

Instant EtherFast® Series

10/100 USB Network Adapter



Model No.: USB100TX

User Guide

LINKSYS®

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

FCC STATEMENT

The 10/100 USB Network Adapter has been tested and found to comply with the limits 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-USB100TX-10508B AC

Table of Contents

Introduction	1
The EtherFast 10/100 USB Network Adapter	1
Features	1
Package Contents for the 10/100 USB Network Adapter	2
Getting to Know the EtherFast 10/100 USB Network Adapter	3
The Adapter's Ports	3
The Adapter's LEDs	4
The USB Icon	4
USB Cabling	5
Installing the EtherFast 10/100 USB Network Adapter	6
Overview	6
Installing the USB Network Adapter & Cabling	6
Connecting to an Ethernet or Fast Ethernet Network	7
Windows 98 Installation & Setup	8
Overview	8
Installing the USB Network Adapter's Driver	8
Network Component Configuration	12
Sharing Your Files & Printers in Windows 98	17
Windows Millennium Installation & Setup	19
Overview	19
Installing the USB Network Adapter's Driver	19
Network Component Configuration	22
Sharing Your Files & Printers in Windows 98	27
Windows 2000 Installation & Setup	29
Overview	29
Installing the USB Network Adapter's Driver	29
Troubleshooting	32

Appendix	35
Client for Microsoft Setup for Windows 98	35
Novell NetWare 3.x Client Setup for Windows 98	36
Starting Over in Windows 98	37
Starting Over in Windows 2000	41
Manually Installing Network Components in Windows 98	43
Linux, Open Source & Beta Operating Systems	44
Twisted Pair Cabling	45
Crimping Your Own Network Cables	46
Specifications	47
Environmental	47
Customer Support	48
Linksys Warranty Information	48

Introduction

The EtherFast 10/100 USB Network Adapter

Now you can connect to any 10, 100, or 10/100Mbps hub or switch without having to open your PC. The EtherFast 10/100 USB Network Adapter from Linksys allows you to instantly connect to a network from a USB-enabled desktop or notebook PC with Windows 98, Millennium, or 2000.

The Plug-and-Play compatible adapter attaches to any USB-enabled Windows 98, Millennium, or 2000 PC. Connect a standard network cable into the other end the EtherFast 10/100 USB Network Adapter, install the included network software drivers, and go. You'll be networked in no time.

The EtherFast 10/100 USB Network Adapter is bus-powered—it draws power from the host PC and requires no external power cords. The 10/100 USB Network Adapter features a maximum of 12Mbps throughput (the maximum throughput supported by USB), easy-to-read LEDs, compact design, a 1-year limited warranty, and free world-class technical support

Features

- One B-type (Female) USB Port For a Standard USB Cable
- One RJ-45 10/100 Port For a Category 3 or 5 Cable
- 32K Memory Buffer
- Powered by the Host PC—No External Power Supply Needed
- Compact Design-Perfect for Use with Notebook PCs
- RJ-45 Network Port Connects to Any 10, 100, or 10/100Mbps Hub or switch
- Easy-to-Read Link and Activity LED Indicators
- Plug-and-Play Compatible with Windows 98, Millennium, and 2000 for Easy Installation
- Free Technical Support—7 Days a Week, 24 Hours a Day (North America Only)
- 1-Year Limited Warranty



Package Contents for the 10/100 USB Network Adapter

- One 10/100 USB Network Adapter
- One Standard USB Cable
- One Driver Diskette
- One User Guide and Registration Card

Windows & Computer Compatibility



To use this device, you must have Microsoft Windows 98, Millennium, or 2000 installed on your PC. If you do not have Windows 98 or Windows 2000, this device will not work.

Also, the device requires that a USB port is installed and enabled on your PC. Some PCs have a disabled USB port. If your port doesn't seem to be working, there may be jumpers on the motherboard or a menu option in the BIOS that will enable a PC's USB port. Consult your computer's user guide. Some motherboards have USB interfaces, but no ports. You should be able to install your own USB port and attach it to your PC's motherboard using hardware purchased at any computer store.

Getting to Know the 10/100 USB Network Adapter

The Adapter's Ports



- USB** The USB port is where your 10/100 USB Network Adapter will connect to your computer. This port is a USB Type B port.
- LAN 10/100** The LAN 10/100 port allows your computer to be connected to an Ethernet or Fast Ethernet network.

The Adapter's LEDs



- TX/RX** The TX/RX LED will flicker whenever network data is passing through the 10/100 USB Network Adapter.
- LINK** The Link LED will illuminate Green when the 10/100 USB Network Adapter is connected to a network at 10Mbps, and it will illuminate Orange when it's connected at 100Mbps.

The USB Icon

The USB Icon (below) generally indicates where a USB port is located on a desktop or notebook computer.



USB Cabling

The EtherFast 10/100 USB Network Adapter comes with one USB cable. One end of the USB cable has a rectangular plug, which is called a **Type A** connector. The other end of the cable has a square plug, or a **Type B** connector.



Type A

Type B

The USB cable's Type B end connects to the USB device—in this case the EtherFast 10/100 USB Network Adapter. The Type A end connects to a computer's USB port.

The picture below shows two USB ports as they might be found on your computer. Note the two USB icons above the port.



