

**adaptec**

# USER'S GUIDE



**AFW-1430  
FIRECONNECT FOR NOTEBOOKS ADAPTER**

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If you have questions about installing or using your Adaptec product, check this document first—you will find answers to most of your questions here. If you need further assistance, use the support options listed below.

### *Technical Support Identification (TSID) Number*

- Before contacting Technical Support, you'll need your TSID. The TSID helps us provide more efficient service by accurately identifying your product and support status. The 12-digit TSID can be found on the white barcode-type label included inside the box with your product.
- Affix your TSID label here:



### *Support Options*

- Search the Adaptec Support Knowledgebase (ASK) at <http://ask.adaptec.com> for articles, troubleshooting tips, and frequently asked questions for your product.
- For support via Email, submit your question to Adaptec's Technical Support Specialists at <http://ask.adaptec.com>.

### *North America*

- Visit our Web site at <http://www.adaptec.com>.
  - For information about Adaptec's support options, call +1 408-957-2550, 24 hours per day, 7 days per week. To speak with a Technical Support Specialist,
    - For **Hardware** products call +1 408-934-7274,  
Monday to Friday, 3:00 A.M. to 5:00 P.M., Pacific Time.
    - For **RAID and Fibre Channel** products call +1 321-207-2000  
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### ***Europe***

- Visit our Web site at <http://www.adaptec-europe.com>.
  - **English and French:** To speak with a Technical Support Specialist, call one of the following numbers, Monday to Thursday, 10:00 to 12:30 and 13:30 to 17:30; Friday, 10:00 to 12:30 and 13:30 to 16:30, Central European Time:
    - **English:** +32 2 352 3470
    - **French:** +32 2 352 3460
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  - To order Adaptec products, including accessories and cables, call +32 11 300 379.

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- Visit our Web site at <http://www.adaptec.com.au>.
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- To speak with a Technical Support Specialist, call +852 2869 7200, Monday to Friday, 10:00 A.M. to 5:00 P.M. To expedite your service, have your computer in front of you.
- Fax Technical Support at +852 2869 7100.

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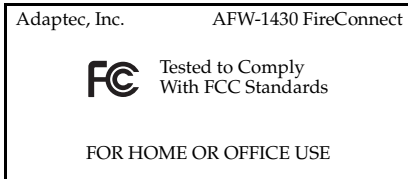
### Federal Communications Commission Radio Frequency Interference Statement

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:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.
- 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.



### European Union Compliance Statement

This Information Technology Equipment has been tested and found to comply with the following European directives:

EMC Directive 89/336/EEC, as amended by 92/31/EEC and 93/68/EEC

EN 50081-1 (1992)  
EN55022 (1994) Class B  
EN 50082-1 (1992)  
EN61000-4-2 (1998)  
EN61000-4-3 (1998)  
EN61000-4-4 (1995)  
EN61000-4-5 (1995) Surges  
EN61000-4-6 (1996) Conducted immunity  
EN61000-4-11 (1994) Supply dips of variation



### 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.



4This guide explains how to install the Adaptec AFW-1430 FireConnect for Notebooks adapter in a CardBus slot and how to install its associated drivers. It also describes how to connect various devices.

## Overview

The FireConnect for Notebooks adapter allows you to connect FireWire (also known as IEEE 1394 or i.LINK) devices to Windows® or Macintosh® notebook computers.

FireWire is a serial bus protocol that transfers data at speeds of up to 400 megabits per second. FireWire supports real-time-critical applications, such as digital video (DV) cameras, as well as applications typically requiring high throughput, such as scanners, printers, and hard drives.

The FireConnect for Notebooks adapter plugs into a CardBus slot in Windows 2000, Windows Me, and Windows 98 Second Edition (SE) notebook computers and Macintosh PowerBook computers running OS 9.0.4 and later.

The FireConnect for Notebooks adapter, with its OHCI-compliant IEEE 1394a chip set, provides three FireWire ports. The FireConnect for Notebooks adapter also provides the option of external power supply to support devices that do not have their own power supplies.



## About DV Technology

DV technology is a standard digital file and compression format for recording video and audio data onto a digital tape. DV uses compression to reduce the enormous size of the uncompressed video data (up to 50 full-screen bitmap images per second) to file sizes manageable by desktop computers.

