BenQ Wireless LAN USB Adapter

AWL300

User Manual

Version 1.0 – 2002

Federal Communications Commission (FCC) Requirements, Part 15

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 the equipment 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 separation between the equipment and receiver.
- ---Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ---Consult the dealer or an experienced radio/TV technician for help.

Regulatory information / Disclaimers

Installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

CAUTION: To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use on the supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

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1. Installation

1.1 Driver Installation

Insert AWL300 USB Adapter into your PC, and then Windows will show the dialog – 'Add New Hardware Wizard'.

Add New Hardware Wizard		
	Windows has found the following new hardware: USB Device Windows can automatically search for and install software that supports your hardware. If your hardware came with installation media, insert it now and click Next. What would you like to do? Automatic search for a better driver (Recommended) Specify the location of the driver (Advanced)	
	< Back Next > Cancel	

Select 'Specify the location of the driver' and press Next button.

Add New Hardware Wizard		
	 Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected Search for the best driver for your device. (Recommended). Removable Media (Floppy, CD-ROM) ✓ Specify a Jocation: O:VAWL300 ✓ Browse O: Display a list of all the drivers in a specific location, so you can select the driver you want. 	
	< <u>B</u> ack Next > Cancel	

Select 'Specify a location' and browse the Benq Wireless LAN CD to find AWL300. For example, if your CD-ROM is drive D, the location is D:\AWL300.

Add New Hardware Wizard		
	Windows driver file search for the device: Beng AWL300 Wireless LAN USB Adapter	
	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:\AWL300\NETVUSBA.INF	
	< <u>B</u> ack Next> Cancel	

Windows has found Benq AWL300 Wireless LAN USB Adapter. Press Next button.

Copying Files			
Source:			
Windows Millennium Edition			
Destination:			
Scanning			
57%			

Please wait while coping files.

Add New Hardware Wiz	card
	Beng AWL300 Wireless LAN USB Adapter
	Windows has finished installing the new hardware device.
8	
	< Back. [Finish] Cancel

Press Finish.

System S	Settings Change		
?	To finish setting up your new hardware, you must restart your computer. Do you want to restart your computer now?		
	Yes <u>N</u> o		

Press Yes and restart your computer.

1.2 Application Installation

Execute Setup.exe in the AWL300 directory in Benq Wireless LAN CD. For example, if your CD-ROM is drive D, please execute D:\AWL300\Setup.exe.



Press Next button

Adapter Type Dialog	×		
	The setup program will install the Wireless LAN Monitor & Configuration utility and the selected drivers (any previous drivers will be replaced without any prompt).		
	Application Only		
	< <u>B</u> ack <u>N</u> ext > Cancel		

Select 'Application & USB Drivers' to install both of them if you don't have USB Drivers installed yet. Select 'Application Only' to install only AWL300 applications.

InstallShield Wizard
Choose Destination Location Select folder where Setup will install files.
Setup will install AWL300 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\Benq\AWL300 InstallShield
< <u>B</u> ack [<u>Next</u> >] Cancel

Press Browse if you want to change destination location of applications, and then press Next button.

InstallShield Wizard	×
Select Program Folder Please select a program folder.	
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.	
Program Folders:	
AwL300	
Fuisting Folders:	
Accessories StartUp	
InstallShield <u>Kext > Cancel</u>	_

The folder name will be AWL300. Press Next button if you don't want to change it.



Press Next button.

InstallShield Wizard		
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed AWL300. Click Finish to exit the wizard.	
	< Back Finish Cancel	

Press Finish and restart your computer.

1.3 Application & USB Driver Installation

Execute Setup.exe in the AWL300 directory in Benq Wireless LAN CD. For example, if your CD-ROM is drive D, please execute D:\AWL300\Setup.exe.



Press Next button



Select 'Application & USB Drivers' to install both of them if you don't have USB Drivers installed yet.



