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USER'S GUIDE

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- The TSID number is included on two white, bar-coded labels, like the example below.

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- For support via Email, submit your question to Adaptec's Technical Support Specialists at ask.adaptec.com.
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Adaptec, Inc.
Legal Department
691 South Milpitas Boulevard
Milpitas, California 95035

Regulatory Compliance Statements

Federal Communications Commission Radio Frequency Interference Statement

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. However, if this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

n   Reorient or relocate the receiving antenna.
n   Increase the separation between equipment and receiver.
n   Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
n   Consult the dealer or an experienced radio/television technician for help.
n   Use a shielded and properly grounded I/O cable and power cable to ensure compliance of this unit to the specified limits of the rules.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

Adaptec, Inc.   AUA-1420A

FC   Tested to Comply
         With FCC Standards

FOR HOME OR OFFICE USE

European Union Compliance Statement

This Information Technology Equipment has been tested and found to comply with EMC Directive 89/336/EEC, as amended by 92/31/EEC and 93/68/EEC, in accordance with:

■ EN55022 (1998) Emissions

■ EN55024 (1998) Immunity:
   ❼ EN61000-4-2 (1998) Electrostatic discharge: ±4 kV contact, ±8 kV air
   ❼ EN61000-4-3 (1998) Radiated immunity
   ❼ EN61000-4-4 (1995) Electrical fast transients/burst: ±1 kV AC, ±0.5 kV I/O
   ❼ EN61000-4-5 (1995) Surges ±1 kV differential mode, ±2 kV common mode
   ❼ EN61000-4-6 (1996) Conducted immunity: 3 V
   ❼ EN61000-4-11 (1994) Supply dips and variation: 30% and 100%

In addition, all equipment requiring U.L. listing has been found to comply with EMC Directive 73/23/EEC as amended by 93/68/EEC in accordance with EN60950 with amendments A1, A2, A3, A4, A11.

Australian/New Zealand Compliance Statement

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to the Australian/New Zealand standard AS/NZS 3548 set out by the Spectrum Management Agency.

Canadian Compliance Statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Japanese Compliance (Voluntary Control Council Initiative)

This equipment complies to class B Information Technology equipment based on VCCI (Voluntary Control Council for Interface). This equipment is designed for home use but it may causes radio frequency interference problem if used too near to a television or radio. Please handle it correctly per this documentation.

In this Guide

USB2connect for Notebooks lets you to connect Universal Serial Bus (USB) devices to Windows® and Macintosh® notebook computers. It is compatible with USB 1.1 Open Host Controller Interface (OHCI) and USB 2.0 Enhanced Host Controller Interface (EHCI) devices and works in any compatible Card Bus slot.

USB 2.0 is the fastest USB standard, capable of transferring data at up to 480 Megabits per second while maintaining backward compatibility with USB 1.1 devices.

USB2connect for Notebooks has two USB ports and provides the option of an external power supply to support devices that do not have their own power supplies.

This *User's Guide* provides instructions for installing the Adaptec AUA-1420A USB2connect for Notebooks adapter into your notebook computer. It also includes detailed driver installation instructions and explains how to connect your USB2connect for Notebooks to various devices.

Getting Started

Taking Inventory

Your USB2connect for Notebooks kit contains:

- Adaptec AUA-1420A USB2connect for Notebooks adapter
- USB2connect for Notebooks CD, which includes software, device drivers, and documentation
- *USB2connect for Notebooks Installation Guide*

System Requirements

Before installing the USB2connect for Notebooks adapter, ensure that your notebook computer meets these requirements:

For Windows Notebooks

- 266-MHz (or faster) processor
- Available Card Bus slot
- Windows XP, Windows 2000, Windows Me, or Windows 98 SE
- CD-ROM drive

For Macintosh Notebooks

- PowerBook G3 Series or later
- Available Card Bus slot
- Mac OS 9.2.1 or later and Mac OS X 10.1 or later
- CD-ROM drive

Preparing to Install

The USB2connect for Notebooks adapter contains the following controllers:

Controller	Description
USB 1.1	NEC PCI to USB Open Host Controller
USB 2.0	Adaptec AUA-1420 Card Bus to USB Enhanced Host Controller

To install your USB2connect for Notebooks adapter and the drivers for the controllers listed above, follow the instructions provided for your operating system.

- For Windows notebooks, see page 4.

