802.11b Wireless PCI Card

User Manual

Doc. No.: 102202-02

REGULATORY STATEMENTS

FCC Certification

The United States Federal Communication Commission (FCC) and the Canadian Department of Communications have established certain rules governing the use of electronic equipment.

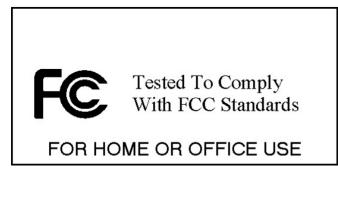
Part15, Class B

This model 802.11b Wireless PCI Card (WP2000) 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.





CAUTION:

1)To comply with FCC RF exposure compliance requirements, a separation distance of at least 20cm must be maintained between the antenna of this device and all persons.

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

Technical Support

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Introduction

A wireless LAN links network users to LAN services without the use of a cabled connection to attach them to the network infrastructure and gives mobile workers the freedom to stay connected to the network while roaming around a building or multiple buildings, maintaining access to the Internet, e-mail, networked applications, and print services.

The 802.11b Wireless PCI Card is a powerful 32bit PCI Card that install quickly and easily into Desktop PC for your wireless network applications and based on the IEEE 802.11b standard offering a data rate of 11Mbps in a wireless LAN environment. It is a high-speed wireless network card that plugs into your desktop PC and accesses to the LAN or peer-to-peer networking easily without wires or cables. Once connected with other networked PC's, it allows you to share hard disk drives, DVD drives, CD drives, printers, and the likes. It also provides shared access to a modem for Internet access.

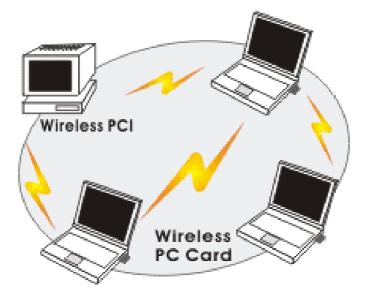
Fe	Features	
	Compliant with IEEE 802.11b standard for 2.4GHz Wireless LAN	
\triangleright	Compliant with PCI Standard	
\triangleright	Works with all existing network infrastructure.	
	Compatible with specific wireless products and services	

- > Capable of up to 128-Bit WEP Encryption Protocol
- > Freedom to roam while staying connected
- > 11 Mbps High-Speed Transfer Rate
- > Rich diagnostic LED indicators.
- Lower power consumption
- > Easy to install and configure

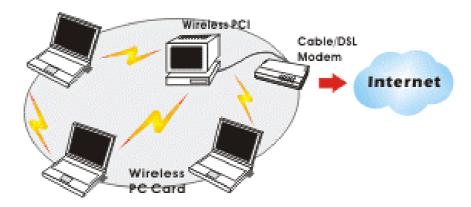
Wireless Network Options

The Peer-to-Peer Network

This network installation lets you set a small wireless workgroup easily and quickly. Equipped with wireless PCI or wireless PC Cards, you can share files and printers between each PC and laptop.

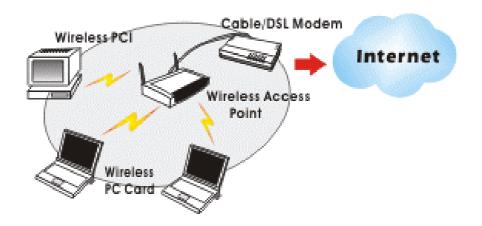


Or you can use one computer as an Internet Server to connect to a wired global network and share files and information with other PCs via a wireless LAN.



The Access Point Network

The network installation allows you to share files, printers, and Internet access much more conveniently. With wireless PCI Cards, you can connect wireless LAN to a wired global network via an **Access Point**.



LED Indicators

Link: Green (On/Off)

Glow – linking to an Access Point or Peer-to-Peer mode.

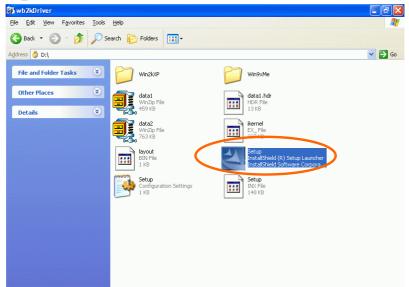
Act: Green (Blink)

Blink – Transmitting/receiving wireless data.

