802.11b Wireless CardBus PC Card

User Guide

Doc. No.: 041902-01

REGULATORY STATEMENTS

FCC STATEMENT

This model 802.11b Wireless CardBus PC Card (WB2000) must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

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

- 1) This device may not cause harmful interface, and
- 2) This device must accept any interface received, including interface that may cause undesired operation. 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 residential installation. 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio

or television reception, which can be determined by turning off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

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

FC Tested To Comply With FCC Standards FOR HOME OR OFFICE USE



CAUTION:

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Technical Support

AboCom Systems, Inc. 300 1F, No.21, R&D Rd.II, SBIP, Hsin-Chu, Taiwan , R.O.C. Head office : Tel: 886-3-5789090 Fax:886-3-5789520 Technical Support: Tel: **0800-079-123** <u>E-Mail: support@abocom.com.tw</u> Website: www.abocom.com.tw

U.S Service Center: D-LINK CORPORATION 53 DISCOVERY DRIVE, IRVINE CA 92618, USA TEL: 714-788-0805

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Introduction

The 802.11b Wireless 32bit CardBus PC Card is a device that lets you connect your notebook to a wireless local area network (LAN). A wireless LAN is like a regular LAN, except that you can share information without looking for a place to plug in, and augment networks without installing or moving wires. Based on radio frequency (RF) technology, a wireless LAN transmits and receives data over the air, along with the guarantee to provide privacy and noninterference by the use of separate radio frequency.

The 802.11b Wireless 32bit CardBus PC Card allows you to take full advantage of your PC's mobility with access to real-time information and online services anytime and anywhere. Plus, with the network installation simplicity and flexibility, you can eliminate the need to pull cable through walls and ceilings and allow the network to go where wires cannot go. Exploring WWW and augmenting networks can never be done more easily

- 1 -

Features

- Complies with IEEE 802.11b standard for 2.4GHz Wireless LAN.
- Complies with CardBus standard.
- Supports PC Card hot swap and true Plug & Play.
- Works with all existing network infrastructure.
- Complies with specific wireless products and services
- Capable of up to 128-Bit WEP Encryption.
- Freedom to roam while staying connected.
- 11 Mbps High-Speed Transfer Rate.
- Rich diagnostic LED indicators with Integrated Antenna.
- Complies with Window 98/2000/ME/XP
- Lower power consumption.
- Easy to install and configure.

LED Indicators

- LINK
- A CT

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Installation the Utility under Windows 98/ME/2000

Precaution for Windows 98, 2000, and ME users: You must install the Adapter's software before installation of the hardware.

 Insert the Setup Utility CD-ROM into the CD-ROM drive and double click on Setup.exe to install the Configuration & Monitor Utility.



2. When the Welcome screen appears, click **Next** to continue.



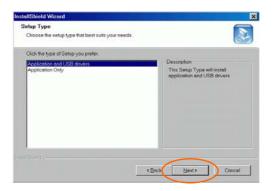


 The Choose Destination Location screen will show you the default destination chosen by the utility. Click Next to continue.

ose Destination Location		6
Select folder where Setup will install files.		J.
Setup will install 802 11 Wireless LAN in the folio	owing tolder.	
To install to this folder, click Next. To install to a folder.	different folder, click Brow	se and select another
Destination Folder C\Program Files\802.11 Wireless LAN		Browse

