

ZyAIR G-200

Wireless LAN USB Adapter

User's Guide

Version 1.00

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Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

For their own protection, users should ensure that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution

Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

Note

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the radio interference regulations of Industry.

Federal Communications Commission (FCC) Interference Statement

The device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operations.

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 commercial environment. 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.

If this equipment does cause harmful interference to radio/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 or more of the following measures:

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

Notice 1

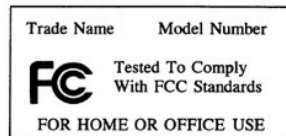
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caution

1. The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d) (2).
2. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Certifications

Refer to the product page at www.zyxel.com.



Customer Support

When contacting your Customer Support Representative, please have the following information ready:

- Product model and serial number.
- Warranty Information.
- Date you received your product.
- Brief description of the problem and the steps you took to solve it.

METHOD	E-MAIL SUPPORT/SALES	TELEPHONE/FAX	WEB SITE/ FTP SITE	REGULAR MAIL
LOCATION				
WORLDWIDE	support@zyxel.com.tw sales@zyxel.com.tw	+886-3-578-3942 +886-3-578-2439	www.zyxel.com www.europe.zyxel.com ftp.europe.zyxel.com	ZyXEL Communications Corp., 6 Innovation Road II, Science-Based Industrial Park, Hsinchu 300, Taiwan
NORTH AMERICA	support@zyxel.com sales@zyxel.com	+1-800-255-4101	www.us.zyxel.com ftp.zyxel.com	ZyXEL Communications Inc., 1130 N. Miller St. Anaheim, CA 92806, U.S.A.
SCANDINAVIA	support@zyxel.dk sales@zyxel.dk	+45-3955-0700 +45-3955-0707	www.zyxel.dk ftp.zyxel.dk	ZyXEL Communications A/S, Columbusvej 5, 2860 Soeborg, Denmark
GERMANY	support@zyxel.de sales@zyxel.de	+49-2405-6909-0 +49-2405-6909-99	www.zyxel.de	ZyXEL Deutschland GmbH. Adenauerstr. 20/A2 D-52146 Wuerselen, Germany

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Preface

Congratulations on the purchase of your new ZyAIR G-200 Wireless LAN USB Adapter!

About This User's Guide

This guide provides information about the ZyAIR G-200 Wireless LAN Utility that you use to configure your ZyAIR.

Syntax Conventions

- “Type” or “Enter” means for you to type one or more characters. “Select” or “Choose” means for you to use one of the predefined choices.
- Mouse action sequences are denoted using a comma. For example, “click the Apple icon, **Control Panels** and then **Modem**” means first click the Apple icon, then point your mouse pointer to **Control Panels** and then click **Modem**.
- Window and command choices are in **Bold Times New Roman** font. Predefined field choices are in **Bold Arial** font.
- The ZyXEL ZyAIR G-200 Wireless LAN USB adapter is referred to as the ZyAIR in this guide.
- The ZyAIR G-200 Wireless LAN Utility may be referred to as the ZyAIR Utility in this guide.

Related Documentation

- Support Disk
Refer to the included CD for support documents and device drivers.
- Quick Installation Guide
Our Quick Installation Guide is designed to help you get your ZyAIR up and running right away. It contains a detailed easy-to-follow connection diagram and information on installing your ZyAIR.
- ZyXEL Glossary and Web Site
Please refer to www.zyxel.com for an online glossary of networking terms and additional support documentation.

User Guide Feedback

Help us help you! E-mail all User's Guide-related comments, questions or suggestions for improvement to techwriters@zyxel.com.tw or send regular mail to The Technical Writing Team, ZyXEL Communications Corp., 6 Innovation Road II, Science-Based Industrial Park, Hsinchu, 300, Taiwan. Thank you!

Chapter 1

Getting Started

This chapter prepares you to using the ZyAIR Utility.

1.1 ZyAIR Hardware and Utility Installation

Follow the instructions in the *Quick Installation Guide* to install the ZyAIR Utility and driver and make hardware connections.

1.2 Disable Windows XP Wireless LAN Configuration Tool

Windows XP includes a configuration tool for wireless LAN devices.

DO NOT use the Windows XP configuration tool and the ZyAIR Utility at the same time. It is recommended you use the ZyAIR Utility to configure the ZyAIR.

There are two methods to disable the configuration tool in Windows XP after you install the ZyAIR Utility.

From ZyAIR Utility

Right-click on the ZyAIR Utility system tray icon and click **Turn off zero configuration**.

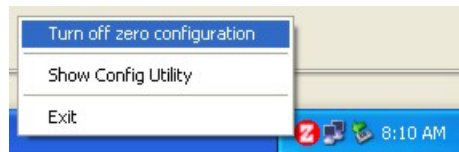


Figure 1-1 Windows XP: System Tray Icon

From the Wireless Network Connection Status Screen

Step 1. Double-click on the network icon for the wireless connection in the system tray. If the icon is not present, proceed to *Step 2*. Otherwise skip to *Step 5*.



Figure 1-2 Windows XP: System Tray Icon

Step 2. If the icon for the wireless network connection is not in the system tray, click **Start, Control Panel** and double-click on **Network Connections**.

