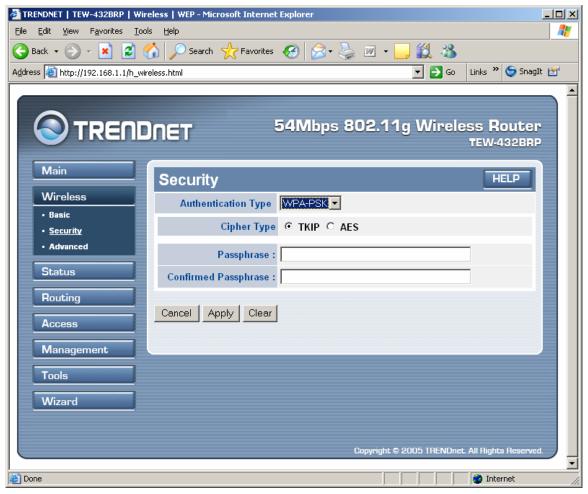
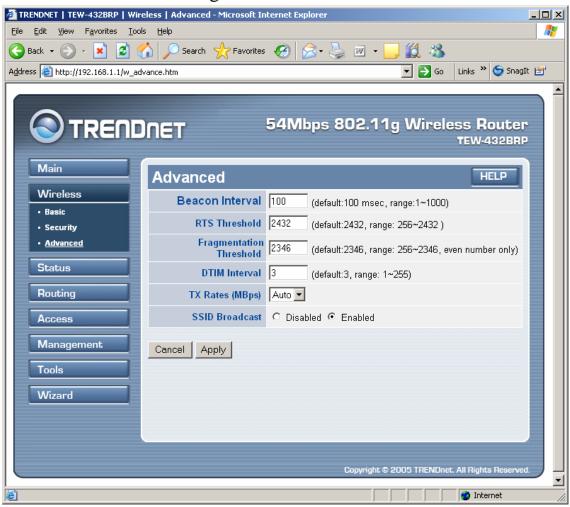
If **WPA-PSK** is selected, please set the PSK key in the pass phrase field. The pass phrase should be 8 characters at least.



2.2.3 Advanced

This screen enables user to configure advanced wireless functions.



Beacon Interval: Type the beacon interval in the text box. User can specify a value from 1 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 2432 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 256 and 2432 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 65535. The default value is 3.

TX Rates (Mbps): Select one of the wireless communications transfer rates, measured in megabytes per second, based upon the speed of wireless adapters connected to the WLAN.

2.3 Status

This selection enables user to view the status of the router LAN, WAN connections, and view logs and statistics pertaining to connections and packet transfers.

2.3.1 Device Information

This screen enables user to view the router LAN, Wireless and WAN configuration.



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

LAN: This field displays the router's LAN interface MAC address, IP address, subnet mask, and DHCP server status. Click "DHCP Table" to view a list of client stations currently connected to the router LAN interface.

Wireless: Displays the router's wireless connection information, including the router's wireless interface MAC address, the connection status, the SSID status, which channel is being used, and whether WEP is enabled or not.

WAN: This field displays the router's WAN interface MAC address, DHCP client status, IP address, subnet mask, default gateway, and DNS.

Click "DHCP Release" to release all IP addresses assigned to client stations connected to the WAN via the router. Click "DHCP Renew" to reassign IP addresses to client stations connected to the WAN.

2.3.2 Log

This screen enables user 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

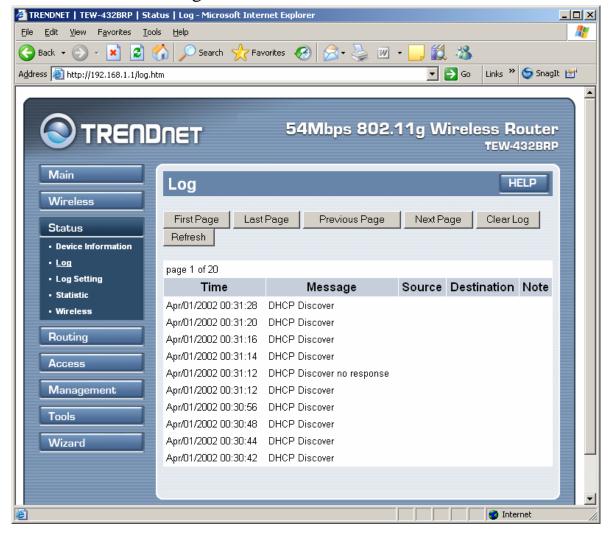
Click "Last Page" to view the final page of the log

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.

