

## Setting Up the Adapter with SecureEasySetup

With SecureEasySetup, setting up the Adapter is as simple as pushing a couple of buttons. Before you press any buttons, though, you should locate the SecureEasySetup button on the device you're connecting the Adapter to, such as a wireless router or access point.

- Starting from the *Available Wireless Network* screen, click the **SecureEasySetup** button on the right hand side.

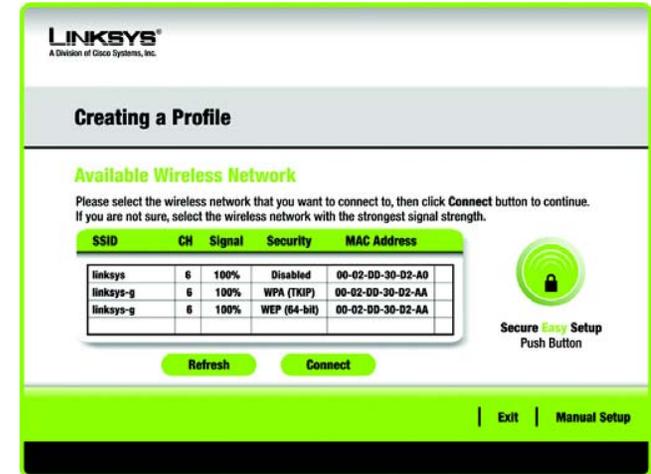


Figure 5-18: Available Wireless Network

- You will be asked to locate the **SecureEasySetup** button on the device with which the Adapter will be communicating. If you are not sure where to find this button, click **Where can I find the button?**

This will walk you through a couple of screens to help you find the button, which is usually located on the front of the wireless router or access point.

If you've clicked the button by accident or do not wish to use SecureEasySetup, you can click **Cancel** to return to the previous screen.



Figure 5-19: The SecureEasySetup Logo and Location

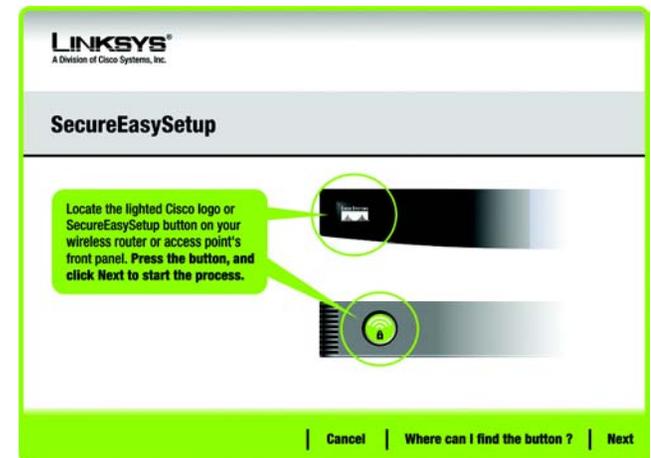


Figure 5-20: SecureEasySetup

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6. Press the Cisco logo or SecureEasySetup button on the wireless router or access point. When it turns white and begins to flash, click the **Next** button on the Setup Wizard screen. The logo or button will stop flashing on the wireless router or access point when the Adapter has been successfully added to the network. Repeat this procedure for any additional SecureEasySetup device.



**NOTE:** You can only add one SecureEasySetup device at a time.

7. SecureEasySetup is now complete and a configuration profile will have been created automatically. You may save your configuration profile to a text file by clicking the **Save** button, or print the configuration by clicking the **Print** button. Click **Connect to Network** to connect to your network.

**Congratulations! SecureEasySetup is complete.**



**Figure 5-21: SecureEasySetup Complete**

## Setting Up the Adapter with Available Networks

If you're not setting up the Adapter with SecureEasySetup, another method for setting up the Adapter is with the available networks listed on the *Available Wireless Network* screen. The available networks are listed in the table on the center of the screen by SSID. Select the wireless network you wish to connect to and click the **Connect** button. (If you do not see your network listed, you can click the **Refresh** button to bring the list up again.) If the network utilizes wireless security, you will need to configure security on the Adapter. If not, you will be taken directly to the *Congratulations* screen.

1. If wireless security has been enabled on this network, you will see a wireless security screen. If your network utilizes WEP (Wired Equivalent Privacy) encryption, the *WEP Key Needed for Connection* screen will appear. If your network utilizes WPA-Personal (Wi-Fi Protected Access) encryption, the *WPA-Personal Needed for Connection* screen will appear. If your network utilizes PSK2 (Pre-Shared Key 2) encryption, the *PSK2 Needed for Connection* screen will appear.

### WEP Key Needed for Connection

Select **64-bit** or **128-bit**.

Then, enter a passphrase or WEP key.

**Passphrase** - Enter a passphrase in the *Passphrase* field, so a WEP key is automatically generated. The passphrase is case-sensitive and should not be longer than 16 alphanumeric characters. It must match the passphrase of your other wireless network devices and is compatible with Linksys wireless products only. (If you have any non-Linksys wireless products, enter the WEP key manually on those products.)

**WEP Key** - The WEP key you enter must match the WEP key of your wireless network. For 64-bit encryption, enter exactly 10 hexadecimal characters. For 128-bit encryption, enter exactly 26 hexadecimal characters. Valid hexadecimal characters are "0" to "9" and "A" to "F".

Then, click **Connect** and proceed to the *Congratulations* screen. To cancel the connection, click **Cancel**.

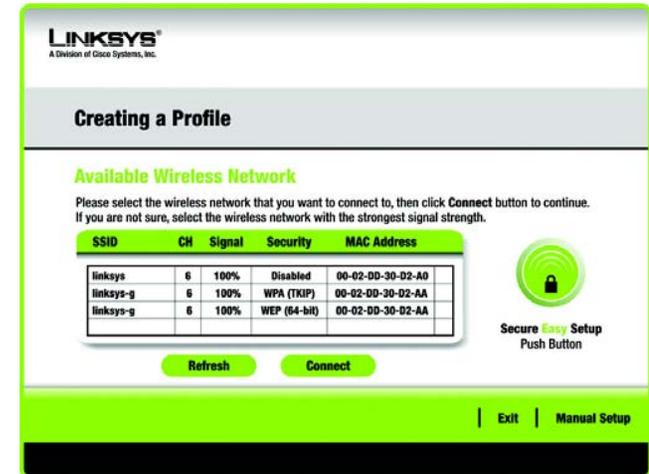


Figure 5-22: Available Wireless Network

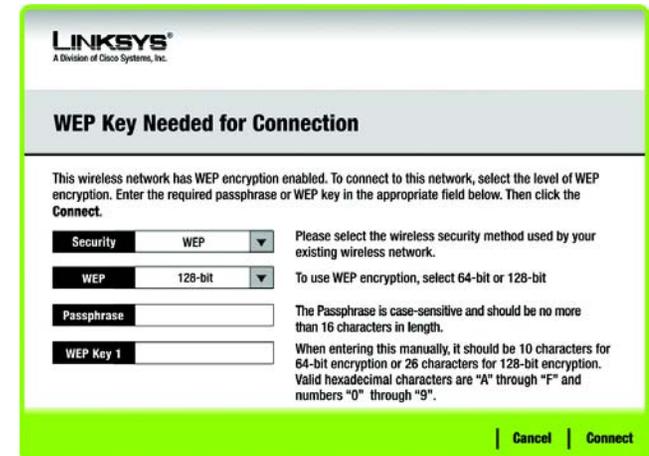


Figure 5-23: WEP Key Needed for Connection

### WPA-Personal Needed for Connection

**Encryption** - Select the type of algorithm you want to use, **TKIP** or **AES**, from the *Encryption* drop-down menu.

