



TRENDNET®



User's Guide

TEW-624UB

3.01

Regulatory notes and statements

Wireless LAN, Health and Authorization for use

Radio frequency electromagnetic energy is emitted from Wireless LAN devices. The energy levels of these emissions however are far less than the electromagnetic energy emissions from wireless devices such as mobile phones. Wireless LAN devices are safe for use frequency safety standards and recommendations. The use of Wireless LAN devices may be restricted in some situations or environments for example:

- On board of airplanes, or
- In an explosive environment, or
- In case the interference risk to other devices or services is perceived or identified as harmful

In case the policy regarding the use of Wireless LAN devices in specific organizations or environments (e.g. airports, hospitals, chemical/oil/gas industrial plants, private buildings etc.) is not clear, please ask for authorization to use these devices prior to operating the equipment.

Regulatory Information/disclaimers

The 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 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. The Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from the failure to comply with these guidelines.

USA-FCC (Federal Communications Commission) statement

This device complies with Part 15 of FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of this device.

FCC Radio Frequency Exposure statement

This Wireless LAN radio device has been evaluated under FCC Bulletin OET 65 and found compliant to the requirements as set forth in CFR 47 Sections 2.1091, 2.1093, and 15.247 (b) (4) addressing RF Exposure from radio frequency devices. The radiated output power of this Wireless LAN device is far below the FCC radio

frequency exposure limits. Nevertheless, this device shall be used in such a manner that the potential for human contact during normal operation is minimized.

When nearby persons has to be kept to ensure RF exposure compliance, in order to comply with RF exposure limits established in the ANSI C95.1 standards, the distance between the antennas and the user should not be less than 20 cm.

FCC Interference Statement

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 radiates radio frequency energy. If not installed and used in accordance with the instructions, it 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 and correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the distance between the equipment and the receiver.
3. Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

Export restrictions

This product or software contains encryption code that may not be exported or transferred from the US or Canada without an approved US Department of Commerce export license.

Safety Information

Your device contains a low power transmitter. When the device is transmitted it sends out radio frequency (RF) signal.

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

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be located or operating in conjunction with any other antenna or transmitter.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Protection requirements for health and safety – Article 3.1a

Testing for electric safety according to EN 60950 has been conducted. These are considered relevant and sufficient.

Protection requirements for electromagnetic compatibility – Article 3.1b

Testing for electromagnetic compatibility according to EN 301 489-1, EN 301 489-17 and EN 55024 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum – Article 3.2

Testing for radio test suites according to EN 300 328-2 has been conducted. These are considered relevant and sufficient.

CE in which Countries where the product may be used freely:

Germany, UK, Italy, Spain, Belgium, Netherlands, Portugal, Greece, Ireland, Denmark, Luxembourg, Austria, Finland, Sweden, Norway and Iceland.

France: French regulations prohibit the use of all channels except channels 10 through 13.



TABLE OF CONTENT

Introduction.....	1
Overview of this User’s Guide	1
Unpacking and Setup	2
Unpacking	2
Setup.....	2
Connecting the USB Extension Cable.....	2
Software Installation	3
Windows Based Utility Installation.....	3
Wireless Utility Setting	4
I. Link Information.....	5
II. Configuration.....	5
III. Advanced.....	Error! Bookmark not defined.
IV. Site Survey.....	8
V. WPS.....	10
VI. About.....	11
Technical Specifications	12

INTRODUCTION

Congratulations on your purchase of this 300Mbps Wireless N USB Adapter. This manual contains detailed instructions regarding the operation of this product. Please keep this manual for future reference.

With the 300Mbps Wireless N USB Adapter, a desktop or laptop computer can communicate with another computer wirelessly. An easy-to-use utility is bundled with the Wireless USB Adapter for configuration, monitoring, and diagnostic purposes.

The 300Mbps Wireless N USB Adapter can wirelessly transmit and receive data, at a speed of up to 54 megabits per second.

The 300Mbps Wireless N USB Adapter provides users with access to real-time information anywhere in their organization. The mobility of the 300Mbps Wireless N USB Adapter provides productivity and service, which are not available under wired networks. The 300Mbps Wireless N USB Adapter can easily adapt from peer-to-peer networks, suitable for a small number of users, to full infrastructure networks of thousands of users that allow roaming around a broad area.

Overview of this User's Guide

Introduction. Describes the 300Mbps Wireless N USB Adapter and its features.

Unpacking and Setup. Helps you get started with the basic installation of the 300Mbps Wireless N USB Adapter.