Installing the EtherFast 10/100 USB Network Adapter

Overview

The following instructions will help you physically connect your computer to your network through your USB Network Adapter. After you physically install the adapter, you have to then install the adapter's driver software onto your computer and configure your computer to access your network. Driver installation and PC configuration instructions follow these device installation instructions.



Installing the USB Network Adapter & Cab

1. **Insert the cable's Type B plug** into the adapter's B-type port.
2. **Insert the other end of the USB cable** (the type A connector) into the USB port on your PC.

*Note: USB cabling and port information can be found in the **Getting to Know the 10/100 USB Network Adapter** section.*

Your computer is now connected to your EtherFast 10/100 USB Network Adapter. Continue onto the next page to connect your computer to an Ethernet or Fast Ethernet network.

Connecting to an Ethernet or Fast Ethernet Network

1. **Attach one end of an Ethernet cable** into the USB Network Adapter's **LAN 10/100** port.
2. **Plug the other end of the cable** into an Ethernet or Fast Ethernet hub, switch, or router. If you plan to use both 10BaseT and 100Mbps network segments on the same network, you'll need a dual-speed hub or switch that allows segments of different speeds to communicate. For more information on 10/100 dual-speed hubs and switches, visit the Linksys web site at www.linksys.com.

Your computer is now connected to your Ethernet or Fast Ethernet network.

- If your computer runs **Windows 98**, go to the next page now for driver installation instructions.
- If your computer runs **Windows Millennium**, go to the **Windows Millennium Installation & Setup** section now.
- If your computer runs **Windows 2000**, go to the **Windows 2000 Installation & Setup** section now.

Windows 98 Installation & Setup

Overview

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

Installing the USB Network Adapter's Driver

After installing the EtherFast 10/100 USB Network Adapter, follow the instructions below to install the adapter's software into your Windows 98 computer.

1. If you haven't already, **start up your computer**.
2. **Windows 98 will automatically detect** the presence of the LINKSYS USB Adapter hardware in your computer.
3. Slide the *Linksys Driver Disk* into your floppy drive while the *Add New Hardware Wizard* window is visible. Click **Next**.



4. Select "Search for the best driver for your device (Recommended).” Click **Next**.



5. Select "Specify a location" to find the correct driver and type in **A:\Win98**. Click **Next** to continue.



Note: Windows 98 may ask you for a **computer or workgroup name**. If so, skip ahead to the instructions on page 17. Once you have established your computer and workgroup names, return to where you left off and continue with the installation.

6. A window will open saying that Windows is now ready to install the *Linksys EtherFast 10/100 USB Network Adapter* driver. Click **Next**.

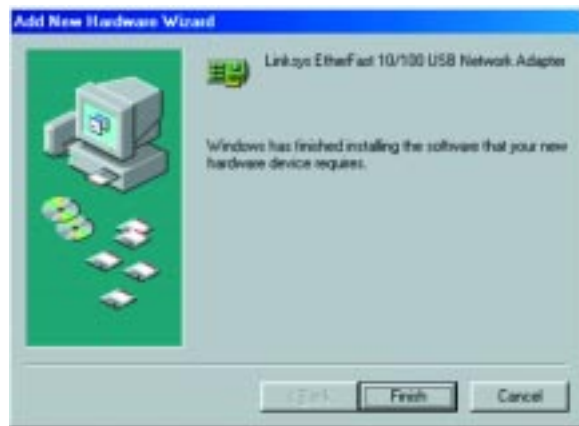


7. Windows will begin copying the driver files to your PC. Refer to the chart below to help guide you through the process.

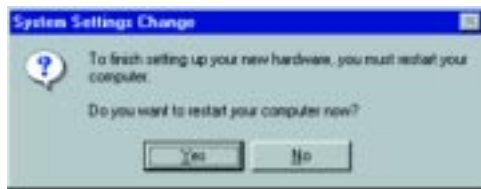
Under no circumstance are you to click Cancel or Skip File!

- If your PC asks for the Linksys Setup or Driver Disk
 1. Click **OK**.
 2. Ensure that the **Linksys Driver Disk** is in your PC's floppy drive.
 3. Type "a:\win98" in the "Copy files from:" box.
 4. Click **OK**.
- If you are asked to supply your Windows 98 Installation Files or Disks
 1. Click **OK**.
 2. If you have a **Windows 98 CD-ROM**, type "d:\win98" in the "Copy files from:" box, where "d:" is your CD-ROM drive.
 3. If you don't have a **Windows 98 CD-ROM**, type: "c:\windows\options\cabs".
 4. Click **OK**.
- If you are asked for a file that includes "USB100TX" in its name
 1. Insert the **Linksys Driver Disk** into your PC's floppy drive.
 2. Type "a:\win98" in the "Copy files from:" box.
 3. Click **OK**
- If you receive a Version Conflict error
 1. Choose to keep the newest version of the file by clicking **Yes**.

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



9. When asked if you want to restart your PC, remove the driver CD-ROM and click **Yes**. If Windows does not ask you to restart your PC, click the **Start** button. Choose **Shut Down**, then **Restart**, then click **Yes**. If you are using the Windows CD-ROM, leave it in your PC. You may need it later.



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 other networked computers for network configuration information if necessary.



