TRENDnet®

User's Guide

TEW-673GRU

1.01

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 when the equipment is operated in a commercial environment. 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.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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.

For operation within 5.15 ~ 5.25GHz frequency range, it is restricted to indoor environment.

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

IMPORTANT NOTE:

Radiation Exposure Statement:

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

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

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.

Europe – EU Declaration of Conformity

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

EN60950-1: 2006

Safety of Information Technology Equipment

EN 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 301 893 V1.4.1: (2007-07)

Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive

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

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

EN 301 489-17 V1.3.2 (2008-04)

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.

CE0560!

cs Česky [Czech]	*TRENDware* tímto prohlašuje, že tento *TEW-673GRU* je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
da Dansk [Danish]	Undertegnede *TRENDware* erklærer herved, at følgende udstyr *TEW-673GRU* overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
de Deutsch [German]	Hiermit erklärt *TRENDware*, dass sich das Gerät *TEW-673GRU* in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
et Eesti [Estonian]	Käesolevaga kinnitab *TRENDware* seadme *TEW-673GRU* vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
en English	Hereby, *TRENDware* declares that this *TEW-673GRU* is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
es Español [Spanish]	Por medio de la presente *TRENDware* declara que el *TEW-673GRU* cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
el Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ *TRENDware* ΔΗΛΩΝΕΙ ΟΤΙ *TEW-673GRU* ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
fr Français [French]	Par la présente *TRENDware* déclare que l'appareil *TEW-673GRU* est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
it Italiano [Italian]	Con la presente *TRENDware* dichiara che questo *TEW-673GRU* è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo *TRENDware* deklarē, ka *TEW-673GRU* atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo *TRENDware* deklaruoja, kad šis *TEW-673GRU]* atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
nl Nederlands [Dutch]	Hierbij verklaart *TRENDware* dat het toestel *TEW-673GRU* in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
mt Malti [Maltese]	Hawnhekk, *TRENDware*, jiddikjara li dan *TEW-673GRU* jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
hu Magyar [Hungarian]	Alulírott, *TRENDware* nyilatkozom, hogy a *TEW-673GRU* megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
pl Polski [Polish]	Niniejszym *TRENDware* oświadcza, że *TEW-673GRU* jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	*TRENDware* declara que este *TEW-673GRU* está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]	*TRENDware* izjavlja, da je ta *TEW-673GRU* v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	*TRENDware* týmto vyhlasuje, že *TEW-673GRU* spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	*TRENDware* vakuuttaa täten että *TEW-673GRU* tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar *TRENDware* att denna *TEW-673GRU* står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

TABLE OF CONTENT

ABOUT THIS GUIDE

Congratulations on your purchase of this 300Mbps Wireless N Dual Band Gigabit Router with USB Port. This integrated access device combines Internet gateway functions with wireless LAN and Fast Ethernet switch. It provides a complete solution for Internet surfing and office resource sharing, and it is easy to configure and operate for every user.

Purpose

This manual discusses how to install the 300Mbps Wireless N Dual Band Gigabit Router with USB Port.

Terms/Usage

In this guide, the term "the WLAN Router" refers to your 300Mbps Wireless N Dual Band Gigabit Router with USB Port.

Overview of this User's Guide

Introduction: Describes the 300Mbps Wireless N Dual Band Gigabit Router with USB Port and its features.

Unpacking and Setup. Helps you get started with the basic installation of the the 300Mbps Wireless N Dual Band Gigabit Router with USB Port.

Identifying External Components: Describes the front panel, rear panel and LED indicators of the IEEE 802.11b/g/n Wireless Home Router.

Connecting the WLAN Router: Tells how you can connect the WLAN Router to your xDSL/Cable Modem.

USB Control Center Utility: Describes ways on how to use the utility for scanning, file sharing and printing.

Technical Specifications: Lists all the technical (general, physical and environmental, performance and Routers settings) specifications of the WLAN Router.

Note: Run the CD and follow the steps in the Quick Installation Guide first to setup your router. If you still have problems after doing so then proceed to the following paragraphs to install the router with web-based configuration.

INTRODUCTION

300Mbps Dual Band Wireless N Gigabit Router

The 300Mbps Dual Band Wireless N Gigabit Router (model TEW-673GRU) delivers unsurpassed Dual Band wireless speed, coverage, and reliability with up to 14x the speed and 6x the coverage of a wireless g connection*.

Dual Band technology creates two separate 300Mbps wireless n networks at the same time—one on the 2.4GHz frequency and the other on the less congested 5GHz frequency. A color LCD management interface provides real time performance, security, and device information thereby reducing the need to login to the router.

Share content by connecting USB flash drives, hard drives, or printers directly to two USB ports on the back of the router. Gigabit Ethernet ports offer exceptional wired throughput performance. Multiple Input Multiple Output (MIMO) antenna technology reduces wireless dead spots, advanced wireless encryption protects your digital content, and WMM® Quality of Service (QoS) technology prioritizes gaming, Internet calls, and video streams. Wi-Fi Protected Setup (WPS) connects WPS compliant computers at the touch of a button. Wirelessly stream HD multimedia using the uncongested 5GHz frequency while surfing the Internet using the 2.4GHz frequency.

Applications:

Broadband Internet access:
Several computers can share one high-speed broadband connection through wireless or wired (WLAN, LAN and WAN-Internet).

Resource sharing:
Share resources such as printers, scanners and other peripherals.

File sharing:
Exchange data, messages, and distribute files thus making good use of hard disk space.

Online gaming:
Through the local area network, online gaming and e-commerce services can be easily setup.

Firewall:
A built-in firewall function — for security and anti-hacking systems.

Supported Features:

- Compliant with IEEE 802.11n/g/b/a standards
- Transmits simultaneous 2.4GHz and 5GHz Wireless Local Area Network (WLAN) signals (with separate default SSIDs)
- 4 x 10/100/1000Mbps Auto-MDIX LAN ports
- 1 x 10/100/1000Mbps WAN port (Internet)
- 2 x USB 2.0 ports
- 1 x Wi-Fi Protected Setup (WPS) button
- Color LCD management interface: view device status, local time, network performance, and additional router management options
- Compatible with most popular cable/DSL Internet Service Providers using Dynamic/Static IP, PPPoE and PPTP
- High-speed data rates up to 300Mbps using an IEEE 802.11n connection
- Network a USB flash drive, hard drive, or printer using software utility
- 2 detachable antennas provide high-speed performance and expansive wireless coverage
- Advanced firewall protection with Network Address Translation (NAT) and Stateful Packet Inspection (SPI)
- Access restriction with Internet Access Control; MAC, Protocol, and Domain filtering
- Virtual server and Application Level Gateway (ALG) services for special Internet applications
- Universal Plug and Play (UPnP) for auto discovery and support for device configuration of Internet applications
- Multiple pass-through sessions for popular VPN applications (IPSec, L2TP, and PPTP)
- Advanced QoS support includes: Uplink speed control, IP prioritization and Wi-Fi Multimedia (WMM)
- One touch wireless security setup using the Wi-Fi Protected Setup (WPS) button
- Complete wireless security with WPA/WPA2-RADIUS, WPA-PSK/WPA2-PSK, and WEP
- USB control center utility (designed for storage devices and print servers) works with Windows 7/Vista/2000/XP
- Coverage up to 100 meters (330ft.) indoor and 300meters (980ft) outdoor (depends on the environment

UNPACKING AND SETUP

This chapter provides unpacking and setup information for the IEEE 300Mbps Wireless N Dual Band Gigabit Router with USB Port.

Unpacking

Open the box of the WLAN Router and carefully unpack it. The box should contain the following items:

- TEW-673GRU 300Mbps Wireless N Dual Band Gigabit Router with USB Port
- CD ROM (Utility/User's Guide)
- Multi-Language Quick Installation Guide
- 2 x 3dBi gain dipole antenna
- Power Adapter (12V DC, 2A)
- Cat. 5 Ethernet Cable (1.5m/5ft)

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

Setup

The setup of the WLAN Router can be performed properly using the following methods:

- The power outlet should be within 1.82 meters (6 feet) of the Broadband Router.
- Visually inspect the DC power jack and make sure that it is fully secured to the power adapter.
- Make sure that there is proper heat dissipation and adequate ventilation around the Broadband Router. Do not place heavy objects on the Broadband Router.
- Fix the direction of the antennas. Try to place the Wireless Router in a position that can best cover your wireless network. Normally, the higher you place the antenna, the better the performance will be. The antenna's position enhances the receiving sensitivity.

Wireless Performance Considerations

There are a number of factors that can impact the range of wireless devices.

1. Adjust your wireless devices so that the signal is traveling in a straight path, rather than at an angle. The more material the signal has to pass through the more signal you will lose.
2. 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.
3. 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.
4. 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.
5. 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.
6. Any device operating on the 2.4GHz frequency will cause interference. Devices such as 2.4GHz cordless phones or other wireless remotes operating on the 2.4GHz frequency can potentially drop the wireless signal. Although the phone may not be in use, the base can still transmit wireless signal. Move the phone's base station as far away as possible from your wireless devices.

