

Instant EtherFast® Series

EtherFast® 10/100 LAN Card



Use this guide to install: LNE100TX ver. 5.1

User Guide

LINKSYS®

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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 Technical 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 a copy of 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.

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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 v5.1-021602B KL

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Chapter 1: Introduction

The EtherFast® 10/100 LAN Card

Fast Ethernet is a 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 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 (card supports PME only), 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 (PME)
- Works With Virtually 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



- One EtherFast® 10/100 LAN Card
- One Setup Utility CD
- One User Guide (included on the Setup Utility CD)
- One Registration Card (not shown)
- Quick Install for Windows Operating Systems (not shown)

Chapter 2: 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 UTP Category 5 or better network cabling.

Chapter 3: 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, UTP Category 5 unshielded twisted-pair for both 10BaseT and 100BaseTX network segments, although UTP 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 UTP Category 3 and 5 twisted-pair cabling can be purchased at most computer stores, or if you prefer, you can crimp your own cables.

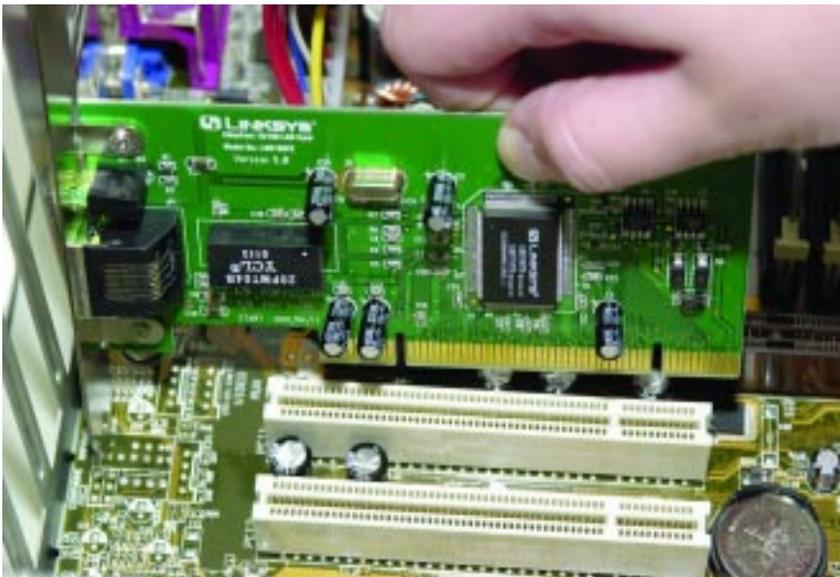
Installing the Network Card and Cabling

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 example below. (*Your LAN Card may vary in appearance from the one shown 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 faceplate 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 10/100 cable or 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 LAN Card. 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 95, 98, ME, NT, 2000 or XP, you will find the network driver installation instructions on the Setup Utility CD'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.

Chapter 4: Installing the EtherFast® 10/100 LAN Card's Drivers with the Install Wizard

Overview

The 10/100 LAN Cards drivers can easily be installed with the Install Wizard included on the Setup Utility CD. This chapter will describe the steps necessary to do this.

Using the Install Wizard

The Install Wizard works for installing the drivers under Windows 95, 98, Millennium, 2000, and XP. For installing the drivers manually under Windows NT, see the appropriate Appendix.

1. Start your PC. Windows will automatically detect the presence of the 10/100 LAN card in your PC and bring up the “Add New Hardware Wizard” screen. Click the **Cancel** button on this screen as you will be installing the driver's through the Install Wizard.
2. Insert the Setup Utility CD into your CD-ROM drive. The Install Wizard's Welcome screen will come up automatically and identify the version of Windows you are using. In this screen, Windows 95 OSR2 is identified.



3. Move your cursor over the **Install** tab and the Install screen will appear. Click the **Install Now** button.

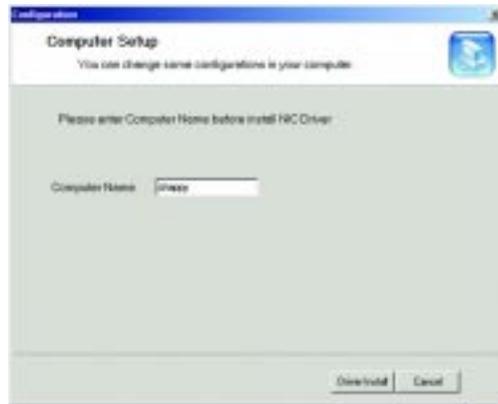


- 4a. If you are using Windows 95, 98, Millennium or XP, you will see the following screen:



On this screen, you will need to type your computer's name and your group, or network, name in the appropriate fields. Then, click the **Driver Install** button to continue.

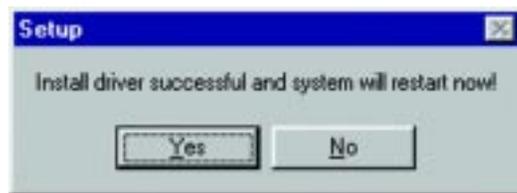
- 4b. If you are using Windows 2000, you will see the following screen:



On this screen, you will need to type your computer's name in the appropriate field. Then, click the **Driver Install** button to continue.

- 5a. The drivers will not be installed.

If you are using Windows 95, 98, Millennium, or XP, you will see the following screen.



This signifies that the driver installation is complete and your system will reboot.

- 5b. The drivers will not be installed.

If you are using Windows 2000, you will see the following screen.



This signifies that the driver installation is complete. You should now reboot your system.

Driver installation is complete!

Chapter 5: Manual Installation and Setup for Windows 95

Overview

After installing the EtherFast 10/100 LAN card in your computer, follow these instructions for installing the network device driver. For troubleshooting tips during setup, refer to the **Troubleshooting** section.

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 haven't already done so, **start up your PC**.
2. **Windows 95 will automatically detect** the EtherFast 10/100 LAN Card in your computer. If an Update Device Driver Wizard window (a window similar to the one below) appears.



3. While the *Update Device Driver Wizard* window is visible, put the Linksys LNE100TX(ver. 5) Setup Utility CD into your CD-ROM drive and click the **Next** button.

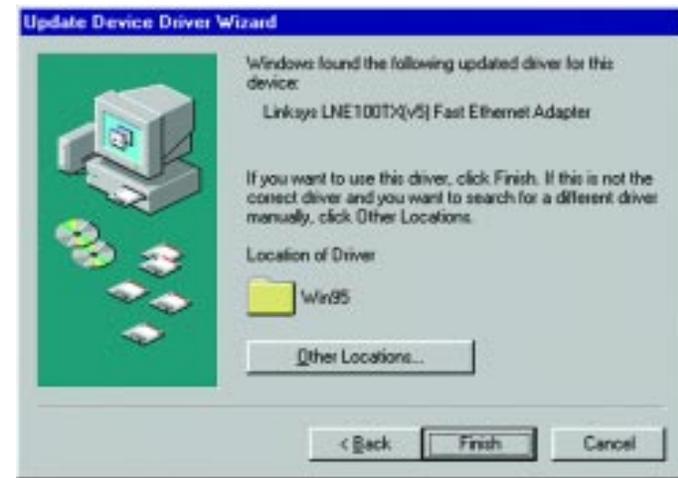
4. A screen will appear stating that Windows 95 was unable to locate the driver. Click the **Other Locations** button to enter the driver's location manually.



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



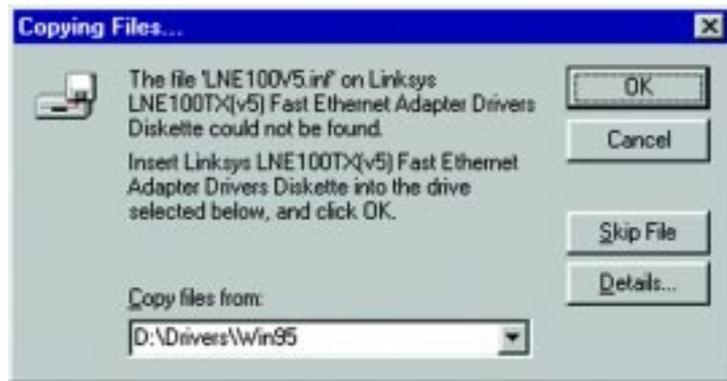
6. Windows will show that the files have been found. Click the **Finish** button to continue. Then, when you are prompted, verify that the Linksys LNE100TX(ver. 5) Setup Utility CD is in your CD-ROM drive.



