User's Guide

TRENDnet®

N150 Wireless ADSL 2/2+ Modem Router

TEW-718BRM

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Product Overview

TEW-718BRM

Package Contents

In addition to your router, the package includes:

- Multi-Language Quick Installation Guide
- CD-ROM (User's Guide)
- Network cable (1.5m / 5ft.)
- RJ-11 telephone cable (1.8m / 5ft.)
- Detachable Antenna
- Power adapter (5V DC, 1.2A)

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

Features

The N150 Wireless ADSL 2/2+ Modem Router, model TEW-718BRM, provides both a modem for Internet access and a wireless n network in a single solution. No need to buy a separate modem and router. This modem supports Internet service providers with ADSL 2 and ADSL 2+ networks.

Install TEW-718BRM quickly with a step-by-step setup wizard to browse the Internet, download files, and video chat with the latest in wireless n technology. Connect computers, game consoles, and media players to the built-in 4-port switch. WMM® Quality of Service (QoS) technology prioritizes online gaming, Internet calls, and video streams. One-touch Wi-Fi Protected Setup (WPS) connects WPS peripheral devices at the touch of a button.

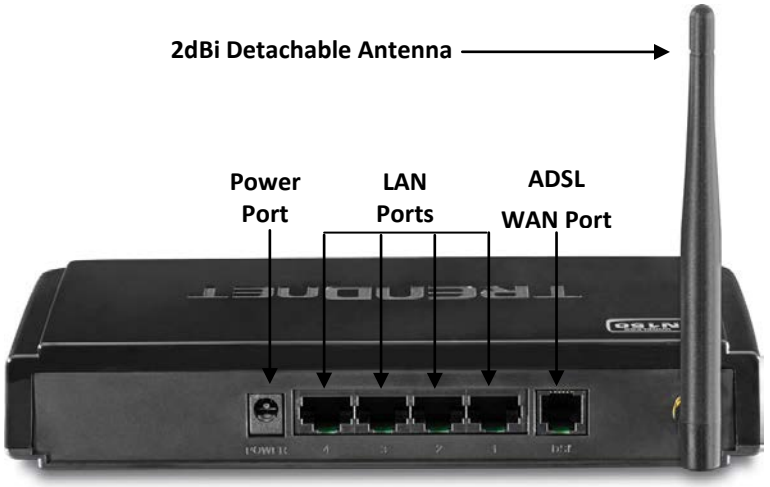
- 4 x 10/100 Mbps Auto-MDIX RJ-45 LAN ports (option to convert port 1 to WAN port)
- 1 x RJ-11 (telephone) ADSL WAN port (Internet)
- Detachable antenna
- WPS / reset button
- Status LEDs
- Router + Modem or Modem Only (Bridge) modes
- Modem compliant with ADSL, ASDL2, and ADSL2+ standards
- Wireless
  - Data rates of up to 150 Mbps, based on IEEE 802.11n*
  - Backward compatible with IEEE 802.11 b/g standards
  - Create a wireless schedule to automatically turn off wireless when away
  - Broadcast up to 2 SSIDs with different wireless encryption
  - Wi-Fi Multimedia (WMM) Quality of Service (QoS) data prioritization
  - Advanced wireless encryption up to WPA2-RADIUS
  - One touch wireless connection using the WPS button
- Supports up to 8 PVCs
- Support for IPv6: Static, DHCPv6, PPPoE, 6 to 4, and IPv6 in IPv4 Tunnel, Stateful / Stateless Auto-configuration
- Support for port-based and 802.1Q VLANs (ID range: 1~4094)
- Set device time using Network Time Protocol (NTP) and define schedules for Wireless, Virtual Server, and Packet Filters

- Smart Quality of Service (QoS) controls to allocate bandwidth to: Gaming, Chat, VoIP, P2P, Video, and Web Access
- Advance Firewall protection with Network Address Translation (NAT), Stateful Packet Inspection (SPI), and WAN stealth mode
- Supports Internet Group Multicast Protocol IGMPv1/2/3 proxy and snooping for multicast applications
- Access Control: Virtual Servers, MAC / IP Packet Filters, URL / Keyword Filters, Demilitarized Zone (DMZ) host, PPTP / L2TP / IPsec VPN pass through
- Supports static and dynamic RIP v1/2 routing
- Dynamic DNS support
- Universal Plug and Play (UPnP) for auto discovery and support for device configuration of Internet applications
- Local / remote management via Web browser, upgrade firmware, and backup / restore configuration
- Supports TR069 remote management (CPE and ACS support)
- Device monitoring using modem and router logs, email alerts, and SNMP v1/2c support

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

Product Hardware Features

Rear View



- **Power Port** – Connect the included power adapter from your modem router power port and to an available power outlet.
  Note: *Use only the adapter that came with your router.*

- **LAN Ports** – Connect Network cables (also called network cables) from your modem router LAN ports to your wired network devices.

- **ADSL WAN Port (RJ-11 telephone port)** –Connect an RJ-11 telephone cable from your modem router ADSL WAN port to your telephone jack/DSL line.

- **Antenna** – The antenna broadcast wireless network signals.

Front View

- **Status LED** - This LED indicator is blinking green when your modem router is ready and working successfully. If this LED indicator is solid green on or off, your router is not receiving power or ready, or not working properly.

- **ADSL WAN (Link/Activity) LED** – This LED indicator is blinking green when the ADSL status of the modem router is ready to establish connection to your ISP. The LED indicator will turn solid green when the modem router has been properly configured with the settings provided by your ISP and successful ADSL connection has been made to your ISP. This LED indicator will be blink while data is transmitted or received through the ADSL port of your modem router.

- **WLAN (Link/Activity) LED** – This LED indicator is solid green when the wireless is "On" and functioning properly on your modem router. This LED indicator will be blinking while data is transmitted or received by your wireless clients or wireless network devices connected to your modem router. This LED indicator will be off when the wireless functionality of your modem router is disabled.

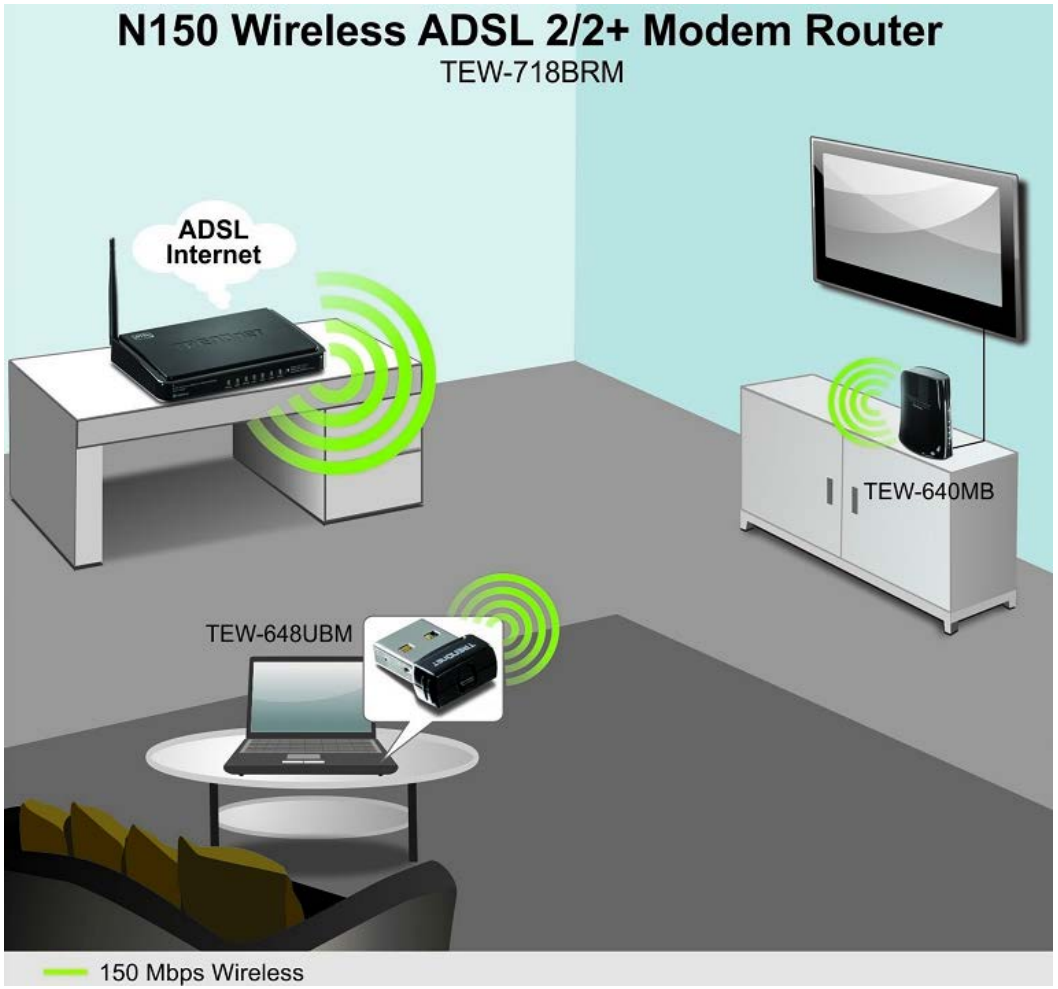
- **LAN 1-4 (Link/Activity) LEDs** – These LED indicators are solid green when the LAN ports are successfully connected to your wired network devices (which are turned on). These LED indicators will blink green while data is transmitted or received through your modem router's LAN ports.

- **WPS/Reset/WLAN Button** – This button has multiple functions depending on the amount of time it is pushed and released.
    - WPS (Wi-Fi Protected Setup) – Push and hold this button for **3** seconds and release to activate WPS. Within 2 minutes, push and hold the WPS button on your wireless client device. WLAN LED indicator will blink rapidly to indicate that WPS has been activated.

    - Reset – Push and hold this button for **15** seconds and release to reset your router to its factory defaults. Status LED indicator will blink rapidly after released to indicate the reset process has started.

    - WLAN (On/Off) – Push and hold this button for **10** seconds and release to disable or enable the wireless functionality of your modem router. The Status LED will start to blink rapidly and the WLAN LED indicator will turn off (disabled) or turn on (enabled) to indicate the status of the wireless functionality of your modem router.

Application Diagram



The router is installed near the wall telephone jack/DSL line (DSL service supplied by your ISP "Internet Service Provider") which connects to the Internet. Wireless signals from the router are broadcasted to wireless clients such as laptops (with wireless capability) thereby providing Internet access.

Basic Router Setup

Creating a Home Network

What is a network?

A network is a group of computers or devices that can communicate with each other. A home network of more than one computer or device also typically includes Internet access, which requires a router.

A typical home network may include multiple computers, a media player/server, a printer, a modem, and a router. A large home network may also have a switch, additional routers, access points, and many Internet-capable media devices such as TVs, game consoles, and Internet cameras.

- **Modem** – Connects a computer or router to the Internet or ISP (Internet Service Provider).
  Note: *The TEW-718BRM/TEW-718BRM5 is a combination DSL modem and router, therefore, you do not require a separate DSL modem from your ISP when setting up this product.*

- **Router** – Connects multiple devices to the Internet.

- **Switch** –Connect several wired network devices to your home network. Your router has a built-in network switch (the LAN port 1-4). If you have more wired network devices than available Network ports on your router, you will need an additional switch to add more wired connections.

How to set up a home network

1. For a network that includes Internet access, you'll need:
   - Computers/devices with a Network port or wireless networking capabilities.
   - A modem and Internet service to your home, provided by your ISP (modem typically supplied by your ISP).
   - A router to connect multiple devices to the Internet.

2. Set up your router. See "How to setup your router" below.

3. To connect additional wired computers or wired network devices to your network, see "Connect additional wired devices to your network" on page 11.

4. To set up wireless networking on your router, see "Wireless Networking and Security" on page 12.

How to setup your router

Refer to the Quick Installation Guide or continue to the next section "Router Installation" on page 6 for more detailed installation instructions.

Where to find more help

In addition to this User's Guide, you can find help below:

- http://www.trendnet.com/support
  (documents, downloads, and FAQs are available from this Web page))

Router Installation

Before you Install

Many Internet Service Providers (ISPs) allow your router to connect to the Internet without verifying the information fields listed below. Skip this section for now and if your router cannot connect to the Internet using the standard installation process, come back to this page and contact your ISP to verify required ISP specification fields listed below.

General ADSL Parameters
VCI: ____
VPI: ____
MTU: _____
Data Encapsulation (LLC/VCMux) : _____
Schedule Type (UBR/CBR/VBR/GFR): _____
VLAN Tag (If required by your ISP): _____

ADSL Connection Types:
1. Ethernet over ATM (RFC 1483 Bridged) with NAT

- **1a. Obtain IP Address Automatically (Dynamic IP Address)**

Host Name (Optional) _____
ISP registered Mac Address or Clone MAC address (Optional)___:___:___:___:___:___

- **1b. Fixed IP address (Static IP Address)**

WAN IP Address: _____. _____._____._____ (e.g. 215.24.24.129)
WAN Subnet Mask: _____. _____._____._____
WAN Gateway IP Address: _____. _____._____._____
Primary DNS Server Address: _____. _____._____._____
Secondary DNS Server Address: _____. _____._____._____

2. IP over ATM (RFC 1483 Routed)

- **2a. Obtain IP Address Automatically (Dynamic IP Address)**

Host Name (Optional) _____
ISP registered Mac Address or Clone MAC address (Optional)___:___:___:___:___:___

- **2b . Fixed IP address (Static IP Address)**

WAN IP Address: _____. _____._____._____ (e.g. 215.24.24.129)
WAN Subnet Mask: _____. _____._____._____
WAN Gateway IP Address: _____. _____._____._____
Primary DNS Server Address: _____. _____._____._____
Secondary DNS Server Address: _____. _____._____._____

3. PPP over ATM (PPPoE)

- **3a. PPPoE to obtain IP automatically**

Account/User Name: _____
Password: _____

- **3b. PPPoE with a fixed IP address**

User Name: _____
Password: _____
Verify Password: _____
IP Address: ____. _____._____._____ (e.g. 215.24.24.129)
Primary DNS Server Address: _____. _____._____._____
Secondary DNS Server Address: _____. _____._____._____

4. PPP over Ethernet (PPPoA)

- **4a. PPPoA to obtain IP automatically**

Account/User Name: _____
Password: _____

- **4b. PPPoA with a fixed IP address**

User Name: _____
Password: _____
Verify Password: _____
IP Address: ____. _____._____._____ (e.g. 215.24.24.129)
Primary DNS Server Address: _____. _____._____._____
Secondary DNS Server Address: _____. _____._____._____

Hardware Installation

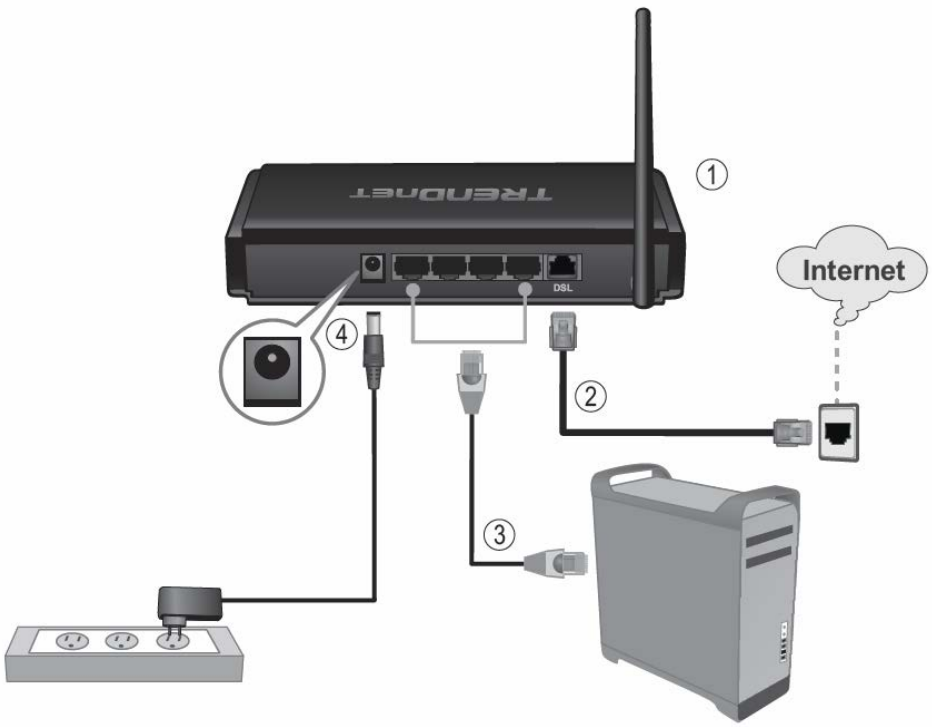
1. Connect the detachable antenna to your modem router.

2. Connect one end of the RJ-11 telephone cable to the modem router ADSL port. Connect the other end of the RJ-11 telephone cable to the telephone jack/DSL line.

3. Using the Network cable, connect your computer to one of the four LAN ports on the modem router.

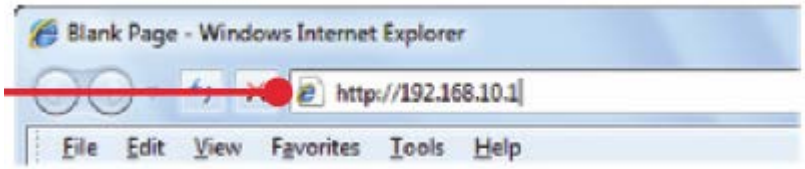
4. Connect the power adapter to the modem router and then to a power outlet.

5. Verify that the status LED indicators on the front of the modem to confirm the device is fully functional: Status (Green), ADSL (Green), WLAN (Green) and the LAN port (1,2,3,4) (Green) your computer is connected.



Setup Wizard

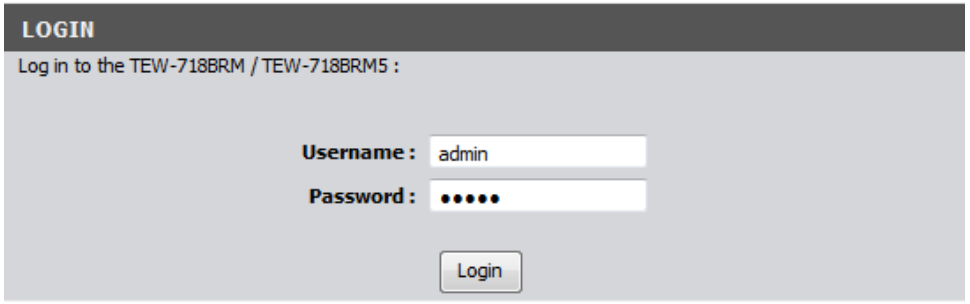
1. Open your web browser (e.g. Internet Explorer, Firefox, Safari, Chrome, or Opera) and go to http://192.168.10.1. Your router will prompt you for a user name and password.



2. Enter the default user name and password and then click Login.

Default User Name: **admin**

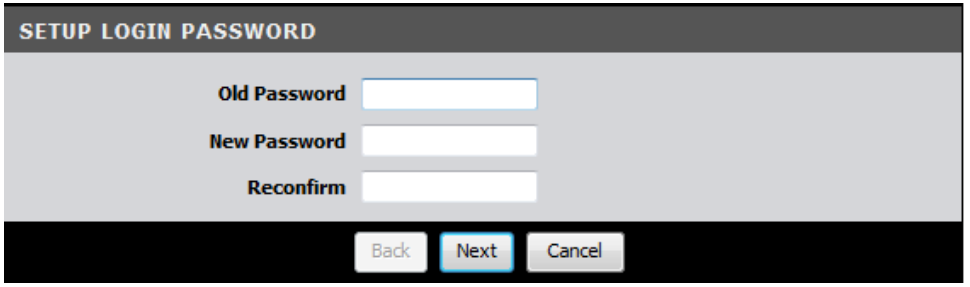
Default Password: **admin**



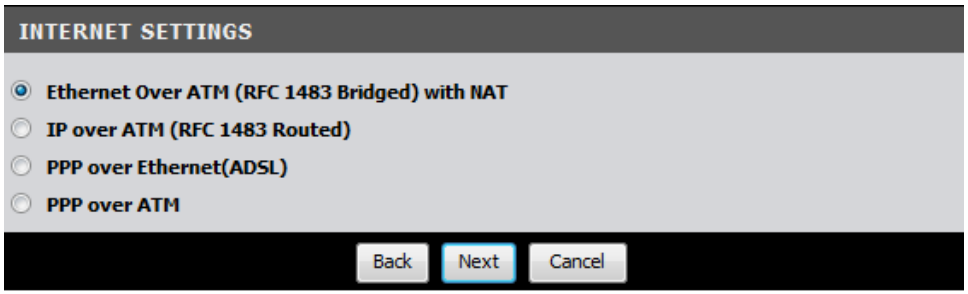
3. The Setup Wizard will automatically appear. In the "Old Password" field, enter your current login password (Default: admin). Then, in the "New Password" field enter a new login password for your modem router and enter it again next to "Reconfirm" to confirm the new password. This will change the default password required to log into your modem router. Click Next.

