



TRENDNET®



User's Guide

TEW-634GRU

1.01

FCC statement

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.

CE statement

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 301 489-1 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 , 5 GHz high performance RLAN equipment and 5,8GHz Broadband Data Transmitting Systems.

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.

CE05600!

 Český [Czech]	<i>TRENDnet</i> tímto prohlašuje, že tento <i>TEW-634GRU</i> je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
 Dansk [Danish]	Undertegnede <i>TRENDnet</i> erklærer herved, at følgende udstyr <i>TEW-634GRU</i> overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
 Deutsch [German]	Hiermit erkläre <i>TRENDnet</i> , dass sich das Gerät <i>TEW-634GRU</i> in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
 Eesti [Estonian]	Käesolevaga kinnitab <i>TRENDnet</i> seadme <i>TEW-634GRU</i> vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
 English	Hereby, <i>TRENDnet</i> , declares that this <i>TEW-634GRU</i> is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
 Español [Spanish]	Por medio de la presente <i>TRENDnet</i> declara que el <i>TEW-634GRU</i> cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
 Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ <i>TRENDnet</i> ΔΗΛΩΝΕΙ ΟΤΙ <i>TEW-634GRU</i> ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK.
 Français [French]	Par la présente <i>TRENDnet</i> déclare que l'appareil <i>TEW-634GRU</i> est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
 Italiano [Italian]	Con la presente <i>TRENDnet</i> dichiara che questo <i>TEW-634GRU</i> è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo <i>TRENDnet</i> deklarē, ka <i>TEW-634GRU</i> atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo <i>TRENDnet</i> deklaruoja, kad šis <i>TEW-634GRU</i> atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
 Nederlands [Dutch]	Hierbij verklaart <i>TRENDnet</i> dat het toestel <i>TEW-634GRU</i> in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
 Malti [Maltese]	Hawnhekk, <i>TRENDnet</i> , jiddikjara li dan <i>TEW-634GRU</i> jikkonforma mal-htigijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Direttiva 1999/5/EC.







 Magyar [Hungarian]	Alulírott, <i>TRENDnet</i> nyilatkozom, hogy a <i>TEW-634GRU</i> megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
 Polski [Polish]	Niniejszym <i>TRENDnet</i> oświadcza, że <i>TEW-634GRU</i> jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
 Português [Portuguese]	<i>TRENDnet</i> declara que este <i>TEW-634GRU</i> está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
 Slovensko [Slovenian]	<i>TRENDnet</i> izjavlja, da je ta <i>TEW-634GRU</i> v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	<i>TRENDnet</i> týmto vyhlasuje, že <i>TEW-634GRU</i> spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
 Suomi [Finnish]	<i>TRENDnet</i> vakuuttaa täten että <i>TEW-634GRU</i> tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
 Svenska [Swedish]	Härmed intygar <i>TRENDnet</i> att denna <i>TEW-634GRU</i> står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.



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ABOUT THIS GUIDE

Congratulations on your purchase of this 300Mbps Wireless N 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 Gigabit Router with USB Port.

Terms/Usage

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

Overview of this User’s Guide

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

Unpacking and Setup. Helps you get started with the basic installation of the IEEE 802.11b/g/n Wireless Home Router.

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 300Mbps Wireless N Gigabit Router with USB Port to your xDSL/Cable Modem.

Technical Specifications. Lists the technical (general, physical and environmental, performance and Routers settings) specifications of the 300Mbps Wireless N Gigabit Router with USB Port.

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

With the explosive growth of the Internet, accessing information and services at any time, day or night has become a standard requirement for most people. The era of the standalone PC is waning. Networking technology is moving out of the exclusive domain of corporations and into homes with at least two computers.

This integrated access device combines Internet gateway functions with wireless LAN and Fast Ethernet switch. Designed for the business and home, it saves you the cost of installing a separate modem and ISP line for each computer, while providing ready connection for the users, with or without the network wires.

Broadband network access is also gaining ground. However, allowing more than two computers to access the Internet at the same time means less affordable, higher costs. Thus, there is a need to share one public IP address over a single Internet connection to link the home with the Internet.

The scarcity of IP addresses and using a shared Internet connection through an Internet sharing device can solve high network access costs. All linked computers can make full use of broadband capabilities over such a device.

This device not only comes equipped with a wide range of features, but also can be installed and configured right out of the box. This device supports a simple local area network and Internet access share, offering great cost savings.

The local area network connects home computers while also allowing any of the computers to access the Internet, share resources, or play online games—the basis of the family computing lifestyle.

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:

- Wi-Fi compliant with IEEE 802.11n and IEEE 802.11b/g standards
- 4 x 10/100/1000Mbps Auto-MDIX LAN port and 1 x 10/100Mbps WAN port (Internet)
- Supports Cable/DSL modems with Dynamic IP, Static IP, PPPoE, PPTP, L2TP & BigPond connection types
- High-speed up to 300Mbps data rate using IEEE 802.11n connection
- 2 x 2dBi external antennas support high speed performance and great coverage with MIMO technology
- Support Wi-Fi Protected Setup (WPS) for easy connection
- Universal Plug and Play (UPnP)
- Provides additional security of enable/disable wireless SSID, Internet Access Control (MAC Address, Domain & IP Filtering)
- Easy management via web browser and remote management
- Supports 64/128-bit WEP, WPA/WPA2 and WPA-PSK/WPA2-PSK
- Works with Windows 95/98/NT/2000/XP/2003 Server/Vista, Linux and Mac OS
- Coverage up to 100 meters (330ft.) indoor and 300meters (980ft) outdoor (depends on the environment)

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.

UNPACKING AND SETUP

This chapter provides unpacking and setup information for the IEEE 802.11b/g/n Wireless Home Router.

Unpacking

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

- ◆ TEW-634GRU 300Mbps Wireless N Gigabit Router with USB Port
- ◆ CD ROM (Utility/User's Guide)
- ◆ Multi-Language Quick Installation Guide
- ◆ 2 x 2dBi 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.

HARDWARE INSTALLATION

Front Panel

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



Front Panel

POWER

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

STATUS

This indicator blinking green means the WLAN Router is working successfully. Otherwise, this indicator always on or off means the function of the WLAN Router has failed.

WAN (Link/ACT)

When the WAN port is connected successfully the indicator lights green.

During transmitting or receiving data through the WAN port the indicator blinks green.

WLAN (ACT)

This indicator lights green when there are wireless devices connected and transmitting data to the WLAN Router.

USB

This indicator lights green when a USB device is connected successfully.

LAN (Link/ACT)

When the LAN port has a successful connection the indicator lights green.

During transmitting or receiving data through the LAN port the indicator blinks green per ports.

Rear Panel

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



Rear Panel

Antenna

There are two 2dBi gain antennas on the rear panel for wireless connection.

LAN (1-4)

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

WAN

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

USB

One USB port 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 Gigabit Router with USB Port.



WPS (side panel)

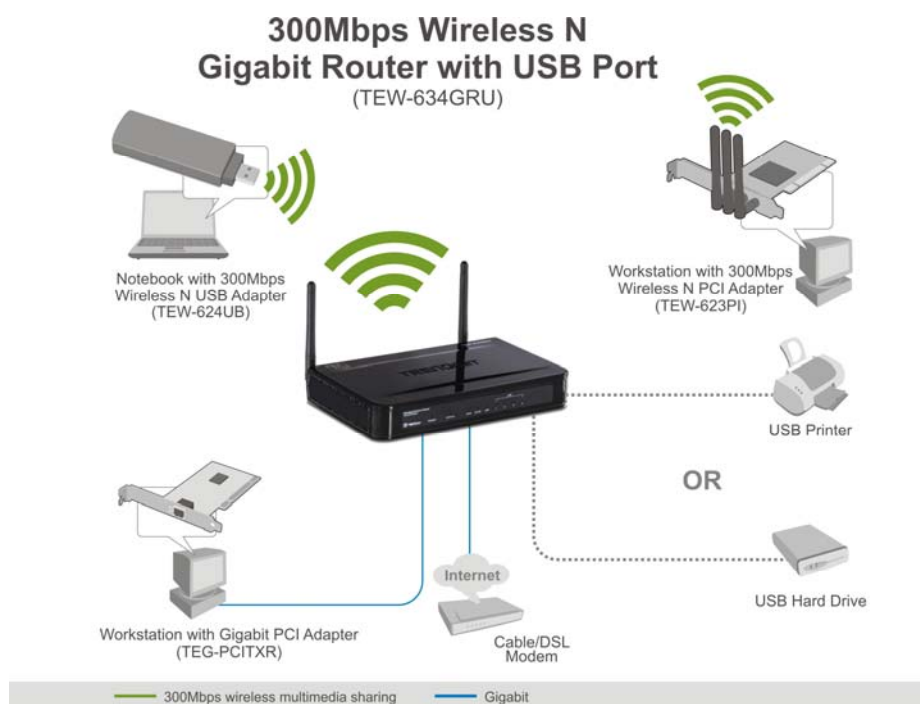
Push this button to execute the Wi-Fi Protected Setup process.

Hanging Way

User can mount the device on a wall. Mount the Nylon screw anchors into a cement wall and then drive a screw into the Nylon screw anchors. It does not need to mount the Nylon screw anchors into a wood wall. Hook the mounting holes of the switch back on the screws and completed the wall-mount.

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 802.11b/g/n Wireless Home Router 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.

Check the installation

The control LEDs of the WLAN Router are clearly visible and the status of the network link can be seen instantly:

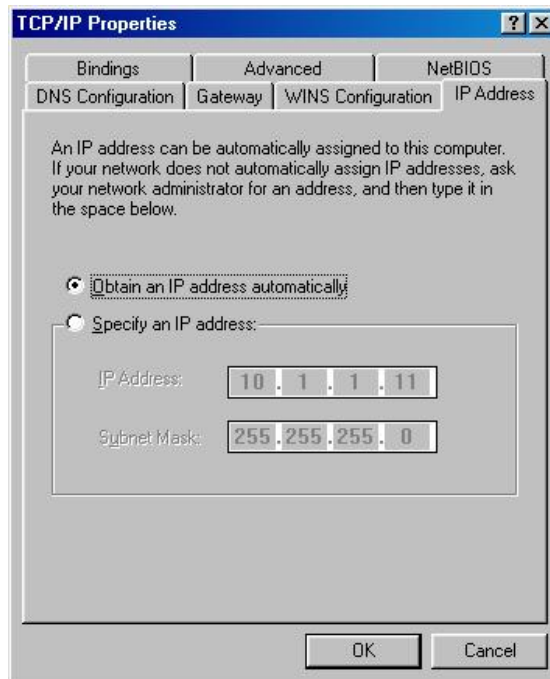
1. With the power source on, once the device is connected to the broadband modem, the Power, System, LAN, WLAN and WAN port LEDs of the WLAN Router will light up indicating a normal status.
2. When the WAN Port is connected to the ADSL/Cable modem, the WAN LED will light up.
3. When the LAN Port is connected to the computer system, the LAN LED will light up.

PC NETWORK TCP/IP SETTING

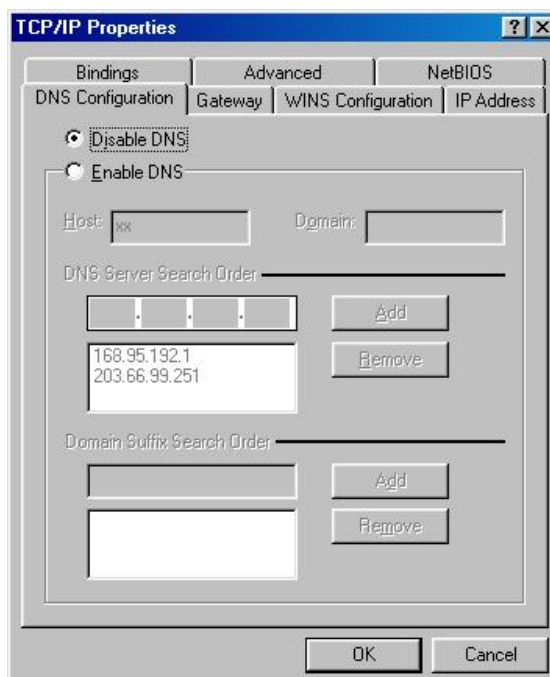
The network TCP/IP settings differ based on the computer's operating system (Win95/98/ME/NT/2000/XP) and are as follows.

Windows 95/98/ME

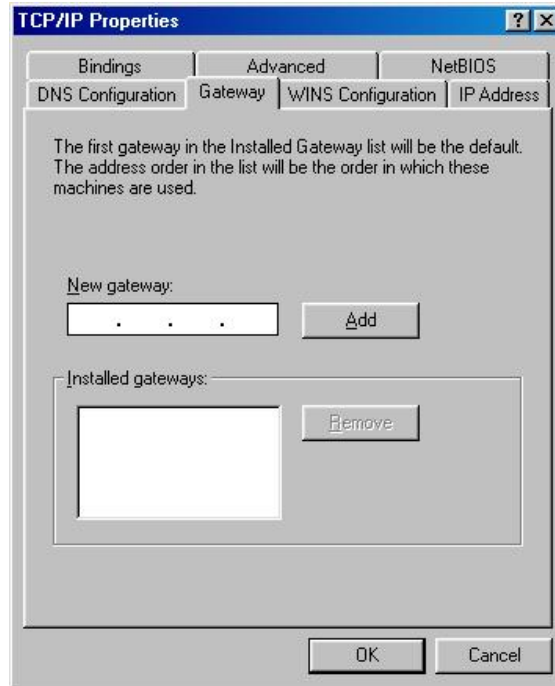
1. Click on the “**Network neighborhood**” icon found on the desktop.
2. Click the right mouse button and a context menu will be show.
3. Select “**Properties**” to enter the TCP/IP setting screen.
4. Select “**Obtain an IP address automatically**” on the “**IP address**” field.



5. Select “**Disable DNS**” in the “**DNS**” field.



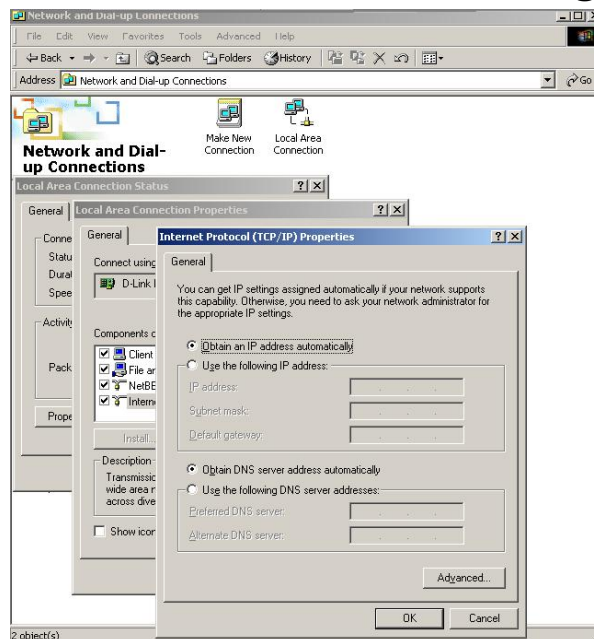
6. Select “None” for the “Gateway address” field.



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.

