Getting Started with PCI/PXI-8232 for Windows

This document describes how to install the PCI/PXI-8232 hardware and driver software for Windows.

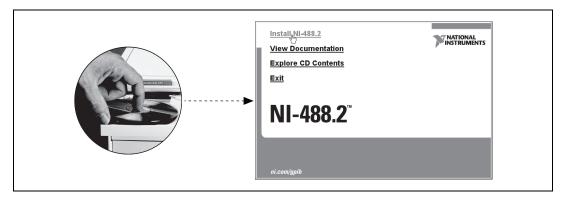


Note If your system does not have a CD-ROM drive, refer to the *Alternative Driver Installation Options for the PCI/PXI-8232* section.

PCI/PXI-8232 for Windows Vista/XP/2000

Follow these steps to install the PCI/PXI-8232 hardware and driver software for Windows Vista/XP/2000.

1. Insert the NI-488.2 CD and choose Install NI-488.2.

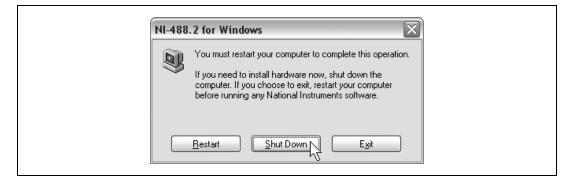




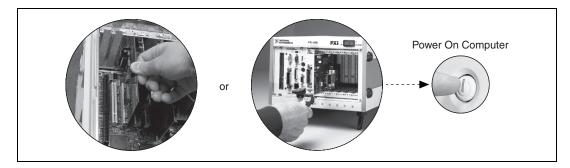
Tip The **View Documentation** link provides access to NI-488.2 documentation, including detailed hardware installation instructions.



2. When you have completed the software installation, shut down the computer. Be sure it is powered off before proceeding.



3. Install the hardware¹ and power on the computer.



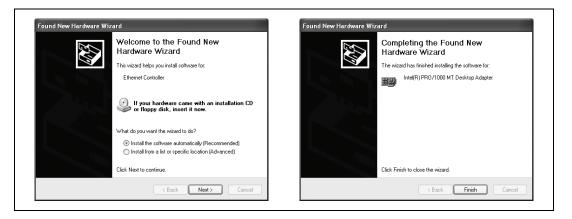
4. Install the Windows Vista/XP/2000 Ethernet drivers.

Note The NI-488.2 Hardware Installation utility may run at this time. Finish the Ethernet installation described below before using the utility.

(Windows Vista) Windows automatically detects the new hardware and installs the Ethernet driver.

(Windows XP) Windows automatically detects the new hardware and displays a Found New Hardware Wizard window. Insert the *PCI/PXI Gigabit Ethernet Adapters* CD and follow the directions presented. Choose the **Recommended** options when given a choice and click Next.

¹ For help with installing your hardware, refer to the *GPIB Hardware Guide* (available on the NI-488.2 CD through **View Documentation**).



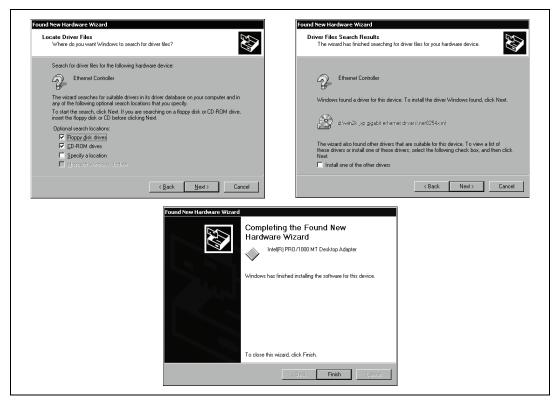
Tip If Windows displays an **Insert Disk** dialog box indicating it cannot locate a file on the *Intel PRO Adapter* CD, insert the *PCI/PXI Gigabit Ethernet Adapters* CD and tell Windows to copy files from the Win2kXP directory of the CD-ROM drive (typically d:\Win2kXP\).

(Windows 2000) Windows automatically detects the new hardware and displays a Found New Hardware Wizard window. Insert the *PCI/PXI Gigabit Ethernet Adapters* CD and follow the directions presented. Choose the **Recommended** option when given a choice.

