ZyXEL

TOTAL INTERNET ACCESS SOLUTION

ZyAIR 100 Wireless PC Card
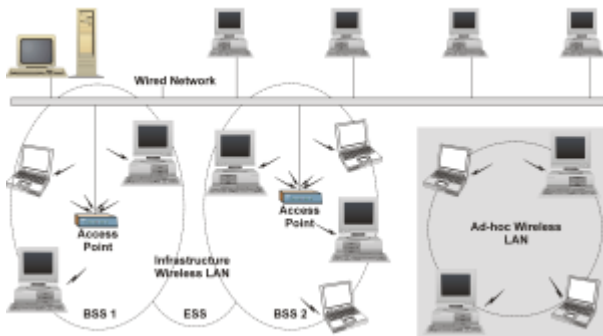
Contents

Quick Start Guide

1. Network Configuration

ZyAIR 100 Wireless PC Card is an IEEE 802.11/802.11b-compliant PCMCIA Type II DSSS wireless LAN adapter. It fully supports wireless networking under Windows® 95 (OSR2) / 98 / NT 4.0.

The ZyAIR 100 can be operated in Ad-Hoc and Infrastructure network configurations. *Ad-Hoc mode* allows the ZyAIR 100 users to join a Basic Service Set (i.e., peer-to-peer mode, without access point). *Infrastructure mode* allows the ZyAIR 100 users to join an Extended Basic Service Set (i.e., connect to access point).

Sample Wireless Network Configurations

2. Package Content

ZyAIR 100 Wireless PC Card
Quick Start Guide
ZyAIR Support CD-ROM Disc

3. ZyAIR 100 Wireless PC Card and Utility Installation under Windows® 95 (OSR2) / 98

❶ Insert the ZyAIR 100 into the PCMCIA slot and start Windows®. Windows® will auto-detect new hardware and Windows® Wizard will display *New Hardware Found*.

❷ Click on *Next* and insert the ZyAIR Support CD-ROM disc into the appropriate drive. Click on *Next*.

❸ Once the *Insert Win 95/98 CD-Rom into the appropriate drive, then click 'OK'* dialog box appears, enter the path corresponding to the appropriate drives and click *OK*.

❹ Click *Finish* to complete the installation. Restart Windows® 95 (OSR2) / 98.

❺ To install the ZyAIR 100 Utility, insert the ZyAIR Support CD-ROM disc once again . Open the *Utility* folder and double-click the *setup.exe* icon.

❻ Follow the on-screen instructions to complete utility installation, then double-click on the *ZyAIR 100 Utility* icon. The utility interface will then appear and configuration can be made.

NOTE: You are advised to always disable the PC Card prior to removing the card from the PC Card slot. This will allow the Windows® operating system to log off from the network server, disable the driver properly and disconnect power to the PC Card slot.

4. Using the ZyAIR 100 Utility to Set Up an Ad-Hoc Network

If the wireless LAN has already been set up, simply plug in the ZyAIR 100. Otherwise, set up a wireless network by taking the following steps:

❶ On the main utility interface, click on *Diagnostic tools* and then click on *Site Survey*. This would disable wireless network links temporarily and display channel quality on all 14 channels. Please note that the blue bars will indicate the quality of channel. Select a good channel for the Ad-Hoc Network.

❷ Back on the main utility interface, click on *Network Configuration* and the *ZyAIR 100 Utility – Configuration* dialog box will appear. Setup procedures are as follows:

   a) *ESS ID* denotes the assigned name for the designated wireless LAN. If *ESSID* differs, then wireless clients cannot communicate with each other. Please note that by selecting *Use Non-Specified ESSID: ANY*, the PC card may connect to other wireless LANs. Therefore, *ESSID* setup is highly recommended. (e.g., Specify *ESSID* as: Wireless001)

NOTE: Once the ESSID is set on the initial ZyAIR 100 and the rest of the ESSID remains on the default value ANY, then the initial ZyAIR 100 with the ESSID must be started first.

   b) Select *Ad-Hoc* under *Network Type*, select a good channel as noted in step ❶. Select the channel under *Ad-Hoc Default Channel*.

NOTE: Under Ad-Hoc, it would require a single, uniform channel to enable a wireless networking group.

c) Using *WEP*. The default is *Disable*. If you require high security in transmission, please select the *Enable* item and select *Key List*. *WEP* works in conjunction with all of your clients. Therefore, you must enter the same key you have entered for your other clients. For example, if you enter *MyCar* in key 1 for you PC Card, enter *MyCar* in key 1 for all other clients. Please refer to the *Infrastructure* section for *WEP* key input on the following page.

NOTE: When you use WEP to communicate with the other wireless clients, all the wireless devices in this network must have the same encryption key.

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d) Upon completing steps 1~3, click on *Modify* to save the new values.

