

Dell™ PowerVault™ 715N Systems

Installing the Adaptec® 29160LP SCSI Card



Notes, Notices, Cautions, and Warnings



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.



WARNING: A WARNING indicates a potentially hazardous situation which, if not avoided, may result in severe injury.

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This document provides information about installing the Adaptec® 29160LP SCSI Card (29160LP card) in Dell™ PowerVault™ 715N systems. This document contains the following sections:

- Features
- Installing the 29160LP card
- Removing the 29160LP card
- Before upgrading drivers
- Upgrading drivers
- Upgrading firmware
- Hardware and software support

Features

The 29160LP card enables you to connect up to 15 SCSI devices to any Intel®-based system with a low-profile, 64- or 32-bit PCI slot.

The 29160LP card has a single SCSI channel with a maximum throughput of 160 MBytes/sec. This channel uses one 68-pin internal low voltage differential/single ended (LVD/SE) connector and one 68-pin external very high density cable interconnect (VHDCI) LVD/SE connector.



NOTICE: To prevent system damage, do not connect high voltage differential (HVD) devices to the 29160LP card.

You can connect newer LVD SCSI devices (including Ultra160 and Ultra2 SCSI devices) to the external VHDCI LVD/SE connector. The internal connector is not supported (see "Hardware and Software Support").


Installing the 29160LP Card



NOTE: If you need to upgrade the firmware on the 29160LP card, complete the instructions in "Upgrading Firmware" before installing the card.

The system has the capacity for one, low-profile PCI expansion card (see "Installing an Expansion Card" in your *Installation and Troubleshooting Guide*).

To install the 29160LP card, perform the following steps.

 **WARNING:** Before you perform this procedure, you must turn off the system and disconnect it from its power source. For more information, see "Safety First—For You and Your System" in your *Installation and Troubleshooting Guide*.

- 1 Turn off the system, including any attached peripherals, and disconnect the system from the electrical outlet.
- 2 Remove the cover (see "Removing and Replacing the System Cover" in your *Installation and Troubleshooting Guide*).

 **CAUTION:** See "Protecting Against Electrostatic Discharge" in the safety instructions in your *System Information* document.

- 3 Open the expansion-card latch and remove the filler bracket.

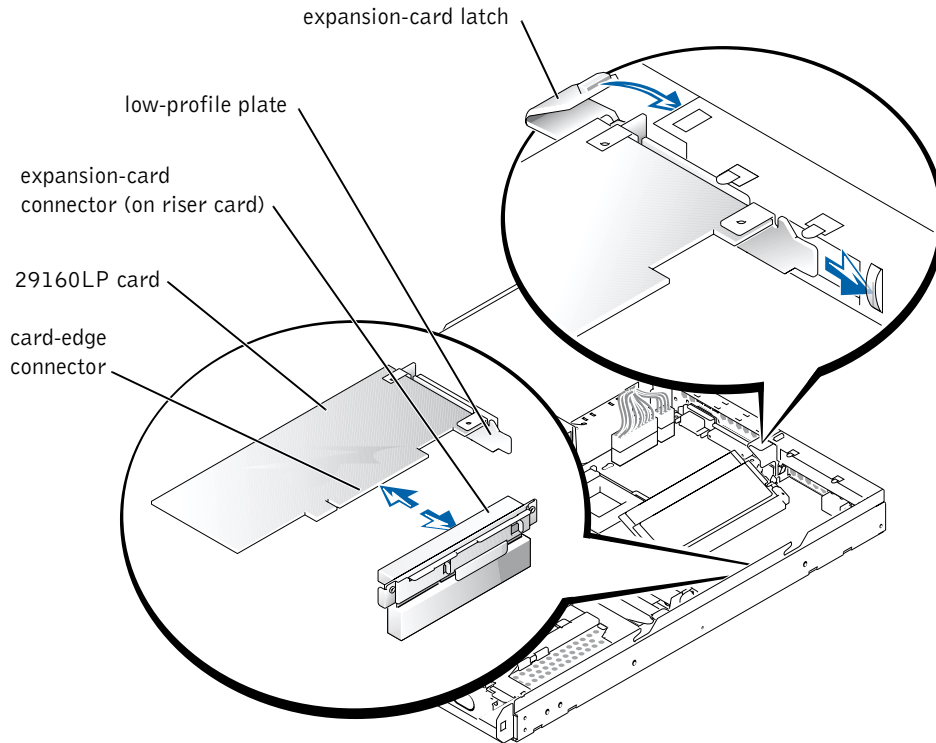


NOTE: Keep this bracket in case you need to remove the expansion card.

Installing a filler bracket over an empty expansion slot is necessary to maintain Federal Communications Commission (FCC) certification of the system. The brackets also keep dust and dirt out of the system and aid in proper cooling and airflow inside the system.

- 4 Without removing the riser card, insert the card-edge connector firmly into the expansion-card connector on the riser card until the card is fully seated (see Figure 1-1).
- 5 Close the expansion-card latch (see Figure 1-1).