Press Next button

InstallShield Wizard	×
Choose Destination Location Select folder where Setup will install files.	
Setup will install AWL300 in the following folder.	
To install to this folder, click Next. To install to a another folder.	different folder, click Browse and select
Destination Folder C:\Program Files\Benq\AWL300 InstallShield	Browse < <u>B</u> ack <u>Next</u> Cancel

Press Next button

InstallShield Wizard
Select Program Folder Image: Select a program folder.
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.
Program Folders:
AWL300
Existing Folders:
Accessories StartUp
InstallShield < <u>B</u> ack <u>N</u> ext > Cancel

Press Next button

Operating Mode Dialog	X
	Ad hoc mode provides communication between wireless clients. Infrastracture mode provides communication between wired and wireless clients (Requires an access point). Select Operating Mode: ① Ad hoc ① Infrastracture
	< <u>B</u> ack <u>Next</u> > Cancel

Select the operating mode and then press Next button

ESSID Dialog	X
	ESSID is the name of a logical network group, that your computer is about to join. (It can be changed again at run time by the configuration utility). Specify ESSID: ANY
	< <u>B</u> ack <u>Next></u> Cancel

Specify ESSID and then press Next button

InstallShield Wizard	×
Start Copying Files Review settings before copying files.	
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.	
The chosen destination path is: C:\Program Files\Benq\AWL300 The (one and only) type of setup is Compact The selected program Folder is: AWL300 The chosen Operating Mode is: Infrastracture The user-specified ESSID is: ANY The selected (for installation) segments are: Application & USB Drivers	
InstallShield <u>< B</u> ack <u>Next ></u> Cancel	

Press Next button

InstallShield Wizard	
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed AWL300. Click Finish to exit the wizard.
	< <u>B</u> ack Finish Cancel

Press Finish and restart your computer.



After complete installation, you will get the following screen.

2. Uninstallation

To uninstall AWL300, you can run the "Uninstall Configuration & Monitor Utility" as the following figure.



Confirm File Deletion				×
Do you want to completely remove the selection	cted application	and all o	f its compo	onents?
[OK]	Cancel			

Press OK if you really want to remove AWL300.

InstallShield Wizard	
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed AWL300. Click Finish to exit the wizard.
	< Back Finish Cancel

Press OK when uninstall successfully completed.

Restarting Windows
Setup has finished copying files to your computer. Before you can use the program, you must restart your computer.
Choose one of the following options and click OK to finish setup.
Yes, I want to restart my computer now.
 No, I will restart my computer later.
ОК

You must restart your computer. Press OK to do it.

Add/Remo	ve Programs Properties	×
Install/Uni	install Windows Setup Startup Disk	
₽	To install a new program from a floppy disk or CD-ROM drive, click Install.	
	Install	
3	The following software can be automatically removed by Windows. To remove a program or to modify its installed components, select it from the list and click Add/Remove.	
AW/L30	0	
	Add/ <u>R</u> emove	
	OK Cancel Apply	

You can also remove AWL300 from Add/Remove Programs Properties in Control Panel

3. Configuration & Monitor Utility

3.1 Monitor

AWL300 Configuration &	Monitor Utility	×
Beng AWL30	00 Wireless LAN USB Adapter 🔄	
Monitor Statistics Site	e Survey Encryption Advanced Version	1
Operating Mode	Infrastructure	
Channel	1 Change	
SSID	My Network Submit	
Tx Rate	Fixed 11 Mbps	
Power Mgmt Mode	Active Cancel	
MAC Address	00-03-9D-00-01-30	
Status	Associated - BSSID: 00-60-B3-16-24-56	
Signal Strength		
Link Quality	77 % 95 %	
	Hide	

Operating Mode

Infrastructure Mode

In this mode, the driver will scan all available channels continuously until one or more Access Points which matches its SSID are found. When it gets to that point, it will try to authenticate and associate with the Access Point.

Ad Hoc Mode

In this mode, the driver will scan for 5 seconds to look for an existing Ad Hoc network which uses the same SSID.

Channel

This field shows the current radio channel used for an active connection.

SSID

Service Set Identity

Tx Rate

This field shows the current transmit rate which are being used for an active connection.

Power Mgmt Mode

Power Management Mode – Active or Power Save

MAC Address

MAC Address of this USB Wireless LAN Adapter

Status

The current state of the driver is displayed in this field. If the state reveals "Associated," it means that the normal flow of operation is in Infrastructure mode. This shows that the PC is already connected to access point and BSSID is also shown in the form of hex digits. At the same time, the networking is available for the device.

