

Dell™ PowerEdge™ 750 Systems Service Manual

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



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



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

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Before You Begin

The procedures in this document require that you remove the cover and work inside the system. While working inside the system, do not attempt to service the system except as explained in this document and elsewhere in your system documentation. Always follow the instructions closely, and ensure that you review all information in the "Safety Instructions" in the *System Information Guide*.

 **CAUTION:** See your *System Information Guide* for complete information about safety precautions, working inside the computer, and protecting against electrostatic discharge.

 **NOTE:** To remove or replace all other components in your system, see the *Installation and Troubleshooting Guide*.


Recommended Tools

You may need the following items to perform the procedures in this section:

- 1 Key to the system keylock
 - 1 #2 Phillips screwdriver
 - 1 Wrist grounding strap
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Control Panel Assembly

Removing the Control Panel Assembly

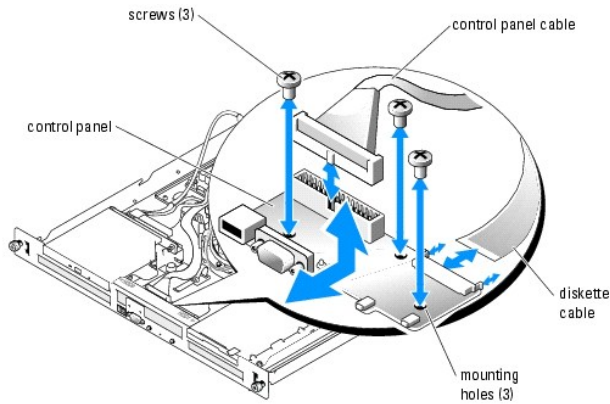
 **CAUTION:** See your *System Information Guide* for complete information about safety precautions, working inside the computer, and protecting against electrostatic discharge.

1. If applicable, remove the bezel.
 - a. If applicable, unlock the bezel.
 - b. While grasping the bezel, slide it toward the key lock.
 - c. Rotate the right side of the bezel away from the front panel.
 - d. Pull the bezel away from the system.
2. Turn off the system and attached peripherals, and disconnect the system from the electrical outlet.
3. To remove the system cover, loosen the two captive screws at the back of the system.
4. While pressing down on the cover indentation, slide the cover backward about an inch, and grasp the cover on both sides.
5. Carefully lift the cover away from the system.
6. Disconnect the following cables (see [Figure 1-1](#)):
 - a. The diskette cable from the FDD cable connector.
 - b. The control panel cable from the CN3 connector.
7. Using a #2 Phillips screwdriver, remove the three screws that secure the control panel assembly to the chassis. See [Figure 1-1](#).
8. Carefully remove the LED light pipe assembly.

NOTE: The control panel assembly's mounting studs protrude through the mounting holes. To remove the control panel assembly from the chassis mounting studs, you must carefully lift the assembly from the back to clear the mounting studs.

9. Carefully lift the back of the control panel assembly to clear the chassis mounting studs and remove the assembly from the system.

Figure 1-1. Control Panel Removal



Installing the Control Panel Assembly

CAUTION: See your *System Information Guide* for complete information about safety precautions, working inside the computer, and protecting against electrostatic discharge.

1. Align the control panel assembly's mounting holes with the chassis mounting studs. See [Figure 1-1](#).
2. Lower the control panel assembly so that the chassis mounting studs protrude through the mounting holes.
3. Install the LED light pipe assembly so that the ends of the light pipe assembly snap into the front panel.
4. Using a #2 Phillips screwdriver, install the three screws that secure the control panel assembly to the chassis. See [Figure 1-1](#).
5. Connect the following cables (see [Figure 1-1](#)):
 - a. The diskette cable to the FDD cable connector.
 - b. The control panel cable to the CN3 connector.
6. Place the cover over the sides of the chassis, and slide the cover forward until it snaps into place.
7. Tighten the two captive screws at the back of the system to secure the cover.
8. Reconnect the system to the electrical outlet, and turn on the system.
9. If applicable, replace the bezel.
 - a. Align the hole in the left-side bezel securing tab with the tab on the front panel.
 - b. While rotating the bezel toward the front panel, slide the bezel toward the key lock until the bezel snaps into place.

System Board

The system board provides interface signal routing between the system board and the two SATA hard-drive bays, the optional CD drive, and the control panel. In addition, the power supply is connected to the system board using two cables.

The system board and system board tray are removed and replaced as a single assembly.

Removing the System Board Assembly

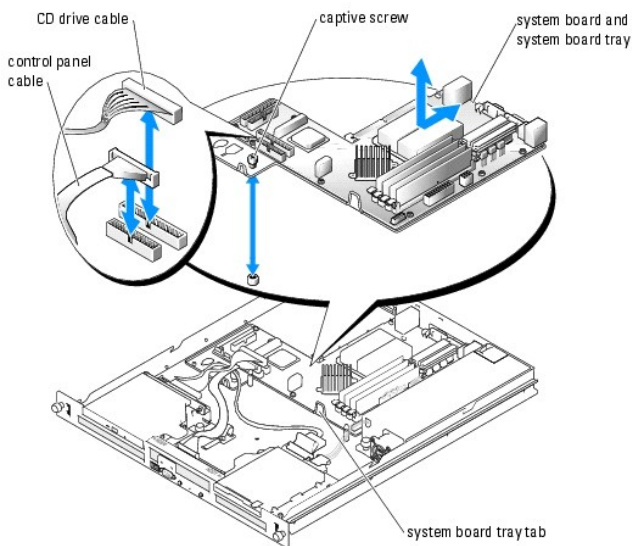
CAUTION: See your *System Information Guide* for complete information about safety precautions, working inside the computer, and protecting against electrostatic discharge.

