

Dell™ PowerEdge™
19x0 and 29x0 Systems

Installing a SATA Optical Drive



Notes, Cautions, and Warnings



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



CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.



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

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Installing a SATA Optical Drive

These instructions apply to Dell™ PowerEdge™ systems to which a SATA optical drive is being added, or in which an existing PATA or IDE optical drive is being replaced by a SATA optical drive.



WARNING: Only trained service technicians are authorized to remove the system cover and access any of the components inside the system. Before you begin this procedure, review the safety instructions that came with the system.

Removing an Existing Optical Drive – All Systems

- 1 Turn off the system and attached peripherals, and disconnect the system from the electrical outlet.
- 2 Remove the bezel. See "Removing the Bezel" in your *Hardware Owner's Manual*.
- 3 Remove the system cover. See "Opening the System" in your *Hardware Owner's Manual*.
- 4 **PowerEdge 1950 systems only:** Disconnect and remove the SAS controller daughter card. See "Removing a SAS Controller Daughter Card" in your *Hardware Owner's Manual*.
- 5 Disconnect the data and power cables from the back of the optical drive.
- 6 **PowerEdge 2900 and 1900 systems only:** Perform the following steps. See your *Hardware Owner's Manual* for specific step instructions.
 - a Disconnect the SAS cable from the SAS controller and pull the cable away from the center fan bracket.
 - b Remove the center fans and the center fan bracket.
 - c Release the spring latch at the top of the peripheral bay and remove the optical drive from the front of the bay.
- 7 For systems with a drive tray, release the blue tab at the back of the tray and slide the drive tray out of the system.

Preparing the Optical Drive Tray – PowerEdge 2970, 2950, and 1950

For PowerEdge 2970 and 2950 systems, the optical drive tray that shipped with the system is used for the SATA optical drive. If you are replacing an existing IDE optical drive, you must remove the old drive and interposer card from the drive carrier and install the new SATA drive in the same carrier.

On PowerEdge 1950 systems, the existing optical drive tray must be replaced with the drive tray provided with the SATA drive installation kit.

The PowerEdge 2900 and 1900 systems do not require optical drive trays.

Replacing a PowerEdge 2950 or 2970 Optical Drive

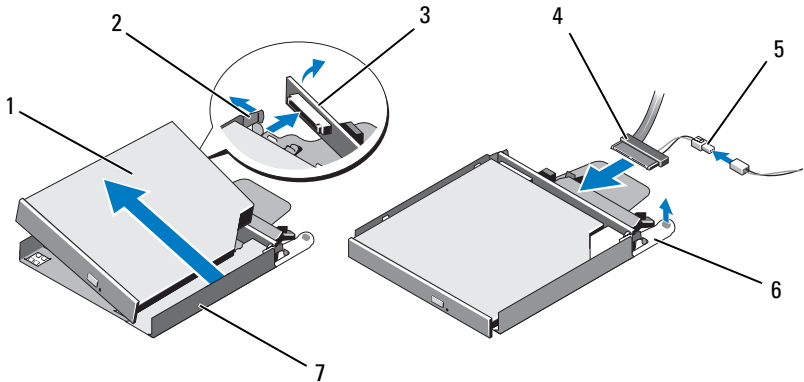


NOTE: If you are replacing an existing optical drive, do not reuse the interposer board attached to the old drive.

- 1** Pull outward on the interposer board release tab at the back of the drive tray to release the interposer board connected to the optical drive. See Figure 1-1.
- 2** Pull the interposer board connector from the optical drive connector and rotate the interposer board outward to detach the board from the tray.
- 3** Pull outward again on the interposer board release tab and simultaneously pull up on the left side of the optical drive to separate the drive from the tray.
- 4** Attach the SATA optical drive to the tray by lowering the right side of the drive onto the right side of the tray. See Figure 1-1.
- 5** Lower the left side of the drive into the tray and press the drive down to lock it into place.

The pins on the carrier fit into the corresponding holes in the side of the drive.

