Intel EtherExpress™ PRO/10+ LAN Adapter
Installation Guide

intel®

Where to go for more information

FlashWorks Installation and User's Guide

If you have a flash adapter, you can use the FlashWorks utilities to install and manage adapters on your Novell NetWare* network. For more information, see these topics in the *FlashWorks Guide*:
Chapter 1: Is FlashWorks right for you?
Chapter 2: Installation

To upgrade a non-flash adapter with a flash chip, order the *Flash Upgrade Kit* (Intel product code FLASHUP).

Readme Files

For detailed information about the adapter, see the readme files. To view the files, insert the Intel Configuration and Drivers disk into a drive, switch to that drive, and type:

`SETUP /README` [Enter]

Then select *View Help Files*.

Topics include:
Release notes
PCI adapter installation
*Installing network drivers*
Diagnostics
VLAN setup
Adapter Fault Tolerance setup
Cabling specifications

Online Services
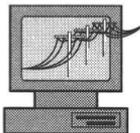
You can use the internet to download software updates, troubleshooting tips, installation notes, and more. Online services are on the World Wide Web at:
http://support.intel.com

See the inside back cover for details.

642775-002

Installation overview

1 ▶ **Put the adapter in the computer** (page 2)

2 ▶ **Configure, test, and install adapter drivers**

DOS and Windows* 3.1 users (page 3)
Connecting to NetWare* and other networks

Windows NT* 3.51 users (page 6)

Windows NT 4.0 users (page 7)

Windows 95 users (page 8)

Other OS users (page 9)

3 ▶ **Configure full duplex support—*optional*** (page 10)

4 ▶ **Enable power management—*optional*** (page 11)

▶ **Troubleshooting tips** (page 12)

1

1 ▶ Put the adapter in the computer

1 Turn off and unplug the computer, then remove its cover.

⚠ **Warning**
Failure to turn the power off could shock you and may damage the adapter or your computer.

2 Remove the bracket from an ISA expansion slot. For best performance, choose a 16-bit slot.
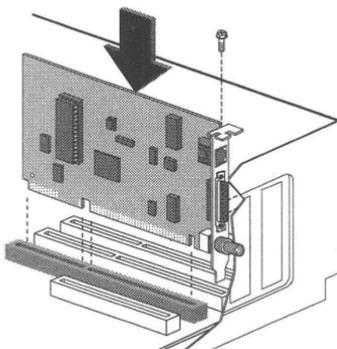
3 Push the adapter into the slot until the adapter is seated firmly, then secure the adapter bracket with a screw.

4 Replace the computer cover and plug in the power cord.

5 Connect one network cable to the adapter. If you're using a TPE (Twisted Pair Ethernet) cable in a residential environment, make sure the cable is shielded. For a list of recommended cables and specifications for your cabling type, see the *Cabling specifications* readme files.
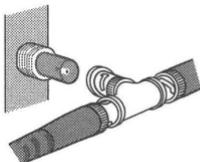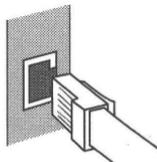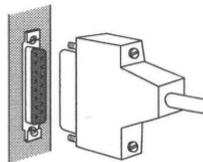
| BNC˙ | TPE | AUI |

˙If you're using BNC cabling, make sure you use a T-connector as shown.

6 Continue on the following pages with the configuration procedure for your operating system.

2 ▶ Configure, test, and install adapter drivers

DOS and Windows 3.1 users
Connecting to NetWare* and other networks

1 ▶ Configure

Select the method that's best for you.

Method	Use when
SoftSet2	• You don't have a flash adapter. • You want to use Automatic Setup to analyze the computer, assign configuration settings, test the adapter, and help install network drivers. • You want to change the adapter's configuration settings.
FlashSet	• You're installing a flash adapter in a diskless or remote boot workstation. • You don't want FlashStart or SoftSet2 to help you install the network drivers.
FlashStart	• You're installing more than ten EtherExpress PRO/10+ flash adapters on a Novell NetWare network. • You want FlashStart to configure the adapter and download network drivers from a FlashWorks server.