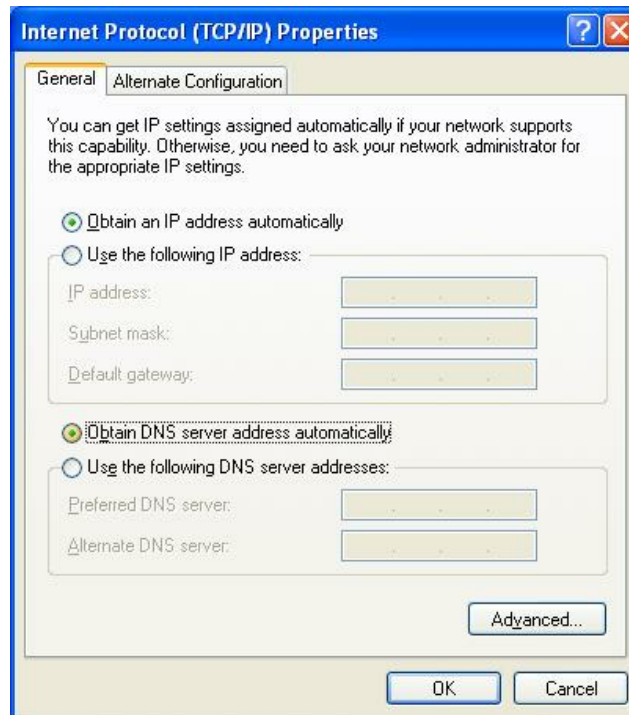
1. In the “**Local area network status**” window, click on “**Properties.**”
2. In the “**Local area network connection**” window, first select TCP/IP setting and then select “**Properties.**”
3. Set both “**IP address**” and “**DNS**” to **Automatic configuration.**



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 5.0 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: TRENDnet634
 - ✓ Channel: 6
 - ✓ Security: disable
-

Login to the WLAN Router

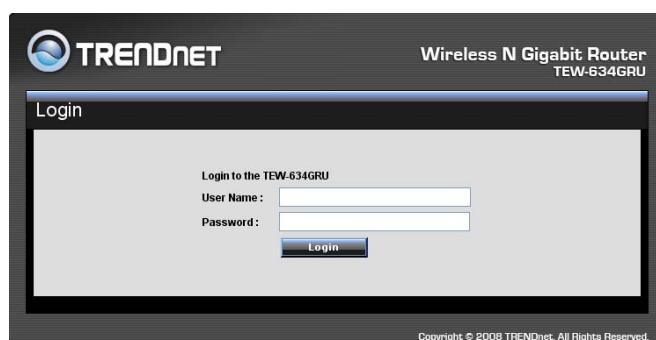
Before you configure this device, note that when the WLAN Router, make sure the host PC must be set on the **IP subnet** that can be accessed by the xDSL/Cable modem. For example, when the default network address of the xDSL/Cable modem Ethernet interface is 192.168.10.x, then the host PC should be set 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 5.0 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*".



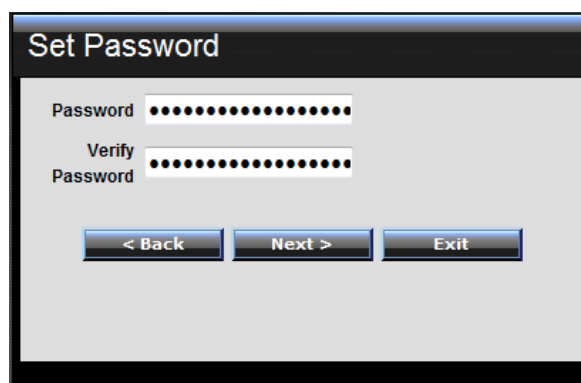
Setup Wizard

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.



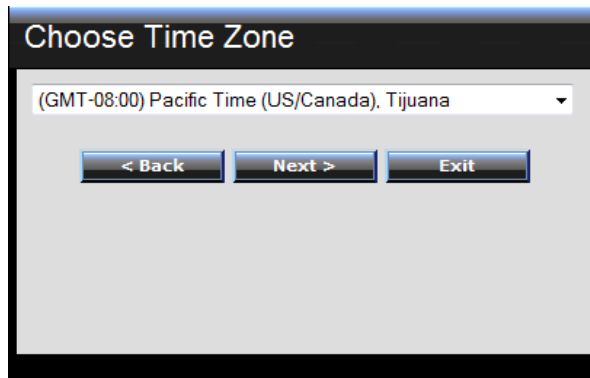
Step 1: Set your new password

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



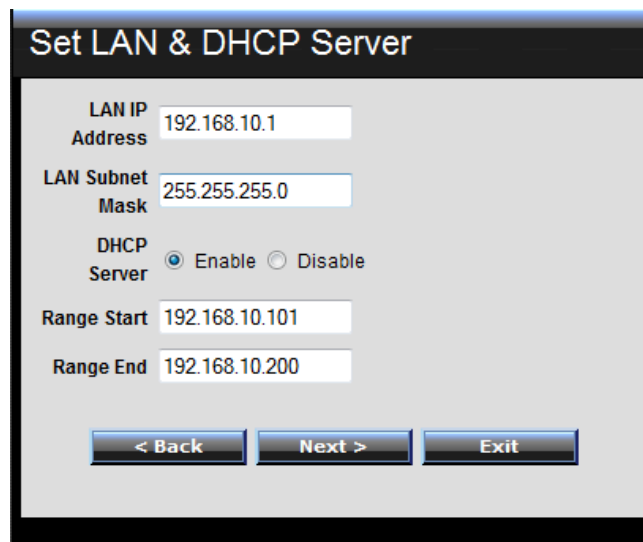
Step 2: Choose time zone

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



Step 3: Set LAN connection and DHCP server

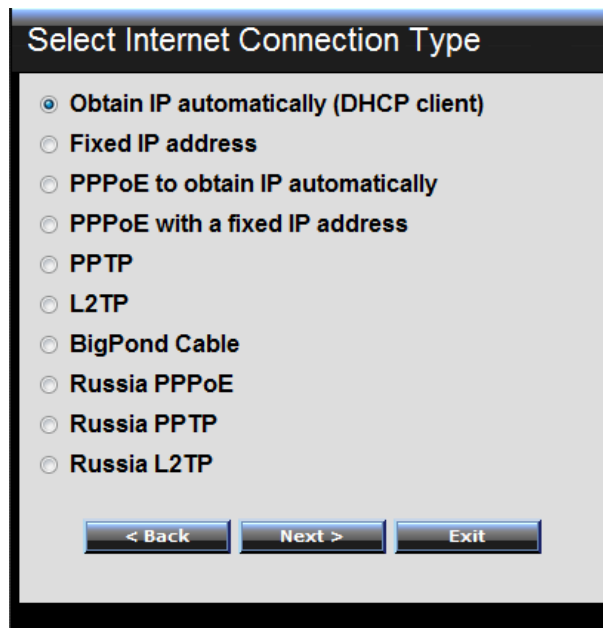
Set user's IP address and mask. The default IP is 192.168.10.1. If the user chooses to enable DHCP, please click "Enable". DHCP enabled is able to automatically assign IP addresses. Please assign the range of IP addresses in the fields of "Range start" and "Range end". Please click "Next" to continue.



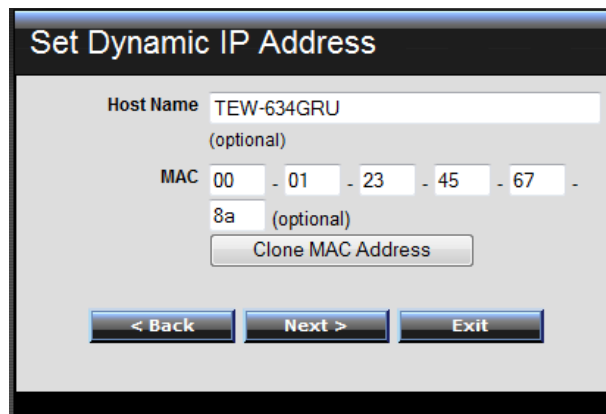
Step 4: Set Internet connection

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

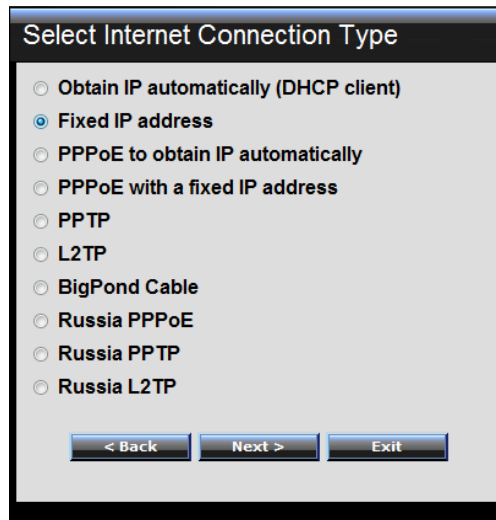
Obtain IP automatically (DHCP client):



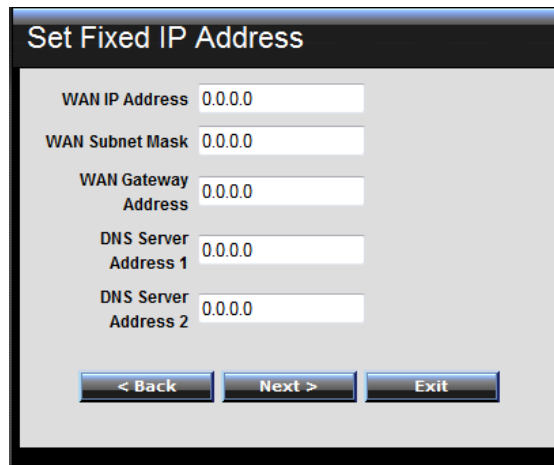
If the user has enabled DHCP server, choose "Obtain IP automatically (DHCP client)" to have the WLAN Router assign IP addresses automatically.



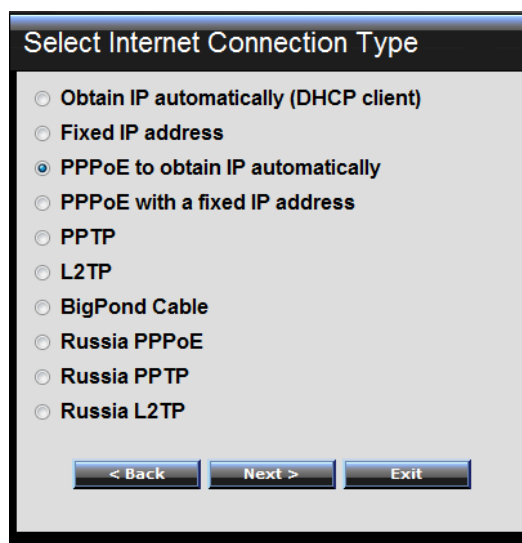
Fixed IP Address:



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.



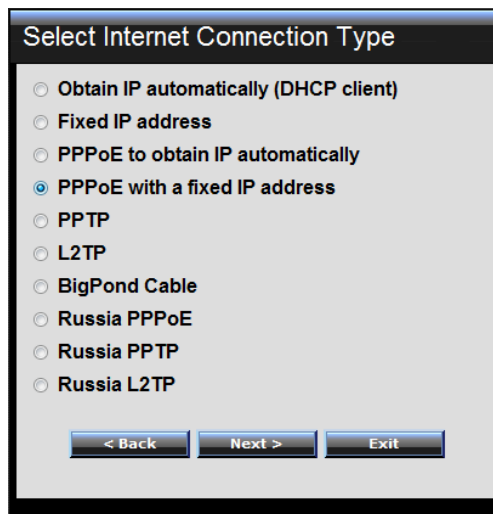
PPPoE to obtain IP automatically:



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.

The image shows a configuration window with a title bar that reads "Set PPPoE to obtain IP automatically". Inside the window, there are three input fields. The first is labeled "User Name" and is an empty text box. The second is labeled "Password" and contains a series of black dots. The third is labeled "Verify Password" and also contains a series of black dots. Below these fields are three buttons: "< Back", "Next >", and "Exit".

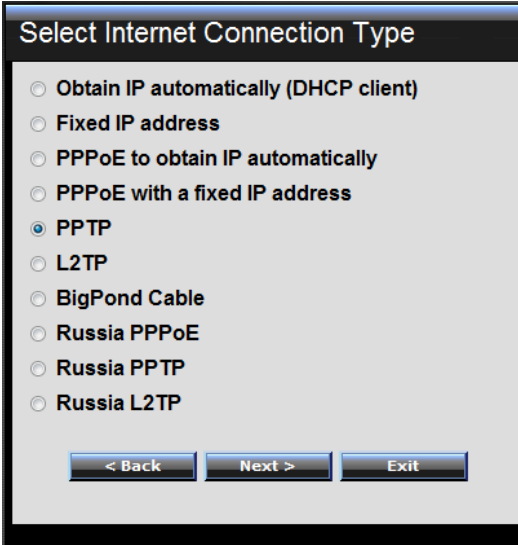
PPPoE with a fixed IP address:



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:

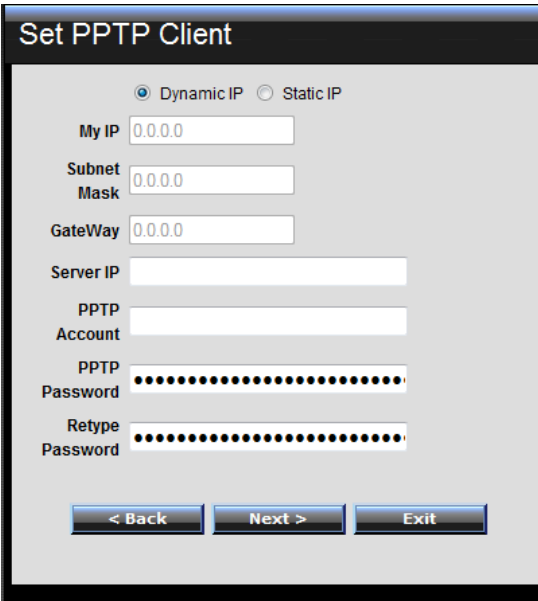


Select Internet Connection Type

- Obtain IP automatically (DHCP client)
- Fixed IP address
- PPPoE to obtain IP automatically
- PPPoE with a fixed IP address
- PPTP
- L2TP
- BigPond Cable
- Russia PPPoE
- Russia PPTP
- Russia L2TP

< Back Next > Exit

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



Set PPTP Client

Dynamic IP Static IP

My IP

Subnet Mask

GateWay

Server IP

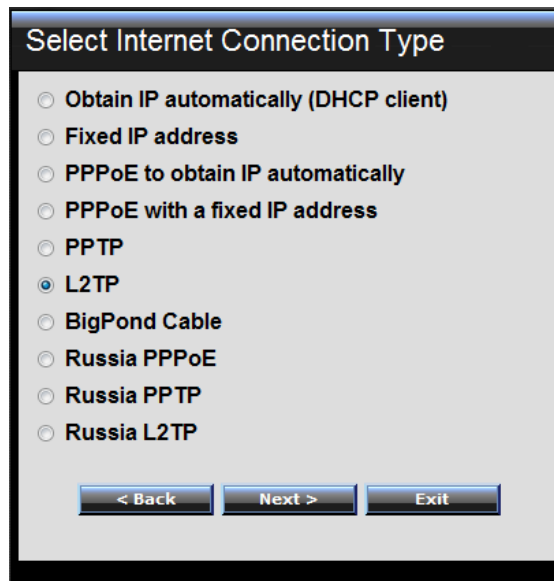
PPTP Account

PPTP Password

Retype Password

< Back Next > Exit

L2TP:

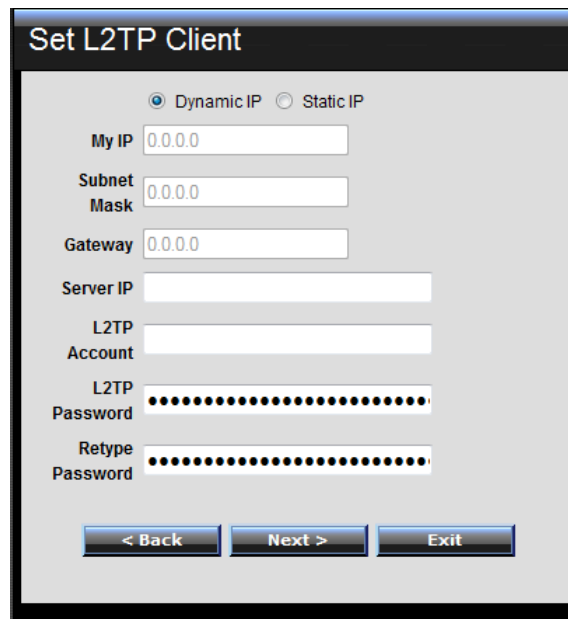


Select Internet Connection Type

- Obtain IP automatically (DHCP client)
- Fixed IP address
- PPPoE to obtain IP automatically
- PPPoE with a fixed IP address
- PPTP
- L2TP
- BigPond Cable
- Russia PPPoE
- Russia PPTP
- Russia L2TP

< Back Next > Exit

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.