Note: *If the Setup Wizard does not automatically appear, click Setup Wizard (the top button on the left tab).*

Note: *This is the password to enter your router's management interface and NOT to connect to the router wirelessly. Once you change the login password, it will be required every time you log into your router. Store your router password in a location that you can reference at a future time. It is strongly recommended to change your modem router's default password.*



4. This section determines what method the router will use to interface with your ISP service. Select the ADSL Internet connection type provided by your ISP and click Next.
Note: *It is strongly recommended to contact your ISP to verify all required settings for one of the options listed on page 6. The options listed on page 6 match the settings options available to choose from.*

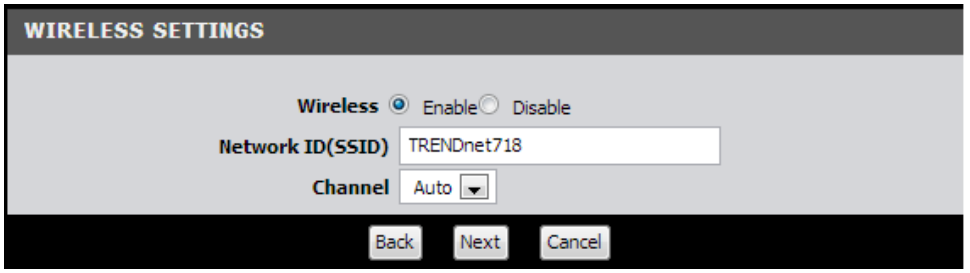


5. The Setup Wizard can automatically detect your VPI/VCI and Data Encapsulation settings of your ADSL connection. Select Auto-detect and click Next.

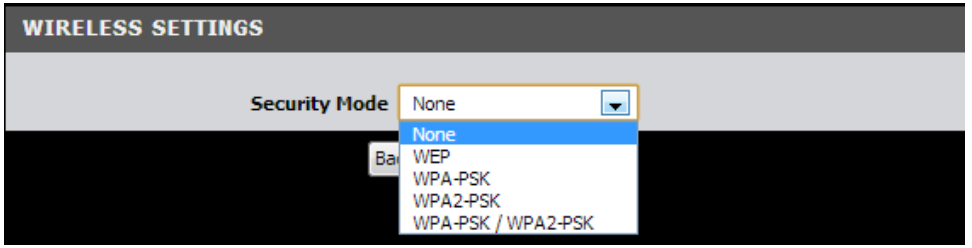
Note: *If you encounter any issues with the Auto-Detect feature on the wizard, you can click "Skip Scan", and configure your ADSL connection settings manually.*

6. Depending the ADSL connection type you selected, you may need to enter additional information such as your PPPoE/PPPoA user name and password information provided by your ISP static IP . Enter any additional information required by your ISP for your ADSL connection and click Next.

7. **SSID:** Enter a unique SSID (Wireless Network Name). Choose something that you would easily identify when searching for available wireless networks (using laptops, smart phones, etc.) Click **Next**.



8. Select the type of wireless security and enter in the key that will be used to access your wireless network. Click Next.



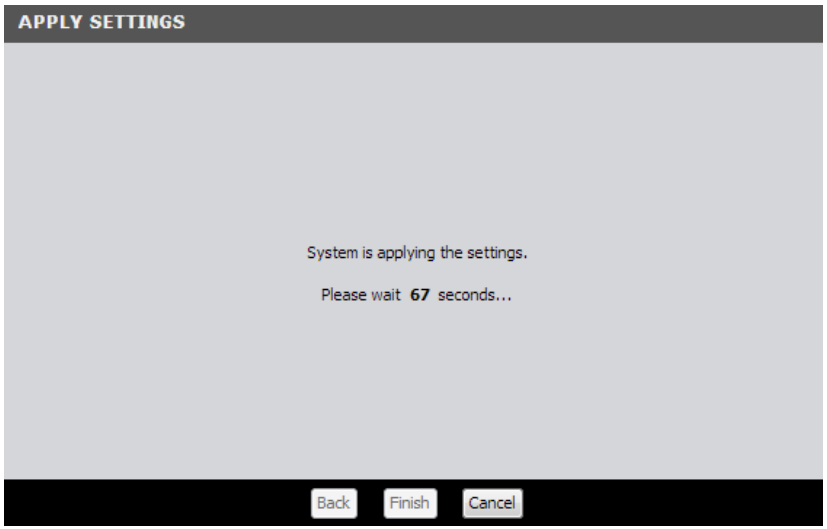
Note:

1. To protect your network from unauthorized access, it is recommended to enable wireless encryption. See "Secure your wireless network" on page 12 for information on configuring wireless security.

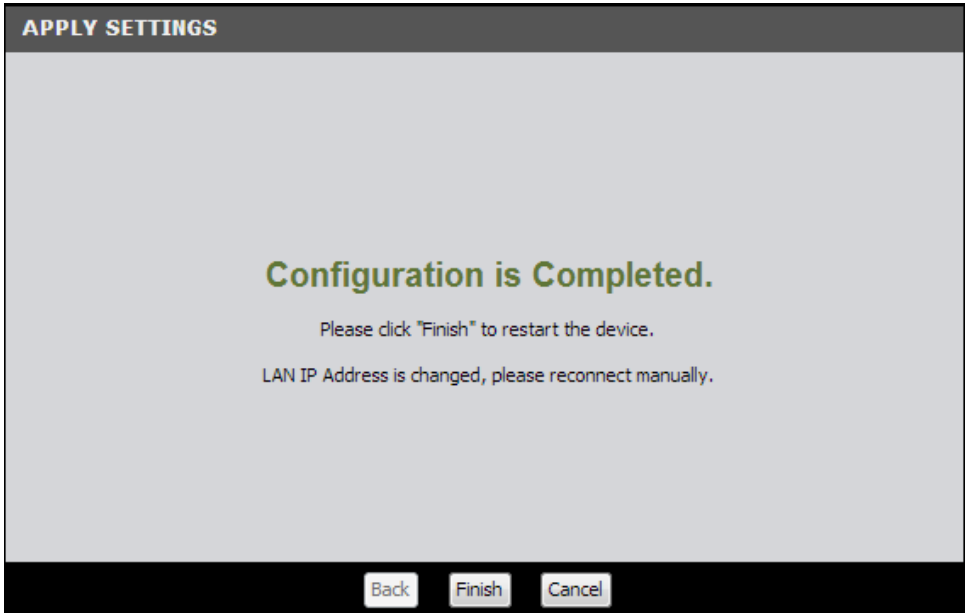
2. Once wireless security is enabled on your router, each wireless device connecting to your router must be configured with the same wireless security type and key.

9. The Summary page will allow you to quickly review the settings you applied in the Setup Wizard. Click Apply Settings to commit the changes.

10. Wait for your modem router to apply the settings.



11. Click Finish to return to the router management page.



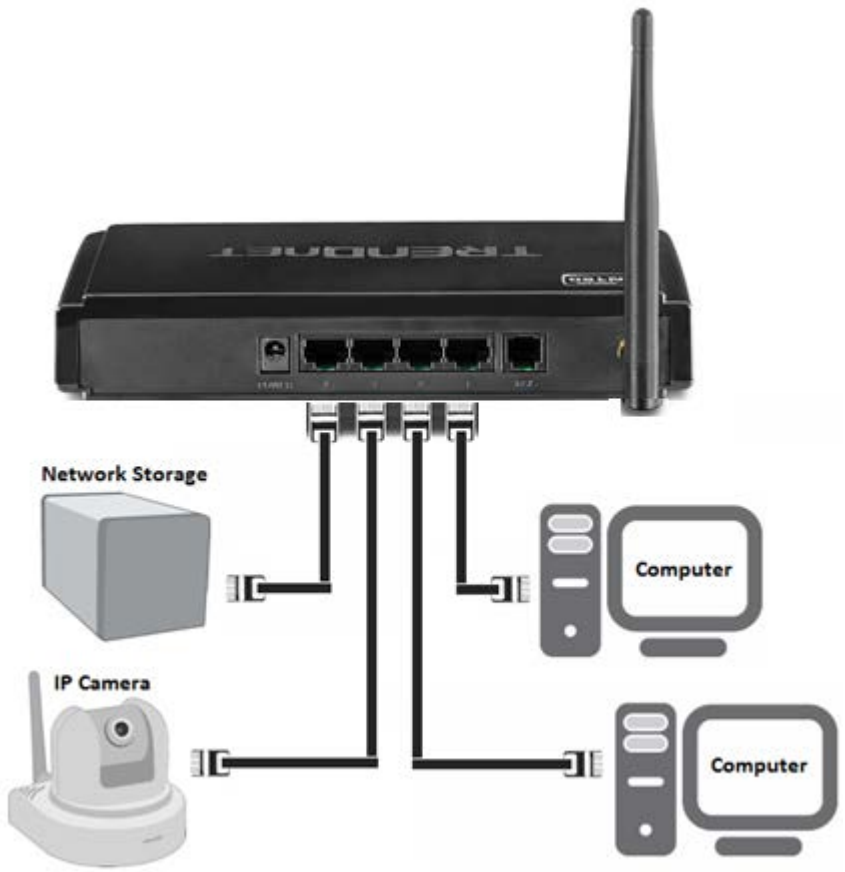
12. Verify you have an Internet connection by opening a Web browser on your computer.

Note: *If you cannot access the Internet, please verify your hardware connections and LED status and re-run the Setup Wizard to verify you have applied the correct settings.*

Connect additional wired devices to your network

You can connect additional computers or other network enabled devices to your network by using Network cables. Connect them to one of the available LAN ports labeled 1,2,3,4 on your modem router. Check the status of the LED indicators (1, 2, 3, or 4) on the front panel of your router to ensure the physical cable connection from your computer or device.

Note: *If you encounter issues connecting to your network, there may be a problem with your computer or device network settings. Please ensure that your computer or device network settings (also called TCP/IP settings) are configured to obtain IP address settings automatically (also called dynamic IP address or DHCP) and to Obtain DNS Server address settings automatically.*



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 router.

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

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

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

Wireless Encryption Types

- **WEP:** Legacy encryption method supported by older 802.11b/g hardware. This is the oldest and least secure type of wireless encryption. It is generally not recommended to use this encryption standard, however if you have old 802.11 b or 802.11g wireless adapters or computers with old embedded wireless cards(wireless clients), you may have to set your router to WEP to allow the old adapters to connect to the router. ***Note****: This encryption standard will limit connection speeds to 54Mbps.*
- **WPA:** This encryption is significantly more robust than the WEP technology. Much of the older 802.11g hardware was been upgraded (with firmware/driver upgrades) to support this encryption standard. Total wireless speeds under this encryption type however are limited to 54Mbps.
- **WPA / WPA2**: This setting provides the router with the ability to detect wireless devices using either WPA or WPA2 encryption. Your wireless network will automatically change the encryption setting based on the first wireless device connected. For example, if the first wireless client that connects to your wireless network uses WPA encryption your wireless network will use WPA encryption. Only when all wireless clients disconnect to the network and a wireless client with WPA2 encryption connects your wireless network will then change to WPA2 encryption. NOTE: WPA2 encryption supports 802.11n speeds and WPA encryption will limit your connection speeds to 54Mbps
- **WPA2:** This is the most secure wireless encryption available today, similar to WPA encryption but more robust. This encryption standard also supports the highest connection speeds. TRENDnet recommends setting your router to this encryption standard. If you find that one of your wireless network devices does not support WPA2 encryption, then set your router to either WPA or WPA-Auto encryption.

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

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

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

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

Secure your wireless network

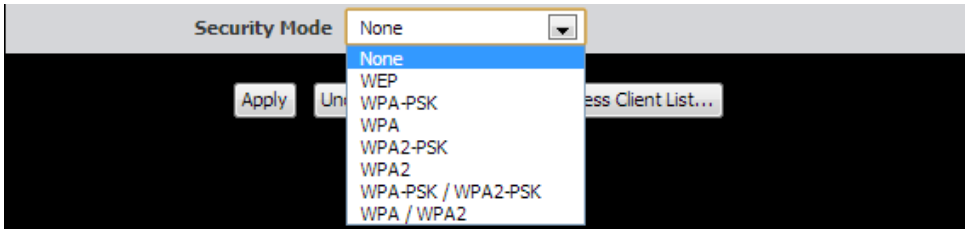
Setup > Wireless Settings

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

1. Log into your router management page (see "Access your router management page" on page 35).

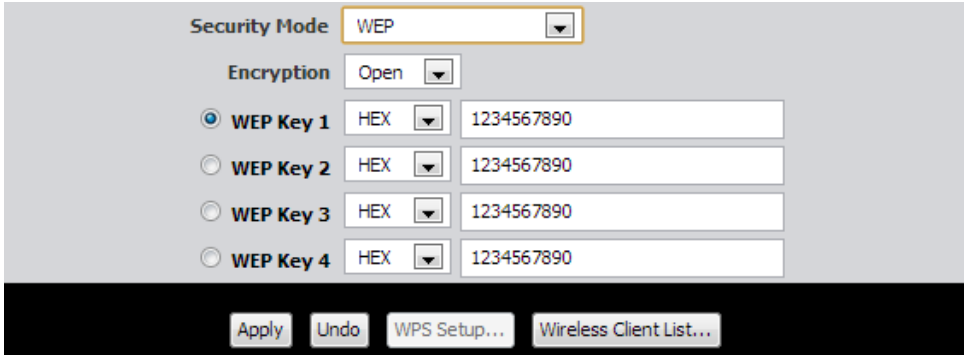
2. Click on **Setup**, and click on **Wireless Settings**.

3. Click on the **Security Mode** drop-down list to select your wireless security type.



Selecting WEP:

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



- **Encryption** – Choose **Open**, **Shared,** or **Auto**.

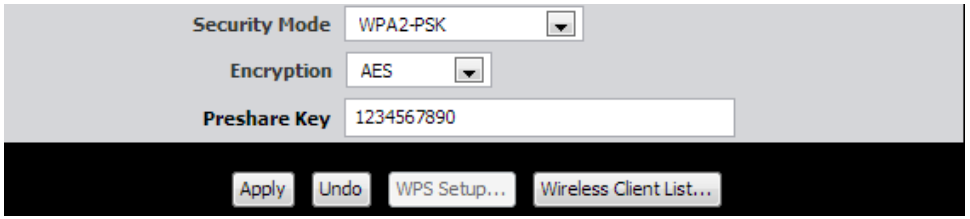
Note: *It is recommended to use Open System because it is known to be more secure than Shared Key.*

- **WEP Key 1-4**
  - Choose **HEX** or **ASCII**.
    Note: *It is recommended to use ASCII because of the much larger character set that can be used to create the key.*
  - This is where you enter the password or 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.
  - Choose a key index 1, 2, 3, or 4 and enter the key.
  - When connecting to the router, 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)

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

Selecting WPA-PSK, WPA-PSK / WPA2-PSK, or WPA2-PSK (WPA2-PSK recommended):

If selecting **WPA-PSK, WPA-PSK / WPA2-PSK, or WPA2-PSK, (Wi-Fi Protected Access Preshared Key)** please review the settings to configure and click **Apply** to save the changes.



First, from the Security Mode drop-down list, select **WPA-PSK, WPA-PSK / WPA2-PSK,** or **WPA2-PSK.**

- Select the **Encryption** type. When selecting **WPA-PSK** security, it is recommended to use **TKIP.**
- When selecting **WPA-PSK / WPA2-PSK** security, it is recommended to use **AES.**
- When selecting **WPA2-PSK** security, it is recommended to use **AES**.

Create your Wireless security preshared key (password or key):

- **Preshare Key** – Enter the preshared key.
  - **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.)*

Then from the PSK/EAP row, select either **PSK or EAP**

- **PSK** stands for Preshared Key
- **EAP** stands for Extensive Authentication Protocol, also called Remote Authentication Dial-In User Service or RADIUS).

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

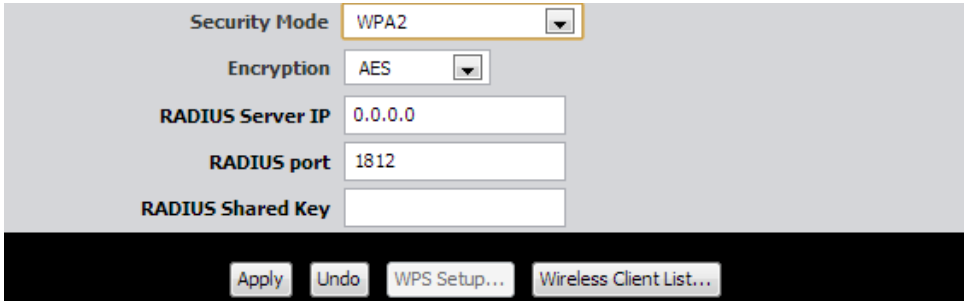
Selecting WPA, WPA / WPA2, or WPA2:

If selecting **WPA, WPA / WPA2, or WPA2 (Wi-Fi Protected Access Extensible Authentication Protocol)** please review the settings to configure and click **Apply** to save the changes.

EAP (Extensible Authentication Protocol) is also called Remote Authentication Dial-In User Service or RADIUS.

Select the **Encryption** Type

- When selecting **WPA** security, it is recommended to use **TKIP.**
- When selecting **WPA / WPA2** security, it is recommended to use **AES.**
- When selecting **WPA2** security, it is recommended to use **AES**.



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

  Note: *It is recommended to use port 1812.*
- **RADIUS Shared Key** – Enter the shared key (or shared secret) used to authorize your router with your RADIUS server.

Connect wireless devices to your router

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 65 for general information on connecting to a wireless network.

Connect wireless devices using WPS

Setup > Wireless Settings > WPS Setup

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.*

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

- Push Button Configuration (PBC) method
  - RECOMMENDED Hardware Push Button method–with an external button located physically on your router and on your client device
  - 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.*

Recommended Hardware Push Button (PBC) Method

Note: *it is recommended that a wireless key (passphrase or password) is created before connecting clients using the PBC method. If no wireless key is defined when connecting via PBC, the router will automatically create an encryption key that is 64 characters long. This 64 character key will then have to be used if one has to connect computers to the router using the traditional connection method.*

To add a wireless device to your network, simply push the WPS button on the wireless device you are connecting(consult client device User's Guide for length of time), then push and hold the WPS button located on your router for 3 seconds and release it. The WLAN LED on your modem router will flash rapidly indicating that the WPS setup process has been activated. (See "Product Hardware Features" on page 2)

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

PBC (Software/Virtual Push Button)

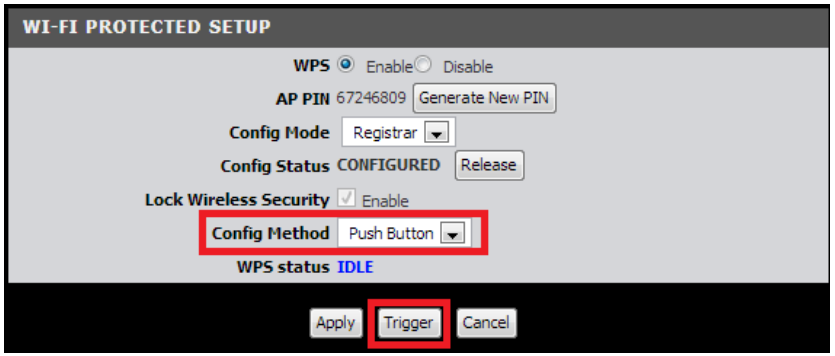
Setup > Wireless Settings > WPS Setup

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 "Access your router management page" on page 35).

2. Click on **Setup** and click **Wireless Settings,** then click on the **WPS Setup** button at the bottom of the page.

3. To add a wireless device to your network, simply the push the WPS button on the wireless device (consult wireless device's User's Guide for length of time), you are connecting, then in your router management page, make sure the **Config Method** is set to **Push Button** (default setting) and click on the **Trigger** button at the bottom of the page.