**Passphrase** - Enter a Passphrase, also called a pre-shared key, of 8-63 characters in the *Passphrase* field.

Then, click **Connect** and proceed to the *Congratulations* screen. To cancel the connection, click **Cancel**.

### PSK2 Needed for Connection

**Passphrase** - Enter a Passphrase, also called a pre-shared key, of 8-63 characters in the *Passphrase* field. The longer and more complex your Passphrase is, the more secure your network will be.

Then, click **Connect** and proceed to the *Congratulations* screen. To cancel the connection, click **Cancel**.

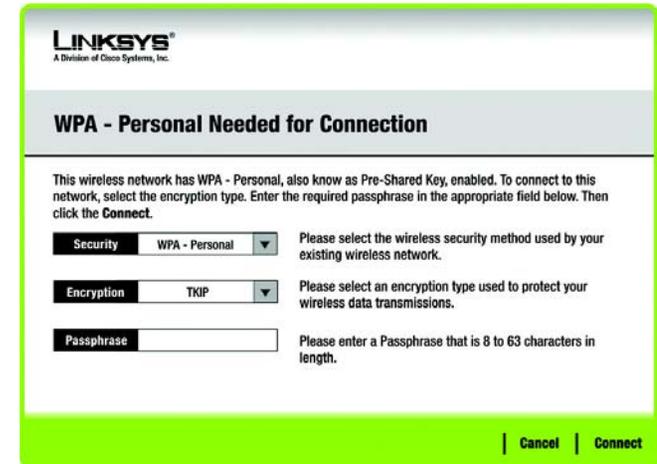


Figure 5-24: WPA-Personal Needed for Connection

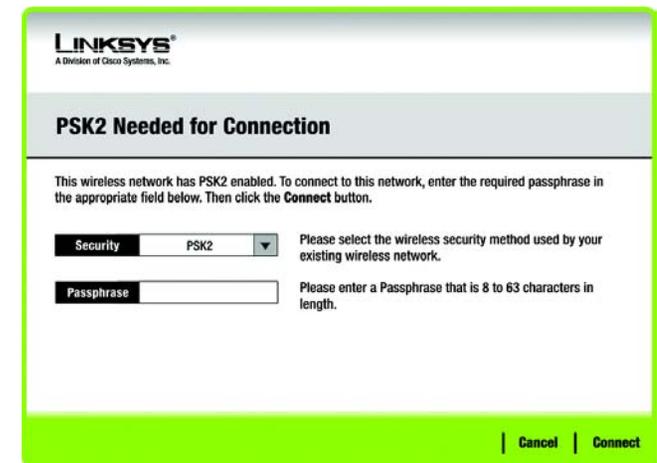


Figure 5-25: PSK2 Needed for Connection

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2. After the software has been successfully installed, the *Congratulations* screen will appear. Click **Connect to Network** to connect to your network.

**Congratulations! Setup is complete.**



Figure 5-26: The Congratulations Screen

## Setting Up the Adapter with Manual Setup

If you are not taking advantage of SecureEasySetup and your network is not listed among the available networks, click **Manual Setup** on the *Available Wireless Network* screen to set up the adapter manually.

1. After clicking **Manual Setup**, the *Network Settings* screen will appear. If your network has a router or other DHCP server, click the radio button next to **Obtain network settings automatically (DHCP)**.

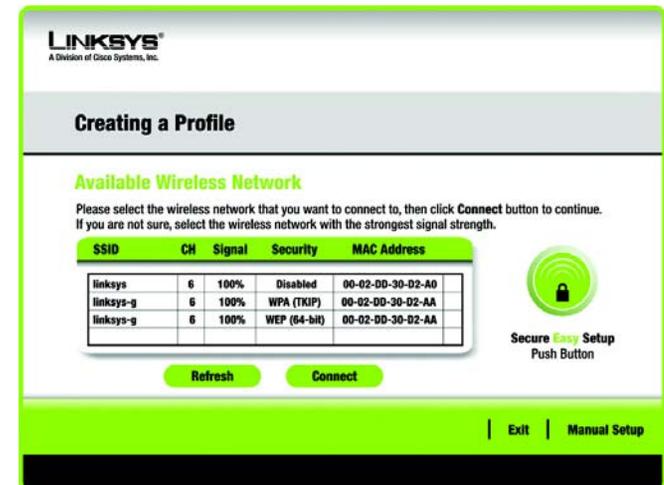


Figure 5-27: Available Wireless Network

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If your network does not have a DHCP server, click the radio button next to **Specify network settings**. Enter an IP Address, Subnet Mask, Default Gateway, and DNS addresses appropriate for your network. You must specify the IP Address and Subnet Mask on this screen. If you are unsure about the Default Gateway and DNS addresses, leave these fields empty.

**IP Address** - This IP Address must be unique to your network.

**Subnet Mask** - The Adapter's Subnet Mask must be the same as your wired network's Subnet Mask.

**Default Gateway** - Enter the IP address of your network's Gateway here.

**DNS 1** and **DNS 2** - Enter the DNS address of your wired Ethernet network here.

Click **Next** to continue, or click **Back** to return to the *Available Wireless Network* screen.

The screenshot shows the 'Creating a Profile' screen for Network Settings. At the top, the Linksys logo is visible. The title 'Creating a Profile' is centered. Below it, the section 'Network Settings' is highlighted. There are two radio button options: 'Obtain network settings automatically (DHCP)' which is selected, and 'Specify network settings'. Below these are input fields for IP Address, Subnet Mask, Default Gateway, DNS 1, and DNS 2. At the bottom right, there are 'Back' and 'Next' buttons.

Figure 5-28: Network Settings

- The *Wireless Mode* screen shows a choice of two wireless modes. Click the **Infrastructure Mode** radio button if you want to connect to a wireless router or access point. Click the **Ad-Hoc Mode** radio button if you want to connect to another wireless device directly without using a wireless router or access point. Then, enter the SSID for your network.

**Infrastructure Mode** - Use this mode if you want to connect to a wireless router or access point.

**Ad-Hoc Mode** - Use this mode if you want to connect to another wireless device directly without using a wireless router or access point.

**SSID** - This is the wireless network name that must be used for all the devices in your wireless network. It is case-sensitive and should be a unique name to help prevent others from entering your network.

Click **Next** to continue or **Back** to return to the previous screen.

The screenshot shows the 'Creating a Profile' screen for Wireless Mode. At the top, the Linksys logo is visible. The title 'Creating a Profile' is centered. Below it, the section 'Wireless Mode' is highlighted. There is a heading 'Please choose the Wireless Mode that best suits your needs.' followed by two radio button options: 'Infrastructure Mode' which is selected, and 'Ad-Hoc Mode'. Below these is an input field for SSID with the value 'linksys'. A note explains that the SSID is case-sensitive. At the bottom right, there are 'Back' and 'Next' buttons.

Figure 5-29: Wireless Mode

3. If you chose **Infrastructure Mode**, go to Step 4 now. If you chose **Ad-Hoc Mode**, the *Ad-Hoc Mode Settings* screen will appear.