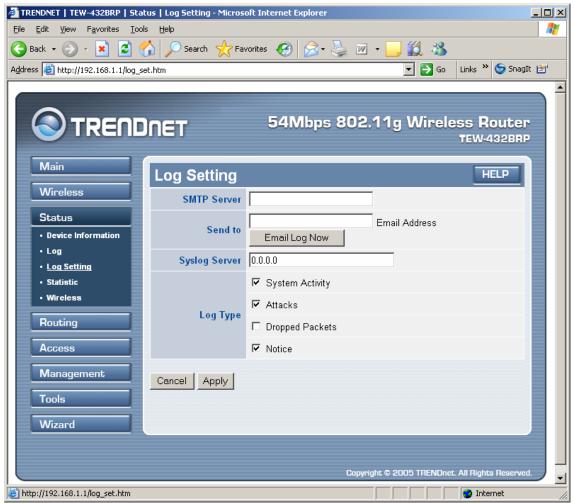
Source: Displays the source of the communication.

Destination: Displays the destination of the communication.

Note: Displays the IP address of the communication

2.3.3 Log Setting

This screen enables user to set router logging parameters.



SMTP Server: Type the SMTP server address for the email that the log will be sent to in the next field.

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

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

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

- System Activity: Displays information related to router operation.
- **Debug Information:** Displays information related to errors and system malfunction.
- 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.

2.3.4 Statistic

This screen displays a table that shows the rate of packet transmission via the router LAN and WAN ports (in bytes per second).



Click "Reset" to erase all statistics and begin logging statistics again.

2.3.5 Wireless

This screen enables user to view information about wireless devices that are connected to the wireless router.



Connected Time: Displays how long the wireless device has been connected to the LAN via the router.

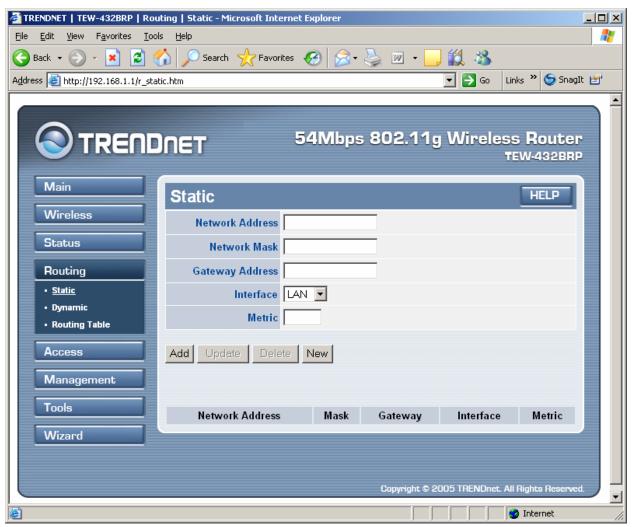
MAC Address: Displays the devices wireless LAN interface MAC address.

2.4 Routing

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

2.4.1 Static

It enables user to set parameters by which the router forwards data to its destination if user's network has a static IP address.



Network Address: Type the static IP address user's network uses to access the Internet. User's ISP or network administrator provides user with this information.

Network Mask: Type the network (subnet) mask for user's network. If user does not type a value here, the network mask defaults to 255.255.255.255. User's ISP or network administrator provides user with this information.

Gateway Address: Type the gateway address for network. User's ISP or network administrator provides user with this information.