- For Macintosh notebooks, see page 21.

Installing on Windows Notebooks

To install your USB2connect for Notebooks adapter:

1 Turn on your notebook computer and insert the adapter in the Card Bus slot.

Card Bus slot

USB2connect for Notebooks adapter

2 Insert the USB2connect for Notebooks CD and install the device driver. Follow the instructions for your operating system:

- For Windows XP, see page 5.

- For Windows 2000, see page 9.

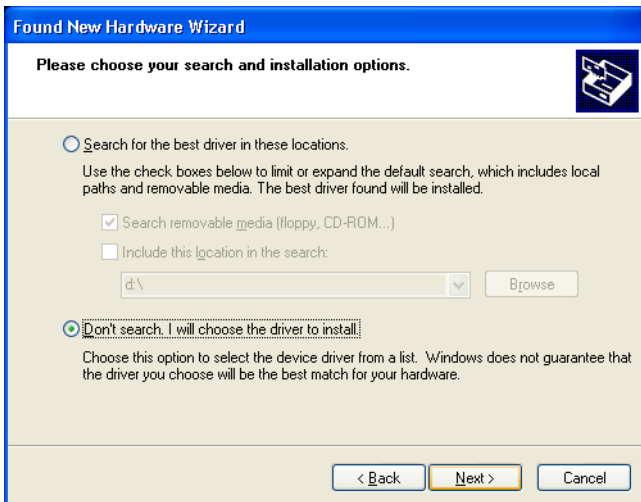- For Windows Me, see page 12.

- For Windows 98SE, see page 14.

Windows XP

Windows XP recognizes the new hardware and automatically opens the Found New Hardware Wizard. To complete the driver installation:

1 Select **Install from a list or specific location...**, then click **Next**.
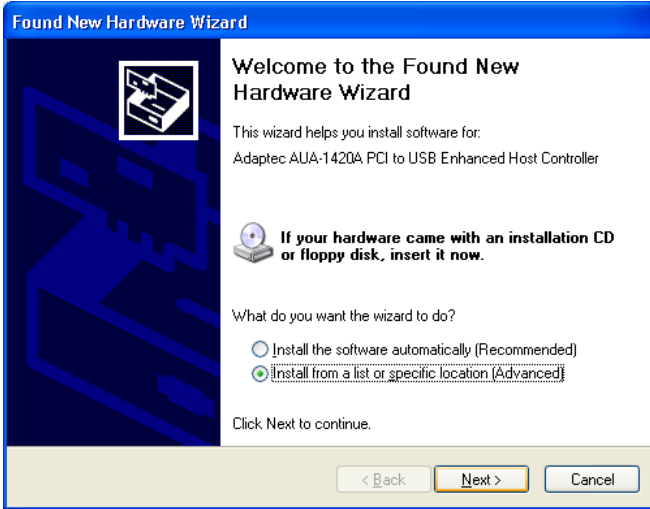
2 Select **Don't search, I will choose the driver...**, then click **Next**.

3 Click **Next** again.

4 Click **Have Disk**.

5 In the **Copy manufacturer's files from** box, type the drive letter for your CD-ROM drive, then click **OK**.

> ✅ **Note:** Your CD-ROM drive letter may be different from the one shown in the example.
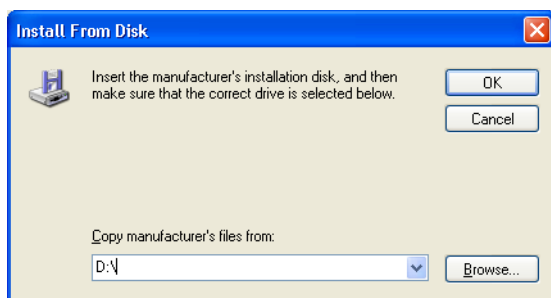
6 Click **Continue Anyway**.

> ✅ **Note:** Adaptec drivers have been fully tested and certified to work with the AUA-1420A adapter.

7   When the installation is complete, click **Finish**.

Verifying the Installation

To verify that the driver is installed:

1 Right-click the **My Computer** desktop icon, select **Properties**, click the **Hardware** tab, then click the **Device Manager** button.