*If you press **Skip** or **Cancel**, the drivers will not be installed!*

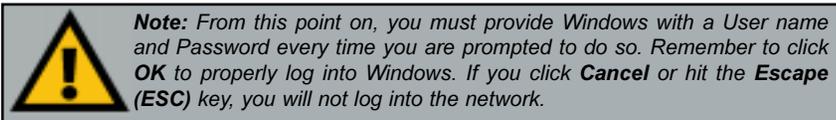
- If your PC asks for the Linksys Setup Utility CD
 1. Click **OK**.
 2. Ensure that the **Setup Utility CD** is in your PC's CD-ROM drive.
 3. Type **d:** in the "Copy files from:" box.
 4. Click **OK**.
- If you are asked to supply your Windows 95 Installation Files or Disks
 1. Click **OK**.
 2. If 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 **Setup Utility CD** into your PC's CD-ROM drive.
 2. Type **d:\WIN95** 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**.

- Windows will begin copying the EtherFast 10/100 LAN Card's driver files to your PC. Refer to the chart on the preceding page to help guide you through the process.
- The following screen will prompt you for the driver location. In the Copy Files From: field, type **D:\Drivers\WIN95**. Then, click the **OK** button.



- Windows 95 will begin copying files to your PC. When asked if you want to restart your PC, remove any disks 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.



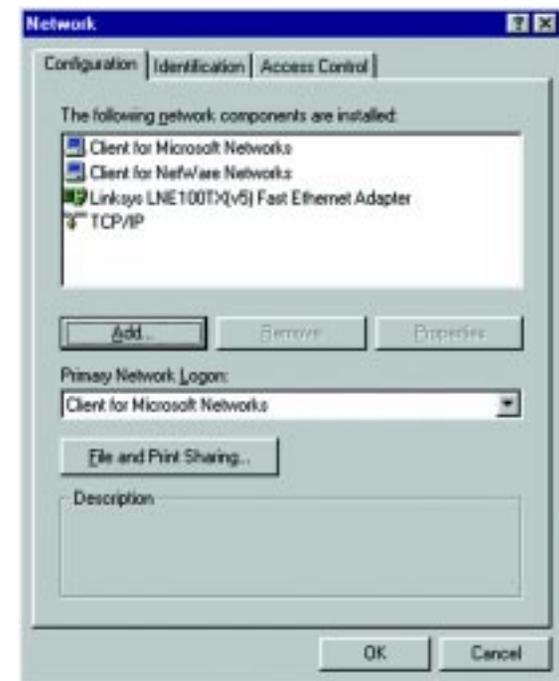
Network Component Configuration

- 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, 2000, ME and XP"** section in the Appendix.

- 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 (v5) Fast Ethernet Adapter*
 - *TCP/IP*



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

- a. 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**.



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

- b. 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(s)**.



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



5. 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.



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

6. Click on the **Identification** tab. 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.

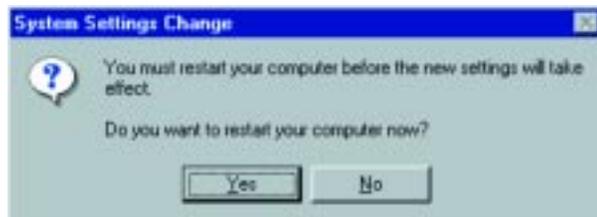


7. Type the **name of your workgroup** in the *Workgroup* box. The Workgroup name should be the same Workgroup Name in use by all of the other PCs on the network. Use the same Workgroup Name that is in use on your other computers..
8. (Optional) Enter a **description of your computer** in the *Computer Description* box. *This box may be left blank.*

9. Click the **Access Control** tab. Make sure that *Shared-level access control* is selected. If the setting is on *User-Level access control* and you can't change it, refer to the **Troubleshooting** section.



10. 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.
11. 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 Setup Utility CD, if necessary, prior to rebooting.



12. 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.
13. 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.

Chapter 6: Manual Installation and Setup for Windows 98

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, refer to 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. Insert the Linksys LNE100TX (ver. 5) Setup Utility CD into your CD-ROM 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 **D:\Drivers\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 (v5) 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 10/100 LAN 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 Utility CD | <ol style="list-style-type: none"> 1. Click OK. 2. Ensure that the Setup Utility CD is in your PC's CD-ROM drive. 3. Type d:\ in the "Copy files from:" box. 4. Click OK. |
| • If you are asked to supply your Windows 98 Installation Files or Disks | <ol style="list-style-type: none"> 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 "Netnev" in its name | <ol style="list-style-type: none"> 1. Insert the Setup Utility CD into your PC's CD-ROM drive. 2. Type d:\WIN98 in the "Copy files from:" box. 3. Click OK. |
| • If you receive a Version Conflict error | <ol style="list-style-type: none"> 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 Setup Utility CD 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.



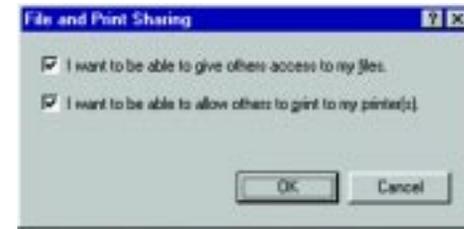
Note: From this point on, you must provide Windows with a User name and Password every time you are prompted to do so. Remember to click the **OK** button to properly log into Windows. If you click the **Cancel** button or press the **Escape (ESC)** key, you will not log into the network.

Network Component Configuration

- 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.
- 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*



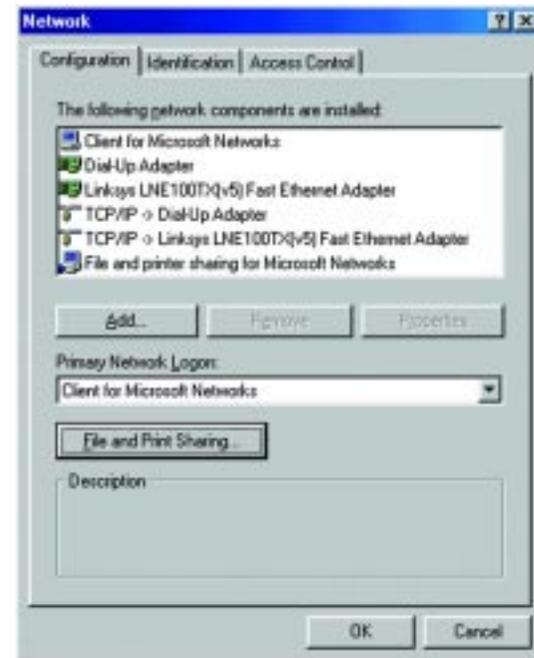
- Click the **File and Print Sharing** button. The File and Print Sharing window will appear.



- 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.**



Note: If you do not enable File and Printer Sharing, your PC will be invisible on the network, inaccessible by anyone.
 - 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(s).**
- Click the **OK** button. *File and Printer Sharing for Microsoft Networks* should now appear in the list of installed components.

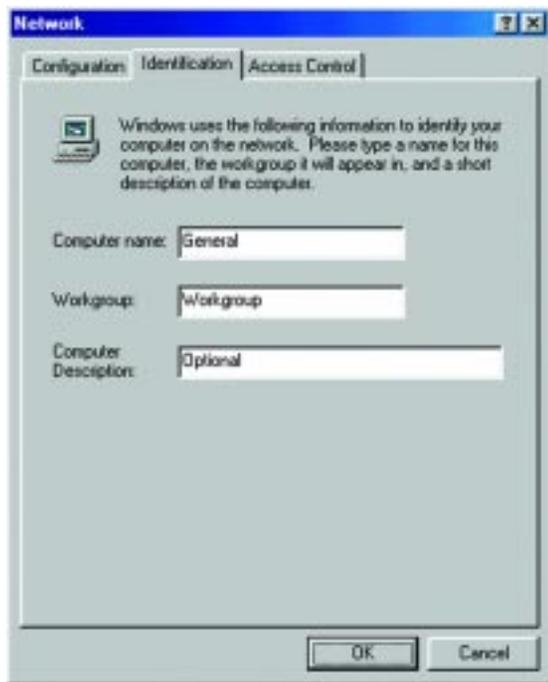


5. After ensuring that all of the listed network components are installed on your system, in the *Primary Network Logon* box select **Client for Microsoft Networks**.



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

6. 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.
9. (Optional) Enter a **description of your computer** in the *Computer Description* box. *This box may 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 disks 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.