	Welcome to the Found New Hardware Wizard	Install Hardware Device Drivers A device driver is a software program that enables a hardware device to work with an operating system.
2	This wizard helps you install a device driver for a hardware device.	This wizad will complete the installation for this device: Ethernet Controller A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next. What do you want the wizard to do? Search for a suitable driver for my device (iscommended) Dipulpay a list of the known drivers for this device to that I can choose a specific
	To continue, click Next.	driver

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If Windows asks where to search for a new driver, make sure the box next to **CD-ROM drives** is checked and click **Next**.



For help with cabling instructions and troubleshooting tips, refer to the *PCI/PXI Ethernet* Adapters Installation Guide on the *PCI/PXI Gigabit Ethernet Adapters* CD.

5. Use the NI-488.2 Hardware Installation utility.

PCI/PXI-8232 for Windows Me/98

Follow these steps to install the PCI/PXI-8232 hardware and driver software for Windows Me/98.

- 1. Insert the *NI-488.2 for Windows Driver Software Archive* CD into your CD-ROM drive. A Web browser displays a list of supported GPIB interfaces for your operating system. Refer to the example in the following figure.
- 2. Find your GPIB interface in the list and note the driver version you are installing listed at the top of the column. For example, Version 1.7 or Version 2.2 in the following figure.

NI-488.2 for Windows D Operating System: Windows 98, 98SE, or The table below lists driver(s) included on th	Me	
Caution: Only one version of the driver can b	ining the distribution. From there, you can run the i e installed on your machine. If your board supports with all of your other GPIB hardware, if possible.	
Interface	Version 1.7 [notes]	Version 2.2 [notes]
	Version 1.7 [notes] Supported	Version 2.2 <u>[notes]</u> X
AT-GPIB/TNT		
AT-GPIB/TNT AT-GPIB/TNT (PnP)	Supported	×
AT-GPIB/TNT AT-GPIB/TNT (PnP) AT-GPIB/TNT+	Supported	X Supported
Interface AT-GPIB/TNT AT-GPIB/TNT (PnP) AT-GPIB/TNT+ GPIB-1394 GPIB-ENET	Supported Supported Supported	X Supported X

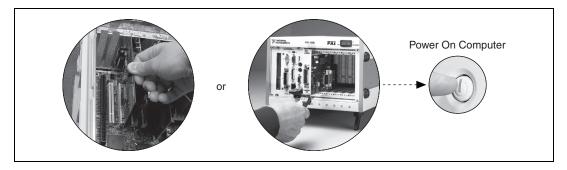
- 3. Click the appropriate supported link to open the folder containing the driver distribution. Double-click install.exe in that folder to start the installation process.
- 4. Click Install Software.

7 NI-488.2	DRNI-4	■ 88.2 or Windows
The	Install Software Getting Started Documentation	ni.com
7	Explore CD NATIONAL NSTRUMENTS	Exit

5. When you have completed the software installation, select **Shutdown** and click **Finish**. Power off the computer.

Image: Stand GP1B Hardware Wizard Image: Stand GP1B Hardware Wizard Image: Stand GP1B Hardware Wizard Image: Stand GP1B Hardware Stand help, refer to the GP1B Hardware Guide. Image: Stand GP1B Hardware Stand Hardware Guide. Image: Stand GP1B Hardware Stand Hardware Guide. Image: Stand Another Interface Image: Stand GP1B Hardware Stand Hardware Guide. Image: Stand Hardware Stand Hardware Stand Hardware Guide. Image: Stand Hardware Stand Hardware Guide.

6. Install the hardware¹ and power on the computer.

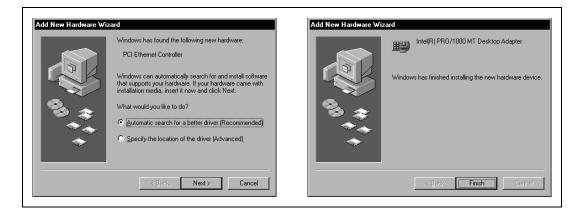


7. Install the PCI-PCI bridge driver.

Windows automatically detects the new hardware. Follow the prompts in the wizard. Select the recommended options when given a choice. If Windows asks where to search for a new driver, clear all checkboxes and click **Next**. If a wizard does not appear, proceed to the next step.