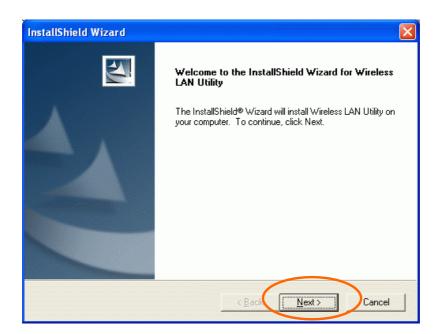
Install the Utility

Precaution: Installing the Adapter's utility before installing the device is highly recommended for saving your time.
Precaution for Windows XP users:
There are two options for you to choose:
① Follow below instructions to install the utility.
② Skip this section. Go to Installi the Device – Manually - In Windows XP section to install the device, and then you can use the built-in utility in Windows XP.

1. Insert the **Setup Utility CD-ROM** into the CD-ROM drive and double click on **Setup.exe** to install the **Wireless LAN Utility**.



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



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

InstallShield Wizard 🛛 🔀
Choose Destination Location
Select folder where Setup will install files.
Setup will install Wireless LAN Utility in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\Wireless LAN Utility Browse
InstallShield
< <u>B</u> ack Next> Cancel

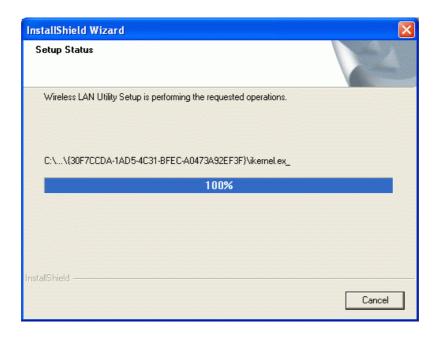
4. Follow the instruction to select the program folder. Click Next to continue.

elect Program Folder Please select a program folder.	
	e Program Folder listed below. You may type a new folder ng folders list. Click Next to continue.
Program Folders:	
Wireless LAN Utility	
Existing Folders:	
Accessories Administrative Tools Games Startup	

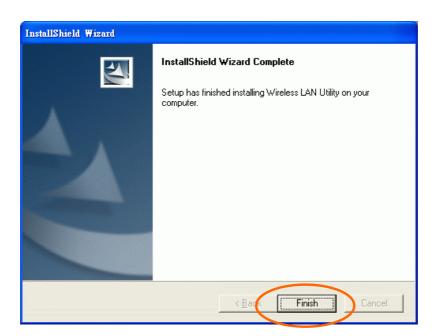
5. In Start Copying Files, click Next to continue.

Start Copying Files		
Review settings before copying files		
change any settings, click Back. If copying files.	rt copying the program files. If you want to review or you are satisfied with the settings, click Next to begin	
Current Settings: The chosen destination path is: C:\	Denergy File Werkens I AND DRIVE	
The selected program Folder is: Wii The selected segments for installati		
<u>s</u>		
<u>s</u> liShield		

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



7. Click Finish.



Install the Device

Automatically

Once the Application setup in **Install the Utility** section has been completed, follow below steps to install the device.

- 1. Before installing the device, make sure the computer is turned off.
- 2. Remove the expansion slot cover from the computer.
- 3. Carefully slide the wireless PCI card into an available PCI slot, push it evenly and firmly and ensure it is screwed securely in place using the mounting screw.

Once 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.

For Windows 98 users: As you perform the installation, have your system operating CD-ROM at hand. You may be asked to insert the OS CD-ROM for the system to download a specific driver.

For Windows 2000 users: When Digital Signature Not Found screen appears, click Yes to continue.

For Windows XP users:

1. Select Install the software automatically (Recommeded) and click Next.

2. Click Continue Anyway.

3. Click **Finish** to complete the installation.

Manually

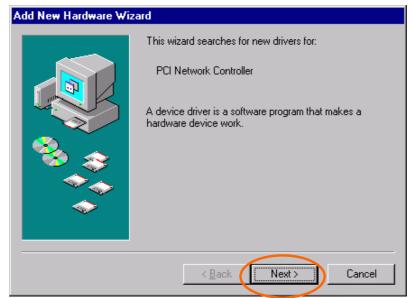
If you want to install the device before installing the utility, please follow below sections.

- 1. Before installing the device, make sure the computer is turned off.
- 2. Remove the expansion slot cover from the computer.
- 3. Carefully slide the wireless PCI card into an available PCI slot, push it evenly and firmly and ensure it is screwed securely in place using the mounting screw.

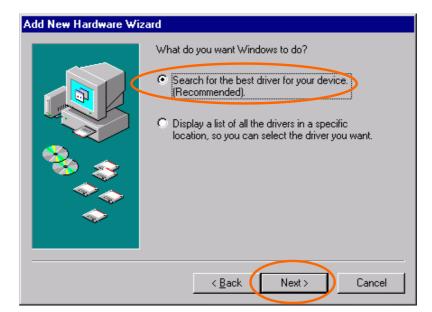
Once the device has been connected to your computer, Windows will detect the new hardware automatically.

