

ZyAIR 100 Wireless PC Card

Quick Start Guide

Version 1.0.3

March 2002

ZyXEL

TOTAL INTERNET ACCESS SOLUTION

Contents

1	Network Configuration.....	4
2	Package Content.....	4
3	Driver Installation.....	5
3.1	Windows® 95 (OSR2) / 98.....	5
3.2	Windows® NT 4.0.....	5
3.3	Windows® 2000.....	6
3.4	Windows® XP.....	6
4	Utility Installation.....	7
4.1	Utility Information.....	7
4.1.1	Configuration.....	7
4.1.2	Loop Back.....	8
4.1.3	AP Browser.....	8
4.1.4	Site Survey.....	8
4.1.5	About.....	8
5	Set Up an Ad-Hoc Network.....	8
6	Set Up an Infrastructure Network.....	10
7	Driver Update.....	11
7.1	Windows XP.....	11
7.2	Windows 2000.....	12
7.3	Windows NT.....	12
7.4	Windows 98/ME.....	12
8	Software Information.....	13

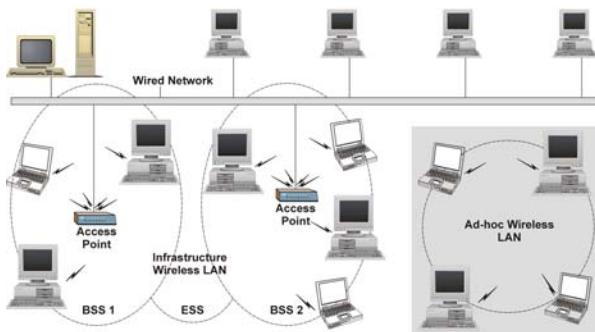
1 Network Configuration

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 4.0/2000/XP.

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

Infrastructure mode allows ZyAIR 100 users to join an Extended Basic Service Set (for instance, connect to an access point).

Sample Wireless Network Configurations



2 Package Content

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

3 Driver Installation

3.1 Windows® 95 (OSR2) / 98

- Insert the ZyAIR 100 into the PCMCIA slot and start Windows®. Windows® will auto-detect the ZyAIR 100 and Windows® Wizard will display a **New Hardware Found** screen.
- Click **Next** and insert the Support CD-ROM into the appropriate drive and click **Next**.
- Insert the Support CD-ROM into the appropriate drive and type the path or specify the location of the driver.
- Click **Finish** to complete the installation. Restart Windows® 95 (OSR2)/98.

3.2 Windows® NT 4.0

- Insert the ZyAIR 100 into the PCMCIA slot and log in as Administrator.
- Click **Start, Control Panel**. Double-click **Network** and click the **Adapters** tab and then **Add**.
- Windows NT 4.0 will present a list of supported adapters. Click **Have Disk**. Insert the Support CD-ROM and type the path or specify the location of the driver.
- When the ZyAIR 100 setup dialog box appears, select the **Channel, Network Type** and **ESSID** manually according to the table shown. Click **OK** to continue.

Parameter Name	Values
Channel	3
Network Type	Infrastructure
ESSID	ANY
Use WEP	Disable

- Click **Start, Control Panel**. Double click on **Network**. Click the **Adapters** tab then click **Properties**. Specify values for **IP Address, Subnet Mask**, and **Default Gateway**.
- Click **Yes** to restart your computer.

3.3 Windows® 2000

- Insert the ZyAIR 100 into the PCMCIA slot. Windows 2000 will auto-detect the ZyAIR 100 and displays a **Found New Hardware** dialog box. Then the **Upgrade Device Wizard** dialog box appears.
- Insert the Support CD-ROM and click on **Have Disk** to specify the location of the driver.
- If you encounter a warning window, please click **Yes** to continue.
- Follow the on-screen instruction to complete the driver installation.