Step 3. Double-click on the icon for wireless network connection to display a status window as shown next.

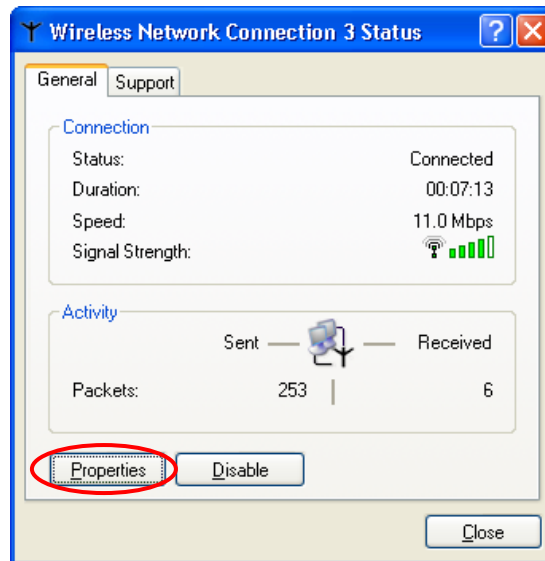


Figure 1-3 Windows XP: Wireless Network Connection Status

Step 4. Click **Properties** and click the **Wireless Networks** tab. Then skip to *Step 6*.

Step 5. When a **Connect to Wireless Network** window displays, click **Advanced...**.



Figure 1-4 Windows XP: Connect to Wireless Network

Step 6. In the **Wireless Network Connection Properties** window, make sure the **Use Windows to configure my wireless network settings** check box is *not* selected. Click **OK**.

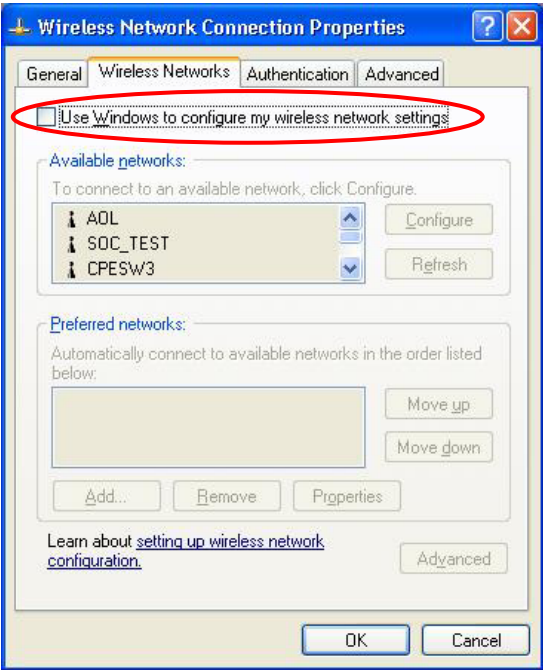


Figure 1-5 Windows XP: Wireless Network Connection Properties

1.3 Accessing the ZyAIR Utility

After you installed the ZyAIR Utility, an icon for the ZyAIR Utility appears in the system tray.

When the ZyAIR Utility system tray icon displays, the ZyAIR is installed properly.



Figure 1-6 ZyAIR Utility: System Tray Icon

The color of the ZyAIR Utility system tray icon indicates the status of the ZyAIR. Refer to the following table for details.

Table 1-1 ZyAIR Utility: System Tray Icon

COLOR	DESCRIPTION
Red	The ZyAIR is working properly but is not connected to any AP or wireless station.
Green	The ZyAIR is connected to a wireless network.

Double click on the ZyAIR Utility icon in the system tray to open the ZyAIR Utility.

Chapter 2

Using the ZyAIR Utility

This chapter shows you how to configure the ZyAIR using the ZyAIR Utility.

2.1 About Wireless LAN Network

This section describes the wireless LAN network terms and applications.

2.1.1 SSID

The SSID (Service Set Identity) is a unique name shared among all wireless devices in a wireless network. Wireless devices must have the same SSID to communicate with each other.

2.1.2 Channel

A range of radio frequencies used by IEEE 802.11b wireless devices is called a channel.

2.1.3 Transmission Rate

Your ZyAIR automatically adjusts the transmission rate to operate at the maximum transmission (data) rate. When the communication quality drops below a certain level, the ZyAIR automatically switches to a lower transmission (data) rate. Transmission at lower data speeds is usually more reliable. However, when the communication quality improves again, the ZyAIR gradually increases the transmission (data) rate again until it reaches the highest available transmission rate.

2.1.4 Wireless Network Application

Wireless LAN works in either of the two modes: ad-hoc and infrastructure.

To connect to a wired network within a coverage area using Access Points (APs), set the ZyAIR operation mode to **Infrastructure(BSS)**. An AP acts as a bridge between the wireless stations and the wired network. In case you do not wish to connect to a wired network, but prefer to set up a small independent wireless workgroup without an AP, use the **Ad-hoc (IBSS)** (Independent Basic Service Set) mode.

Ad-Hoc (IBSS)

Ad-hoc mode does not require an AP or a wired network. Two or more wireless clients communicate directly to each other. An ad-hoc network may sometimes be referred to as an Independent Basic Service Set (IBSS).

