

# Internal Two-Bay Hot-Plug SCSI Drive Cage

## Installation Card for ProLiant ML330 Generation 2 Servers ProLiant ML350 Servers with 1-GHz Processors ProLiant ML350 Generation 2 Servers ProLiant ML370 Generation 2 Servers

**OPEN CARD COMPLETELY BEFORE BEGINNING INSTALLATION PROCEDURES**

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INTERNAL TWO-BAY HOT-PLUG SCSI DRIVE CAGE

Second Edition (September 2001)  
Part Number 246499-002

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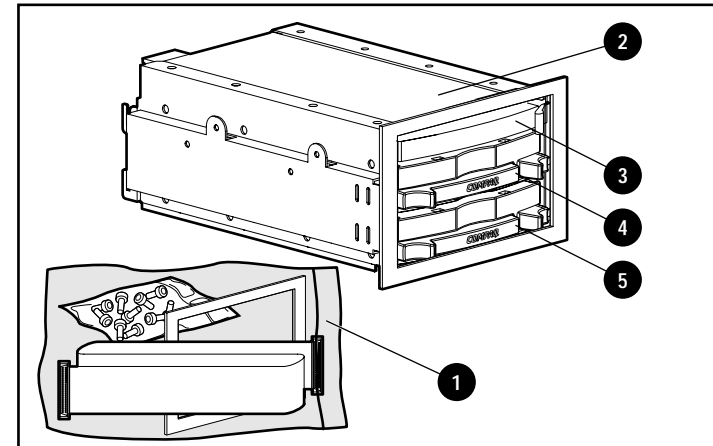
### Overview

Use this installation card to install a two-bay hot-plug SCSI drive cage in Compaq ProLiant™ ML330 Generation 2 servers, ProLiant ML350 servers, and ProLiant ML370 Generation 2 servers. With this option installed into the server's removable media bay, you can add two additional hot-plug SCSI hard drives or one hot-plug SCSI hard drive and one hot-plug SCSI tape drive.

**IMPORTANT:** If an internal SCSI connector is not available for managing your drive cage, install a SCSI controller or array controller. Ensure you have the needed controller before you install the drive cage.

For additional information about installing hardware options, refer to the setup and installation guide on the documentation CD that ships with your server.

### Kit Contents



- Installation screws and cable ①
  - Torx 6-32 × 0.25 guide screws (4)
  - Torx 6-32 shoulder screws (4)
  - Ultra3 or higher point-to-point SCSI cable
  - Bezel 2 for ProLiant ML330 installations only
- Two-bay hot-plug SCSI drive cage ②
- 0.6-inch blank ③
- Drive blank (slot 1) ④
- Drive blank (slot 0) ⑤

## Warnings and Cautions



**WARNING:** Because a server is very heavy, reduce the risk of personal injury or damage to the equipment by performing the following:

- Observe local occupational safety and health requirements and guidelines for material handling.
- Use more than one person to lift and maneuver the server.
- Ensure the server casters are locked in place on tower models.



**WARNING:** Reduce the risk of personal injury from hot surfaces by allowing the internal system components to cool before touching them.



**WARNING:** Reduce the risk of personal injury by disconnecting all AC power from your system before installing non-hot-plug hardware options into your server.



**WARNING:** Setting your Power On/Standby button to the standby position removes power from most areas of the server; this transition from **on** to **standby** mode may take 30 seconds. Portions of the power supply and some internal circuitry remain active until the AC power cord is removed.



**CAUTION:** To maintain proper airflow and cooling in the server:

- Ensure the server's removable media bay blanks remain in place until you are ready to install the two-bay drive cage.
- Ensure the drive blanks and 0.6-inch blank remain in place until you are ready to install the SCSI devices.

