

Intel EtherExpress™  
PRO/10+ PCI  
LAN Adapter  
*Installation Guide*



intel®

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## Where to go for more information

### Intel Fast Ethernet Networking Solutions



Intel offers a complete line of Fast Ethernet products, including adapters, hubs, switches, and management software. For more information, data sheets, white papers, or demos, visit our networking website:

<http://www.intel.com/network>

### README files



For detailed information about the adapter, see the README files. To view them, insert the Intel Configuration and Drivers disk in a floppy drive, switch to that drive, and type

SETUP /README

Topics include:

- Installing adapter drivers
- Latest news and general adapter information
- Hardware specifications and cabling information
- Adapter installation and special configurations
- Running diagnostics

### World Wide Web and Online Services



You can use your modem or Internet connection to download drivers, troubleshooting tips, and more. (When downloading new drivers, make sure the archive is for the **PRO/10+ PCI** adapter (not PRO/10 PCI). Online services include:

- World Wide Web
- Internet FTP server
- Intel BBS

See the inside back cover for details.

### Late Breaking News



This printed document provides useful information about adapter compatibility and gives special installation release notes. Look for the *Late Breaking News* document in your shipping container.

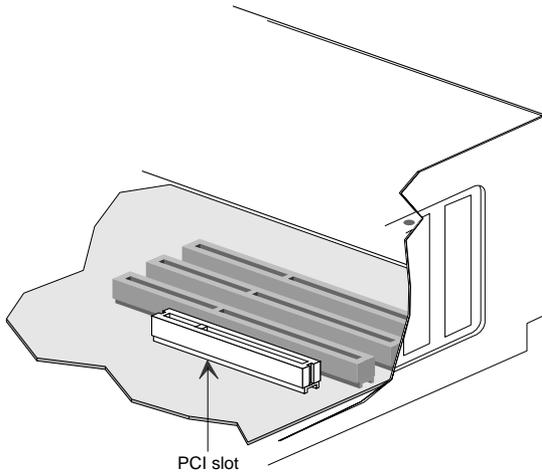
# Put the Adapter in the Computer

- 1 Turn off the computer and unplug the power cord. Then remove its cover.



Warning: Turn off and unplug power to the computer before removing its cover. Failure to do so could shock you and may damage the adapter or computer.

- 2 Remove the cover bracket from a PCI busmaster adapter slot. In most computers, all PCI slots are busmaster-enabled. If you have configuration problems, see your computer's documentation to determine if the PCI slots are busmaster-enabled.

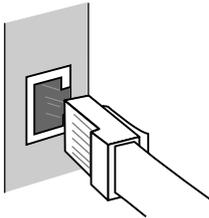


- 3 Push the adapter in the slot until it's seated firmly. Then, secure the adapter bracket with a screw.
- 4 See page 12 for specific instructions on installing multiple adapters.
- 5 Replace the computer cover and plug in the power cord.

# Connect the Network Cable

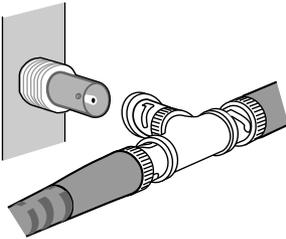
- 1 Examine the three diagrams on this page. Connect a single network cable to the PRO/10+ PCI adapter as shown in one of the diagrams in the chart below. Note that your adapter may have a single TPE connector, or all three types shown here. Read the notes for the type of connector you use.
- 2 To configure the adapter, continue with the procedures specific to your operating system on pages 4 through 11.

## 10BASE-T Wiring



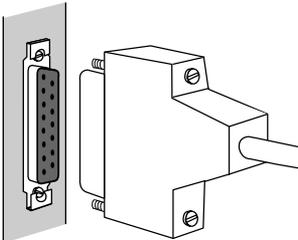
**Twisted Pair Ethernet (TPE).** Use Category 3, 4, or 5 cable and RJ-45 connector for this adapter.

## 10BASE2 Wiring



**Thin Ethernet (BNC).** Use a T-connector attached to an RG-58 cable as shown. Turn barrel clockwise to secure. Do not remove the attached cables from the T-connector if the network is running. If your connection is the last one on the network, attach a 50 ohm termination plug to one side of the T-connector.

