CAN HARDWARE AND NI-CAN™ SOFTWARE FOR WINDOWS INSTALLATION GUIDE

This installation guide contains instructions to help you install your NI-CAN system. Complete documentation is in the *NI-CAN Hardware and Software Manual*, which is available on your *NI-CAN Software for Windows* CD in Adobe Acrobat portable document format (PDF). Refer to the file NI-CAN Hardware and Software Manual.pdf on the CD or in the NI-CAN\Documentation folder on your hard drive.

The NI-CAN software on this CD supports Microsoft Windows 2000/NT/XP/Me/9*x* operating systems.

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NATIONAL INSTRUMENTS™

The NI-CAN hardware covered by this installation guide includes the following products:

PCI-CAN	PCMCIA-CAN	PXI-8460
PCI-CAN/2	PCMCIA-CAN/2	PXI-8461
PCI-CAN/LS		PXI-8462
PCI-CAN/LS2		
PCI-CAN/DS		

This document is written for users already familiar with Windows 2000/NT/XP/Me/9*x*.

Install the NI-CAN Software Before the Hardware

Windows 2000/NT/XP users: Before installing the CAN software, users must first log on as Administrator or as a user with Administrator privileges. The NI-CAN setup Program must have Administrator privileges because the program modifies the configuration registry of your system.

Users of all Windows operating systems should complete the following steps.

1. Insert the *NI-CAN Software for Windows* CD into your CD-ROM drive. The installer launches if your CD-ROM drive plays data CDs automatically.

   If the installer doesn't launch automatically, navigate to the CD using Windows Explorer and launch the setup.exe file from your *NI-CAN Software for Windows* CD.

2. The Installation Wizard guides you through the necessary steps to install the NI-CAN software. You can go back and change values where appropriate by clicking **Back**. You can exit the setup where appropriate by clicking **Cancel**.

3. If you have LabVIEW Real-Time (RT) installed on your system, download the NI-CAN driver support for your Real-Time PXI controller. Launch the Measurement & Automation Explorer (MAX) and follow the online help to download NI-CAN Real-Time components to your Real-Time PXI controller.

4. Power down your computer when the setup is complete.

5. Proceed to the *Install the CAN Hardware* section.

Install the CAN Hardware

This section describes how to install your CAN hardware on the PCI, PCMCIA, and PXI busses.

Check the Configuration of Your CAN Hardware

If you plan to use your CAN card in a system where bus power is available, you might want to configure the power supply jumpers on your card. Refer to Appendix B, *Cabling Requirements for High-Speed CAN*, and Appendix C, *Cabling Requirements for Low-Speed CAN*, of the *NI-CAN Hardware and Software Manual* for more information.

Install Your PCI-CAN 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 card.

1. Make sure that your computer is powered off and unplugged.
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 card 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.
6. Screw the mounting bracket of the CAN card to the back panel rail of the computer.
7. You can use an RTSI cable to connect your CAN-card RTSI interface to other National Instruments RTSI-equipped hardware. Refer to Appendix E, *RTSI Bus*, of the *NI-CAN Hardware and Software Manual* for more information about the RTSI interface on your CAN card.
8. Replace the top cover (or the access panel to the expansion slot).
9. Proceed to the *Verify Your Installation* section.

Install Your PCMCIA-CAN 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 card.

1. **Windows 2000/XP/Me/9x users:** Insert the card into a free PC Card (PCMCIA) socket. The card has no jumpers or switches to set.

   Windows NT 4.0 users: Shut down your operating system and power off your system. Now insert the card into a free PC Card (PCMCIA) socket. The card has no jumpers or switches to set.

2. Connect the PCMCIA-CAN, PCMCIA-CAN/LS, or PCMCIA-CAN/DS cable to the card. The NI-CAN software auto-detects which cable has been attached to the card.

Proceed to the *Verify Your Installation* section.

Install Your PXI-CAN 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 card.

1. Make sure that your PXI or CompactPCI chassis is powered off, and unplug the computer.

2. Choose an unused PXI or CompactPCI 5 V peripheral slot.

3. Remove the filler panel for the peripheral slot you have chosen.

4. Touch a metal part on your chassis to discharge any static electricity that might be on your clothes or body.

5. There are important issues to consider when using the RTSI interface on the J2 connector of your PXI-846*x* series card in a CompactPCI chassis. Refer to Appendix E, *RTSI Bus*, of the *NI-CAN Hardware and Software Manual* for more detailed information about the PXI-846*x* series RTSI interface.

6. Insert the PXI card into the selected 5 V slot. Use the injector/ejector handle to fully inject the card into place.

7. Screw the front panel of the PXI card to the front panel-mounting rail of the PXI or CompactPCI chassis.

8. Proceed to the *Verify Your Installation* section.

Verify Your Installation

1. Power on your computer and start Windows.

    Windows 2000/Me/9x users: 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 A, *Troubleshooting and Common Questions*, of the *NI-CAN Hardware and Software Manual* for more information.

    Windows NT 4.0 users: Refer to the *Verify Installation of Your CAN Hardware* section of Chapter 2, *Installation and Configuration*, of the *NI-CAN Hardware and Software Manual* to verify your installation.

Windows XP users: A New Hardware Found dialog box appears. Choose the default option **Install the Software automatically (Recommended)** and let Windows XP install the driver files. Windows XP notifies you when the installation is finished.

2. Launch the Measurement & Automation Explorer (MAX) and refresh (press <F5> or choose **View»Refresh** from the menu). Your CAN cards should be listed now under **Devices and Interfaces**. To test all detected CAN cards, choose **Tools»NI-CAN»Test All Local NI-CAN Cards** from the menu.

3. Proceed to the *Connect the Cables* section.

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 Appendix B, *Cabling Requirements for High-Speed CAN*, and Appendix C, *Cabling Requirements for Low-Speed CAN*, of the *NI-CAN Hardware and Software Manual* for information about the cabling requirements of the CAN hardware.

Uninstalling the NI-CAN Software

Before uninstalling the NI-CAN software, remove all CAN interface hardware from your computer.

Complete the following steps to remove the NI-CAN software.

1. Run the **Add/Remove Programs** applet from the **Control Panel**.

2. **Windows NT/Me/9x users:** Select the NI-CAN software you want to remove and click the **Add/Remove** button. A maintenance dialog window starts. Select **Remove All** from the three options to uninstall NI-CAN.

   Windows 2000/XP users: Select the NI-CAN software you want to remove and click the **Remove** button. The uninstall program confirms whether you are certain you want to uninstall NI-CAN.

3. The uninstall program runs and removes all folders, utilities, device drivers, DLLs, and registry entries associated with the NI-CAN software. The uninstall program removes only items that the installation program installed.

If you have added anything to a directory created by the installation program, the uninstall program cannot delete that directory because it is not empty after the uninstallation. Remove any remaining components manually.

After the uninstall program completes, restart your computer.

Further Documentation

Complete documentation is in the *NI-CAN Hardware and Software Manual*, which is available on your *NI-CAN Software for Windows* CD in Adobe Acrobat portable document format (PDF). The manual includes a *Troubleshooting and Common Questions* section with more detailed information on installation and configuration of your NI-CAN software and hardware. Refer to the file NI-CAN Hardware and Software Manual.pdf on the CD or in the NI-CAN\ Documentation folder on your hard drive.