In "Scanning" state, it means that the node can not detect the SSID to get an access point within range and is searching for an available access point. Also, if the driver failed to initialize for some unknown reasons, this field will display an error message.

Link Quality

This field reveals the quality of the current connection. Only when the node is in Infrastructure Mode does the Link Quality bar graph become active. The bar graph displays the link quality between the node and its Access Point.

Signal Strength

Only when the node is in Infrastructure Mode does the Signal Strength bar graph become active. This bar graph shows normalized signal strength as reported by the radio, averaged over all frames over 100 bytes long which are received from the Access Point.

3.2 Statistics

AWL30	00 Configuration	n & Monitor	Utility		×
	Beng AW	L300 Wireles:	LAN USB A	Adapter 💌	
Mo	onitor Statistics	Site Survey	Encryption	Advanced Version	1
			Tx	Bx	
Г	Data Packets —				
	Successful		19	0	
	Unsuccessful		0	0	
Г	Mgmt Packets-				
	Successful		2	1046	
	Unsuccessful		0	0	
	Rejected Packet	\$	0	0	
				Clear	
				Hide	

The Statistics Page shows the counts of packets transmitted and received. Press Clear button to set these numbers to zero.

3.3 Site Survey

/L3	00 Configuration	& Monitor Uti	lity				X
	Beng AWL	300 Wireless LA	N USB A	\dapt	er 💌]	
М	onitor Statistics S	ite Survey En	cryption	Adv	anced	Version	-
	BOOID		Ci	Ch		T	
	00-90-48-08-80-50	ADSL	5ignai 70 %	<u>- un</u> 1	No	l ype Infrastri	
	00-60-B3-16-24-56	My Network	57 % 32 %	1	No No	Infrastri	
	00-03-9D-40-13-01	beng	32 %	7	No	Infrastr	
	00-03-9D-40-13-DE	benq	32 %	7	No	Infrastr	
	00-04-76-A5-C4-1F	3com AP lab-test	42 % 37 %	8	NO No	Infrastri	
	00-03-9D-40-13-21	Benq_Office	42 %	10	No	Infrastri	
	•						
		D.	Pass	1 🗆	Cono	-	
			eroldan	- 1	Canc		
						Hide	
	́М	L300 Configuration Benq AWL3 Monitor Statistics S BSSID 00-90-48-08-80-50 00-60-83-16-24-56 00-03-9D-40-13-05 00-03-9D-40-13-05 00-03-9D-40-13-01 00-03-9D-40-13-21 00-03-9D-40-13-21	L300 Configuration & Monitor Uti Beng AWL300 Wireless LA Monitor Statistics Site Survey En BSSID SSID 00-90-48-08-80-50 ADSL 00-60-83-16-24-56 My Network 00-03-9D-40-13-05 beng 00-03-9D-40-13-05 beng 00-03-9D-40-13-01 beng 00-04-76-A5-C4-1F 3com AP 00-03-9D-40-13-21 Beng_Office	L300 Configuration & Monitor Utility Benq AWL300 Wireless LAN USB A Monitor Statistics Site Survey Encryption BSSID SSID 00-90-4B-08-80-50 ADSL 70 % 00-60-B3-16-24-56 My Network 57 % 00-03-9D-40-13-05 benq 32 % 00-03-9D-40-13-05 benq 32 % 00-03-9D-40-13-01 benq 32 % 00-03-9D-40-13-02 lab-test 37 % 00-03-9D-40-13-21 Benq_Office 42 % 1 Re-Scan	L300 Configuration & Monitor Utility Benq AWL300 Wireless LAN USB Adapt Monitor Statistics Site Survey Encryption Adv BSSID SSID 00-90-4B-08-80-50 ADSL 70 % 1 00-60-83-16-24-56 My Network 90-03-9D-40-13-05 benq 32 % 7 00-03-9D-40-13-05 benq 32 % 7 00-03-9D-40-13-05 benq 32 % 7 00-03-9D-40-13-01 benq 32 % 7 00-03-9D-40-13-02 lab-test 37 % 7 00-03-9D-40-13-21 Benq_Office 4 Re-Scan	L300 Configuration & Monitor Utility Beng AWL300 Wireless LAN USB Adapter Monitor Statistics Site Survey Encryption Advanced BSSID SSID Signal Ch WEP 00-90-48-08-80-50 ADSL 70 % 1 No 00-60-B3-16-24-56 My Network 57 % 1 No 00-03-9D-40-13-05 benq 32 % 7 No 00-03-9D-40-13-01 benq 32 % 7 No 00-03-9D-40-13-01 benq 32 % 7 No 00-03-9D-40-12-0C lab-test 37 % No 00-03-9D-40-13-21 Beng_Office 4 Re-Scan	L300 Configuration & Monitor Utility Benq AWL300 Wireless LAN USB Adapter Monitor Statistics Site Survey Encryption Advanced Version Monitor Statistics Site Survey Encryption Advanced Version BSSID Silp Signal Ch WEP Type 00-90-4B-08-80-50 ADSL 70 % 1 No Infrastr 00-60-83-16-24-56 My Network 57 % 1 No Infrastr 00-03-9D-40-13-05 benq 32 % 7 No Infrastr 00-03-9D-40-13-05 benq 32 % 7 No Infrastr 00-03-9D-40-13-01 benq 32 % 7 No Infrastr 00-03-9D-40-13-02 lab-test 37 % 7 No Infrastr 00-03-9D-40-13-21 Benq_Office 42 % 10 No Infrastr 00-03-9D-40-13-21 Benq_Office 42 % 10 No Infrastr 00-03-9D-40-13-21 Beng_Office 42 % 10 No Infrastr

