Wireless-B USB Network Adapter

Use this guide to install:

WUSB11

User Guide

LINKSYS®

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FCC STATEMENT

This IWireless-B USB Network Adapter 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 Caution: Any changes or modifications nor 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.

FCC RF Radiation Exposure Statement

This device and its antenna(s) must operate with a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users must be provided with specific operations for satisfying RF exposure compliance.

INDUSTRY CANADA (CANADA)

This Class B digital apparatus complies with Canadian IC-03.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
The use of this device in a system operating either partially or completely outdoors may require the user to obtain a license for the system according to the Canadian regulations.

EC DECLARATION OF CONFORMITY (EUROPE)

Linksys Group declares that the product included conforms to the specifications listed below, following the provisions of the EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC:

ETS 301489-17, 301 489-1 General EMC requirements for Radio equipment.
EN 609 50 Safety
ETS 300-328-2 Technical requirements for Radio equipment.

Note: This equipment is intended to be used in all EU and EFTA countries. Outdoor use may be restricted to certain frequencies and/or may require a license for operation. For more details, contact Linksys Corporate Compliance.

Note: Combinations of power levels and antennas resulting in a radiated power level of above 100 mW are considered as not compliant with the above mentioned directive and are not allowed for use within the European community and countries that have adopted the European R&TTE directive 1999/5/EC and/or the CEPT recommendation Rec 70.03. For more details on legal combinations of power levels and antennas, contact Linksys Corporate Compliance.

- Linksys Group vakuuttaa täten että USB Network Adapter tyyppinen laite on direktiivin 1999/5/EY, direktiivin 89/336/EEC ja direktiivin 73/23/EEC oleellisten vaatimusten ja sitä koskevien näiden direktiivien muiden ehtojen mukainen.
- Linksys Group déclare que l'adaptateur réseau USB est conforme aux conditions essentielles et aux dispositions relatives à la directive 1999/5/EC, la directive 89/336/EEC, et à la directive 73/23/EEC.
- Belgique B L'utilisation en extérieur est autorisé sur le canal 11 (2462 MHz), 12 (2467 MHz), et 13 (2472 MHz).
  Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, au-dessus d'un espace public, aucun enregistrement n'est nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprès de l'IBPT est requise. Pour une utilisation publique à l'extérieur de bâtiments, une licence de l'IBPT est requise. Pour les enregistrements et licences, veuillez contacter l'IBPT.
- France F: Bande de fréquence restreinte: seuls les canaux 10, 11, 12, 13 (2457, 2462, 2467, et 2472 MHz respectivement) doivent être utilisés en France. Toute utilisation, qu'elle soit intérieure ou extérieure, est soumise à autorisation. Vous pouvez contacter l'Autorité de Régulation des Télécommuniations (http://www.art-telecom.fr) pour la procédure à suivre.
- France F: Restricted frequency band: only channels 10, 11, 12, 13 (2457, 2462, 2467, and 2472 MHz respectively) may be used in France. License required for every indoor and outdoor installations. Please contact ART for procedure to follow.
- Deutschland D: Anmeldung im Outdoor-Bereich notwending, aber nicht genehmigungspflichtig. Bitte mit Händler die Vorgehensweise abstimmen.
- Germany D: License required for outdoor installations. Check with reseller for procedure to follow.
- Italia I: E' necessaria la concessione ministeriale anche per l'uso interno. Verificare con i rivenditori la procedura da seguire. L'uso per installazione in esterni non e' permessa.
- Italy I: License required for indoor use. Use with outdoor installations not allowed.
- the Netherlands NL License required for outdoor installations. Check with reseller for procedure to follow.
- Nederlands NL Licentie verplicht voor gebruik met buitenantennes. Neem contact op met verkoper voor juiste procedure.

Table of Contents

Chapter 1: Introduction

The Wireless-B USB Network Adapter

Connect your USB-equipped desktop or notebook computer to a wireless network with the Linksys Wireless-B USB Network Adapter, without the trouble of opening up the case of your desktop computer.

To install, simply plug the Adapter into any available USB port. It gets its power through the USB connection, so no power cord is necessary. The included Setup Wizard walks you through configuring the Adapter to your wireless network settings, step by step. And your wireless communications can be protected by 128-bit encryption, so your data stays secure.

The Wireless-B USB Network Adapter's high-gain antenna lets you put your computer almost anywhere in the building, without the cost and hassle of running cables. Now you don't have to drill holes in your walls and climb through the attic or cellar to get connected to the network. Once you're connected, you can keep in touch with your e-mail, access the Internet, use instant messaging to chat with friends, and share files and other resources such as printers and hard disk storage space with other computers on the network.

