User's Guide

# TRENDIET



AC1750 Dual Band PoE Access Point

TEW-825DAP

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# **Product Overview**



TEW-825DAP

# **Package Contents**

In addition to your router, the package includes:

- TEW-825DAP
- 5 ft. (1.5 m) network cable
- CD-ROM (Utility and User's Guide)
- Quick Installation Guide
- Power adapter (12V DC, 1.5A)
- Mounting plate

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**

Equip your business with a manageable and cost-effective AC1750 wireless network with TRENDnet's AC1750 Dual Band PoE+ Access Point, model TEW-825DAP. Broadcast concurrent 1300 Mbps WiFi AC and 450 Mbps WiFi N networks. Relieve congestion and overcrowding on the 2.4GHz band by employing band steer technology. Power the access point with the included AC adapter, or connect via PoE+ for installation flexibility. The low-profile design blends into most environments and includes a convenient ceiling/wall mounting plate.

## Multi-Language

Multi-Language Interface: English, Spanish, French, German, and Russian

# **Power over Ethernet (PoE)**

Saves installation time and costs with Gigabit PoE support

## **Concurrent Dual Band**

AC1750: concurrent 1300 Mbps WiFi AC + 450 Mbps WiFi N bands

# **Multi-Mode Support**

Supports Access Point (AP), Client, WDS+AP, WDS Bridge, WDS Station, and Repeater modes

# **AP Utility**

The included Windows-based utility reduces WiFi configuration and setup time

# **Gigabit Port**

Gigabit PoE+ LAN port maintains high performance connections to the wired network

# **Wireless Coverage**

Extended wireless coverage with MIMO antenna technology

# **Encrypted Wireless**

Support for wireless encryption of up to WPA2

## **Band Steering**

Band steering alleviates network congestion by automatically directing wireless devices from the 2.4 GHz band to the 5 GHz band

# WiFi Traffic Shaping

Manage traffic allocation per SSID for each band separately

# **Multiple SSIDs**

Create up to 8 SSIDs per band (16 total)

### IPv6

IPv6 network support

# **Housing Design**

Off-white low-profile design

## **LED Control**

Reduce product visibility by disabling LED indicators

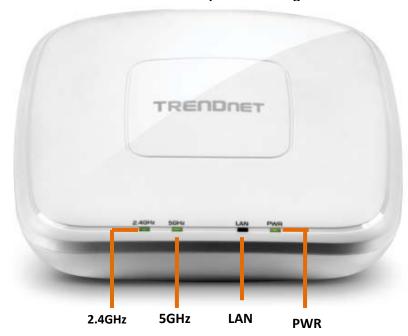
# **Mounting Plate**

Included ceiling/wall mounting plate for flexible installation

# **Product Hardware Features**

## **Top View**

## Off white low profile housing



- **2.4GHz:** This LED indicator turns green when the wireless is enabled. The LED indicator blinks during data transmission
- **5GHz:** This LED indicator turns green when the wireless is enabled. The LED indicator blinks during data transmission
- LAN: This LED indicator turns green when the access point LAN port is connected. The LED indicator blinks during data transmission
- **PWR:** This indicator turns green when the device is powered.

<sup>\*</sup>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.

#### **Front View**



- **Gigabit port:** Plug an Ethernet cable (also called network cables) from your access point to your router and wired network devices.
- **Power port:** Connect the power adapter from your access point power port to an available power outlet.
- **Reset button:** Use a sharp tool to press and hold this button for 10 seconds to reset the access point.

# **Application Diagram**



The access point provides concurrent 1300 Mbps and WiFi AC and 450 Mbps WiFi N combined with AP, Client, WDS and Repeater modes support multiple applications.

# Connect wireless devices to your access point

A variety of wireless network devices can connect to your wireless network such as:

- Wireless Laptop computers
- Network media players
- Wireless IP cameras
- Smart Phones
- Gaming Consoles
- Internet enabled TVs

Each device may have its own software utility for searching and connecting to available wireless networks, therefore, you must refer to the User's Manual/Guide of your wireless client device to determine how to search and connect to this router's wireless network.

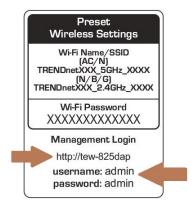
See the "Appendix" on <u>page 53</u> for general information on connecting to a wireless network.

# **Getting Started**

For a typical wireless setup at home or office when using the access point in AP mode, please do the following:

#### Installation

- 1. Connect the power adapter to the power port of the access point. Or simply plug an Ethernet cable on the access point to a PoE (Power over Ethernet) switch that connects to your router or network.
- 2. If using the power adapter, plug an Ethernet cable to the access point and plug the other end to your router or network.
- 3. Verify that all LEDs are on.
- 4. For your security, each TEW-825DAP comes pre-encrypted with a unique WiFi Name (SSID) and WiFi Password. You can find your device's SSID and WiFi password on the white labels located on the device. Use this information to connect to the TEW-825DAP access point.



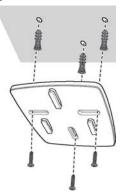
5. Verify your connection to you network by accessing the Internet. For advanced configuration continue to the advanced sections of the user manual.

## Mounting device

1. Remove the mount plate from the access point.



- 2. Place the mounting plate on the wall or ceiling where the device will be located and mark the location of the screw holes. Ensure that the device has enough clearance to slide on and off the mounting plate.
- 3. Drill out the marked holes and insert the plastic wall anchors in to the wall.
- 4. Secure the mounting plate using the screws that came with the device.



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5. Place the access point on the mounting plate and slide to lock into position.



# Steps to improve wireless connectivity

There are a number of factors that can impact the range of wireless devices. Follow these tips to help improve your wireless connectivity:

- 1. Keep the number of obstructions to a minimum. Each obstruction can reduce the range of a wireless device. Position the wireless devices in a manner that will minimize the amount of obstructions between them.
  - a. For the widest coverage area, install your router near the center of your home, and near the ceiling, if possible.
  - b. Avoid placing the access point on or near metal objects (such as file cabinets and metal furniture), reflective surfaces (such as glass or mirrors), and masonry walls.
  - c. Any obstruction can weaken the wireless signal (even non-metallic objects), so the fewer obstructions between the router and the wireless device, the better.
  - d. Place the access point in a location away from other electronics, motors, and fluorescent lighting.
  - e. Many environmental variables can affect the router's performance, so if your wireless signal is weak, place the access point in several locations and test the signal strength to determine the ideal position.
- 2. Building materials can have a large impact on your wireless signal. In an indoor environment, try to position the wireless devices so that the signal passes through less dense material such as dry wall. Dense materials like metal, solid wood, glass or even furniture may block or degrade the signal.
- 3. Antenna orientation can also have a large impact on your wireless signal. Use the wireless adapter's site survey tool to determine the best antenna orientation for your wireless devices.
- 4. Interference from devices that produce RF (radio frequency) noise can also impact your signal. Position your wireless devices away from anything that generates RF noise, such as microwaves, radios and baby monitors.

If possible, upgrade wireless network interfaces (such as wireless cards in computers) from older wireless standards to 802.11n. If a wirelessly networked device uses an older standard, the performance of the entire wireless network may be slower. If you are still experiencing low or no signal, consider repositioning the wireless devices or installing additional access points.

# Connect wireless devices to your access point

A variety of wireless network devices can connect to your wireless network such as:

- Gaming Consoles
- Internet enabled TVs
- Network media players
- Smart Phones
- Wireless Laptop computers
- Wireless IP cameras

Each device may have its own software utility for searching and connecting to available wireless networks, therefore, you must refer to the User's Manual/Guide of your wireless client device to determine how to search and connect to this router's wireless network.

See the "Appendix" on page 63 for general information on connecting to a wireless network.

# **Configuration**

**Note:** The access point's default management page <a href="http://192.168.10.100">http://192.168.10.100</a> is accessed through the use of your Internet web browser (e.g. Internet Explorer, Firefox, Chrome, Safari, and Opera) and will be referenced frequently in this User's Guide.

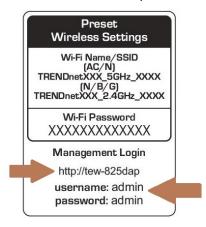
Before accessing the web-based management page, configure the IP address and subnet mask of your computer to the following:

IP Address: 192.168.10.xxx Subnet Mask: 255.255.255.0

1. Open your web browser (e.g. Internet Explorer, Firefox, Safari, Chrome, or Opera) and go to http://tew-825dap or type in http://192.168.10.100.



2. Enter the default user name and password and then click **Login**. You can find your device's SSID and WiFi password on the white labels located on the device. Use this information to connect to the TEW-825DAP access point.





#### Wizard

- 1. For the first-time logging into the device the setup wizard will start automatically.
- 2. For your security, the first step is to change the login password of the access point. Enter your new login password and click OK.



3. Your new password settings will be applied and you will be redirected to the login screen. You will need to use the new login password to proceed.



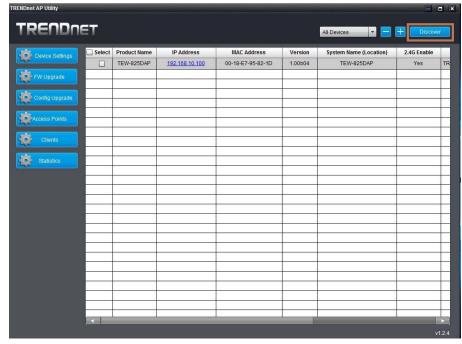
## Using the utility

For additional information on the utility please go to utility section.

- 1. Insert the CD ROM included with the access point.
- 2. Click on AP Utility to install the utility.



3. Once the utility is installed click on Discover to refresh the list of access points.

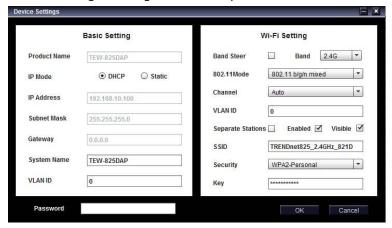


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4. Select the access point you want to configure.



