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WARNING: This product contains chemicals, including lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.

How to Use this Guide

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

This exclamation point means there is a caution or warning and is something that could damage your property or Phone Adapter.

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

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

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

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

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

Figure 0-1: Sample Figure Description
Phone Adapter with 2 Ports for Voice-over-IP
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Phone Adapter with 2 Ports for Voice-over-IP
Chapter 1: Introduction

Welcome

Thank you for choosing the Linksys Phone Adapter with 2 Ports for Voice-over-IP. This Phone Adapter will allow you to make phone or fax calls using the your broadband connection.

How does the Phone Adapter do this? The Phone Adapter connects your phones or fax machines to your network router or gateway, so telephone service is delivered through your cable or DSL Internet connection. Each of the Phone Adapter's two telephone jacks operates independently, with separate phone service and phone numbers, so you can have up to two Vonage phone lines per Adapter. You will be able to make phone calls using the account you set up with Vonage, even while you're surfing the Internet.

Use the instructions in the Quick Installation or this Installation and Troubleshooting Guide to help you connect the Phone Adapter after you have set up an account with Vonage. These instructions should be all you need to get the most out of the Phone Adapter.

What’s in this Guide?

This guide covers the steps for installing the Phone Adapter.

- Chapter 1: Introduction
  This chapter describes the Phone Adapter's applications and this Installation and Troubleshooting Guide.

- Chapter 2: Getting to Know the Phone Adapter
  This chapter describes the physical features of the Phone Adapter.

NOTE: For information about your Vonage phone service, refer to the User Guide, which is included in the welcome kit.
Chapter 3: Connecting the Phone Adapter
This chapter explains how to connect the Phone Adapter to your network and phones (or fax machines).

Chapter 4: Using the Phone Adapter’s Interactive Voice Response Menu
This chapter explains how to configure the Phone Adapter’s network settings.

Chapter 5: Using the Phone Adapter’s Web-based Utility
This chapter explains how to configure the Phone Adapter using your web browser and its Web-based Utility.

Appendix A: Troubleshooting
This appendix describes some potential problems and solutions, as well as frequently asked questions, regarding use of the Phone Adapter.

Appendix B: Windows Help
This appendix describes how you can use Windows Help for instructions about networking, such as installing the TCP/IP protocol.

Appendix C: Glossary
This appendix gives a brief glossary of terms frequently used in networking.

Appendix D: Specifications
This appendix provides the technical specifications for the Phone Adapter.

Appendix E: Warranty Information
This appendix supplies the warranty information for the Phone Adapter.

Appendix F: Regulatory Information
This appendix supplies the regulatory information regarding the Phone Adapter.

Appendix G: Contact Information
This appendix provides contact information for a variety of Linksys resources, including Technical Support, as well as Vonage.
Chapter 2: Getting to Know the Phone Adapter

Back Panel Ports

The Phone Adapter's ports are located on the back panel.

**Figure 2-1: Back Panel**

**Reset Button** There are two ways to reset the Phone Adapter's factory defaults. Either press the Reset Button for 30 seconds, or restore the defaults from the Web-based Utility.

**PHONE 1/2 Port** The PHONE 1/2 port allows you to connect your telephone or fax machine to the Phone Adapter using an RJ-11 telephone cable (not included). Use the PHONE 1 port for the primary Vonage line, and use the PHONE 2 port if you have a second Vonage line.

**INTERNET Port** The INTERNET port allows you to connect the Phone Adapter to your router or gateway using a Category 5 (or better) Ethernet network cable.

**Power Port** The Power port is where you will connect the included power adapter.

*NOTE:* These Phone ports do not carry any voltage.

*IMPORTANT:* Use only the included power adapter to power the Phone Adapter. If you use a different power adapter, the Phone Adapter may be damaged or may not work.
The Front Panel

The Phone Adapter's LEDs are located on the front panel.

**PHONE 1/2 LED**
Green. The PHONE 1 LED is solidly lit when a telephone or fax machine has a registered connection to Vonage through the corresponding port. (The connection is registered if your Vonage phone service account is active.) It flashes when the phone is being used or an incoming call has been detected.

**INTERNET LED**
Green. The INTERNET LED lights up when the Phone Adapter is connected to your network through the Internet port. It flashes when there is data being sent or received.

**Power LED**
Green/Red. The power LED lights up when the Phone Adapter is powered on and ready. It flashes green when the Phone Adapter is booting up, undergoing a self-test, or performing a firmware upgrade. The LED lights up red when the Phone Adapter has failed its self-test or is malfunctioning. Refer to “Appendix A: Troubleshooting” for more information.

**IMPORTANT:** The PHONE and power LEDs must be solid green to make phone calls.
Chapter 3: Connecting the Phone Adapter

Overview

This chapter gives instructions on how to connect the Phone Adapter to your network and telephones or fax machines. Shown below is a connection diagram displaying a typical setup.

![Connection Diagram](image)

Figure 3-1: Connect the Phone Adapter to Your Network and Telephone

This chapter also describes the Phone Adapter's placement options. You can place it flat on a surface, attach the Phone Adapter's base so it can stand in place, or mount the Phone Adapter on a wall.

Instructions for Connecting the Phone Adapter

If you already have an account set up with Vonage, then proceed to step 1.

If you do not have an account, visit www.vonage.com to activate the Phone Adapter. After you have set up an account, then proceed to step 1.

**IMPORTANT:** The Phone Adapter includes a ringer (ring signal generator), which is a source of hazardous voltage. When the ringer is activated by an incoming call, do not touch the Phone port wires, the wires of a cable connected to either of the Phone ports, or the internal circuitry of the Phone Adapter.

**IMPORTANT:** Do not connect either of the Phone ports to a telephone wall jack. Make sure you only connect a telephone or fax machine to either of the Phone ports. Otherwise, the Phone Adapter or the telephone wiring in your home or office may be damaged.
Connect the included Ethernet network cable to the INTERNET port of the Phone Adapter.

Connect the other end to the one of the Ethernet ports on your router or gateway.

2. Connect the included power adapter to the Power port on the back panel of the Phone Adapter.

Connect the other end to a standard electrical outlet.

3. Using a telephone cable, connect your telephone to the PHONE 1 port of the Phone Adapter.

4. If you have a second Vonage line on your account, then connect another telephone or a fax machine to the PHONE 2 port of the Phone Adapter.

5. The power, INTERNET, and PHONE LEDs will be solidly lit when the Phone Adapter is ready for use. Pick up a telephone and check for a dial tone.

6. Follow the instructions provided by Vonage.

If you need to manually configure the Phone Adapter’s network settings, you can use the telephone; for instructions, proceed to “Chapter 4: Using the Phone Adapter’s Interactive Voice Response Menu.”

The installation of the Phone Adapter is complete. Now you can pick up your phone and make calls.

NOTE: Vonage supports 7-, 10-, and 11-digit dialing. Use 7-, 10-, or 11-digit dialing for calls within the same area code as your Vonage phone number. Use 10- or 11-digit dialing for calls outside of your area code.