4. In Setup Type, choose Application and USB drivers and then click Next.



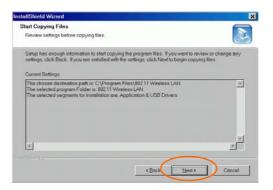


5. Follow the instruction to select the program folder. Click **Next** to continue.

Please select a program tolder. Setup will add program icons to the Program Folder lated below. You may type a n or select one from the existing tolders list. Click Next to continue. Program Folders: <u>Broot it Wonlewset LOP</u> Egisting Folders: <u>ACC Systems</u> ACC Systems ACC Systems ACC Systems Contiguation Utility Control RAW 9 CuteFTP	allShield Wizard		
Setup will add program icons to the Program Folder Isted below. You may type a n an extend on a form the mixing folders list. Click Next to continue. Program Folders: 2021 Winders LAN Existing Folders: ACC Systems ACC Sys	Select Program Folder		6
ar select one from the existing folders list. Click Next to continue. Program Folders: Egisting Folders: Egisting Folders: ACC Systems ACC Systems ACC Systems ACC Systems Contiguation Utility Control Forward S Configuration Utility Control Forward S Conterports Conte	Please select a program tolder.		J.
State 11 Windows LAX Experime Folders: ACC0 Systems ACC0 Systems Adobe Configuration Utility Control Utility			der name,
Egiting Folders: Accesses Acc Systems Accesses Acces	Program Folders		
ACD Systems ACD Systems Adobe Adobe Arabet 40 Condiguation Utity Concil/RAW 9 CuteFTP	802 11 Wireless LAN		
ACD Systems ACD Systems Adobe Adobe Arabet 40 Condiguation Utity Concil/RAW 9 CuteFTP	Existen Folders		
Adobé Adobé Actobet 40 Contiguration Utility Contel/RAW 9 CuteFTP	Accessories		
Adobe Acrobet 4.0 Configuration Utility CoreIDRAW 3 CuteFTP			
Core/DRAW 9 CuteFTP			- 11
CuteFTP			
	FinePrint 2000		
Microsoft Office Tools			w.
Microsoft Press	[Microsoft Press		<u> </u>
		(Back Next)	Ca
(Back Next)			

6. In Start Copying Files, click Next to continue.





7. In **Setup Status**, the InstallShield Wizard will begin copying the files.

tallShield Wizard		
Setup Status		2
802.11 Wireless LAN Se	tup is performing the requested operations.	
Installing		
C:_\{B0C50CE0-0371-	1D6-0537-00A0C930C1A2)\Setup exe	
	21%	

 After the Configuration Utility has been successfully installed, select Yes, I want to restart my computer now, and then click Finish to restart.

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Note: In case you need to uninstall the Utility or device, please refer to below section.

Uninstall Procedure Under Windows 98/ME/2000

Uninstall the Configuration Utility

- 1. Go to Start → Programs → 802.11 Wireless
 - LAN → Uninstall Configuration and Monitor Utility.

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2. Click **OK** to continue.

Confirm File De	letion		Þ
Do you want to o	completely remove the se	lected application and all of it	ts components?
	ОК	Cancel	

3. Click **Finish** to complete the uninstalled procedure.

InstallShield Wizard	InstallShield Wizard Complete The InstallShield Wizard has successfully installed 802.11 Wireless LAN. Belore you can use the program, you must restart your computer.
	Yes, I want to restart my computer naw No. I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup.
	KDrok. Finish Denori

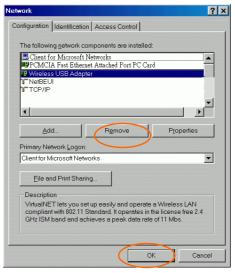


Uninstall the Device

Under Windows 98/ME

- 1. Go to Start \rightarrow Settings \rightarrow Control Panel \rightarrow Network.
- 2. Select Wireless USB Adapter then click

Remove. Click OK.



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3. The system will prompt you to restart your

computer. Click Yes.



Under Windows 2000

1. Go to Start \rightarrow Control Panel \rightarrow

Add/Remove Hardware.



 When the Welcome screen appears, click Next to continue.

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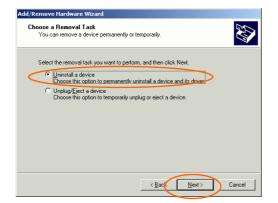
3. In Choose a Hardware Task, select Uninstall/Unplug a device and click Next to

continue.



4. In Choose a Removal Task, select Uninstall a device and click Next.





5. Check the Show hidden devices check box

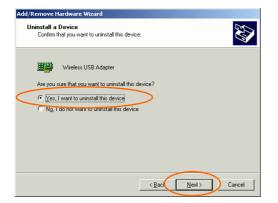
and locate the device in the device list. Select

the device and click Next.

Add/Remove Hardware Wizard	
Installed Devices on Your Computer The following hardware is installed on your computer.	
Select the device you want to uninstall.	
Devices	
Microsoft Streaming Network Raw Channel Access	
Kicrosoft Streaming Network Raw Channel Access	
C Microsoft Streaming Network Raw Channel Access	
Contract Streaming Quality Manager Proxy	
BAS Async Adapter	
Ge USB Root Hub	
ByWireless USB Adapter	
☑ Show hidden devices	
< <u>B</u> ack <u>N</u> ext>	Cancel

6. Select **Yes**, **I want to uninstall this device** and click **Next**.





7. Click Finish to complete the uninstalled

procedure.



