

INTRODUCTION

With the SCSI Card 2940UW Pro, you can connect up to 15 SCSI devices to any IBM-compatible computer with PCI expansion slots.

This installation guide provides step-by-step instructions for

- Installing the SCSI Card 2940UW Pro
- Connecting internal SCSI devices
- Connecting external SCSI devices
- Installing the SCSI Card 2940UW Pro software

See the *SCSI Card 2940UW Pro User's Reference* for additional information on using the SCSI Card 2940UW Pro.

INSTALLING THE SCSI CARD 2940UW PRO

STEP 1

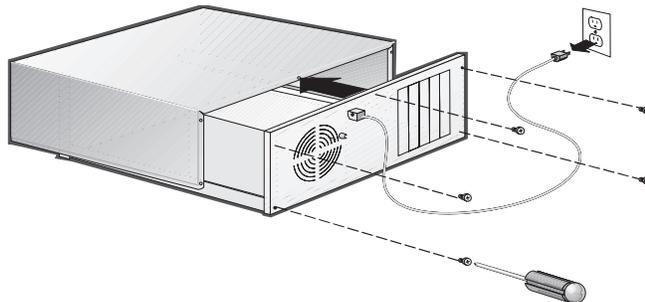
Discharge any static electricity build-up before handling your SCSI card by touching a grounded metal object (like the exposed metal parts on the back of your computer).

WARNING Turn OFF power to the computer and disconnect the power cord.

STEP 2

After you turn off your computer and unplug the power cord, remove the cover from the computer.

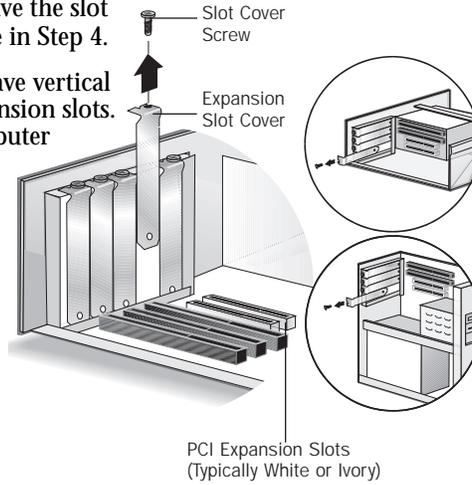
If you need guidance, refer to your computer manual for instructions on removing the cover.



STEP 3

Locate an unused PCI expansion slot (typically white or ivory) and remove the expansion slot cover. (The expansion slot must be PCI Rev. 2.0 or higher compliant and must support Bus Mastering.) Save the slot cover screw for use in Step 4.

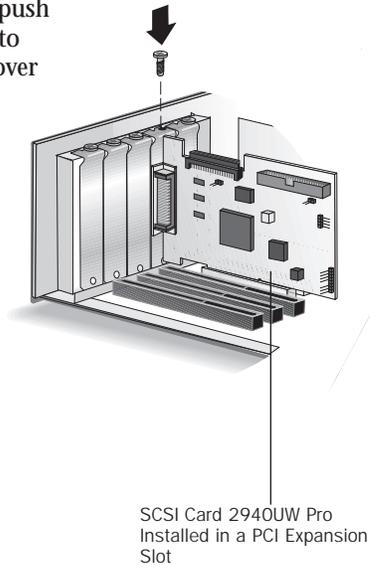
Computers may have vertical or horizontal expansion slots. Refer to your computer manual to locate the PCI slots.



STEP 4

Insert the SCSI Card 2940UW Pro into the PCI expansion slot; push down firmly until it clicks into place, then replace the slot cover screw.

You are ready to install internal SCSI devices. To install external SCSI devices only, replace your computer cover and skip to *Connecting External SCSI Devices*.



CONNECTING INTERNAL SCSI DEVICES

STEP 1

Verify that each internal SCSI device you are installing has a unique SCSI ID from 0 to 6 (0 to 6 and 8 to 15 for "Wide" SCSI devices). Refer to the device's documentation to determine the SCSI ID setting.

If any two SCSI devices (internal or external) you are connecting to the SCSI Card 2940UW Pro share the same SCSI ID, change the SCSI ID on one device. The SCSI Card 2940UW Pro is preset to SCSI ID 7 and should not be changed. See the *SCSI Card 2940UW Pro User's Reference* for additional information on SCSI IDs.