4. The **WPS Status** area will display status messages about the WPS process.

5. The **WPS Status** area will display "Configured" message to indicate that the wireless client device successfully connected using WPS.

PIN (Personal Identification Number)

Setup > Wireless Settings > WPS Setup

If your wireless device has WPS PIN (typically an 8-digit code printed on the wireless device product label or located in the wireless device wireless software utility), you can use this method.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Setup** and click **Wireless Settings,** then click on the **WPS Setup** button at the bottom of the page.

3. Next to **Config Status**, click **Release**. The status will change to **Unconfigured.**

4. Click the **Config Method** drop-down list and select **PIN Code**. Click **Apply**.

5. In the empty field, enter the 8-digit WPS PIN of the wireless client device you are connecting and click **Trigger**.

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.*

6. The **WPS Status** area will display "Configured" message to indicate that the wireless client device successfully connected using WPS.

Basic wireless settings

Setup > Wireless Settings

This section outlines available management options under the Wireless Settings tab.

1. Log into your router management page (see "Access your router management page" on page 35).

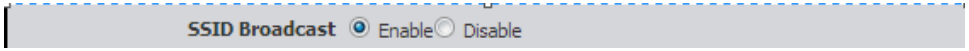
2. Click on **Setup,** and click on **Wireless Settings**.

3. To save changes to this section, click **Apply** when finished.

- **Wireless**
  - **Enable** turns on the wireless networking on your router (by default it is enabled).
  - **Disable** turns off wireless networking on your router.

Note: *It is recommended to leave the wireless setting to* ***Enable*** *unless you do not plan on connecting any wireless computers or devices to your network.*

- **SSID** – This acronym stands for Service Set Identifier and is the name of your wireless network. It differentiates your wireless network from others around you. By default, the router broadcast TRENDnet718 as the wireless network name. If you choose to change the SSID, change it to a name that you can easily remember.



- **SSID Broadcast**
  - **Enable** allows wireless devices to search and discover your wireless network name (also called SSID) broadcasted by your router.
  - **Disable** turns off the ability for wireless devices to find your network. It is still possible for wireless devices to be configured to connect to your wireless network.

    Note*: Setting this option to* ***Disable****, will disable WPS functionality****.***

- **Channel** – In North America, this router can broadcast on 1 of 11 Channels (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 Mode** - Select the appropriate mode for your network.

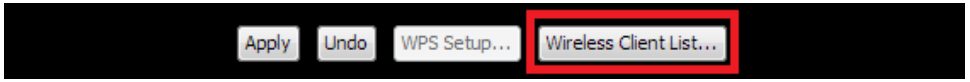
- **B/G/N mixed** – Select this mode for the best compatibility. This mode allows older 802.11b and 802.11g wireless devices to connect to the router in addition to newer 802.11n devices.
- **B/G mixed** – This mode only allows devices to connect to the router using older and slow 802.11b or 802.11g 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 router. 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.
- **G only** – This mode only allows devices to connect to the router using older and slow 802.11g technology (typically not recommended).
- **B only** – This mode only allows devices to connect to the router 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.*

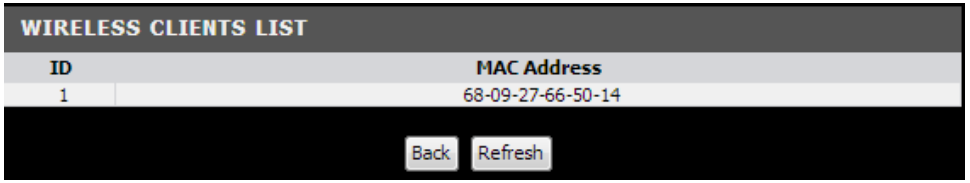
When applying the 802.11 mode setting, please keep in mind the following:

- 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.

- **Bandwidth** – This setting only applies to wireless devices connecting at 802.11n. Another term used to describe this parameter is Channel Width. Select the appropriate channel width for your wireless network.
  - **20 MHz** – This mode operates using a single 20MHz channel for wireless devices connecting at 802.11n. This setting may provide more stability than Auto 20/40 MHz for connectivity in busy wireless environments where there are several wireless networks in the area.
  - **Auto 20 MHz/40 MHz** – This mode can automatically switch between using a single 20MHz channel or 40MHz (two 20MHz channels). When 40MHz is active, this mode is capable of providing higher performance only if the wireless devices support the 40MHz channel width. Enabling 20/40MHz typically results in substantial performance increases when connecting to an 802.11n client.



- **Wireless Client List –** Clicking on the **Wireless Client List** button at the bottom of the page will display a list of wireless clients that are currently connected to your modem router.



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 router 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 router 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 router 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.

Advanced wireless settings

Setup > Wireless Settings

The advanced wireless features can provide you with additional options for setting up your wireless network such as multiple SSID, activate/deactivate wireless according to schedule, and operation modes such as WDS (Wireless Distribution System) bridging or wireless bridging.

Multiple SSID

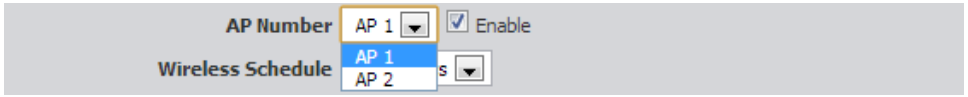
Setup > Wireless Settings

The multiple SSID feature allows you to broadcast up to two additional SSIDs (or wireless network names). To wireless devices searching for available wireless networks to connect to, the SSIDs (or wireless network names) will appear as separate and different wireless networks. Since they appear as separate wireless networks, they are also referred to as virtual APs (Access Points). Each virtual AP can be configured each with a different SSID (or wireless network name), security type and additional settings for wireless devices to connect. You can use the multiple SSID feature to setup guest wireless accounts with a different security type to keep your primary wireless network security information private. In addition, the SSIDs can be mapped to a specified VLAN ID. See the VLAN section for instructions on assigning VLAN IDs to the SSIDs.

1. Log into your router management page (see "Access your router management page" on page 35).

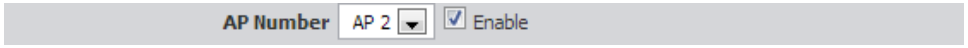
2. Click on **Setup,** and click on **Wireless Settings**.

3. Click the **AP Number** drop-down list to select which SSID settings you would like to configure.



Note: *The primary SSID is AP1 and is enabled by default.*

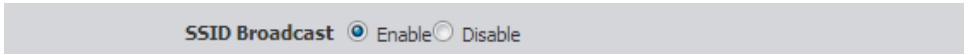
4. Check the **Enable** option the selected SSID.



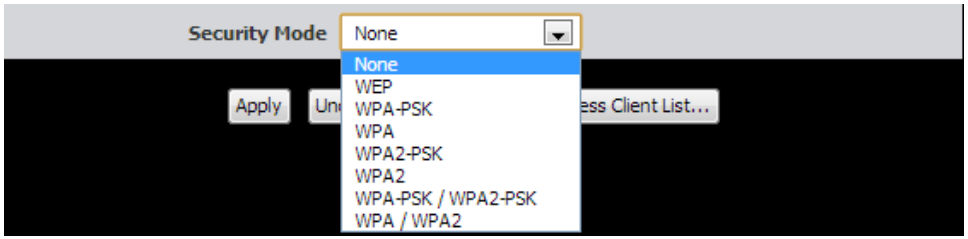
5. Enter the **Network ID (SSID)** (or wireless network name) to assign to the secondary SSID**.**

Note: *If enabling the secondary SSID AP2, it is strongly recommended to assign an SSID that is different from the primary SSID AP1, so it can easily identifiable when searching for wireless networks.*

6. Select **Enable** to allow wireless devices to search and discover the SSID (or wireless network name) of the selected SSID. **Disable** turns off the ability for wireless devices to find your SSID (or wireless network name) of the selected virtual AP when scanning for available wireless networks. It is still possible for wireless client devices to be manually configured to connect to the selected SSID even if the SSID broadcast is disabled.



7. Configure the wireless security for the selected SSID. See "Securing your wireless network" for details on configuring wireless security.



8. To save changes, click **Apply**.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Wireless Schedule

Setup > Wireless Settings

The wireless scheduling feature allows you to control when the wireless functionality of your router is enabled and disabled using a predefined time schedule. This can be a useful security tool to prevent unauthorized access for the duration when the router is not being used.

Note: *Before applying scheduling, please ensure your Time settings are configured correct and you have defined a schedule. See page 36 to configure Time Settings and see page 48 to create a schedule.*

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Setup,** and click on **Wireless Settings**.

3. Click the **Wireless Schedule** drop-down list and select the preconfigured time schedule you would like to assign.

Note: *Please note that configuring this setting will apply to both SSIDs and cannot be configured separately for each SSID.*

4. To save changes, click **Apply**.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Wireless Isolation

Advanced > Advanced Wireless

Wireless isolation is a security feature that restricts communication between wireless client devices. In other words, enabling wireless isolation prevents wireless client devices from communicating or accessing each other when connecting through the modem router. When wireless isolation is enabled, wireless client devices will still be able to access the Internet and wired devices while connecting through the modem router.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced,** and click on **Advanced Wireless**.

3. At the bottom under Wireless Isolation, check the **Enable** checkbox to enable the AP isolation **feature** or uncheck the option to disable.

4. To save changes, click **Apply**.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

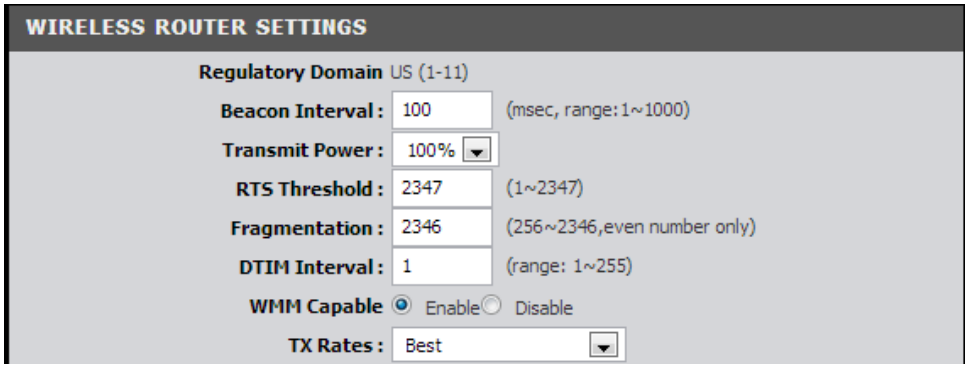
Additional Wireless Settings

Advanced > Advanced Wireless

These settings are advanced options that can be configured to change advanced wireless broadcast specifications. It is recommended that these settings remain set to their default values unless you are knowledgeable about the effects of changing these values. Changing these settings incorrectly can degrade performance.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced,** and click on **Advanced Wireless**.



- **Regulatory Domain –** The channel region assigned (FCC 1~11 or ETSI 1~13). This setting cannot be modified and is displayed for informational purposes.

- **Beacon Interval** – A beacon is a management frame used in wireless networks that transmitted periodically to announce the presence and provide information about the router's wireless network. The interval is the amount time between each beacon transmission.
  Default Value:100 milliseconds (range: 1-1000)

- **Transmit Power** – The wireless transmit power can be modified to a lower setting such as 50%, 25%, and 12% if necessary. Lowering the wireless transmit 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: 100%)

- **RTS 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)

- **Fragmentation** – Fragmentation in wireless networks is the process of breaking down data communications into smaller data packets in order to improve data efficiency when transferring or receiving data between wireless devices. The fragmentation threshold defines the maximum size of the data packets that are broken down.
  Default Value: 2346 (range: 1500~2346, even numbers only)

- **DTIM Interval** – A Delivery Traffic Indication Message (DTIM) is an informational message that is sent as part of a beacon by an access point (your wireless router) to a wireless client (wireless device or connecting station) in sleep mode to provide an alert that data is awaiting delivery. The DTIM Interval (also called Data Beacon Rate) is the amount of time between DTIM transmissions included in part of a beacon.
  Default Value: 1 (range: 1-255)

- **WMM Capable** – Wi-Fi Multimedia is a Quality of Service (QoS) feature which prioritizes audio and video data packets. This feature requires the wireless device to also support WMM. Click **Enable (recommended)** or **Disable** to turn this feature on or off on your router.

- **Tx Rates –** The wireless transmission rates can be locked down on the device for testing/troubleshooting or may even stabilize wireless connectivity if wireless connectivity issues are encountered. Using the default setting "Best" will allow the device to automatically the best possible data rate achievable. (Rates (Mbps): 1 , 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54, MCS0~MCS23).

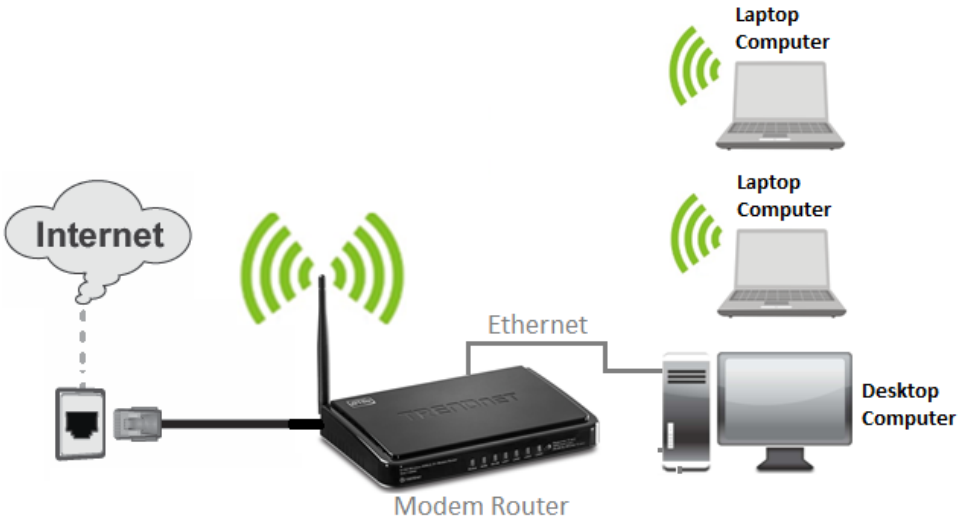
Wireless Operation Modes

The modem router supports multiple wireless operation modes for different application purposes. This section will explain each operation mode, the function, and how it is used.

AP Router Mode

Setup > Wireless Settings

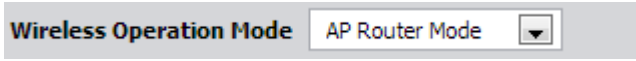
AP (Access Point) Router Mode the default wireless operation mode (recommended mode) of your modem router. This mode allows the modem router to function as both a wireless access point and router at the same time. In this mode, wireless client devices connect to your network, access local network resources (Ex. Shared files/folders on computer or device connected wired or wireless), and the Internet. All client devices connected either wired or wireless can all access share and access the Internet at the same time. When operating in this mode, basic wireless settings such as SSID and wireless security along with Internet access would need to be configured as covered in the Initial Setup Wizard on page 8.



1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Setup,** and click on **Wireless Settings**.

3. Click the **Wireless Operation Mode** drop-down list and select **AP Router Mode.**

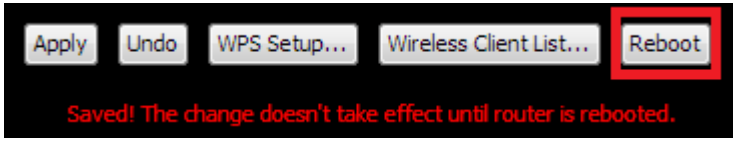


4. To save changes, click **Apply**.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Note: *Please refer to page 18 on configuring your wireless settings and page 12 on configuring your wireless security settings.*

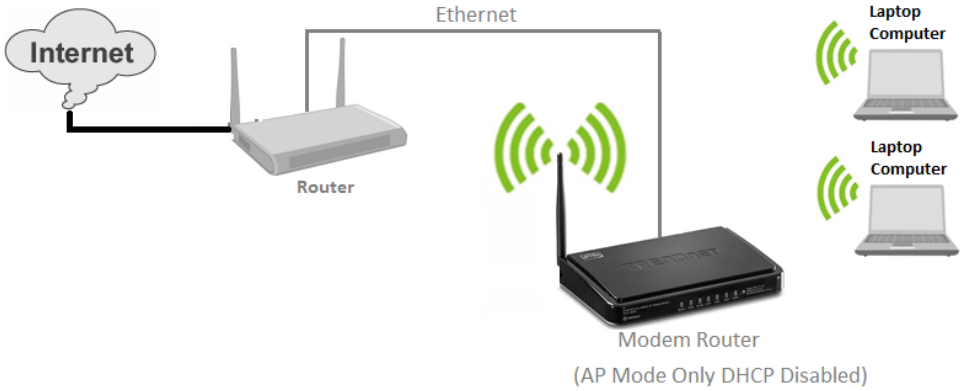
5. If prompted to reboot in order to apply changes, click **Reboot** at the bottom of the page and click OK or Continue to reboot the device.



AP Only Mode

Setup > Wireless Settings

AP (Access Point) Only mode allows the modem router to function as a wireless access point only. In this mode, wireless client devices connect to your network but will not be assigned IP addresses automatically and cannot share Internet access. The device needs to be interconnected from one of the four LAN ports (LAN 1-4) to one of the LAN ports of another router which is configured for and connected to Internet. In addition, the router must also be configured to assign IP addresses automatically. Please note that in the diagram, the additional router can be wired or wireless. It is also recommended that before using this mode, the modem router LAN IP address should be modified to an available address within the range of the additional router (ex. 192.168.0.x, 192.168.1.x, etc.) to ensure you are still able to access it's router management page after set up. When enabling this mode, the modem router's DHCP server will be disabled automatically.



Note: Please configure the modem router first, before connecting to any other routers.

Note: *Please refer to page 18 on configuring your wireless settings and page 12 on configuring your wireless security settings are configured first before using this mode.*

1. Log into your router management page (see "Access your router management page" on page 35).

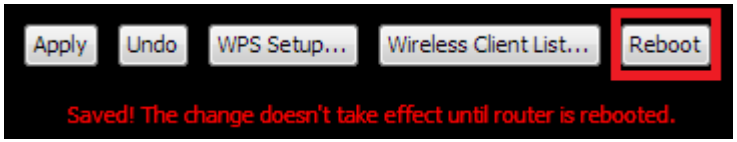
2. Click on **Setup,** and click on **Wireless Settings**.

3. Click the **Wireless Operation Mode** drop-down list and select **AP Only Mode.**

4. To save changes, click **Apply**.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

5. If prompted to reboot in order to apply changes, click **Reboot** at the bottom of the page and click OK or Continue to reboot the device.



6. Finally, connect one of the four LAN ports (LAN 1-4) to one of the LAN ports of your additional router.

WDS Only Mode & WDS Hybrid Mode

Setup > Wireless Settings

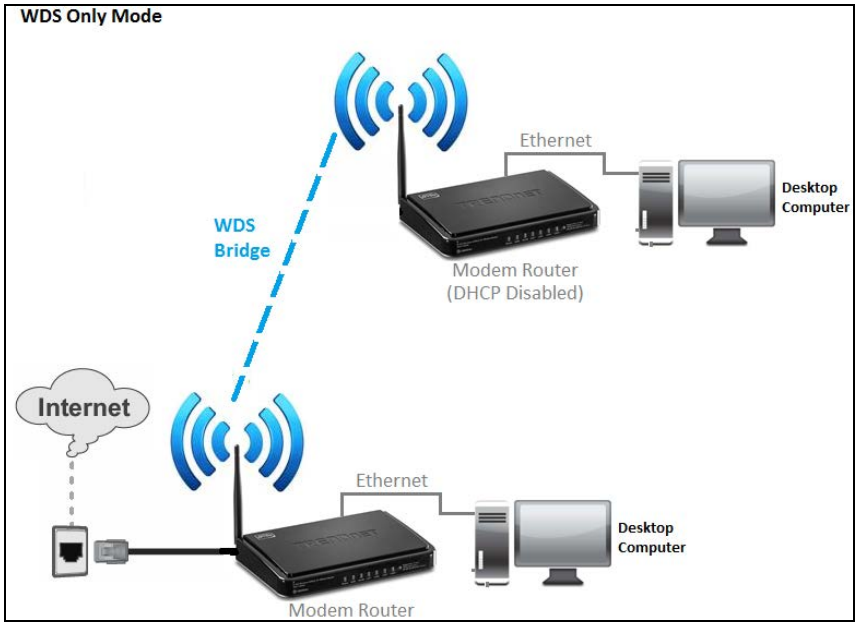
Wireless bridging using WDS allows the modem router to create a wireless bridge with other WDS supported wireless routers and access points configured in WDS mode to bridge groups of network client devices together through a wireless bridge. In WDS Hybrid Mode, the router will also function in access point mode allowing wireless client devices such as computers, game consoles, mobile phones, etc. to connect in order to access network resources from multiple groups of network devices as well as the Internet, unlike WDS Only which strictly operates in wireless bridge mode only and does NOT allow wireless client devices to connect.

