User's Guide

TRENDNET®

N300 Wireless Dual Band USB Adapter

TEW-664UB

Contents

Product Overview

TEW-664UB

Package Contents

In addition to your wireless adapter, the package includes:

- Quick Installation Guide
- CD-ROM (Utility & Driver)
- USB cable (15.5 cm / 6 in.)

If any package contents are missing or damaged, please contact the retail store, online retailer, or reseller/distributor from which the product was purchased.

Features

The N300 Wireless Dual Band USB Adapter, model TEW-664UB, connects a laptop or desktop computer to an high performance 300Mbps dual band wireless network.

Quickly connect to a 2.4GHz or 5GHz wireless network at the touch of a button with the convenience of the one-touch Wi-Fi Protected Setup (WPS) button. Seamlessly stream HD video over the less congested 5GHz band.

Advanced wireless encryption protects your digital network. The latest in MIMO antenna technology ensures the fastest communication speeds provided by wireless n technology. WMM® Quality of Service (QoS) technology prioritizes gaming, Internet calls, and video streams. Stream HD media, download files, play games, and talk online with 300Mbps dual band wireless n technology.

- 1 x USB 2.0 connector
- Wi-Fi compliant with IEEE 802.11a/b/g/n standard
- Backwards compatible with IEEE 802.11g, IEEE 802.11b and IEEE 802.11a networks
- High-speed data rates up to 300Mbps
- Supports MIMO technology with 2 high performance internal antennas
- One-touch network connection with Wi-Fi Protected Setup (WPS) button
- Supports Ad-Hoc or Infrastructure mode
- Dynamic Data Rate Scaling from 300Mbps to 1Mbps
- Maximum reliability, throughput and connectivity with Automatic Data Rate Switching
- Supports advanced wireless encryption up to WPA2-RADIUS
- Compatible with Windows 7, Vista and XP operating systems
- Easy user setup & diagnostic utilities
- Coverage of up to 100 meters indoor and 300 meters outdoor *

*Maximum wireless signal rates are referenced from IEEE 802.11 theoretical specifications. Actual data throughput and coverage will vary depending on interference, network traffic, building materials and other conditions.

Product Hardware Features

LED/WPS button

- **Power/Status LED** -This LED turns on when the USB adapter has power and ready for use and blinks during wireless data transmission.

- **WPS (Wi-Fi Protected Setup) button** – Push and hold this button for 3 seconds to activate WPS. The Power/Status LED will blink blue when WPS is activated.

Application Diagram

The router is installed near the modem (typically supplied by your ISP "Internet Service Provider") and physically connected to it from the router's WAN port to the modem's network port which connects to the Internet. Wireless signals from the router are broadcasted to wireless clients such as laptops (with wireless capability) thereby providing Internet access.
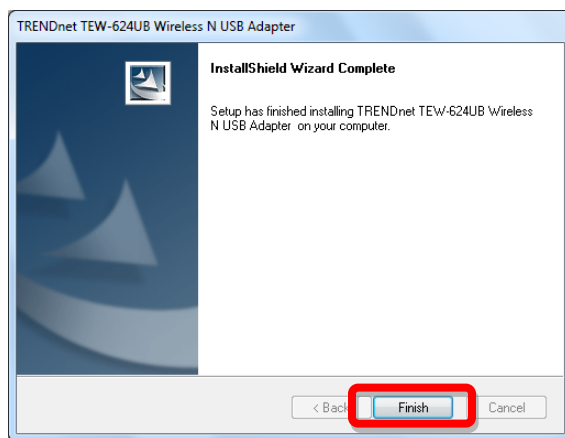
Installation

Software Installation

This section describes how to install the driver and utility for the N300 Wireless Dual Band USB Adapter.

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

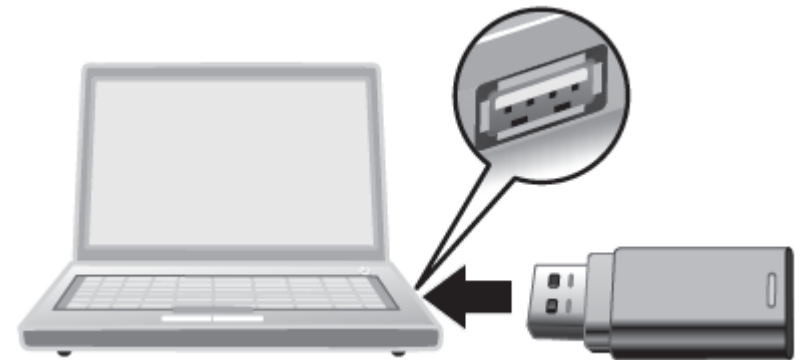
2. Follow the InstallShield Wizard Instructions

