
CB-27 Connector Block

This installation guide describes how to connect the CB-27 connector block.

Introduction

With the CB-27 connector block, you can easily connect analog and digital signals to the National Instruments 27-pin PCMCIA DAQ products.

The CB-27 consists of a connector block with 28 screw terminals and a 30-position right angle connector with ejector ears. Each screw terminal corresponds to a pin number on the 30-position connector. Refer to your DAQCard user manual for connector pinout information.

What You Need to Get Started

To set up and use your CB-27, you will need the following components:

- CB-27 connector block
- CB-27 Connector Block Installation Guide*
- PR27-30F I/O cable
- CB-27 quick-reference label
- Your DAQCard
- Your computer
- Screwdrivers
 - #2 Phillips
 - 0.125 in. flathead
- Tie wraps

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Installation

To cable the CB-27 to your DAQCard, perform the following steps:

1. Insert the DAQCard into the PCMCIA slot of your computer.
2. Plug the PR27-30F cable into the 27-pin connector on the DAQCard.

Caution: *Notice that the PR27-30F cable is keyed so that you can insert it only one way. Do not put strain on the I/O cable when inserting it into and removing it from the DAQCard and the CB-27 connector block.*

3. Connect your signals to the CB-27 connector block. (Refer to *Signal Connections* below for instructions.)
4. Insert the other end of the PR27-30F cable into the CB-27 connector. The cable connector is keyed with a centered tab that you must align with the slot on the CB-27 mating header. Firmly push in the cable connector until the ejector ears on the CB-27 connector snap into position.

Note: *Make sure that the PR27-30F ribbon cable is not twisted between the DAQCard and the CB-27.*

Figure 1 shows an example of a typical configuration.

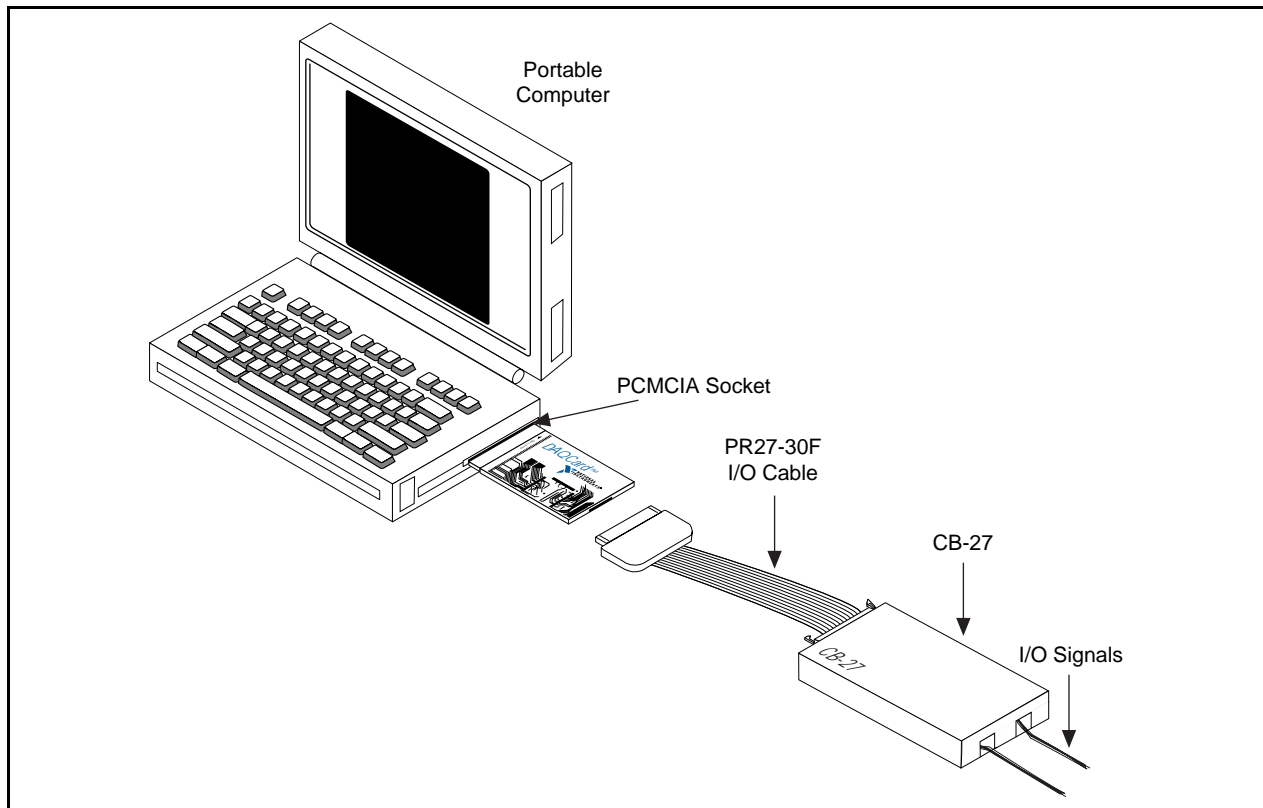


Figure 1. A Typical Configuration

Signal Connection

Note: A blank quick-reference label that shows the screw terminals for DAQCards is shipped with your CB-27. You can fill in the blanks with the signal information from your DAQCard user manual and put the label on the inside of the CB-27 cover for easy reference. (Your DAQCard kit also contains a completed quick-reference label.)