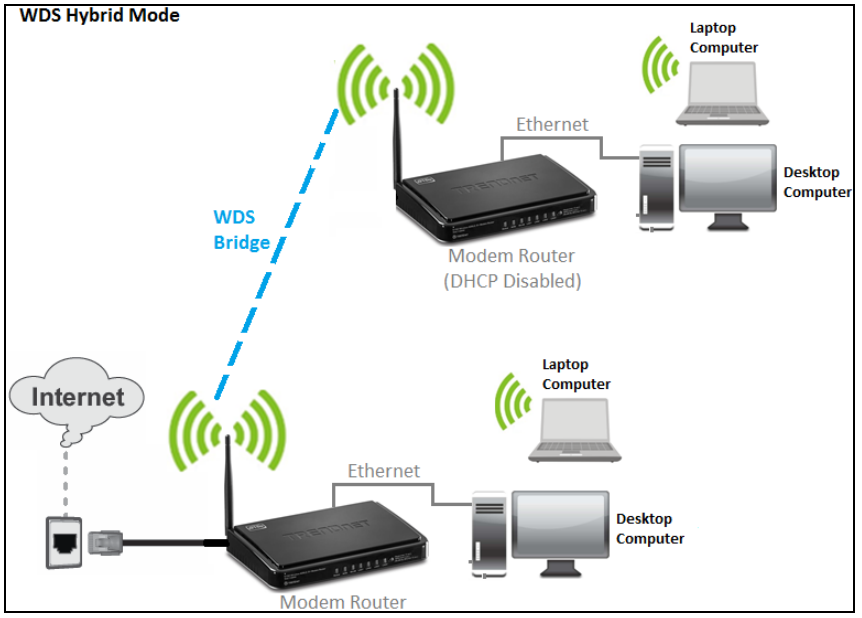
Note: *You can create up to four WDS bridge connections. WDS (Wireless Distribution System) is not currently standardized and may not connect to different model wireless routers or access points, therefore, when using WDS, it is recommended to use the same model and version for wireless bridging.*

To understand the difference between WDS Only and WDS Hybrid, please reference diagrams provided.

Notice that in WDS Only mode, the wireless client devices (Laptop Computers) were removed as the modem router will not allow wireless client devices to connect in this mode and strictly operate in wireless bridge mode only.

In WDS Hybrid mode (Recommended), the modem router can operate in wireless bridge mode and also allow wireless client devices to connect at the same time.





Note: *Before configuring WDS, please ensure the following first:*

1. Make sure different IP addresses are assigned to each WDS supported wireless device used for bridging. (ex. 192.168.10.1,192.168.10.2, 192.168.10.3) to avoid IP address conflict. See page 38 for changing the LAN IP address.

2. If you are using more than one WDS supported router or access point, please make sure the LAN DHCP server is enabled on only one unit and disabled on all others to avoid IP address conflict. See page 38 for DHCP server options.

3. Assign a specific wireless channel and use the same channel on all WDS supported wireless devices. See page 18 for configuring basic wireless settings.

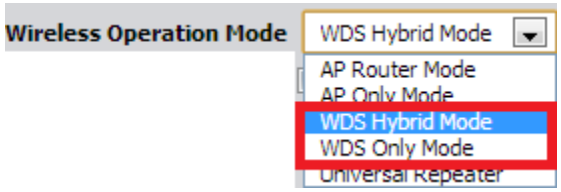
4. Configure the same wireless security and key on all WDS supported devices. See page 14 for configuring wireless security settings.

To configure WDS bridging between TEW-718BRM / TEW-718BRM5 routers:

1. Log into your router management page (see "Access your router management page" on page 35).

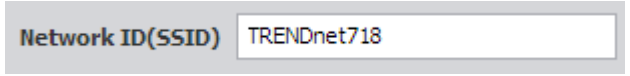
2. Click on **Setup,** and click on **Wireless Settings**.

3. Click the **Wireless Operation Mode** drop-down list and select **WDS Hybrid Mode** or **WDS Only Mode.**



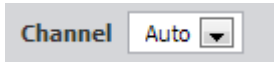
4. Next to **Network ID (SSID)**, enter the SSID (or wireless network name) of the first router. (e.g. TRENDnet718_1)

Note: *SSID setting does not need to be modified if using WDS only mode.*



5. Click the **Channel** drop-down list and select a specific wireless channel.

Note: *The wireless channel must be the same on all WDS devices.*



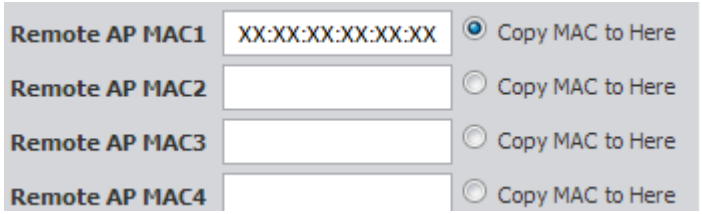
6. Configure your wireless security. See page 14 on securing your wireless network.

Note: *The wireless security must be the same on all WDS devices.*

7. Enter the wireless MAC address of the other WDS supported device.

(e.g. *00:11:22:AA:BB:CC)*

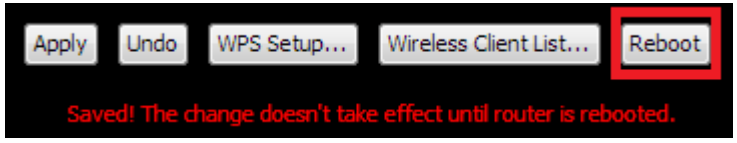
Note: *If the other WDS supported device is discoverable wirelessly, you can use the* ***Scan Remote AP's MAC List*** *to scan for the other WDS and copy the wireless MAC address from the discover list.*



8. To save changes, click **Apply**.

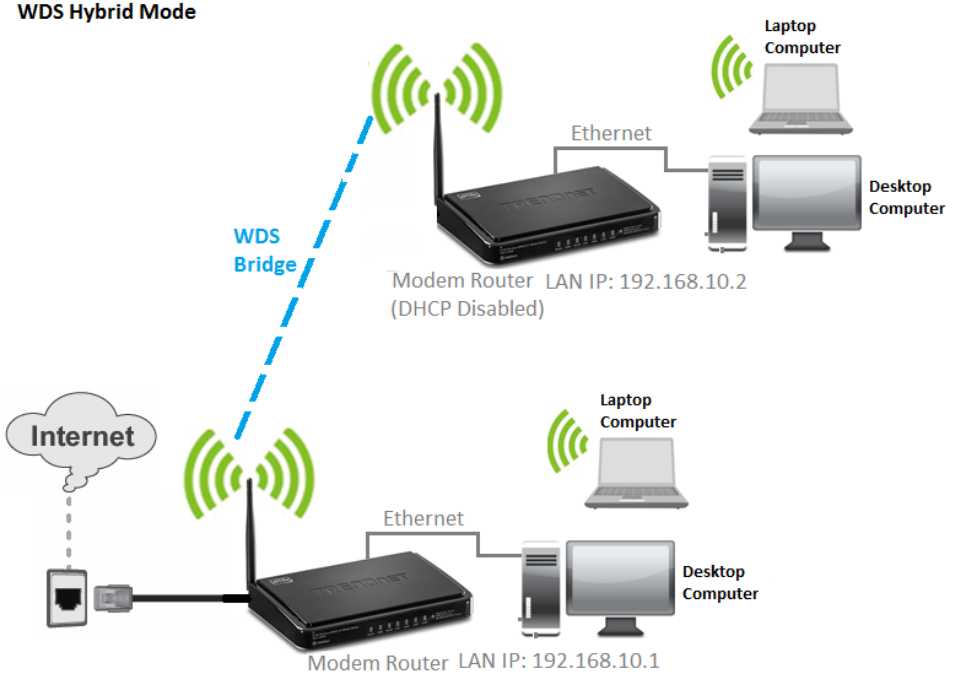
Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

9. If prompted to reboot in order to apply changes, click **Reboot** at the bottom of the page and click OK or Continue to reboot the device.



For additional TEW-718BRM / TEW-718BRM5 routers, make sure to disable the DHCP server first on all additional routers and configure the LAN IP address to be different on each router (e.g 192.168.10.2, 192.168.10.3, 192.168.10.4, etc.). You will connect devices to the LAN ports 1-4 only on all additional routers and the WAN port is not used. Then, repeat steps 3-9 for additional TEW-718BRM / TEW-718BRM5 routers you are bridging.

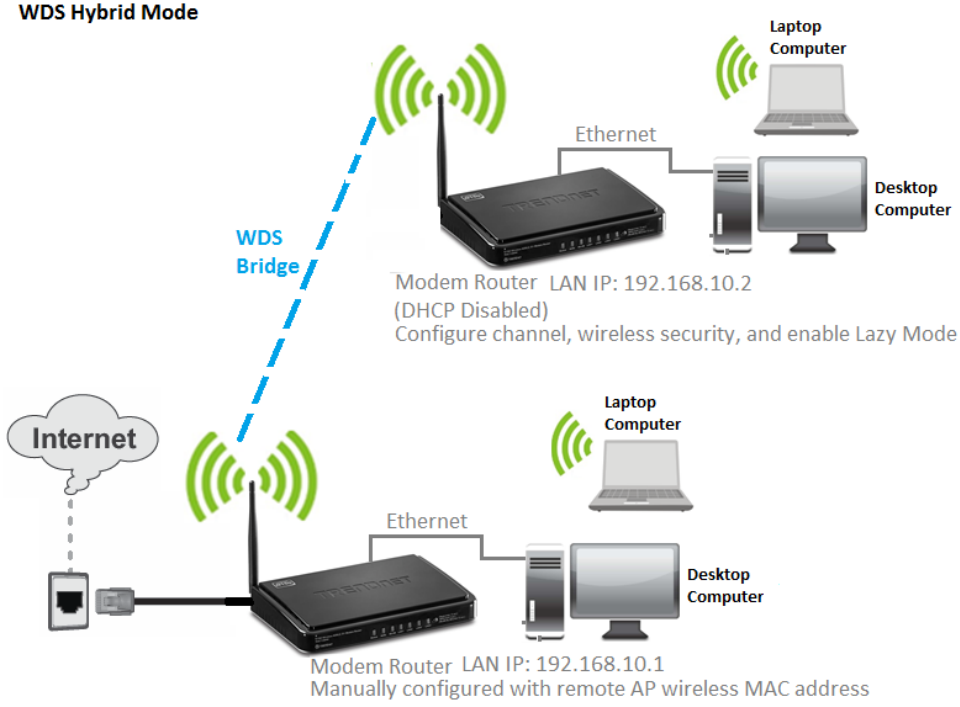
WDS Hybrid Mode



Lazy Mode – Lazy mode is additional WDS configuration option that helps to simplify setup on to add additional WDS supported devices. At least one device must be manually configured with all WDS and remote wireless MAC address. The secondary WDS device must configure at least the wireless channel and wireless security settings. Then WDS Lazy Mode can be enabled to learn the wireless MAC address of the manually configured WDS device automatically and create the wireless bridge.

You can repeat the steps to configure the first modem router and configure the wireless channel, wireless security, and enable lazy mode for enable additional wireless access points or routers that create a bridge to the first modem router.

WDS Hybrid Mode



Universal Repeater

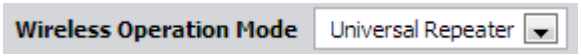
Setup > Wireless Settings

Universal Repeater mode allows the modem router to function as a wireless extender or repeat the signal of another wireless access point or router in order to extend or broaden the signal coverage. The diagram displays the modem router in universal repeater mode repeating/extending the signal of an existing wireless router in order for laptop computers to establish better wireless connectivity in an area with weak signal coverage. When enabling this mode, the modem router's DHCP server will be disabled automatically.

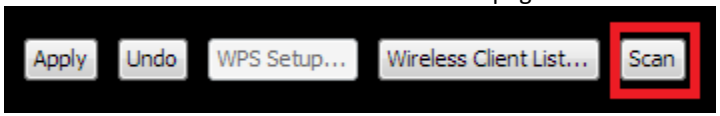
1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Setup,** and click on **Wireless Settings**.

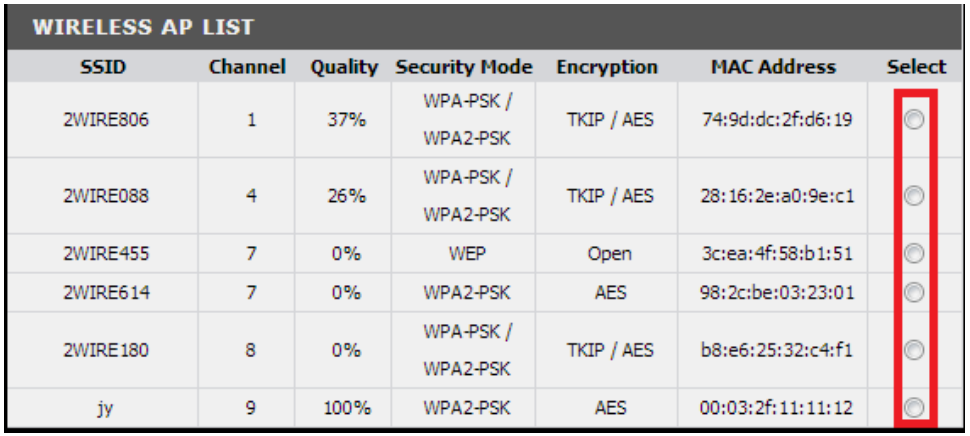
3. Click the **Wireless Operation Mode** drop-down list and select **Universal Repeater.**



4. Click the **Scan** button at the bottom of the page.



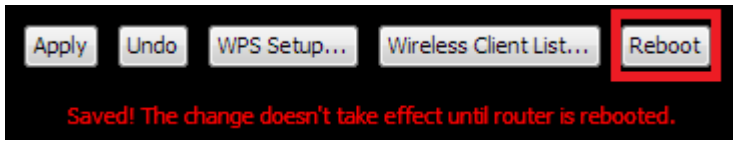
5. A list of available wireless networks will appear at the bottom of the page. Click **Select** next to the wireless network you would like to repeat. The selected entry will populate the fields at the top of the page. Enter the wireless network encryption key if necessary.



6. To save changes, click **Apply**.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

7. If prompted to reboot in order to apply changes, click **Reboot** at the bottom of the page and click OK or Continue to reboot the device.



Access Control Filters

Access control basics

MAC address filters

Advanced > Firewall > MAC Filter

Every network device has a unique, 12-digit MAC (Media Access Control) address. Using MAC filters, you can allow or deny specific computers and other devices from using this router's wired or wireless network.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced**, click on **Firewall**, and click on **MAC Filter**.

3. Add the MAC addresses to the MAC Table first before applying the MAC filter function.

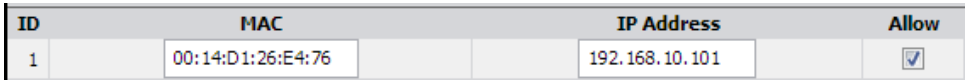
Note: MAC filter can be configured to allow access to the listed MAC address and deny all others unlisted or vice versa. The recommended function is to choose to only allow access to the MAC addresses listed and deny all others unlisted because it is easier to determine the MAC addresses of devices in your network then to determine which MAC addresses you do not want to allow access.

To simplify configuration, click the **DHCP clients** drop-down list to select and computer or device that is currently connected to your router. Once you have selected the computer or device, click the **ID** drop-down list to select which entry to copy the selected DHCP client information and click **Copy To.** You can choose a DHCP client from the drop down list or you can manually enter the MAC/IP address information.

Note: *If you are manually entering the MAC/IP address information, refer to your computer or device documentation to find the MAC address.*

4. After the MAC address *(e.g. 00:11:22:AA:BB:CC)* and IP address *(e.g. 192.168.10.101)* information is entered, make sure the **Allow** option next to the entry to allow network access for this MAC address.

Note: *Any unspecified MAC/IP addresses or entries without the **Allow** option checked will be denied network access.*



5. Next to **MAC Address Control** at the top of the page, check the **Enable** option to enable MAC filtering. ***Note:*** *Please add MAC/IP address entries first before enabling.*

6. Click **Apply** at the bottom of the page to save the changes.

Note: *If you would like to discard the changes, click **Undo** before you click **Apply**.*

- **Next** – Displays the next page to the current page of MAC filtering entries.
- **Previous** – Displays the previous page to the current page of MAC filtering entries.

Domain/URL Filters

Advanced > Firewall > URL Filter

You may want to allow or block computers or devices on your network access to specific websites (e.g. *www.trendnet.com, etc.)*, also called domains or URLs (Uniform Resource Locators).

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced**, click on **Firewall**, and click on **URL Filter**.

3. Next to **URL Filter**, check the **Enable** option to enable URL filtering.

4. In the entry list, choose an entry and under **URL**, enter the URL or domain name *(e.g. www.trendnet.com)* you would like to block access.

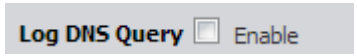
- **Drop** – Checking the option will drop or block access to the specific URL or domain.
- **Log –** Checking the option will log the access requests to the specific URL or domain in the router log. ***Note:*** *Checking the Log option only will not block access. You will need to check the Drop option to block access.*
- **Enable** – Check the enable option to enable the URL/domain filter.

5. Click **Apply** at the bottom of the page to save the changes.

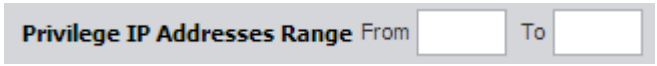
Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Additional URL filter options:

Log DNS Query – Checking the **Enable** optin will log all URL or domain queries in the router log.



Privilege IP Addresses Range – Enter the IP address range (use last IP address number only such as 192.168.10.101-192.168.10.110) to exclude from Domain/URL filtering. IP addresses included in the range will not be blocked from accessing any of the URLs specified.



Keyword Blocking

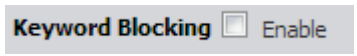
Advanced > Firewall > Keyword Blocking

You may want to allow or block computers or devices on your network access to web content with specific keywords instead of complete URL to generally allow or block computers or devices access to websites that may contain the keyword in the URL or on the web page.

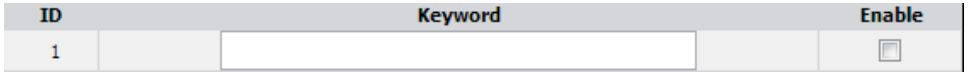
1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced**, click on **Firewall**, and click on **Keyword Blocking**.

3. Next to **Keyword Blocking**, check the **Enable** option to enable URL filtering.



4. In the entry list, choose an entry and under **keyword**, enter the keyword you would like to block access and check the **Enable** option.



5. Click **Apply** at the bottom of the page to save the changes.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Packet Outbound/Inbound Filter

Advanced > Packet Filter

You may want specify inbound or outbound access control to allow/deny sources (or Internet IP addresses) to your network from the Internet or from computers or devices on your network to the Internet. Firewall rules may allow for more granular control of specific inbound and outbound access between your network and the Internet. It is recommended that these settings remain set to default unless you are knowledgeable about the effects of changing the firewall rule configuration. It is possible to have undesirable functionality from your router if these settings are improperly modified.

1. Log into your router management page (see "Access your router management page" on page 35).

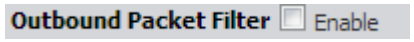
2. Click on **Advanced** and click on **Packet Filter**.

Outbound Packet Filter

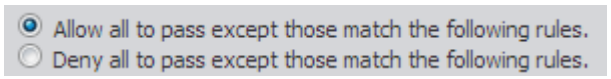
You may want apply outbound packet filters to allow or deny access of specific traffic from computers or devices on your local network to the Internet.

To configure outbound packet filters:

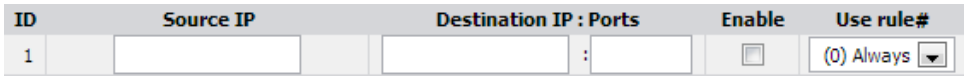
Next to **Outbound Packet Filter**, check the **Enable** option to enable outbound filtering.



