

Western Digital FireWire CardBus PC Card





Western Digital FireWire® CardBus PC Card

Installation Guide

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1

Getting Started

What is FireWire?

Defined by the Institute of Electrical and Electronics Engineers (IEEE), the 1394 High Performance Serial Bus (commonly known as FireWire) is a standard for connecting devices to your personal computer.

FireWire is one of the fastest peripheral standards ever developed. With a capability of operating at up to 400 Mbps, FireWire interface communicates fast enough to transfer digital video and audio in real time.

Additional benefits of FireWire:

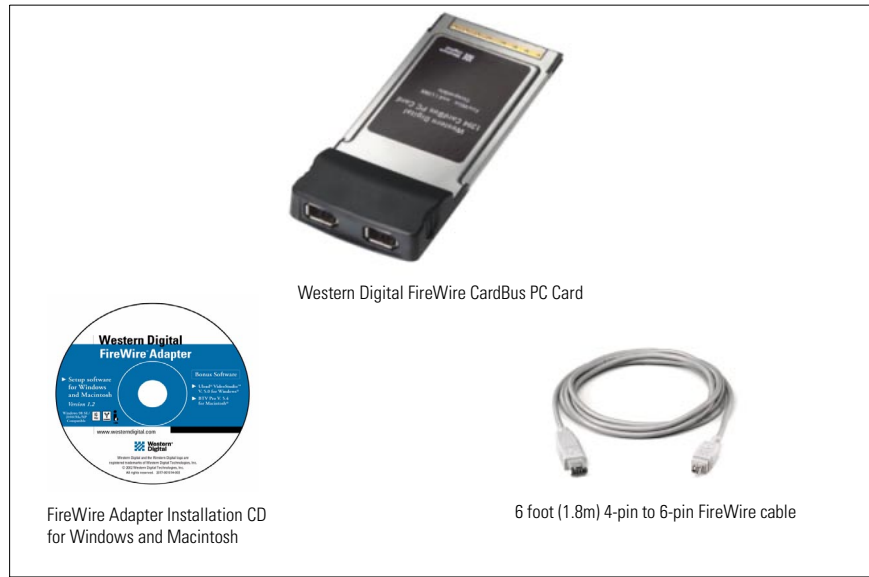
- IEEE 1394 and i.LINK™ compatible.
- Hot plug capability that allows you to easily connect a new peripheral device without turning off the computer.
- Automatic configuration, no device IDs or terminators.
- Cables are easy to connect, and can be up to 15 feet long.
- Allows connection of up to 63 devices.

FireWire products currently available include the latest hard drives, CD-RW drives, Digital Video (DV) camcorders, scanners, and printers. Western Digital's FireWire PCI Adapter and our FireWire CardBus PC Card enable you to connect devices like these directly to your computer.

Look for Western Digital's FireWire External Hard Drives, which provides quick and easy large-capacity external data storage.

TIP: If you require additional data storage or an external hard drive, look for Western Digital's FireWire Hard Drive at your favorite retailer or WD's online store at: store.westerndigital.com.

Kit Contents



Western Digital FireWire CardBus PC Card Kit Contents

Also included: warranty card, quick install guide

System Requirements

PC Users

1. Minimum 200 MHz processor
2. Minimum 64 MB RAM
3. Type II CardBus slot
4. Windows 98 SE (Second Edition) or higher
5. CD-ROM drive

If you are running Windows 98, make sure you have Windows 98 SE by right-clicking on **My Computer** and selecting **Properties**. The **General** tab in **System Properties** should show "Windows 98 Second Edition."

Mac Users

1. Apple PowerBook G3 or higher (Note: the M-3553 PC Card slot is not CardBus compatible)
2. Minimum 4 MB RAM
3. 32-bit CardBus compatible PC Card slot
4. Mac OS 8.6 or higher
5. CD-ROM drive

Make sure you have Mac OS 8.6 or higher installed on your system by clicking on the Apple symbol in the menu bar and selecting **About this computer**. The window will display your version of Mac OS.

★ **IMPORTANT**
A 32-bit CardBus PC Card slot and Windows 98 SE/ Mac OS 8.6 or higher is required to use your Western Digital FireWire CardBus PC Card.