## 10BASE5 Wiring



**Attachment Unit Interface (AUI).** Use a DB-15 Ethernet connector. Secure the connector to the adapter with screws or a clip.

# DOS and Windows 3.1 Setup for NetWare Clients

## **Important Note:**

*Windows 95 users and Windows NT users do not need to run Setup. Skip the procedure on this page and go directly to page 6 for Windows 95 or page 9 for Windows NT.*

**1**

## **Automatic configuration**

PCI computers automatically detect and configure PCI-compliant adapters while booting. The PRO/10+ PCI adapter IRQ level and I/O address are automatically set by the BIOS each time you start your computer.

Start your computer to automatically configure the adapter. Configuration is complete when the DOS prompt appears. You can now continue with the optional procedure below.

If your computer displays an error while booting, your PCI computer may require additional steps to configure a PCI adapter. See the *PCI installation tips* section on page 18 for more information if you get an error.

**2**

## **Test the adapter and install network drivers**

Although not required for operation, it's a good idea to run diagnostic tests every time you install an adapter. Intel's Setup program lets you test the adapter to see if there are any problems with the adapter hardware, the cabling, or the network connection.

In addition, Setup can automatically install NetWare client drivers for you or display a README file with installation instructions for other NOS drivers.

- 1 If your computer already has network drivers installed, restart the computer without loading them. If the drivers are loaded from the AUTOEXEC.BAT file, add REM in front of each line that loads a driver. Or, with DOS 6.x or later press **F5** at boot time to bypass the lines.
- 2 Insert the Intel Configuration and Drivers disk in a floppy drive, switch to that drive, and at the DOS prompt, type  
SETUP **↵**Enter
- 3 If you have more than one Intel PRO series PCI adapter in your computer, an adapter selection menu appears on the screen. Select the adapter you want by noting the Ethernet address. See page 12 for more information on multiple adapters.

- 4 Select Automatic setup from the Main menu. Then follow the instructions on the screen. (If you want to test the adapter with a responder on the network, see the procedure on the next page before continuing.)  
Setup displays the adapter's configuration, then runs a series of diagnostic tests that makes sure the adapter and network are functioning properly. If Setup finds a problem, it displays the results and some possible solutions.
- 5 When Setup finishes the tests, the Install network drivers screen appears.
- 6 Select the driver you want to install.  
Setup can install a NetWare client driver for you. If you're installing other drivers, Setup displays a README file with installation instructions.

### To test the adapter with a responder on the network

Setup can test the adapter more thoroughly if you have a responder on the network while running the tests.

- 1 Go to a computer on the network with any EtherExpress adapter installed (except EtherExpress 32 or EtherExpress 16 MCA).
- 2 Run the appropriate configuration program (SETUP, SOFTSET2, E100DIAG, or FL32DIAG) for that adapter and set up the adapter as a responder.
- 3 Return to the computer with the new adapter. Run Setup and test the adapter.



### Troubleshooting

If you can't connect to a server or you get an error while trying to connect, try the suggestions here first then turn to page 15.

- Make sure you're using the drivers that come with this adapter. The driver filename contains the letter B (for example, E100BODI.COM).
- If you're replacing an existing adapter, make sure the LINK statements in your NET.CFG are correct for the new adapter. For example, the link statement for a NetWare client should be:  

```
LINK DRIVER E100BODI
```
- Verify FRAME type in your NET.CFG file matches your server.
- If setting up a server, check your LOAD and BIND statements.
- Make sure the PCI slots are busmaster-enabled (see page 18).
- Make sure the hub port is configured for the same duplex mode as the adapter. See page 12 for more information on full duplex.
- Make sure the network cable is securely attached to both the adapter and hub port and the adapter LNK light is on (TPE only).
- Test the adapter (see page 4).
- Check the README files (see page 1 for instructions).

# Windows 95

## Automatic Configuration

PCI computers automatically detect and configure PCI-compliant adapters while booting. The PRO/10+ PCI adapter IRQ level and I/O address are automatically set by the BIOS each time you start your computer.

Start your computer to automatically configure the adapter. Configuration is complete when Windows 95 starts.

If your computer displays an error while booting, it may require additional steps to configure. See the *PCI installation tips* section on page 18 for more information.