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

Hardware Installation

1. Plug the N300 Wireless Dual Band USB Adapter into an available USB slot on your computer**.**

2. Verify that the LED is turned on. Continue to the next section on how to configure that wireless adapter.


Wireless Utility

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.
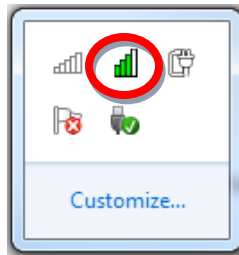
The Wireless Adapter Configuration Utility is divided into six sections: General, Profile, Available Networks, Status, Statistics and WPS.

General

This screen shows the general information of the wireless adapter.
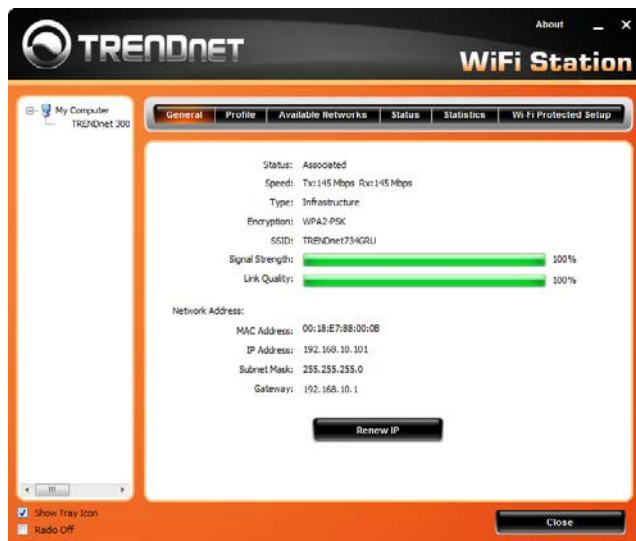
- **Status:** Shows connection status.
- **Speed:** Shows the transmission and the reception data rate.
- **Type:** Shows the connection type, Infrastructure or Ad-Hoc mode.
- **Encryption:** Shows the current encryption type used.
- **SSID:** Shows the current SSID, which must be the same as your wireless access point or router in order to establish the connection correctly.
- **Wireless Mode:** Shows the current wireless mode used.
- **Signal Strength:** Shows the wireless signal strength of the connection between the adapter and the Access Point or router.
- **Link Quality:** Shows the statistics of data transfer, and the calculation is based on the number of packets transmitted and received.
- **Network Address:** Shows the MAC address and IP address of the adapter.

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 encryption as saved by that particular profile.

- **Add:** Adds a profile. The following screen will appear. The user can enter the necessary information required for accessing the particular Access Point or Wireless Router. Or you can search the desire wireless router or AP under Available Networks section and click on Add Profile button to add the Profile.

- **Remove:** Deletes the selected profile

- **Edit:** Edit an exist profile. The screen will back to profile. Edit the SSID and select the Wireless Mode, Authentication and Encryption then click *Apply* to save the profile. When the Profile name was changed, a new profile will be added in the list.

- **Duplicate:** Duplicate the selected Profile.

- **Set Default:** Set the selected Profile as default connection.

When adding a new profile the below screen will appear. This screen will allow you to set the wireless encryption settings from your wireless network to the wireless adapter.
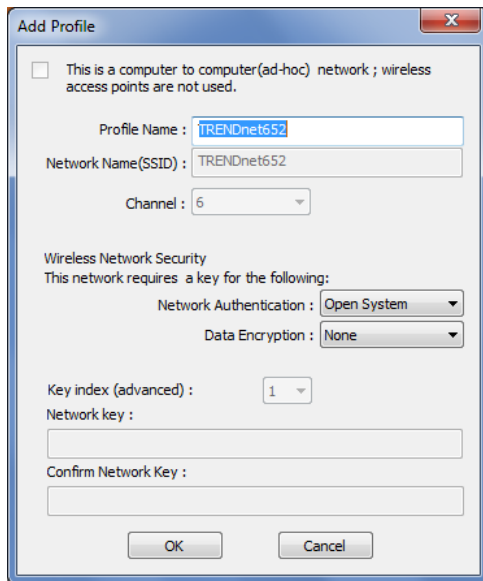
Wireless Network Security: The following options are available: Open System, Shared Key, WPA-PSK, WPA2-PSK, WPA EAP-TLS, WPA2 EPA-TLS . Select Open System, Shared Key for WEP data encryption feature.