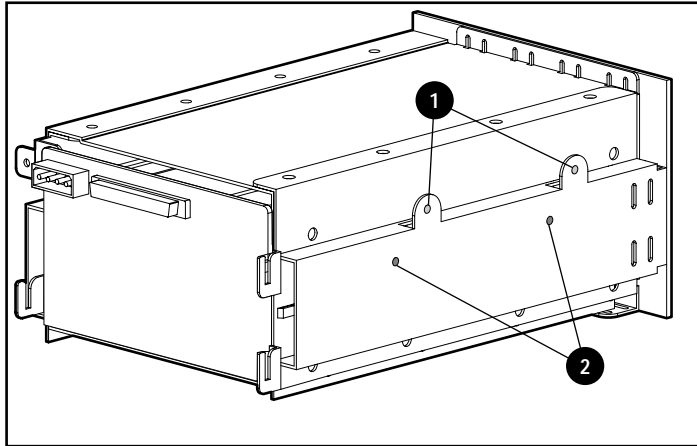
## Preparing the Server for Installation

Refer to the setup and installation guide on the documentation CD that ships with your server to prepare your system for the two-bay drive cage installation. Before installing the drive cage:

1. Back up all storage devices powered by the system.
2. Shut down the operating system as outlined in the operating system instructions.
3. Press the Power On/Standby button. The power LED turns to amber when the server has been successfully placed into standby mode.
4. Unplug all AC power cords from the server.
5. Disconnect all remaining external cables from the server.
6. Prepare the server for access panel removal:
  - ❑ For rack-mounted servers, unscrew the thumbscrews holding the server in the rack and extend the server.
  - ❑ For tower model servers, unlock and remove the front bezel door.
7. Remove the access panel.
8. Identify the internal SCSI connector for managing your two-bay drive cage by performing one of the following:
  - ❑ Locate an available SCSI connector.
  - ❑ Install a SCSI controller or array controller in a PCI expansion slot.
9. Determine the location of the removable media bay.
10. Remove the removable media bay blanks.

## Locating the Two-Bay Drive Cage Mounting Holes

Screws attach to each side of the drive cage to guide it into position in the server. Use the following figure and table to determine the screw type and mounting holes that support your server model.

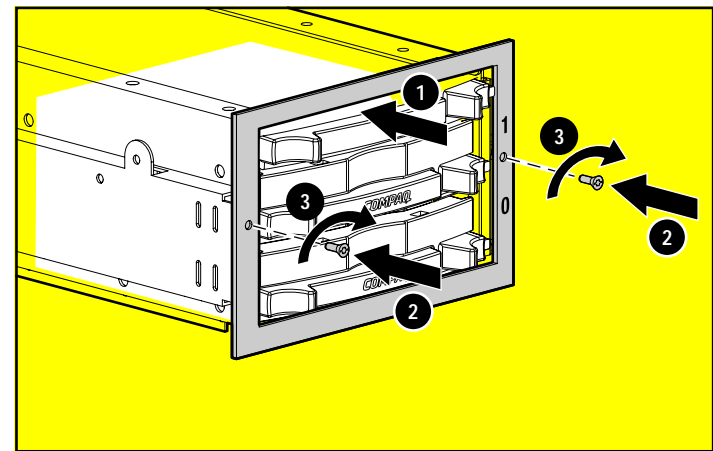
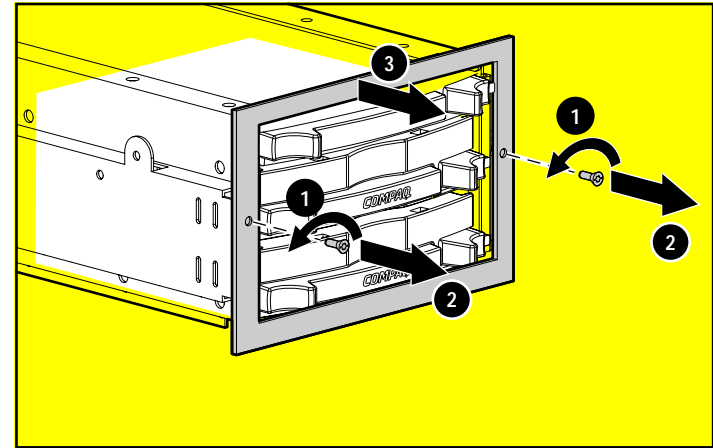


**Table 1**  
**Two-Bay Drive Cage Screw Hole Assignments**

Chassis Mounting Holes	Screw Type	Server Models
1	Torx 6-32 × 0.25 guide screw	ProLiant ML350 servers with 1-GHz processors and ProLiant ML350 Generation 2 servers
	Torx 6-32 shoulder screw	ProLiant ML370 Generation 2 servers
2	Torx 6-32 × 0.25 guide screw	ProLiant ML330 Generation 2 servers