Proceed to the next section, “Placement Options,” if you want to attach the Phone Adapter’s base.
Placement Options

There are two ways to place the Phone Adapter. The first way is to place the Phone Adapter horizontally on a surface. The second way is to stand the Phone Adapter vertically on a surface. The third way is to mount the Phone Adapter on a wall. The second and third options are explained in further detail below.

Stand Option

1. Remove the plate from the Phone Adapter’s bottom panel.
2. Line up the pegs of the Phone Adapter’s base with the mounting holes of the Phone Adapter’s bottom panel.
3. Insert the Phone Adapter’s base into the Phone Adapter’s bottom panel. Push the base in until it fits snugly.
4. Place the Phone Adapter in an appropriate location.

Congratulations! The installation of the Phone Adapter is complete.

If you need to change any of the Phone Adapter's network settings, proceed to “Chapter 4: Using the Phone Adapter's Interactive Voice Response Menu.”
Wall-Mount Option

The Phone Adapter has two wall-mount slots on its back panel. The distance between the two slots is 58 mm (2.28 inches).

1. Determine where you want to mount the Phone Adapter.
2. Drill two holes into the wall. Make sure the holes are 58 mm (2.28 inches) apart.
3. Insert a screw into each hole, and leave 5 mm (0.2 inches) of its head exposed.
4. Maneuver the Phone Adapter so the wall-mount slots line up with the two screws.
5. Place the wall-mount slots over the screws and slide the Phone Adapter down until the screws fit snugly into the wall-mount slots.

Congratulations! The installation of the Phone Adapter is complete.

If you need to change any of the Phone Adapter's network settings, proceed to “Chapter 4: Using the Phone Adapter’s Interactive Voice Response Menu.”

Figure 3-7: Measurement between Wall-Mount Slots
Chapter 4: Using the Phone Adapter’s Interactive Voice Response Menu

Overview

Chapter 4 explains how you can use the Interactive Voice Response Menu to configure the Phone Adapter’s network settings. You may need to change these settings depending on the specifics of your local network setup. Use the phone's keypad to enter your commands and select choices, and the Phone Adapter will respond with voice responses.

Accessing the Interactive Voice Response Menu

1. Use a telephone connected to the PHONE 1 or PHONE 2 port of the Phone Adapter.
2. Press **** (in other words, press the star key four times).
3. You will hear, “Configuration menu. Please enter option followed by the # (pound) key or hang up to exit.”

Refer to the following table that lists actions, commands, menu choices, and descriptions. After you select an option, press the # (pound) key. To exit the menu, hang up the telephone.

Using the Interactive Voice Response Menu

While entering a value, such as an IP address, you may exit without entering any changes. Press the * (star) key twice within half a second. Otherwise, the * will be treated as a decimal point or dot.
After entering a value, such as an IP address, press the # (pound) key to indicate you have finished your selection. To save the new setting, press 1. To review the new setting, press 2. To re-enter the new setting, press 3. To cancel your entry and return to the main menu, press * (star).

For example, to enter the IP address 191.168.1.105 by keypad, press these keys: 191*168*1*105. Press the # (pound) key to indicate that you have finished entering the IP address, and then press 1 to save the IP address. To cancel your entry and return to the main menu, press * (star).

If the menu is inactive for more than one minute, the Phone Adapter will time out. You will need to re-enter the menu by pressing ****.

The settings you have saved will take effect after you have hung up the telephone. The Phone Adapter may reboot at this time.

### Interactive Voice Response Menu

<table>
<thead>
<tr>
<th>Action</th>
<th>Command (press these keys on the telephone)</th>
<th>Choices</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter Interactive Voice</td>
<td>****</td>
<td></td>
<td>Use this command to enter the Interactive Voice Response Menu. Do not press any other keys until you hear, “Configuration menu. Please enter option followed by the # (pound) key or hang up to exit.”</td>
</tr>
</tbody>
</table>
### Interactive Voice Response Menu

<table>
<thead>
<tr>
<th>Action</th>
<th>Command (press these keys on the telephone)</th>
<th>Choices</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check DHCP</td>
<td>100</td>
<td></td>
<td>Use this command to find out if DHCP has been enabled or disabled. If enabled, the Phone Adapter will be automatically assigned an IP address by your network router or gateway. If disabled, then the Phone Adapter will use a static IP address.</td>
</tr>
<tr>
<td>Enable/Disable DHCP</td>
<td>101</td>
<td>Enter 1 to enable</td>
<td>Enable or disable the Phone Adapter's DHCP feature. If your network router or gateway assigns IP addresses, then enter 1. Otherwise, enter 0.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enter 0 to disable</td>
<td></td>
</tr>
<tr>
<td>Check IP Address</td>
<td>110</td>
<td></td>
<td>You will hear the current IP address of the Phone Adapter.</td>
</tr>
</tbody>
</table>
## Using the Interactive Voice Response Menu

<table>
<thead>
<tr>
<th>Action</th>
<th>Command</th>
<th>Choices</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Static IP Address</td>
<td>111</td>
<td>Enter the IP address using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To set a static IP address, the DHCP feature must be disabled. If the DHCP feature is enabled, then you will hear, “Invalid Option,” if you try to set a static IP address.</td>
</tr>
<tr>
<td>Check Network Mask (or Subnet Mask)</td>
<td>120</td>
<td></td>
<td>You will hear the current network mask of the Phone Adapter.</td>
</tr>
<tr>
<td>Set Network Mask (or Subnet Mask)</td>
<td>121</td>
<td>Enter the network mask using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To set the network mask, the DHCP feature must be disabled. If the DHCP feature is enabled, then you will hear, “Invalid Option,” if you try to set the network mask.</td>
</tr>
<tr>
<td>Check Static Gateway IP Address</td>
<td>130</td>
<td></td>
<td>You will hear the current gateway IP address of the Phone Adapter.</td>
</tr>
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## Chapter 4: Using the Phone Adapter's Interactive Voice Response Menu

### Using the Interactive Voice Response Menu

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<thead>
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<th>Action</th>
<th>Command (press these keys on the telephone)</th>
<th>Choices</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Static Gateway IP Address</td>
<td>131</td>
<td>Enter the IP address using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.</td>
<td>To set a static gateway IP address, the DHCP feature must be disabled. If the DHCP feature is enabled, then you will hear, “Invalid Option,” if you try to set a static gateway IP address.</td>
</tr>
<tr>
<td>Check MAC Address</td>
<td>140</td>
<td></td>
<td>You will hear the MAC address of the Phone Adapter in hexadecimal string format.</td>
</tr>
<tr>
<td>Check Firmware Version</td>
<td>150</td>
<td></td>
<td>You will hear the version number of the firmware currently installed on the Phone Adapter.</td>
</tr>
<tr>
<td>Manual Reboot</td>
<td>732668</td>
<td></td>
<td>After you hear, “Option successful,” hang up the phone. The Phone Adapter will automatically reboot.</td>
</tr>
</tbody>
</table>
Configuring the Settings for Your Vonage Phone Service

If you want to change the settings for your Vonage phone service, visit www.vonage.com and make configuration changes online. For more information, refer to the instructions provided by Vonage.
Chapter 5: Using the Phone Adapter’s Web-based Utility

Overview

**NOTE:** The Phone Adapter has been pre-configured for Vonage service, and you do not need to change any settings. If you do wish to make changes, follow the instructions in this chapter.

