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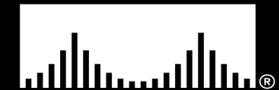
ADSL2 Modem with USB and Ethernet

User Guide



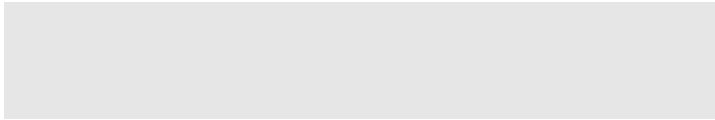
Model No. **ADSL2MUE (EU/UK/LA)**

CISCO SYSTEMS



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How to Use this Guide

Your guide to the ADSL2 Modem has been designed to make understanding networking with the ADSL2 Modem easier than ever. Look for the following items when reading this User Guide:



This checkmark means there is a note of interest and is something you should pay special attention to while using the ADSL2 Modem.



This exclamation point means there is a caution or warning and is something that could damage your property or the ADSL2 Modem.



This question mark provides you with a reminder about something you might need to do while using the ADSL2 Modem.

In addition to these symbols, there are definitions for technical terms that are presented like this:

word: definition.

Also, each figure (diagram, screenshot, or other image) is provided with a figure number and description, like this:

Figure 0-1: Sample Figure Description

Figure numbers and descriptions can also be found in the "List of Figures" section.

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Chapter 1: Introduction

Welcome

Thank you for choosing the ADSL2 Modem. The Linksys ADSL2 Modem gives you an instant, high-speed connection to the Internet. ADSL technology lets you access the Internet using your existing phone lines, without interfering with your voice phone service. You can talk on the phone and surf the net at the same time. Web surfing and your e-mail are instantly available, anytime.

The ADSL2 Modem is compatible with the latest ADSL standards, including ADSL2 and is upgradeable to ADSL2+. With incoming data speeds up to 12 Mbps (depending on your service level), ADSL broadband service means that downloads and graphic-intensive web pages will load in seconds.

Installation is quick and simple. Connect it directly to any PC with an available USB or Ethernet port, and you're ready to surf the Internet. Or connect it to a Linksys router and share that high-speed Internet access with everyone on your home network.

Use the instructions in this Guide to help you connect the ADSL2 Modem and configure it to access the Internet. These instructions should be all you need to get the most out of the ADSL2 Modem.

What's in this Guide?

This user guide covers the steps for setting up and using the ADSL2 Modem.

- **Chapter 1: Introduction**
This chapter describes the ADSL2 Modem's applications and this User Guide.
- **Chapter 2: Getting to Know the ADSL2 Modem**
This chapter describes the physical features of the Modem.
- **Chapter 3: Connecting the ADSL2 Modem**
This chapter instructs you on how to connect the Modem to your PC and the Internet.
- **Chapter 4: Installing the USB Driver**
This chapter shows you how to install the necessary Windows driver if you are using a USB connection to connect the ADSL2 Modem.
- **Chapter 5: Configuring the ADSL2 Modem**
This chapter show you how to configure settings for the ADSL2 Modem.

ADSL2 Modem with USB and Ethernet

- **Appendix A: Troubleshooting**
This appendix describes some potential problems and solutions, as well as frequently asked questions, regarding installation and use of the Modem.
- **Appendix B: Upgrading Firmware**
This appendix explains how to upgrade firmware if it is necessary to do so.
- **Appendix C: Glossary**
This appendix gives a brief glossary of terms frequently used in networking.
- **Appendix D: Specifications**
This appendix provides the Modem's technical specifications.
- **Appendix E: Warranty Information**
This appendix supplies the Modem's warranty information.
- **Appendix F: Regulatory Information**
This appendix supplies the Modem's regulatory information.
- **Appendix G: Contact Information**
This appendix provides contact information for a variety of Linksys resources, including Technical Support.

Chapter 2: Getting to Know the ADSL2 Modem

The Back Panel

The Modem's ports, where a network cable is connected, are located on the back panel.

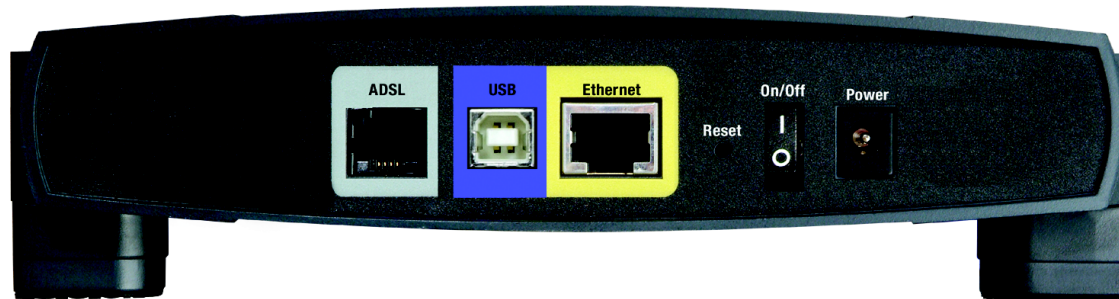


Figure 2-1: Back Panel

- ADSL** This **ADSL** port is where you connect your ADSL service.
- USB** The **USB** port is where you connect the USB cable from your PC.
- Ethernet** The **Ethernet** port is where you connect the Ethernet Network cable from your PC.
- Reset Button** This is where you can reset the Modem to its factory default settings. To do so, use an object like a ball-point pen to press in the **Reset Button** for approximately ten seconds.
- Power Switch** The **Power** Switch is where you turn the ADSL2 Modem on and off.
- Power** The **Power** port is where you connect the power adapter.

With these, and many other Linksys products, your networking options are limitless. Go to the Linksys website at www.linksys.com/international for more information about products that work with the Modem.

The Front Panel

The Modem's LEDs, where information about network activity is displayed, are located on the front panel.



Figure 2-2: Front Panel

Power	Green. The Power LED lights up when the Modem is powered on.
Ethernet	Green. The Ethernet LED lights up when the Modem is connected to your computer or network through the Ethernet port. It flashes when there is activity on the Ethernet port.
USB	Green. The USB LED lights up when the Modem is connected to your computer or network through the USB port. It flashes when there is activity on the USB port.
DSL	Green. The DSL LED flashes when the Modem is establishing a connection to your DSL ISP. It is solidly lit when the Modem is synchronized with your ISP.
Internet	Green. The Internet LED lights up and flashes when the Modem is sending or receiving data transmissions. Red. The LED lights up red when there are communication problems (e.g. wrong password, PPPoE server not responding, etc.)

Chapter 3: Connecting the ADSL2 Modem

Overview

In this chapter, you will connect the Modem to your ADSL line and to a computer in your home or business. You have a choice of using an Ethernet or USB connection. Proceed to the section for the connection you want to use.

Connecting the Modem using an Ethernet Connection

1. Connect one end of the provided phone cable to the ADSL (RJ-11 phone) port that is on the back of the Modem. (See Figure 3-2.) Connect the other end of the phone cable to the wall jack with ADSL service.
2. Connect one end of the provided Ethernet cable to your PC's Ethernet port. Connect the other end of the cable to the Ethernet port on the back of the Modem. (See Figure 3-3.)
3. Connect the power adapter to the Modem and to the electrical outlet. (See Figure 3-4.) Turn on the Modem.
4. Turn on your PC.



NOTE: A small device called a microfilter (not included) may be necessary between each phone and wall jack to prevent interference. Contact your ISP if you have any questions.



IMPORTANT: For countries that have phone jacks with RJ-11 connectors, make sure to only place the microfilters between the phone and the wall jack and **not** between the Modem and the wall jack or your ADSL will not connect.

For countries that do **not** have phone jacks with RJ-11 connectors (e.g. France, Sweden, Switzerland, United Kingdom, etc.) the microfilter has to be used between the modem and the wall jack, because the microfilter will have the RJ-11 connector.

The installation of the Modem with an Ethernet Connection is complete.

