

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

Instant EtherFast® Series

EtherFast® 10/100 LAN Card



Use this guide to install: LNE100TX ver. 5

User Guide

LINKSYS®

COPYRIGHT & TRADEMARKS
Copyright © 2001 Linksys, All Rights Reserved. EtherFast is a registered trademark of Linksys. Microsoft, Windows, and the Windows logo are registered trademarks of Microsoft Corporation. All other trademarks and brand names are the property of their respective proprietors.

LIMITED WARRANTY
Linksys guarantees that every EtherFast® 10/100 LAN Card is free from physical defects in material and workmanship for the lifetime of the card, when used within the limits set forth in the Specifications section of this User Guide. If the product proves defective during this warranty period, call Linksys Customer Support in order to obtain a Return Authorization number. BE SURE TO HAVE YOUR PROOF OF PURCHASE ON HAND WHEN CALLING. RETURN REQUESTS CANNOT BE PROCESSED WITHOUT PROOF OF PURCHASE. When returning a product, mark the Return Authorization number clearly on the outside of the package and include your original proof of purchase. All customers located outside of the United States of America and Canada shall be held responsible for shipping and handling charges.

IN NO EVENT SHALL LINKSYS' LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, ITS ACCOMPANYING SOFTWARE, OR ITS DOCUMENTATION. Linksys makes no warranty or representation, expressed, implied, or statutory, with respect to its products or the contents or use of this documentation and all accompanying software, and specifically disclaims its quality, performance, merchantability, or fitness for any particular purpose. Linksys reserves the right to revise or update its products, software, or documentation without obligation to notify any individual or entity. Please direct all inquiries to:

Linksys P.O. Box 18558, Irvine, CA 92623.

FCC STATEMENT
The EtherFast® 10/100 LAN Card has been tested and complies with the specifications for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which is found by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment or device
- Connect the equipment to an outlet other than the receiver's
- Consult a dealer or an experienced radio/TV technician for assistance

UG-LNE100TX v5-10608NC KL

Table of Contents

Introduction 1
- The EtherFast® 10/100 LAN Card 1
- Features 1
- Package Contents for the EtherFast® 10/100 LAN Card 2

Getting to Know the EtherFast® 10/100 LAN Card 3
- LEDs 3
- The RJ-45 Port 3

Installing the EtherFast® 10/100 LAN Card 4
- Overview 4
- Installing the Network Card and Cabling 4

Windows 95 Installation and Setup 7
- Overview 7
- Network Component Configuration 11

Windows 98 Installation and Setup 17
- Overview 17
- Installing the Network Card's Driver 17
- Network Component Configuration 21

Windows Millennium Installation and Setup 26
- Overview 26
- Installing the Network Card's Driver 26
- Network Component Configuration 29

Windows NT 4.0 Installation and Setup 34
- Overview 34
- Installing NT Networking and the EtherFast Card Driver 35
- Installing the EtherFast Network Driver if Networking is Already Installed 41

Windows 2000 Installation and Setup 45
- Overview 45
- Installing the Network Card's Driver 45

Troubleshooting 49
- Common Problems and Solutions 49
- Running the Card's Diagnostics 53

Appendix 54
- Sharing Your Files and Printers 54
- Installing the Driver in Windows 95 Version A 56
- Novell NetWare 3.x Client Setup for Windows 95 or 98 57
- Windows 95, 98 or ME Client for Windows NT 58
- Starting Over in Windows 95, 98, ME or 2000 59
- Manually Installing the Network Components in Windows 95, 98 and ME 64
- Installing the Network Protocols for Windows 95, 98 and Millennium 65
- About Plug-and-Play PCI Technology 67
- Linux, Open Source and Beta Operating Systems 68

Glossary 69

Specifications 74
- Environmental 74

Warranty Information 75

Contact Information 76

Introduction

The EtherFast® 10/100 LAN Card

Fast Ethernet is a relatively new standard of networking built specifically for speed-intensive network applications like video-conferencing, multimedia development, imaging, and complex databases. Capable of sending and receiving data at **100 megabits-per-second** in half-duplex mode, and 200Mbps in full duplex, Fast Ethernet technology is at least 10 times faster than traditional 10BaseT networks.

Built to run with the fastest network applications, the EtherFast® 10/100 LAN Card is a high performance network adapter for desktop computers with 32-bit **PCI** expansion slots. The EtherFast® 10/100 LAN Card is ready to run with both 10BaseT and 100BaseTX networks right out of the box – the card's 10/100 combo RJ-45 port automatically detects your network's maximum speed and adjusts itself accordingly.

The EtherFast® 10/100 LAN Card from Linksys also features Wake-On-LAN (WOL) event management. If your PCI motherboard has built-in WOL support, you'll be able to utilize this unique management feature. You can remotely turn on any computer with a WOL network card. The ultimate in 10/100 networking is yours! If you don't have WOL support on your motherboard or you have no need for it, don't worry — your EtherFast® 10/100 LAN Card will operate normally anyway. If your mission critical applications require blinding network speed, the EtherFast® 10/100 LAN Card is the best value for your networking dollar.

Features

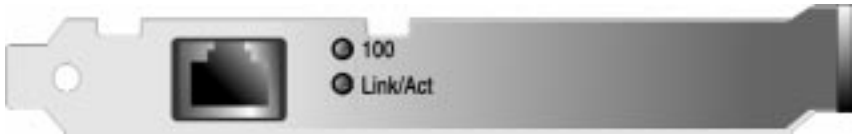
- Easy to Use Plug-and-Play 10/100 PCI Network Card
- Full Duplex Capability at Up To 200Mbps
- Connects to Both 10Mbps Ethernet and 100Mbps Fast Ethernet Networks
- Power On Your PC From Anywhere on the Network with Wake-On-LAN Management
- Works With All Major Network Operating Systems
- 10BaseT and 100BaseTX Fast Ethernet Power for PCI-Equipped PCs
- Includes Auto-Detecting 10BaseT/100BaseTX RJ-45 Port that Automatically Adjusts to Full or Half Duplex
- Bus Mastering 32-bit Architecture Supports 100Mbps Speeds

Package Contents for the EtherFast® 10/100 LAN Card



- One EtherFast® 10/100 LAN Card(s)
- One 3.5" Driver Disk
- One User Guide and Registration Card
- Quick Install for Windows Operating Systems

Getting to Know the EtherFast® 10/100 LAN Card



LEDs

100 *Amber.* The 100 LED will illuminate when the card is operating at 100Mbps. If the 100 LED is not illuminated and the PC is powered on, the card is operating at 10Mbps.

Link/Act *Green*. The Link LED will illuminate when the card has been successfully connected to a network and flicker when data is being transmitted or received over the network.

The RJ-45 Port

The RJ-45 Port is where you will connect your Category 3 or 5 network cabling.

Installing the EtherFast® 10/100 LAN Card

Overview

Each EtherFast® 10/100 LAN Card is equipped with an RJ-45 port that automatically adjusts to either 10Mbps or 100Mbps speeds, allowing your PC to attach to either Fast Ethernet (also known as 100BaseTX) or regular 10BaseT Ethernet network segments without additional hardware or software.

The card should **only** be used with twisted-pair cabling. 10BaseT and 100BaseTX cabling is available in a number of different grades. For best results, we recommend using 8-wire, category 5 unshielded twisted-pair for both 10BaseT and 100BaseTX network segments, although category 3 can be used for 10BaseT segments. The cable that runs from your PC's EtherFast card to your network should not exceed **100 meters** (328 feet). Both Category 3 and 5 twisted-pair cabling can be purchased at most computer stores, or if you prefer, you can crimp your own cables.

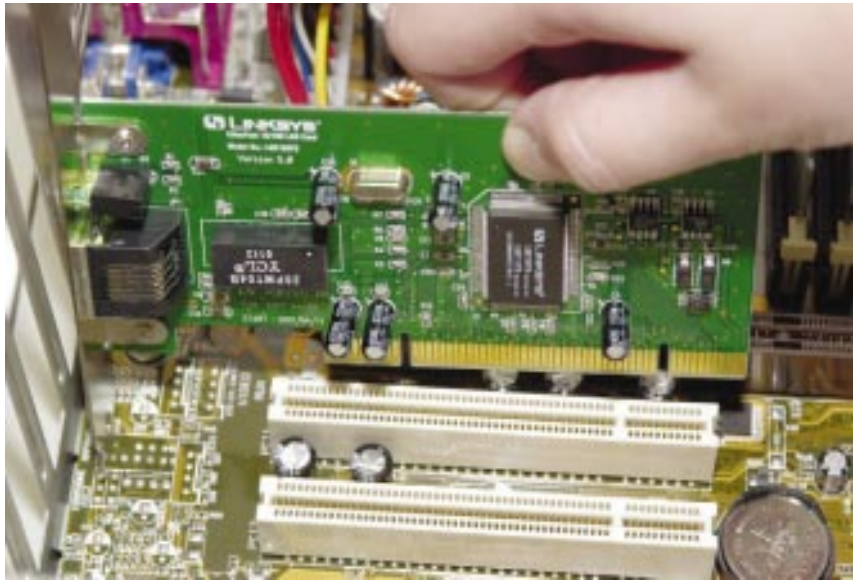
Installing the Network Card and Cabling

1. **Power off your PC** and any peripheral equipment attached to it. Unplug your PC's power cable.

2. **Remove your computer's outside cover**.

3. **Open your computer** and locate the PCI slot(s) on your motherboard. PCI slots are easily identified by their beige or white color. Remove the metal slot cover on the back of the PC, then insert the EtherFast® 10/100 LAN Card into an empty PCI slot, as shown in the photograph below.

> ***Note:*** *When installing the network card, be sure to press the card solidly into the PCI slot. Our network cards are built to resist the pressure necessary to insert the card correctly in the PCI slot. Avoid a call to technical support by making sure that your card is inserted all the way into your PC's network slot! You will know this has occurred when the card's face-plate is flush with your computer's slot.*



4. **Once your EtherFast® 10/100 LAN Card is firmly in place**, secure its fastening tab to your PC's chassis with a mounting screw.

5. **Replace your PC's cover**.

6. **Connect one end of a twisted-pair cable** to your PC at the EtherFast® 10/100 LAN Card's RJ-45 port.



7. **Plug the other end of the cable** into one of your network's 10BaseT or a 100BaseTX hub or switch ports, DSL modem, cable modem, router, etc.

8. **Reconnect your PC's power**, then power on your computer. Your computer will automatically recognize the card and assign it a unique IRQ ("interrupt") and I/O address.

The card installation is complete. Next, you must install the device drivers for the EtherFast® 10/100 LANCard. To configure the 10/100 LAN Card, turn to the section appropriate to your Operating System.

If you are using an operating system other than Windows 98, Windows 95, or Windows NT, you will find the network driver installation instructions on the Driver Disk's `readme.exe` file.

> ***Note:*** *If you intend to use both 10Mbps and 100Mbps components on your network, you will need an auto-sensing hub or switch. For more information on auto-sensing hubs or switches, go to the Linksys website at www.linksys.com.*

Windows 95 Installation and Setup

Overview

After installing the EtherFast hardware in your computer, follow these instructions for installing the network device driver. For troubleshooting tips during setup, refer to the **Troubleshooting** section.

There are different versions of Windows 95:

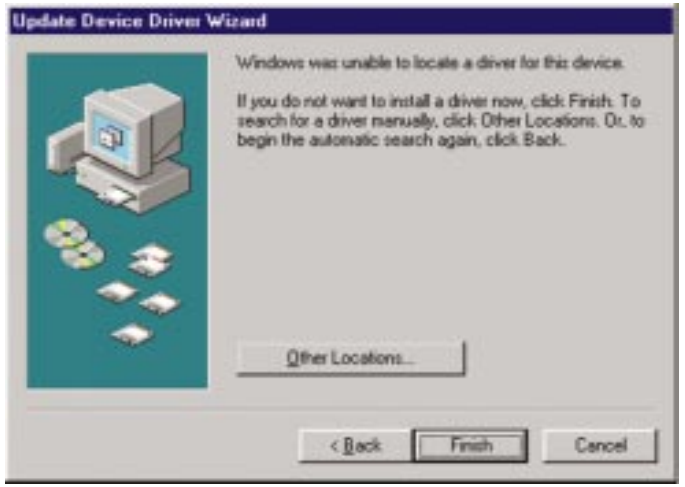
- **Version A**
- **Version B (also known as OSR2)**
- **Version C (with USB support)**

The installation procedure for the network driver will vary slightly depending on which version of Windows 95 you are using. To begin the driver installation, and to determine which version of Windows 95 you are using:

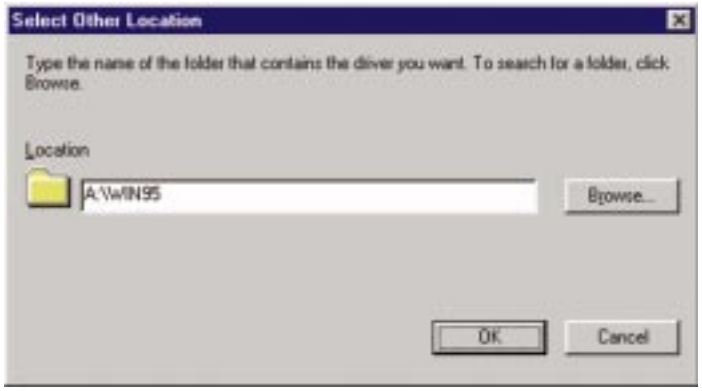
1. If you already haven't, **start up your PC**.
2. **Windows 95 will automatically detect** the EtherFast Card in your computer. If an Update Device Driver Wizard window (below, or another similar window) appears, you are using Windows 95 version B. If not, you are using version A. Skip to the **Installing the Drive in Windows 95 Version A** section in the Appendix.