Select the correct **Channel** for your wireless network. The channel you choose should match the channel set on the other devices in your wireless network. If you are unsure about which channel to use, keep the default setting.

Then, select the **Network Mode** in which your wireless network will operate. In **Mixed Mode**, Wireless-B and Wireless-G devices can both operate on the network, though at a slower speed. In **G-Only Mode**, no Wireless-B devices can operate in the network.

Click **Next** to continue or click **Back** to change any settings.

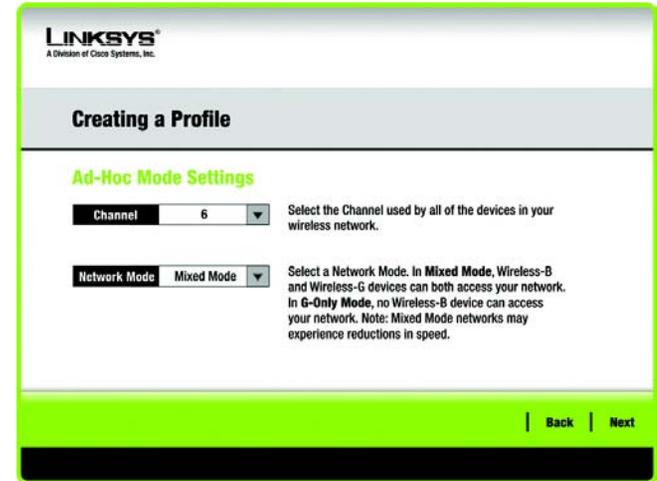


Figure 5-30: Ad-Hoc Mode Settings

4. The *Wireless Security* screen will appear. This step will configure wireless security.

If your wireless network doesn't use wireless security, select **Disabled** and then click the **Next** button to continue. Proceed to Step 6.

Select **WEP**, **WPA-Personal**, **PSK2**, **WPA Enterprise**, **Radius**, or **LEAP** for the Encryption Method. WEP stands for Wired Equivalent Privacy, WPA stands for Wi-Fi Protected Access, which is a security standard stronger than WEP encryption, PSK2 stands for Pre-Shared Key 2, which is a security standard stronger than WPA-Personal, RADIUS stands for Remote Authentication Dial-In User Service, and LEAP stands for Lightweight Extensible Authentication Protocol. If you don't want to use encryption, select **Disabled**.



Figure 5-31: Wireless Security

## WEP

**WEP** - To use WEP encryption, select 64-bits or 128-bit characters from the drop-down menu, and enter a passphrase or key.

**WEP Key** - The WEP key you enter must match the WEP key of your wireless network. If you are using 64-bit WEP encryption, then the key must consist of exactly 10 hexadecimal characters. If you are using 128-bit WEP encryption, then the key must consist of exactly 26 hexadecimal characters. Valid hexadecimal characters are “0” to “9” and “A” to “F”.

**Passphrase** - Instead of manually entering a WEP key, you can enter a passphrase in the Passphrase field, so a WEP key is automatically generated. This case-sensitive passphrase must match the passphrase of your other wireless network devices and is compatible with Linksys wireless products only. (If you have any non-Linksys wireless products, enter the WEP key manually on those products.)

**TX Key** - The default transmit key number is 1. If your network’s access point or wireless router uses transmit key number 2, 3, or 4, select the appropriate number from the *TX Key* drop-down box.

**Authentication** -The default is set to **Auto**, where it auto-detects for **Shared Key** or **Open** system. Shared Key is when both the sender and the recipient share a WEP key for authentication. Open key is when the sender and the recipient do not share a WEP key for authentication. All points on your network must use the same authentication type.

Click the **Next** button to continue to the *Confirm New Settings* screen or the **Back** button to return to the previous screen.

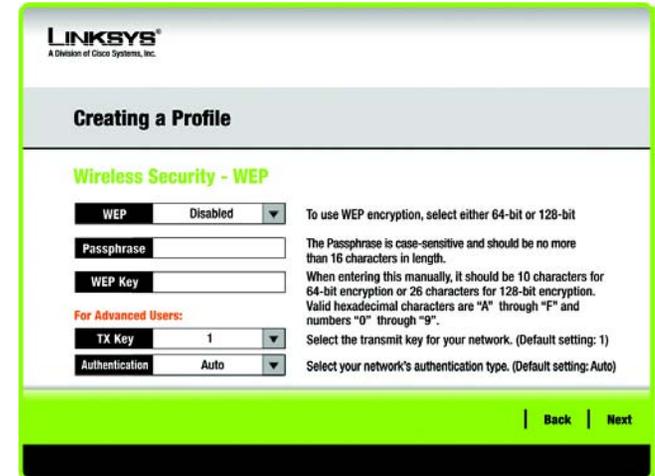


Figure 5-32: Wireless Security - WEP

## WPA Personal

WPA Personal offers two encryption methods, *TKIP* and *AES*, with dynamic encryption keys.

Select the type of algorithm, **TKIP** or **AES**, for the *Encryption Type*. Enter a Passphrase of 8-63 characters in the *Passphrase* field.

Click the **Next** button to continue to the *Confirm New Settings* screen or the **Back** button to return to the previous screen.

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A Division of Cisco Systems, Inc.

### Creating a Profile

#### Wireless Security - WPA Personal

Encryption  Please select the encryption type used to protect your wireless data transmissions.

Passphrase  Please enter a Passphrase that is 8 to 63 characters in length.

| Back | Next

Figure 5-33: Wireless Security - WPA Personal

## PSK2

Enter a Passphrase of 8-63 characters in the *Passphrase* field.

Click the **Next** button to continue to the *Confirm New Settings* screen or the **Back** button to return to the previous screen.

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A Division of Cisco Systems, Inc.

### Creating a Profile

#### Wireless Security - PSK2

Passphrase  Please enter a Passphrase that is 8 to 63 characters in length.

| Back | Next

Figure 5-34: Wireless Security - PSK2

## WPA Enterprise

WPA Enterprise features WPA security used in coordination with a RADIUS server. (This should only be used when a RADIUS server is connected to the Router.) WPA Enterprise offers two authentication methods, EAP-TLS and PEAP, as well as two encryption methods, TKIP and AES, with dynamic encryption keys.

**Authentication** - Select the authentication method your network is using, **EAP-TLS** or **PEAP**.

### EAP-TLS

If you selected EAP-TLS, enter the login name of your wireless network in the *Login Name* field. Enter the name of the authentication server in the *Server Name* field (this is optional). From the *Certificate* drop-down menu, select the certificate you have installed to authenticate you on your wireless network. Select the type of encryption, **TKIP** or **AES**, from the *Encryption* drop-down menu.

Click the **Next** button to continue or the **Back** button to return to the previous screen.

### PEAP

If you selected PEAP, enter the login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field. Enter the name of the authentication server in the *Server Name* field (this is optional). From the *Certificate* drop-down menu, select the certificate you have installed to authenticate you on your wireless network; if you want to use any certificate, keep the default setting, **Trust Any**. Then select the authentication method (Inner Authen.) used inside the PEAP tunnel. Then, select the type of encryption, **TKIP** or **AES**, from the *Encryption* drop-down menu.

Click the **Next** button to continue or the **Back** button to return to the previous screen.