Plug and Play computers

Some DOS and Windows 3.1 computers have Plug and Play software that can automatically configure a new hardware device. This makes installing an adapter easier, but you still have to install the adapter's network drivers. The default Plug and Play setting is *On*.

1   After you put the adapter in the computer, turn on the computer.
    The Plug and Play software automatically configures the adapter.

2   If you have a flash adapter, you'll see the configuration program running from the adapter's flash memory. Exit this program.

3   Run SoftSet2 to test the adapter and get help installing the network drivers. Continue to the next page.

To configure the adapter's settings manually or use SoftSet2's Automatic setup, you must first disable Plug and Play on the adapter. To do so, run SoftSet2, choose *Change adapter configuration*, choose *Advanced*, then set Plug and Play to *Off*. Save these changes, restart the computer, then continue to page 5.

3

DOS and Windows 3.1 users *(continued)*

To change Plug and Play-assigned settings without disabling Plug and Play, you must use the Plug and Play software that came with your computer (for example, the ISA Configuration Utility). To change other adapter settings, use SoftSet2.

For more information, see the *Plug and Play computers* readme file.

Configuring with SoftSet2

1   Turn on the computer. If this computer already has EtherExpress PRO/10+ adapter drivers installed, restart the computer without loading them. For example, if the drivers are loaded from the AUTOEXEC.BAT file, add REM in front of each line that loads a driver.

> **NOTE:** If you have a flash adapter, the first time you turn on the computer you'll see the configuration program running from the adapter's flash memory. Exit this program.

2   Put the Intel Configuration and Drivers disk into a drive, switch to that drive, and at the DOS prompt, type   SOFTSET2   [←Enter]

3   Select *Automatic setup*.

Automatic setup analyzes your computer, assigns configuration settings, tests the adapter, and helps install network drivers.

To manually configure the adapter, select *Change adapter configuration*. After configuring the adapter, you still need to test the adapter's settings and install network drivers. Continue with the Test procedures on page 5.

> **NOTE:** If Plug and Play is enabled on an adapter that's in a Plug and Play computer, *Automatic setup* won't be available, and you won't be able to change the adapter's IRQ and I/O settings. However, you will be able to install network drivers. See the procedures on the next page for more information.

Configuring with FlashSet (requires a flash adapter)

1   Turn on the computer. You'll see the configuration program running from the adapter's flash chip.

2   Specify the configuration settings you want to use. If this is a diskless workstation, make sure you select the correct remote boot program (if you're not sure, contact your LAN administrator).

3   Save the configuration and exit FlashSet.

4   Let the computer finish booting. If you configured the adapter for remote boot, the workstation will attempt to boot from the network. If the adapter is not configured for remote boot, you must install network drivers on this computer. Continue to the next page.

For more information on remote boot workstations, see the *Diskless and remote boot workstations* readme file.

Configuring with FlashStart

You must have FlashWorks installed on your server and a flash adapter installed in your computer to use FlashStart. See Chapter 2 of the *FlashWorks Installation and User's Guide* for more information.

▶ Test

Intel's diagnostic software lets you test the adapter to see if there are any problems with the adapter hardware or network connection.

If you want to test the adapter with a responder on the network, see the next section before continuing.

If you're currently running SoftSet2, skip to step 3.

1   If this computer already has EtherExpress PRO/10+ adapter drivers installed, restart the computer without loading them. For example, if the drivers are loaded from the AUTOEXEC.BAT file, add REM in front of each line that loads a driver.

2   Put the Intel Configuration and Drivers disk into a drive, switch to that drive, and at the DOS prompt, type   SOFTSET2   [← Enter]

3   From the Main menu, select *Test adapter*.

To test the adapter with a responder on the network

SoftSet2 can test the adapter's network connection more thoroughly if you have a responder on the network while running the tests.