3. While the *Update Device Driver Wizard* window is visible, put the **EtherFast® 10/100 LAN Card Driver Disk** into your floppy drive and click the **Next** button.
4. A screen will appear stating that Windows 95 was unable to locate the driver. Click the **Other Locations** button to enter the driver's location manually.



5. Type the driver location, **A:\WIN95**, in the location field on the Select Other Location Screen. Then, click the **OK** button.



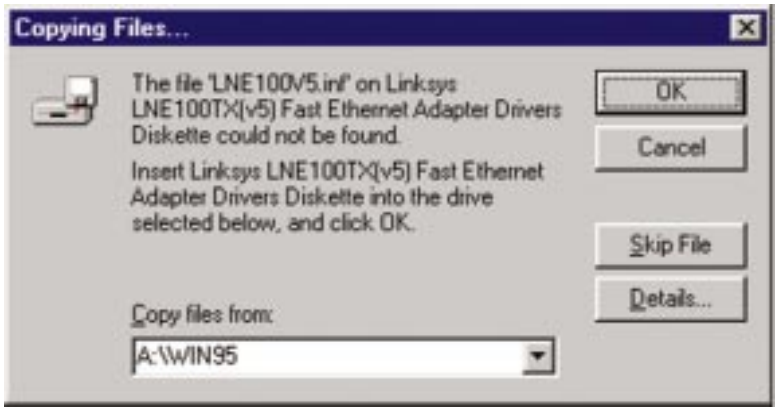
6. Windows will show that the files have been found. Click the **Finish** button to continue. Then, when you are prompted, verify that the *"Linksys LNE100TX (v5) Fast Ethernet Adapter Drivers"* diskette is in your floppy drive.



7. Windows will begin copying the EtherFast Card's driver files to your PC. Refer to the chart below to help guide you through the process.

*If you press **Skip** or **Cancel**, the drivers will not be installed!*	
• If your PC asks for the Linksys Setup or Driver Disk	*1. Click **OK**.* *2. Ensure that the **Driver Disk** is in your PC's floppy drive.* *3. Type "a:\" in the "Copy files from:" box.* *4. Click **OK**.*
• If you are asked to supply your Windows 98 Installation Files or Disks	*1. Click **OK**.* *2. If you have a **Windows 95 CD-ROM**, type "d:\win95" in the "Copy files from:" box, where "d:" is your CD-ROM drive.* *3. If you* don't *have a **Windows 95 CD-ROM**, type: "c:\windows\options\cabs".* *4. Click **OK**.*
• If you are asked for a file that includes "LNE100TX" in its name	*1. Insert the **Driver Disk** into your PC's floppy drive.* *2. Type "a:\" in the "Copy files from:" box.* *3. Click **OK***
• If you receive a Version Conflict error	*1. Choose to keep the newest version of the file by clicking **Yes**.*

8. The following screen will prompt you for the driver location. In the Copy Files From: field, type **A:\WIN95**. Then, click the **OK** button.



9. Windows 95 will begin copying files to your PC. When asked if you want to restart your PC, remove the floppy disk and click **Yes.** If Windows does not ask you to restart your PC, click the **Start** button, choose **Shut Down**, choose **Restart**, then click the **Yes** button.

The Windows 95 Version B driver installation is complete. Please continue on to the next section, which will provide instructions for configuring Windows 95's network protocol. Consult your Windows documentation for network configuration information if necessary.

Note: *From this point on, you must provide Windows with a User name and Password every time you are prompted to do so. Remember to click **OK** to properly log into Windows. If you click **Cancel** or hit the **Escape (ESC)** key, you will not log into the network.*

Network Component Configuration

1. Once you are back at the Windows 95 desktop, click on your taskbar's **Start** button, then **Settings**, then **Control Panel**, and then double-click the **Network** icon.

> ***Note:*** *If you need to install the TCP/IP Protocol, see the* ***Installing the Network Protocols for Windows 95, 98, and Millennium*** *section in the Appendix. Windows NT and 2000 users need to check their Windows User Guides for protocol installation.*

2. The Network window will appear. Click on the **Configuration** tab. A window similar to the one below will appear. There may be other components listed in addition to the ones shown below (for example, *Dial-up Adapter*), which is normal. If any of the components shown below are missing, however, you'll need to manually install them. If that's the case, refer to the **Manually Installing the Network Components** section of the Appendix now.
   - *Client for Microsoft Networks*
   - *Client for NetWare Networks*
   - *Linksys LNE100TX Fast Ethernet Adapter (LNE100TX v5)*
   - *TCP/IP*



3. Click the **File and Print Sharing** button. The *File and Print Sharing* window will appear.

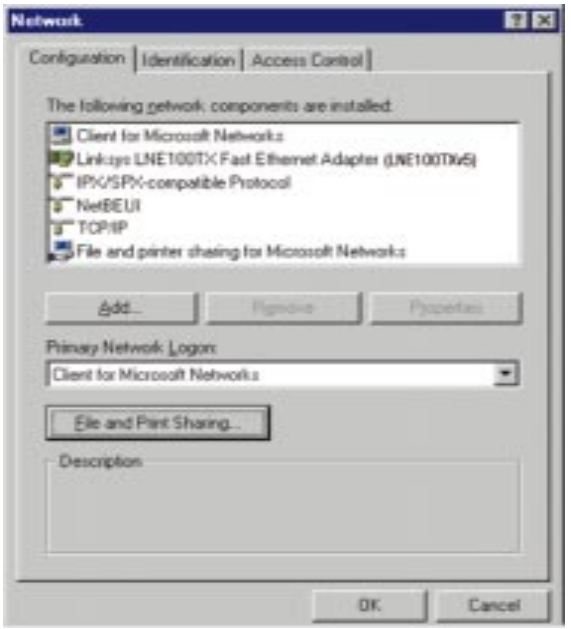
> ***Note:*** *If you do not enable File and Printer Sharing, your PC will be invisible on the network, inaccessible by anyone.*

4a. If you'd like others to be able to access the files on your PC's hard drive, select **I want to be able to give others access to my files**.

4b. If you'd like to share your printer with other users on the network, select **I want to be able to allow others to print to my printer**.



5. Click the **OK** button. File and Printer Sharing for Microsoft Networks should now appear in the list of installed components.



6. After making sure that all of the listed network components are installed on your system, verify that **Client for Microsoft Networks** is listed in the *Primary Network Logon* box.

7. Under Network Components, select *Linksys LNE100TX (v5) Fast Ethernet Adapter*, and click the **Properties** button. A screen similar to that below will appear.

8. Select the **Driver Type** tab and make sure that **Enhanced Mode (32 bit and 16 bit) NDIS Driver** is selected.

9. The **Bindings** tab will show you what network protocols are presently utilized by the card. There is no need to modify any setting on this tab.

10. The **Advanced** Tab has two settings. First, is the **Media Type** setting. This should be set at **AutoSense**. The next setting, **Select Media**, should be set at **Ethernet**.



11. Click on the **Identification** tab and the following window will appear. Type **the name of your computer** in the *Computer Name* box. Choose a name that is unique from the other computer names on the network.



Note: *Your* Computer Name *and* Workgroup Name *must both be fewer than 15 characters, and should only consist of numbers and letters.*

12. Type the **name of your workgroup** in the *Workgroup* box. The Workgroup name should be the same Workgroup Name in use by all of the other PCs on the network. Use the same Workgroup Name that is in use on your other computers. Do not click **OK** when you have completed these fields.

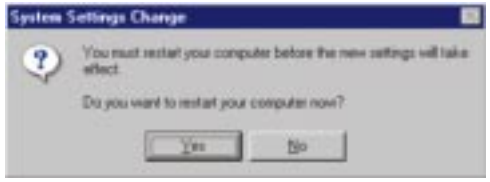
13. Enter a **description of your computer** in the *Computer Description* box. *This box is optional*. Do not click the **OK** button when you have completed these fields.

14. The **Access Control** tab should be set at *Shared-level access control*. Make sure that *Shared-level access control* is selected. If the setting is on User-Level access control and you can't change it, skip to the **Troubleshooting** section.



15. Click the **OK** button. Your system may or may not ask you for your Windows 95 CD-ROM or the location of the Windows 95 installation files. Direct Windows to `D:\win95` (where D: is your CD-ROM Drive) if you have your Windows CD-ROM, or to `C:\windows\options\cabs` if you don't.

16. Once Windows has copied the necessary files, the System Settings Change window appears. Remove all disks from your PC and click the **Yes** button to restart your PC. If you don't see this window, simply shut down Windows 95 and restart your PC. Remember to remove the installation disk and CD-ROM, if necessary, prior to rebooting.



17. A Logon window will appear, requiring you to enter a username and password. Make up a username and password and click the **OK** button. Do not press the **ESC** key or click the **Cancel** button, or you won't be able to log onto the network. If the a logon screen does not appear or if it does not allow you to log on, refer to the **Troubleshooting** section.

18. Once you are at the Windows 95 desktop, double-click on the **Network Neighborhood** icon. You should see an icon for the entire network and the names of the other PCs on the network. Open the **Entire Network** icon.

    - **If you can see your computer along with all the other computers on the network in Network Neighborhood, then the Windows 95 network configuration is complete. Continue with *Sharing Your Files and Printers* in the Appendix if you want data from your PC to be available to others on the network. You may stop here, however, if you wish to configure File and Printer Sharing at a later time.**

Refer to the **Troubleshooting** section if:

- You don't see anything at all in Network Neighborhood and have pressed the **F5** key on your keyboard a few times to refresh the screen.
- You only see your own computer in Network Neighborhood.
- You see all computers on the network except yours and have tried pressing the **F5** key a few times.
- You only see computers that are running the same operating system as you and you don't see any others.

Windows 98 Installation and Setup

Overview

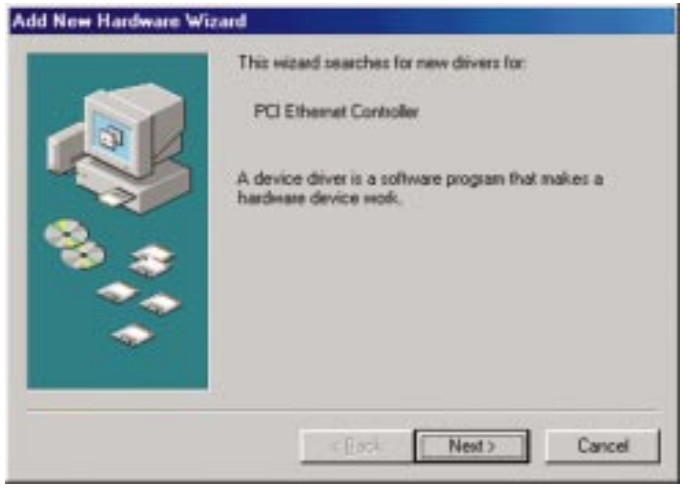
After physically installing the EtherFast® 10/100 LAN Card in your computer, follow these instructions to install the network device driver. The installation procedure for the network driver will vary depending on which version of Windows 98 you are using, and on your current system configuration. If at any time during the installation you encounter problems, consult the **Troubleshooting** section.

Installing the Network Card's Driver

1. Start up your PC in Windows 98.

2. Windows 98 will automatically detect the presence of the EtherFast® Card in your PC.

3. Slide the "*Linksys LNE100TX (v5) Fast Ethernet Adapter Drivers"* diskette into your floppy drive while the *Add New Hardware Wizard* window is visible. Click the **Next** button.



4. Select "*Search for the best driver for your device (Recommended)*" and click the **Next** button**.**



5. Select "*Specify a location*" and type "**A:\WIN98"** in the drop-down box. Then, click the **Next** button.



6. A window will open, notifying you that Windows is searching for the *Linksys LNE100TX Fast Ethernet Adapter* driver. When the window notifies you that it is ready to install the driver, click the **Next** button.



7. Windows will begin copying the EtherFast Card's driver files to your PC. Refer to the chart below to help guide you through the process.

*If you press **Skip** or **Cancel**, the drivers will not be installed!*	
• If your PC asks for the Linksys Setup or Driver Disk	*1. Click **OK**.* *2. Ensure that the **Driver Disk** is in your PC's floppy drive.* *3. Type "a:\" in the "Copy files from:" box.* *4. Click **OK**.*
• If you are asked to supply your Windows 98 Installation Files or Disks	*1. Click **OK**.* *2. If you have a **Windows 98 CD-ROM**, type "d:\win98" in the "Copy files from:" box, where "d:" is your CD-ROM drive.* *3. If you* don't *have a **Windows 98 CD-ROM**, type: "c:\windows\options\cabs".* *4. Click **OK**.*
• If you are asked for a file that includes "LNE100TX" in its name	*1. Insert the **Driver Disk** into your PC's floppy drive.* *2. Type "a:\" in the "Copy files from:" box.* *3. Click **OK***
• If you receive a Version Conflict error	*1. Choose to keep the newest version of the file by clicking **Yes**.*

8. Windows will finish installing the software onto your PC. Click the **Finish** button.



9. When asked if you want to restart your PC, remove the Driver Disk and click the **Yes** button. If you are using the Windows CD-ROM, leave it in your PC. You may need it later.

10. If Windows does not ask you to restart your PC, click the **Start** button, choose **Shut Down**, choose **Restart**, then click the **Yes** button.