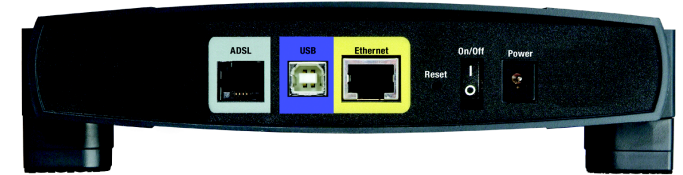


Figure 3-1: Modem

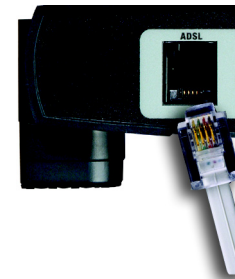


Figure 3-2: ADSL Connection

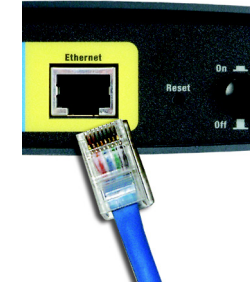


Figure 3-3: Ethernet Connection



Figure 3-4: Power Connection

Connecting the Modem using a USB Connection

1. Connect one end of the phone cable to the ADSL (RJ-11 phone) port on the back of the Modem. (See Figure 3-2.) Connect the other end of the phone cable to the wall jack with ADSL service.
2. Connect the power adapter to the Modem and to the electrical outlet. (See Figure 3-4.)
3. Connect one end of the USB cable to the USB port on the back of the ADSL2 Modem (See Figure 3-5) and the other end to the USB port on your PC.
4. Turn on the Modem.



NOTE: A small device called a microfilter (not included) may be necessary between each phone and wall jack to prevent interference. Contact your ISP if you have any questions.



IMPORTANT: For countries that have phone jacks with RJ-11 connectors, make sure to only place the microfilters between the phone and the wall jack and **not** between the Modem and the wall jack or your ADSL will not connect.

For countries that do **not** have phone jacks with RJ-11 connectors (e.g. France, Sweden, Switzerland, United Kingdom, etc.) the microfilter has to be used between the modem and the wall jack, because the microfilter will have the RJ-11 connector.

Proceed to Chapter 4: Installing the USB Driver

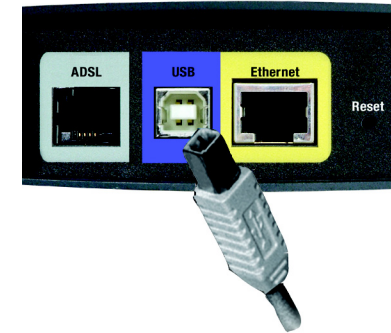


Figure 3-5: USB Connection

Chapter 4: Installing the USB Driver

Overview

The first time you connect the Modem using a USB connection, you will need to install the USB driver.

Installing the USB Driver

If you are connecting the Modem to your computer using the USB port, then you will need to install the USB driver. Proceed to the section for your PC's Windows operating system.

Windows XP

1. Power on your computer.
2. Windows XP will automatically detect the ADSL2 Modem. Insert the User Guide and USB Drivers CD-ROM into your computer's CD-ROM drive.
3. On the first screen of the Found New Hardware Wizard, select **Install the software automatically (Recommended)**, and click **Next**.
4. You may see a Windows Digital Signature warning. As this product has been tested to work with Windows, you may continue.
5. Please wait while Windows XP finds and automatically installs the driver. When Windows XP has finished installing the driver, the screen will disappear.

Installation is complete.



Figure 4-1: XP Welcome

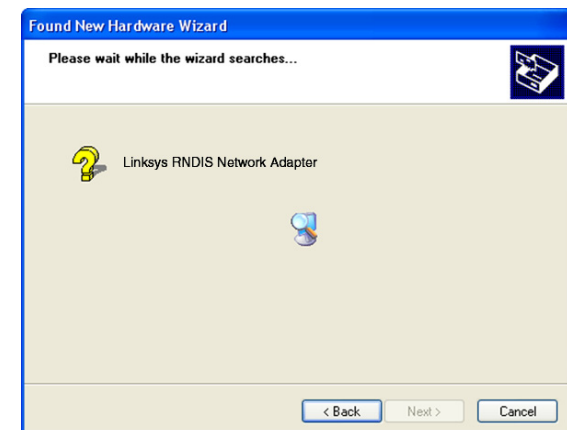


Figure 4-2: XP Complete

Windows 2000

1. Power on your computer.
2. Windows 2000 will automatically detect the ADSL2 Modem. Insert the User Guide and USB Drivers CD-ROM into your computer's CD-ROM drive.
3. On the first screen of the Found New Hardware Wizard, click **Next**.
4. Select **Search for a suitable driver for my device (recommended)**. Then click **Next**.
5. Select **CD-ROM drives**, and click **Next**.

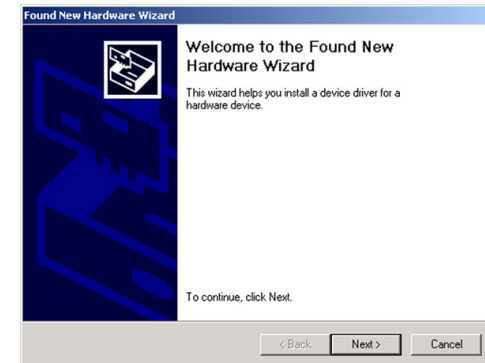


Figure 4-3: 2000 Welcome

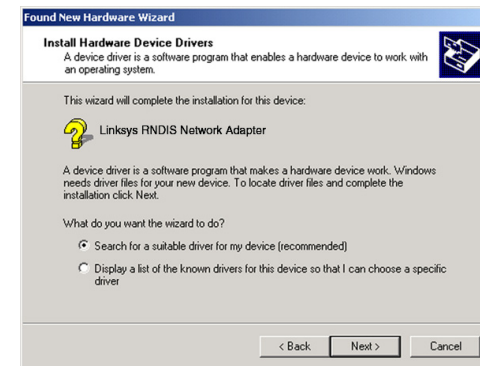


Figure 4-4: 2000 Search

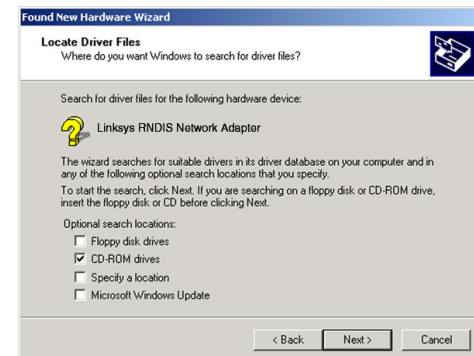


Figure 4-5: 2000 CD-ROM Drive

6. On the *Driver Files Search Results* screen, click **Next**.

7. You may see a Windows Digital Signature warning. As this product has been tested to work with Windows, you may continue.

8. When Windows 2000 has finished installing the driver, click **Finish**.

Installation is complete.

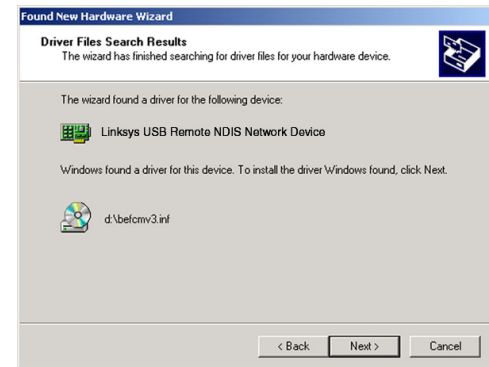


Figure 4-6: 2000 Search Results

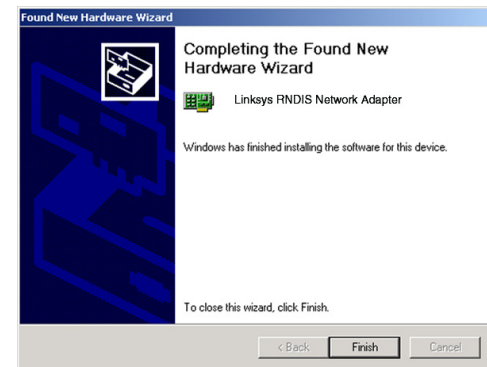


Figure 4-7: 2000 Complete

Windows Millennium

1. Power on your computer.
2. Windows Millennium will automatically detect the ADSL2 Modem. Insert the User Guide and USB Drivers CD-ROM into your computer's CD-ROM drive.
3. On the first screen of the Add New Hardware Wizard, select **Automatic search for a better driver (Recommended)**. Then click **Next**.
4. Please wait while Windows Millennium finds and automatically installs the driver. When Windows Millennium has finished installing the driver, click **Finish**.