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Hardware Installation

Precaution for Windows 98, 2000, and ME users: Please do NOT install the hardware until the Application setup in <u>Installation the</u> <u>Utility under Windows98/ME/2000</u> has been completed.

- 1. Plug the square end (Type B) of USB cable into the adapter's USB port.
- 2. Plug the rectangle end (Type A) of USB cable into the PC's USB port.

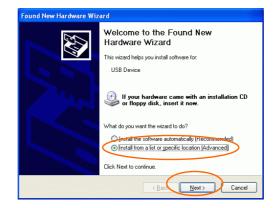
After the device has been connected to your computer, Windows will detect the new hardware and then automatically copy all of the files needed for networking.

Precaution for Windows XP users: You must install the Adapter's hardware, and then go to Installation of the USB Adapter for Windows XP.

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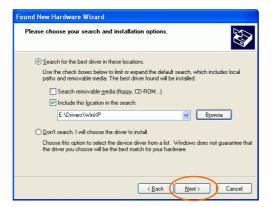
Installation of the USB Adapter for Windows XP

 Once the device is well connected to your computer, Windows XP will automatically detect the new device. Click Install from a list... and click Next.



 Insert the Setup Utility CD-ROM into the CD-ROM drive. Select Include this location in the search: and click Browse to provide the appropriate path (e.g. E:\Drivers\WinXP). Click Next.

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3. Click Continue Anyway to proceed.



4. Click **Finish** to complete the Utility installation.

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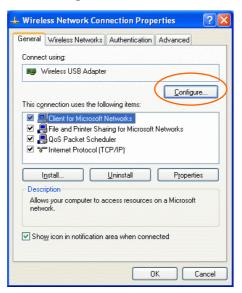
Uninstall Procedure Under Windows XP

Go to Start → Control Panel → Network
 Connections → Wireless Network
 Connection Enabled Wireless USB Adapter
 → Properties.

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2. Click **Configure** to continue.



3. Click Uninstall to uninstall this device.



Wireless USB Adapter Properties 🛛 🕐 🔀
General Advanced Driver Power Management
Wireless USB Adapter
Driver Provider: USB
Driver Date: 4/15/2002
Driver Version: 1.0.0.2
Digital Signer: Not digitally signed
Driver Details To view details about the driver files.
Update Driver To update the driver for this device.
<u>Boll Back Driver</u> If the device fails after updating the driver, roll back to the previously installed driver.
Uninstall To uninstall the driver (Advanced).
OK Cancel

4. Click **OK** to complete the uninstalled procedure.

Confirm	Device Removal	? 🗙
HE	Wireless USB Adapter	
Warning	; You are about to uninstall this device from	your system.
		Cancel

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Network Connection

Configuring the Network Protocols for Windows 98/ME/2000

- Once the driver has been installed, you must make some changes to your network settings. Click Start → Settings → Control Panel → Network.
- 2. Make sure that you have all the following components installed.

etwork	? :
Configuration Identification Access Control	
The following network components are installed	
Client for Microsoft Networks PCMCIA Fast Ethernet Attached Port PC Car	d
Wireless USB Adapter	
IPX/SPX-compatible Protocol	
Add Remove	Properties
Primary Network Logon: Client for Microsoft Networks	
Eile and Print Sharing	
Description	
VirtualNET lets you set up easily and operate compliant with 802.11 Standard. It operates in t GHz ISM band and achieves a peak data rate	he license free 2.4
	· · ·
0	K Cancel

- Wireless USB Adapter
- IPX/SPX-compatible Protocol



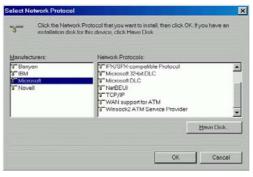
- NetBEUI
- TCP/IP

If any components are missing, click on the **Add** button to add them in. All the protocols and clients required and listed above are provided by Microsoft.