Recommended System Requirements for DV Editing

PC Users

- Intel® Pentium® III 450 Mhz or higher (700+ Mhzrecommended)
- 128 MB RAM
- 500 MB of available hard drive space for program files
- 4 GB+ hard drive space for video capture and editing
- Windows-compatible display with at least 800x600 resolution

Mac Users

- 1.5 MB hard drive space for program files
- Minimum 12 MB of *available* RAM
- 4 GB+ hard drive space for video capture and editing
- Macintosh compatible video input hardware

Handling Precautions

Western Digital FireWire CardBus PC Cards are precision instruments and should be handled with care during unpacking and installation. CardBus PC Cards may be damaged by improper handling or abuse. Be aware of the following precautions when unpacking and installing your FireWire PC Card:

- Do not unpack your FireWire PC Card until you are ready to install it.
- Save all the packing materials in case you need to return your FireWire PC Card. Your warranty will be void if your returned PC Card is shipped in anything other than the original packaging or Western Digital-supplied or approved materials.
- Do not drop the PC Card.

Record Your FireWire CardBus PC Card Information


In the table that follows, enter the serial number and model number listed on your new Western Digital FireWire CardBus PC Card. The complete serial number and model number are on the large label on the bottom of the card. You will need this information for technical support purposes.

Serial Number:
Model Number:

Gather These Items

- Western Digital FireWire CardBus PC Card
- Western Digital FireWire Adapter Installation CD

TIP: Handle your new Western Digital FireWire CardBus PC Card with care — do not drop the card.

 **CAUTION**
Do not remove any labels from the PC Card; this action voids the warranty.

2

Installation and Setup

PC Card Setup for Windows

The latest Microsoft FireWire storage driver (included on the WD Adapter CD for Windows) must be installed on your system *before* installing the FireWire CardBus PC Card.

Windows Installation

1. Insert the Western Digital FireWire Adapter Installation CD into your CD-ROM drive. The program will start automatically.
2. The main menu displays, showing the following options:



Click on **Set up FireWire Adapter**.

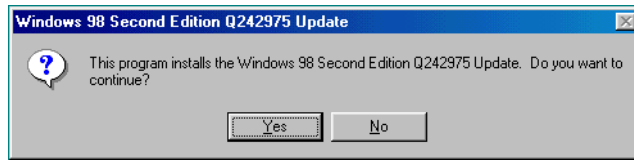
3. The **Western Digital FireWire Adapter Setup** welcome screen appears. Click **Next**.
4. In the **Driver Update** dialog box, click **Next** to continue. This will prepare your system for FireWire support.
5. Next, you will be prompted to register your FireWire PC Card online at Western Digital's Web site. You must register the FireWire PC Card to receive 90 days of free Western Digital technical support. After entering your product information in each field, click **Submit** and close the browser to complete registration.
6. *Windows 98 SE*: Your Western Digital FireWire Adapter software is ready to finalize your setup. Click **Finish** when you see the Congratulations screen to update your FireWire drivers and install a safe removal utility that allows you to safely remove any of your Plug and Play devices.

★ **IMPORTANT**
The latest FireWire storage driver from Microsoft must be installed on your PC *before* installing the FireWire PC Card.

📌 **NOTE**
Autorun may take up to 30 seconds to launch. If the program does not start automatically, open Windows Explorer, click on the CD-ROM drive icon, then double-click on the Setup.exe file.

TIP: To register your Western Digital product at a later time, visit:
wdc.com/products/registration

The **Windows 98 SE Update** dialog box displays. Click **Yes** to continue and load the update.



The Microsoft license agreement for the Windows 98 SE Update displays. Click **Yes** to continue.

Click **Yes** to accept the license agreement. You must restart your computer for the new settings to take effect. When prompted to restart, click **Yes**.

Windows 2000: Your version of Windows already has the required FireWire driver support. Click **Next**. When the Congratulations dialog box appears, click **Finish**. You must restart your computer for the new settings to take effect. When you have finished installing all software, click **Exit** in the Main Menu, then click **Close**.

Windows 98 and earlier: Your version of Windows does not support FireWire Plug and Play devices. Click **Exit**, upgrade to Windows 98 SE or higher, and reinstall your FireWire PC Card.