Set L2TP Client

Dynamic IP Static IP

My IP

Subnet Mask

Gateway

Server IP

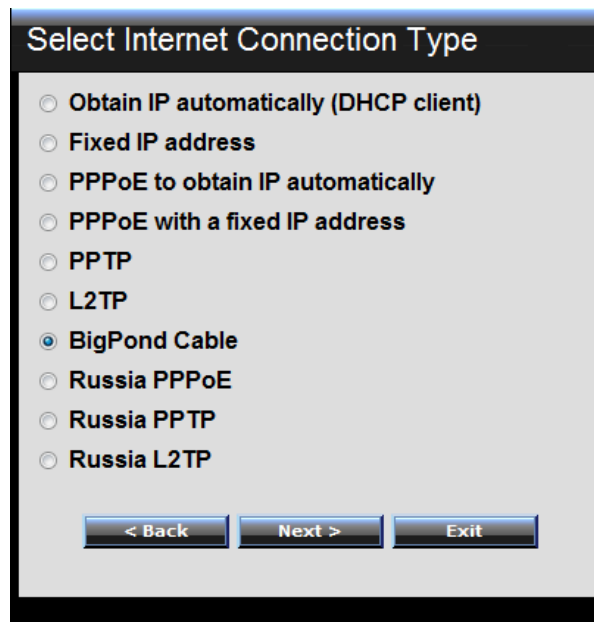
L2TP Account

L2TP Password

Retype Password

< Back Next > Exit

Big Pond Cable(Australia):

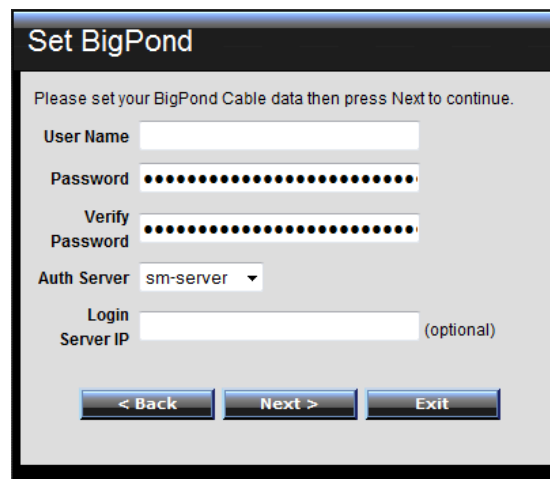


Select Internet Connection Type

- Obtain IP automatically (DHCP client)
- Fixed IP address
- PPPoE to obtain IP automatically
- PPPoE with a fixed IP address
- PPTP
- L2TP
- BigPond Cable**
- Russia PPPoE
- Russia PPTP
- Russia L2TP

< Back Next > Exit

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.



Set BigPond

Please set your BigPond Cable data then press Next to continue.

User Name

Password

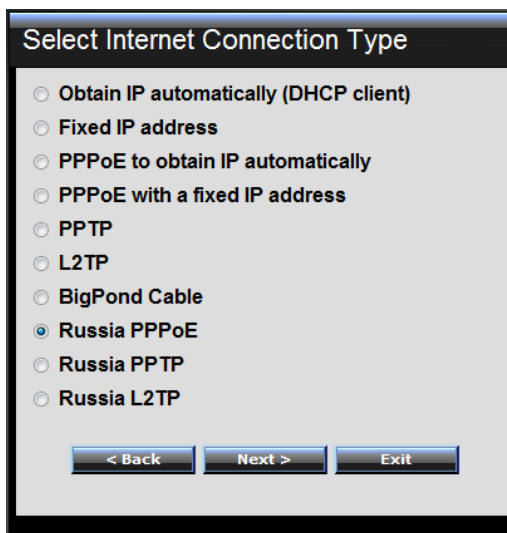
Verify Password

Auth Server

Login Server IP (optional)

< Back Next > Exit

Russia PPPoE:

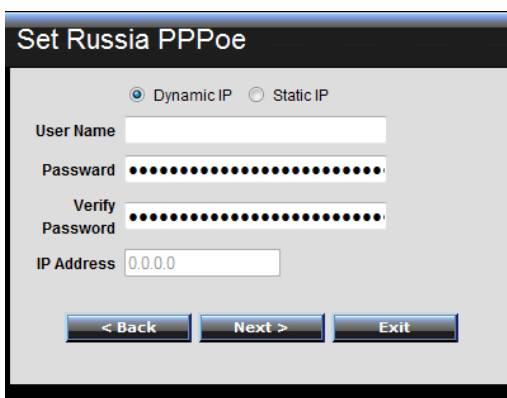


Select Internet Connection Type

- Obtain IP automatically (DHCP client)
- Fixed IP address
- PPPoE to obtain IP automatically
- PPPoE with a fixed IP address
- PPTP
- L2TP
- BigPond Cable
- Russia PPPoE
- Russia PPTP
- Russia L2TP

< Back Next > Exit

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.



Set Russia PPPoe

Dynamic IP Static IP

User Name

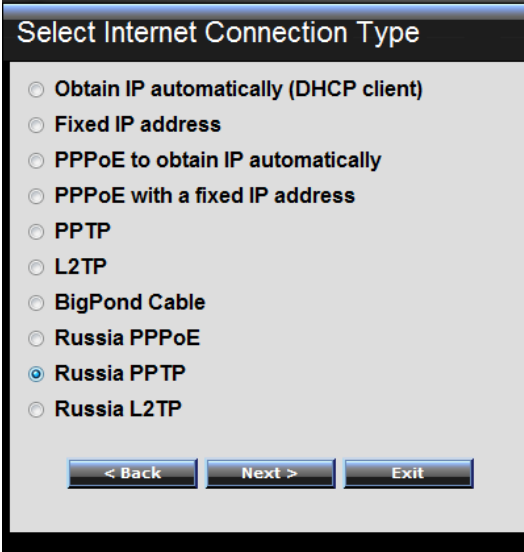
Password

Verify Password

IP Address

< Back Next > Exit

Russia PPTP:

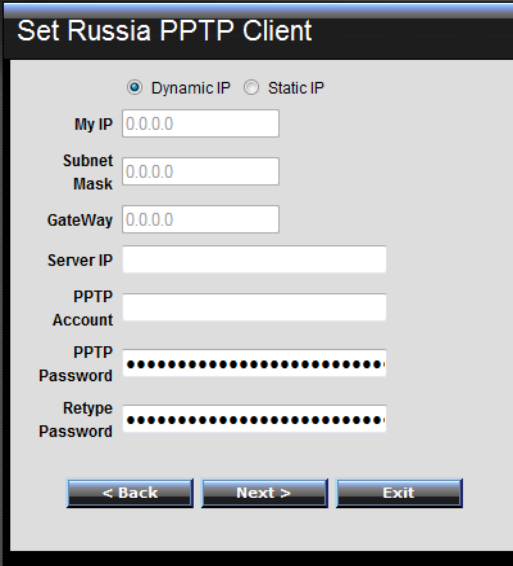


Select Internet Connection Type

- Obtain IP automatically (DHCP client)
- Fixed IP address
- PPPoE to obtain IP automatically
- PPPoE with a fixed IP address
- PPTP
- L2TP
- BigPond Cable
- Russia PPPoE
- Russia PPTP
- Russia L2TP

< Back Next > Exit

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.



Set Russia PPTP Client

Dynamic IP Static IP

My IP

Subnet Mask

GateWay

Server IP

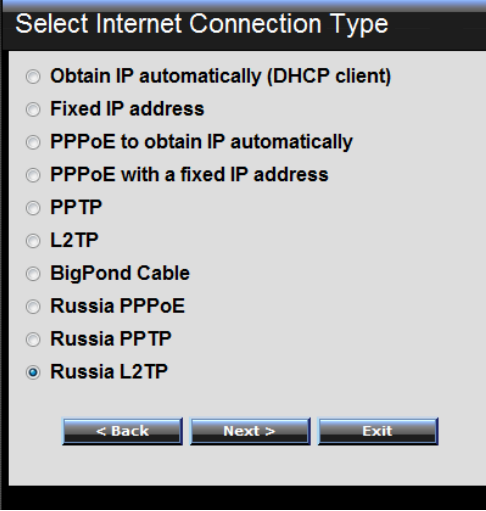
PPTP Account

PPTP Password

Retype Password

< Back Next > Exit

Russia L2TP:

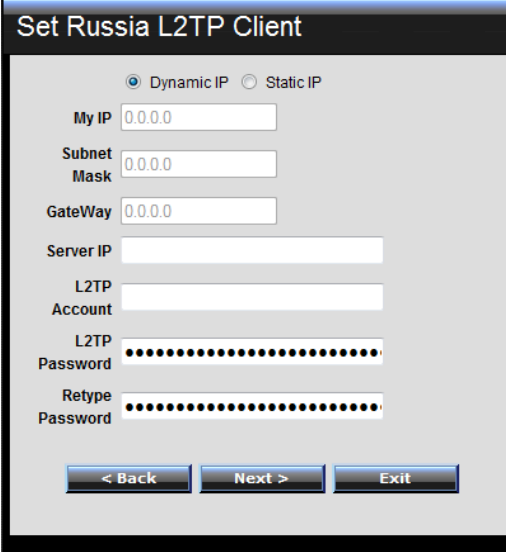


Select Internet Connection Type

- Obtain IP automatically (DHCP client)
- Fixed IP address
- PPPoE to obtain IP automatically
- PPPoE with a fixed IP address
- PPTP
- L2TP
- BigPond Cable
- Russia PPPoE
- Russia PPTP
- Russia L2TP

< Back Next > Exit

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.



Set Russia L2TP Client

Dynamic IP Static IP

My IP

Subnet Mask

GateWay

Server IP

L2TP Account

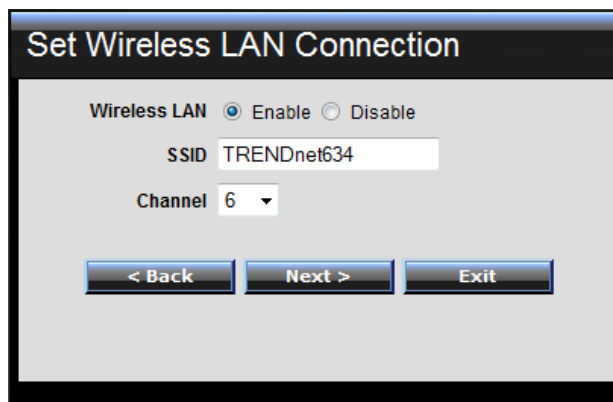
L2TP Password

Retype Password

< Back Next > Exit

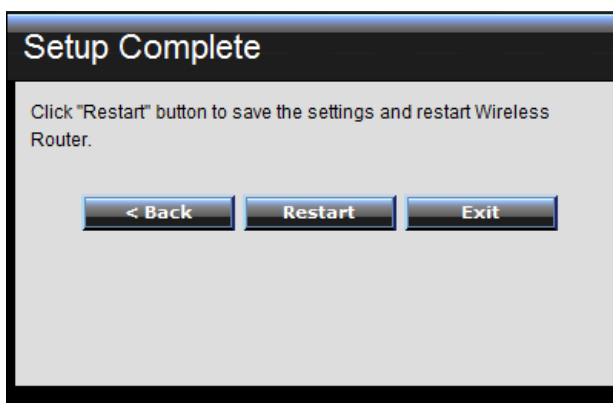
Step 5: Set Wireless LAN connection

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”.



Advanced configuration

Main

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.

The screenshot displays the configuration interface for the LAN & DHCP Server on a TRENDNET Wireless N Gigabit Router (TEW-634GRU). The interface includes a sidebar with navigation options: Main, LAN & DHCP Server, WAN, Password, Time, Dynamic DNS, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main configuration area contains the following fields and options:

- Host Name: TEW-634GRU
- IP Address: 192.168.10.1
- Subnet Mask: 255.255.255.0
- DHCP Server: Enabled Disabled
- Start IP: 192.168.10.101
- End IP: 192.168.10.200
- Domain Name: (empty)
- Lease Time: 1 Week
- Static DHCP: Enabled Disabled

Buttons for 'Cancel' and 'Apply' are located below the Static DHCP status. Below the configuration fields are sections for Static DHCP List and Dynamic DHCP List, each with a table showing Host Name, IP Address, and MAC Address.

Host Name	IP Address	MAC Address
testbp	192.168.10.101	00:19:DB:E7:00:C7
testbp	192.168.10.102	00:14:D1:57:40:F3
TEW-PC	192.168.10.103	00:16:36:FF:B9:12

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Host Name: Type the host name in the text box. The host name is required by some ISPs. The default host name is "TEW-634GRU"

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.

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.

TRENDnet		Wireless N Gigabit Router TEW-634GRU	
Main		WAN Help	
• LAN & DHCP Server		Connection Type	DHCP Client or Fixed IP
• WAN		WAN IP	<input checked="" type="radio"/> Obtain IP Automatically
• Password			<input type="radio"/> Specify IP
• Time		IP Address	192.168.231.2
• Dynamic DNS		Subnet Mask	255.255.255.0
Wireless		Default Gateway	0.0.0.0
Status		DNS 1	0.0.0.0
Routing		DNS 2	0.0.0.0
Access		MAC Address	00 - 01 - 23 - 45 - 67 - 8a
Management			<input type="button" value="Clone MAC Address"/>
Tools			<input type="button" value="Cancel"/> <input type="button" value="Apply"/>
Wizard			

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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.

The screenshot displays the 'Password' configuration page for a TRENDnet Wireless N Gigabit Router (TEW-634GRU). The interface is divided into a left sidebar and a main content area. The sidebar includes navigation tabs for 'Main', 'Wireless', 'Status', 'Routing', 'Access', 'Management', 'Tools', and 'Wizard'. The 'Main' tab is selected, showing sub-options for LAN & DHCP Server, WAN, Password, Time, and Dynamic DNS. The main content area is titled 'Password' and contains two sections: 'Administrator (The login name is "admin")' and 'User (The login name is "user")'. Each section has two input fields: 'New Password' and 'Confirm Password', both masked with dots. At the bottom of the form are 'Cancel' and 'Apply' buttons. A 'Help' button is located in the top right corner of the form area. The footer of the page reads 'Copyright © 2008 TRENDnet. All Rights Reserved.'