In Windows 98

1. In Add New Hardware Wizard, click Next.



2. Select Search for the best driver for your device (Recommended). Click Next.



3. Insert the device driver CD-ROM into the CD-ROM drive. Select **CD-ROM** and **Specify a location:** and click **Browse** to provide the appropriate path (e.g. **D:\Win9xMe**). Click **Next**.

Add New Hardware Wi	zard
	Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
	Eloppy disk drives
	CD-ROM drive
	Microsoft Windows Update
	Specify a location:
	D:\Win9xMe
	Browse.
	<back next=""> Cancel</back>

- 4. Click Next, Windows will copy all the necessary files to your system.
- 5. Insert Windows 98 CD-ROM, and then click OK.



Copying Files
Source: Windows 98 Second Edition CD-ROM Destination: C:\WINDOWS\NETSTAT.EXE
67%
Cancel

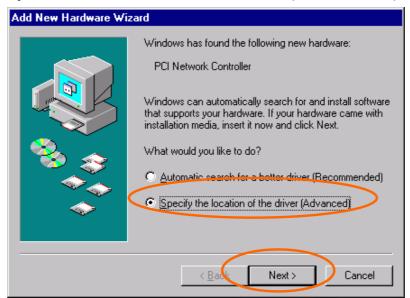
6. Click **Finish** to complete the installation.



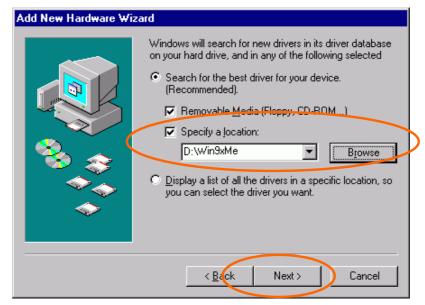
7. When Windows prompts you to restart your computer, click Yes.

In Windows ME

1. Select Specify the location of the driver (Advanced), click Next.



2. Insert the device driver CD-ROM into the CD-ROM drive. Select Search for the best driver for your device (Recommended) and click Browse to provide the appropriate path (e.g. D:\Win9xMe). Click Next.



3. Click Next, Windows will copy all the necessary files to your system.

Add New Hardware Wizard	
	Windows driver file search for the device: 802.11b Wireless PCI Card
	Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue. Location of driver: D:\WINSXME\NETADM11.INF
	< Back Next > Cancel

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



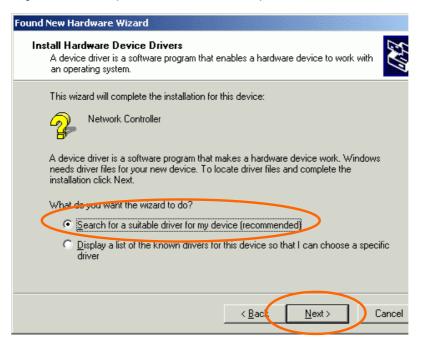
5. When Windows prompts you to restart your computer, click Yes.

In Windows 2000

1. In Found New Hardware Wizard, click Next.



2. In Install Hardware Device Drivers, select Search for a suitable driver for my device (recommended), click Next.



3. Insert the device driver CD-ROM into the CD-ROM drive. Select **CD-ROM drivers** and **Specify a location**, click **Next**.

nd New Hardware Wizard		
Locate Driver Files Where do you want Windows to search for driver files?		
Search for driver files for the following hardware device:		
Network Controller		
The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.		
To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.		
Optional search locations:		
Floppy disk drives		
CD-ROM drives Specify a location		
Microsoft Windows Update		
< <u>B</u> ack <u>N</u> ext > Cancel		

4. Click **Browse** to provide the appropriate path (e.g. **D:\Win2kXP**). Click **OK**.

Found Nev	w Hardware Wizard	×	
	Insert the manufacturer's installation disk into the drive selected, and then click OK.	OK Cancel	
<	<u>Copy</u> manufacturer's files from: D:\Win2kXP ▼	Browse	>

5. Click Next, Windows will copy all the necessary files to your system.



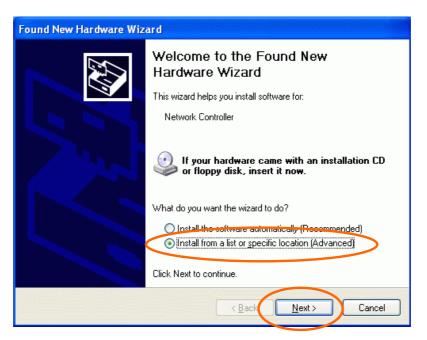
6. In Digital Signature Not Found window, click Yes to continue.