5. Click on Device settings to configure the access point.



- Product Name: Displays the device model
- IP Mode: Select the IP mode to apply on the device
  - DHCP: Select this option to allow the device to receive IP address from your DHCP server
  - o Static: Select this option to manually set the IP address of the device
- IP Address: Enter the IP address to assign to the device
- Subnet Mask: Enter the subnet mask to assign to the device
- Gateway: Enter the gateway IP address to assign to the device

- System Name: Assign name of the device to help distinguish between similar devices
- VLAN ID: Assigns the VLAN ID for the Ethernet port.
- Band Steer: Select this to enable/disable band steering
- Band: Select on the pull-down menu the wireless interface to configure
- 802.11 Mode: Select the 802.11 mode of the selected wireless interface
- Channel: Select the wireless channel of the selected wireless interface
- VLAN ID: Assigns the VLAN ID for the primary SSID.
- **Separate Stations:** Select this option to restrict wireless client devices from accessing other client devices connected to this network(s).
- Enable: Select this option to enable the selected wireless interface
- Visible: Select this option to wireless broadcast the selected wireless interface
- SSID: Enter the SSID (Wireless Network Name) of the selected wireless interface
- Security: Select the wireless encryption security for to assign the selected wireless interface
- Key: Enter the wireless encryption security key or password
- Password: Enter the login password of the device and click OK to save settings

# **Wireless Networking and Security**

# 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 access point.

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	IEEE 802.11a/b/g (802.11n devices will operate at	IEEE 802.11a/b/g (802.11n devices will operate at 802.11g to connect		
Wireless Standards	802.11g to connect using this standard)	using this standard)	IEEE 802.11a/b/g/n	
Highest Performance Under This Setting	Up to 54Mbps	Up to 54Mbps	Up to 450Mbps (11n) and up to 1.3Gbps (11ac)*	
Encryption Strength	Low	Medium	High	
Open System or Shared Key, Options HEX or ASCII, Different key size		TKIP or AES, Preshared Key or RADIUS	TKIP or AES, Preshared Key or RADIUS	
Recommended Configuration	ecommended Open System ASCII		AES Preshared Key 8-63 characters	

<sup>\*</sup>Dependent on the maximum 802.11n/ac data rate supported by the device (150Mbps, 300Mbps, 450Mbps, 867Mbps, or 1.3Gbps)

# Secure your wireless network

Wireless (2.4GHz or 5GHz)> Security

After you have determined which security type to use for your wireless network (see "<u>How to choose the security type for your wireless network</u>" on page 12), you can set up wireless security.

- 1. Log into your router management page (see "<u>Access the management page</u>" on page 16).
- 2. Click on the Wireless network you want to configure button (Wireless 2.4GHz or 5GHz).

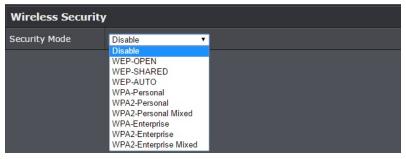


WEP Key Format	HEX	ASCII
Character set	0-9 & A-F, a-f only	Alphanumeric (a,b,C,?,*, /,1,2, etc.)
64-bit key length	10 characters	5 characters
128-bit key length	26 characters	13 characters

- 3. Underneath the basic wireless band section, you will see **Wireless Network** and all your wireless network profiles will be listed.
- 4. Click on the Edit button next to the wireless profile you want to configure.



5. Select from the drop-down list to the wireless security to configure.



6. Review the wireless security settings, click Apply and Save/Reload when finished.



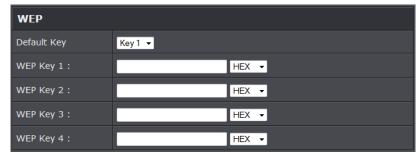


**Selecting WEP-OPEN, WEP-SHARED:** If selecting **WEP** (Wired Equivalent Privacy), please review the WEP settings to configure and click **Apply** to save the changes.

Note: WPS functionality is not available when using WEP.

In the Security Mode drop-down list, select WEP-OPEN or WEP-SHARED.

**Note:** It is recommended to use WEP-OPEN because it is known to be more secure than Shared Key.



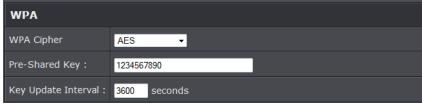
- **Default Key:** Select the WEP Key from the drop-down list to use
- Network Key 1-4

- o This is where you enter the WEP key needed for a computer to connect to the router wirelessly
- You can define up to 4 passwords or 4 keys. Only one key can be active at a given time. Most users simply define one key.
- o Choose a key index 1, 2, 3, or 4 and enter the key.
- When connecting to the access point, the client must match both the password and the Key number. (e.g. if you have activated Key 2 with a password of 12345, then the client must select: Key 2 (entering Key 1, 3, or 4 will block the ability to connect) and enter password 12345)

**Note:** It is recommended to use 128-bit format because it is more secure to use a key that consists of more characters.

• **HEX** or **ASCII**: Select which WEP code type to assign

Selecting WPA- Personal, WPA2- Personal, WPA2- Personal, or Mixed (WPA2-PSK recommended): In the Security Mode drop-down list, select WPA- Personal



The following section outlines options when selecting **WPA-Personal**, **WPA2- Personal**, or **WPA2- Personal Mixed** (Pre-shared Key Protocol),

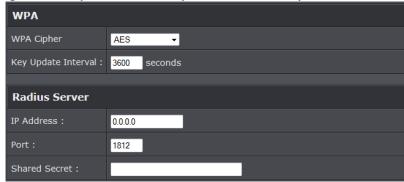
- WPA Cipher: Select a Cipher Type to use. When selecting WPA-PSK security, it is recommended to use TKIP + AES.
  - When selecting WPA2- Personal Mixed security, it is recommended to use TKIP+AES.
  - o When selecting WPA2- Personal security, it is recommended to use AES.
- Pre-Shared Key: Enter the passphrase or password
- This is the password or key that is used to connect your computer to this router wirelessly

**Note:** 8-63 alphanumeric characters (a,b,C,?,\*, /,1,2, etc.)

• **Key Update Interval:** Enter the time interval (seconds) of when the network passphrase will rotate.

**Note:** It is recommended to use the default interval time. Your passphrase will not change; rotation of the key is part of the WPA protocol and designed to increase security.

Selecting WPA-Enterprise, WPA2-Enterprise, or WPA2-Enterprise Mixed:



The following section outlines options when selecting **WPA-Enterprise**. **WPA2-Enterprise** or **WPA2-Enterprise** Mixed known as EAP (Extensible Authentication Protocol). Also known as called Remote Authentication Dial-In User Service or **RADIUS**.

**Note:** This security type requires an external RADIUS server, PSK only requires you to create a passphrase.

- WPA Cipher: Select a Cipher Type to use. When selecting WPA-PSK security, it is recommended to use TKIP + AES.
- **Key Update Interval:** Enter the time interval (seconds) of when the network passphrase will rotate.

**Note:** It is recommended to use the default interval time. Your passphrase will not change; rotation of the key is part of the WPA protocol and designed to increase security.

- IP Address: Enter the IP address of the RADIUS server. (e.g. 192.168.10.250)
- **Port:** Enter the port your RADIUS server is configured to use for RADIUS authentication.

**Note:** It is recommended to use port 1812 which is typical default RADIUS port.

 Shared Secret: Enter the shared secret used to authorize your router with your RADIUS server.

# **Connect wireless devices using WPS**

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

**Note:** You will not be able to use WPS if you set the SSID Broadcast setting to Disabled or if you are using WEP security.

There are two methods the WPS feature can easily connect your wireless devices to your network.

- Push Button Configuration (PBC) method
   WPS Software/Virtual Push Button located in router management page
- PIN (Personal Identification Number) Method located in router management page Note: Refer to your wireless device documentation for details on the operation of WPS.

For connecting additional WPS supported devices, repeat this process for each additional device.

#### PBC (Software/Virtual Push Button)

Wireless (2.4GHz or 5GHz)> WPS

In addition to the hardware push button located physically on your router, the router management page also has push button which is a software or virtual push button you can click to activate WPS on your router.

- 1. Log into your router management page (see "<u>Access the management page</u>" on page 16).
- 2. Click on the Wireless network you want to configure button (Wireless 2.4GHz or 5GHz) and click **WPS**.



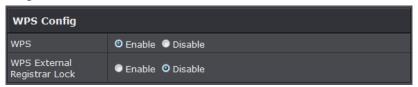
3. Click on **WPS** to configure the selected wireless band's WPS feature. Click **Apply** to save settings



4. Review the WPS settings, click **Save/Reload** when finished.



### **WPS Config**



- WPS: Select enable to turn on WPS feature
- WPS External Registrar Lock: Select to enable or disable external registrar feature on the select wireless band.

## **WPS Summary**

WPS Summary	
WPS Current Status	Idle
WPS Configured	Yes
WPS SSID	_0001
WPS Security Mode	WPA2-PSK AES
WPS Key	1234567890
AP PIN	12345678

- WPS Current Status: Displays the status of WPS feature on the selected wireless band
- WPS Configure: Displays the configured mode of the WPS feature
- WPS SSID: Displays the SSID of the WPS network

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- WPS Security Mode: Display the security mode of the WPS network
- WPS Key: Displays the security password
- AP PIN: Display the WPS PIN information.

#### **WPS Action**



 PIN: Enter the PIN information of the wireless client you want to connect to the network. Click Start PIN button to activate WPS once you enter the client's PIN information

**Note:** You may need to initiate the WPS PIN on your wireless device first when using this method. Refer to your wireless device documentation for details on the operation of WPS.

• PBC: Click Start Push Button to activate WPS PBC configuration.

# **Advance configuration**

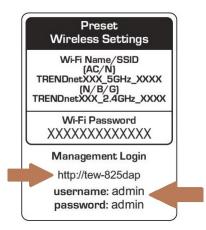
# Access the management page

**Note:** Your router management page URL/domain name http://TEW-825DAP or IP address http://192.168.10.100 is accessed through the use of your Internet web browser (e.g. Internet Explorer, Firefox, Chrome, Safari, Opera) and will be referenced frequently in this User's Guide.

1. Open your web browser (e.g. Internet Explorer, Firefox, Safari, Chrome, or Opera) and go to URL/domain name http://TEW-825DAP or IP address http://192.168.10.100. Your router will prompt you for a user name and password.



2. You can find the **Password** on a sticker on the side of the router and on the label on the bottom of the router.



3. Enter your **Username** and **Password**, select your preferred language, and then click **Login**.



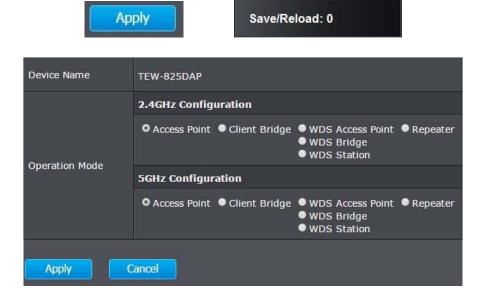
# **Operating Modes**

This section outlines the available operating modes available on the access point.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on System and Operation Mode.



- 3. Select the operating mode to apply on each wireless band.
- 4. Click on **Apply** button located on the bottom to save the settings, and click on **Save/Reload** button located on the top left section to apply the saved settings.



