

ZEW1505 ZEW1605 ZEW1605A

802.11g Wireless Network Adapter



USER MANUAL

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Chapter 1 Introduction

1.1 Welcome

ZEW1505/ZEW1605/ZEW1605A is a powerful 32-bit Cardbus/PCI Adapter that installs quickly and easily into PCs. The Adapter can be used in Ad-Hoc mode to connect directly with other cards for peer-to-peer file sharing or in Infrastructure mode to connect with a wireless access point or router for access to the Internet in your office or home network. ZEW1505/ZEW1605/ZEW1605A connects you with 802.11g networks at up to an incredible 54Mbps! And for added versatility, it can also interoperate with all the up to 11Mbps 802.11b products found in homes, businesses, and public wireless hotspots around the country. And in either mode, your wireless communications are protected by industrial-strength WPA, so your data stays secure.

1.2 About This Guide

This User Manual contains information on how to install and configure your Wireless Adapter to get your network started accessing the Internet. It will guide you through the correct configuration steps to get your device up and running.

Note and Caution in this manual are highlighted with graphics as below to indicate important information.

Dontains related information corresponds to a topic.

Necessary steps, actions or messages should not be ignored.

1.3 Contents of Package

- One ZEW1505/ZEW1605/ZEW1605A
- One Installation CD w/User Manual
- One Quick Installation Guide
- One 2dBi antenna (ZEW1605 only)
- One Extended 2dBi antenna (ZEW1605A only)

Contact your local authorized reseller or the store purchased from for any items damaged and/or missing.

1.4 Before you begin

You must have at least the following:

- A laptop computer/desktop PC with an available 32-bit Cardbus/PCI slot
- At least a 300MHz processor and 32MB of memory
- Windows 2000, XP, Vista, 7
- A CD-ROM Drive
- Cardbus/PCI controller properly installed and working in the computer
- A 802.11g or 802.11b Access Point (for infrastructure Mode) or another 802.11g or 802.11b wireless adapter (for Ad-Hoc; Peer-to-Peer networking mode.)

Chapter 2 Install Driver and Utility

NOTE: Snap-shot screens of the following installation procedure are based on Windows XP. Installation procedures will be similar for other windows operating systems.

 Insert Installation CD to your CD-ROM drive. The Wizard will appear automatically. If not, browse CD and double-click **setup.exe** in *PCI_CARDBUS installation* folder to execute it. Click *Install Driver&Utility for Cardbus/PCI Wireless Adapter* to start installation.



• Click **Install** to begin the installation.

Wireless LAN Driver and Utility
Wireless LAN Driver and Utility
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
nstallShield < <u>B</u> ack <u>Install</u> Cancel

• During the installation, the following dialogue may appear. Click **Continue Anyway** to continue.



• Click *Finish* to complete the software installation.

Wireless LAN Driver and Utility			
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed Wireless LAN Driver and Utility. Click Finish to exit the wizard.		
	< <u>B</u> ack Finish Cancel		

Chapter 3 Install Wireless Adapter

3.1 ZEW1505



The two status LED indicators of ZEW1505 are described in the following.

- PWR ON (Green): Indicates ZEW1505 is ready
- Lnk/Act ON (Green): Indicates a valid connection
- Lnk/Act Flashing: Indicates ZEW1505 is transmitting or receiving data.

Install ZEW1505

- Power on your notebook, let the operating system boot up completely, and log in as needed.
- Hold ZEW1505 with the LOGO facing up and insert it into a Cardbus slot.



• If the Found New Hardware Wizard displays, choose *install the software automatically (Recommended)*, and click *Next* button. The driver will be installed automatically.



3.2 ZEW1605



The status LED indicators of ZEW1605 are described in the following.

- PWR ON (Green): Indicates power on
- Lnk/Act ON (Green): Indicates a valid connection
- Lnk/Act Flashing: Indicates ZEW1605 is transmitting or receiving data.

Install ZEW1605

- Open your PC case and locate an available PCI on the motherboard.
- Slide ZEW1605 into the PCI slot. Make sure that all of its pins are touching the slot's contacts. You may have to apply a bit of pressure to slide ZEW1605 all the way in. after ZEW1605 is firmly in place, secure its fastening tab to your PC's chassis with a mounting screw. Then close your PC.
- Attach the external antenna to the adapter's antenna port.
- Power on the PC.