Hardware Installation. Describes the LED indicator on the Adapter.

Software Installation. Describes how to setup the driver and the utility setting.

Technical Specifications. Lists the technical (general, physical and environmental) specifications of the 300Mbps Wireless N USB Adapter.

UNPACKING AND SETUP

This section provides unpacking and setup information for the 300Mbps Wireless N USB Adapter.

Unpacking

The box should contain the following items:

- ◆ One TEW-624UB 300Mbps Wireless N USB Adapter
- ◆ One Driver & Utility CD-ROM
- ◆ One Multi-Language Quick Installation Guide

If any item is found missing or damaged, please contact your local reseller for replacement.

Setup

Before installation, check the following:

- ◆ Make sure your computer is running at least a 300MHz or above processor with 256MB RAM or above
 - ◆ Make sure the USB ports are is USB 2.0 port
 - ◆ The operating system on your computer must be the following: Windows 2000 (Service Pack 4), XP (Service Pack 2), Windows Vista
 - ◆ A draft 802.11n or 802.11b/g access point.
 - ◆ Make sure the environment has minimal interference and obstructions.
-

Connecting the USB Extension Cable

The USB extension cradle that comes with the Adapter has Type A connectors on both ends. One end of the cradle is a male Type A connector that plugs into the PC's USB port. The other end of the cradle is a female Type A connector that plugs into the Adapter.

This USB extension cradle can be adjusted to improve the wireless connection. It is recommended that the 300Mbps Wireless N USB Adapter is perpendicular to the ground.

SOFTWARE INSTALLATION

This section describes how to install the driver and utility for the 300Mbps Wireless N USB Adapter.

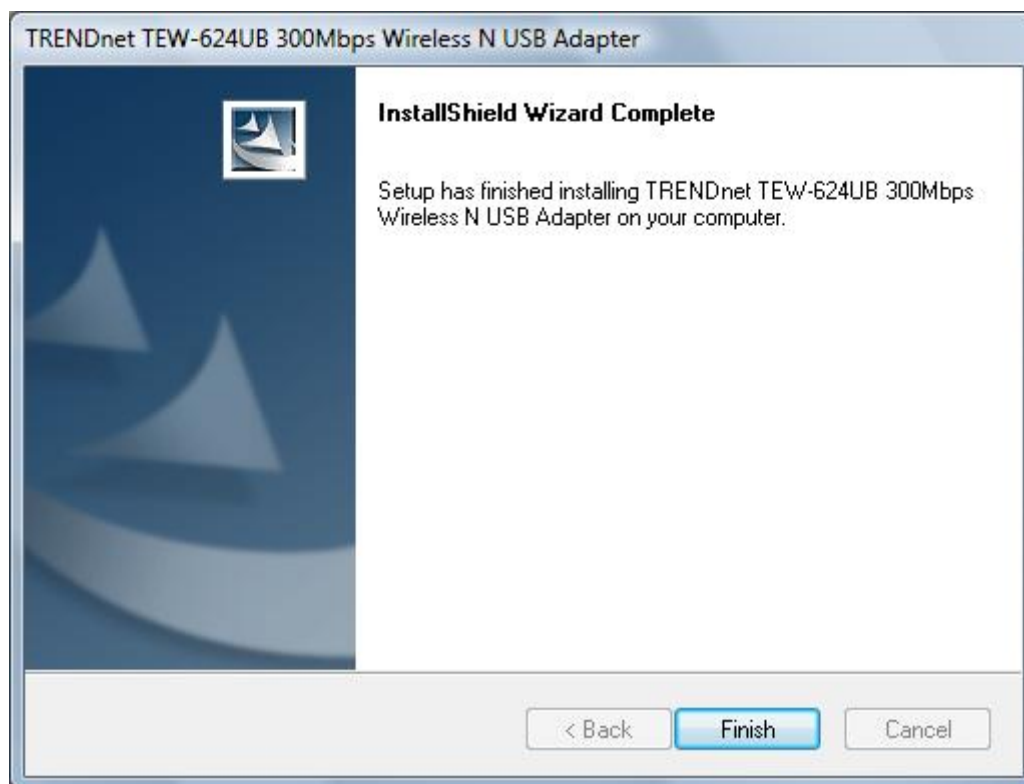
Windows Based Utility Installation

- 1) Insert the Utility and Driver CD-ROM into your computer's CD-ROM Drive and then click **Install Utility**.



- 2) Follow the InstallShield Wizard Instructions

3) Click **Finish** to restart the computer.