If you are still experiencing low or no signal consider repositioning the wireless devices or installing additional access points. The use of higher gain antennas may also provide the necessary coverage depending on the environment.

HARDWARE INSTALLATION

Front Panel and Top Panel

The figure below shows the front panel of the 300Mbps Wireless N Dual Band Gigabit Router with USB Port.

Front Panel

POWER LED:
This indicator lights green when the hub is receives power, otherwise it is off.

LCD Screen:
The LED screen displays information regarding the router.

Rear Panel

The figure below shows the rear panel of the 300Mbps Wireless N Dual Band Gigabit Router with USB Port.

Rear Panel

Antenna:

There are two 3dBi gain antennas on the rear panel for wireless connection.

LAN (1-4):

Four 10/100/1000Mbps Auto-MDIX LAN port for connecting 10Mbps, 100Mbps Ethernet or 10000Mbps Gigabit connections.

WAN:

One 10/100/1000Mbps WAN port that connects to the xDSL/Cable modem for Internet connectivity.

USB:

Two USB ports to share either USB storage devices or printers over the network.

POWER:

Plug the power adapter to this power jack

RESET:

Use a pin-shaped item to push to reset this device to factory default settings. It will be a useful tool when the manager forgot the password to login, and needs to restore the device back to default settings.

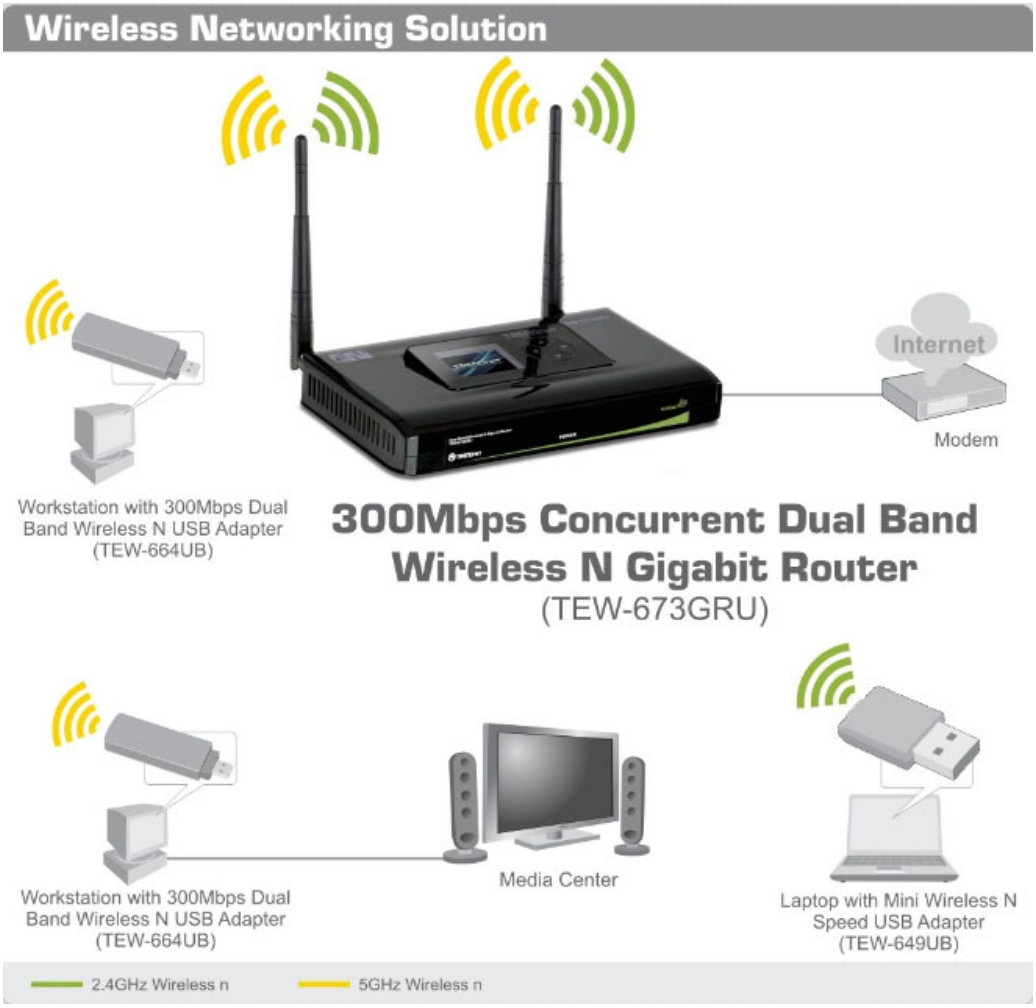
Side Panel

The figure below shows the side panel of the 300Mbps Wireless N Dual Band Gigabit Router with USB Port.

WPS (side panel):
Push this button to execute the Wi-Fi Protected Setup process.

Hardware connections

Connecting the WLAN Router



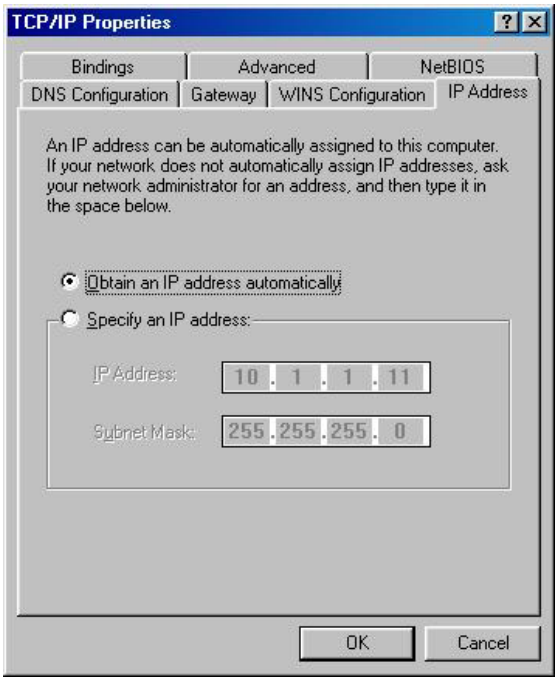
1. Plug in one end of the network cable to the WAN port of the WLAN Router.
2. Plug in the other end of the network cable to the Ethernet port of the xDSL or Cable modem.
3. Use another network cable to connect to the Ethernet card on the computer system; the other end of the cable connects to the LAN port of the WLAN Router. Since the IEEE 300Mbps Wireless N Dual Band Gigabit Router with USB Port has four ports, you can connect up to four computers directly to the unit. Then you do not have to buy a switch to connect these computers since one WLAN Router functions both as a connection-sharing unit and as a switch.

PC NETWORK TCP/IP SETTING

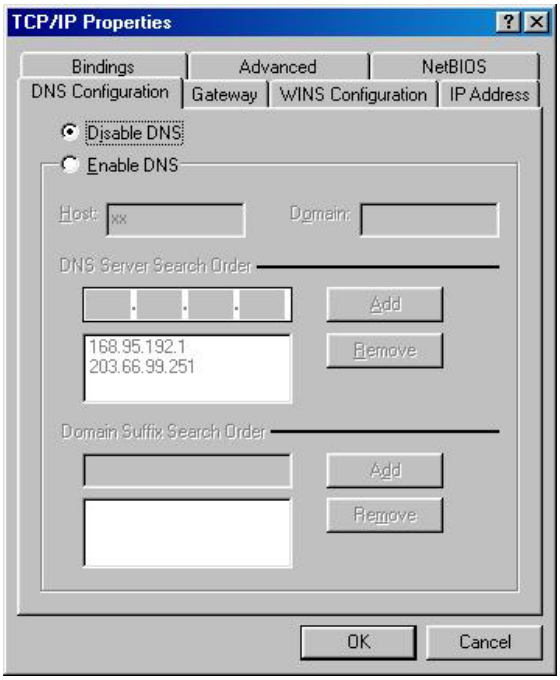
The network TCP/IP settings differ based on the computer's operating system (Win95/98/ME/NT/2000/XP) and are as follows.

Windows 95/98/ME

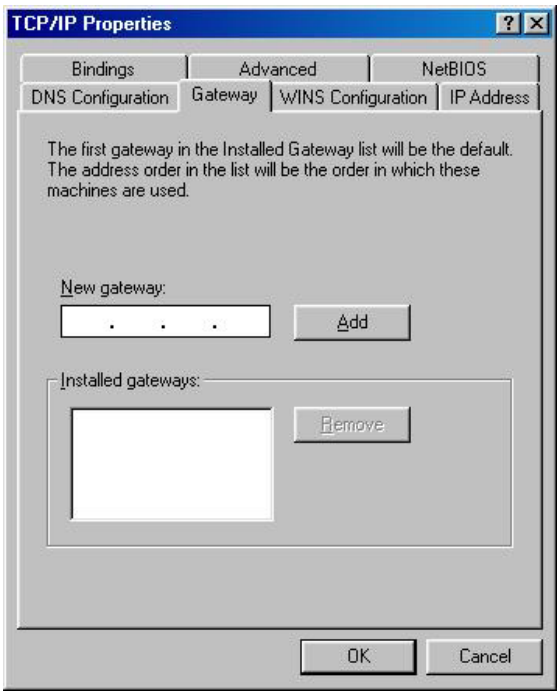
1. Click on the "**Network neighborhood**" icon found on the desktop.
2. Click the right mouse button and a context menu will be show.
3. Select "**Properties**" to enter the TCP/IP setting screen.
4. Select "**Obtain an IP address automatically**" on the "**IP address**" field.