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

Network Component Configuration

- Once you are back at the Windows 98 desktop, click on your taskbar's **Start** button, then **Settings**, then **Control Panel**, 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. You will need to manually install one of the protocols listed below. It is recommended that you install TCP/IP and provide an IP address to use the Internet services.
 - Client for Microsoft Networks*
 - Linksys EtherFast 10/100 USB Network Adapter*
 - TCP/IP*



For instructions on manually installing these components, refer to *Manually Installing Network Components* now. Please note that Linksys does not provide technical support or troubleshooting for TCP/IP.



Note: Linksys does not provide technical support for TCP/IP configuration or troubleshooting.

- 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**.

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**.

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

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



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

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

- 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.



- 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. Do **NOT** click **OK** when you are done.
- Enter a **description of your computer** in the *Computer Description* box. *This box is optional, and can be left blank.*

10. *Optional:* Choose the **Access Control** tab. Ensure that **Shared-level access control** is selected. If the setting is on **User-Level access control** and you can't change it, skip to the Troubleshooting section.



11. Click the **OK** button. Your system may or may not 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, where D: represents your CD-ROM drive, 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 **Yes** to restart your PC. If you don't see this window, simply shut down Windows 98 and restart your PC. Remember to remove the Driver Disk from the floppy drive 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 **OK**. Do not click the **Cancel** button or **Escape [ESC]** 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 Windows 98* on the next page 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 Print Sharing at a later time.**
- If you don't see anything at all in Network Neighborhood, press the **F5** key on your keyboard a few times to refresh the screen. If that doesn't work, go to the Troubleshooting section.
- If you only see your own computer in Network Neighborhood, skip to the Troubleshooting section.
- If you see all computers on the network except yours, press the **F5** key a few times. If, after a minute or so, you still can't see your own PC, see the Troubleshooting section.
- If you only see computers that are running the same operating system as you and you don't see any others, go to the Troubleshooting section.

Sharing Your Files and Printers in Windows 98

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 98 with an NT or NetWare file server, or if you are not sure if you have a file server, continue below.

If you are using an NT or NetWare file server, go to page 36 for client setup.

Enabling File Sharing

1. Double-click your **My Computer** icon. A window of available disk drives will appear.
2. Using your right mouse button, click once on the drive or folder that you want to make available to other users.
3. Click on **Sharing**, followed by the **Sharing** tab. Click on **Share As**.
4. In the Share Name box, enter a name for the drive or folder you are sharing. This can be any drive or folder 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 or folder.
 - **Full access** allows other users to create, change, or delete files on the selected drive or folder.
 - **Depends on Password** allows other users to have Read-Only and/or Full access to the selected drive or folder, 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.

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

7. When you're done, click on the **Apply** button, followed by **OK**. 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 can now be accessed by other network users. If a user tries to access one of your password-protected drives or folders, he or she will be asked for the appropriate Read-Only or Full-Access password. Continue on if you wish to share your PC's printer over the network.

Enabling Printer Sharing

1. Double-click on the **My Computer** icon.
2. Double-click the **Printers** folder. A window of available printers will appear.
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 **OK**. Your printer(s) are now shared.

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.

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.

Windows Millennium Installation & Setup

Overview

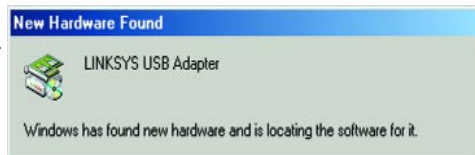
After physically installing the 10/100 USB Network Adapter in your computer, follow these instructions to install the network driver. The installation procedure for the network driver will vary slightly depending on your current system configuration. If at any time during the installation you encounter problems, consult the Troubleshooting section.

Installing the USB Network Adapter's Driver

After installing the EtherFast 10/100 USB Network Adapter, follow the instructions below to install the adapter's software into your Windows Millennium computer.

1. If you haven't already, **start up your computer.**

2. **Windows Millennium will automatically detect** the presence of the LINKSYS USB Adapter hardware in your computer.



3. **Slide the Linksys Driver Disk into your floppy drive** and select "Specify the location of the driver (Advanced)." Click **Next.**



10/100 USB Network Adapter

4. **In the following screen, you will direct Windows** to the proper location for the driver. Select "Search for the best driver for your device (Recommended)" and click the box beside Specify a location. In the box below, type "A:\WinME". Then, click Next.



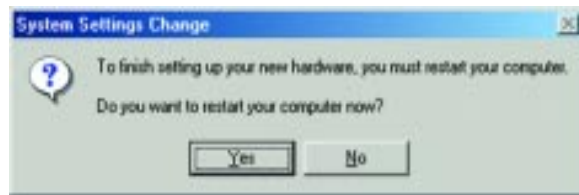
4. **A window will open saying that Windows is now ready** to install the *Linksys EtherFast 10/100 USB Network Adapter* driver. Click **Next.**



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



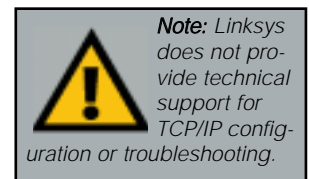
6. When asked if you want to restart your PC, remove the Driver Disk and click **Yes**.