So don't hassle with running cables through your house -- get connected the easy way with the Wireless-B USB Network Adapter.

Features

- Up to 11Mbps, High-Speed Data Transfer Rate
- Plug-and-Play Operation Provides Easy Setup
- Interoperable with 802.11b (DSSS) 2.4GHz-Compliant Equipment
- Compatible with Windows 98SE, Me, 2000, and XP
- Capable of up to 128-bit WEP Encryption
- Integrated Equalizer Recovers Weak Signals and Enhances Sensitivity
- Movable External Antenna Improves Signal Quality
- USB Port Powers Your Adapter—No Power Supply Needed!
- User-Friendly Setup Software Provides Hassle-Free Configuration
- Works with All Standard Internet Applications
- Free Software Driver Upgrades
- Free Technical Support—24 Hours a Day, 7 Days a Week, Toll-Free US Calls
- 1-Year Limited Warranty

Chapter 2: Planning Your Wireless Network

Network Topology

A wireless local area network (WLAN) is exactly like a regular local area network (LAN), except that each computer in the WLAN uses a wireless device to connect to the network. Computers in a WLAN share the same frequency channel and SSID, which is an identification name for wireless devices.

Ad-Hoc versus Infrastructure Mode

Unlike wired networks, wireless networks have two different modes in which they may be set up: **infrastructure** and **ad-hoc**. An infrastructure configuration is a WLAN and wired LAN communicating to each other through an access point. An ad-hoc configuration is wireless-equipped computers communicating directly with each other. Choosing between these two modes depends on whether or not the wireless network needs to share data or peripherals with a wired network or not.

If the computers on the wireless network need to be accessed by a wired network or need to share a peripheral, such as a printer, with the wired network computers, the wireless network should be set up in **infrastructure** mode. (See Figure 2-1.) The basis of infrastructure mode centers around an *access point*, which serves as the main point of communications in a wireless network. Access points transmit data to PCs equipped with wireless network cards, which can *roam* within a certain radial range of the access point. Multiple access points can be arranged to work in succession to extend the roaming range, and can be set up to communicate with your Ethernet (wired) hardware as well.

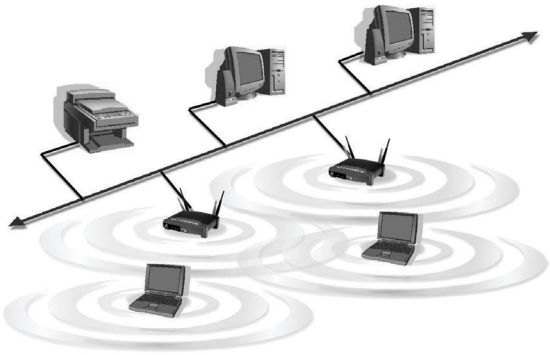

Figure 2-1

If the wireless network is relatively small and needs to share resources only with the other computers on the wireless network, then the **ad-hoc** mode can be used. (See Figure 2-2.) Ad-hoc mode allows computers equipped with wireless transmitters and receivers to communicate directly with each other, eliminating the need for an access point. The drawback of this mode is that, in Ad-Hoc mode, wireless-equipped computers are not able to communicate with computers on a wired network. And, of course, communication between the wireless-equipped computers is limited by the distance and interference directly between them.

Figure 2-2

Chapter 3: Getting to Know the Wireless USB Network Adapter

The Wireless USB Network Adapter's Port and LEDs

Figure 3-1

Port

USB The Adapter's USB port is located on the side of the Adapter. You will attach the included USB cable to this port. The other end of the cable will connect to your PC's USB port.

Figure 3-2

LED Indicators

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 for Windows 98SE, Me, and 2000

Overview

The Wireless Wireless-B USB Network Adapter Setup Wizard will guide you through the installation procedure for Windows 98SE, Me, and 2000. The Setup Wizard will install the WLAN Monitor and driver, as well as configure the Adapter.

Note for Windows XP users: Do **NOT** run the Wireless-B USB Network Adapter Setup Wizard. Proceed directly to "Chapter 5: Hardware Installation."

Note for Windows 98SE, Me, and 2000 users: 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).

Figure 4-1

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.

Instructions for Windows 98SE, Me, and 2000

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.

