Network Layout

Linksys wireless access points and wireless routers have been designed for use with 802.11a, 802.11b, and 802.11g products. With 802.11g products communicating with the 802.11b standard and some products incorporating both "a" and "g", products using these standards can communicate with each other.

Access points and wireless routers are compatible with 802.11a, 802.11b and 802.11g adapters, such at the PC Cards for your laptop computers, PCI Card for your desktop PC, and USB Adapters for when you want to enjoy USB connectivity. Wireless products will also communicate with the wireless PrintServer.

When you wish to connect your wired network with your wireless network, network ports on access points and wireless routers can be connected to any of Linksys's switches or routers.

With these, and many other, Linksys products, your networking options are limitless. Go to the Linksys website at www.linksys.com for more information about wireless products.

Chapter 3: Getting to Know the Wireless-G Notebook Adapter

The LED Indicators

The Network Adapter's LEDs display information about network activity.

Figure 3-1: Front Panel

Power   *Green*. The Power LED lights up when the Adapter is powered on.

Link   *Green*. The Link LED lights up when the Adapter has an active connection.

Chapter 4: Software Installation and Configuration

The Wireless Wireless-G Notebook Adapter Setup Wizard will guide you through the installation procedure. The Setup Wizard will install the WLAN Monitor and driver, as well as configure the Adapter.

NOTE: You must run the Setup Wizard to install the software before installing the hardware.

Insert the **Setup Wizard CD-ROM** into your CD-ROM drive. The Setup Wizard should run automatically, and the *Welcome* screen should appear. If it does not, click the **Start** button and choose **Run**. In the field that appears, enter **D:\setup.exe** (if "D" is the letter of your CD-ROM drive).

On the Welcome screen, you have the following choices:

Install - Click the **Install** button to begin the software installation process.

User Guide - Click the **User Guide** button to open the PDF file of this User Guide.

Exit - Click the **Exit** button to exit the Setup Wizard.

Figure 4-1: The Setup Wizard's Welcome Screen

The Installation Procedure

1. To install the Adapter, click the **Install** button on the Welcome screen.

2. After reading the License Agreement, click the **Next** button if you agree, or click the **Cancel** button to end the installation.

Figure 4-2: The Setup Wizard's License Agreement

3. The Setup Wizard will ask you to choose a network mode. Click the **Infrastructure Mode** radio button if you want your wireless computers to network with computers on your wired network using a wireless access point. Click the **Ad-Hoc Mode** radio button if you want multiple wireless computers to network directly with each other.

   In the SSID field, enter the **SSID** of your wireless network. The SSID must be identical for all devices in the network. The default setting is **linksys** (all lowercase). Click the **Next** button.

   NOTE: Network SSIDs should be unique to your network and identical for all devices within the network.
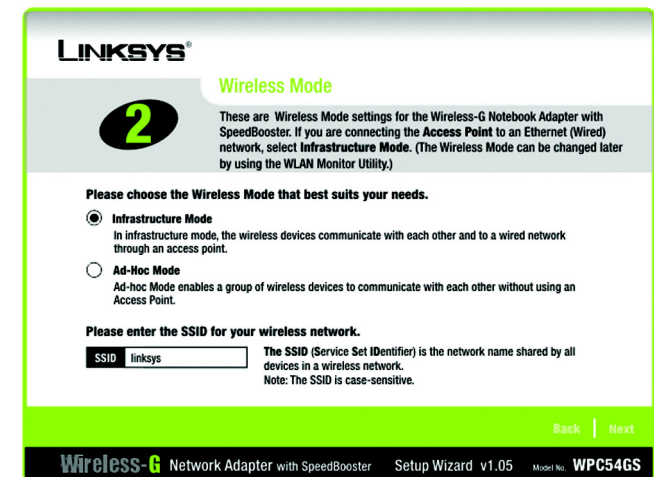

Figure 4-3: The Setup Wizard's Wireless Mode Screen

4. If you chose **Infrastructure Mode**, go to Step 5 now. If you chose **Ad-Hoc Mode**, select the correct operating channel for your network. Then, select the Network Mode from the drop-down menu. Click the **Nex**t button, and go to Step 5. Click the Back button to change any settings.

    Channel - 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, select the default channel (Channel 6).

    Network Mode - Select Mixed Mode, and both Wireless-G and Wireless-B computers will be allowed on the network, but the speed will be reduced. Select G-Only Mode for maximum speed, but no Wireless-B users will be allowed on the network.