A DV camera digitizes and compresses video before recording to tape. In playback mode, the camera can decompress DV data and display in real time. The camera can also transfer the data, using FireWire, directly to a hard drive where it can be edited and then transferred back to tape. DV conversions and data transfers provide better video quality than processes involving analog conversion.

## About FireWire Technology

FireWire is an international standard data transfer protocol created by Apple Computer, Inc. and ratified by the International Standards Organization as IEEE 1394. Like other data I/O protocols such as SCSI, Fibre Channel, and IDE, FireWire itself knows nothing about video, compression, or editing. It is a series of standardized commands for moving data from one device to another.

FireWire offers advantages that make it ideal for use with audio and video devices:

- **It's fast**—It has 100/200/400 Mbps, or 12.5/25/50 MBps data transfer rates.
- **It's guaranteed**—Isochronous data transfers offer guaranteed bandwidth, ensuring full-frame, full motion video and CD-quality audio. Asynchronous transfers are also supported.
- **It's consumer friendly**—Small connectors, hot-pluggable (meaning you can connect and disconnect FireWire devices without rebooting a computer), and no need for terminators or setting device IDs.
- **It's expandable**—Supports up to 62 devices (16 daisy-chained) with a 4.5-meter flexible cable between devices over a total length of up to 72 meters or 240 feet.

# Taking Inventory

Your FireConnect for Notebooks adapter kit includes the items shown below:

FireConnect for Notebooks adapter and  
6-foot, 6-to-4-pin FireWire cable



Installation guide,  
and other literature



FireConnect for Notebooks CD



## What's on the CD

- Readme file
- *Adaptec FireConnect for Notebooks User's Guide*, which includes Adaptec Technical Support information.
- Windows software, including:
  - MGI VideoWave 4 SE software
  - Sonic MyDVD 3 software
- Macintosh drivers and QuickTime for Macintosh
- Warranty and registration information

## System Requirements

Your notebook computer must meet the requirements outlined below for use with the FireConnect for Notebooks adapter.

### Windows Notebook

- 266-MHz (or faster) processor
- Available CardBus (PCMCIA Type II) slot
- 64 MB of RAM
- Windows 2000, Windows Me, or Windows 98 SE
- CD-ROM drive

### DV editing software (for Windows) requirements:

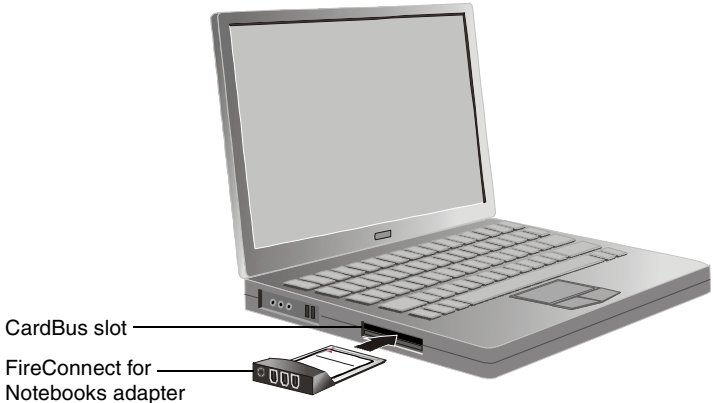
- 400-MHz (or faster) processor (800 recommended)
- 128 MB of RAM
- Display with 24-bit color depth and 1024 × 768 resolution
- Hard drive with 250 MB disk space available for program files and 5 GB disk space for DV recording (enough for 20 minutes)
- CD-R/W or DVD-R/RW drive
- DV camcorder

### Macintosh Notebooks

- G3 PowerBook with 400 MHz (or faster) process
- Available CardBus (PCMCIA Type II) slot
- Macintosh OS 9.0.4 or later
- 128 MB of RAM
- CD-ROM drive

# Installing the Windows Drivers

- 1 With your notebook computer on, insert the FireConnect for Notebooks adapter in the CardBus slot.



- *Windows Me and Windows 2000* – Windows automatically detects the FireConnect for Notebooks adapter and installs the drivers. Your installation is complete.