## Install Network Drivers from Diskette

Have your Windows 95 installation CD-ROM or disks available, as Windows 95 prompts for them when you install the new adapter.

- 1 After you put the adapter in the computer, start Windows 95. The New Hardware Found dialog box appears. *If this box does not appear and Windows 95 starts normally, you may need to manually add the adapter. See page 7.*
- 2 Click “Driver from disk provided by hardware manufacturer,” then click OK. The Install From Disk dialog box appears.
- 3 Insert the Intel Configuration and Drivers disk.
- 4 Specify A:\ (or B:\) as the path, then click OK.
- 5 Follow prompts for any Windows 95 installation disks and restart when prompted. (If you installed from CD-ROM, the installation files are typically located at D:\Win95, where D is your CD-ROM drive.)

After restarting Windows 95, you should be able to connect to your network by double-clicking the Network Neighborhood icon.

## Install PROSet Software

PROSet is an enhanced Intel utility that you can use to easily configure and test your adapter in Windows 95. PROSet also displays the computer resources that were assigned to each PRO adapter installed. To install PROSet:

- 1 Insert the Intel Configuration and Drivers disk.
- 2 From My Computer or the Windows Explorer, double-click the 3½ Floppy disk icon.
- 3 Click the “PROSet” icon or filename and click the right mouse button. From the menu that appears, click Install.
- 4 The PROSet files are copied to your hard disk.

- 5 Start PROSet by double-clicking on the Intel PROSet icon in the Control Panel:



Intel PROSet

- 6 The PROSet software examines your computer and displays the window shown here.



- 7 Click OK to exit PROSet and return to Windows 95.

## Manually Adding an Adapter

If the New Hardware Found dialog box does not appear at startup and you cannot connect to the network, check the Device Manager list to see if the new adapter is present. If it is not, use the following procedure.

- 1 From the Control Panel, double click the System icon.
- 2 Click the Device Manager tab in the window that appears.
- 3 Double-click Other Devices (question mark icon) in the list area.
- 4 Double-click PCI Ethernet Controller.
- 5 Click the Driver tab, then click Change Driver.
- 6 Select Network Adapters and click OK.
- 7 Click Have Disk from the window that appears. Insert the Intel Configuration and Drivers Disk and click OK.
- 8 Follow any prompts for Windows 95 installation disks and restart when prompted.



## Troubleshooting

If you can't connect to a server or if Windows 95 reports an error after you double-click Network Neighborhood, try the suggestions here first, then turn to page 15 if necessary.

- Make sure you're using the drivers that are on the drivers diskette that ships with this adapter.
- Make sure the driver is loaded and the protocols are bound. Check the Device Properties list for trouble indicators (an X or ! symbol).
- Test the adapter. Start PROSet and click Test to run diagnostics.
- Check with your LAN administrator — you may need to install supplemental networking software.

# Windows NT Server or Workstation

## 1 Automatic configuration

PCI computers automatically detect and configure PCI-compliant adapters while booting. The PRO/10+ PCI adapter IRQ level and I/O address are automatically set by the BIOS each time you start your computer.

Start your computer to automatically configure the adapter. Configuration is complete when Windows NT starts or the DOS prompt appears.

If your computer displays an error while booting, it may require additional steps to configure. See the *PCI Installation Tips* section on page 18 for more information.

## 2 Install network drivers - Windows NT Version 4.0 only

After putting the adapter in the computer and starting Windows NT, you need to install the Intel drivers. Have the Windows NT CD-ROM disk available for this procedure.



If you are installing Windows NT 4.0 at this time, click the Start Search button when the network adapter installation window appears. This allows NT to auto-detect the adapter. You may then skip steps 1 - 4 below.

- 1 Double-click the Network icon in the Control Panel.
- 2 Click the Adapters tab in the window that appears.
- 3 Click Add. A list of adapter appears.
- 4 Select the “Intel EtherExpress PRO/10+ PCI Adapter” and click OK. The required Intel drivers and the Intel PROSet utility are installed. PROSet displays the following window.



PROSet is an enhanced utility that you can use to easily configure and

test your adapter in Windows NT. PROSet also displays the computer resources that were assigned to each PRO adapter installed.