- Access Point: In this mode, the device creates a wireless network to your existing network.
- Client Bridge: Select this mode to allow the access point the ability to wireless connect to your wireless network. This is similar to a wireless laptop or mobile device connecting to a wireless network.
- WDS Access Point: In the mode, the access point connects to other WDS bridge enable devices for backbone communication and provides wireless connection to clients (STAs) at the same time.
- WDS Bridge: When this mode is selected the access point connects ONLY to other WDS bridge enabled devices and local networks (the other wireless interface and Ethernet interface) as a wireless backbone bridge.
- WDS Station: The wireless interface connects to other WDS bridge enabled devices
  for backbone communication and connects to other wireless access points at the
  same time. Use this mode to pair with the next hop access point as a WDS network
  outlet.

**Note**: Please note that only one bridge can be set up on 2.4GHz or 5.0GHz band, but not both.

Repeater: In this mode, the wireless interface repeats wireless signal and packets
for backbone communication as well as a client access. This feature is used to
expand your existing wireless network to areas that your current access point is
unable to reach. Make sure all of the settings of the wireless interface matches to
your root or connecting wireless access points, same SSID, channel and wireless
encryption settings.

## **Access Point**



# **Basic**

Wireless (2.4GHz or 5GHz) > Wireless Network

This section outlines the available features to configure for both wireless 2.4Ghz and 5GHz when Access Point mode is selected.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the wireless band you would like to configure and click Wireless Network.



3. Configure the below settings and click Apply to save settings.



4. Click on Save/Reload button located on the top left section to apply settings.





Wireless Mode: If all of the wireless devices you want to connect with this Access
Point can connect in the same transmission mode, you can improve performance
slightly by choosing the appropriate mode. If you have some devices that use a
different transmission mode, choose the appropriate mode.

#### 2.4GHz Wireless

- B/G/N mixed: Select this mode for the best compatibility. This mode allows older 802.11b and 802.11g wireless devices to connect to the access point in addition to newer 802.11n devices.
- o **B/G mixed:** This mode only allows devices to connect to the access point using older and slow 802.11b or 802.11g technology and it thereby reduces the router's maximum speed to 54Mbps (typically not recommended).
- N only: This mode only allows newer 802.11n devices to connect to your access point. This mode does ensure the highest speed and security for your network, however, if you have older 802.11g wireless clients, they will no longer be able to connect to this router.
- o **G only:** This mode only allows devices to connect to the access point using older and slower 802.11g technology (typically not recommended).
- o **B only:** This mode only allows devices to connect to the access point using older and slower 802.11b technology (typically not recommended).
  - **Note:** Please check the specifications on your wireless devices for the highest wireless capability supported first before applying these settings. If you are unsure, it is recommended that you keep the default setting (B/G/N mixed) for the best compatibility.

**5GHz Wireless** 

- A only: This mode only allows devices to connect to the access point using older and slower 802.11a technology (typically not recommended).
- o **A/N mixed:** This mode only allows devices to connect to the access point using older and slower 802.11a or 802.11n technology and it thereby reduces the access point's maximum speed to 54Mbps (typically not recommended).
- N only: This mode only allows newer 802.11n devices to connect to your access point. This mode does ensure the highest speed and security for your network, however, if you have older 802.11a wireless clients, they will no longer be able to connect to this router.
- N/AC mixed: Select this mode for the best compatibility. This mode allows older 802.11a wireless devices to connect to the access point in addition to newer 802.11ac devices.
- o **AC only:** This mode only allows devices to connect to the access point using newer and faster 802.11ac technology (typically not recommended).
- A/N/AC mixed: Select this mode for the best compatibility. This mode allows older 802.11a and 802.11n wireless devices to connect to the access point in addition to newer 802.11ac devices.

**Note:** Please check the specifications on your wireless devices for the highest wireless capability supported first before applying these settings. If you are unsure, it is recommended that you keep the default setting (A/N/AC mixed) for the best compatibility.

When applying the 802.11 mode setting, please keep in mind the following:

- Wireless devices that support 802.11n are backwards compatible and can connect wirelessly at 802.11g or 802.11b.
- Connecting at 802.11b or 802.11g will limit the capability of your 802.11n supported wireless devices from obtaining higher performance and data rates.
- Allowing 802.11b or 802.11g devices to connect to an 802.11n capable wireless network may degrade the wireless network performance below the higher performance and data rates of 802.11n.
- Wireless devices that only support 802.11b or 802.11g will not be able to connect to a wireless network that is set to 802.11n only mode.
- Wireless devices that only support 802.11b will not be able to connect to a wireless network that is set to 802.11g only mode.
- **Channel Width:** Select the channel width for the access point to operate on. By default, the access point is on Auto 20/40 MHz.
- Extension channel: When 20/40 channel bandwidth has been chosen, you should select extension channel to get higher throughput.

• Frequency (Channel): In North America, this router can broadcast on 1 of 11 Channels for 2.4GHz (13 in Europe and other countries). Selecting the Auto option enables the router to automatically select the best Channel for wireless communication. To manually set the channel on which the router will broadcast, click the drop-down list and select the desired Channel for wireless communication. The goal is to select the Channel that is least used by neighboring wireless networks.

# **Wireless Profile**

Wireless (2.4GHz or 5GHz) > Wireless Network

This section outlines the available features to configure for both wireless 2.4Ghz and 5GHz when Access Point mode is selected.

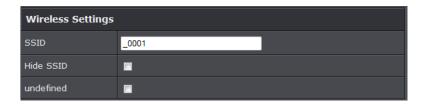
- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the wireless band you would like to configure and click Wireless Network.



- 3. Underneath the basic wireless band section, you will see **Wireless Network** and all your wireless network profiles will be listed.
- 4. Click on the Edit button next to the wireless profile you want to configure.



5. Review the wireless settings, click **Apply** and **Save/Reload** when finished.



- **SSID:** Enter the wireless network name (SSID) to assign to the selected wireless profile
- **Hide SSID:** Select option to disable the wireless network name to broadcast
- **Separate Stations:** Select this option to restrict wireless client devices from accessing other client devices connected to this network(s).

# **Wireless MAC filter**

Wireless (2.4GHz or 5GHz) > Wireless MAC Filter

Every network device has a unique, 12-digit MAC (Media Access Control) address. Using wireless MAC filters, you can allow or deny specific wireless clients using this access point's wireless network.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the wireless band you would like to configure and click **Wireless MAC Filter**.

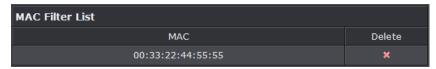


3. Review the settings and click **Apply** and **Save/Reload** button to save settings.



- Filter Mode: Select from the pull-down list the MAC filter rule to apply.
  - o Disable: Select to turn off MAC filter feature
  - o **DENY:** Select this option to DENY all listed MAC addressed
  - o **ALLOW:** Select this option to only ALLOW the listed MAC address to the network.
- MAC Address: Enter the MAC address to apply on the MAC filter rule

#### **MAC Filter List**



- MAC: List of all MAC addresses
- **Delete:** Click to remove the selected MAC address from the MAC Filter List

# **Client Bridge**



# **Basic**

Wireless (2.4GHz or 5GHz) > Wireless Network

This section outlines the available features to configure for both wireless 2.4GHz and 5GHz when Access Point mode is selected.

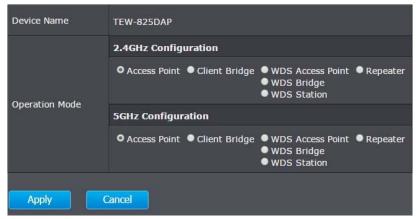
1. Log into your management page (see "Access the management page" on page 16).

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2. Click on System, and select Operation Mode.



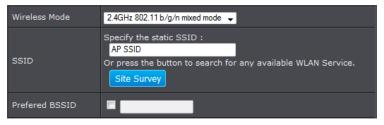
3. Enable **Client Bridge**, under the wireless band (2.4GHz or 5GHz) you would like to connect this access point to. Please make sure that the selected band is available on your network.



- 4. Click Apply to save your current settings.
- On the left-hand side menu, click on the wireless band tab (Wireless 2.4GHz / Wireless 5GHz) you would like to configure and click Wireless Network.



6. Configure the below settings and click **Apply** and **Save/Reload** to save settings.



- Wireless Mode: Select the wireless mode to set on the selected wireless band in client bridge mode
- **SSID:** Manually enter the wireless network name (SSID) you want to establish connection. Or simply click on Site Survey to scan for available wireless network.
- **Preferred BSSID:** Click option and enter the preferred wireless network you would like to connect to.



• **Security Mode:** Select from the pull-down menu the wireless security that is used on the wireless network you would like to connect to.

# **Scan for wireless networks**

Wireless (2.4GHz or 5GHz) > Wireless Network

This section outlines the available features to configure for both wireless 2.4Ghz and 5GHz when **Client Bridge** mode is selected.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the wireless band you would like to configure and click Wireless Network.



3. Under SSID section click **Scan** to wireless scan for available wireless networks.

SSID	BSSID	Channel	Signal Level	Туре	Security	Mode
<u>PortalTest</u>	D8:EB:97:A2:87:4C		-49 dbm	802.11NG HT20	WPA2-PSK AES	AP
sonnytest	00:14:D1:BF:0B:37		-56 dbm	802.11NG HT20	WPA2-PSK AES	AP
<u>TrendnetSkyN</u>	00:14:D1:C5:7D:44		-76 dbm	802.11NG HT20	WPA2-PSK AES	AP
<u>TrendnetOp</u>	00:14:D1:B1:E1:B4		-80 dbm	802.11NG HT20	WPA2-PSK AES	AP
<u>TrendnetOpWork</u>	00:14:D1:B1:E1:B5		-81 dbm	802.11NG HT20	WPA2-PSK AES	AP
823 2.4GHz itest	EB:97:2A:CD:FE		-50 dbm	802.11NG HT20	WPA2-PSK AES	AP
TRENDnetGuest	00:14:D1:C6:A1:6E	4	-74 dbm	802.11NG HT20	WPA/WPA2-PSK TKIP/AES	AP

4. Click on the wireless network you would like to connect. The information will automatically fill on the previous screen. You will then need to select and enter the wireless security.

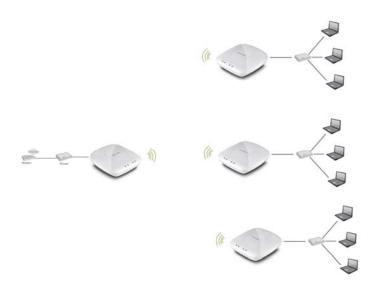


5. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.





# **WDS**



## **WDS Link**

Wireless (2.4GHz or 5GHz) > WDS Link Settings

This section outlines the available features to configure for both wireless 2.4Ghz and 5GHz when WDS mode is selected.

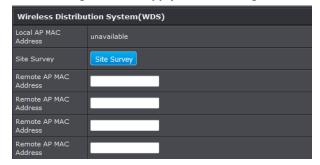
- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on **System**, and select **Operation Mode**.
- 3. Enable **WDS** Access Point, under the wireless band (2.4GHz or 5GHz) you would like to connect this access point to. Please make sure that the selected band is available on your network.