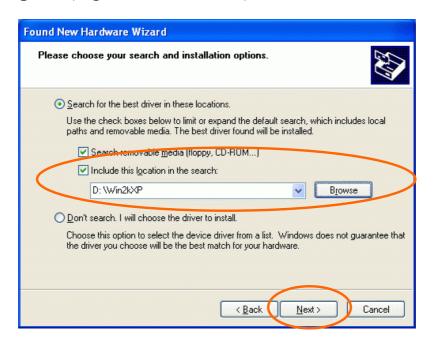
- 7. Click Finish to complete the installation.
- 8. Restart your computer.

In Windows XP

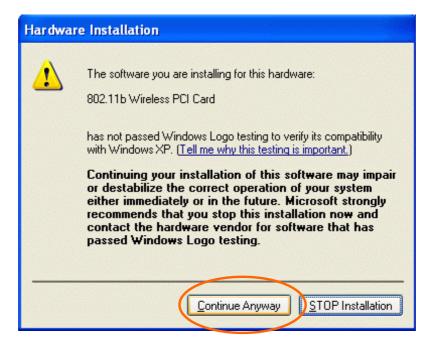
1. Once the device is well connected to your computer, Windows XP will automatically detect the new device. Select Install from a list or specific location (Advanced) and click Next.



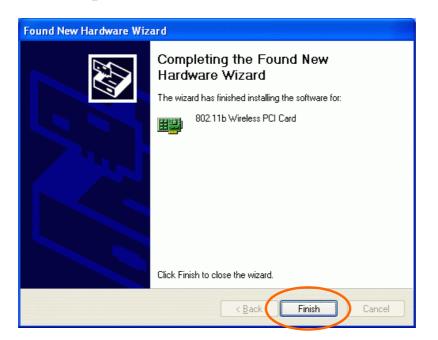
2. Insert the device driver **CD-ROM** into the CD-ROM drive. Select **Include this location in the search:** and click **Browse** to provide the appropriate path (e.g. **D:\Win2kXP**). Click **Next**.



3. Click **Continue Anyway** to proceed. Windows will copy all the necessary files to your system.



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



Verify

To verify if the device exists in your computer and is enabled, go to Start \rightarrow Settings \rightarrow Control Panel \rightarrow System (\rightarrow Hardware) \rightarrow Device Manager. Expand the Network adapters category. If the 802.11b Wireless PCI Card is listed here, it means that your device is properly installed and enabled.



Network Connection

Once the driver has been installed, you must make some changes to your network settings.

In Windows 98/ME

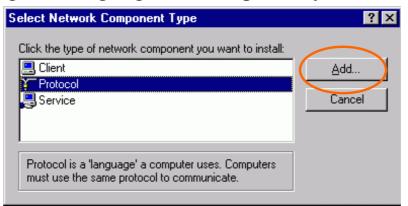
- 1. Go to Start \rightarrow Settings \rightarrow Control Panel \rightarrow Network.
- 2. Make sure that you have all the following components installed.

Network ? 🗙
Configuration Identification Access Control
The following network components are installed:
Client for Microsoft Networks
B02.11b Wireless PCI Card
TCP/IP -> 802.11b Wireless PCI Card
TCP/IP -> Dial-Up Adapter
Add Remove Properties
Adr
Primary Network Logon:
Client for Microsoft Networks
<u>F</u> ile and Print Sharing
Description
A network adapter is a hardware device that physically connects your computer to a network.
connects your comparer to a network.
OK Cancel

- 802.11b Wireless PCI Card
- 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.



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

Select Network Protocol	X
Click the Network Pro	otocol that you want to install, then click OK. If you have this device, click Have Disk.
Manufacturers:	Network Protocols: ATM Call Manager ATM LAN Emulation Client IPX/SPX-compatible Protocol NetBEUI PPP over ATM (protocol) TCP/IP
	<u>H</u> ave Disk OK Cancel

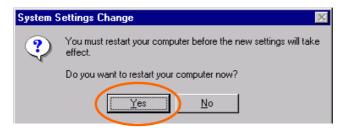
- 5. For making your computer visible on the network, enable the **File and Print Sharing**.
- 6. Click the **Identification** tab. Make up a name that is unique from the other computers' names on the network. Type the name of your workgroup, which should be the same used by all of the other PCs on the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

Network YX
Configuration Identification Access Control
Windows uses the following information to identify your 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 Cancel

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

Network	? ×
Configuration Identification Access Control	
Control access to shared resources using: Share-level access control Enables you to supply a password for each shared resource. 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 Cance	el

8. When finished, restart 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 Neighborhood** icon on the windows desktop, and you should see the names of the other PCs on the network.