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.

The screenshot shows the 'Time' configuration page of a Trendnet Wireless N Gigabit Router (TEW-634GRU). The page has a dark theme with a sidebar on the left containing navigation buttons for Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The 'Time' page is active, showing a 'Local Time' of Apr/17/2009 11:39:54. The 'Time Zone' is set to '(GMT-08:00) Pacific Time (US/Canada), Tijuana'. The 'Synchronize the clock with' option is set to 'Manual'. The 'Default NTP server' field is empty. The 'Set the time' section shows 'Year 2009', 'Month Apr', and 'Day 17'. The 'Hour' is 11, 'Minute' is 39, and 'Second' is 54. The 'Daylight Saving' section has 'Enabled' and 'Disabled' radio buttons, with 'Disabled' selected. The 'Start' date is Mar 3rd Sun and the 'End' date is Nov 2nd Sun. There are 'Cancel' and 'Apply' buttons at the bottom. A 'Help' button is located in the top right corner of the configuration area. The copyright notice 'Copyright © 2008 TRENDnet. All Rights Reserved.' is visible at the bottom of the page.

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 from 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.

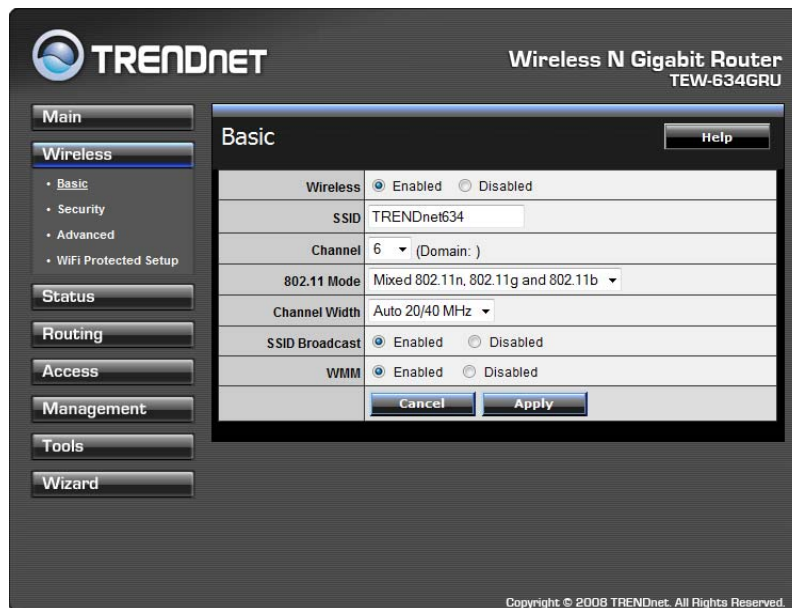
The screenshot shows the Dynamic DNS configuration interface. The DDNS function is currently disabled. The server address is set to DynDns.org. The Host Name, User Name, and Password fields are empty. The interface includes a sidebar with navigation options and a footer with the copyright notice: Copyright © 2008 TRENDnet. All Rights Reserved.

Wireless

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

Basic

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



Enable/Disable: Enables or disables 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:

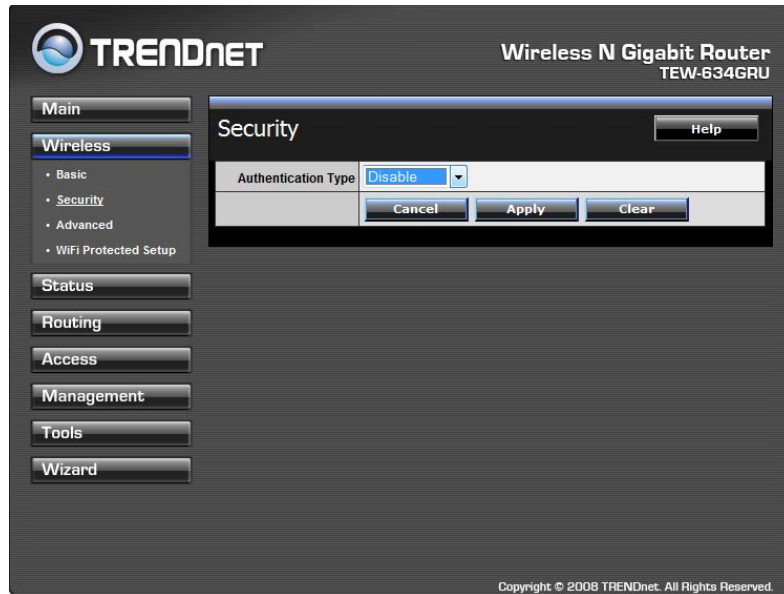
- **Mixed 802.11b and 802.11g** - Select if you are using both 802.11b and 802.11n wireless clients.
- **Mixed 802.11n, 802.11b, and 802.11g** - Select if you are using a mix of 802.11n, 11g, and 11b wireless clients.

Channel Width: Select the Channel Width:

- **Auto 20/40** - Select if you are using both 802.11n and non-802.11n wireless devices.
- **20MHz** - This is the default setting with single channel support required by Wi-Fi regulations.

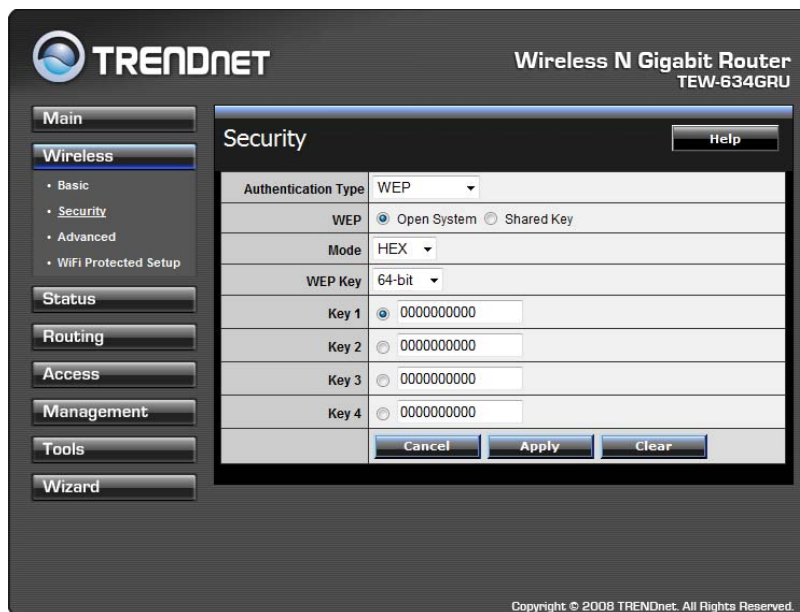
SSID Broadcast: While SSID Broadcast is enabled, all wireless clients will be able to view the WLAN Router's SSID. For security purposes, users may want to disable SSID Broadcast to ensure only authorized clients have access.

Security



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

WEP Encryption



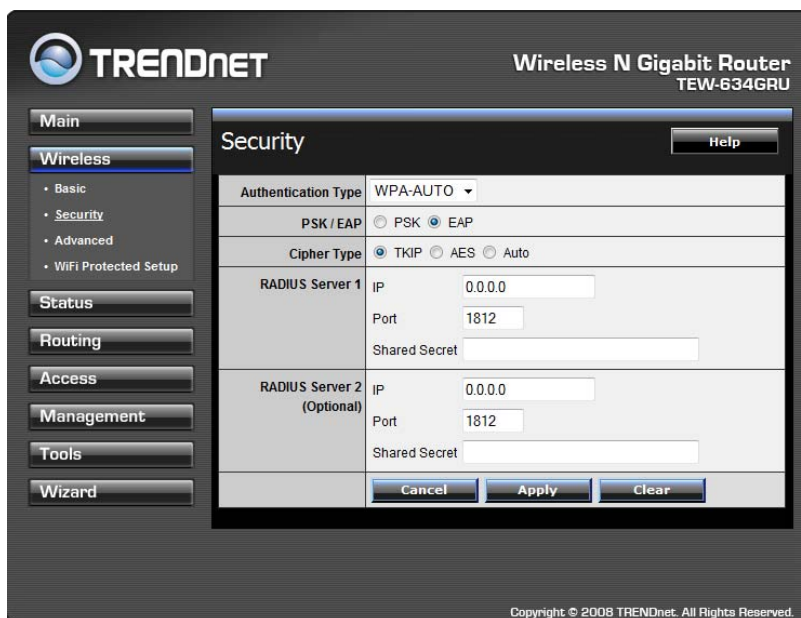
WEP: Open System and Shared Key requires the user to set a WEP key to exchange data with other wireless clients that have the same WEP key..

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



TRENDNET		Wireless N Gigabit Router TEW-634GRU	
Main		Security Help	
Wireless		Authentication Type: WPA-AUTO	
• Basic		PSK / EAP: <input type="radio"/> PSK <input checked="" type="radio"/> EAP	
• Security		Cipher Type: <input checked="" type="radio"/> TKIP <input type="radio"/> AES <input type="radio"/> Auto	
• Advanced		RADIUS Server 1	
• WiFi Protected Setup		IP: 0.0.0.0	
Status		Port: 1812	
Routing		Shared Secret: <input type="text"/>	
Access		RADIUS Server 2 (Optional)	
Management		IP: 0.0.0.0	
Tools		Port: 1812	
Wizard		Shared Secret: <input type="text"/>	
		<input type="button" value="Cancel"/> <input type="button" value="Apply"/> <input type="button" value="Clear"/>	
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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.

TRENDNET Wireless N Gigabit Router
TEW-634GRU

Main
Wireless
• Basic
• Security
• Advanced
• WiFi Protected Setup
Status
Routing
Access
Management
Tools
Wizard

Security Help

Authentication Type	WPA-AUTO
PSK / EAP	<input checked="" type="radio"/> PSK <input type="radio"/> EAP
Cipher Type	<input checked="" type="radio"/> TKIP <input type="radio"/> AES <input type="radio"/> Auto
Passphrase:	••••••••
Confirm Passphrase:	••••••••

Cancel Apply Clear

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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.

TRENDNET Wireless N Gigabit Router
TEW-634GRU

Main
Wireless
• Basic
• Security
• Advanced
• WiFi Protected Setup
Status
Routing
Access
Management
Tools
Wizard

Advanced Help

Beacon Interval	100	(default: 100 msec, range: 25~1000)
RTS Threshold	2346	(default: 2346, range: 256~2346)
Fragmentation Threshold	2346	(default: 2346, range: 1500~2346, even number only)
DTIM Interval	1	(default: 1, range: 1~255)

Cancel Apply

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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.

Wi-Fi Protected Setup

This screen enables users to configure the Wi-Fi Protected Setup function.

The screenshot shows the 'Wi-Fi Protected Setup' configuration page for a Trendnet Wireless N Gigabit Router (TEW-634GRU). The page is divided into a left sidebar with navigation tabs (Main, Wireless, Status, Routing, Access, Management, Tools, Wizard) and a main content area. The 'Wireless' tab is selected. The main content area has a 'Wi-Fi Protected Setup' title and a 'Help' button. Below the title, there are several configuration options:

- WPS:** Radio buttons for 'Enabled' and 'Disabled' (selected). An 'Apply' button is next to it.
- Status:** Radio buttons for 'UnConfigured' and 'Configured' (selected).
- Self-PIN Number:** A text box containing '45484896'.
- Client PIN Number:** An empty text box with a 'Start PIN' button next to it.
- Push Button Configuration:** A 'Start PBC' button.

Below these options is a table with three columns: Authentication, Encryption, and Key.

Authentication	Encryption	Key
WPA-PSK	TKIP	password

At the bottom right of the page, there is a copyright notice: 'Copyright © 2008 TRENDnet. All Rights Reserved.'

WPS: Enable or Disable the WPS (Wi-Fi Protected Setup) function

Status: Displays the state (Un-configured State/Configured State) information of WPS.

Self-PIN Number: Display the default PIN number of the WLAN Router.

Client PIN Number: Type Client PIN number that the client uses to negotiate with WLAN Router via WPS protocol. It is only used when users want their station to join WLAN Router's network.

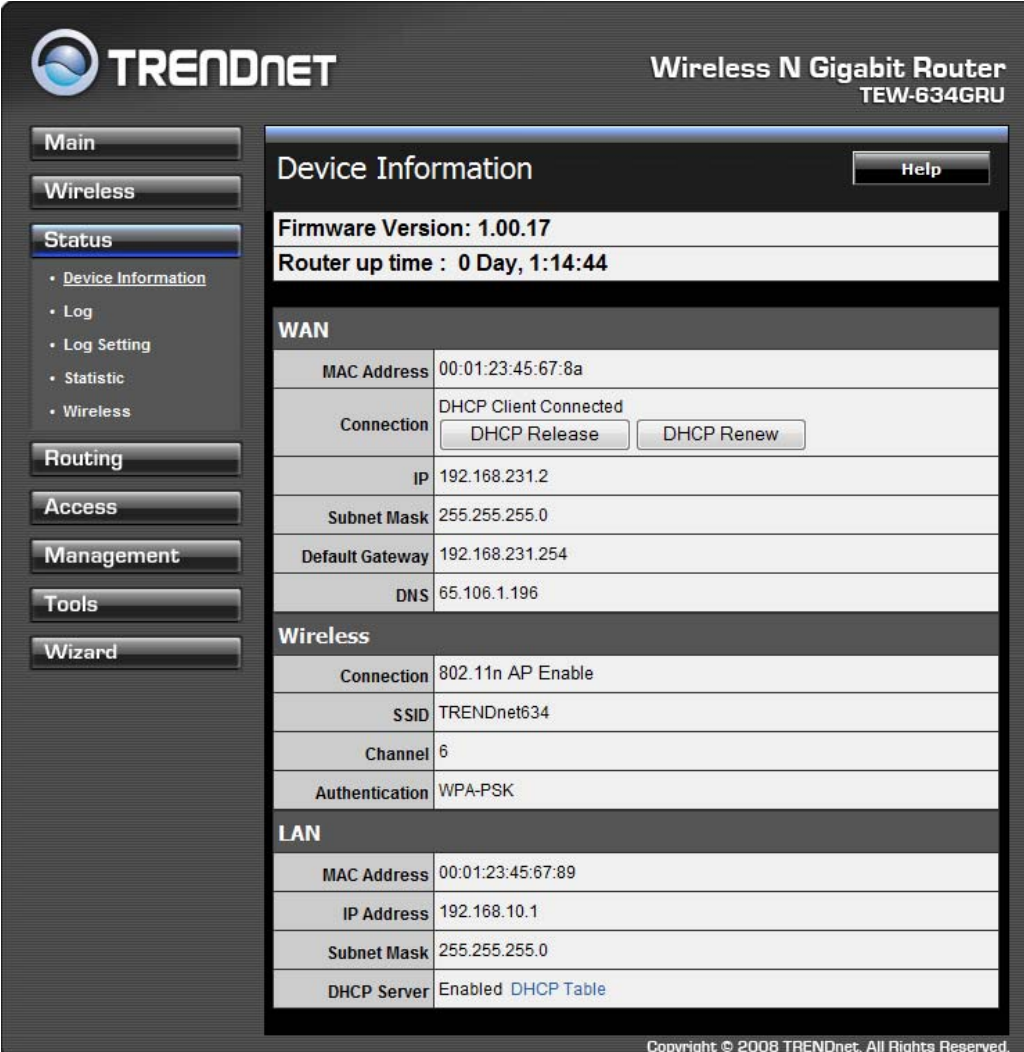
Push Button Configuration: Clicking this button will invoke the Push Button Configuration (PBC) method of WPS. It is only used when WLAN Router acts as a Registrar. This feature can also be used by pressing the WPS button on the side of the WLAN Router.