3. After clicking **Add**, highlight the component you need, click **Add**.

lick the type of network component you	want to install:	
🛃 Client	Add	
🔋 Adapter		
Protocol	Cance	el
Service		
Protocol is a 'language' a computer us	es. Computers	

4. Highlight **Microsoft**, and then double click on the item you want to add.



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- 5. For making your computer visible on the network, enable the **File and Printer Sharing**.
- 6. Click the **Identification** tab. Make up a name that is unique from the other computers' names on the network. Type the name of your workgroup, which should be the same used by all of the other PCs on the network.

Network	? ×
Configuration Identification Access Control	
Computer on the network. Please type a name for this computer on the network. Please type a name for this computer, the workgroup it will appear in, and a short description of the computer.	
Computer name:	
Workgroup:	
Computer Description:	
OK Car	cel

7. Click the Access Control tab. Make sure that "Shared-level access control" is selected. If connecting to a Netware server, share level can be set to "User-level access control."

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Vetwork	? ×
Configuration Identification Access Control	
Control access to shared resources using	
C Share-level access control	
Enables you to supply a password for each shared resource.	
C User-level access control	
Enables you to specify users and groups who have access to each shared resource.	
Obtain list of users and groups from:	
OK	Cancel

- 8. When finished, reboot your computer to activate the new device.
- 9. Once the computer has restarted and Windows has booted up, a Logon window will appear and require you to enter a username and password. Make up a username and password and click OK. Do not click the Cancel button, or you won't be able to log onto the network.
- 10. Double-click the **Network Neighbourhood** icon on the windows desktop, and you should see the names of the other PCs on the network.

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Configuring the Network Protocols for Windows XP

Once the driver has been installed, you must check if some necessary network components are well setup in your computer. Click Start \rightarrow Control Panel \rightarrow Network Connections \rightarrow Wireless Network Connection Enabled Wireless USB Adapter \rightarrow Properties.

n Status 🦷
Connected
00:03:45
11.0 Mbps
?∎000
h. — Received
5

Make sure that you have all the following components installed.

- Client for Microsoft Networks
- IPX/SPX-compatible Protocol
- TCP/IP

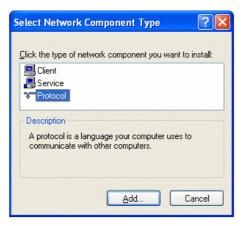
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eneral	Wireless Network	Authenticatio	n Advanced
Connec	st using:		
III) \	Vireless USB Adap	oter	
			Configure
This ca	nnection uses the	following items:	goringuro
10000	Client for Microso		
	File and Printer S		oft Networks
	QoS Packet Sch		in notivoirta
· · ·			
V 36			
⊻ ∛	Internet Protocol		
	Internet Protocol	(TCP/IP)	
			Properties
	Internet Protocol	(TCP/IP)	P <u>r</u> operties
Desc Allov	Internet Protocol	(TCP/IP) <u>U</u> ninstall	,
Desc	Internet Protocol	(TCP/IP) <u>U</u> ninstall	,
Desc Allov	Internet Protocol	(TCP/IP) <u>U</u> ninstall	,
Desc Allov netw	Thternet Protocol	(TCP/IP) Uninstall	is on a Microsoft
Desc Allov netw	Internet Protocol	(TCP/IP) Uninstall	is on a Microsoft
Desc Allov netw	Thternet Protocol	(TCP/IP) Uninstall	is on a Microsoft
Desc Allov netw	Thternet Protocol	(TCP/IP) Uninstall	is on a Microsoft

If any components are missing, click on the **Install...**button to select the **clients/service/ protocols** required. After selecting the component you need, click **Add...**to add it in.

For making your computer visible on the network, enable the **File and Printer Sharing**.

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When finished, you must restart your computer to complete installation.

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Configuration and Monitor Utility for Windows 98/ME/2000

After installing the device successfully, go to Start \rightarrow Programs \rightarrow 802.11 Wireless LAN \rightarrow Configuration and Monitor Utility.



The **Wireless LAN Monitor Utility** icon will appear in the taskbar every time the device is running. You can open it by double-clicking on this icon.



Icon Status

Mode	Icon	Link Status	
Access Point mode	-04	Red. The station is not associated to an Access Point.	
	¥	Blue. The station associates itself to an Access Point.	
Peer-to-Peer mode	<u></u>	Red. The color is red only when the card is during resetting and initialization procedure.	
	¥	Blue. The color is always blue, except when the card is during resetting and initialization procedure.	