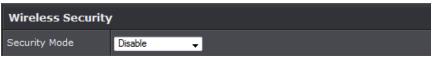
4. Click on the wireless band you would like to configure and click WDS Link Settings.



5. Configure the below settings and click **Apply** to save settings.



- Site Survey: Click this option to scan for available WDS networks
- Remote AP MAC: Enter the MAC address of the remote access point you want to establish WDS connection.



- **Security Mode:** Select from the pull-down menu the wireless security that is used on the wireless network you would like to connect to.
- 6. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



## Basic

Wireless (2.4GHz or 5GHz) > Wireless Network

This section outlines the available features to configure for both wireless 2.4Ghz and 5GHz when Access Point mode is selected.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on System, and select Operation Mode.

Insert operation mode menu image

Enable WDS Access Point, under the wireless band (2.4GHz or 5GHz) you would like to connect this access point to. Please make sure that the selected band is available on your network.

Insert Operation mode image

4. Click on the wireless band you would like to configure and click **Wireless Network**.



3. Configure the below settings and click **Apply** to save settings.



- Wireless Mode: If all of the wireless devices you want to connect with this Access Point can connect in the same transmission mode, you can improve performance slightly by choosing the appropriate mode. If you have some devices that use a different transmission mode, choose the appropriate mode.
- 2.4GHz Wireless

- B/G/N mixed: Select this mode for the best compatibility. This mode allows older 802.11b and 802.11g wireless devices to connect to the access point in addition to newer 802.11n devices.
- o **B/G mixed:** This mode only allows devices to connect to the access point using older and slow 802.11b or 802.11g technology and it thereby reduces the access point's maximum speed to 54Mbps (typically not recommended).
- N only: This mode only allows newer 802.11n devices to connect to your access point. This mode does ensure the highest speed and security for your network, however if you have older 802.11g wireless clients, they will no longer be able to connect to this access point.
- o **G only:** This mode only allows devices to connect to the access point using older and slow 802.11g technology (typically not recommended).
- B only: This mode only allows devices to connect to the access point using older and slow 802.11b technology (typically not recommended).
  - **Note:** Please check the specifications on your wireless devices for the highest wireless capability supported first before applying these settings. If you are unsure, it is recommended that you keep the default setting (B/G/N mixed) for the best compatibility.

#### **5GHz Wireless**

- A only: This mode only allows devices to connect to the access point using older and slow 802.11a technology (typically not recommended).
- A/N mixed: This mode only allows devices to connect to the access point using older and slow 802.11a or 802.11n technology and it thereby reduces the access point's maximum speed to 54Mbps (typically not recommended).
- N only: This mode only allows newer 802.11n devices to connect to your access point. This mode does ensure the highest speed and security for your network, however if you have older 802.11a wireless clients, they will no longer be able to connect to this access point.
- N/AC mixed: Select this mode for the best compatibility. This mode allows older 802.11a wireless devices to connect to the access point in addition to newer 802.11ac devices.
- AC only: This mode only allows devices to connect to the access point using newer and faster 802.11ac technology (typically not recommended).
- A/N/AC mixed: Select this mode for the best compatibility. This mode allows older 802.11a and 802.11n wireless devices to connect to the access point in addition to newer 802.11ac devices.
  - **Note:** Please check the specifications on your wireless devices for the highest wireless capability supported first before applying these settings. If you are

unsure, it is recommended that you keep the default setting (B/G/N mixed) for the best compatibility.

When applying the 802.11 mode setting, please keep in mind the following:

- Wireless devices that support 802.11n are backwards compatible and can connect wirelessly at 802.11g or 802.11b.
- Connecting at 802.11b or 802.11g will limit the capability of your 802.11n supported wireless devices from obtaining higher performance and data rates.
- Allowing 802.11b or 802.11g devices to connect to an 802.11n capable wireless network may degrade the wireless network performance below the higher performance and data rates of 802.11n.
- Wireless devices that only support 802.11b or 802.11g will not be able to connect to a wireless network that is set to 802.11n only mode.
- Wireless devices that only support 802.11b will not be able to connect to a wireless network that is set to 802.11g only mode.
- Channel Width: Extension channel: When 20/40 channel bandwidth has been chosen, you should select extension channel to get higher throughput.
- Frequency (Channel): In North America, this access point can broadcast on 1 of 11 Channels for 2.4GHz (13 in Europe and other countries). Selecting the Auto option enables the access point to automatically select the best Channel for wireless communication. To manually set the channel on which the access point will broadcast, click the drop-down list and select the desired Channel for wireless communication. The goal is to select the Channel that is least used by neighboring wireless networks.
- 4. Click on **Save/Reload** button located on the top left section to apply settings.

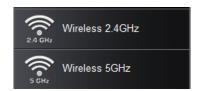
Save/Reload: 0

# **Wireless Profile**

Wireless (2.4GHz or 5GHz) > Wireless Network

This section outlines the available features to configure for both wireless 2.4Ghz and 5GHz when Access Point mode is selected.

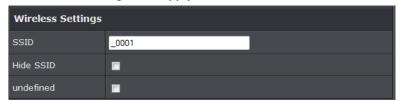
- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the wireless band you would like to configure and click **Wireless Network**.



- 3. Underneath the basic wireless band section, you will see **Wireless Network** and all your wireless network profiles will be listed.
- 4. Click on the Edit button next to the wireless profile you want to configure.



5. Review the wireless settings, click Apply when finished.



- SSID: Enter the wireless network name (SSID) to assign to the selected wireless profile
- Hide SSID: Select option to disable the wireless network name to broadcast
- 6. Click on **Save/Reload** button located on the top left section to apply settings.



# Repeater



## Basic

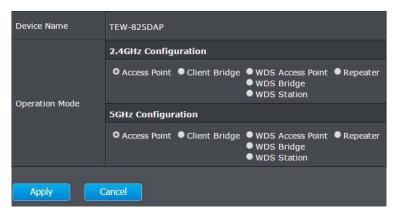
Wireless (2.4GHz or 5GHz) > Wireless Network

This section outlines the available features to configure for both wireless 2.4GHz and 5GHz when Repeater mode is selected.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on System, and select Operation Mode.



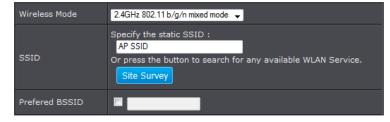
3. Enable **Repeater**, under the wireless band (2.4GHz or 5GHz) you would like to connect this access point to. Please make sure that the selected band is available on your network.



4. Click on the wireless band (Wireless 2.4GHz / Wireless 5GHz) you would like to configure and click **Wireless Network**.



5. Configure the below settings and click **Apply** to save settings.



- **Wireless Mode:** Select the wireless mode to set on the selected wireless band in client bridge mode
- **SSID:** Manually enter the wireless network name (SSID) you want to establish connection. Or simply click on **Site Survey** to scan for available wireless network.
- Preferred BSSID: Click option and enter the preferred wireless network you would like to connect to.



- **Security Mode:** Select from the pull-down menu the wireless security that is used on the wireless network you would like to connect to.
- 6. Click on the Save/Reload button located on the top left section to save the settings.



# Scan for wireless networks

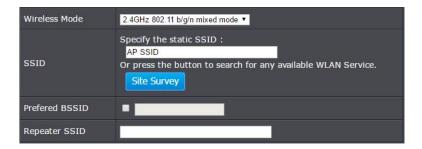
Wireless (2.4GHz or 5GHz) > Wireless Network

This section outlines the available features to configure for both wireless 2.4Ghz and 5GHz when **Repeater** mode is selected.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the wireless band you would like to configure and click **Wireless Network**.



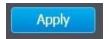
3. Under SSID section click Site Survey to wireless scan for available wireless networks.



4. Click on the wireless network you would like to repeat. The information will automatically fill on the previous screen. You will then need to select and enter the wireless security.

SSID	BSSID	Channel	Signal Level	Туре	Security	Mode
<u>PortalTest</u>	D8:EB:97:A2:87:4C		-49 dbm	802.11NG HT20	WPA2-PSK AES	AP
sonnytest	00:14:D1:BF:0B:37		-56 dbm	802.11NG HT20	WPA2-PSK AES	AP
<u>TrendnetSkyN</u>	00:14:D1:C5:7D:44		-76 dbm	802.11NG HT20	WPA2-PSK AES	AP
<u>TrendnetOp</u>	00:14:D1:B1:E1:B4		-80 dbm	802.11NG HT20	WPA2-PSK AES	AP
<u>TrendnetOpWork</u>	00:14:D1:B1:E1:B5		-81 dbm	802.11NG HT20	WPA2-PSK AES	AP
823 2.4GHz itest	EB:97:2A:CD:FE		-50 dbm	802.11NG HT20	WPA2-PSK AES	AP
TRENDnetGuest	00:14:D1:C6:A1:6E		-74 dbm	802.11NG HT20	WPA/WPA2-PSK TKIP/AES	AP

5. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



Save/Reload: 0

# **Advanced wireless settings**

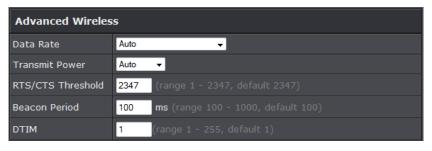
Wireless (2.4GHz or 5GHz) > Advanced Wireless

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the wireless band you would like to configure and click Wireless MAC Filter.



3. Review the settings and click **Apply** to save settings.

#### **Advanced Wireless**

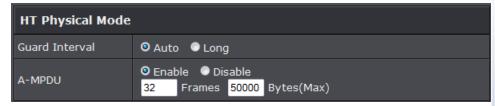


- Data Rate: Select the operating wireless data rate.
- Transmit Power: The wireless transmit power can be modified to lower the antenna strength setting from 18 dBm to 11 dBm, if necessary. Lowering the wireless transmit power may help to better stabilize the wireless connectivity and reduce the effects of wireless interference in areas where there are several 2.4GHz wireless devices. (Default: 18 dBm)
- RTS/CTS Threshold: The Request To Send (RTS) function is part of the networking protocol. A wireless device that needs to send data will send a RTS before sending the data in question. The destination wireless device will send a response called Clear to Send (CTS). The RTS Threshold defines the smallest data packet size allowed to initiate the RTS/CTS function.
- Default Value: 2347 (range: 256-2346)
- **Beacon Period:** A beacon is a management frame used in wireless networks that transmitted periodically to announce the presence and provide information about the access point's wireless network. The interval is the amount time between each beacon transmission.
- DTIM: DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages. When the access point has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. Wireless clients detect the beacons and awaken to receive the

# TRENDnet User's Guide

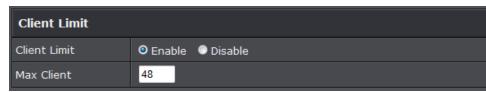
broadcast and multicast messages. The default value is 1. Valid settings are between 1 and 255.