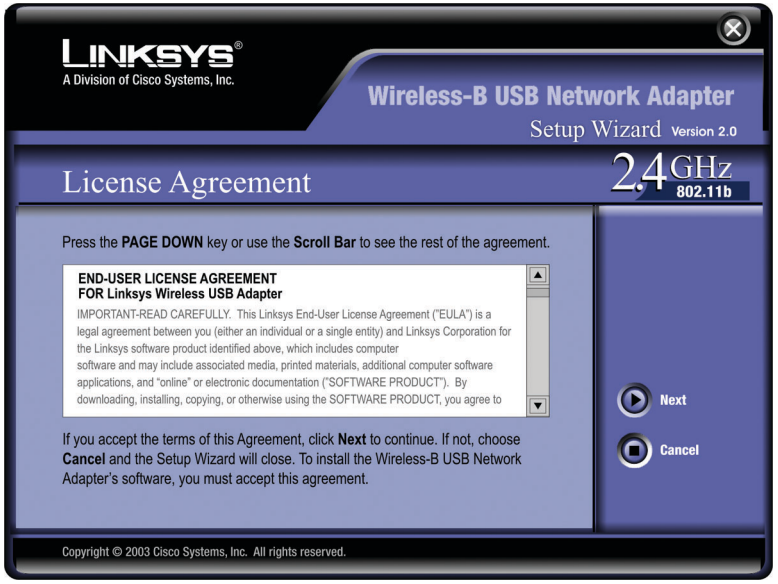

Figure 4-2

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.

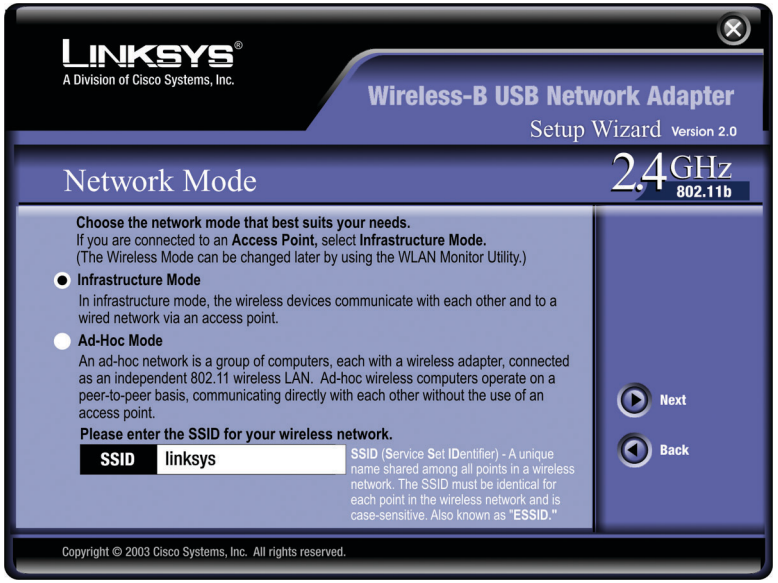

Figure 4-3

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. The channel you choose should match the channel set on the other devices in your wireless network. Then click the **Next** button.

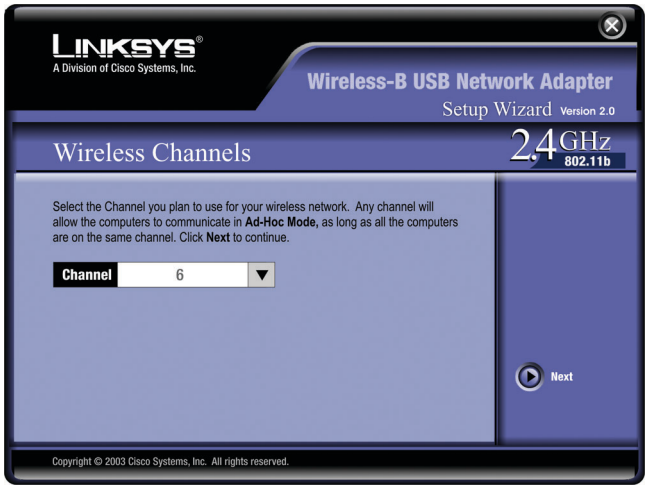

Figure 4-4

5. The Setup Wizard will ask you to review your settings before it starts to copy files. Click the **Next** button to save these settings, or click the **Back** button to change any settings.