- o **Open System and Shared:** Requires the user to set a WEP key to exchange data with other wireless clients that have the same WEP key. WEP is considered basic level of wireless encryption, if you would like higher security connection, WPA2 encryption is recommended.

  - Default Key: select one of the 4 keys to use.
  - 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
    Key Format: HEX or ASCII

Key Length	Hex	ASCII
Type	characters 0-9, A-F, a-f	alphanumeric format
64-bit	10 characters	5 characters
128-bit	26 characters	13 characters

- o **WPA-PSK/WPA2-PSK:** Requires the user to use a passphrase as the encryption key, with a minimum length of 8 characters long or maximum of 64 characters long. Please select the cipher of TKIP or AES then enter the Passphrase key. AES cipher type is for WPA2 and TKIP is for WPA.

- o **WPA/WPA2 EAP-TLS**: Also known as RADIUS or Enterprise requires the user to have a radius server connected to their network for wireless authentication and a password. Please select the cipher of TKIP or AES then enter the Passphrase key. AES cipher type is for WPA2 and TKIP is for WPA. Then select the *WPA/WPA2 Certificate* from drop down list.

Available Networks

This screen allows the user to scan for available wireless network. It also allows the user to establish wireless communications with a target device.

- **Available Networks**: Displays the wireless networks (wireless clients, access points or routers) that are within range.

- **Refresh:** Click this button to rescan for available networks. Select any one of the wireless networks and connect to it by **double-clicking.**

- **Add Profile:** Select your wireless network on the available network list and click "Add Profile" button to connect. You can also double click your wireless network from the available network list.

Status

Display the information of the adapter including manufacturer, driver version, utility version, encryption, encryption type, region, adapter's MAC address, current connection data rate, channel, connection status, the associated router or Access Point's SSID, network type, associated device's MAC address, and Up time.

- **Manufacture:** Wireless adapter's manufacture

- **NDIS Driver Version:** Driver version the wireless adapter is using. This can be useful to determine if the drivers installed are the latest or correct.

- **Utility Version:** Utility version the wireless adapter is using. This information is useful to determine if the utility version is the latest version.

- **Encryption:** The wireless encryption used on the wireless adapter. This information is useful to determine if the applied wireless encryption is the same as your wireless network.

- **Authentication:** The authentication type used on the wireless adapter. This information is useful to determine if the applied wireless authentication is the same as your wireless network.
- **Region:** The wireless adapter's wireless region.
- **MAC Address:** The MAC address of the wireless adapter. This information is useful to determine your wireless adapter when looking at the DHCP server list of your wireless adapter.
- **Data Rate:** Displays the data rate of the wireless adapter and your wireless network.
- **Channel:** Displays the channel of your wireless network is using and the wireless adapter is connected to.
- **Status:** Displays the status of the wireless adapter. This information is useful when troubleshooting the connection of the wireless adapter and your wireless network.
- **SSID:** The SSID your wireless network is connected to.
- **Network Type:** Displays the type of network the wireless adapter set to.
- **Associated AP MAC:** Displays the MAC address of the device the wireless adapter is connected to.
- **Up Time:** Displays how long the wireless adapter has been connected.

Statistics

This section displays the statistics of the adapter connection. TX means transmission and RX means Reception.

- **Counter Name:** Type of packets.
- **Value:** The value of packets.
- **Reset:** Click this button to clear the table.

WiFi Protected Setup (WPS)

Wi-Fi 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.

Pin Input Configuration (PIN)

Follow the steps below when using the WPS configuration with the **Pin Input Configuration** method. Please note that WPS will attempt to authenticate in 120 seconds. Make sure you allow this time frame to prevent any failures.
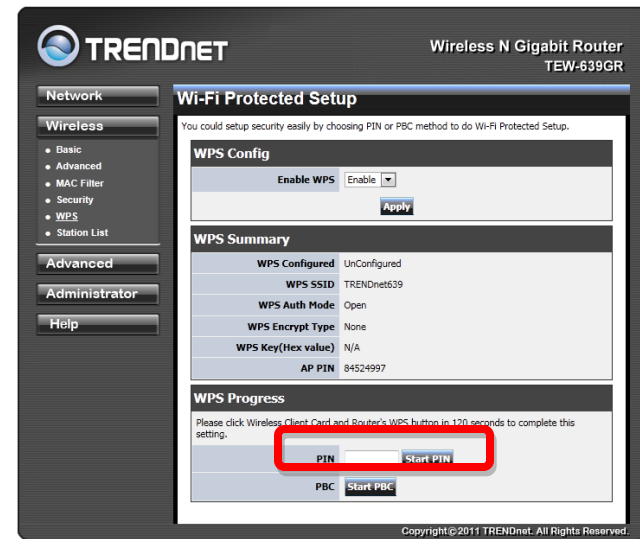
1. Click on the **Pin Input Configuration (PIN)** button, the PIN is shown on the button of the windows.

