CAN Hardware and the NI-CAN™ Software for Windows 98/95

This guide contains instructions to help you install your NI-CAN system. A complete document set, including a getting started manual, user manual and programmer reference manual, is in Adobe Acrobat portable document format (pdf) on your *NI-CAN for Windows NT/9*x CD. Refer to the file `readme for docs.html` on the CD for the complete document set.

The National Instruments CAN hardware covered in this installation guide includes the AT-CAN, AT-CAN/2, PCI-CAN, PCI-CAN/LS (low-speed CAN), PCI-CAN/2, PCI-CAN/LS2 (low-speed CAN), PCI-CAN/DS (dual-speed CAN) , PCMCIA-CAN, and PCMCIA-CAN/2.

This manual assumes that you are already familiar with Windows 98/95.

Install the NI-CAN Software

Before installing the CAN hardware, complete the following steps to install the NI-CAN software for Windows 98/95.

1. Select **Start»Settings»Control Panel**.

2. Double-click on the **Add/Remove Programs** icon in the Control Panel to launch the Add/Remove Programs applet. A dialog box similar to the one in Figure 1 appears.

Figure 1. Add/Remove Programs Properties Dialog Box

You can use this same applet to uninstall the NI-CAN software at a later time. Refer to Appendix A, *Uninstalling the Hardware and Software*, in your Windows 98/95 *Getting Started* manual on the CD for more information.

3. Click on the **Install** button.

4. Insert your *NI-CAN for Windows NT/9*x CD, and click on the **Next** button to proceed.

5. The setup wizard guides you through the necessary steps to install the NI-CAN software. You may go back and change values where appropriate by choosing **Back**. You can exit the setup where appropriate by choosing **Cancel**.

6. Shut down your computer when the setup is complete.

Install the CAN Hardware

This section describes how to install your CAN hardware.

Check the Configuration of Your CAN Hardware

If you plan to use your CAN board in a system where bus power is available, you may want to configure the power supply jumpers on your board. See Appendix C, *Cabling Requirements for High-Speed CAN*, in your Windows 98/95 *Getting Started* manual on the CD for more information.

If you are installing a low-speed CAN board or a PCMCIA-CAN/LS cable, you may need to change the power supply jumpers or termination resistors. See Appendix D, *Cabling Requirements for Low-Speed CAN*, in your Windows 98/95 *Getting Started* manual on the CD for more information.

If you are installing a dual-speed CAN board or a PCMCIA-CAN/DS cable, you may have to change the power supply jumpers or termination resistors. See Appendix E, *Cabling Requirements for Dual-Speed CAN*, in your Windows 98/95 *Getting Started* manual on the CD for more information.

Install Your AT-CAN or PCI-CAN Series Board

⚠️ **Caution**   Before you remove the board from the package, touch the antistatic plastic package to a metal part of your system chassis to discharge electrostatic energy, which can damage several components on your CAN interface.