Chapter 7: Manual Installation and Setup for Windows ME

Overview

After physically installing the EtherFast® 10/100 LAN Card in your computer, follow these instructions to install the network device driver. 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 ME.
2. Windows ME will automatically detect the presence of the PCI Ethernet Controller hardware in your PC.
3. Insert the Linksys LNE100TX (ver. 5) 10/100 LAN Card Setup Utility CD into your CD-ROM drive while the *Add New Hardware Wizard* window is visible. Click the **Next** button.



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.
4. Click the **Specify the location of the driver (Advanced)** radio button. Click the **Next** button.



- Click the **Search for the best driver for your device (Recommended)** radio button and select **Specify a location**. Type **D:\Drivers\WINME** in the drop-down box and click the **Next** button.



- A window will open, notifying you that Windows is searching for the **Linksys LNE100TX (v5) Fast Ethernet Adapter** driver. When the window notifies you that it is ready to install the driver, click the **Next** button.



- Windows ME will begin copying the EtherFast® 10/100 LAN Card's driver files onto your PC. If Windows ME are requested, click **OK** and direct Windows to the proper location, e.g. **C:\windows\options\install**, or **D:\win9x** (where "D:" represents your CD-ROM drive).

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

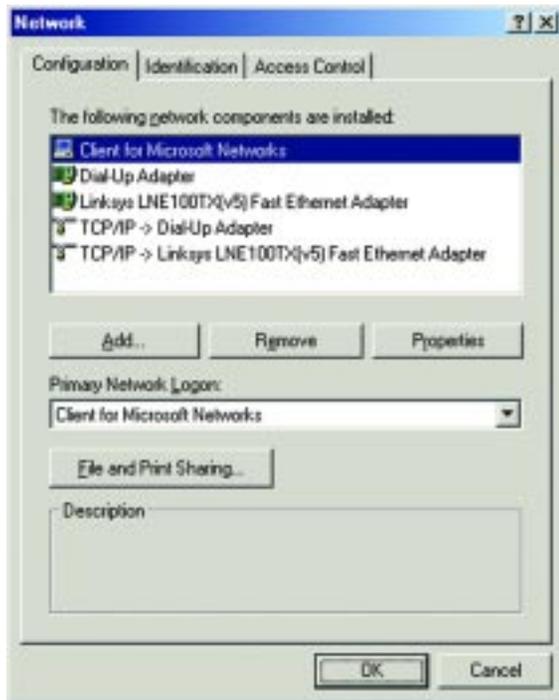
- Windows will finish installing the software onto your PC. Click the **Finish** button.



- When asked if you want to restart your PC, remove any disks 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**. Choose the **Restart** option and click the **OK** button.

Network Component Configuration

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



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



- 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**.



Note: If you do not enable File and Printer Sharing, your PC will be invisible on the network, inaccessible by anyone.
 - 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(s)**.
- Click the **OK** button. *File and printer sharing for Microsoft Networks* should now appear in the list of installed components.



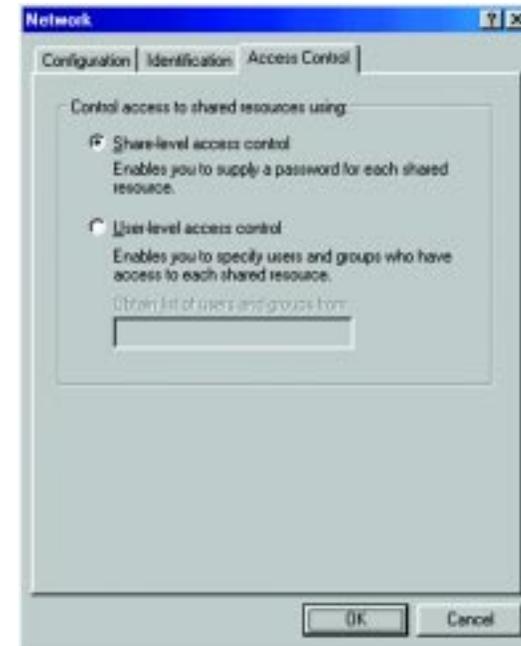
5. After ensuring that all of the listed network components are installed on your system, in the *Primary Network Logon* box select **Client for Microsoft Networks**.
6. Click on the **Identification** tab. Type the name of your computer in the **Computer Name** box. Choose a name that is unique from the other computer names on the network.



Note: Your Computer Name and Workgroup Name must both be fewer than 15 characters, and should only consist of numbers and letters.
7. 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.
8. (Optional) Enter a **description of your computer** in the *Computer Description* box. *This box may be left blank.*



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



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

12. 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), enter it here 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.
13. Once you are at the Windows ME 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 ME 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.

Chapter 8: Manual Installation and Setup for Windows NT

Overview

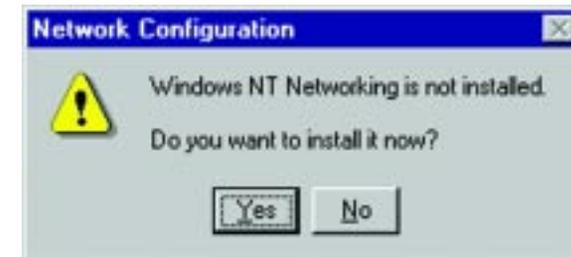
The following instructions will set up the EtherFast® 10/100 LAN Card in a computer running NT 4.0 Server/Workstation. You should have your original Windows NT CD-ROM available during the installation, as you might be asked to supply it. Always consult your NT documentation if you have questions.



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, the following message will appear:



- If you see this message, click the **Yes** button to install NT networking along with the EtherFast® 10/100 LAN Card's network driver, and continue with step one on the following page.
- If you don't see this message, NT networking is already installed. Skip to the **Installing the EtherFast® 10/100 LAN Card Network Driver if Networking is Already Installed** section.

Installing NT Networking and the EtherFast 10/100 LAN Card Driver

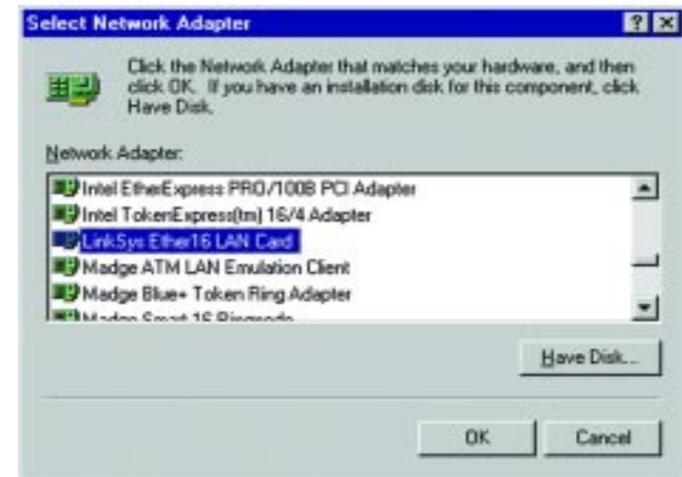
1. After clicking on the **Yes** button, the *Network Setup Wizard* window will appear.
2. When the screen below appears, put a checkmark next to **Wired to the network** and then click the **Next** button.



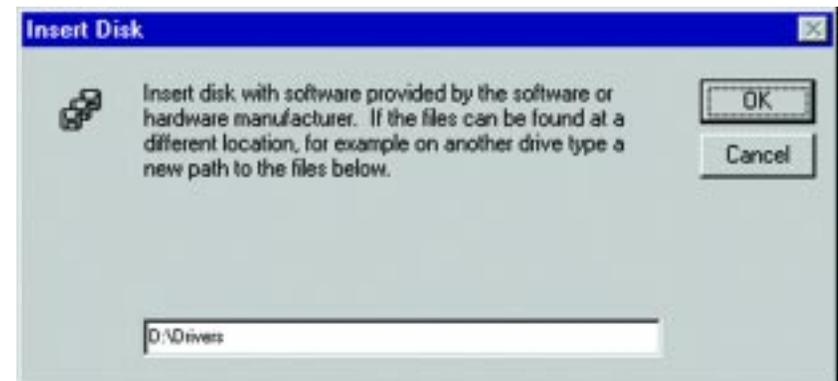
3. Click the **Select from list...** button to select the network adapter.