#### **HT Physical Mode**



- Guard Interval: Select to enable short guard interval (400ns).
- A-MPDU: MPDU aggregation also collects Ethernet frames to be transmitted to a single destination, but it wraps each frame in an 802.11n MAC header. Normally this is less efficient than MSDU aggregation, but it may be more efficient in environments to maintain performance in noisy networks and to prevent hidden nodes from degrading the performance.

#### **Client Limit**



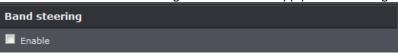
- Client Limit: Select enable to turn on client limit of the select wireless band
- Max Client: Enter the amount of clients to allow
- 4. Click on **Save/Reload** button located on the top left section to apply settings.



# **Band Steering**

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the System tab and click Band Steer.

3. Select enable to turn on band steering feature and click Apply to save settings.



4. Click on **Save** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.

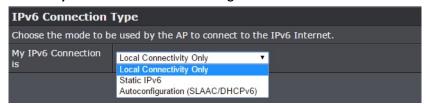
To enable band steering, you have to setup steering SSID the same in both 2.4GHz and  $5 \mathrm{GHz}$ 



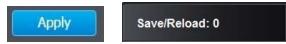
# **IPv6 Settings**

System > IPv6 Settings

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the System tab and click IPv6 Settings.



- 3. Choose your IPv6 Connection Type.
- 4. When you are finished configuring the IPv6 Settings, click on **Apply** to save your changes and the **Save/Reload button** to apply the settings.

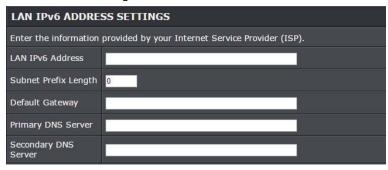


# **Local Connection Only**

## **Static IPv6**

Static IPv6 are static IP addresses that are usually provided by your Internet Service Provider (ISP).

1. Review the Static IPv6 settings below.



**LAN IPv6 Address:** Enter the IPv6 IP address provided to you by your Internet Service Provider (ISP)

**Subnet Prefix Length:** Enter the prefix length of your subnet mask

**Default Gateway:** Enter the default gateway of your Internet Service Provider (ISP)

**Primary DNS Server / Secondary DNS Server:** Enter the Primary and Secondary DNS server provided to you by your local Internet Service Provider (ISP)

# **Auto Configuration (SLAAC/DHCPv6)**

1. Review the IPv6 DNS Settings below.



- 2. Select either **Obtain IPv6 DNS server address automatically** or **Use the following IPv6 DNS Servers.** 
  - Obtain IPv6 DNS server address automatically: Selecting this option will allow the access point to automatically search for the DNS server address that is provided by your Internet Service Provider (ISP)
  - Use the following IPv6 DNS Servers: Selecting this option enables you to manually input the Primary and Secondary DNS Servers

# **Change your IP address**

*System > IP Settings* 

In most cases, you do not need to change the IP address settings. Typically, the IP address settings only needs to be changed, if you plan to use another access point in your network with the same IP address settings, if you are connecting your access point to an existing network that is already using the IP address settings your access point is using.

**Note:** If you are not encountering any issues or are not faced with one of the cases described above or similar, it is recommended to keep your router IP address settings as default.

Default Access Point IP Address: 192.168.10.100 / 255.255.255.0

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the **System** tab and click **IP Settings**.
- 3. Review the settings and click **Apply** to save changes.



- Connection Type: Select on the pull-down menu the LAN connection type.
  - DHCP: Select this option to have the access point obtain an IP address from your DHCP server
  - o **STATIC:** Select this option to manually assign and IP address to your access point
- **DNS Server:** Enter your network's DNS server IP address
- 4. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



Save/Reload: 0

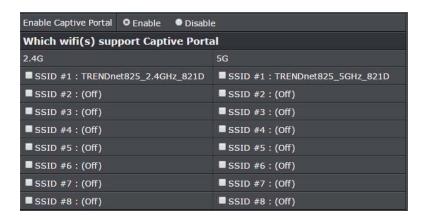
# **Captive Portal**

System > Captive Portal

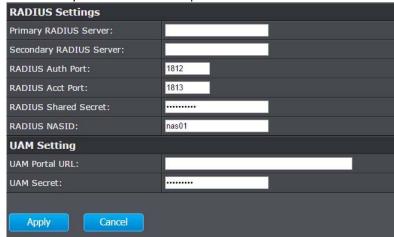
Captive Portal is a web page that enables users connecting to public-access WiFi to view and interact with the web page before giving users access to the network. Captive Portal are typically used in public spaces such as hotel lobbies, airports, coffee shops and other WiFi hot spots.

The access point's, TEW-825DAP, Captive Portal is based off of CoovaChilli. CoovaChilli is an open-source software based off of OpenWRT's firmware. Setting this feature up will require a separate server with CoovaChilli support.

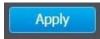
- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the **System** tab and click **Captive Portal**.



- 3. Click on **Enable** to enable Captive Portal.
- 4. Select which SSID you wish to enable Captive Portal on.



- ${\bf 5.\ Input\ the\ RADIUS\ and\ UAM\ setting\ of\ your\ CoovaChilli\ server.}$
- 6. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



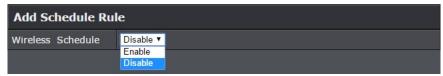
Save/Reload: 0

# **Create schedules**

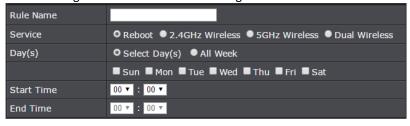
Maintenance > Schedule

Create a schedule to define the days/time period when a feature should be active or inactive:

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the **Management** tab and click **Schedule**.
- Select from the pull-down menu under Wireless Schedule to enable wireless schedules.



3. Review the settings and click **Add** to save settings.



- Rule Name: Enter desired schedule name.
- **Service**: Allows you to set one of the actions either to Reboot the device, activate 2.4GHz or 5GHz or both bands.
- Day: Check the day(s) to implement the schedule.
- Start Time: Specify the time when this schedule will be in effect.
- End Time: Specify the time when this schedule will end.
- 4. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



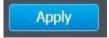


# **Configure Spanning Tree**

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the **System** tab and click **Spanning Tree Settings**.
- 3. Review the settings and click **Apply** to save changes.



- Spanning Tree Status: Select On or Off to enable or disable spanning tree feature.
- Bridge Hello Time: Enter the bridge duration
- Bridge Max Age: Enter the max duration
- Bridge Forward Delay: Enter the delay duration
- **Priority:** Enter the priority
- 4. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings



Save/Reload: 0

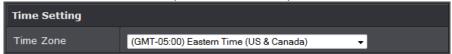
# Set date and time

Management > Time and Date Settings

There are two ways to set the access point's date and time. NTP (Network Time Protocol) is based on time servers. You can also manually set the router's date and time.

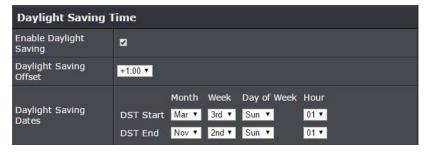
Note: It is important that the time is configured correctly before setting any schedules.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Time and Date Settings.
- 3. Next to **Time Zone**, click the drop-down list to select your time zone.



# **Daylight Saving Time**

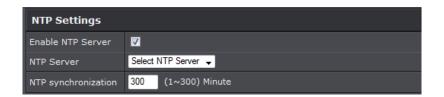
When using NTP or manual configuration, you may also configure Daylight Saving feature.



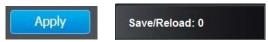
- Enable: Check option to enable daylight savings
- Daylight Saving Offset: Select the offset amount for daylight savings to apply
- Start/End Time: Configure the start and end time of daylight savings.

## **NTP**

1. Review the settings below and click Apply to save settings.



- Enable: Check option to enable NTP feature
- NTP Server: Select the NTP server to use
- NTP synchronization: Enter the time of when the access point will continue to check for NTP updates.
- 2. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.

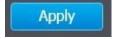


## Manual

1. Manually set the date and time of the access point by select the from the pull-down menus.



2. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.





# **Manage VLAN**

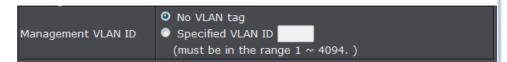
Management > Manage VLAN

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Management VLAN.

3. Review the settings for both 2.4G and 5G profiles and click Apply to save settings.



- Enable: Check box of the selected SSID to enable VLAN feature
- VID: Enter the VID to assign on the selected wireless network
- SSID: Displays the available SSID
- WiFi Security: Displays the wireless security type of the wireless network



- No VLAN Tag: Select this option to use no VLAN Tag
- Specified VLAN ID: Select this option and enter the assigned VLAN ID.
- 4. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



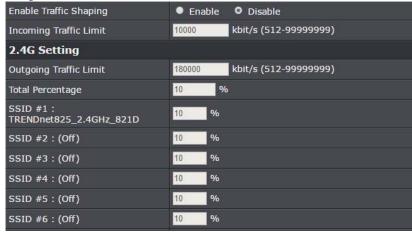


# **Traffic Shaping**

Management > Traffic Shaping

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Wireless Traffic Shaping.

3. Review the settings for both wireless bands (2.4GHz and 5GHz) and click **Apply** to save settings.



- Enable: Check box to enable traffic shaping of the selected wireless band
- Incoming Traffic: Enter your network's inbound traffic limit
- Outgoing Traffic Limit: Enter your network's outbound traffic limit for the selected wireless band
- Total percentage: Enter the selected wireless band's traffic percentage to assign
- SSID: Enter the SSID's assigned traffic percentage allowed
- 4. Click on **Save/Reload** button located on the top left section to apply settings.



# **Enable SNMP**

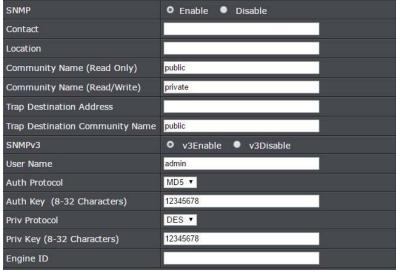
Management > SNMP Settings

SNMP (Simple Network Management Protocol) is a network management protocol used to monitor (read) and/or manage (write) multiple network devices on a network. This preconfigured external SNMP server.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the **Management** tab and click **SNMP Settings**.

