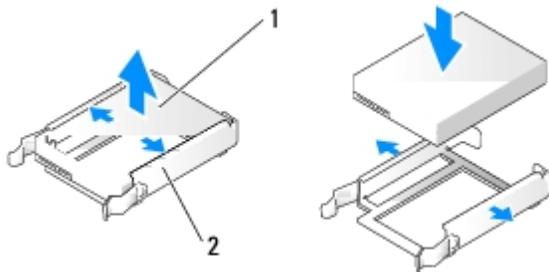
5. If removing this drive changes the drive configuration, you must ensure that the changes are reflected in the BIOS. When you restart your computer, enter system setup (see [System Setup](#)). On the setup screen go to the "Drives" section and set the SATA ports (SATA 0 through 4) to the correct configuration.

6. Unpack the replacement hard drive, and prepare it for installation.

7. Check the documentation that came with the drive to verify that the drive is configured for your computer.

8. If your replacement hard drive does not have the hard-drive bracket attached, remove the bracket from the old hard drive by unsnapping it from the drive.

9. Snap the hard-drive bracket onto the replacement hard drive.



1	hard drive	2	hard-drive bracket
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10. Install the hard drive into the computer by sliding the drive into place until it clicks into place.

11. Connect the power and hard drive cables to the hard drive.

12. Check all connectors to be certain that they are properly cabled and firmly seated.

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

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

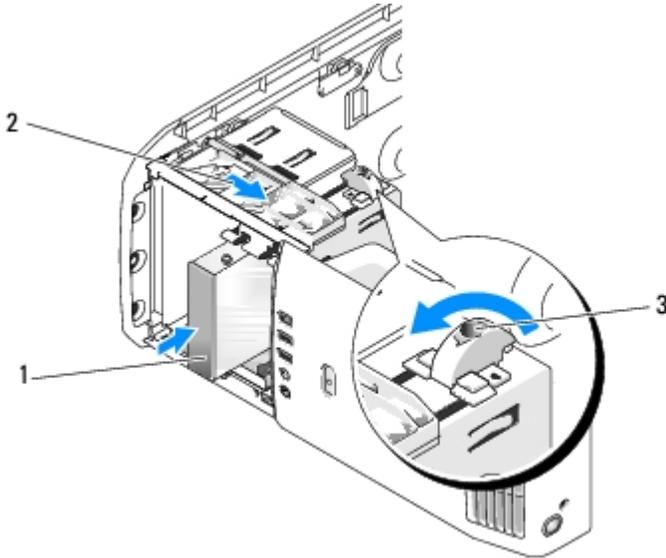
15. If installing this drive changes the drive configuration, ensure that you reflect these changes in the BIOS. When you restart your computer, enter system setup (see [System Setup](#)). On the setup screen go to the "Drives" section and set

the SATA ports (SATA 0 through 4) to the correct configuration.

16. See the documentation that came with the hard drive for instructions about installing any software required for the operation of the hard drive.

Installing a Hard Drive in the FlexBay

The top FlexBay drive on your system can hold an additional hard drive.



1	hard drive	2	sliding plate lever	3	flexbay knob (default position)
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1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Remove the drive panel (see [Replacing the Drive Panel](#)).
4. Remove the shoulder screws from the inside of the drive-panel insert and attach the screws to the new drive (see [Replacing the Drive-Panel Insert](#)).
5. Turn the FlexBay knob on the cage by 90 degrees, in the anti-clockwise direction.

NOTICE: Ensure the FlexBay knob is turned in the anticlockwise direction, failing which can result in the knob being broken.

NOTE: Turning the FlexBay knob once opens up the drive space to accommodate a larger device like a hard drive. The knob at this stage is in a horizontal position.

6. Pull the sliding plate lever down and hold in place.
7. Slide the hard drive into the flex bay drive until the sliding plate clicks into place and the drive snaps into position.
8. Attach the power and hard drive cables to the hard drive.
9. Replace the drive panel (see [Replacing the Drive Panel](#)).

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

Removing a Hard Drive From the FlexBay

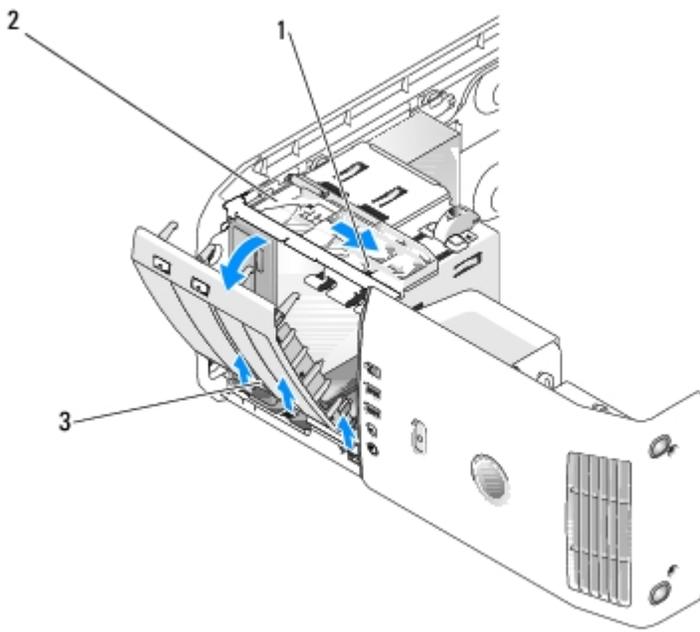
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Remove the drive panel (see [Replacing the Drive Panel](#)).
4. Disconnect the power and hard-drive cables from the back of the drive.
5. Pull the sliding plate down and hold in place.
6. Slide the hard drive out of the FlexBay.

 **NOTICE:** Ensure the FlexBay knob is turned in the anticlockwise direction, failing which can result in the knob being broken.

7. Turn the FlexBay knob to its default position. See the illustration for [Installing a Hard Drive in the FlexBay](#) to note the default FlexBay knob position.
 8. Replace the drive panel (see [Replacing the Drive Panel](#)).
 9. Replace the computer cover (see [Replacing the Computer Cover](#)).
-

Replacing the Drive Panel

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



1	sliding plate lever	2	sliding plate	3	drive panel
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3. Grasping the lever on the sliding plate, pull the sliding plate downward and hold in place.

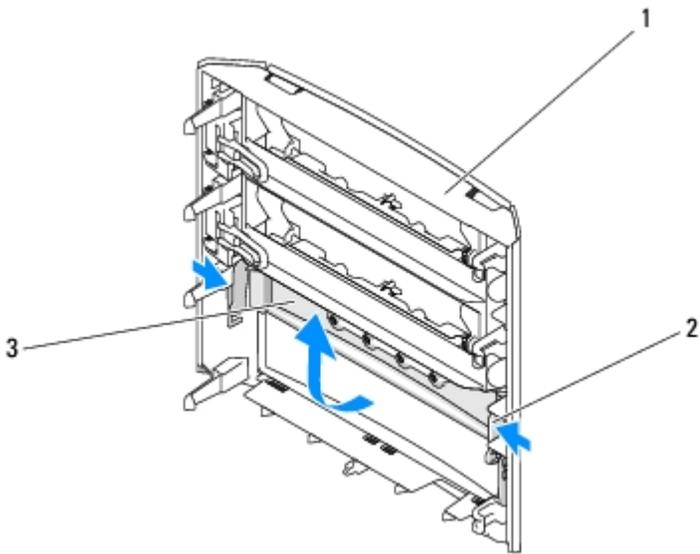
 **NOTE:** The sliding plate secures and releases the drive panel and helps to secure the drives. Push from the inside and pivot the drive panel to the left to release the panel from its side hinges.

4. The drive panel clicks open. Gently ease it out and set it aside in a secure location.

5. To replace the drive panel:

- a. Align the drive panel tabs with the side-door hinges.
- b. Rotate the drive panel towards the computer until the sliding plate lever clicks into place and the drive panel snaps into place on the front panel.
- c. Replace the computer cover (see [Replacing the Computer Cover](#)).

