

To use the USB port on the 3-Port Router, refer to the instructions in the User Guide on the Setup Wizard CD-ROM.

If you are connecting more than four PCs to the Router, you will need to connect a hub or switch to the Uplink port of the Router (if you use the Uplink port, then you cannot use Port 1). Please refer to the User Guide located on the Setup Wizard CD-ROM.

Proceed to step D.

D. Connect the power adapter to the Router. Connect the power adapter to the electrical outlet. Turn on the power adapter to the Router. Repeat this process for every PC you wish to connect to the Router.

If you are using the LAN port to connect to a PC, set the Crossover switch to straight-through mode (II). If you are connecting the Router to a hub or switch, refer to the chart when setting the Crossover switch. Then proceed to step D.

C2. With the 3-Port Router with USB, connect a second Ethernet cable to your PC's Ethernet adapter. Connect the other end of the cable to one of the LAN ports on the back of the Router. Repeat this process for every PC you wish to connect to the Router.

C1. With the 1-Port Router, connect a second Ethernet cable to your PC's Ethernet adapter or a port on your hub or switch. Connect the other end of the cable to the LAN port on the back of the Router.

Note: If your PC's Ethernet adapter is not set up, please refer to the Ethernet adapter's user guide for more information.

C1. If you have the 1-Port Router, proceed to step C1. If you have the 3-Port Router with USB, proceed to step C2.

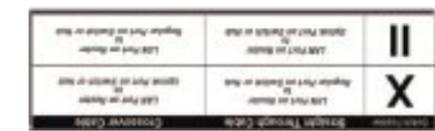
C2. With the 3-Port Router with USB, connect a second Ethernet cable to your PC's Ethernet adapter. Connect the other end of the cable to one of the LAN ports on the back of the Router. Repeat this process for every PC you wish to connect to the Router.

Note: If your PC's Ethernet adapter is not set up, please refer to the Ethernet adapter's user guide for more information.

C2. With the 3-Port Router with USB, connect a second Ethernet cable to your PC's Ethernet adapter. Connect the other end of the cable to one of the LAN ports on the back of the Router. Repeat this process for every PC you wish to connect to the Router.

Note: For ease of installation, start with LAN Port 3, then Port 2, and finally Port 1.

Proceed to Step 2: Configure the PCs on the next page.



Step 2: Configure the PCs



In Step 2, you will configure each of your computers to be able to communicate with the Router.

To do this, you need to configure your PC's network settings to obtain an IP (or TCP/IP) address automatically (called DHCP). Computers use IP addresses to communicate with each other across a network or the Internet.

Find out which operating system your computer is running, such as Windows 95, 98, Millennium, NT 4.0, 2000, or XP.

You will need to know which operating system your computer is running. You can find out by clicking the **Start** button and then going to the **Settings** option. Then click **Control Panel**, and then double-click the **System** icon. If your Start menu doesn't have a Settings option, you're running Windows XP. Click the **Cancel** button when done.

You may need to do this for each computer you are connecting to the Router.

The next few pages tell you, step by step, how to configure your network settings based on the type of Windows operating system you are using. Once you've configured your computers, continue to Step 3: Configure the Router.

If you are running: **Windows 95, Windows 98, Windows Millennium**

- Go to the Network screen by clicking the **Start** button. Click **Settings** and then **Control Panel**. From there, double-click the **Network** icon.
- On the Configuration tab, select the **TCP/IP** line for the applicable Ethernet adapter*. If the word **TCP/IP** appears by itself, select that line.** Click the **Properties** button.
- Click the **IP Address** tab. Select **Obtain an IP address automatically**.
- Now click the **Gateway** tab to ensure that the Installed Gateway field is left blank. Click the **OK** button.
- Click the **OK** button again. Windows may ask you for the original Windows installation disk or additional files. Supply them by pointing to the correct file location, e.g., D:\win98, D:\win9x, c:\windows\options\cabs, etc. (if "D" is the letter of your CD-ROM drive).
- Windows may ask you to restart your PC. Click the **Yes** button. If Windows does not ask you to restart, restart your computer anyway.

*Note: Do not choose a TCP/IP entry whose name mentions DUN, PPPoE, VPN, or AOL.

**Note: If there is no TCP/IP line listed, refer to the User Guide found on the Setup Wizard CD-ROM or your Ethernet adapter's user guide to install TCP/IP now.