Note: Except for the following configuration utility, using Windows to configure the wireless network settings in the **Windows XP** is recommended. (Please skip to the **Configuration for Windows XP** section)

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All settings are categorized into 6 tabs:

Status Statistics Site Survey Encryption Advanced Version

Status

The **Status** tab will display the current status of the Wireless USB Adapter.

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s LAN Monitor Util		
Wireless US	B Adapter	•
tus Statistics Site	Survey Encryption Advance	d Version
Operating Mode	Access Point 💌	
Channel	1	Change
SSID	ATMEL	Submit
Tx Rate	11 Mbps 💌	
Int. Roaming	Disabled	Cancel
MAC Address	00-E0-98-00-00-01	
Status	Associated - BSSID: 00-20-2	B-00-47-76
Signal Strength		
Link Quality	100 %	
	100 %	
		Exit

Item	Description
Operating Mode	It displays the current operating mode. (Access Point or Peer-to -Peer).
Channel	It shows the selected channel that is currently used. (There are 14 channels available, depends on the country.)
SSID	The SSID is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network. It shows the current SSID setting of the Wireless USB Adapter.

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Item	Description
Tx Rate	It shows the current transfer rate. (1, 2, 5.5, or 11Mbps or Auto)
Int Roaming	It displays the current roaming status. (Disabled or Enabled)
MAC Address	It displays the MAC address of the Wireless USB Adapter.
Status	It displays the information about the status of the communication (the BSSID of the Access Point to which the card is associated).
Signal Strength	It displays the signal strength of the connection between the Wireless USB Adapter and the Access Point it connects.
Link Quality	It displays the link quality of the connection between the Wireless USB Adapter and the Access Point it connects.
Change	Click Change to change the configuration parameters such as Operating Mode , SSID , Tx Rate , and Int Roaming . (Refer to below page)
Submit	Click Submit to save the changes.
Cancel	Click Cancel to ignore the previous setting.

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Fireless LAN Monitor Utility	,	×
Status Statistics Sta	B Adapter	
Operating Mode Channel SSID Tx Rate Int. Roaming MAC Address	Access Point ACCESS Point ATMEL Submit Disabled O0-E0-98-60-00-01	
Status Signal Strength Link Quality	Disable Encryption to join this ESS	

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Statistics

This option shows you to view the available statistic information (**Data packets**, **Management Packets** and **Rejected packets**). Press the **Reset** button to renew or update this list of statistics.

eless LAN Monitor Utility		
Wireless USB A	dapter	•
Status Statistics Site Sur	vey Encryption Adv	ranced Version
- Data	Tx	Px
Successful	34	0
Unsuccessful	0	0
- Management		
Successful	2	256
Unsuccessful	0	0
Rejected Packets	0	0
		Reset
		Exit

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Site Survey

The **Site Survey** tab shows all the available Access Points and their features.

955	LAN Monitor	Utility				
	Wireles	s USB Adap	ter]
atu	s Statistics	Site Survey	Encryp	tion Adva	nced Versi	ion
в	SSID	SSID	Signal	Channel	Encryption	BSS
02	-00-73-58-9D-4	B abocom	47 %	1	No	Peer-to-
00	-20-2B-00-47-7	6 ATMEL	100 %	1	No	Access
00	-60-B3-16-1F-A	F abocom	47 %	1	No	Access
02	-00-17-92-6E-0	0 James	47 %	1	No	Peer-to-
00	-04-76-28-78-2	B 3Com	47 %	6	No	Access
L						
						 →
<u> </u>						
			Re	e-Scan	Canc	el
						Exit

Item	Description
BSSID	A set of wireless stations is referred to as a Basic Service Set (BSS). Computers in a BSS must be configured with the same BSS ID.
SSID	The SSID is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network.

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Item	Description
Signal	It displays the signal strength of the connection between the Wireless USB Adapter and the Access Point it connects.
Channel	It shows the selected channel that is currently used.
Encryption	It displays the status of WEP Encryption.
BSS	It displays the type of Basic Service Set.
	Access Point: allows the Adapter to communicate with a wired network which employing an Access Point.
	Peer-to-Peer: allows PC-to-PC, station-to-station communication without employing an Access Point.
Re-Scan	Search for all available networks. Clicking on the button, the device will start to rescan and list all available sites.
Cancel	Click Cancel to ignore the previous setting. (Do not press Cancel while Re-Scan is working.)
Exit	Click Exit to exit the application.

