

INSTALLING AND RUNNING THE CANOPEN CONFORMANCE TEST

Thank you for purchasing the National Instruments CANopen Conformance Test kit.

Depending on the kit purchased, the following components will be included:

- National Instruments CAN hardware interface
- National Instruments NI-CAN software
- CANopen conformance test suite as officially certified by CAN in Automation (CiA)

The CANopen Conformance Test uses, by default, the NI-CAN software to communicate with the device under test using a National Instruments CAN interface. You can also use the NI-CAN software to develop other CAN applications. The software in this kit can be used with Windows NT/98/95. For more information on the NI-CAN software, refer to the *NI-CAN User Manual* and *NI-CAN Programmer Reference Manual* included in this kit.

The CANopen Conformance Test was developed using the National Instruments LabWindows/CVI interactive development environment. LabWindows/CVI provides easy to use tools for creating test environments with graphical user interfaces.

The following steps describe how to install and use this kit using the National Instruments CAN interface:



Note If you are using a third-party CAN interface, and the third party has implemented support for the CANopen Conformance Test, skip to Step 2.

1. Install and configure the National Instruments hardware and software.

For complete information on how to install and configure the National Instruments CAN products, refer to your getting started manual, included in this kit.

A summary of the required steps, as given in the getting started manual, follows:

- a. Install the NI-CAN software.
 - b. Install the CAN hardware.
 - c. Configure the NI-CAN software. It is important that you note the name that you select for each port on the CAN hardware interface, such as `CAN0` or `CAN1`, because you must enter the same choices later within the Device Test of the CANopen Conformance Test.
 - d. Verify the hardware and software installation by running the NI-CAN diagnostics.
2. Install the CANopen Conformance Test.
 - a. Run the `setup.exe` program contained on the CANopen Conformance Test floppy disk (Disk 1).
 - b. Follow the steps of the setup wizard to install the CANopen Conformance Test software.
 3. Connect your CANopen device to the CAN hardware interface.

Information on connectors and cabling is included in the NI-CAN getting started manual.

It is important that you note the baud rate and node ID for your CANopen device when connecting it. These settings are often configured by DIP switches on the device. You must enter this information later within the Device Test of the CANopen Conformance Test.

4. Run the CANopen Conformance Test.

You can find the CANopen Conformance Test in the `CANopen Conformance Test` program group created during installation. For information on getting started with the test, refer to the `readme.txt` file in that program group. For complete documentation for the CANopen Conformance Test, refer to `Online Help.HLP` in the program group.

5. Test the Electronic Data Sheet (EDS) file that you provide with your CANopen device.
 - a. Select **Start EDS Test** from the main panel.
 - b. Select **File»Open EDS File** to open your EDS file.
 - c. Click on the **Start EDS Test** button.
 - d. Select **File»Main Panel** when the test is complete.

6. Test CANopen communication with your device.
 - a. Select **Start Device Test** from the main panel.
 - b. Select **CAN Hardware»Device Under Test** and **CAN Hardware»CAN Adapter** to enter the configuration information that you noted earlier (port name, baud rate, node ID).
 - c. Click on the **Start Device Test** button.
 - d. Select **File»Main Panel**, then **Quit Test Suite** when the test is complete.



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