3.4 Windows® XP

- Insert the ZyAIR 100 into the PCMCIA slot. Windows XP will auto-detect the ZyAIR 100 and display **Found New Hardware Wizard** window. Select **Install from a list or specific (Advanced)** to install the driver.
- Click **Next**. Insert the Support CD-ROM into the appropriate drive. Type or specify the location where the driver. Click **Next** to install the driver.
- If you encounter a warning window, click **Continue Anyway** to continue the installation process.
- Click **Next** and then **Finish** to complete the installation.
- Click **Start, Control Panel, Performance and Maintenance**,

System, Hardware, Device Manager. Click **Network Adapters**. If no error icon appears, your ZyAIR 100 is working.

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 Utility Installation

- To install the ZyAIR 100 Utility, insert the Support CD-ROM once again. Open the **Utility** folder and double click **setup.exe**.
- Follow the on-screen instructions to complete the utility installation.
- To run the utility for the first time, click **Start, Programs** and then **ZyAIR 100 Utility**. Then double click **ZyAIR 100 Utility** in the system tray and configure your ZyAIR 100 using this interface.

4.1 Utility Information

Monitor and configure your ZyAir 100 using the following utilities: **Configuration, Loop Back, AP Browser, Site Survey** and **About**.

4.1.1 Configuration

Use **Configuration** to configure **Profile, Network Type, Channel, Transmit Rate, ESSID** (Basic Service Set ID), **SSID** (Service Set ID), **WEP, RTS/CTS, Fragment Threshold**, and **Power Save mode**. You may also monitor the status of your ZyAIR 100 such as **State, Current Channel, Current Tx Rate, Throughput, Link Quality** and **Signal**

Strength.

4.1.2 Loop Back

The **Loop Back** tool helps you examine data transmission quality between your ZyAIR 100 and any computer on the network. Additionally, you may run the loopback test by clicking the **Loop back** button to verify the communication quality between your wireless station and Access Point. Use the **Refresh** button for setting the counters back to 0.

4.1.3 AP Browser

Click **Rescan** button to display Access Points around the working environment, the BSSID and SSID of each Access Point, Channel, Signal, Quality and Rates. To join displayed Access Point, select the Access Point you wish to connect and then click **Join SS** or **Join ESS** to join the group.

4.1.4 Site Survey

Use the **Site Survey** to view the quality of all 14 radio channels. The blue bar indicates good channel quality. The **higher** the blue bar is, the **better** quality you have (for instance, less interference). The yellow bar indicates fair channel quality. The red bar indicates the channel is busy or having severe interference.

4.1.5 About

Use **About** to display the driver and firmware version, the MAC address and frequency domain of your ZyAIR 100

5 Set Up an Ad-Hoc Network

If the wireless LAN has already been set up, simply plug in the ZyAIR 100. Otherwise, follow the instructions to set up a wireless network:

- Using the main utility interface, click **Site Survey** tab to display channel quality of all 14 channels. Select a good channel for your Ad-Hoc Network.
- Click **Configuration** tab to display **ZyAIR 100 Utility – Configuration**. Setup procedures are as follows:
- **BSSID** (Basic Service Set ID) or **SSID** (Service Set ID) denotes the assigned name for the designated wireless LAN. If **BSSID** or **SSID** differs, then wireless clients cannot communicate with each other. To set up **BSSID** or **SSID** click on **Advanced** . Your computer may connect to any network by specifying **ANY**. Therefore, **BSSID/SSID** setup is highly recommended. (e.g., Specify **BSSID** as: Wireless001)

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

- Select **Ad-Hoc** under **Network Type**, select a good channel as noted previously. Select the channel under **Ad-Hoc Channel**.

Ad-Hoc requires a single, uniform channel to enable a wireless networking group.

- Use **WEP** if you require high security in transmission. Select **Enable** and click **WEP Key**. **WEP** works in conjunction with all of your clients. 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 **Set up an Infrastructure**

Network section for **WEP** key input.

When you use WEP, all wireless devices in a given network must have the same encryption key.

- Click **OK** to save your configuration.