5. Select "**Disable DNS**" in the "**DNS**" field.



6. Select "**None**" for the "**Gateway address**" field.

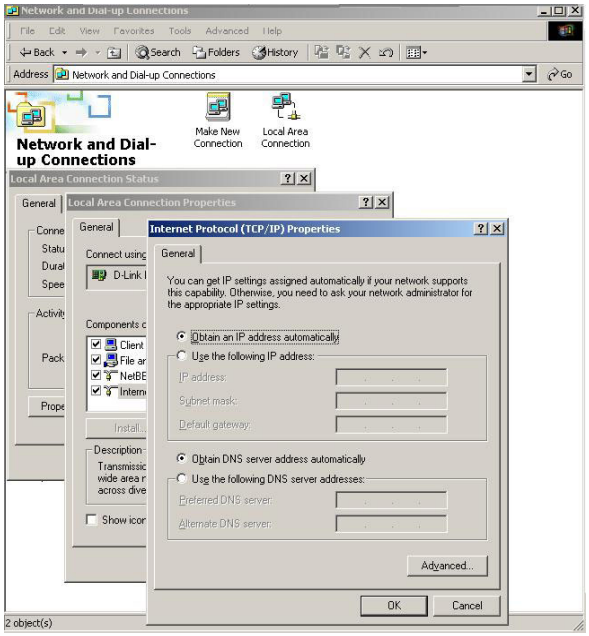


Windows 2000

Double click on the "**My Computer**" icon on the desktop. When "**My Computer**" window opens, open the "**Control Panel**" and then open the "**Network dialup connection**" applet. Double click on the "Local area network connection" icon. Select "Properties" to enter the TCP/IP setting window.

1. In the "**Local area network status**" window, click on "**Properties**."
2. In the "**Local area network connection**" window, first select TCP/IP setting and then select "**Properties**."

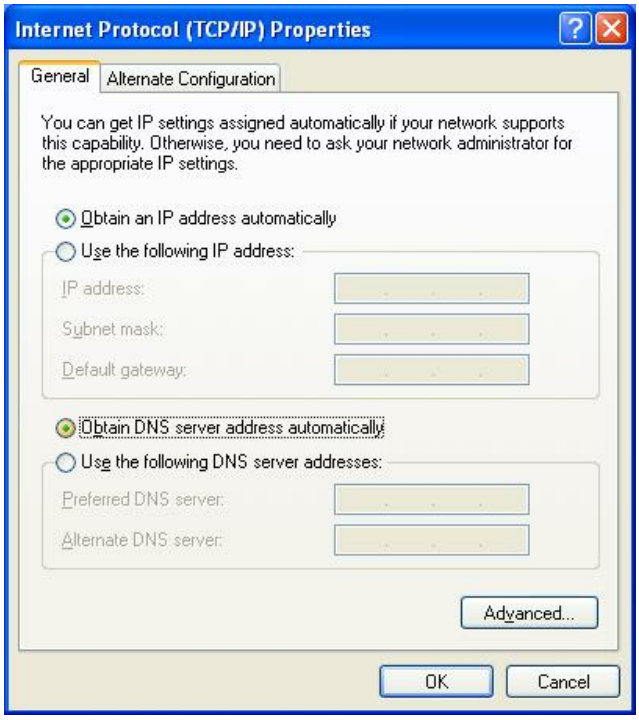
3. Set both “**IP address**” and “**DNS**” to **Automatic configuration**.



Windows XP / Vista

Point the cursor and click the right button on the “My Network Place” icon.
Select “properties” to enter the TCP/IP setting window.

1. Set “**IP address**” to “**Obtain an IP address automatically**.”
2. Set “**DNS**” to “**Obtain DNS server address automatically**.”



CONFIGURATION

First make sure that the network connections are functioning normally.

This WLAN Router can be configured using Internet Explorer 6.0 or newer web browser versions.

Login to the WLAN Router through Wireless LAN

Before configuring the WLAN Router through WLAN, make sure that the SSID, Channel and the WEP is set properly.

The default setting of the WLAN Router that you will use:

- ✓ SSID: TRENDnet673N (2.4G band) and TRENDnet673A (5G band)
- ✓ Channel: 6 (2.4G band) and 40 (5G band)
- ✓ Security: disable

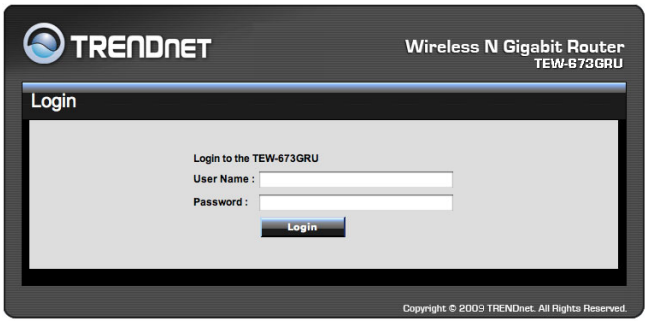
Login to the WLAN Router

Before you configure this device, note that when the WLAN Router, make sure the host PC must be set on the **IP subnet** that can be accessed by the xDSL/Cable modem. For example, when the default network address of the xDSL/Cable modem Ethernet interface is 192.168.10.1, then the host PC should be set at 192.168.10.xxx (where xxx is a number between 2 and 254), and the default subnet mask is 255.255.255.0.

Using the Web Browser

1. Open Internet Explorer 6.0 or above Internet browser.
2. Enter IP address ***http://192.168.10.1*** (the factory-default IP address setting) to the URL web address location.

3. When the following dialog box appears, enter the user name and password to login to the main configuration window, the default username and password is "***admin***".

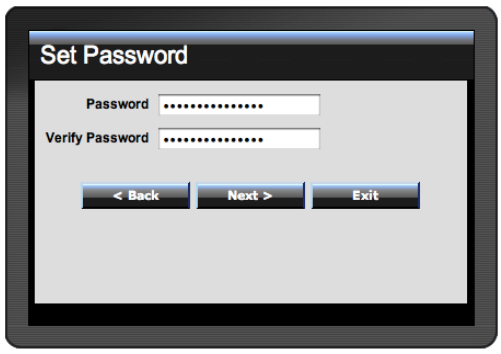


Setup Wizard

Setup wizard is provided as part of the web configuration utility. Users can simply follow the step-by-step process to get the wireless Router configuration ready to run in 6 easy steps by clicking on` the "Wizard" button on the function menu. The following screen will appear. Please click "Next" to continue.

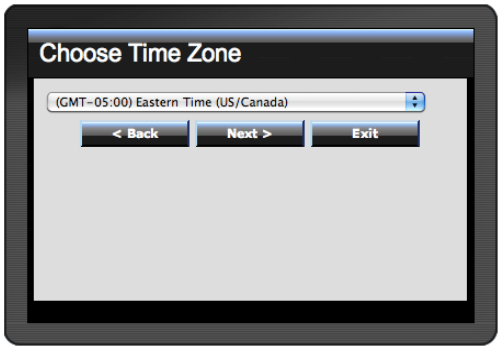
Step 1: Set your new password

Set a new admin password of the WLAN Router. Please click "Next" to continue.



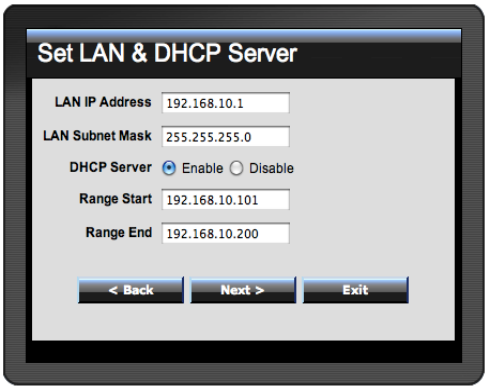
Step 2: Choose time zone

Select the time zone from the drop down list. Please click "Next" to continue.