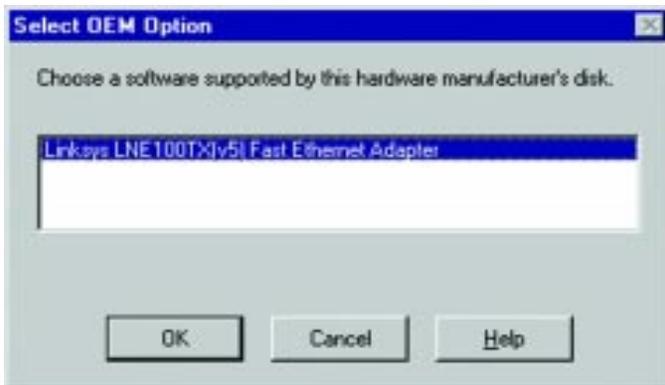
4. At the *Select Network Adapter* screen, click the **Have Disk** button and insert the Linksys LNE100TX (ver. 5) Setup Utility CD into your CD-ROM drive.



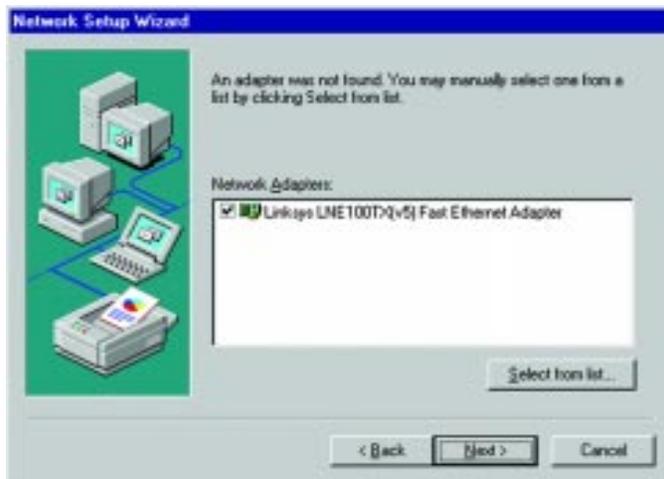
5. At the Insert Disk screen, type **D:\Drivers** into the field on your screen and click the **OK** button.



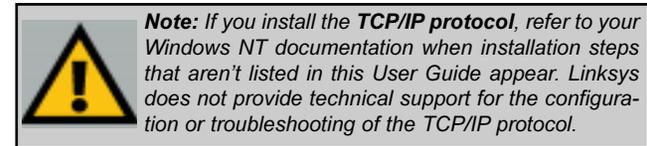
- Highlight the **Linksys LNE100TX(v5) Fast Ethernet Adapter** entry in the window that appears and click the **OK** button.



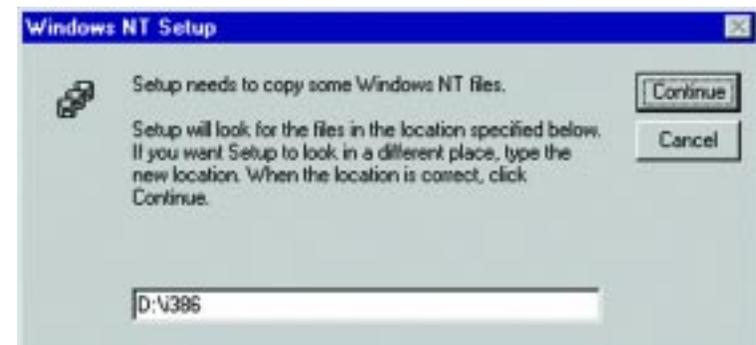
- The adapter will be added to the list of Network Adapters on the Network Setup Wizard screen. Click the **Next** button.



- Make sure there is a **check mark** beside **TCP/IP Protocol**. Uncheck any others that may be checked, then click the **Next** button to continue.



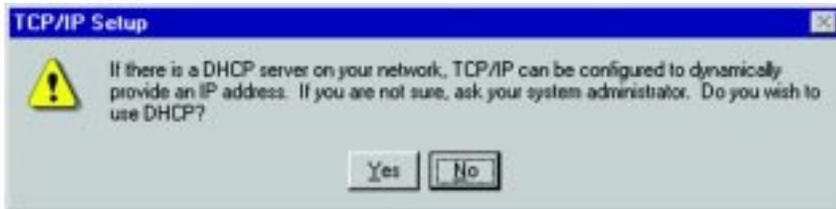
- Click the **Next** button to proceed through the subsequent screens. If you are asked to supply your original Windows NT CD-ROM or setup disks, place your Windows NT CD-ROM in your CD drive. If the CD-ROM loads a pop-up window, close it. Type **D:\i386** (where D: represents your CD-ROM drive) in the field at the bottom of the window. Click the **Continue** button.



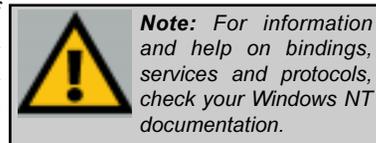
10. NT will ask you to choose a media type for the 10/100 LAN card. Choose **AutoSense**. You can change these settings later if needed. Click the **Continue** button.



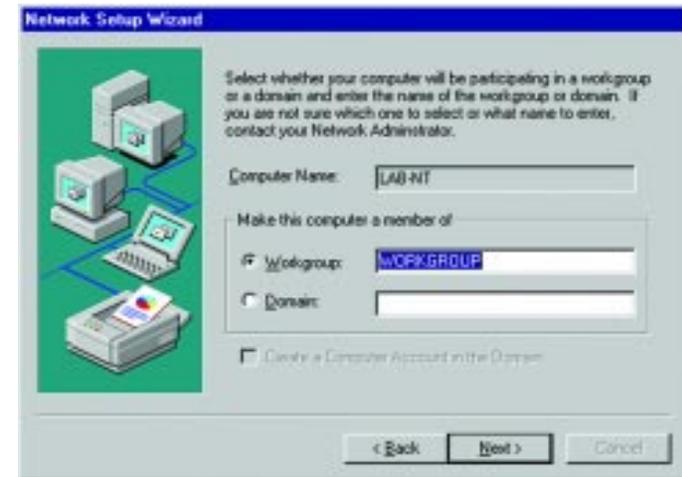
11. You may be asked if there is a DHCP Server on your network. Verify if there is, and whether you wish to use DHCP. Click the **Yes** or **No** button on the following screen, accordingly.



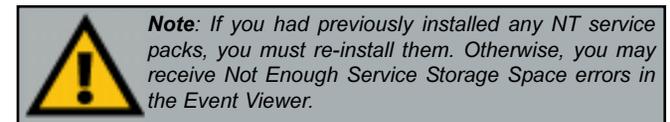
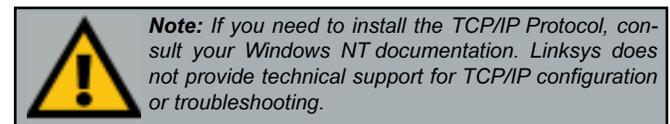
12. NT will copy the necessary network drivers to your PC. When the copying is complete, you will see a list of installed bindings. These bindings are appropriate to the card you are installing. Click the **Next** button to go through these two screens.



13. 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.



14. On the next screen, click the **Finish** to complete installation. When asked if you want to restart your computer, remove the Setup Utility CD and click the **Yes** button.
15. 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.



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.

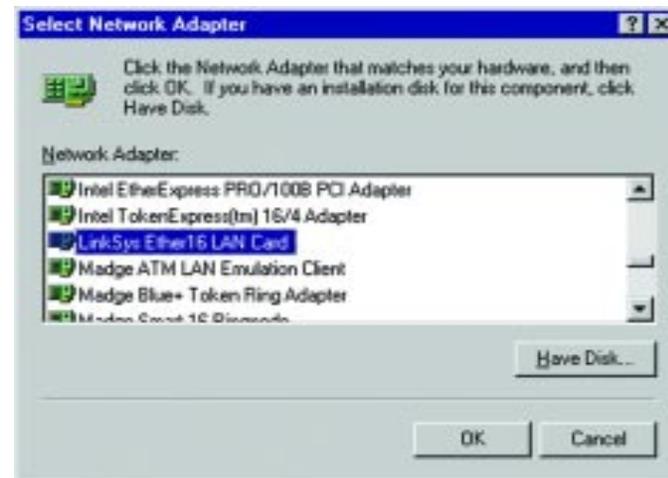
Installing the EtherFast® 10/100 LAN Card Network Driver if Networking is Already Installed

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® 10/100 LAN 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.**

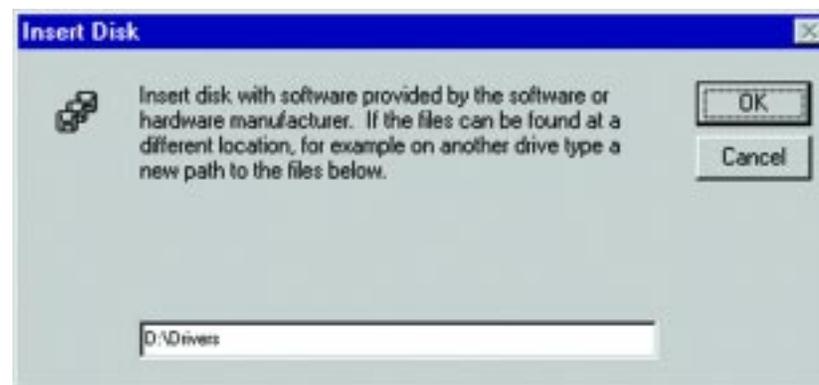
1. Click on **Start, Settings, Control Panel**, then double-click on the **Network** icon.
2. When the networking window appears, choose the **Adapters** tab and click the **Add** button.