2 Expand **Universal Serial Bus controllers** and verify that the information shown below appears.
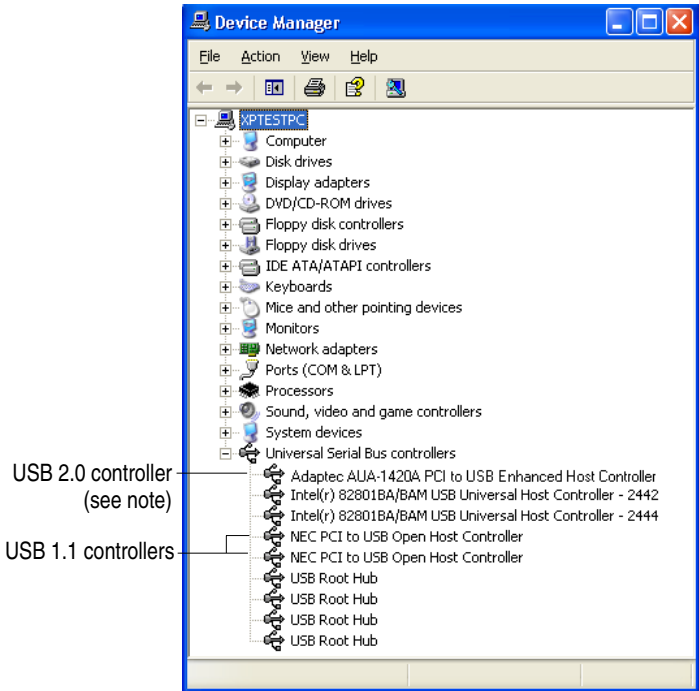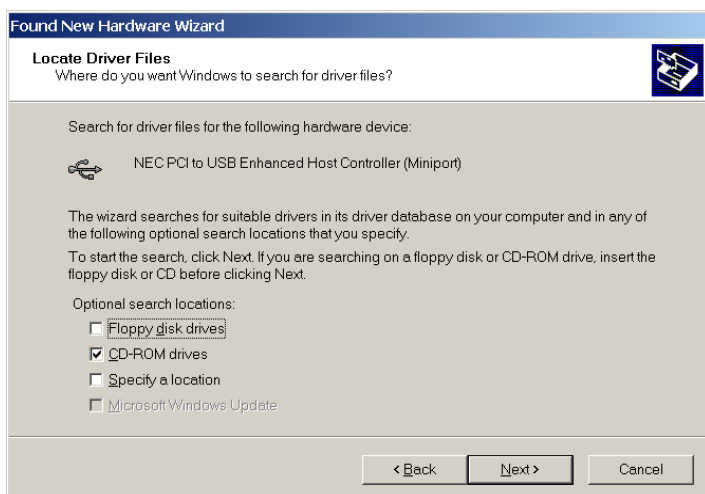
Windows 2000

Windows 2000 recognizes the new hardware and automatically opens the Found New Hardware Wizard. To complete the driver installation:
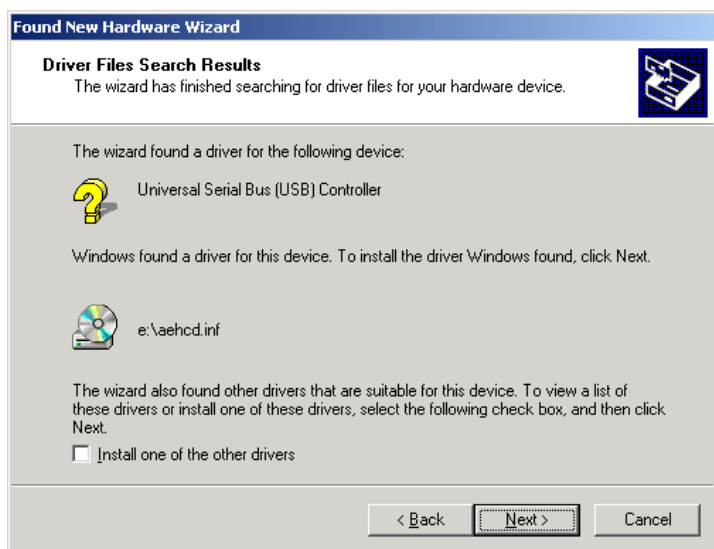
1   Click **Next**.