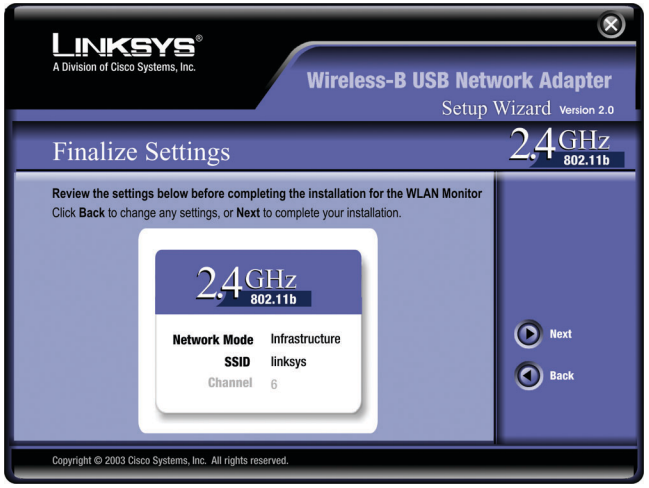

Figure 4-5

6. After the software has been successfully installed, the screen in Figure 4-6 will appear. Click the **Exit** button.

Figure 4-6

Proceed to "Chapter 5: Hardware Installation."

Chapter 5: Hardware Installation

Important for Windows 98SE, Me, and 2000 users: You must run the Setup Wizard to install the software before installing the hardware.

Important for Windows XP users: You must install the Adapter's hardware before installing the software.

Connecting the Adapter

1. The Adapter comes with the USB cable you will use to connect the Adapter to your PC. (See Figure 5-1.)

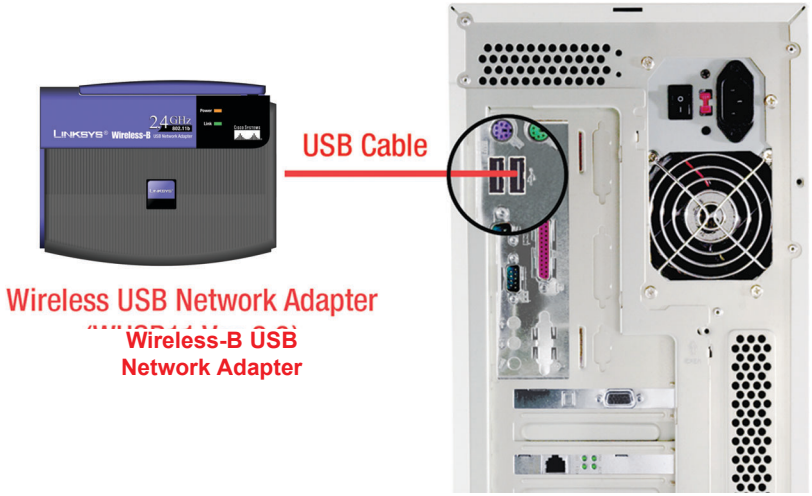

Figure 5-1

Connect one end of the USB cable to the USB port of the Adapter (see Figure 5-2).

Figure 5-2

Connect the other end of the USB cable to one of the USB ports on your computer (see Figure 5-3).

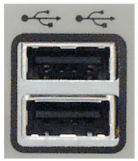

Figure 5-3

2. The Power LED should light up when the Adapter is plugged in. (Make sure your PC is powered on.)

Figure 5-4

3. Raise the antenna. Make sure the antenna is positioned straight up into the air, at a 90º angle from the Adapter (see Figure 5-5). This will ensure optimum wireless operating range and performance.

Figure 5-5

Note: If you want to attach the Adapter onto your wall, go to the next section, "Using the Adapter's Wall Mount," before proceeding to the appropriate chapter for your PC's operating system.

If your PC is running Windows XP, proceed to "Chapter 6: Driver Installation and Configuration for Windows XP."

If your PC is running Windows 98SE, Me, or 2000, the installation of the Wireless-B USB Network Adapter is complete. If you want to check the link information, search for available wireless networks, or make additional configuration changes, proceed to "Chapter 7: Using the WLAN Monitor for Windows 98SE, Me, and 2000."

Using the Adapter's Wall Mount

The Adapter's Wall Mount (see Figure 5-6) allows you to easily attach the Adapter onto your wall for better reception and more convenient placement.

1. Attach the separate adhesive strip of velcro to the wall where you will be mounting the Adapter.

2. To attach the Wall Mount to the Adapter, slide the Wall Mount into the grooves on the back panel of the Adapter, as shown in Steps A, B, and C.

Figure 5-6

STEP A

Figure 5-7

STEP B

Figure 5-8

STEP C

Figure 5-9

3. Using the velcro strip on the Adapter's Wall Mount, attach the Adapter to the velcro strip on your wall.

If your PC is running Windows XP, proceed to "Chapter 6: Driver Installation and Configuration for Windows XP."

If your PC is running Windows 98SE, Me, or 2000, the installation of the Wireless-B USB Network Adapter is complete. If you want to check the link information, search for available wireless networks, or make additional configuration changes, proceed to "Chapter 7: Using the WLAN Monitor for Windows 98SE, Me, and 2000."