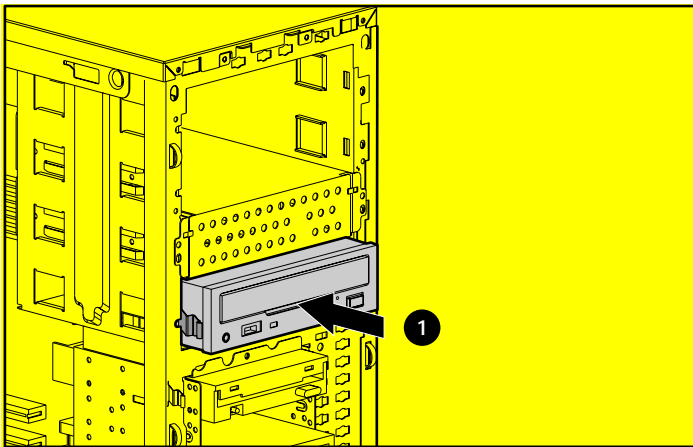
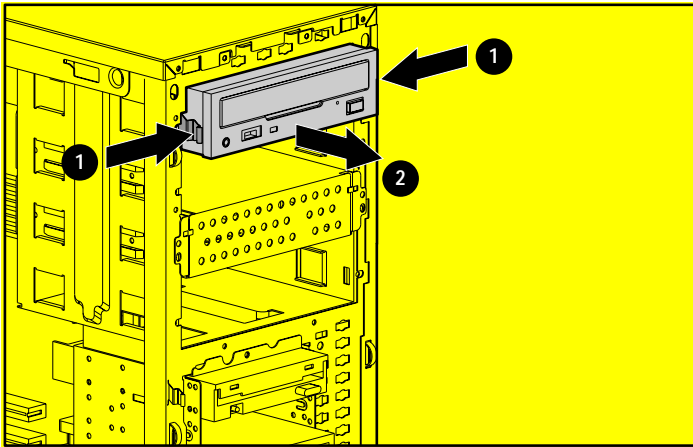
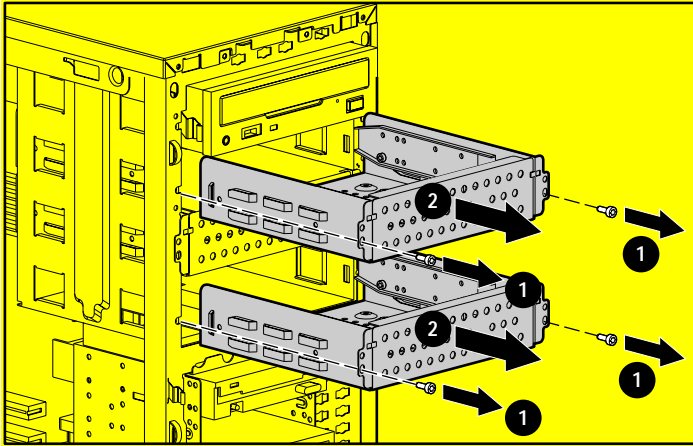
## Installing the Two-Bay Drive Cage into ProLiant ML330 Servers

- Using a Tork T-15 screwdriver, replace the bezel that ships attached to the drive cage with Bezel 2 from the kit.

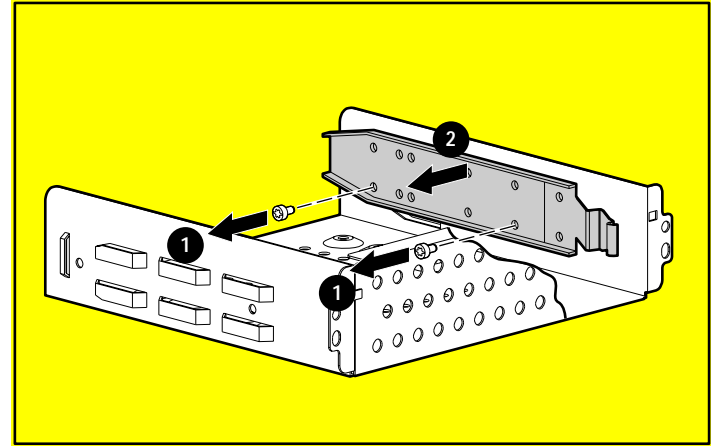


**IMPORTANT:** Be sure that the unit identification numbers (0 and 1) appear on the right side of the drive cage front panel.