- 5 Click OK in the main PROSet window to return to Windows NT.
- 6 The Intel adapter now appears on the list in the Network window. Click Close to finish.
- 7 Restart Windows NT when prompted.

To install multiple adapters, repeat this procedure for each new adapter. See page 12 for specific information.



Intel PROSet

To run the PROSet software at any time, double-click the Intel PROSet icon in the Control Panel or click the Adapter Properties button.

## Install network drivers - Windows NT Version 3.51 only.

After putting the adapter in the computer and starting Windows NT, you need to install the Intel drivers and test the adapter.

- 1 Double-click the Network icon in the Control Panel.
- 2 Click Add Adapter.
- 3 When the list of adapters appears, scroll to the end of the list and select *<Other> Requires disk from manufacturer.*
- 4 Insert the Intel Configuration and Drivers disk in the A: drive and click OK. Drivers and the Intel PROSet utility are installed and PROSet starts. PROSet is an enhanced utility that you can use to easily configure and test your adapter in Windows NT. PROSet also displays the computer resources that were assigned to each PRO adapter installed. The PROSet main window is shown on the preceding page.
- 5 Click OK in the PROSet main window to return to Windows NT.
- 6 Click OK in the Network Settings dialog box and remove the installation disk. When prompted, restart Windows NT.

To install multiple adapters, repeat this procedure for each new adapter. See page 12 for specific information.



Intel PROSet

To run the PROSet software at any time, double-click the Intel PROSet icon in the Control Panel.

## Troubleshooting

If Windows NT reports an error or you can't connect to the network, try the suggestions here first, then turn to page 15 if necessary.

- Make sure you're using the drivers for this adapter. Drivers are located on the Windows NT CD-ROM or on the Intel Configuration and Drivers disk version 2.5 or later.
- Make sure the driver is loaded and the protocols are bound. Check the Network Bindings dialog box in Windows NT.
- Check the Windows NT Event Viewer for error messages.
- If you are attaching to a NetWare network, check your frame type and verify that NetWare client software has been installed.
- Test the adapter with PROSet. After installing the adapter you can run PROSet from your hard disk. To do this, double-click the Intel PROSet icon in the Control Panel. Click Test to run diagnostics. For additional information, click Help in the PROSet window.
- Check with your LAN administrator — you may need to install supplemental networking software.

## NetWare Server, Client 32, UNIX, OS/2, Banyan, and Other Operating Systems

For these, refer to our online documents. On a DOS computer, view the appropriate README file for information on installing your network driver.



To view the README files, insert the Intel Configuration and Drivers disk into a drive, switch to that drive, and type:

```
SETUP /README 
```

Look through the selection called “Installing EtherExpress PRO/10+ PCI Adapter Drivers” for the operating system you need.

# Installing Multiple Adapters

**All users:** The adapter's 12-digit, hexadecimal Ethernet address is on a sticker near the edge of the adapter. The Ethernet address is sometimes called the node address or the MAC address. Note that the PCI slot number may not correspond with the physical connector in your computer.

**NetWare users:** The server drivers use the PCI slot number to identify each installed adapter. You can correlate the PCI slot number to the adapter by using the Ethernet address that is printed on a label on the adapter. Run Setup from the Intel disk to view the Ethernet address and slot number for each installed adapter. For more information, see the README files. NetWare 4.11 server installations use unique slot numbers that are assigned during sever setup.

**Windows NT and Windows 95 users:** Repeat the configuration procedure for each adapter you want to install (add only one adapter at a time). While PROSet can detect all the PRO/10+ PCI adapters in your computer, you still need to perform the configuration process on each adapter. In Windows NT, be sure to click the Show all PRO Adapters box in the Configuration window. See the README file for more information.

## Select Duplex Mode (optional)

Duplexing is a performance option that lets you choose how the adapter sends and receives data packets over the network. There are two duplex modes available when using the TPE connector:

- **Full duplex (requires a full duplex switching hub).** The adapter sends and receives packets at the same time, increasing adapter performance capability.
- **Half duplex.** The adapter performs one operation at a time; it either sends or receives. Half duplex is the adapter default mode.

### Configuring for Full Duplex

You need to manually configure the PRO/10+ PCI adapter for full duplex support. Configuration is specific to the driver you're loading for your network operating system (NOS), as shown in the following sections. Check the README files for your operating system. Most of these contain examples of how to modify configuration files (if necessary).