• If the Found New Hardware Wizard displays, choose *install the software automatically (Recommended)*, and click *Next* button. The driver will be installed automatically.



You have now completed the driver and hardware installation for the adapter.

Chapter 4 Using the Wireless LAN Utility

Double-click the tray icon on your desktop to use Wireless LAN utility.

4.1 General

General page shows detail information about the current connection.

🖾 PCI&Cardbus Wirele:	ss LAN Utility	
Refresh(<u>R</u>) Set Wizard(<u>S</u>)	View (Y) About (A)	
🖃 闍 MyComputer	General Profile Available Network Advanced Status Statistics Wi-Fi	Protect Setup
Com alleless TW	Status: Associated Throughput:	
	Speed: 54 Mbps	
	Type: Infrastructure	
	Encryption: None Ty:0.01% Total:0.01%	
	SSID: Wireless-AP	
	Signal Strength:	
	Link Quality:	
	Network Address:	
	Mac Address: 00:22:55:88:00:1B	
	Subnet Mask: 255.255.0	
	Gateway: 192.168.1.1	
	Renew IP	
🔲 Show Tray Icon	Disable Adapter	Close
🔲 Radio Off	Windows Zero Config	
Ready		NUM

General Information

- **Status:** Wireless network Associated, Ad-hoc Mode or Not Associated.
- **Speed:** The data transfer rate of current connection(Mbps).
- **Type:** Infrastructure or Ad-Hoc
- **Encryption:** Current encryption.
- **SSID:** The public name of a wireless network, Service Set IDentifier
- **Signal Strength:** The data transfer rate of the current connection(%).
- Link Quality: Based on signal strength and TX/RX packet error rate (%).

4.2 Profile

Profile can keep your favorite wireless setting among your home, office, and other public hotspot. You may save multiple profiles and activate the one at your preference.

🏴 PCI&Cardbus Virele	ss LAN	Utility							
Refresh(<u>R</u>) Set Wizard(<u>S</u>)	View(V) J	About (<u>A</u>)							
🖃 🍃 MyComputer	General	Profile	Available :	Network	Advanced	Status	Statistics	Wi-Fi	Protect Setup
	Availab	le Profile(s)						
	Pro	file Name	<u>.</u>		SSID				bbA
					1 0010				
									Remove
									Edit
									Euit
									Duplicate
									Set Default
	<						>		
	ļ								
🔲 Show Tray Icon			🔲 Disab	ile Adapt	er				Close
🗌 Radio Off			🔲 Wind	lows Zer	o Config				
Ready									NUM

After selecting Add/Edit button, Wireless Network Properties screen will appear, enter a name and SSID for the new profile.

Vireless Network Properties:	
Profile Name: Wireless-AP	
Network Name(SSID): Wireless-AP	
This is a computer-to-computer(ad hoc) network; wireless access points are not used. Channel: 1 (2412MHz) V Wireless network security This network requires a key for the following: Network Authentication: Open System V Data encryption: Disabled	802.1x configure EAP TYPE : GTC Tunnel :
Key index (advanced): 1 V Network key:	Identity : Password :
Confirm network key:	Certificate :

• Infrastructure Mode:

If you want wireless computers to communicate with computers on wired network via a wireless access point.

Don't choose the checkbox below.

This is a computer-to-computer(ad hoc) network; wireless access points are not used.

Choose the Network Authentication Mode and Data encryption from the drop-down menu. And import the network key. Click OK button to complete the network connection.

• Ad-hoc Mode:

If you want multiple wireless computers to communicate directly with each other, choose the checkbox below and select the correct operating channel from drop-down menu.

This is a computer-to-computer(ad hoc) network; wireless access points are not used.

Choose the Network Authentication Mode and Data encryption from the drop-down menu. And import the network key. Click OK button to complete the network connection.

You have now successfully created a connection profile.

4.3 Available Network

Under Available Network tab, you will know information of all surrounding wireless networks from the last scan. Click *Refresh* to update and refresh. Or Select a SSID to add to your profile.