STEP 2

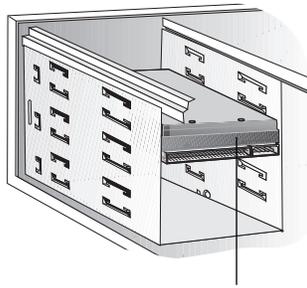
If you are installing only one internal SCSI device, terminate that device. If you have two or more devices on each cable, terminate one device on each cable; the remaining devices must not be terminated. (The terminated device must be connected to the end of each cable, as explained in Step 5 below.)

The termination setting usually is controlled by setting a jumper or a switch, or by physically removing or installing a terminator module(s). Refer to the device's documentation to enable or disable termination on your device. See the *SCSI Card 2940UW Pro User's Reference* for additional information on termination.

STEP 3

Mount each internal SCSI device in an available drive bay inside your computer.

Refer to your computer and device documentation for instructions on installing devices inside your computer.



Internal SCSI Device Mounted in Drive Bay Inside Your Computer

NOTE

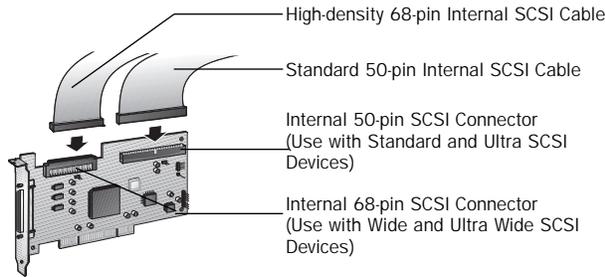
If it is difficult to reach the back of your internal SCSI devices when they are mounted in a drive bay, you can connect the internal SCSI devices to the SCSI cable and power supply (Steps 5-7 below) before mounting each device inside your computer.

CAUTION Do not connect SCSI devices to all three connectors of a SCSI Card 2940UW Pro host adapter.

STEP 4

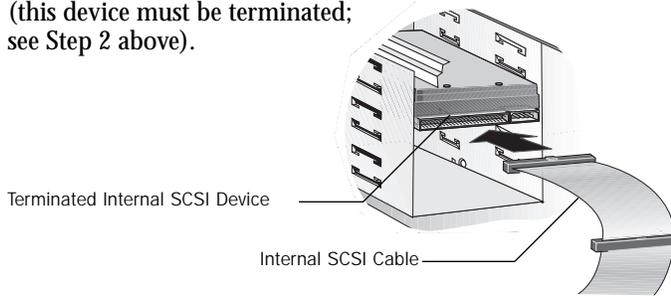
Connect one end of the internal SCSI cable to the SCSI Card 2940UW Pro's internal SCSI connector.

Each cable included in this package allows you to connect up to two internal SCSI devices. To connect more than two internal SCSI devices to each internal connector on the SCSI Card 2940UW Pro, you will need an internal SCSI cable with enough connectors to accommodate all of your devices. See the *SCSI Card 2940UW Pro User's Reference* for additional information on connecting your SCSI devices and ordering cables.



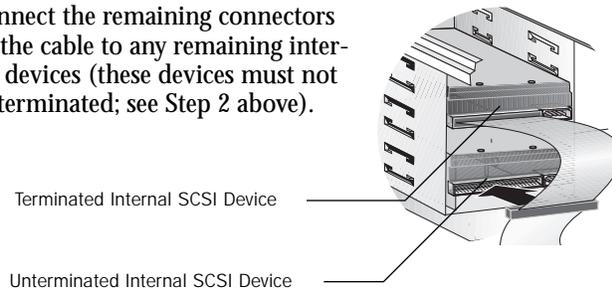
STEP 5

Connect the other end of the cable to the last internal device (this device must be terminated; see Step 2 above).



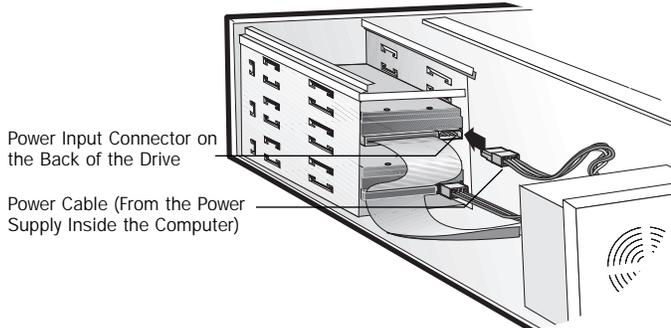
STEP 6

Connect the remaining connectors on the cable to any remaining internal devices (these devices must not be terminated; see Step 2 above).



