

# LANEscape<sup>TM</sup> WH2330 PCMCIA Adapter



# **Z-Com, Inc.**

### **FCC Information**

This equipment has been tested and found to comply with the limits for a Class B digital devices pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication.

Operation of this equipment in residential area is likely to cause harmful interference in which case the user will be required to correct the interference at this own expense.

The user should not modify or change this equipment without written approval of the company. Modification could make invalid any authority to use this equipment.

It is unsafe to work under circumstances in which the RF exposure exceeds recommended amount. To prevent the situation happening, people who work with the antenna should be aware of the following rules:

- 1. Install the antenna so that a 20 cm distance can be kept from the antenna.
- 2. While installing the antenna in the location, please do not turn on the power of the wireless card.
- 3. While the device is working, please do not contact the antenna.
- 1

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#### About This Manual

The purpose of this manual is to assist users in the setup of the product LANEscape WH2330, the Wireless LAN PCMCIA. This manual, revised as version 2.0 in 1999, includes procedures that will help users to avoid unforeseen problems.

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### **Chapter 1** Windows 95 Set-up and Configuration

### 1-1 Installing the WH2330 Windows 95 Network Driver

The WH2330 (Mitel Semiconductor WaveRider-II) network adapter is a plug and play adapter. If the driver is being installed for the first time, then the installation is simple and straightforward. If the WH2330 is being upgraded or re-installed then pleaase see Section 1.2.

- Insert the WH2330 into a PCMCIA slot of your computer. If the computer is off then turn it on and proceed to log in if necessary.
- The Windows 95 will automatically detect the Mitel Semiconductor WaveRider-II and will prompt you to install the software for it. The option to install the software from the Manufacture's Disk should be chosen, this is usually the default.
- > Place the driver disk supplied with the WH2330 in your floppy drive and select the correct

New H	ardware Found	<u>? ×</u>
- 😪	Mitel Semiconductor-WaveRider-II	
Install Fr	om Disk	X
-	Insert the manufacturer's installation disk into the drive selected, and then dick OK.	OK Cancel
	Copy manufacturer's files from	<u>B</u> iowse

drive letter from the pull down box, i.e. for drive a:

- Click on the "OK" button and the drivers will be installed for the WH2330. If the PCMCIA slots have the sound enabled, then a low-high tone sequence should be heard.
- The WH2330 will be configured for operation as a Slave unit by default. If you have a Master station running, then the network should be available to you. If you want to use the network in an ad-hoc way- or you are setting up a new network , then read the Chapter on the optional operating characteristics of the WH2330 network adapter.

For more information on setting up optional parameters of the WH2330 adapter see Section 1.3.

### 1.2 Re-installing / Upgrading the WaveRider-II network drivers.

In order to re-install or upgrade the Windows 95 network drivers for the WH2330 adapter, it is necessary to uninstall the driver for the WH2330. Please follow the steps below:

From the Start menu, select Settings, Control Panel.



➢ From the control panel select Network.



From the Network control panel, select the Mitel Semiconductor WaveRider-II adapter. Be careful to select the correct adapter and make sure that the picture of an adapter is next to the description of the adapter, as shown below:

Network ?X	
Configuration Identification Access Control	
The following network components are installed:	
💻 Clent for Microsoft Networks 📃	
🕮 3Com EtherLink III PCMCIA (3C589D)	
Hitel Semiconductor WaveRider-II (PCMCIA)	
BC T CE //P -> 2C cm Etherl ink III ECMCIA (2C509D)	
TCP/IP -> Mitel Semiconductor WaveRider-II (PCMOA)	
Add <u>R</u> emove <u>Properties</u>	
Primary Network Logon	
Client for Microsoft Networks	
Eile and Print Sharing	
Description	
A wireless network adapter is a hardware device that	
Wielessiy connects you compare to a network	
0K Cancel	

Click on the "Remove" button. If you have hardware profiles installed, you will be asked if you want to remove all occurrences of the adapter, as shown below. Click on the "OK" button to uninstall the driver.