The screenshot shows the 'Creating a Profile' page for 'Wireless Security - WPA Enterprise'. The 'Authentication' dropdown is set to 'EAP-TLS'. The 'Login Name' and 'Server Name' fields are empty. The 'Certificate' dropdown is set to a default value. The 'Encryption' dropdown is set to 'AES'. Instructions on the right side of the form explain the purpose of each field. At the bottom right, there are 'Back' and 'Next' buttons.

Figure 5-35: Wireless Security - WPA Enterprise - EAP-TLS

The screenshot shows the 'Creating a Profile' page for 'Wireless Security - WPA Enterprise'. The 'Authentication' dropdown is set to 'PEAP'. The 'Login Name' and 'Password' fields are empty. The 'Server Name' field is empty. The 'Certificate' dropdown is set to 'Trust Any'. The 'Inner Authen.' dropdown is set to 'EAP-MSCHAP v2'. The 'Encryption' dropdown is set to 'AES'. Instructions on the right side of the form explain the purpose of each field. At the bottom right, there are 'Back' and 'Next' buttons.

Figure 5-36: Wireless Security - WPA Enterprise - PEAP

## RADIUS

RADIUS uses the security of a RADIUS server. (This should only be used when a RADIUS server is connected to the Router.) It offers two authentication methods: EAP-TLS and PEAP.

**Authentication** - Select the authentication method your network is using, **EAP-TLS** or **PEAP**.

### EAP-TLS

If you selected EAP-TLS, enter the login name of your wireless network in the *Login Name* field. Enter the name of the authentication server in the *Server Name* field (this is optional). From the *Certificate* drop-down menu, select the certificate you have installed to authenticate you on your wireless network.

### PEAP

If you selected PEAP, enter the login name of your wireless network in the *Login Name* field. Enter the password of your wireless network in the *Password* field. Enter the name of the authentication server in the *Server Name* field (this is optional). From the *Certificate* drop-down menu, select the certificate you have installed to authenticate you on your wireless network; if you want to use any certificate, keep the default setting, **Trust Any**. Then select the authentication method (Inner Authen.) used inside the PEAP tunnel.

Click the **Next** button to continue to the *Confirm New Settings* screen or the **Back** button to return to the previous screen.

The screenshot shows the 'Creating a Profile' screen for 'Wireless Security - RADIUS'. The 'Authentication' dropdown is set to 'EAP-TLS'. The 'Login Name' field is empty. The 'Server Name' field is empty. The 'Certificate' dropdown is empty. The 'Back' and 'Next' buttons are visible at the bottom right.

Figure 5-37: Wireless Security - RADIUS - EAP-TLS

The screenshot shows the 'Creating a Profile' screen for 'Wireless Security - RADIUS'. The 'Authentication' dropdown is set to 'PEAP'. The 'Login Name' field is empty. The 'Password' field is empty. The 'Server Name' field is empty. The 'Certificate' dropdown is set to 'Trust Any'. The 'Inner Authen.' dropdown is set to 'EAP-MSCHAP v2'. The 'Back' and 'Next' buttons are visible at the bottom right.

Figure 5-38: Wireless Security - RADIUS - PEAP

## LEAP

If you selected LEAP, then enter the Username and Password that will authenticate you on your wireless network. Select the *Login Method*, and if selecting Manual for your login, enter a Username and Password. Then, enter the password again to confirm it.

**Login Method** - Select from **Windows Login** (your usual Windows password) or **Manual** (password entered below).

**Username** - Enter a username used for authentication.

**Password** - Enter a password used for authentication.

**Confirm** - Enter the password again.

Click the **Next** button to continue, or click the **Back** button to return to the previous screen.

The screenshot shows the Linksys web interface for creating a profile. At the top, it says 'LINKSYS A Division of Cisco Systems, Inc.' Below that is a header 'Creating a Profile'. The main content area is titled 'Wireless Security - LEAP'. It contains a 'Login Method' dropdown menu with 'Windows Login' selected. To the right of the dropdown is the text 'Select the login method you want to use.' Below the dropdown are three input fields: 'User Name', 'Password', and 'Confirm'. To the right of each field is a label: 'Enter the User Name used for authentication.', 'Enter the Password used for authentication.', and 'Re-enter the Password again.' At the bottom right of the form area, there are two buttons: 'Back' and 'Next'. The 'Next' button is highlighted in red.

Figure 5-39: LEAP

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- The next screen displays all of the Adapter's settings. If these are correct, you can save these settings to your hard drive by clicking **Save**. Click **Next** to continue. If these settings are not correct, click **Back** to change your settings.



Figure 5-40: Confirm New Settings

- After the software has been successfully installed, the *Congratulations* screen will appear. Click **Connect to Network** to connect to your network. Clicking **Return to Profile** will open the Wireless Network Monitor's *Profiles* screen.

**Congratulations! Setup is complete.**



Figure 5-41: The Congratulations Screen

# Appendix A: Troubleshooting

This appendix provides solutions to problems usually encountered during the installation and operation of the Adapter. Read the description below to solve your problems. If you can't find an answer here, check the Linksys website at [www.linksys.com](http://www.linksys.com).

## Common Problems and Solutions

### ***1. My computer does not recognize the USB Adapter.***

- Make sure that the USB Adapter is properly inserted into the USB port.
- Also, make sure that the USB Controller is enabled in the BIOS. Check with your motherboard User Guide for more information.

### ***2. The USB Adapter does not work properly.***

- Reinsert the USB Adapter into the notebook or desktop's USB port.
- Right-click on My Computer, and select Properties. Select the Adapter, then chose the Device Manager tab, and click on the Adapter. You will find the USB Adapter if it is installed successfully. If you see a yellow exclamation mark, the resources may be conflicting and you must follow the steps below:
  - Uninstall the driver software from your PC.
  - Restart your PC and repeat the hardware and software installation as specified in this User Guide.

### ***3. I cannot communicate with the other computers linked via Ethernet in the Infrastructure configuration.***

- Make sure that the notebook or desktop is powered on.
- Make sure that your USB Adapter is configured on the same channel, SSID, and WEP as the other computers in the Infrastructure configuration.

## Frequently Asked Questions

### ***Can I run an application from a remote computer over the wireless network?***

This will depend on whether or not the application is designed to be used over a network. Consult the application's user guide to determine if it supports operation over a network.

### ***Can I play computer games with other members of the wireless network?***

Yes, as long as the game supports multiple players over a LAN (local area network). Refer to the game's user guide for more information.

### ***What is the IEEE 802.11b standard?***

It is one of the IEEE standards for wireless networks. The 802.11b standard allows wireless networking hardware from different manufacturers to communicate, provided that the hardware complies with the 802.11b standard. The 802.11b standard states a maximum data transfer rate of 11Mbps and an operating frequency of 2.4GHz.

### ***What is the IEEE 802.11g standard?***

It is one of the IEEE standards for wireless networks. The 802.11g standard allows wireless networking hardware from different manufacturers to communicate, provided that the hardware complies with the 802.11g standard. The 802.11g standard states a maximum data transfer rate of 54Mbps and an operating frequency of 2.4GHz.