4) Plug the 300Mbps Wireless N USB Adapter into an available USB slot on your computer

Wireless Utility Setting

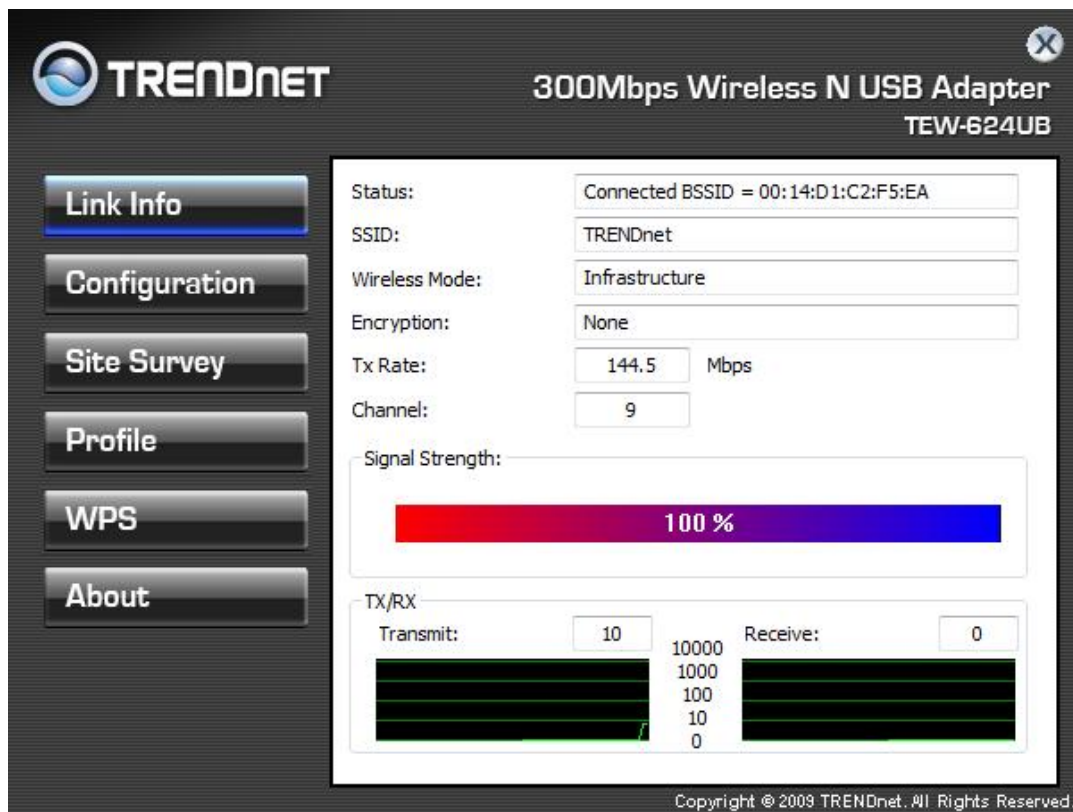
The user can configure the wireless settings using the Wireless Adapter Configuration Utility. Double-click the utility icon that appears in the taskbar.



The Wireless Adapter Configuration Utility is divided into five sections: Link Info, Configuration, Advanced, Site Survey and About.

I. Link Information

This is the default screen after launching the Utility program.



Status: Shows the associated BSSID, which can be used to identify the wireless access point.

SSID: Shows the current SSID, which must be the same on the wireless client and AP in order for communication to be established.

Wireless Mode: Shows the current wireless mode used for wireless communication.

Encryption: Shows the current encryption mode used on the wireless network.

TxRate: Shows the current data rate used for transmitting.