1   Go to a computer that's using an Intel EtherExpress adapter to connect to the network.

2   Run the appropriate configuration or diagnostic program (SOFTSET2, FL32DIAG, E100DIAG, or SETUP) for the adapter and set up the adapter as a responder.

3   Return to the computer you want to test. Run SoftSet2 and select *Test adapter* from the Main menu.

▶ Install network drivers

A network driver is software that lets the computer communicate with your network operating system.

From the SoftSet2 main menu:

1   Select *Install network drivers*.

2   Select the driver you want to install.

If you're installing NetWare client drivers, SoftSet2 can install them for you. If you're installing other drivers, see the appropriate readme file for installation information.

Windows NT 3.51 users

▶ Configure, test, and install network drivers

After putting the adapter in the computer, you need to configure the adapter under Windows NT.

> **NOTE:** If you have a flash adapter, the first time you turn on the computer you'll see the configuration program running from the adapter's flash memory. Exit this program.

1 Double-click the Network icon in the Control Panel.

2 Choose *Add Adapter*.

3 **Don't select an Intel adapter from the list. Instead, scroll to the end of the list and select** <*Other*> *Requires disk from manufacturer*

4 Choose *Continue* and insert the Intel Configuration and Drivers disk into your floppy drive.

5 Specify A:\NT as the path and choose *OK*.

6 Select *Intel EtherExpress PRO/10+ Adapter* from the displayed list and choose *OK*. PROSet displays the following window.
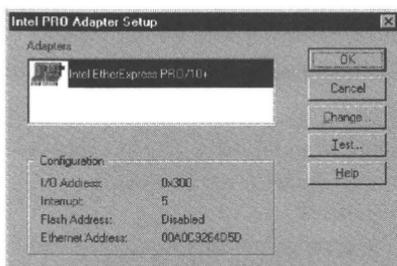
7 Choose *Test*. Because you've just added the adapter, the network driver won't be active, and the diagnostics will test the adapter and its connection to the network.

8 Choose *OK* to exit diagnostics, then *OK* to accept the adapter's settings.

9 Choose *OK* in the Network Settings dialog box and when prompted, restart Windows NT.

To install multiple adapters, repeat this procedure for each new adapter.

Windows NT 4.0 users

▶ Configure, test, and install network drivers

When you put the adapter in the computer and start Windows NT 4.0, the adapter is automatically configured. Next you need to install the Intel drivers.

> **NOTE:** 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 can 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   **Don't select an Intel adapter from the list.** Instead, click *Have Disk*.
5   Insert the Intel Configuration and Drivers disk into your floppy drive.
6   Type A: \NT in the dialog box and click OK. Then follow the instructions to install the Intel drivers and Intel PROSet utility. When the adapter is added, you'll see it in the Network adapters list.
7   To test the adapter, click Properties in the Network control panel. PROSet displays the following window.
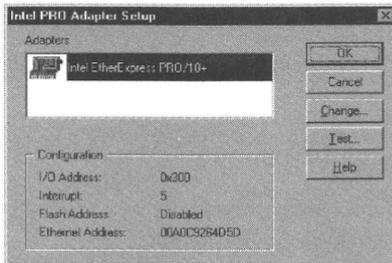
PROSet is an enhanced utility that you can use to easily configure and test your adapter in Windows NT. PROSet also displays the computer resources that were assigned to each PRO adapter installed.

8   Click on the Intel adapter to select it. Then click Test. The PROSet utility will run diagnostics on the computer.
9   When you've finished testing the adapter, click OK. Then click Close in the Network control panel.
10   Restart Windows NT when prompted.

To install multiple adapters, repeat this procedure for each new adapter.

Windows 95 users

1 Configure and install network drivers

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

> For more information on installing the EtherExpress PRO/10+ adapter under Windows 95, see the *Installing Microsoft network drivers* section in the *Windows 95* readme file.

1   After you put the adapter in the computer, start Windows 95. The New Hardware Found dialog box appears.

> NOTE: If you have a flash adapter, the first time you turn on the computer you'll see the configuration program running from the adapter's flash memory. Exit this program.