Installation is complete.

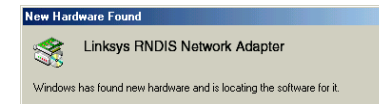


Figure 4-8: Me Locating Software



Figure 4-9: Me Search



Figure 4-10: Me Installing Software



Figure 4-11: Me Complete

Windows 98

1. Power on your computer.
2. Windows 98 will automatically detect the ADSL2 Modem. Insert the User Guide and USB Drivers CD-ROM into your computer's CD-ROM drive.
3. On the first screen of the Add New Hardware Wizard, select click **Next**.



Figure 4-12: 98 Search

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



Figure 4-13: Search for Best Driver

6. Select **The updated driver (Recommended)**. Then click **Next**.



Figure 4-14: 98 CD-ROM Drive

ADSL2 Modem with USB and Ethernet

7. After Windows 98 has found the driver, click **Next**.

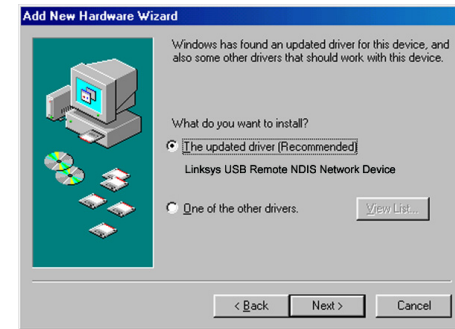


Figure 4-15: 98 Updated Driver

8. When Windows 98 has finished installing the driver, click **Finish**.

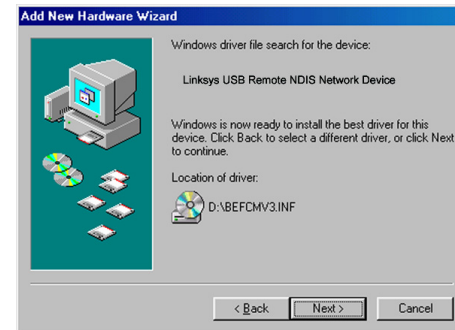


Figure 4-16: 98 Install Best Driver

Installation is complete.

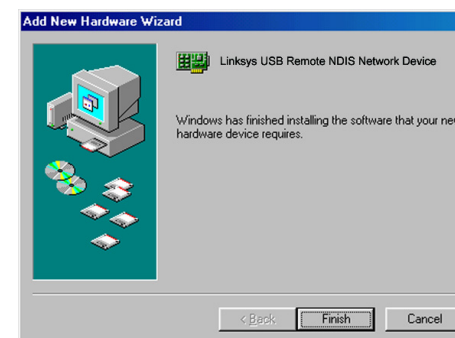


Figure 4-17: 98 Complete

Chapter 5: Configuring the ADSL2 Modem

Overview

The ADSL2 Modem has been designed to be functional right out of the box, with the default settings. However, if you'd like to change these settings, the ADSL2 Modem can be configured through your web browser with the Web-Based Utility. This chapter explains how to configure the ADSL2 Modem in this manner.



NOTE: Before you open your web browser, you may need to set your PC to a static IP Address. Refer to the Troubleshooting section.

Open your web browser and enter **192.168.1.1** in the web browser's Address field. (It is all right if you get an error message at this point.) Press the **Enter** key and the following screen will appear. Enter **admin** in lowercase letters in the User Name field, and enter **admin** in lowercase letters in the Password field (admin is the default user name and password.) You can set a new password from the Security tab.

Log In	
Please log in to continue.	
Username:	<input type="text"/>
Password:	<input type="password"/>
<input type="button" value="Login"/>	

Figure 5-1: Login Screen

Setup Tab

Basic Setup

The first screen that appears displays the Setup tab. This allows you to change the ADSL2 Modem's general settings. Change these settings as described here and click the **Save Settings** button to apply your changes or **Cancel Changes** to cancel your changes.

Internet Setup

Based on the setup instructions from your ISP, you may need to provide the following information.

Virtual Circuit ID (VPI and VCI). These fields consist of two items: VPI (Virtual Path Identifier) and VCI (Virtual Channel Identifier). Your ISP will provide the correct settings for each field.

Multiplexing. Select **LLC** or **VC**, depending on your ISP.



NOTE: Contact your Internet Service Provider for the Internet setup information.

ADSL2 Modem with USB and Ethernet

Encapsulation. The Modem supports four Encapsulations (Internet connection types): RFC 1483 Bridged, RFC 2516 PPPoE, RFC 2364 PPPoA, and Bridged Mode Only. Each Basic Setup screen and available features will differ depending on what type of encapsulation you select. The encapsulations are described below.

RFC 1483 Bridged

Dynamic IP

IP Settings. Select **Obtain IP Address Automatically (DHCP)** if your ISP says you are connecting through a dynamic IP address.

Static IP

If you are required to use a permanent (static) IP address to connect to the Internet, then select **Set Static IP Manually**.

- Internet IP Address. This is the Modem's IP address, when seen from the WAN, or the Internet. Your ISP will provide you with the IP Address you need to specify here.
- Subnet Mask. This is the Modem's Subnet Mask. Your ISP will provide you with the Subnet Mask.
- Default Gateway. Your ISP will provide you with the default Gateway Address, which is the ISP server's IP address.
- Primary DNS. (Required) and Secondary DNS (Optional). Your ISP will provide you with at least one DNS (Domain Name System) Server IP Address.

When finished making your changes on this tab, click the **Save Settings** button to save these changes, or click the **Cancel Changes** button to undo your changes.

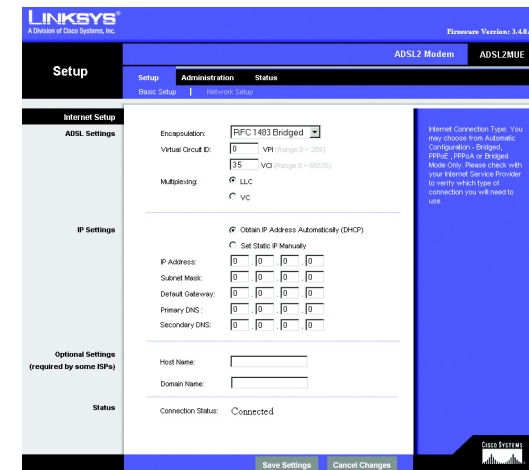


Figure 5-2: Dynamic (DHCP) IP

static ip address: a fixed address assigned to a computer or device connected to a network

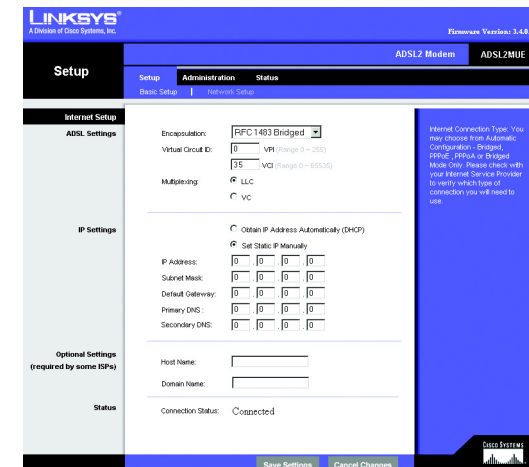


Figure 5-3: Static IP

RFC 2516 PPPoE

Some DSL-based ISPs use PPPoE (Point-to-Point Protocol over Ethernet) to establish Internet connections. Check with your ISP to see if they use PPPoE. If they do, you will have to enable PPPoE.