In Windows 2000/XP

1. (In Windows 2000)

Go to Start \rightarrow Settings \rightarrow Control Panel \rightarrow Network and Dial-up Connections \rightarrow Local Area Connection \rightarrow Properties.

(In Windows XP)

Go to Start \rightarrow Control Panel \rightarrow Network Connections \rightarrow Wireless Network Connection Enabled 802.11b Wireless PCI Card \rightarrow Properties.



🕹 Wireless Network Connection Properties 🛛 🔹 🔀			
General Wireless Networks Authentication Advanced			
Connect using:			
B02.11b Wireless PCI Card			
Configure This connection uses the following items:			
 Client for Microsoft Networks File and Printer Sharing for Microsoft Networks QoS Packet Scheduler Thernet Protocol (TCP/IP) 			
Install Uninstall Properties			
Allows your computer to access resources on a Microsoft network.			
Sho <u>w</u> icon in notification area when connected			
OK Cancel			

- 2. Make sure that you have all the following components installed.
- Client for Microsoft Networks
- NWLink NetBIOS
- NWLink IPX/SPX/NetBIOS Compatible Transport Protocol
- Internet Protocol (TCP/IP)
- 3. If any components are missing, click on the **Install...** button to select the **Client/Service/Protocol** required. After selecting the component you need, click **Add...** to add it in.

Select Network Component Type
Click the type of network component you want to install:
Elient Service Protocol
Description A protocol is a language your computer uses to communicate with other computers.
<u>A</u> dd Cancel

Select Ne	twork Protocol
¥	Click the Network Protocol that you want to install, then click OK. If you have an installation disk for this component, click Have Disk.
Network	Protocol:
DLC Pr NetBEL Networl	alk Protocol otocol JI Protocol k Monitor Driver k IPX/SPX/NetBIOS Compatible Transport Protocol
	<u>H</u> ave Disk
	OK Cancel

- 4. For making your computer visible on the network, make sure you have installed **File and Printer Sharing for Microsoft Networks**.
- 5. When finished, you must restart your computer to complete the installation.

Configuration

Note: For Windows XP users, you have two options to configure the Wireless settings:

1) Use Manufacturer's Configuration Utility

Please go to <u>Step 4</u> of Use Windows XP's Wireless Configuration Utility section to disable the Windows XP's wireless configuration.

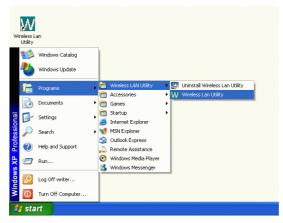
2) Use Windows XP's Wireless Configuration. Please go to <u>Use</u> <u>Windows XP's Wireless Configuration Utility</u> section to use the configuration.

Use Manufacturer's Configuration Utility

After installing the Wireless PCI Card's driver successfully, the **Network Status** icon will appear in the task bar. You can open it by double-clicking the icon.



If the icon doesn't appear automatically, go to Start \rightarrow Programs \rightarrow Wireless LAN Utility \rightarrow Wireless LAN Utility, it will appear in the task bar.



Network Status Icon

The Status Icon

Icon	Link Status
d.	Access Point mode. (Green) (Please refer to below table for the exact link quality)
\mathbf{h}	Peer-to-Peer mode. (White)
đ	No connection. (Red)

Icon	Signal Strength
\mathbf{h}	Excellent link quality.
h	Good link quality.
հ	Fair link quality.
\mathbf{h}	Poor link quality.



Link Info

The **Link Info** tab will display the current status of the Wireless Network Adapter.

V	V Wireless Lan Configuration Utility	×
	Link Info Configuration Encryption SiteSurvey About	
	Status Associated - BSSID : 00:E0:AA:BB:23:25	
	SSID 123	
	Tx Rate Auto Mbps	
	Channel 6	
	Link Quality/Signal Strengh	
	Link Quality 100 % Signal Strengh 100 %	
	Data Rate	
	Transmit 0 Kbps Receive 1 Kbps	
	10000	
	0	

Item	Description	
Status	It displays the information about the status of the communication (the BSSID of the Access Point to which the card is associated).	
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 Network Adapter.	
Tx Rate	It shows the current transfer rate. (1, 2, 5.5, or 11Mbps or Auto)	
Channel	It shows the selected channel that is currently used. (There are 14 channels available, depends on the country.)	
Link Quality	It displays the link quality of the connection between the Wireless Network Adapter and the Access Point it connects.	
Signal Strength	It displays the signal strength of the connection between the Wireless Network Adapter and the Access Point it connects.	
Data Rate	It displays the current transmitting and receiving rate.	