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:\ as the path, then click *OK*.

5   Restart Windows 95 when prompted.

> By default, Plug and Play is enabled on EtherExpress PRO/10+ adapters, allowing Windows 95 to configure them automatically. If you want to configure the adapter manually, see the *Hints and Tips* section of the *Windows 95* readme file for more information.

2 Test

Use the Intel PRO adapter setup program to test the adapter:

1   Click the Start button, then click *Settings*.

2   Click *Control Panel*.

3   Double-click the System icon in the Control Panel.

4   Click the Device Manager tab.

5   Double-click *Network Adapters*.

6   Click *Intel EtherExpress(TM) PRO/10+*.

7   Click *Properties* to launch the Intel PRO adapter setup program.

8   Click *Yes* to use Intel's setup program.

9   Click *Test*.

You can choose between the following two test methods.

Test the adapter and driver together:

The adapter and driver test doesn't require you to unload the NDIS driver.

1   Click *Test NDIS*.

2   When the test is complete, click *OK* to exit.

Test the adapter hardware:

The adapter hardware test requires you to unload the NDIS driver.

1   Click *Unload NDIS*.

2   After the NDIS driver unloads, click *OK* to continue.

3   When the test is complete, click *OK* to exit. Setup will reload the driver.

4   Restart the computer. You must restart the computer before accessing any network drives.

Installing multiple adapters

While the Intel PRO adapter setup program can detect all EtherExpress PRO/10+ adapters in your computer, each adapter must be configured individually for Windows 95 to recognize it.

Other OS users

If you're using an operating system (OS) other than DOS, Windows 3.1, Windows NT, or Windows 95, follow these instructions to install your EtherExpress PRO/10+ adapter:

1   Put the adapter in the computer.

2   Configure the adapter using the Configure and Test procedures in the DOS and Windows 3.1 section of this manual.

3   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   README   ⏎Enter

4   If you want to configure the adapter for full duplex support, follow the DOS ODI client and NDIS 2.01 instructions on page 9.

5   If you want to enable power management, follow the DOS ODI client and NDIS 2.01 instructions on page 10.

3 ▶ Configure full duplex support
(optional)

If your EtherExpress PRO/10+ adapter is connected to a full duplex hub, you can configure the adapter for full duplex support (default setting is half duplex). To use this feature, you must be using the adapter's TPE connector.

If your full duplex hub doesn't support auto-negotiation (most don't), you'll need to manually configure for full duplex support. Configuration is specific to the driver you're loading for your NOS. See the table below for configuration instructions.

| With this driver	Set the duplex mode by
DOS ODI client NDIS 2.01	Using SoftSet2: 1 From the Main menu, choose *Change adapter configuration*. 2 Choose *Advanced Options menu*. 3 Choose *Duplex Mode*, then set to *Full*. 4 Save these changes, then restart your computer.
Windows NT 3.51	Using PROSet: 1 Double-click the Network icon in the Control Panel. 2 Choose *Configure*. 3 From the Setup window, choose *Change* and then *Advanced*. 4 Select *Duplex mode* and set the value to *Full*. 5 Choose *OK* when finished, then restart your computer.
Windows NT 4.0	Using PROSet: 1 Double-click the Network icon in the Control Panel. 2 From the Adapters tab, click *Properties*. 3 From PROSet, select the adapter to configure, click *Change* and then *Advanced*. 4 Select *Duplex Mode* and set the value to *Full*. 5 Click *OK* and close the setup program. 6 Click *Close* in the Network control panel, then restart your computer.
Windows 95	Using PROSet: 1 From the Control Panel, double-click the System icon, then click the Device Manager tab. 2 Double-click the Network adapters icon. 3 Click *Intel EtherExpress PRO/10+*, then click *Properties*. 4 Click *Yes* to use Intel's setup program. 5 From the Setup window, click *Change*. 6 From the Configuration window, click *Advanced*. 7 From the Property list, click *Duplex mode*, then set to *Full*. 8 Click *OK* when finished, then click *OK* to exit the configuration window. 9 Click *Yes* when Windows 95 asks if you want to restart your computer.