To set up the duplex mode, refer to the section below that corresponds to your operating system.



Adapter performance may suffer or your adapter may not operate if your hub does not support full duplex and you configure the adapter to full duplex. Leave the adapter on half duplex if you are not sure what type of hub you are connected to.

### ***DOS ODI, NDIS 2.01 Clients***

Edit the NET.CFG or PROTOCOL.INI file. Add to Link Driver section:

```
FORCEDUPLEX 2
```

### ***NetWare server***

In AUTOEXEC.NCF, Load E100B.LAN and add the following statement (you must include the equal sign for servers):

```
FORCEDUPLEX=2
```

For more information, see the README file for NetWare servers.

### ***Windows NT***

While running Windows NT:

- 1 From the Control Panel, double-click the Intel PROSet icon.
- 2 PROSet examines your system and displays the Adapter Setup window.  
If you have multiple adapters, click the “Show All Adapters” box and then select the adapter you are configuring (you can identify it by its Ethernet address). Each adapter must be configured separately. See page 12, *Installing Multiple Adapters*, for more information.
- 3 From the window that appears, click Change.
- 4 From the Adapter Setup window, click the menu for Network Speed.
- 5 Click the menu for Duplex Mode
- 6 Click Full.
- 7 Click OK when finished.
- 8 Click Restart Windows NT.

## **Windows 95**

While running Windows 95:

- 1 From the Control Panel, double-click the Intel PROSet icon.
- 2 PROSet examines your system and displays the Adapter Setup window. If you have multiple adapters, click the adapter you are configuring (you can identify it by its Ethernet address). Each adapter must be configured separately. See page 12, *Installing Multiple Adapters*, for more information.
- 3 From the window that appears, click Change.
- 4 From the Adapter Setup window, click the menu for Network Speed.
- 5 Click the menu for Duplex Mode
- 6 Click Full.
- 7 Click OK when finished.
- 8 Click OK to restart Windows 95.

### ***Other operating systems***

See the *Adapter Installation and Special Configurations* README file. See page 1 for instructions on viewing README files.

## **“Push” Installation for Windows 95**

If you are a LAN Administrator setting up server-based push installation of Windows 95 as defined in Microsoft Windows 95 Resource Kit, additional steps are required for this adapter. Refer to the *Windows 95* README file under the Microsoft section of *Installing EtherExpress PRO/10+ PCI adapter drivers*. Or, download the 100BPUSH.EXE file archive from Intel’s customer support web site, <http://support.intel.com>.

# Troubleshooting

## If the adapter can't connect to the network

- **Make sure the cable is installed properly**

The network cable must be securely attached at all connections. If the cable is attached but the problem persists, try a different cable. If using thin Ethernet, make sure BNC segments are properly terminated (see page 3).

If you're directly connecting two computers (no hub), use a crossover cable. Some hubs may also require a crossover cable (see your hub documentation).

See the *Cabling* README file for more information on crossover cables.

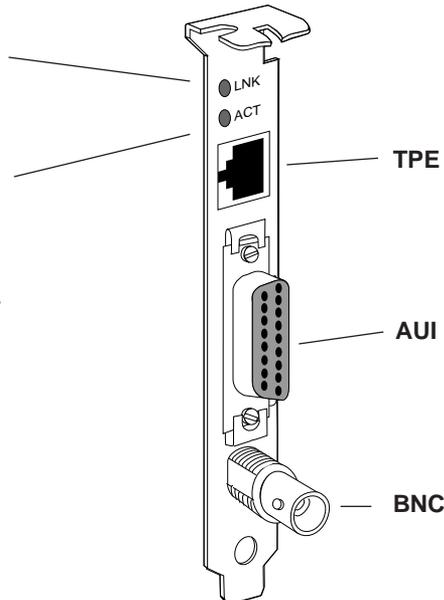
- **Check the LED lights on the adapter**

The EtherExpress PRO/10+ PCI adapter has two diagnostic LEDs above the cable connectors. These lights help indicate if there's a problem with the connector, cable, or hub.

**Link LED.** See table on page 16 for indications.

**Activity LED.** See table on page 16 for indications.

**Cable connectors.** Your PRO/10+ PCI adapter may have a single TPE connector or all types shown here. Each connector supports the IEEE Ethernet standard.