Status

This selection enables users to view the status of the WLAN Router LAN, WAN and Wireless connections, and view logs and statistics pertaining to connections and packet transfers.

Device Information

This screen enables users to view the WLAN Router's LAN, Wireless and WAN configurations.



The screenshot shows the web interface of a Trendnet Wireless N Gigabit Router (TEW-634GRU). The interface is divided into a left sidebar with navigation buttons and a main content area. The 'Status' button is selected in the sidebar, and the 'Device Information' sub-tab is active. The main content area displays the following information:

TRENDNET Wireless N Gigabit Router TEW-634GRU

Device Information Help

Firmware Version: 1.00.17
Router up time : 0 Day, 1:14:44

WAN

MAC Address	00:01:23:45:67:8a
Connection	DHCP Client Connected <input type="button" value="DHCP Release"/> <input type="button" value="DHCP Renew"/>
IP	192.168.231.2
Subnet Mask	255.255.255.0
Default Gateway	192.168.231.254
DNS	65.106.1.196

Wireless

Connection	802.11n AP Enable
SSID	TRENDnet634
Channel	6
Authentication	WPA-PSK

LAN

MAC Address	00:01:23:45:67:89
IP Address	192.168.10.1
Subnet Mask	255.255.255.0
DHCP Server	Enabled DHCP Table

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Firmware Version: Displays the latest build of the WLAN Router firmware interface. After updating the firmware in Tools - Firmware, check this to ensure that the firmware was successfully updated.

WAN: This section displays the WAN interface configuration including the MAC address, Connection status, DHCP client status, IP address, Subnet mask, Default gateway, and DNS.

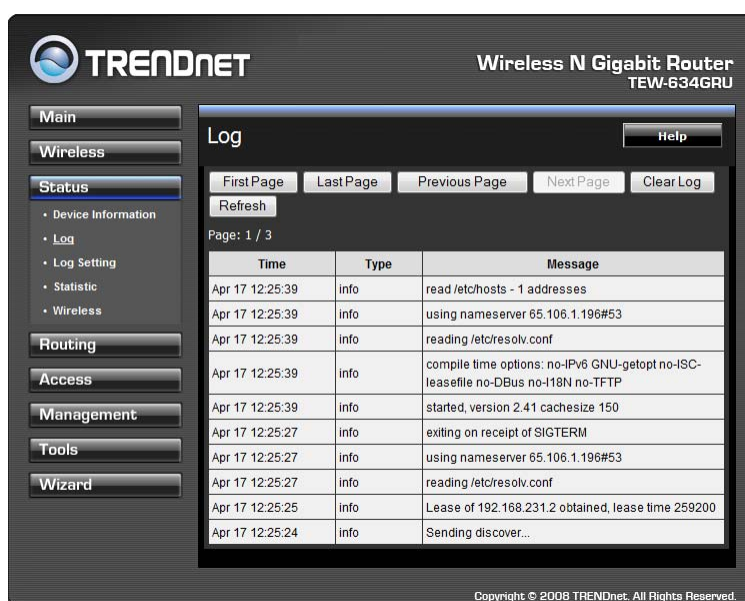
Wireless: This section displays the wireless configuration information, including the MAC address, the Connection status, SSID, Channel and Authentication type.

LAN: This section displays the LAN interface configuration including the MAC address, IP Address, Subnet Mask, and DHCP Server Status. Click “DHCP Table” to view a list of client stations currently connected to the WLAN Router LAN interface.

Click “*DHCP Release*” to release all IP addresses assigned to client stations connected to the WAN via the WLAN Router. Click “*DHCP Renew*” to reassign IP addresses to client stations connected to the WAN.

Log

This screen enables users to view a running log of Router system statistics, events, and activities. The log displays up to 200 entries. Older entries are overwritten by new entries. The Log screen commands are as follows:



Click “*First Page*” to view the first page of the log

Click “*Last Page*” to view the final page of the log

Click “*Previous Page*” to view the page just before the current page

Click “*Next Page*” to view the page just after the current page

Click “*Clear Log*” to delete the contents of the log and begin a new log

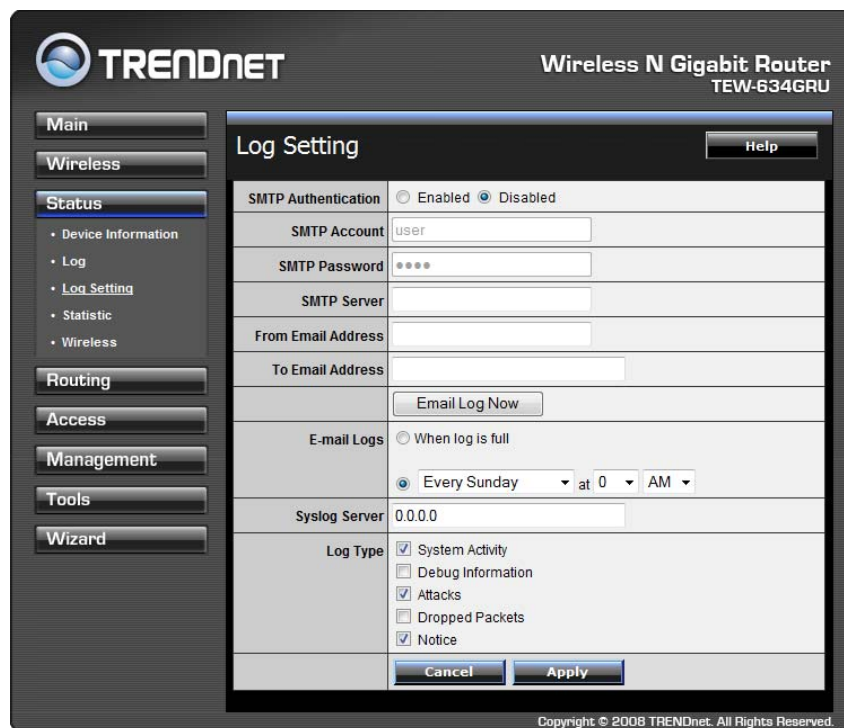
Click “*Refresh*” to renew log statistics

Time: Displays the time and date that the log entry was created.

Message: Displays summary information about the log entry.

Log Setting

This screen enables users to set Router Log parameters.



SMTP Authentication: Select Enabled SMTP server authentication.

SMTP Account: If the SMTP Authentication enabled, fill in the SMTP account name here.

SMTP Password: If the SMTP Authentication enabled, fill in the password of the SMTP account here.

SMTP Server: Type your SMTP server address here.

Send to: Type an email address for the log to be sent to. Click “Email Log Now” to immediately send the current log.

- **E-mail Logs: When log is full** - The time is not fixed. The log will be sent when the log is full, which will depend on the volume of traffic.
- **Every day, Every Monday ...** - The log is sent on the interval specified.
 - If "Every day" is selected, the log is sent at the time specified.
 - If the day is specified, the log is sent once per week, on the specified day.
 - Select the time of day you wish the E-mail to be sent.
 - If the log is full before the time specified to send it, it will be sent regardless.

Syslog Server: Type the IP address of the Syslog Server if user wants the WLAN Router to listen and receive incoming Syslog messages.

Log Type: Enables users to select what items will be included in the log:

System Activity: Displays information related to WLAN Router operation.

Debug Information: Displays information related to errors and system malfunctions.

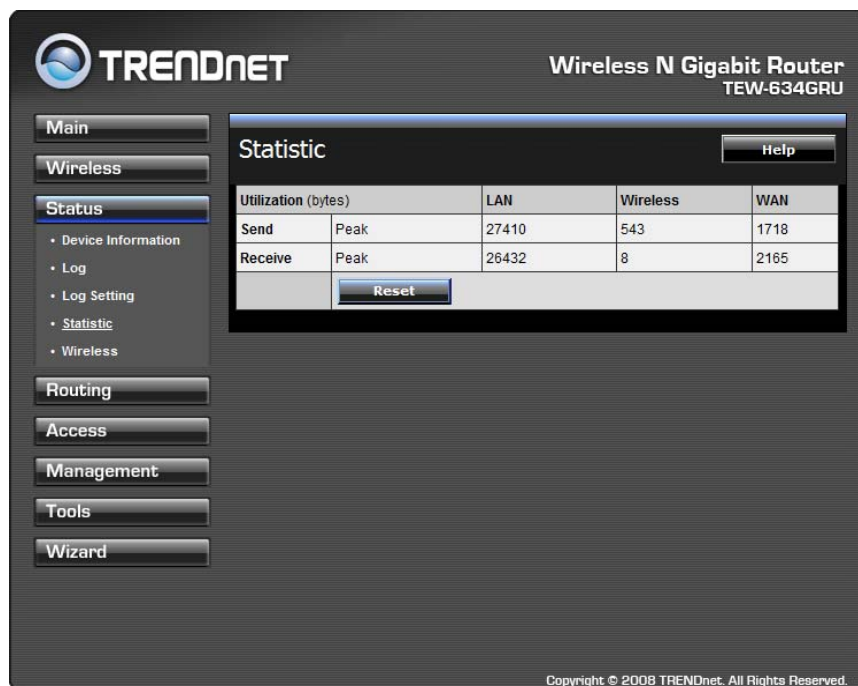
Attacks: Displays information about any malicious activity on the network.

Dropped Packets: Displays information about packets that have not been transferred successfully.

Notice: Displays important notices by the system administrator.

Statistic

This screen displays a table that shows the rate of packet transmission via the WLAN Router's LAN, Wireless and WAN ports (in bytes per second).



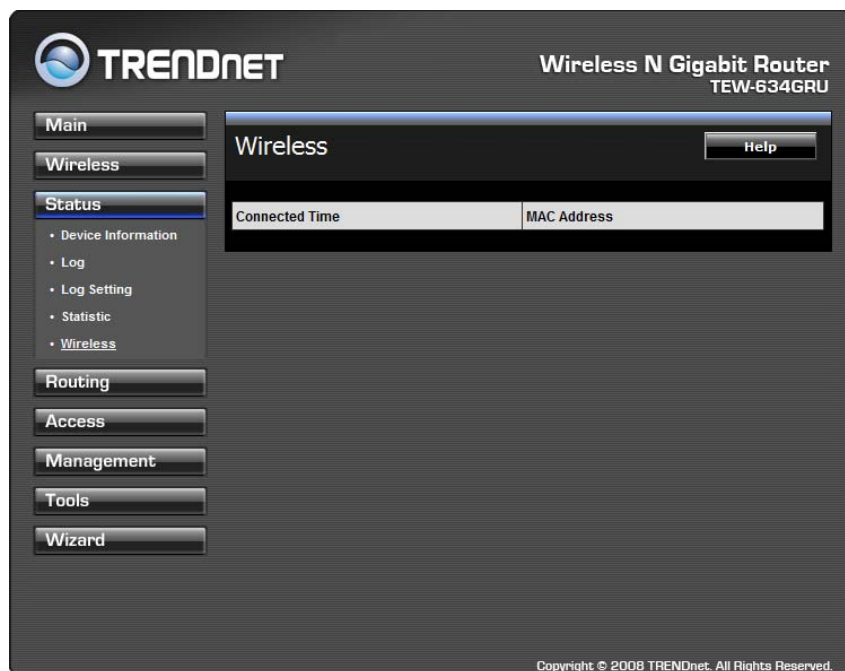
The screenshot shows the Trendnet web interface for a Wireless N Gigabit Router (TEW-634GRU). The 'Statistic' page is active, displaying a table of utilization (bytes) for LAN, Wireless, and WAN ports. The table is organized into two rows: 'Send' and 'Receive', each with a 'Peak' column. The 'Reset' button is located below the table.

Utilization (bytes)		LAN	Wireless	WAN
Send	Peak	27410	543	1718
Receive	Peak	26432	8	2165

Click **“Reset”** to erase all statistics and begin logging statistics again.

Wireless

This screen enables users to view information about wireless devices that are connected to the WLAN Router.



Connected Time: Lists all wireless clients and how long they have been connected WLAN Router.

MAC Address: Displays the wireless client's MAC address.

Routing

This selection enables users to set how the WLAN Router forwards data: Static and Dynamic. Routing Table enables users to view the information created by the WLAN Router that displays the network interconnection topology.

Static

It enables users to set parameters by which the WLAN Router forwards data to its destination if the network has a static IP address.



The screenshot shows the configuration interface for a Wireless N Gigabit Router (TEW-634GRU). The left sidebar contains navigation tabs: Main, Wireless, Status, Routing (selected), Access, Management, Tools, and Wizard. Under the Routing tab, there are sub-options: Static, Dynamic, and Routing Table. The main content area is titled "Static" and includes a "Help" button. It contains the following fields:

- Network Address:
- Network Mask:
- Gateway Address:
- Interface:
- Metric:

Below these fields are four buttons: "Add", "Update", "Delete", and "Cancel". At the bottom of the form is a table with the following structure:

Network Address	Mask	Gateway	Interface	Metric
-----------------	------	---------	-----------	--------

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Network Address: Type the static IP address the network uses to access the Internet. Contact the ISP or network administrator for this information.

Network Mask: Type the network (subnet) mask of the network. If this field is left blank, the network mask defaults to 255.255.255.0. Contact the ISP or network administrator for this information.

Gateway Address: Type the gateway address of the network. Contact the ISP or network administrator for this information.

Interface: Select an interface, WAN or LAN, to connect to the Internet.

Metric: Select which metric that the user wants to apply to this configuration.

Add: Click to add the configuration to the static IP address table at the bottom of the page.

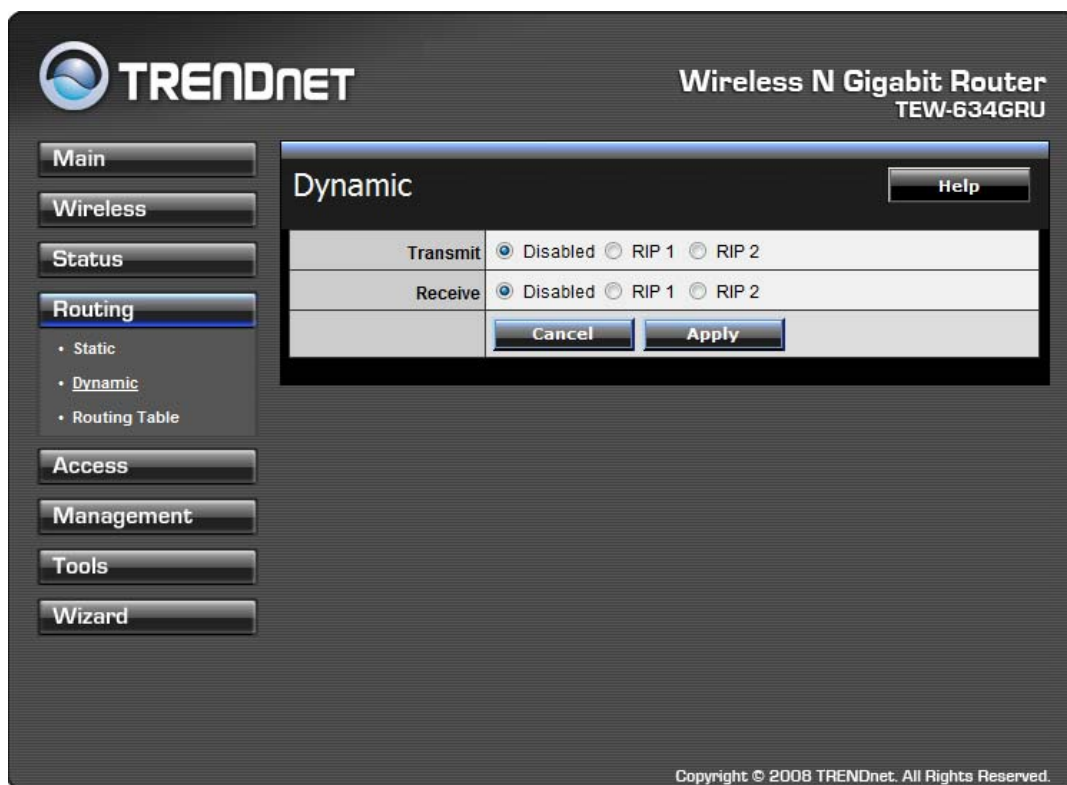
Update: Select one of the entries in the static IP address table at the bottom of the page, and after changing parameters, click “Update” to confirm the changes.