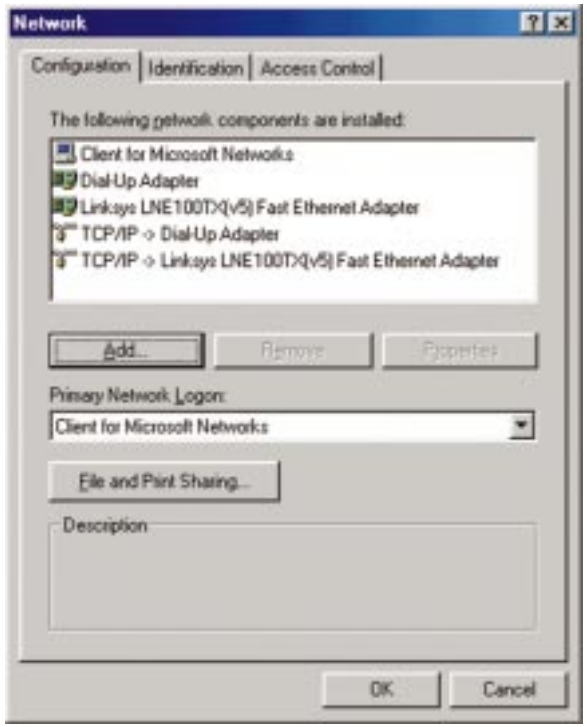
The Windows 98 driver installation is complete. Please continue on to the next section, which will provide instructions for configuring Windows 98's network protocol. Consult your Windows documentation for your network configuration information if necessary.

Note: *From this point on, you must provide Windows with a User name and Password every time you are prompted to do so. Remember to click the **OK** button to properly log into Windows. If you click the **Cancel** button or press the **Escape (ESC)** key, you will not log into the network.*

Network Component Configuration

1. Once you are back at the Windows 98 desktop, click on your taskbar's **Start** button, then **Settings**, then **Control Panel**, and then double-click the **Network** icon.

2. The Network window will appear. Click on the **Configuration** tab. A window similar to the one below will appear. There may be other components listed in addition to the ones shown below (for example, a *Dial-up Adapter*), which is normal. If any of the components shown below are missing, however, you'll need to manually install them. Refer to **Manually Installing the Network Components** in the Appendix now.
   - *Client for Microsoft Networks*
   - *Dial-Up Adapter*
   - *Linksys LNE100TX (v5) Fast Ethernet Adapter*
   - *TCP/IP -> Dial-Up Adapter*
   - *TCP/IP -> Linksys LNE100TX (v5) Fast Ethernet Adapter*



3. Click the **File and Print Sharing** button. The File and Print Sharing window will appear.

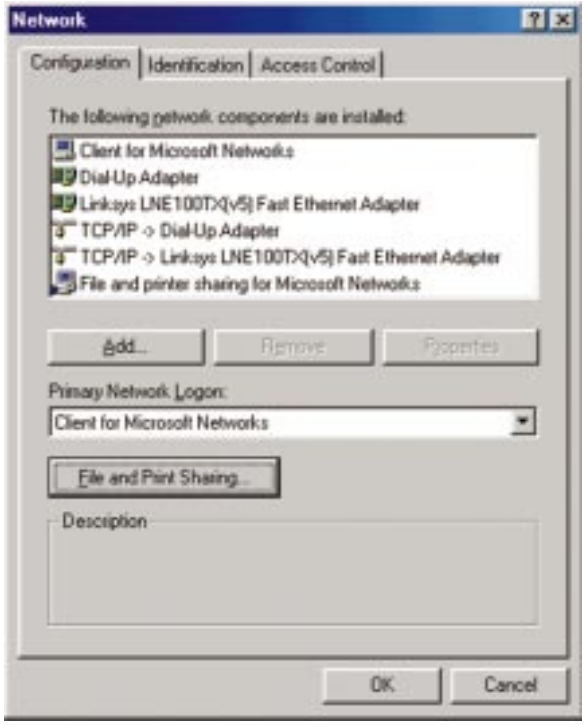
4a. If you'd like others to be able to access the files on your PC's hard drive, select **I want to be able to give others access to my files**.

4b. If you'd like to share your printer with other users on the network, select **I want to be able to allow others to print to my printer**.



5. Click the **OK** button. *File and Printer Sharing for Microsoft Networks* should now appear in the list of installed components.

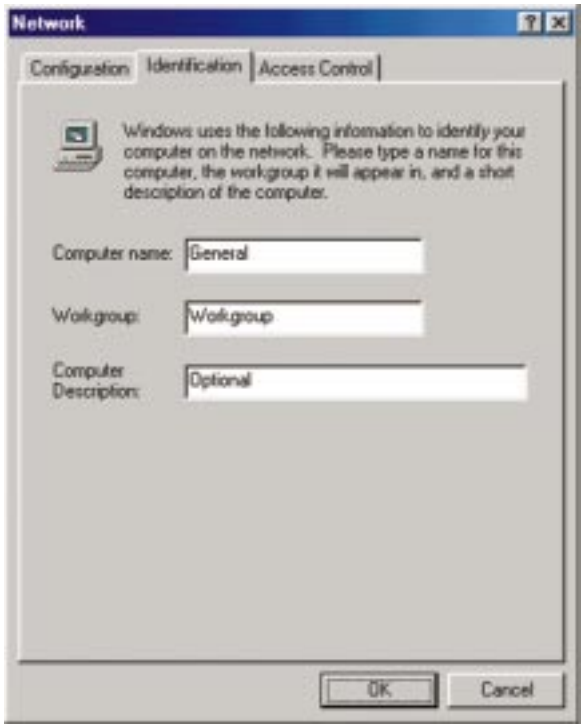
Note: *If you do not enable File and Print Sharing, your PC will be invisible on the network and inaccessible to other users.*



6. After ensuring that all of the listed network components are installed on your system, in the *Primary Network Logon* box select **Client for Microsoft Networks** .

> ***Note:*** *Your Computer and Workgroup Names must both be fewer than 15 characters, and should only consist only of numbers and letters.*

7. Click on the **Identification** tab. Type the name of your computer in the **Computer Name** box. Choose a name that is unique from the other computer names on the network.



8. Type the **name of your workgroup** in the *Workgroup* box. The Workgroup name should be the same Workgroup Name in use by all of the other PCs on the network. Use the same Workgroup Name that is in use on your other computers for ease of use. Do *NOT* click the **OK** button when you are done.

9. Enter a **description of your computer** in the *Computer Description* box. *This box is optional, and can be left blank.*

10. Choose the **Access Control** tab. Verify that **Shared-level access control** is selected.



11. Click the **OK** button. Your system may ask you for your Windows 98 CD-ROM or the location of the Windows 98 installation files. If it does, direct Windows to the appropriate location, (i.e., `D:\win98` if you have the Windows 98 CD-ROM, or `C:\windows\options\cabs`).

12. Once Windows has copied the necessary files, the System Settings Change window appears. Remove all disks from your PC and click the **Yes** button to restart your PC. If you don't see this window, simply shut down Windows 98 and restart your PC. Remember to remove any installation disks or CD-ROMs prior to rebooting.

13. A Logon window will appear, requiring you to enter a **User name** and **Password**. Make up a user name and password (if you haven't already) and click the **OK** button. Do not click the **Cancel** button or press the **Escape** key. Clicking either of these buttons will prevent you from logging into the network. If the logon does not appear or if it does not allow you to log on, refer to the **Troubleshooting** section.

14. Once you are at the Windows 98 desktop, double-click on the **Network Neighborhood** icon. You should see one icon for the entire network and the names of the other PCs on the network.

    - **If you can see your computer along with all the other computers on the network in Network Neighborhood, then the Windows 98 network configuration is complete. Continue with *Sharing Your Files and Printers* in the Appendix if you want your PC's data or printer to be available to others on the network. You may stop here, however, if you wish to configure File and Printer Sharing at a later time.**

Refer to the **Troubleshooting** section if:

- You don't see anything at all in Network Neighborhood and have pressed the **F5** key on your keyboard a few times to refresh the screen.
- You only see your own computer in Network Neighborhood.
- You see all computers on the network except yours and have tried pressing the **F5** key a few times.
- You only see computers that are running the same operating system as you and you don't see any others.

Windows Millennium Installation and Setup

Overview

After physically installing the EtherFast® 10/100 LAN Card in your computer, follow these instructions to install the network device driver. The installation procedure for the network driver will vary depending on which version of Windows 98 you are using, and on your current system configuration. If at any time during the installation you encounter problems, consult the **Troubleshooting** section.

Installing the Network Card's Driver

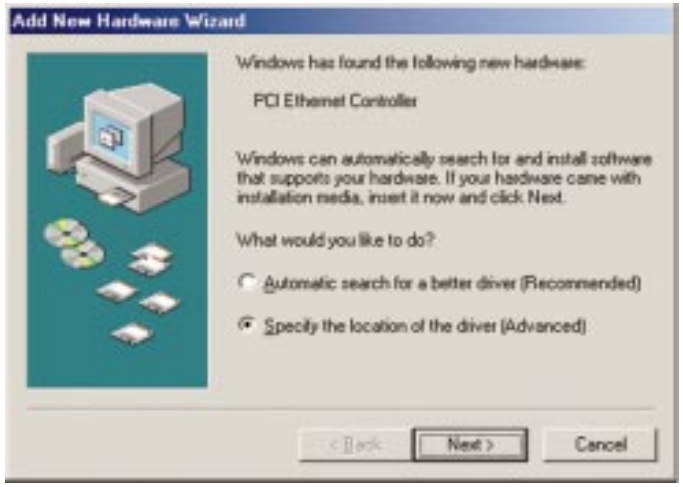
1. Start up your PC in Windows Millennium.

2. Windows ME will automatically detect the presence of the PCI Ethernet Controller hardware in your PC.

***Note:** Do not click **Cancel** or **Skip** at any time during the installation. Doing so will prevent your driver from being properly installed on your PC.*

3. Slide the *"Linksys LNE100TX (v5) Fast Ethernet Adapter Drivers"* diskette into your floppy drive while the *Add New Hardware Wizard* window is visible. Click the **Next** button.

4. Select "*Specify the location of the driver (Advanced)*" and click the **Next** button.



5. Select "*Search for the best driver for your device (Recommended)*" and select "*Specify a location*". Then, type "**A:\WINME"** in the drop-down box and click the **Next** button.



6. A window will open, notifying you that Windows is searching for the *Linksys LNE100TX Fast Ethernet Adapter* driver. When the window notifies you that it is ready to install the driver, click the **Next** button.



7. Windows Millennium will begin copying the EtherFast® Card's driver files onto your PC. If an "Insert Disk" box appears requesting Windows Millennium files, click **OK** and direct Windows to the proper location of the files, e.g. **c:\windows\options\install**, or **D:\win9x**.

8. If Windows asks you to supply any drivers beginning with "lne" or "netlne", re-direct Windows to your floppy drive (**A:\WINME**).

9. Windows will finish installing the software onto your PC. Click the **Finish** button.

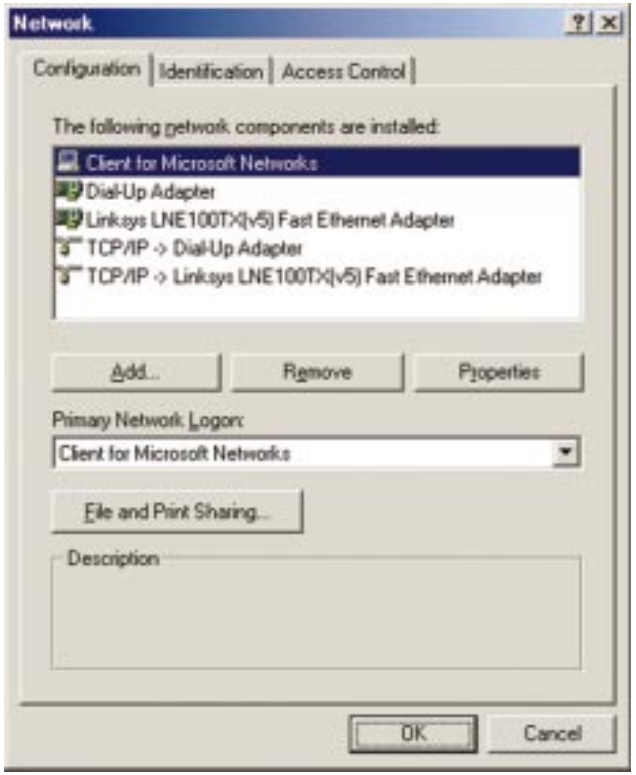


10. When asked if you want to restart your PC, remove the floppy disk from your PC and click the **Yes** button. If Windows does not prompt you to restart, do so manually. Click the **Start** button, then click **Shutdown**, and choose the **Restart** option and click the **OK** button.

Network Component Configuration

1. Once you are back at the Windows Millennium desktop, click on your taskbar's **Start** button, then **Settings**, then **Control Panel**, and then double-click the **Network** icon.