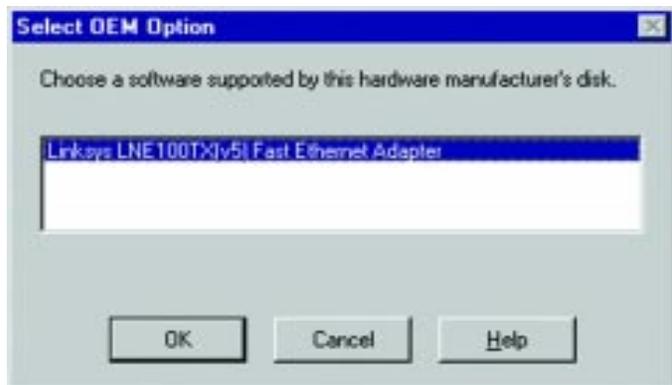
3. When the list of available network adapters appears, click the **Have Disk** button.



4. Put the Linksys LNE100TX (ver. 5) 10/100 LAN Card Setup Utility CD into your CD-ROM drive. Type **D:\Drivers** into the field and click the **OK** button.



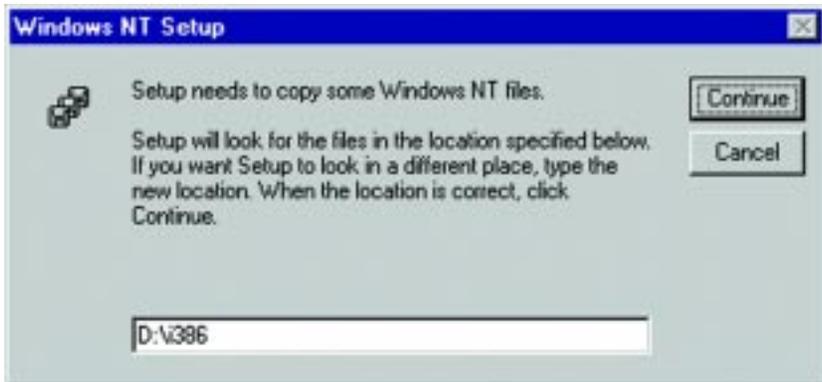
- Highlight the **Linksys LNE100TX(v5) Fast Ethernet Adapter** entry in the window that appears. Click the **OK** button.



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



- 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).

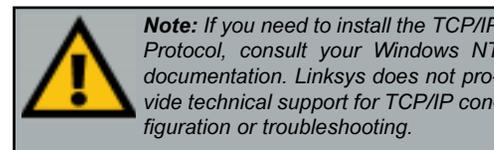


- Remove any disks and click the **Yes** button to restart your PC.

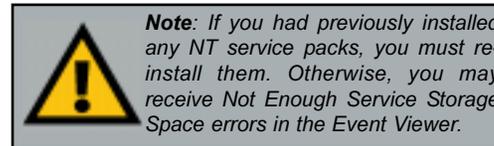


- Once your PC has rebooted, double-click the **Network Neighborhood** icon on your desktop. Make sure that you have access to the network. If you do, your card has been properly installed.

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.

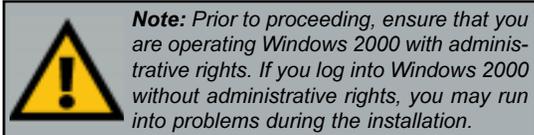


Note: If you had previously installed any NT service packs, you must re-install them. Otherwise, you may receive Not Enough Service Storage Space errors in the Event Viewer.

Chapter 9: Manual Installation and Setup for Windows 2000

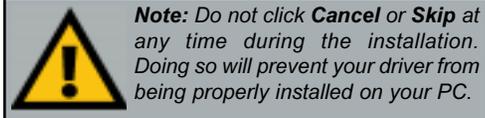
Overview

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.



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.



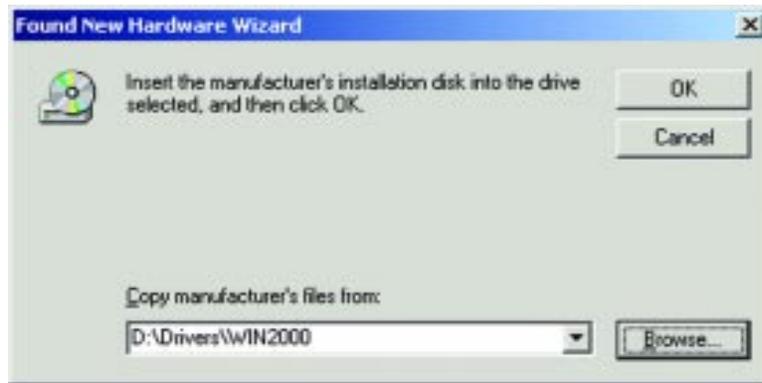
3. The *Install Hardware Device Drivers* dialog box will appear. When *Ethernet Controller* is displayed, select **Search for a suitable driver for my device (Recommended)** and click the **Next** button.



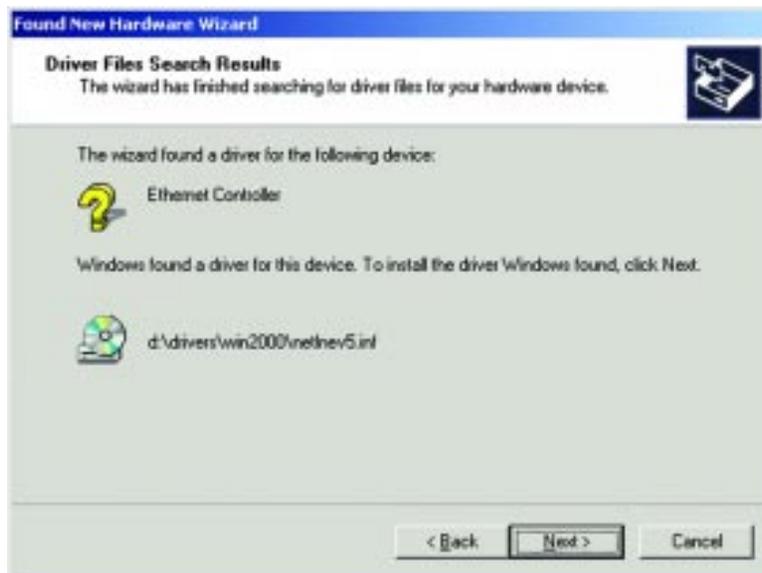
4. The *Locate Driver Files* dialog box will appear. Select **Specify a location** and click the **Next** button.



5. When the *Found New Hardware Wizard* box appears, insert the Linksys LNE100TX (ver. 5) 10/100 LAN Card Setup Utility CD into your CD-ROM drive. In the “*Copy manufacturer’s files from*” field, type **D:\Drivers\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.

Chapter 10: Manual Installation and Setup for Windows XP

Overview

After physically installing the EtherFast® 10/100 LAN Card in your computer, follow these instructions to install the network device driver. Windows XP has a built-in LNE100TX NIC driver. After physically installing the EtherFast® 10/100 LAN Card into your PC, Windows XP will automatically install the LNE100TX driver.

If you want to use the new driver on the LNE100TX(v5.1) Setup Utility CD, you must update the driver for this device.