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

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

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

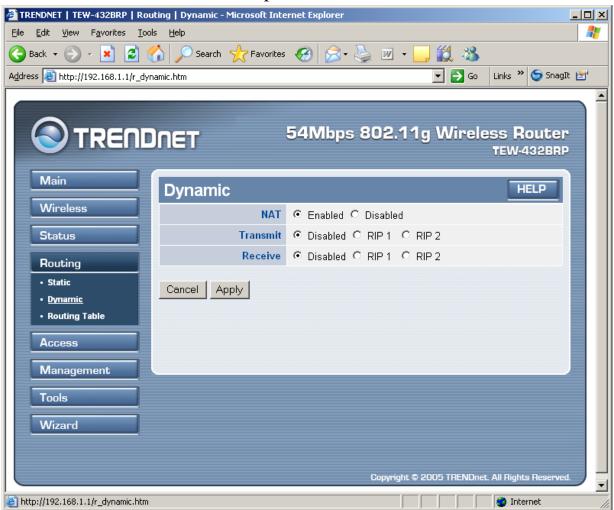
Update: Select one of the entries in the static IP address table at the bottom of the page and, after changing parameters, click "Update" to confirm the changes.

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.

New: Click "New" to clear the text boxes and add required information to create a new entry.

2.4.2 Dynamic

This screen enables user to set NAT parameters.



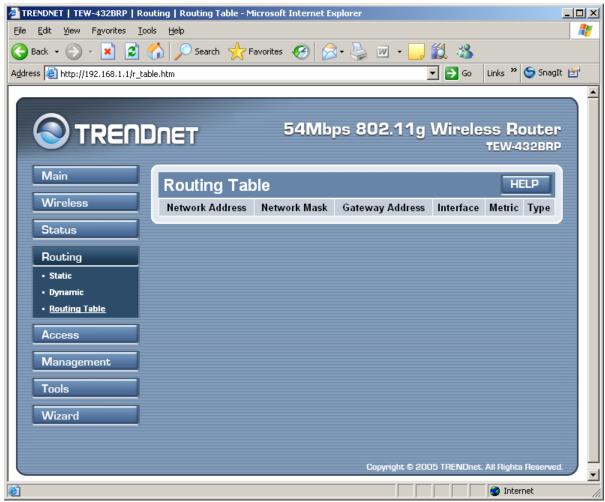
NAT: Click the radio buttons to enable or disable NAT.

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.

2.4.3 Routing Table

This screen enables user to view the routing table for the router. The routing table is a database created by the router that displays the network interconnection topology.



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.

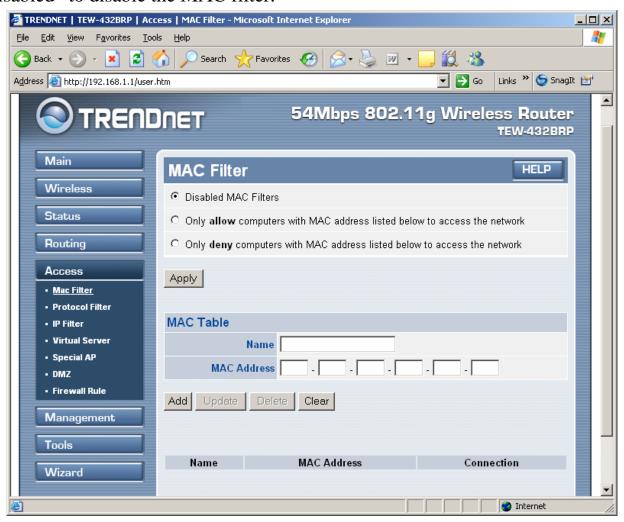
Type: Displays whether the node has a static or dynamic IP address

2.5 Access

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

2.5.1 MAC Filters

Enables user 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: Once the function of MAC filter is disabled, those listed in the MAC Table is allowed Internet access.

Enable: All users are allowed Internet access except those users 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 user 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 user has changed any of the fields.