STEP 7

Connect a power cable from your computer's power supply to the power input connector on each SCSI device.

**STEP 8**

Replace your computer cover.

If you are installing external SCSI devices, continue with the next section; otherwise, skip to *Installing the SCSI Card 2940UW Pro Software*.

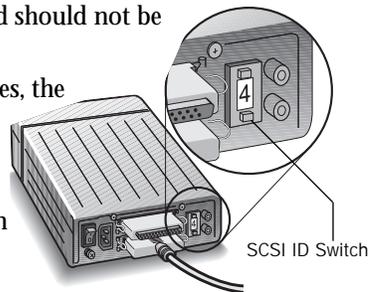
CONNECTING EXTERNAL SCSI DEVICES

STEP 1

Verify that each external SCSI device you are installing has a unique SCSI ID from 0 to 6 (0 to 6 and 8 to 15 for "Wide" SCSI devices). Refer to the device's documentation to determine the SCSI ID setting.

If any two devices (external or internal) you are connecting to the SCSI Card 2940UW Pro share the same SCSI ID, change the SCSI ID on one device. The SCSI Card 2940UW Pro is preset to SCSI ID 7 and should not be changed.

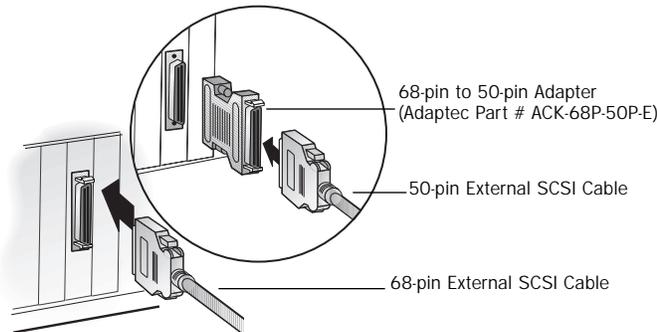
For most external SCSI devices, the SCSI ID usually is set with a switch on the back of the device. See the *SCSI Card 2940UW Pro User's Reference* for additional information on SCSI IDs.



STEP 2

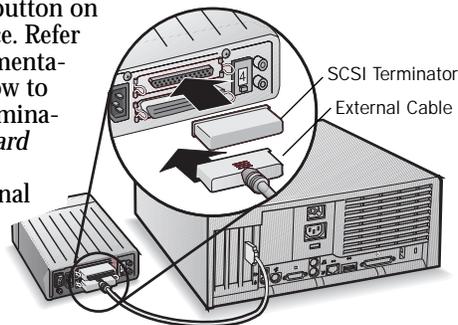
Connect one end of the external SCSI cable to the SCSI Card 2940UW Pro's external SCSI connector. Push the connectors together until they lock in place.

For each external SCSI device you install, you need a high-quality external SCSI cable. If you need to connect an external SCSI device with a 50-pin cable, then you also need a 68-pin to 50-pin external converter that actively terminates the high byte. This converter is available through Adaptec (Part # ACK-68P-50P-E). See the SCSI Card 2940UW Pro User's Reference for additional information on connecting your SCSI devices and ordering cables and adapters.

**STEP 3**

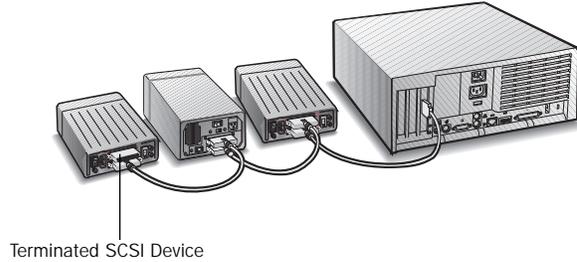
Connect the other end of the cable to a SCSI connector on the back of the external SCSI device. If you are installing only one external device, terminate the device and skip to Step 5.

Termination usually is controlled by installing or removing a SCSI terminator. On some devices, you use a switch or button on the back of the device. Refer to the device's documentation to determine how to enable or disable termination. See the *SCSI Card 2940UW Pro User's Reference* for additional information on termination.