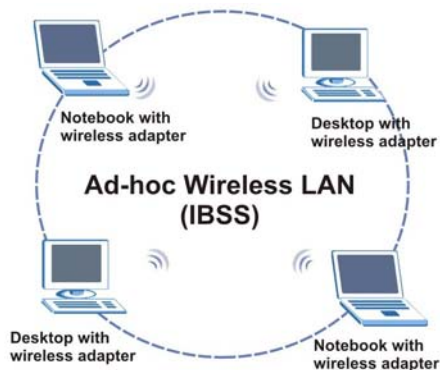


Figure 2-1 Ad-hoc Network Example

To set up an ad-hoc network, configure all wireless clients in ad-hoc network type and use the same SSID and channel.

Infrastructure

When a number of wireless clients are connected using a single AP, you have a Basic Service Set (BSS).

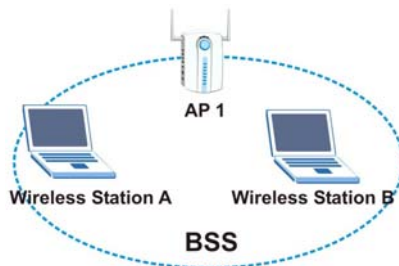


Figure 2-2 BSS Example

A series of overlapping BSS and a network medium, such as an Ethernet forms an Extended Service Set (ESS) or infrastructure network. All communication is done through the AP, which relays data packets to other wireless clients or devices connected to the wired network. Wireless clients can then access resource, such as the printer, on the wired network.

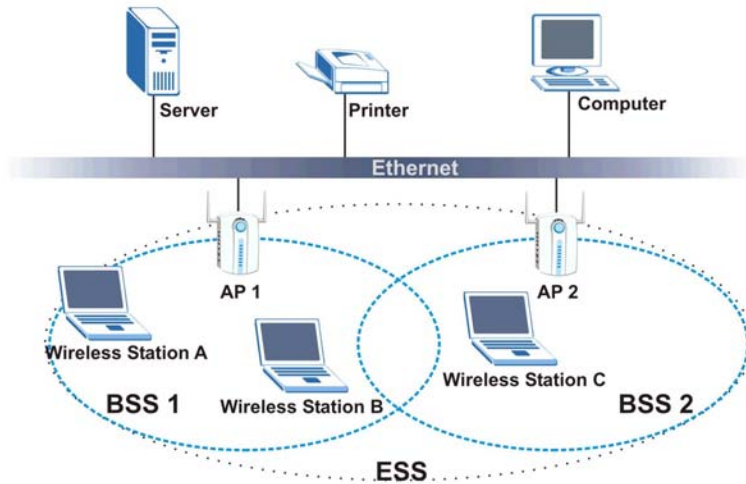


Figure 2-3 Infrastructure Network Example

2.1.5 Roaming

Roaming is where in an infrastructure network, wireless clients are able to switch from one BSS to another as they move between coverage areas. During this period, the wireless client maintains uninterrupted connection to the network. As the wireless client moves from place to place, it scans for the most appropriate AP depending on the signal strength, network utilization or other factors.

The following figure depicts a roaming example. When **Wireless Client B** moves to position **X**, the ZyAIR in **Wireless Client B** automatically switches the channel to the one used by **Access Point 2** in order to stay connected to the network.

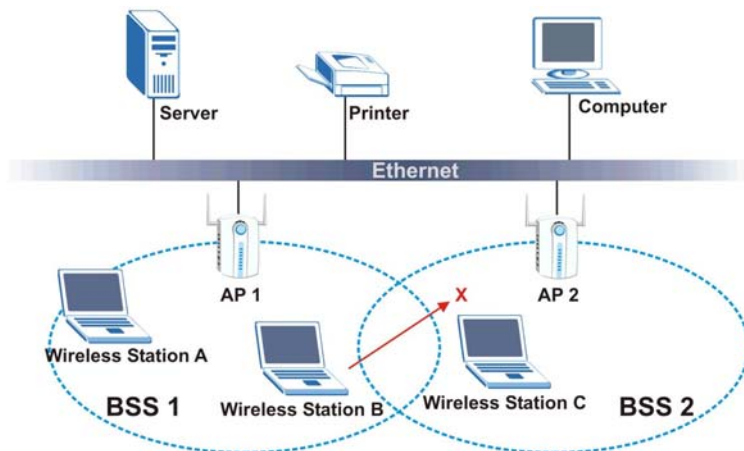


Figure 2-4 Roaming Example

2.2 The Link Info Screen

When the ZyAIR Utility starts, the **Link Info** screen displays, showing the current configuration of your ZyAIR.