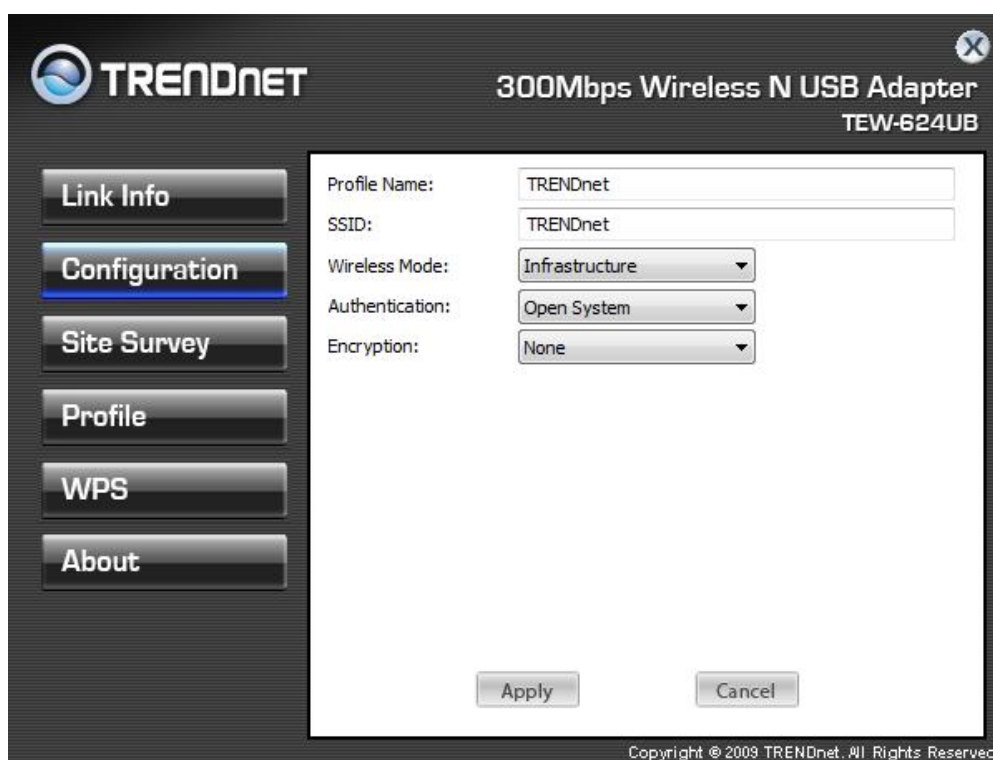
Channel: Shows the current channel for communication.

Signal Strength: Shows the wireless signal strength of the connection between the 300Mbps Wireless N USB Adapter with the Access Point.

Data Rate: Shows the statistics of data transfer, and the calculation is based on the number of packets transmitted and received.

II. Configuration

This screen is where you set the basic wireless settings for the 300Mbps Wireless N USB Adapter



SSID: Service Set Identifier, which is a unique name shared among all clients in a wireless network. The SSID must be identical for each client in the wireless network.

Wireless Mode: There are two modes available for selection

- Infrastructure – to establish wireless communication with the LAN and other wireless clients through the use of Access Points.
- Ad-Hoc – to establish point-to-point wireless communication directly with other wireless client devices.

AdHoc Band: There are three available selection for Auto, 11b and 11g

Channel: The channel the AP operates on. Users can select the channel range of 1 to 11 for North America (FCC) domain and 1 to 13 for European (ETSI) and Japan (MCK) domains.

Authentication: The following options are available: **Open System**, **Shared Key**, **Auto**, **WPA/WPA2** and **WPA-PSK/WPA2-PSK**. Select **Open System**, **Shared Key** or **Auto** for WEP data encryption feature.

Open System and **Shared Key** requires the user to set a WEP key to exchange data with other wireless clients that have the same WEP key. **Auto** automatically selects the proper authentication mode.

The following will only be activated when **Open, Shared Key or Auto** is enabled:

Network Key: choose the encryption way, either in HEX or ASCII formats, and enter the password in the blank space.

Key Length: select 64 or 128 bits as the length of the keys

Default Key: select one of the 4 keys to use.

Key Format: ASCII or HEX

If **WPA/WPA2** is selected, configuration is enabled. Please click the “**configuration**” button. The following window appears. Select the desired Certification, select the desired Certification Authority and then enter the Server/Domain name and Login Name

The screenshot shows the configuration interface for a TRENDnet 300Mbps Wireless N USB Adapter (TEW-624UB). The interface is dark-themed with a sidebar on the left containing buttons for 'Link Info', 'Configuration' (which is selected and highlighted in blue), 'Site Survey', 'Profile', 'WPS', and 'About'. The main configuration area is a white panel with the following fields and options:

- Profile Name:
- SSID:
- Wireless Mode:
- Authentication:
- Encryption:

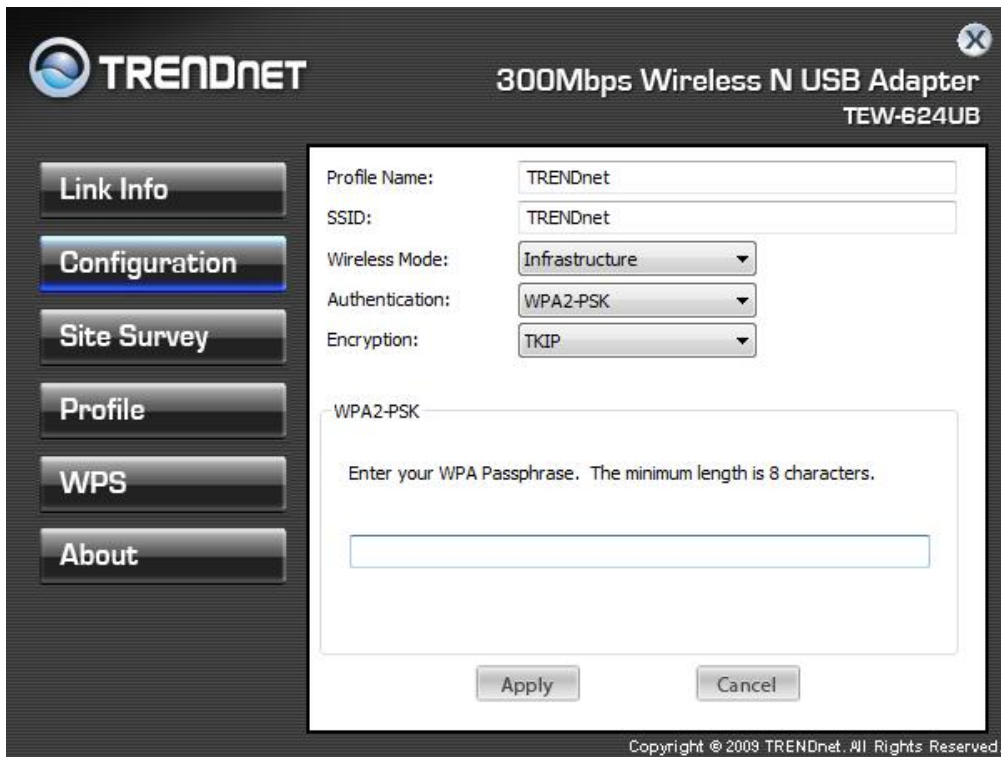
Below these fields is a section for WPA2-PSK configuration:

WPA2-PSK

Enter your WPA Passphrase. The minimum length is 8 characters.

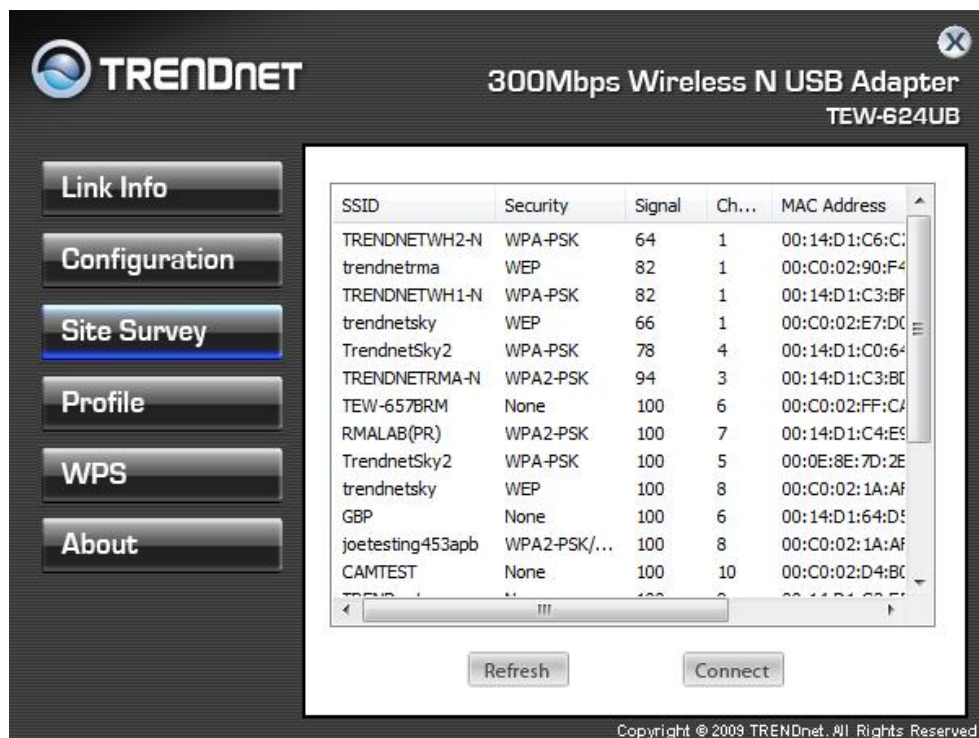
At the bottom of the configuration panel are two buttons: 'Apply' and 'Cancel'. The footer of the window contains the text: 'Copyright © 2009 TRENDnet. All Rights Reserved.'