This chapter will describe each web page on the Utility and each page’s key functions. The Utility can be accessed via your web browser through use of a computer on your network.

There are four main tabs: Setup, Administration, Status, and Voice. Additional tabs will be available after you click the Administration tab.

Setup

Enter the network settings on this screen.

Administration

- Management. On this screen, alter the Phone Adapter’s user name, password, and remote access settings. You can also use this screen to back up or restore the Phone Adapter’s configuration file.

- Log. If you want to save activity logs, click this tab.

- Factory Defaults. If you want to reset the Phone Adapter to its adapter factory default settings, then use this screen. If you want to reset the Phone Adapter to its voice factory default settings, then you will need a password available only from Vonage. Contact your provider for more information.
Status

This screen provides status information about the system, Phone Adapter, and Internet phone line(s).

Voice

Access to the Voice tab is restricted by Vonage. Contact your provider for more information.

How to Access the Web-based Utility

1. Use a telephone connected to the PHONE 1 or PHONE 2 port of the Phone Adapter.
2. Press **** (in other words, press the star key four times).
3. You will hear, “Configuration menu. Please enter option followed by the # (pound) key or hang up to exit.”
   
   Press 110.
4. Write down the IP address you hear, and then hang up the telephone.
5. Launch a web browser on a networked computer.
6. In the Address field, enter the IP address you wrote down. Press the Enter key.
7. On the Login screen, enter admin in the Username and Password fields. Click the Log In button, or click the Cancel button to exit the Login screen.

Make the necessary changes through the Utility. When you have finished making changes to a screen, click the Save Settings button to save the changes, or click the Cancel Changes button to undo your changes.
The Setup Tab

The Setup screen is the first screen you see when you access the Web-based Utility.

Connection Type

The Phone Adapter supports two connection types: Obtain an IP automatically and Static IP. Each Setup screen and available features will differ depending on what kind of connection type you select.

Obtain an IP automatically

By default, the Phone Adapter's WAN Type is set to Obtain an IP automatically, and it should be used only if your network router assigns IP addresses to your network devices.

Static IP

If you want to assign a static (fixed) IP address to the Phone Adapter, then select Static IP.

IP Address. Enter the IP Address you want to assign to the Phone Adapter.

Subnet Mask. Enter the Subnet Mask of your network router.

Gateway. Enter the local IP address of your network router.

DNS 1-3. Enter the DNS (Domain Name System) Server IP Address(es) of your network router.
Phone Adapter with 2 Ports for Voice-over-IP

Optional Settings

**Host Name and Domain Name.** These fields allow you to supply a host and domain name for the Phone Adapter. In most cases, leaving these fields blank will work.

**MTU.** The MTU (Maximum Transmission Unit) setting specifies the largest packet size permitted for network transmission. Select *Auto* to have the Phone Adapter automatically select the MTU value, or select *Manual* and enter the value desired. It is recommended that you leave this value in the 1200 to 1500 range. The MTU's default value is **1500**.

When you have finished making changes to this screen, click the **Save Settings** button to save the changes, or click the **Cancel Changes** button to undo your changes.
The Administration Tab - Management

When you click the Administration tab, you will see the Management screen. This screen allows you to change the Phone Adapter's access settings. You can also back up or restore its configuration file.

Password

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

User Name. It is recommended that you change the default user name to one of your choice.

Password. It is recommended that you change the default password to one of your choice.

Re-enter to confirm. Re-enter the Phone Adapter's new Password to confirm it.

Idle Timeout. When you use the Phone Adapter's Web-based Utility, your session can remain idle for a specified length of time. Enter the length of time you want to allow. The default is 10 minutes.

Remote Access

You can control remote access via Secure Shell (SSH).

Secure Shell (SSH). To allow remote access via this service, select Enabled. Otherwise, keep the default, Disabled.
Phone Adapter with 2 Ports for Voice-over-IP

Chapter 5: Using the Phone Adapter's Web-based Utility
The Administration Tab - Management

Backup and Restore

**Backup and Restore.** To back up and restore the Phone Adapter’s configuration settings, click this button and follow the on-screen instructions.

When you have finished making changes to this screen, click the **Save Settings** button to save the changes, or click the **Cancel Changes** button to undo your changes.
The Administration Tab - Log

On the Log screen, you can select which PC will receive the specified type of activity logs.

**NOTE:** The PC that receives these logs must be running a SYSLOG application. Linksys offers free software that can view system logs. You can download Logviewer software at [www.linksys.com](http://www.linksys.com).

**Log**

**Log Level.** There are a variety of log levels available, from most urgent to least urgent. Select the appropriate level: Panic, Alert, Critical, Error, Warning, Notice, Info, or Debug, from the drop-down menu.

**Add an IP Address.** In this field, enter the fixed IP address of the PC that will receive the logs. Then click the Add button. The Phone Adapter will now send updated logs to that PC.

**Select a logging destination.** If you add an IP address, then that IP address automatically becomes the logging destination. If you want to delete a destination, then select it and click the Delete button.

When you have finished making changes to this screen, click the Save Settings button to save the changes, or click the Cancel Changes button to undo your changes.
The Administration Tab - Factory Defaults

The Factory Defaults screen allows you to reset the Phone Adapter to its adapter factory defaults. If you want to reset the Phone Adapter to its voice factory defaults, then you need a password available only from Vonage. Contact your provider for more information.

Factory Defaults

**Restore Adapter Factory Defaults.** If you wish to reset the Phone Adapter to its adapter factory defaults, click the Yes radio button and then the Save Settings button. Then follow the on-screen instructions.

*NOTE:* Any custom settings you have saved will be lost when the default settings are restored, so before you restore the adapter factory defaults, write down any settings you may need later.

**Restore Voice Factory Defaults.** If you click the Yes radio button and then the Save Settings button, you will see a screen asking for a username and password. Enter the username and password provided by Vonage, and follow the on-screen instructions.

When you have finished making changes to this screen, click the Save Settings button to save the changes, or click the Cancel Changes button to undo your changes.
The Status Tab

The Status screen displays status information about the system, Phone Adapter, and Internet phone line(s). The on-screen information will vary depending on the WAN Type selected on the Setup screen.

System

WAN Connection. The status of the Phone Adapter's connection is shown here.

WAN Type. The WAN Type selected on the Setup screen is shown here.

IP Address. The Phone Adapter's local IP Address is shown here.

Subnet Mask. The Phone Adapter's Subnet Mask is shown here.

Default Gateway. The local IP address of your network router is displayed here.

DNS 1-3. Shown here are the DNS (Domain Name System) IP addresses currently used by the Phone Adapter.

MTU. Shown here is the MTU value currently used by the Phone Adapter.

Product

Product Name. The name and version number of the Phone Adapter are shown here.

Firmware Version. This shows the version number of the installed firmware.

MAC Address. The MAC Address of the Phone Adapter is displayed here.

mac address: the unique address that a manufacturer assigns to each networking device.
Voice

**Provisioning Status.** This status information indicates whether the Phone Adapter has been configured by Vonage.

Line1

**Registration Status.** The phone number and status of this Internet phone line are displayed here. If it is not registered, then you should register it. If registration has failed, then refer to “Appendix A: Troubleshooting.”