Installing the Network Card's Newest Driver



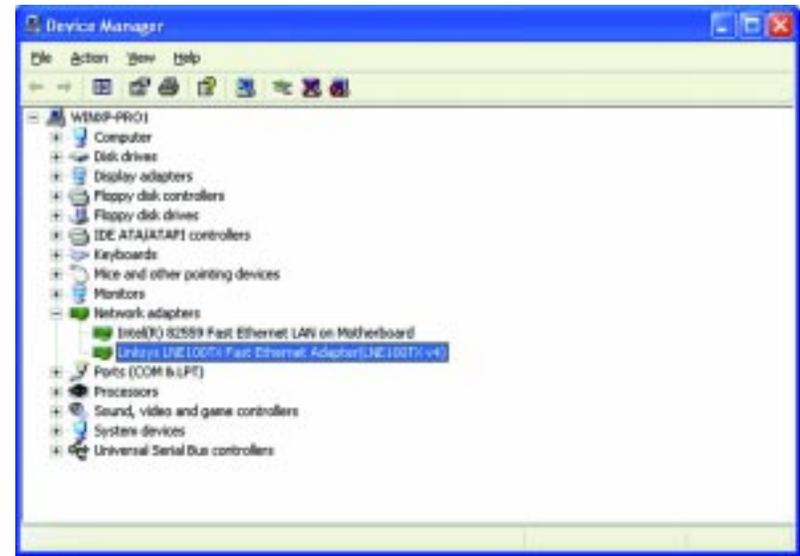
Note: Prior to proceeding, verify that you are operating Windows XP with administrative rights. If you log into Windows XP without administrative rights, you may run into problems during the installation.



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.

1. Power up your PC and start Windows XP.
2. Click the **Start** button and open the **Control Panel**. Then, double-click the **Performance and Maintenance** icon.
3. Double-click the **System** icon and select **Hardware**.

4. Open the **Device Manager** and expand the **Network Adapters** section. Double-click **Linksys LNE100TX Fast Ethernet Adapter (LNE100TX v4)**.



5. Choose the **Driver** tab and click the **Update driver...** button..



6. The *Hardware Update Wizard* dialog box will appear. Select the radio button beside **Install from a list or specific location (Advanced)** and click the **Next** button.



7. Click the radio button beside **Search for the best driver in these locations**. Click the field beside **Include this location in the search:** and verify that **D:\Drivers\WinXP** appears in the drop-down box beneath. If it does not, use the drop-down arrow to scroll for it or click the **Browse** button to find this file. Then, click the **Next** button.



8. When the *Completing the Hardware Update Wizard* dialog box is shown, the screen will show the following adapter name:

Linksys LNE100TX(v5) Fast Ethernet Adapter



Click **Finish** to complete the installation.

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

Appendix A: Troubleshooting

This section provides possible solutions to problems regarding the installation and operation of the EtherFast® 10/100 LAN Card. If you can't find an answer here, check the Linksys website at www.linksys.com. Troubleshooting hints for Windows can be found below. If you are using Windows NT, or another network operating system, skip to the Card Diagnostics instructions in this section.

Common Problems and Solutions

- Windows doesn't detect new hardware with the EtherFast® 10/100 LAN 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, ME, 2000 or XP** 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, 2000, ME or XP. If you are not sure, contact your PC's manufacturer.
- Windows can't locate the driver for the EtherFast® 10/100 LAN 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 Ine100 or a folder called Win95 for Window 95, Win98 for Windows 98, WinME for Windows ME, Win2000 for Windows 2000, or WinXP for Windows XP.
- 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 ME, 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.
- 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.
- 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.
- In Network Neighborhood, you can only see yourself 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® 10/100 LAN 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.
- 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.
- "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 ME 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 boot up 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.INF.

- 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 Setup Utility CD* into your CD-ROM drive. 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 B: 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 ME with an NT, 2000 or XP file server, or if you are not sure if you have a file server, continue below.

If you are using an NT or 2000 domain server, refer to the *Windows 95, 98 or ME Client for Windows Domain Server* section in this Appendix for client setup.

Enabling File Sharing

1. Double-click your **My Computer** icon. A window of available disk drives will appear.
2. Right-click once on the drive or folder that you want to make available to other users.



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

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



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.

1. Double-click on the **My Computer** icon.
2. Double-click the **Printers** folder. A window of available printers will appear.
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.



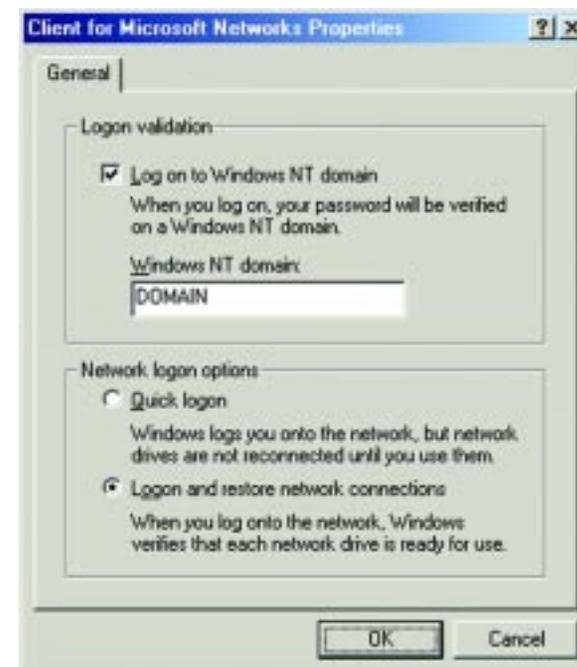
Note: Any printer you wish to share from your PC must be physically connected to your PC.

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.

Appendix C: Windows 95, 98, ME Client for Windows Domain Server

If you are installing the EtherFast® 10/100 Card in a Windows 95, 98 or ME PC that you plan on logging into a Windows NT or 2000 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 with several tabs. Among these are tabs labeled **Configuration** and **Access Control**.
2. Click on the **Configuration** tab. 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 the proper domain name (in the example below, **DOMAIN** is entered). Under Network logon options, select **Logon and restore network connection**. Click **OK**.



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.

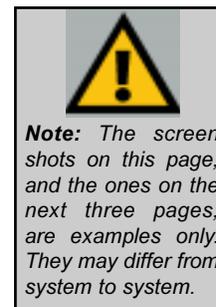
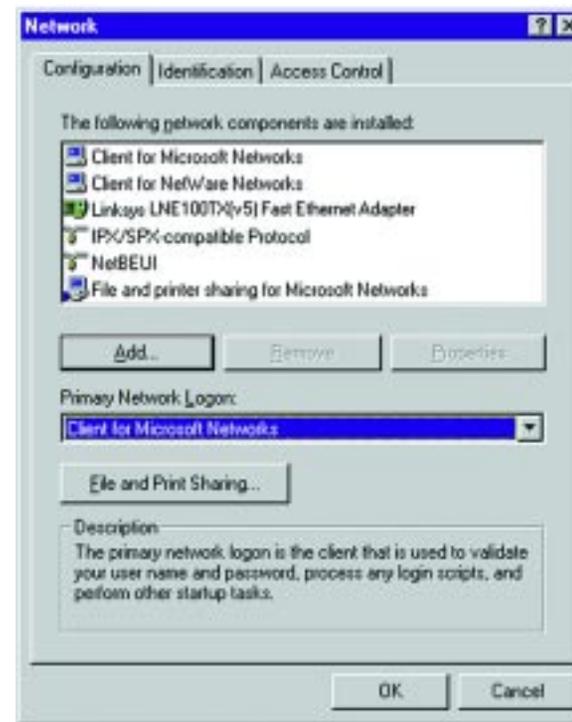
The Windows Domain portion of the Windows setup is complete.

Appendix D: Starting Over in Windows 95, 98, ME, 2000, or XP

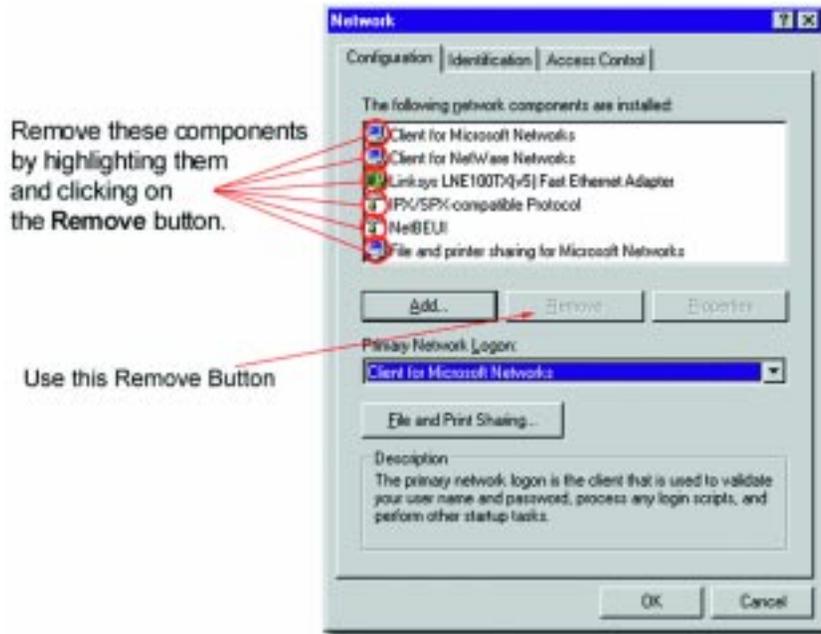
If you experience installation difficulties, you may need to re-install all of the Windows networking components. The instructions below explain how to give your PC a clean sweep so that you can retry the EtherFast® 10/100 LAN Card's driver installation.