- User Name and Password. Enter the User Name and Password provided by your ISP.
- Keep Alive: Redial Period. If you select this option, the Modem will periodically check your Internet connection. If you are disconnected, then the Modem will automatically re-establish your connection. To use this option, click the radio button next to **Keep Alive**. In the Redial Period field, you specify how often you want the Modem to check the Internet connection. The default Redial Period is 1 minute.
- Connect on Demand: Max Idle Time. You can configure the Modem to disconnect the Internet connection after it has been inactive for a specified period of time (Max Idle Time). If your Internet connection has been terminated due to inactivity, Connect on Demand enables the Modem to automatically re-establish your connection as soon as you attempt to access the Internet again. If you wish to activate **Connect on Demand**, click the radio button. In the Max Idle Time field, enter the number of minutes you want to have elapsed before your Internet connection terminates.

When finished making your changes on this tab, click the **Save Settings** button to save these changes, or click the **Cancel Changes** button to undo your changes.

Figure 5-4: PPPoE

RFC 2364 PPPoA

Some DSL-based ISPs use PPPoA (Point-to-Point Protocol over ATM) to establish Internet connections. Check with your ISP to see if they use PPPoA. If they do, you will have to enable PPPoA.

- User Name and Password. Enter the User Name and Password provided by your ISP.
- Keep Alive Option: Redial Period. If you select this option, the Modem will periodically check your Internet connection. If you are disconnected, then the Modem will automatically re-establish your connection. To use this option, click the radio button next to **Keep Alive**. In the Redial Period field, you specify how often you want the Modem to check the Internet connection. The default Redial Period is 1 minute.
- Connect on Demand: Max Idle Time. You can configure the Modem to cut the Internet connection after it has been inactive for a specified period of time (Max Idle Time). If your Internet connection has been terminated due to inactivity, Connect on Demand enables the Modem to automatically re-establish your connection as soon as you attempt to access the Internet again. If you wish to activate **Connect on Demand**, click the radio button. In the Max Idle Time field, enter the number of minutes you want to have elapsed before your Internet connection terminates.

Figure 5-5: PPPoA

ADSL2 Modem with USB and Ethernet

When finished making your changes on this tab, click the **Save Settings** button to save these changes, or click the **Cancel Changes** button to undo your changes.

Bridged Mode Only

If you would like to use your Modem as a bridge, which makes the Modem act like a standalone modem (without NAT or Routing), select **Bridged Mode Only**.

When finished making your changes on this tab, click the **Save Settings** button to save these changes, or click the **Cancel Changes** button to undo your changes.

Optional Settings (Required by some ISPs)

Some of these settings may be required by your ISP. Verify with your ISP before making any changes.

Host Name and Domain Name. These fields allow you to supply a host and domain name for the Router. Some ISPs require these names as identification. You may have to check with your ISP to see if your broadband Internet service has been configured with a host and domain name. In most cases, leaving these fields blank will work.

Status. The status of your connection is displayed.

Network Setup

- Modem IP. The values for the Modem's Local IP Address and Subnet Mask are shown here. In most cases, keeping the default values will work.
 - Local IP Address. The default value is 192.168.1.1.
 - Subnet Mask. The default value is 255.255.255.0.
- Network Address Server Settings (DHCP). A Dynamic Host Configuration Protocol (DHCP) server automatically assigns an IP address to each computer on your network for you. Unless you already have one, it is highly recommended that you leave the Modem enabled as a DHCP server.
 - Local DHCP Server. If you enable the DHCP Server or DHCP Relay for the Local DHCP server, enter the IP address for the DHCP server in the fields.
 - Start IP Address. Enter a value for the DHCP server to start with when issuing IP addresses. This value must be 192.168.1. 2 or greater, because the default IP address for the Modem is 192.168.1.1.

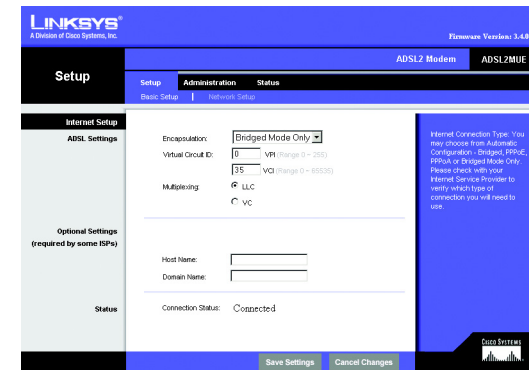


Figure 5-6: Bridged Mode Only

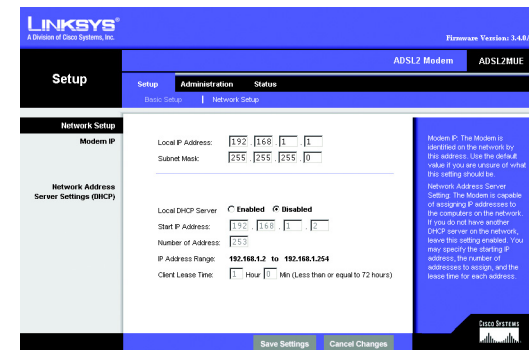


Figure 5-7: Network Setup

ADSL2 Modem with USB and Ethernet

- Number of Address. Enter the maximum number of computers that you want the DHCP server to assign IP addresses to. This number cannot be greater than 253. By default, as shown in Figure 5-9, the range is 192.168.1.2 to 192.168.1.254.
- IP Address Range. The range of DHCP addresses is displayed here.
- Client Lease Time. Enter the hours and minutes in the fields.

When finished making your changes on this tab, click the **Save Settings** button to save these changes, or click the **Cancel Changes** button to undo your changes.

Administration Tab

Security

Modem Password. To ensure the Modem's security, you will be asked for your password when you access the Modem's Web-based Utility. The default user name and password is admin.

- User name. Enter the default **admin**. It is strongly recommended that you change the default user name to one of your choice.
- Modem Password. It is recommended that you change the default password to one of your choice.
- Re-enter to confirm. Re-enter the Modem's new Password to confirm it.

System Log

System Log. This screen displays log messages and the current status of the DSL connection. Click the **Refresh** button to refresh the screen.

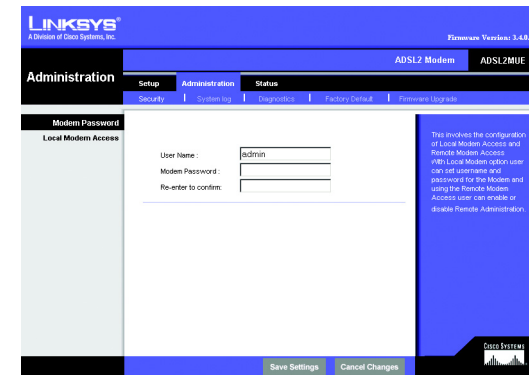


Figure 5-8: Modem Password

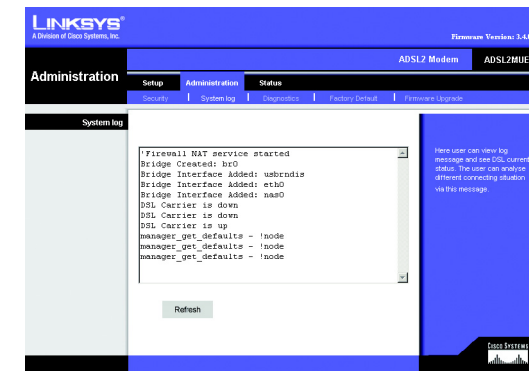


Figure 5-9: System Log

Diagnostics

Ping Test. This feature is used to find out if an IP Address is operating and available to receive and respond to traffic.

- **Ping Target IP.** Enter the IP Address that you want to ping in the field. This can be either a local (LAN) IP or an Internet (WAN) IP address.
- **Ping Size.** Enter the size of the ping packets.
- **Number of Pings.** Enter the number of times that you want to ping.

Click the **Start Test** button to start the Ping Test. Click the **Clear** button to remove the results from the screen.