2. Enter the PIN code into the WPS "Client PIN number" of you wireless access point or router (in example, TRENDnet TEW-639GR Wireless N Gigabit Router) then click the *Start PIN* button, the wireless access point or router will start the WPS configuration process.

3. Choose to select the specific AP/Router or a WPS enabled device with client PIN entered. Choose **Yes** to allow you to select your wireless network. Choose **No** to have the wireless adapter select your wireless network on its own.

4. Select a wireless access point or router then click the **Select** button start the WPS configuration.
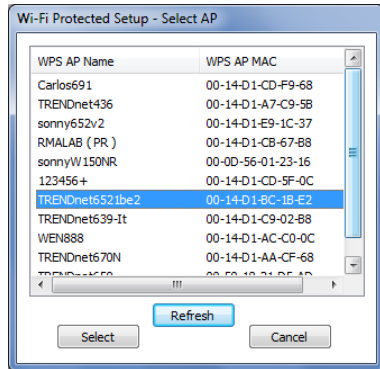
5. The wireless utility will automatically attempt to authenticate to your wireless network.

6. If the WPS configuration was successful, the following window will appear.
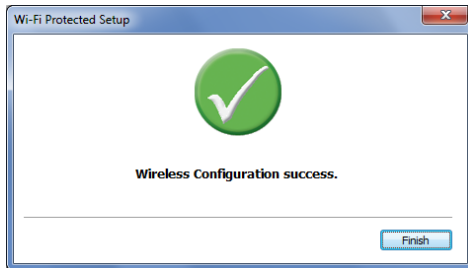
7. If the WPS configuration was failed, the follow window will show on. Try to repeat the steps again if this screen appears.
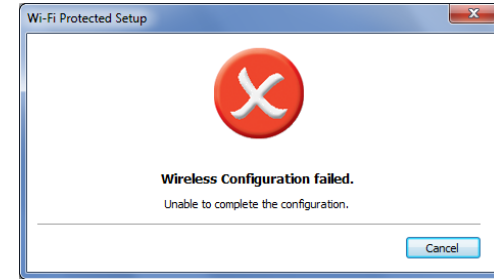
Push Button Configuration (PBC)

There are 2 ways to run WPS Push Button Configuration. Follow the steps below when using the WPS configuration with the **Push Button Configuration (PBC)** method through the wireless utility. Please note that WPS will attempt to authenticate in 120 seconds. Make sure you allow this time frame to prevent any failures.

1. Click on the **Push Button Configuration (PBC)** button, the PIN is shown on the button of the windows.
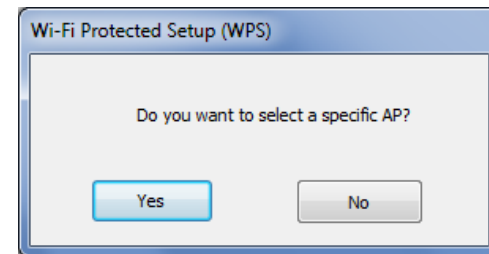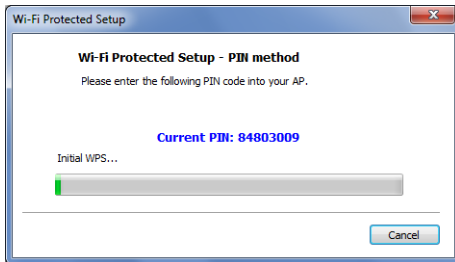