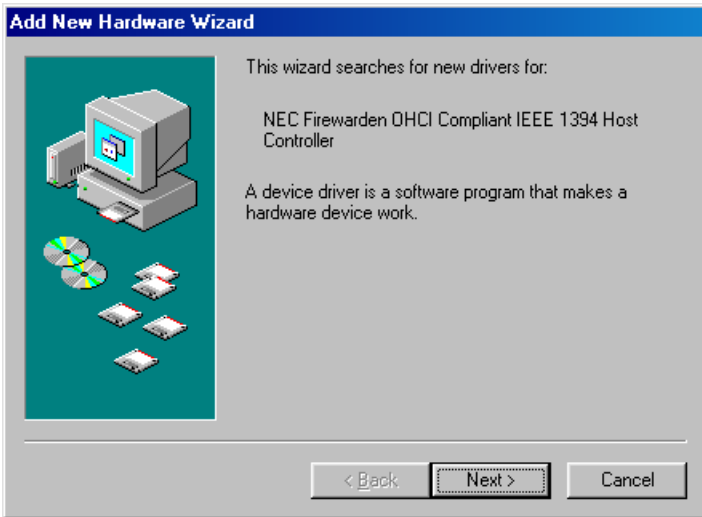


**Note:** *Windows 2000 only* – See [Removing the FireConnect for Notebooks Adapter – Windows 2000 only](#) on page 10.

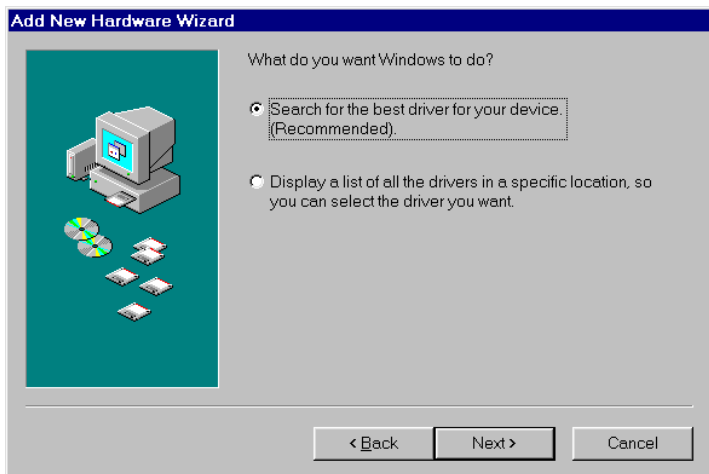
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- *Windows 98 SE* – Continue with [Step 2](#).

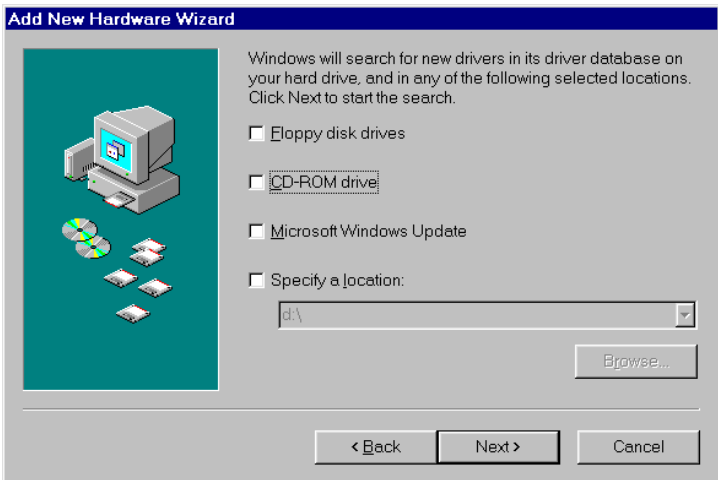
- 2 Windows 98 SE detects new hardware and displays the Add New Hardware Wizard. Click **Next**.



- 3 Select **Search for the best driver for your device (Recommended)**, and click **Next**.