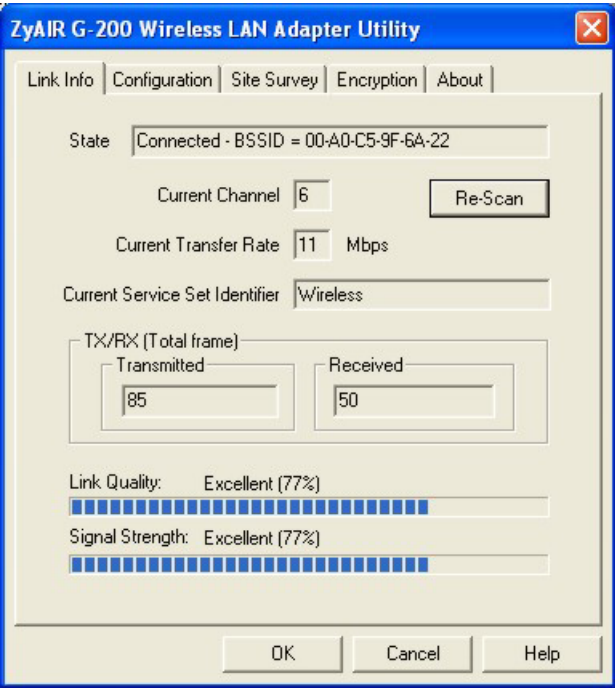


Figure 2-5 ZyAIR Utility: Link Info

The following table describes the fields in this screen.

Table 2-1 ZyAIR Utility: Link Info

LABEL	DESCRIPTION
State	This field displays the connection status of the ZyAIR and MAC address of the wireless device to which the ZyAIR is connected.
Current Channel	This field displays the radio channel the ZyAIR is currently using.
Current Transfer Rate	This field displays the current transmission rate of the ZyAIR in megabits per second.
Current Service Set Identifier	This field displays the name of the wireless LAN network to which the ZyAIR is associated.
Re-Scan	Click Re-Scan to re-establish the connection to the wireless network whose SSID is shown in the Current Service Set Identifier field.
Tx/Rx (Total Frame)	

Table 2-1 ZyAIR Utility: Link Info

LABEL	DESCRIPTION
Transmitted	This field displays the number of data frames transmitted.
Received	This field displays the number of data frames received.
Link Quality	The status bar and the percentage number show the quality of the signal.
Link Strength	The status bar and the percentage number or a number in dBm show the strength of the signal.
OK	Click OK to apply the changes and close the screen.
Cancel	Click Cancel to discard all changes and close the screen.
Help	Click Help to display on-line help screen.

2.3 The Site Survey Screen

Use the **Site Survey** screen to scan for and connect to a wireless network automatically.

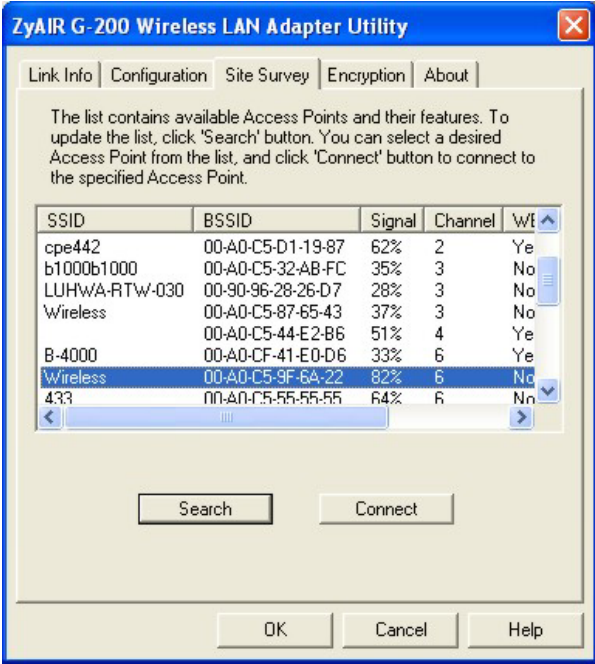


Figure 2-6 Site Survey

The following table describes the fields in the table.

Table 2-2 Site Survey

FIELD	DESCRIPTION
SSID	This field displays the SSID (or name) of each wireless device.
BSSID	This field displays the MAC address of the wireless device.
Signal	This field displays the signal strength of each wireless device.
Channel	This field displays the channel number used by each wireless device.
WEP	This field shows whether the WEP data encryption is activated (Yes) or inactive (No).
BSS Type	This field displays the wireless network type (Infrastructure or Ad Hoc) of the wireless device.
Search	Click Search to scan for available wireless device within transmission range.
Connect	Click Connect to associate to the selected wireless device.
Ok	Click OK to apply the changes and close the screen.
Cancel	Click Cancel to discard all changes and close the screen.
Help	Click Help to display on-line help screen.

2.3.1 Connecting to a Wireless Network

Follow the steps below to connect to a network.

- Step 1.** Click **Search** to scan for all available wireless networks within range.
- Step 2.** To join a network, either click an entry in the table to select a wireless network and then click **Connect** or double-click an entry.
- Step 3.** If the **WEP** field is **Yes** for the selected wireless network, you must also set up WEP keys in the **Encryption** screen. Refer to *Section 2.6* for more information.
- Step 4.** To verify that you have successfully connected to the selected network, check the network information in the **Link Info** screen.

2.4 The Configuration Screen

Click **Configuration** in the ZyAIR Utility program to display the **Configuration** screen as shown next.