The Windows Millennium driver installation is complete. Please continue on to the next section, which will provide instructions for configuring Windows Millennium's network protocol. Check with other networked computers for your network configuration information if necessary.

Network Component Configuration

1. Once you are back at the Windows Millennium desktop, click on your taskbar's **Start** button, then **Settings**, then **Control Panel**, then double-click the **Network** icon.
2. The Network window will appear. Click on the **Configuration** tab. A window similar to the one below will appear. There may be other components listed in addition to the ones shown below (for example, a *Dial-up Adapter*), which is normal. You will need to manually install one of the protocols listed below. It is recommended that you install TCP/IP and provide an IP address to use the Internet services. If you are not sure what protocol you need, you can just install IPX/SPX and NetBEUI protocols for your local area network.
 - *Client for Microsoft Networks*
 - *Linksys EtherFast 10/100 USB Network Adapter*
 - *TCP/IP*



If any of the components shown above are missing, however, you'll need to manually install them. If so, refer to *Manually Installing Network Components* now.

- 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**. 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**.

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

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



- 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**.

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

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



- 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. Do **NOT** click **OK** when you are done.
- Enter a **description of your computer** in the *Computer Description* box. *This box is optional, and can be left blank.*

10. *Optional:* Choose 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, skip to the Troubleshooting section.



11. Click the **OK** button. Your system may or may not ask you for your Windows Millennium CD-ROM or the location of the Windows Millennium installation files. If it does, direct Windows to the appropriate location, (i.e., D:\winME if you have the Windows Millennium CD-ROM, where D: represents your CD-ROM drive, 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 **Yes** to restart your PC. If you don't see this window, simply shut down Windows Millennium and restart your PC. Remember to remove the Driver Disk from the floppy drive 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 **OK**. Do not click the **Cancel** button or **Escape [ESC]** key. Clicking either of these buttons will prevent you from logging into the network. If the logon does not appear or if it does not allow you to log on, refer to the Troubleshooting section.

14. Once you are at the Windows Millennium desktop, double-click 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 Millennium network configuration is complete. Continue with *Sharing Your Files and Printers in Windows* on the next page 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 Print Sharing at a later time.**

- If you don't see anything at all in Network Neighborhood, press the **F5** key on your keyboard a few times to refresh the screen. If that doesn't work, go to the Troubleshooting section.
- If you only see your own computer in Network Neighborhood, skip to the Troubleshooting section.
- If you see all computers on the network except yours, press the **F5** key a few times. If, after a minute or so, you still can't see your own PC, see the Troubleshooting section.
- If you only see computers that are running the same operating system as you and you don't see any others, go to the Troubleshooting section.

Sharing Your Files and Printers in Windows

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 Millennium with an NT or NetWare file server, or if you are not sure if you have a file server, continue below.

If you are using an NT or NetWare file server, see the Appendix for client setup.

Enabling File Sharing

1. Double-click your **My Computer** icon. A window of available disk drives will appear.
2. Using your right mouse button, click once on the drive or folder that you want to make available to other users.
3. Click on **Sharing**, followed by the **Sharing** tab. Click on **Share As**.
4. In the Share Name box, enter a name for the drive or folder you are sharing. This can be any drive or folder 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 or folder.
 - **Full access** allows other users to create, change, or delete files on the selected drive or folder.
 - **Depends on Password** allows other users to have Read-Only and/or Full access to the selected drive or folder, 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.

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

7. When you're done, click on the **Apply** button, followed by **OK**. 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 can now be accessed by other network users. If a user tries to access one of your password-protected drives or folders, he or she will be asked for the appropriate Read-Only or Full-Access password. Continue on if you wish to share your PC's printer over the network.

Enabling Printer Sharing

1. Double-click on the **My Computer** icon.
2. Double-click the **Printers** folder. A window of available printers will appear.
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 **OK**. Your printer(s) are now shared.

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.

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.

Windows 2000 Installation & Setup

Overview

After physically installing the EtherFast 10/100 USB Network Adapter in your computer, follow these instructions to install the network driver. The installation procedure for the network driver could 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 Adapter's Driver

1. If you haven't already, start your computer and boot Windows 2000.
2. Windows will display the *Welcome to the Found New Hardware Wizard* box. Click **Next**.



3. The *Install Hardware Device Drivers* dialog box will appear. When *Linksys USB Adapter* is displayed, select “*Search for a suitable driver for my device (Recommended)*”. Click **Next**.



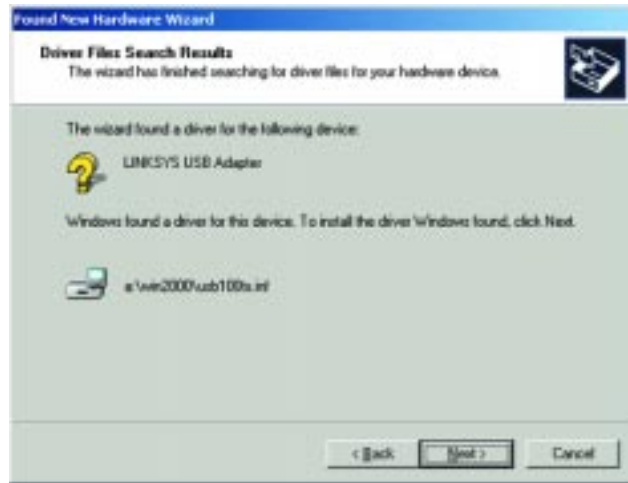
4. The *Locate Driver Files* dialog box will appear. Select the “*Specify a location*” option and insert the Driver Disk into your floppy drive. Click **Next**.