### ***What IEEE 802.11b features are supported?***

The product supports the following IEEE 802.11b functions:

- CSMA/CA plus Acknowledge protocol
- Multi-Channel Roaming
- Automatic Rate Selection
- RTS/CTS feature
- Fragmentation
- Power Management

### ***What IEEE 802.11g features are supported?***

The product supports the following IEEE 802.11g functions:

- CSMA/CA plus Acknowledge protocol
- OFDM protocol
- Multi-Channel Roaming
- Automatic Rate Selection
- RTS/CTS feature
- Fragmentation
- Power Management

***What is ad-hoc mode?***

When a wireless network is set to ad-hoc mode, the wireless-equipped computers are configured to communicate directly with each other. The ad-hoc wireless network will not communicate with any wired network.

***What is infrastructure mode?***

When a wireless network is set to infrastructure mode, the wireless network is configured to communicate with a wired network through a wireless access point.

***What is roaming?***

Roaming is the ability of a PC to communicate continuously while moving freely throughout an area greater than that covered by a single access point. Before using the roaming function, the workstation must make sure that it is the same channel number with the access point of dedicated coverage area.

To achieve true seamless connectivity, the wireless LAN must incorporate a number of different functions. Each node and access point, for example, must always acknowledge receipt of each message. Each node must maintain contact with the wireless network even when not actually transmitting data. Achieving these functions simultaneously requires a dynamic RF networking technology that links access points and nodes. In such a system, the user's end node undertakes a search for the best possible access to the system. First, it evaluates such factors as signal strength and quality, as well as the message load currently being carried by each access point and the distance of each access point to the wired backbone. Based on that information, the node next selects the right access point and registers its address. Communications between end node and host computer can then be transmitted up and down the backbone.

As the user moves on, the end node's RF transmitter regularly checks the system to determine whether it is in touch with the original access point or whether it should seek a new one. When a node no longer receives acknowledgment from its original access point, it undertakes a new search. Upon finding a new access point, it then re-registers, and the communication process continues.

***What is ISM band?***

The FCC and their counterparts outside of the U.S. have set aside bandwidth for unlicensed use in the ISM (Industrial, Scientific and Medical) band. Spectrum in the vicinity of 2.4 GHz, in particular, is being made available worldwide. This presents a truly revolutionary opportunity to place convenient high-speed wireless capabilities in the hands of users around the globe.

***What is Spread Spectrum?***

Spread Spectrum technology is a wideband radio frequency technique developed by the military for use in reliable, secure, mission-critical communications systems. It is designed to trade off bandwidth efficiency for reliability, integrity, and security. In other words, more bandwidth is consumed than in the case of narrowband transmission, but the trade-off produces a signal that is, in effect, louder and thus easier to detect, provided that

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the receiver knows the parameters of the spread-spectrum signal being broadcast. If a receiver is not tuned to the right frequency, a spread-spectrum signal looks like background noise. There are two main alternatives, Direct Sequence Spread Spectrum (DSSS) and Frequency Hopping Spread Spectrum (FHSS).

### ***What is DSSS? What is FHSS? And what are their differences?***

Frequency-Hopping Spread-Spectrum (FHSS) uses a narrowband carrier that changes frequency in a pattern that is known to both transmitter and receiver. Properly synchronized, the net effect is to maintain a single logical channel. To an unintended receiver, FHSS appears to be short-duration impulse noise. Direct-Sequence Spread-Spectrum (DSSS) generates a redundant bit pattern for each bit to be transmitted. This bit pattern is called a chip (or chipping code). The longer the chip, the greater the probability that the original data can be recovered. Even if one or more bits in the chip are damaged during transmission, statistical techniques embedded in the radio can recover the original data without the need for retransmission. To an unintended receiver, DSSS appears as low power wideband noise and is rejected (ignored) by most narrowband receivers.

### ***Would the information be intercepted while transmitting on air?***

The Adapter features two-fold protection in security. On the hardware side, as with Direct Sequence Spread Spectrum technology, it has the inherent security feature of scrambling. On the software side, the Adapter offers the encryption function (WEP) to enhance security and access control.

### ***What is WEP?***

WEP is Wired Equivalent Privacy, a data privacy mechanism based on a 64-bit or 128-bit shared key algorithm, as described in the IEEE 802.11 standard.

# Appendix B: Using Windows XP Wireless Configuration

If your computer is running Windows XP, then this choice will be available. If you want to use Windows XP Wireless Configuration to control the Adapter, instead of using the Wireless Network Monitor, then right-click on the Wireless Network Monitor and select **Use Windows XP Wireless Configuration**.

If you want to switch back to the Wireless Network Monitor, right-click the **Wireless Network Monitor** icon, and select **Use Linksys Wireless Network Monitor**.

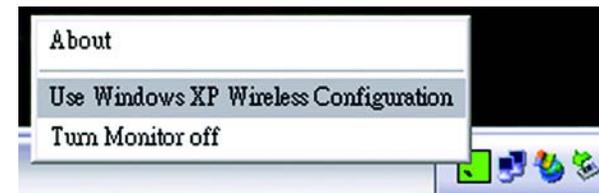
1. After installing the Adapter, the Windows XP Wireless Configuration icon will appear in your computer's system tray. Double-click the icon.



**NOTE:** For more information about Windows XP Wireless Configuration, refer to Windows Help.



**Figure B-1: Wireless Network Monitor Icon**



**Figure B-2: Windows XP - Use Windows XP Wireless Configuration**



**Figure B-3: Windows XP Wireless Configuration Icon**

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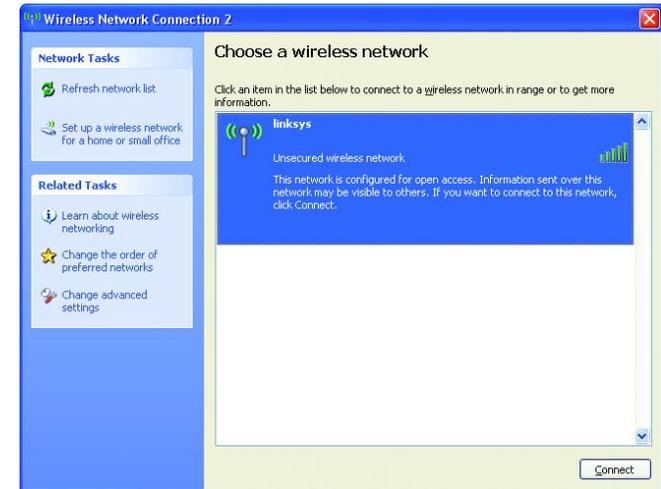
- The screen that appears will show any available wireless network. Select the network you want. Click the **Connect** button.

If your network does not have wireless security enabled, go to step 3.

If your network does have wireless security enabled, go to step 4.



**NOTE:** Steps 2 and 3 are the instructions and screenshots for Windows XP with Service Pack 2 installed.



**Figure B-4: Available Wireless Network**

- If your network does not have wireless security enabled, click the **Connect Anyway** button to connect the Adapter to your network.



**Figure B-5: No Wireless Security**

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4. If your network uses wireless security WEP, enter the WEP Key used into the *Network Key* and *Confirm network key* fields. If your network uses wireless security WPA Personal, enter the Passphrase used into the *Network Key* and *Confirm network key* fields. Click the **Connect** button.