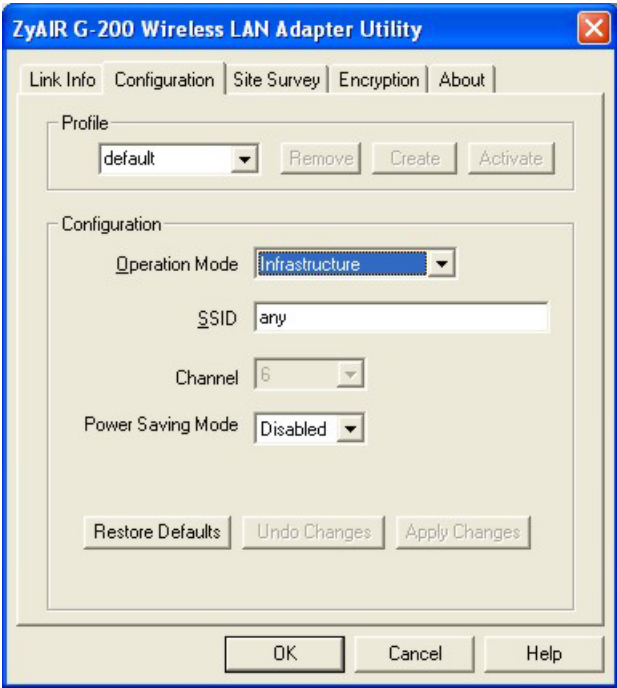


Figure 2-7 Configuration

The following table describes the labels in this screen.

Table 2-3 Configuration

FIELD	DESCRIPTION
Profile	
The Profile function allows you to save the wireless network settings in this screen, use one of the pre-configured network profiles or reset the settings in this screen to the factory default values.	
Remove	To delete an existing wireless network configuration, select a profile from the drop-down list box and click Remove .
Create	Enter a descriptive name in the drop-down list box and click Create to save the current settings in the Configuration screen to a new profile,
Activate	To use a previously saved network profile, select the profile file name from the drop-down list box and click Activate .
Configuration	

Table 2-3 Configuration

FIELD	DESCRIPTION
Operating Mode	Select Infrastructure or Ad-Hoc from the drop-down list box. Select Infrastructure to associate to an AP. Select Ad-Hoc to associate to a peer ad-hoc computer. Refer to <i>Section 2.1.4</i> for more information.
SSID	Enter the SSID (Service Set Identifier) of the AP or the peer ad-hoc computer to which you want to associate in this field. To associate to an ad-hoc network or a particular AP in an infrastructure network, you must enter the same SSID as the peer ad-hoc computer. Enter any to associate to or roam between any infrastructure wireless networks. This is the default setting.
Channel	This field is activated if you select Ad-Hoc in the Operation Mode field. Select the channel number from the drop-down list box. To associate to a peer ad-hoc computer, you must use the same channel as the peer ad-hoc computer.
Power Saving Mode	Select Enabled from the drop-down list menu to save power (especially for laptop computers). This forces the ZyAIR to go to sleep mode when it is not transmitting data, thus reducing power consumption. When you select Disabled , the ZyAIR will never go to sleep mode.
Restore Default	Click Restore Default to clear the settings in all fields in this screen.
Undo Changes	Click Undo Changes to start configuring the fields again.
Apply Changes	Click Apply Changes to save the changes back to ZyAIR.
Ok	Click OK to apply the changes and close the screen.
Cancel	Click Cancel to discard all changes and close the screen.
Help	Click Help to display on-line help screen.

2.5 Wireless LAN Security

Wireless LAN security is vital to your network to protect wireless communication between wireless clients and the wired network.

Configure the wireless LAN security using the **Encryption** screen. If you do not enable any wireless security on your ZyAIR, communication between the ZyAIR and the wired network is accessible to any wireless networking device that is in the coverage area.

2.5.1 Data Encryption with WEP

WEP (Wired Equivalent Privacy) encryption scrambles all communication transmitted between the ZyAIR and the AP or other wireless stations to keep network communications private. Both the wireless clients and the access points must use the same WEP key for data encryption and decryption.

There are two ways to create WEP keys in your ZyAIR.

- Automatic WEP key generation based on a “password phrase” called a passphrase. The passphrase is case sensitive. You must use the same passphrase for all WLAN adapters with this feature in the same WLAN.
For WLAN adapters without the passphrase feature, you can still take advantage of this feature by writing down the four automatically generated WEP keys from the **Encryption** screen of the ZyAIR Utility and entering them manually as the WEP keys in the other WLAN adapter(s).
- Enter the WEP keys manually.

Your ZyAIR allows you to configure up to four 64-bit or 128-bit WEP keys but only one key can be enabled at any one time.

2.6 The Encryption Screen

Click the **Encryption** tab to display the screen as shown below.

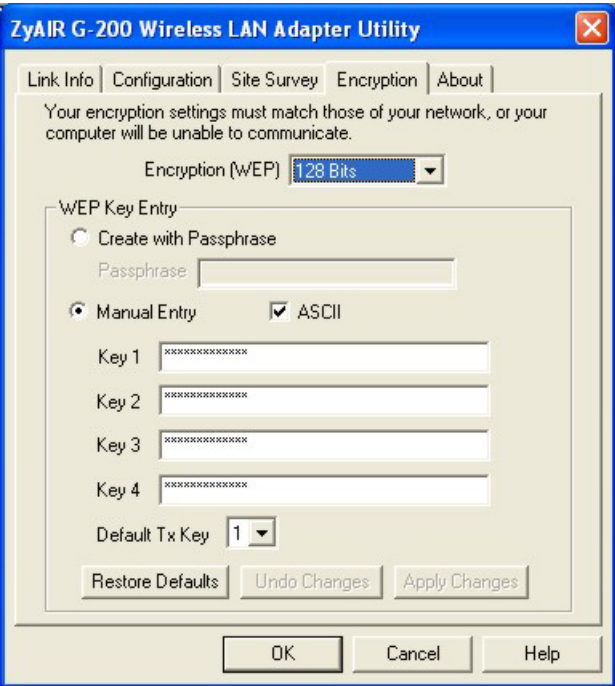


Figure 2-8 Encryption

Follow the instructions in the table to configure the WEP encryptions.