- Select **Allow all to pass except those match the following rules** to allow all traffic and deny only the filters specified in the list.
- Select **Deny all to pass except those match the following rules** to deny all traffic and allow only the filter specified in the list.



Review the outbound packet filter settings.



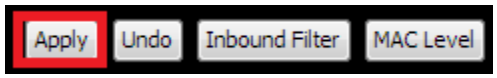
- **Source IP** – Enter the source IP address or computer/device IP address on your local network to apply the filter. *(e.g. 192.168.10.101)*
- **Destination IP : Ports** – Enter the destination IP address of the computer/device located on the Internet and port number to apply the filter. To specify all port numbers, do not specify any value for **Ports** field. For specific port numbers, enter a port number or range within the range of 1-65535 *(e.g. 21 or 21-30)* in the **Ports** field.

  Note: *Typically, you can specify 0.0.0.0 for any destination IP address located on the Internet or enter the specific IP address. (e.g. 10.10.10.200)*
- **Protocol** – Select the protocol type to filter. **TCP, UDP**, or you can select **Both** to choose both protocol types**.**
- **Enable** – Check the option to enable the filter.
- **Use rule# -** Click the drop-down list to select a pre-defined schedule. The filter will only be active during the time period defined in the pre-defined schedule.

Note: *Before applying scheduling, please ensure your Time settings are configured correct and you have defined a schedule. See page 36 to configure Time Settings and see page 48 to create a schedule.*

Click **Apply** at the bottom of the page to save the changes.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*



Clicking **MAC Level** will bring you to the **MAC Filter** configuration page. See **MAC Filter** section.

Inbound Packet Filter

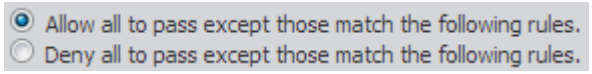
You may want apply inbound packet filters to allow or deny access of specific traffic from the Internet to computers or devices on your local network.

To configure inbound packet filters:

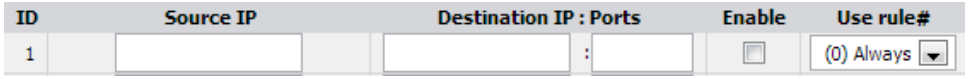
Click **Inbound Filter** at the bottom of the outbound packet filter page.

Next to **Inbound Packet Filter**, check the **Enable** option to enable inbound filtering.

- Select **Allow all to pass except those match the following rules** to allow all traffic and deny only the filters specified in the list.
- Select **Deny all to pass except those match the following rules** to deny all traffic and allow only the filter specified in the list.



Review the inbound packet filter settings.



- **Source IP** – Enter the source IP address or computer/device IP address on your located on the Internet to apply the filter. *(e.g. 192.168.10.101)*

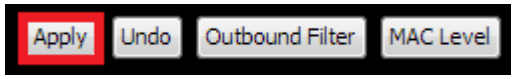
  Note: *Typically, you can specify 0.0.0.0 for any source IP address located on the Internet or enter the specific IP address. (e.g. 10.10.10.200)*
- **Destination IP : Ports** – Enter the destination IP address of the computer/device located on your local network and port number to apply the filter. To specify all port numbers, do not specify any value for **Ports** field. For

specific port numbers, enter a port number or range within the range of 1-65535 *(e.g. 21 or 21-30)* in the **Ports** field.

- **Protocol** – Select the protocol type to filter. **TCP, UDP**, or you can select **Both** to choose both protocol types**.**
- **Enable** – Check the option to enable the filter.
- **Use rule# -** Click the drop-down list to select a pre-defined schedule. The filter will only be active during the time period defined in the pre-defined schedule.
- ***Note:*** *Before applying scheduling, please ensure your Time settings are configured correct and you have defined a schedule. See page 36 to configure Time Settings and see page 48 to create a schedule.*

Click **Apply** at the bottom of the page to save the changes.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*



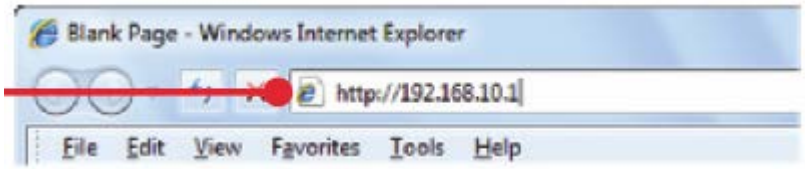
Clicking **MAC Level** will bring you to the **MAC Filter** configuration page. See **MAC Filter** section.

Advanced Router Setup

Access your router management page

Note: *Your router management page http://192.168.10.1 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.*

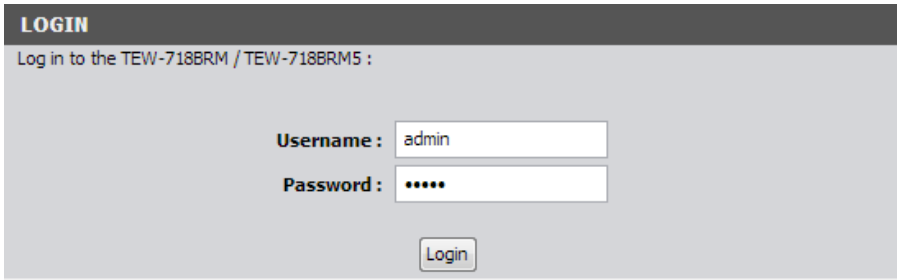
1. Open your web browser (e.g. Internet Explorer, Firefox, Safari, Chrome, or Opera) and go to http://192.168.10.1. Your router will prompt you for a user name and password.



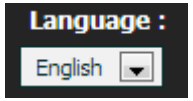
2. Enter the default user name and password and then click **Login**.

Default User Name: **admin**

Default Password: **admin**



At the bottom left panel, under Language, click the drop-down list to select your preferred language.



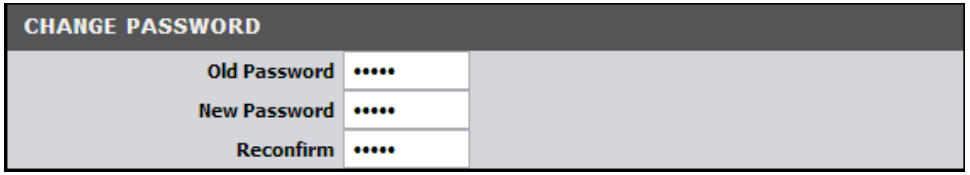
Change your router login password

Maintenance > Password

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance**, and click on **Password**.

3. In the **Old Password** field, enter the current password (default: admin). **New Password** field, enter the new password and in the **New Password** field, and in the **Reconfirm** field, retype the new password again to confirm.



4. Click **Apply** at the bottom of the page to save the changes.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Note: *If you change the router login password, you will need to access the router management page using the User Name "admin" and the new password instead of the default password "admin".*

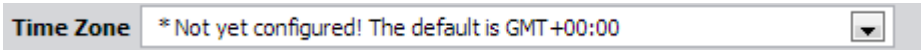
Set your router date and time

Setup > Time and Date

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Setup**, and click on **Time and Date**.

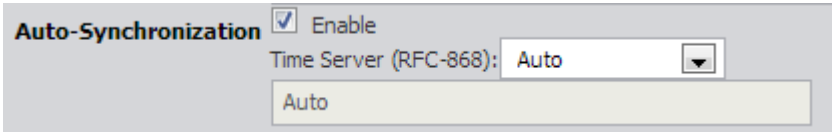
3. Next to **Time Zone**, click the drop-down list to select your time zone.



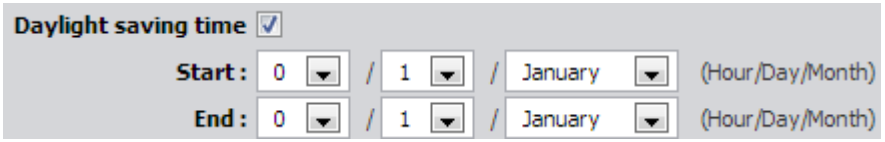
4. You can choose one of the following options to set the System Time:

- **Time Server (RFC-868) -** Next to **Auto-Synchronization**, check the **Enable** option and click the drop-down list and select on one of the options to configure your time server. You can choose **Auto** to set the router to automatically select a predefined time server or **Manual** to manually enter a time server (e.g. pool.ntp.org) that is not listed.

Note: *If you do not choose **Manual** or **Auto**, choose one of the predefined time servers in the list.*

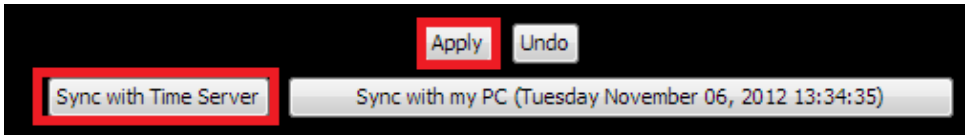


Check the **Daylight saving time** option and configure **Start** and **End** of your daylight savings duration.



Click **Apply** at the bottom of the page to save the changes, then click **Sync with Time Server** and wait for a status result.

Note: *If you would like to discard the changes, click **Undo** before you click **Apply**.*



OR

- **Sync with your computer time -** Click **Sync with my PC (Date & Time of your computer)** and wait for a status result, then click **Apply** to save the changes.

Manually configure your Internet connection

Setup > Internet Setup

1. Log into your router management page (see "Access your router management page" on page 35).

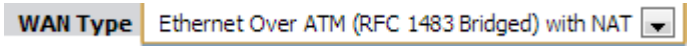
2. Click on **Setup**, and click on **Internet Setup**.

3. In the **WAN Interface** drop-down list, select which interface to use.

- **ADSL WAN (Default)** – Standard setting for use with ADSL ISPs. Internet connectivity will be established through the RJ-11 (telephone jack) of the modem router. PVCs (Private Virtual Circuits) are used to manage and provide Internet connectivity through ADSL. By default PVC0 is active and used for your primary ADSL connection.

- **Ethernet WAN (Optional)** - Converts LAN port 1 to a WAN port Ethernet interface and disables the use of the RJ-11 port. The Ethernet WAN type does not require PVC configuration.

4. In the **WAN Type** drop-down list, select the type of Internet connection provided by your ISP (Internet Service Provider).



5. Complete the fields required by your ISP and the optional settings only if required.

6. Click **Apply** at the bottom of the page to save the changes.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Note: *If you are unsure which Internet connection type you are using, please contact your ISP (Internet Service Provider).*

7. If prompted to reboot in order to apply changes, click OK or Continue to reboot the device.

Clone a MAC address

Setup > Internet Setup

On any home network, each network device has a unique MAC (Media Access Control) address. Some ISPs register the MAC address of the device (usually a router or a computer) connected directly to the modem. If your computer MAC address is already registered with your ISP and to prevent the re-provisioning and registration process of a new MAC address with your ISP, then you can clone the address (assign the registered MAC address of your previous device to your new router). If you want to use the MAC address from the previous device (computer or old router that directly connected to the modem, you should first determine the MAC address of the device or computer and manually enter it into your router using the clone MAC address feature.

Note: *For many ISPs that provide dynamic IP addresses automatically, typically, the stored MAC address in the modem is reset each time you restart the modem. If you are installing this router for the first time, turn your modem before connecting the router to your modem. To clear your modem stored MAC address, typically the procedure is to disconnect power from the modem for approximately one minute, then reconnect the power. For more details on this procedure, refer to your modem's User Guide/Manual or contact your ISP.*

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Setup**, and click on **Internet Setup**.

3. Next to **ISP registered MAC Address,** click **Clone** to clone your computer's MAC address or manually enter the 12-digit MAC address of your old router.
(e.g. *00:11:22:AA:BB:CC)*

4. Click either **Clone MAC Address** to clone the MAC address of the computer you are currently using or manually enter the 12-digit MAC address of your old router.

5. Click **Apply** at the bottom of the page to save the changes.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Change your router IP address

Setup > Local Network

In most cases, you do not need to change your router IP address settings. Typically, the router IP address settings only needs to be changed, if you plan to use another router in your network with the same IP address settings, if you are connecting your router to an existing network that is already using the IP address settings your router is using, or if you are experiencing problems establishing VPN connections to your office network through your router.

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.*

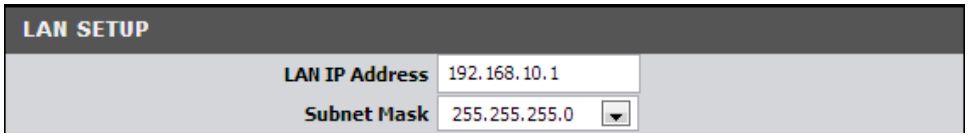
Default Router IP Address: 192.168.10.1

Default Router Network: 192.168.10.0 / 255.255.255.0

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Setup**, and click on **Local Network**.

3. Next to **LAN IP Address** and **Subnet Mask**, enter the router IP address settings.



- **LAN IP Address** – Enter the new router IP address. (e.g. *192.168.200.1*)
- **Subnet Mask** – Click the Subnet Mask drop-down list to select a mask. (e.g. *255.255.255.0*)

Note: *The DHCP address range will change automatically to your new router IP address settings so you do not have to change the DHCP address range manually to match your new router IP address settings.*

4. To save changes, click **Apply**.

Note: *You will need to access your router management page using your new router IP address to access the router management page. (e.g. Instead of using the default http://192.168.10.1 using your new router IP address will use the following format using your new router IP address http://(new.router.ipaddress.here) to access your router management page.*

Set up the DHCP server on your router

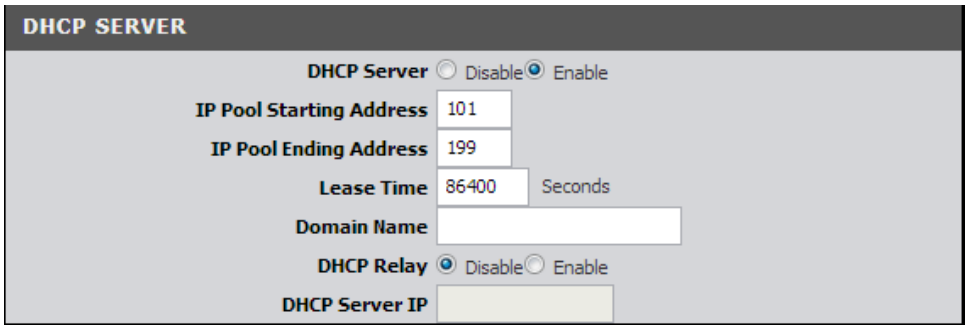
Setup > Local Network

Your router can be used as a DHCP (Dynamic Host Configuration Protocol) server to automatically assign an IP address to each computer or device on your network. The DHCP server is enabled by default on your router. If you already have a DHCP server on your network, or if you do not want to use your router as a DHCP server, you can disable this setting. It is recommended to leave this setting enabled.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Setup**, and click on **Local Network**.

3. Review the DHCP Server settings.



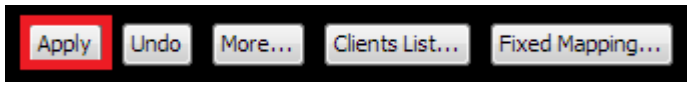
- **DHCP Server** – Enable or Disable the DHCP server.
- **IP Pool Starting Address** – Changes the starting address for the DHCP server range. (e.g. *192.168.10.20)*
- **IP Pool Starting Address** – Changes the last address for the DHCP server range. (e.g. *192.168.10.30)*

Note: *The Start IP and End IP specify the range of IP addresses to automatically assign to computers or devices on your network.*

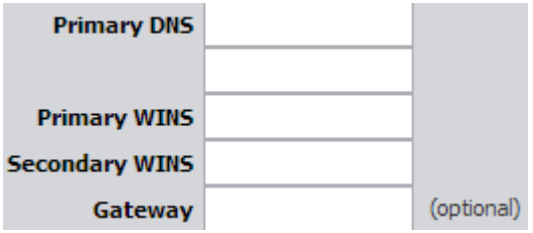
- **Lease Time** – Specifies the DHCP client lease time in seconds.
- **Domain Name (Optional)** – Specifies a domain name to assign to computers or devices. (e.g. *trendnet.com*)
- **DHCP Server Relay** – If you have an external DHCP server and do not want to use the router's built-in DHCP server. To enable this setting, click **Enable**.
- **DHCP Server IP** – If DHCP Server Relay is enabled, enter the IP address of your external DHCP server to relay DHCP requests.

Note: *The DHCP lease time is the amount of time a computer or device can keep an IP address assigned by the DHCP server. When the lease time expires, the computer or device will renew the IP address lease with the DHCP server, otherwise, if there is no attempt to renew the lease, the DHCP server will reallocate the IP address to be assigned to another computer or device.*

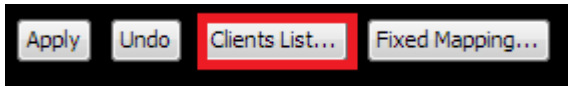
4. To save changes, click **Apply**.



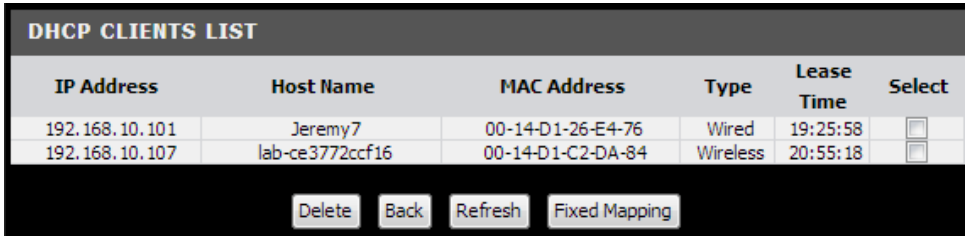
Note: *Clicking the* ***More…*** *option will allow you to configure additional parameters for your DHCP server on your router to assign to computers or devices on your network.*



Clients List – If you click **Clients** List, you can view the list of active lease entries for computers or devices that have been assigned IP addresses automatically from the DHCP server on your router.



The DHCP Clients List will allow you to select multiple clients and assign DHCP reservation by selecting and clicking Fixed Mapping.



- **Delete** – Deletes the selected DHCP client device from the DHCP Clients List table.
- **Back** – (At the bottom of the page) Returns you to the main DHCP server configuration page.
- **Refresh** –(At the bottom of the page) Refreshes the DHCP Clients List.

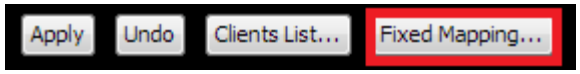
Set up DHCP reservation

Setup > Local Network > Fixed Mapping

DHCP (Dynamic Host Configuration Protocol) reservation (also called Static DHCP) allows your router to assign a fixed IP address from the DHCP server IP address range to a specific device on your network. Assigning a fixed IP address can allow you to easily keep track of the IP addresses used on your network by your computers or devices for future reference or configuration such as virtual server (also called port forwarding, see "Virtual Server" on page 44) or special applications (also called port triggering, see "Special Applications" on page 46).

1. Log into your router management page (see "Access your router management page" on page 35).

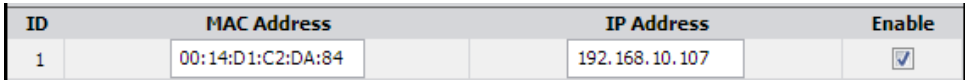
2. Click on **Setup**, click on **Local Network**



4. You can choose one of the following options to add a DHCP reservation:

- **Select an existing DHCP client from drop-down menu -** If the device or computer are adding is already connected to your router and is assigned an IP address automatically from the DHCP server on your router, click the **DHCP clients** drop-down menu and select computer or device. Then click the **ID** drop-down menu and select the ID you would like to assign the DHCP client and click **Copy to**.

The DHCP client will be copied to the ID you selected in the list. Check the **Enable** option next to the entry.