Delete: Select one of the entries in the static IP address table at the bottom of the page and click “Delete” to remove the entry.

Cancel: Click the Cancel button to erase all fields and enter new information.

Dynamic

This screen enables users to set NAT parameters.

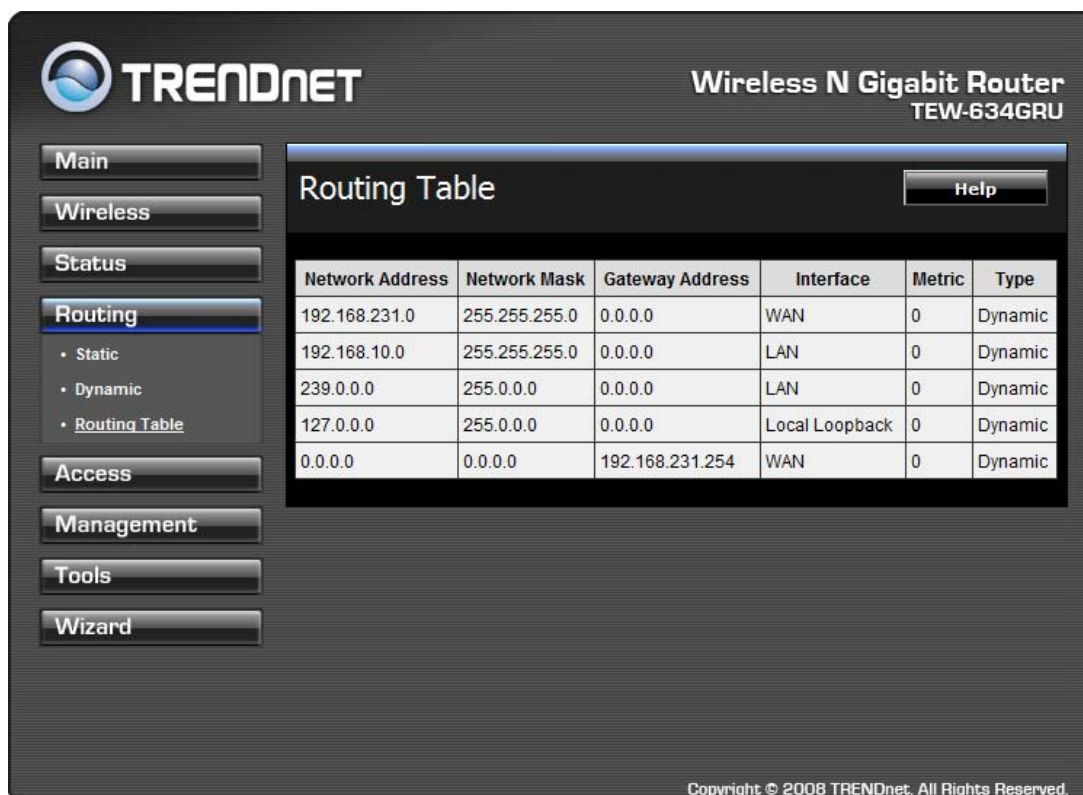


Transmit: Click the radio buttons to set the desired transmit parameters, Disabled, RIP 1, or RIP 2.

Receive: Click the radio buttons to set the desired transmit parameters, Disabled, RIP 1, or RIP 2.

Routing Table

This displays the routing table of the WLAN Router. The routing table is a database created by the WLAN Router that displays the network interconnection topology.



The screenshot shows the web interface of a Trendnet Wireless N Gigabit Router (TEW-634GRU). The interface is dark-themed with a sidebar on the left containing navigation buttons: Main, Wireless, Status, Routing (selected), Access, Management, Tools, and Wizard. The Routing section is expanded, showing sub-options for Static, Dynamic, and Routing Table. The main content area displays the Routing Table with a 'Help' button in the top right corner. The table has six columns: Network Address, Network Mask, Gateway Address, Interface, Metric, and Type. It contains five rows of data.

Network Address	Network Mask	Gateway Address	Interface	Metric	Type
192.168.231.0	255.255.255.0	0.0.0.0	WAN	0	Dynamic
192.168.10.0	255.255.255.0	0.0.0.0	LAN	0	Dynamic
239.0.0.0	255.0.0.0	0.0.0.0	LAN	0	Dynamic
127.0.0.0	255.0.0.0	0.0.0.0	Local Loopback	0	Dynamic
0.0.0.0	0.0.0.0	192.168.231.254	WAN	0	Dynamic

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Network Address: Displays the network IP address of the connected node.

Network Mask: Displays the network (subnet) mask of the connected node.

Gateway Address: Displays the gateway address of the connected node.

Interface: Displays whether the node is connected via a WAN or LAN.

Metric: Displays the metric of the connected node.

Type: Displays whether the node has a static or dynamic IP address

Access

This page defines access restrictions, set up protocol and IP filters, create virtual servers, access for special applications such as games, and set firewall rules.

Filters

Using filters to deny or allow the users to access. Five types of filters to select: MAC, URL blocking, IP, Protocol filter and Domain blocking.

MAC Filters

The screenshot shows the TRENDnet web interface for configuring MAC filters. The sidebar on the left contains navigation buttons for Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The 'Access' menu is expanded, showing sub-items like Filter, Virtual Server, Special AP, DMZ, and Firewall Settings. The main content area is titled 'Filter' and includes a 'Help' button. The 'Filters' section has three radio buttons: 'MAC Filters' (selected), 'Domain/URL Blocking', and 'Protocol/IP Filters'. The 'MAC Filter' section has three radio buttons: 'Disabled' (selected), 'Only allow computers with MAC address listed below to access the network', and 'Only deny computers with MAC address listed below to access the network'. Below these sections is an 'Apply' button. The 'MAC Table' section has input fields for 'Name' and 'MAC Address', and buttons for 'Add', 'Update', 'Delete', and 'Cancel'. At the bottom, there is a table with columns for 'Name' and 'MAC Address'. The copyright notice at the bottom right reads 'Copyright © 2008 TRENDnet. All Rights Reserved.'

MAC Filter: Enables you to allow or deny Internet access to users within the LAN based upon the MAC address of their network interface. Click the radio button next to Disabled to disable the MAC filter.

Disable: Disable the MAC filter function.

Allow: Only allow computers with MAC address listed in the MAC Table.

Deny: Computers in the MAC Table are denied Internet access.

MAC Table: Use this section to create a user profile which Internet access is denied or allowed. The user profiles are listed in the table at the bottom of the page. (Note: Click anywhere in the item. Once the line is selected, the fields automatically load the item's parameters, which you can edit.)

Name: Type the name of the user to be permitted/denied access.

MAC Address: Type the MAC address of the user's network interface.

Add: Click to add the user to the list at the bottom of the page.

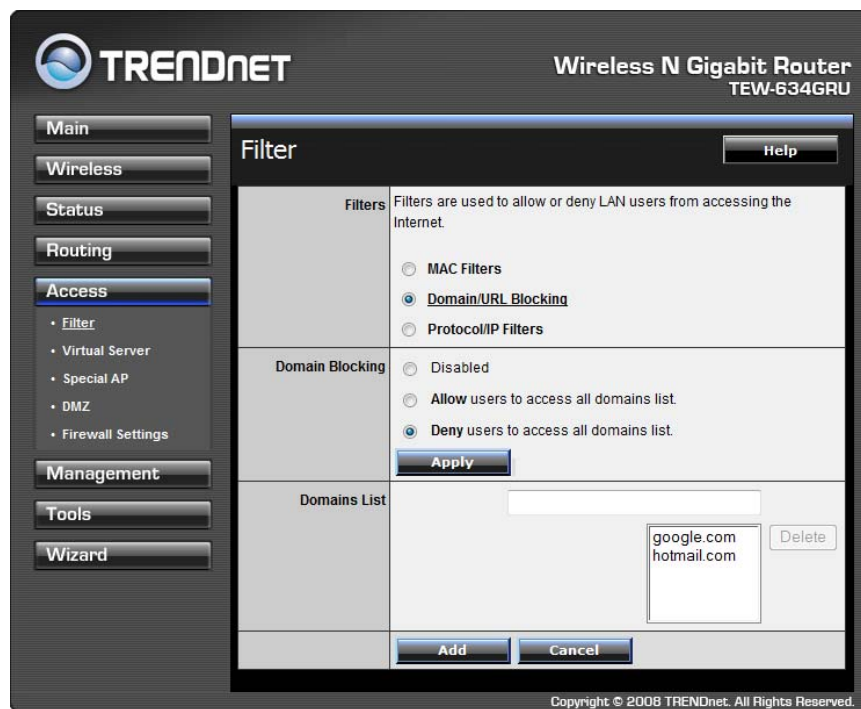
Update: Click to update information for the user, if you have changed any of the fields.

Delete: Select a user from the table at the bottom of the list and click Delete to remove the user profile.

Cancel: Click the Cancel button to erase all fields and enter new information.

Domain/URL Blocking

You could specify the domains that allow users to access or deny by clicking one of the two items. Also, add the specified domains in the text box.



Disable: Disable the Domain/URL Blocking function.

Allow: Allow users to access all domains except “Domains List”.

Deny: Deny users to access all domains except “Domains List”.

Domains List: List Domain/URL you will Denied or Allowed.

Add: Click to **Add** button to add domain to the Domains list.

Cancel: Select a user from the table at the bottom of the list and click Cancel to remove the user profile.

IP Filters

This screen enables you to define a minimum and maximum IP address range filter; all IP addresses falling within the range are not allowed Internet access. The IP filter profiles are listed in the table at the bottom of the page. (Note: Click anywhere in the item. Once the line is selected, the fields automatically load the item's parameters, which you can edit.)

Filter

Filters are used to allow or deny LAN users from accessing the Internet.

MAC Filters
 Domain/URL Blocking
 Protocol/IP Filters

Edit protocol Filter in List

Enable Enable Disabled

Name:

Protocol: TCP

Port:

IP Range:

	Name	Protocol	Port Range	IP Range
<input type="checkbox"/>	Filter FTP	Any	20-21	0.0.0.0-0.0.0.0
<input type="checkbox"/>	Filter HTTP	Any	80-80	0.0.0.0-0.0.0.0
<input type="checkbox"/>	Filter HTTPS	Any	443-443	0.0.0.0-0.0.0.0
<input type="checkbox"/>	Filter DNS	Any	53-53	0.0.0.0-0.0.0.0
<input type="checkbox"/>	Filter SMTP	Any	25-25	0.0.0.0-0.0.0.0
<input type="checkbox"/>	Filter POP3	Any	110-110	0.0.0.0-0.0.0.0
<input type="checkbox"/>	Filter Telnet	Any	23-23	0.0.0.0-0.0.0.0

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Enable: Click to enable or disable the IP address filter.

Name: Type the name of the user to be denied access.

Protocol: Select a protocol (TCP or UDP) to use for the virtual server.

Port: Type the port range of the protocol.

IP Range: Type the IP range. IP addresses falling between this value and the Range End are not allowed to access the Internet.

Add: Click to add the IP range to the table at the bottom of the screen.

Update: Click to update information for the range if you have selected a list item and have made changes.

Delete: Select a list item and click Delete to remove the item from the list.

Cancel: Click the *Cancel* button to erase all fields and enter new information.

Virtual Server

This screen enables users to create a virtual server via the WLAN Router. If the WLAN Router is set as a virtual server, remote users requesting Web or FTP services through the WAN are directed to local servers in the LAN. The WLAN Router redirects the request via the protocol and port numbers to the correct LAN server. The Virtual Server profiles are listed in the table at the bottom of the page.

Note: When selecting items in the table at the bottom, click anywhere in the item. The line is selected, and the fields automatically load the item's parameters, which user can edit.

	Name	Protocol	LAN Server
<input type="checkbox"/>	Virtual Server FTP	TCP 21/21	0.0.0.0
<input type="checkbox"/>	Virtual Server HTTP	TCP 80/80	0.0.0.0
<input type="checkbox"/>	Virtual Server HTTPS	TCP 443/443	0.0.0.0
<input type="checkbox"/>	Virtual Server DNS	UDP 53/53	0.0.0.0
<input type="checkbox"/>	Virtual Server SMTP	TCP 25/25	0.0.0.0
<input type="checkbox"/>	Virtual Server POP3	TCP 110/110	0.0.0.0
<input type="checkbox"/>	Virtual Server Telnet	TCP 23/23	0.0.0.0
<input type="checkbox"/>	IPSec	UDP 500/500	0.0.0.0
<input type="checkbox"/>	PPTP	TCP 1723/1723	0.0.0.0
<input type="checkbox"/>	NetMeeting	TCP 1720/1720	0.0.0.0

Enable: Click to enable or disable the virtual server.

Name: Type a descriptive name for the virtual server.

Protocol: Select a protocol (TCP or UDP) to use for the virtual server.

Private Port: Type the port number of the computer on the LAN that is being used to act as a virtual server.

Public Port: Type the port number on the WAN that will be used to provide access to the virtual server.

LAN Server: Type the LAN IP address that will be assigned to the virtual server.

Add: Click to add the virtual server to the table at the bottom of the screen.

Update: Click to update information for the virtual server if the user has selected a listed item and has made changes.

Delete: Select a listed item and click “Delete” to remove the item from the list.

Cancel: Click *Cancel* button to erase all fields and enter new information.

Special AP

This screen enables users to specify special applications, such as games which require multiple connections that are blocked by NAT. The special applications profiles are listed in the table at the bottom of the page.

Note: When selecting items in the table at the bottom, click anywhere in the item. The line is selected, and the fields automatically load the item's parameters, which user can edit.

	Name	Trigger Port Range	Incoming Port
<input type="checkbox"/>	Battle.net	Any 6112-6112	Any 6112
<input type="checkbox"/>	Dialpad	Any 7175-7175	Any 51200-51201,51210
<input type="checkbox"/>	ICU II	Any 2019-2019	Any 2000-2038,2025-2051,2069,2085,3010-3030
<input type="checkbox"/>	PC-to-Phone	Any 12053-12053	Any 12120,12122,24150-24220
<input type="checkbox"/>	Quick Time 4	Any 554-554	Any 6970-6999

Enable: Click to enable or disable the application profile. When enabled, users will be able to connect to the application via the WLAN Router’s WAN connection. Click “Disabled” on a profile to prevent users from accessing the application on the WAN connection.

Name: Type a descriptive name for the application.

Trigger: Defines the outgoing communication that determines whether the user has legitimate access to the application.

- **Protocol:** Select the protocol (TCP, UDP, or ICMP) that can be used to access the application.
- **Port Range:** Type the port range that can be used to access the application in the text boxes.

Incoming: Defines which incoming communications users are permitted to connect with.

