

# Set Up Your MXI™-4 System

To set up and use your MXI-4 cards, you need the following:

- Two MXI-4 cards of the allowable pairings that comprise a MXI-4 dyad. The allowable pairings are:
  - PCI-8331 and PXI-8331
  - PCI-8336 and PXI-8336
  - PXI-8331 and PXI-8331
  - PXI-8336 and PXI-8336
- A MXI-4 cable—A copper cable for 8331 dyads, a fiber optic cable for 8336 dyads
- A host—This can be a PC with PCI slots, or a PXI/CompactPCI chassis that already has a controller
- An expansion chassis—This is the PXI/CompactPCI chassis that you control with the MXI-4 dyad
- NI MXI-4 Software

## Unpacking

To avoid electrostatic damage in handling the device, take the following precautions. Ground yourself with a grounding strap or by holding a grounded object. Before removing the device from the package, touch the antistatic package to a metal part of your computer chassis.



**Caution** *Never touch the exposed pins of connectors. Doing so may damage the device.*

## Software Installation

The MXI-4 software for Microsoft Windows operating systems is part of NI-VISA, which is provided on the MXI-4 Software CD or National Instruments Driver CD included with your kit. To install the software, insert the CD into your computer and run the `setup.exe` program if it does not start automatically. Follow the installation program's prompts to install the NI-VISA software and any other components you select. After installation you may be required to reboot your computer before using the MXI-4 software. If you are using LabVIEW Real-Time, be sure you also

update LabVIEW RT controller by accessing the Software attributes of your target system in Measurement & Automation Explorer (MAX) and using MAX to update the version of NI-VISA on your LabVIEW RT controller.

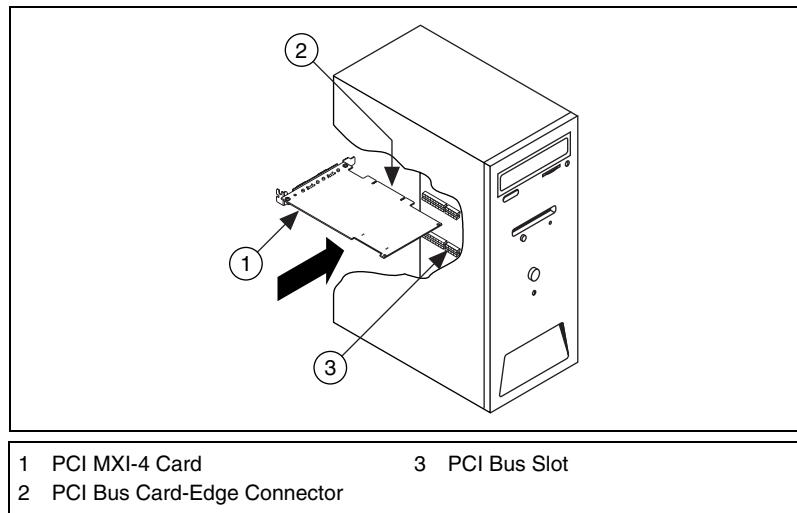
## Installing a PCI MXI-4 Card

1. Turn off your computer, but leave it plugged in while installing the PCI MXI-4 card. The power cord grounds the chassis and protects it from electrical damage while you install the module.



**Caution** To protect both yourself and the computer from electrical hazards, your computer should remain off until you finish installing the PCI MXI-4 device.

2. Remove the top cover or access port to the PCI bus and select any available PCI expansion slot.
3. Locate the metal bracket that covers the cut-out in the back panel of the computer for the slot you have selected. Remove and save the bracket-retaining screw and the bracket cover.
4. Touch the metal part of the power supply case inside the computer to discharge any static electricity that might be on your clothes or body.
5. Insert the PCI MXI-4 into the PCI slot using slow, evenly distributed pressure until it seats in the expansion slot.
6. Reinstall the bracket-retaining screw to secure the PCI MXI-4 to the back panel rail.
7. Replace the computer cover.