5. Select the type of security you want to use: **64-bit WEP, 128-bit WEP, or WPA-PSK**. All devices in a network must use the same type.

    WEP

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

    Passphrase - Instead of manually entering a WEP key, you can enter a passphrase in the Passphrase field, so a WEP key is automatically generated. It is case-sensitive and should not be longer than 16 alphanumeric characters. This 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.)

    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".

    Transmit 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 *Transmit 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.
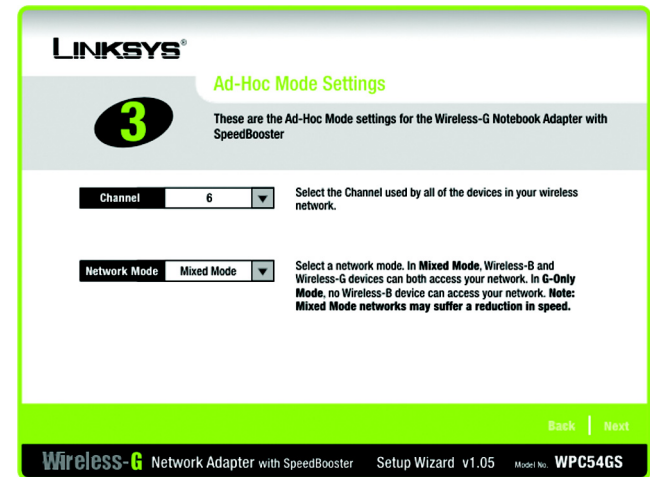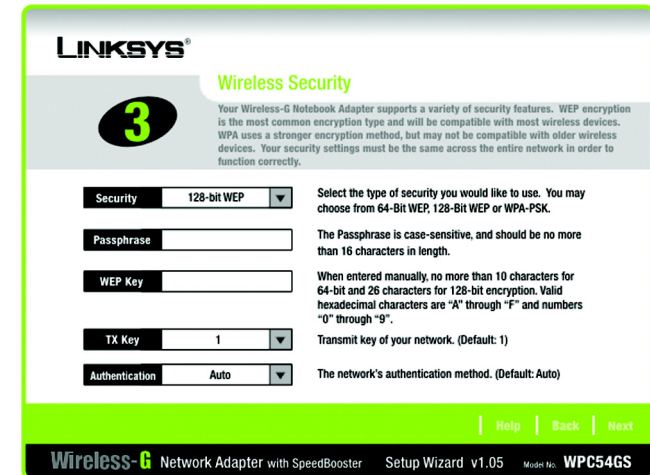

Figure 4-4: The Setup Wizard's Ad-Hoc Mode Screen

Figure 4-5: The Setup Wizard's WEP Screen

Click the **Next** button to continue.s. Click the **Back** button to return to the previous screen. Click the **Help** button for more information.

WPA-PSK

WPA-PSK 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 WPA Shared Key of 8-63 characters in the *Passphrase* field..

Click the **Next** button to continue.s. Click the **Back** button to return to the previous screen. Click the **Help** button for more information.
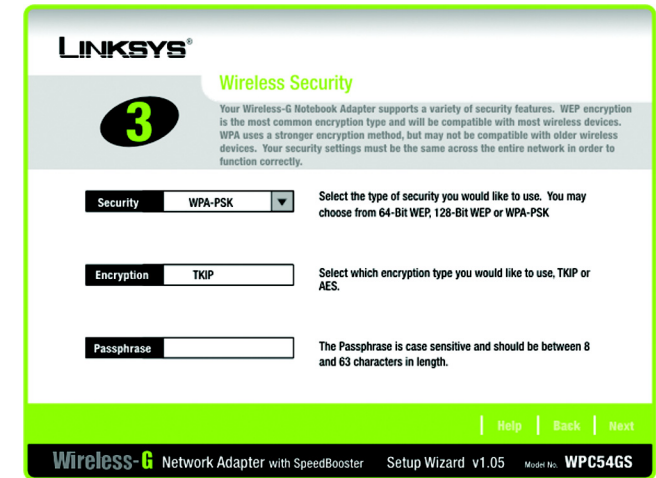