5. In the field under “Copy manufacturer’s files from” on the next screen, type “A:\WIN2000” and click **OK**.



6. The *Driver File Search Results* dialog box will appear. Click **Next**.



7. The *Completing the Found New Hardware Wizard* dialog box will appear. The following adapter name will be shown: *Linksys EtherFast 10/100 USB Network Adapter*. Click **Finish**.



8. Remove the Driver Disk from the floppy drive.

The EtherFast 10/100 USB Network Adapter driver installation is complete. For more information about networking under Windows 2000, refer to your Microsoft Windows 2000 documentation.

Troubleshooting

- Windows doesn't detect new hardware with the EtherFast 10/100 USB Network Adapter hardware installed, or it continues to detect the adapter each time I restart the PC.
 - You might not have correctly or securely installed the adapter into your computer. Check that the adapter is securely inserted into the appropriate slot.
 - The system BIOS might not be USB compatible, your PC's USB settings may not be enabled, or the motherboard may have USB options not supported by Windows 98, Millennium, or 2000. If you are not sure, contact your PC's manufacturer.
- Windows can't locate the driver for the EtherFast 10/100 USB Network Adapter.
 - You may have inserted the wrong diskette into your PC's drive.
 - The diskette may be defective or files may be missing, or you may be pointing Windows to the wrong drive. Ensure that the driver disk includes the files "USB100TX.inf" and "USB100TX.sys".
- The Windows Logon screen doesn't appear after restarting the computer.
 - Click on **Start**, then **Log Off**. Log back in. If this doesn't solve the problem, your PC's manufacturer may have disabled Windows' networking. Contact your computer's manufacturer for help. If using Windows 2000, refer to your Microsoft documentation.
- 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.

5. In Network Neighborhood I can see myself but no other computers.

- Make sure that the cables are connected correctly. Make sure you are getting Link or Activity lights on both the USB Network Adapter and your hub if you are using one. Try changing to a new cable that you know is working.
- Ensure that the other PC is turned on!

6. I've decided that I don't want to share a drive or printer anymore, or I have decided to physically remove a drive or printer from my network.

- You're going to have to manually reconfigure your File and Printer Sharing settings. To do so, double-click on your **My Computer** icon. Click on the **Printers** folder. A window of available printers will appear. Using your right mouse button, click once on the printer that you want to disable on the network. Click on **Sharing**, followed by the **Sharing** tab. Click on **Not Shared**. When you're done, click on the **Apply** button, followed by **OK**.
- You can disable shared drives in the same way. In Windows Explorer, right-click on the drive you want to stop sharing. Click on **Sharing**, followed by the **Sharing** tab. Click on **Not Shared**. When you're done, click on the **Apply** button, followed by **OK**.

7. In Network Neighborhood, you can only see computers running the same operating system as you. For example, if you are running Windows 98, you can see other Windows 98 computers but not any Windows 95 computers.

- Click **Start, Find**, then **Computer** and type the name of any other computer in the window that comes up. Click **Find Now**.
- Make sure that you are using the same protocols and workgroup names on the computers. To do this, click on **Start, Settings, Control Panel**, then double-click on the **Network** icon. Click on the **Configuration** tab and verify your protocol settings. If any protocols are missing, add any needed protocol(s) using the **Add** button in the Network window. Next, click on the **Identification** tab for Workgroup settings. Make sure they are consistent with your other PCs.
- 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.
- IPX/SPX-compatible Protocol should be installed on all computers.
- Bring up the properties of the IPX/SPX-compatible Protocol. To do this, click on **Start, Settings, Control Panel**, then open **Network** and click on the **Configuration** tab. Highlight *IPX/SPX-compatible Protocol* (only one of them) and click on **Properties**.

- Click on the **NetBIOS** tab. Put a check next to *I want to enable NetBIOS over IPX/SPX* and click **OK**. Click **OK** again.
- After Windows finishes copying the appropriate files, restart your computer. When you've returned to the desktop, open **Network Neighborhood** or my network places and look for the other PCs on your network.

8. In Network Neighborhood, I can only see some of the computers.

- 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 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 98* section on page 43 to install any needed protocol(s).
- Ensure that File & Print sharing is enabled on every computer.

9. Network Neighborhood is empty.

- Verify that your Microsoft Client is installed. See the Windows 98 setup instructions in this guide for directions.
- Verify that you have logged in correctly. Refresh the screen by pressing F5 several times.

10. The LEDs on the adapter flash back and forth in rhythm.

- The driver for the EtherFast 10/100 USB Network Adapter has not been properly installed. You must re-install the drivers.

11. On some notebook PCs, the EtherFast 10/100 USB Network Adapter fails to configure correctly after the drivers have been loaded.

- After loading the software drivers, it may be necessary to do the following:
 1. Log off and unplug the device from your PC's USB port.
 2. Turn off your PC.
 3. Plug the device back in and reboot.
 4. Log on after the PC reboots.