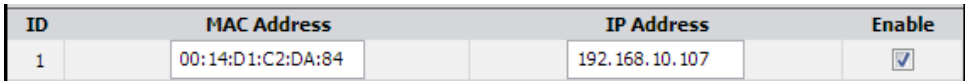


ID	MAC Address	IP Address	Enable
1	00:14:D1:C2:DA:84	192.168.10.107	☑

Click **Apply** at the bottom of the page to save the changes.
Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****. If you click* ***Back****, this will return you to the main DHCP Server page.*

OR

Enter the DHCP reservation manually – Select one of the empty/available IDs in the list and next to the **ID #** click on **MAC Address** and enter the MAC address *(e.g. 00:11:22:AA:BB:CC)* of the computer or device for which you are creating the reservation. Then click on the **IP Address** field and enter the IP address *(e.g. 192.168.10.101)* to assign for the reservation and check the **Enable** option.
Note: *You cannot assign IP addresses outside of the DHCP range. The IP address is required to be within the DHCP IP address range (IP Pool Starting Address & IP Pool Starting Address) in the main DHCP Server page.*



ID	MAC Address	IP Address	Enable
1	00:14:D1:C2:DA:84	192.168.10.107	☑

Click **Apply** at the bottom of the page to save the changes.
Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****. If you click* ***Back****, this will return you to the main DHCP Server page.*

Enable/disable UPnP on your router

Advanced > UPnP

UPnP (Universal Plug and Play) allows devices connected to a network to discover each other and automatically open the connections or services for specific applications (e.g. instant messenger, online gaming applications, etc.) UPnP is enabled on your router by default to allow specific applications required by your computers or devices to allow connections through your router as they are needed.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced**, and click on **UPnP.**

3. Next to **UPnP**, click **Enabled** or **Disabled** to turn the feature on or off on your router.

Note: *It is recommended to leave this setting enabled, otherwise, you may encounter issues with applications that utilize UPnP in order allow the required communication between your computers or devices and the Internet.*

4. Click **Apply** at the bottom of the page to save the changes.
Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Allow/deny VPN connections through your router

Advanced > Firewall > Others

A Virtual Private Network (VPN) is a network that uses a public network, such as the Internet, to provide secure communications between a remote computer or network and another network. Some offices often provide VPN access to their networks to enable employees to work from their remote office/home office, or while traveling.

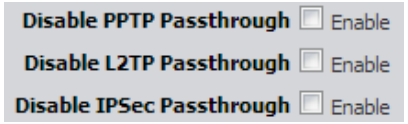
If your office or place of work has allowed and authorized access for you to access their network through VPN, the default VPN settings in your router have been configured to pass through the most common types of VPN protocols, which typically do not require any additional configuration changes.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced**, click on **Firewall**, and click on **Others**.

3. Next to **Disable PPTP, Disable L2TP, or Disable IPsec** check **Enable** to turn off the VPN passthrough feature for the specific VPN protocol.

Note: *It is recommended to leave these settings unchecked to ensure VPN passthrough capability is enabled on your router.*



4. Click **Apply** at the bottom of the page to save the changes.
Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Additional Security Settings

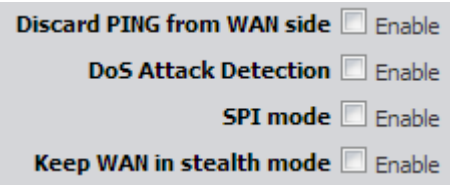
Advanced > Firewall > Others

To provide additional security, your router offers DoS (Denial of Service) detection, SPI mode, WAN stealth mode to further prevent network attacks. You may want to enable these features for additional network security.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced**, click on **Firewall**, and click on **Others**.

3. Review the additional security settings.



- **Discard PING from WAN Side** – Check this option to prevent your router from responding to ping or ICMP (Internet Control Message Protocol) requests from the Internet.
- **DoS Attack Detection** – Check this option to enable DoS (Denial of Service) detection. If DoS attacks are detected, information can be found in the device logs. Please note that this is detection only, not prevention.
- **SPI mode** – Check this option to enable the router to record packet sessions through the router and ensure that incoming and outgoing packets are valid.
- **Keep WAN in stealth mode** – Check this option to prevent your router from responding to port scans from the Internet.

4. Click **Apply** at the bottom of the page to save the changes.
Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Allow/deny multicast streaming

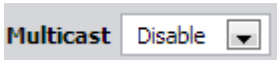
Setup > Internet Setup

In some cases, applications require multicast communication (also called IP multicast which is the delivery of information to a specific group of computers or devices in a single transmission) typically used in media streaming applications. Multicast streaming is disabled by default on your router to deny applications that require multicast communication through your router.

1. Log into your router management page (see "Access your router management page" on page 35).

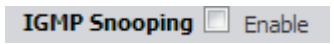
2. Click on **Setup**, and click on **Internet Setup**

3. Under your Internet connection settings, next to **Multicast**, click the drop-down menu and select the IGMP multicast version protocol you would like to enable.



- **Auto** – Automatically detects which IGMP multicast version to use.
- **IGMP v1 –** Specifies to use IGMP protocol version 1 for multicast traffic.
- **IGMP v2 –** Specifies to use IGMP protocol version 2 for multicast traffic.
- **IGMP v3 –** Specifies to use IGMP protocol version 3 for multicast traffic.

4. Click **Apply** at the bottom of the page to save the changes.
Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Save****.*



- **IGMP Snooping –** Enabling IGMP snooping supports helps to passthrough multicast streams and traffic more effectively and prevents the network from being flooded by multicast traffic. It is recommended to enable this setting if enabling IGMP multicast support.

Identify your network on the Internet

Advanced > Dynamic DNS

Since most ISPs constantly change your home IP address, providing access to devices on your home or small office Local Area Network (such as IP Cameras) from the Internet requires setting up a Dynamic DNS service and entering the parameters into this management area. Dynamic DNS services allow your router to confirm its location to the given Dynamic DNS service, thereby providing the Dynamic DNS service with the ability to provide a virtual fixed IP address for your network. This means that even though your ISP is always changing your IP address, the Dynamic DNS service will be able to identify your network using a fixed address—one that can be used to view home IP Camera and other devices on your local area network.

Note: *First, you will need to sign up for one of the DDNS service providers listed in the* ***Server Address*** *drop-down list****.***

1. Sign up for one of the DDNS available service providers list under **Server Address**. (e.g. *dyndns.com, no-ip.com*, etc.)

2. Log into your router management page (see "Access your router management page" on page 35).

3. Click on **Advanced** and click on **Dynamic DNS**.

4. Next to DDNS, click **Enable.**

5. In the **Server Address** drop-down list, select the provider you selected, and enter your information in the fields.

- Host Name: Personal URL provided to you by your Dynamic DNS service provider (e.g. www.trendnet.dyndns.biz)
- User Name / E-mail: The user name needed to log in to your Dynamic DNS service account
- Password/Key: This is the password to gain access to Dynamic DNS service (NOT your router or wireless network password) for which you have signed up to.

6. To save changes, click **Apply**.

Allow remote access to your router management page

Maintenance > Remote Management

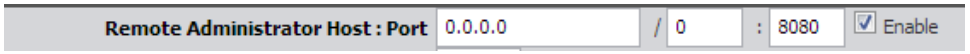
You may want to make changes to your router from a remote location such at your office or another location while away from your home.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance**, and click on **Remote Management**.

3. Under the **HTTP** section, click **Enabled**.

- **Host** – It is recommended to leave this setting as 0.0.0.0 / 0, to allow remote access from anywhere on the Internet.
  Note*: You can enter a specific IP subnet of Internet IP addresses or specific Internet IP address (ex. 10.10.10.10 / 32) that is allowed to access your router management page, all others will be denied.*
- **Port**– It is recommended to leave this setting as 8080.
  Note: *If you have configured port 8080 for another configuration section such as virtual server or special application, please change the port to use. (Recommended port range 1024-65534)*



4. To save changes, click **Apply**.

This section also provides the option to configure the idle timeout period before automatically logging you out of the router management page. Next to **Administrator Time-out**, you can enter the idle timeout in seconds before automatically logging you out of the router management page.

Open a device on your network to the Internet

This router can provide access to devices on your local area network to the Internet using the Virtual Server, Special Application, method (DMZ NOT recommended).

DMZ

Advanced > Firewall > DMZ

You may want to expose a specific computer or device on your network to the Internet to allow anyone to access it. Your router includes the DMZ (Demilitarized Zone) feature that makes all the ports and services available on the WAN/Internet side of the router and forwards them to a single IP address (computer or network device) on your network. The DMZ feature is an easy way of allowing access from the Internet however, it is a very **insecure** technology and will open local area network to greater threats from Internet attacks.

It is strongly recommended to use **Virtual Server** (also called port forwarding, see "Virtual Server" on page 35) to allow access to your computers or network devices from the Internet.

1. Make sure to configure your computer or network device to use a static IP address or you can use the DHCP reservation feature (see "Set up DHCP reservation" on page 53).

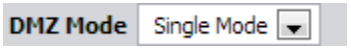
2. Log into your router management page (see "Access your router management page" on page 35).

3. Click on **Advanced**, click on **Firewall**, and click on **DMZ**.

4. Next to **IP Address of DMZ Host**, enter the IP address you assigned to the computer or network device to expose to the Internet and check **Enable**.

5. To save changes, click **Apply**.

Note: *If using ADSL WAN with multiple PVCs, click the DMZ Mode drop-down list to select Multi Mode which will allow you which PVC to assign the DMZ Host.*



Virtual Server

Advanced > NAT > Virtual Server

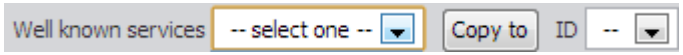
Virtual Server (also called port forwarding) allows you to define specific ports (used or required by a specific application) and forward them to a single IP address (a computer or device) on your network. Using this feature is more secure compared to using DMZ (see "DMZ" on page 44) in which DMZ forwards all ports instead of only specific ports used by an application. An example would be forwarding a port to an network/IP camera (typically on TRENDnet IP cameras use HTTP TCP port 80 for remote access web requests) on your network for to allow remote access to it.

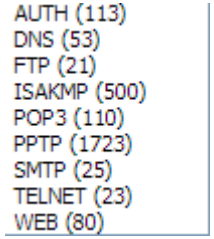
Since most ISPs constantly change your home IP address, to be able to access the Virtual Server port(s) from the Internet it is recommended to setup Dynamic DNS service (See DynDNS section).

1. Log into your router management page (see "Access your router management page" on page 35).

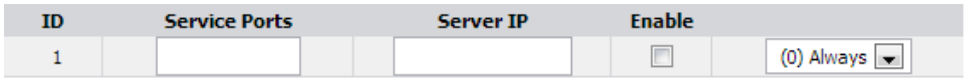
2. Click on **Advanced**, click on **NAT**, and click on **Virtual Server**.

To simplify configuration, there is a list of commonly used pre-defined virtual server entries to modify by clicking the **Well known services** drop-down list, otherwise, you can choose to manually add a new virtual server.





3. Review the virtual server settings.



- **Service Ports** – Enter the port number required by your device. This will be the same port number used to access the device from the Internet and will include both TCP and UDP protocols.

  Note: *Please refer to the device documentation to determine which ports and protocols are required.*

- **Server IP** – Enter the IP address of the device to forward the port. (e.g. *192.168.10.101)*.

  Note: *You should assign a static IP address to the device or use DHCP reservation to ensure the IP address of the device does not change.*

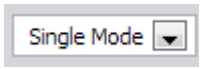
- **Enable** – Checking the **Enable** option turns on the virtual server**.**

- **Schedule -** Click the drop-down list assign a pre-defined schedule when the virtual server is activated or inactive.

  Note*: To define a schedule, see the "Create schedules" section.*

4. To save changes, click **Apply**.

Note: *If using ADSL WAN with multiple PVCs, click the Virtual Server Mode drop-down list to select MultiMode which will allow you which PVC to assign the Virtual Server.*



Example: To forward TCP port 80 to your IP camera

1. Make sure to configure your network/IP camera to use a static IP address or you can use the DHCP reservation feature (see "Set up DHCP reservation" on page 53).

Note: *You may need to reference your camera documentation on configuring a static IP address.*

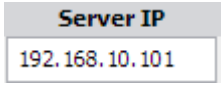
2. Log into your router management page (see "Access your router management page" on page 35).

3. Click on **Advanced**, click on **NAT**, and click on **Virtual Server**.

4. In the **Well known services** drop-down list, select the pre-defined virtual server entry named **WEB (80)**. In the **ID** drop-down list, select **1**. Click **Copy to**.

5. **ID 1** fields will be populated with the selected pre-defined virtual server entry.

6. Under **Server IP**, enter the IP address assigned to the camera. (e.g. *192.168.10.101*)



7. To save changes, click **Apply**.

Special Applications

Advanced > NAT > Special AP

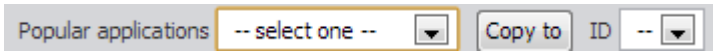
Special applications (also called port triggering) is typically used for online gaming applications or communication applications that require a range of ports or several ports to be dynamically opened on request to a device on your network. The router will wait for a request on a specific port or range of ports (or trigger port/port range) from a device on your network and once a request is detected by your router, the router will forward a single port or multiple ports (or incoming port/port range) to the device on your network. This feature is not typically used as most devices and routers currently use UPnP (Universal Plug and Play) to automatically configure your router to allow access for applications. See "Enable/disable UPnP on your router" on page 41.

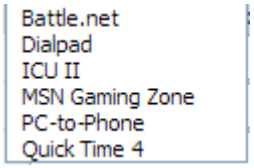
Note: Please refer to the device documentation to determine if your device supports UPnP first, before configuring this feature.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced**, click on **NAT**, and click on **Special AP**.

To simplify configuration, there is a list of commonly used pre-defined special application entries to modify by clicking the **Popular applications** drop-down list, otherwise, you can choose to manually add a new special application.





3. Review the special application settings.

- **Trigger** – Port or port range requested by the device.
  (e.g. *2000-2001 or 2000)*
  Note: *Please refer to the device documentation to determine which ports are required.*
- **Incoming Ports** – Port(s) forwarded to the device.
  (e.g. *2000-2038,2069,2081,2200-2210)*
  Note: *Please refer to the device documentation to determine which ports are required.*
- **Enable** – Checking the **Enable** option turns on the special application**.**

Note: *Please refer to the device documentation to determine which ports are required.*

4. To save changes, click **Apply**.

Prioritize traffic using QoS (Quality of Service)

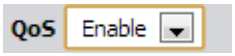
Configuration > Advanced Setting > Quality of Service

You may want to prioritize outbound traffic for specific computers or devices on your network to have higher priority.

1. Log into your router management page (see "Access your router management page" on page 35).

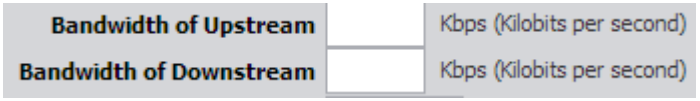
2. Click on **Advanced**, and click on **Quality of Service.**

3. Click the **QoS** drop-down list and select the **Enable** option.



4. The **WAN Interface** allows you to select a specific PVC to assign QoS if using ADSL WAN and multiple PVCs with your ISP. The default setting is PVC0.

5. Enter the approximated upload (Upstream) and download (Downstream) speeds in kbps provided by your ISP.

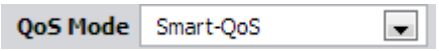


6. Choose the **QoS Mode.**

- **Smart-QoS** (Recommended) – This mode allows for easy QoS configuration based on simply selecting pre-defined application categories. You can manually assign a percentage to assign for each category or using the **Flexible Bandwidth Management** feature, the modem router can automatically determine the traffic priority based on the selected categories to prioritize.
- **User-Defined QoS –** This QoS mode is recommended for advanced users only is provided only to allow the option to provide more granular control of the modem router QoS settings.

To configure Smart-QoS:

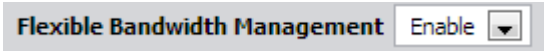
1. For the **QoS Mode**, select **Smart-QoS**.

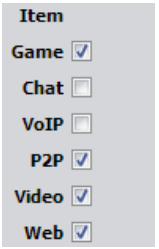


2. Check the categories you would like to assign priority and enter the percentage.

Item	Select	Setting
Game	☑	60 %
Chat	☑	0 %
VoIP	☐	0 %
P2P	☑	10 %

OR enable **Flexible Bandwidth Management** and check which categories you would like to prioritize.





3. To save changes, click **Apply**.

Create schedules

Maintenance > Time Schedule

For additional security control, your router allows you to create schedules to specify a time period when a feature on your router should be activated and deactivated. Before you use the scheduling feature on your router, ensure that your router system time is configured correctly. See page 36 to configure the system time.

Note: *You can apply a predefined schedule to the following features:*

- *Wireless*
- *Virtual Server*
- *Packet Filters*
- *QoS*

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

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance**, and click on **Time Schedule.**

3. Next to **Schedule**, check the **Enable** option.

4. Click **Apply** at the bottom of the page.

5. Next to a schedule entry, click **Add New**.

6. Next to **Name of Rule #**, enter a name for the schedule.

7. Next to **Policy**, select the type of policy.

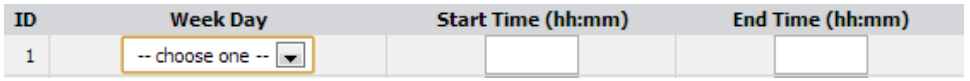
Note: *This setting will determine how the schedule function should operate the feature it is applied.*

- **Deactivate –** Choosing this policy type will activate or enable the feature during the day/time schedule specified and deactivate or disable the feature anytime other day/times outside of the specified schedule.
- **Activate –** Choosing this policy type will deactivate or disable the feature during the day/time schedule specified and activate or enable the feature anytime other day/times outside of the specified schedule.

8. Next to one of the entries, click **Week Day** and choose the day you would like to apply the schedule. In the **Start Time (hh:mm)** field, enter the start time. (*e.g. 05:00)* and in the **End Time (hh:mm)** field, enter the end time. (*e.g.15:00).*

Time Range: 00:00 (12:00AM) - 23:59 (11:59PM)

Note: *Under Week Day, you can choose every day to apply the schedule to every day of the week.*



9. To save changes, click **Apply**.

10. Apply the schedule to one of the applicable features (Wireless, Virtual Server, Packet Filters, or QoS) in the drop-down list option **Use Rule#**.

Using VLANs

Advanced > VLAN

You may want set up VLANs (Virtual Local Area Networks) to separate your network into groups in order to isolate/restrict network traffic, reduce the congestion of traffic in one large network, or expand the physical boundaries of one local LAN network. The primary applications of VLAN and this device would be IPTV applications where ISP can bridge the WAN and one or more LAN ports together to improve IPTV service compatibility and performance from the ISP or separating wireless network access based on SSID and assigned VLAN mapping.

Note: *This device does not support Inter-VLAN Layer 3 routing (does not support multiple IP interfaces). This device only supports Layer 2 based VLAN where traffic can be forwarded based on PVID (Port VLAN ID) and VID (VLAN ID) tags or identifiers. You would require an additional network router or Layer 3 device that supports inter-VLAN routing.*

Note: *Configuring this feature assumes that you have some general networking knowledge.*

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced**, and click on **VLAN.**

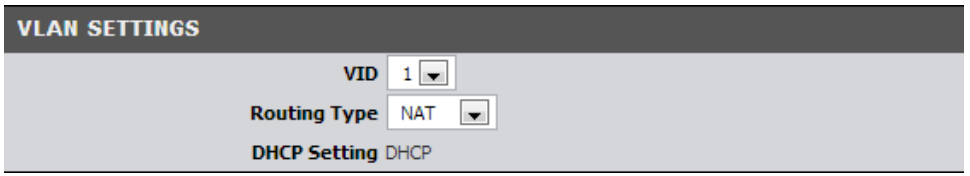
3. Under **VID** columns, enter the VID settings. *(Range: 1~4094)*

Note: *The default VID is 1 which is the primary LAN IP interface setting. Initially, all ports and SSIDs are assigned VID 1 which puts all interfaces in the same LAN network. It strongly recommended to keep at least one wired LAN port in VID 1 for management purposes. If VID 1 is removed, the router management page will no longer be accessible through the LAN IP address.*

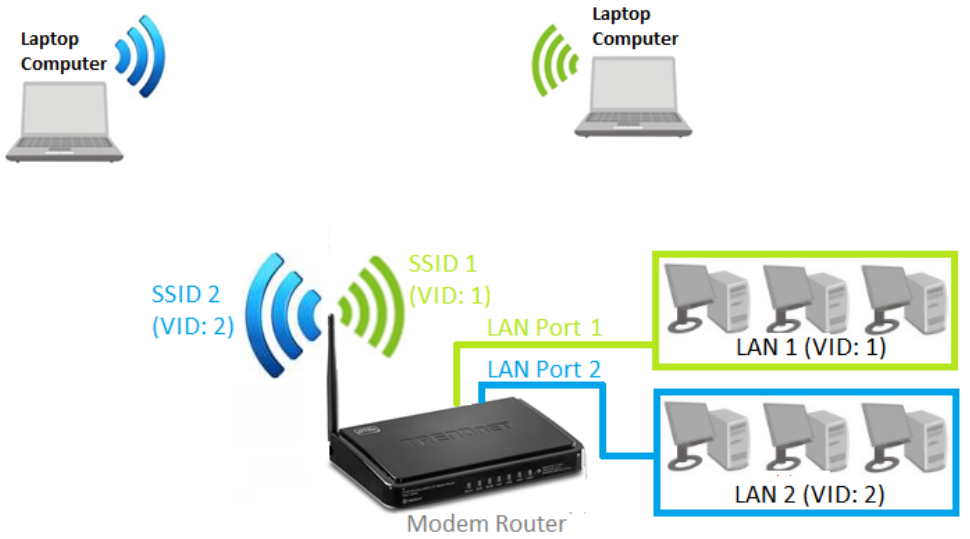
4. Check the **Tx TAG** options for the selected interfaces to add the VID tag information to incoming and outgoing traffic.

5. To save changes, click **Apply**.

Note: *In addition, the WAN VLAN interface settings can be configured by clicking* ***WAN VLAN Settings*** *button at the bottom of the page.*



Below is an example diagram of two separate networks created using 2 VLANs assigned to each SSID and LAN port 1 and 2 communicating independently.

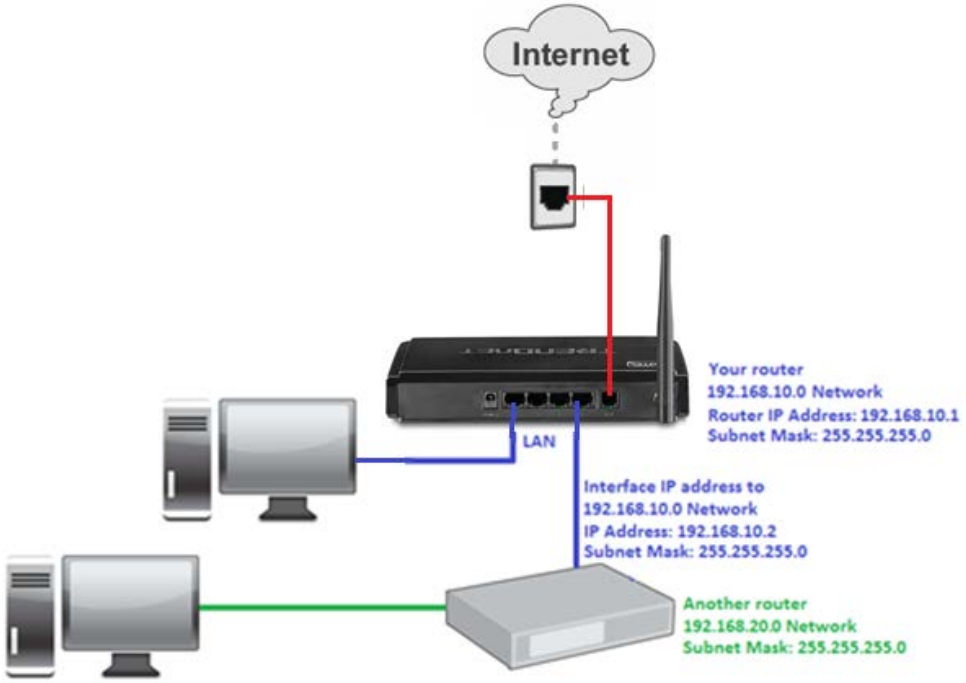


Add static routes to your router

Advanced > Static Route

You may want set up your router to route computers or devices on your network to other local networks through other routers. Generally, different networks can be determined by the IP addressing assigned to those networks. Generally speaking and for the case of an example, your network may have 192.168.10.x IP addressing and another network may have 192.168.20.x IP addressing and because the IP addressing of these two networks are different, they are separate networks. In order to communicate between the two separate networks, static routing needs to be configured. Below is an example diagram where routing is needed for devices and computers on your network to access the other network.

Note: *Configuring this feature assumes that you have some general networking knowledge.*



1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Advanced**, and click on **Static Route**.

3. Next to **Static Routing**, check the **Enable** option to enable static routing.

3. Review the static route settings.

- **Destination** – Enter the IP network address of the destination network for the route.
  (e.g. *192.168.20.0*)
- **Subnet Mask** – Enter the subnet mask of the destination network for the route.
  (e.g. *255.255.255.0*)
- **Gateway** – Enter the gateway to the destination network for the route.
  (e.g. *192.168.10.2*)
- **Hop –** Enter the number of hops (routers) required to reach the destination network. The hop count range that can be specified is 0-99.
- **Enable** – Check the option to enable the route and uncheck the option to disable the route.

4. To save changes, click **Apply**.

Enable dynamic routing on your router

Advanced > RIP Settings

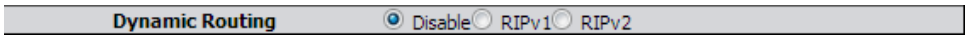
You may want to setup your router to route computers or devices on your network to other local networks through other routers. If other routers support dynamic routing such as RIP (Routing Information Protocol), you can enable this feature on your router to automatically learn the required routes to reach those networks. It is required that the same dynamic routing protocol and version is also enabled on the other routers in order your router and the other routers to exchange information about the network.

Note: *Configuring this feature assumes that you have some general networking knowledge.*

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Configuration** at the top of the page, click on **Advanced Setting**, and click on **Routing.**

3. Select the appropriate dynamic routing protocol and version communicate with other routers.



- **Disabled** – Disable sending and receiving or exchange of routing information dynamically between your router and other routers.
- **RIPv1** - Enables sending and receiving or exchange of routing information dynamically between your router and other routers to build routes to your network and other networks using the RIP version 1 protocol.
- **RIPv2** – Enables sending and receiving routing information dynamically between your router and other routers to build routes to your network and other networks using the RIP version 2 protocol**RIP 1** - Receive routing information from other routers using the RIP version 1 protocol.

4. To save changes, click **Apply**.

Using WoL (Wake on LAN) on your router

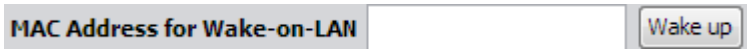
Maintenance > Ping

You may want to use your router to power on devices remotely using WoL (Wake on LAN). In order for this feature to work, the computer or device should support WoL and this feature should be enabled and configured properly. Please refer to your computer or device User's Guide/Manual for instructions on using WoL.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance**, and click on **Ping.**

3. Next to **MAC Address for Wake-on-LAN**, enter the MAC address of the device with WoL enabled and configured. *(e.g. 00:11:22:AA:BB:CC)* click **Wake up** to send WoL messages to the MAC Address specified.



4. To save changes, click **Apply**.

Setup IPv6 on your router

Setup > IPv6

IPv6 (Internet Protocol Version 6) was developed to be the successor protocol to well known and widely used protocol IPv4 (Internet Protocol Version 4) for network addressing. The new addressing protocol is designed to minimize processing overhead by routers, significantly increase the available IP address space, provide integrated security, and open the possibility of more extensions and options. ISP have already transition their networks to accommodate IPv6 and are starting to offer IPv6 services.

Note: *The router offers native IPv6 as well as IPv4 to IPv6 transitional connection types.*

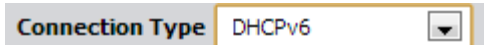
1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Setup**, and click on **IPv6**.

3. Next to **IPv6**, select the **Enable** option to enable IPv6.

WAN IPv6 Address Settings

4. Click the **Connection Type** drop-down list to select the connection provided by your ISP (Internet Service Provider).



5. Complete the fields required by your ISP and the optional settings only if required.

6. Click **Apply** at the bottom of the page to save the changes.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

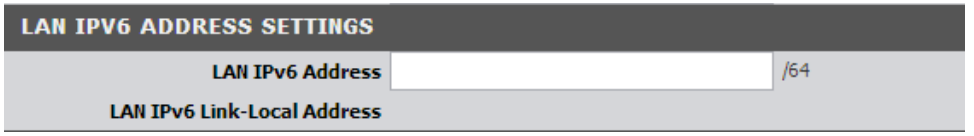
Note: *If you are unsure which Internet connection type you are using, please contact your ISP (Internet Service Provider).*

7. If prompted to reboot in order to apply changes, click OK or Continue to reboot the device.

Note: *When configuring PPPoE, the IPv6 Dual Stack option is available under Setup > Internet Setup in the PPPoE connection settings.*

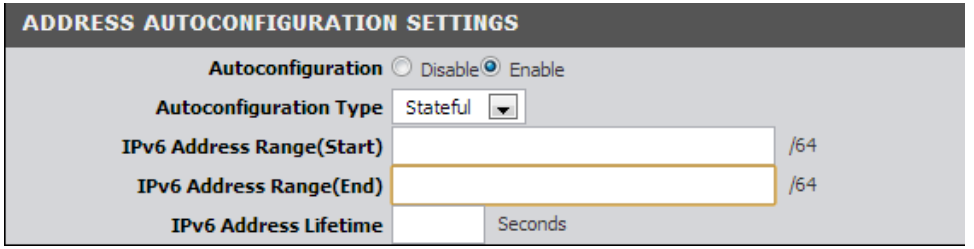
LAN IPv6 Address Settings

8. Enter your LAN IPv6 address.



- **LAN IPv6 Address** – Enter the router LAN IPv6 address.

9. Configure your IPv6 Autoconfiguration (LAN IPv6 DHCP server) settings.



10. Click **Apply** at the bottom of the page to save the changes.

Note: *If you would like to discard the changes, click* ***Undo*** *before you click* ***Apply****.*

Router Maintenance & Monitoring

Reset your router to factory defaults

Maintenance > Configuration Backup/Restore

You may want to reset your router to factory defaults if you are encountering difficulties with your router and have attempted all other troubleshooting. Before you reset your router to defaults, if possible, you should backup your router configuration first, see "Backup and restore your router configuration settings" on page 54.

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

- **Reset Button** – Located on the front panel of your router, see "Product Hardware Features" on page 2 . Use this method if you are encountering difficulties with accessing your router management page.

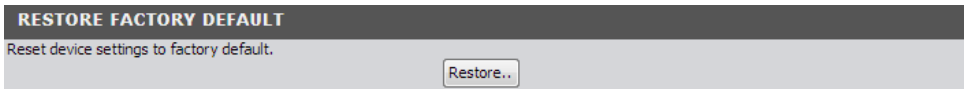
  OR

- **Router Management Page**

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance,** and click on **Configuration Backup/Restore**.

3. Under **Restore Factory Default**, click **Restore**. When prompted to confirm this action, click **OK**.



Router Default Settings

Administrator User Name	admin
Administrator Password	admin
Router IP Address	192.168.10.1
Router Subnet Mask	255.255.255.0
DHCP Server IP Range	192.168.10.101-192.168.199
Wireless	Enabled
SSID (wireless network name)	TRENDnet718
Wireless Security	Disabled
802.11 Mode	2.4GHz 802.11b/g/n mixed mode
Channel	Auto Channel

Backup and restore your router configuration settings

Maintenance > Configuration Backup/Restore

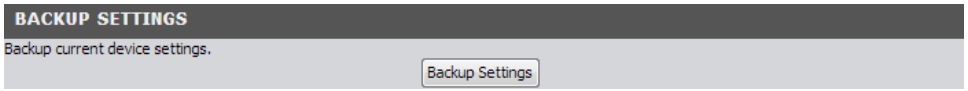
You may have added many customized settings to your router and in the case that you need to reset your router to default, all your customized settings would be lost and would require you to manually reconfigure all of your router settings instead of simply restoring from a backed up router configuration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

To backup your router configuration:

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance,** and click on **Configuration Backup/Restore**.

3. Click **Backup Settings**.



3. 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)*

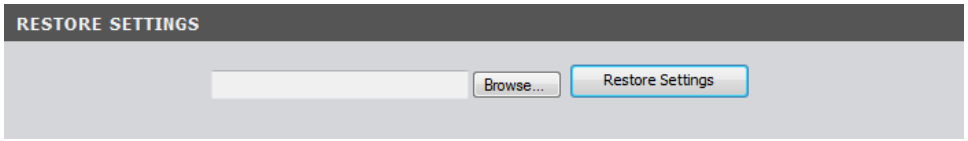
4. Save the configuration file to location on your computer.

To restore your router configuration:

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance,** and click on **Configuration Backup/Restore**.

3. Under **Restore Settings**, next to **Load 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 and click **Restore Settings**. (Default Filename: *config.bin*). If prompted, click **Yes** or **OK**.

6. Wait for the router to restore settings.

Upgrade your router firmware

Maintenance > FW Upgrade

TRENDnet may periodically release firmware upgrades that may add features or fix problems associated with your TRENDnet router 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. http://www.trendnet.com/downloads/

In addition, it is also important to verify if the latest firmware version is newer than the one your router is currently running. To identify the firmware that is currently loaded on your router, log in to the router, and check the version located at the top right of the router management page. 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.

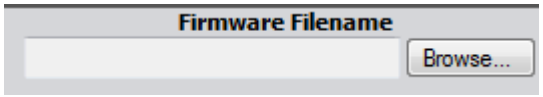
1. Log into your router management page (see "Access your router management page" on page 35).

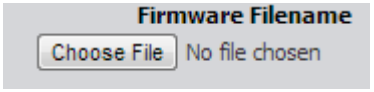
Note: *You can check your router's current firmware version at the top right of the page.*

2. Click on **Maintenance**, and click on **FW Upgrade.**

Note: *This page also displays the current firmware version of your router.*

3. Depending on your web browser, next to **Upgrade Firmware**, click **Browse** or **Choose File**.





5. Navigate to the folder on your computer where the unzipped firmware file (*.bin*) is located and select it.

6. Click **Upgrade** to start the firmware upgrade process. If prompted, click **yes** or **OK**.

Restart your router

Maintenance > Reboot Device

You may want to restart your router 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 router.

- **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 2 .

  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.

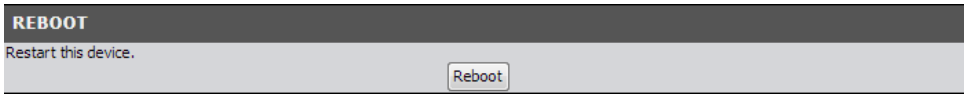
  OR

- **Router Management Page** – This is also known as a soft reboot or restart.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance,** and click on **Reboot Device**. If prompted, click **yes** or **OK**.

3. Click **Reboot** to restart the router. If prompted, click **yes** or **OK**.



Check connectivity using the router management page

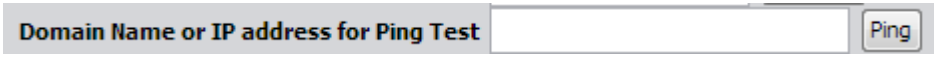
Maintenance > Ping

For troubleshooting purposes, you may want to check your router connectivity using the ping (also known as a network connectivity test) test tool on your router management page.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance,** and click on **Ping**.

3. Next to **Domain Name or IP address for Ping Test**, enter in the IP address (e.g. *192.168.10.101*) or host name (e.g. www.*trendnet.com*) to test and click **Ping**.

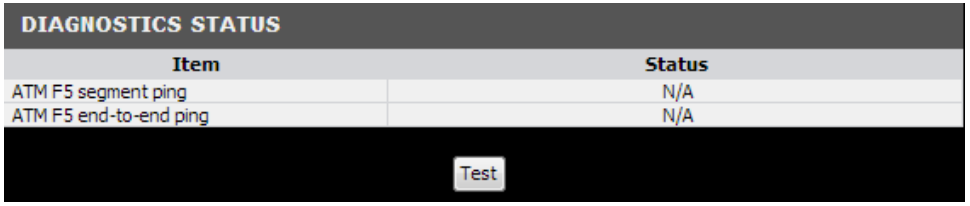


4. You will receive a *success* or *fail* result message of the address you entered providing a basic indicating of the router's connectivity to the Internet or devices that are connected to your network.

5. You will receive a *success* or *fail* result message of the address you entered providing a basic indicating of the router's connectivity to the Internet or devices that are connected to your network. Click **Back** to bring you back to the **Ping Test** page.

6. Click **Apply** at the bottom of the page to save the domain name or IP address.

Note: *In addition, you can run an ADSL diagnostic connectivity test under Maintenance > Diagnostics.*



Check the router system information

Status

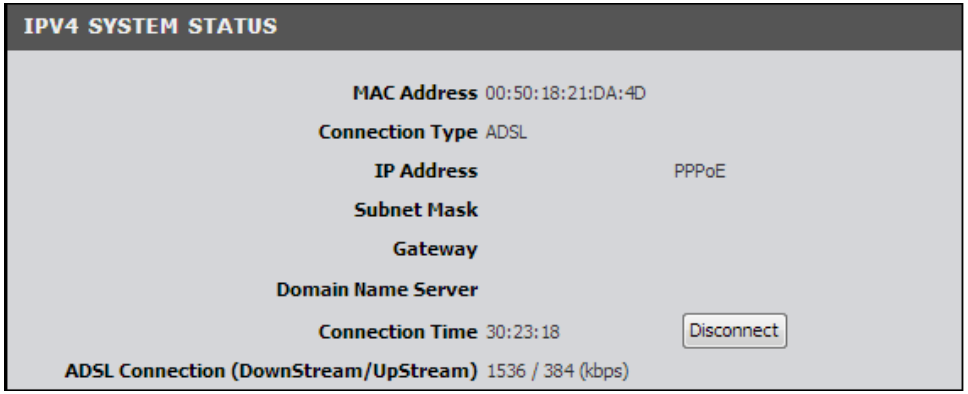
You may want to check the system information of your router such as WAN (Internet) connectivity, wireless and wired network settings, and router MAC address information.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Status**.

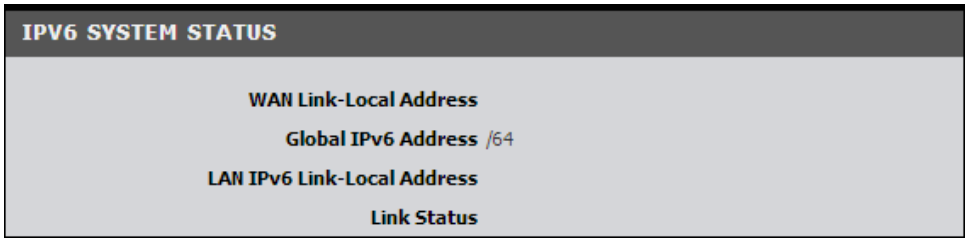
3. Review the device information.

IPv4 System Status WAN (Internet) Information



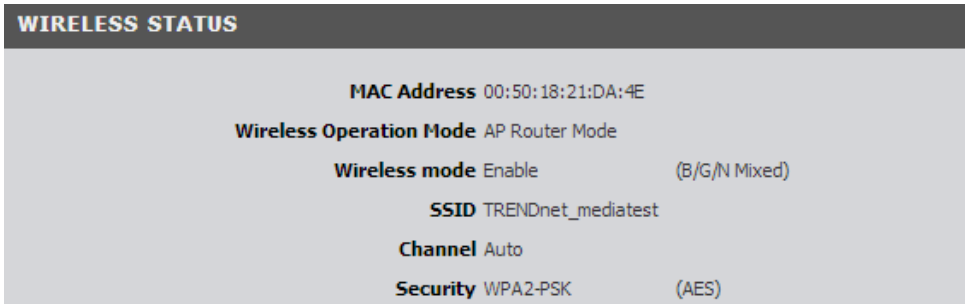
- **MAC Address** – The current MAC address used by your router's ADSL WAN port or interface configuration.
- **Connection Type** – The current connection type configured ADSL or Ethernet.
- **IP Address** – The current IPv4 address assigned to your router WAN port or interface configuration.
- **Subnet Mask** - The current IPv4 subnet mask assigned to your router WAN port or interface configuration.
- **Gateway** – The current gateway IPv4 address assigned to your router WAN port or interface configuration.
- **Domain Name Server** – The current DNS address(es) assigned to your router port or interface configuration.
- **Connection Time** – Displays the current WAN (Internet) connection status and the duration that the connection has been established. When using DHCP Client (or Dynamic IP address) Internet connection type, you will provide the option to Release and Renew your IP address settings. Renew Release Other Internet connection types such as PPPoE will provide the option to Connect and Disconnect. Connect Disconnect

IPv6 System Status WAN (Internet) Information



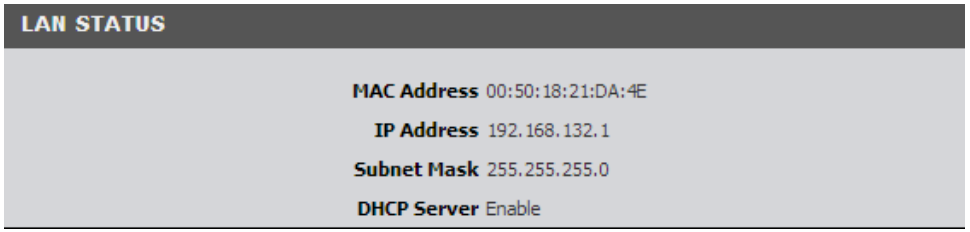
- **WAN Link-Local Address** – When IPv6 is enabled, displays the current WAN Link Local Address used by your router's ADSL WAN port or interface configuration.
- **Global IPv6 Address** – When IPv6 is enabled, displays the current Global IPv6 Address used by your router.
- **LAN IPv6 Link-Local Address** – When IPv6 is enabled, displays the current LAN IPv6 Link-Local Address used by your router's LAN port or interface configuration.
- **Link Status** – When IPv6 is enabled, displays the IPv6 link status.

Wireless Status Information



- **MAC Address** – The current MAC address of your router's wireless or interface configuration.
- **Wireless Operation Mode –** Displays the current wireless operation mode configuration of your router.
- **Wireless mode –** Displays if the router wireless interface is currently enabled or disabled.
- **SSID** – Displays the current wireless network name assigned to your router.
- **Channel** – Displays the current wireless channel your router is operating.
- **Security** – Displays the current wireless security configured on your router.

Wired LAN Status Information



- **MAC Address** – The current MAC address of your router's wired LAN or interface configuration.
- **IP Address** - Displays your router's current IP address.
- **Subnet Mask** – Displays your router's current subnet mask.
- **DHCP Server** - Display your router's DHCP server status, enabled or disabled.

Packet Statistics Information

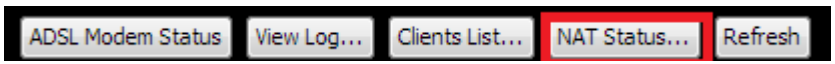
The table displays the amount of octets, unicast, and multicast packets sent and received on your router's WAN (Internet), LAN, and WLAN interfaces.

Clicking **Refresh** at the bottom of the page will refresh the information on the status page.

Clicking **View Log** will bring you to log page (Maintenance > Syslog > Web Log). See the "View your router log" section.

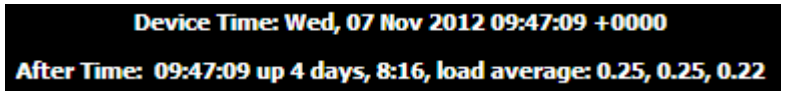
Clicking **Clients List** will bring you to the DHCP Clients List (Setup > Local Network > Clients List). See "Set up the DHCP server on you router" section.

The router will also display the current TCP/UDP sessions. To view the current sessions, click **NAT Status**.



The router will display details ADSL Modem Status information. To view the modem status information, click **ADSL Modem Status**.

The router system time, uptime, and CPU/Memory load info are displayed the bottom.



View your router log

Maintenance > Syslog > Web Log

Your router log can be used to obtain activity information on the functionality of your router or for troubleshooting purposes.

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance**, and click on **Web Log**.

3. Review the device log information.

- **Time** – Displays the time of the log entry. If the time is inaccurate, make sure to set the router date and time correctly. (See "Set your router date and time" on page 36)
- **Log** – Displays the log message.

Time	Log
Nov 7 09:50:06	pppd[22106]: idle.xmit_idle: 0, idle.recv_idle: 0
Nov 7 10:00:06	pppd[22106]: idle.xmit_idle: 0, idle.recv_idle: 0

Page: 1/1 (Log Number: 2)

Router Log Navigation

- **First Page** – Displays the first page of the log.
- **Last Page** – Displays the last page of the log.
- **Previous Page** – Display the log page previous to the current. The **Page: 1/1** will display the current page.
- **Next Page** – Displays the log page next to the current.
- **Clear Log** - Clears all logging
- **Refresh** - The **Page: 1/1** will display the current page.
- **Download –** Download the log file to a local text file on your local hard drive.

Configure your router log

Maintenance > Syslog

You may want send your router log to your e-mail address or to an external log server (also known as Syslog server) so you can check it periodically while away from home. You may also want to only see specific categories of logging.

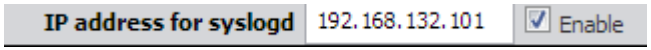
Send router logs to an external log server

Maintenance > Syslog > Syslogd

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance**, click on **Syslogd**.

3. Next to **Syslog Server**, enter the IP address of the external log server to send router logging and check **Enable**.



4. To save changes, click **Apply**.

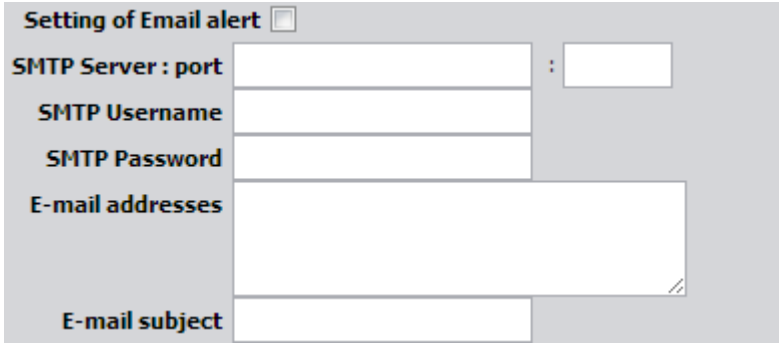
Send router logs to your e-mail address

Maintenance > Syslog > Email Alert

1. Log into your router management page (see "Access your router management page" on page 35).

2. Click on **Maintenance**, click on **Email Alert**.

3. Review the e-mail log settings.



- **Setting of Email alert** – Check the option to enable email alert.
- **SMTP Server : port** – Enter the IP address (e.g. *10.10.10.10*) or domain name (e.g. *mail.trendnet.com*) of your e-mail server. Enter the port used by your e-mail service. (e.g. *Default SMTP Server Port: 25*)
- **SMTP Username** – Enter your account user name for your e-mail service.
- **SMTP Password** – Enter your password for your e-mail service.
- **E-mail addresses** – Enter the e-mail addresses to send the log file. (e.g. *user1@trendnet.com,user2@trendnet.com*)
- **E-mail subject –** Enter the email subject to briefly describe the purpose of the email. *(e.g. router log file)*

4. To save changes, click **Apply**.

5. Click **Email Log Now** to send an e-mail of the current router log using your email alert settings.

Enable SNMP on your router

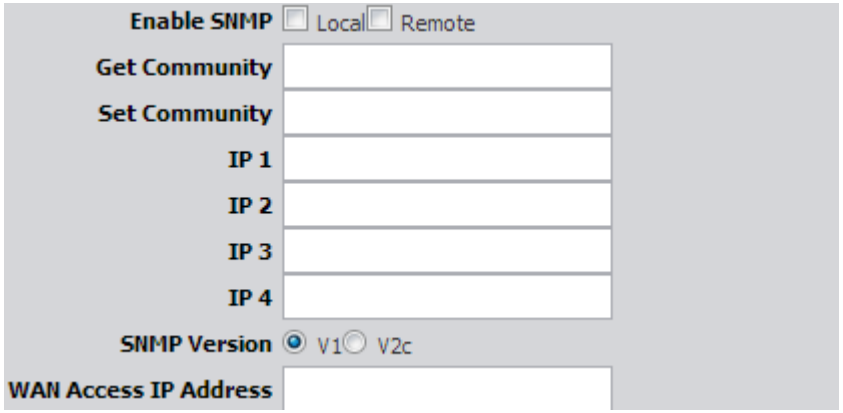
Advanced > SNMP

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 router management page (see "Access your router management page" on page 35).

2. Click on **Advanced** and click on **SNMP**.

3. Review the options for SNMP.



- **Enable SNMP** – Check the **Local** option to allow SNMP access on the router wired LAN and wireless interfaces. Check the **Remote** option to allow SNMP access on the router WAN (Internet) interface.
- **Get Community** – Enter the community name to match the settings with the external SNMP server. This community will have SNMP read access only.
- **Set Community** – Enter the community name to match the settings with the external SNMP server. This community will have SNMP write access.
- **IP 1-4** – Enter up to four IP addresses of external SNMP servers. (e.g. 192.168.10.250)
- **SNMP Version** – Select the correct SNMP version to match the SNMP version of your external SNMP server(s), **V1** or **V2c**.
- **WAN Access IP Address** – You can specify a single IP address from the Internet to allow to connect your router using SNMP. (optional)

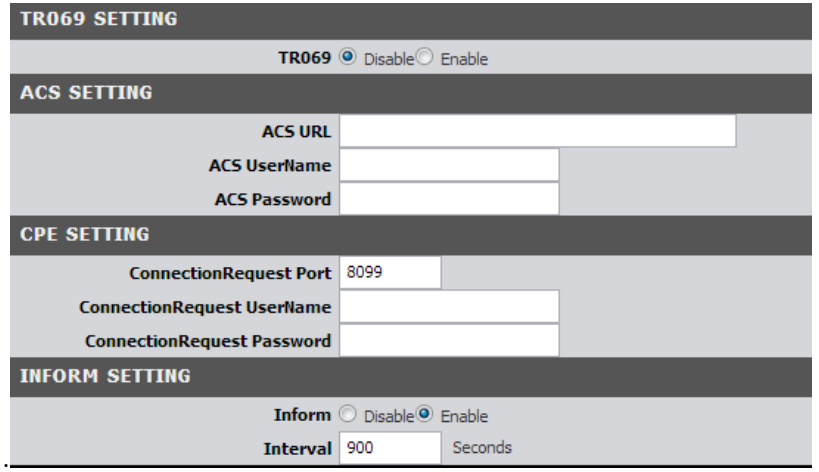
  Note: *When allowing Remote SNMP access, leaving this setting blank will allow access from any IP address from the Internet. It is recommended to specify an IP address if allowing Remote SNMP access.*

Enable TR-069 on your router

Maintenance > TR069 Setting

TR-069 is a network management protocol used to remote manage multiple network devices on a network typically by ISPs (Internet Service Providers). TR069 usually used in conjunction with ACS (Auto Configuration Servers) server managed by your ISP.

1. Log into your router management page (see "Access your router management page" on page 35).
2. Click on **Maintenance** and click on **TR069 Setting**.
3. Please consult your ISP for the required TR069 settings for remote management.



Router Management Page Structure

Setup Wizard

- Change Login Password
- Setup ADSL Internet Settings
- Auto Detect VPI/VCI & Encapsulation settings
- Setup Basic Wireless Settings
- Setup Wireless Security

Setup

- Internet Setup
- Wireless Settings
  - Wireless Operation Modes
  - Wireless Security
- Local Settings
- Time and Date
- IPv6

Advanced

- Advanced Wireless
- RIP Settings
- NAT
  - Virtual Server
  - Special Application
- Firewall
  - MAC Filter
  - URL Filter
  - Keyword Blocking
  - DMZ
  - Others
- Packet Filter
- Static Route
- Dynamic DNS
- VLAN
- Quality of Service (QoS)
- UPnP
- SNMP

Maintenance

- Password
- Remote Management
- TR069 Setting
- Syslog
  - System Information
  - Web Log (Internal)
  - Syslog (External)
  - Email Alert
- Time Schedule
- Firmware (FW) Upgrade
- Configuration Backup/Restore
  - Reset to Factory Default
- Ping
  - Ping Test Tool
  - Wake-on-LAN (WoL)
- Diagnostics (ADSL Connectivity Test)
- Reboot Device

Status

- IPv4 System Status
- IPv6 System Status
- Wireless Status
- LAN Status
- Statistics Information
- ADSL Modem Status
- NAT Sessions

Logout

- Logout of router management page

Technical Specifications

Hardware	
Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.1Q, IEEE 802.1p, IEEE 802.11b, IEEE 802.11g, based on IEEE 802.11n technology Complies with ADSL standards: -ANSI T1.413 Issue2, G.992.1 (G.dmt, Annex A), G.992.2 (G.lite) Complies with ADSL2 standard: G.992.3 (G.dmt.bis, Annex L) Complies with ADSL2+ standard: G.992.5 (G.dmt.bis+, Annex M)
WAN (ADSL Line Interface)	1 x RJ-11 port (telephone)
LAN	4 x 10/100 Mbps Auto-MDIX RJ-45 ports (option to convert port 1 to WAN port)
Reset / WPS / WLAN On & Off Button	Reset: Reset to factory defaults (Hold for 15 sec.) WPS: Activates Wi-Fi Protected Setup (WPS) (Hold for 3 sec.) WLAN On / Off: Enables or disables wireless radio (Hold for 10 sec.)
ATM & PPP Protocols / Modes	VC and LLC multiplexing (Up to 8 PVCs), Ethernet over ATM (RFC 1483 Bridged) with NAT, RFC 1483 bridged, IP over ATM (RFC 1483 Routed), PPP over ATM (RFC2364), PPP over Ethernet (RFC2516), ATM Traffic QoS (UBR, CBR, VBR, GFR)
Firewall	NAT, SPI, DMZ host, virtual servers, MAC / IP filters, URL / keyword filters, deny WAN ping requests, and WAN stealth mode
Schedules	Define schedules for wireless, virtual server, packet filters, and QoS
Network Protocols/Features	IGMP v1/2/3 proxy and snooping , Static and dynamic routing RIP v1/2, UPnP, DHCP (Dynamic Host Configuration Protocol) server/relay, Dynamic DNS (DynDNS.com, No-IP.com, TZO.com, and dhs.org), NTP (Network Time Protocol), PPTP / L2TP / IPsec VPN pass through, IPv6: Static, DHCPv6, PPPoE, 6 to 4, and IPv6 in IPv4 Tunnel, Stateful / Stateless auto-configuration
Quality of Service	Smart-QoS (simple) or manually defined QoS ToS / CoS (Type of service / Class of service) based on IP, TCP/UDP port, MAC, DSCP (Differentiated Services Code Point), and WMM
Management / Monitoring	Local / remote configuration, upgrade firmware, backup / restore configuration via web browser, TR-069 remote management, DoS (Denial of Service) detection, internal system log, Syslog, email alert, SNMP v1/v2c, ping test tool, and Wake-on-LAN (WoL), NAT Status log, Client List log, Web log, Modem log
LED Indicators	Status, ADSL, WLAN, LAN1~LAN4
Power Adapter	Input: 100~240V AC, 50~60Hz, 0.2A
	Output: 5V DC, 1.2A external power adapter
Power Consumption	5 watts (max)
Dimension (L x W x H)	189 x 118 x 33 mm (7.4 x 4.6 x 1.3 in.)
Weight	221.1 g (7.8 oz)
Temperature	Operation: 0° ~ 40°C (32°F ~ 104°F) Storage: -10° ~ 70°C (14°F ~ 158°F)
Humidity	Max. 95% (non-condensing)
Certifications	CE, FCC

Wireless	
Frequency	2.4 ~2.483GHz band
Modulation	DBPSK / DQPSK / CCK / OFDM (BPSK / QPSK / 16-QAM / 64-QAM)
Modes	Access Point Router, Access Point Only, WDS Hybrid, WDS Only, Universal Repeater
SSID	Broadcast up to 2 SSIDs each with different wireless encryption with support for VLAN mapping
Antenna	1 x 2 dBi detachable dipole antenna
Data Rate	802.11b: up to 11 Mbps 802.11g: up to 54 Mbps 802.11n: up to 150 Mbps
Security	WEP (HEX/ASCII): 64/128-bit WPA (AES/TKIP): WPA / WPA2-RADIUS, WPA-PSK / WPA2-PSK
Output Power	802.11b: 17 dBm (typical) 802.11g: 14 dBm (typical) 802.11n: 14 dBm (typical)
Receiving Sensitivity	802.11b: -91 dBm (typical) @ 11 Mbps 802.11g: -91 dBm (typical) @ 54 Mbps 802.11n: -87 dBm (typical) @ 150 Mbps
Channels	1~ 11 (FCC), 1~13 (ETSI)

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

Troubleshooting

Q: I 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 router management page?
Answer:
1. Check your hardware settings again. See "Router Installation" on page 2.
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 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 router. What should I do?
Answer:
1. Click on Setup 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 ADSL modem from your ISP (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 router. Unplug the power to the modem router. Wait 30 seconds, and then reconnect the power to the modem router. Wait for the modem router to fully boot up, then try to re-access the Internet .
3. Contact your ISP and verify all the information that you have in regards to your Internet connection settings is correct.

Q: I cannot connect wirelessly to the router. What should I do?
Answer:
1. Double check that the WLAN light on the router 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 19 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

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 /alt***o 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 ***ipconfiggetifaddr<en0 or en1>***to display the wired or wireless IP address settings.

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

Graphical Method

MAC OS 10.6/10.5

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., Network, 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

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

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 Network**.
3. On the **Network** tab, the **Network ID** is your MAC Address.

In MAC OS 10.5/10.6,

1. **Apple Menu > System Preferences > Network**
2. Select **Network** from the list on the left.
3. Click the **Advanced** button.
3. On the **Network** tab, the **Network 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

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

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

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

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

Windows Vista

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

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

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

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

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

Windows XP

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

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

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

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

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC 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.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

RoHS

This product is RoHS compliant.

Europe – EU Declaration of Conformity

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

EN60950-1: 2006 + A11 : 2009 + A1 : 2010 + A12 : 2011

Safety of Information Technology Equipment

EN 50385: 2002

Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110MHz - 40 GHz) - General public

EN 300 328 V1.7.1 (2006-10)

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

EN 301 489-1 V1.9.2 (2011-09)

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

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

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

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

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

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

cs Česky [Czech]	TRENDnet tímto prohlašuje, že tento TEW-718BRM / TEW-718BRM5 je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
da Dansk [Danish]	Undertegnede TRENDnet erklærer herved, at følgende udstyr TEW-718BRM / TEW-718BRM5 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
de Deutsch [German]	Hiermit erklärt TRENDnet, dass sich das Gerät TEW-718BRM / TEW-718BRM5 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
et Eesti [Estonian]	Käesolevaga kinnitab TRENDnet seadme TEW-718BRM / TEW-718BRM5 vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
en English	Hereby, TRENDnet, declares that this TEW-718BRM / TEW-718BRM5 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
es Español [Spanish]	Por medio de la presente TRENDnet declara que el TEW-718BRM / TEW-718BRM5 cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
el Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑTRENDnet ΔΗΛΩΝΕΙ ΟΤΙ TEW-718BRM / TEW-718BRM5ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
fr Français [French]	Par la présente TRENDnet déclare que l'appareil TEW-718BRM / TEW-718BRM5 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
it Italiano[Italian]	Con la presente TRENDnet dichiara che questo TEW-718BRM / TEW-718BRM5 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
lv Latviski [Latvian]	AršoTRENDnetdeklarē, ka TEW-718BRM / TEW-718BRM5 atbilstDirektīvas 1999/5/EK būtiskajāmprasībām un citiemar to saistītajiemnoteikumiem.
lt Lietuvių [Lithuanian]	Šiuo TRENDnet deklaruoja, kad šis TEW-718BRM / TEW-718BRM5 atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
nl Nederlands [Dutch]	Hierbij verklaart TRENDnet dat het toestel TEW-718BRM / TEW-718BRM5 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
mt Malti [Maltese]	Hawnhekk, TRENDnet, jiddikjara li dan TEW-718BRM / TEW-718BRM5 jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
hu Magyar [Hungarian]	Alulírott, TRENDnet nyilatkozom, hogy a TEW-718BRM / TEW-718BRM5 megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
pl Polski [Polish]	Niniejszym TRENDnet oświadcza, że TEW-718BRM / TEW-718BRM5 jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
pt Português [Portuguese]	TRENDnet declara que este TEW-718BRM / TEW-718BRM5 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
sl Slovensko [Slovenian]	TRENDnet izjavlja, da je ta TEW-718BRM / TEW-718BRM5 v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
sk Slovensky [Slovak]	TRENDnettýmtovyhlasuje, že TEW-718BRM / TEW-718BRM5spĺňazákladnépožiadavky a všetkypríslušnéustanoveniaSmernice 1999/5/ES.
fi Suomi [Finnish]	TRENDnet vakuuttaa täten että TEW-718BRM / TEW-718BRM5 tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
sv Svenska [Swedish]	Härmed intygar TRENDnet att denna TEW-718BRM / TEW-718BRM5 står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Limited Warranty

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

TEW-718BRM – 3 Years Warranty

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

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

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