**Figure B-6: Network Connection - Wireless Security**

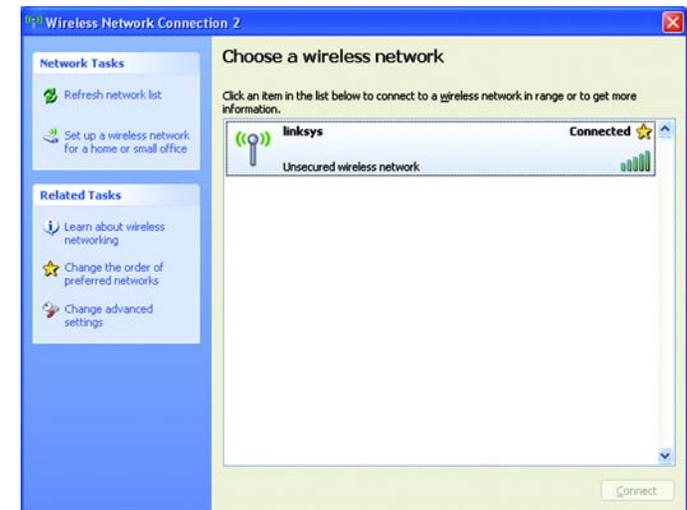


**NOTE:** Windows XP Wireless Configuration does not support the use of a passphrase. Enter the exact WEP key used by your wireless router or access point.

5. Your wireless network will appear as *Connected* when your connection is active.

For more information about wireless networking on a Windows XP computer, click the **Start** button, select **Help**, and choose **Support**. Enter the keyword wireless in the field provided, and press the **Enter** key.

**The installation of the Windows XP Wireless Configuration is complete.**



**Figure B-7: Wireless Network Connection**

# Appendix C: Wireless Security

Linksys wants to make wireless networking as safe and easy for you as possible. The current generation of Linksys products provide several network security features, but they require specific action on your part for implementation. So, keep the following in mind whenever you are setting up or using your wireless network.

## Security Precautions

The following is a complete list of security precautions to take (at least steps 1 through 5 should be followed):

1. Change the default SSID.
2. Disable SSID Broadcast.
3. Change the default password for the Administrator account.
4. Enable MAC Address Filtering.
5. Change the SSID periodically.
6. Use the highest encryption algorithm possible. Use WPA if it is available. Please note that this may reduce your network performance.
7. Change the WEP encryption keys periodically.



**Note:** Some of these security features are available only through the network router or access point. Refer to the router or access point's documentation for more information.

## Security Threats Facing Wireless Networks

Wireless networks are easy to find. Hackers know that in order to join a wireless network, wireless networking products first listen for “beacon messages”. These messages can be easily decrypted and contain much of the network’s information, such as the network’s SSID (Service Set Identifier). Here are the steps you can take:

**Change the administrator’s password regularly.** With every wireless networking device you use, keep in mind that network settings (SSID, WEP keys, etc.) are stored in its firmware. Your network administrator is the only person who can change network settings. If a hacker gets a hold of the administrator’s password, he, too, can change those settings. So, make it harder for a hacker to get that information. Change the administrator’s password regularly.

**SSID.** There are several things to keep in mind about the SSID:

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1. Disable Broadcast
2. Make it unique
3. Change it often

Most wireless networking devices will give you the option of broadcasting the SSID. While this option may be more convenient, it allows anyone to log into your wireless network. This includes hackers. So, don't broadcast the SSID.

Wireless networking products come with a default SSID set by the factory. (The Linksys default SSID is "linksys".) Hackers know these defaults and can check these against your network. Change your SSID to something unique and not something related to your company or the networking products you use.

Change your SSID regularly so that any hackers who have gained access to your wireless network will have to start from the beginning in trying to break in.

**MAC Addresses.** Enable MAC Address filtering. MAC Address filtering will allow you to provide access to only those wireless nodes with certain MAC Addresses. This makes it harder for a hacker to access your network with a random MAC Address.

**WEP Encryption.** Wired Equivalent Privacy (WEP) is often looked upon as a cure-all for wireless security concerns. This is overstating WEP's ability. Again, this can only provide enough security to make a hacker's job more difficult.

There are several ways that WEP can be maximized:

1. Use the highest level of encryption possible
2. Use "Shared Key" authentication
3. Change your WEP key regularly

**WPA.** Wi-Fi Protected Access (WPA) is the newest and best available standard in Wi-Fi security. Two modes are available: WPA-Personal and WPA-Enterprise. WPA-Personal gives you a choice of two encryption methods: TKIP (Temporal Key Integrity Protocol), which utilizes a stronger encryption method and incorporates Message Integrity Code (MIC) to provide protection against hackers, and AES (Advanced Encryption Standard), which utilizes a symmetric 128-Bit block data encryption. WPA-Enterprise offers two encryption methods, TKIP and AES, with dynamic encryption keys, and it uses a RADIUS (Remote Authentication Dial-In User Service) server for authentication.



**Important:** Always remember that each device in your wireless network **MUST** use the same encryption method and encryption key or your wireless network will not function properly.

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**WPA-Personal.** If you do not have a RADIUS server, select the type of algorithm you want to use, **TKIP** or **AES**, and enter a password in the *Passphrase* field of 8-63 characters.

**WPA-Enterprise.** WPA used in coordination with a RADIUS server. (This should only be used when a RADIUS server is connected to the Router or other device.) WPA-Enterprise offers two encryption methods, TKIP and AES, with dynamic encryption keys.

Implementing encryption may have a negative impact on your network's performance, but if you are transmitting sensitive data over your network, encryption should be used.

These security recommendations should help keep your mind at ease while you are enjoying the most flexible and convenient technology Linksys has to offer.

# Appendix D: Windows Help

All wireless 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 the Access Point, 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.

# Appendix E: 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.

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

**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.

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

**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](http://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.

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**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.

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

**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.

**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.

**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.

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**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.

**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.

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

**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.

**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.

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

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**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.

**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.

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

**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.

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**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.

**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.

**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 F: Warranty Information

## LIMITED WARRANTY

Linksys warrants to the original end user purchaser ("You") that, for a period of three years, (the "Warranty Period") Your Linksys product will be free of defects in materials and workmanship under normal use. Your exclusive remedy and Linksys's 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.

If the product proves defective during the Warranty Period call Linksys Technical Support in order to obtain a Return Authorization Number. BE SURE TO HAVE YOUR PROOF OF PURCHASE ON HAND WHEN CALLING. When returning a product, mark the Return Authorization Number clearly on the outside of the package and include a copy of your original proof of purchase. 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.

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, HOWEVER CAUSED REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT, 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 Section 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 USA.

# Appendix G: Specifications

<b>Model</b>	<b>WUSB54GC</b>
<b>Standards</b>	<b>IEEE 802.11b, 802.11g, USB 1.1, USB 2.0</b>
<b>Channels</b>	<b>802.11b / 802.11g 11 Channels (US, Canada) 13 Channels (Europe)</b>
<b>LEDs</b>	<b>Link</b>
<b>Protocols</b>	<b>802.11b: CCK (11 Mbps), DQPSK (2 Mbps), DBPSK (1 Mbps); 802.11g: OFDM</b>
<b>Transmitted Power</b>	<b>802.11g: 13 ± 1 dBm (Typical) 802.11b: 17 ± 1 dBm (Typical)</b>
<b>Receive Sensitivity</b>	<b>11Mbps @ -80dBm (Typical) 54Mbps @ -65dBm (Typical)</b>
<b>Security features</b>	<b>WEP Encryption, WPA</b>
<b>WEP key bits</b>	<b>64, 128-bit</b>
<b>Dimensions W x H x D</b>	<b>3.86" x 0.43" x 1.10" 91 mm x 11 mm x 28 mm</b>
<b>Unit Weight</b>	<b>0.05 lb (0.023 kg)</b>
<b>Certifications</b>	<b>FCC, Wi-Fi</b>
<b>Operating Temp.</b>	<b>0°C ~ 45°C (32°F ~ 113°F)</b>

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<b>Storage Temp.</b>	<b>-20°C ~ 60°C (-4°F ~ 140°F)</b>
<b>Operating Humidity</b>	<b>10% ~ 85% Non-Condensing</b>
<b>Storage Humidity</b>	<b>5% ~ 90% Non-Condensing</b>

# Appendix H: 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

## 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 Canadian ICES-003 and RSS210 rules.

Cet appareil est conforme aux normes NMB-003 et RSS210 d'Industry Canada.