2   Select **Search for a suitable driver for my device...,** then click **Next**.
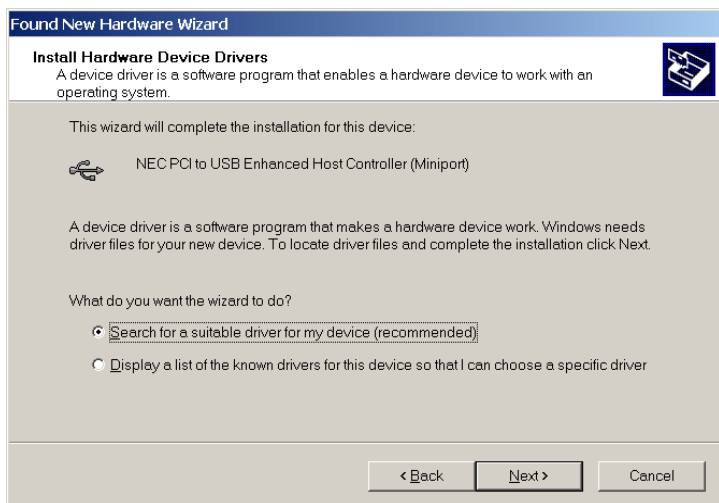
3   Select **CD-ROM drives** *only,* then click **Next**.

4 Ensure that **Install one of the other drivers** is *not* checked, then click **Next**.
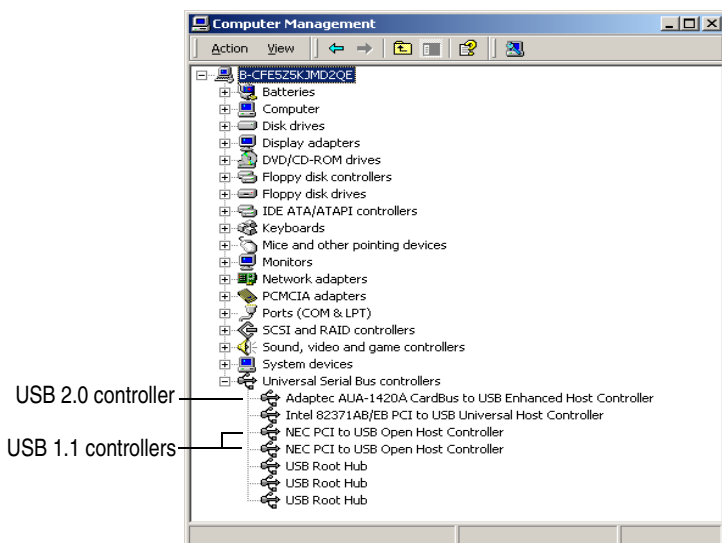

5 When the installation is complete, click **Finish**.

6 Restart your computer if prompted to do so.

Verifying the Installation

To verify that the driver is installed:

1 Right-click the **My Computer** desktop icon, select **Properties**, click the **Hardware** tab, then click **Device Manager**.

2 Expand **Universal Serial Bus controllers** and verify that the information shown below appears.

> **Note:** Device Manager may show a green question mark next to the Adaptec USB controller. This is normal and does not affect the operation of the USB2connect for Notebooks adapter.

For instructions on removing the USB2connect for Notebooks adapter from a Windows 2000 notebook, see .

Windows Me

Windows Me recognizes the new hardware and automatically opens the Found New Hardware Wizard. To complete the driver installation:

1 Click **Next**.

2 Select **Automatic search for a better driver...**, then click **Next**.
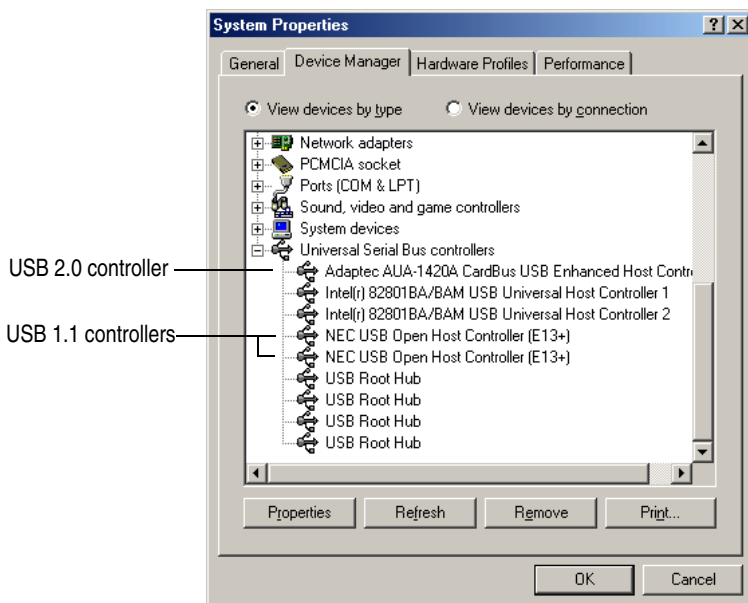

3 When the installation is complete, click **Finish**.

4 Restart your computer if prompted to do so.

Verifying the Installation

To verify that the driver is installed:

1 Right-click the **My Computer** desktop icon, select **Properties**, then click the **Device Manager** tab.

2 Expand **Universal Serial Bus controllers** and verify that the information shown below appears.

> ![Note icon] **Note:** The Windows Me Device Manager may show a green question mark next to the Adaptec USB controller. This is normal and does not affect the operation of the USB2connect for Notebooks adapter.

13

Windows 98 SE

Two device drivers are installed on Windows 98SE because the operating system has no embedded USB drivers. Follow these instructions carefully to ensure that both drivers are installed correctly.
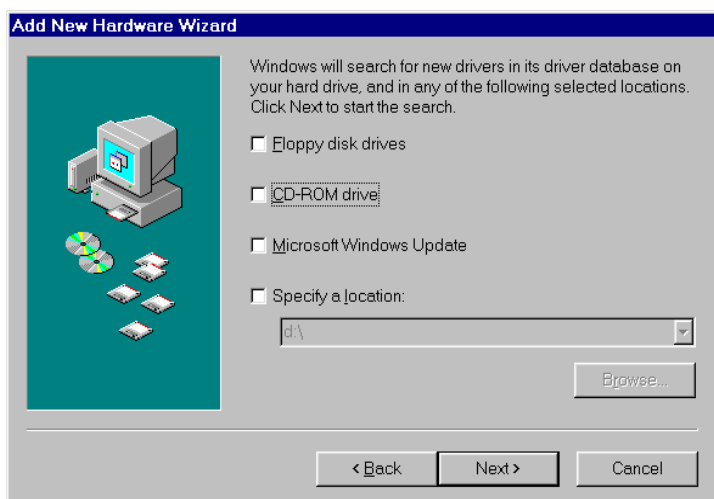
> **Note:** You may need the Windows 98SE CD during installation.

Windows 2000 recognizes the new hardware and automatically opens the Found New Hardware Wizard. To complete the driver installation:
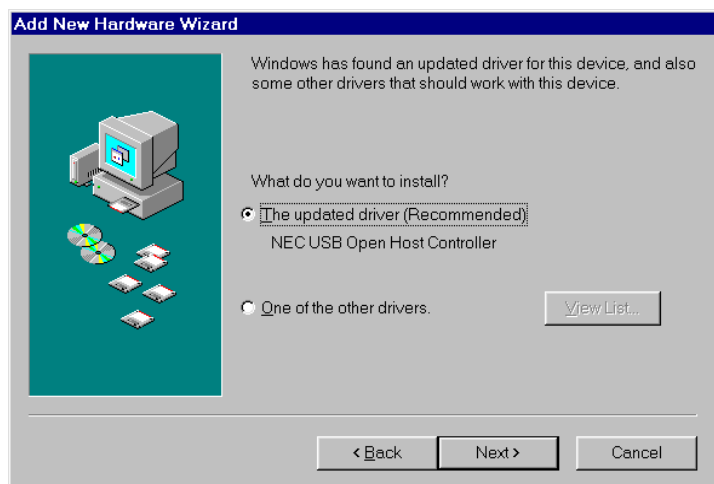
1   Click **Next**, then click **Next** again.