LED	Indication	Meaning
LNK	On	The adapter and hub are receiving power; the 10 Base-T cable connection between the hub and adapter is good. (LED is not functional on BNC or AUI connections.)
	Off	The adapter and hub are not receiving power; the cable connection between the hub and adapter is faulty; or you have a driver configuration problem.
ACT	On or Flashing	The adapter is sending or receiving network data. The frequency of the flashes varies with the amount of network traffic.
	Off	The adapter is not sending or receiving network data.

- **Make sure you're using the correct drivers**

Make sure you're using the drivers that come with this adapter. The driver filename contains the letter B (for example, E100B.DOS). Drivers with E10P support previous versions of the EtherExpress PRO/10 PCI adapter and do not support this version of the adapter.

- **Make sure the hub port and the adapter have the same duplex setting**

If you configured the adapter for full duplex, make sure the hub port is also configured for full duplex. Setting the wrong duplex mode can degrade performance or result in lost connections.

- **Test the adapter**

Test the adapter by running Intel diagnostics. For DOS or Windows 3.1 computers, run Setup on the Intel Configuration and Drivers disk. For Windows NT and Windows 95 run Intel PROSet by double-clicking the Intel PROSet Icon in the Control Panel. Click Help from the main PROSet window to get complete diagnostics information and instructions.

## Common problems and solutions

*SETUP.EXE reports the adapter is "Not enabled by BIOS."*

- The PCI BIOS isn't configuring the adapter correctly. Try the PCI installation tips on page 18.

*The computer hangs when the drivers are loaded.*

- Change the PCI BIOS interrupt settings. See the next page for PCI installation tips.
- If you are using EMM386, it must be version 4.49 or newer (this version ships with MS-DOS 6.22).
- Be sure you're using the latest drivers. Check Intel's web site for driver updates to the disk.

*Diagnostics pass, but the connection fails.*

- Make sure the network cable is securely attached.
- Make sure you specify the correct frame type in your NET.CFG file.
- Make sure the duplex mode setting on the adapter matches the setting on the hub.

*The LNK LED doesn't light.*

- Make sure you've loaded the network drivers.
- Check all connections at the adapter and the hub.
- Try another port on the hub.
- Make sure the duplex mode setting on the adapter matches the setting on the hub.
- Make sure you have the correct type of cable between the adapter and the hub. Some hubs require a crossover cable while others require a straight-through cable. See the *Cabling* README file for more information on cabling.

*The ACT LED doesn't light.*

- Make sure you've loaded the correct network drivers.
- Network may be idle. Try accessing a server.
- The adapter isn't transmitting or receiving data. Try another adapter.

*The adapter stopped working when another adapter was added to the computer.*

- Make sure the cable is connected to the PRO/10+ PCI adapter.
- Make sure your PCI BIOS is current. See page 18 for PCI installation tips.
- Make sure the other adapter supports shared interrupts. Also, make sure your operating system supports shared interrupts — OS/2\* doesn't.
- Try reseating the newest adapter.

*The adapter stopped working without apparent cause.*

- Try reseating the adapter first, then try a different slot if necessary.
- The network driver files may be corrupt or deleted. Delete and then reinstall the drivers.
- Try a different PRO/10+ PCI adapter.
- Run the diagnostics.
- Check the 'Top Problems' document on the world wide web. (See the inside back cover.)

# Technical information

## PCI installation tips

PCI computers are designed to automatically configure add-in cards each time the computer starts. Your PCI computer sets the I/O address and IRQ level for your Intel network adapter when the computer starts. These values cannot be changed by Intel adapter software. If you experience a problem when the computer starts, additional configuration steps may be required.

On these computers, manual configuration is possible through the computer's PCI BIOS setup utility. Refer to your computer's documentation. You may need to verify or change some BIOS settings.

Some common PCI solutions are listed here.