Configuration

You can change advanced configuration settings, such as the SSID, **Operation Mode, Tx Rate** and **Preamble Type**.

		uration Utility	
Link Info	Configuration	Encryption SiteSurvey About	
SSID		123	
Oper	ation Mode	Access Point	
		Peer-to-Peer	
Channel		Access Point	
Tx Rate		11 Mbps	
Prean	nble	Short Preamble	
Radio)	On 💌	
	Subn	nit Cannel	

Item	Description	
SSID	SSID is the unique name shared among all points in your wireless network. It must be identical for all points in the network. It is case-sensitive and must not exceed 32 characters. Make sure that all points in the network are set the same.	
Operating Mode	It displays the current operating mode. (Access Point or Peer-to -Peer).	
Channel	Select the appropriate channel from the list provided to correspond with your network settings. All devices in the wireless LAN must be configured to share the same radio channel in order to work correctly. (There are 14 channels available, depends on the country.)	
Tx Rate	Select (1, 2, 5.5, or 11Mbps or Auto) from the pull-down list to change the current transfer rate.	

Item	Description
Preamble	A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter. (Note : If you want to change the Preamble type into Long or Short , please check the setting of AP. Some Access Points do not support Auto Preamble.)
⊙ Auto	Select Auto for the Network adapter to select the Preamble type automatically depending on the Access Point Preamble type.
⊙ Long Preamble	If in a "noisy" network environment, the Preamble Type should be set to Long Preamble .
⊙ Short Preamble	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.
Radio	Select On/Off from the pull-down list to enable/disable the Radio Module function of the Wireless Network Adapter.

Encryption

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

Link Info Configuration Encryption SiteSurvey About Image: Data Encryption Auth. Mode Open Authentication Key Length 64 Bit Wep Key Default Key Network Key 1 ************************************	W Wireless Lan Configuration Utility	🛛 🕅 W Wireless Lan Configuration Utility
C 4 ********* Apply Cancel Apply Cancel	Link Info Configuration Encryption SiteSurvey About Data Encryption Auth. Mode Open Authentication Key Length 64 Bit Wep Key Default Key Network Key C 1 ********** C 2 ********* C 4 ***********************************	Link Info Configuration Encryption SiteSurvey About Data Encryption Auth. Mode Cpen Authentication Key Length 64 Bit Wep Key Default Key Network Key C 1 ********** C 3 ********* C 4 *************************

Item	Description
Data Encryption	WEP is a data privacy mechanism based on a 64 Bit/128 Bit shared key algorithm.
	Check this box to enable WEP encryption.
Auth. Mode	The authentication mode 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 Authentication , Shared Authentication , and Auto .
Open Authentication	If the Access Point is using " Open Authentication ", then the wireless adapter will need to be set to the same authentication mode.
Shared Authentication	Shared Authentication is when both the sender and the recipient share a secret key.
Auto	Select Auto for the network adapter to select the Authentication mode automatically depending on the Access Point Authentication mode.
Key Length	64 Bit or 128 Bit.
WEP Key O 1	This setting is the configuration key used in accessing the wireless network via WEP encryption.
O 2 O 3	Fill in the appropriate value/phrase.
04	
Apply	Click Apply to save the changes.
Cancel	Click Cancel 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

Site Survey

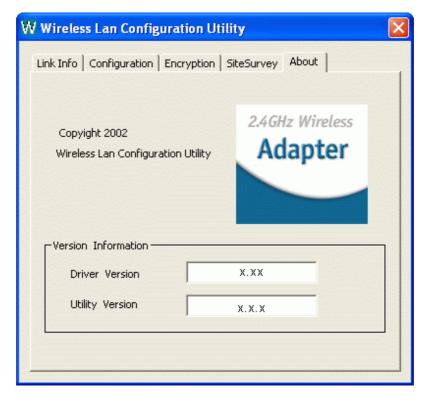
The **Site Survey** tab shows all the available Access Points and their features.

ık Info Configu Available Networ						
SSID	WEP	Chan	Signal	BSSID/IBSS	Туре	Re-Scan
123	No	6	89 %	00-E0-AA-BE	Access	
DWL900AP	No	6	89 %	02-00-C6-04	Peer-b	Connect
🛔 3ComAP	No	9	80 %	00-E0-98-11	Access	
🛔 MySSID	Yes	10	89 %	00-20-28-00	Access	
101	No	11	80 %	00-A0-F8-43	Access	
POYING-104	No	14	80 %	00-E0-98-9F	Access	
<					>	

Item	Description
SSID	It displays the current SSID setting of the Wireless Network Adapter.
WEP	It displays the status of WEP Encryption.
Channel	It displays the selected channel that is currently used.
Signal	It displays the signal strength of the connection between the Wireless Network Adapter and the Access Point it connects.
BSSID/IBSSID	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.
Туре	It displays the type of Basic Service Set. (Access Point or Peer-to-Peer)
Re-Scan	Search for all available networks. Clicking on the button, the device will start to rescan and list all available sites.
Connect	Select one from the list to connect.