Step 3: Set LAN connection and DHCP server

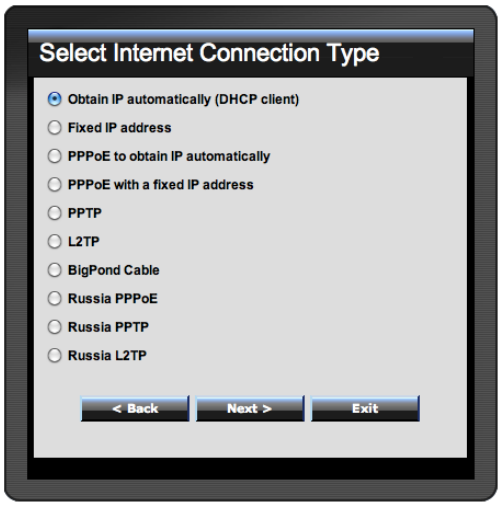
Set user's IP address and mask. The default IP is 192.168.10.1. If the user chooses to enable DHCP, please click "Enable". DHCP enabled is able to automatically assign IP addresses. Please assign the range of IP addresses in the fields of "Range start" and "Range end". Please click "Next" to continue.



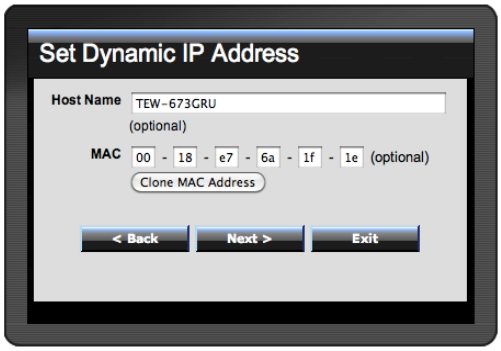
Step 4: Set Internet connection

The WLAN Router will attempt to auto detect your Internet Connection.

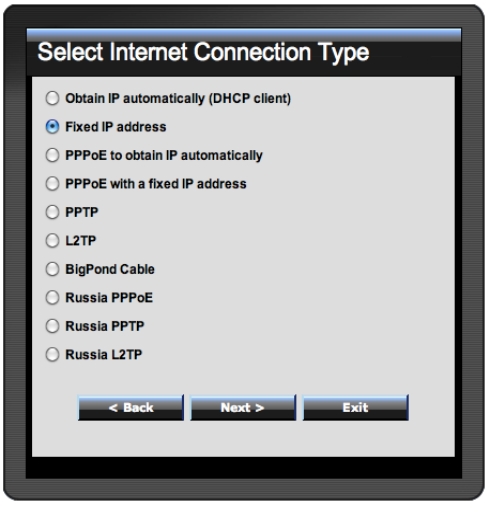
<u>Obtain IP automatically (DHCP client):</u>



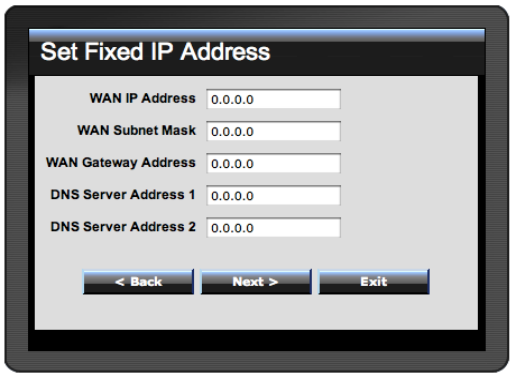
If the user has enabled DHCP server, choose "Obtain IP automatically (DHCP client)" to have the WLAN Router assign IP addresses automatically.



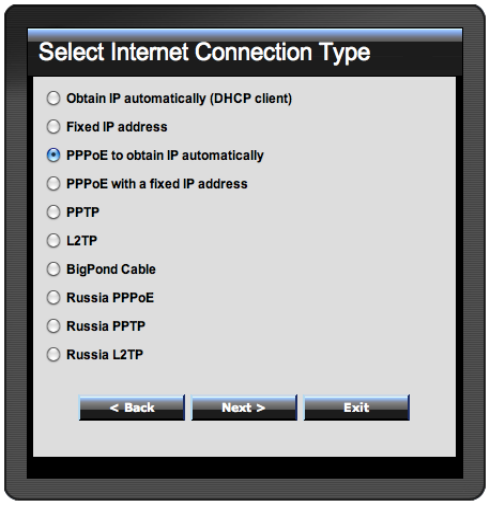
Fixed IP Address:



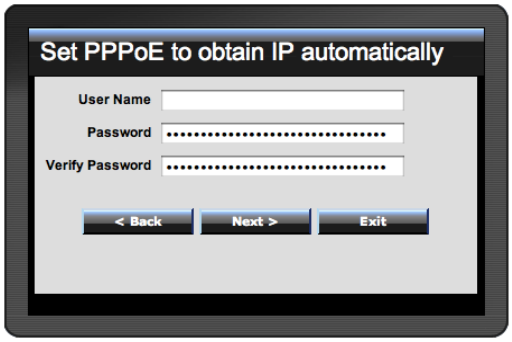
If the Internet Service Provider (ISP) assigns a fixed IP address, choose this option and enter the assigned WAN IP Address, WAN Subnet Mask, WAN Gateway Address and DNS Server Addresses for the WLAN Router.



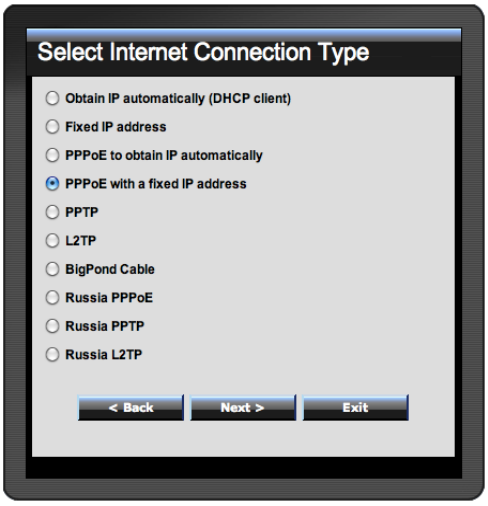
PPPoE to obtain IP automatically:



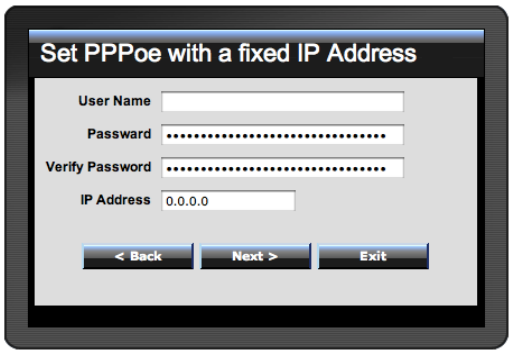
If connected to the Internet using a PPPoE (Dial-up xDSL) connection, and the ISP provides a User Name and Password, then choose this option and enter the required information.



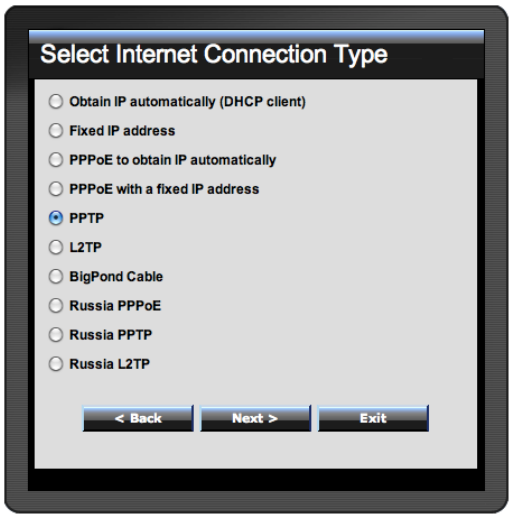
PPPoE with a fixed IP address:



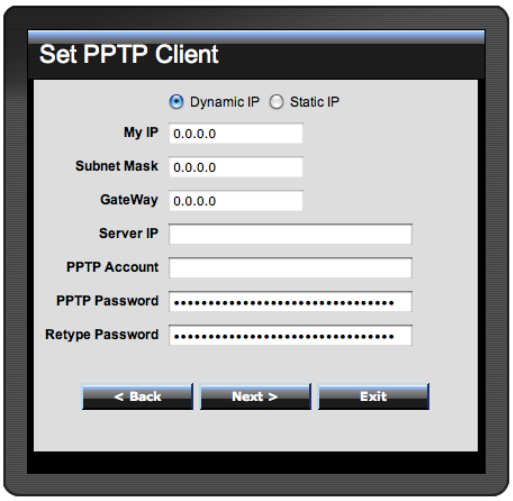
If connected to the Internet using a PPPoE (Dial-up xDSL) connection, and the ISP provides a User Name, Password and a Fixed IP Address, choose this option and enter the required information.