4 ▶ Enable power management *(optional)*

Power management is an energy-saving feature that powers down portions of the adapter when they're inactive, allowing the adapter to consume less power. To use this feature, you must be using the adapter's TPE connector. The default power management setting is *Off*.

When power management is enabled and a driver is loaded, the LNK light is off or flickers occasionally. However, you won't lose your network connection when power management is enabled; the adapter's inactive components "wake up" upon sending or receiving network information.

Configuration is specific to the driver you're loading for your NOS. See the table below for configuration instructions.

With this driver	Enable power management by
DOS ODI client NDIS 2.01	Using SoftSet2: 1 From the Main menu, choose *Change adapter configuration*. 2 Choose the *Advanced Options* menu. 3 Choose *Power Management*, then set to *Enabled*. 4 Save these changes, then restart your computer.
Windows NT 3.51	Using PROSet: 1 Double-click the Network icon in the Control Panel. 2 Choose *Configure*. 3 From the Setup window, choose *Change*. 4 From the Configuration window, choose *Advanced*. 5 Select *Power Management* and set the value to *On*. 6 Choose *OK* when finished, then restart your computer.
Windows NT 4.0	Using PROSet: 1 Double-click the Network icon in the Control Panel. 2 From the Adapters tab, click *Properties*. 3 From PROSet, select the adapter to configure, click *Change* and then *Advanced*. 4 Select *Power Management* and set the value to *On*. 5 Click *OK* and close the setup program. 6 Click *Close* in the Network control panel, then restart your computer.
Windows 95	Using PROSet: 1 From the Control Panel, double-click the System icon, then click the Device Manager tab. 2 Double-click the Network adapters icon. 3 Click *Intel EtherExpress PRO/10+*, then click *Properties*. 4 Click *Yes* to use Intel's setup program. 5 From the Setup window, click *Change* and then *Advanced*. 6 From the Property list, click *Power Management*, then set to *On*. 7 Click *OK* when finished, then click *OK* to exit the configuration window. 8 Restart your computer.
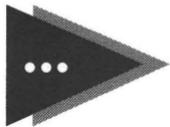
Troubleshooting tips

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.

See the *Cabling specifications* readme files for a list of recommended cables and information on how to install the cabling properly.

If you're directly connecting two workstations with TPE cabling (without using a hub), you will need to use a crossover cable. For more information, see the readme file called *TPE cabling specifications* under the *Specifications and requirements* section.

Check the LED lights on the adapter

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

The LNK light is on when an adapter using the TPE connector receives a Link pulse from the hub. However, when power management is enabled and a driver is loaded, the LNK light is off or flickers occasionally. Otherwise, if the light is off, there might be a bad connector, bad cable, or problem with the hub. For more information, see the readme file called *TPE cabling specifications* in the *Specifications and requirements* section.

The ACT light blinks whenever the adapter sees a signal on the cable. If the light stops blinking, either there is no traffic on the network, or there may be a problem with the network.

Make sure the adapter is configured

The adapter must use configuration settings that aren't used by any other device in the computer. Make sure the I/O address, IRQ, and flash chip address assigned to the adapter are unique.

Test the adapter

Follow the procedures for testing the adapter outlined in this guide. How you test the adapter depends on which operating system you are running. See the appropriate operating system section of this manual for more information.

Look for your problem in the *Troubleshooting tips* section and try the recommended solutions

The Troubleshooting tips section lists common problems and possible solutions. If none of these solutions work, check the *Late-breaking news* page that came with the adapter. You can also download document #6284 from any Intel online service for a list of troubleshooting tips from Intel Customer Support. See the inside back cover for more information.