Replacing the Drive-Panel Insert



1	drive panel	2	drive-panel insert tab (2)	3	drive-panel insert
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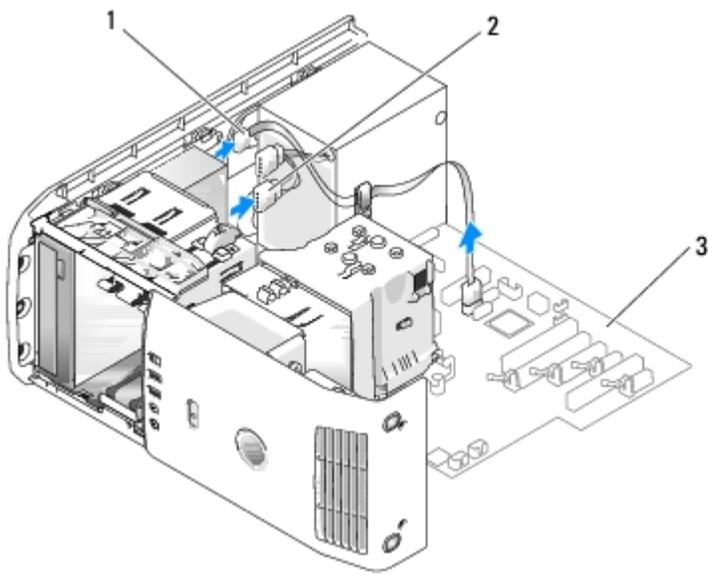
1. Remove the drive panel (see [Replacing the Drive Panel](#)).
2. Turn the drive panel around to find and hold both outer edges of the drive-panel insert tab. Pull the drive-panel insert tabs inwards to ease it out of the latches that hold it in place.
3. Set the drive-panel insert aside in a secure location.
4. To replace the drive-panel insert:
 - a. Align the notches on the drive-panel insert to the corresponding slots on the drive panel and snap into place.
 - b. Ensure that the drive-panel insert is correctly seated in the drive panel.

Replacing an Optical Drive

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

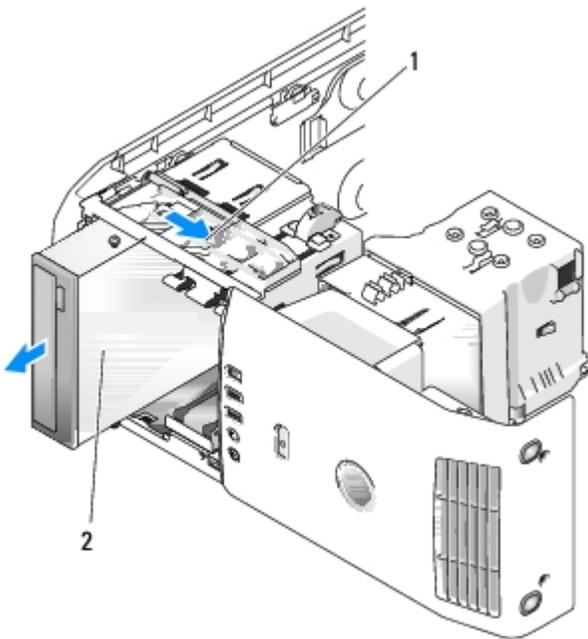


NOTE: If you are uninstalling the only optical drive in your computer and will not replace it at this time, disconnect the data cable from the system board and set it aside.



1	optical drive cable	2	power cable	3	system board
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5. Pull the sliding plate towards the bottom of the system and hold; then, slide the drive out through the front of the computer.

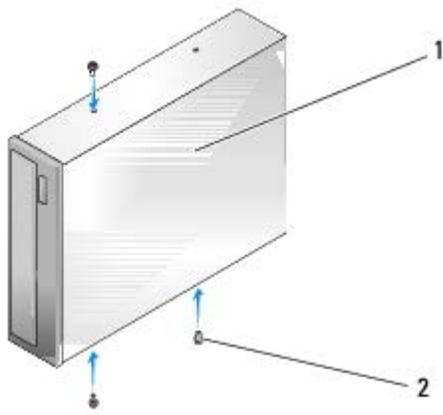


1	sliding plate	2	optical drive
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6. If you are not replacing the drive, replace the drive panel insert (see [Replacing the Drive-Panel Insert](#)), and then go to [step 8](#).

7. If you are installing a new drive:

- a. Remove the drive panel insert (see [Replacing the Drive-Panel Insert](#)).
- b. Remove three shoulder screws from the inside of the drive-panel insert and attach the screws to the new drive.



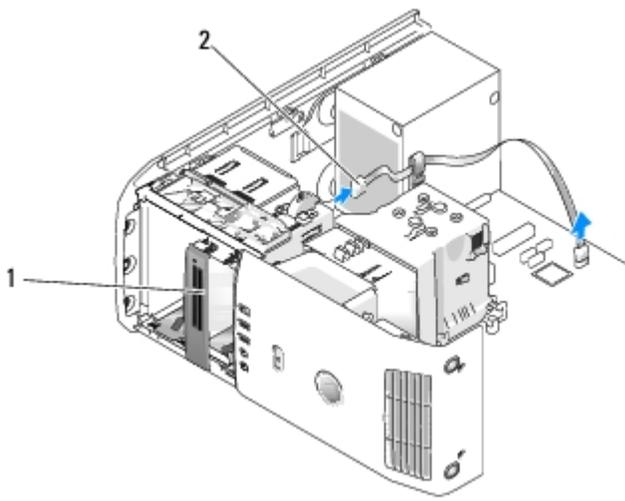
1	optical drive	2	shoulder screws (3)
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- c. Slide the drive into the drive bay until the drive clicks into position.
 - d. Connect the power cable and the optical drive data cable to the drive.
 - e. Check all cable connections, and fold cables out of the way to provide airflow for the fan and cooling vents.
8. Replace the drive panel (see [Replacing the Drive Panel](#)).
 9. Replace the computer cover (see [Replacing the Computer Cover](#)).
 10. Connect your computer and devices to their electrical outlets, and then turn them on.
 11. Verify that your computer works correctly by running the Dell Diagnostics (see "Dell Diagnostics" in the *Quick Reference Guide*).
-

Replacing a Media Card Reader

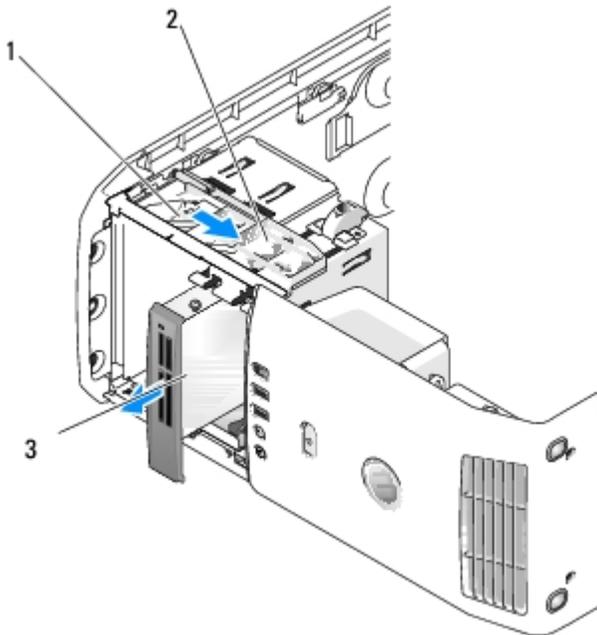
NOTICE: Carefully note the routing of each cable before you disconnect it, so that you are sure to re-route cables correctly. An incorrectly routed or a disconnected cable could lead to computer problems.

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Remove the drive panel (see [Replacing the Drive Panel](#)).



1	Media Card Reader (not present on all computers)	2	USB cable
---	--	---	-----------

4. Disconnect the USB cable from the back of the Media Card Reader. Disconnect the other end of the cable from the USB connector (FLEXBAY) on the system board (see [System Board Components](#)).