1. Make sure that your computer is turned off. Keep the computer plugged in so that it remains grounded while you install the CAN interface.
2. Remove the top cover (or other access panels) to give yourself access to the computer expansion slots.
3. Find an unused expansion slot of the appropriate type in your computer.
4. Remove the corresponding slot cover on the back panel of the computer.
5. Insert the CAN interface into the slot with the CAN connector(s) sticking out of the opening on the back panel. It might be a tight fit, but do not force the interface into place. Figure 2 shows how to install the PCI-CAN into a 16-bit ISA expansion slot.
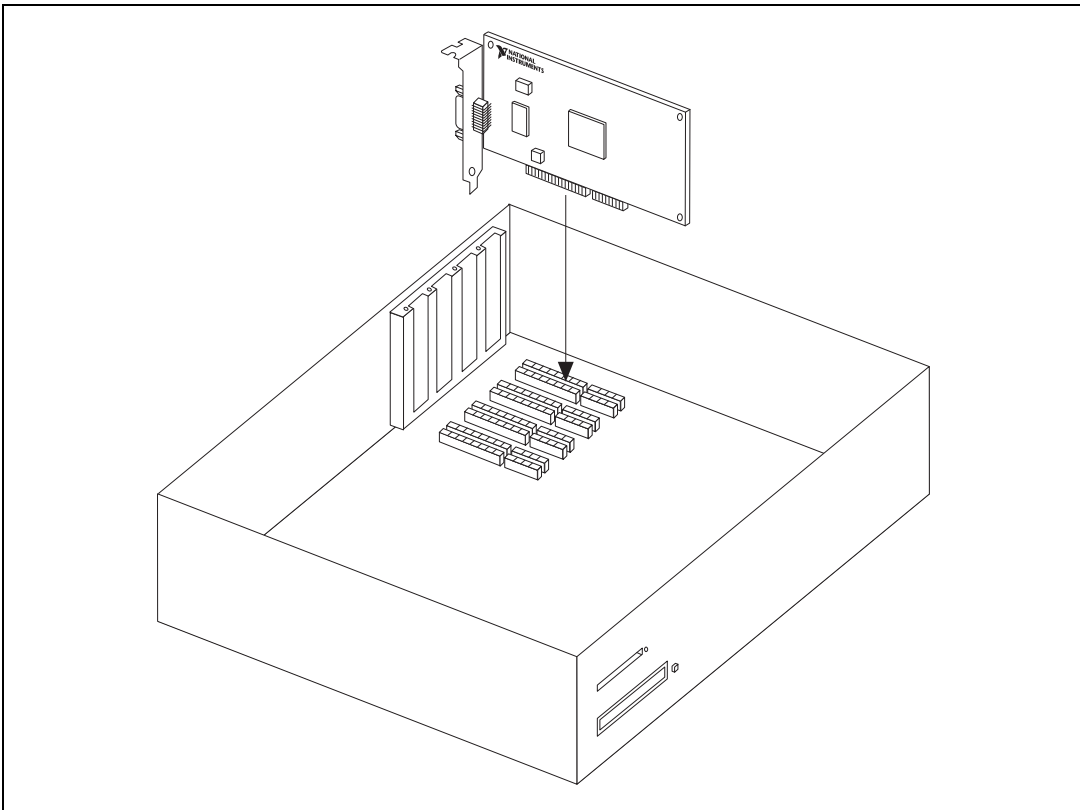
Figure 2. Installing the PCI-CAN

6. Screw the mounting bracket of the CAN interface to the back panel rail of the computer.

7. If desired, you can use a RTSI cable to connect your CAN board RTSI interface to other National Instruments RTSI-equipped hardware. Please refer to Appendix F, *RTSI Bus*, in your Windows 98/95 *Getting Started* manual on the CD, for information about the RTSI interface on your CAN board.

8. Replace the top cover (or the access panel to the expansion slot).

9. Turn on your computer and start Windows. Windows should automatically detect the CAN hardware and associate it with the NI-CAN software. A **New Hardware Found** dialog box appears, then goes away on its own. If the dialog box does not go away, select **Windows default driver** and click the **OK** button.

If the **New Hardware Found** dialog box does not appear when you restart Windows, refer to Appendix B, *Forcing Windows to Detect the CAN Hardware* in your Windows 98/95 *Getting Started* manual on the CD for more information.

When you have finished installing the hardware, proceed to the *Connect the Cables* section, later in this guide.

Install Your PCMCIA-CAN Series Card

⚠ **Caution** Before you remove the card from the package, touch the antistatic plastic package to a metal part of your system chassis to discharge electrostatic energy, which can damage several components on your CAN interface.