STEP 4

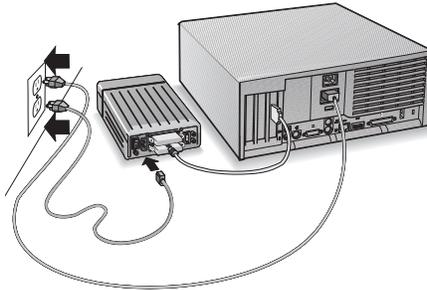
Connect each additional SCSI device to the previous one until all devices are connected. The device at the end of the chain must be the only external device terminated.



STEP 5

Connect all power cables to the external devices and computer.

Continue with the next section to install the SCSI Card 2940UW Pro software driver for your operating system.



NOTE A narrow external device at the end of the chain may cause a termination problem if a 68-pin to 50-pin adapter is not used.

INSTALLING THE SCSI CARD 2940UW PRO SOFTWARE

To install the SCSI Card 2940UW Pro software (software driver), go to the section below for the operating system (for example, Windows 95) installed on your computer. If the operating system is not yet installed, install it now. Refer to your operating system documentation for instructions.

NOTE If you have installed a new SCSI hard drive in a computer running Windows or DOS, you will need to partition and format the drive with the DOS fdisk and format commands before it can be used. Refer to your Windows and DOS documentation for instructions.

(Continued on the other side)

Computers with Windows 95/Windows 98

STEP 1

Turn on all external devices and then the computer. Windows 95/98 now will recognize the SCSI Card 2940UW Pro installed in your computer and will install the software driver for it.

NOTE You may be asked to insert the Windows 95/98 CD-ROM into the CD-ROM drive. Follow the instructions that appear onscreen.

STEP 2

If prompted, restart your computer to finish setting up your new hardware.

STEP 3

Click the **Start** button, point to **Settings**, then click **Control Panel**.

STEP 4

Double-click the **System** icon.

STEP 5

Click the **Device Manager** tab.

STEP 6

Double-click the **SCSI Controller** icon. The driver for the SCSI Card 2940UW Pro is listed as the "Adaptec AHA-2940UW Pro/AIC-788x PCI SCSI Controller."

- If the driver is listed, the driver is loading properly.
- If the driver is listed but has an exclamation mark inside a yellow circle, the driver is in a problem state (usually a conflict with other hardware using the same resources).
- If the driver is listed but has an "X" inside a red circle, the driver is disabled and isn't loading.
- If the driver is not listed or is not loading properly, see the *SCSI Card 2940UW Pro User's Reference* for troubleshooting information.
- If the SCSI Controller icon or the SCSI Card 2940UW Pro driver is not listed, try reinstalling the driver.

NOTE If the driver is not listed or is not loading properly, see the *SCSI Card 2940UW Pro User's Reference* for troubleshooting information.

Computers with Windows NT

- STEP 1** Turn on all external devices and then the computer.
- STEP 2** Start Windows NT on your computer.
- STEP 3** Click the **Start** button, point to **Settings**, then click **Control Panel**.
- STEP 4** Double-click the SCSI Adapters icon.
- STEP 5** Click the **Drivers** tab; add the 2940UW Pro driver if it is not listed.
- STEP 6** Follow the instructions that appear onscreen.

Computers with Windows 3.1

- STEP 1** Turn on all external devices and then the computer.
- STEP 2** Start Windows 3.1x on your computer.
- STEP 3** Insert the Adaptec EZ-SCSI Setup Disk in your floppy disk drive.
- STEP 4** Select **File/Run** from the Program Manager menu.
- STEP 5** When the Run dialog box appears, type **a:\setup** if you are using the *A* drive, or **b:\setup** if you are using the *B* drive. Then click **OK**.
- STEP 6** Follow the instructions that appear onscreen.

Computers with DOS 6.x or Above

- STEP 1** Turn on all external devices and then the computer.
- STEP 2** Insert the Adaptec EZ-SCSI Setup Disk in your floppy disk drive.
- STEP 3** At the DOS prompt, type **a:\dosinst** if you are using the *A* drive, or **b:\dosinst** if you are using the *B* drive. Then press **Enter**.
- STEP 4** Follow the instructions that appear onscreen.

Computers with NetWare, OS/2, SCO UNIX, and UnixWare

The Adaptec 7800 Family Manager Set included in this package allows you to install or update existing drivers for NetWare, OS/2, SCO UNIX, and UnixWare. Refer to the *7800 Family Manager Set User's Guide* for installation instructions.

CONGRATULATIONS!