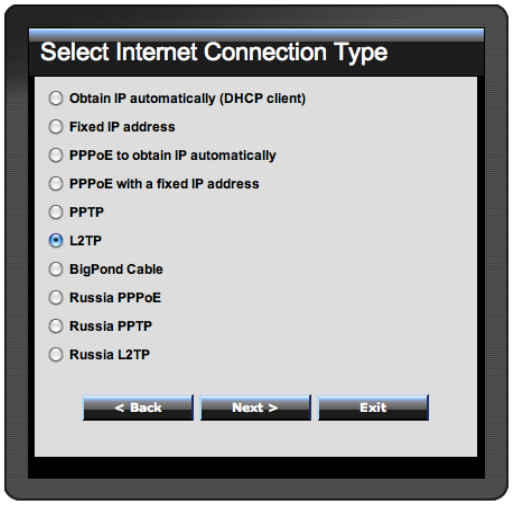
PPTP:



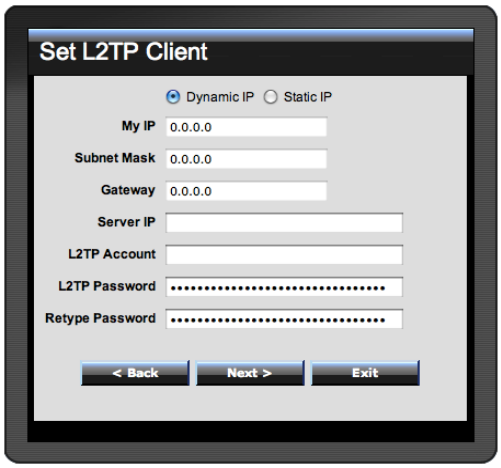
If connected to the Internet using a PPTP xDSL connection, enter your IP, Subnet Mask, Gateway, Server IP, PPTP Account and PPTP Password.



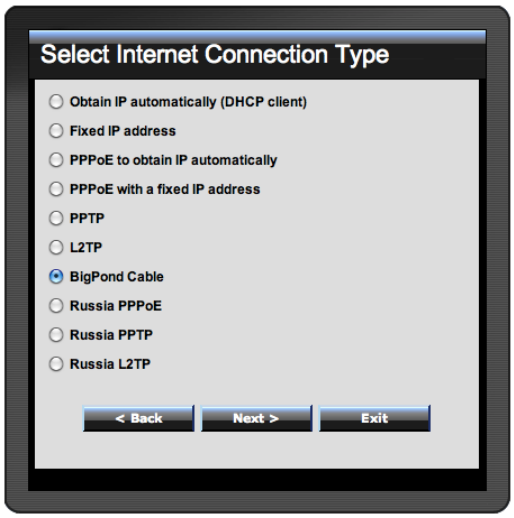
L2TP:



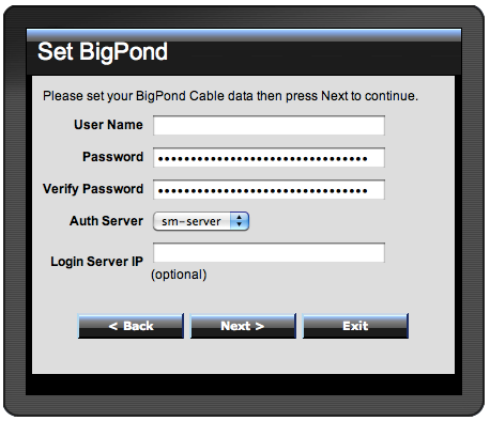
If connected to the Internet using a L2TP (Dial-up xDSL) connection and the ISP provides a Server IP, Account and Password information, choose this option and enter the required information.



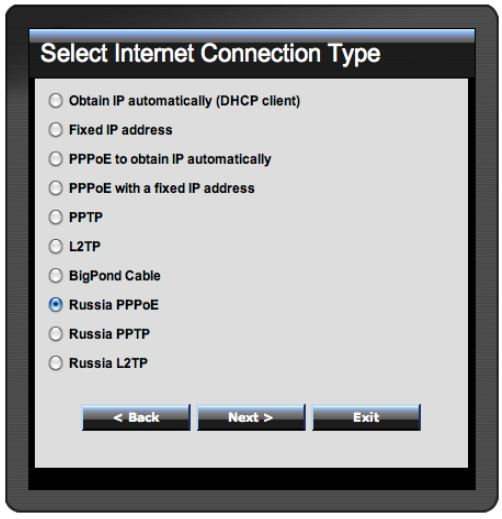
Big Pond Cable(Australia):



If your ISP is Big Pond Cable, the ISP will provide a User Name, Password, Authentication Server and Login Server IP (Optional). Choose this option and enter the required information.

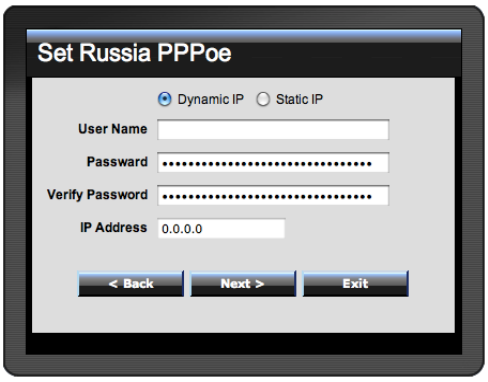


Russia PPPoE:

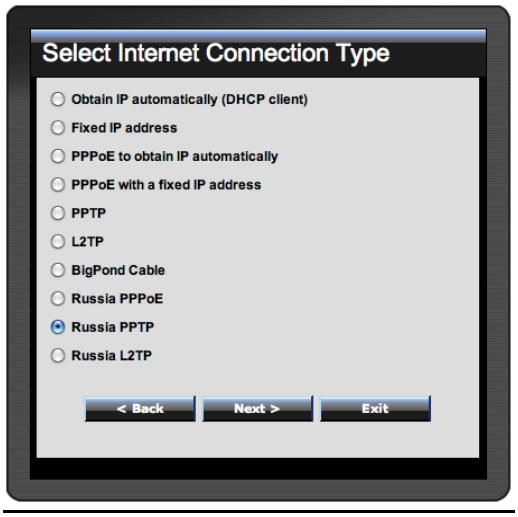


If your ISP is Russian PPPoE, the ISP will provide a User Name, Password. If you have a Static IP WAN Physical IP Address, WAN Physical Subnet Mask and WAN

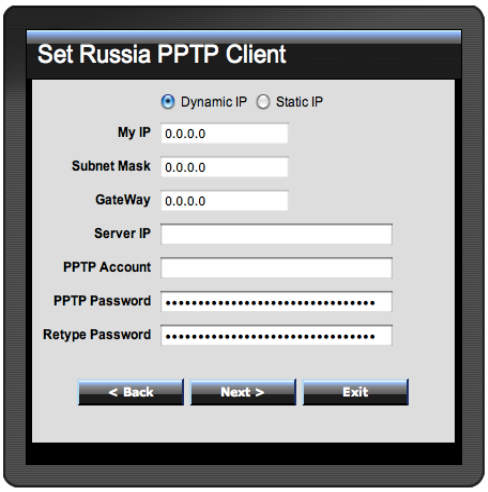
Physical Gateway IP Address will be required. Choose this option and enter the required information.



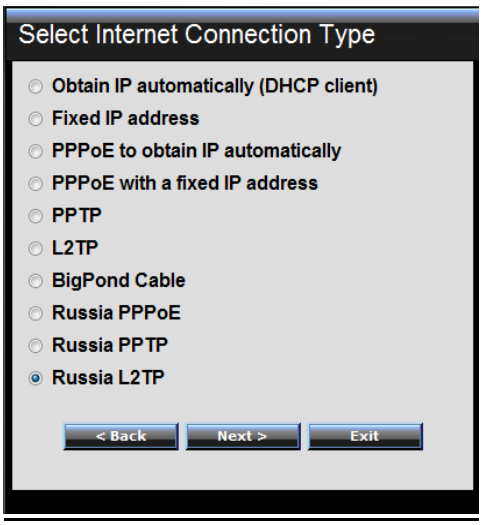
Russia PPTP:



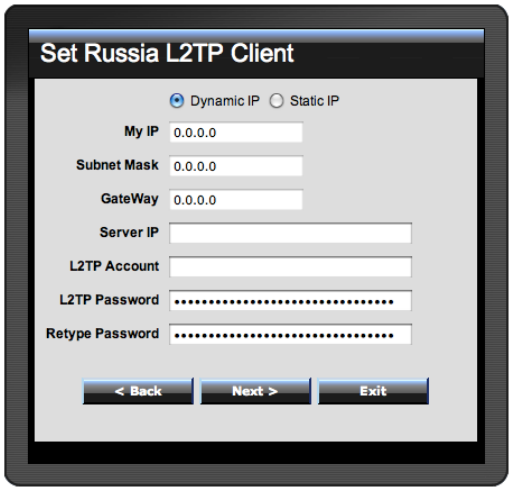
If connected to the Internet using Russian PPTP xDSL connection, enter your server IP, PPTP Account and Password. If using Static IP you must enter your IP, Subnet Mask, Gateway, Server IP, PPTP Account and PPTP Password.