General problems

SoftSet2 can't find the adapter.
- Make sure there's an EtherExpress PRO/10+ adapter in this computer.
- Turn the computer off, then restart it and run SoftSet2 again.
- Make sure the adapter is seated firmly in the slot.
- Try a different slot.
- Try a different EtherExpress PRO/10+ adapter.
- Try the adapter in another model of computer.
- Make sure you're using the latest SoftSet2 (version 4.10 or later).

Diagnostics pass, but the connection fails intermittently.
- See the *Cabling specifications* readme files to make sure the cable you're using meets IEEE specifications.
- Make sure the network cable is securely attached.
- Try a different cable.
- Make sure the adapter's duplex mode setting matches that of the hub port.

The adapter stopped working without apparent cause.
- Try a different slot.
- The network driver may be corrupt or deleted. Reinstall the driver.
- Try a different EtherExpress PRO/10+ adapter.
- Test the adapter. See the appropriate operating system section of this manual for more information.
- Insert the Configuration and Drivers disk into a drive, switch to that drive, and type SOFTSET2 /RESTOREEPROM ⟨←Enter⟩ You'll be prompted for more information to help SoftSet2 identify your adapter. In Windows 95 or Windows NT, you must reboot to DOS before running SoftSet2.

Network driver fails to connect to the server.
- Check the readme files or your NOS manual to make sure you installed the driver correctly.
- Make sure the network cable is securely attached and you're using the correct connector type setting.
- Check Intel's online services for an updated driver.
- Make sure you're using the correct frame type or network protocol.

You want to restore the adapter's factory default settings.
- Insert the Configuration and Drivers disk into a drive, switch to that drive, and type `SOFTSET2 /RESTOREEPROM` `⏎Enter`
  You'll be prompted for more information to help SoftSet2 identify your adapter. In Windows 95 or Windows NT, you must reboot to DOS before running SoftSet2.

No highlight bar shows on a monochrome or plasma screen.
- Restart SoftSet2 by typing either   `SOFTSET2 /MONO`   `⏎Enter`
  or   `SOFTSET2 /PLASMA`   `⏎Enter`

Your computer won't boot after you installed a flash adapter.
- Determine which device, if any, is using the D000-D3FFh range (the flash chip's default address) and reconfigure that device to use a different memory address.
- Check your computer setup and disable ROM shadowing at D000h.

Another board stopped working after you installed the adapter.
- Make sure the adapter's I/O address, interrupt settings, and flash chip address don't conflict with the other board.
- Make sure all boards are seated firmly in their slots.

Windows 95 and Windows NT problems

The Intel PRO adapter setup program won't launch.
- Windows 95 users: The adapter is using an old driver. For information on installing the correct driver, see the *If you haven't installed Windows 95* section of the *Windows 95* readme file.
- Windows NT users: From the network setup window, select the installed adapter, choose *Remove*, then follow the NT installation instructions earlier in this guide.

Windows 95 doesn't automatically detect your Intel PRO/10+ adapter.
- Run SoftSet2 in MS-DOS* mode and make sure Plug and Play is enabled. If Plug and Play isn't enabled, enable it and restart Windows 95.
- If Plug and Play is enabled, but Windows 95 doesn't detect your adapter, try another EtherExpress PRO/10+ adapter.

Windows NT can't find your Intel PRO/10+ adapter.
- Reboot to DOS and run Softset2. Disable Plug and Play on the adapter, then restart Windows NT.

Duplex mode and Power management aren't available.
- Windows 95 users: The adapter is using an old driver. For information on installing the correct driver, see the *If you haven't installed Windows 95* section of the *Windows 95* readme file.
- Windows NT users: From the network setup window, select the installed adapter, choose *Remove*, then follow the NT installation instructions earlier in this guide.

Network software license agreement

BY USING THIS SOFTWARE, YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS AGREEMENT. DO NOT USE THIS SOFTWARE UNTIL YOU HAVE CAREFULLY READ AND AGREED TO THE FOLLOWING TERMS AND CONDITIONS. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, PROMPTLY RETURN THE SOFTWARE PACKAGE AND ANY ACCOMPANYING ITEMS.