If you are running: **Windows 2000**

- Go to the Network screen by clicking the **Start** button. Click **Settings** and then **Control Panel**. From there, double-click the **Network and Dial-up Connections** icon.
- Select the **Local Area Connection** icon for the applicable Ethernet adapter* (usually it is the first Local Area Connection listed). Double-click the **Local Area Connection**.
- The Local Area Connection Status screen will appear. Click the **Properties** button.
- Select **Internet Protocol (TCP/IP)**, and click the **Properties** button.
- Select **Obtain an IP address automatically**. Once the new window appears, click the **OK** button. Click the **OK** button again to complete the PC configuration.
- Restart your computer.

*Note: Do not choose a TCP/IP entry whose name mentions DUN, PPPoE, VPN, or AOL.

If you are running: **Windows XP**

- The following instructions assume you are running Windows XP with the default interface. If you are using the Classic interface (where the icons and menus look like previous Windows versions), please follow the instructions for Windows 2000.
- Click to the Network screen by clicking the **Start** button and then **Control Panel**. From there, click the **Network and Internet Connections** icon and then the **Network Connections** icon.
 - Select the **Local Area Connection** icon for the applicable Ethernet adapter (usually it is the first Local Area Connection listed). Double-click the **Local Area Connection**.
 - The Local Area Connection Status screen will appear. Click the **Properties** button.
 - Select **Internet Protocol (TCP/IP)**, and click the **Properties** button.
 - Select **Obtain an IP address automatically**. Once the new window appears, click the **OK** button. Click the **OK** button again (or the **Close** button if any settings were changed) to complete the PC configuration.
 - Restart your computer.

Step 1: Connect the Router

Introduction

Congratulations! Thank you for choosing the Linksys EtherFast™ Cable/DSL Router. The Router allows you to set up a home or small business network* to share your high-speed Internet connection.

Why do I need a network? Networks are useful for sharing computer resources such as printers, files, and CD-ROM drives. Networks are even used for playing multiplayer video games. So, not only are networks useful in homes and businesses, but they can also be used for fun.

The Router is connected to your cable or DSL modem. The Router makes it seem as if each PC is connected directly to the Internet. Several PCs can then use one Internet connection simultaneously.

Use the **Linksys Router Setup Wizard CD-ROM** or the instructions in this **Fast Start** to help you connect the Router, configure your PCs, and configure the Router. These instructions will get you up and running quickly using the most basic settings. Once you have access to the Internet, you can get advanced configuration information (for gaming, VPNs, web hosting, etc.) by visiting our website at support.linksys.com or by reading the User Guide on the Setup Wizard CD-ROM.

How is this accomplished? You will be setting up a simple LAN. Your PCs are connected via Ethernet cable from an Ethernet adapter (in or attached to your PC) to one of the Router's LAN ports. The term "Ethernet" is used to refer to your network accessories, such as cables and adapters, because Ethernet refers to the type of network you are setting up.

Then the Router is connected to your cable or DSL modem. The Router makes it seem as if each PC is connected directly to the Internet. Several PCs can then use one Internet connection simultaneously.

Use the **Linksys Router Setup Wizard CD-ROM** or the instructions in this **Fast Start** to help you connect the Router, configure your PCs, and configure the Router. These instructions will get you up and running quickly using the most basic settings. Once you have access to the Internet, you can get advanced configuration information (for gaming, VPNs, web hosting, etc.) by visiting our website at support.linksys.com or by reading the User Guide on the Setup Wizard CD-ROM.

You may have different computers than what are pictured here, but the setup is similar. The Router lets you share your fast cable or DSL connection among several computers in your home or business. This is called a Local Area Network or LAN.

This **Fast Start** guide gives you the "big picture" of what you need to set up a basic home or business network. The next three sections explain how you will set up and configure your equipment to enable shared high-speed access to the Internet.

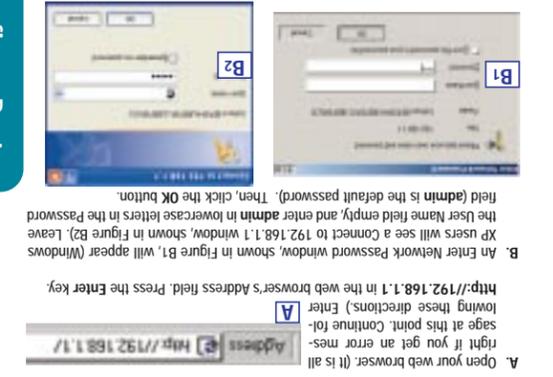
Step 1: Connect the Router
Connect the Router to your cable or DSL modem and to your notebook or desktop PCs.