1	sliding plate	2	sliding plate lever	3	Media Card Reader (not present on all computers)
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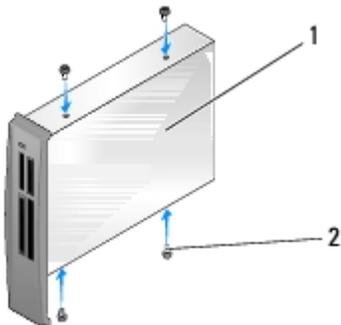
5. Pull the sliding plate towards the bottom of the system and hold; then, slide the drive out through the front of the computer.
6. If you are not reinstalling the Media Card Reader, replace the drive panel insert (see [Replacing the Drive-Panel Insert](#)) and go to [step 8](#).

 **NOTICE:** Ensure the FlexBay knob is turned in the anticlockwise direction, failing which can result in the knob being broken.

 **NOTE:** If you have already installed an additional hard drive in the FlexBay and you want to replace it with a Media Card Reader, ensure that the FlexBay knob is rotated anticlockwise, back to its default vertical position. See the illustration for [Installing a Hard Drive in the FlexBay](#).

7. If you are installing a new Media Card Reader:

- a. Remove the drive panel insert (see [Replacing the Drive-Panel Insert](#)).
- b. Remove the Media Card Reader from its packaging.
- c. Remove the shoulder screws from the inside of the drive-panel insert and attach the screws to the new Media Card Reader.



1	Media Card Reader	2	screws (4)
---	-------------------	---	------------

- d. Gently slide the Media Card Reader into the drive bay, till it clicks in securely.

 **NOTE:** Ensure that the Media Card Reader is installed before connecting the USB cable.

- e. Connect the USB cable to the back of the Media Card Reader and to the USB connector (FLEXBAY) on the system board (see [System Board Components](#)).
8. Replace the drive panel (see [Replacing the Drive Panel](#)).
9. Replace the computer cover (see [Replacing the Computer Cover](#)).
10. Turn on the system and enter system setup (see [System Setup](#)).

If you *removed* a Media Card Reader — Set the USB for FlexBay value to **OFF**.

If you *installed* a Media Card Reader — Set the USB for FlexBay value to **ON**.

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Replacing Fans

Dell™ XPS™ 430 Service Manual

- [Replacing the Processor Airflow Shroud Assembly](#)
- [Replacing the Processor Fan Cage](#)
- [Replacing the Processor Fan](#)
- [Replacing the Card Fan](#)

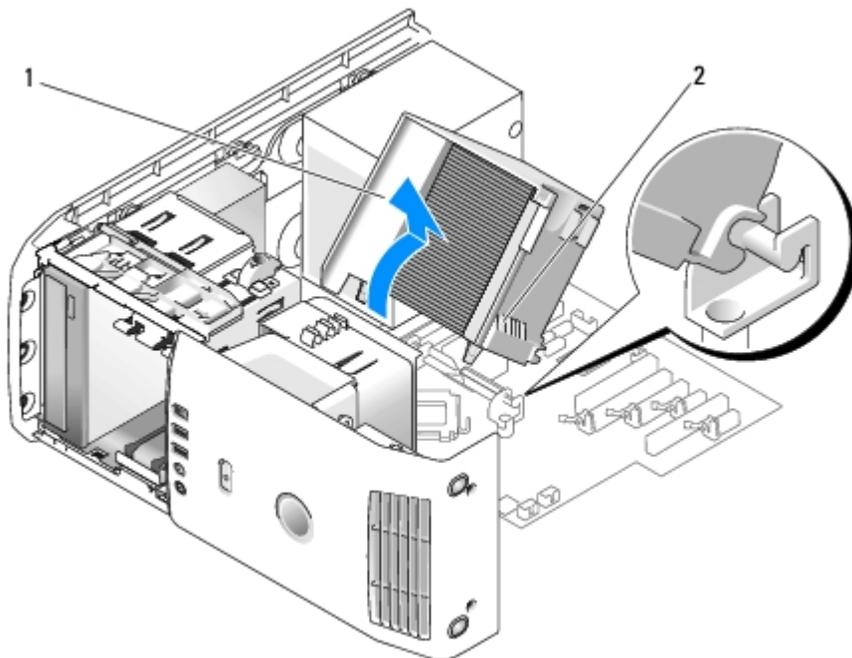
CAUTION: Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.

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

Replacing the Processor Airflow Shroud Assembly

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

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



1	processor airflow shroud	2	captive screws (2)
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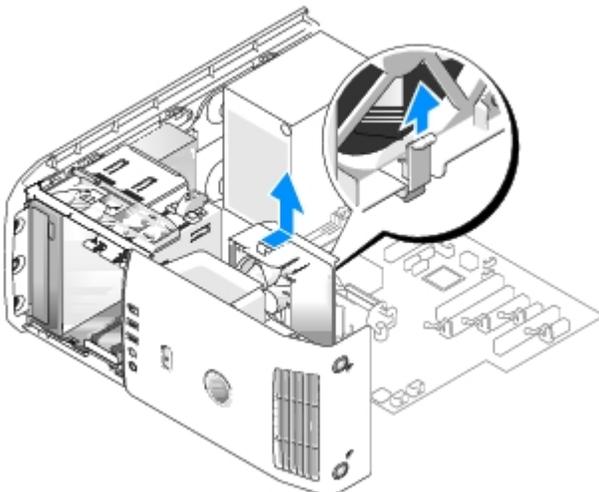
NOTICE: The processor heat sink is attached to the processor airflow shroud. When you remove the airflow shroud, lay it upside down or on its side to avoid damaging the heat sink thermal interface.

3. Loosen the two captive screws securing the processor airflow shroud to the chassis, then pivot the shroud forward and ease it out of the hinges.

4. If present on your computer, remove the card retention bracket (see [Removing PCI and PCI Express Cards](#)).
 5. Lift the processor airflow shroud out of the computer, and set it aside.
 6. To replace the processor airflow shroud, align the hinge slots on the processor airflow shroud with the hinge guides on the system board.
 7. Align the other side of the processor airflow shroud towards the processor fan, and then tighten the two captive screws.
 8. If you removed a card retention bracket, snap it back into place (see [Installing PCI and PCI Express Cards](#)).
 9. Replace the computer cover (see [Replacing the Computer Cover](#)).
 10. Connect your computer and devices to electrical outlets, and turn them on.
-

Replacing the Processor Fan Cage

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Remove the processor airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)).
4. Disconnect the processor fan cable from the FAN_CPU connector on the system board (see [System Board Components](#)).
5. Lift and hold the release tab present at the bottom of the processor fan cage, press down on top of the cage and slide it towards the back of the computer.
6. Ease the cage out of the housing.

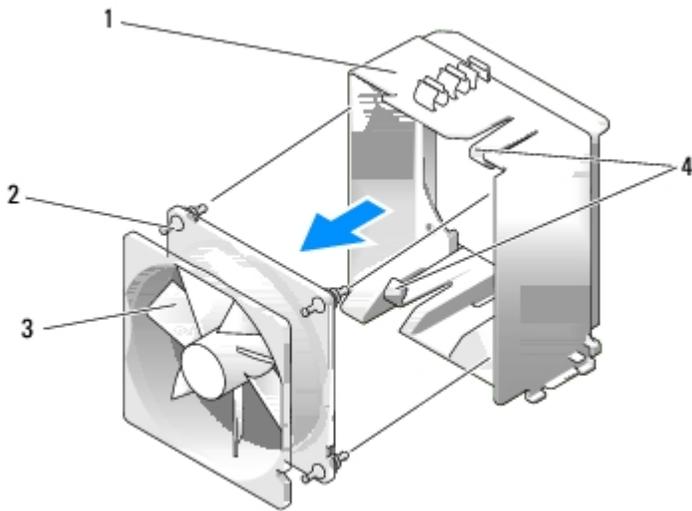


7. To replace the processor fan cage, orient the processor fan power cable downward; insert the tabs along the bottom of the processor fan cage into the corresponding slots on the cage housing and slide the processor fan cage towards the front of the computer, until it snaps into place.