Network		
٩	Do you want to remove this network adapter, or just disable it for this hardware profile? To remove this adapter from all profiles, click OK. Dtherwise, click Cancel, and then do the following:	
	<ol> <li>In Contiol Panel, double-click System, and then click the Device Manager tab.</li> </ol>	
	<ol><li>Double-click Network Adapter, click the network adapter you want to disable, and then click Properties.</li></ol>	
	<ol><li>Uncheck the hardware profile(s) for which you want to disable this adapter.</li></ol>	
	Cancel	

- Finally click on "OK" in the Network set-up Panel. The driver for the WH2330 will then be removed. If Windows prompts you to re-start your computer, you can re-boot it, or you can safely click on the "No" button and continue to install the new drivers.
- In order to install the new drivers, unplug the WH2330 card, if plugged in and then insert it into the socket again. Follow the instructions for a new installation.

### 1.3 Operational / Optional Characteristics of the WH2330

In order to change the operational/optional characteristics of the WH2330 adapter, the Advanced setting tab of the WH2330 must be found. Follow these steps below:

From the Start menu, select Settings, Control Panel.



➢ From the Control Panel select Network.

🔯 Control Panel		<u>- 🗆 ×</u>
<u>F</u> ile <u>E</u> dt ⊻iew <u>H</u> elp		
🔯 Control Panel	💌 🖪 👗 🗎	🖻 🗠 🗙 🖻 🏪 🦫
🗿 32bit DDBC	Contractions	S Add New Hardware
📇 Add/Remove Programs 🛛	😽 Date/Time	📑 Display
💋 Fax	👰 Fonts	🥘 Internet
💼 Keyboard	🥘 Mail	👼 Microsoft Mail Postolfice
a Modems 🖉	🖉 Mouse	🕵 Multimedia
Ser Network	💮 ODBC	🚯 Passwords
💊 PC Card (PCMCIA)	👰 Printers	👸 Regional Settings
🛒 Sounds	🖳 System	-
<u> </u>	-	
Configures network hardware and software.		

From the Network, select the Mitel Semiconductor WaveRider-II adapter. Be careful to select the correct adapter and make sure that the picture of an adapter is next to the description of the adapter, as shown below.

letwork	? X
Configuration Identification Access Control	
The following network components are installe	ed:
💻 Clent for Microsoft Networks	<u> </u>
SCom EtherLink III PCMCIA (3C589D)	
Mitel Semiconductor WaveRider-II (PCML     Mitel Semiconductor	
TCP/IP -> 3Com EtherLink III PCMCIA (3	C589D)
TCP/IP -> Mitel Semiconductor WaveRid	ler-II (PCMCIA) 🔽
Add <u>R</u> emove	Properties
Primary Network Logon	
Client for Microsoft Networks	
Eile and Print Sharing	
Description	
A wireless network adapter is a hardware de	evice that
wirelessly connects your computer to a net/	vork.
0	

- Click on the Properties button to display the properties of the adapter.
- Click on the Advanced Tab at the top of the panel to display the advanced settings for the adapter.

Mitel Semiconductor W	/aveRider-II (PCMCIA) Propert 🏋 🗙
Driver Type Bindings	Advanced
Click the setting you w select its new value or	vani to change on the left, and then n th <del>e</del> right.
Property:	⊻alue:
Country NetKey Station Name Wireless Station Type	
	OK. Cancel

> The Advanced settings for the adapter can now be configured for your network. Software

### Chapter 2 Using the WH2330 Upgrade Utility

The WH2330 upgrade utility (upgrade.exe) is a Windows application which allows users to upgrade the Media Access Control (MAC) software held in the WH2330 adapter. We may, from time to time, issue new versions of the MAC software in order to add new functions or correct problems.

Upon starting the Upgrade utility (via the Windows 95 Start Menu or Explorer), you will be prompted to enter the name of the new MAC software image file. Enter the location and name of the file, and press the "OK" button. The utility will then re-program the WH2330 adapter. The re-programming must be allowed to complete or the WH2330 will stop functioning. For this reason Windows 95 will not respond during the programming sequence. The upgrade utility will indicate if the re-programming has been successful. If the programming fails, please contact the supplier for further technical support.

## **Appendix WH2330 Specifications**

Interface	PCMCIA
Range	Over 150 meters line of sight / 50 meters in an office environment
Receiver Sensitivity	Typically –83dBm
Tx/Rx/Tx Switching Time	Maximum 224us
Channel Hopping Time	Maximum 224us
Data Rate	1 Mbits/sec across air
MAC Protocol	GPSP CSMA/CA
Frequency Band	2.4~2.4835 GHz
Typical Output Power	+17dBm
Supply Voltage	5V Operation
Size	PCMCIA type 2
Operating Temperature Range	0 ~55
Storage Temperature Range	-20 ~70