Table 2-4 Encryption

FIELD	DESCRIPTION
Encryption (WEP)	Select either 64 Bits or 128 Bits from the drop-down list box to activate WEP encryption and then fill in the related fields. Select Disabled to deactivate the WEP encryption.
WEP Key Entry The WEP keys are used to encrypt communication before transmitting. The values for the keys must be set up exactly the same on the APs or other peer ad-hoc wireless computers as they are on the ZyAIR.	
Create with Passphrase	Select this option if you want the ZyAIR to automatically generate four different WEP keys based on the passphrase specified in the Passphrase field.

Table 2-4 Encryption

FIELD	DESCRIPTION
Passphrase	Enter the passphrase when you select the Create with Passphrase option. As you enter the passphrase, the ZyAIR automatically generates four different WEP keys and displays them in the key fields below. Write down the automatically generated WEP keys and use them to manually set the WEP keys in other WLAN adapters. Passphrase is case-sensitive. You must use the same passphrase for all wireless LAN adapters with this feature in the same WLAN.
Manual Key	Select this option if you want to manually enter the WEP keys. Then select a default WEP key to use for data encryption.
ASCII	Select this check box to enter the WEP keys as ASCII characters. Clear this check box to enter the WEP keys as hexadecimal characters.
Key 1 ... 4	<p>Enter the WEP keys in the fields provided.</p> <p>If you select 64 Bits in the Encryption (WEP) field.</p> <ul style="list-style-type: none"> Enter either 10 hexadecimal digits in the range of "A-F", "a-f" and "0-9" (e.g. 11AA22BB33) for hexadecimal key type <p>or</p> <ul style="list-style-type: none"> Enter 5 ASCII characters (case sensitive) ranging from "a-z", "A-Z" and "0-9" (e.g. MyKey) for ASCII key type. <p>If you select 128 Bits in the Encryption (WEP) field,</p> <ul style="list-style-type: none"> Enter either 26 hexadecimal digits in the range of "A-F", "a-f" and "0-9" (for example, 00112233445566778899AABBCC) for hexadecimal key type <p>or</p> <ul style="list-style-type: none"> Enter 13 ASCII characters (case sensitive) ranging from "a-z", "A-Z" and "0-9" (for example, MyKey12345678) for ASCII key type. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>You <i>must</i> configure all four WEP keys the first time you use the ZyAIR.</p> <p>ASCII WEP keys are case sensitive.</p> </div>
Default Tx Key	Select a default key from the drop-down list box.
Restore Default	Click Restore Default to clear the settings in all fields in this screen.
Undo Changes	Click Undo Changes to start configuring the fields again.
Apply Changes	Click Apply Changes to save the changes back to ZyAIR.

Table 2-4 Encryption

FIELD	DESCRIPTION
OK	Click OK to apply the changes and close the screen.
Cancel	Click Cancel to discard all changes and close the screen.
Help	Click Help to display on-line help screen.

2.7 The About Screen

The **About** screen displays related version numbers of the ZyAIR.

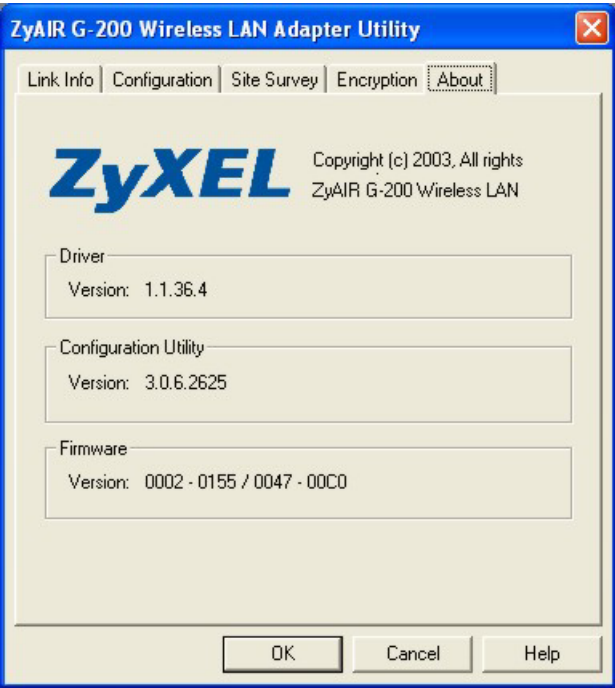


Figure 2-9 About

The following table describes the read-only fields in this screen.