2. Remove two media bay blanks and move the CD-ROM drive to prepare a space for the the drive cage.



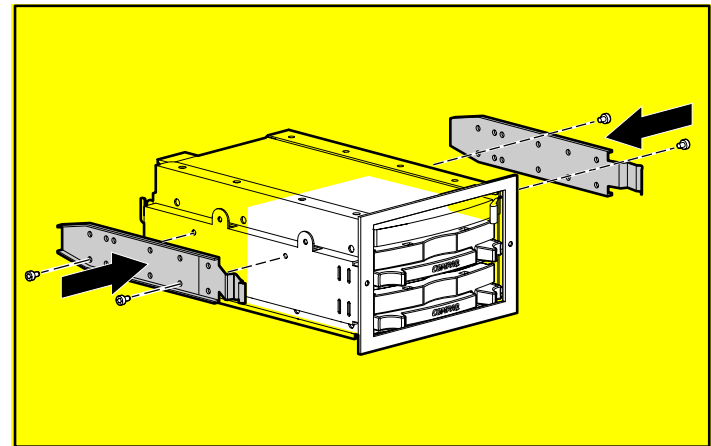
3. Remove the guide screws and rails from a removable media bay blank.



**IMPORTANT:** Be sure to install the rails on the drive cage using the screws that ship with this option kit, rather than the screws removed from the rails.

**IMPORTANT:** Be sure to install the right-hand rail on the left side of the drive cage, and the left-hand rail on the right side of the drive cage.

4. Using a Torx T-15 tool, position the rails and two guide screws in the **lower** mounting holes (see Table 1) on each side of the drive cage.



5. Insert the SCSI cable that ships with this option kit into the rear of the removable media bay area and pull it forward for connection to the SCSI connector on the back of the drive cage.

6. Locate the power cable inside the server and connect it to the power connector on the back of the drive cage.

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**IMPORTANT:** Always use the SCSI cable that ships with this option kit. Other available SCSI cables may not support Ultra3 SCSI.

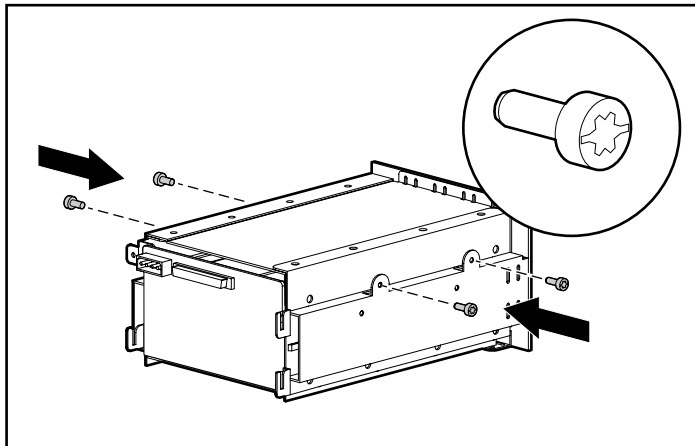
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7. Slide the drive cage into the removable media bay area until it locks into place.

8. Connect the other end of the SCSI cable to the desired internal SCSI connector.

## Installing the Two-Bay Drive Cage into ProLiant ML350 Servers with 1-GHz Processors and ProLiant ML350 Generation 2 Servers

1. Remove the guide screws from a removable media bay blank as instructed in the setup and installation guide on the documentation CD that ships with your server, or use the guide screws from the bag included with this option kit.
2. Using a Torx T-15 tool, position two guide screws in the **upper** mounting holes (see Table 1) on each side of the drive cage.



3. Insert the SCSI cable that ships with this option kit into the rear of the removable media bay area and pull it forward for connection to the SCSI connector on the back of the drive cage.
4. Locate the power cable inside the server and connect it to the power connector on the back of the drive cage.