If **WPA-PSK/WPA2-PSK** is selected, click the “**configuration**” button. The below window appears. Please enter a WPA Passphrase.



III. Site Survey

This screen allows the user to scan for available wireless networks (wireless clients and Access Points). It also allows the user to establish wireless communications with an available wireless network.



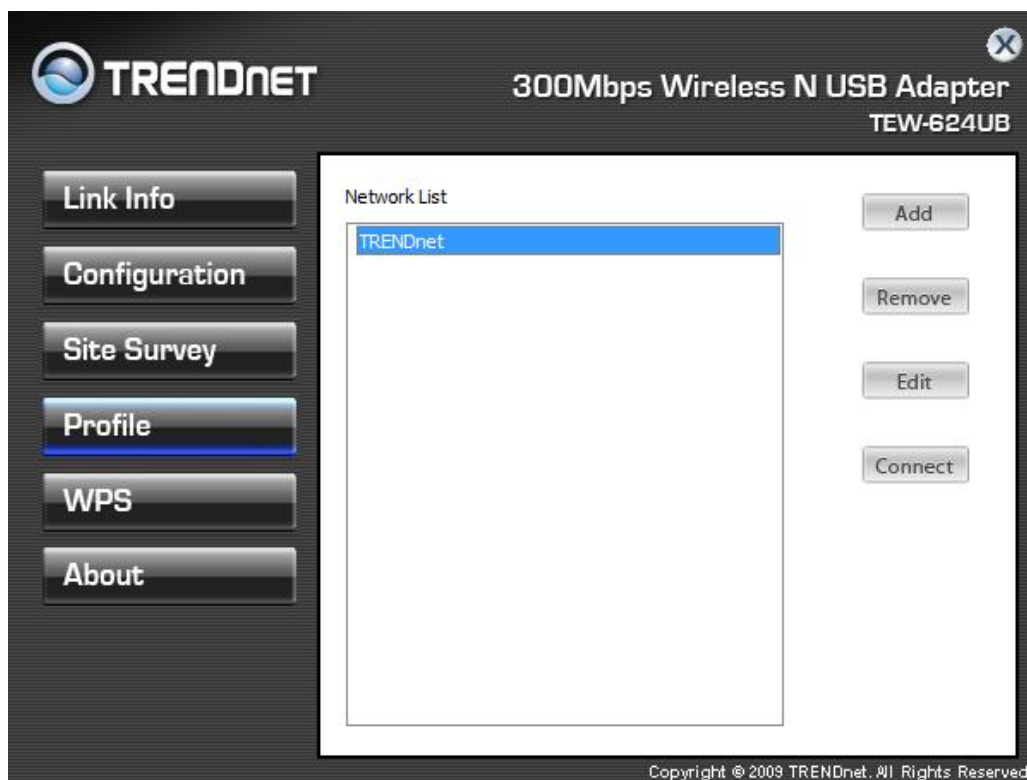
Available Network – displays the wireless networks (wireless clients and access points) that are within range.

Select any one of the wireless networks by **double-clicking** on it or clicking on the “**Connect**” button.

Click the “**Refresh**” button to scan for available networks.

IV. Profile

This screen allows the user to scan manually add, edit and connect to existing profiles.



Add: Adds a profile. The following screen will appear. The user can enter the necessary information required for accessing Access Points or Wireless Router.

Remove: Deletes the selected profile

Edit: The user can edit an existing profile.

Profile – The user can create and manage the created profiles for home, work or public areas. By double-clicking on one of the created profile, the setting will adjust to the specific setting such as SSID, channel, and WEP as saved by that particular profile.