About

You can view basic information about the Utility like the **Driver** and **Utility** Version.



Use Windows XP's Wireless Configuration Utility

- 1. 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 PCI Card as described below.

eral Support	
Connection	
Status:	Connected
Duration:	00:05:10
Speed:	11.0 Mbps
Signal Strength:	T
Activity	
Sent —	- 🖉 🕂 — Received
Packets: 3	33 0
Properties Disable]

3. In Wireless Network Connection Properties window, select the General tab. Click Configure to enable Windows configuration.

🖵 Wireless Network Connection Properties 💫 💽 🔀	802.11b Wireless PCI Card Properties	? 🔀
General Wireless Networks Authentication Advanced Connect using: 802.11b Wireless PCI Card Configure	General Advanced Driver Resources The following properties are available for this networe the property you want to change on the left, and the on the right. Property: ⊻alu	nen select its value
This connection uses the following items:	Antenna Data Rate Data Rate Network Type RTS Threshold Select SharedKey Index ShareKey1 ShareKey2 ShareKey3 ShareKey4 Short Preamble SSID WEP	versity 💽
OK Cancel		OK Cancel

1

Property	Description
Antenna	(Diversity, Antenna A or Antenna B): These settings determine which antenna will be used to transmit or receive.
Channel	Select the appropriate channel from the list provided to correspond with your network settings. All devices in the wireless LAN must be configured to share the same radio channel in order to work correctly.
	(There are 14 channels available, depends on the country.)
Data Rate	Select (1, 2, 5.5, or 11Mbps or Auto) from the pull-down list to change the current transfer rate.
Network Type	Select the appropriate Network Type from 802.11 AdHoc Mode (Active), 802.11 AdHoc Mode (Passive) or Infrastructure.
	In AdHoc mode, Active mode is recommended since it can generate/pass beacon packets automatically.
Preamble	A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter. (Note : Please check the setting of AP first.)

⊙ Auto	Select Auto for the Network adapter to select the Preamble type automatically depending on the Access Point Preamble type.
⊙ Long Preamble	If in a "noisy" network environment, the Preamble Type should be set to Long Preamble .
⊙ Short Preamble	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.
RTS 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.
Select SharedKey Index	Select from 1, 2, 3, 4 or No selection.
Sharekey1 Sharekey2 Sharekey3 Sharekey4	This setting is the configuration key used in accessing the wireless network via WEP encryption. Fill in the appropriate value/phrase.
SSID	SSID is the unique name shared among all points in your wireless network. It must be identical for all points in the network. It is case-sensitive and must not exceed 32 characters. Make sure that all points in the network are set the same.
WEP	 WEP is a data privacy mechanism based on a 64 Bit/128 Bit shared key algorithm. Select WEP key 128bit or WEP key 64bit to enable WEP encryption.

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

L Wireless Network Connection Proper	ties 🛛 🤶 🔀
General Wireless Networks Authentication A	Advanced
Use Windows to configure my wireless netwo	ork settings
Available networks:	
To connect to an available network, click Cor	nfigure.
? 123	Configure
👗 MySSID 🥏	Refresh
Preferred networks: Automatically connect to available networks in Delow: 123	the order listed
	Move <u>d</u> own
Add <u>R</u> emove Pr <u>o</u> pertie	25
Learn about <u>setting up wireless network</u> <u>configuration.</u>	Advanced
Close	Cancel

□Use Windows to configure...

* Use Manufacturer's Configuration Utility

Note: If you want to use the manufacturer's configuration utility to configure the wireless settings. Make sure the check box is **NOT** enabled (please refer to below figure), and then the Network Status icon will appear in the taskbar. You can open it by double-clicking the icon.

Use Windows to configure my wireless	network settings		
Available <u>n</u> etworks:			
To connect to an available network, cliv	ck Configure.		
MySSID			
Preferred networks:			
Automatically connect to available network below:	vorks in the order listed		
1 23	Move <u>up</u>		
	Move down		
Add Remove Pr	operties	₩ ()	1:30 PM
			100111
Learn about <u>setting up wireless network</u> configuration.	Advanced		
	Auvanceu		

* Use Windows to configure

Note: Right-click the Network Status icon in the taskbar, click **Disable Utility**. The Network Status icon in the taskbar will disappear, and then you can use Windows to configure the wireless settings.



Available networks

Displays all available networks.