**Call1 Status.** The status of the active phone call is shown here.

**Call2 Status.** If you are using call waiting, the status of the incoming phone call is shown here.

Line2

**Registration Status.** The phone number and status of this Internet phone line are displayed here. If it is not registered, then you should register it. If registration has failed, then refer to “Appendix A: Troubleshooting.”

**Call1 Status.** The status of the active phone call is shown here.

**Call2 Status.** If you are using call waiting, the status of the incoming phone call is shown here.

Click the **Refresh** button to update the on-screen information.
The Voice Tab

Access to the Voice tab is restricted by Vonage. Contact your provider for more information.

Figure 5-8: Voice Tab
Chapter 5: Using the Phone Adapter's Web-based Utility

The Voice Tab
Appendix A: Troubleshooting

This appendix provides solutions to problems that may occur during the installation and operation of the Phone Adapter. Read the description below to solve your problems. If you can't find an answer here, check the Vonage website at www.vonage.com or the Linksys website at www.linksys.com.

Common Problems and Solutions

1. I don't hear a dial tone, and the PHONE1 (or PHONE2) LED is not lit.

   Go through this checklist until your problem is solved:
   - Make sure the telephone is plugged into the appropriate port, PHONE 1 or PHONE 2. (You should use the Phone 2 port only if you have more than one Vonage phone line.)
   - Make sure the INTERNET LED on the front panel of the Phone Adapter is lit. If it is not lit, then check your router and network connection to the Internet.
   - Pick up the telephone. Press 80#. Hang up the telephone. Wait approximately 30 seconds. Then pick up the telephone; you should now have a dial tone.
   - Follow these instructions to reboot your computer, Phone Adapter, router, and cable or DSL modem:
     1. Power off your computer.
     2. Power off the Phone Adapter by unplugging its power cord from the back panel.
     3. Power off the router by unplugging its power cord from the back panel.
     4. Power off the cable or DSL modem by unplugging its power cord from the back panel.
     5. Wait one minute. Make sure all of the network cables are securely connected to the network ports on your network devices.
     6. You will power on your devices one at a time. Power on your cable or DSL modem by plugging the power cord into its back panel.
7. Wait until the power and Internet connection LEDs light up on the cable or DSL modem (this may take several minutes). Then power on the router by plugging its power cord into its back panel.
8. Wait at least 30 seconds until the router’s power and status LEDs light up. Then power on the Phone Adapter by plugging its power cord into its back panel.
9. Wait for the Phone Adapter’s Power and Phone LEDs to be solidly lit. (The Internet LED will flash whenever there is activity.) Pick up the telephone; you should have a dial tone.
10. Power on your computer, and check to see if you have an active Internet connection.

- Set up port forwarding on your router. You must specify that four port ranges be forwarded to the IP address of the Phone Adapter. These four port ranges are as follows: 5060-5061 (UDP), 53-53 (UDP), 69-69 (UDP), and 10000-20000 (UDP).

Before you set up port forwarding on your router, change two of the Phone Adapter’s settings using its Interactive Voice Response Menu. First, disable its DHCP feature, and then assign a static IP address to the Phone Adapter. Refer to “Chapter 4: Using the Phone Adapter’s Interactive Voice Response Menu” for instructions.

If you have a non-Linksys router, refer to its documentation for instructions.

If you have a Linksys router, then follow these instructions:
1. On one of your networked computers, open your web browser.
2. Access the Router’s Web-based Utility by going to http://192.168.1.1 or the IP address of the Router.
3. A login screen will appear. Leave the User Name field blank. Enter the Router’s password (the default is admin) in the Password field. Then click the OK button.
4. Click the Applications & Gaming tab, and then click the Port Range Forwarding tab.
5. For each port range you must specify, enter a different name in the Application field. Then enter the number or range of external port(s) used by the Phone Adapter.
6. Select the protocol you will be using, UDP.
7. Enter the IP address of the Phone Adapter. For example, if the Phone Adapter's IP address is 192.168.1.100, you would enter 100 in the field provided.
8. Repeat steps 5-7 until you have entered all four port ranges for the Phone Adapter.

<table>
<thead>
<tr>
<th>Application</th>
<th>Start and End</th>
<th>Protocol</th>
<th>IP Address</th>
<th>Enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet phone 1</td>
<td>5060 to 5061</td>
<td>UDP</td>
<td>(IP address of Phone Adapter)</td>
<td>X</td>
</tr>
<tr>
<td>Internet phone 2</td>
<td>53 to 53</td>
<td>UDP</td>
<td>(IP address of Phone Adapter)</td>
<td>X</td>
</tr>
<tr>
<td>Internet phone 3</td>
<td>69 to 69</td>
<td>UDP</td>
<td>(IP address of Phone Adapter)</td>
<td>X</td>
</tr>
<tr>
<td>Internet phone 4</td>
<td>10000 to 20000</td>
<td>UDP</td>
<td>(IP address of Phone Adapter)</td>
<td>X</td>
</tr>
</tbody>
</table>

9. Check the **Enable** option for the port services you want to use.
10. When you have completed the configuration, click the **Save Settings** button.

2. **I need to check the IP address of the Phone Adapter.**
   Follow these instructions:
   1. Use a telephone connected to the PHONE 1 or PHONE 2 port of the Phone Adapter.
   2. Press **** (in other words, press the star key four times).
3. You will hear, “Configuration menu. Please enter option followed by the # (pound) key or hang up to exit.”

Press 110.

4. Write down the IP address you hear, and then hang up the telephone.

3. **I need to assign a static (fixed) IP address to the Phone Adapter.**

There are two ways to assign a static IP address. You can use the Interactive Voice Response Menu or the Web-based Utility.

To use the Interactive Voice Response Menu, follow these instructions:
1. Use a telephone connected to the PHONE 1 or PHONE 2 port of the Phone Adapter.
2. Press 4**** (in other words, press the star key four times).
3. You will hear, “Configuration menu. Please enter option followed by the # (pound) key or hang up to exit.”

Press 101 to access the DHCP feature.

4. Press 0 to disable DHCP.

5. Press 111 to set the static IP address.

6. Enter the IP address using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.

7. Press 121 to set the network or subnet mask.

8. Enter the network or subnet mask using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.

9. Press 131 to set the IP address for the gateway or router.

10. Enter the IP address using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.

11. Hang up the telephone.
To use the Web-based Utility, follow these instructions:

1. Use a telephone connected to the PHONE 1 or PHONE 2 port of the Phone Adapter.
2. Press **** (in other words, press the star key four times).
3. You will hear, “Configuration menu. Please enter option followed by the # (pound) key or hang up to exit.”
   
   Press 110.
4. Write down the IP address you hear, and then hang up the telephone.
5. Launch a web browser on a networked computer.
6. In the Address field, enter the IP address you wrote down. Press the Enter key.
7. On the Login screen, enter admin in the Username and Password fields. (The default is admin. If you have changed the Username and Password, then enter your Username and Password.) Click Log In.
8. On the Setup screen, select Static IP from the WAN Type drop-down menu.
9. Enter the IP Address you want to assign to the Phone Adapter.
10. Enter the Subnet Mask of your network router or gateway.
11. Enter the local IP address of your network router or gateway. For more information, refer to “Chapter 5: Using the Phone Adapter’s Web-based Utility.”