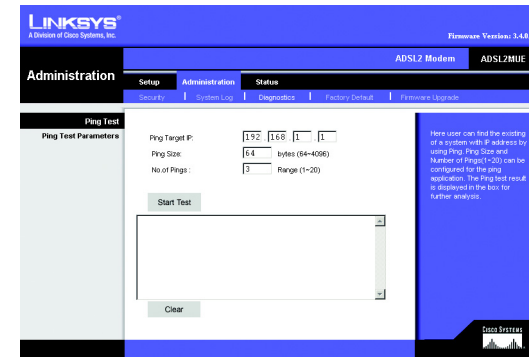


Figure 5-10: Ping Test



IMPORTANT: Restoring the ADSL2 Modem's factory default settings will erase all of your settings and replace them with the factory defaults. Do not reset the ADSL2 Modem if you want to retain the settings.

Factory Default

Restore Factory Defaults. If you wish to restore the Modem to its factory default settings and lose all your settings, click **Yes**.

To begin the restore process, click the **Save Settings** button to save these changes, or click the **Cancel Changes** button to undo your changes.

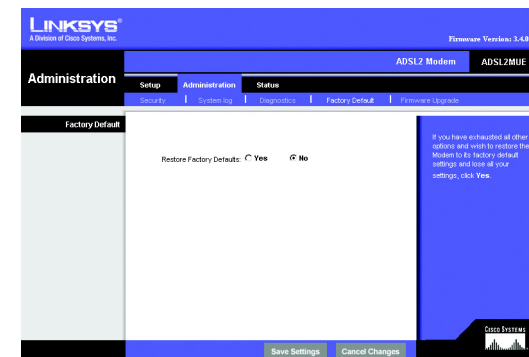


Figure 5-11: Restore Factory Default

Status Tab

Firmware Upgrade

To upgrade the Modem's firmware:

1. Go to the Linksys website at www.linksys.com/international and download the firmware that you want to use. Extract or unzip the file.
1. Click the **Browse** button to find the firmware upgrade file that you downloaded from the Linksys website and then extracted.
2. Double-click the firmware file you downloaded and extracted. Click the **Update** button, and follow the instructions there.



Figure 5-12: Firmware Upgrade

Status Tab

Modem

This screen displays information about your Modem and its Internet connection.

Modem Information

Modem Information displays the Software Version, MAC Address, Data Rate Down/Up, Path Mode, and LOS Errors.

Internet Connections

The Internet Connections will be displayed after selecting the Internet connection number from the drop-down menu. They are the ADSL Link, PPP Login, Internet IP address, Internet Netmask, Internet Gateway, and System Up Time.



Figure 5-13: Modem Information

Status Tab

Local Network

The Local Network information that is displayed is the local IP Address, Subnet Mask, and DHCP Server. To view the DHCP Clients Table, click the **DHCP Clients Table** button.

DHCP Clients Table. Click the **DHCP Clients Table** button to show the current DHCP Client data. You will see the MAC address, computer name, and IP address of the network clients using the DHCP server. (This data is stored in temporary memory and changes periodically.) To delete a client from the DHCP server, select the client, then click the **Delete** button.

Click the **Refresh** button if you want to refresh your screen. Click the **Close** button to close the screen.

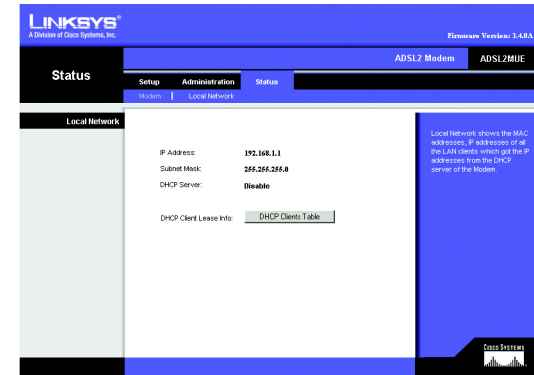


Figure 5-14: Local Network

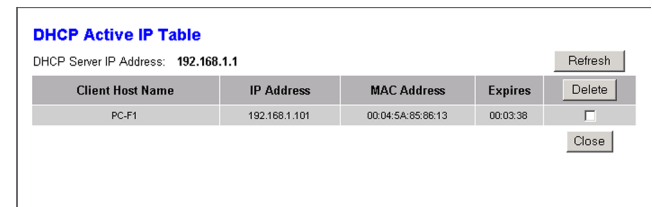


Figure 5-15: DHCP Table

Appendix A: Troubleshooting

This appendix consists of two parts: “Common Problems and Solutions” and “Frequently Asked Questions.” Provided are possible solutions to problems that may occur during the installation and operation of the Modem. Read the descriptions below to help you solve your problems. If you can’t find an answer here, check the Linksys website at www.linksys.com/international.

Common Problems and Solutions

1. *I need to set a static IP address on a computer.*

You can assign a static IP address to a computer by performing the following steps:

- For Windows 98 and Me:
 1. Click **Start**, **Settings**, and **Control Panel**. Double-click **Network**.
 2. In The following network components are installed box, select the TCP/IP-> associated with your Ethernet adapter. If you only have one Ethernet adapter installed, you will only see one TCP/IP line with no association to an Ethernet adapter. Highlight it and click the Properties button.
 3. In the TCP/IP properties window, select the IP address tab, and select Specify an IP address. Enter a unique IP address that is not used by any other computer on the network connected to the Modem. Make sure that each IP address is unique for each computer or network device.
 4. Click the **Gateway** tab, and in the New Gateway prompt, enter 192.168.1.1, which is the default IP address of the Modem. Click the Add button to accept the entry.
 5. Click the **DNS** tab, and make sure the DNS Enabled option is selected. Enter the Host and Domain names (e.g., John for Host and home for Domain). Enter the DNS entry provided by your ISP. If your ISP has not provided the DNS IP address, contact your ISP to get that information or go to its website for the information.
 6. Click the **OK** button in the TCP/IP properties window, and click Close or the OK button for the Network window.
 7. Restart the computer when asked.
- For Windows 2000:
 1. Click **Start**, **Settings**, and **Control Panel**. Double-click **Network and Dial-Up Connections**.
 2. Right-click the Local Area Connection that is associated with the Ethernet adapter you are using, and select the Properties option.
 3. In the Components checked are used by this connection box, highlight Internet Protocol (TCP/IP), and click the **Properties** button. Select **Use the following IP address** option.
 4. Enter a unique IP address that is not used by any other computer on the network connected to the Modem.
 5. Enter the Subnet Mask, 255.255.255.0.
 6. Enter the Default Gateway, 192.168.1.1 (Modem’s default IP address).

7. Toward the bottom of the window, select Use the following DNS server addresses, and enter the Preferred DNS server and Alternative DNS server (provided by your ISP). Contact your ISP or go on its website to find the information.
 8. Click the **OK** button in the Internet Protocol (TCP/IP) Properties window, and click the **OK** button in the Local Area Connection Properties window.
 9. Restart the computer if asked.
- For 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.

 1. Click **Start** and **Control Panel**.
 2. Click the **Network and Internet Connections** icon and then the **Network Connections** icon.
 3. Right-click the **Local Area Connection** that is associated with the Ethernet adapter you are using, and select the Properties option.
 4. In the **This connection uses the following items** box, highlight **Internet Protocol (TCP/IP)**. Click the **Properties** button.
 5. Enter a unique IP address that is not used by any other computer on the network connected to the Modem.
 6. Enter the Subnet Mask, 255.255.255.0.
 7. Enter the Default Gateway, 192.168.1.1 (Modem's default IP address).
 8. Toward the bottom of the window, select Use the following DNS server addresses, and enter the Preferred DNS server and Alternative DNS server (provided by your ISP). Contact your ISP or go on its website to find the information.
 9. Click the **OK** button in the Internet Protocol (TCP/IP) Properties window. Click the **OK** button in the Local Area Connection Properties window.