2. The Network window will appear. Click on the **Configuration** tab. A window similar to the one below will appear. There may be other components listed in addition to the ones shown below (for example, a *Dial-up Adapter*), which is normal. If any of the components shown below are missing, however, you'll need to manually install them. Refer to **Manually Installing the Network Components** in the Appendix now.
   - *Client for Microsoft Networks*
   - *Dial-Up Adapter*
   - *Linksys LNE100TX (v5) Fast Ethernet Adapter*
   - *TCP/IP -> Dial-Up Adapter*
   - *TCP/IP -> Linksys LNE100TX (v5) Fast Ethernet Adapter*



3. Click the **File and Print Sharing** button. The File and Print Sharing window will appear.

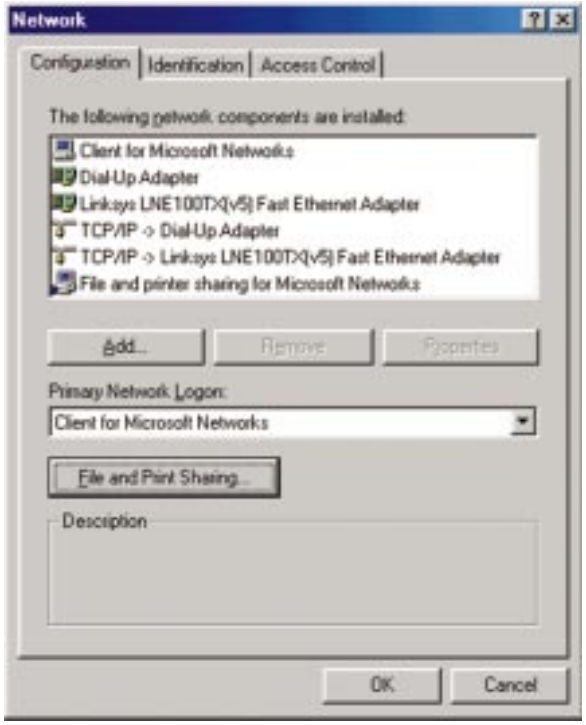
4a. If you'd like others to be able to access the files on your PC's hard drive, select **I want to be able to give others access to my files**.

4b. If you'd like to share your printer with other users on the network, select **I want to be able to allow others to print to my printer**.



5. Click the **OK** button. *File and Printer Sharing for Microsoft Networks* should now appear in the list of installed components.

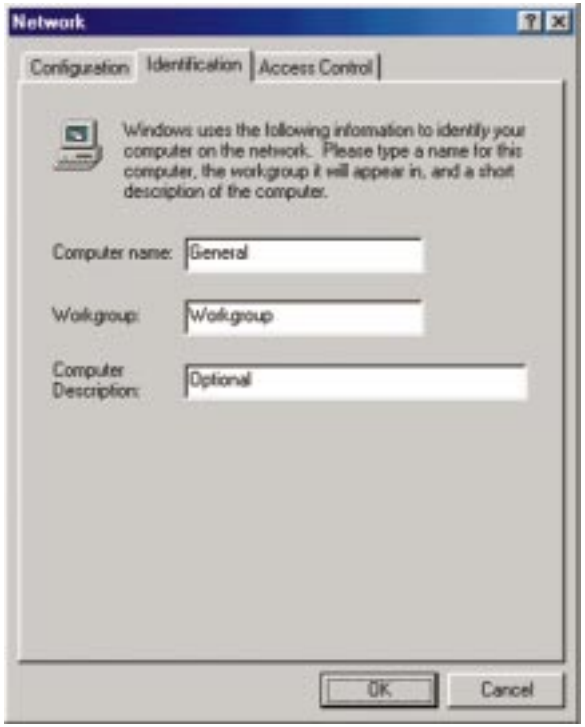
Note: *If you do not enable File and Print Sharing, your PC will be invisible on the network and inaccessible to other users.*



6. After ensuring that all of the listed network components are installed on your system, in the *Primary Network Logon* box select **Client for Microsoft Networks** .

7. Click on the **Identification** tab. Type the name of your computer in the **Computer Name** box. Choose a name that is unique from the other computer names on the network.

> ***Note:*** *Your Computer and Workgroup Names must both be fewer than 15 characters, and should only consist only of numbers and letters.*



8. Type the **name of your workgroup** in the *Workgroup* box. The Workgroup name should be the same Workgroup Name in use by all of the other PCs on the network. Use the same Workgroup Name that is in use on your other computers for ease of use. Do *NOT* click the **OK** button when you are done.

9. Enter a **description of your computer** in the *Computer Description* box. *This box is optional, and can be left blank.*

10. Choose the **Access Control** tab. Ensure that **Shared-level access control** is selected.



11. Click the **OK** button. Your system may ask you for your Windows Millennium CD-ROM or the location of the Windows Millennium installation files. If it does, direct Windows to the appropriate location, (i.e., `D:\win9x` if you have the Windows Millennium CD-ROM, or `C:\windows\options\install`).

12. Once Windows has copied the necessary files, the System Settings Change window appears. Remove all disks from your PC and click **Yes** to restart your PC. If you don't see this window restart your PC. Remember to remove any installation disks or CD-ROMs prior to rebooting.

13. A Logon window will appear, requiring you to enter a **User name** and **Password**. Make up a user name and password (if you haven't already) and click the **OK** button. Do not click the **Cancel** button or press the **Escape** key. Clicking either of these buttons will prevent you from logging into the network. If the logon does not appear or if it does not allow you to log on, refer to the **Troubleshooting** section.

14. Once you are at the Windows Millennium desktop, double-click the **My Network Places** icon, the **Entire Network** icon, and then the **Your WorkGroup** icon. You should see one icon for the entire network and the names of the other PCs on the network.

    - **If you can see your computer along with all the other computers on the network in Network Neighborhood, then the Windows Millennium network configuration is complete. Continue with *Sharing Your Files and Printers* in the Appendix if you want your PC's data or printer to be available to others on the network. You may stop here, however, if you wish to configure File and Printer Sharing at a later time.**

Refer to the **Troubleshooting** section if:

- You don't see anything at all in Entire Network and have pressed the **F5** key on your keyboard a few times to refresh the screen.
- You only see your own computer in Entire Network.
- You see all computers on the network except yours and have tried pressing the **F5** key a few times.
- You only see computers that are running the same operating system as you and you don't see any others.

Windows NT 4.0 Installation and Setup

Overview

The following instructions will set up the EtherFast® 10/100 LAN Card in a computer running NT 4.0 server/workstation. You should have your original Windows NT CD-ROM available during the installation, as you might be asked to supply it. Always consult your NT documentation if you have questions.

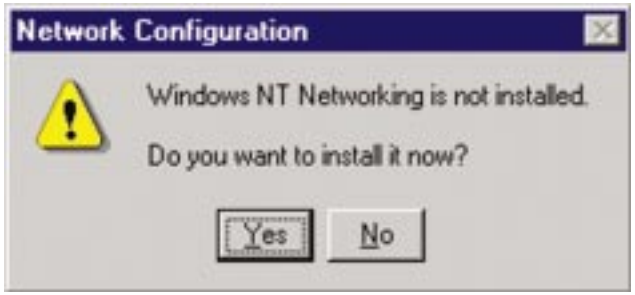
Note: *If you have installed any Service Packs, you will need to reinstall them after installing and setting up the 10/100 LAN Card.*

To install the network driver for an NT 4.0 Server or Workstation

1. **Log into Windows NT** as an administrator.

2. Click on **Start**, **Settings**, **Control Panel**, and then double-click on the **Network** icon.

3. If you have not previously installed Windows NT networking on your computer, a message will appear that reads: *Windows NT Networking is not installed. Do you want to install it now?*



- If you see this message, click the **Yes** button to install NT networking along with the EtherFast Card's network driver, and continue with step 1 on the following page.
- If you don't see this message, NT networking is already installed. Skip to the Installing the **EtherFast Network Driver if Networking is Already Installed** section.

Installing NT Networking and the EtherFast Card Driver

1. After clicking on the **Yes** button, the *Network Setup Wizard* window will appear.

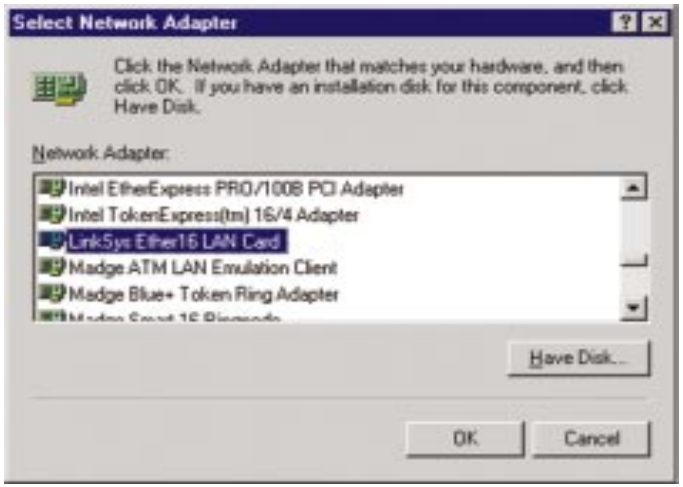
2. When the screen below appears, put a checkmark next to **Wired to the network** and then click the **Next** button.



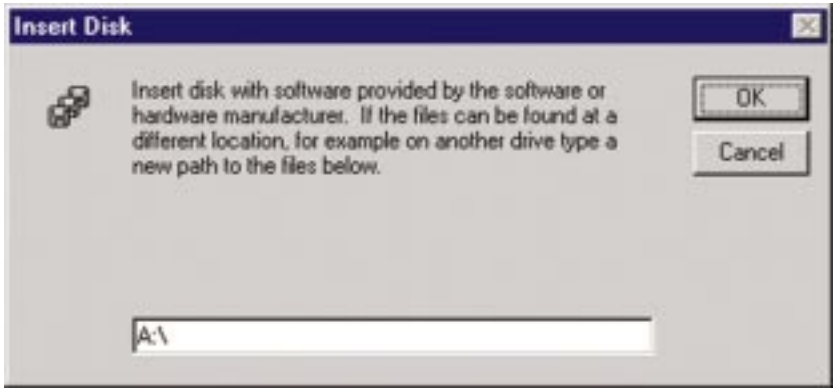
3. Click the **Select from list...** button to select the network adapter.



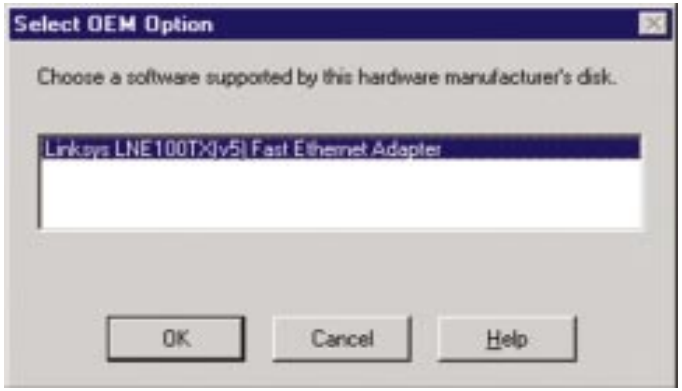
4. At the *Select Network Adapter* screen, click the **Have Disk** button and insert the *EtherFast® 10/100 LAN Card Driver Disk* into drive A.



5. At the Insert Disk screen, type **A:** into the field on your screen and click the **OK** button.



6. Highlight the **Linksys LNE100TX(v5) Fast Ethernet Adapter** entry in the window that appears and click the **OK** button.

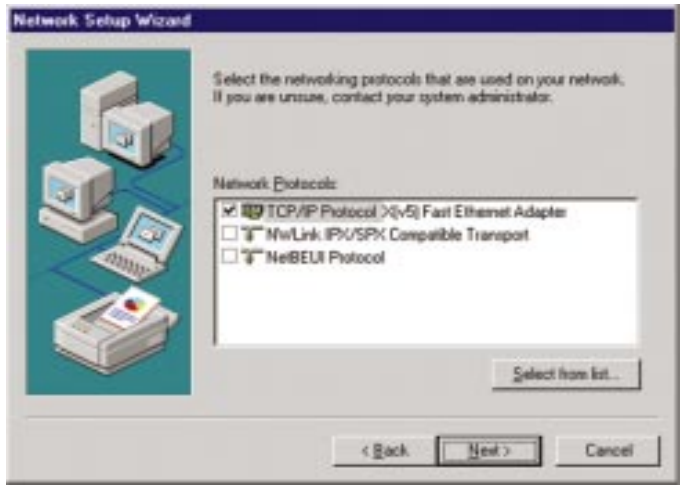


6. The adapter will be added to the list of Network Adapters on the Network Setup Wizard screen. Click the **Next** button.

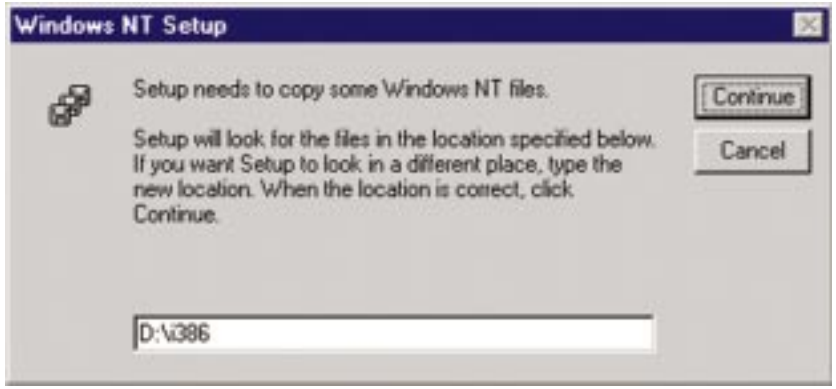


7. Make sure there is a **check mark** beside **TCP/IP Protocol X(v5) Fast Ethernet Adapter**. Uncheck any others that may be checked and then click the **Next** button to continue.

*Note: If you install the **TCP/IP protocol**, refer to your Windows NT documentation when installation steps that aren't listed in this User Guide appear. Linksys does not provide technical support for the configuration or troubleshooting of the TCP/IP protocol.*



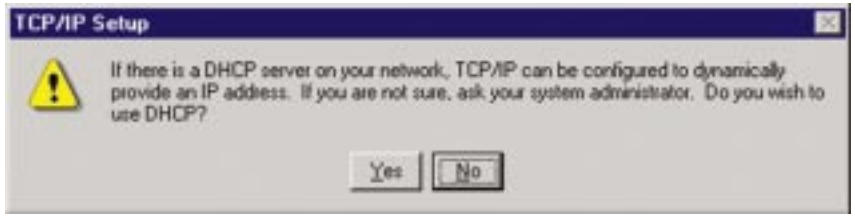
9. Click the **Next** button to proceed through the subsequent screens. If you are asked to supply your original Windows NT CD-ROM or setup disks, place your Windows NT CD-ROM in your CD drive. If the CD-ROM loads a pop-up window, close it. Type **`D:\i386`** (or the appropriate CD-ROM drive letter) in the box and click the **Continue** button.