2   Select **Search for the best driver for your device...**, then click **Next.**

3 Deselect all options, then click **Next**.

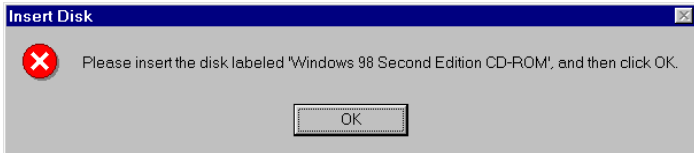

4 Select **The updated driver...**, then click **Next**.

5 Click **Next** again.

6 If prompted to do so, insert your Windows 98SE CD in your CD-ROM drive, then click **OK**.
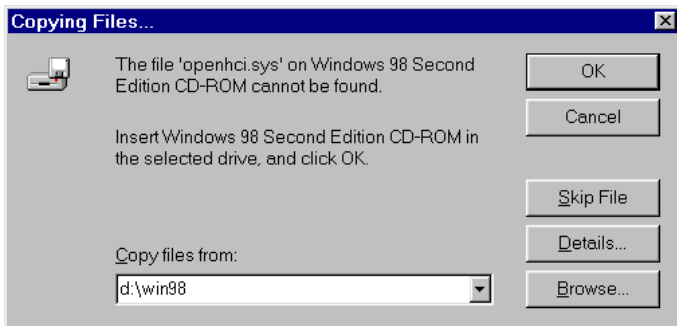
> ✔️ **Note:** If you have copied your driver files onto your hard drive and know where they are located, you can browse to that folder instead of inserting the Windows 98SE CD. Then skip to Step 8.

Insert Disk ⊠

❌   Please insert the disk labeled 'Windows 98 Second Edition CD-ROM', and then click OK.

[OK]

---

7 Type in the drive letter of your CD-ROM drive, then click **OK**.

> ✔️ **Note:** Your CD-ROM drive letter may be different from the one shown in the example below.

Copying Files... ⊠

🖴   The file 'openhci.sys' on Windows 98 Second Edition CD-ROM cannot be found.

Insert Windows 98 Second Edition CD-ROM in the selected drive, and click OK.

Copy files from:

d:\win98 ▾

[OK]
[Cancel]
[Skip File]
[Details...]
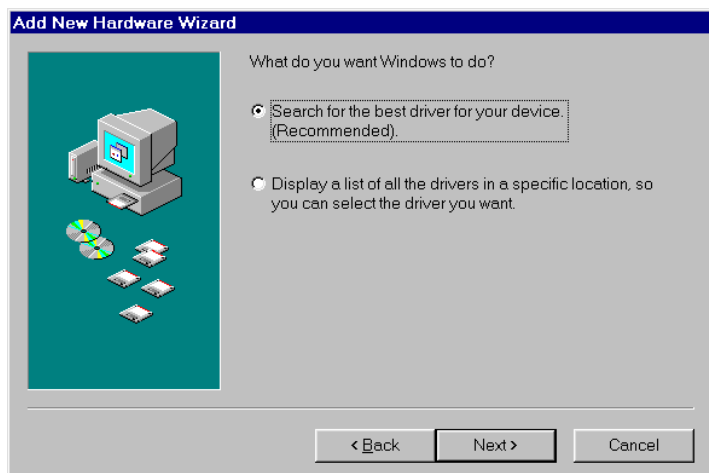[Browse...]

---

8 When the first driver installation is complete, click **Finish**.

The Found New Hardware Wizard restarts.

9 Click **Next**.

10 Select **Search for the best driver for your device...**, then click **Next.**

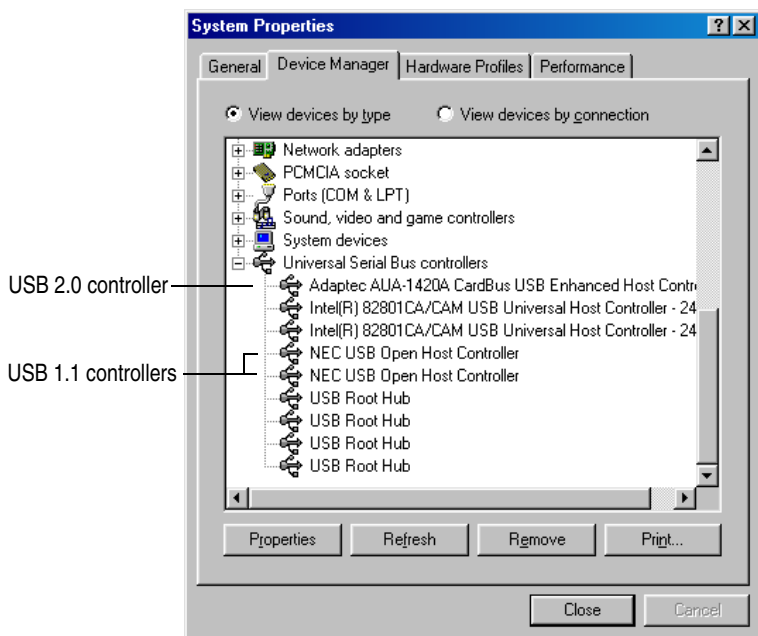**11** Insert the USB2connect for Notebooks CD, select **CD-ROM drive**, then click **Next**.