Russia L2TP:

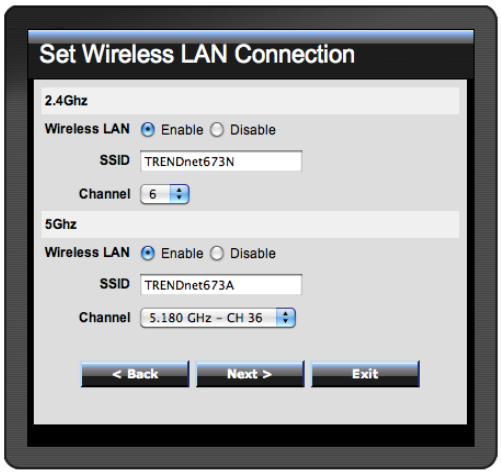


If connected to the Internet using Russian L2TP (Dial-up xDSL) enter your server IP, PPTP Account and Password. If using Static IP you must enter your IP, Subnet Mask, Gateway, Server IP, PPTP Account and PPTP Password.



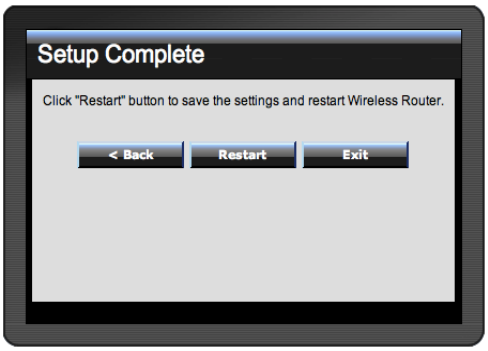
Step 5: Set Wireless LAN connection

Click “Enable” to enable Wireless LAN. If user enables the Wireless LAN, type the SSID in the text box and select a channel. The SSID and channel must be the same as wireless devices attempting to connect to the WLAN Router.



Step 6: Setup completed

The Setup wizard is now completed. The new settings will be effective after the WLAN Router restarts. Please click “Restart” to reboot the WLAN Router. If user does not want to make any changes, please click “Exit” to quit without any changes. User also can go back to modify the settings by clicking “Back”.

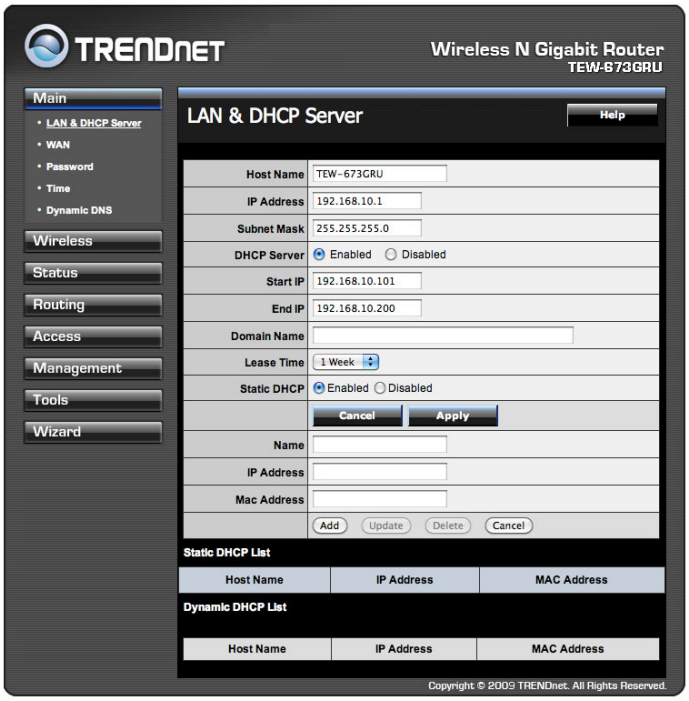


Main configuration

The screen enables users to configure the LAN & DHCP Server, set WAN parameters, create Administrator and User passwords, and set the local time, time zone, and dynamic DNS.

LAN & DHCP Server

This page allows the user to configure LAN and DHCP properties, such as the host name, IP address, subnet mask, and domain name. LAN and DHCP profiles are listed in the DHCP table at the bottom of the screen.



Host Name: Type the host name in the text box. The host name is required by some ISPs. The default host name is "TEW-673GRU"

IP Address: This is the IP address of the WLAN Router. The default IP address is 192.168.10.1.

Subnet Mask: Type the subnet mask for the WLAN Router in the text box. The default subnet mask is 255.255.255.0.

DHCP Server: Enables the DHCP server to allow the WLAN Router to automatically assign IP addresses to devices connecting to the LAN port or wirelessly. DHCP is enabled by default.

All DHCP client computers are listed in the table at the bottom of the screen, providing the host name, IP address, and MAC address of the client.

Start IP: Type an IP address to serve as the start of the IP range that DHCP server will use to assign IP addresses to all LAN devices connected to the WLAN Router.

End IP: Type an IP address to serve as the end of the IP range that DHCP will use to assign IP addresses to all LAN devices connected to the WLAN Router.

Domain Name: Type the local domain name of the network in the text box. This item is optional.

Lease Time: The lease time specifies the amount of connection time a network user be allowed with their current dynamic IP address.

Static DHCP: This option enables users to statically assign IP address to LAN clients connected to the WLAN router.

Name: Type the name of the LAN client that will be using the static IP address.

IP Address: Type an IP address to assign a LAN client.

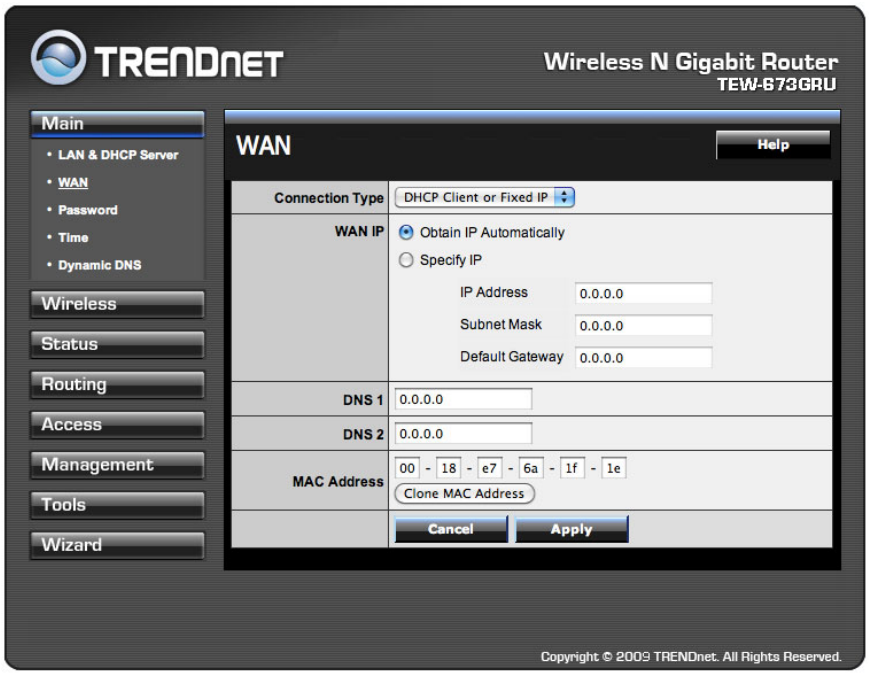
MAC Address: Enter the MAC address of the specific LAN client that will be using the IP address.

Static DHCP List: List all static IP address assigned on the WLAN router.

Dynamic DHCP List: List all assigned DHCP clients on the WLAN router.

WAN

This screen enables users to set up the WLAN Router's WAN connection, specify the IP address for the WAN, add DNS numbers, and enter the MAC address.



Connection Type: Select the connection type, DHCP client or Fixed IP, PPPoE, PPTP, L2TP, BigPond Cable, Russia PPPoE, Russia, PPTP and Russia L2TP from the drop-down list.

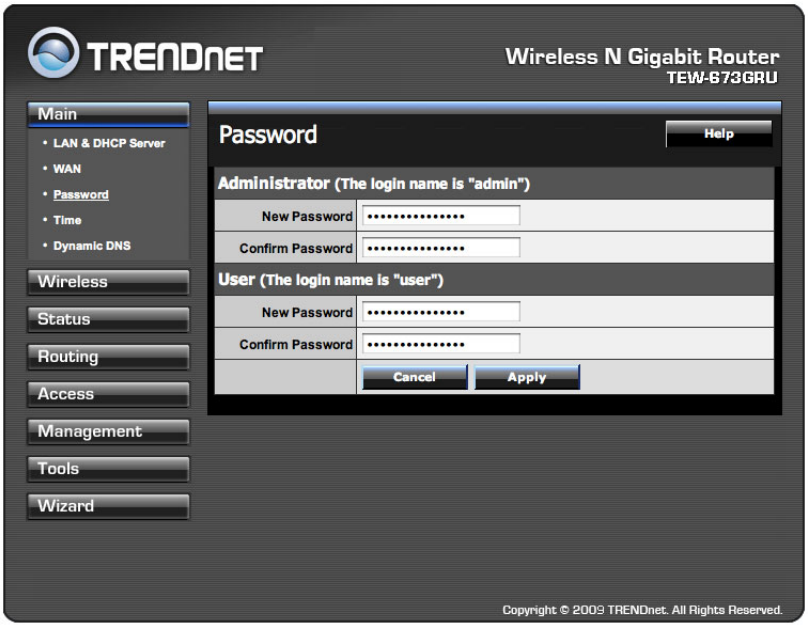
WAN IP: Select whether user wants to specify an IP address manually, or want to obtain an IP address automatically. When Specify IP is selected, type the IP address, subnet mask, and default gateway in the text boxes. User's ISP will provide with this information.