The Site Survey Page shows the APs nearby. Press Re-Scan button to search APs nearby.

3.4 Encryption

AWL300 Configuration	& Monitor	Utility		×
Beng AWL	300 Wireles	s LAN USB Adap	ter 💌	
Monitor Statistics S	ite Survey	Encryption Ad-	vanced Version	1
Encryption		Disabled	•	
Key #1	0000000	000		
Key #2	0000000	000000000		
Key #3	0000000	000000000		
Key #4	0000000	000		
WEP Key to WEP Mode	WEP Key to use WEP Mode			
Authenticatio	on Type	Open System	<u> </u>	
		[Submit	
			Hide]

According to WEP function select, this panel allows the entry of 64-bit encryption and 128-bit key. Each key must consist of hex digits to be written to the driver and registry. This means that only digit 0-9 and letters A-F are valid entries. Therefore, if entered incorrectly, the program will not write keys to a driver.

Encryption

Disabled – Disable WEP function 64 Bit – Enable WEP with 64 bit Key 128 Bit – Enable WEP with 128 bit Key

WEP Key to use

Select one of these four keys.

WEP Mode

Select WEP mode - Mandatory or Optinal

Authentication Type

Select Open System type or Shared Key type

3.5 Advanced

AWL:	300 Configuration & Monitor Utility	×					
Beng AWL300 Wireless LAN USB Adapter							
M	Nonitor Statistics Site Survey Encryption Advanced Version						
	Preamble Type O Short						
	Fragmentation Threshold (Disabled) 2346						
	RTS/CTS Threshold						
	Submit						
	Hide						

The Advanced Page sets the preamble type and threshold of fragmentation and RTS/CTS. Press Submit button to apply your changes

3.6 Version

AWL300 Configu	aration & Monitor	Utility	×
Rei	ng AWI 200 Wireless	I ANI LISB Adapter	
IDei			
Monitor Stati	istics Site Survey	Encryption Advanced Ver	sion
			1
Be	nq		
Drive	er	1.0.0.0	
Firmu	uaro	0.90.0.0	
	vale	0.30.0.0	
	tion		
Appli	cation	3.1.3.5	
Appli	cation	3.1.3.5	
Appli	cation	3.1.3.5	

You may learn the product version including the detail of Driver, Firmware, and Application from this "About" tab. When users want to report their problems to technical support, they must use this version number.