10. NT will ask you to choose a media type for the EtherFast card. Choose **AutoSense**. You can change these settings later if needed. Then, click the **Continue** button.



11. You may be asked if there if a DHCP Server on your network. Verify if there is, and if you wish to use DHCP, and click the Yes or No button on the following screen, accordingly.



11. NT will copy the necessary network drivers to your PC. When the copying is complete, you will see a list of installed bindings. These binding are appropriate to the card you are installing. Click the **Next** button to go through these two screens..

Note: *For information and help on bindings, services and protocols, check your Windows NT documentation.*

12. When you reach the following screen, choose either **Workgroup** or **Domain**, depending on the type of network you're setting up. (Your Microsoft documentation explains the difference between Workgroups and Domains.) Click the **Next** button to continue.



13. On the next screen, click the **Finish** to complete installation. When asked if you want to restart your computer, remove the Driver Disk and click the **Yes** button.

14. Once your PC has rebooted and you are logged in, double-click the **Network Neighborhood** icon on your desktop. Make sure that you have access to the network. If you do, your card has been properly installed.

Note: *If you need to install the TCP/IP Protocol, consult your Windows NT documentation. Linksys does not provide technical support for TCP/IP configuration or troubleshooting.*

Note*: If you had previously installed any NT service packs, you must re-install them. Otherwise, you may receive Not Enough Service Storage Space errors in the Event Viewer.*

The Windows NT Installation and Setup of the EtherFast® 10/100 LAN Card is complete. Do not continue on with the next set of instructions. They are for NT users who already had their networking configured.

Installing the EtherFast Network Driver if Networking is Already Installed

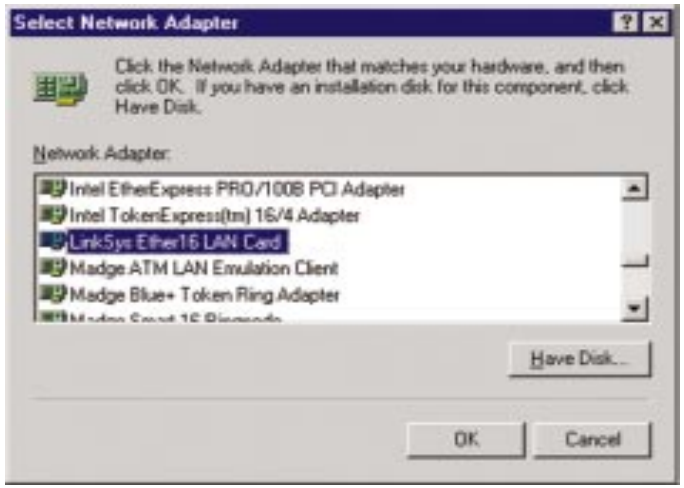
The following steps are for NT PCs that have networking already installed according to the Windows NT documentation. If you have not already installed networking onto your NT PC, please refer to your Windows documentation. These steps will install the EtherFast® Card's driver software on your PC, enabling your PC to properly communicate with the card. Remember that **you must be logged on as a network administrator to continue**.

1. Click on **Start**, **Settings**, **Control Panel**, then double-click on the **Network** icon.

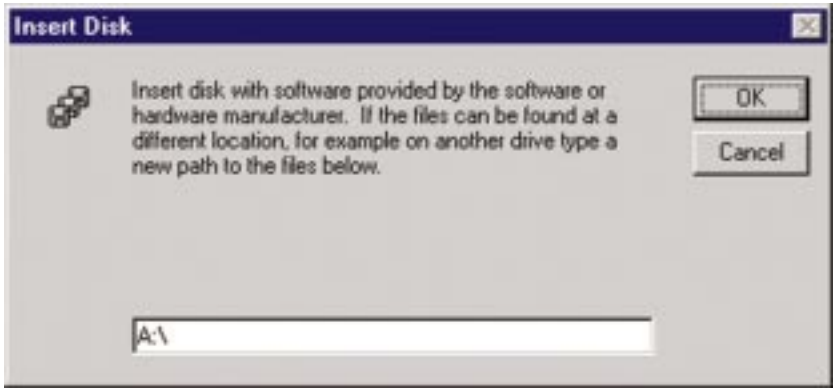
2. When the networking window appears, choose the **Adapters** tab and click the **Add** button.



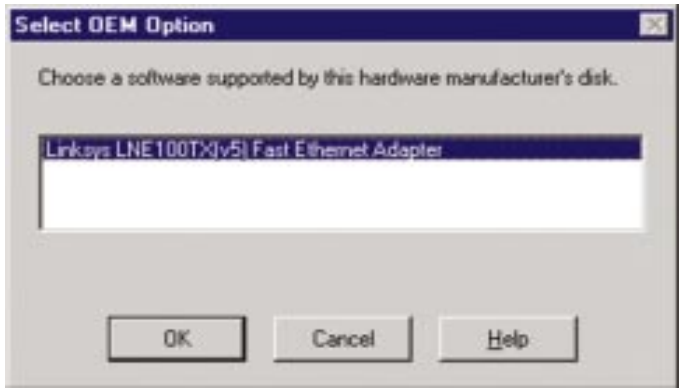
3. When the list of available network adapters appears, click the **Have Disk** button.



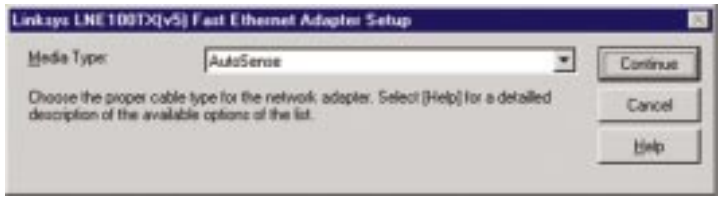
4. Put the *"Linksys LNE100TX (v5) Fast Ethernet Adapter Drivers"* diskette into drive A. Type **A:** into the box on your screen and click the **OK** button.



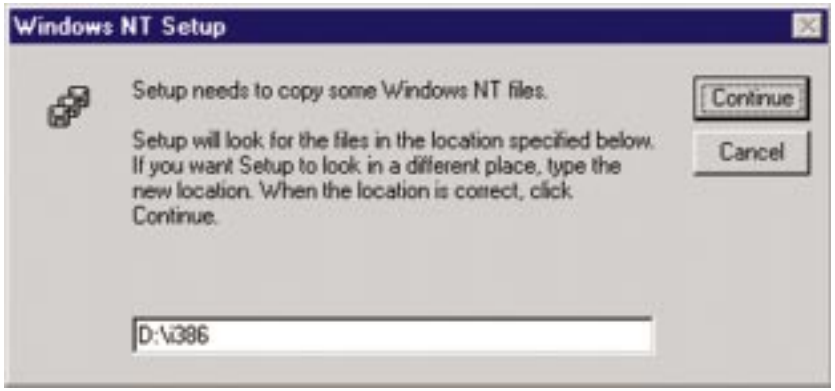
5. Highlight the **Linksys LNE100TX(v5) Fast Ethernet Adapter** entry in the window that appears. Then, click the **OK** button.



6. When NT asks you for the media type. Choose the **AutoSense** option. When finished, click the **Continue** button. Then, click the **Close** button.



7. If Windows NT asks you to supply your original Windows NT CD-ROM or setup disks, direct Windows NT to the proper location (most likely D:\i386, where D represents the letter of your CD-ROM drive).



10. Remove your Driver Disk and CD-ROM and click the **Yes** button to restart your PC.



11. Once your PC has rebooted, double-click the **Network Neighborhood** icon on your desktop. Make sure that you have access to the network. If you do, your card has been properly installed.

- *If you had previously installed any NT service packs, you must re-install them. Otherwise, you may receive Not Enough Service Storage Space errors in the Event Viewer.*

- *If you need to install the TCP/IP protocol, refer to your Windows NT documentation. Linksys does not provide technical support for the configuration or troubleshooting of the TCP/IP protocol*

The Windows NT Installation and Setup of the EtherFast® 10/100 LAN Card is complete.

Note: *If you need to install the TCP/IP Protocol, consult your Windows NT documentation. Linksys does not provide technical support for TCP/IP configuration or troubleshooting.*

Note*: If you had previously installed any NT service packs, you must re-install them. Otherwise, you may receive Not Enough Service Storage Space errors in the Event Viewer.*

Windows 2000 Installation and Setup

Overview

After physically installing the EtherFast® 10/100 LAN Card in your computer, follow these instructions to install the network device driver. The installation procedure for the network driver will vary slightly depending on which version of Windows 2000 you are using, and on your current system configuration. If at any time during the installation you encounter problems, consult the **Troubleshooting** section.

Note: *Prior to proceeding, ensure that you are operating Windows 2000 with administrative rights. If you log into Windows 2000 without administrative rights, you may run into problems during the installation.*

Note: *Do not click* ***Cancel*** *or* ***Skip*** *at any time during the installation. Doing so will prevent your driver from being properly installed on your PC.*

Installing the Network Card's Driver

1. Start and log on to your Windows 2000 PC.

2. Windows will display the *Found New Hardware Wizard* box. Click the **Next** button to continue.



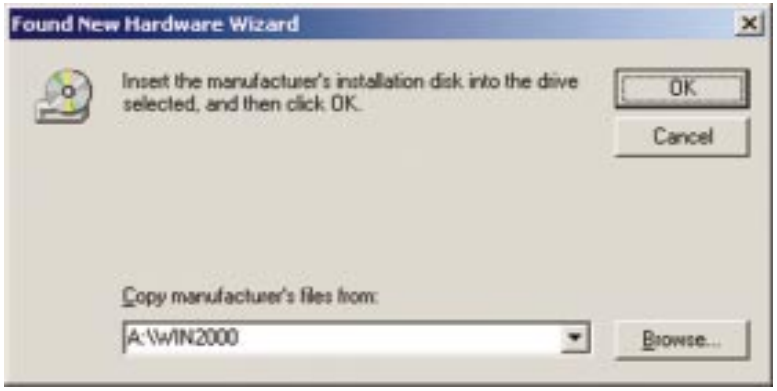
3. The *Install Hardware Device Drivers* dialog box will appear. When *Ethernet Controller* is displayed, select **Search for a suitable driver for my device (Recommended)** and click the **Next** button.



4. The *Locate Driver Files* dialog box will appear. Select **Specify a location** and click the **Next** button.



5. When the *Found New Hardware Wizard* box appears, insert the "*Linksys LNE100TX (v5) Fast Ethernet Adapter Drivers"* diskette into your floppy drive. In the "*Copy manufacturer's files from*" field, type "**A:\WIN2000**" and click the **OK** button



6. The *Driver File Search Results* dialog box will appear. Click the **Next** button to continue.



7. The *Completing the Found New Hardware Wizard* dialog box will appear. Click the **Finish** button to complete the installation.



8. Remove the floppy disk from the floppy drive.

The Windows 2000 driver installation is complete. If you want to share files or printers, refer to your Windows 2000 documentation.

Troubleshooting

Troubleshooting hints for Windows can be found below. If you are using Windows NT, NetWare, or another network operating system, skip to the Card Diagnostics instructions in this section.

Common Problems and Solutions

1. Windows doesn't detect new hardware with the EtherFast Card hardware installed, or it continues to detect the card each time you restart your PC.
   - You might not have inserted the PCI card correctly or securely into the appropriate slot of your computer. Check that the card is securely inserted into the appropriate slot.
   - Try inserting your card into an alternate PCI slot.
   - You may have previously aborted a new hardware setup. Follow the directions in the **Starting Over in Windows 95, 98 or 2000** section in the Appendix.
   - The motherboard in your system might not be Plug-and-Play compatible, your PC's Plug-and-Play settings may not be enabled, or the motherboard may have Plug-and-Play options not supported by Windows 95/98. If you are not sure, contact your PC's manufacturer.

2. Windows can't locate the driver for the EtherFast Card device.
   - You may have inserted the wrong diskette into your PC's drive.
   - The diskette may be defective or files may be missing. Make sure the disk has a few files in a:\ starting with lne100 or a folder called Win95 for Window 95, Win98 for Windows 98, WinME for Windows Millennium, or Win2000 for Windows 2000.

3. The Windows Logon screen doesn't appear after you restart your computer.
   - Click on Start, Shut Down, then Close All Programs and Logon as a Different User, (in Windows 98 or Millennium, select Log Off). If this doesn't solve the problem, your PC's manufacturer may have disabled Windows' networking. Contact your computer's manufacturer for help.

4. After entering a username and password, a window appears that reads, "No Domain Server could be found to validate your Username and Password."
   - Click on Start, Settings, Control Panel. Double-click on Network. Click on the Configuration tab. Under The Following Network Components are Installed box, highlight Client for Microsoft Networks and click on the Properties button. Once you are in the Client For Microsoft Networks Properties window, make sure that Log on to Windows NT Domain is unchecked. Once you have made sure that it is unchecked click on the OK button and restart your computer.

5. On the Access Control Tab, User Level Access is selected, but Shared Level Access is grayed out and not accessible.
   - You previously had your primary network logon set to *Client for NetWare Networks*. On the **Configuration** tab of the *Network Properties* window, ensure that your primary network logon is set to *Client for Microsoft Networks*.
   - Your personal web server PC or Microsoft Front Page may require you to choose a user level for security reasons.