**Figure 1.** Installing the PCI MXI-4

# Installing a PXI MXI-4 Card

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Follow these steps to install the PXI MXI-4 in your PXI or CompactPCI chassis.

1. Turn off your PXI or CompactPCI chassis, but leave it plugged in while installing the PXI MXI-4 card. The power cord grounds the chassis and protects it from electrical damage while you install the module.
2. Select a slot for the PXI MXI-4 card:
  - When being placed in the expansion chassis that you wish to control using MXI-4, choose the controller slot (slot 1 in PXI).
  - When being placed in a host chassis, choose any slot except the controller slot (slot 1 is reserved for the system controller in PXI). The slot chosen must support bus mastering.



**Caution** To protect both yourself and the chassis from electrical hazards, leave the chassis off until you finish installing the PXI MXI-4 card.

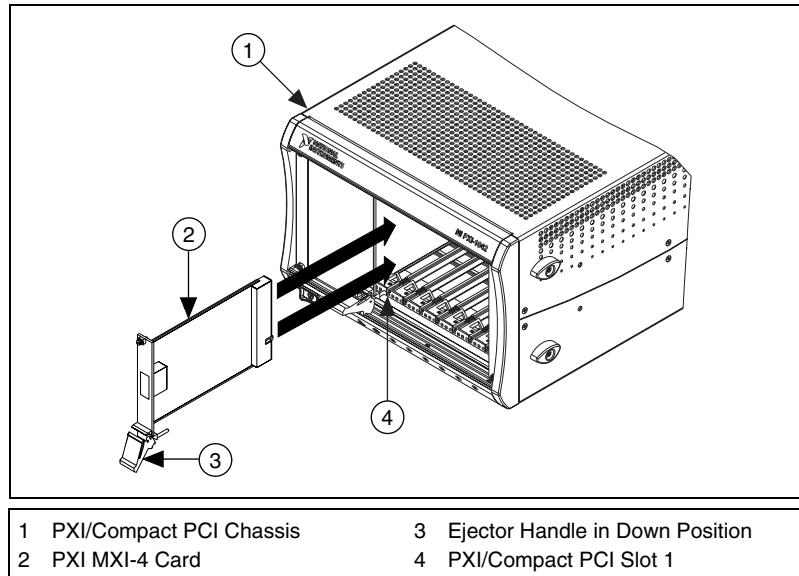
3. Remove or open any doors or covers blocking access to the slot in which you intend to install the PXI MXI-4.
4. Touch the metal part of the case to discharge any static electricity that might be on your clothes or body.
5. Make sure the injector/ejector handle is in its downward position. Be sure to remove all connector packaging and protective caps from retaining screws on the module. Align the PXI MXI-4 card with the card guides on the top and bottom of the system controller slot.



**Caution** Do *not* raise the injector/ejector handle as you insert the PXI MXI-4 card. It will not insert properly unless the handle is in its downward position so that it does not interfere with the injector rail on the mainframe, as shown in Figure 2.

6. Hold the handle as you slowly slide the module into the chassis until the handle catches on the injector/ejector rail.
7. Raise the injector/ejector handle until the module firmly seats into the backplane receptacle connectors. The front panel of the PXI MXI-4 card should be even with the front panel of the chassis.
8. Tighten the bracket-retaining screws on the top and bottom of the front panel to secure the PXI MXI-4 card to the chassis.
9. Replace or close any doors or covers to the chassis.

Figure 2 shows a PXI MXI-4 card just before installation in the system controller slot of a National Instruments mainframe.



**Figure 2.** PXI MXI-4 Before Installation as Secondary

## Cabling

Connect the appropriate MXI-4 cable to both MXI-4 cards. If you are using a fiber-optic MXI-4 cable, be sure to remove the protective caps from the connectors. The cables have no polarity, so either end may be connected to either card.

## Powering Up the MXI-4 System

1. Turn on all of the expansion chassis in any order you choose.
2. Turn on the host, which could either be a PC or a CompactPCI/PXI chassis with an embedded controller.