8. Install the Windows Me/98 Ethernet drivers.

(Windows Me) Windows automatically detects the new hardware and displays an Add New Hardware Wizard window. Insert the *PCI/PXI Gigabit Ethernet Adapters* CD and follow the directions presented. Choose the **Recommended** option when given a choice and click Next.



¹ For help with installing your hardware, refer to the *GPIB Hardware Guide* (available on the NI-488.2 CD through **Getting Started Documentation**).

(Windows 98) Windows automatically detects the new hardware and displays an Add New Hardware Wizard window. Insert the *PCI/PXI Gigabit Ethernet Adapters* CD and follow the directions presented. Choose the **Recommended** option when given a choice.

Add New Hardware Wi	zard	Add New Hardware Wizard
	This wizard searches for new drivers for.	What do you want Windows to do?
	PCI Ethernet Controller	Search for the best driver for your device. (Recommended).
100 to to	A device driver is a software program that makes a hardware device work.	Display a list of all the drivers in a specific location, so you can select the driver you want.
	< Book. Next > Cancel	< <u>B</u> ack Next> Cancel

If Windows asks where to search for a new driver, make sure the box next to **CD-ROM drive** is checked and click **Next**.

Add New Hardware Wizard	Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search. Image: Click Next to start the search.	Windows has found an updated driver for this device, and also some other drivers that should work with this device. What do you want to install? The updated driver (Recommended) Intel(R) PRD/1000 MT Desktop Adapter O One of the other drivers.
Kext > Cancel Add New Hardware Wizard	<u>< B</u> ack Next> Cancel Add New Hardware Wizard
Windows driver file search for the device: Intel(R) PRD/1000 MT Desktop Adapter Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue. Location of driver: Drivers NieT82540 JNF	Image: A constraint of the constrai
< <u>B</u> ack Next> Cancel	< Benk Finish Cancel

Tip If Windows displays a dialog box indicating it cannot locate drivers or a file on the *Intel PRO Adapter* CD, insert the *PCI/PXI Gigabit Ethernet Adapters* CD and tell Windows to copy files from the Win98ME directory of the CD-ROM drive (typically d:\Win98ME\).

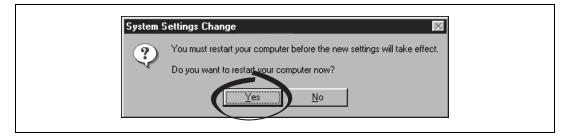
Tip If Windows displays a dialog box indicating it cannot locate a file on the Windows 98 CD, try inserting the Windows 98 installation CD and telling Windows to copy files from either the top directory or the win98 directory of the CD-ROM drive (typically $d: \$ or $d: \$).

For help with cabling instructions and troubleshooting tips, refer to the *PCI/PXI Ethernet* Adapters Installation Guide on the *PCI/PXI Gigabit Ethernet Adapters* CD.

9. Restart the computer and connect to your network.

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10. Run the NI-488.2 Getting Started Wizard.

∑ [™] NI-488.2 Getting Started Wizard
Click on the following steps to use the NI-488.2 Software for Windows with your GPIB instruments:
Verify your hardware and software installation Communicate with your instrument
Do not show at Windows startup

PCI/PXI-8232 for Windows NT 4.0

Follow these steps to install the PCI/PXI-8232 hardware and driver software for Windows NT 4.0.

- 1. Insert the *NI-488.2 for Windows Driver Software Archive* CD into your CD-ROM drive. A Web browser displays a list of supported GPIB interfaces for your operating system. Refer to the example in the following figure.
- 2. Find your GPIB interface in the list and note the driver version you are installing listed at the top of the column. For example, Version 1.7 or Version 2.2 in the following figure.