6 Set Up an Infrastructure Network

- ❶ From the main utility window, click **AP Browser** tab. This disables wireless connection temporarily and the subsequent display shows the status of all available access points.
- ❷ Click the **Configuration** tab. The setup procedure is as follows:
 - a) **BSSID** or **SSID** denotes the assigned name for the designated wireless LAN. If **BSSID** or **SSID** differs, then wireless clients cannot communicate with each other. To set up **BSSID** or **SSID** click on **Advanced**. Your computer may connect to any network by specifying **ANY**. Therefore, **BSSID/SSID** setup is highly recommended. (for example, Specify **BSSID** as: Wireless001)

If the ESSID or SSID of the PC Card is ANY, then the PC Card could connect to other Access Points.

- b) Select **Infrastructure** under **Network Type**.
Use **WEP** (for example **Disable**) if you require high security in transmission, select **Enable** and click **WEP KEY** to create encryption keys (refer to **Chapter 4** of the **User's Guide** for more information). Select a **WEP** key as an active key and then click **OK** to save your new settings.

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

- c) Click on **OK** to save your configuration.

Infrastructure network configuration offers mobility to users. Multiple (at least two) AP connections allow wireless clients seamless wireless connection within a coverage area. To enable Extended Service Sets (ESS), all the wireless end devices (ZyAIR 100, AP, etc.) must be under the same **ESSID** or **SSID**. ZyAIR 100 will automatically connect to the nearest Access Point.

7 Driver Update

Read the section relevant to your Windows version.

7.1 Windows XP

- From the **Start** main menu, go to **Control Panel**.
- Double-click **System**, click the **Hardware** tab and then **Device Manager**.
- From **Network Adapters**, double-click **ZyAIR 100**.
- Click **Driver** tab, **Update Driver** and click **Next**.
- Select **Don't search. I will choose the driver to install** and click **Next**.
- Click **Have Disk**, specify the location of the driver and then click **OK**. Windows will copy the new driver files (wlannic.inf/wlannds.sys) onto your computer.
- Click **Finish**.

7.2 Windows 2000

- From the **Start** main menu, click **Control Panel**.
- Double-click **System**, click the **Hardware** tab and then click **Device Manager**.
- From **Network Adapters**, double-click the **ZYAIR 100** icon. Click the **Driver** tab and then click **Update Driver**.
- Click **Next**.
- Select **Display a list of the known drivers for this device so that I can choose a specific driver** and click **Next**.
- Click **Have Disk** and specify the location where the driver is placed, then click **OK**.
- From the **Network Adapter** list, select **ZyAIR 100** and click **Next**.
- Click **Next**, Windows will copy the new driver files (wlannic.inf / wlannds.sys) onto your computer.
- Click **Finish**.

7.3 Windows NT

- From the **Start** main menu, go to **Control Panel**.
- Double-click **Network**, and click the **Adapters** tab and then the **Remove** button to uninstall the previous driver.
- From the **Adapters** tab, click **Add** to install the most recent driver. For installation of the NT driver, refer to **Windows NT Driver Installation** for instructions.
- After your driver is installed, restart your computer.

7.4 Windows 98/ME

- Double-click **System**, click the **Hardware** tab and click **Device Manager**.
- From **Network Adapters**, double-click **ZyAIR 100**, click

the **Driver** tab and then click **Update Driver**.

- Click **Next** to proceed.
- Select **Display a list of all the drivers in a specific location, so you can select the driver you want** and click **Next**.
- Click **Have Disk** and specify the location of the new driver. Click **OK**.
- From the **Models** list, select **ZyAIR 100** and click **OK**.
- The Windows will copy the new driver files (wlannc.inf / wlannds.sys) onto your computer.
- Once the **Please insert the disk labeled Windows 98/ME CD-ROM, and then click OK** window appears, type the path corresponding to the appropriate drives and click **OK**. Usually these files can be found at C:Windows or C:Windows\system.
- Click **Finish**. Restart your computer.

8 Software Information

View the firmware, software or driver versions of your ZyAIR 100 is on the utility main window. You 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.