# **TRENDnet User's Guide**

3. Review the settings and click **Apply** to save settings.



- SNMP: Select enable to enable SNMP feature
- Contact: Enter the contact person or contact information for your access point.
- Location: Enter an assigned location for your access point.
- Community Name (Read only): Enter an assigned name for your access point.
- Community (Read/Write): Enter a public and private community name.
- Trap Destination Address: Enter the destination IP address of the SNMP trap.
- Trap Destination Community Name: Enter the name of the destination community
- **SNMPv3**: Select option to enable or disable SNMPv3
- Username: Enter the username
- Auth Protocol: Select from the pull down menu the authentication protocol to use
- Authentication Key: Enter the authentication key
- Priv Protocol: Select the private protocol
- Priv Key: Enter the private key
- **Engine ID:** Enter the engine name
- 4. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



Save/Reload: 0

## **Enable CLI**

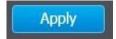
Management > CLI Settings

CLI (Command Line Interface) is a user interface where commands can be sent to the access point in the form of successive lines of text (command lines).

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click CLI Settings.
- 3. Select ON and click **Apply** to save settings.



4. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



Save/Reload: 0

# **LED Controls**

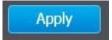
Management > LED Control

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the **Management** tab and click **LED Control**.
- 3. Review the settings and click Apply to save settings.



- Power LED: Select On to leave Power LED on or Off option to turn off.
- LAN LED: Select On to leave LAN LED on or Off option to turn off.

- 2.4GHz LED: Select On to leave wireless 2.4GHz LED on or Off option to turn off.
- 5GHz LED: Select On to leave wireless 5GHz LED on or Off option to turn off.
- 4. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



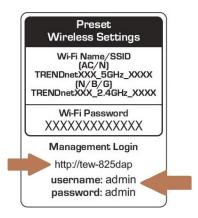
Save/Reload: 0

# **Maintenance & Monitoring**

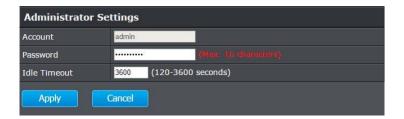
# Administration

Management > Administration

You may want to change your login credentials for logging into your access point. Resetting the access point to factory default settings will also reset the login credentials back to factor default which can be found on the label or on the back of the unit.



- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Administration.
- 3. Review the settings and click **Apply** to save settings.



- Account: Change the login user name in this field
- Password: Change the login password in this field
- Idle Timeout: Change the length of time that the access point can idle before timing out. The duration can be between 120 3600 seconds. (By default it is set to 120 seconds)

# **Device Name**

Management > Administration

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the **Management** tab and click **Administration**.
- 3. In the **Device Name** field, change the name of the device (eg: room, office etc)



4. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



Save/Reload: 0

# Reset to factory defaults

Management > Backup/Restore Settings

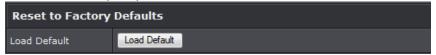
You may want to reset the access point to factory defaults if you are encountering difficulties and have attempted all other troubleshooting. Before you reset to defaults, if possible, you should backup your access point's configuration first.

There are two methods that can be used to reset your access point to factory defaults.

• **Reset Button:** Located on the front panel of your router, (see "<u>Product Hardware Features</u>" on page 5). Use this method if you are encountering difficulties with accessing your router management page.

OR

- Access Point Management Page
- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Backup/Restore Settings.
- 3. Click Load Default. If prompted, click Yes or Ok.



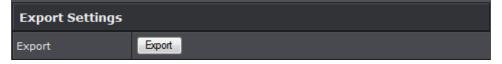
# **Backup and restore your configuration settings**

Management > Backup/Restore Settings

You may have added many customized settings to your router and in the case that you need to reset your router to default, all your customized settings would be lost and would require you to manually reconfigure all of your router settings instead of simply restoring from a backed up router configuration file.

## To back up your configuration:

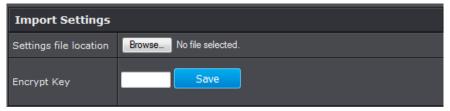
- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the **Management** tab and click **Backup/Restore Settings**.
- 3. Click **Export Settings**.



- 4. Depending on your web browser settings, you may be prompted to save a file (specify the location) or the file may be downloaded automatically to the web browser settings default download folder. (Default Filename: *config.bin*)
- 5. Save the configuration file to location on your computer.

#### To restore your configuration:

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Backup/Restore Settings.
- 3. Under **Import Settings**, depending on your web browser, click on **Browse** or **Choose File**. A separate file navigation window should open.



- 4. Navigate to the location of the router configuration file to restore. (Default Filename: *config.bin*).
- 5. Select the router configuration file to restore. Enter the login password under Encrypt Key and click **Save**.
  - (Default Filename: config.bin). If prompted, click Yes or OK.
- 6. Wait for the router to restore settings.

## Restart access point

Management > Backup/Restore Settings

You may want to restart your access point if you are encountering difficulties with your router and have attempted all other troubleshooting.

There are two methods that can be used to restart your access point.

- Turn the router off disconnect the power adapter from the rear panel of your router for 10 seconds and reconnect the power adapter, (see "Product Hardware Features" on page 5).
  - Use this method if you are encountering difficulties with accessing your router management page. This is also known as a hard reboot or power cycle.

    OR

- Router Management Page: This is also known as a soft reboot or restart.
- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Backup/Restore Settings.
- 3. Click **Reboot** under **System Reboot** to restart the access point. If prompted, click **yes** or **OK**.



# **Upgrade your firmware**

Management > Upload Firmware

TRENDnet may periodically release firmware upgrades that may add features or fix problems associated with your TRENDnet access point model and version. To check if there is a firmware upgrade available for your device, please check your TRENDnet model and version using the link. <a href="http://www.trendnet.com/downloads/">http://www.trendnet.com/downloads/</a>

In addition, it is also important to verify if the latest firmware version is newer than the one your access point is currently running. To identify the firmware that is currently loaded on your access point, log in to the router, and check the version located under **System Info**. This can also be accessed by clicking on the **Status** tab and selecting **Main**. If there is a newer version available, also review the release notes to check if there were any new features you may want or if any problems were fixed that you may have been experiencing.

- 1. If a firmware upgrade is available, download the firmware to your computer.
- 2. Unzip the file to a folder on your computer.

#### Please note the following:

- Do not interrupt the firmware upgrade process. Do not turn off the device or press the Reset button during the upgrade.
- If you are upgrade the firmware using a laptop computer, ensure that the laptop is connected to a power source or ensure that the battery is fully charged.
- Disable sleep mode on your computer as this may interrupt the firmware upgrade process.
- Do not upgrade the firmware using a wireless connection, only using a wired network connection.

- Any interruptions during the firmware upgrade process may permanently damage your router.
- 1. Log into your router management page (see "Access your router management page" on page 16).

**Note:** You can check your router's current firmware version at the top right of the page.

- 2. Click on Management, and click on Upload Firmware.
- 3. Depending on your web browser, next to **Upgrade Firmware**, click **Browse** or **Choose File**.



- 4. Navigate to the folder on your computer where the unzipped firmware file (.bin) is located and select it.
- 5. Click **Open** to start the firmware upgrade process. If prompted, click **yes** or **OK**.

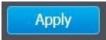
# **Configure log**

Management > Log

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Log. Click apply to save settings



- Enable System log: Select option to enable system log feature
- Syslog Server IP Address: Enter the IP address of the syslog server or select from the pull-down menu
- Local Log: Select enable to enable local log feature
- 3. Click on **Apply** button to apply the settings and then click on the **Save/Reload** button located on the top left section to save the settings.



Save/Reload: 0

# **Test connectivity**

Management > Diagnostics

#### **Ping Test**

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Diagnostic.



- IP: Enter the IP address you would like to conduct the ping test
- Packet Length: Enter the packet size
- **Number of Pings:** Enter the amount of pings to conduct.
- Ping: Click to start ping test

#### **TraceRoute**

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Management tab and click Diagnostic.



- Target: Enter the IP address to conduct traceroute test
- Traceroute: Click to start traceroute test

# **Check system information**

Status > Main

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Status tab and click Main.
- 3. Review the device information.

#### System

System Info		
Device Name	TEW-825DAP	
Firmware Version	1.00 , 21, Mar, 2016	
System Time	Mon Mar, 21, 2016 03:25:07	
System Up Time	0 Day, 2:05:26	

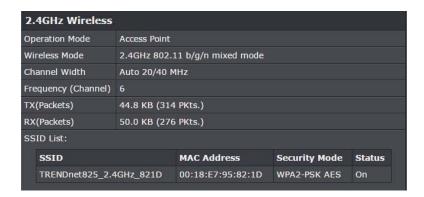
- **Device Name:** Displays the assigned device name
- Firmware Version: Displays the firmware version currently loaded on the router
- System Time: Displays the current time of the device
- **System Up Time:** Displays the time duration of how long the device has been running

#### Network

Network		
MAC Address	D8:FE:E3:3E:B3:AB	
IP Address	192.168.20.109	
Subnet Mask	255.255.255.0	
Default Gateway	192.168.20.1	
Primary Domain Name Server	192.168.20.1	
Secondary Domain Name Server	0.0.0.0	

- MAC Address: Displays the device's MAC address
- IP Address: Displays the assigned IP address
- Subnet Mask: Displays the subnet mask of the device
- **Default Gateway:** Displays the default gateway of the device
- Primary/Secondary DNS: Displays the DNS IP address of the device

Wireless (Both 2.4GHz and 5 GHz)

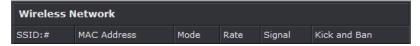


- Operation Mode: Displays the current operating mode for each wireless band
- Wireless Mode: Displays the wireless mode set on each wireless band
- Channel Width: Displays the applied channel width
- Frequency (Channel): Displays the current operating wireless channel
- Tx/Rx Packets: Displays the Transmit (Tx) and Receive (Rx) packet rate
- SSID List: Displays the multiple SSID settings.

## **Check connected wireless clients**

Status > 2.4GHz/5GHz Wireless Client

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Status tab and click 2.4G or 5G Wireless Client List.



- SSID: Displays the SSID that the client is connected to
- MAC Address: Displays the MAC address of the client that is connected to the access point
- Mode: Displays the 802.11 wireless mode and the channel width that the client device is connected.
- Rate: Displays the signal rate the client device is connected.
- **Signal:** Displays the signal strength in percentage. The higher the number, the higher the signal strength.

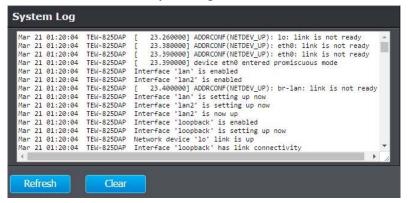
 Kick and Ban: Clicking this option will allow you to kick the client from the network and ban them as well

## **System Log**

Status > System Log

System log keeps track of changes made to the access point.

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Status tab and click System Log.