## Compact Wireless-G USB Adapter

### User Information for Consumer Products Covered by EU Directive 2002/96/EC on Waste Electric and Electronic Equipment (WEEE)

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.

#### Ceština/Czech

##### 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

EU-direktiv 2002/96/EF kræver, at udstyr der bærer dette symbol på produktet og/eller emballagen ikke må bortskaffes som usorteret kommunalt affald. Symbolet betyder, at dette produkt skal bortskaffes adskilt fra det almindelige husholdningsaffald. Det er dit ansvar at bortskaffe dette og andet elektrisk og elektronisk udstyr via bestemte indsamlingssteder udpeget af staten eller de lokale myndigheder. Korrekt bortskaffelse og genvinding vil hjælpe med til at undgå mulige skader for miljøet og menneskers sundhed. Kontakt venligst de lokale myndigheder, renovationstjenesten eller den butik, hvor du har købt produktet, angående mere detaljeret information om bortskaffelse af dit gamle udstyr.

## Deutsch/German

### Umweltinformation für Kunden innerhalb der Europäischen Union

Die Europäische Richtlinie 2002/96/EC verlangt, dass technische Ausrüstung, die direkt am Gerät und/oder an der Verpackung mit diesem Symbol versehen ist nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist darauf hin, dass das Produkt von regulärem Haushaltsmüll getrennt entsorgt werden sollte. Es liegt in Ihrer Verantwortung, dieses Gerät und andere elektrische und elektronische Geräte über die dafür zuständigen und von der Regierung oder örtlichen Behörden dazu bestimmten Sammelstellen zu entsorgen. Ordnungsgemäßes Entsorgen und Recyceln trägt dazu bei, potentielle negative Folgen für Umwelt und die menschliche Gesundheit zu vermeiden. Wenn Sie weitere Informationen zur Entsorgung Ihrer Altgeräte benötigen, wenden Sie sich bitte an die örtlichen Behörden oder städtischen Entsorgungsdienste oder an den Händler, bei dem Sie das Produkt erworben haben.

## Eesti/Estonian

### Keskkonnaalane informatsioon Euroopa Liidus asuvatele klientidele

Euroopa Liidu direktiivi 2002/96/EÜ nõuete kohaselt on seadmeid, millel on tootel või pakendil käesolev sümbol, keelatud kõrvaldada koos sorteerimata olmejäätmetega. See sümbol näitab, et toode tuleks kõrvaldada eraldi tavalistest olmejäätmevoogudest. Olete kohustatud kõrvaldama käesoleva ja ka muud elektri- ja elektroonikaseadmed riigi või kohalike ametiasutuste poolt ette nähtud kogumispunktide kaudu. Seadmete korrektne kõrvaldamine ja ringlussevõtt aitab vältida võimalikke negatiivseid tagajärgi keskkonnale ning inimeste tervisele. Vanade seadmete kõrvaldamise kohta täpsema informatsiooni saamiseks võtke palun ühendust kohalike ametiasutustega, jäätmekäitlusfirmaga või kauplusega, kust te toote ostsite.

## 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.

## Ελληνικά/Greek

### Στοιχεία περιβαλλοντικής προστασίας για πελάτες εντός της Ευρωπαϊκής Ένωσης

Η Κοινοτική Οδηγία 2002/96/EC απαιτεί ότι ο εξοπλισμός ο οποίος φέρει αυτό το σύμβολο στο προϊόν και/ή στη συσκευασία του δεν πρέπει να απορρίπτεται μαζί με τα μικτά κοινотικά απορρίμματα. Το σύμβολο υποδεικνύει ότι αυτό το προϊόν θα πρέπει να απορρίπτεται ξεχωριστά από τα συνήθη οικιακά απορρίμματα. Είστε υπεύθυνος για την απόρριψη του παρόντος και άλλου ηλεκτρικού και ηλεκτρονικού εξοπλισμού μέσω των καθορισμένων εγκαταστάσεων συγκέντρωσης απορριμμάτων οι οποίες παρέχονται από το κράτος ή τις αρμόδιες τοπικές αρχές. Η σωστή απόρριψη και ανακύκλωση συμβάλλει στην πρόληψη πιθανών αρνητικών συνεπειών για το περιβάλλον και την υγεία. Για περισσότερες πληροφορίες σχετικά με την απόρριψη του παλιού σας εξοπλισμού, παρακαλώ 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.

## Italiano/Italian

### 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

### Ekoloģiska informācija klientiem Eiropas Savienības jurisdikcijā

Direktīvā 2002/96/EK ir prasība, ka aprīkojumu, kam pievienota zīme uz paša izstrādājuma vai uz tā iesaiņojuma, nedrīkst izmest nešķīrotā veidā kopā ar komunālajiem atkritumiem (tiem, ko rada vietēji iedzīvotāji un uzņēmumi). Šī zīme nozīmē to, ka šī ierīce ir jāizmet atkritumos tā, lai tā nenonāktu kopā ar parastiem mājsaimniecības atkritumiem. Jūsu pienākums ir šo un citas elektriskas un elektroniskas ierīces izmest atkritumos, izmantojot īpašus atkritumu savākšanas veidus un līdzekļus, ko nodrošina valsts un pašvaldību iestādes. Ja izmešana atkritumos un pārstrāde tiek veikta pareizi, tad mazinās iespējamais kaitējums dabai un cilvēku veselībai. Sīkākas ziņas par novecojušu aprīkojuma izmešanu atkritumos jūs varat saņemt vietējā pašvaldībā, atkritumu savākšanas dienestā, kā arī veikalā, kur iegādājāties šo izstrādājumu.

## Lietuvškai/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 nerūšiuotomis komunalinėmis atliekomis. Šis simbolis rodo, kad gaminį reikia šalinti atskirai nuo bendro buitinių atliekų srauto. 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 perdurbant 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 parduotuvės, kuriose įsigijote tą gaminį.