Appendix

Client for Microsoft Setup for Windows 98

If you are installing the EtherFast 10/100 USB Network Adapter in a Windows 98 PC that you plan on logging into a NT domain server, follow the directions below.

1. Start up Windows. Click on **Start, Settings**, then **Control Panel**. Double-click on **Network**. The Network window appears. Click on the **Configuration** tab.
2. In the Primary Logon Box, you have two choices. Choose one **Client for Microsoft Networks**, which instructs your PC to log into an NT 4.0 or Windows 2000 server where you already have a username and password set up.
3. Under the the following network components are installed box, highlight Client for Microsoft Networks and click on the **Properties** button.
4. The *Client for Networks Properties* window will appear. Under the *Logon Validation* box, make sure that *Log on to Windows NT domain* is checked. Enter the name of your domain into the *Windows NT Domain* box
5. *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 Problem 5 in the Troubleshooting section.
6. When you're done, click **OK**. When asked if you want to restart your PC, choose to do so.

The Microsoft Client portion of the Windows setup is complete.

Novell NetWare 3.x Client Setup for Windows 98

The instructions below explain how to set up the regular Novell NetWare 3.x client for use on a Windows 98 PC.

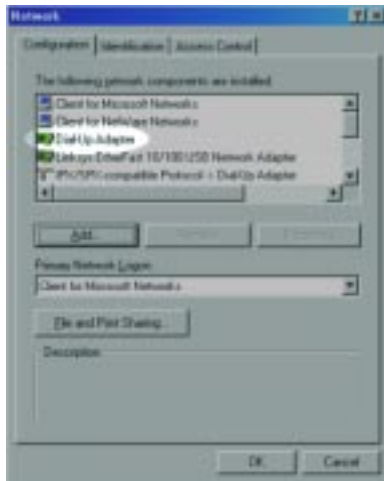
1. Follow the Windows 98 setup instructions.
2. Start up Windows 98. Click on **Start, Settings**, then **Control Panel**. Double-click on **Network**. The Network window appears. Click on the **Configuration** tab.
3. In the Primary Logon Box, choose *Client for NetWare Networks*. If you don't see this option, refer to the *Manually Installing Network Components in Windows 98* section to install this component.
4. Under the *The following network components are installed* box, highlight *Client for NetWare Networks* and click on the **Properties** button.
5. The *Client for NetWare Networks Properties* window appears. Under the **General** tab, enter the name of your network's Preferred Server. *Assign the First Network Drive Letter*; the default is F. Make sure the **Enable** logon script processing is checked.
6. Click **OK**. Click on the **Access Control** tab. Make sure the *Share-level access control* option is selected; do not select *User-level access control*.
7. When you're done, click **OK** to restart your computer.

The NetWare Client portion of your Windows setup is complete.

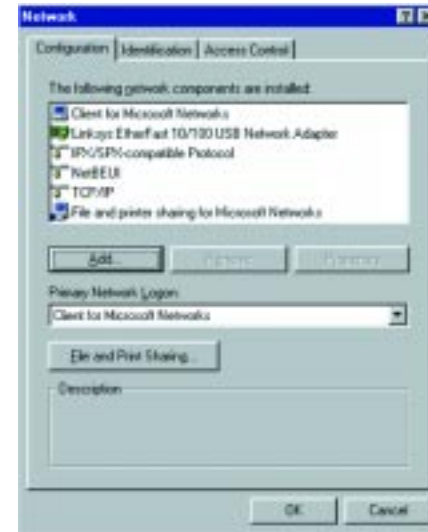
Starting Over in Windows 98

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

1. At the desktop click on the **Start** Button, highlight **Settings**, click on **Control Panel**.
2. Double-click on the **Network** Icon.
3. If the Configuration box has a component called Dial-Up Adapter, skip forward to step 5. If it doesn't, continue with step 4.

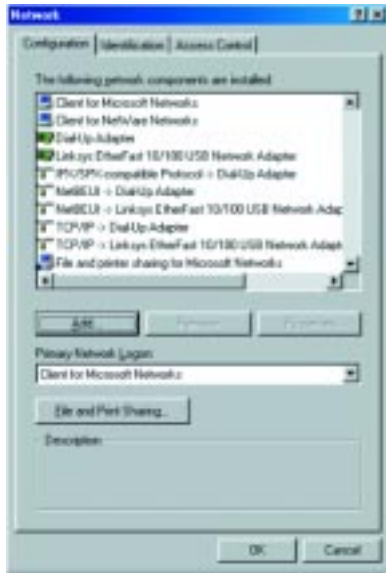



4. Remove any instance of the name Linksys in the box. This includes *IPX/SPX...Linksys*, *NetBEUI...Linksys*, and *TCP/IP...Linksys*. Also remove *Client for Microsoft Networks*, *Client for NetWare Networks*, and *File and Printer Sharing for Microsoft Networks*.



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.

- 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*.