Step 2: Configure the PCs
Configure your notebook or desktop PCs to be able to communicate with the Router. Do the basics to get the Router to work with your cable or DSL modem and your ISP's settings.

Step 3: Configure the Router
Do the basics to get the Router to work with your cable or DSL modem and your ISP's settings.

This is What You Will Be Setting Up

Step 3: Configure the Router



A. Open your web browser. (It is all right if you get an error message at this point. Continue following these directions.) Enter <http://192.168.1.1> in the web browser's Address field. Press the **Enter** key.

B. An Enter Network Password window, shown in Figure B1, will appear (Windows XP users will see a Connect to 192.168.1.1 window, shown in Figure B2). Leave the User Name field empty, and enter **admin** in lowercase letters in the Password field (admin is the default password). Then, click the **OK** button.



The instructions from your ISP tell you how to set up your PC for Internet access. Because you are now using the Router to share Internet access among several computers, you will use the setup information to configure the Router instead of your PC. Note: You only need to configure the Router once using the first computer you set up.

A. Open your web browser. (It is all right if you get an error message at this point. Continue following these directions.) Enter <http://192.168.1.1> in the web browser's Address field. Press the **Enter** key.

B. An Enter Network Password window, shown in Figure B1, will appear (Windows XP users will see a Connect to 192.168.1.1 window, shown in Figure B2). Leave the User Name field empty, and enter **admin** in lowercase letters in the Password field (admin is the default password). Then, click the **OK** button.



C. The Router configuration screen will appear with the Setup tab selected. Based on the setup instructions from your ISP, you may need to provide the following information:

Host Name and Domain Name: These fields allow you to provide a host name and domain name for the Router. These fields are usually left blank. If requested by your ISP (usually cable ISPs), complete these two fields.

Device IP Address and Subnet Mask: The values for the Router's IP Address and Subnet Mask are shown on the Setup screen. The default value is 192.168.1.1 for the IP Address and 255.255.255.0 for the Subnet Mask. Leave these settings alone.

D. The Router supports five connection types: DHCP (obtain an IP automatically), PPPoE, Static IP Address, RAS, and PPTP. These types are listed in the drop-down menu for the **WAN Connection Type** setting. Each Setup screen and available features will differ depending on what kind of connection type you select. Proceed to the instructions for the connection type you are using.

1. DHCP or Obtain an IP Address Automatically

a. Click the **Apply** and **Continue** buttons to save the setting.

b. Click the **Apply** and **Continue** buttons to save the setting.



2. Static IP Address or Specify an IP Address

a. Select **Static IP** as the WAN Connection Type.

b. Enter the **IP Address**.

c. Enter the **Subnet Mask**.

d. Enter the **Gateway Address**.

e. Enter the **DNS** in the 1, 2, and/or 3 fields. You need to enter at least one DNS address.

f. Click the **Apply** and **Continue** buttons to save the settings.

3. PPPoE

a. Select **PPPoE** as the WAN Connection Type.

b. Enter the **User Name**.

c. Enter the **Password**.

d. Click the **Apply** and **Continue** buttons to save the settings.

e. Click the **Status** tab, and then click the **Connect** button to start the connection.



4. RAS

RAS is a service used in Singapore only. If you are using a RAS connection through a static or fixed IP address from your ISP, perform these steps:

a. Select **Static IP** as the WAN Connection Type.

b. Enter the **IP Address**.

c. Enter the **Subnet Mask**.

d. Enter the **Gateway Address**.

e. Enter the **DNS** in the 1, 2, and/or 3 fields. You need to enter at least one DNS address.

f. Click the **Apply** and **Continue** buttons to save the settings.



5. PPTP

PPTP is a service used in Europe only. If you are using a PPTP connection, check with your ISP for the necessary setup information.

Configure Router

More advanced functions and additional details are available in the User Guide on the Setup Wizard CD-ROM or at the Linksys website, www.linksys.com.

If you are unable to reach our website, you may want to review what you did in this section or refer to the Help section in this Fast Start guide.