2. Push the WPS button on your wireless access point or router.
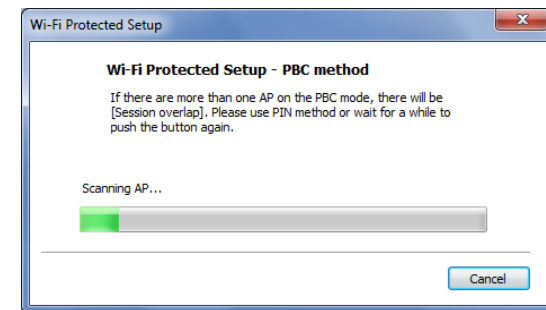
3. If the WPS configuration was successful, the follow window will show on.
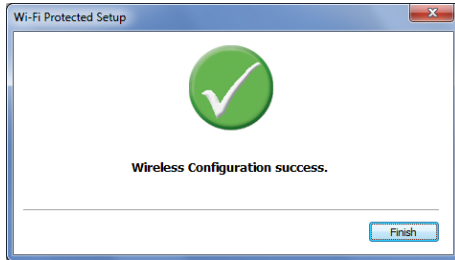
4. If the WPS configuration was failed, the follow window will show on.
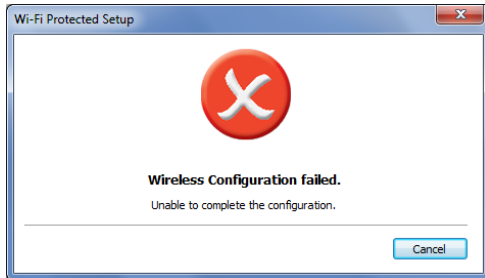
The other way to configure method of WPS Push Button Configuration is through the physical button located on the unit.

1. Press and hold the WPS button on your wireless router or access point. In most cases the WPS LED will turn on when WPS is activated.

2. Push and hold for 5 seconds the WPS button on the wireless adapter.

3. Once the WPS LED turns off you can check if the authentication was successful by checking the **Status** tab on the wireless utility.

About

This screen displays information about the 300Mbps Dual Band 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.
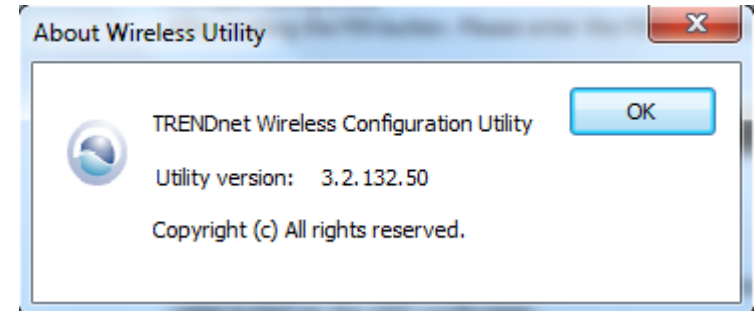
Technical Specifications

Hardware	
Interface	USB 2.0, 1.1 standard
Standards	IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, and IEEE 802.11n
WPS Button	Enables WPS connection
Power Consumption	Receive mode: 200mA (max) ; Transmit mode: 400mA (max)
Supported OS	Windows 7 (32/64-bit) / Vista (32/64-bit) / Windows XP(32/64-bit)
Dimensions (LxWxH)	65 x 23 x 11mm (2.5 x 1 x 0.5 in)
Weight	11.33 g (0.4 oz)
Temperature	Operating: 0° ~ 40° C (32° ~ 104° F)
	Storage: -10° ~ 65° C (14° ~ 149° F)
Humidity	Max. 95% (non-condensing)
Certifications	CE, FCC
Wireless	
Modulation	OFDM (BPSK, QPSK, 16QAM, 64QAM), DSSS (DPBSK, DQPSK, CCK)
Antenna	2 high performance internal antennas

Frequency	802.11b/g/n: 2.412 ~ 2.484 GHz
	802.11a/n: 5.150 ~ 5.250 / 5.725 ~ 5.825 GHz
Media Access Protocol	CSMA/CA with ACK
Data Rate (auto fallback)	802.11a: up to 54Mbps
	802.11b: up to 11Mbps
	802.11g: up to 54Mbps
	802.11n: up to 300Mbps (for both 2.4 & 5GHz)
Output Power	2.4GHz: 28dBm
	5GHz: 16dBm
Receiving Sensitivity	802.11b: -76dBm (typical)
	802.11g: -65dBm (typical) (for both 2.4 & 5GHz)
	802.11n : -61dBm (typical) (for both 2.4 & 5GHz)
Encryption	64/128-bit WEP, WPA/WPA2-RADIUS, WPA /WPA2-PSK (AES/TKIP)
Channels	2.4GHz: 1~11 (FCC), 1~13 (ETSI)
	5GHz: 36,40,44,48,149,153,157,161,165 (FCC) 36,40,44,48 (ETSI)

*Maximum wireless signal rates are referenced from IEEE 802.11 theoretical specifications. Actual data throughput and coverage will vary depending on interference, network traffic, building materials and other conditions.

Troubleshooting

Q: I inserted the Utility & Driver CD-ROM into my computer's CD-ROM Drive and the installation menu does not appear automatically. What should I do?
  Answer:

   1. For Windows 7, if the installation menu does not appear automatically, click on the Windows Icon on the bottom left hand corner of the screen,, click the "Search programs and files" box, and type D:\autorun.exe, where "D" in "D:\autorun.exe" is the letter assigned to your CD-ROM Drive, and then press the ENTER key on your keyboard
   2. For Windows Vista, if the installation menu does not appear automatically, click **Start**, click the **Start Search** box, and type **D:\autorun.exe** where "**D**" in "D:\autorun.exe" is the letter assigned to your CD-ROM Drive, and then press the ENTER key on your keyboard.
   3. For Windows 2000/XP, if the installation menu does not appear automatically, click **Start**, click **Run**, and type **D:\autorun** where "**D**" in "D:\autorun.exe" is the letter assigned to your CD-ROM Drive, and then press the ENTER key on your keyboard.

Q: I completed all the steps in the quick installation guide, but my Wireless USB Adapter is not connecting to my access point. What should I do?
  Answer:

   1. Verify that the SSID (Network Name) matches your wireless router or access point's SSID
   2. Please check with your network administrator for security key in order to access a secured wireless access point or router. Please refer to the User's Guide for more information regarding wireless network security.
   3. Check your TCP/IP properties to ensure that Obtain an IP address automatically is selected.
   4. Double-click the Wireless Configuration Utility icon, click Available Networks and then click Refresh to check and see if there are any available wireless networks listed.

Q: Windows is unable to recognize my hardware. What should I do?
  Answer:

   1. Make sure your computer meets the minimum requirements as specified in Section 1 of this quick installation guide.
   2. You must complete the installation of the Wireless Configuration Utility (as described in Section 2) before connecting the Wireless USB Adapter to your computer.
   3. Connect the Wireless USB Adapter to a different USB port on your computer.

Q: I cannot open the Wireless Configuration Utility. What should I do?
  Answer:

  Access your device manager to make sure the adapter is installed properly.
   1. To access the device manager on Windows 7, click on the Windows icon on the bottom left-hand corner, click **Computer**, click **System Properties** and then click **Device Manager**.
   2. To access the device manager on Windows Vista, right-click **Computer**, click **Properties** and then click **Device Manager**.
   3. To access the device manager on Windows XP, right-click **My Computer**, click **Properties**, click the **Hardware** tab, and then click **Device Manager**.

  If you see a networking device with a yellow question mark or exclamation point:
   1. Uninstall the device from device manager
   2. Remove the adapter from the computer
   3. Click the Windows / Start icon, click All Programs, click TRENDnet Wireless and then click Uninstall.

Appendix

How to choose the type of security for your wireless network

Setting up wireless security is very important. Leaving your wireless network open and unsecure could expose your entire network and personal files to outsiders. TRENDnet recommends reading through this entire section and setting up wireless security on your new router.

There are a few different wireless security types supported in wireless networking each having its own characteristics which may be more suitable for your wireless network taking into consideration compatibility, performance, as well as the security strength along with using older wireless networking hardware (also called legacy hardware).

It is strongly recommended to enable wireless security to prevent unwanted users from accessing your network and network resources (personal documents, media, etc.).

In general, it is recommended that you choose the security type with the highest strength and performance supported by the wireless computers and devices in your network. Please review the security types to determine which one you should use for your network.

Wireless Encryption Types

- **WEP:** Legacy encryption method supported by older 802.11b/g hardware. This is the oldest and least secure type of wireless encryption. It is generally not recommended to use this encryption standard, however if you have old 802.11 b or 802.11g wireless adapters or computers with old embedded wireless cards(wireless clients), you may have to set your router to WEP to allow the old adapters to connect to the router. **Note**: *This encryption standard will limit connection speeds to 54Mbps.*

- **WPA:** This encryption is significantly more robust than the WEP technology. Much of the older 802.11g hardware was been upgraded (with firmware/driver upgrades) to support this encryption standard. Total wireless speeds under this encryption type however are limited to 54Mbps.