Figure 1-1. Replacing the Optical Drive in a PowerEdge 2950 or 2970 System



- | | | | |
|---|-----------------------|---|--------------------------|
| 1 | optical drive | 2 | interposer release latch |
| 3 | interposer | 4 | SATA cable |
| 5 | SATA power cable | 6 | carrier latch |
| 7 | optical drive carrier | | |

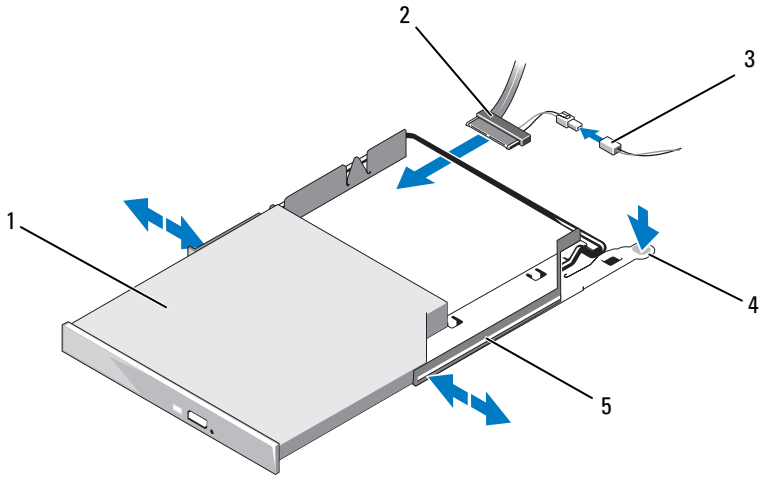
Replacing a PowerEdge 1950 Optical Drive



NOTE: The replacement drive tray provided in the installation kit must be used with PowerEdge 1950 systems. If you are replacing an existing optical drive, do not reuse the interposer board attached to the old drive.

Spread the side rails of the replacement drive tray and insert the back end of the SATA optical drive into the tray until the pins on the carrier align with the holes in the side of the drive. Release the rails to attach the drive to the tray. See Figure 1-2.


Figure 1-2. Installing a SATA Optical Drive in a PowerEdge 1950 Drive Tray



- | | | | |
|---|-----------------------|---|---------------|
| 1 | optical drive | 2 | SATA cable |
| 3 | SATA power cable | 4 | carrier latch |
| 5 | optical drive carrier | | |

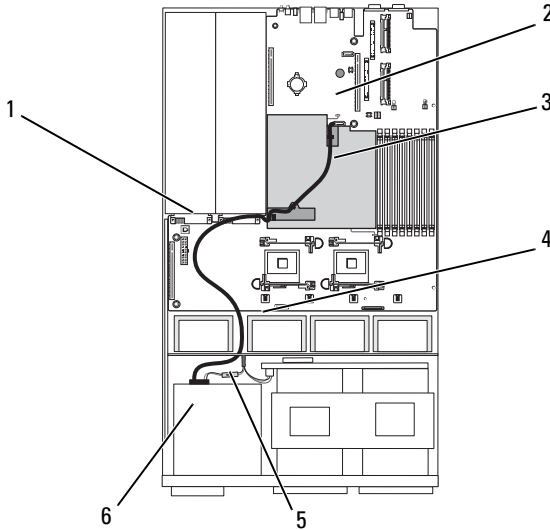
Installing the SATA Optical Drive – PowerEdge 1950

- 1 Insert the optical drive tray into the system until it is fully inserted and locked into position.
- 2 Connect the SATA cable (the end with the branching power cable) to the back of the optical drive.
- 3 Connect the branching power cable to the power supply connector.

 **NOTE:** You may need to replace the existing power cable with a cable provided in the optical drive kit.

- 4 Route the SATA cable to the SATA_A connector on the system board.
 - a Route the cable through the power cable cutout in the fan bracket and follow the power cable routing to the power supply bays.
 - b Bend the cable toward the chipset shroud and insert the cable into the cable path on top of the chipset shroud. See Figure 1-3.
 - c Connect the cable to the SATA_A connector on the system board.

Figure 1-3. SATA Cable Routing in the PowerEdge 1950



- | | | | |
|---|------------------|---|----------------------------------|
| 1 | SATA data cable | 2 | SATA_A connector on system board |
| 3 | chipset shroud | 4 | system fans |
| 5 | SATA power cable | 6 | optical drive |

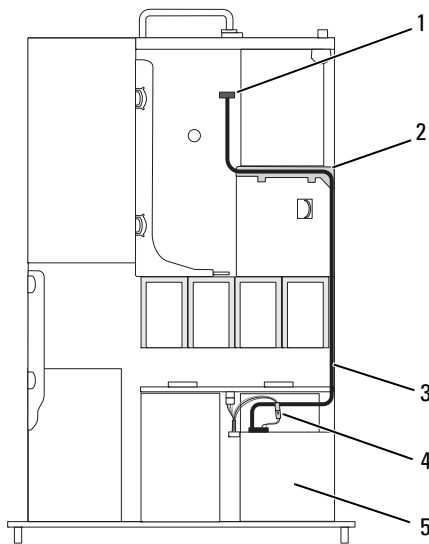
- 5 Reinstall the SAS controller daughter card and reconnect the SAS cable. See "SAS Controller Daughter Card" in your Hardware Owner's Manual.
- 6 Close the system. See "Closing the System" in your *Hardware Owner's Manual*.
- 7 Reconnect the system to power and turn on the system and attached peripherals.