8. Connect the processor fan cable to the FAN_CPU connector on the system board (see [System Board Components](#)).
9. Replace the processor airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)).
10. Replace the computer cover (see [Replacing the Computer Cover](#)).

Replacing the Processor Fan

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Remove the processor airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)).
4. Disconnect the processor fan cable from the FAN_CPU connector on the system board (see [System Board Components](#)).
5. Remove the processor fan cage from the cage housing (see [Replacing the Processor Fan Cage](#)).
6. Release the two tabs at the top and the bottom of the processor fan cage.
7. Carefully pull on the two bottom corners of the fan to detach the four rubber grommets securing the fan to the processor fan cage.



1	fan cage	2	rubber grommet (4)
3	processor fan	4	release tabs (2)

8. To replace the processor fan, orient the fan power cable downward. Align the rubber grommets in the fan with the holes in each corner of the processor airflow shroud, then pull the grommets through until they snap into place.

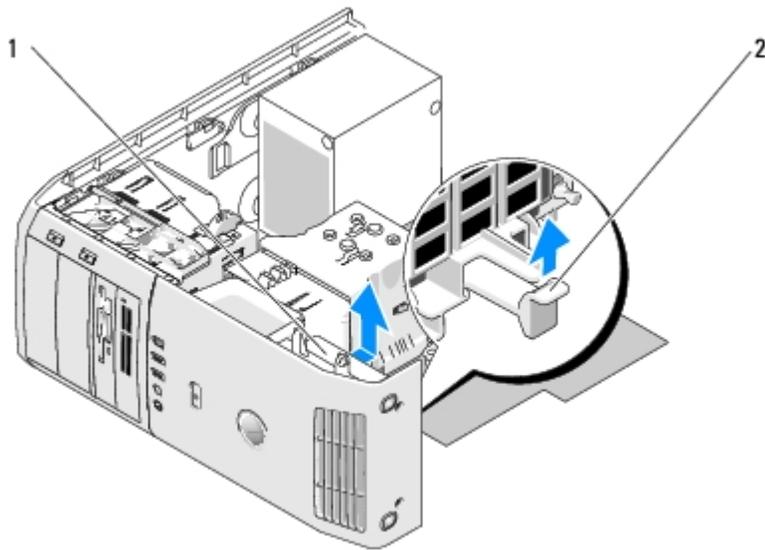
 **NOTE:** Airflow direction and orientation are shown on the side of the fan.

9. Replace the processor fan cage into the cage housing (see [Replacing the Processor Fan Cage](#)).

10. Connect the fan cable to the FAN_CPU connector on the system board (see [System Board Components](#)).
 11. Replace the processor airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)).
 12. Replace the computer cover (see [Replacing the Computer Cover](#)).
 13. Connect your computer and devices to electrical outlets, and then turn them on.
-

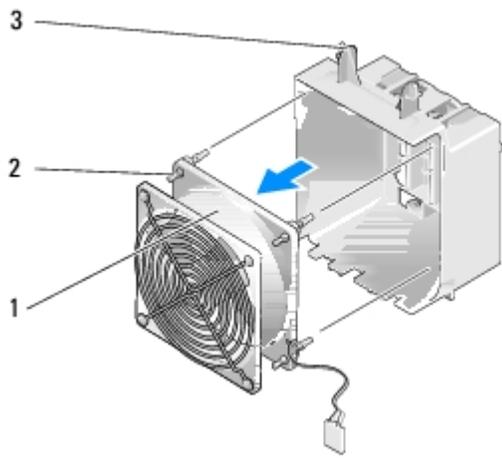
Replacing the Card Fan

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Remove any full-length expansion cards (see [Replacing PCI and PCI Express Cards](#)).
4. Disconnect the fan cable from the FAN_CARD_CAGE connector on the system board (see [System Board Components](#)).
5. Lift and hold the tab present at the bottom of the fan cage. Pressing the top of the cage, slide it towards the back of the computer. Gently ease the cage out of the groove.



1	fan cage	2	tab
---	----------	---	-----

6. One by one, carefully pull on each corner of the fan to detach the four rubber grommets securing the fan to the fan cage.



1	card fan	2	rubber grommet (4)	3	card fan cage
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NOTICE: Ensure the fan cable is correctly routed through the opening in the lower-right corner of the fan cage.

7. To reinstall the card fan, orient the fan power cable downward. Align the rubber grommets in the fan with the holes in each corner of the fan cage, then pull the grommets through until they snap into place.

NOTE: Airflow direction and orientation are shown on the side of the fan. Insert the tabs along the bottom of the fan cage into the corresponding slots on the cage housing, then rotate the fan cage forward until it snaps into place.

8. Connect the fan cable to the FAN_CARD_CAGE connector on the system board (see [System Board Components](#)).
9. Replace any expansion cards that you removed (see [Installing PCI and PCI Express Cards](#)).
10. Replace the computer cover (see [Replacing the Computer Cover](#)).
11. Connect your computer and devices to electrical outlets, and then turn them on.

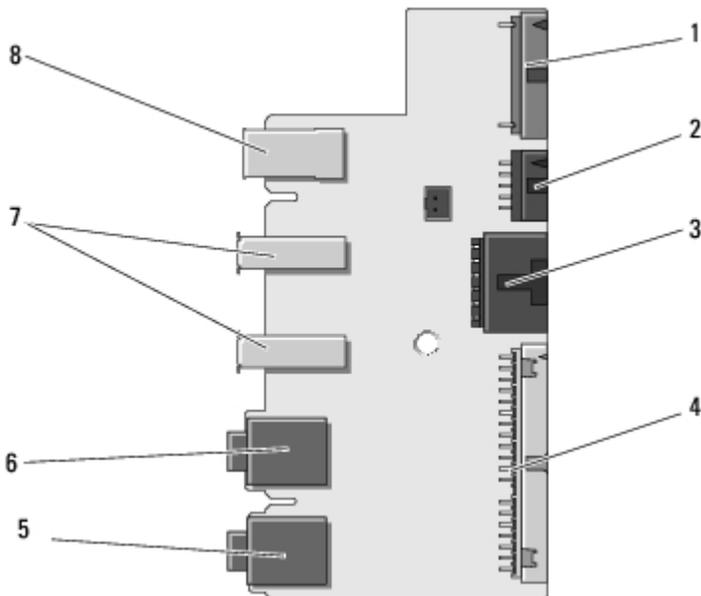
Replacing the Front I/O Panel

Dell™ XPS™ 430 Service Manual

Front I/O-Panel Components

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

Front I/O-Panel Components



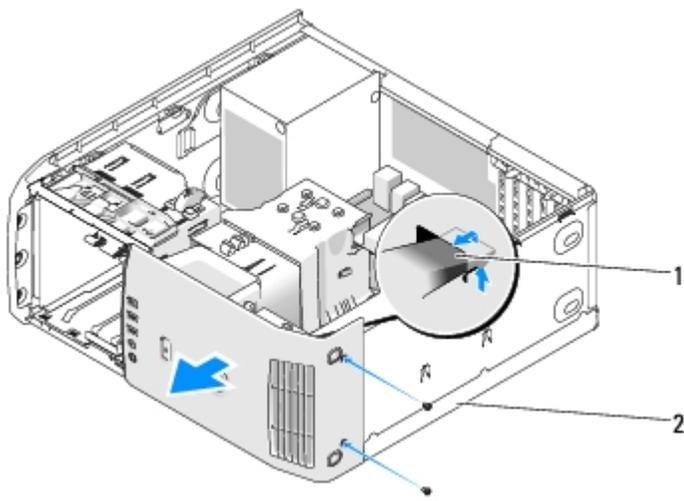
1	add-in audio internal connector	2	1394a internal connector	3	power button connector
4	front I/O connector	5	microphone-in connector	6	headphone-out connector
7	USB 2.0 connectors (2)	8	1394a external connector		