Table 2-5 About

FIELD	DESCRIPTION
Driver Version	This field displays the version number of the ZyAIR wireless card driver.
Configuration Utility Version	This field displays the version number of the ZyAIR Utility.
Firmware Version	This field displays the version of the firmware on which the driver and the utility are based.
OK	Click OK to apply the changes and close the screen.
Cancel	Click Cancel to discard all changes and close the screen.
Help	Click Help to display on-line help screen.

Chapter 3

Maintenance

This chapter describes how to uninstall or upgrade the ZyAIR Utility.

3.1 Removing the ZyAIR Utility

Follow the steps below to remove (or uninstall) the ZyAIR Utility from your computer.

- Step 1.** Click **Start, Programs, ZyAIR G-200 Wireless LAN USB Adapter, Uninstall**.
- Step 2.** A **Confirm Uninstallation** window displays. Click **OK** to remove the driver and the utility software.

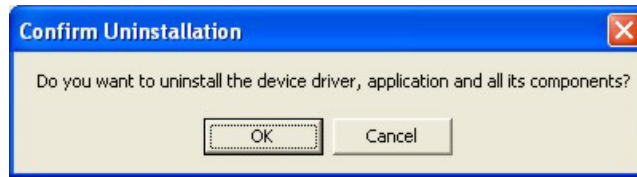


Figure 3-1 Confirm Uninstallation

- Step 3.** Restart your computer when prompted.

3.2 Upgrading the ZyAIR Utility

To perform the upgrade, follow the steps below.

- Step 1.** Download the latest version of the utility from the ZyXEL web site and save the file on your computer.
- Step 2.** Follow the steps in the *Removing the ZyAIR Utility* section to remove the current ZyAIR Utility from your computer.
- Step 3.** Restart the computer when prompted.
- Step 4.** After restarting, refer to the procedure in the *Quick Installation Guide* to install the new utility software.
- Step 5.** Check the version numbers in the **About** screen to make sure the new utility is installed properly.

3.3 Disconnecting the ZyAIR

To avoid losing data, DO NOT disconnect the ZyAIR while data transmission is taking place.

After you exit from the ZyAIR Utility program, you may disconnect the ZyAIR from your computer. You do not have to turn off the computer before removing the ZyAIR - you can insert or remove the ZyAIR while the computer is turned on. However, it is recommended that you stop the operation of the ZyAIR first.

Follow the steps below to disable the ZyAIR in Windows. Screen shots may vary depending on the version of Windows.

Step 1. Close and exit the ZyAIR Utility.

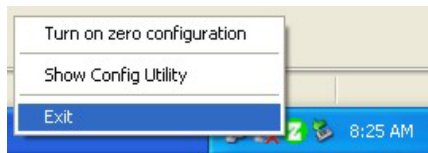


Figure 3-2 ZyAIR Utility: Exit

Step 2. Double-click the removable device icon in the system tray.



Figure 3-3 Removable Device System Tray Icon: Windows XP

Step 3. When a **Safely Remove Hardware** window displays, select the ZyAIR device in the **Hardware devices** list and click **Stop**.

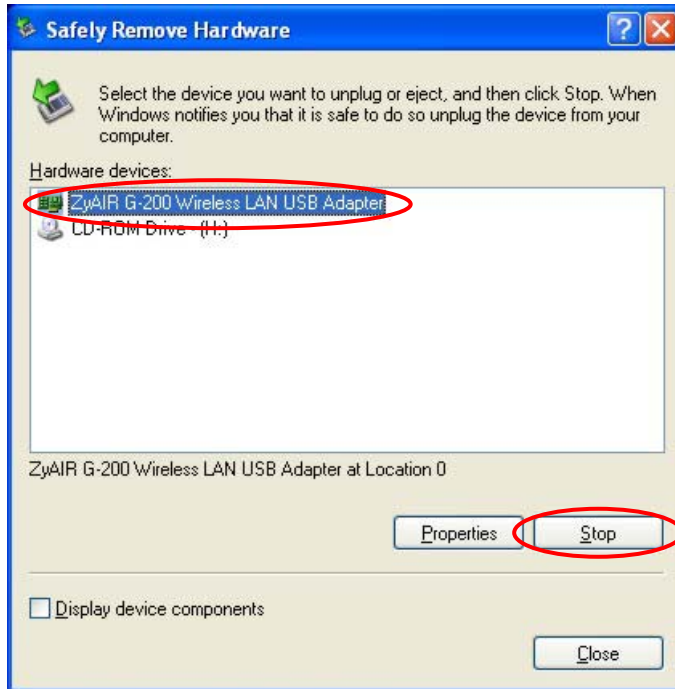


Figure 3-4 Safely Remove Hardware: Windows XP

- Step 4.** If you do not close and exit the ZyAIR Utility, a warning window displays as shown. Click **OK** and then close and exit the ZyAIR Utility.



Figure 3-5 Problem Ejecting Message: Windows XP

- Step 5.** Click **OK** in the **Stop a Hardware device** window to stop the ZyAIR.



Figure 3-6 Stop a Hardware device: Windows XP

- Step 6.** After the following notice window displays in the system tray, you can safely disconnect the ZyAIR from your computer.