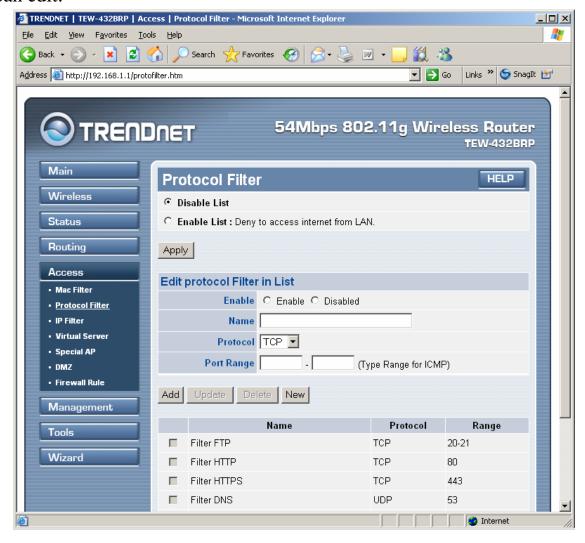
Delete: Select a user from the table at the bottom of the list and click "Delete" to remove the user profile.

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

2.5.2 Protocol Filter

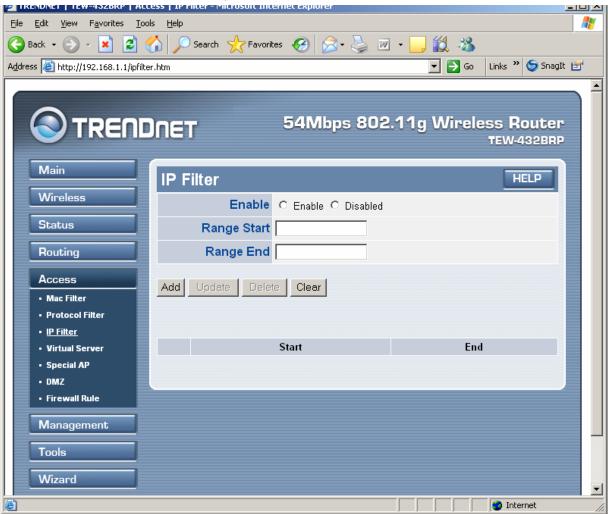
This screen enables user to allow and deny access based upon a communications protocol list the user creates. The protocol filter profiles are listed in the table at the bottom of the page.

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:



2.5.3 IP Filter

This screen enables user to define a minimum and maximum IP address range filter; all IP addresses falling in 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 user can edit.)



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

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

Range End: Type the minimum address for the IP range. IP addresses falling between this value and the Range Start 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 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.

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

2.5.4 Virtual Server

This screen enables user to create a virtual server via the router. If the 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 router redirects the request via the protocol and port numbers to the correct LAN server. The Virtual Sever 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.



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 user have selected a list item and have made changes.

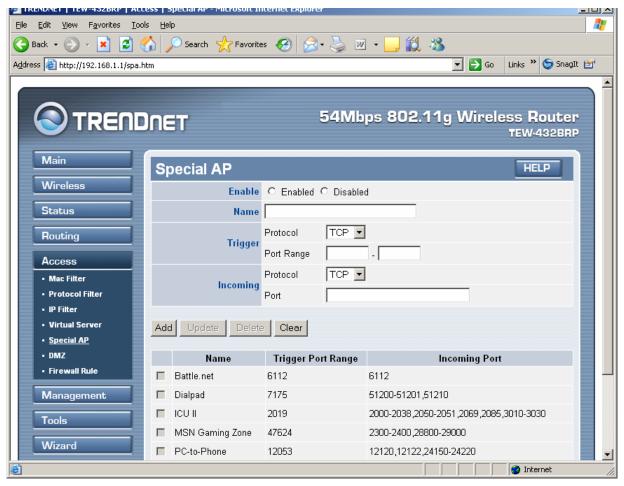
Delete: Select a list item and click "Delete" to remove the item from the list.

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

2.5.5 Special AP

This screen enables user to specify special applications, such as games, that require multiple connections that are inhibited 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.



Enable: Click to enable or disable the application profile. When enabled, users will be able to connect to the application via the router WAN connection. Click

"Disabled" on a profile to prevent users from accessing the application on the WAN.

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.