- **Protocol:** Select the protocol (TCP, UDP, or ICMP) that can be used by the incoming communication.
- **Port:** Type the port number that can be used for the incoming communication.

Add: Click to add the special application profile to the table at the bottom of the screen.

Update: Click to update information for the special application if user have selected a list item and have made changes.

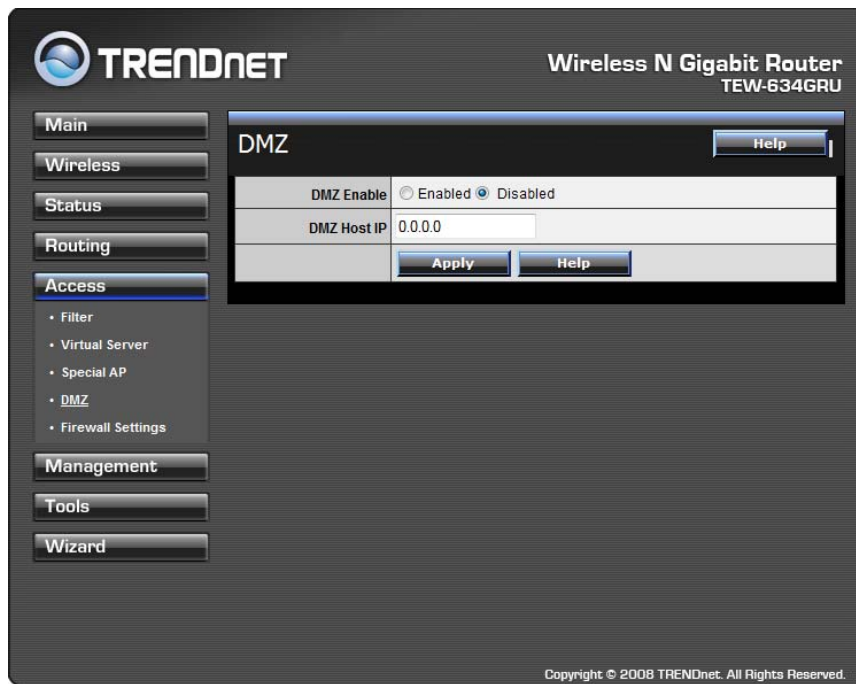
Delete: Select a list item and click Delete to remove the item from the list.

Cancel: Click *Cancel* button to erase all fields and enter new information.

DMZ

This screen enables users to create a DMZ for those computers that cannot access Internet applications properly through the WLAN Router and associated security settings.

Note: Any clients added to the DMZ exposes the clients to security risks such as viruses and unauthorized access.



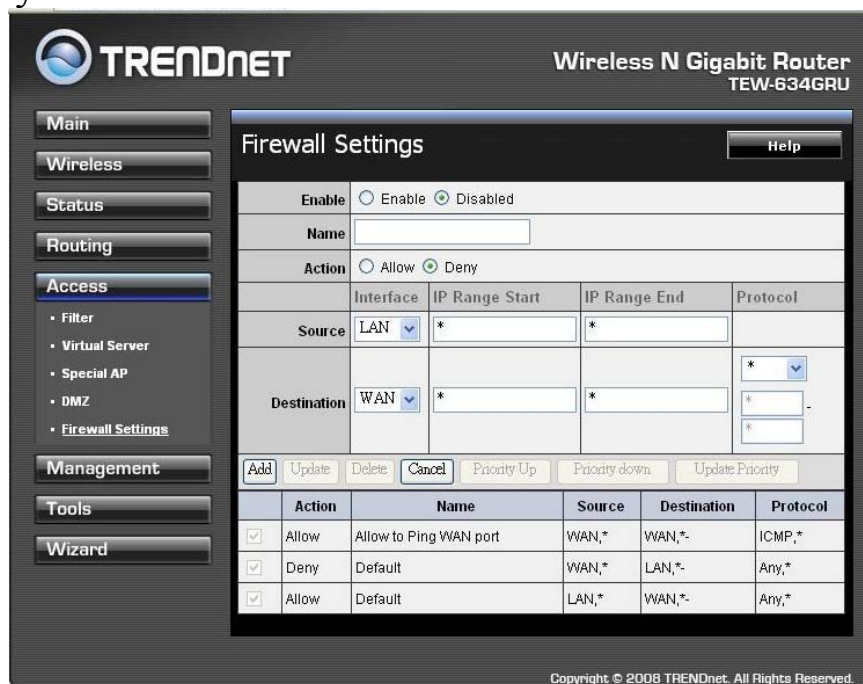
Enable: Click to enable or disable the DMZ.

DMZ Host IP: Type a host IP address for the DMZ. The computer with this IP address acts as a DMZ host with unlimited Internet access.

Apply: Click to save the settings.

Firewall Settings

This screen enables users to set up the firewall. The WLAN Router provides basic firewall functions, by filtering all the packets that enter the WLAN Router using a set of rules. The rules are listed in sequential order--the lower the rule number, the higher the priority the rule has.



Enable: Click to enable or disable the firewall rule profile.

Name: Type a descriptive name for the firewall rule profile.

Action: Select whether to allow or deny packets that conform to the rule.

Source: Defines the source of the incoming packet that the rule is applied to.

- **Interface:** Select which interface (WAN or LAN) the rule is applied to.
- **IP Range Start:** Type the start IP address that the rule is applied to.
- **IP Range End:** Type the end IP address that the rule is applied to.

Destination: Defines the destination of the incoming packet that the rule is applied to.

- **Interface:** Select which interface (WAN or LAN) the rule is applied to.
- **IP Range Start:** Type the start IP address that the rule is applied to.
- **IP Range End:** Type the end IP address that the rule is applied to.
- **Protocol:** Select the protocol (TCP, UDP, or ICMP) of the destination.
- **Port Range:** Select the port range.

Add: Click to add the rule profile to the table at the bottom of the screen.

Update: Click to update information for the rule if the user has selected a listed item and has made changes.

Delete: Select a listed item and click *Delete* button to remove the entry from the list.

New: Click “New” to erase all fields and enter new information.

Priority Up: Select a rule from the list and click “Priority Up” to increase the priority of the rule.

Priority Down: Select a rule from the list and click “Priority Down” to decrease the priority of the rule.

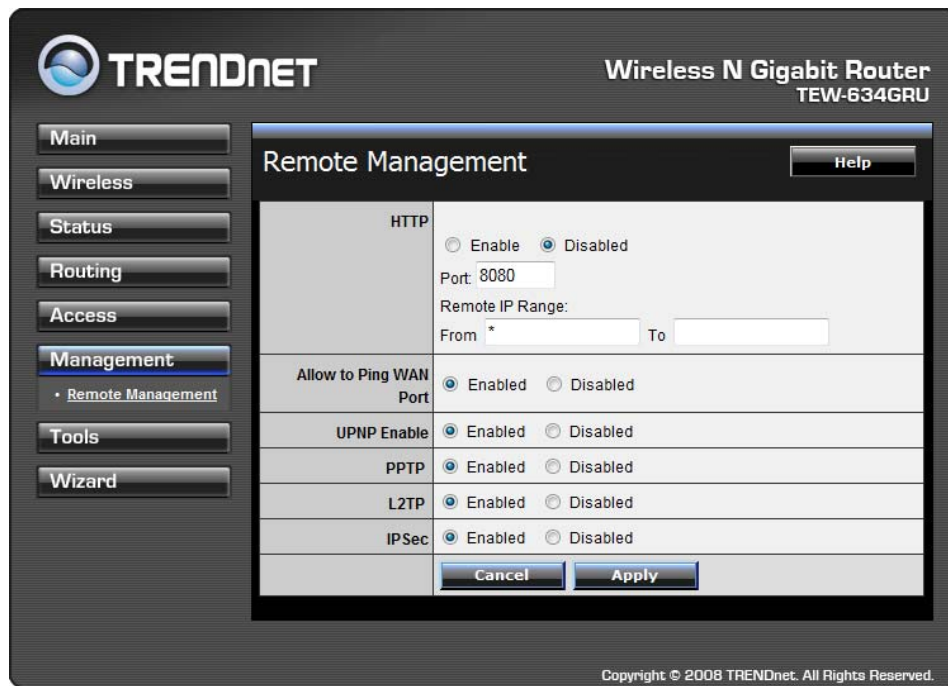
Update Priority: After increasing or decreasing the priority of a rule, click “Update Priority” to save the changes.

Management

Management enables users to set up the Remote Management feature.

Remote Management

This screen enables users to set up remote management. Using remote management, the WLAN Router can be configured through the WAN via a Web browser. A user name and password are required to perform remote management.



HTTP: Enables users to set up HTTP access for remote management.

Allow to Ping WAN Port: Type a range of Router IP addresses that can be pinged from remote locations

UPnP Enable: UPnP is short for Universal Plug and Play that is a networking architecture that provides compatibility among networking equipment, software, and peripherals. The WLAN Router is an UPnP-enabled Router and will only work with other UPnP devices/software. If user does not want to use the UPnP functionality, select “Disabled” to disable it.

PPTP: Enables users to set up PPTP access for remote management.

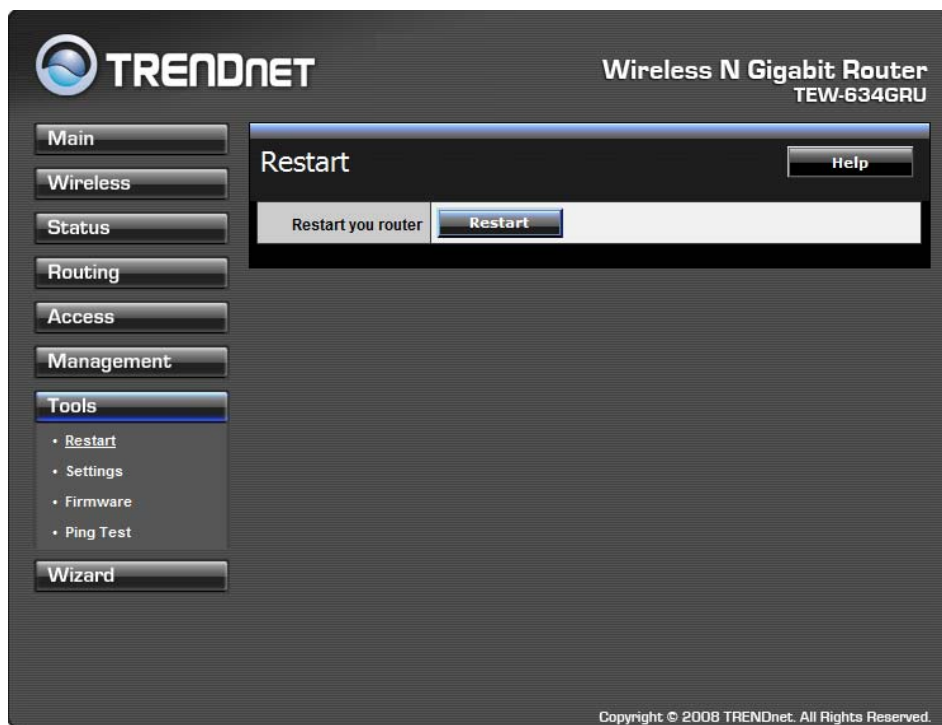
IPSec: Enables users to set up IPSec access for remote management.

Tools

This page enables users to restart the system, save and load different settings as profiles, restore factory default settings, run a setup wizard to configure WLAN Router settings, upgrade the firmware, and ping remote IP addresses.

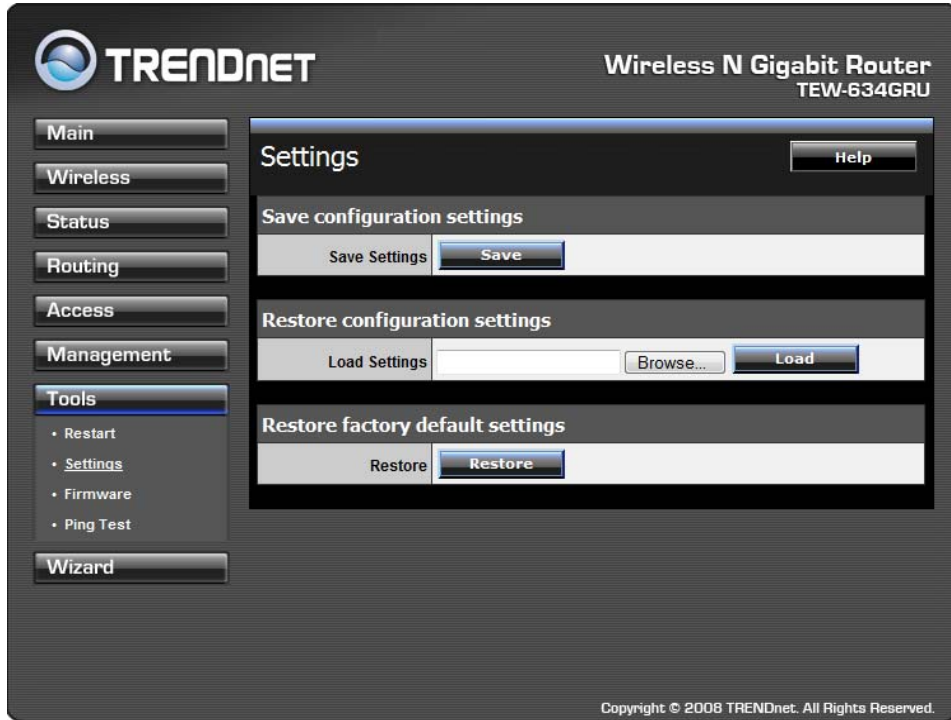
Restart

Click “Restart” to restart the system in the event the system is not performing correctly.



Settings

This screen enables users to save settings as a profile and load profiles for different circumstances. User can also load the factory default settings, and run a setup wizard to configure the WLAN Router and Router interface.



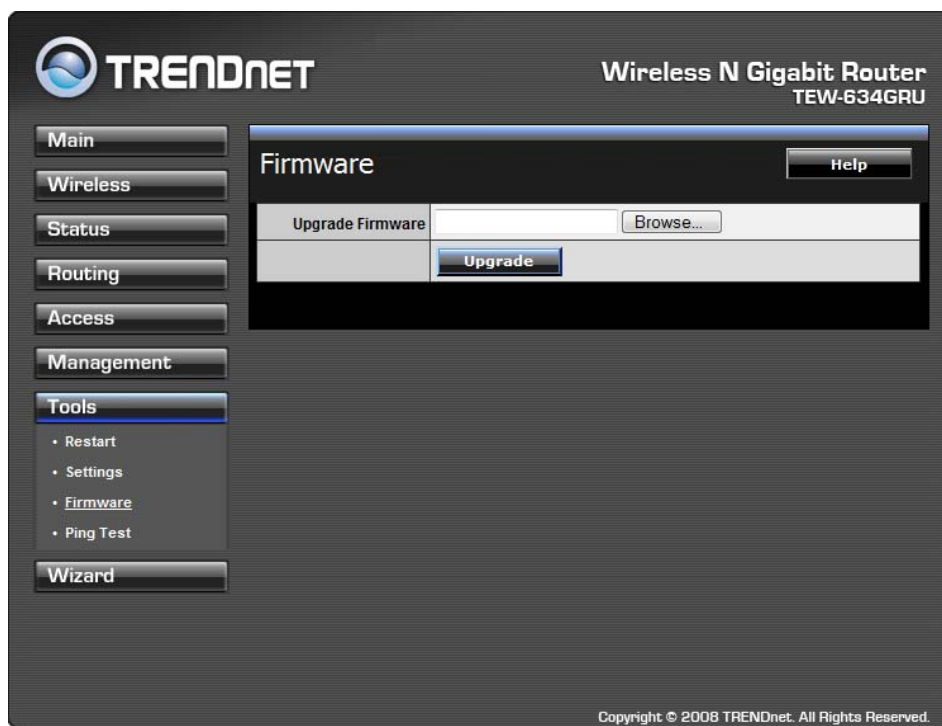
Save Settings: Click “Save” to save the current configuration as a profile that can load when necessary.