4 Uncheck all options and click **Next**.



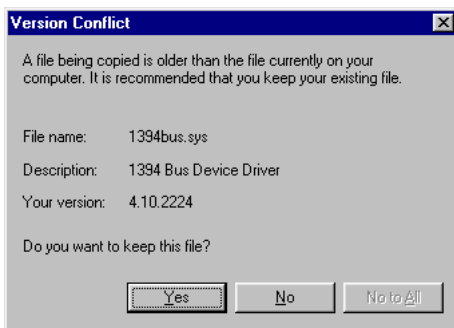
5 At the next window, accept the default and click **Next**.



- 6 In the window shown below, click **Next**.



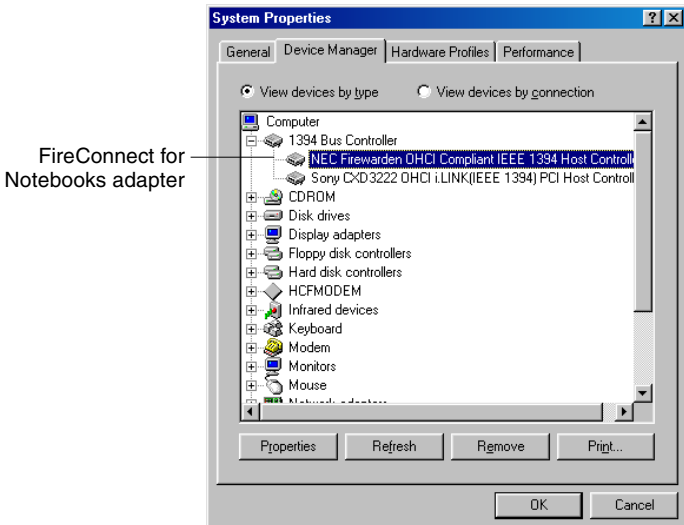
- 7 In the window shown below, click **Yes** as many times as needed to get to the screen shown in [Step 8 on page 9](#).



- 8 When the driver has been copied onto your system, the following window appears. Click **Finish**.



- 9 To verify that the drivers are installed, right-click the **My Computer** desktop icon, select **Properties**, and click the **Device Manager** tab. Then, expand **1394 Bus Controller**. You should find the information shown below.





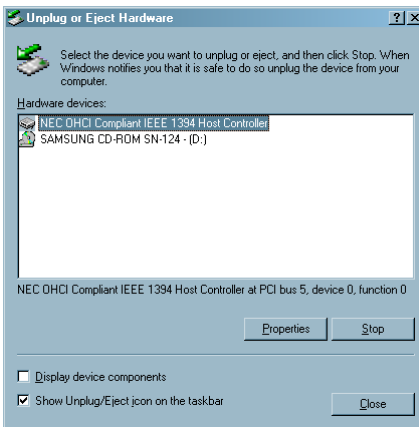
## Removing the FireConnect for Notebooks Adapter – Windows 2000 only

Windows 2000 requires a special operation to properly remove hardware such as the FireConnect for Notebooks adapter.

- 1 Open the Unplug or Eject Hardware wizard by clicking the icon shown at right, which is at the bottom right corner of your desktop.

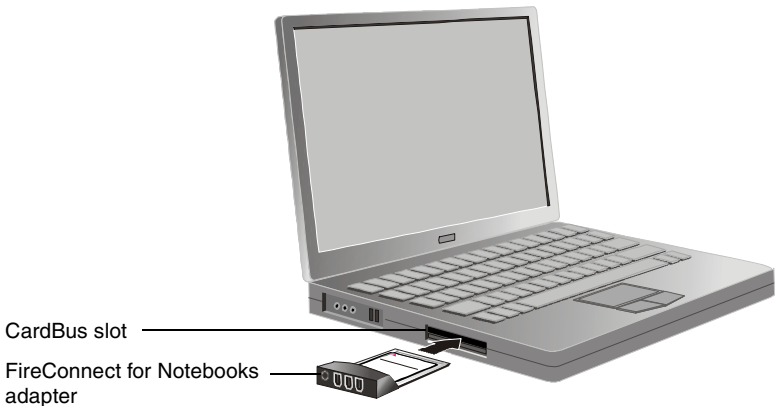


- 2 The Unplug or Eject Hardware lists removable devices. Click **NEC OHCI Compliant IEEE 1394 Host Controller** and then click **Stop**.