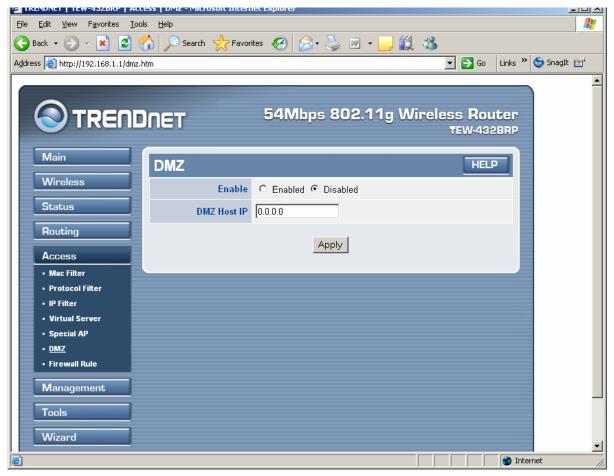
Delete: Select a list item and click Delete to remove the item from the list.

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

2.5.6 DMZ

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

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



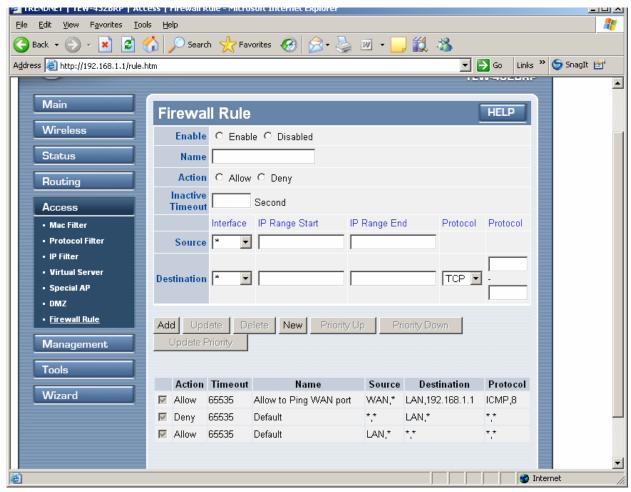
Enable: Click to enable or disable the DMZ.

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.

2.5.7 Firewall Rule

This screen enables user to set up the firewall. The router provides basic firewall functions, by filtering all the packets that enter the router using a set of rules. The rules are in an order sequence list--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.

Inactive Timeout: Type the number of seconds of network inactivity that elapses before the router refuses the incoming packet.

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 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.

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.

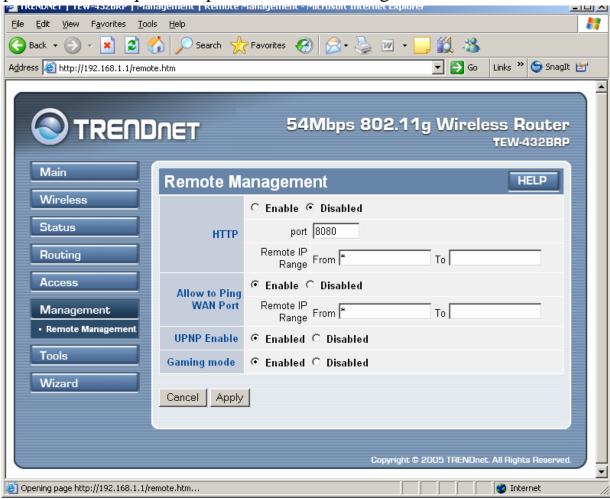
Update Priority: After increasing or decreasing the priority of a rule, click "**Update Priority**" to save the changes.

2.6 Management

Management enables user to set up Remote Management feature.

2.6.1 Remote Management

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



HTTP: Enables user 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: UPNP is short for Universal Plug and Play that is a networking architecture that provides compatibility among networking equipment, software, and peripherals. The 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, selecting "Disabled" can disable it.

GAMING MODE: If user is experiencing difficulties when playing online games or even certain applications that use voice data, user may need to enable Gaming Mode for these applications to work correctly. When not playing games or using these voice applications, it is recommended that Gaming Mode be disabled.