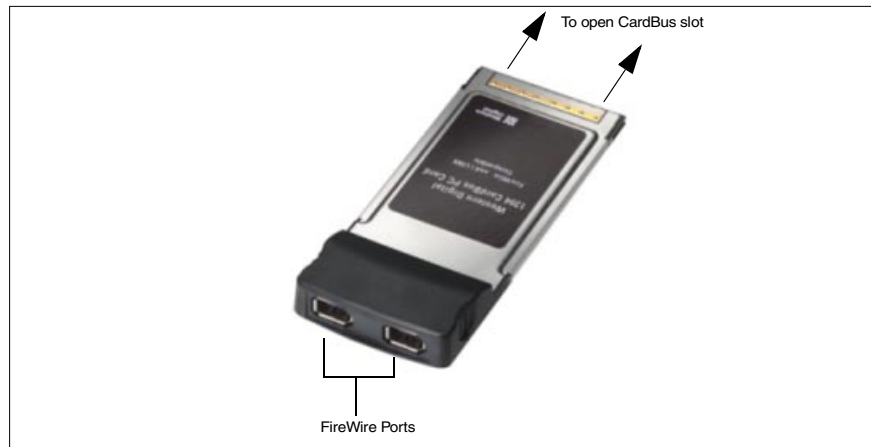
Ulead® VideoStudio™ Software Installation for PC

1. Insert the Western Digital FireWire Adapter Installation CD into your CD-ROM drive. The program will start automatically.
2. Click on the **Ulead VideoStudio** button on the main menu.
3. Follow the on-screen directions to complete software installation.

Hardware Installation—Windows and Macintosh®

1. With your computer turned off, carefully insert the PC Card into the CardBus slot on your computer.
2. Power up your computer.

★ **IMPORTANT**
Your system must be turned off and unplugged before connecting or disconnecting any cables.



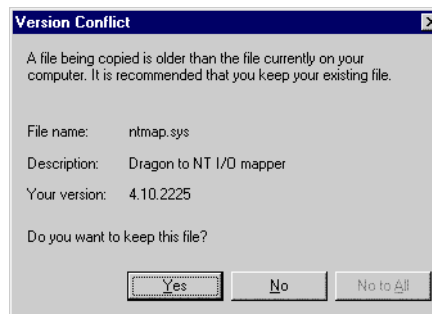
Western Digital FireWire CardBus PC Card Installation

NOTE
The CardBus PC Card does not supply power to the FireWire bus. Connected devices must be connected to a powered FireWire hub or have an external power supply (e.g., an AC power adapter).

3. *Macintosh:* The **Western Digital FireWire PC Card** icon appears on your desktop. Follow the setup instructions for "PC Card Setup for Macintosh" on page 7.

Windows 2000: Windows 2000 automatically detects and configures your FireWire PC Card.

Windows 98 SE: After your computer has finished rebooting, you will see a series of five **Version Conflict** dialog boxes, each informing you that the file being copied is older than the file currently on your computer.



Click **Yes** in each dialog box to keep your existing file (clicking **No** will prevent the drivers from loading properly). These dialog boxes will only display the first time you install your FireWire PC Card.

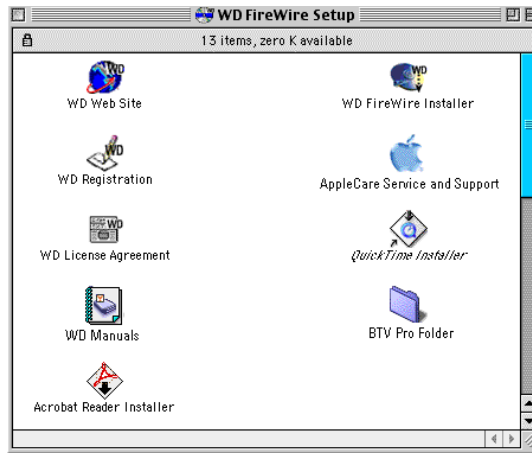
★ **IMPORTANT**
Install the PC Card in your Macintosh *before* installing the FireWire software.

PC Card Setup for Macintosh

Be sure to install the CardBus PC Card *before* installing FireWire software. See “Hardware Installation—Windows and Macintosh[®]” on page 6 for details.

Macintosh Installation

1. Insert the Western Digital FireWire Adapter Installation CD. The following window displays:



2. Double-click on the **WD FireWire Installer** icon.
3. The Welcome screen displays. Click **Continue**.
4. The FireWire license agreement displays. Click **Accept**.
5. The **WD FireWire Installer** dialog displays. Click **Install**.



6. The **WD FireWire Installer** dialog displays. Click **Install**.
7. Click **Restart** to complete installation.
8. After restart, you will be prompted to register your FireWire PC Card online at Western Digital’s Web site. You must register the adapter to receive 90 days of free Western Digital technical support. After entering your product information in each field, click **Submit** and close the browser to complete registration.

