INSTALLATION GUIDE

NI-CAN™ Software and Hardware

This installation guide contains instructions to help you install your National Instruments hardware and software. 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 operating systems.

This installation guide covers all National Instruments hardware products for CAN and LIN on the PCI, PCMCIA, PXI, and USB buses. It is written for users already familiar with Windows.

Install the NI-CAN Software

Before installing the NI-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.

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

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 does not launch automatically, navigate to the CD using Windows Explorer and launch the `autorun` 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. Power down your computer when the setup is complete.

4. Proceed to the *Install the Hardware* section.

Note If you are using LabVIEW Real-Time (RT), refer to the *LabVIEW Real-Time (RT) Configuration* section of Chapter 2, *Installation and Configuration*, of the *NI-CAN Hardware and Software Manual* for more information on installing the NI-CAN software on your RT system and verifying the installation.

Install the Hardware

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

Install Your PCI Hardware

⚠ **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 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 PCI slot 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 a RTSI cable to connect your CAN-card RTSI interface to other National Instruments RTSI-equipped hardware. Refer to the *RTSI* section of Chapter 3, *NI CAN and LIN Hardware*, 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 Hardware

⚠ **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 components on your CAN card.

1. Insert the card into a free PC Card (PCMCIA) socket.

2. Connect your PCMCIA-CAN cable to the card. The NI-CAN software auto-detects which cable has been attached to the card.

3. You can use a PCMCIA-CAN synchronization cable to connect your PCMCIA-CAN card to timing and triggering signals on another device.

   Refer to the *PCMCIA-CAN* section of Chapter 3, *NI CAN and LIN Hardware*, of the *NI-CAN Hardware and Software Manual* for more information about the PCMCIA-CAN synchronization interface.

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

Install Your PXI Hardware

⚠ **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 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 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. Insert the PXI card into the selected slot. Use the injector/ejector handle to fully inject the card into place.

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

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

Install Your USB Hardware

⚠ **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 components on your CAN and LIN hardware.

1. Insert the USB cable into a free USB 1.1 or 2.0 port. The NI-CAN software auto-detects the CAN and LIN USB hardware.

2. For USB hardware with the synchronization option you can connect your USB hardware to timing and triggering signals on another device.

   Refer to the *USB-847x* section of Chapter 3, *NI CAN and LIN Hardware*, of the *NI-CAN Hardware and Software Manual* for more information about the USB-847*x* synchronization interface.

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

Verify Your Installation

1. Power on your computer and start Windows.

   A New Hardware Found dialog box may appear. If a dialog box appears and does not go away on its own, choose the default option, **Install the Software Automatically (Recommended)**, and let the operating system install the driver files.

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

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

Connect the Cables

After you have installed the hardware, connect your cables to the hardware. Refer to Chapter 4, *Connectors and Cables*, of the *NI-CAN Hardware and Software Manual* for information about the cabling requirements of the CAN and LIN hardware.

Uninstalling the NI-CAN Software

For Windows 2000/XP, complete the following steps to uninstall the NI-CAN software.

1. Select **Start»Settings»Control Panel»Add or Remove Programs**.

2. Select **National Instruments Software**. Click the **Change** button.

3. Select **NI-CAN** in the list of products and click **Remove**.

For Windows Vista, complete the following steps to uninstall the NI-CAN software.

1. Select **Start»Control Panel»Programs»Programs and Features**.

2. Select **National Instruments Software**. Click the **Uninstall/Change** button.

3. Select **NI-CAN** in the list of products and click **Remove**.

The uninstall program 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.