To replace the front I/O panel:

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

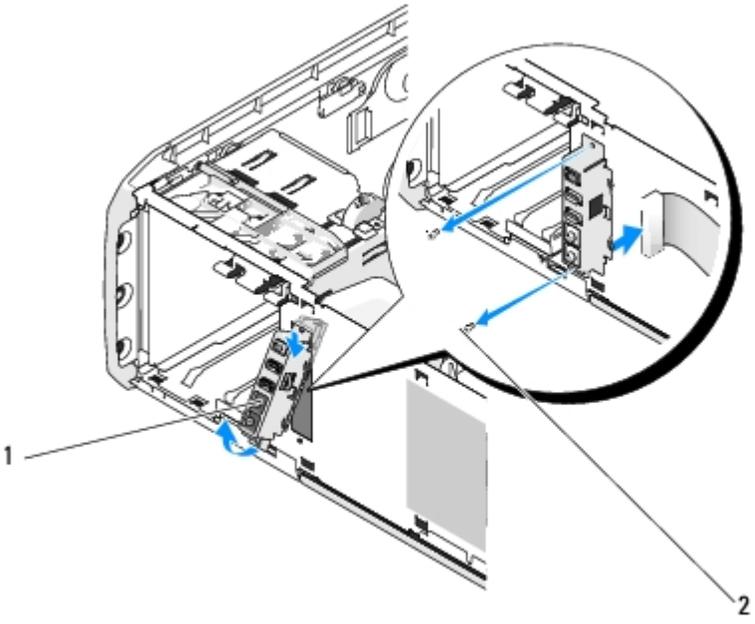
NOTICE: Carefully note the routing of each cable before you disconnect it, so that you are sure to re-route cables correctly. An incorrectly routed or a disconnected cable could lead to computer problems.

3. Remove the front plastic bezel:
 - a. Remove the drive panel (see [Replacing the Drive Panel](#)).
 - b. Remove the two screws from the bottom of the chassis.
 - c. Press out to release the six tabs that secure the bezel to the front panel.
 - d. Pull the bezel away from the front of the computer.



1	Bezel tabs (6)	2	Bezel screws (2)
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4. Remove the processor airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)).
5. Remove the processor fan assembly (see [Replacing the Processor Fan Cage](#) and [Replacing the Processor Fan](#)) and the card fan (see [Replacing the Card Fan](#)).
6. Disconnect the control-panel cable from the I/O panel connector by pulling the cable loop.
7. Disconnect the power panel cable, 1394 cable, and audio cable (if it exists) so that the entire front I/O panel is free from all cables.



1	Front I/O panel	2	mounting screws (2)
---	-----------------	---	---------------------

8. Remove the two screws that hold the I/O panel assembly to the front of the chassis.
9. Gently ease out the lower end of the I/O panel assembly first from its groove on the chassis followed by the upper end.

10. To replace the front I/O panel, align the screw holes on the I/O panel with the screw holes on the chassis, and replace the two screws.
 11. Reconnect the cable that attaches the power button to the I/O panel.
 12. Reconnect the 1394 cable, and audio cable (if it exists and you had removed it).
 13. Reconnect the control-panel cable to the I/O panel connector.
 14. Replace the front bezel:
 - a. Align the six tabs with the corresponding slots on the front panel and snap it back into place.
 - b. Replace the two screws that secure the bezel to the bottom of the chassis.
 - c. Replace the drive panel (see [Replacing the Drive Panel](#)).
 15. Replace the processor airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)) and the processor fan assembly (see [Replacing the Processor Fan Cage](#) and [Replacing the Processor Fan](#)).
 16. Connect the card fan assembly (see [Replacing the Card Fan](#)) to the system board.
 17. Replace the computer cover (see [Replacing the Computer Cover](#)).
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Replacing the Processor

Dell™ XPS™ 430 Service Manual

[Removing the Processor](#)

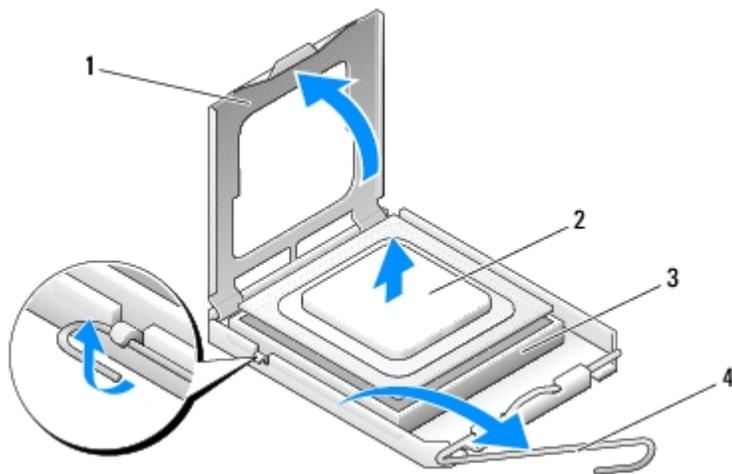
[Installing the Processor](#)

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

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

Removing the Processor

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Disconnect the power cables from the POWER and 12VPOWER connectors (see [System Board Components](#)) on the system board.
4. Remove the airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)).
5. Push down and out on the socket release lever.
6. Lift the socket release lever and open the processor cover.



1	processor cover	2	processor
3	socket	4	socket release lever

7. Remove the processor from the socket.

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

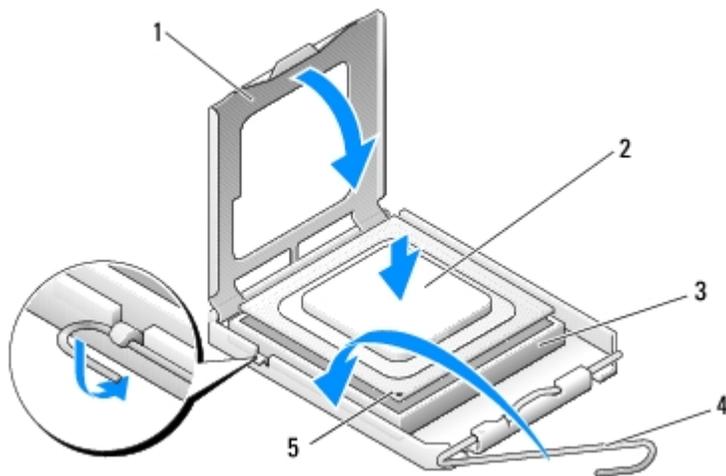
Installing the Processor

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

1. Unpack the new processor.

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

2. If the release lever on the socket is not fully extended, move it to that position.
3. Align the pin-1 corner of the processor and socket.



1	processor cover	2	processor	3	socket
4	socket release lever	5	socket pin-1 indicator		

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

4. Set the processor lightly in the socket and ensure that the processor is positioned correctly.
5. When the processor is fully seated in the socket, close the processor cover.
6. Pivot the socket release lever back toward the socket and snap it into place to secure the processor.
7. Replace the processor airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)).
8. Reconnect the power cables to the POWER and 12VPOWER connectors (see [System Board Components](#)) on the system board.
9. Close 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™ XPS™ 430 Service Manual

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

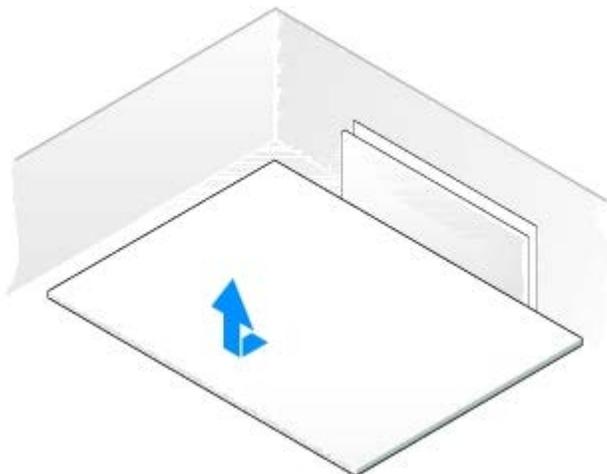
NOTICE: Do not perform the following steps unless you are familiar with hardware removal and replacement. Performing these steps incorrectly could damage your system board. For technical service, see the *Quick Reference Guide*.