## Malti/Maltese

### Informazzjoni Ambjentali għal Kliġenti fl-Unjoni Ewropea

Id-Direttiva Ewropea 2002/96/KE titlob li t-tagħmir li jkun fih is-simbolu fuq il-prodott u/jew fuq l-ippakkjar ma jstax jintrema ma' skart municiġpali li ma għiex isseparat. Is-simbolu jindika li dan il-prodott għandu jintrema separatament minn ma' l-iskart domestiku regolari. Hija responsabbiltà tiegħek li tarmi dan it-tagħmir u kull tagħmir iehor ta' l-elettriku u elettroniku permezz ta' faċilitajiet ta' għbir appuntati apposta mill-gvern jew mill-awtoritajiet lokali. Ir-rimi b'mod korrett u r-riciklagg jghin jipprevjeni konsegwenzi negattivi potenzjali għall-ambjent u għas-saħħa tal-bniedem. Għal aktar informazzjoni dettaljata dwar ir-rimi tat-tagħmir antik tiegħek, jekk jogħġbok ikkuntattja lill-awtoritajiet lokali tiegħek, is-servizzi għar-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, amelyekben, és/vagy amelyek csomagolásán az alábbi címke megjelenik, tilos a többi szelektálatlan lakossági hulladékkal együtt kidobni. A címke azt jelöli, hogy az adott termék kidobásakor a szokványos háztartási hulladékelszállítási rendszerektől elkülönített eljárást kell alkalmazni. Az Ön felelőssége, hogy ezt, és más elektromos és elektronikus berendezéseit a kormányzati vagy a helyi hatóságok által kijelölt gyűjtőrendszeren keresztül számolja fel. A megfelelő hulladékfeldolgozás segít a környezetre és az emberi egészségre potenciálisan ártalmas negatív hatások megelőzésében. Ha elavult berendezéseinek felszámolásához további részletes információra van szüksége, kérjük, lépjen kapcsolatba a helyi hatóságokkal, a hulladékfeldolgozási szolgálattal, 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.

## Norsk/Norwegian

### Miljøinformasjon for kunder i EU

EU-direktiv 2002/96/EF krever at utstyr med følgende symbol avbildet på produktet og/eller pakningen, ikke må kastes sammen med usortert avfall. Symbolet indikerer at dette produktet skal håndteres atskilt fra ordinær avfallsinnsamling for husholdningsavfall. Det er ditt ansvar å kvitte deg med dette produktet og annet elektrisk og elektronisk avfall via egne innsamlingsordninger slik myndighetene eller kommunene bestemmer. Korrekt avfallshåndtering og gjenvinning vil være med på å forhindre mulige negative konsekvenser for miljø og helse. For nærmere informasjon om håndtering av det kasserte utstyret ditt, kan du ta kontakt med kommunen, en innsamlingsstasjon for avfall eller butikken der du kjøpte produktet.

## Polski/Polish

### Informacja dla klientów w Unii Europejskiej o przepisach dotyczących ochrony środowiska

Dyrektywa Europejska 2002/96/EC wymaga, aby sprzęt oznaczony symbolem znajdującym się na produkcie i/lub jego opakowaniu nie był wyrzucany 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 consequências 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 zberných zariadení určených vládou alebo miestnymi orgánmi. Správna likvidácia a recyklácia pomôže zabrániť prípadným negatívnym dopadom na životné prostredie a zdravie ľudí. Ak máte záujem o podrobnejšie informácie o likvidácii starého zariadenia, obráťte sa, prosím, na miestne orgány, organizácie zaoberajúce sa likvidáciou odpadov alebo obchod, v ktorom ste si produkt zakúpili.

## Slovenčina/Slovene

### Okoljske informacije za stranke v Evropski uniji

Evropska direktiva 2002/96/EC prepoveduje odlaganje opreme, označene s tem simbolom – na izdelku in/ali na embalaži – med običajne, nerazvrščene odpadke. Ta simbol opozarja, da je treba izdelek odvreči ločeno od preostalih gospodinjstvih odpadkov. Vaša odgovornost je, da to in preostalo električno in elektronsko opremo odnesete na posebna zbirališča, ki jih določijo državne ustanove ali lokalna uprava. S pravilnim odlaganjem in recikliranjem boste preprečili morebitne škodljive vplive na okolje in zdravje ljudi. Če želite izvedeti več o odlaganju stare opreme, se obrnite na lokalno upravo, odpad ali trgovino, kjer ste izdelek kupili.

## Suomi/Finnish

### Ympäristöä koskevia tietoja EU-alueen asiakkaille

EU-direktiivi 2002/96/EY edellyttää, että jos laitteistossa on tämä symboli itse tuotteessa ja/tai sen pakkauksessa, laitteistoa ei saa hävittää lajittelemattoman yhdyskuntajätteen mukana. Symboli merkitsee sitä, että tämä tuote on hävitettävä erillään tavallisesta kotitalousjätteestä. Sinun vastuullasi on hävittää tämä elektroniikkatuote ja muut vastaavat elektroniikkatuotteet viemällä tuote tai tuotteet viranomaisten määräämään keräyspisteeseen. Laitteiston oikea hävittäminen estää mahdolliset kielteiset vaikutukset ympäristöön ja ihmisten terveyteen. Lisätietoja vanhan laitteiston oikeasta hävitystavasta saa paikallisilta viranomaisilta, jätteenhävityspalvelusta tai siitä myymälästä, josta ostit tuotteen.

## Svenska/Swedish

### Miljöinformation för kunder i Europeiska unionen

Det europeiska direktivet 2002/96/EC kräver att utrustning med denna symbol på produkten och/eller förpackningen inte får kastas med osorterat kommunalt avfall. Symbolen visar att denna produkt bör kastas efter att den avskiljts från vanligt hushållsavfall. Det faller på ditt ansvar att kasta denna och annan elektrisk och elektronisk utrustning på fastställda insamlingsplatser utsedda av regeringen eller lokala myndigheter. Korrekt kassering och återvinning skyddar mot eventuella negativa konsekvenser för miljön och personhälsa. För mer detaljerad information om kassering av din gamla utrustning kontaktar du dina lokala myndigheter, avfallshanteringen eller butiken där du köpte produkten.

For more information, visit [www.linksys.com](http://www.linksys.com).

# Appendix I: 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> or  
[ftp.linksys.com](ftp://ftp.linksys.com)

Can't find information about a product you want to buy on the web? Do you want to know more about networking with Linksys products? Give our advice line a call at:  
Or fax your request in to:

800-546-5797 (LINKSYS)  
949-823-3002

If you experience problems with any Linksys product, you can call us at:  
Don't wish to call? You can e-mail us at:

800-326-7114  
[support@linksys.com](mailto:support@linksys.com)

If any Linksys product proves defective during its warranty period, you can call the Linksys Return Merchandise Authorization department for obtaining a Return Authorization Number at:  
(Details on Warranty and RMA issues can be found in the Warranty Information section in this Guide.)

949-823-3000

## **Federal Communication Commission Interference Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with 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 can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **IMPORTANT NOTE:**

#### **FCC Radiation Exposure Statement:**

**This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.**

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Linksys declares that WUSB54GC ( FCC ID: Q87-WUSB54GC ) is limited in CH1~CH11 for 2.4 GHz by specified firmware controlled in U.S.A.

## **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**

Les conditions de fonctionnement sont sujettes à deux conditions:

- 1) Ce périphérique ne doit pas causer d'interférence et.
- 2) Ce périphérique doit accepter toute interférence, y compris les interférences pouvant perturber le bon fonctionnement de ce périphérique.

**IMPORTANT NOTE:**

**IC Radiation Exposure Statement:**

This equipment complies with IC radiation exposure limits set forth for an  uncontrolled environment. End users must follow the specific operating  instructions for satisfying RF exposure compliance. To maintain compliance  with IC RF exposure compliance requirements, please avoid direct contact to  the transmitting antenna during transmitting.

This transmitter must not be co-located or operating in conjunction with any  other antenna or transmitter.