6. In Network Neighborhood you can only see your self and no other computers on the network.
   - Make sure that the cables are connected correctly. Make sure you are getting Link or Activity lights on both the EtherFast Card and your hub. Try changing to a new cable that you know is working.
   - Your workgroup name may be different from other computers on your network. Make sure each PC on the network is using the same workgroup name and protocol.
   - Try using the Find Computer function (see problem 10).

7. In Network Neighborhood, you can see all other computers on the network but not yourself, and all other computers can see each other and not your computer.
   - You may have not have enabled File and Printer Sharing. To do so, go to the Network Component Configuration sections in the chapters on Windows 95 and 98.
   - The network card might not be setup properly. Try reinstalling the card's drivers. To clean your system of the old installation, go to the **Starting Over in Windows 95, 98 or 2000** section in the Appendix and then reinstall.

8. "Network Neighborhood" or "Entire Network" is Empty.
   - For "Network Neighborhood", verify that your Microsoft Client is installed. See the Windows 95 or 98 setup instructions in this guide for directions. Verify that you have logged in correctly. Refresh the screen by pressing **F5** several times.
   - For "Entire Network", verify that your Microsoft Client is installed. See the Windows Millennium setup instructions in this guide for directions. Verify that you have logged in correctly. Refresh the screen by pressing **F5** several times.

9. You receive DHCP Errors in Windows.
   - If you are connecting to a DHCP server, check your cabling and connection. If you require TCP/IP to be configured, check with your network administrator or your Windows documentation for proper settings.
   - If you don't have a DHCP server on your network and your network setup doesn't require TCP/IP, you may remove the TCP/IP component from Windows' networking. To do this, click on **Start**, **Settings**, **Control Panel**, then double-click on **Network**. Click once on the **component entry** with the words TCP/IP and Linksys or TCP/IP on its own, then click on the Remove button. Click **OK** when finished and restart your PC. If the problem persists, try running the diagnostics.

10. In Network Neighborhood you can only see computers running the same operating system as your computer (i.e., your PC is running Windows 95 and it can only see other Windows 95 computers and not any computer running Windows 98).
   - Choose **Start**, **Find**, **Computer** and type the name of the computer in the window that comes up and click **Find Now**.
   - Now make sure that you are using the same protocol(s) and workgroup name on the 95 and 98 computers. To do this, click **Start**, **Settings**, **Control Panel** on two computers running different Windows operating systems. Click on the **Network** icon, choose the **Configuration** tab, then click on the **Identification** tab for Workgroup name. Compare the protocols on both computers and make sure that they are the same. If any protocols are missing, refer to the **Manually Installing Network Components in Windows 95 and 98** section in the Appendix to install any needed protocol(s).
   - If all computers are using the same protocol(s) and Workgroup name, and Windows 95 computers can't see Windows 98 computers, enable NetBIOS on all the computers using Windows 95 and 98. Follow these instructions:
   - The IPX/SPX-compatible protocol should be installed on all Windows computers (see the **Manually Installing Network Components in Windows 95 and 98** section in the Appendix if you need to add this protocol). Bring up the properties of the IPX/SPX-compatible protocol by clicking on Start, Settings, Control Panel, then double-click the Network icon. Choose the Configuration tab and highlight IPX/SPX-compatible Protocol. Click on Properties. Now, to install NetBIOS, click on the NetBIOS tab. Put a check next to I want to enable NetBIOS over IPX/SPX. Click OK, then OK again. Windows will copy the appropriate files to your computer. When asked to restart your PC, remove any floppy disks and click **OK**. Be sure to do this on all of your computers that are having trouble seeing your entire network.

11. The workgroup, protocols, cabling and driver are all working properly, but the PC uses an AMD processor and it can only see itself in network neighborhood.
   - In some instances with PCs using AMD processors, the IRQ assigned to the card by the BIOS (as it gets listed on the bootup screens of most PCs) doesn't correspond to the IRQ assigned by Windows. This can be fixed by disabling the IRQ holder for PCI Steering in the Windows Device Manager. Refer to your PC's documentation for instructions or you can follow the suggested instructions below. Keep in mind that this procedure will vary depending on your computer's configuration.
   - Click on Start, Settings, Control Panel, then double click the System icon. Click on the Device Manager tab. Open System Devices, then open PCI Bus.
   - Click on the IRQ Steering tab. Remove the check from **Use IRQ Holder** and click **OK**. Windows will ask you to restart the PC (if it doesn't ask you, then reboot the PC manually).
   - After the computer boots up, Windows will try to re-detect the PCI Steering. Continue rebooting the PC until Windows stops detecting new hardware and settings for PCI Steering. This normally takes a total of four reboots.

12. While installing the Driver, an error message states that Setup cannot find OEMSETUP.INF or OEMSETNT.INT.
   - Make sure that the installation disk is in your computer's floppy drive, and click the OK button.
   - Enter the correct path name as shown in the section of this user guide, detailing installation for the Operating System you are using.

Running the Card's Diagnostics

If you suspect that there may be a problem with the Fast Ethernet Card, or if you need to identify the card's MAC address, you can use the DIAG diagnostic program on the EtherFast® 10/100 LAN Card Driver Disk.

To run the program, start up your computer in DOS. The program only works in standard "real DOS mode" DOS – it will not work in a Windows DOS window. To get into "real DOS mode," do the following:

- In Windows 95, start your computer. *When the Starting Windows...* message appears, press the **F8** key. You will then get to the *Microsoft Window Startup Menu*.
- In Windows 98, start your computer (No *Starting Windows...* message will appear). Immediately and rapidly press the **F8** key until you get the *Microsoft Window Startup Menu*.

1. Choose the **Safe mode command prompt only** option. Press **Enter** on the keyboard.

2. Insert the *EtherFast® 10/100 LAN Card Driver Disk* into drive A. Enter the appropriate commands after the following prompts:

   - When "C:\>" appears, type "a:" then press **Enter**.
   - When "A:\>" appears, type "cd diag" then press **Enter**.
   - When "A:\diag>" appears, type "diag" then press **Enter**.

   You can also copy the software to your local (c:\) drive and run DIAG from your hard disk.

3. The *Fast Ethernet Diagnostics Program* will appear, providing a display of the card's basic information (Ethernet Address, IRQ, I/O Port and Media Type). Press **Enter** to begin the testing cycle. If the card isn't found, power off the PC and ensure that the card is properly seated in the PCI slot.

4. The word "passed" will appear next to each successful test. If the card fails the Peer-to-Peer, Ping, or Bandwidth tests, any network problems that you are experiencing are external to the card; check your cabling and hub connections. If the card fails the Loopback or Register tests, check your computer's settings, then contact Linksys Customer Support for help.

Appendix

Sharing Your Files and Printers

Overview

By sharing your files and printers, other PCs on your network will be able to access the resources on your PC.

Before sharing your files and printers, you should prepare your computer to be used with any file servers that may be on the network. If you are **not** using Windows 95, 98 or Millennium with an NT, 2000 or NetWare file server, or if you are not sure if you have a file server, continue below.

If you are using a NetWare or NT file server, refer to the directions in the Appendix for client setup.

Enabling File Sharing

1. Double-click your **My Computer** icon. A window of available disk drives will appear.

2. Using your right mouse button, click once on the drive or folder that you want to make available to other users.

3. Click on **Sharing**, followed by the **Sharing** tab. Click on **Share As**.

4. In the Share Name box, enter a name for the drive or folder you are sharing. This can be any drive on your PC—floppy drive, hard drive, CD drive, zip drive, etc.

5. Decide on the type of access that you want to give other users.
   - **Read-Only access** allows other users to view the files on the selected drive.
   - **Full access** allows other users to create, change, or delete files on the selected drive.
   - **Depends on Password** allows other users to have Read-Only and/or Full access to the selected drive, depending on the password that you decide to give them.

> ***Note:*** *If you are only using your PC to access the Internet, it is highly recommended that you create passwords for your shares.*

6. If you want to assign access passwords, type the passwords into the Password boxes.

7. When you're done, click on the **Apply** button, followed by the **OK** button. Repeat steps 1-7 for any drive or folder you desire to share on the network.

You have successfully enabled File Sharing on your PC. Your selected drives or folders can now be accessed by other network users. If a user tries to access one of your password-protected drives or folders, he or she will be asked for the appropriate Read-Only or Full-Access password. Continue on if you wish to share your PC's printer over the network.

Enabling Printer Sharing

1. Double-click on the **My Computer** icon.

2. Double-click the **Printers** folder. A window of available printers will appear.

Note: Any printer you wish to share from your PC must be physically connected to your PC.

3. Using your right mouse button, click once on the printer that you want to share with other users. Click on **Sharing**, followed by the **Sharing** tab.

4. Click on **Share As**. In the Share Name box, give a name to the printer you want to share. If you want to assign a password to the printer so that only certain users can access it, type a password in the Password box.

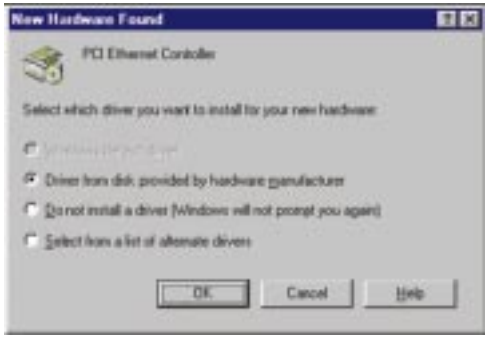
5. Click on the **Apply** button, followed by the **OK** button. Your printer(s) are now shared.

Note: Not all printers may be shared on the network. Others may require special instructions. Refer to your printer's user guide or contact your printer manufacturer if you think this may be the case with your printer.

The Printer Sharing setup and installation is complete. Your printer can now be accessed by other network users. The printer's driver may have to be installed on other PCs. Consult your printer's documentation.

Installing the Driver in Windows 95 Version A

1. Windows 95 will detect the EtherFast card and display a *New Hardware Found* window.



2. Slide the **EtherFast Card Driver Disk** into drive A.

3. Select *Driver from disk provided by hardware manufacturer*, then click **OK**.

4. When asked for the location of the files, type **a:** and click **OK**. If Windows 95 goes straight to the desktop, refer to the **Troubleshooting** section.

5. Windows 95 will copy the appropriate network drivers to your PC. If Windows 95 asks you to supply your original Windows 95 installation CD-ROM or setup files, enter the appropriate path for those files (e.g.: A:\, D:\WIN95, C:\WINDOWS\OPTIONS\CABS).

6. During the installation, windows may ask you for a computer and workgroup name. Once you have established computer and workgroup names, return here to continue with the installation.

7. After Windows 95 has completed copying the necessary files to your PC, it may ask you to restart your computer. Remove the floppy disk and click **OK**.

The Windows 95 Version A driver installation is complete. Please continue on to Windows 95 Network Component Configuration section in the Windows 95 Installation and Setup chapter. Consult your Windows documentation for network configuration information if necessary.

Novell NetWare 3.x Client Setup for Windows 95 or 98

The instructions below explain how to set up the regular Novell NetWare 3.x client for use on a Windows 98 or 95 PC. If you are installing NetWare's Client32 software instead, follow the instructions in that chapter .

1. Follow the Windows 95 setup instructions or the Windows 98 setup instructions.

2. Start up Windows 95 or 98. Click on **Start**, **Settings**, then **Control Panel**. Double-click on **Network**. The Network window appears. Click on the **Configuration** tab.

3. In the Primary Logon Box, choose *Client for NetWare Networks*.

4. Under the *The following network components are installed* box, highlight *Client for NetWare Networks* and click on the **Properties** button.

5. The *Client for NetWare Networks Properties* window appears. Under the **General** tab, enter the name of your network's Preferred Server. *Assign the First Network Drive Letter*; the default is F. Make sure the **Enable** logon script processing is checked.

6. Click **OK**. Click on the **Access Control** tab. Make sure the *Share-level access control* option is selected; do not select *User-level access control*.

7. When you're done, click **OK** to restart your computer.

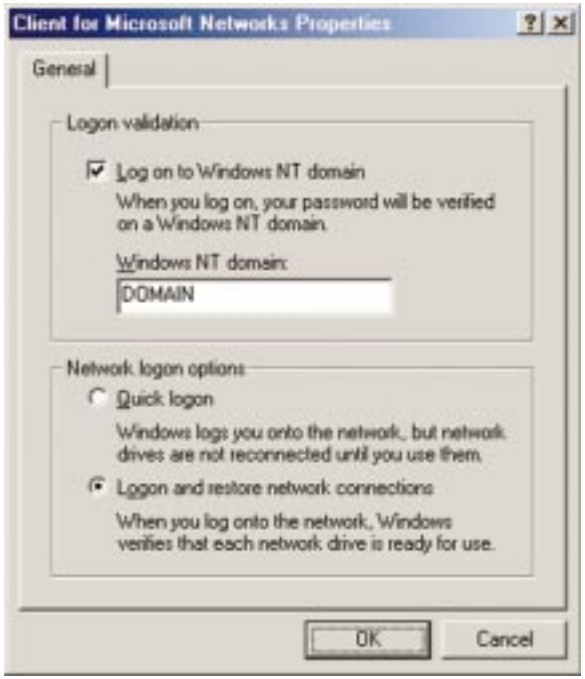
The NetWare portion of your Windows setup is complete.

Windows 95, 98 or ME Client for Windows NT

If you are installing the EtherFast® 10/100 Card in a Windows 95, 98 or Millennium PC that you plan on logging into a NT domain server, follow the directions below.

1. Start up Windows. Click on **Start**, **Settings**, then **Control Panel**. Double-click on **Network**. The Network window appears. Click on the **Configuration** tab.