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

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

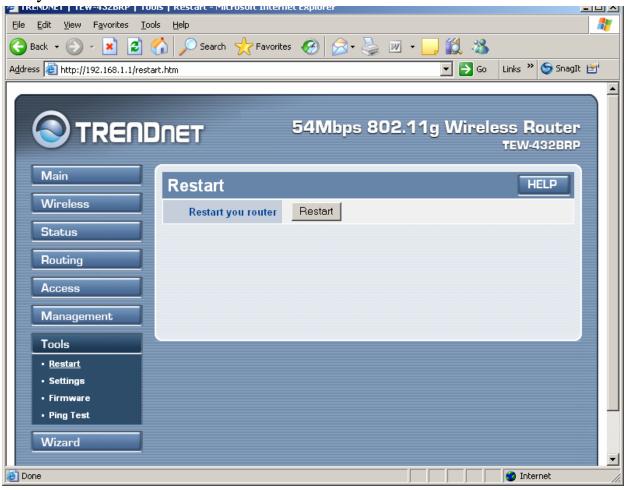
IDENT: Default is stealth. This enables user to set port 113 stealth.

2.7 Tools

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

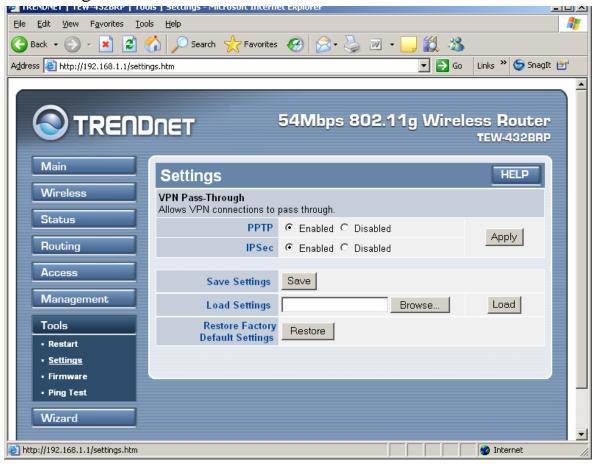
2.7.1 Reset

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



2.7.2 Settings

This screen enables user 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 router and router interface.



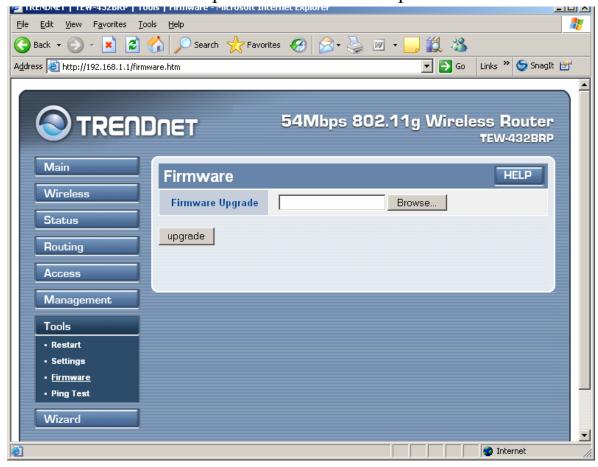
Save Settings: Click "Save" to save the current configuration as a profile that can load when necessary.

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.

2.7.3 Firmware

This screen enables user to keep the router firmware up to date.



Please follow the below instructions:

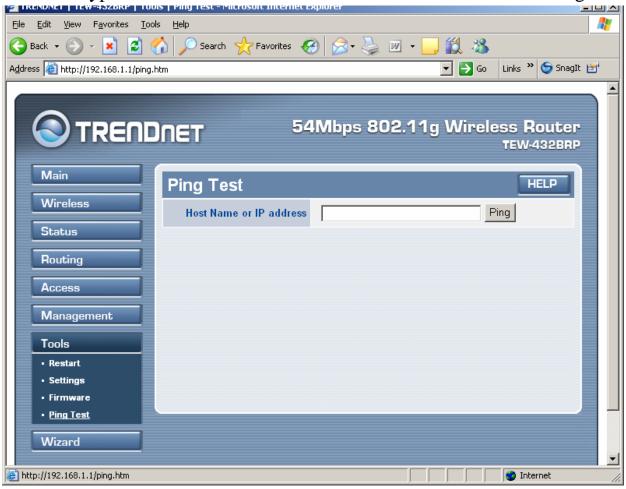
Download the latest firmware from the manufacturer's Web site, and save it to disk.