LICENSE: Intel Corporation ("Intel") grants you the non-exclusive right to use the enclosed software program (the "Software"). You will not use, copy, modify, rent, sell or transfer the Software or any portion thereof except as provided in this Agreement.

You may:

1.   Install/use the Software on a single computer or on a single local area network ("LAN") server;
2.   Copy the Software solely for backup or archival purposes, including copying the Software into memory.

RESTRICTIONS:

You **Will Not**:
1.   Sublicense the Software;
2.   Reverse engineer, decompile, or disassemble the Software;
3.   Copy the Software, in whole or in part, except as provided in this Agreement;
4.   Install/use more than one copy of the Software;
5.   Permit simultaneous use of this copy of the Software by more than one user.

TRANSFER: You may transfer the Software to another party if the receiving party agrees to the terms of this Agreement and you retain no copies of the Software and accompanying documentation. Transfer of the Software terminates your right to use the Software.

OWNERSHIP AND COPYRIGHT OF SOFTWARE: Title to the Software and all copies thereof remain with Intel or its vendors. The Software is copyrighted and is protected by United States and international copyright laws. You will not remove the copyright notice from the Software. You agree to prevent any unauthorized copying of the Software.

DUAL MEDIA SOFTWARE: If the Software package contains multiple media, you may only use the disks appropriate for your single-user computer or LAN.

WARRANTY: The Software is provided "AS IS." Intel warrants that the media on which the Software is furnished will be free from defects in material and workmanship for a period of one (1) year from the date of purchase. Upon return of such defective media, Intel's entire liability and your exclusive remedy shall be the replacement of the Software.

THE ABOVE WARRANTIES ARE THE ONLY WARRANTIES OF ANY KIND EITHER EXPRESS OR IMPLIED INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

LIMITATION OF LIABILITY: NEITHER INTEL NOR ITS VENDORS SHALL BE LIABLE FOR ANY LOSS OF PROFITS, LOSS OF USE, LOSS OF DATA, INTERRUPTIONS OF BUSINESS, NOR FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND WHETHER UNDER THIS AGREEMENT OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

AUDIT: Intel reserves the right to have audits conducted to verify your compliance with this Agreement.

TERMINATION OF THIS LICENSE: Intel may terminate this license at any time if you are in breach of any of its terms and conditions. Upon termination, you will immediately destroy the Software or return all copies of the Software and documentation to Intel.

U.S. GOVERNMENT RESTRICTED RIGHTS: The Software and documentation were developed at private expense and are provided with "RESTRICTED RIGHTS." Use, duplication, or disclosure by the Government is subject to restrictions as set forth in FAR 52.227-14 and DFAR 252.227-7013 et seq. or its successor.

EXPORT LAWS: You agree that the distribution and export/re-export of the Software is in compliance with the laws, regulations, orders or other restrictions of the U.S. Export Administration Regulations.

APPLICABLE LAW: This Agreement is governed by the laws of the State of California and the United States, including patent and copyright laws. Any claim arising out of this Agreement will be brought in Santa Clara County, California.

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:
1. Change the direction of the radio or TV antenna 2. 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. 3. Plug the computer into a different electrical outlet than the radio or TV. 4. 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 B 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 Class B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le Ministre Canadien des Communications.

Manufacturer declaration

We hereby certify that this product is in compliance with EU Directive 89/336/EEC, using the EMC standards EN550022 and EN50082-1. This product also meets or exceeds EN60950 safety requirements. This product has been tested and verified to meet CISPR 22 Class B requirements.
Intel Corporation, Mailstop JF3-333,

Hillsboro, Oregon 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 insta_llation instructions, troubleshooting information, and general product information.

	Intel Help Files	World Wide Web & Internet FTP	Intel Bulletin Board Service (BBS)
	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.
Troubleshooting	✓	✓	
Software updates		✓	✓
Installation notes	✓	✓	
Product information		✓	
How to access	See the inside front cover of 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 Directory: /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.

intel®

642775-002