2. Select **Client for Microsoft Networks** in the Installed Components box and click the **Properties** button. Verify that **Log on to Windows NT domain** is selected in the Logon Validation box. For the Windows NT domain, enter **DOMAIN**. Under Network logon options, select **Logon and restore network connection**.



3. *Optional*: Click on the **Access Control** tab. Make sure that *Share-level access control* is selected; do not choose *User-level access control*. If Access Control is grayed out and cannot be selected, refer to the **Troubleshooting section**.

4. When you're done, click **OK**. When asked if you want to restart your PC, choose to do so.

The NT portion of the Windows setup is complete.

Starting Over in Windows 95, 98, ME or 2000

If you experience installation difficulties, you may need to re-install all of the Windows networking components from scratch. The instructions below explain how to give your PC a clean sweep so that you can retry the EtherFast Card's software installation.

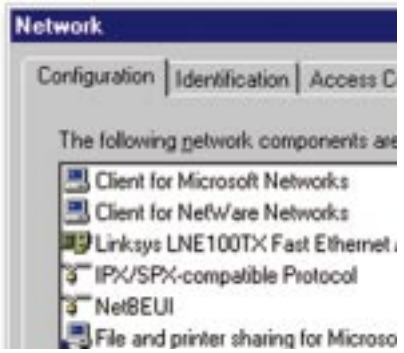
The following instructions are for Windows 95, 98 and Millennium. Those for Windows 2000 follow.

Starting Over in Windows 95 & 98

1. At the desktop click on the **Start** Button, highlight **Settings**, click on **Control Panel**.

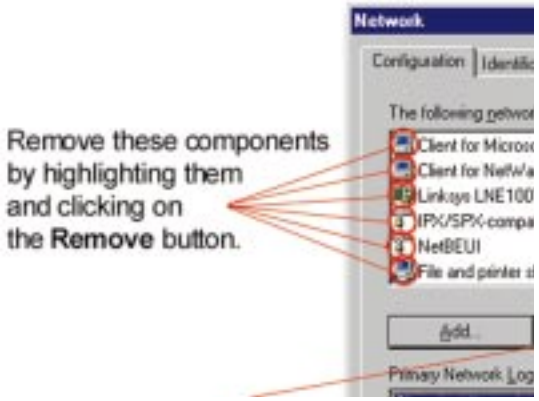
2. Double-click on the **Network** Icon.

3. If the Configuration box has a component called Dial-Up Adapter, skip forward to step 5. If it doesn't, continue with step 4.



Note: *The screen shots on this page, and the ones on the next three pages, are examples only. They may differ from system to system.*

4. Remove any instance of the name Linksys in the box. This includes *IPX/SPX…Linksys*, *NetBEUI…Linksys*, and *TCP/IP…Linksys*. Also remove *Client for Microsoft Networks*, *Client for NetWare Networks*, and *File and Printer Sharing for Microsoft Networks*.



In some cases, removing one of these components may in turn automatically remove other components as well. If this happens, skip ahead to step 6.

5. For PCs with Dial-Up Networking and/or an AOL adapter, remove any instance of the name Linksys, all IPX/SPX protocols, all NetBEUI, all Clients, and File and Printer Sharing for Microsoft Networks. Do **not** remove *Dial-Up Adapter*, *AOL Adapter*, *TCP/IP-Compatible Protocol-AOL Adapter* or *TCP/IP-Compatible Protocol-Dial-Up Adapter*.



6. When you have completed the removal of all unnecessary components, click **OK**. When asked to restart, click **No**.

7. Return to the Windows Control Panel. Double-click on the **System** Icon. The System Properties window will appear. Click on the **Device Manager** Tab.

8. Scroll down to the **Network Adapters** listing and expand it by clicking on the **plus [+]** sign.



11. Remove all devices with the name Linksys in its description. (If at any point you are asked to restart the computer, Click **No**).

12. Scroll down to the **Other Devices** listing. Click the **plus [+]** sign. Remove *PCI Ethernet Controller* or *PCI Ethernet Adapter*. (If Other Devices is not listed, proceed to the next step.)

13. Click the **Close** button, shut down Windows, and restart your computer.

14. After your computer has restarted, refer to the chapters for Windows 95 or Windows 98 and follow the setup instructions.

Starting Over in Windows 2000

1. Click the **Start** button, choose Settings, choose Control Panel, then double-click the System icon. The System Properties window will open.

2. Choose the Hardware tab.



3. Click the Device Manager button. The Device Manager window will open.

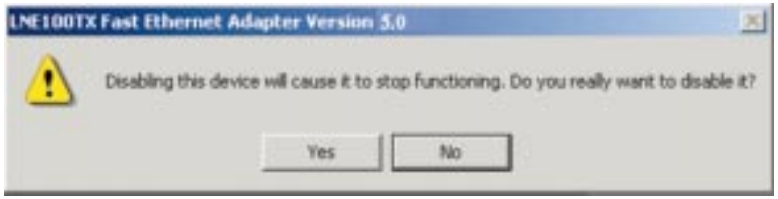
4. Click the plus sign (+) beside Network Adapters. The LNE100TX Fast Ethernet Adapter listing should appear.

5. Right-click on LNE100TX Fast Ethernet Adapter. The following menu box should open.

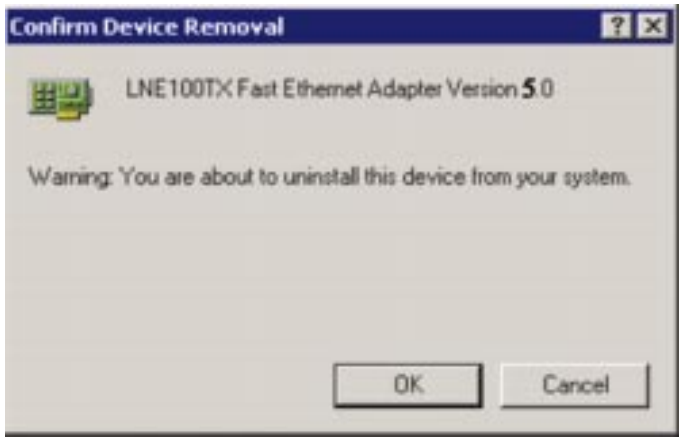


6. First, choose Disable.

7. When asked if you want to Disable the device, click Yes.



8. Right-click on the LNE100TX Fast Ethernet Adapter again. This time, select Uninstall.... Click OK.



9. The Network Adapters category should be removed from the Device Manager listing.

10. Click the **OK** button, and restart your computer.

Manually Installing the Network Components in Windows 95, 98 and ME

There may be times when you will need to manually install missing Windows networking components.

1. Click on **Start**, **Settings**, then **Control Panel**.

2. Double-click the **Network** icon. The Network window appears.

3. Click the **Configuration** tab. Make sure that the following network components are installed.

- *Client for Microsoft Networks*
- *Linksys LNE100TX Fast Ethernet Adapter (LNE100TX v5)*
- *IPX/SPX-compatible Protocol*
- *NetBEUI*
- *TCP/IP*

Note: *You will likely need your Windows CD-ROM to install network components. If your CD-ROM isn't available, try directing Windows to "c:\windows\options\cabs" when asked for a file location.*

There may be other components listed in addition to the ones shown above. If any of the above components are missing, add them as follows.

Client for Microsoft Networks

If you plan on connecting to an NT or 2000 file server or peer-to-peer network, click the **Add** button. Highlight *Client* and click **Add**. Choose **Microsoft** as the manufacturer in the *Network Client* box. Highlight *Client for Microsoft Networks* and click **OK**. The computer will begin copying files to your system. When the installation is complete, you will be asked if you want to reboot. Click **OK**.

Client for NetWare Networks

If you plan on connecting to a Novell NetWare server (3.x), click the **Add** button. Highlight *Client* and click **Add**. In the Network Client window, select *Manufacturer* and choose **Microsoft**. Highlight *Client for Microsoft Networks.* Click **OK**. The computer will begin copying files to your system. When the installation is complete, you will be asked if you want to reboot. Click **OK**.

IPX/SPX-compatible Protocol

Click the **Add** button. Choose *Protocol* and click the **Add** button. Select *Manufacturer* and choose **Microsoft**. Under the *Network Protocol* box, highlight *IPX/SPX-compatible protocol*. Click **OK** .The computer will begin copying files to your system. When the installation is complete, you will be asked if you want to reboot. Click **OK**.

NetBEUI

Click the **Add** button. Select *Protocol*, then click **Add**. Under *Manufacturer*, highlight **Microsoft**. Under *Network Protocol*, highlight **NetBEUI**. Click **OK**. The computer will begin copying files to your system. When the installation is complete, you will be asked if you want to reboot. Click **OK**.

TCP/IP

Click the **Add** button. Select *Protocol*, then click **Add**. Under *Manufacturer*, highlight **Microsoft**. Under *Network Protocol*, highlight **TCP/IP**. Click **OK**. The computer will begin copying files to your system. When the installation is complete, you will be asked if you want to reboot. Click **OK**.

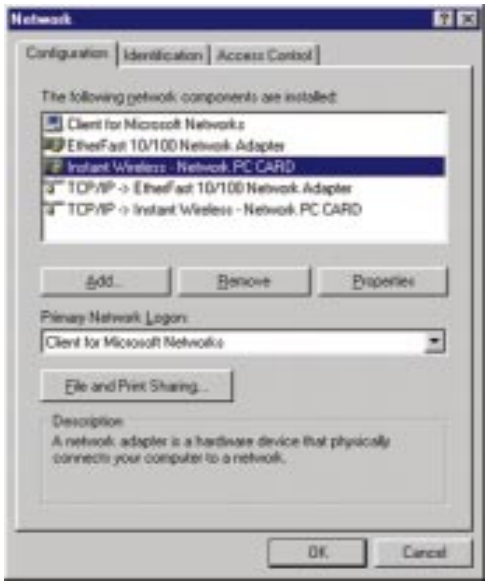
Installing the Network Protocols for Windows 95, 98 and Millennium

1. From the **Start** Menu, select **Settings** and bring up the **Control Panel**. From the Control Panel, double-click on the **Network** icon.

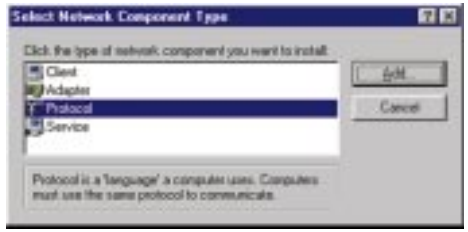


2. Select **Network PC Card** from the list and click the **Add** button.

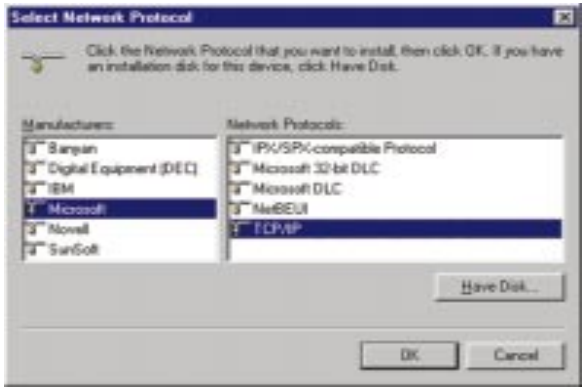
Note: Before adding any network protocols, verify that the protocol is not already installed. Never install duplicate protocols.



3. Highlight **Protocol** and click the **Add** button.



4. Select **Microsoft** from the list of "Manufacturers" and **TCP/IP** from the list of "Network Protocols" and click the **OK** button.



5. Repeat steps two through four to install other protocols such as NetBEUI or IPX/SPX.

   From the screen in step two, you can also press the **Properties** button. From this screen, you can verify that the drivers are working under Enhanced Mode on the **Driver Type** tab or reconfigure the card on the **Advanced** tab.

   At this point, you must restart your computer. Installation is complete.



About Plug-and-Play PCI Technology

The EtherFast® 10/100 LAN Card is designed to run in a 32-bit desktop computer equipped with PCI expansion slots. The card is built to the PCI 2.1 standard.

Short for **Peripheral Components Interconnect**, PCI is a technology that allows special Plug-and-Play expansion cards to be automatically configured by a computer's **BIOS** (Basic Input/Output System) once they have been installed. (Refer to your computer's user guide for more information about its BIOS.)

When a PCI card is used in a computer that supports Plug-and-Play, the card is automatically configured each time the computer is booted. The card's IRQ, I/O address, and other operating parameters are automatically assigned.

There is no easy way to change a Plug-and-Play card's IRQ and other settings outside of the BIOS menu(s) that your computer provides. If the resources that are assigned to your EtherFast card seem to conflict with other devices in your computer, you will need to use your system's BIOS to resolve the conflicts. If you have problems configuring your BIOS or resolving IRQ or other hardware conflicts, consult your computer's manual or contact your PC's manufacturer for BIOS setup and configuration directions.

Here are some general guidelines to follow when installing a PCI card (such as the EtherFast card) into your computer:

1. The EtherFast LAN adapter should be used in a 32-bit PCI slot that supports PCI Bus Mastering. It cannot be plugged into a PCI Bus Slave slot. Consult your motherboard's documentation for more information on master and slave slots.

2. If loading the EMM386.EXE program in your PC's CONFIG.SYS, you must use version MS-DOS 6.22 or above. If you load an older EMM386.EXE program (below DOS 6.22), your PC will hang up while loading the network driver.

3. When using NT, set your system's PnP OS option in the BIOS settings to MANUAL or DISABLE. NT is not a Plug-and-Play OS, and will not usually recognize LAN cards if they are set to be automatically detected and configured. If you need to configure your PC's BIOS in order to resolve an IRQ or other conflict with the EtherFast card, there are a few possibilities:

No Changes Allowed Your PC may not allow you to change the IRQ value(s) of the PCI slot(s). In this case, you will ONLY be able to use the IRQ and I/O values that have been pre-assigned to each slot. The popular BIOS from Phoenix, for example, does not generally allow you to modify BIOS-assigned IRQ settings.