Starting Over in Windows 95, 98, or Millennium

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 five. If it doesn't, continue with step four.

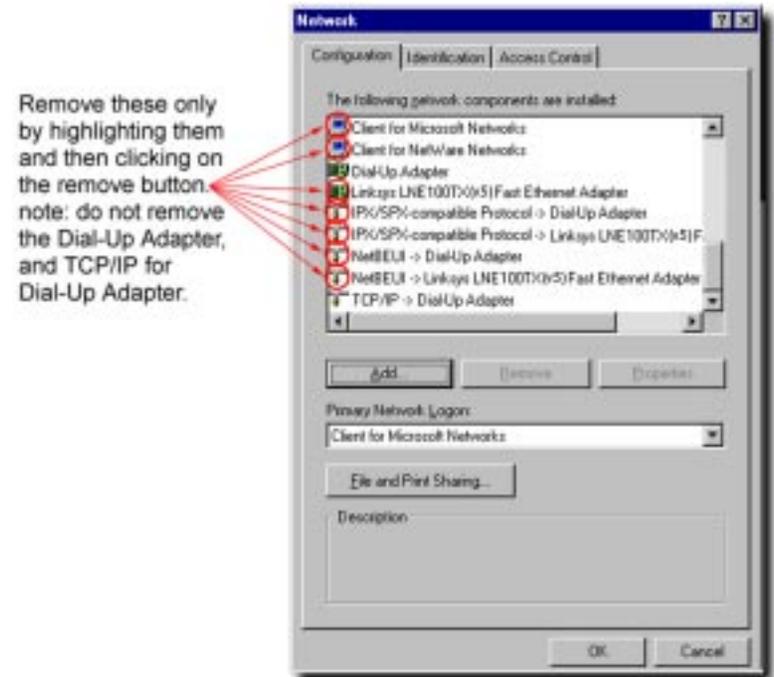


4. Remove any instance of the name Linksys in the box. This includes *IPX/SPX...Linksys*, *NetBEUI...Linksys*, and *TCP/IP...Linksys*. Also remove *Client for Microsoft Networks*, *Client for NetWare Networks*, and *File and Printer Sharing for Microsoft Networks*.



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

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

10. 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.)
11. Click the **Close** button, shut down Windows, and restart your computer.
12. After your computer has restarted, refer to the chapters for Windows 95, Windows 98 or Windows ME for setup instructions.

Starting Over in Windows 2000 or XP

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. Right-click on the **LNE100TX Fast Ethernet Adapter** again. This time, select **Uninstall...** When the Confirm Device Removal window appears, click **OK**.



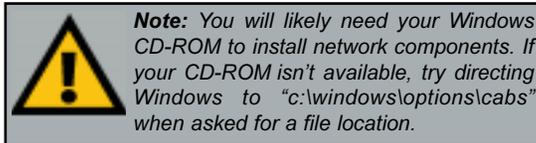
7. The Network Adapters category should be removed from the Device Manager listing.
8. Click the **OK** button. Restart your computer.

Appendix E: Manually Installing the Network Components in Windows 95, 98, and Millennium

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*

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, 2000 or XP 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**.

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**.

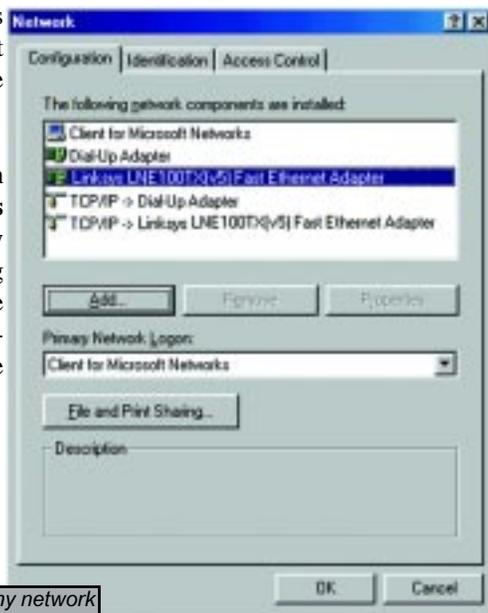
Appendix F: Installing the Network Protocols for Windows 95, 98, and Millennium

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



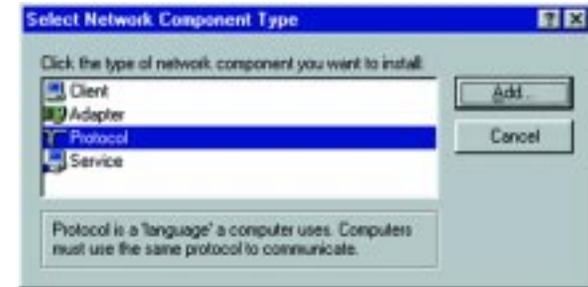
2. Select **Linksys LNE100TX(v5) Fast Ethernet Adapter** from the list. Click the **Add** button.

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

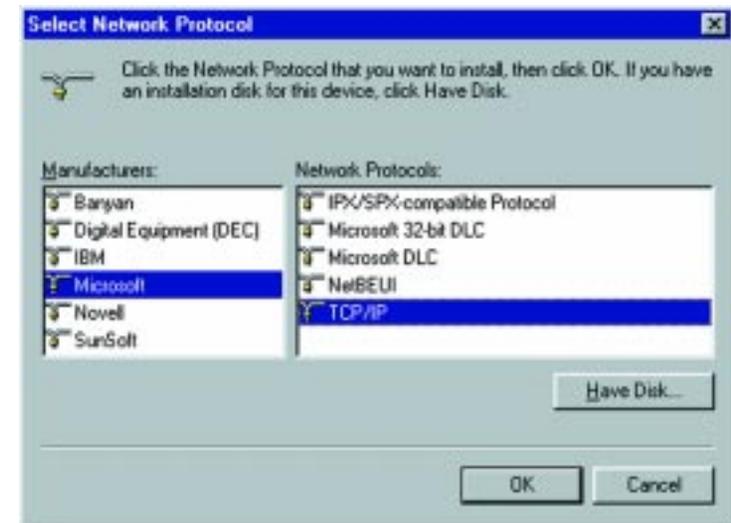


Note: Before adding any network protocols, verify that the protocol is not already installed. Never install duplicate protocols.

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.

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

Appendix G: About Plug-and-Play 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® 10/100 LAN 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® 10/100 LAN Card 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. AMI's BIOS and Award's BIOS are fully customizable from their BIOS menus, for example.

Appendix H: Uninstalling the Drivers with the Install Wizard

1. Insert the Setup Utility CD into your CD-ROM drive. The Install Wizard's Welcome screen will come up automatically and identify the version of Windows you are using.

2. Move your cursor over the **Uninstall** tab and the Uninstall screen will appear. Click the **Uninstall** button.



3. The drivers will be uninstalled automatically. When this process is complete, you will see the following screen.



Driver uninstall complete!

Appendix I: 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.

Architecture - The total design and implementation of the network. It includes the network's topology, transmission technologies and communications protocols, management and security systems, and any other attributes that give a network a particular set of capabilities and functionalities.

Backbone - The part of a network that connects most of the systems and networks together and handles the most data.

Bandwidth - The transmission capacity of a given facility, in terms of how much data the facility can transmit in a fixed amount of time; expressed in bits per second (bps).

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.

Browser - A browser is an application program that provides a way to look at and interact with all the information on the World Wide Web or PC. The word "browser" seems to have originated prior to the Web as a generic term for user interfaces that let you browse text files online.

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.

Cable Modem - A device that connects a computer to the cable television network, which in turn connects to the Internet. Once connected, cable modem users have a continuous connection to the Internet. Cable modems feature

asymmetric transfer rates: around 36 Mbps downstream (from the Internet to the computer), and from 200 Kbps to 2 Mbps upstream (from the computer to the Internet).

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.

Database - A database is a collection of data that is organized so that its contents can easily be accessed, managed, and updated.