TIP: To register your Western Digital product at a later time, visit:
wdc.com/products/registration

BTV Pro Software Installation for Macintosh

1. Insert the Western Digital FireWire Adapter Installation CD into your CD-ROM drive. The program will start automatically.
2. Double-click on the WD FireWire Setup icon on your desktop.
3. Double-click on the BTV Pro folder located in the WD FireWire Setup window.
4. Double-click on the BTV Pro icon to begin installation.
5. Follow the on-screen instructions to complete software installation.

Recommended System Requirements for Digital Video Editing

Macintosh Users

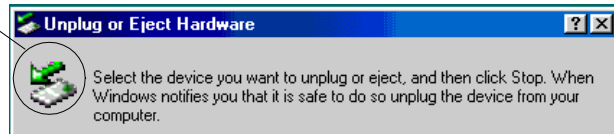
- 1.5 MB available hard drive space for program files
- Minimum 12 MB *available* RAM
- 4 GB+ hard drive space for video capture and editing
- Macintosh compatible video input software

Unplugging Your FireWire CardBus PC Card

Windows Users

Click on the Windows **Unplug or Eject Hardware** icon in your system tray (located in the bottom right corner of your computer screen). Then click on **Stop Western Digital CardBus PC Card OHCI IEEE FireWire Host Controller**. The following dialog box displays:

Unplug or Eject Hardware system tray icon



Select the WD FireWire CardBus PC Card from the list, then click **Stop**. In the next dialog box, prepare the FireWire PC Card for safe removal by clicking **OK**.

Mac Users

Click on the Western Digital FireWire CardBus PC Card icon on your desktop and press **⌘ + Y**. You can also do the following:

1. Drag the Western Digital FireWire CardBus PC Card icon to the Trash.
2. Wait until the disk icon disappears from the desktop.
3. Disconnect the PC Card.

CAUTION
Do not unplug your FireWire CardBus PC Card without following these steps. Data loss and disk damage could result.

3

Multiple Device Connection

FireWire Connection Instructions & Limitations

FireWire devices can be connected in any combination of branching and chaining, as long as no loops are formed. A FireWire bus can support up to 16 consecutive cable hops of 4.5 meters (14.76 feet) each. There are no SCSI-style ID numbers to set and no termination requirements.

The Western Digital FireWire CardBus PC Card is not designed to keep the FireWire network operating when the computer is shut down, and does not supply power to the FireWire bus.

To connect a Digital Video (DV) camcorder, digital still camera, scanner, printer, or other FireWire peripheral, plug the 6-pin connector on the supplied FireWire cable to the PC Card and the 4-pin connector to the device's FireWire port. Both connectors snap into place when properly engaged. If you wish to connect two devices together (or if your device has a 6-pin FireWire port), you can obtain 6-pin to 6-pin cables at your favorite retailer.

FireWire Connection Guidelines

Follow these guidelines for connecting FireWire devices to the computer:

- Do not connect more than 63 devices at one time (including computers).
- Do not connect devices in such a way that any two devices have more than 16 cables directly connected between them.
- Do not connect FireWire cables in a way that forms a loop of devices.
- Unused FireWire connections should be left empty. There are no terminators for FireWire connections.
- Connect devices that require power from FireWire directly to the computer.
- Do not unplug a FireWire device while it is being used. For example, do not unplug a FireWire hard drive while copying files onto it.
- If you have problems with digital video transfers, make certain that no other FireWire devices are being used at the same time.

⚠ CAUTION
If these instructions are not followed correctly, your computer and other FireWire devices may not operate correctly.

Appendix A: Regulatory Compliance

FCC Class B Information

This equipment has been tested and found to comply with the limits of 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 instructions, may cause harmful interference to radio or television 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 the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio/TV Interference Problems." This booklet is available from the US Government Printing Office, Washington, DC 20402. Stock No. 004-000-00345-4.

CSA Notice

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

This digital apparatus does not exceed the Class B limits for radio noise for digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

CE Compliance For Europe

Verified to comply with EN55022 for RF Emissions and EN50082-1 for Generic Immunity, as applicable.

Appendix B: Warranty Information

Obtaining Service

Western Digital (WD) values your business and always attempts to provide you the very best of service. If this Product ever requires maintenance, either contact the dealer from whom you originally purchased the Product or telephone WD's Technical Support Department. No Product may be returned directly to WD without first contacting our Technical Support Department at 800.275.4932 or +31.20.446.7651 in Europe. If it is determined that the Product may be defective, you will be given a Return Material Authorization (RMA) number and instructions for Product return. An unauthorized return, i.e. one, for which an RMA number has not been issued, will be returned to you at your expense. Authorized returns are to be shipped prepaid and insured to the address on the RMA in an approved shipping container. Your original box and packaging materials should be kept for storing or shipping your WD FireWire CardBus PC Card. In order to conclusively establish the period of warranty, a copy of the purchase receipt must accompany the returned Product. If the purchase receipt is not available, the period of warranty will be measured from the date of manufacture. WD shall have no liability for lost data, regardless of the cause, recovery of lost data, or data contained in any Product placed in its possession.