Figure 1-1. Installing the 29160LP Card



- 6 Connect any cables that should be attached to the card.
- 7 Replace the system cover, and then reconnect the system and peripherals to the power source and turn on the system.

Removing the 29160LP Card

⚠ WARNING: Before you perform this procedure, you must turn off the system and disconnect it from its power source. For more information, see "Safety First—For You and Your System" in "Troubleshooting Your System" in your *Installation and Troubleshooting Guide*.

- 1 Turn off the system, including any attached peripherals, and disconnect the system from the electrical outlet.
- 2 Remove the cover (see "Removing and Replacing the System Cover" in "Troubleshooting Your System" in your *Installation and Troubleshooting Guide*).

- 3 Open the expansion-card latch.
- 4 Disconnect any cables connected to the card.
- 5 Grasp the expansion card and carefully pull it away from the riser-card connector (see Figure 1-1).
- 6 Close the expansion-card latch.
- 7 If you are removing the card permanently, install a metal filler bracket over the empty card-slot opening.



NOTE: Installing a filler bracket over an empty expansion slot is necessary to maintain Federal Communications Commission (FCC) certification of the system. The brackets also keep dust and dirt out of the system and aid in proper cooling and airflow inside the system.

- 8 Replace the system cover, and then reconnect the system and peripherals to the power source and turn on the system.

Before Upgrading Drivers

Because the system does not use a monitor, keyboard, or diskette drive, you must upgrade drivers from another system using a network. When upgrading drivers on your system, Dell recommends that you copy the drivers to your system before you upgrade them. Before you upgrade the drivers, perform the following steps.



NOTE: See the Dell Support website at <http://support.dell.com> for the latest driver upgrades for your 29160LP card.

- 1 Create a network share from a client on the network (see the *Administrator's Guide* for your system).
- 2 Map the share and copy the new 29160LP card drivers to that share.
- 3 Disconnect the share from the client.

Upgrading Drivers

- 1 Install the 29160LP card (see "Installing the 29160 LP Card").
- 2 Connect to the PowerVault NAS Manager.
- 3 Click **Maintenance**, and then click **Terminal Services**.
- 4 Log on to a **Terminal Services Client** session.

- 5** On the **Advanced Administration Menu** under **System Management**, click **Computer Management**.
- 6** Click **Computer Management** in the left pane.
- 7** Click **System Tools** in the left pane.
- 8** Click **Device Manager** in the left pane.
- 9** Click **SCSI and RAID Controllers** in the right pane.
- 10** Right-click **Adaptec AIC-7892 Ultra 160/m PCI SCSI Card** and select **Properties**.
The **Adaptec AIC-7892 Ultra 160/m PCI SCSI Card Properties** window displays.
- 11** Click the **Driver** tab.
- 12** Click **Update Driver**.
The **Upgrade Device Driver Wizard** displays.
- 13** Click **Next**.
- 14** Click the radio button next to **Search for a suitable driver for my device (recommended)**, and then click **Next**.
- 15** In **Optional search locations**, click the checkbox for **Specify a location**.
Deselect the other checkboxes.
- 16** Click **Next**.
The **Upgrade Device Driver Wizard** displays.
- 17** Specify the folder name that contains the device drivers in the path for **Copy manufacturer's files from**.
- 18** Click **OK**, and then click **Next**.
The **Upgrade Device Driver Wizard** searches the specified folder for the driver files.
- 19** Click **Finish**.
- 20** Click **Close** to exit the driver properties dialog box.

Upgrading Firmware

Because the system does not use a monitor, keyboard, or diskette drive, you cannot upgrade 29610LP card's firmware using the PowerVault 715N system.

To upgrade the firmware on the 29160LP card, perform the following steps:

- 1 Remove the card from the system if the card is already installed (see "Removing the 29160LP Card").
- 2 Install the card in a different system that has a monitor, keyboard, and diskette drive.



NOTE: If the system does not have a low-profile, expansion-card slot, remove the metal, low-profile plate from the 29160LP card before installing it in the system. To remove the low-profile plate, remove the two back screws from the card (see Figure 1-1).

- 3 Upgrade your firmware using the diskette drive.



NOTE: Follow the instructions included with your downloaded firmware. See the Dell Support website at <http://support.dell.com> for the latest firmware upgrades for your 29160LP card.

- 4 Reconnect the low-profile plate to the card, if necessary, and reinstall the card in the system.

Hardware and Software Support

- The 29160LP card does not support hard drives.
- The 29160LP card supports the external connector but not the internal connector.
- The 29160LP card supports only the following specific tape devices:
 - PowerVault 110T LTO
 - PowerVault 110T SDLT
 - PowerVault 120T DDS4 Autoloader
 - PowerVault 120T DLT1 Autoloader
 - PowerVault 128T Autoloader

The 29610LP card supports the following software for direct attached backup:

- Native Microsoft® Windows® 2000 Backup
- VERITAS™ versions 8.5 and 8.6