NOTICE: The system board and metal tray are connected and are removed or installed as one piece.

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Remove any full-length expansion cards (see [Replacing PCI and PCI Express Cards](#)).
4. Remove the processor airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)) and the processor fan assembly (see [Replacing the Processor Fan Cage](#) and [Replacing the Processor Fan](#)).
5. Remove the card fan assembly (see [Replacing the Card Fan](#)).
6. Remove any additional components that may restrict access to the system board.
7. Disconnect all cables from the system board.

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

8. Remove the eight screws securing the system board assembly to the chassis, slide the system board assembly towards the front of the computer and lift it up and out.



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

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

9. Transfer components from the existing system board to the replacement system board, if applicable.
10. Orient the system board assembly by aligning the notches on the bottom of the assembly with the tabs on the computer.
11. Slide the system board assembly toward the back of the computer until the assembly clicks into place.
12. Replace the eight screws to secure the system board assembly to the chassis.
13. Replace any expansion cards that you removed (see [Installing PCI and PCI Express Cards](#)).
14. Replace the processor airflow shroud (see [Replacing the Processor Airflow Shroud Assembly](#)) and the Processor Fan assembly (see [Replacing the Processor Fan Cage](#) and [Replacing the Processor Fan](#)).
15. Replace the card fan assembly (see [Replacing the Card Fan](#)).
16. Replace any additional components that you removed from the system board.
17. Reconnect all cables to the system board.
18. Replace the computer cover (see [Replacing the Computer Cover](#)).
19. Connect your computer and devices to electrical outlets, and then turn them on.
20. Flash the system BIOS, as needed.

 **NOTE:** For information on flashing the system BIOS, see support.dell.com.

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Replacing the Power Supply

Dell™ XPS™ 430 Service Manual

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

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

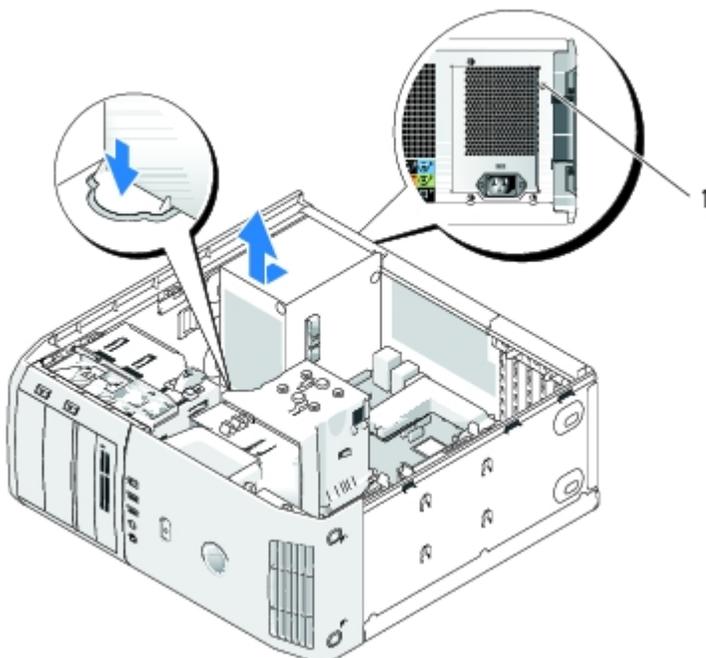
1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).

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

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

✍ NOTE: Note the routing of the power cable bundles as you disconnect them. You must route these cables properly when you replace them to prevent them from being pinched or crimped.

4. Remove the four screws that attach the power supply assembly to the back of the chassis.
5. Press and hold the metal release tab at the bottom of the power supply unit, push the power supply towards the front of the computer to free it from the securing tabs on the computer chassis.
6. Gather the power supply bundles that stem from the power supply, for easy removal and lift it out of the computer.



1 | power supply screws (4)

7. To replace the power supply, align the bottom of the power supply unit with the tabs on the chassis, then slide it towards the back of the system till it snaps into place.
 8. Replace the four screws that secure the power supply to the back of the chassis.
 9. Reattach each of the DC power cables that were previously connected, carefully rerouting them as you found them.
 10. Replace the computer cover (see [Replacing the Computer Cover](#)).
 11. Connect your computer and devices to electrical outlets, and then turn them on.
-

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Replacing the Battery

Dell™ XPS™ 430 Service Manual

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

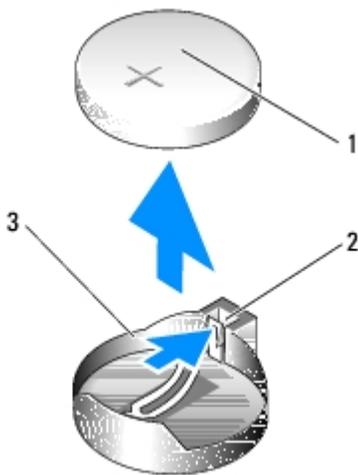
⚠ CAUTION: A new battery can explode if it is incorrectly installed. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

To replace the battery:

1. Enter the system setup program and record the values for all the screens (see [Entering System Setup](#)) so that you can restore the correct settings after installing the new battery.
2. Follow the procedures in [Before You Begin](#).
3. Remove the computer cover (see [Removing the Computer Cover](#)).
4. Locate the battery socket (see [System Board Components](#)).

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

5. Remove the battery by carefully prying it out of its socket with your fingers or with a blunt, nonconducting object, such as a plastic screwdriver.
6. Insert the new battery into the socket with the side labeled "+" facing up, and then snap the battery into place.
7. Replace the computer cover. (see [Replacing the Computer Cover](#)).



1	coin-cell battery	2	tab	3	battery socket
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8. Connect your computer and devices to electrical outlets, and then turn them on.

9. Enter system setup and restore the settings you recorded in [step 1](#) (see [Entering System Setup](#)).
10. Properly dispose of the old battery. See the safety instructions that shipped with your computer for battery disposal information.

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Replacing the Computer Cover

Dell™ XPS™ 430 Service Manual

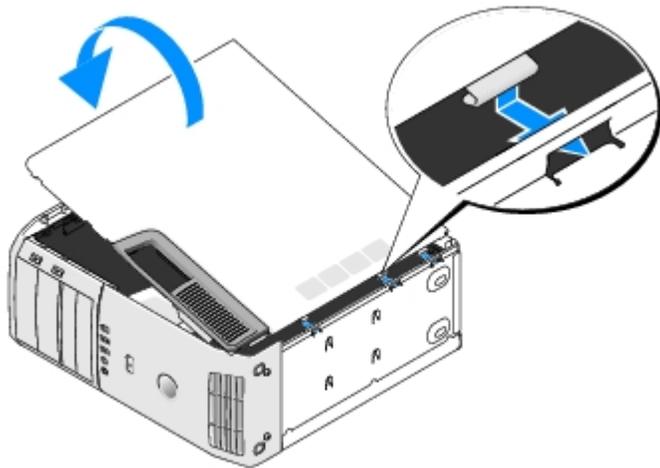
⚠ CAUTION: Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.

⚠ CAUTION: Do not operate your equipment with any cover(s) (including computer covers, front panel, filler brackets, front-panel inserts, etc.) removed.

1. Ensure that all cables are connected, and fold cables out of the way.

Gently pull the power cables toward you so that they do not get caught underneath the drives.