4. When I make a telephone call, the call doesn't go through; instead, I hear a fast busy signal.

Go through this checklist until your problem is solved:

- Vonage supports 7-, 10-, and 11-digit dialing. Use 7-, 10-, or 11-digit dialing for calls within the same area code as your Vonage phone number. Use 10- or 11-digit dialing for calls outside of your area code.

- Follow these instructions to reboot your computer, Phone Adapter, router, and cable or DSL modem:
  1. Power off your computer.
  2. Power off the Phone Adapter by unplugging its power cord from the back panel.
  3. Power off the router by unplugging its power cord from the back panel.
  4. Power off the cable or DSL modem by unplugging its power cord from the back panel.
5. Wait one minute. Make sure all of the network cables are securely connected to the network ports on your network devices.
6. You will power on your devices one at a time. Power on your cable or DSL modem by plugging the power cord into its back panel.
7. Wait until the power and Internet connection LEDs light up on the cable or DSL modem (this may take several minutes). Then power on the router by plugging its power cord into its back panel.
8. Wait at least 30 seconds until the router’s power and status LEDs light up. Then power on the Phone Adapter by plugging its power cord into its back panel.
9. Wait for the Phone Adapter’s Power and Phone LEDs to be solidly lit. (The Internet LED will flash whenever there is activity.) Pick up the telephone; you should have a dial tone.
10. Power on your computer, and check to see if you have an active Internet connection.

- Set up port forwarding on your router. You must specify that four port ranges be forwarded to the IP address of the Phone Adapter. These four port ranges are as follows: 5060-5061 (UDP), 53-53 (UDP), 69-69 (UDP), and 10000-20000 (UDP).

Before you set up port forwarding on your router, change two of the Phone Adapter’s settings using its Interactive Voice Response Menu. First, disable its DHCP feature, and then assign a static IP address to the Phone Adapter. Refer to “Chapter 4: Using the Phone Adapter's Interactive Voice Response Menu” for instructions.

If you have a non-Linksys router, refer to its documentation for instructions.

If you have a Linksys router, then follow these instructions:
1. On one of your networked computers, open your web browser.
2. Access the Router’s Web-based Utility by going to http://192.168.1.1 or the IP address of the Router.
3. A login screen will appear. Leave the User Name field blank. Enter the Router’s password (the default is admin) in the Password field. Then click the OK button.
4. Click the **Applications & Gaming** tab, and then click the **Port Range Forwarding** tab.
5. For each port range you must specify, enter a different name in the **Application** field. Then enter the number or range of external port(s) used by the Phone Adapter.
6. Select the protocol you will be using, **UDP**.
7. Enter the IP address of the Phone Adapter. For example, if the Phone Adapter’s IP address is 192.168.1.100, you would enter 100 in the field provided.
8. Repeat steps 5-7 until you have entered all four port ranges for the Phone Adapter.

<table>
<thead>
<tr>
<th>Application</th>
<th>Start and End</th>
<th>Protocol</th>
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<tbody>
<tr>
<td>Internet phone 1</td>
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</tr>
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<td>53 to 53</td>
<td>UDP</td>
<td>(IP address of Phone Adapter)</td>
<td>X</td>
</tr>
<tr>
<td>Internet phone 3</td>
<td>69 to 69</td>
<td>UDP</td>
<td>(IP address of Phone Adapter)</td>
<td>X</td>
</tr>
<tr>
<td>Internet phone 4</td>
<td>10000 to 20000</td>
<td>UDP</td>
<td>(IP address of Phone Adapter)</td>
<td>X</td>
</tr>
</tbody>
</table>

9. Check the **Enable** option for the port services you want to use.
10. When you have completed the configuration, click the **Save Settings** button.
Phone Adapter with 2 Ports for Voice-over-IP

5. **When I’m on a telephone call, words are dropped intermittently.**
   Go through this checklist until your problem is solved:
   - Are you using a wireless router and cordless phone? If so, the router and cordless phone may be using the same frequency and interfere with each other. Move the cordless phone farther away from the router.
   - There may be heavy network activity, particularly if you are running a server or using a file sharing program. Try to limit network or Internet activity during any Internet telephone call. For example, if you are running a file sharing program, files may be uploaded in the background even though you are not downloading any files, so make sure you exit the program before you make an Internet phone call.
   - There may not be enough bandwidth available for your call. You can test your bandwidth at http://www.pcpitstop.com/internet/Bandwidth.asp. If necessary, you can lower your service’s default codec setting, which is **High (90k)**. First, access your service account at www.vonage.com. Then lower the codec setting to **Med (50k)** or **Low (30k)**. For more information, visit www.vonage.com.

6. **My telephone does not ring, and my calls automatically go to voicemail.**
   Go through this checklist until your problem is solved:
   - Make sure the telephone is plugged into the appropriate port, PHONE 1 or PHONE 2. (You should use the Phone 2 port only if you have more than one Vonage phone line.)
   - Make sure the ringer volume on your telephone is set to an audible level.
   - Follow these instructions to reboot your computer, Phone Adapter, router, and cable or DSL modem:
     1. Power off your computer.
     2. Power off the Phone Adapter by unplugging its power cord from the back panel.
     3. Power off the router by unplugging its power cord from the back panel.
     4. Power off the cable or DSL modem by unplugging its power cord from the back panel.
     5. Wait one minute. Make sure all of the network cables are securely connected to the network ports on your network devices.
     6. You will power on your devices one at a time. Power on your cable or DSL modem by plugging the power cord into its back panel.
7. Wait until the power and Internet connection LEDs light up on the cable or DSL modem (this may take several minutes). Then power on the router by plugging its power cord into its back panel.

8. Wait at least 30 seconds until the router’s power and status LEDs light up. Then power on the Phone Adapter by plugging its power cord into its back panel.

9. Wait for the Phone Adapter’s Power and Phone LEDs to be solidly lit. (The Internet LED will flash whenever there is activity.) Pick up the telephone; you should have a dial tone.

10. Power on your computer, and check to see if you have an active Internet connection.

• Set up port forwarding on your router. You must specify that four port ranges be forwarded to the IP address of the Phone Adapter. These four port ranges are as follows: 5060-5061 (UDP), 53-53 (UDP), 69-69 (UDP), and 10000-20000 (UDP).

Before you set up port forwarding on your router, change two of the Phone Adapter’s settings using its Interactive Voice Response Menu. First, disable its DHCP feature, and then assign a static IP address to the Phone Adapter. Refer to “Chapter 4: Using the Phone Adapter’s Interactive Voice Response Menu” for instructions.

If you have a non-Linksys router, refer to its documentation for instructions.

If you have a Linksys router, then follow these instructions:

1. On one of your networked computers, open your web browser.

2. Access the Router’s Web-based Utility by going to http://192.168.1.1 or the IP address of the Router.

3. A login screen will appear. Leave the User Name field blank. Enter the Router’s password (the default is admin) in the Password field. Then click the OK button.