Jumper Changes You may be able to change the IRQ & I/O values for a given PCI slot by setting jumpers on your PC motherboard. Please refer to your PC's motherboard user guide for specific instructions.

Menu Changes Your PC may allow you to change the IRQ & I/O values for a given PCI slot by accessing the PC's BIOS setup menu. Please refer to your PC's user guide for specific details. The BIOSs from companies like AMI and Award are fully customizable from their BIOS menus, for example.

Linux, Open Source and Beta Operating Systems

Linksys does not provide technical support for **Linux**, **BSD**, or other freeware and open source operating systems. Although many Linksys products have been proven to perform well under Linux and other freeware OSes, technical support for setup and troubleshooting is not provided. For information on where to find device drivers and setup instructions for Linux and other freeware OSes, visit the support pages and FAQ files on the Linksys website at **www.linksys.com**.

Linksys doesn't provide technical support for Beta operating systems.

Glossary

10BaseT - An Ethernet standard that uses twisted wire pairs.

100BaseTX - IEEE physical layer specification for 100 Mbps over two pairs of Category 5 UTP or STP wire.

Adapter - Printed circuit board that plugs into a PC to add to capabilities or connectivity to a PC. In a networked environment, a network interface card (NIC) is the typical adapter that allows the PC or server to connect to the intranet and/or Internet.

Bit - A binary digit. The value - 0 or 1-used in the binary numbering system. Also, the smallest form of data.

Boot - To cause the computer to start executing instructions. Personal computers contain built-in instructions in a ROM chip that are automatically executed on startup. These instructions search for the operating system, load it and pass control to it.

Bus Mastering - A bus design that allows the peripheral controllers (plug-in boards) to access the computer's memory independently of the CPU. It allows data transfers to take place between the peripheral device and memory while the CPU is performing other tasks.

CAT 3 - ANSI/EIA (American National Standards Institute/Electronic Industries Association) Standard 568 is one of several standards that specify "categories" (the singular is commonly referred to as "CAT") of twisted pair cabling systems (wires, junctions, and connectors) in terms of the data rates that they can sustain. CAT 3 cable has a maximum throughput of 16 Mbps and is usually utilized for 10BaseT networks.

CAT 5 - ANSI/EIA (American National Standards Institute/Electronic Industries Association) Standard 568 is one of several standards that specify "categories" (the singular is commonly referred to as "CAT") of twisted pair cabling systems (wires, junctions, and connectors) in terms of the data rates that they can sustain. CAT 5 cable has a maximum throughput of 100 Mbps and is usually utilized for 100BaseTX networks.

CPU (Central Processing Unit) - The computing part of the computer. Also called the "processor," it is made up of the control unit and ALU.

CSMA/CD (Carrier Sense Multiple Access/Collision Detection) - The LAN access method used in Ethernet. When a device wants to gain access to the network, it checks to see if the network is quiet (senses the carrier). If it is not, it waits a random amount of time before retrying. If the network is quiet and two devices access the line at exactly the same time, their signals collide. When the collision is detected, they both back off and each wait a random amount of time before retrying.

Download - To receive a file transmitted over a network. In a communications session, download means receive, upload means transmit.

Driver - A workstation or server software module that provides an interface between a network interface card and the upper-layer protocol software running in the computer; it is designed for a specific NIC, and is installed during the initial installation of a network-compatible client or server operating system.

Ethernet - IEEE standard network protocol that specifies how data is placed on and retrieved from a common transmission medium. Has a transfer rate of 10 Mbps. Forms the underlying transport vehicle used by several upper-level protocols, including TCP/IP and XNS.

Fast Ethernet - A 100 Mbps technology based on the 10Base-T Ethernet CSMA/CD network access method.

Full Duplex - The ability of a device or line to transmit data simultaneously in both directions.

Half Duplex - Data transmission that can occur in two directions over a single line, but only one direction at a time.

Hardware - Hardware is the physical aspect of computers, telecommunications, and other information technology devices. The term arose as a way to distinguish the "box" and the electronic circuitry and components of a computer from the program you put in it to make it do things. The program came to be known as the software.

Hub - The device that serves as the central location for attaching wires from workstations. Can be passive, where there is no amplification of the signals; or active, where the hubs are used like repeaters to provide an extension of the cable that connects to a workstation.

IEEE - The Institute of Electrical and Electronics Engineers. The IEEE describes itself as "the world's largest technical professional society -- promoting the development and application of electrotechnology and allied sciences for the benefit of humanity, the advancement of the profession, and the well-being of our members."

The IEEE fosters the development of standards that often become national and international standards. The organization publishes a number of journals, has many local chapters, and several large societies in special areas, such as the IEEE Computer Society.

IP Address - In the most widely installed level of the Internet Protocol (Internet Protocol) today, an IP address is a 32-binary digit number that identifies each sender or receiver of information that is sent in packet across the Internet. When you request an HTML page or send e-mail, the Internet Protocol part of TCP/IP includes your IP address in the message (actually, in each of the packets if more than one is required) and sends it to the IP address that is obtained by looking up the domain name in the Uniform Resource Locator you requested or in the e-mail address you're sending a note to. At the other end, the recipient can see the IP address of the Web page requestor or the e-mail sender and can respond by sending another message using the IP address it received.

IRQ (Interrupt ReQuest) - A hardware interrupt on a PC. There are 16 IRQ lines used to signal the CPU that a peripheral event has started or terminated. Except for PCI devices, two devices cannot use the same line.

ISP - An ISP (Internet service provider) is a company that provides individuals and companies access to the Internet and other related services such as Web site building and virtual hosting.

LAN - A local area network (LAN) is a group of computers and associated devices that share a common communications line and typically share the resources of a single processor or server within a small geographic area (for example, within an office building).

MAC Address - The MAC (Media Access Control) address is your computer's unique hardware number.

Mbps (MegaBits Per Second) - One million bits per second; unit of measurement for data transmission.

Motherboard - A motherboard is the physical arrangement in a computer that contains the computer's basic circuitry and components.

Network - A system that transmits any combination of voice, video and/or data between users.

NIC (Network Interface Card) - A board installed in a computer system, usually a PC, to provide network communication capabilities to and from that computer system. Also called an adapter.

PCI (Peripheral Component Interconnect) - A peripheral bus commonly used in PCs, Macintoshes and workstations. It was designed primarily by Intel and first appeared on PCs in late 1993. PCI provides a high-speed data path between the CPU and peripheral devices (video, disk, network, etc.). There are typically three or four PCI slots on the motherboard. In a Pentium PC, there is generally a mix of PCI and ISA slots or PCI and EISA slots. Early on, the PCI bus was known as a "local bus."

PCI provides "plug and play" capability, automatically configuring the PCI cards at startup. When PCI is used with the ISA bus, the only thing that is generally required is to indicate in the CMOS memory which IRQs are already in use by ISA cards. PCI takes care of the rest.

PCI allows IRQs to be shared, which helps to solve the problem of limited IRQs available on a PC. For example, if there were only one IRQ left over after ISA devices were given their required IRQs, all PCI devices could share it. In a PCI-only machine, there cannot be insufficient IRQs, as all can be shared.

Port - A pathway into and out of the computer or a network device such as a switch or router. For example, the serial and parallel ports on a personal computer are external sockets for plugging in communications lines, modems and printers.

RJ-45 (Registered Jack-45) - A connector similar to a telephone connector that holds up to eight wires, used for connecting Ethernet devices.

Software - Instructions for the computer. A series of instructions that performs a particular task is called a "program." The two major categories of software are "system software" and "application software." System software is made up of control programs such as the operating system and database management system (DBMS). Application software is any program that processes data for the user.

A common misconception is that software is data. It is not. Software tells the hardware how to process the data.

Storage - The semi-permanent or permanent holding place for digital data.

STP (Shielded Twisted Pair) - Telephone wire that is wrapped in a metal sheath to eliminate external interference.

TCP/IP - Transmission Control Protocol/Internet Protocol (TCP/IP) is the basic communication language or protocol of the Internet. It can also be used as a communications protocol in a private network (either an intranet or an extranet). When you are set up with direct access to the Internet, your computer is provided with a copy of the TCP/IP program just as every other computer that you may send messages to or get information from also has a copy of TCP/IP.

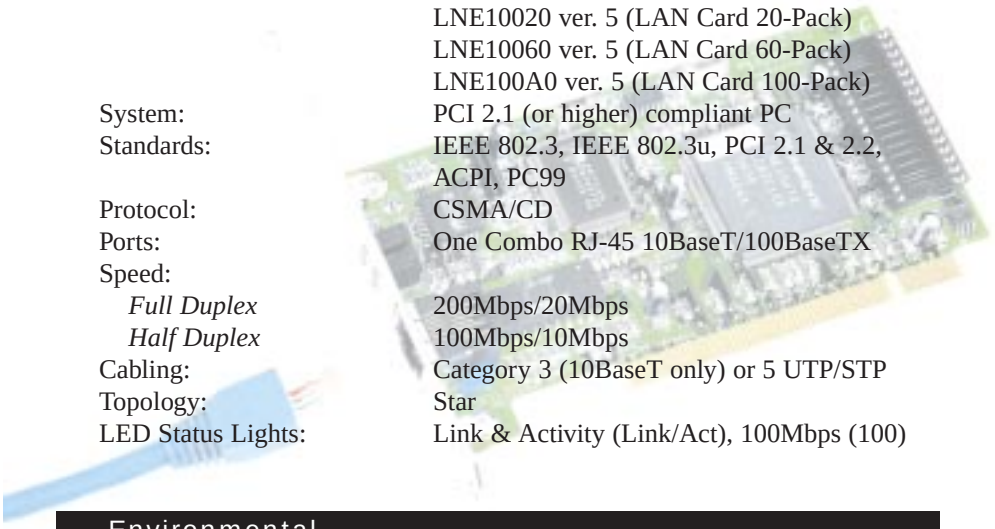
Throughput - The amount of data moved successfully from one place to another in a given time period.

Upload - To receive a file transmitted over a network. In a communications session, upload means transmit, download means receive.

UTP - Unshielded twisted pair is the most common kind of copper telephone wiring. Twisted pair is the ordinary copper wire that connects home and many business computers to the telephone company. To reduce crosstalk or electromagnetic induction between pairs of wires, two insulated copper wires are twisted around each other. Each signal on twisted pair requires both wires. Since some telephone sets or desktop locations require multiple connections, twisted pair is sometimes installed in two or more pairs, all within a single cable.

Workgroup - Two or more individuals that share files and databases.

Specifications



Model Numbers:	LNE100TX ver. 5 LNE100TXu ver. 5 (LAN Card & Cable) LNE10005 ver. 5 (LAN Card 5-Pack LNE10010 ver. 5 (LAN Card 10-Pack) LNE10020 ver. 5 (LAN Card 20-Pack) LNE10060 ver. 5 (LAN Card 60-Pack) LNE100A0 ver. 5 (LAN Card 100-Pack)
System:	PCI 2.1 (or higher) compliant PC
Standards:	IEEE 802.3, IEEE 802.3u, PCI 2.1 & 2.2, ACPI, PC99
Protocol:	CSMA/CD
Ports:	One Combo RJ-45 10BaseT/100BaseTX
Speed:	
Full Duplex	200Mbps/20Mbps
Half Duplex	100Mbps/10Mbps
Cabling:	Category 3 (10BaseT only) or 5 UTP/STP
Topology:	Star
LED Status Lights:	Link & Activity (Link/Act), 100Mbps (100)

Environmental

Dimensions:	5” x 2.3” x 0.75” (122mm x 86mm x 18 mm)
Unit Weight:	2.5 oz. (58 grams)
Power:	2W Maximum
Certifications:	FCC Class B, CE Mark Commercial
Operating Temperature:	0°C - 50°C (32°F - 122°F)
Storage Temperature:	-20°C - 70°C (-4°F - 158°F)
Operating Humidity:	10% - 90% Non-Condensing
Storage Humidity:	5% - 95% Non-Condensing

Warranty Information

BE SURE TO HAVE YOUR PROOF OF PURCHASE AND A BARCODE FROM THE PRODUCT'S PACKAGING ON HAND WHEN CALLING. RETURN REQUESTS CANNOT BE PROCESSED WITHOUT PROOF OF PURCHASE.

IN NO EVENT SHALL LINKSYS' LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, ITS ACCOMPANYING SOFTWARE, OR ITS DOCUMENTATION. LINKSYS DOES NOT OFFER REFUNDS FOR ANY PRODUCT.

LINKSYS OFFERS CROSS SHIPMENTS, A FASTER PROCESS FOR PROCESSING AND RECEIVING YOUR REPLACEMENT. LINKSYS PAYS FOR UPS GROUND ONLY. ALL CUSTOMERS LOCATED OUTSIDE OF THE UNITED STATES OF AMERICA AND CANADA SHALL BE HELD RESPONSIBLE FOR SHIPPING AND HANDLING CHARGES. PLEASE CALL LINKSYS FOR MORE DETAILS.

Contact Information

For help with the installation or operation of this product, contact Linksys Customer Support at one of the phone numbers or Internet addresses below.

Sales Information	800-546-5797 (LINKSYS)
Tech Support	888-793-4632
RMA Issues	949-261-1288
Fax	949-261-8868
Email	support@linksys.com
Web	http://www.linksys.com
FTP Site	ftp.linksys.com



http://www.linksys.com

© Copyright 2001 Linksys, All Rights Reserved.
Printed in the USA.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP