# User's Guide

# TRENDNET

# AC1900 High Power Dual Band Wireless USB Adapter

# **TEW-809UB**

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# **Product Overview**



# **TEW-809UB**

#### Package Contents

In addition to your wireless adapter, the package includes:

- Quick Installation Guide
- CD-ROM (Drivers & User's Guide)
- 4 x High Gain Detachable Dual Band Antennas
- USB 3.0 Micro-B to USB Type-A cable (0.91 m / 3 ft)

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**

TRENDnet's AC1900 High Power Dual Band Wireless USB Adapter, model TEW-809UB, upgrades a computer to Wireless AC1900. Quickly connect to a high performance Wireless AC network at 1300 Mbps or to a Wireless N network at 600 Mbps. A high power radio with detachable high gain antennas increase wireless coverage.

#### **Easy Setup**

Get up and running in minutes with the intuitive guided setup

#### AC1900 Dual Band

Connect to an extreme performance 1300 Mbps Wireless AC or 600 Mbps Wireless N network\*

#### **Wireless Coverage**

Extended wireless coverage with high power radio and detachable high gain antennas

#### **LED Indicator**

LED indicator conveys device status

#### **Operating Systems**

Compatible with Windows® and Mac® operating systems

\*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. For maximum performance of up to 1.3 Gbps use with a 1.3 Gbps 802.11ac wireless adapter. For maximum performance of up to 600 Mbps, use with a 600 Mbps 802.11n wireless adapter.

### **TEW-809UB**

#### **Product Hardware Features**



**USB 3.0 Micro-B port** – Use the included USB 3.0 Micro-B to Type A cable to connect the wireless adapter to your computer.

- Activity LED Indicator The LED will blink rapidly to indicate WPS has been activated. The LED will blink every 5 sec. when disconnected. When connected, the LED will blink rapidly during wireless data transmission.
- **Detachable High Gain Antennas** Connect the detachable high gain antenna directly to the antenna connectors on the adapter. The antennas are adjustable for optimal connectivity.
- WPS Push Button After the adapter drivers have been install in the computer, you can use the WPS push button to establish wireless connection to your wireless router or access point via WPS protocol. Push and hold the WPS button for 3 sec. and release to activate WPS.

#### System Requirements

- Windows<sup>®</sup> 10, 8.1, 8, 7, Vista, or XP
- Mac OS<sup>®</sup> 10.6-10.11
- Available USB 3.0 port on your computer.
   Note: Maximum wireless speeds will be reduced if using a USB 2.0 port.
- CD-ROM Drive (Driver Installation with included CD)

**Note:** If you do not have the included CD-ROM, you can download the utility and drivers from <u>http://www.trendnet.com/support/</u>.

# **TEW-809UB**

# **Application Diagram**



# WiFi Performance

Upgrade your computer to 1300 Mbps WiFi AC or 600 Mbps WiFi N to surf, game, and stream 4K HD video.



# Beamforming

Beamforming increases real-time performance by directing stronger wireless signals to each device's specific location.



The AC1900 High Power Wireless Dual Band PCle Adapter can provide wireless AC or wireless N connectivity to a wireless AC/N network (router/access point) through the use of an available USB 3.0 port on your computer. The detachable high gain antenna allows for flexible adjustment to achieve the best possible wireless coverage and connectivity

# TEW-809UB

# **Installing your Wireless Adapter**

This section describes how to install the software driver for the wireless adapter.

## Windows® OS Installation

Supported operating systems: Windows<sup>®</sup> 10, 8.1, 8, 7, Vista, XP For any updates, please check the TRENDnet website <u>www.trendnet.com</u>.

1. Insert the included CD-ROM into your computer's CD-ROM drive. **Note:** If you do not have the included CD-ROM, you can download the utility and drivers from <u>http://www.trendnet.com/support/</u>.



2. At the CD Autorun Prompt window, click Run Autorun.exe.

**Note:** If the Autorun prompt does not appear automatically, open the CD contents and double-click Autorun.exe.

At the CD-ROM main menu, click Install Drivers.



3. At the installation window	v, click <b>Next</b> .	4. You will be prompted to accept t
TRENDnet TEW-809UB AC1900	USB Adapter X TRENDnet TEW-809UB AC1900 USB Adapter The InstallShield Wizard will install TRENDnet TEW-809UB AC1900 USB Adapter on your computer. To continue, click Next.	4. Fou will be prohipted to accept a terms of the license agreement an TRENDnet TEW-809UB AC1900 USB A License Agreement Please read the following license ag End User License Agree NOTICE TO USER: THIS IS A USING THIS SOFTWARE, YOU
	< <u>B</u> ack Next> Cancel	LICENSE AGREEMENT. The Software is licensed, no 1. Use of the Software: I accept the terms of the license I do not accept the terms of the li

4. You will be prompted to accept the end user license agreement. Select I accept the terms of the license agreement and click Next.

RENDnet TEW-809UB AC1900 USB Adapter	×
License Agreement Please read the following license agreement carefully.	N
End User License Agreement NOTICE TO USER: THIS IS A CONTRACT. BY INSTALLING, DOWNLOADING O USING THIS SOFTWARE, YOU ACCEPT THE TERMS AND CONDITIONS OF THI LICENSE AGREEMENT. The Software is licensed, not sold. 1. Use of the Software:	R S V
I accept the terms of the license agreement     D I do not accept the terms of the license agreement	
< <u>B</u> ack <u>N</u> ext > Car	icel

5. Wait for the driver installation to complete. This may take a few minutes. **Note:** If you do not receive a security prompt, continue to the next step. If prompted, click **Install this driver software anyway**.



#### 6. After the process is completed, click **Finish**.

TRENDnet TEW-809UB AC1900 USB Adapter

8. Using the included USB 3.0 cable, connect the USB 3.0 micro-B side to the adapter and the USB 3.0 type A side to the computer's USB 3.0 port.



InstallShield Wizard Complete The InstallShield Wizard has successfully installed TRENDnet TEW-809UB AC1900 USB Adapter. Click Finish to exit the wizard.
< <u>B</u> ack <b>Finish</b> Cancel

9. Attached to the adapter and position the antennas at opposite angles and slightly away from each other on each as shown for optimal coverage.



- TEW-809UB
- 10. Click on the wireless icon in the taskbar located in the bottom right corner.



11. Click on the wireless network you would like to connect and click Connect.



#### 12. Enter the WiFi Key (password) and click Next.



13. The status will display "Connected" to indicate a successful connection.

**Note:** If the connected message does not display, double check your WiFi key (password) and re-enter it.





# **Mac® OS Installation**

Supported operating systems: Mac<sup>®</sup> OS 10.6-10.11 For any updates, please check the TRENDnet website <u>www.trendnet.com</u>.

1. Insert the included CD-ROM into your computer's CD-ROM drive. **Note:** If you do not have the included CD-ROM, you can download the utility and drivers from <u>http://www.trendnet.com/support/</u>



2. Open the folder named "Mac" on the included Utility and Driver CD ROM.



Mac

3. Open the folder according to the Mac<sup>®</sup> OS version you are running. For Mac<sup>®</sup> OS 10.6-10.11, the folder will be named "Mac OS 10.6-10.11".



Mac OS 10.6-10.11

4. Double click the **Installer.pkg** file to start the installation.





Uninstall.pkg

#### 5. At the Introduction window, click **Continue**. 6. At the Read Me window, click Continue. 🥪 Install Wireless USB Adapter Driver 🥪 Install Wireless USB Adapter Driver ۵ 000 Welcome to the Wireless USB Adapter Driver Installer Important Information Welcome to WLAN world ..... This is the Mac OS X driver for Wireless USB Adapter. If you have already installed an older version of software, please uninstall it first by Introduction Introduction executing "Uninstall.pkg". Then you can install this version of software Read Me Read Me successfully. Otherwise, this software can not be upgraded successfully. The system is required to reboot after the driver is installed, so please License License close all the other applications before installing this software. After the system boots up and you enter the system, please follow the following Destination Select Destination Select steps to configure the network: 1. Select the "System Preference" from the system menu. Installation Type Installation Type 2. Select and launch the "Network" item in the "System Preference" Installation Installation folder. 3. From the "Configure" list, select the correct adapter and configure it. Summary Summary 4. Configure the settings. 5. Click the "Save" button. Then you can connect to the WLAN. Go Back Continue Print... Save... Go Back Continue

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<b>•</b> •	,	J.At the mistan window,	
	🥪 Install Wireless USB Adapter Driver 🔒	• • •	🥪 Install Wireless USB Adapter Driver
Introduction Read Me License Destination Select Installation Type Installation Summary	Software License Agreement          English         Copyright (c) 2015. All rights reserved.	<ul> <li>Introduction</li> <li>Read Me</li> <li>License</li> <li>Destination Select</li> <li>Installation Type</li> <li>Installation</li> <li>Summary</li> </ul>	Standard Install on "Macintosh" This will take 13.1 MB of space on your computer. Click Install to perform a standard installation of this software for all users of this computer. All users of this computer will be able to use this software.
When prompted, click	Print Save Go Back Continue		Go Back Insta
To continue insta the software lice	alling the software you must agree to the terms of ense agreement.		
Click Agree to cor quit the Installer.	ntinue or click Disagree to cancel the installation and		

10. When prompted, enter your Mac<sup>®</sup> user account password to authorize the install, click Install Software.

Installer is trying to install new software. Type your password to allow this.			
Username:	TRENDnet		
Password:			
	Cancel Install Software		

11. When prompted, click **Continue Installation.** 



When this software finishes installing, you must restart your computer. Are you sure you want to install the software now?

Cancel

Continue Installation

12. Once the installation is complete, you will be prompted to restart the computer. Click **Restart** to restart your computer. 🥪 Install Wireless USB Adapter Driver The installation was completed successfully.

- Introduction Read Me
- License

.

- Destination Select
- Installation Type
- Installation
- Summary



Click Restart to finish installing the software.

Go Back Restart

13. Using the included USB 3.0 cable, connect the USB 3.0 micro-B side to the adapter and the USB 3.0 type A side to the computer's USB 3.0 port.

14. Attached to the adapter and position the antennas at opposite angles and slightly away from each other on each as shown for optimal coverage.







# **TEW-809UB**

15. After the driver is successfully installed and wireless adapter is connected, a wireless adapter icon will appear in the top menu bar. Click on the icon in the top menu bar.



16. A list of available wireless network will appear. Click on the wireless network you would like to connect.

	<b>~</b>
USB WiFi: On	
	🔒 🤝
TRENDnetWiFi1	🔒 🛜
TRENDnetWiFi2	🔒 🛜
TRENDnetWiFi3	🔒 察

2. Enter the WiFi Key (passu This network ' PSK AES pass	vord) and click Join. "jdesk827-5G" requires a WPA2- word	?
Password:	•••••	]
	Show password	
Show Networks	Cancel Join	

13. The wireless adapter icon will change to green WiFi bars to indicate a successful connection.

**Note:** If the connected message does not display, double check your WiFi key (password) and re-enter it.



# **Connect to your wireless network using WPS**

WPS (Wi-Fi Protected Setup) is a feature that makes it easy to connect devices to your wireless network. If your wireless router/access point supports WPS, you can use this feature to easily connect wireless devices to your network.

**Note:** You can typically find out if you if your wireless router/access point supports WPS just by looking at the physical device. There should be a WPS push button located on the exterior casing of the device, if not, your device may not support WPS or you may need to reference your device documentation as to how WPS can be initiated on the device. If your device does not have an identifiable WPS push button on the exterior location, we would recommend using the standard connection method on the previous page.

#### Windows® OS

#### WPS connection using the built in utility (Virtual Push Button)

1. Click the WiFi icon in the system tray to scan for available wireless networks.





#### 2. Click the network you would like to connect. Leave this window open.

#### 3. On your wireless router/access point, push the WPS button.

**Note:** Typically, the WPS button hold time is 3-5 sec., then release. For TRENDnet routers/access points, the WPS hardware push button hold time is 3 seconds. If you are using another brand device, you may need to refer to your device documentation for WPS operation.

# WPS Router

4. The status will display "Connected" to indicate a successful connection.

**Note:** If the connected message does not display, double check your WiFi key (password) and re-enter it.



**Note:** If the WPS process fails, you will receive not receive a message "Connected". You may need to attempt the WPS process again. Please refer to your wireless router/access point documentation regarding the operation of WPS.

WPS connection using the hardware push button

1 On your wireless router/access point, push the WPS button.

**Note:** Typically, the WPS button hold time is 3-5 sec., then release. For TRENDnet routers/access points, the WPS hardware push button hold time is 3 seconds. If you are using another brand device, you may need to refer to your device documentation for WPS operation.



2. On your wireless adapter, push and hold the WPS button for 3 seconds and release.



**WPS Push Button** 

**TEW-809UB** 

- 3. A series of WPS status messages will appear. Wait for process to complete. Please push the WPS button on your router Cancel Connecting... Cancel Selected AP ... Cancel WPS Communication Cancel

4. The WiFI status will display "Connected" to indicate a successful connection.



Note: If the WPS process fails, you will receive not receive a message "Connected". You will need to attempt the WPS process again. Please refer to your wireless router/access point documentation regarding the operation of WPS.

# Mac<sup>®</sup> OS

WPS connection using the built in utility (Virtual Push Button)

1 On your wireless router/access point, push the WPS button.

**Note:** Typically, the WPS button hold time is 3-5 sec., then release. For TRENDnet routers/access points, the WPS hardware push button hold time is 3 seconds. If you are using another brand device, you may need to refer to your device documentation for WPS operation.



2. Click on the wireless adapter icon in the top menu bar.



3. Scroll to the bottom of the available wireless networks list and click the arrow at the bottom.



#### 4, After the additional menu opens, click on WPS.





7 sec

OK

#### 5. In the WPS window, click **PBC** to activate WPS.

	WPS	
SETUP	Please key the PIN code into your A PIN: 39545060	\P's config page
PIN	РВС	Cancel
6. A series of st	tatus messages will appear. Wait for t	he WPS process to compl
WPS Progress	s : Exchange WPS Message	

7. A status message will appear to indicate a successful connection.

**Note:** If the WPS process fails, you will receive not receive a message "Connected". You may need to attempt the WPS process again. Please refer to your wireless router/access point documentation regarding the operation of WPS.



WPS Protocol Finished !!

WPS

It will connect to WPS AP automatically.



#### WPS connection using the hardware push button

1 On your wireless router/access point, push the WPS button.

**Note:** Typically, the WPS button hold time is 3-5 sec., then release. For TRENDnet routers/access points, the WPS hardware push button hold time is 3 seconds. If you are using another brand device, you may need to refer to your device documentation for WPS operation.



2. On your wireless adapter, push and hold the WPS button for 3 seconds and release.

3. The WPS window will appear and a series of status messages will appear. Wait for the WPS process to complete.

WPS Progress :	Exchange WPS Message	
-		7 sec

4. A status message will appear to indicate a successful connection.

**Note:** If the WPS process fails, you will receive not receive a message "Connected". You may need to attempt the WPS process again. Please refer to your wireless router/access point documentation regarding the operation of WPS.

	WPS	
SETUP	WPS Protocol Finished !! It will connect to WPS AP automatically.	ОК
atl		

#### WPS connection using a PIN

1. Click on the wireless adapter icon in the top menu bar.



2. Scroll to the bottom of the available wireless networks list and click the arrow at the bottom.



3, After the additional menu opens, click on WPS.

Join Other Network WPS

4. In the WPS window, note the randomly generated WPS PIN.



5. Log into your router or access point to enter in the wireless adapter PIN and activate WPS.

**Note:** You may need to refer to your device documentation for WPS operation and where to enter the client PIN in your router's configuration page. In TRENDnet routers, typically, the router configuration section to enter the PIN is under Advanced > Wireless 2.4GHz or 5GHz > WPS, example below.

WPS Action		
Station PIN	39545060 Note: Empty	for PBC method.
	Add Enrollee	
. Return back to the	computer with the WPS windo	ow open and click <b>PIN</b> .
	WFS	
SETUP Pleas	e key the PIN code into your / 39545060	AP's config page
PIN	PBC	Cancel

# **TEW-809UB**

7. The WPS window will appear and a series of status messages will appear. Wait for the WPS process to complete.



4. A status message will appear to indicate a successful connection.

**Note:** If the WPS process fails, you will receive not receive a message "Connected". You may need to attempt the WPS process again. Please refer to your wireless router/access point documentation regarding the operation of WPS.



# **Technical Specifications**

#### Standards

- IEEE 802.11a
- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.11n (up to 600 Mbps)
- IEEE 802.11ac (up to 1300 Mbps)

#### Hardware Interface

- USB 3.0 Micro-B port
- LED indicator
- WPS Button
- 4 x RP-SMA female antenna connectors
- 4 x High gain detachable dual band antennas

#### Encryption

• Wireless encryption: WEP, WPA/WPA2-PSK

#### Compatibility

- Windows<sup>®</sup> 10, 8.1, 8, 7, Vista, XP
- Mac OS<sup>®</sup> 10.6-10.11

#### **Special Features**

- 4 high gain dual band detachable antennas and integrated high powered amplifiers for long range connectivity
- High-speed 802.11ac connectivity
- Explicit Beamforming

#### Quality of Service

• WMM

#### Frequency

- 2.4GHz: (FCC) 2.412 2.462GHz, (ETSI) 2.412 2.472GHz
- 5GHz: (FCC) 5.150 5.250GHz/5.745 5.825GHz, (ETSI) 5.150 5.250GHz/5.500 – 5.700GHz

#### Modulation

- 802.11b: CCK, DQPSK, DBPSK
- 802.11a/g: OFDM with BPSK, QPSK and 16/64-QAM
- 802.11n: BPSK, QPSK, 16-QAM, 64-QAM with OFDM
- 802.11ac: OFDM with BPSK, QPSK and 16/64/256-QAM

#### Antenna Gain

• 2.4 GHz/5 GHz: 4 x 5 dBi (max.) dual band external/detachable

#### Wireless Output Power

- FCC: 802.11a: 21 dBm (max.) / ETSI: 18.5 dBm (max.) @ 54 Mbps
- FCC: 802.11b: 23 dBm (max.) / ETSI: 17.5 dBm (max.) @ 11 Mbps
- FCC: 802.11g: 20 dBm (max.) / ETSI: 17 dBm (max.) @ 54 Mbps
- FCC: 802.11n (2.4GHz): 23 dBm (max.) / ETSI: 17.5 dBm (max.) @ 600 Mbps
- FCC: 802.11n (5GHz): 19.5 dBm (max.) / ETSI: 18 dBm (max.) @ 600 Mbps
- FCC: 802.11ac: 20.5 dBm (max.) / ETSI: 17.5 dBm (max.) @ 1300 Mbps

#### Receiving Sensitivity

- 802.11a: -72 dBm (typical) @ 54 Mbps
- 802.11b: -84 dBm (typical) @ 11 Mbps
- 802.11g: -70 dBm (typical) @ 54 Mbps
- 802.11n (2.4GHz): -90 dBm (typical) @ 600 Mbps
- 802.11n (5GHz): -88 dBm (typical) @ 600 Mbps
- 802.11ac: -84 dBm (typical) @ 1300 Mbps

#### Wireless Channels

- 2.4GHz: (FCC) 1-11, (ETSI) 1-13
- 5GHz: (FCC) 36, 40, 44, 48, 149, 153, 157, 161, 165, (ETSI) 36, 40, 44, 48

# **Limited Warranty**

#### Power

• Consumption: Max. 6.6 W

#### **Operating Temperature**

• 0 - 40 °C (32 - 104 °F)

#### **Operating Humidity**

• Max. 80% non-condensing

#### Certifications

- CE
- FCC

#### Dimensions

• 85 x 75 x 20 mm (3.35 x 2.95 x 0.79 in.)

#### Weight

• 48 g (1.7 oz.)

#### \*Disclaimers\*

\* 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. For maximum performance of up to 1300Mbps, connect to a 1300 Mbps 802.11ac wireless router or access point. For maximum performance of up to 600Mbps, connect to a 600 Mbps 802.11n wireless router or access point.

# 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® 8.1/8/7, 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 8.1/8/7, 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<sup>®</sup> Vista, right-click **Computer**, click **Properties** and then click **Device Manager**.
  - 3. To access the device manager on Windows<sup>®</sup> 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 Utility 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 802.11a/b/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, 802.11g or 802.11a 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 802.11a or 802.11g hardware has 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.

**Open or Shared \ WEP** – Enter the WEP key for your wireless network. Wireless network has WEP security enabled, open or shared. Please note that the Key Index 1-4 must also match the same index configured on the wireless router/access point.

WEP Key Format	HEX	ASCII
Character set	0-9 & A-F, a-f only	Alphanumeric (a,b,C,?,*, /,1,2, etc.)
64-bit key length	10 characters	5 characters
128-bit key length	26 characters	13 haracters

**WPA/WPA2-PSK/TKIP or AES** – Wireless network has WPA/WPA2-PSK security enabled, TKIP or AES. *Note:* 8-63 alphanumeric characters (a,b,C,?,\*, /,1,2, etc.)

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
	IEEE 802.11a/b/g (802.11n devices will operate at	IEEE 802.11a/b/g (802.11n/ac devices will	
Compatible Wireless Standards	802.11g to connect using this standard)	operate at 802.11g to connect using this standard)	IEEE 802.11a/b/g/n/ac
Highest Performance Under This Setting	Up to 54Mbps	Up to 54Mbps	Up to 1.3Gbps 11ac** Up to 300Mbps 11n*
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 (600Mbps)

\*\*Dependent on the maximum 802.11ac data rate supported by the device (1.3Gbps)

#### 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® XP/Vista/7/8/8.1/10

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® 10/8.1/8/7

- 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.

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d. Then click **Obtain an IP address automatically** and click **OK**. *Windows® XP* 

- 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.

**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® 10/8.1/8/7

1. Open Connect to a Network by clicking the network icon ( $\overline{m}$  or  $\overline{m}$ ) 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**. On 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

#### 15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

#### 15.105(b)

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.

# 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 of the device.

#### FCC RF Radiation Exposure Statement:

- 1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.(For only one antenna)
- 2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

#### RoHS

This product is RoHS compliant.



TRENDnet hereby declare that the product is in compliance with the essential requirements and other relevant provisions under our sole responsibility.

#### Safety

EN 60950-1: 2006 + A11: 2009: + A1: 2010 + A12: 2011 + A2: 2013

#### EMC

EN 301 489-1 V1.9.2: 09-2011 EN 301 489-17 V2.2.1: 09-2012 EN 55022: 2010 + AC: 2011 EN 55024: 2010

#### Radio Spectrum & Health

EN 300 328 V1.9.1: 02-2015 EN 301 893 V1.8.1: 03-2015 EN 62311: 2008 This product is herewith confirmed to comply with the Directives.

#### Directives

Low Voltage Directive 2006/95/EC and 2014/35/EU EMC Directive 2004/108/EC and 2014/30/EU R&TTE Directive 2014/53/EU and RED Directive 2014/53/EU RoHS Directive 2011/65/EU REACH Regulation (EC) No. 1907/2006





छ Česky [Czech]	TRENDnet tímto prohlašuje, že tento TEW-809UB je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2006/95/ES, 2014/35/EU, 2004/108/ES, 2014/30/EU, 2011/65/EU, a REACH (ES) 1907/2006.
da Dansk [Danish]	Undertegnede TRENDnet erklærer herved, at følgende udstyr TEW-809UB overholder de væsentlige krav og øvrige relevante krav i direktiv 2006/95/EF, 2014/35/EU, 2004/108/EF, 2014/30/EU, 2011/65/EU, og REACH (EF) 1907/2006.
de Deutsch [German]	Hiermit erklärt TRENDnet, dass sich das Gerät TEW-809UB in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2006/95/EG, 2014/35/EU, 2004/108/EG, 2014/30/EU, 2011/65/EU, und REACH (EG) 1907/2006 befindet.
et Eesti [Estonian]	Käesolevaga kinnitab TRENDnet seadme TEW-809UB vastavust direktiivi 2006/95/EÜ, 2014/35/EU, 2004/108/EÜ, 2014/30/EU, 1999/5/EÜ, 2011/65/EU, ja REACH (EÜ) 1907/2006 põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
en English	Hereby, TRENDnet, declares that this TEW-809UB is in compliance with the essential requirements and other relevant provisions of Directive 2006/95/EC, 2014/35/EU, 2004/108/EC, 2014/30/EU, 2011/65/EU, and REACH (EC) 1907/2006.
es Español [Spanish]	Por medio de la presente TRENDnet declara que el TEW-809UB cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2006/95/CE, 2014/35/EU, 2004/108/CE, 2014/30/EU, 2011/65/EU, y REACH (CE) 1907/2006.
[el] Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑΤRENDnet ΔΗΛΩΝΕΙ ΟΤΙΤΕΨ- 809UBΣYMMOΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2006/95/ΕΚ, 2014/35/EU, 2004/108/ΕΚ, 2014/30/EU, 2011/65/EU, REACH (ΕΚ) 1907/2006 και.
fr Français [French]	Par la présente TRENDnet déclare que l'appareil TEW-809UB est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2006/95/CE, 2014/35/EU, 2004/108/CE, 2014/30/EU, 2011/65/EU, REACH (CE) 1907/2006 et.

it Italiano[Italian]	Con la presente TRENDnet dichiara che questo TEW-809UB è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2006/95/CE, 2014/35/EU, 2004/108/CE, 2014/30/EU, 2011/65/EU, e REACH (CE) 1907/2006
Latviski [Latvian]	AršoTRENDnetdeklarē, ka TEW-809UB atbilst Direktīvas 2006/95/EK, 2014/35/EU, 2004/108/EK, 2014/30/EU, 2011/65/EU, un REACH (EK) 1907/2006 būtiskajāmprasībām un citiemar to saistītajiemnoteikumiem.
Lietuvių [Lithuanian]	Šiuo TRENDnet deklaruoja, kad šis TEW-809UB atitinka esminius reikalavimus ir kitas 2006/95/EB, 2014/35/EU, 2004/108/EB, 2014/30/EU, 2011/65/EU, ir REACH (EB) 1907/2006 Direktyvos nuostatas.
៧ Nederlands [Dutch]	Hierbij verklaart TRENDnet dat het toestel TEW-809UB in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2006/95/EG, 2014/35/EU, 2004/108/EG, 2014/30/EU, 2011/65/EU, en REACH (EG) 1907/2006.
mt Malti [Maltese]	Hawnhekk, TRENDnet, jiddikjara li dan TEW-809UB jikkonforma mal-ħtiģijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2006/95/KE, 2014/35/EU, 2004/108/KE, 2014/30/EU, 2011/65/EU, u REACH (KE) 1907/2006.
իս Magyar [Hungarian]	Alulírott, TRENDnet nyilatkozom, hogy a TEW-809UBmegfelel a vonatkozó alapvető követelményeknek és az 2006/95/EK, 2014/35/EU, 2004/108/EK, 2014/30/EU, 2011/65/EU, irányelv, a REACH (EK) 1907/2006 irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym TRENDnet oświadcza, że TEW-809UB jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2006/95/WE, 2014/35/EU, 2004/108/WE, 2014/30/EU, 2011/65/EU, i REACH (WE) 1907/2006.
Pt Português [Portuguese]	TRENDnet declara que este TEW-809UB está conforme com os requisitos essenciais e outras disposições da Directiva 2006/95/CE, 2014/35/EU, 2004/108/CE, 2014/30/EU, 2011/65/EU, e REACH (CE) 1907/2006.
डी Slovensko [Slovenian]	TRENDnet izjavlja, da je ta TEW-809UB v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2006/95/ES,

	2014/35/EU, 2004/108/ES, 2014/30/EU, 2011/65/EU, in REACH (ES) 1907/2006.
Slovensky [Slovak]	TRENDnettýmtovyhlasuje, že TEW-809UBspĺňazákladnépožiadavky a všetkypríslušnéustanoveniaSmernice 2006/95/ES, 2004/108/ES, 2014/35/EU, 2014/30/EU, 2011/65/EU, a REACH (ES) 1907/2006.
fi Suomi [Finnish]	TRENDnet vakuuttaa täten että TEW-809UB tyyppinen laite on direktiivin 2006/95/EY, 2014/35/EU, 2004/108/EY, 2014/30/EU, 2011/65/EU, ja REACH (EY) 1907/2006 oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
<sup>হয়</sup> Svenska [Swedish]	Härmed intygar TRENDnet att denna TEW-809UB står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bEYtämmelser som framgår av direktiv 2006/95/EG, 2014/35/EU, 2004/108/EG, 2014/30/EU, 2011/65/EU, och REACH (EG) 1907/2006.

#### **Industry Canada Statement**

This Class B digital apparatus complies with Canadian ICES-003 Cet appareil numérique de classe B est conforme à la norme NMB-003.

#### This device complies with Industry Canada licence-exempt RSS standard(s).

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 the device.

#### Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux

#### appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### Caution: Exposure to Radio Frequency Radiation.

To comply with RSS 102 RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil et toutes les personnes

The device, for operation in the band 5150~5250Mhz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

#### **Limited Warranty**

TRENDnet warrants only to the original purchaser of this product from a TRENDnet authorized reseller or distributor that this product will be free from defects in material and workmanship under normal use and service. This limited warranty is nontransferable and does not apply to any purchaser who bought the product from a reseller or distributor not authorized by TRENDnet, including but not limited to purchases from Internet auction sites.

#### Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service. Specific warranty periods are listed on each of the respective product pages on the TRENDnet website.

• AC/DC Power Adapter, Cooling Fan, and Power Supply carry a one-year warranty.

#### Limited Lifetime Warranty

TRENDnet offers a limited lifetime warranty for all of its metal-enclosed network switches that have been purchased in the United States/Canada on or after 1/1/2015.

• Cooling fan and internal power supply carry a one-year warranty

To obtain an RMA, the ORIGINAL PURCHASER must show Proof of Purchase and return the unit to the address provided. The customer is responsible for any shipping-related costs that may occur. Replacement goods will be shipped back to the customer at TRENDnet's expense.

Upon receiving the RMA unit, TRENDnet may repair the unit using refurbished parts. In the event that the RMA unit needs to be replaced, TRENDnet may replace it with a refurbished product of the same or comparable model.

In the event that, after evaluation, TRENDnet cannot replace the defective product or there is no comparable model available, we will refund the depreciated value of the product.

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, or (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. International customers

#### **Limited Warranty**

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shipping from outside of the USA and Canada are responsible for any return shipping and/or customs charges, including but not limited to, duty, tax, and other fees.

**Refurbished product:** Refurbished products carry a 90-day warranty after date of purchase. Please retain the dated sales receipt with purchase price clearly visible as evidence of the original purchaser's date of purchase. Replacement products may be refurbished or contain refurbished materials. If TRENDnet, by its sole determination, is unable to replace the defective product, we will offer a refund for the depreciated value of the product.

WARRANTIES EXCLUSIVE: IF THE TRENDNET PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT TRENDNET'S OPTION, REPAIR OR REPLACE. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TRENDNET NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, OR USE OF TRENDNET'S PRODUCTS.

TRENDNET SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR OR MODIFY, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OR OTHER HAZARD.

LIMITATION OF LIABILITY: TO THE FULL EXTENT ALLOWED BY LAW, TRENDNET ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN

CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATE, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT TRENDNET'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

**Governing Law**: This Limited Warranty shall be governed by the laws of the state of California.

Some TRENDnet products include software code written by third party developers. These codes are subject to the GNU General Public License ("GPL") or GNU Lesser General Public License ("LGPL").

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# TRENDNET®

# **Product Warranty Registration**

Please take a moment to register your product online. Go to TRENDnet's website at http://www.trendnet.com/register

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