2. Ensure that no tools or extra parts are left inside the computer.
3. Lower the cover into place:
 - a. Pivot the cover down.
 - b. Press down on the right side of the cover until it closes.
 - c. Press down on the left side of the cover until it closes.



4. Ensure that both sides of the cover are locked. If not, repeat all of [step 3](#).
5. Connect your computer and devices to electrical outlets, and then turn them on.

System Setup

Dell™ XPS™ 430 Service Manual

- [Overview](#)
- [Entering System Setup](#)
- [Boot Sequence](#)
- [Clearing Forgotten Passwords](#)
- [Clearing CMOS Settings](#)

Overview

Use system setup as follows:

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

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

-  **NOTICE:** Do not change the settings in system setup unless you are an expert computer user. Certain changes can cause your computer to work incorrectly.

Entering System Setup

1. Turn on (or restart) your computer.
2. When the DELL logo appears, press <F2> immediately.

-  **NOTE:** Keyboard failure may result when a key on the keyboard is held down for extended periods of time. To avoid possible keyboard failure, press and release <F2> in even intervals until the system setup screen appears.

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.

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, the active options field, and key functions.

Options List — 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.

Scroll up and down the list with the up- and down-arrow keys. As an option is highlighted, the **Options Field**

Options Field — This field appears on the right side of the system setup window and contains information about each option listed in the **Options List**. In this field you can view information about your computer and make changes to your current settings.

Press the left- and right-arrow keys to highlight an option. Press <Enter> to make that selection active and return to the

displays more information about that option and the option's current and available settings.

Options List.

NOTE: Not all settings listed in the Options Field are changeable.

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

System Setup Options

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

System	
System Info	Lists system information such as the system model number, the BIOS version number and date, the system service tag, express service code and asset tag, and other system-specific information.
Processor Info	Identifies the processor type, clock speed, bus speed, L2 cache, L3 cache, ID, and whether the processor is multiple core capable, supports Hyper-Threading and supports 64-bit technology.
Memory Info	Identifies the memory type, speed, and channel mode (dual or single) by DIMM slot location.
PCI Info	Indicates the expansion card type by slot location.
Date/Time	Displays current date and time settings.
Boot Sequence	The computer attempts to boot from the sequence of devices specified in this list. NOTE: If you insert a boot device and restart the computer, this option appears in the system setup menu. To boot from a USB memory device, for example, select the USB device and move it so that it becomes the first device in the boot sequence.

Drives	
SATA Drives 0 through 4 (On default)	Enables or disables drives attached to the SATA connectors on the system board. <ul style="list-style-type: none">• Off — A device attached to the interface is not usable.• On — A device attached to the interface is usable.

eSATA (On default)	<p>Enables or disables eSATA.</p> <ul style="list-style-type: none"> • Off — eSATA is disabled. • On — eSATA is enabled. <p>NOTE: eSATA is not supported in ATA mode.</p>
SATA Operation (RAID On default)	<p>Enables or disables RAID (for more information, see the <i>Dell Technology Guide</i>).</p> <ul style="list-style-type: none"> • RAID Autodetect/ATA — RAID if signed drives, otherwise ATA. • RAID On — SATA is configured for RAID on every boot.

Onboard Devices	
Integrated NIC (On default)	<p>Enables or disables the integrated network interface controller (NIC).</p> <ul style="list-style-type: none"> • Off — The integrated NIC is disabled. • On — The integrated NIC is enabled. • On w/PXE — The integrated NIC is on (with PXE enabled). <p>NOTE: PXE is required only if you are booting to an operating system located on another computer. If a boot routine is not available from the remote system, the computer attempts to boot from the next device listed in the boot sequence.</p>
Integrated Audio (Auto default)	<p>Enables or disables the onboard audio controller.</p> <ul style="list-style-type: none"> • Off — Integrated audio is disabled. • On — Integrated audio is enabled. • Auto — If installed, the add-in audio controller is enabled.
USB Controller (On default)	<p>Enables or disables the internal USB controller. Set to On (default) so that USB devices will be detected and supported in the operating system.</p> <ul style="list-style-type: none"> • Off — The USB controller is disabled. • On — The USB controller is enabled. • No Boot — The USB controller is enabled; however, the BIOS will not recognize USB storage devices. <p>NOTE: Operating systems with USB support will recognize USB storage devices regardless of the No Boot setting.</p>
Rear Tri USB (On default)	<p>Enables or disables the indicated group of USB ports.</p> <ul style="list-style-type: none"> • Off — The USB group is disabled.

	<ul style="list-style-type: none"> • On — The USB group is enabled.
Rear Dual USB (On default)	<p>Enables or disables the indicated group of USB ports.</p> <ul style="list-style-type: none"> • Off — The USB group is disabled. • On — The USB group is enabled.
Front USB (On default)	<p>Enables or disables the indicated group of USB ports.</p> <ul style="list-style-type: none"> • Off — The USB group is disabled. • On — The USB group is enabled.
USB for FlexBay (No Boot default)	<p>Enables or disables the internal USB for FlexBay.</p> <ul style="list-style-type: none"> • Off — Internal USB for FlexBay is disabled. • On — Internal USB for FlexBay is enabled. • No Boot — Internal USB for FlexBay is enabled, but not bootable.
1394 Controller (On default)	<p>Enables or disables the integrated IEEE 1394 controller.</p> <ul style="list-style-type: none"> • Off — The 1394 controller is disabled. • On — The 1394 controller is enabled.
Media Accelerator (On default)	<p>Enables or disables the Media Accelerator device.</p> <ul style="list-style-type: none"> • Off — Media Accelerator is disabled. • On — Media Accelerator is enabled.

Video	
Primary Video (PEG default)	<p>Specifies the display device the computer uses first when it starts.</p> <ul style="list-style-type: none"> • PCI — Use the PCI video controller. • PEG — Use the PCI Express Graphics video controller.

Performance	
Multiple CPU Core (On default)	<p>Specifies whether the processor has more than one core enabled.</p> <ul style="list-style-type: none"> • Off — Multiple CPU core technology is disabled. • On — Multiple CPU core technology is enabled. <p>NOTE: The performance of some applications may improve with an additional core enabled.</p>

SpeedStep (Off default)	Specifies whether Enhanced Intel SpeedStep® technology is enabled for all supported processors in the system. <ul style="list-style-type: none"> • Off — Disable Enhanced SpeedStep technology • On — Enable Enhanced SpeedStep technology
Virtualization (Off default)	Specifies whether a virtual machine monitor (VMM) can utilize the additional hardware capabilities provided by Intel® Virtualization Technology. <ul style="list-style-type: none"> • Off — Disable Virtualization Technology • On — Enable Virtualization Technology
HDD Acoustic Mode (Bypass default)	Determines the acoustic mode at which the hard drive operates. <ul style="list-style-type: none"> • Bypass — Do nothing (needed for older drives). • Quiet — The hard drive operates at a slower, but quieter speed. • Suggested — Allow the hard drive manufacturer to select the mode. • Performance — The hard drive operates at a faster, but possibly noisier speed. <p>NOTE: Switching to performance mode may cause an increase in noise produced by the drive, but does not affect the drive's performance.</p> <p>NOTE: Changing the acoustics setting does not alter your hard drive image.</p>

Security	
Admin Password (Not Set default)	Used to prohibit an unauthorized user from changing any configuration settings in the system setup.
System Password (Not Set default)	Used to prohibit an unauthorized user from booting to the operating system.
Password Changes (Unlocked default)	This option locks the system password field with the administrator (admin) password. <p>NOTE: When the system password field is locked, you can no longer disable password security by pressing <Ctrl> <Enter> when the computer starts.</p>
Execute Disable (On default)	Enables or disables Execute Disable Memory Protection technology. <ul style="list-style-type: none"> • Off — Execute Disable Memory Protection technology is disabled. • On — Execute Disable Memory Protection technology is enabled.

Power Management

AC Recovery

(**Off** default)

Specifies how the computer will behave when AC power is restored after an AC power loss.