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Encryption

WEP (Wired Equivalent Privacy) encryption can be used to ensure the security of your wireless network.

eless L	AN Monitor Utility		
	Wireless USB Adapter	•	
Status	Statistics Site Survey	ncryption Advanced Version	
	Encryption	Disabled	
	Key #1 0000000	000	
	Key #2 0000000	000	
	Key #3 0000000	000	
	Key #4 0000000	000	
	Default Key	Key #1 👻	
	Mode	Mandatory	
	Authentication Type	Open System 💌	
<u>.</u>		Submit	
		Ð	at

Item	Description
Encryption	WEP is a data privacy mechanism based on a 64-bit/128-bit shared key algorithm.
	Under the drop-down box, you can choose to have WEP encryption Disabled , 64 Bit , or 128 Bit .

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Key1/Key2/	This setting is the configuration key
	used in accessing the wireless
Key3/Key4	network via WEP encryption. To generate an encryption key:
	1. Select 64 Bit or 128 Bit.
	2. Click "Key1" or "Key2" or "Key3" or "key4" item, then fill in the appropriate value/phrase.
Default Key	You can specify up to 4 different keys to <i>decrypt</i> wireless data.
	Select the Default key setting from the pull-down menu.
Mode	Two WEP modes are available as below: Mandatory and Optional .
	Mandatory:WEP Encryption is required to establish connection with other stations within the wireless network.
	Optional : Your station can communicate with other stations within the wireless network regardless if they use WEP or not.
Authentication Type	The authentication type defines configuration options for the sharing of wireless networks to verify identity and access privileges of roaming wireless network cards.
	You may choose between Open System , Shared Key , and Auto .
	Open System: If the Access Point

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	is using "Open System" authentication, then the wireless adapter will need to be set to the same authentication type. Shared Key: Shared Key is when both the sender and the recipient share a secret key.
	Auto: Select Auto for the USB adapter to select the Authentication type automatically depending on the Access Point Authentication type.
Submit	Click Submit to save the changes.
Exit	Click Exit to exit the application.

Note: You must use the same value/phrase or WEP key settings for all wireless computers in order for the wireless network to function well.

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Advanced

You can change advanced configuration settings, such as the **Preamble Type**, **Fragmentation Threshold** and **RTS/CTS Threshold**.

Wirel	ess LAN Monitor Utility		×
	Wireless USB Adapter	×	
s	tatus Statistics Site Survey Er	ncryption Advanced Version	_1
		C Long	
	Preamble Type	C Short	
		· · · · · · · · · · · · · · · · · · ·	
	Fragmentation Threshold	î	
	Disabled	2346	
	RTS/CTS Threshold	Ì	
	Disabled	2347	
	Power Save		
		Submit	
		Exit	

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Item	Description
Preamble Type	A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter.
⊙ Long	IF in a "noisy" network environment, the Preamble Type should be set to Long .
⊙ Short	The Short preamble is intended for applications where minimum overhead and maximum performance is desired. If in a "noisy" network environment, the performance would be decreased.
⊙ Auto	Select Auto for the USB adapter to select the Preamble type automatically depending on the Access Point Preamble type.
Fragmentation Threshold	To fragment MSDU or MMPDU into small sizes of frames for increasing the reliability of frame (The maximum value of 2346 means no fragmentation is needed) transmission. The performance will be decreased as well, thus a noisy environment is recommended.
RTS/CTS Threshold	This value should remain at its default setting of 2347 . Should you encounter inconsistent data flow, only minor modifications of this value are recommended.

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Power Save	Check the box to allow the Adapter to go to sleep mode, during which data communication could be interrupted.
Submit	Click Submit to save the changes.
Exit	Click Exit to exit the application.

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Version

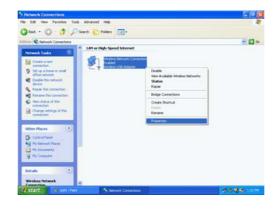
You can view basic information about the Utility like the **Driver**, **Firmware** and **Application** Version. Use the **Exit** button to exit the application.