Figure 3-7 Safe To Remove Hardware Message: Windows XP

Chapter 4

Troubleshooting

This chapter covers potential problems and the possible remedies. After each problem description, some instructions are provided to help you to diagnose and to solve the problem.

4.1 Problems Starting the ZyAIR Utility Program

Table 4-1 Troubleshooting Starting ZyAIR Utility Program

Cannot start the ZyAIR Utility	Make sure the ZyAIR is properly inserted and the PWR LED is on. Refer to the <i>Quick Installation Guide</i> for the LED descriptions.
	Use the Device Manager to check for possible hardware conflicts. Click Start, Settings, Control Panel, System, Hardware and Device Manager . Verify the status of the ZyAIR under Network Adapter . (Steps may vary depending on the version of Windows).
	Install the ZyAIR in another computer.
	If the error persists, you may have a hardware problem. In this case, you should contact your local vendor.
The ZyAIR Utility displays only three tabs.	When the ZyAIR Utility displays only three tabs, you are using the Windows XP wireless configuration tool at the same time. Refer to <i>Section 1.2</i> to disable the Windows XP wireless configuration tool.

4.2 Problems Communicating With Other Computers

Table 4-2 Troubleshooting Communication Problems

PROBLEM	CORRECTIVE ACTION
The Connect button is disabled in the Site Survey screen	You are using the Windows XP wireless configuration tool and the ZyAIR Utility at the same time. Refer to <i>Section 1.2</i> to disable the Windows XP wireless configuration tool.
The computer connected to the ZyAIR cannot communicate with the other computer.	

Table 4-2 Troubleshooting Communication Problems

PROBLEM	CORRECTIVE ACTION
A. Infrastructure	<p>Make sure that the AP and the associated computers are turned on and working properly.</p> <p>Make sure the ZyAIR and the associated AP use the same SSID.</p> <p>Change the AP and the associated wireless clients to use another radio channel if interference is high.</p> <p>Make sure that the computer and the AP share the same security option and key. Verify the settings in the Encryption screen.</p>
B. Ad-Hoc (IBSS)	<p>Verify that the peer computer(s) is turned on.</p> <p>Make sure the ZyAIR and the peer computer(s) are using the same SS ID and channel.</p> <p>Make sure that the ZyAIR and the peer computer(s) share the same security option and key.</p> <p>Change the wireless clients to use another radio channel if interference is high.</p> <p>Make sure that the ZyAIR and the peer computer(s) share the same security option and key. Verify the settings in the Encryption screen.</p>

4.3 Problem with the Link Status

Table 4-3 Troubleshooting Link Quality

PROBLEM	CORRECTIVE ACTION
The link quality and/or signal strength is poor all the time.	<p>Search and connect to another AP with a better link quality using the Site Survey screen.</p> <p>Move your computer closer to the AP or the peer computer(s) within the transmission range.</p> <p>There is too much radio interference (for example microwave or another AP using the same channel) around your wireless network. Relocate or reduce the radio interference.</p>

4.4 The ZyAIR Does Not Respond

Table 4-4 Troubleshooting the ZyAIR

The ZyAIR connected to a computer does not respond after resuming the computer from sleep mode.	When you resume your computer from sleep/standby/suspend mode, the ZyAIR may not work or immediately respond. If this happens, disconnect and connect the ZyAIR.
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Appendix A

Product Specifications

PHYSICAL SPECIFICATIONS	
Product Name	ZyAIR G-200 Wireless LAN USB Adapter
Type	USB 2.0
Standards	IEEE 802.11b IEEE 802.11g
Antenna	Internal PCB antenna
Power	5V DC
Dimensions	110.3 mm(H) x 73.1 mm(W) x 53.8 mm(D)
Weight	107g

RADIO SPECIFICATIONS	
Media Access Protocol	IEEE802.11
Frequency	2.4 ~ 2.4835GHz (Industrial Scientific Medical Band)
Channels	11 Channels (USA, Canada) 13 Channels (Europe) 14 Channels (Japan)
Data Rate	802.11g (OFDM): 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps
Modulation	802.11g: OFDM with BPSK, QPSK and 16/64-QAM sub-carrier modulations 802.11b: DBPSK, DQPSK, CCK
Output Power	17 dBm (typical) at 11Mbps CCK 13 dBm (typical) at 54Mbps OFDM

RADIO SPECIFICATIONS	
RX Sensitivity	802.11g (OFDM): 54 Mbps: -71 dBm
	48 Mbps: -72 dBm
	36 Mbps: -76 dBm
	24 Mbps: -80 dBm
	18 Mbps: -83 dBm
	12 Mbps: -85 dBm
	9 Mbps: -87 dBm
	6 Mbps: -88 dBm
	802.11b (CCK/DSS): 11 Mbps: -85 dBm
	5.5 Mbps: -88 dBm
	2 Mbps: -91 dBm
	1 Mbps: -94 dBm

SOFTWARE SPECIFICATIONS	
Device Drivers	Windows 2000, Windows XP. ¹
Roaming	802.11 compliant
WEP	Supports 64-bit and 128-bit encryption

ENVIRONMENTAL SPECIFICATIONS	
Temperature	Operating: 0° ~ 55° C
	Storage: -25° ~ 70° C
Relative Humidity	10% to 90% (non-condensing)

¹ At the time of writing.

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