NI-488.2 for Windows D	river Software Archive	
Operating System: Windows 98, 98SE, or	Me	
Supported" will bring you to the folder conta	lease will bring up the release notes associated w ining the distribution. From there, you can run the i	nstallation program.
should install the version that is compatible	e installed on your machine. If your board supports with all of your other GPIB hardware, if possible.	
hould install the version that is compatible		s multiple versions of the driver, you Version 2.2 [notes]
should install the version that is compatible	with all of your other GPIB hardware, if possible.	
should install the version that is compatible	with all of your other GPIB hardware, if possible. Version 1.7 <u>(notes)</u>	Version 2.2 [notes]
should install the version that is compatible Interface AT-GPIB/TNT	with all of your other GPIB hardware, if possible. Version 1.7 <u>(notes)</u> <u>Supported</u>	Version 2.2 [notes] X
should install the version that is compatible Interface AT-GPIB/TNT AT-GPIB/TNT (PnP)	with all of your other GPIB hardware, if possible. Version 1.7 <u>[notes]</u> <u>Supported</u> Supported	Version 2.2 [notes] X Supported
should install the version that is compatible Interface AT-GPIB/TNT AT-GPIB/TNT (PnP) AT-GPIB/TNT+	with all of your other GPIB hardware, if possible. Version 1.7 <u>[notes]</u> Supported Supported Supported	Version 2.2 [notes] X Supported X

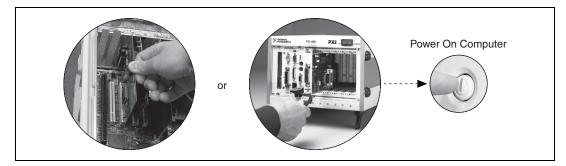
- 3. Click the appropriate supported link to open the folder containing the driver distribution. Double-click install.exe in that folder to start the installation process.
- 4. Click Install Software.

∑ ³⁷ NI-488.2 for ₩		■ 488.2 for Windows
The	Install Software Getting Started Documentatio	ni.com
1001001	Explore CD	
7 NA	TIONAL TRUMENTS	Exit

5. When you have completed the software installation, shut down and power off the computer.

Settings Image: Settinge: Settinge: Settings Image: Settings <th>Documents</th> <th>C Nestart the computer? C Restart the computer in MS-DDS mode? C Glose all programs and log on as a different user?</th> <th>Power Off Computer</th>	Documents	C Nestart the computer? C Restart the computer in MS-DDS mode? C Glose all programs and log on as a different user?	Power Off Computer
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6. Install the hardware and cables. Power on the computer.



Note The NI-488.2 Getting Started Wizard may run at this time. Make sure the **Do not show at Windows startup** box is unchecked and close the window. You will run this wizard later.

7. Install the PCI-PCI bridge driver.

Windows automatically detects the new hardware. Follow the prompts in the wizard. Select the recommended options when given a choice. If Windows asks where to search for a new driver, clear all checkboxes and click **Next**. If a wizard does not appear, proceed to the next step.

8. Install the Windows NT 4.0 Ethernet drivers.

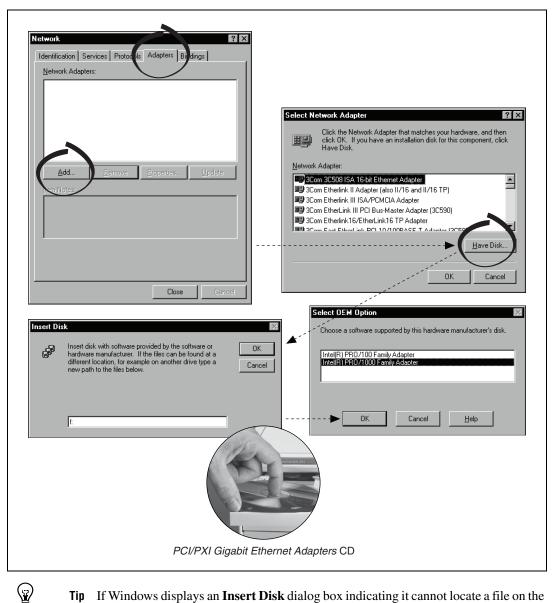
Select **Start»Settings»Control Panel»Network»Adapters** and click **Add**. Click **Have Disk** and insert the *PCI/PXI Gigabit Ethernet Adapters* CD. You may also be prompted for the original Windows NT CD.

Note Service Pack 5 or later is required for Ethernet driver installation. Advanced features require Service Pack 6a or later.



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Note When installing adapters on a Windows NT system with no other adapters installed, you must install networking support.