1. If applicable, remove the bezel.
 - a. If applicable, unlock the bezel.
 - b. While grasping the bezel, slide it toward the key lock.
 - c. Rotate the right side of the bezel away from the front panel.
 - d. Pull the bezel away from the system.
2. Turn off the system and attached peripherals, and disconnect the system from the electrical outlet.
3. To remove the system cover, loosen the two captive screws at the back of the system.
4. While pressing down on the cover indentation, slide the cover backward about an inch, and grasp the cover on both sides.
5. Carefully lift the cover away from the system.
6. Remove the cooling shroud.
7. Remove the heat sink and processor.
8. Remove the memory modules.

NOTE: After removing the memory modules, record the memory module socket locations to ensure proper installation.

9. If applicable, disconnect the CD drive interface cable from the system board connector Pri-IDE. See [Figure 1-2](#).
10. Disconnect the control panel interface cable from the J7 connector on the system board. See [Figure 1-2](#).
11. Disconnect the hard-drive interface cables:
 - a. If SCSI hard drives are installed, disconnect the interface cable from the PCI controller card.
 - b. If SATA hard drives are installed, disconnect the interface cable from the SATA_Port0 and SATA_Port1 connectors on the system board.
12. Remove all PCI expansion cards installed on the riser board.
13. Using a #2 Phillips screwdriver, loosen the two captive screws securing the riser board to the system board.
14. Disconnect the riser board from the system board card-edge connector.
15. Remove the power supply.
16. Remove the fan assembly.
17. Using a #2 Phillips screwdriver, loosen the captive screw that secures the system board tray to the chassis floor. See [Figure 1-2](#).
18. Using the tab on the system board tray, slide the system board forward, toward the front of the system and lift the assembly up and out of the chassis. See [Figure 1-2](#).
19. Lay the system board tray down on a smooth, nonconductive work surface.


Figure 1-2. Removing the System Board and System Board Tray



Installing the System Board Assembly


 **CAUTION:** See your *System Information Guide* for complete information about safety precautions, working inside the computer, and protecting against electrostatic discharge.

1. Unpack the new system board assembly.
2. Align the system board tray so that the tabs on the chassis floor slide into the notches in the system board tray.
3. Slide the system board tray backward until it stops.
4. Using a #2 Phillips screwdriver, tighten the captive screw that secures the system board tray to the chassis. See [Figure 1-2](#).
5. Install the fan assembly.
6. Install the power supply.
7. Connect the riser board.
8. Using a #2 Phillips screwdriver, tighten the two captive screws that secure the riser board to the system board.
9. Install any PCI expansion cards that you removed.
10. Connect the hard-drive interface cables:
 - a. If SCSI hard drives are installed, connect the interface cable to the PCI controller card.
 - b. If SATA hard drives are installed, connect the interface cable to the SATA_Port0 and SATA_Port1 connectors on the system board.
11. Install the processor.
12. Install the heat sink.
 - a. Using a lint-free cloth, remove the existing thermal grease from the processor and heat sink.

 **NOTE:** Use the same heat sink that you removed from the processor.

- b. Apply thermal grease evenly to the top of the processor.
- c. Align the holes on both sides of the heat sink with the heat-sink posts on the system chassis.


13. Orient the securing clips so that the rubber-coated tabs are toward the back of the chassis.

 **NOTE:** If the securing clips are installed so that the rubber-coated tabs are toward the front of the system, the cooling shroud cannot be installed correctly.

14. Lower the end opposite of the rubber-coated tab of each securing clip over the heat-sink post, and then slide the securing clip toward the heat-sink post until they snap onto the post.
15. While holding down the rubber-coated tab with one hand, push the latch on the securing clip toward the heat-sink post until it locks the clip onto the post.
16. Repeat [step 14](#) and [step 15](#) for the other securing clip.
17. Install the memory modules.

 **NOTE:** Install the memory modules as noted in [step 8](#) of the procedure in "Removing the System Board Assembly."

18. Connect the control panel interface cable to the J7 connector on the system board.
19. If applicable, connect the CD drive interface cable to the Pri-IDE connector on the system board. See [Figure 1-2](#).
20. Install the cooling shroud.

 **NOTE:** When installing the cooling shroud, ensure that the two tabs on the cooling shroud are inserted into the two retaining slots in the back panel.




21. Place the cover over the sides of the chassis, and slide the cover forward until it snaps into place.
22. Tighten the two captive screws at the back of the system to secure the cover.
23. Reconnect the system to the electrical outlet, and turn on the system.
24. If applicable, replace the bezel.
 - a. Align the hole in the left-side bezel securing tab with the tab on the front panel.
 - b. While rotating the bezel toward the front panel, slide the bezel toward the key lock until the bezel snaps into place.

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Notes, Notices, and Cautions

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Abbreviations and Acronyms

For a complete list of abbreviations and acronyms, see your *Installation and Troubleshooting Guide*.

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