- **WPA-**Auto: This setting provides the router with the ability to detect wireless devices using either WPA or WPA2 encryption. Your wireless network will automatically change the encryption setting based on the first wireless device connected. For example, if the first wireless client that connects to your wireless network uses WPA encryption your wireless network will use WPA encryption. Only when all wireless clients disconnect to the network and a wireless client with WPA2 encryption connects your wireless network will then change to WPA2 encryption. NOTE: WPA2 encryption supports 802.11n speeds and WPA encryption will limit your connection speeds to 54Mbps

- **WPA2:** This is the most secure wireless encryption available today, similar to WPA encryption but more robust. This encryption standard also supports the highest connection speeds. TRENDnet recommends setting your router to this encryption standard. If you find that one of your wireless network devices does not support WPA2 encryption, then set your router to either WPA or WPA-Auto encryption.

Note: Check the specifications of your wireless network adapters and wireless appliances to verify the highest level of encryption supported.

Below is brief comparison chart of the wireless security types and the recommended configuration depending on which type you choose for your wireless network.

Security Standard	WEP	WPA	WPA2
Compatible Wireless Standards	IEEE 802.11a/b/g (802.11n devices will operate at 802.11g to connect using this standard)	IEEE 802.11a/b/g (802.11n devices will operate at 802.11g to connect using this standard)	IEEE 802.11a/b/g/n
Highest Performance Under This Setting	Up to 54Mbps	Up to 54Mbps	Up to 450Mbps*
Encryption Strength	Low	Medium	High
Additional Options	Open System or Shared Key, HEX or ASCII, Different key sizes	TKIP or AES, Preshared Key or RADIUS	TKIP or AES, Preshared Key or RADIUS
Recommended Configuration	Open System ASCII 13 characters	TKIP Preshared Key 8-63 characters	AES Preshared Key 8-63 characters

*Dependent on the maximum 802.11n data rate supported by the device (150Mbps, 300Mbps, or 450Mbps)

How to find your IP address?

Note: Please note that although the following procedures provided to follow for your operating system on configuring your network settings can be used as general guidelines, however, it is strongly recommended that you consult your computer or operating system manufacturer directly for assistance on the proper procedure for configuring network settings.

Command Prompt Method

Windows 2000/XP/Vista/7

1. On your keyboard, press **Windows Logo+R** keys simultaneously to bring up the Run dialog box.

2. In the dialog box, type **cmd** to bring up the command prompt.

3. In the command prompt, type **ipconfig /all** to display your IP address settings.

Note: If you are experiencing difficulties, please contact your computer or operating system manufacturer for assistance.

How to configure your network settings to obtain an IP address automatically or use DHCP?

Note: Please note that although the following procedures provided to follow for your operating system on configuring your network settings can be used as general guidelines, however, it is strongly recommended that you consult your computer or operating system manufacturer directly for assistance on the proper procedure for configuring network settings.

Windows 7
    a. Go into the **Control Panel**, click **Network and Sharing Center**.
    b. Click **Change Adapter Settings**, right-click the **Local Area Connection** icon.
    c. Then click **Properties** and click **Internet Protocol Version 4 (TCP/IPv4)**.
    d. Then click **Obtain an IP address automatically** and click **OK**.

Windows Vista
    a. Go into the **Control Panel**, click **Network and Internet**.
    b. Click **Manage Network Connections,** right-click the **Local Area Connection** icon and click **Properties**.
    c. Click **Internet Protocol Version (TCP/IPv4)** and then click **Properties**.
    d. Then click **Obtain an IP address automatically** and click **OK**.

Windows XP/2000
    a. Go into the **Control Panel**, double-click the **Network Connections** icon
    b. Right-click the **Local Area Connection** icon and the click **Properties**.
    c. Click **Internet Protocol (TCP/IP)** and click **Properties**.
    d. Then click **Obtain an IP address automatically** and click **OK**.

MAC OS 10.4/10.5/10.6
    a. From the **Apple**, drop-down list, select **System Preferences**.
    b. Click the **Network** icon.

c. From the **Location** drop-down list, select **Automatic**.

d. Select and view your Ethernet connection.

> In MAC OS 10.4, from the **Show** drop-down list, select **Built-in Ethernet** and select the **TCP/IP** tab.
> In MAC OS 10.5/10.6, in the left column, select **Ethernet**.

e. Configure TCP/IP to use DHCP.

> In MAC 10.4, from the **Configure IPv4**, drop-down list, select **Using DHCP** and click the **Apply Now** button.
> In MAC 10.5, from the **Configure** drop-down list, select **Using DHCP** and click the **Apply** button.
> In MAC 10.6, from the **Configure** drop-down list, select **Using DHCP** and click the **Apply** button.

f. Restart your computer.