Load Settings: Click “Browse” and go to the location of a stored profile. Click “Load” to load the profile's settings.

Restore Factory Default Settings: Click “Restore” to restore the default settings. All configuration changes will lose.

Firmware

This screen enables users to keep the WLAN Router firmware up to date.

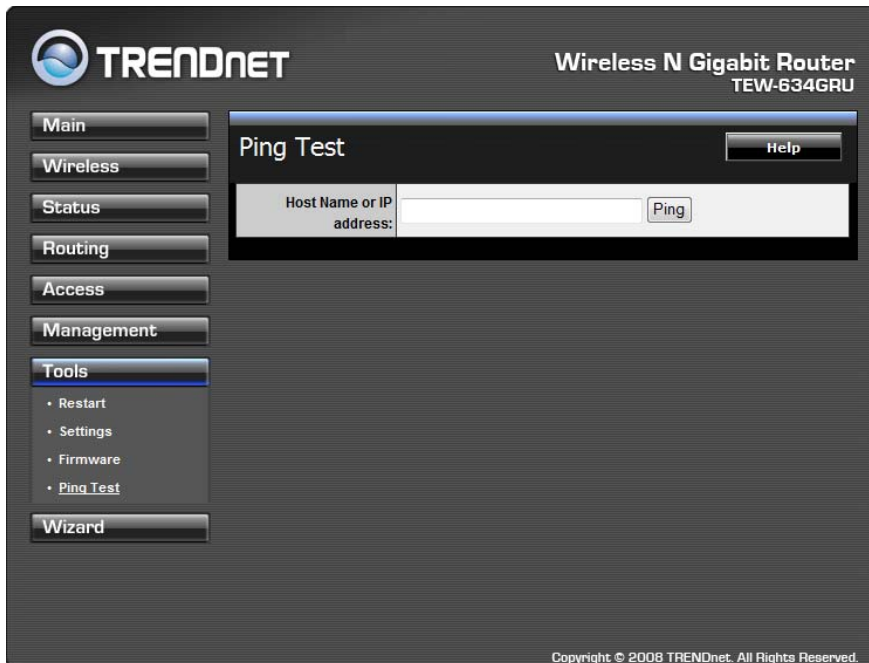


Please follow the below instructions:

Download the latest firmware from the manufacturer's Web site, and save it to disk. Click “**Browse**” and go to the location of the downloaded unzipped firmware file. Select the file and click “**Upgrade**” to update the firmware to the latest release.

Ping Test

The ping test enables users to determine whether an IP address or host is present on the Internet. Type the host name or IP address in the text box and click Ping.

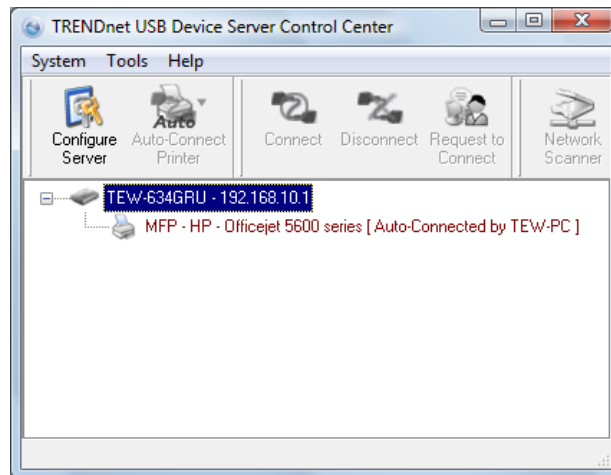


The screenshot displays the web management interface for a Trendnet Wireless N Gigabit Router (TEW-634GRU). The interface is dark-themed with a sidebar on the left containing navigation buttons for Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The Tools menu is expanded, showing sub-options: Restart, Settings, Firmware, and Ping Test. The main content area is titled "Ping Test" and features a "Help" button in the top right corner. Below the title, there is a text input field labeled "Host Name or IP address:" and a "Ping" button. At the bottom right of the interface, a copyright notice reads "Copyright © 2008 TRENDnet. All Rights Reserved."

USB CONTROL CENTER UTILITY

Utility

The USB Control Center Utility is used to connect your computer to USB devices connected to the WLAN Router. The utility allows you to use USB devices as if they were connected directly to your PC through the Wireless N Gigabit Router with USB port (TEW-634GRU).



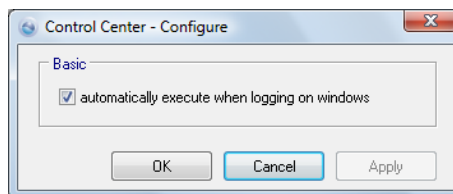
System

Select this feature to completely close and exit from USB Control Center utility.

Tools

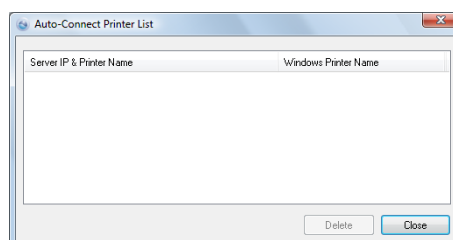
Configuration

This option allows you to enable/disable the ability to automatically run the USB Control Center Utility when your computer turns on.



Auto-Connect Printer List

Provides a list of installed printers on your computer. Select the printer you would like to add into the Auto-Connect Printer Lists.



Configure Server

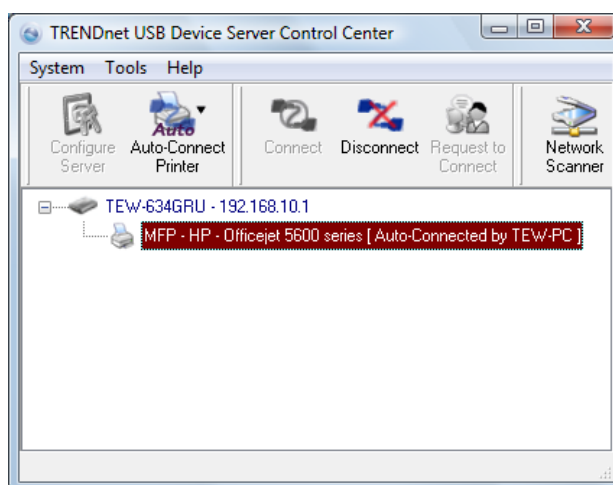
Click this button to configure the USB server and to log into the user interface of the Wireless N Gigabit Router with USB port (TEW-634GRU).

Print Sharing

This section describes how to use a USB printer through the WLAN Router. Note: For proper installation it is recommended that the printer's drivers are installed before connecting it to the USB port.

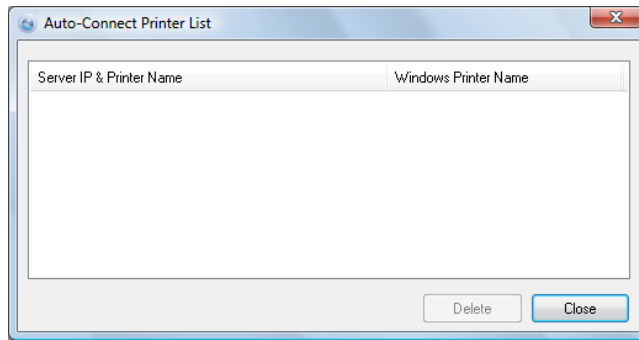
Auto Connect Printer

Click this button to configure selected printer for Auto-Connect, or to delete selected printer from Auto-Connect list. This enables auto connection to the printer when printing. It is recommended to set this feature on computers that prints a lot. Once the printer is connected, the USB Control Center utility will automatically detect the printer.



Set Auto-Connect Printer

Provides a list of installed printers on your computer. Select the printer you would like to add into the Auto-Connect Printer Lists.



Network Scanner

This section describes the usage of a scanner through the Wireless N Gigabit Router with USB port. Once you click on the Network Scanner button on the USB utility the below image will appear.



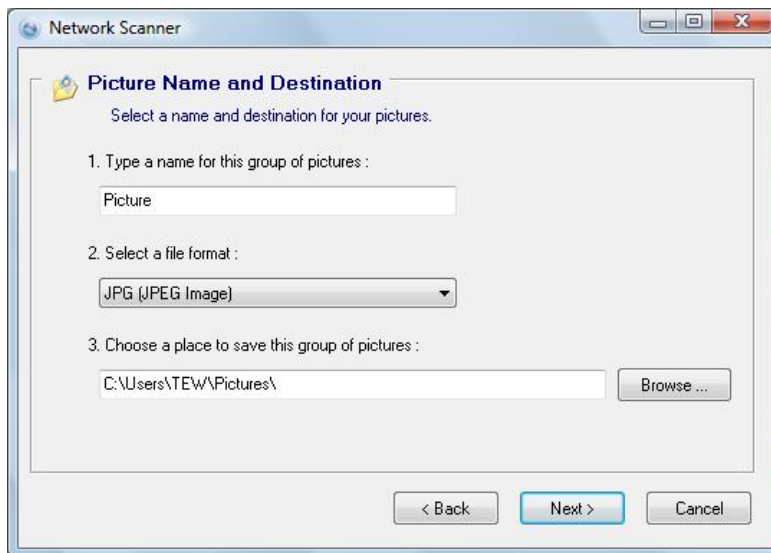
Paper Source: Select the type of scanner being used (Flatbed or Document Feeder)

Type of image: For proper scanning select the appropriate type of file being scanned.

Preview: Click to preview scanned image

Scan: Click to begin scanning

Cancel: Click to cancel scanning



Name: Type the name of the folder you would like to have the scanned images stored in.

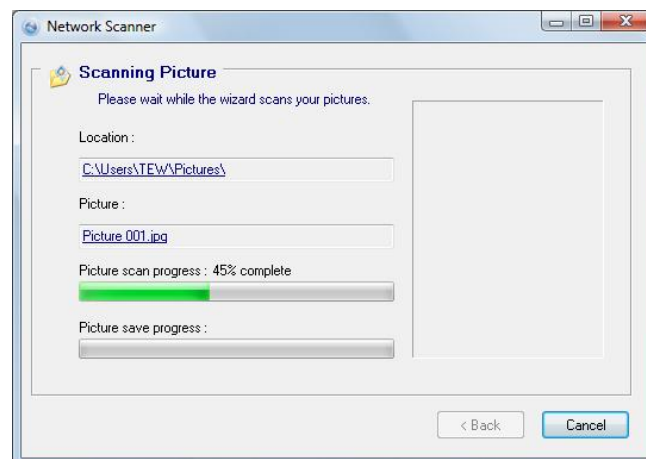
File Format: Select the file format

Save Location: Click Browse and select the location where you would like to have the scanned files saved in.

Back: Click to return to the previous screen.

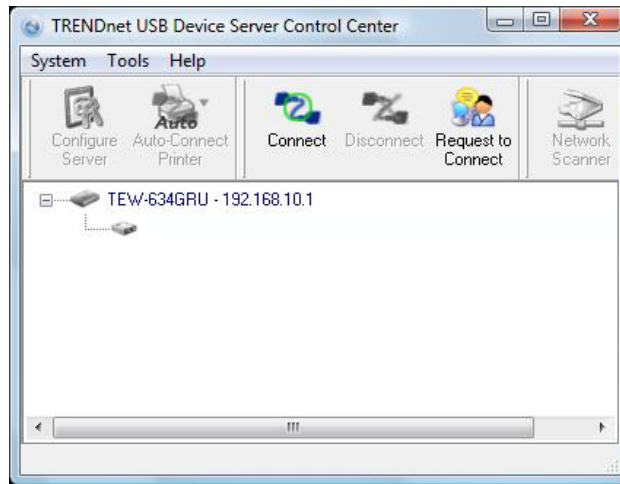
Next: Click to begin scanning

Cancel: Click to cancel scanning job and to return to back to the USB Utility.



Connecting USB Storage Device

This section describes the how to use the utility when connecting to USB storage device through the WLAN Router.



Connect

Click this button to establish connection to the selected USB device that is not configured to Auto-Connect, like USB storage devices.

Disconnect

Click this button to properly disconnect your computer from the connected USB device.

Request to Connect

Click this button if the USB device you would like to connect to is already connected by another computer in your network. The below message will be sent to the other computer indicating that another computer would like to connect to the USB device and will provide the ability to approve or reject connection.



Note: Only a single user can establish connection to a USB device. Once the "Request to Connect" is approved, the connection to the USB device will automatically transfer to the requested user

TECHNICAL SPECIFICATIONS

Hardware	
Standards	Wired: IEEE 802.3/u Fast Ethernet, IEEE 802.3ab Gigabit Ethernet Wireless: IEEE 802.11b, IEEE 802.11g, IEEE 802.11n (draft 2.0), IEEE 802.11e QoS USB: v1.0, 1.1, 2.0
WAN	1 x 10/100Mbps Auto-MDIX port (Internet)
LAN	4 x 10/100/1000Mbps Auto-MDIX ports
WPS Button	Enable Wi-Fi Protected Setup function
USB	1 x USB 2.0, 1.1 Compliant USB Type A Port
Connection Type	Dynamic IP, Static (Fixed) IP, PPPoE, PPTP, L2TP, BigPond
Internet Access Control	MAC Address Filter, Domain/URL Filter, Protocol/IP Filter
LED Indicator	Power, LAN1~LAN4, WAN, WLAN, USB
Power Adapter	12V DC, 2A external power adapter
Power Consumption	18watts (max.)
Dimension (L x W x H)	201 x 115.8 x 37 mm (7.91 x 4.55 x 1.45 inches) W x D x H
Weight	383g (13.5 oz)
Temperature	Operation: 0°~ 40°C (32°F~ 104°F); Storage: -10°~ 70°C (14°F~158 °F)
Humidity	10%~95% RH, no condensation
Certifications	CE, FCC
Wireless	
Frequency	2412~2484MHz ISM band
Antenna	2 x 2dBi detachable dipole antennas
Media Access Protocol	CSMA/CA with ACK
Modulation Technique	DBPSK/DQPSK/CCK/OFDM (BPSK/QPSK/16-QAM/64-QAM)
Data Rate	802.11b: 11Mbps, 5.5Mbps, 2Mbps, and 1Mbps 802.11g: 54Mbps, 48Mbps, 36Mbps, 24Mbps, 18Mbps, 12Mbps, 9Mbps and 6Mbps 802.11n: up to 300Mbps
Security	WEP(HEX/ASCII): 64/128-bit WPA(AES/TKIP): WPA/WPA2, WPA-PSK/WPA2-PSK Enable/Disable broadcast SSID Protocol filtering Domain filtering
QoS	WMM enable/disable feature
Output Power (Average)	802.11b: 15dBm (typical) 802.11g: 15dBm (typical) 802.11n: 15dBm (typical)
Receiving Sensitivity	802.11b: 11Mbps -85dBm (typical) @ 10% per 802.11g: 54Mbps -68dBm (typical) @ 10% per 802.11n: 300Mbps -59dBm (typical) @ 10% per
Channels	1~ 11 (FCC), 1~13 (ETSI)

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-634GRU – 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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