4. Click the Applications & Gaming tab, and then click the Port Range Forwarding tab.

5. For each port range you must specify, enter a different name in the Application field. Then enter the number or range of external port(s) used by the Phone Adapter.

6. Select the protocol you will be using, UDP.
7. Enter the IP address of the Phone Adapter. For example, if the Phone Adapter’s IP address is 192.168.1.100, you would enter 100 in the field provided.

8. Repeat steps 5-7 until you have entered all four port ranges for the Phone Adapter.

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</tr>
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<td>10000 to 20000</td>
<td>UDP</td>
<td>(IP address of Phone Adapter)</td>
<td>X</td>
</tr>
</tbody>
</table>

9. Check the Enable option for the port services you want to use.

10. When you have completed the configuration, click the Save Settings button.

**7. The Power LED does not light up or lights up red.**

Go through this checklist until your problem is solved:

- Unplug the power adapter from the Phone Adapter. Wait five seconds. Then plug the power adapter into the Phone Adapter again.
- You may be using the wrong power adapter. Make sure the power adapter you are using is the one included with the Phone Adapter.
8. **The INTERNET LED does not light up.**
   Go through this checklist until your problem is solved:
   - Check the cable connecting the Phone Adapter to your router.
   - Make sure your network has an active Internet connection. If it does not, follow these instructions to reboot your computer, Phone Adapter, router, and cable or DSL modem:
     1. Power off your computer.
     2. Power off the Phone Adapter by unplugging its power cord from the back panel.
     3. Power off the router by unplugging its power cord from the back panel.
     4. Power off the cable or DSL modem by unplugging its power cord from the back panel.
     5. Wait one minute. Make sure all of the network cables are securely connected to the network ports on your network devices.
     6. You will power on your devices one at a time. Power on your cable or DSL modem by plugging the power cord into its back panel.
     7. Wait until the power and Internet connection LEDs light up on the cable or DSL modem (this may take several minutes). Then power on the router by plugging its power cord into its back panel.
     8. Wait at least 30 seconds until the router’s power and status LEDs light up. Then power on the Phone Adapter by plugging its power cord into its back panel.
     9. Wait for the Phone Adapter’s Power and Phone LEDs to be solidly lit. (The Internet LED will flash whenever there is activity.) Pick up the telephone; you should have a dial tone.
    10. Power on your computer, and check to see if you have an active Internet connection.

**Frequently Asked Questions**

*How do I make a phone call?*
Pick up the phone and dial. Use 7-, 10-, or 11-digit dialing for calls within the same area code as your Vonage phone number. Use 10- or 11-digit dialing for calls outside of your area code.
Phone Adapter with 2 Ports for Voice-over-IP

**Can I make calls if my Internet connection is down?**
No. Your high-speed Internet connection must be active when you make Internet phone or fax calls.

**Can I make calls while I'm browsing the Internet?**
Yes. You can make Internet phone or fax calls while browsing the Internet. However, your web browsing may affect the quality of your telephone call, depending on the amount of upstream data traffic passing through your Internet connection.

**Can I receive calls while my network is down?**
You cannot directly receive calls while your network is down. However, Vonage can forward calls to a different telephone number, such as a cellular phone number, if you activate a feature called Network Availability Number. You can configure this feature through your service account at www.vonage.com.
Appendix B: Windows Help

Almost all Linksys products require Microsoft Windows. Windows is the most used operating system in the world and comes with many features that help make networking easier. These features can be accessed through Windows Help and are described in this appendix.

TCP/IP

Before a computer can communicate with a network router, TCP/IP must be enabled. TCP/IP is a set of instructions, or protocol, all PCs follow to communicate over a network. This is true for wireless networks as well. Your PCs will not be able to utilize wireless networking without having TCP/IP enabled. Windows Help provides complete instructions on enabling TCP/IP.

Shared Resources

If you wish to share printers, folder, or files over your network, Windows Help provides complete instructions on utilizing shared resources.

Network Neighborhood/My Network Places

Other PCs on your network will appear under Network Neighborhood or My Network Places (depending upon the version of Windows you're running). Windows Help provides complete instructions on adding PCs to your network.
Phone Adapter with 2 Ports for Voice-over-IP
Appendix C: Glossary

This glossary contains some basic networking terms you may come across when using this product. For more advanced terms, see the complete Linksys glossary at http://www.linksys.com/glossary.

**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.

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

**Bandwidth** - The transmission capacity of a given device or network.

**Bit** - A binary digit.

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

**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.

**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.

**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.

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

Encryption - Encoding data transmitted in a network.

Ethernet - IEEE standard network protocol that specifies how data is placed on and retrieved from a common transmission medium.

Firmware - The programming code that runs a networking device.

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.

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

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

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

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.

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

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.

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

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.

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

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.

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.

Topology - The physical layout of a network.

TX Rate - Transmission Rate.

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.

WAN (Wide Area Network) - The Internet.

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

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

<table>
<thead>
<tr>
<th>Model</th>
<th>PAP2 Ver. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards</td>
<td>SIP v2 Session Initiation Protocol (RFC 3261, 3262, 3263, 3264)</td>
</tr>
<tr>
<td>Voice Codecs</td>
<td>G.729 A+B, G.711 a-law, G.711µ-law, G.726</td>
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<tr>
<td>Ports</td>
<td>Power, Internet, Phone 1, Phone 2</td>
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<td>Cabling Type</td>
<td>CAT 5 (RJ45) for Internet Port and RJ11 for Phone Ports</td>
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<tr>
<td>LEDs</td>
<td>Power, Internet, Phone 1, Phone 2</td>
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<tr>
<td>Maximum Ringer Load</td>
<td>5 REN</td>
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<tr>
<td>Ring Frequency</td>
<td>10-40 Hz</td>
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<td>FXS Port Impedance</td>
<td>Eight Configurable Settings Including North America 600 ohms, European CTR21</td>
</tr>
<tr>
<td>Ring Voltage</td>
<td>60-90 Vrms Configurable</td>
</tr>
<tr>
<td>Security Features</td>
<td>Password Protected Administration</td>
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</table>
### Phone Adapter with 2 Ports for Voice-over-IP

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>3.98&quot; x 3.98&quot; x 1.10&quot; (101 mm x 101 mm x 28 mm)</td>
</tr>
<tr>
<td>Unit Weight</td>
<td>3.53 oz. (0.10 kg)</td>
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<tr>
<td>Power</td>
<td>12 V DC, 1.0 A</td>
</tr>
<tr>
<td>Certifications</td>
<td>FCC, cUL, CE, ICES-003</td>
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<tr>
<td>Operating Temp.</td>
<td>41º<del>113ºF (5º</del>45ºC)</td>
</tr>
<tr>
<td>Storage Temp.</td>
<td>-13º<del>185ºF (-25º</del>85ºC)</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>10~90% Non-Condensing</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
Appendix E: Warranty Information

This Warranty is valid and may be processed only in the country of purchase. Contact your service provider if the warranty support issues are to be handled by them as per your service agreements.

Linksys warrants to You that, for a period of one year (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.

ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE WARRANTY PERIOD. ALL OTHER EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF NON-INFRINGEMENT, ARE DISCLAIMED. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to You. This warranty gives You specific legal rights, and You may also have other rights which vary by jurisdiction.