Congratulations! You've successfully configured the Router. Test the setup by opening your web browser from any computer and entering www.thelinksys.com/registration.

Note: If you need advanced setup information, please refer to the Linksys support website at <http://www.thelinksys.com/support>.

- G. Restart your computers so that they can obtain the Router's new settings.
- F. Reset the power on your cable or DSL modem.
- E. If you haven't already done so, click the **Apply** button and then the **Continue** button to save your Setup settings. Close the web browser.

Help



The Help section contains the most frequently asked Internet connection questions. If you have additional setup needs or you wish to get information on the Advanced Features, please visit kb.linksys.com or see the User Guide, which contains a Troubleshooting appendix (available on the Setup Wizard CD-ROM).

1. I'm not sure what information I need from my Internet Service Provider (ISP) to get my network up and running. What questions should I ask?

What type of connection do I have: dynamic IP address, static IP address, or PPPoE?

- If I am using a dynamic IP address, I should ask:
 - What is my Host Name (if needed)?
 - What is my Domain Name (if needed)?
- If I am using a static IP address, I should ask:
 - What is my IP Address?
 - What is my Gateway?
 - What is my DNS?
- If I am using PPPoE (typically used by DSL ISPs), I should ask:
 - What is my User Name?
 - What is my Password?

After you obtain the information, follow the instructions in the Fast Start - Step 3: Configure the Router, and use this information to enter on the Setup tab. In the WAN Connection Type section, refer to the chart on the next page:

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If you have this type of connection:	Perform these steps:
Dynamic IP Address (DHCP)	<ol style="list-style-type: none"> 1. Select Obtain an IP automatically as the WAN Connection Type. 2. Click the Apply and Continue buttons to save the setting.
Static IP Address	<ol style="list-style-type: none"> 1. Select Static IP as the WAN Connection Type. 2. Enter the IP Address. 3. Enter the Subnet Mask. 4. Enter the Gateway Address. 5. Enter the DNS in the 1, 2, and/or 3 fields. You need to enter at least one DNS address. 6. Click the Apply and Continue buttons to save the settings.
PPPoE	<ol style="list-style-type: none"> 1. Select PPPoE as the WAN Connection Type. 2. Enter the User Name. 3. Enter the Password. 4. Click the Apply and Continue buttons to save the settings.
RAS or PPTP	<p>If you are using RAS (Singapore SingTel) or PPTP (service in Europe), check with your ISP for the necessary setup information.</p>

2. I'm having problems connecting to the Internet, what LEDs should be lit on the front of the 3-Port Router (BEFSR31 only)?

- Each Router's LED will light up for any proper connection made on the back of the Router—whether it is an Ethernet cable or power cord.



For example, the following are typical LEDs that light up once a computer and a cable or DSL modem are connected:

- When the Router is turned on (the power adapter is plugged into the Router), the **Power** LED lights up.
- When an Ethernet cable is properly connected between a PC and Port 3 of the Router, the **Link/Act**, **Full/Col**, and **100** LEDs in Column 3 light up.
- A cable or DSL modem connection causes the **WAN Link** LED to light up.

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- My **WAN Link** LED isn't lit. What should I check?
 - Check that the cable you are using between your cable or DSL modem and the Router is the same cable that came with your modem. Depending on the type of connection your modem uses, you may need either a "straight-through" or "crossover" Ethernet cable (the "straight-through" type is more common).

- Some of the lights on the front of the Router don't light up when I plug in a PC.
 - Only the **Link/Act** LED is required for a connection to work correctly.

3. I cannot get onto the Internet, nor can I access the Router's Setup page. What should I check?

- A. First check that the cable or DSL modem and computers are properly connected to the Router. See Question #2 for how to verify that the connections are good.
- B. Then, check that you have properly configured your PCs to communicate with the Router. Below you will find instructions for the various versions of Windows.

- **Windows 95, 98, or ME**
 - Click the **Start** menu, and then click **Run**. After the Run window appears, enter **winipcfg** in the Open field, and then click the **OK** button.
 - When the IP Configuration window appears, click the **gray box** with a black arrow pointing down.
 - A list of adapters will appear. Select the **adapter** that you use to connect to the Internet. These items should not contain "PPP", "VPN", "AOL", or "Dial-Up adapter" as part of the entry.
 - The IP Address field should show an IP address of 192.168.1.100 or 192.168.1.xxx, with "xxx" being any number greater than 100. If your IP address is not in that range, hold the reset button on the front of the Router for more than 30 seconds. This will cause your Router to be set to factory default, so you will need to re-configure the Router's Setup page. After re-configuring the Setup page, restart the computer.