- **Busmaster enabled slots.** On some computers, all slots are not busmaster enabled by default. Check your BIOS PCI bus setting. It will set to either Busmaster or Non-busmastered. Choose Busmaster.
- **Reserve interrupts (IRQs) and/or memory addresses for ISA adapters.** This prevents PCI cards from trying to use the same settings ISA cards are using. Check your PCI BIOS setup program. There may be IRQ options such as 'Enable for ISA,' 'Reserve for ISA,' or 'Disable for PCI.' This option is sometimes in the Plug and Play area of the BIOS setup.
- **Enable the PCI slot.** In some PCI computers, you must use the PCI BIOS setup program to enable the PCI slot. This is especially common in PCI computers with the Phoenix BIOS.
- **Update your PCI BIOS.** An updated PCI system BIOS can correct some PCI configuration problems. Call your computer manufacturer to see if an updated BIOS version is available for your computer. Phone numbers for the top PCI computer manufacturers are listed in the *PCI Installation* README file on the Intel Configuration and Drivers disk.
- **Configure the slot for level-triggered interrupts.** The slot the adapter is using must be configured for level-triggered interrupts rather than edge-triggered interrupts. Check your PCI BIOS Setup program.

Here are some example PCI BIOS setup program parameters:

PCI slot #:	<i>Slot where the adapter is installed</i>
Master:	ENABLED
Slave:	ENABLED
Latency timer:	40
Interrupt:	<i>Choose an IRQ from the list</i>
Edge-level:	Level

The exact wording of these parameters varies with different computers.

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## Limited lifetime hardware warranty

Intel warrants to the original owner that the hardware product delivered in this package will be free from defects in material and workmanship. This warranty does not cover the product if it is damaged in the process of being installed or improperly used.

THE ABOVE WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE ARISING OUT OF ANY PROPOSAL, SPECIFICATION, OR SAMPLE.

This warranty does not cover replacement of adapter products damaged by abuse, accident, misuse, neglect, alteration, repair, disaster, improper installation, or improper testing. If the product is found to be defective, Intel, at its option, will replace or repair the product at no charge except as set forth below, or refund your purchase price provided that you deliver the product along with a Return Material Authorization (RMA) number (see below), along with proof of purchase (if not registered), either to the dealer from whom you purchased it or to Intel with an explanation of any deficiency. If you ship the product, you must assume the risk of damage or loss in transit. You must use the original container (or the equivalent) and pay the shipping charge.

Intel may replace or repair the adapter product with either new or reconditioned parts, and any part or product replaced becomes Intel's property. Repaired or replaced products will be returned at the same revision level as received or higher, at Intel's option. Intel reserves the right to replace discontinued product with an equivalent current generation product.

### Returning a defective product

#### From North America:

Before returning any product, contact Intel Customer Support and obtain a Return Material Authorization (RMA) number by calling +1 916 377-7000.

If the Customer Support Group verifies that the product is defective, they will have the RMA department issue you an RMA number to place on the outer package of the product. Intel cannot accept any product without an RMA number on the package.

#### All other locations:

Return the product to the place of purchase for a refund or replacement.

### INTEL ADAPTER MONEY-BACK GUARANTEE (North America Only)

Intel wants you to be completely satisfied with the Intel adapter product that you have purchased. Any time within ninety (90) days of purchase, you may return your **Intel adapter** to the original place of purchase for a full refund of the purchase price from your dealer. Resellers and Distributors, respectively, accepting returns and refunding money back to their customers may return Intel adapters to their original place of purchase. Intel guarantees that it will accept returns under this policy and refund the original purchase price to customers purchasing directly from Intel.

### Limitation of liability and remedies

INTEL SHALL HAVE NO LIABILITY FOR ANY INDIRECT, SPECULATIVE, CONSEQUENTIAL, INCIDENTAL, PUNITIVE OR SPECIAL DAMAGES ARISING FROM THE USE OF OR INABILITY TO USE THIS PRODUCT INCLUDING, WITHOUT LIMITATION, LOSS OF USE, BUSINESS INTERRUPTIONS, LOSS OF PROFITS, AND LOSS OF GOODWILL, WHETHER ANY SUCH DAMAGES ARISE OUT OF CONTRACT NEGLIGENCE, TORT, OR UNDER ANY WARRANTY, IRRESPECTIVE OF WHETHER INTEL HAS ADVANCE NOTICE OF THE POSSIBILITY OF ANY SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, INTEL'S TOTAL LIABILITY FOR ALL CLAIMS UNDER THIS AGREEMENT SHALL NOT EXCEED

THE PRICE PAID FOR THE PRODUCT. THESE LIMITATIONS ON POTENTIAL LIABILITIES WERE AN ESSENTIAL ELEMENT IN SETTING THE PRODUCT PRICE. INTEL NEITHER ASSUMES NOR AUTHORIZES ANYONE TO ASSUME FOR IT ANY OTHER LIABILITIES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

Software provided with the hardware product is not covered under the hardware warranty described above. See the applicable software license agreement which shipped with the adapter product for details on any software warranty.