DNS 1-2: Type up to 2 DNS numbers in the text boxes. User's ISP will provide this information.

MAC Address: If required by user's ISP, type the MAC address of the WLAN Router WAN interface in this field. Or click on CLONE MAC Address to automatically enter your PC's MAC address.

Password

This screen enables users to set administrative and user passwords. These passwords are used to gain access to the WLAN Router interface.

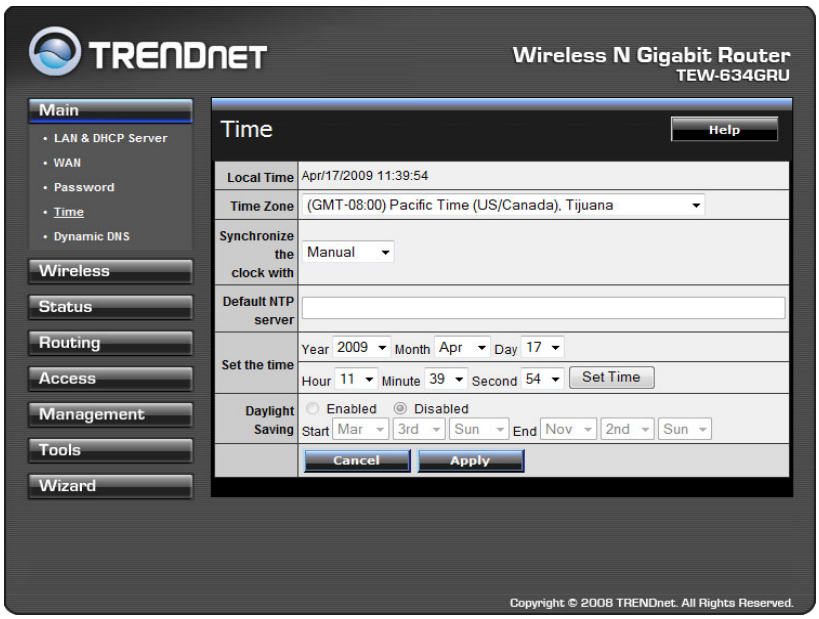


Administrator: Type the password the Administrator will use to log into the system. The password must be typed again for confirmation. The Administrator have the ability to apply and setting on the WLAN Router.

User: Type the password the User will use to log in to the system. The password must be typed again for confirmation. The User accounts only have the ability to view settings and cannot apply any setting changes.

Time

This screen enables users to set the time and date for the WLAN Router's real-time clock, select properly time zone, and enable or disable daylight saving.



Local Time: Displays the current time applied on the WLAN Router.

Time Zone: Select the time zone from the drop-down list.

Synchronize the clock with: Select the clock adjustment method form the drop-down list.

Automatic: Automatically adjust the system time from an entered NTP Server

Manual: Manually adjust the system time when you press the ***Set Time*** button.

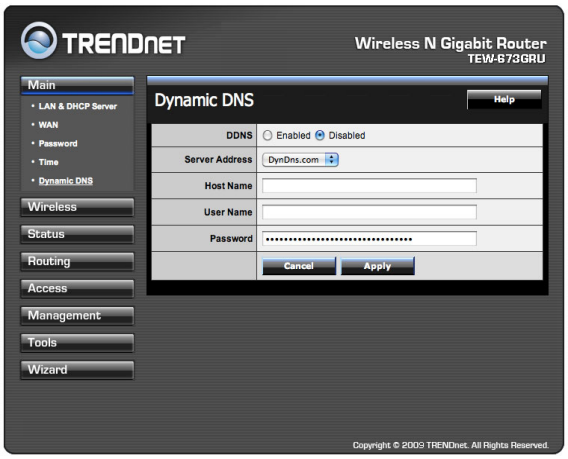
Default NTP server: The Simple Network Time Protocol (SNTP) server allows the WLAN Router to synchronize the system clock to the global Internet through the SNTP Server. Specify the NTP domain name or IP address in the text box.

Set the time: Manually setting the WLAN Router system time, press the ***Set Time*** button to update the system time.

Daylight Saving: Enables users to enable or disable daylight saving time. When enabled, select the start and end date for daylight saving time.

Dynamic DNS

This synchronizes the DDNS server with your current Public IP address when you are online. First, you need to register your preferred DNS with the DDNS provider. Then, please select the DDNS address in the Server Address and fill the related information in the below fields: Host Name, User Name and Password.

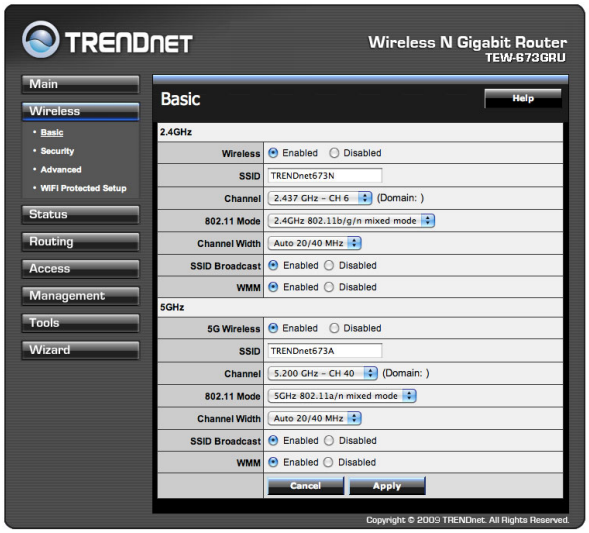


Wireless

Basic

This section enables users to configure the wireless parameters for the WLAN Router.

This page allows you to enable and disable the wireless LAN function, create a SSID, and select the channel for wireless communications.



2.4GHz

Enable/Disable: Enables or disables 2.4GHz wireless LAN on the WLAN Router.

SSID: Type an SSID in the text box. The SSID of any wireless device must match the SSID typed here in order for the wireless device to access the LAN and WAN of the WLAN Router.

Channel: Select a transmission channel for wireless communications. The channel of any wireless device must match the channel selected here in order for the wireless device to access the LAN and WAN via the WLAN Router.

802.11 Mode: Select one of the following:

- **2.4GHz 802.11b/g mixed mode** - Select if you are using both 2.4GHz 802.11b and 802.11g wireless clients.
- **2.4GHz 802.11b/g/n mixed mode** - Select if you are using a mix of 2.4GHz 802.11b, 11g, and 11n wireless clients.
- **2.4GHz 802.11n only mode** - Select if you are using only 2.4GHz 802.11n wireless clients.

Channel Width: Select the Channel Width:

- **Auto 20/40** - Auto select channel bandwidth for 20MHz or 40MHz (depended on linking quality).
- **20MHz** - Force the channel bandwidth for 20MHz.

SSID Broadcast: While SSID Broadcast is enabled, all wireless clients will be able to view the WLAN Router's SSID. For security purposes, users may want to disable SSID Broadcast to ensure only authorized clients have access.

WMM: If selected the Enable, the WMM (Wi-Fi Multimedia Quality of Service) feature will be enabled.

5GHz

Enable/Disable: Enables or disables 5GHz wireless LAN on the WLAN Router.

SSID: Type an SSID in the text box. The SSID of any wireless device must match the SSID typed here in order for the wireless device to access the LAN and WAN of the WLAN Router.

Channel: Select a transmission channel for wireless communications. The channel of any wireless device must match the channel selected here in order for the wireless device to access the LAN and WAN via the WLAN Router.

802.11 Mode: Select one of the following:

- **5GHz 802.11a/n mixed mode** - Select if you are using both 5GHz 802.11a and 802.11n wireless clients.
- **5GHz 802.11a only mode** - Select if you are using only 5GHz 802.11a wireless clients.

Channel Width: Select the Channel Width:

- **Auto 20/40** - Auto select channel bandwidth for 20MHz or 40MHz (depended on linking quality).
- **20MHz** - Force the channel bandwidth for 20MHz.

SSID Broadcast: While SSID Broadcast is enabled, all wireless clients will be able to view the WLAN Router's SSID. For security purposes, users may want to disable SSID Broadcast to ensure only authorized clients have access.