12 If a message appears recommending to you the option of selecting an updated driver, click **Next**. Click **Next** again.

13 When the second driver installation is complete, click **Finish**.

Verifying the Installation

To verify that the drivers are installed:

1 Right-click on the **My Computer desktop icon**, select **Properties**, then click the **Device Manager** tab.

2 Expand **Universal Serial Bus controllers** and verify that the information shown below appears.

USB 2.0 controller ───

USB 1.1 controllers ───

Removing the USB2connect for Notebooks Adapter – *Windows 2000 only*

You must use the Unplug or Eject Hardware wizard to properly remove the USB2connect for Notebooks adapter from your computer.
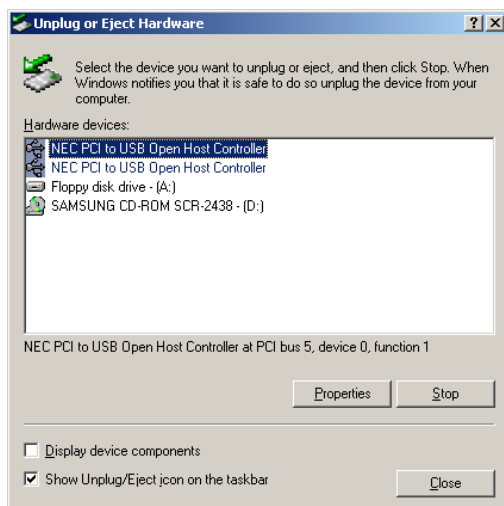
To remove the adapter:

1 Open the Unplug or Eject Hardware wizard by clicking the icon (shown at right) on your system tray, which is at the bottom right corner of your desktop.

All three controllers are listed under Hardware devices:

- 1 x NEC PCI to USB Open Host Controller

- 2 x Adaptec AUA-1420 Card Bus to USB Enhanced Host Controllers

2 Click any one of the three controllers, then click **Stop.**

The adapter is stopped. (You don't have to stop each controller individually.)

3 Click **OK**.

It is now safe to remove your USB2connect for Notebooks adapter.

Installing on Macintosh Computers

To install your USB2connect for Notebooks adapter:

> **Note:** If you are running Macintosh OS X, the drivers for the USB2connect for Notebooks adapter are included on your operating system. Turn on your PowerBook and skip to Step 5.

1 Turn on your PowerBook and insert the USB2connect for Notebooks CD.

2 Double-click the **Start Installation Here** installer file on the CD.

3 Follow the on-screen instructions.

4 When the installation is complete, restart your PowerBook.

5 Once the system has restarted, insert the USB2connect for Notebooks adapter in the CardBus slot of your PowerBook.

Card Bus slot

USB2connect for Notebooks adapter
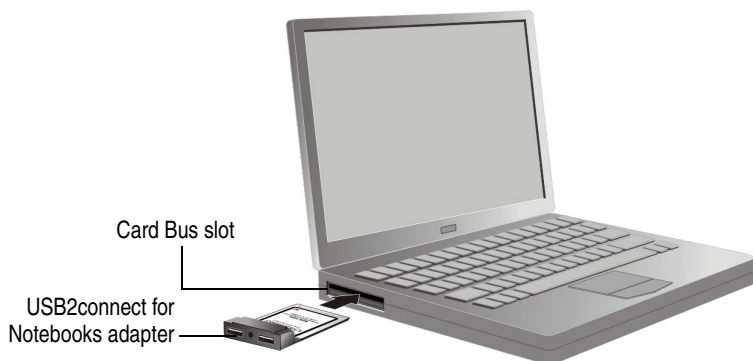
6 A USB2connect for Notebooks adapter icon appears on your desktop. (The icon should look like one of the two shown at the right.)