1. Shut down your operating system and power off your system.
2. Insert the card into a free PC Card (PCMCIA) socket. The card has no jumpers or switches to set. Figure 3 shows how to insert the card and how to connect a PCMCIA-CAN cable to the card.
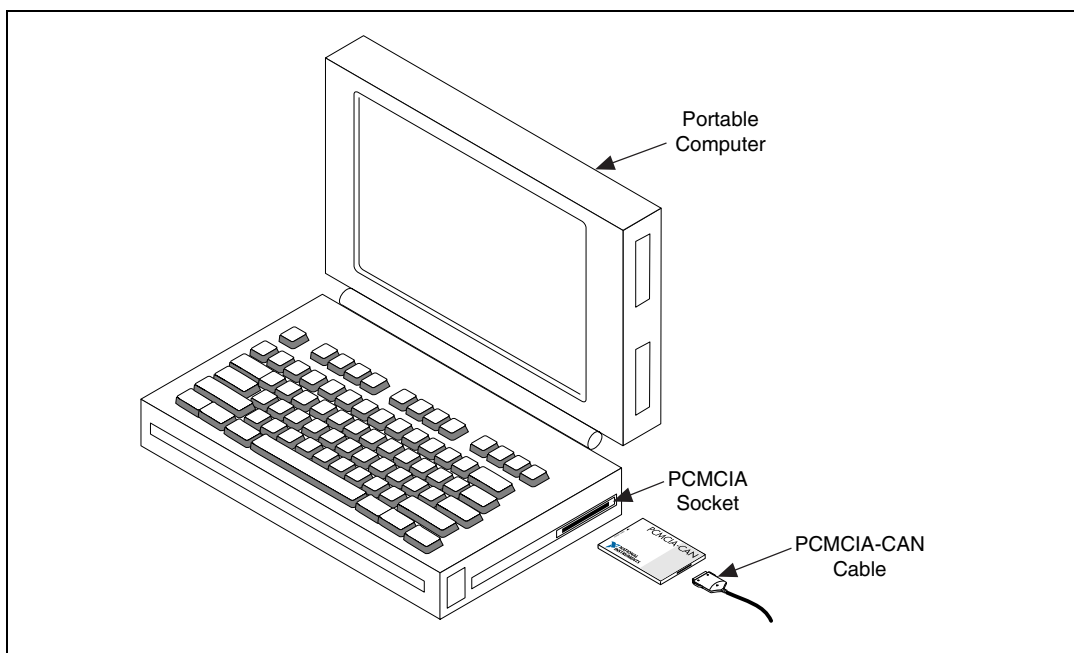

Figure 3. Inserting the PCMCIA-CAN

3. Connect the PCMCIA-CAN, PCMCIA-CAN/LS, or PCMCIA-CAN/DS cable to the card. Starting with NI-CAN Version 1.4, and the PCMCIA-CAN cards with low and high-speed CAN support, the NI-CAN software auto-detects which cable has been attached to the card.

4. Power on your computer.

Connect the Cables

After you have installed the CAN interface, connect your CAN cables to the interface. Because exact cabling requirements vary for each application, National Instruments does not provide cables, other than the PCMCIA-CAN, PCMCIA-CAN/LS, or PCMCIA-CAN/DS cable. Refer to either Appendix C, *Cabling Requirements for High-Speed CAN*, Appendix D, *Cabling Requirements for Low-Speed CAN*, or Appendix E, *Cabling Requirements for Dual-Speed CAN*, in your Windows 98/95 *Getting Started* manual on the CD for information about the cabling requirements of the CAN hardware.

Further Documentation

A complete document set, including a getting started manual, user manual and programmer reference manual, is in Adobe Acrobat portable document format (pdf) on your *NI-CAN for Windows NT/9*x CD. Refer to the file `readme for docs.html` on the CD for the complete document set.

Technical Support Resources

NI Web Support

National Instruments Web support is your first stop for help in solving installation, configuration, and application problems and questions. Online problem-solving and diagnostic resources include frequently asked questions, knowledge bases, product-specific troubleshooting wizards, manuals, drivers, software updates, and more. Web support is available through the Technical Support section of `ni.com`

Worldwide Support

National Instruments has offices located around the world to help address your support needs. You can access our branch office Web sites from the Worldwide Offices section of `ni.com`. Branch office web sites provide up-to-date contact information, support phone numbers, e-mail addresses, and current events.

If you have searched the technical support resources on our Web site and still cannot find the answers you need, contact your local office or National Instruments corporate. For telephone support in the United States, dial 512 795 8248. For telephone support outside the United States, contact your local branch office:

Australia 03 9879 5166, Austria 0662 45 79 90 0, Belgium 02 757 00 20, Brazil 011 284 5011, Canada (Calgary) 403 274 9391, Canada (Ontario) 905 785 0085, Canada (Québec) 514 694 8521, China 0755 3904939, Denmark 45 76 26 00, Finland 09 725 725 11, France 01 48 14 24 24, Germany 089 741 31 30, Greece 30 1 42 96 427, Hong Kong 2645 3186, India 91805275406, Israel 03 6120092, Italy 02 413091, Japan 03 5472 2970, Korea 02 596 7456, Mexico (D.F.) 5 280 7625, Mexico (Monterrey) 8 357 7695, Netherlands 0348 433466, New Zealand 09 914 0488, Norway 32 27 73 00, Poland 0 22 528 94 06, Portugal 351 1 726 9011, Singapore 2265886, Spain 91 640 0085, Sweden 08 587 895 00, Switzerland 056 200 51 51, Taiwan 02 2528 7227, United Kingdom 01635 523545