PCI&Cardbus Virele	ss LAN Utility	
Refresh(<u>R</u>) Set Wizard(<u>S</u>)	View (V) About (A)	
🖃 🍃 MyComputer	General Profile Available Network Advanced Status Statistics Wi-Fi Pro	otect Setup
	Available Network(s) SSID Channel Encryption Network Authentication Image:	Signal 60% 40%
		>
	Refresh Add to Profile	
	Note Double click on item to join/create profile.	
< <u>></u>		
🔲 Show Tray Icon	Disable Adapter	Close
🔲 Radio Off	Windows Zero Config	
Ready		NUM

Chapter 5 Troubleshooting

This chapter provides solutions to problems that may occur during the installation and operation of ZEW1505/ZEW1605/ZEW1605A. Read the descriptions below to solve your problems.

1. ZEW1505/ZEW1605/ZEW1605A does not work properly.

Reinsert ZEW1505/ZEW1605/ZEW1605A into your PC's PCI /Cardbus slot.

Right click on My Computer and select Properties. Select the device manager and click on the Network Adapter. You will find the Adapter if it is installed successfully. If you see the yellow exclamation mark, the resources are conflicting. You will see the status of the Adapter. If there is a yellow question mark, please check the following:

Make sure that your PC has a free IRQ (Interrupt ReQuest, a hardware interrupt on a PC.) Make sure that you have inserted the right adapter and installed the proper driver. If the Adapter does not function after attempting the above steps, remove the adapter and do the following:

Uninstall the driver software from your PC.

Restart your PC and repeat the hardware and software installation as specified in this User Manual.

2. I cannot communicate with the other computers linked via Ethernet in the Infrastructure configuration.

Make sure that the PC to which ZEW1505/ZEW1605/ZEW1605A is associated is powered on.

Make sure that ZEW1505/ZEW1605/ZEW1605A is configured on the same channel and with the same security options as with the other computers in the Infrastructure configuration.

3. What should I do when the computer with ZEW1505/ZEW1605/ZEW1605A installed is unable to connect to the wireless network and/or the Internet?

Check that the LED indicators for the broadband modem are indicating normal activity. If not, there may be a problem with the broadband connection.

Check that the LED indicators on the wireless router are functioning properly. If not, check that the AC power and Ethernet cables are firmly connected.

Check that the IP address, subnet mask, gateway, and DNS settings are correctly entered for the network.

In Infrastructure mode, make sure the same Service Set Identifier (SSID) is specified on the settings for the wireless clients and access points.

In Ad-Hoc mode, both wireless clients will need to have the same SSID. Please note that it might be necessary to set up one client to establish a BSS (Basic Service Set) and wait briefly before setting up other clients. This prevents several clients from trying to establish a BSS at the same time, which can result in multiple singular BSSs being established, rather than a single BSS with multiple clients associated to it.

Check that the Network Connection for the wireless client is configured properly. If Security is enabled, make sure that the correct encryption keys are entered on both ZEW1505/ZEW1605/ZEW1605A and the access point.

Standards	IEEE 802.11g, IEEE 802.11b				
Frequency Band	2.412GHz ~ 2.4835GHz				
Modulation	IEEE 802.11b : DBPSK / DQPSK / CCK				
	IEEE 802.11g : BPSK, QPSK, 16QAM, 64QAM				
	11 Channels (USA, Canada)				
Channels	13 Channels (Europe)				
	14 Channels (Japan)				
Oneveting Denge	Indoors : up to 100 meters				
Operating Range	Outdoors : up to 300 meters				
Operating System	Windows 2000 / XP / Vista / 7				
Network Protocol	TCP/IP, IPX, NDIS 4, NDIS 5, NDIS 5.1, NetBEUI				
Interface	Cardbus/PCI				
Transmit Power	15 dBm				
Sensitivity	-80 dBm				
Security	64/128-bit WEP (Wired Equivalent Privacy) / WPA/WPA2				
LED	PWR, LNK/ACT				
Dimensions	Cardbus: 118.3mm × 5mm × 54.5mm				
Dimensions	PCI: 120mm × 45mm (Non-Bracket)				
Weight	Cardbus: 55g				
weight	PCI: 50g				
Bower	Cardbus: 3.3V				
Powei	PCI: 3.3V				
Operating Temp.	0°C ~ 40°C				
Storage Temp.	-20°C ~ 70°C				
Operating Humidity	10% ~ 85%, Non-Condensing				
Storage Humidity	5% ~ 90%, Non-Condensing				
Certifications	CE / FCC				

APPENDIX A Specifications