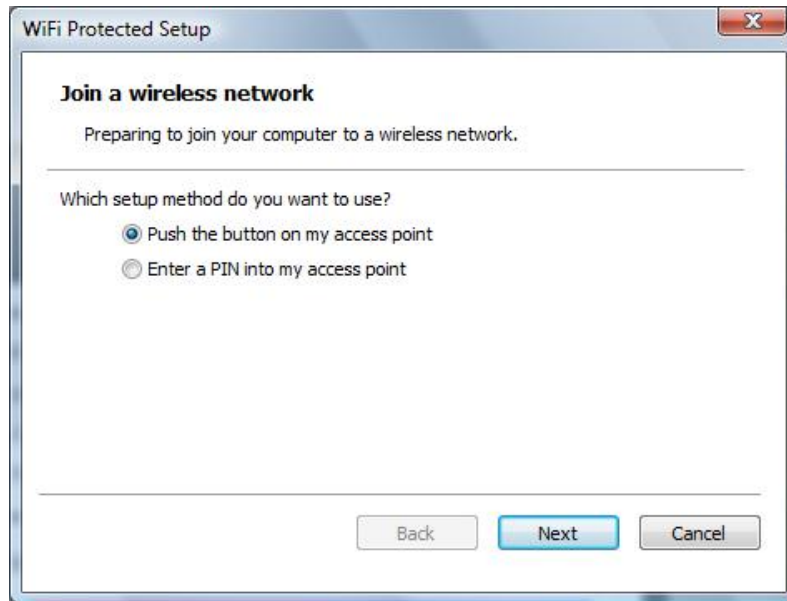
Connect: The user can manually connect to the selected profile.

WPS

WiFi Protected Setup (WPS) is an optional certification program from the Wi-Fi Alliance that is designed to ease the task of setting up and configuring security on a wireless network. There are two methods used in the WPS as below instruction.

- Push the button on my access point -

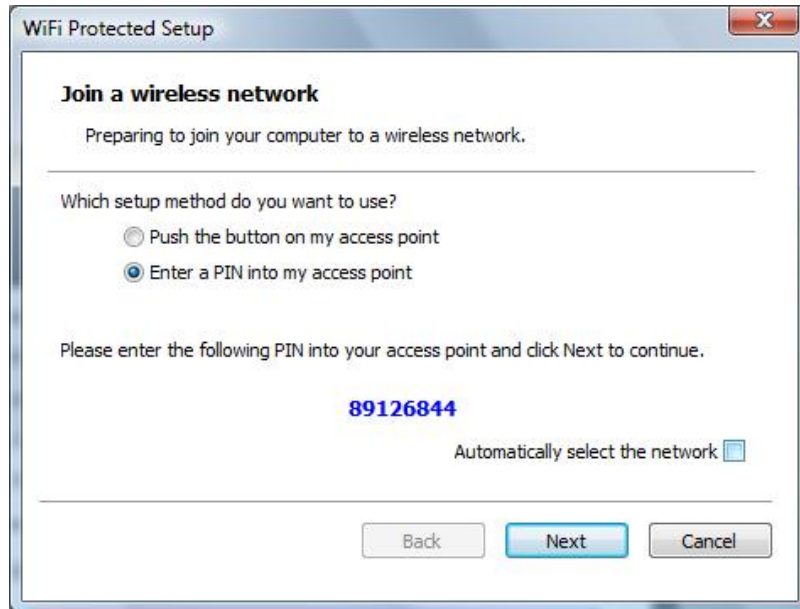
To select the Push the button on my access point is for wireless client option. There is a push button on the device or through a simulated button in the utility



- Enter a PIN into my access point -

To Enter a PIN is a mandatory method of setup for all WPS certified devices. If you are using this method, you will need a Registrar Access Points or Wireless Router to initiate the registration between the Wireless N USB Adapter and Access Points or Wireless Router. PIN No. is a random numeral.