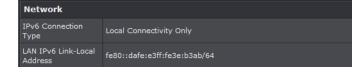


- Refresh: Clicking Refresh allows the access point to update the log with any new data that has not been previously logged yet.
- Clear: Clears all the data saved previously onto the log.

## **IPv6 Status**

Status > IPv6 Status

- 1. Log into your management page (see "Access the management page" on page 16).
- 2. Click on the Status tab and click IPv6 Status.



# **AP** utility

# Installation

- 1. Insert the CD ROM included with the access point.
- 2. Click on AP Utility to install the utility.



3. Once the utility is installed click on Discover to refresh the list of access points.

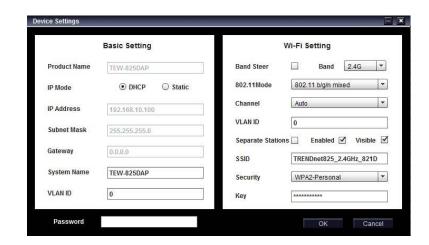


4. Select the access point you want to configure.



5. Click on Device settings to configure the access point.

# **Device Settings**



- Product Name: Displays the device model
- IP Mode: Select the IP mode to apply on the device

- DHCP: Select this option to allow the device to receive IP address from your DHCP server
- o Static: Select this option to manually set the IP address of the device
- IP Address: Enter the IP address to assign to the device
- **Subnet Mask:** Enter the subnet mask to assign to the device
- Gateway: Enter the gateway IP address to assign to the device
- System Name: Assign name of the device to help distinguish between similar devices
- VLAN ID: Assigns the VLAN ID for the Ethernet port.
- Band Steer: Select this to enable/disable band steering
- Band: Select on the pull-down menu the wireless interface to configure
- 802.11 Mode: Select the 802.11 mode of the selected wireless interface
- Channel: Select the wireless channel of the selected wireless interface
- VLAN ID: Assigns the VLAN ID for the primary SSID.
- interface
- **Separate Stations:** Select this option to restrict wireless client devices from accessing other client devices connected to this network(s).
- Enable: Select this option to enable the selected wireless interface
- Visible: Select this option to wireless broadcast the selected wireless interface
- SSID: Enter the SSID (Wireless Network Name) of the selected wireless interface
- Security: Select the wireless encryption security for to assign the selected wireless interface
- Key: Enter the wireless encryption security key or password
- Password: Enter the login password of the device and click OK to save settings

# **Add and Delete Device**

#### Add device

- 1. Run the utility
- 2. To add a device to control select the "+" on the upper right corner.



3. Enter the IP address of the device you would like to add to the controller and press OK.



#### **Delete device**

- 1. Run the utility
- 2. To delete a device from the controller. Select the device from the listed devices and click "-" on the upper right corner.

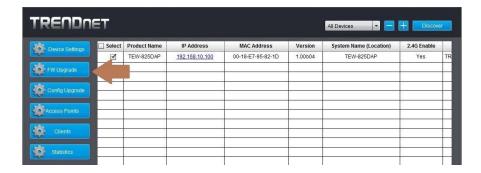


3. Confirm the deletion of the device by pushing Ok.

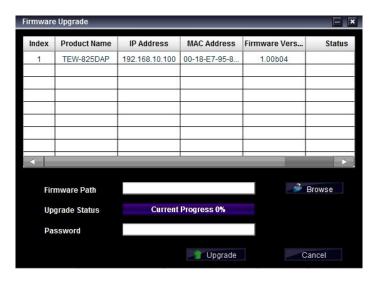


# **Upgrade Firmware**

- 1. Run the utility
- Select the devices you want to conduct a firmware upgrade and click on FW upgrade button



2. Click Browse button and navigate to the folder on your computer where the unzipped firmware file (.bin) is located and select it to select the firmware



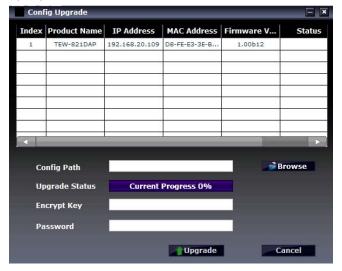
3. Enter the login password of the devices and click **Upgrade** to start the firmware upgrade process.

# **Load configuration**

- 1. Run the utility
- 2. Select the devices you want to conduct a configuration upgrade and click **Config Upgrade** button



2. Click Browse button and navigate to the folder on your computer where the unzipped firmware file (.bin) is located and select it to select the firmware



3. Enter the login password of the devices and click **Upgrade** to start the firmware upgrade process.

# **Access Points**

 To view access points that are currently connected to your network, click on the Access Points tab.



2. Review the AP setting information below.



**System Name:** Displays the name of the device. This can be changed in the AP utility under **Device Setting** (see page 39)

**BSSID:** Displays the wireless MAC address of the access points on the network

IP Address: Displays the IP address of the access points on the network

**Model Name:** Displays the model number of the access points connected on the network

**Firmware Version:** Displays the current firmware version of the access points connected on the network

**Status:** Displays the current status of the access points connected on the network

**SSID:** Displays the SSID (Wireless Network Name) of the access points connected on the network

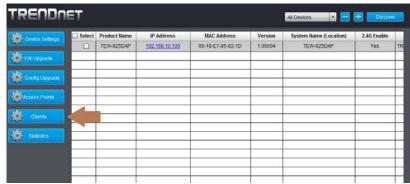
Channel: Displays the current channel that the access point is on

**Total Clients:** Displays the number of clients (devices) that is currently connected to the access point

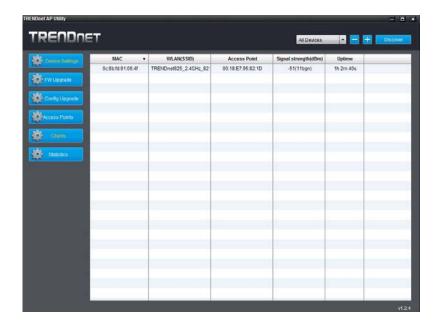
**Upload/Download:** Displays the amount of data that the access point has sent and received

# **Clients**

1. To view devices that are currently connected to your network, click on the **Clients** tab.



2. Review the client setting information below.



MAC: Displays the MAC address that is connected to the access point

**WLAN (SSID):** Displays the SSID (wireless network name) of the access point the device is connected to

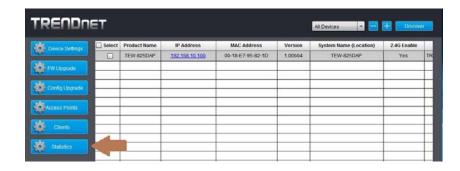
**Access Point:** Displays the wireless MAC address of the access points on the network that the device is connected to

**Signal strength (dBm):** Displays the signal strength between the access point and the client. ie: -40 is a stronger signal than -50.

**Uptime:** Displays the duration the client has been connected to the access point

# **Statistics**

1. To view statistical data about your access point, click on the **Statistics** tab.



2. Review the statistics information below.



• Clients by SSIDs: Displays the number of clients connected to the access point in comparison between the different SSIDs (wireless network name). Mouse

over the chart to view a current break-down of the total number of clients connected to the selected SSID.

- Clients by AP: Displays number of clients and traffic per access point.
- **Most Active Device:** Displays the access point with the most activity in comparison between other access points on the network.
- **Most Active SSID:** Displays the SSID (wireless network name) with the most amount of activity.
- Clients (Total): Shows the number of clients currently connected onto the access point. The unit of measurement (time) can be configured to show the number of devices connected in the last 5 minutes, hours, or days
- Traffic (MBytes): This displays the amount of throughput (upload, download, all) that has been passed. This can be configured to display only upload, download, or all.

# **Technical Specifications**

#### Standards

- IEEE 802.1Q
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3ab
- IEEE 802.3at
- IEEE 802.11a
- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.11n (up to 450 Mbps)
- IEEE 802.11ac (up to 1300 Mbps)

#### Hardware Interface

- 1 x PoE+ Gigabit LAN port
- Power port (optional non-PoE installation)
- Reset button
- LED indicators
- Mounting plate

#### **Special Features**

- Concurrent Dual band
- Band Steering
- WiFi traffic shaping
- 802.1Q VLAN assignment per SSID
- IPv6 support (Link-Local, Static IPv6, Auto-Configuration (SLAAC/DHCPv6)
- Multi-Language interface, English, French, Spanish, German, Russian
- LEDs on/off
- Captive Portal (Coovachilli)

- Access Point
- Client
- WDS AP
- WDS Bridge
- WDS Station
- Repeater

#### Management/Monitoring

- Web based management
- Software Utility
- SNMP v1/v3
- STP
- Event logging
- Ping test
- Traceroute
- CLI

## **Utility OS Compatibility**

Windows<sup>®</sup> 10, 8.1, 8, 7, Vista, XP

#### Access Control

- Wireless encryption: WEP, WPA/WPA2-PSK, WPA/WPA2-RADIUS
- MAC filter
- Maximum client limit

#### QoS

- WMM
- Traffic shaping per SSID

#### SSID

• Up to 8 SSIDs per wireless band (16 total)

#### Frequency

## **Operation Modes**

• 2.4 GHz: 2.412 - 2.472 GHz

• 5 GHz: 5.180 – 5.825 GHz

#### Wireless Channels

• 2.4 GHz: FCC: 1-11, ETSI: 1 – 13

• 5 GHz: FCC: 36, 40, 44, 48, 149, 153, 157, 161 and 165 ETSI: 36, 40, 44, 48, (52, 56, 60, 64, 100, 104, 108, 112, 116, 132, 136, 140)

#### Modulation

• DBPSK/DQPSK/CCK for DSSS technique

• BPSK/QPSK/16-QAM/64-QAM/256-QAM for OFDM technique

#### Antenna Gain

• 2.4 GHz: 3 x 4 dBi

• 5 GHz: 3 x 4 dBi

#### Wireless Output Power/Receiving Sensitivity

• 802.11a: FCC: 23 dBm, ETSI: 21 dBm (Max.) / -65 dBm (typical) @ 54 Mbps

• 802.11b: FCC: 22 dBm (Max.), CE: 8 dBm (Max) / -83 dBm (typical) @ 11 Mbps

• 802.11g: 17 dBm (Max.), CE: 10 dBm (Max.) / -65 dBm (typical) @ 54 Mbps

802.11n: FCC: 17 dBm (Max.), CE: 11 dBm (Max.) / -61 dBm (typical) @ 450
 Mbps 2.4 GHz

• 802.11n: FCC: 23 dBm, CE: 21 dBm (Max.) / -61 dBm (typical) @ 450 Mbps 5 GHz

• 802.11ac: FCC: 23 dBm, CE: 21 dBm (Max.) / -54 dBm (typical) @ 1300 Mbps

#### Power

 Input: 100 – 240 V AC, 50 - 60 Hz / Output: 12 V DC, 1.5 A external power adapter (non-PoE installation)

• Consumption: 12.5 Watts (max.)