5. Using the ZyAIR 100 Utility to Set Up an Infrastructure Network

❶ On the main *ZyAIR 100 Utility* interface, click on *Diagnostic Tools* and then click on *Access Points Browser*. This would disable wireless connection temporarily and the subsequent display would show status for all available access points.

❷ Go back to t he main *ZyAIR 100 Utility* window and click on *Network Configuration*. Setup procedures are as follows:

a) *ESS ID* denotes the assigned name for the designated wireless LAN. If the PC Card *ESSID* is different from the Access Point, you will not have access to that wireless segment. Note that by selecting *Use Non-Specified ESSID: ANY* the PC Card could be connected to other wireless LAN with a different *ESSID*. So, *ESSID* setup is highly recommended. (e.g.,: Specify *ESSID* as: Wireless001)

NOTE: If the ESSID of the PC Card remains on the default value ANY, then the PC Card could connect to other Access Points.
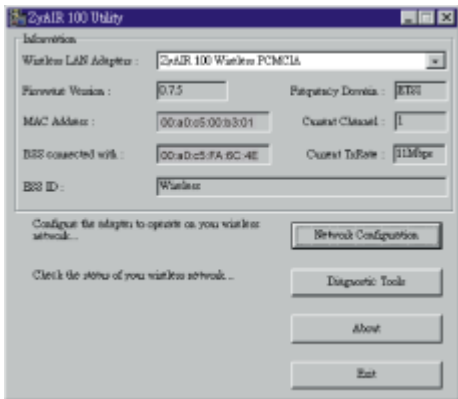
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b) Select *Infrastructure* under *Network Type.*

c) Using *WEP*: The default is *Disable*. If you require high security in transmission, please select the *Enable* item and click *Key List*. In the *Key1* entry field, enter ten hexadecimal digits (any combination of 0-9, a-f, or A-F) preceded by the characters "0x" (e.g., 0x11aa22bb33). Or you may enter a five ASCII string key (e.g., MyKey). You can repeat this step for other 3 *WEP* keys if you wish. Select a *WEP* key as an active key and then click *OK* to make the new settings take affect.
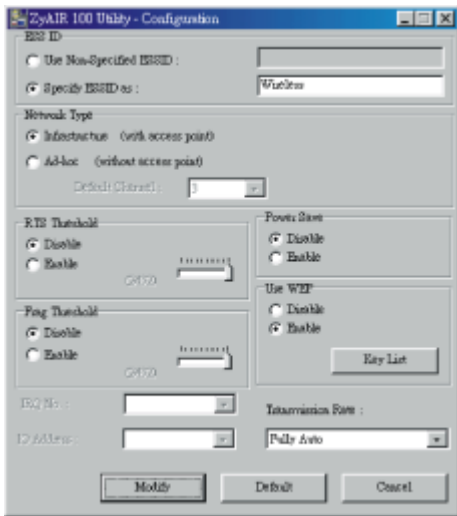

NOTE: When you use WEP to communicate with the other wireless devices, all the wireless devices in this network must have the same WEP key and active key.

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d) Upon completing steps 1~3, click on *Modify* to save the altered values.

Infrastructure network configuration provides roaming to mobile users. Multiple (at least 2) AP connection allows wireless clients to access seamless wireless connection while moving freely within the coverage area. To enable Extended Service Sets (ESS), all the wireless end devices (ZyAIR 100, AP, etc.) must be under the same *ESSID*. The wireless client will automatically connect to the nearest Access Point.

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6. ZyAIR 100 Utility Information

Network Configuration	ESSID	Select the wireless network group to join (default = ANY).
	Network Type	Select the station operation mode: Ad-Hoc (default = without Access Point) Infrastructure (default = with Access Point).

	RTS Threshold	The threshold (number of bytes) for enabling RTS/CTS handshake. Data with its frame size larger than this value will perform the RTS/CTS handshake. Value: 0~2432. For details please refer to the ZyAIR 100 Wireless PC Card User Guide.
	Fragmentation Threshold	The threshold (number of bytes) for the fragmentation boundary. Data will be transmitted in fragments with size not exceeding this value. Value: 256~2432. (default = Disable)
	Use WEP	To have high security in data transmission. (default = Disable)
	Power Save	Power management. (default = Disable)
	Transmission Rate	Select the transmission rate. (default = Fully Auto)
Diagnostic Tools	Site Survey	Inspect channel quality for your site.
	Link Quality Test	Inspect the point-to-point data transmission quality between two wireless LAN stations.
	Access Points Browser	To browse all the active Access Points in this environment.

7. Software Information:

The firmware version of the ZyAIR 100 is displayed on the utility main window. Users could download and upgrade the most recent software version from the supplier's web site or refer to your reseller for the latest software information.