If neither of these icons appear on your desktop, there is a problem with the device driver. See *Troubleshooting* on page 24.
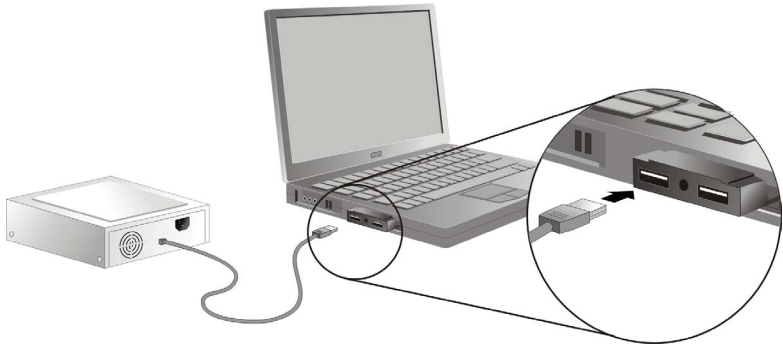
Connecting USB Devices

You can connect standard USB 1.1 or high-speed USB 2.0 devices to the connectors of the USB2connect adapter, as shown below.

> **Note:** To ensure proper functioning, use a standard USB cable with a maximum length of 6 feet (2 meters).

External Power Source

In most cases, you can attach USB devices without using an external power adapter. However, when you attach multiple devices with varying power requirements, an external power source may be needed.

If necessary, use a UL-approved power supply with a polarity configuration as shown at right, a P-7 power connector (3.5-mm outside and 1.3-mm inside diameter), and a 5-V, 1.5-A DC output. Refer to your device documentation for the device's power requirements.

Hotplugging USB Devices

The USB2connect for Notebooks adapter supports hotplugging, allowing USB devices to be attached and recognized while the computer is on. Device manufacturers support hotplugging in different ways. Refer to your device's documentation for specific information.

> **Note:** Moving a device from one adapter connector to another can cause the operating system to initiate a new hardware installation process. Refer to the Readme file on the USB2connect for Notebooks CD for details.

Hubs

The following figure shows the recommended configuration for connecting USB 1.1 and USB 2.0 devices. Note that you *could* connect USB 2.0 devices to a USB 1.1 hub, but the USB 2.0 devices would run at USB 1.1 speeds.
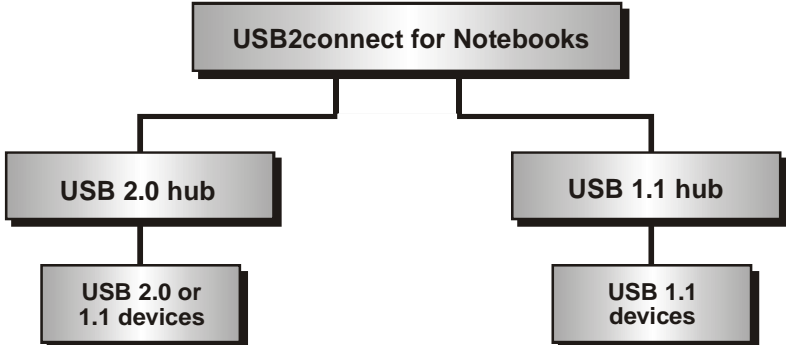
Troubleshooting

If you encounter difficulties installing or using your USB2connect for Notebooks adapter, check the following:

■ Is the adapter inserted completely in the Card Bus slot?

■ Is the cable properly connected to the USB2connect for Notebooks adapter and the device?

■ Is your device powered on?

■ Does the device require an external power source? See *External Power Source* on page 22 for details.

■ Are you encountering problems hotplugging the USB2connect adapter? If so, an external power source may be required to run your USB devices. See *External Power Source* on page 22 and the Readme file on the USB2connect for Notebooks CD.

■ Did you encounter problems with a USB device when it is connected to a hub? If so, connect the affected device directly to the USB2connect for Notebooks adapter.

■ Did you encounter problems loading the drivers on your Windows 2000 operating system? If so, refer to the Readme file on the USB2connect for Notebooks CD. Also, check the Windows 2000 event log and the troubleshooting section of your operating system user's guide.

■ Are you having problems using your notebook computer after you disconnect a device? If so, restart the computer, and see if the problem recurs.

■ *Macintosh only* – Do you see either of the USB2connect for Notebooks adapter icons shown at right on your desktop? If not, this means the driver is disabled or not installed. Try repeating the steps in *Installing on Macintosh Computers* on page 21.

More more information and troubleshooting tips, check the Readme file on the USB2connect for Notebooks CD. Refer also to the Adaptec Web site at www.adaptec.com and the Adaptec Support Knowledgebase at ask.adaptec.com.

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