## **Operating Temperature**

• 0 − 40 °C (32 − 104 °F)

## **Operating Humidity**

Max. 95 % non-condensing

#### Certifications

CE

FCC

#### **Dimensions**

• 187 x 187 x 46 mm (7.3 x 7.3 x 1.8 in.)

#### Weight

• 416 g (14.7 oz.)

#### Disclaimer

\*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 use with a 1300Mbps 802.11ac wireless adapter. For maximum performance of up to 450Mbps, use with a 450Mbps 802.11n wireless adapter.

\*\*Due to regulatory requirements, the wireless channels specified cannot be statically assigned, but will be available within the available wireless channels when set to auto.

TEW-825DAP

# **Troubleshooting**

Q: I typed http://192.168.10.1 in my Internet Browser Address Bar, but an error message says "The page cannot be displayed." How can I access the access point management page?

#### Answer:

- 1. Check your hardware settings again. See "Getting Started" on page 7.
- 2. Make sure the LAN and WLAN lights are lit.
- 3. Make sure your network adapter TCP/IP settings are set to *Obtain an IP address automatically* or *DHCP* (see the steps below).
- 4. Make sure your computer is connected to one of the router's LAN ports
- 5. Press on the factory reset button for 15 seconds, the release.

#### 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.
- 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**.

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

# Q: I am not sure what type of Internet Account Type I have for my Cable/DSL connection. How do I find out?

#### Answer:

Contact your Internet Service Provider (ISP) for the correct information.

# Q: The Wizard does not appear when I access the access point. What should I do? Answer:

- 1. Click on Wizard on the left-hand side.
- 2. Near the top of the browser, "Pop-up blocked" message may appear. Right click on the message and select Always Allow Pop-ups from This Site.
- 3. Disable your browser's pop up blocker.

# Q: I went through the Wizard, but I cannot get onto the Internet. What should I do? Answer:

- 1. Verify that you can get onto the Internet with a direct connection into your modem (meaning plug your computer directly to the modem and verify that your single computer (without the help of the router) can access the Internet).
- 2. Power cycle your modem and router. Unplug the power to the modem and router. Wait 30 seconds, and then reconnect the power to the modem. Wait for the modem to fully boot up, and then reconnect the power to the router.

# Q: I cannot connect wirelessly to the access point. What should I do? Answer:

- 1. Double check that the LAN light on the access point is lit.
- 2. Power cycle the router. Unplug the power to the router. Wait 15 seconds, then plug the power back in to the router.
- 3. Contact the manufacturer of your wireless network adapter and make sure the wireless network adapter is configured with the proper SSID. The preset SSID is TRENDnet (model\_number).
- 4. To verify whether or not wireless is enabled, login to the router management page, click on *Wireless*.
- 5. Please see "Steps to improve wireless connectivity" on page 8 if you continue to have wireless connectivity problems.

# **Appendix**

#### 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/7/8/8.1/10

- 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.

#### MAC OS X

- 1. Navigate to your **Applications** folder and open **Utilities**.
- 2. Double-click on **Terminal** to launch the command prompt.
- 3. In the command prompt, type *ipconfig getifaddr <en0 or en1>* to display the wired or wireless IP address settings.

**Note: en0** is typically the wired Ethernet and **en1** is typically the wireless Airport interface.

#### **Graphical Method**

#### MAC OS 10.6 - 10.12

- 1. From the Apple menu, select **System Preferences**.
- 2. In System Preferences, from the **View** menu, select **Network**.
- 3. In the Network preference window, click a network port (e.g., Ethernet, AirPort, modem). If you are connected, you'll see your IP address settings under "Status:"

#### **MAC OS 10.4**

- 1. From the Apple menu, select **Location**, and then **Network Preferences**.
- 2. In the Network Preference window, next to "Show:", select **Network Status**. You'll see your network status and your IP address settings displayed.

**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 and up

- 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 find your MAC address?

In Windows 2000/XP/Vista/7/8/8.1/10,

Your computer MAC addresses are also displayed in this window, however, you can type **getmac** –v to display the MAC addresses only.

In MAC OS 10.4,

- 1. Apple Menu > System Preferences > Network
- 2. From the **Show** menu, select **Built-in Ethernet**.
- 3. On the **Ethernet** tab, the **Ethernet ID** is your MAC Address.

In MAC OS 10.5/10.6,

- 1. Apple Menu > System Preferences > Network
- 2. Select **Ethernet** from the list on the left.
- 3. Click the Advanced button.
- 3. On the **Ethernet** tab, the **Ethernet ID** is your MAC Address.

#### 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 7/8/8.1/10

- 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  $\mathbf{OK}$ .

#### 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.

#### **IMPORTANT NOTE:**

#### **Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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

Country Code selection feature to be disabled for products marketed to the US/CANADA

#### **Europe – EU Declaration of Conformity**

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

#### Safety

EN60950-1: 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 55032: 2012 + AC: 2013





#### Radio Spectrum & Health

EN 300 328 V1.9.1: 02-2015 EN 301 893 V1.8.1: 03-2015 EN 62311: 2008

#### **Energy Efficiency**

Regulation (EC) No. 1275/2008, Regulation, No. 278/2009, No. 801/2013

This product is herewith confirmed to comply with the Directives.

#### **Directives**

Low Voltage Directive 2014/35/EU
EMC Directive 2004/108/EC
R&TTE Directive 1999/5/EC
Ecodesign Directive 2009/125/EC
RoHS Directive 2011/65/EU
REACH Regulation (EC) No. 1907/2006

Operations in the 5.15-5.25GHz / 5.470  $^{\sim}$  5.725GHz band are restricted to indoor usage only.

The band from 5600-5650MHz will be disabled by the software during the manufacturing and cannot be changed by the end user. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

ರ್ Česky [Czech]	TRENDnet tímto prohlašuje, že tento TEW-825DAP je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/35/EU, 2004/108/ES, 1999/5/ES, 2009/125/ES, a 2011/65/EU.
da Dansk [Danish]	Undertegnede TRENDnet erklærer herved, at følgende udstyr TEW-825DAP overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/35/EU, 2004/108/EF, 1999/5/EF, 2009/125/EF, og 2011/65/EU.
विश्व Deutsch [German]	Hiermit erklärt TRENDnet, dass sich das Gerät TEW-825DAP in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2014/35/EU, 2004/108/EG, 1999/5/EG, 2009/125/EG, und 2011/65/EU befindet.
e: Eesti [Estonian]	Käesolevaga kinnitab TRENDnet seadme TEW-825DAP vastavust direktiivi 2014/35/EU, 2004/108/EÜ, 1999/5/EÜ, 2009/125/EÜ, ja 2011/65/EU põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
en English	Hereby, TRENDnet, declares that this TEW-825DAP is in compliance with the essential requirements and other relevant provisions of Directive 2014/35/EU, 2004/108/EC, 1999/5/EC, 2009/125,, and 2011/65/EU.
es Español [Spanish]	Por medio de la presente TRENDnet declara que el TEW-825DAP cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/35/EU, 2004/108/CE, 1999/5/CE, 2009/125/CE, 2011/65/EU y.
e Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑΤRENDnet ΔΗΛΩΝΕΙ ΟΤΙΤΕW-825DΑΡΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/35/EU, 2004/108/EK, 1999/5/EK, 2009/125/EK, 2011/65/EU και.
fr Français [French]	Par la présente TRENDnet déclare que l'appareil TEW-825DAP est conforme aux exigences essentielles et aux autres dispositions pertinentes de la 2014/35/EU, 2004/108/CE, 1999/5/CE, 2009/125/CE, 2011/65/UE et.
it Italiano[Italian]	Con la presente TRENDnet dichiara che questo TEW-825DAP è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/35/EU, 2004/108/CE, 1999/5/CE, 2009/125/CE, e 2011/65/EU.
Latviski [Latvian]	AršoTRENDnetdeklarē, ka TEW-825DAP atbilstDirektīvas 2014/35/EU, 2004/108/EK, 1999/5/EK, 2009/125/EK, un 2011/65/EU būtiskajāmprasībām un citiemar to saistītajiemnoteikumiem.
Lietuvių [Lithuanian]	Šiuo TRENDnet deklaruoja, kad šis TEW-825DAP atitinka esminius reikalavimus ir kitas 2014/35/EU, 2014/30/EU, 2014/53/EU, ir 2011/65/EU Direktyvos nuostatas.
n. Nederlands [Dutch]	Hierbij verklaart TRENDnet dat het toestel TEW-825DAP in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn

	2014/35/EU, 2004/108/EB, 1999/5/EB, 2009/125/EB, en 2011/65/EU.
Malti [Maltese]	Hawnhekk, TRENDnet, jiddikjara li dan TEW-825DAP jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2014/35/EU, 2004/108/KE, 1999/5/KE, 2009/ , u 2011/65/EU.
hu Magyar [Hungarian]	Alulírott, TRENDnet nyilatkozom, hogy a TEW-825DAPmegfelel a vonatkozó alapvető követelményeknek és az 2014/35/EU, 2004/108/KE, 1999/5/KE, 2009/125/KE, irányelv és a 2011/65/EU irányelv egyéb előírásainak.
Pl Polski [Polish]	Niniejszym TRENDnet oświadcza, że TEW-825DAP jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2014/35/EU, 2004/108/WE, 1999/5/WE, 2009/125/WE i 2011/65/EU.
Português [Portuguese]	TRENDnet declara que este TEW-825DAP está conforme com os requisitos essenciais e outras disposições da Directiva 2014/35/EU, 2004/108/CE, 1999/5/CE, 2009/125/CE e 2011/65/EU.
Slovensko [Slovenian]	TRENDnet izjavlja, da je ta TEW-825DAP v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2014/35/EU, 2004/108/ES, 1999/5/ES, 2009/125/ES in 2011/65/EU.
Slovensky [Slovak]	TRENDnettýmtovyhlasuje, že TEW-825DAPspĺňazákladnépožiadavky a všetkypríslušnéustanoveniaSmernice 2014/35/EU, 2004/108/ES, 1999/5/ES, 2009/125/ES, a 2011/65/EU.
fi]Suomi [Finnish]	TRENDnet vakuuttaa täten että TEW-825DAP tyyppinen laite on direktiivin 2014/35/EU, 2004/108/EY, 1999/5/EY, 2009/125/EY, ja 2011/65/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar TRENDnet att denna TEW-825DAP står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2004/108/EG, 1999/5/EG, 2009/125/EG, och 2011/65/EU.

TRENDnet User's Guide Limited Warranty

#### **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 non-transferable 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

TRENDnet User's Guide Limited Warranty

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.

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# TRENDNET

# **Product Warranty Registration**

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Go to TRENDnet's website at http://www.trendnet.com/register

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