To connect the signals to the connector block, refer to Figure 2 as you perform the following steps:

1. Make sure that the PR27-30F cable is disconnected from the CB-27. (Refer to *Cable Removal* below for instructions.)
2. Remove the screws from the bottom of the CB-27 to remove the top cover and the front panel.
3. Connect the wires to the screw terminals by stripping off 0.25 in. of the wire insulation and inserting the wires (26–18 AWG) into the screw terminals. Tighten the screws.
4. After you connect the wires to the screw terminals, attach the wires to the board. Bunch the wires from one side of the connector block and tie them to a strain-relief tab using a tie wrap (see Figure 2b). Repeat for the other side of the connector block.
5. Replace the front panel and the top cover and reinsert the screws. Make sure all the wires come out of the front panel openings.

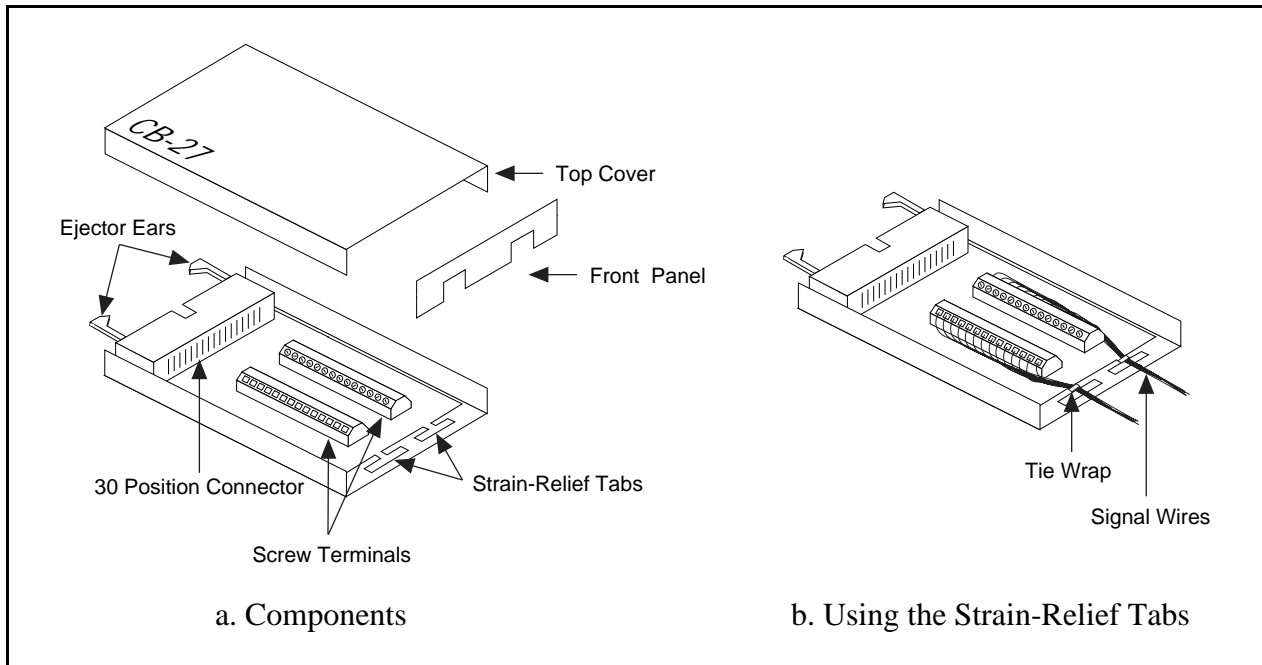


Figure 2. Connecting Signals to the CB-27

You now can connect the connector block to the PR27-30F cable.

Cable Removal

To remove the PR27-30F I/O cable, perform the following steps:

1. Grasp the cable connector near the DAQCard and pull it straight out. (If you pull the cable out using a rocking motion or pull directly on the cable, you may damage the pins on the cable or on the DAQCard.)
2. Press outward on the ejector ears of the CB-27 connector. The cable connector will pop out.



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