2. I am not getting an IP address on the Internet with my Internet connection.

Verify the connection:

1. Make sure you are using the right Internet connection settings. Contact your ISP to see if your Internet connection type is RFC 1483 Bridged, RFC 2516 PPPoE, or RFC 2364 PPPoA, or Bridged Mode Only. Please refer to the Setup section of "Chapter 5: Configuring the ADSL2 Modem" for details on Internet connection settings. Verify that the VPI and VCI settings are correct.
2. Make sure you have the right cable. Check to see if the Modem column has a solidly lit ADSL LED.
3. Make sure the cable connecting from your Modem's ADSL port is connected to the wall jack of the ADSL service line.
4. Turn off the computer and Modem. Wait 30 seconds, and then turn on the Modem, and computer. Check the Status tab of the Modem's web-based utility to see if you get an IP address.

3. I forgot my password, or the password prompt always appears when I am saving settings to the Gateway.

- Reset the Modem to factory default by pressing the Reset button for 10 seconds and then releasing it. If you are still getting prompted for a password when saving settings, then perform the following steps:
 1. Access the Modem's web-based utility by going to <http://192.168.1.1> or the IP address of the Modem. Enter the default username and password **admin**, and click the **Administrations => Management** tab.
 2. Enter a different password in the Modem Password field, and enter the same password in the second field to confirm the password.
 3. Click the **Save Settings** button.

4. To start over, I need to set the Modem to factory default.

Hold the **Reset** button for 10 seconds and then release it. This will return the Internet settings, password, forwarding, and other settings on the Modem to the factory default settings. In other words, the Modem will revert to its original factory configuration.

5. I need to upgrade the firmware.

In order to upgrade the firmware with the latest features, you need to go to the Linksys website and download the latest firmware at www.linksys.com/international.

- Follow these steps:
 1. Go to the Linksys website at <http://www.linksys.com/international> and download the latest firmware.
 2. To upgrade the firmware, follow the steps in the Administration section found in "Chapter 5: Configuring the ADSL2 Modem."

6. My DSL service's PPPoE is always disconnecting.

PPPoE is not actually a dedicated or always-on connection. The DSL ISP can disconnect the service after a period of inactivity, just like a normal phone dial-up connection to the Internet.

- There is a setup option to "keep alive" the connection. This may not always work, so you may need to re-establish connection periodically.
 1. To connect to the Modem, go to the web browser, and enter <http://192.168.1.1> or the IP address of the Modem.
 2. Enter the username and password, if asked. (The default username and password is admin.)
 3. On the Setup screen, select the option **Keep Alive**, and set the Redial Period option at 1 minute.
 4. Click the **Save Settings** button. Click the **Status** tab, and click the **Connect** button.
 5. You may see the login status display as Connecting. Press the F5 key to refresh the screen, until you see the login status display as Connected.
 6. Click the **Save Settings** button to continue.
- If the connection is lost again, follow steps 1- 6 to re-establish connection.

7. The Power LED flashes continuously.

The Power LED lights up when the device is first powered up. In the meantime, the system will boot up itself and check for proper operation. After finishing the checking procedure, the LED remains steady to show that the system is working fine. If the LED continues to flash after this time, the device is not working properly. Try to flash the firmware by assigning a static IP address to the computer, and then upgrade the firmware. Try using the following settings, IP Address: 192.168.1.50 and Subnet Mask: 255.255.255.0.

8. When I enter a URL or IP address, I get a time-out error or am prompted to retry.

- Check if other computers work. If they do, ensure that your computer's IP settings are correct (IP Address, Subnet Mask, Default Gateway, and DNS). Restart the computer that is having a problem.
- If the computers are configured correctly, but still not working, check the Modem. Ensure that it is connected and powered on. Connect to it and check its settings. (If you cannot connect to it, check the LAN and power connections.)
- Manually configure the TCP/IP settings with a DNS address provided by your ISP.
- Make sure that your browser is set to connect directly and that any dial-up is disabled. For Internet Explorer, click **Tools, Internet Options**, and then the **Connection** tab. Make sure that Internet Explorer is set to **Never dial a connection**. For Netscape Navigator, click **Edit, Preferences, Advanced**, and **Proxy**. Make sure that Netscape Navigator is set to **Direct connection to the Internet**.

Frequently Asked Questions

What is the maximum number of IP addresses that the Modem will support?

The Modem will support up to 253 IP addresses.

Is IPSec Passthrough supported by the Modem?

Yes, it is a built-in feature that is enabled by default.

Where is the Modem installed on the network?

The Modem is installed between the ADSL wall jack and the LAN.

Does the Modem support IPX or AppleTalk?

No. TCP/IP is the only protocol standard for the Internet and has become the global standard for communications. IPX, a NetWare communications protocol used only to route messages from one node to another, and AppleTalk, a communications protocol used on Apple and Macintosh networks, can be used for LAN to LAN connections, but those protocols cannot connect from the Internet to a LAN.

Does the LAN connection of the Modem support 100Mbps Ethernet?

The Modem supports 100Mbps over the auto-sensing Fast Ethernet 10/100 switch on the LAN side of the Modem.

Does the Gateway support any operating system other than Windows 98SE, Windows Millennium, Windows 2000, or Windows XP?

Yes, but Linksys does not, at this time, provide technical support for setup, configuration or troubleshooting of any non-Windows operating systems.

The web page hangs; downloads are corrupt, or nothing but junk characters are being displayed on the screen. What do I need to do?

Force your Ethernet adapter to 10Mbps or half duplex mode, and turn off the "Auto-negotiate" feature of your Ethernet adapter as a temporary measure. (Please look at the Network Control Panel in your Ethernet adapter's Advanced Properties tab.) Make sure that your proxy setting is disabled in the browser. Check our website at www.linksys.com/international or www.linksys.com for more information.

If all else fails in the installation, what can I do?

Reset the Modem by holding down the reset button until the Power LED fully turns on and off. Reset your DSL modem by powering the unit off and then on. Obtain and flash the latest firmware release that is readily available on the Linksys website, www.linksys.com/international.

How will I be notified of new Modem firmware upgrades?

All Linksys firmware upgrades are posted on the Linksys website at www.linksys.com/international, where they can be downloaded for free. To upgrade the Modem's firmware, use the Administration tab of the Modem's web-based utility. If the Modem's Internet connection is working well, there is no need to download a newer firmware version, unless that version contains new features that you would like to use.

Will the Modem function in a Macintosh environment?

Yes, but the Modem's setup pages are accessible only through Internet Explorer 5.0 or Netscape Navigator 6.0 or higher for Macintosh.

I am not able to get the web configuration screen for the Modem. What can I do?

You can set your PC to a static IP Address.

Is the Modem cross-platform compatible?

Any platform that supports Ethernet and TCP/IP is compatible with the Modem.

How can I check whether I have static or DHCP IP Addresses?

Consult your ISP to obtain this information.

Can the Modem act as my DHCP server?

Yes. The Modem has DHCP server software built-in.

I have my Linksys Router connected to my Modem and I can no longer access the Web-based utility to change my settings. What can I do?

You can disconnect your Router from the Modem, so the Modem will be directly connected to your PC and you can have access to the Modem's Web-based utility.

Appendix B: Upgrading Firmware

The Modem's firmware is upgraded through the Web-Utility's Security tab. Follow these instructions:

1. Download the firmware from Linksys's website at www.linksys.com/international.
2. Click **Upgrade Firmware** from the Web-Utility's Help tab, and the Upgrade Firmware screen will appear.
3. Enter the location of the firmware's file or click the **Browse** button to find the file.
4. Then, click the **Update** button to upgrade the firmware.

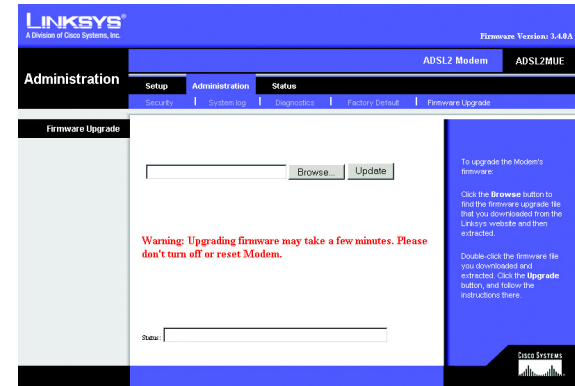


Figure B-1: Upgrade Firmware

Appendix C: Glossary

802.11a - A wireless networking standard that specifies a maximum data transfer rate of 54Mbps and an operating frequency of 5GHz.