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**IMPORTANT:** Always use the SCSI cable that ships with this option kit. Other available SCSI cables may not support Ultra3 SCSI.

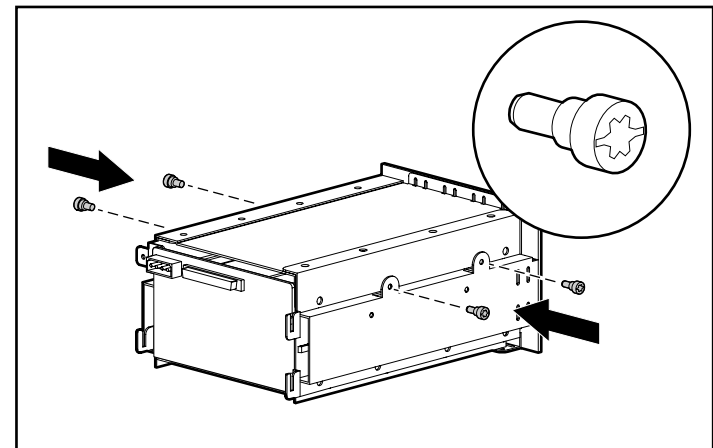
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5. Slide the drive cage into the removable media bay area until it locks into place.

6. Connect the other end of the SCSI cable to the desired internal SCSI connector.

## Installing the Two-Bay Drive Cage into ProLiant ML370 Generation 2 Servers

1. Remove the shoulder screws from a removable media bay blank as instructed in the setup and installation guide on the documentation CD that ships with your server, or use the shoulder screws from the bag included with this option kit.
2. Using the Torx T-15 tool clipped to the rear of your server, position two shoulder screws in the **upper** mounting holes (see Table 1) on each side of the drive cage.



3. Insert the SCSI cable that ships with this option kit into the rear of the removable media bay area and pull it forward for connection to the SCSI connector on the back of the drive cage.
4. Locate the power cable inside the server and connect it to the power connector on the rear of the drive cage.

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**IMPORTANT:** Always use the SCSI cable that ships with this option kit. Other available SCSI cables may not support Ultra3 SCSI.

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5. Slide the drive cage into the removable media bay area until it locks into place.
6. Connect the other end of the SCSI cable to the desired internal SCSI connector.

## Preparing the Server for Operation

Refer to the setup and installation guide on the documentation CD that ships with your server for more detailed instructions. To prepare your server for operation:

1. Replace the access panel.
2. Secure the server:
  - ❑ For rack-mounted servers, slide the server into the rack and secure in place and tighten the thumbscrews.
  - ❑ For tower model servers, reattach the front bezel door.
3. Reconnect the AC power cords and all external cabling.
4. Power up the server.

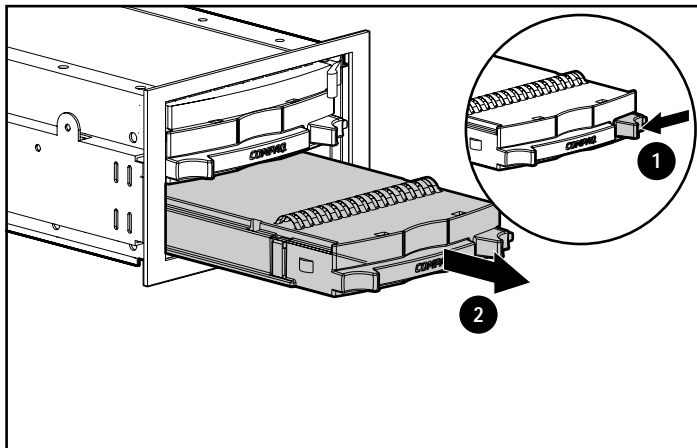
## Installing Hot-Plug SCSI Devices

1. Remove blanks from the drive cage bays to facilitate installation of the SCSI device.

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**IMPORTANT:** Remove the 0.6-inch blank only when installing a 1.6-inch device. Otherwise, leave the 0.6-inch blank in place. Leave blanks in all unpopulated bays to maintain proper airflow and cooling.

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2. Install and configure the hot-plug SCSI hard drive and/or hot-plug tape drive according to the instructions that ship with each device.

The installation is complete.