- **Off** — The system stays off after AC power is restored.
- **On** — The system powers on after AC power is restored.
- **Last** — The system returns to the previous state after AC power is restored.

Auto Power On

(**Off** default)

Disables or selects when to automatically turn on the computer.

- **Off** — Do not use the **Auto Power Time**.
- **Everyday** — Turn the computer on every day at the time set in **Auto Power Time**.
- **Weekdays** — Turn the computer on Monday through Friday at the time set in **Auto Power Time**.

NOTE: This feature does not work if you turn off your computer using a power strip or surge protector.

Auto Power Time

Specifies the time to automatically turn on the computer.

Change the time to automatically turn on the computer by pressing the up- or down-arrow key to increase or decrease the numbers, or type the numbers in the appropriate time field.

NOTE: This feature does not work if you turn off your computer using a power strip or surge protector.

Remote Wake Up

(**Off** default)

This option allows the computer to power up when a Network Interface Controller or Remote Wakeup-capable modem receives a wake up signal.

- **Off** — Remote wake up is disabled.
- **On** — Remote wake up is enabled.
- **On w/Boot to NIC** — The computer attempts to boot from a network prior to using the boot sequence.

Suspend Mode

(**S3** default)

Specifies the power management suspend mode.

- **S1** — The computer resumes more quickly from sleep mode.
- **S3** — The computer conserves more power when not in use (system memory remains active).

Maintenance	
Service Tag	Displays the system service tag.
SERR Message (On default)	Controls the SERR message mechanism. Some graphics cards require that the SERR Message mechanism be disabled. <ul style="list-style-type: none"> • Off — Do not use the SERR message mechanism. • On — Use the SERR message mechanism.
Load Defaults	This setting restores the computer's factory-installed default settings. <ul style="list-style-type: none"> • Cancel — Do not restore factory-installed default settings. • Continue — Restore factory-installed default settings.
Event Log	Displays the system event log. <ul style="list-style-type: none"> • Mark all entries — Mark all event log entries as read (R). • Clear log — Clear all event log entries. <p>NOTE: Once an event log entry is marked as read (R) that entry cannot be marked as unread (U).</p>

POST Behavior	
Fastboot (On default)	Enables or disables the option to speed up the boot process by skipping certain configurations and tests. <ul style="list-style-type: none"> • Off — Do not skip any steps in the boot process. • On — Boot quickly.
Numlock Key (On default)	Enables or disables the numerical and mathematical features of the rightmost bank of keys on the keyboard. <ul style="list-style-type: none"> • Off — Right keypad keys function as arrows. • On — Right keypad keys function as numbers.
POST Hotkeys (Setup & Boot Menu default)	Specifies the function keys to display on the screen when the computer starts. <ul style="list-style-type: none"> • Setup & Boot Menu — Display both messages (F2=Setup and F12=Boot Menu). • Setup — Display the setup message only (F2=Setup). • Boot Menu — Display the Quickboot message only (F12=Boot Menu). • None — Neither message is displayed.

Keyboard Errors

(**Report** default)

Enables or disables keyboard error reporting when the computer starts.

- **Report** — Display any keyboard errors.
- **Do not report** — Do not display any keyboard errors.

Boot Sequence

This feature allows you to set the order in which the BIOS will search devices when trying to find an operating system.

 **NOTICE:** If you modify any boot sequence settings, save the new settings to avoid losing the changes.

Option Settings

 **NOTE:** The computer attempts to boot from all bootable devices, but if no bootable device is found, the computer generates an error message that states No boot device available. Press the <F1> key to retry the boot, or press the <F2> key to enter the setup utility.

- **USB Floppy Drive** — The computer attempts to boot from the floppy drive. If there is no floppy drive connected to a USB port, the computer attempts to boot from the next bootable device in the sequence.

 **NOTE:** If there is a non-bootable floppy in the drive, the computer generates an error message. Follow the instructions on the screen to retry the boot.

- **Onboard SATA Hard Drive** — The computer attempts to boot from the primary hard drive. If no operating system is on the drive, the computer attempts to boot from the next bootable device.
- **Onboard or USB CD-ROM Drive** — The computer attempts to boot from the CD drive. If no CD is in the drive, or if the CD has no operating system, the computer attempts to boot from the next bootable device.
- **USB 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 option to the boot menu.

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

Changing Boot Sequence for the Current Boot

You can use this feature, for example, to restart your computer to a USB device such as a floppy drive, memory key, or CD-RW drive.

 **NOTE:** If you are booting to a USB floppy drive, you must first set the floppy drive to OFF in system setup (see [System Setup Options](#)).

1. If you are booting to a USB device, connect the USB device to a USB connector (see "Front View of the Computer" in the *Quick Reference Guide*).
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 (see [Before You Begin](#)) and try again.

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

4. At the bottom of the menu, enter the number of the device that is to be used for the current boot only.

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

 **NOTE:** To boot to a USB device, the device must be bootable. To make sure 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 Sequence** menu option and press <Enter> to access the menu.

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

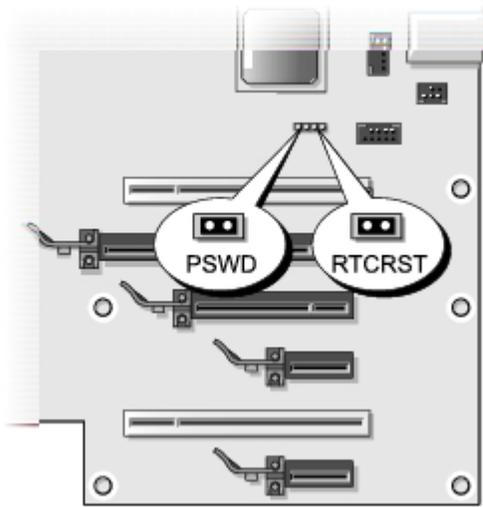
3. Press the up- and down-arrow keys to move through the list of devices.
4. Press the spacebar to enable or disable a device (enabled devices have a checkmark).
5. Press plus (+) or minus (-) to move a selected device up or down the list.

Clearing Forgotten Passwords

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

 **NOTICE:** This process erases both the system and setup passwords.

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



3. Locate the RTCRST_PSWD jumper on the system board (see [System Board Components](#)), then remove the jumper plug (located on pins three and four) and set the plug aside.
4. Close the computer cover.
5. Connect your keyboard and mouse, then connect your computer and monitor to electrical outlets and turn them on.
6. After the Microsoft® Windows® desktop appears on your computer, turn the computer off:
 - a. Save and close all open files and exit all open programs.
 - b. Shut down the operating system.
-  **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.
7. Disconnect the keyboard and mouse, then disconnect the computer and monitor from their electrical outlets.
8. Press the power button on the computer to ground the system board.
9. Open the computer cover (see [Removing the Computer Cover](#)).
10. Locate pins three and four of the RTCRST_PSWD jumper on the system board (see [System Board Components](#)), and then reinstall the jumper plug to enable the password feature.
11. Replace the computer cover (see [Replacing the Computer Cover](#)).
12. Connect your computer and devices to electrical outlets, and then turn them on.

 **NOTE:** In system setup (see [Entering System Setup](#)), both system and administrator password options appear as **Not Set**. The password feature is enabled but a password is not assigned.

Clearing CMOS Settings

 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions that

shipped with your computer.

 **NOTE:** This procedure clears and resets system and setup passwords.

1. Follow the procedures in [Before You Begin](#).
2. Remove the computer cover (see [Removing the Computer Cover](#)).
3. Locate the RTCRST_PSWD jumper on the system board (see [System Board Components](#)).
4. Remove the password jumper plug (located on pins three and four), then place the plug on the CMOS jumper pins (pins one and two) and wait for approximately 5 seconds.
5. Remove the jumper plug from the RTCRST_PSWD jumper, and then reinstall the plug on the pins three and four to enable the password feature.
6. Close the computer cover (see [Replacing the Computer Cover](#)).
7. Connect your computer and devices to electrical outlets, and then turn them on.

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