DHCP (Dynamic Host Configuration Protocol) - A protocol that lets network administrators manage centrally and automate the assignment of Internet Protocol (IP) addresses in an organization's network. Using the Internet's set of protocol (TCP/IP), each machine that can connect to the Internet needs a unique IP address. When an organization sets up its computer users with a connection to the Internet, an IP address must be assigned to each machine. Without DHCP, the IP address must be entered manually at each computer and, if computers move to another location in another part of the network, a new IP address must be entered. DHCP lets a network administrator supervise and distribute IP addresses from a central point and automatically sends a new IP address when a computer is plugged into a different place in the network.

DHCP uses the concept of a "lease" or amount of time that a given IP address will be valid for a computer. The lease time can vary depending on how long a user is likely to require the Internet connection at a particular location. It's especially useful in education and other environments where users change frequently. Using very short leases, DHCP can dynamically reconfigure networks in which there are more computers than there are available IP addresses.

DHCP supports static addresses for computers containing Web servers that need a permanent IP address.

Domain - A subnetwork comprised of a group of clients and servers under the control of one security database. Dividing LANs into domains improves performance and security.

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.

DSL (Digital Subscriber Line) - A technology that dramatically increases the digital capacity of ordinary telephone lines into the home or office and, by employing unused bandwidth, still allows for normal phone usage. DSL provides "always-on" operation, eliminating the need to dial in to the service.

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.

Firmware - Programming that is inserted into programmable read-only memory (programmable read-only memory), thus becoming a permanent part of a computing device.

FTP (File Transfer Protocol) - A protocol used to transfer files over a TCP/IP network (Internet, UNIX, etc.). For example, after developing the HTML pages for a Web site on a local machine, they are typically uploaded to the Web server using FTP.

FTP includes functions to log onto the network, list directories and copy files. It can also convert between the ASCII and EBCDIC character codes. FTP operations can be performed by typing commands at a command prompt or via an FTP utility running under a graphical interface such as Windows. FTP transfers can also be initiated from within a Web browser by entering the URL preceded with ftp://.

Unlike e-mail programs in which graphics and program files have to be "attached," FTP is designed to handle binary files directly and does not add the overhead of encoding and decoding the data.

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.

HTTP - (HyperText Transport Protocol) The communications protocol used to connect to servers on the World Wide Web. Its primary function is to establish a connection with a Web server and transmit HTML pages to the client browser.

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.

IPX (Internetwork Packet EXchange) - A NetWare communications protocol used to route messages from one node to another. IPX packets include network addresses and can be routed from one network to another.

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 (Media Access Control) Address - A unique number assigned by the manufacturer to any Ethernet networking device, such as a network adapter, that allows the network to identify it at the hardware level.

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.

NetBEUI (NetBIOS Extended User Interface) - The transport layer for NetBIOS. NetBIOS and NetBEUI were originally part of a single protocol suite that was later separated. NetBIOS sessions can be transported over NetBEUI, TCP/IP and SPX/IPX protocols.

NetBIOS - The native networking protocol in DOS and Windows networks. Although originally combined with its transport layer protocol (NetBEUI), NetBIOS today provides a programming interface for applications at the ses-

sion layer (layer 5). NetBIOS can ride over NetBEUI, its native transport, which is not routable, or over TCP/IP and IPX/SPX, which are routable protocols.

NetBIOS computers are identified by a unique 15-character name, and Windows machines (NetBIOS machines) periodically broadcast their names over the network so that Network Neighborhood can catalog them. For TCP/IP networks, NetBIOS names are turned into IP addresses via manual configuration in an LMHOSTS file or a WINS server.

There are two NetBIOS modes. The Datagram mode is the fastest mode, but does not guarantee delivery. It uses a self-contained packet with send and receive name, usually limited to 512 bytes. If the recipient device is not listening for messages, the datagram is lost. The Session mode establishes a connection until broken. It guarantees delivery of messages up to 64KB long.

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.

Node - A network junction or connection point, typically a computer or work station.

Notebook (PC) - A notebook computer is a battery-powered personal computer generally smaller than a briefcase that can easily be transported and conveniently used in temporary spaces such as on airplanes, in libraries, temporary offices, and at meetings. A notebook computer, sometimes called a laptop computer, typically weighs less than five pounds and is three inches or less in thickness.

Packet - A unit of data routed between an origin and a destination in a network.

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.

Ping - (Packet INternet Groper) An Internet utility used to determine whether a particular IP address is online. It is used to test and debug a network by sending out a packet and waiting for a response.

Plug-and-Play - The ability of a computer system to configure expansion boards and other devices automatically without requiring the user to turn off the system during installation.

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.

Print Server - A hardware device that enables a printer to be located anywhere in the network.

RJ-11 (Registered Jack-11) - A telephone connector that holds up to six wires. The RJ-11 is the common connector used to plug a telephone into a wall.

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

Router - Protocol-dependent device that connects subnetworks together. Routers are useful in breaking down a very large network into smaller subnetworks; they introduce longer delays and typically have much lower throughput rates than bridges.

Server - Any computer whose function in a network is to provide user access to files, printing, communications, and other services.

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.

Switch - 1. A data switch connects computing devices to host computers, allowing a large number of devices to share a limited number of ports. 2. A device for making, breaking, or changing the connections in an electrical circuit.

TCP (Transmission Control Protocol) - A method (protocol) used along with the Internet Protocol (Internet Protocol) to send data in the form of message units between computers over the Internet. While IP takes care of handling the actual delivery of the data, TCP takes care of keeping track of the individual units of data (called packet) that a message is divided into for efficient routing through the Internet.

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.

Topology - A network's topology is a logical characterization of how the devices on the network are connected and the distances between them. The most common network devices include hubs, switches, routers, and gateways. Most large networks contain several levels of interconnection, the most important of which include edge connections, backbone connections, and wide-area connections.

Upgrade - To replace existing software or firmware with a newer version.

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

URL (Uniform Resource Locator) - The address that defines the route to a file on the Web or any other Internet facility. URLs are typed into the browser to access Web pages, and URLs are embedded within the pages themselves to provide the hypertext links to other pages.

USB (Universal Serial Bus) - A "plug and play" interface between a computer and add-on devices (such as audio players, joysticks, keyboards, telephones, scanners, and printers). With USB, a new device can be added to your computer without having to add an adapter card or even having to turn the computer off. The USB peripheral bus standard was developed by Compaq, IBM, DEC, Intel, Microsoft, NEC, and Northern Telecom and the technology is available without charge for all computer and device vendors.

USB supports a data speed of 12 megabit per second. This speed will accommodate a wide range of devices, including MPEG video devices, data gloves, and digitizers. It is anticipated that USB will easily accommodate plug-in telephones that use Integrated Services Digital Network and digital private branch exchange.

Since October, 1996, the Windows operating systems have been equipped with USB driver or special software designed to work with specific I/O device types. USB is integrated into Windows 98. Today, most new computers and peripheral devices are equipped with USB.

A different "plug-and-play" standard, Firewire/IEEE 1394, is designed to support much higher data rates and devices such as video camcorders and digital video disk (digital versatile disk) players. Both standards are expected to exist together, serving different device types.

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.

Wake-on-LAN - Wake on LAN is a technology that allows a network professional to remotely power on a computer or to wake it up from sleep mode.

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

Appendix J: Specifications

| | |
|---------------------------|----------------------------------------------------|
| 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 RJ-45 10BaseT/100BaseTX |
| Speed: | |
| <i>Full Duplex</i> | 20/200Mbps |
| <i>Half Duplex</i> | 10/100Mbps |
| Cabling: | UTP Category 5 or better (10BaseT/100BaseTX) |
| Topology: | Star |
| LED Status Lights: | Link & Activity (Link/Act), 100Mbps (100) |

Environmental

| | |
|-------------------------------|----------------------------------------------|
| Dimensions: | 5.25" x 4.75" x 0.88" (134mm x 121mm x 23mm) |
| Unit Weight: | 2.1 oz. (.06 kg) |
| Power: | 5W Maximum |
| Certifications: | FCC Class B, CE Mark Commercial |
| Operating Temperature: | 0°C to 50°C (32°F to 122°F) |
| Storage Temperature: | -20°C to 70°C (-4°F to 158°F) |
| Operating Humidity: | 10% to 90% Non-Condensing |
| Storage Humidity: | 5% to 95% Non-Condensing |

Appendix K: 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.

Appendix L: Contact Information

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

| | |
|--------------------------|-------------------------------------------------------------|
| Sales Information | 800-546-5797 (LINKSYS) |
| Technical 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 |

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 does not provide technical support for Beta operating systems.



<http://www.linksys.com>

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