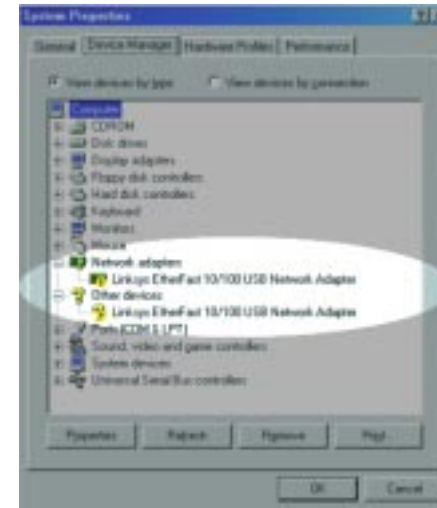




Note: Linksys does not provide technical support for TCP/IP configuration or troubleshooting.

- When you have completed the removal of all unnecessary components, click **OK**. When asked to restart, click **No**.
- Return to the Windows Control Panel. Double-click on the **System** Icon. The System Properties window will appear. Click on the **Device Manager** Tab.

- If **Network Adapters** is listed, then expand it by clicking on the **plus** [+] sign and remove all devices with the name Linksys in its description. (If at any point you are asked to restart the computer, click **No**).



- If **Other Devices** is listed, click the **plus** [+] sign beside it. Remove *Linksys EtherFast 10/100 USB Network Adapter*.
- Click the **OK** button, shut down Windows, and restart your computer.
- After your computer has restarted, turn to the **Windows 98 Installation & Setup** section for Windows 98 installation instructions.

Starting Over in Windows 2000

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

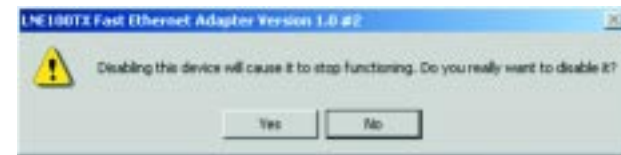


3. Click the **Device Manager** button. The *Device Manager* window will open.
4. Click the **plus sign (+)** beside *Network Adapters*. The *Linksys EtherFast 10/100 USB Network Adapter* listing should appear.

5. Right-click on **Linksys EtherFast 10/100 USB Network Adapter**. A context menu should open (see the example below).



6. First, choose **Disable**.
7. When asked if you want to disable the device, click **Yes**.



8. Right-click on the **Linksys EtherFast 10/100 USB Network Adapter** again. This time, select **Uninstall...** Click **OK**.



9. The *Network Adapters* category should no longer be listed.
10. Click the **OK** button, and restart your computer. Go to the **Windows 2000 Installation & Setup** section to install the Windows 2000 drivers.

Manually Installing Network Components in Windows 98

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 EtherFast 10/100 USB Network Adapter*
 - *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.

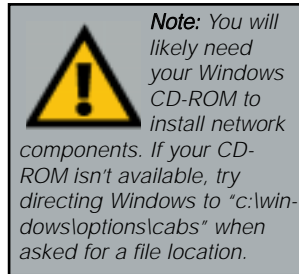
Client for Microsoft Networks

If you plan on connecting to an NT file server or peer-to-peer network, click on the **Add** button. Highlight *Client* and click on **Add**. Choose

Microsoft as the manufacturer in the Network Client box. Highlight *Client for Microsoft Networks* and click **OK**. If you've added all the components you require, click **OK** again. The computer will begin copying files to your system. When the installation is complete, you will be asked if you want to reboot. Click **Yes**.

Client for NetWare Networks

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



IPX/SPX-compatible Protocol

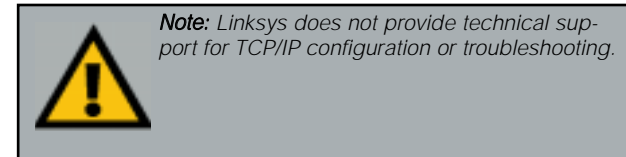
Click the **Add** button. Choose *Protocol* and click the **Add** button. Select *Manufacturer* and choose **Microsoft**. Under the Network Protocol box, highlight *IPX/SPX-compatible protocol*. Click **OK**. If you've added all the components you require, click **OK** again. The computer will begin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

NetBEUI

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

TCP/IP

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



Linux, Open Source and Beta Operating Systems

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

Linksys does not provide technical support for Beta operating systems.

Twisted-Pair Cabling

There are different grades, or categories, of twisted-pair cabling. Category 5 is the most reliable and is highly recommended. Category 3 is a good second choice. Straight-through cables are used for connecting computers to a hub.

Crossover cables are used for connecting a hub to another hub (there is an exception: some hubs have a built-in uplink port that is crossed internally, which allows you to link or connect hubs together with a straight-through cable instead).

You can buy pre-made Category 5 cabling, or cut and crimp your own. Category 5 cables can be purchased or crimped as either straight-through or crossover. Inside a Category 5 cable are 8 thin, color-coded wires inside that run from one end of the cable to the other. All 8 wires are used. In a straight-through cable, wires 1, 2, 3, and 6 at one end of the cable are

also wires 1, 2, 3, and 6 at the other end. In a

crossover cable, the order of the wires change from one end to the other: wire 1 becomes 3, and 2 becomes 6. See the diagrams on the next page for more detailed information on straight-through and crossover cabling.

To determine which wire is wire number 1, hold the cable so that the end of the plastic RJ-45 tip (the part that goes into a wall jack first) is facing away from you. Face the clip down so that the copper side faces up (the springy clip will now be parallel to the floor). When looking down on the copper side, wire 1 will be on the far left.