# Installing the Macintosh Driver

- 1 With the PowerBook on, insert the FireConnect for Notebooks CD.
- 2 Double-click the **Start Installation Here** installer file on the CD.
- 3 Read the directions carefully and follow all installation instructions.
- 4 After the installation is complete, restart the PowerBook.
- 5 Once the system has restarted, insert the FireConnect for Notebooks adapter in the CardBus slot of your PowerBook.



- 6 If the driver installation was successful and the FireConnect for Notebooks is fully inserted, you will see the FireConnect for Notebooks adapter icon at right on your desktop. If not, see [Troubleshooting on page 14](#).



# Connecting Devices

The FireConnect for Notebooks kit contains one 6-to-4-pin FireWire cable. When attaching devices that do not supply their own power, attach an external power supply to the FireConnect for Notebooks adapter; use a power adapter with 12-V, 1.5-A DC output.

## **Daisy-Chain Connections**

You can connect up to 62 devices in a daisy chain. All devices in the daisy chain must supply their own power. Non-self-powered devices may be attached using a separate FireConnect for Notebooks adapter port.

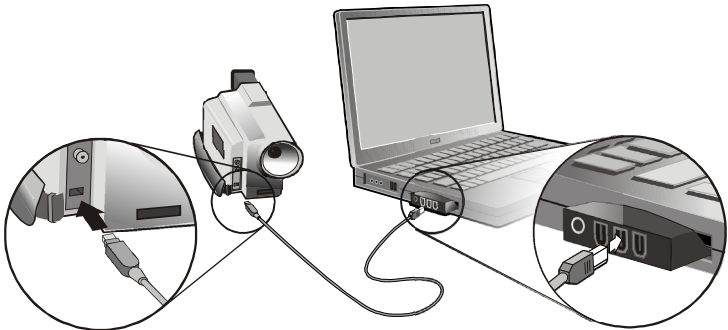
If you disconnect a daisy-chained device while the computer and other devices are powered on, the devices that come after the disconnected device on the daisy chain may malfunction until the computer is rebooted. To avoid this problem

- Use a separate port on the FireConnect for Notebooks adapter for the hot-plugged device.
- Attach the hot-plugged device at the far end of the cable from the FireConnect for Notebooks adapter.
- Use a hub (or repeater).

## Connecting a Digital Video Camera

Digital video cameras with FireWire use 4-pin connectors. To attach a DV camera, perform the following steps:

- 1 Using a standard 6-to-4 pin FireWire cable (included in this kit), plug the larger, 6-pin connector of the cable into a FireConnect for Notebooks port.



4-pin device connector

6-pin adapter connector

- 2 Plug the smaller, 4-pin connector of the FireWire cable into the FireWire port on your digital video camera.



**Caution:** When inserting the 4-pin connector into the DV camera, make sure the cable connector and the DV camera port are properly aligned. Otherwise, you might bend the pins and damage the DV camera connector.

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# Troubleshooting

If you encounter difficulties using your FireConnect for Notebooks adapter, check the following:

- Is the adapter inserted completely in the CardBus slot?
- Is the cable properly connected to the FireConnect for Notebooks adapter and the device?
- Is your device powered on? Does the device require external power from the FireConnect for Notebooks adapter?
- Are you having problems using your notebook computer after you disconnect a device? If so, restart the computer, and see if the problem clears up.
- *Windows only:* Are you using a repeater? If the Device Manager says the device is working properly, there may be a bad connection between the FireConnect for Notebooks adapter and the repeater. Shut down the computer and remove the FireConnect for Notebooks adapter from the CardBus slot. If you are using Windows 2000, see [Removing the FireConnect for Notebooks Adapter – Windows 2000 only on page 10](#). Then, reinsert the FireConnect for Notebooks adapter and reconnect the repeater.
- Under Macintosh OS 9, do you see either of the FireConnect for Notebooks adapter icon shown at right on your desktop? This means the driver is disabled or not installed. See [Installing the Macintosh Driver on page 11](#). If you have further difficulties, check the Readme file on the FireConnect for Notebooks CD and <http://www.adaptec.com>.



For more troubleshooting information, visit <http://www.adaptec.com> and <http://ask.adaptec.com>.



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