Tip If Windows displays an **Insert Disk** dialog box indicating it cannot locate a file on the *Intel PRO Adapter* CD, insert the *PCI/PXI Gigabit Ethernet Adapters* CD and tell Windows to copy files from the WinNT directory of the CD-ROM drive (typically d:\WinNT\).

For help with cabling instructions and troubleshooting tips, refer to the *PCI/PXI Ethernet* Adapters Installation Guide on the *PCI/PXI Gigabit Ethernet* Adapters CD.

9. Restart the computer and connect to your network.

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10. Run the NI-488.2 Getting Started Wizard.

Click on th	2 Getting Started Wizard III III IIII IIII IIIIIIIIIIIIIIIIII
► Co	onfigure your GPIB interface
Ve	rify your hardware and software installation
Co	ommunicate with your instrument
Le	earn more about National Instruments software
	Do not show at Windows startup

Alternative Driver Installation Options for the PCI/PXI-8232

The installation instructions for each operating system in this document are appropriate for most users. However, if your PXI chassis does not contain a CD-ROM drive, try one of the following alternatives to load the GPIB and Ethernet drivers.

- If your system is not equipped with a CD-ROM drive, connect an external CD-ROM drive, such as a USB CD-ROM drive, and load the GPIB and Ethernet drivers directly from their respective CDs.
- Follow these steps to install the Ethernet driver and download the NI-488.2 for Windows driver from the National Instruments Web site:
 - 1. Install the PCI/PXI-8232 in your computer.
 - 2. At startup, cancel the Add New Hardware Wizard that displays it has found a PCI communication device.
 - 3. Install the Ethernet driver using any other options on this page, as appropriate.
 - 4. Use the Ethernet connection to download the NI-488.2 for Windows driver from the National Instruments Web site. Access the **Drivers and Downloads** page at ni.com/download/.
- If you have an existing Ethernet connection in your computer, download the Intel Ethernet driver from the National Instruments Web site. Access the **Drivers and Updates** page at ni.com/download/.
- Follow these steps to use another computer with a CD-ROM drive to copy the Ethernet driver onto a 3.5 in. floppy disk:
 - 1. Open a DOS command window.
 - 2. Change to the directory on the CD that matches the OS you want to use with the diskette.
 - 3. Change to the \MAKEDISK directory.
 - 4. Depending on your OS choice, type MAKE2KXP, MAKENT, or MAKE98ME and follow the onscreen instructions.

Where to Go for Support

The National Instruments Web site is your complete resource for technical support. At ni.com/support you have access to everything from troubleshooting and application development self-help resources to email and phone assistance from NI Application Engineers.

National Instruments corporate headquarters is located at 11500 North Mopac Expressway, Austin, Texas, 78759-3504. National Instruments also has offices located around the world to help address your support needs. For telephone support in the United States, create your service request at ni.com/support and follow the calling instructions or dial 512 795 8248. For telephone support outside the United States, contact your local branch office:

Australia 1800 300 800, Austria 43 662 457990-0, Belgium 32 (0) 2 757 0020, Brazil 55 11 3262 3599, Canada 800 433 3488, China 86 21 5050 9800, Czech Republic 420 224 235 774, Denmark 45 45 76 26 00, Finland 385 (0) 9 725 72511, France 01 57 66 24 24, Germany 49 89 7413130, India 91 80 41190000, Israel 972 3 6393737, Italy 39 02 413091, Japan 81 3 5472 2970, Korea 82 02 3451 3400, Lebanon 961 (0) 1 33 28 28, Malaysia 1800 887710, Mexico 01 800 010 0793, Netherlands 31 (0) 348 433 466, New Zealand 0800 553 322, Norway 47 (0) 66 90 76 60, Poland 48 22 3390150, Portugal 351 210 311 210, Russia 7 495 783 6851, Singapore 1800 226 5886, Slovenia 386 3 425 42 00, South Africa 27 0 11 805 8197, Spain 34 91 640 0085, Sweden 46 (0) 8 587 895 00, Switzerland 41 56 2005151, Taiwan 886 02 2377 2222, Thailand 662 278 6777, Turkey 90 212 279 3031, United Kingdom 44 (0) 1635 523545

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