802.11b - A wireless networking standard that specifies a maximum data transfer rate of 11Mbps and an operating frequency of 2.4GHz.

802.11g - A wireless networking standard that specifies a maximum data transfer rate of 54Mbps, an operating frequency of 2.4GHz, and backward compatibility with 802.11b devices.

Access Point - A device that allows wireless-equipped computers and other devices to communicate with a wired network. Also used to expand the range of a wireless network.

Adapter - A device that adds network functionality to your PC.

Ad-hoc - A group of wireless devices communicating directly with each other (peer-to-peer) without the use of an access point.

AES (Advanced Encryption Standard) - A security method that uses symmetric 128-bit block data encryption.

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 device or network.

Beacon Interval - Data transmitted on your wireless network that keeps the network synchronized.

Bit - A binary digit.

Boot - To start a device and cause it to start executing instructions.

Bridge - A device that connects different networks.

Broadband - An always-on, fast Internet connection.

Browser - An application program that provides a way to look at and interact with all the information on the World Wide Web.

ADSL2 Modem with USB and Ethernet

Buffer - A shared or assigned memory area that is used to support and coordinate different computing and networking activities so one isn't held up by the other.

Byte - A unit of data that is usually eight bits long

Cable Modem - A device that connects a computer to the cable television network, which in turn connects to the Internet.

CSMA/CA (Carrier Sense Multiple Access/Collision Avoidance) - A method of data transfer that is used to prevent data collisions.

CTS (Clear To Send) - A signal sent by a wireless device, signifying that it is ready to receive data.

Daisy Chain - A method used to connect devices in a series, one after the other.

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

DDNS (Dynamic Domain Name System) - Allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (e.g., www.xyz.com) and a dynamic IP address.

Default Gateway - A device that forwards Internet traffic from your local area network.

DHCP (Dynamic Host Configuration Protocol) - A networking protocol that allows administrators to assign temporary IP addresses to network computers by "leasing" an IP address to a user for a limited amount of time, instead of assigning permanent IP addresses.

DMZ (Demilitarized Zone) - Removes the Router's firewall protection from one PC, allowing it to be "seen" from the Internet.

DNS (Domain Name Server) - The IP address of your ISP's server, which translates the names of websites into IP addresses.

Domain - A specific name for a network of computers.

Download - To receive a file transmitted over a network.

DSL (Digital Subscriber Line) - An always-on broadband connection over traditional phone lines.

DSSS (Direct-Sequence Spread-Spectrum) - Frequency transmission with a redundant bit pattern resulting in a lower probability of information being lost in transit.

ADSL2 Modem with USB and Ethernet

DTIM (Delivery Traffic Indication Message) - A message included in data packets that can increase wireless efficiency.

Dynamic IP Address - A temporary IP address assigned by a DHCP server.

EAP (Extensible Authentication Protocol) - A general authentication protocol used to control network access. Many specific authentication methods work within this framework.

EAP-PEAP (Extensible Authentication Protocol-Protected Extensible Authentication Protocol) - A mutual authentication method that uses a combination of digital certificates and another system, such as passwords.

EAP-TLS (Extensible Authentication Protocol-Transport Layer Security) - A mutual authentication method that uses digital certificates.

Encryption - Encoding data transmitted in a network.

Ethernet - A networking protocol that specifies how data is placed on and retrieved from a common transmission medium.

Finger - A program that tells you the name associated with an e-mail address.

Firewall - A set of related programs located at a network gateway server that protects the resources of a network from users from other networks.

Firmware - The programming code that runs a networking device.

Fragmentation - Breaking a packet into smaller units when transmitting over a network medium that cannot support the original size of the packet.

FTP (File Transfer Protocol) - A protocol used to transfer files over a TCP/IP network.

Full Duplex - The ability of a networking device to receive and transmit data simultaneously.

Gateway - A device that interconnects networks with different, incompatible communications protocols.

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

Hardware - The physical aspect of computers, telecommunications, and other information technology devices.

HTTP (HyperText Transport Protocol) - The communications protocol used to connect to servers on the World Wide Web.

ADSL2 Modem with USB and Ethernet

Infrastructure - A wireless network that is bridged to a wired network via an access point.

IP (Internet Protocol) - A protocol used to send data over a network.

IP Address - The address used to identify a computer or device on a network.

IPCONFIG - A Windows 2000 and XP utility that displays the IP address for a particular networking device.

IPSec (Internet Protocol Security) - A VPN protocol used to implement secure exchange of packets at the IP layer.

ISM band - Radio bandwidth utilized in wireless transmissions.

ISP (Internet Service Provider) - A company that provides access to the Internet.

LAN - The computers and networking products that make up your local network.

LEAP (Lightweight Extensible Authentication Protocol) - A mutual authentication method that uses a username and password system.

MAC (Media Access Control) Address - The unique address that a manufacturer assigns to each networking device.

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

mIRC - An Internet Relay Chat program that runs under Windows.

Multicasting - Sending data to a group of destinations at once.

NAT (Network Address Translation) - NAT technology translates IP addresses of a local area network to a different IP address for the Internet.

NAT (Network Address Translation) Traversal - A method of enabling specialized applications, such as Internet phone calls, video, and audio, to travel between your local network and the Internet. STUN is a specific type of NAT traversal.

Network - A series of computers or devices connected for the purpose of data sharing, storage, and/or transmission between users.

NNTP (Network News Transfer Protocol) - The protocol used to connect to Usenet groups on the Internet.

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

ADSL2 Modem with USB and Ethernet

OFDM (Orthogonal Frequency Division Multiplexing) - Frequency transmission that separates the data stream into a number of lower-speed data streams, which are then transmitted in parallel to prevent information from being lost in transit.

Packet - A unit of data sent over a network.

Passphrase - Used much like a password, a passphrase simplifies the WEP encryption process by automatically generating the WEP encryption keys for Linksys products.

Ping (Packet INternet Groper) - An Internet utility used to determine whether a particular IP address is online.

POP3 (Post Office Protocol 3) - A standard mail server commonly used on the Internet.

Port - The connection point on a computer or networking device used for plugging in cables or adapters.

Power over Ethernet (PoE) - A technology enabling an Ethernet network cable to deliver both data and power.

PPPoE (Point to Point Protocol over Ethernet) - A type of broadband connection that provides authentication (username and password) in addition to data transport.

PPTP (Point-to-Point Tunneling Protocol) - A VPN protocol that allows the Point to Point Protocol (PPP) to be tunneled through an IP network. This protocol is also used as a type of broadband connection in Europe.

Preamble - Part of the wireless signal that synchronizes network traffic.

RADIUS (Remote Authentication Dial-In User Service) - A protocol that uses an authentication server to control network access.

RJ-45 (Registered Jack-45) - An Ethernet connector that holds up to eight wires.

Roaming - The ability to take a wireless device from one access point's range to another without losing the connection.

Router - A networking device that connects multiple networks together.

RTP (Real-time Transport Protocol) - A protocol that enables specialized applications, such as Internet phone calls, video, and audio, to occur in real time.

RTS (Request To Send) - A networking method of coordinating large packets through the RTS Threshold setting.

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

ADSL2 Modem with USB and Ethernet

SMTP (Simple Mail Transfer Protocol) - The standard e-mail protocol on the Internet.

SNMP (Simple Network Management Protocol) - A widely used network monitoring and control protocol.

Software - Instructions for the computer. A series of instructions that performs a particular task is called a "program".

SOHO (Small Office/Home Office) - Market segment of professionals who work at home or in small offices.

SPI (Stateful Packet Inspection) Firewall - A technology that inspects incoming packets of information before allowing them to enter the network.

Spread Spectrum - Wideband radio frequency technique used for more reliable and secure data transmission.