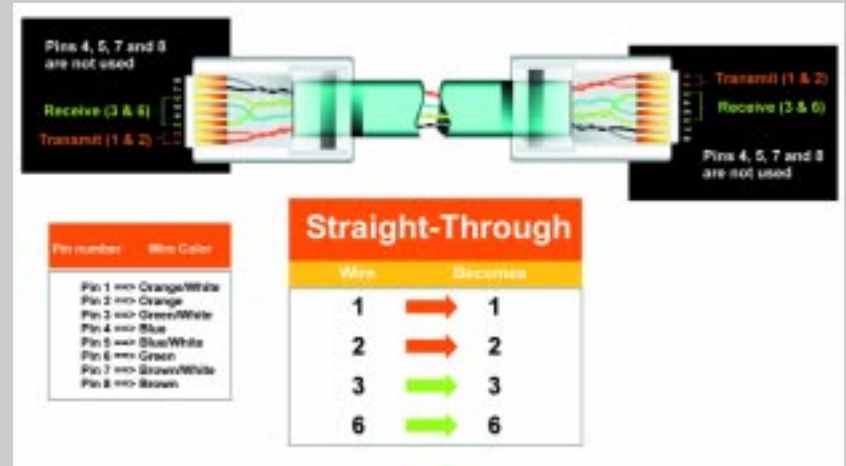
RJ-45 Color Chart

- Wire 1 → White with an Orange Stripe
- Wire 2 → Orange
- Wire 3 → White with a Green Stripe
- Wire 4 → Blue
- Wire 5 → White with a Blue Stripe
- Wire 6 → Green
- Wire 7 → White with a Brown Stripe
- Wire 8 → Brown

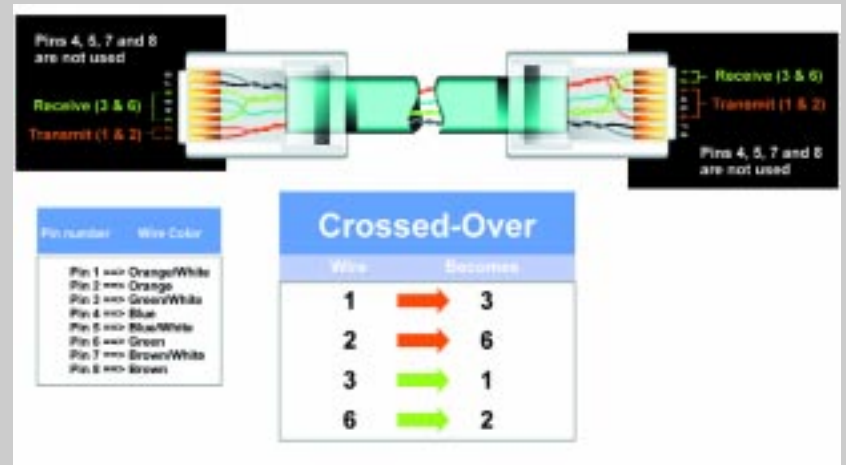
straight-through cable		crossover cable	
Wire	Becomes	Wire	Becomes
1	1	1	3
2	2	2	6
3	3	3	1
6	6	6	2

Crimping Your Own Network Cables

• Straight-Through Cabling



• Cross-Over Cabling



Specifications

Model Number:	USB100TX
Standards:	IEEE 802.3 IEEE 802.3u, USB v1.0 or higher
Protocol:	CSMA/CD
Ports:	1 USB Type B Port 1 10BaseT/100BaseTX Auto-Sensing RJ-45
Speed:	10Mbps (Ethernet), 100Mbps (Fast Ethernet)
Cabling:	UTP/STP Category 3 (or better)
Topology:	Star
Bus Speed:	12Mbps (Buffered) Universal Serial Bus
LED Status Lights:	Link, TX/RX

Environmental

Dimensions:	3.8" x 2.6" x 1.2" (97 x 66 x 30 mm)
Unit Weight:	5.0 oz. (156 g)
Power:	5v Bus Powered from PC
Certifications:	FCC Class B, CE Mark (Commercial)
Operating Temperature:	32°F to 122°F (0°C to 49°C)
Storage Temperature:	-4°F to 158°F (-20°C to 70°C)
Operating Humidity:	10% to 85% Non-Condensing
Storage Humidity:	5% to 90% Non-Condensing

Customer Support

For help with the installation or operation of your EtherFast 10/100 USB Network Adapter, contact Linksys Customer Support at one of the phone numbers or Internet addresses below.

Customer Support	800-326-7114 949-261-1288
Fax	949-261-8868
E-mail	support@linksys.com
Web	http://www.linksys.com
FTP Site	ftp.linksys.com

Linksys Warranty Information

Linksys guarantees that every 10/100 USB Network Adapter is free from physical defects in material and workmanship under normal use for one (1) year from the date of purchase. If the product proves defective during this warranty period, contact Linksys Customer Support to obtain a Return Authorization number. When returning a product, mark the Return Authorization number clearly on the outside of the package and include your original proof of purchase.

Note: You must have your proof of purchase and a barcode from the product's packaging on hand when calling. Return requests can not 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 OFFERS NO REFUNDS FOR ITS PRODUCTS.



Tampering with or disassembling this product voids its warranty.

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