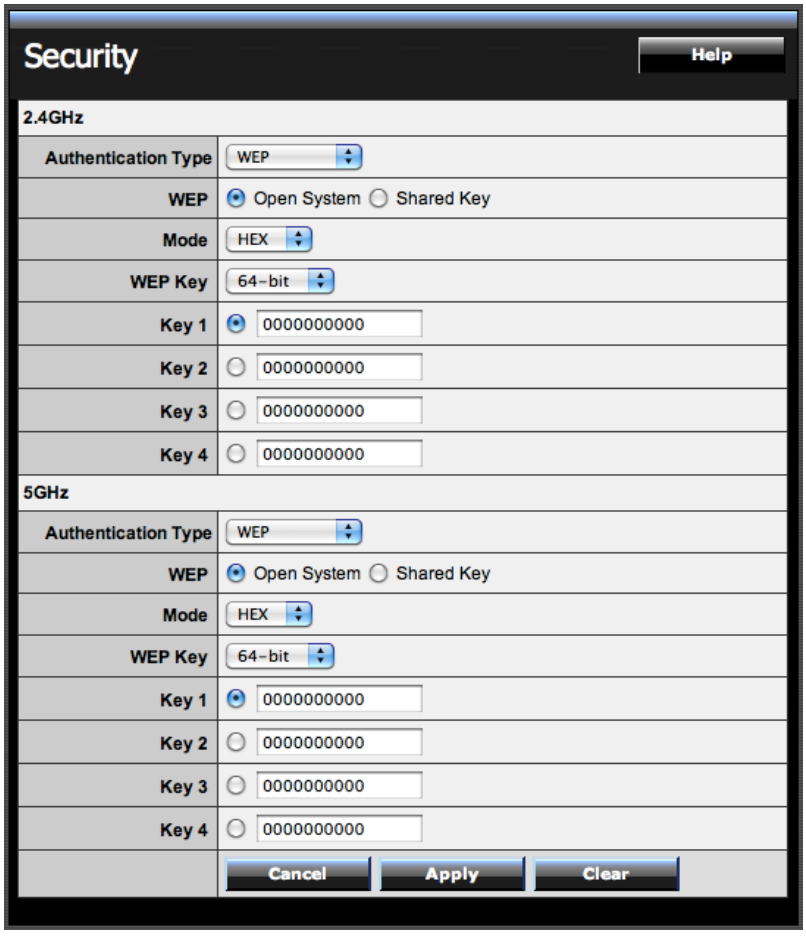
WMM: If selected the Enable, the WMM (Wi-Fi Multimedia Quality of Service) feature will be enabled.

Security

This page allows users to set the wireless security of the WLAN router for a secure wireless communication.

Authentication Type: The authentication type is set to Disable by default. There are four options: Disabled, WEP, WPA, WPA2 and WPA-Auto.

WEP Encryption



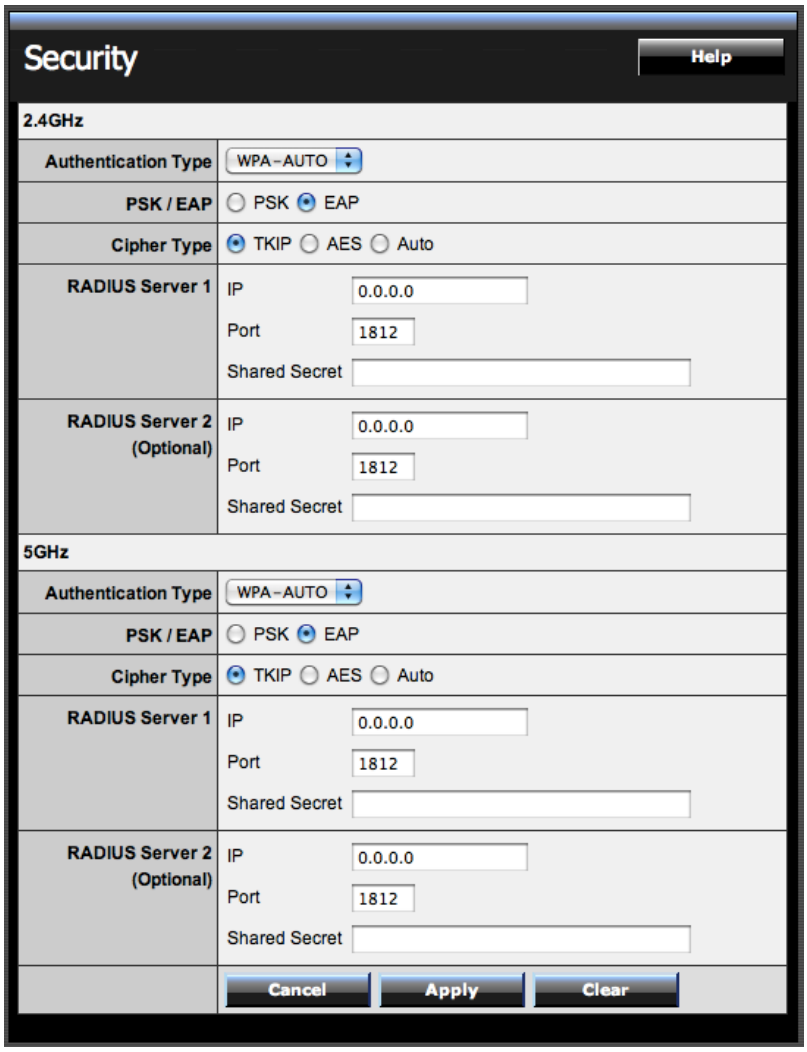
WEP: Open System and Shared Key requires the user to set a WEP key to exchange data with other wireless clients that have the same WEP key.

Mode: Select the key type: ASCII or HEX

WEP Key: Select the level of encryption from the drop-down list. The WLAN Router supports, 64 and 128-bit encryption.

Key 1 ~ Key 4: Enables users to create up to 4 different WEP keys. Manually enter a set of values for each key. Select a key to use by clicking the radio button next to the key.

WPA/WPA2/WPA-Auto Security



If WPA, WPA2 or WPA-Auto EAP is selected, the above screen is shown. Please set the length of the encryption key and the parameters for the RADIUS server.

Cipher Type: Select the cipher type for TKIP or AES encryption, Selected Auto for auto detects the cipher type.

RADIUS Server:

1. Enter the IP address, Port used and Shared Secret by the Primary Radius Server.
2. Enter the IP address, Port used and Shared Secret by the Secondary Radius Server. (optional)

WPA-PSK/WPA2-PSK Security

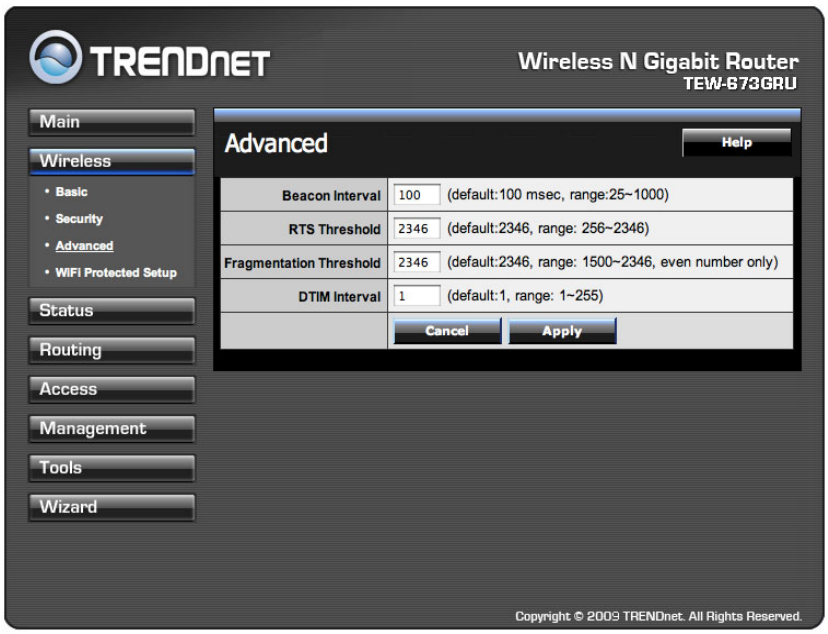
If WPA, WPA2 or WPA-Auto PSK is selected the below screen will show.

Cipher Type: Select the cipher type for TKIP or AES encryption, Select Auto for auto detects the cipher type.

Passphrase: Enter a passphrase key, the length should be 8 characters at least.

Advanced

This screen enables users to configure advanced wireless functions.



Beacon Interval: Type the beacon interval in the text box. User can specify a value from 25 to 1000. The default beacon interval is 100.

RTS Threshold: Type the RTS (Request-To-Send) threshold in the text box. This value stabilizes data flow. If data flow is irregular, choose values between 256 and 2346 until data flow is normalized.

Fragmentation Threshold: Type the fragmentation threshold in the text box. If packet transfer error rates are high, choose values between 1500 and 2346 until packet transfer rates are minimized. (NOTE: set this fragmentation threshold value may diminish system performance.)

DTIM Interval: Type a DTIM (Delivery Traffic Indication Message) interval in the text box. User can specify a value between 1 and 255. The default value is 1.