Installing the SATA Optical Drive – PowerEdge 2970 or 2950

- 1 Insert the optical drive tray into the system until it is fully inserted and locked into position.
- 2 Connect the SATA cable (the end with the branching power cable) to the back of the optical drive.
- 3 Connect the branching power cable to the power supply connector.

- 4 Remove the cooling shroud. See "Removing the Cooling Shroud" in your *Hardware Owner's Manual*.
- 5 Remove the cable retention bracket from the right interior wall of the chassis by pushing the blue release latch and sliding the bracket toward the front of the system until the bracket detaches from the chassis slots.
- 6 Route the SATA cable in the cable channel in the right wall of the chassis and replace the cable retention bracket over the cable. See Figure 1-4.
- 7 Route the SATA cable along the top of the cable retention bracket to the central riser.
- 8 Bend the cable behind the central riser and connect the cable to the SATA_B connector on the system board.

Figure 1-4. SATA Cable Routing in the PowerEdge 2950 and 2970



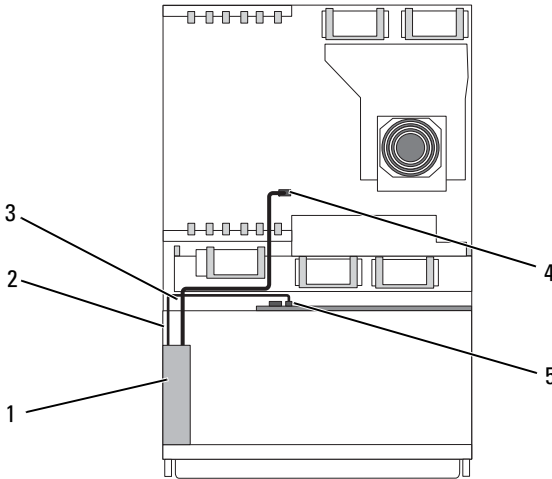
- | | | | |
|---|----------------------------------|---|-------------------------|
| 1 | SATA_B connector on system board | 2 | cable retention bracket |
| 3 | SATA data cable | 4 | SATA power cable |
| 5 | optical drive | | |

- 9 Replace the cooling shroud. See "Installing the Cooling Shroud" in your *Hardware Owner's Manual*.
- 10 Close the system. See "Closing the System" in your *Hardware Owner's Manual*.
- 11 Reconnect the system to power and turn on the system and attached peripherals.

Installing the SATA Optical Drive – PowerEdge 2900 and 1900

- 1 If the mounting screws are not attached to the drive, install them now.
- 2 Align the mounting screws with the bay slide slots and insert the optical drive into the optical drive bay until the spring latch engages.
- 3 Connect the SATA cable to the back of the optical drive.
- 4 Use the appropriate power cable provided in the optical drive kit and connect one end to the optical drive and the other to the power supply as follows:
 - For a PowerEdge 2900 system, connect to the CD/TBU connector on the system backplane. See Figure 1-5.
 - For a PowerEdge 1900 system, connect to an available power supply cable.
- 5 Replace the center fan bracket. See "Replacing the Center Fan Bracket" in your *Hardware Owner's Manual*.
- 6 Replace the fans in the center fan bracket.
- 7 Route the SATA cable to the system board over the top of the fan bracket and connect the cable to the SATA connector on the system board. See Figure 1-5.
 - For a PowerEdge 2900, use the SATA_B connector.
 - For a PowerEdge 1900, use the SATA_D connector.

Figure 1-5. SATA Cable Routing in a PowerEdge 2900 or 1900



- | | | | |
|---|---|---|--------------------------------|
| 1 | optical drive | 2 | SATA power cable |
| 3 | SATA data cable | 4 | SATA connector on system board |
| 5 | SATA power connector on SAS backplane (PowerEdge 2900 only) | | |

- 8 Reconnect the cables to the SAS controller daughter card.
- 9 Close the system. See "Closing the System" in your *Hardware Owner's Manual*.
- 10 Reconnect the system to power and turn on the system and attached peripherals.