Click "Browse" and go to the location of the downloaded firmware file.

Select the file and click "Upgrade" to update the firmware to the latest release.

2.7.4 Ping Test

The ping test enables user 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.



TECHNICAL SPECIFICATIONS

Hardware	
Standards	Wired: IEEE 802.3 (10Base-T), IEEE 802.3u (100Base-TX), ANSI/IEEE 802.3 Auto Negotiation
	Wireless: IEEE 802.11b (11Mbps), IEEE 802.11g (54Mbps)
WAN	1 x 10/100Mbps Auto-MDIX Port (Internet)
LAN	4 x 10/100Mbps Auto-MDIX Port
Connection Type	Dynamic IP, Static (Fixed) IP, PPPoE, PPTP, L2TP
Supported Network Protocols	TCP/IP, NAT, PPPoE/PPTP, HTTP, DHCP Server/Client
LED Indicator	Power, System, WLAN: ACT WAN: Link, ACT & Speed; LAN: Link, ACT & Speed
Dimension (L x W x H)	155 x 110 x 30 mm (6 x 4.2 x 1.3 inches)
Weight	226g. (8 oz.)
Temperature	Operation: 0°~ 40°C (32°F~ 104°F) Storage: -10°~ 70°C (14°F~ 158°F)
Humidity	Max. 95% (Non-Condensing)
Power Adapter	5V DC, 2.5A External Power Adapter
Certification	FCC & CE
Wireless	
Frequency	2400~2483.5 MHz ISM band for Europe, USA and Taiwan. 2400~2484 MHz ISM band for Japan.
Module Technique	802.11b: CCK (11 and 5.5Mbps), DQPSK (2Mbps), DBPSK (1Mbps) 802.11g: OFDM
Antenna	1 x 2dBi External Detachable Dipole Antenna (Female Reverse SMA Connector)
Media Access Protocol	CSMA/CA with ACK
Security	64/128-bit WEP, 802.1X/ WPA, WPA-PSK, MAC Address Filter, Protocol Filter
Transmit Power	17.5 dBm (typically)
Data Rate	802.11b: 11Mbps, 5.5Mbps, 2Mbps, and 1Mbps 802.11g: 54Mbps, 48Mbps, 36Mbps, 24Mbps, 18Mbps, 12Mbps, 9Mbps and 6Mbps
Receiving Sensitivity	54Mbps: Typical -70dBm @ 10% PER (Packet Error Rate) 11Mbps: Typical -85dBm @ 8% PER (Packet Error Rate)
Channels	11 Channels (US), 13 Channels (EU)

Limited Warranty

TRENDware 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.

Wireless Products – 3 Years Warranty

If a product does not operate as warranted above during the applicable warranty period, TRENDnet shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product. All products that are replaced will become the property of TRENDnet. Replacement products may be new or reconditioned.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet office within the applicable warranty period for a Return Material Authorization (RMA) number, accompanied by a copy of the dated proof of the purchase. Products returned to TRENDnet must be pre-authorized by TRENDnet with RMA number marked on the outside of the package, and sent prepaid, insured and packaged appropriately for safe shipment.

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

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

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

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

AC/DC Power Adapter, Cooling Fan, and Power Supply carry 1 Year Warranty



TRENDnet Technical Support

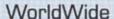
US · Canada

Toll Free Telephone: 1(866) 845-3673

24/7 Tech Support

Europe (Germany · France · Italy · Spain · Switzerland · UK)

Toll Free Telephone: +00800 60 76 76 6



Telephone: +(31) (0) 20 504 05 35

English/Espanol - 24/7

Francais/ Deutsch - 11am-8pm, Monday - Friday MET

Product Warranty Registration

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

TRENDNET

3135 Kashiwa Street Torrance, CA 90505 USA