Note: If you are experiencing difficulties, please contact your computer or operating system manufacturer for assistance.

How to connect to a wireless network using the built-in Windows utility?

Note: Please note that although the following procedures provided to follow for your operating system on configuring your network settings can be used as general guidelines, however, it is strongly recommended that you consult your computer or operating system manufacturer directly for assistance on the proper procedure for connecting to a wireless network using the built-in utility.

Windows 7

1. Open Connect to a Network by clicking the network icon (or) in the notification area.

2. In the list of available wireless networks, click the wireless network you would like to connect to, then click **Connect.**

4. You may be prompted to enter a security key in order to connect to the network.

5. Enter in the security key corresponding to the wireless network, and click **OK**.

Windows Vista

1. Open Connect to a Network by clicking the **Start Button**. and then click **Connect To.**

2. In the **Show** list, click **Wireless**.

3. In the list of available wireless networks, click the wireless network you would like to connect to, then click **Connect.**

4. You may be prompted to enter a security key in order to connect to the network.

5. Enter in the security key corresponding to the wireless network, and click **OK**.

Windows XP

1. Right-click the network icon in the notification area, then click **View Available Wireless Networks**.

2. In **Connect to a Network**, under **Available Networks,** click the wireless network you would like to connect to.

3. You may be prompted to enter a security key in order to connect to the network.

4. Enter in the security key corresponding to the wireless network, and click **Connect**.

Federal Communication Commission 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 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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

IMPORTANT NOTE:

Radiation Exposure Statement:

The product comply with the US portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

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

The USB dongle transmitter is approved for use in typical laptop computers. To comply with FCC RF exposure requirements, it should not be used in other devices or certain laptop and tablet computer configurations where the USB connectors on the host computer are unable to provide or ensure the necessary operating configurations intended for the device and its users or bystanders to satisfy RF exposure compliance requirements.

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

For Taiwan 警語：

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

5.25 ～ 5.35GHz 限室內使用

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

EN60950-1: 2006

Safety of Information Technology Equipment

EN 62311: 2008

Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300GHz)

EN 300 328 V1.7.1 (2006-10)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

EN 301 489-1 V1.8.1 (2008-04)

Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

EN 301 489-17 V2.1.1 (2009-05)

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

C E (!)

Česky [Czech]	TRENDnet tímto prohlašuje, že tento *TEW-664UB* je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
da Dansk [Danish]	Undertegnede TRENDnet erklærer herved, at følgende udstyr *TEW-664UB* overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
de Deutsch [German]	Hiermit erklärt TRENDnet, dass sich das Gerät *TEW-664UB* in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
et Eesti [Estonian]	Käesolevaga kinnitab TRENDnet seadme *TEW-664UB* vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
en English	Hereby, TRENDnet, declares that this *TEW-664UB* is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
es Español [Spanish]	Por medio de la presente TRENDnet declara que el *TEW-664UB* cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
el Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ TRENDnet ΔΗΛΩΝΕΙ ΟΤΙ *TEW-664UB* ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
fr Français [French]	Par la présente TRENDnet déclare que l'appareil *TEW-664UB* est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
it Italiano [Italian]	Con la presente TRENDnet dichiara che questo *TEW-664UB* è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo TRENDnet deklarē, ka *TEW-664UB* atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo TRENDnet deklaruoja, kad šis *TEW-664UB* atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
nl Nederlands [Dutch]	Hierbij verklaart TRENDnet het toestel *TEW-664UB* in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
mt Malti [Maltese]	Hawnhekk, TRENDnet, jiddikjara li dan *TEW-664UB* jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
hu Magyar [Hungarian]	Alulírott, TRENDnet nyilatkozom, hogy a *TEW-664UB* megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
pl Polski [Polish]	Niniejszym TRENDnet oświadcza, że *TEW-664UB* jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
pt Português [Portuguese]	TRENDnet declara que este *TEW-664UB* está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
sl Slovensko [Slovenian]	TRENDnet izjavlja, da je ta *TEW-664UB* v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
sk Slovensky [Slovak]	TRENDnet týmto vyhlasuje, že *TEW-664UB* spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
fi Suomi [Finnish]	TRENDnet vakuuttaa täten että *TEW-664UB* tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
sv Svenska [Swedish]	Härmed intygar TRENDnet att denna *TEW-664UB* står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

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-664UB – 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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PWP05202009v2   2011/12/20

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