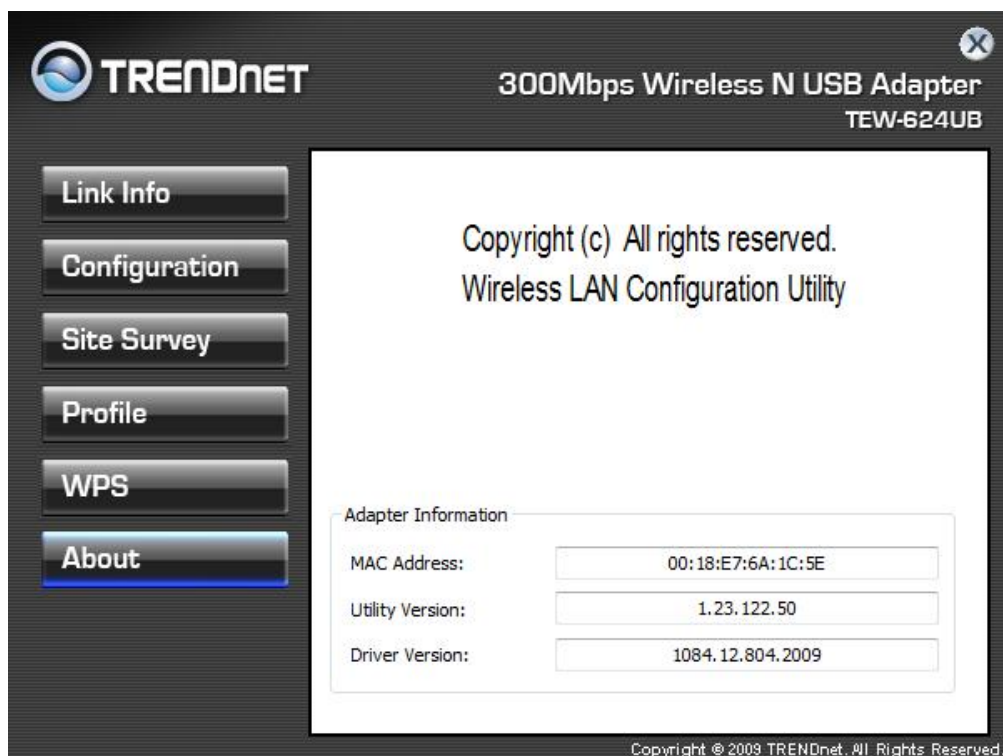
Select one Registrar Access Points or Wireless Router.



V. About

This screen displays information about the 300Mbps Wireless N USB Adapter, such as the Driver and Utility version. When a new version of the utility becomes available for upgrade, users will be able to identify by version numbers.

Remove: Deletes the selected profile



TECHNICAL SPECIFICATIONS

Hardware	
Interface	USB 2.0, 1.1 Standard
Standards	IEEE 802.11b, IEEE 802.11g and IEEE 802.11n (draft 2.0)
Power Consumption	Receive Mode: 167mA(max) ; Transmit Mode: 224mA(max)
Supported OS	Windows XP(32-bit) /Vista (32/64-bit)
Dimensions (LxWxH)	80 x 27 x 12mm (3.1 x 1 x 0.5 inches)
Weight	20g (0.7oz)
Temperature	Operating: 0° ~ 40° C (32° ~ 104° F) Storage: -10° ~ 70° C (14° ~ 158° F)
Humidity	10% ~ 95%max (Non-condensing)
Certification	CE, FCC
Wireless	
Module Technique	802.11b: DSS 802.11g: OFDM 802.11n: OFDM
Antenna	Built-in 2 High Performance Internal Printed Antennas
Frequency	2.412 ~ 2.484 GHz
Media Access Protocol	CSMA/CA with ACK
Data Rate (auto fallback)	802.11b: up to 11Mbps 802.11g: up to 54Mbps 802.11n (draft): up to 300Mbps
Output Power	802.11b: 15dBm (typical) 802.11g: 13dBm (typical) 802.11n : 13dBm (typical)
Receiving Sensitivity	802.11b: -84dBm (typical) @ 10% PER 802.11g: -65dBm (typical) @ 10% PER 802.11n : -62dBm (typical) @ 8% PER
Encryption	64/128-bit WEP (Hex & ASCII), WPA/WPA2-RADIUS, WPA-PSK/WPA2-PSK (AES/TKIP)
Channels	1~11 (FCC), 1~13 (ETSI)

LIMITED WARRANTY

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

TEW-624UB – 3 Years Warranty

AC/DC Power Adapter, Cooling Fan, and Power Supply carry 1 year warranty.

If a product does not operate as warranted during the applicable warranty period, TRENDnet shall reserve the right, at its expense, to repair or replace the defective product or part and deliver an equivalent product or part to the customer. The repair/replacement unit's warranty continues from the original date of purchase. All products that are replaced become the property of TRENDnet. Replacement products may be new or reconditioned. TRENDnet does not issue refunds or credit. Please contact the point-of-purchase for their return policies.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet within the applicable warranty period and providing a copy of the dated proof of the purchase. Upon proper submission of required documentation a Return Material Authorization (RMA) number will be issued. An RMA number is required in order to initiate warranty service support for all TRENDnet products. Products that are sent to TRENDnet for RMA service must have the RMA number marked on the outside of return packages and sent to TRENDnet prepaid, insured and packaged appropriately for safe shipment. Customers shipping from outside of the USA and Canada are responsible for return shipping fees. Customers shipping from outside of the USA are responsible for custom charges, including but not limited to, duty, tax, and other fees.

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