Configure

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

Wireless Network Prop	erties	? 🗙
Network <u>n</u> ame (SSID):	123	
Wireless network key (WB	EP)	
This network requires a k	ey for the following:	
Data encryption (W	EP enabled)	
Network <u>A</u> uthentica	tion (Shared mode)	
Network <u>k</u> ey:		
Key format:	ASCII characters	
Key length:	104 bits (13 characters) 🗸
Key inde <u>x</u> (advanced):	0	
✓ The key is provided fo	r me automatically	
This is a <u>c</u> omputer-to-co access points are not us		wireless

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.

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

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

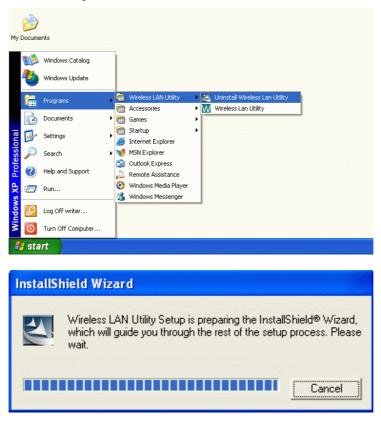
Once network configuration is done, make sure to click **OK**. The new parameters will be saved and active only after doing so.

Uninstallation

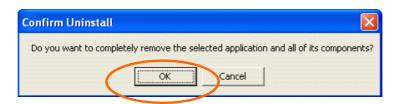
In case you need to uninstall the Utility or device, please refer to below sections.

Uninstall the Manufacturer's Configuration Utility

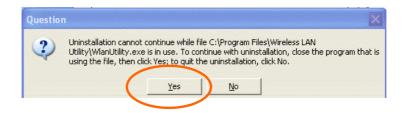
1. Go to Start → Programs → Wireless LAN Utility → Uninstall Wireless LAN Utility.



2. Click **OK** to continue.



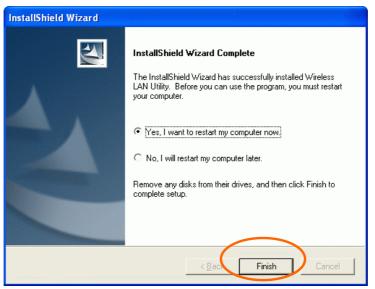
3. This step is only for Windows XP users: Make sure the Wireless LAN Utility is closed prior to clicking Yes.



(To close the Wireless LAN Utility: right-click the Network Status icon in the taskbar, and then click **Exit**.)

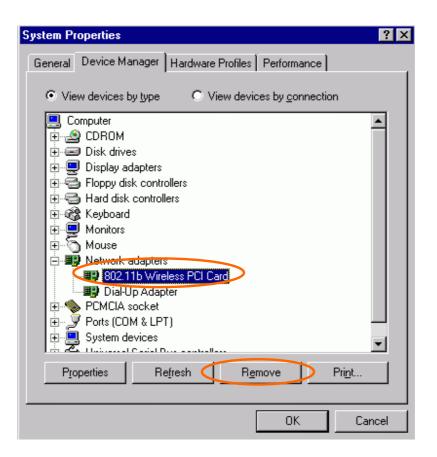


4. Select Yes, I want to restart my computer now, and then click Finish to complete the uninstalled procedure.



Uninstall the device

- Right-click My Computer → Properties → Hardware → Device Manager.
- 2. Right-click 802.11b Wireless PCI Card then click Uninstall (or Remove).



3. Click OK.



4. The system will prompt you to restart your computer. Click Yes.

Specifications

Standard	IEEE 802.11b, Wi-Fi compliant		
Host Interface	PCI 2.2		
Antenna	Dipole Antenna		
LED Indicators	LINK: Green (ON)ACT: Green (Blink)		
Frequency Range	2.412GHz-2.4835GHz		
Number of Selectable Channels	 USA, Canada: 11 channels Europe: 13 channels Japan: 14 channels 		
Data rate	1/2/5.5/11 Mbps		
Modulation Technique	Direct Sequence Spread Spectrum (CCK, DQPSK, DBPSK)		
Security	0/64/128 bit WEP		
Bit Error rate	Better than 10 ⁻⁵		
Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK		
Power Requirement	 Operating Voltage: 5V TX consumption: 430mA (Max) RX consumption: 300mA (Max) Sleep Mode: 25mA 		
Physical Specifications	 Weight: 50g Dimension: 119.9 (L) x 46.7(W) mm 		
Environment Specifications	 Operating Temperature: 0~65 °C ambient temperature Storage Temperature: -20~75 °C ambient temperature Operating humidity: 95% maximum (non-condensing) Storage humidity: 95% maximum (non-condensing) 		

	 Windows 98
Supported OS	 Windows ME
	 Windows 2000
	 Windows XP
	 FCC Part 15 in US
EMC Certification	• EN300328 and EN300826 (EN301489-17) in
	Europe