- **Windows NT, 2000, and XP**
 - Click the **Start** menu, and then click **Run**. After the Run window appears, enter **cmd** in the Open field, and then click the **OK** button.
 - This will open a command prompt. Enter **ipconfig /all** and then press the **Enter** key.

Help

- The IP Address field should show an IP address of 192.168.1.100 or 192.168.1.xxx, with "xxx" being any number greater than 100. If your IP address is not in that range, hold the reset button on the front of the Router for more than 30 seconds. This will cause your Router to be set to factory default, so you will need to re-configure the Router's Setup page. After re-configuring the Setup page, restart the computer.

C. Now you will configure some settings in Windows.

- Go to your desktop and double-click **My Computer**, and then double-click **Control Panel** (Windows XP users using the default interface, click **Start**, and then select **Control Panel**).
- When the Control Panel window pops up, double-click the **Internet Options** icon (Windows XP users using the default interface, click **Network and Internet Connections**, and then click **Internet Options**).
- When the Internet Options window appears, click the **Connections** tab.
- Check **Never Dial Up a Connection**. (If this choice is grayed out, that is fine.)
- Click the **LAN Settings ...** button in the lower right-hand corner.
- When the Local Area Network (LAN) Settings window appears, **uncheck all boxes**.
- Click the **OK** button and the **Apply** button (the **Apply** button will be grayed out if you did not have to make any changes). Then click the **OK** button again.
- Exit the Control Panel, and restart your computer.

4. When I click on the icon to access the Internet, and enter the user name and password that my ISP gave me, I cannot connect to the Internet. What is wrong?

This means that you're using the software given to you by your ISP. Please use Internet Explorer or Netscape Navigator, which is located on your desktop (located on the Start Menu in Windows XP).

5. When I use Internet Explorer, a box pops up prompting me to dial up a connection. How can I disable that?

- A. Go to your desktop and double-click **My Computer**, and then double-click **Control Panel** (Windows XP users using the default interface, click **Start**, and then select **Control Panel**).
- B. When the Control Panel window pops up, double-click the **Internet Options** icon (Windows XP users using the default interface, click **Network and Internet Connections**, and then click **Internet Options**).
- C. When the Internet Options window appears, click the **Connections** tab.

Help

- D. Check **Never Dial Up a Connection**.
- E. Click the **Apply** button.
- F. Click the **OK** button.

6. When I click the Apply button on the setup page of the Router, I get prompted for my user name and password again. I try to enter admin for the password, but I get a red screen after 3 tries. How do I fix this?

- A. Go to your desktop, and double-click the **Internet Explorer** icon (located on the Start Menu for Windows XP).
- B. When Internet Explorer appears, enter <http://192.168.1.1/Passwd.htm> in the Address field, and click **Go**.
- C. The Enter Network Password screen will appear (Windows XP users will see a Connect to 192.168.1.1 window).
- D. Leave the user name field blank. Type **admin** in the Password field. Then click the **OK** button.
- E. You should now be at the Password page of the Router's utility.
- F. Select the first field that displays a series of asterisks, "*****" (Windows XP users will see a series of bullets), and delete each ". (Make sure this field is left blank.)
- G. Select the second field that displays a series of asterisks, "*****" (Windows XP users will see a series of bullets), and delete each ". (Make sure this field is left blank.)
- H. Click the **Apply** button and then the **Continue** button.
- I. Now the Router does not have a password.

You should now be able to click the Apply button on the Setup page. Don't forget to add a password later.

7. I tried the suggestions above and still cannot get access to the Internet from my Router. What can I do?

You can refer to the Troubleshooting appendix of the User Guide on the Setup Wizard CD-ROM, or you can get additional assistance through one of the resources listed below.

Technical Support	800-326-7114 (toll free from U.S. or Canada) 949-271-5465 (6:00 am to 5:00 pm PST, M-F)
Email Support	support@linksys.com
Website	http://www.linksys.com or http://support.linksys.com
FTP Site	ftp://ftp.linksys.com
Sales Information	800-546-5797 (800-LINKSYS)

Help