SSID (Service Set Identifier) - Your wireless network's name.

Static IP Address - A fixed address assigned to a computer or device that is connected to a network.

Static Routing - Forwarding data in a network via a fixed path.

STUN (Simple Traversal of UDP through NATs) - A protocol that enables specialized applications, such as Internet phone calls, video, and audio, to travel between your local network and the Internet. STUN is a specific type of NAT traversal.

Subnet Mask - An address code that determines the size of the network.

Switch - 1. A data switch that 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 network protocol for transmitting data that requires acknowledgement from the recipient of data sent.

TCP/IP (Transmission Control Protocol/Internet Protocol) - A set of instructions PCs use to communicate over a network.

Telnet - A user command and TCP/IP protocol used for accessing remote PCs.

TFTP (Trivial File Transfer Protocol) - A version of the TCP/IP FTP protocol that has no directory or password capability.

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

ADSL2 Modem with USB and Ethernet

TKIP (Temporal Key Integrity Protocol) - a wireless encryption protocol that provides dynamic encryption keys for each packet transmitted.

Topology - The physical layout of a network.

TX Rate - Transmission Rate.

UDP (User Datagram Protocol) - A network protocol for transmitting data that does not require acknowledgement from the recipient of the data that is sent.

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

Upload - To transmit a file over a network.

URL (Uniform Resource Locator) - The address of a file located on the Internet.

VPN (Virtual Private Network) - A security measure to protect data as it leaves one network and goes to another over the Internet.

WAN (Wide Area Network)- The Internet.

WEP (Wired Equivalent Privacy) - A method of encrypting network data transmitted on a wireless network for greater security.

WINIPCFG - A Windows 98 and Me utility that displays the IP address for a particular networking device.

WLAN (Wireless Local Area Network) - A group of computers and associated devices that communicate with each other wirelessly.

WPA (Wi-Fi Protected Access) - a wireless security protocol using TKIP (Temporal Key Integrity Protocol) encryption, which can be used in conjunction with a RADIUS server.

Appendix D: Specifications

Standards	G.992.1 (G.dmt), G.992.2 (G.lite), G.992.3 (ADSL2), T1.413i2, Reach-Extended ADSL (READSL), ADSL2+ Upgradeable (G.992.5), RFC 1483/2684, RFC 2364 PPPoA, RFC 2516 PPPoE, USB 1.1, IEEE 802.3, IEEE 802.3u
Buttons	Reset, On/Off
Ports	ADSL: RJ-11 Ethernet: 10/100 RJ-45 Port USB: USB Type B Port Power
LEDs	Power, Ethernet, USB, DSL, Internet
Dimensions	187 mm x 48 mm x 156 mm
Unit Weight	0,34 kg
Power	External, 5V DC, 1A
Certifications	FCC Part 15B, FCC Part 68, UL, C-UL, CE, IC-03, ICES-03
Operating Temp.	0°C to 40°C
Storage Temp.	0°C to 70°C
Operating Humidity	10% to 85% Non-Condensing
Storage Humidity	5% to 90% Non-Condensing

Appendix E: Warranty Information

WARRANTY

Linksys warrants to You that, for a period of two years (the “Warranty Period”), your Linksys Product will be substantially free of defects in materials and workmanship under normal use. Your exclusive remedy and Linksys’ entire liability under this warranty will be for Linksys at its option to repair or replace the Product or refund Your purchase price less any rebates. This limited warranty extends only to the original purchaser.

If the Product proves defective during the Warranty Period call Linksys Technical Support in order to obtain a Return Authorization Number, if applicable. BE SURE TO HAVE YOUR PROOF OF PURCHASE ON HAND WHEN CALLING. If You are requested to return the Product, mark the Return Authorization Number clearly on the outside of the package and include a copy of your original proof of purchase. RETURN REQUESTS CANNOT BE PROCESSED WITHOUT PROOF OF PURCHASE. You are responsible for shipping defective Products to Linksys. Linksys pays for UPS Ground shipping from Linksys back to You only. Customers located outside of the United States of America and Canada are responsible for all shipping and handling charges.

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This warranty does not apply if the Product (a) has been altered, except by Linksys, (b) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Linksys, or (c) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident. In addition, due to the continual development of new techniques for intruding upon and attacking networks, Linksys does not warrant that the Product will be free of vulnerability to intrusion or attack.

TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL LINKSYS BE LIABLE FOR ANY LOST DATA, REVENUE OR PROFIT, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, REGARDLESS OF THE THEORY OF LIABILITY (INCLUDING NEGLIGENCE), ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT (INCLUDING ANY SOFTWARE), EVEN IF LINKSYS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL LINKSYS’ LIABILITY EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT. The foregoing limitations will apply even if any warranty or remedy provided under this Agreement fails of its essential purpose. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to You.

This Warranty is valid and may be processed only in the country of purchase.

Please direct all inquiries to: Linksys, P.O. Box 18558, Irvine, CA 92623.

Appendix F: Regulatory Information

FCC STATEMENT

This product 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:

Connect the equipment to an outlet other than the receiver's

Consult a dealer or an experienced radio/TV technician for assistance

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

SAFETY NOTICES

Caution: To reduce the risk of fire, use only No.26 AWG or larger telecommunication line cord.

Do not use this product near water, for example, in a wet basement or near a swimming pool.

Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

FCC PART 68 STATEMENT

This equipment complies with Part 68 of the FCC Rules. A label is attached to the equipment that contains, among other information, its FCC registration number and ringer equivalence number. If requested, this information must be provided to the telephone company.

This equipment uses the following USOC Jack: RJ-11.

An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack, which is FCC Part 68 compliant. Connection to the telephone network should be made by using the standard modular telephone jack.

ADSL2 Modem with USB and Ethernet

The REN is useful to determine the quantity of devices that may be connected to the telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of RENs should not exceed 5. To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If this equipment causes harm to the telephone network, the telephone company may discontinue your service temporarily. If advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

In the event this equipment should fail to operate properly, disconnect the unit from the telephone line. Try using another FCC approved device in the same telephone jack. If the trouble persists, call the telephone company repair service bureau. If the trouble does not persist and appears to be with this unit, disconnect the unit from the telephone line and discontinue use of the unit until it is repaired. Please note that the telephone company may ask that you disconnect the equipment from the telephone network until the problem has been corrected or until you are sure that the equipment is not malfunctioning. The user must use the accessories and cables supplied by the manufacturer to get optimum performance from the product.

No repairs may be done by the customer. If trouble is experienced with this equipment, please contact your authorized support provider for repair and warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved. This equipment cannot be used on telephone company provided coin service. Connection to Party Line Service is subject to state tariffs.

SAFETY NOTICES

Caution: To reduce the risk of fire, use only No.26 AWG or larger telecommunication line cord.

Do not use this product near water, for example, in a wet basement or near a swimming pool.

Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

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EC DECLARATION OF CONFORMITY (EUROPEAN COMMUNITY)

This product conforms to the Directive 1999/5/EC (R&TTE). The following standards were applied during the assessment of the product against the requirements of the aforementioned directives:

- EN 55022: 1997 (Emission)
- EN 55024: 2003 (Immunity)
- EN 60950-1: 2001 (Health & Safety)

Appendix G: Contact Information

Need to contact Linksys?

Visit us online for information on the latest products and updates to your existing products at:

<http://www.linksys.com/international>

If you experience problems with any Linksys product, you can e-mail us at:

In Europe	E-mail Address
Austria	support.at@linksys.com
Belgium	support.be@linksys.com
Denmark	support.dk@linksys.com
France	support.fr@linksys.com
Germany	support.de@linksys.com
Italy	support.it@linksys.com
Netherlands	support.nl@linksys.com
Norway	support.no@linksys.com
Portugal	support.pt@linksys.com
Spain	support.es@linksys.com
Sweden	support.se@linksys.com
Switzerland	support.ch@linksys.com
United Kingdom & Ireland	support.uk@linksys.com

Outside of Europe	E-mail Address
Latin America	support.la@linksys.com
U.S. and Canada	support@linksys.com