Wireles	ss LAN Monitor Utility		×
	Wireless USB Adapter	•	
Sta	tus Statistics Site Survey End	ryption Advanced Version	
	Wireless Lan.		
	Driver Version	1.3.3.99	
	Firmware Version	0.90.1.46	
	Application Version	3.1.4.15	
		Exit	

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Configuration for Windows XP

- Go to Start → Control Panel → Network Connections.
- 2. In Network Connections window, right-click the Wireless Network Connections icon, and select Properties.



Note: Double-click the **Wireless Network Connection** icon and you can see the status of the wireless PC Card as described below.

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General Support	
Connection	
Status:	Connected
Duration:	01:11:37
Speed:	11.0 Mbps
Signal Strength:	T••••
Activity	Sent — 🔍 — Received
Packets:	150 0
Properties	Disable

3. In Wireless Network Connection Properties window, select the Wireless Networks tab.

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Wireless Network Con	nection Prop	erties	?×	
General Wireless Networks	Authentication	Advanced		
☑ Use <u>W</u> indows to configure my wireless network settings				
Available networks:				
To connect to an available	network, click C	Configure.		
ATMEL	^	<u>C</u> onfigure		
👗 abocom			5	
👗 3Com	~	R <u>e</u> fresh		
		Move <u>up</u>		
		Move dow	m	
Add <u>R</u> emo	ve Pr <u>o</u> pe	rties		
Learn about <u>setting up wire</u> configuration.	less network	Advanc	ed	
		K Ca	incel	

□Use Windows to configure...

Check the box to enable windows configuration.

Available networks

Displays all available networks.

Configure

Click the button to set up a new network or WEP configuration as illustrated as below.

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Wireless Network Properties 🛛 ? 🗙				
Network <u>n</u> ame (SSID):	ATMEL			
Wireless network key (WEP)				
This network requires a key for the following:				
☑ Data encryption (WEP enabled)				
Network Authentication (Shared mode)				
Network <u>k</u> ey:				
Key format:	ASCII characters			
Key Jength:	104 bits (13 characters) 💌			
Key inde <u>x</u> (advanced):	0			
The key is provided for me automatically				
This is a <u>c</u> omputer-to-computer (ad hoc) network; wireless access points are not used				

Refresh

Click the button to refresh and search for all available networks.

Preferred networks

From available network(s) listed above, you can select preferred one(s) in an order that you can arrange.

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The marked one is the currently used network.

Move up

Move the selected network forward one position.

Move down

Move the selected network back one position

Add...

Click the button and the Wireless Network Properties window will appear. In the Network name field, enter your desired network name listed in the above Available networks box, and click OK.

Note: The new settings will be active only after you click on OK in the **Wireless Network Connection Properties** window.

Remove

Highlight the unwanted network listed in the **Preferred networks** box, and click the button to remove it.

Properties

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Highlight the network listed in the above **Preferred networks** box, and click the button to display its properties.

Once network configuration is done, make sure to click **OK**. The new parameters will be saved and active only after doing so.

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Specifications

-	
Standards	IEEE 802.11b,Wi-Fi compliant
Host	32-bit CardBus
Interface	
Antenna	Built-in Diversity Antenna
LED	 LINK:Green,ON
Indicators	 ACT:Orange,ON
Frequency Range	2.412GHz-2.4835GHz
	USA, Canada: 11 channels
Selectable	Europe: 13 channels
Channels	Japan :14 channels
Modulation	Direct Sequence Spread Spectrum
Technique	(CCK, DQPSK, DBPSK)
Security	0/64/128 bit WEP
Spreading	11 chip Barker sequence
Bit Error rate	Better than 10 ⁻⁵
Media Access	CSMA/CA (Collision Avoidance)
Protocol	with ACK
Power	Operating Voltage: 3.3V
Requirement	TX consumption : 450mA
•	(Max)
	• RX consumption: 300mA
	(Max)
Physical	Weight: 40 g
Specifications	6 6
	119(L)x53.94(W)x 6.88(H) mm

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Environment Specifications	 OperatingTemperature: 0~65°C ambient temperature
	 Storage Temperature:
	-20~75 °C ambient
	temperature
	 Operating humidity: 95%
	maximum (non-condensing)
	 Storage humidity: 95%
	maximum (non-condensing)
Supported OS	Windows 98/ME/2000/XP
EMC	FCC Part 15 in US
Certification	EN300328 and
	EN300826(EN301489-17) in
	Europe
	Japan-Telec in Japan

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