Figure 4-6: The Setup Wizard's WPA-PSK Screen

6. The Setup Wizard will ask you to review your settings before it starts to install files. Click **Next** if you are satisfied with your settings, or click **Back** to change any settings.
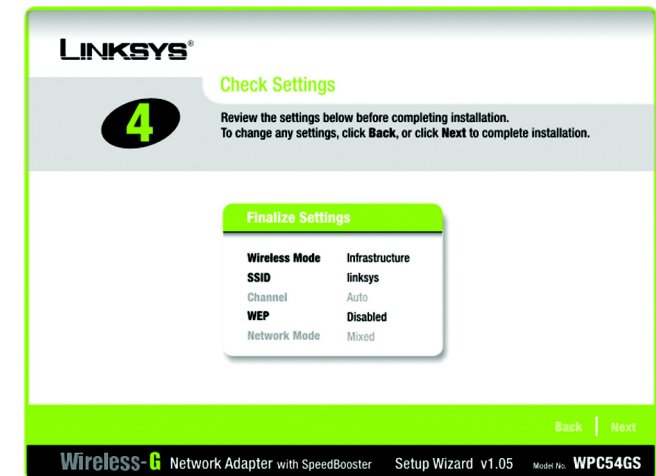

Figure 4-7: The Setup Wizard's Check Settings Screen

7. After the software has been successfully installed, the Congratulations screen will appear. Click the **Exit** button.

    Proceed to "Chapter 5: Hardware Installation."

Figure 4-8: The Setup Wizard's Congratulations Screen

Chapter 5: Hardware Installation

NOTE: You must run the Setup Wizard to install the software before installing the hardware.

Connecting the Adapter

1. Turn off your notebook PC.

2. Locate an available CardBus slot on your notebook PC.

3. With the connector pin end facing the CardBus slot and the label facing up, as shown in Figure 5-1, slide the Adapter into the CardBus slot until it locks in place.

4. Restart your notebook PC. The Power LED should light up when the Adapter is installed correctly.

5. Windows will begin copying the driver files to your computer. If Windows asks you for the original Windows CD-ROM, insert the CD-ROM, and direct Windows to its correct location (e.g., D:\).

Figure 5-1: How the Adapter installs into your notebook

The installation of the Wireless-G Notebook Adapter is complete.

If you want to check the link information, search for available wireless networks, or make additional configuration changes, go to "Chapter 6: Using the Wireless Network Monitor."

Chapter 6: Using the Wireless Network Monitor

Use the WLAN Monitor to check the link information, search for available wireless networks, or create profiles that hold different configuration settings.

Accessing the WLAN Monitor

After installing the Adapter, the Wireless-G Notebook Adapter WLAN Monitor icon will appear in your system tray. Double-click the icon.

The *Link Information* screen will appear. From this screen, you can find out how strong the current wireless signal is and how good the connection's quality is. You can also click the **More Information** button to view additional status information about the current wireless connection. To search for available wireless networks, click the **Site Survey** tab. To perform configuration changes, click the **Profiles** tab.

Link Information

The Link Information screen displays network mode, signal strength, and link quality information about the current connection. It also provides a button to click for additional status information.

Ad-Hoc Mode or **Infrastructure Mode** - The screen indicates whether the Adapter is currently working in ad-hoc or infrastructure mode.

Signal Strength - The Signal Strength bar indicates signal strength.

Link Quality - The Link Quality bar indicates the quality of the wireless network connection.

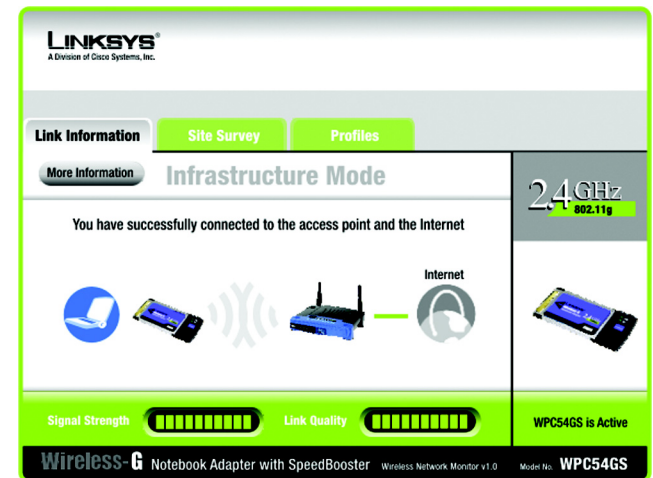Click the **More Information** button to view additional information about the wireless network connection.

Figure 6-1: Link Information