1 Year Limited Warranty

WD warrants that the Product, in the course of its normal use, will be free from defects in material and workmanship for a period of one (1) year and will conform to WD's specification therefore. This limited warranty period shall commence on the purchase date appearing on your purchase receipt.

WD shall have no liability for any Product returned if WD determines that the Product was stolen from WD or that the asserted defect a) is not present, b) cannot reasonably be rectified because of damage occurring before WD receives the Product, or c) is attributable to misuse, improper installation, alteration (including removing or obliterating labels), accident or mishandling while in your possession. Subject to the limitations specified above, your sole and exclusive warranty shall be, during the period of warranty specified above and at WD's option, the repair or replacement of the Product. The foregoing warranty of WD shall extend to repaired or replaced Products for the balance of the applicable period of the original warranty or ninety (90) days from the date of shipment of a repaired or replaced Product, whichever is longer.

The foregoing limited warranty is WD's sole warranty and is applicable only to products sold as new. The remedies provided herein are in lieu of a) any and all other remedies and warranties, whether expressed, implied or statutory, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose, and b) any and all obligations and liabilities of WD for damages including, but not limited to accidental, consequential, or special damages, or any financial loss, lost profits or expenses, or lost data arising out of or in connection with the purchase, use or performance of the Product, even if WD has been advised of the possibility of such damages.

In the United States, some states do not allow exclusion or limitations of incidental or consequential damages, so the limitations above may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Appendix C: Technical Support Services

Your new Western Digital FireWire CardBus PC Card includes 90 days of free technical support from the date of purchase. **To be eligible for the free technical support, you must register your product with Western Digital.** Should you require additional technical support after the 90-day time period, Western Digital offers extended support services for your FireWire PC Card at a rate of \$15.00 per incident after the free period.

Online Service

Email: customer.service@wdc.com

Internet: www.westerndigital.com/service

Product Registration: www.wdc.com/products/registration

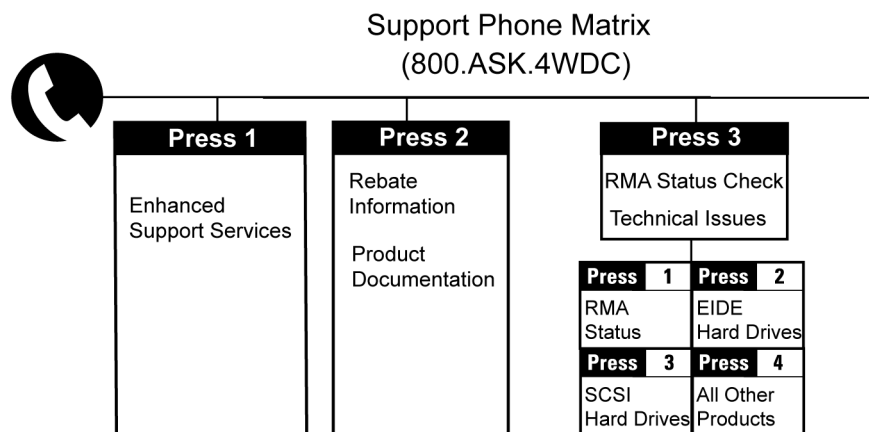
Telephone Assistance

800.ASK.4WDC (800.275.4932) and +31.20.446.7651 (Europe)

If you need additional information or help during installation or normal use of this product, contact Western Digital Technical Support. When calling for support, please have your Western Digital FireWire PC Card serial number and system hardware and software versions available.

	USA / Canada /Outside USA (Central Time)	Europe (Central European Time)
Telephone Numbers	800.ASK.4WDC or 800.275.4932	+31 20 446-7651
Monday - Thursday	9:00 am - 7:00 pm	9:30 am - 12 noon 1:00 pm - 5:30 pm
Friday	9:00 am - 5:00 pm	9:30 am - 12 noon 1:00 pm - 4:00 pm
Saturday	8:00 am - 11:45 am 1:00 pm - 5:00 pm	

Technical Support Phone Matrix



Western Digital
20511 Lake Forest Drive
Lake Forest, California 92630

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