You've finished installing SCSI Card 2940UW Pro. Troubleshooting hints are in the next section. For additional troubleshooting hints and information on using and configuring the SCSI Card 2940UW Pro and SCSI devices, see the *SCSI Card 2940UW Pro User's Reference*.

TROUBLESHOOTING CHECKLIST

Most problems with using the SCSI Card 2940UW Pro result from errors in preparing and connecting devices on the SCSI bus. Additional troubleshooting information is provided in the *SCSI Card 2940UW Pro User's Reference*.

NOTE If you have problems with a specific SCSI device when other connected SCSI devices are working correctly, please contact the manufacturer of the problem device for troubleshooting information.

If you have any problems during the installations, check the following items first:

- Are all SCSI devices turned on?
- Are all SCSI cables and power cables properly connected?
- Is the SCSI Card 2940UW Pro firmly seated and secured in the PCI expansion slot?
- Is the PCI expansion slot PCI Rev. 2.0 or higher compliant and does it support Bus Mastering?
- Are all SCSI devices and the SCSI Card 2940UW Pro assigned unique SCSI IDs? (See Step 1 in *Connecting Internal SCSI Devices* or *Connecting External SCSI Devices*.)
- Are all SCSI devices terminated properly? (See Step 2 in *Connecting Internal SCSI Devices* or Step 3 in *Connecting External SCSI Devices*.)

If your computer allows you to set up configuration options when the computer first boots up (that is, through CMOS setup), are the following options set up as specified?

- If there is an Interrupt Type or Interrupt Line option in the Setup program, select **Int-A** or **Interrupt Type = A** (you may also be required to change a motherboard jumper setting).
- If there is a Triggering Interrupt option, select **Level**.
- If there is an option to enable or disable bus mastering for the PCI slots, select **Enabled**.
- If there is an option to enable or disable individual PCI slots, be sure the slot in which you install the SCSI Card 2940UW Pro is **Enabled**.
- If your computer has a combination of ISA (or EISA) boards and PCI boards, you may need to mark the IRQs used by ISA/EISA boards as Used so the computer BIOS will not try to assign these IRQs to other PCI boards.
- In some computers, the BIOS reserves a set of available IRQs for PCI boards, and you have to assign these IRQs manually.

NOTE Some configuration options apply to a specific PCI bus slot, so if you change any option be sure you are applying the change to the correct slot. Check your computer documentation to determine the correct PCI bus slot.

Thank you!

*Thank you for purchasing an Adaptec product,
a great investment to improve your system's
performance. Enjoy your SCSI system!*

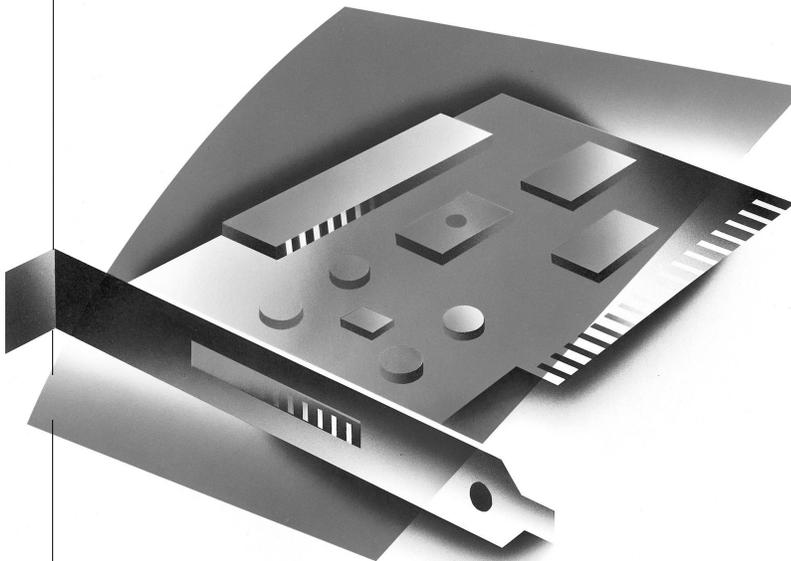


**We move the information that
moves your world.™**

© 1998, Adaptec, Inc. All rights reserved.
Printed in Singapore
Stock No.: 512217-00, Rev. A RAC 12/98



INSTALLATION GUIDE



SCSI CARD 2940UW PRO
ULTRA WIDE PCI SCSI ADAPTER CARD