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.

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:

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

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.

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.

Industry Canada (Canada)

This device complies with Industry Canada ICES-003 rule.
Cet appareil est conforme à la norme NMB003 d'Industrie Canada.
IC Statement

Operation is subject to the following two conditions:
1. This device may not cause interference and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Règlement d’Industry Canada

Le fonctionnement est soumis aux conditions suivantes :
1. Ce périphérique ne doit pas causer d’interférences;
2. Ce périphérique doit accepter toutes les interférences reçues, y compris celles qui risquent d’entraîner un fonctionnement indésirable.

EC Declaration of Conformity (Europe)

In compliance with the EMC Directive 89/336/EEC, Low Voltage Directive 73/23/EEC, and Amendment Directive 93/68/EEC, this product meets the requirements of the following standards:
- EN55022 Emission
- EN55024 Immunity
- EN60950 Safety

This document contains important information for users with regards to the proper disposal and recycling of Linksys products. Consumers are required to comply with this notice for all electronic products bearing the following symbol:

English

Environmental Information for Customers in the European Union

European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.
Informace o ochraně životního prostředí pro zákazníky v zemích Evropské unie

Evropská směrnice 2002/96/ES zakazuje, aby zařízení označené tímto symbolem na produktu anebo na obalu bylo likvidováno s netříděným komunálním odpadem. Tento symbol udává, že daný produkt musí být likvidován odděleně od běžného komunálního odpadu. Odpovídáte za likvidaci tohoto produktu a dalších elektrických a elektronických zařízení prostřednictvím určených sběrných míst stanovených vládou nebo místními úřady. Správná likvidace a recyklace pomáhá předcházet potenciálním negativním dopadům na životní prostředí a lidské zdraví. Podrobnější informace o likvidaci starého vybavení si laskavě vyžádejte od místních úřadů, podniku zabývajícího se likvidací komunálních odpadů nebo obchodu, kde jste produkt zakoupili.

Dansk/Danish

Miljøinformation for kunder i EU

Deutsch/German

Umweltinformation für Kunden innerhalb der Europäischen Union


Eesti/Estonian

Keskonnnaalane informatsioon Euroopa Liidus asuvatele klientidele

Español/Spanish

Información medioambiental para clientes de la Unión Europea

La Directiva 2002/96/CE de la UE exige que los equipos que lleven este símbolo en el propio aparato y/o en su embalaje no deben eliminarse junto con otros residuos urbanos no seleccionados. El símbolo indica que el producto en cuestión debe separarse de los residuos domésticos convencionales con vistas a su eliminación. Es responsabilidad suya desechar este y cualesquiera otros aparatos eléctricos y electrónicos a través de los puntos de recogida que ponen a su disposición el gobierno y las autoridades locales. Al desechar y reciclar correctamente estos aparatos estará contribuyendo a evitar posibles consecuencias negativas para el medio ambiente y la salud de las personas. Si desea obtener información más detallada sobre la eliminación segura de su aparato usado, consulte a las autoridades locales, al servicio de recogida y eliminación de residuos de su zona o pregunte en la tienda donde adquirió el producto.
Phone Adapter with 2 Ports for Voice-over-IP

Appendix F: Regulatory Information

Ελληνικά/Greek

Στοιχεία περιβαλλοντικής προστασίας για πελάτες εντός της Ευρωπαϊκής Ένωσης

Η Κοινοτική Οδηγία 2002/96/EC απαιτεί ότι ο εξοπλισμός ο οποίος χρειάζεται αυτό το σύμβολο στο προϊόν καλή στη συσκευασία του δεν πρέπει να απορρίπτεται μαζί με τα μικτά κοινοτικά απορρίμματα. Το σύμβολο υποδεικνύει ότι αυτό το προϊόν θα πρέπει να απορρίπτεται χρησιμοποιώντας από τις συνήθεις συσκευασίες απορρίμματα. Είστε υπεύθυνος για την απόρριψη του παρόντος και άλλου ηλεκτρικού και ηλεκτρονικού εξοπλισμού μέσω των καθορισμένων εγκαταστάσεων συγκέντρωσης απορριμμάτων οι οποίες παρέχονται από την κράτους ή τις αρμόδιες τοπικές αρχές. Η επιστήμη απόρριψης και ανακύκλωσης συμβάλλει στην πρόληψη πιθανών αρνητικών συνέπειών για τον περιβάλλον και την υγεία. Για περισσότερες πληροφορίες σχετικά με την απόρριψή του παλιού σας εξοπλισμού, παρακαλούμε επικοινωνήστε με τις τοπικές αρχές, τις υπηρεσίες απόρριψης ή το κατάστημα από το οποίο αγοράσατε το προϊόν.

Français/French

Informations environnementales pour les clients de l’Union européenne

La directive européenne 2002/96/CE exige que l’équipement sur lequel est apposé ce symbole sur le produit et/ou son emballage ne soit pas jeté avec les autres ordures ménagères. Ce symbole indique que le produit doit être éliminé dans un circuit distinct de celui pour les déchets des ménages. Il est de votre responsabilité de jeter ce matériel ainsi que tout autre matériel électrique ou électronique par les moyens de collecte indiqués par le gouvernement et les pouvoirs publics des collectivités territoriales. L’élimination et le recyclage en bonne et due forme ont pour but de lutter contre l’impact néfaste potentiel de ce type de produits sur l’environnement et la santé publique. Pour plus d’informations sur le mode d’élimination de votre ancien équipement, veuillez prendre contact avec les pouvoirs publics locaux, le service de traitement des déchets, ou l’endroit où vous avez acheté le produit.
Informazioni relative all’ambiente per i clienti residenti nell’Unione Europea

La direttiva europea 2002/96/EC richiede che le apparecchiature contrassegnate con questo simbolo sul prodotto e/o sull'imballaggio non siano smaltite insieme ai rifiuti urbani non differenziati. Il simbolo indica che questo prodotto non deve essere smaltito insieme ai normali rifiuti domestici. È responsabilità del proprietario smaltire sia questi prodotti sia le altre apparecchiature elettriche ed elettroniche mediante le specifiche strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento ed il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l'ambiente e per la salute dell'essere umano. Per ricevere informazioni più dettagliate circa lo smaltimento delle vecchie apparecchiature in Vostro possesso, vi invitiamo a contattare gli enti pubblici di competenza, il servizio di smaltimento rifiuti o il negozio nel quale avete acquistato il prodotto.

Latviešu valoda/Latvian

Ekologiska informācija klientiem Eiropas Savienības jurisdikcijā

Lietuvių/Lithuanian

Aplinkosaugos informacija, skirta Europos Sąjungos vartotojams

Europos direktyva 2002/96/EC numato, kad įrangos, kuri ir (arba) kurios pakuotė yra pažymėta šiuo simboliu, negalima šalinti kartu su nerūšiutomis
komunalinėmis atliekomis. Šis simbolis rodo, kad gaminį reikia šalinti atskirai nuo bendro buitinio atliekų sąrašo. Jūs privalote užtikrinti, kad ši ir kita elektros ar
elektroninė įranga būtų šalinama per tam tikras nacionalinės ar vietinės valdžios
nustatytas atliekų rinkimo sistemas. Tinkamai šalinant ir perdirbant atliekas, bus
išvengta galimos žalos aplinkai ir žmonių sveikatai. Daugiau informacijos apie
jūsų senos įrangos šalinimą gali pateikti vietinės valdžios institucijos, atliekų
šalinimo tarnybos arba pardavėjas, kuriose įsigijote tą gaminį.