April 28, 1994

## FCC compliance statement

This product has been tested and found to comply with the limits for a Class B computing device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Installed correctly, it probably will not interfere with radio or TV reception. However, we do not guarantee the absence of interference.

This product generates and uses energy of about the same frequency as radio and TV broadcasts. Installed incorrectly, it may interfere with reception of radio and TV broadcasts.

If you suspect this product is causing interference, turn your computer on and off while the radio or TV is showing interference. If the interference disappears when you turn the computer off and reappears when you turn the computer on, something in the computer is causing interference.

To reduce interference, try these suggestions:

- Change the direction of the radio or TV antenna.
- Move the computer, radio or TV. For example, if the computer is to the right of the TV, move it to the left of the TV. Or move them farther apart.
- Plug the computer into a different electrical outlet than the radio or TV.
- Ensure that all expansion slots (on the back or side of the computer) are covered. Also ensure that all metal retaining brackets are tightly attached to the computer.

NOTE: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: If the device is changed or modified without permission from Intel, the user may void his or her authority to operate the equipment.

## Canadian compliance (Industry Canada)

When tested in at least one intended host:

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Canadian Department of Communications.

Cet appareil numérique respecte les limites bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le Ministre Canadien des Communications.

## Manufacturer declaration

This certifies that the Intel EtherExpress PRO/100 Server Adapter complies with the EU Directive 89/33/EEC, using the EMC standards EN55022 (Class A) and EN50082-1. This product also meets or exceeds EN 60950 (TUV) requirements. This product has been tested and verified to meet CISPR 22 Class A requirements.

Intel Corp., Mailstop JF3-333 Hillsboro, OR 97124-6497 USA

## Intel Automated Customer Support

You can reach Intel's automated support services 24 hours a day, every day at no charge. The services contain the most up-to-date information about Intel products. You can access installation instructions, troubleshooting information, and general product information.

	<b>Intel Help Files</b>	<b>World Wide Web &amp; Internet FTP</b>	<b>Intel Bulletin Board Service (BBS)</b>
	View the online README files for detailed information.	Access Intel's World Wide Web home page or download information using anonymous FTP.	Use Intel's BBS. Dial in by modem at 8-N-1, and up to 14.4 Kbps.
<b>Troubleshooting</b>	✓	✓	
<b>Software updates</b>		✓	✓
<b>Installation notes</b>	✓	✓	
<b>Product information</b>		✓	
<b>How to access:</b>	See page 1 in this guide for instructions.	See web addresses below.	US and Canada: 1-503-264-7999 Europe: +44-1793-432955 Worldwide: +1-503-264-7999

## Intel Web and Internet Sites

**Support:** <http://support.intel.com>

**News:** <news://cs.intel.com>

**Network Products:** <http://www.intel.com/network>

**Corporate:** <http://www.intel.com>

**FTP Host:** [ftp.intel.com](ftp://ftp.intel.com)

**FTP Directory:** [/pub/support/enduser\\_reseller/etherexpress\\_lan\\_adapters](/pub/support/enduser_reseller/etherexpress_lan_adapters)

## Intel Customer Support Technicians

**Other support services:** You can purchase a range of support services, including 24 hour support, per incident support, on-site service, and software and hardware maintenance agreements. For details about the Intel Support Service options, download document 8549 from one of the automated services.

**Worldwide access:** Intel has technical support centers worldwide. Many of the centers are staffed by technicians who speak the local languages. For a list of all Intel support centers, the telephone numbers, and the times they are open, download document 9089 from one of the automated services.

If you don't have access to automated services, contact your local dealer or distributor.

Or call +1-916-377-7000 from 07:00 to 17:00 Monday - Friday, U.S. Pacific Time.