Malti/Maltese

InformazzjoniAmbjentali ġhal Klijenti fl-Unjoni Ewropea

Id-Direttiva Ewropea 2002/96/KE titlob li t-taghmir li jkun fih is-simbolu fuq il-
prodott u/jew fuq l-ippakkjar ma jistax jintrema ma’ skart municipali ma’ giex
isseparat. Is-simbolu jindika li dan il-prodott ghandu jintrema separatament minn
ma’ l-iskart domestiku regolari. Hija responsabbiltà tieghek li tammid dan il-taghmir
u kull taghmir iehor ta’ l-elettriku u elettroniku permezz ta’ facilitajiet ta’ gibr
appuntati apposta mill-gvern jew mill-awtoritajiet lokali. Ir-rimi b’mod korrett u r-
ricklazz jghin jipprevjeni konsegwenzi negattivi potenziwal ghall-ambjent u ghas-
sahha tal-bniedem. Ġhal aktar informazzjoni dettaljata dwar ir-rimi tat-taghmir
antik tieghek, jekk jogħġbok ikkunattja lil-iawtoritajiet lokali tieghek, is-servizzi
ghar-rimi ta’ l-iskart, jew il-hanut minn fejn xtrajt il-prodott.
Magyar/Hungarian

Környezetvédelmi információ az európai uniós vásárlók számára

A 2002/96/EC számú európai uniós irányelv megkívánja, hogy azokat a termékeket, amelyeken, és/vagy amelyek csomagolásán az alábbi címke megjelenik, titkos a többi szelektálatlan lakossági hulladékkal együtt kidobni. A címke azt jelöli, hogy az adott termék kidobásakor a szokványos háztartási hulladékelszállítási rendszerekből elkülönített eljárást kell alkalmazni. Az Ön felelőssége, hogy ezt, és más elektromos és elektronikus berendezéseit a komáromzati vagy a helyi hatóságok által kijelölt gyűjtőrendszerben keresszük számla fel. A megfelelő hulladékfeldolgozás segít a környezetre és az emberi egészségre potenciálisan ártalmás negatív hatások megelőzésében. Ha elavult berendezéseinél felszámolásához további részletes információra van szüksége, kérjük, lépjen kapcsolatba a helyi hatóságokkal, a hulladékfeldolgozási szolgálatok, vagy azzal üzlettel, ahol a terméket vásárolta.

Nederlands/Dutch

Milieu-informatie voor klanten in de Europese Unie

De Europese Richtlijn 2002/96/EC schrijft voor dat apparatuur die is voorzien van dit symbool op het product of de verpakking, niet mag worden ingezameld met niet-gescheiden huishoudelijk afval. Dit symbool geeft aan dat het product apart moet worden ingezameld. U bent zelf verantwoordelijk voor de vernietiging van deze en andere elektrische en elektronische apparatuur via de daarvoor door de landelijke of plaatselijke overheid aangewezen inzamelingskanalen. De juiste vernietiging en recycling van deze apparatuur voorkomt mogelijke negatieve gevolgen voor het milieu en de gezondheid. Voor meer informatie over het vernietigen van uw oude apparatuur neemt u contact op met de plaatselijke autoriteiten of afvalverwerkingsdienst, of met de winkel waar u het product hebt aangeschaft.

Appendix F: Regulatory Information
Norsk/Norwegian

Miljøinformasjon for kunder i EU


Polski/Polish

Informacja dla klientów w Unii Europejskiej o przepisach dotyczących ochrony środowiska

Dyrektwa Europejska 2002/96/EC wymaga, aby sprzęt oznaczony symbolem znajdującym się na produkcie i lub jego opakowaniu nie był wyrzucaany razem z innymi niesortowanymi odpadami komunalnymi. Symbol ten wskazuje, że produkt nie powinien być usuwany razem ze zwykłymi odpadami z gospodarstw domowych. Na Państwu spoczywa obowiązek wyrzucania tego i innych urządzeń elektrycznych oraz elektronicznych w punktach odbioru wyznaczonych przez władze krajowe lub lokalne. Pozbywanie się sprzętu we właściwy sposób i jego recykling pomogą zapobiec potencjalnie negatywnym konsekwencjom dla środowiska i zdrowia ludzkiego. W celu uzyskania szczegółowych informacji o usuwaniu starego sprzętu, prosimy zwrócić się do lokalnych władz, służb oczyszczania miasta lub sklepu, w którym produkt został nabyty.
Português/Portuguese

Informação ambiental para clientes da União Europeia

A Directiva Europeia 2002/96/CE exige que o equipamento que exibe este símbolo no produto e/ou na sua embalagem não seja eliminado junto com os resíduos municipais não separados. O símbolo indica que este produto deve ser eliminado separadamente dos resíduos domésticos regulares. É da sua responsabilidade eliminar este e qualquer outro equipamento eléctrico e electrónico através dos instalações de recolha designadas pelas autoridades governamentais ou locais. A eliminação e reciclagem correctas ajudarão a prevenir as conseqüências negativas para o ambiente e para a saúde humana. Para obter informações mais detalhadas sobre a forma de eliminar o seu equipamento antigo, contacte as autoridades locais, os serviços de eliminação de resíduos ou o estabelecimento comercial onde adquiriu o produto.

Slovenčina/Slovak

Informácie o ochrane životného prostredia pre zákazníkov v Európskej únii

Podľa európskej smernice 2002/96/ES zariadenie s týmto symbolom na produkte a/alebo jeho balení nesmie byť likvidované spolu s netriedeným komunálnym odpadom. Symbol znamená, že produkt by sa mal likvidovať oddelene od bežného odpadu z domácností. Je vašou povinnosťou likvidovať toto i ostatné elektrické a elektronické zariadenia prostredníctvom špecializovaných zberňich zariadení určených vládou alebo miestnymi orgánmi. Správna likvidácia a recyklácia pomôže zabrániť pripadným negatývnym dopadom na životné prostredie a zdravie ľudí. Ak máte záujem o podrobnejšie informácie o likvidácii starého zariadenia, obráťte sa, prosím, na miestne orgány, organizácie zaobierajúce sa likvidáciou odpadov alebo obchod, v ktorom ste si produkt zakúpili.
Slovenčina/Slovene

Okoljske informacije za stranke v Evropski uniji


Suomi/Finnish

Ympäristöä koskevia tietoja EU-alueen asiakkaille

Svenska/Swedish

Miljöinformation för kunder i Europeiska unionen


For more information, visit www.linksys.com.
Appendix G: Contact Information

Vonage

Need to contact Vonage?
Visit the Vonage website at:
http://www.vonage.com/help (US)
http://www.vonage.ca/help (Canada)

Linksys

Need to contact Linksys?
Visit the Linksys website at:
http://www.linksys.com (US and Canada)