



Wireless Router RNX-EasyN4
User Manual

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Introduction

Congratulations on your purchase of RNX-EASYN4 Wireless Network Broadband Router. RNX-EASYN4 is compliant with draft 802.11n v2.0 up to 6 times faster than standard 802.11g based routers while still being compatible with 802.11g & 802.11b gadgets. RNX-EASYN4 is not only a Wireless Access Point, but also doubles as a 4-port full-duplex Switch that connects your wired-Ethernet devices together at incredible speeds.

At 300 Mbps wireless transmission rate, Access Point built into the Router uses advanced MIMO (Multi-Input, Multi-Output) technology to transmit multiple streams of data in a single wireless channel giving you seamless access to multimedia content. Robust RF signal travels farther, eliminates dead spots and extends network range. For data protection and privacy, RNX-EASYN4 encodes all wireless transmissions with WEP, WPA, and WPA2 encryption.

With inbuilt DHCP Server & powerful SPI firewall RNX-EASYN4 protects your computers against intruders and most known Internet attacks but provides safe VPN pass-through. With incredible speed and QoS function of 802.11n, (draft2.0) RNX-EASYN4 is ideal for media-centric applications like streaming video, gaming, and VoIP telephony to run multiple media-intense data streams through the network at the same time, with no degradation in performance.

1 Key Features

Features	Advantages
Incredible Data Rate up to 300Mbps**	Heavy data payloads such as MPEG video streaming
IEEE 802.11n Compliant and backward compatible with 802.11b/g	Fully Interoperable with IEEE 802.11b / IEEE 802.11g compliant devices with legacy protection
Four 10/100 Mbps Fast Switch Ports (Auto-Crossover)	Scalability, extend your network.
Firewall supports, DMZ, MAC Filter, IP Filter, URL Filter, ICMP Blocking, SPI, Port Mapping, Port Forwarding, Port Trigger	Avoids the attacks of Hackers or Viruses from Internet
Support 802.1x Authenticator, 802.11i (WPA/WPA2, AES), VPN pass-through	Provide mutual authentication (Client and dynamic encryption keys to enhance security)
WDS (Wireless Distribution System)	Make wireless AP and Bridge mode simultaneously as a wireless repeater

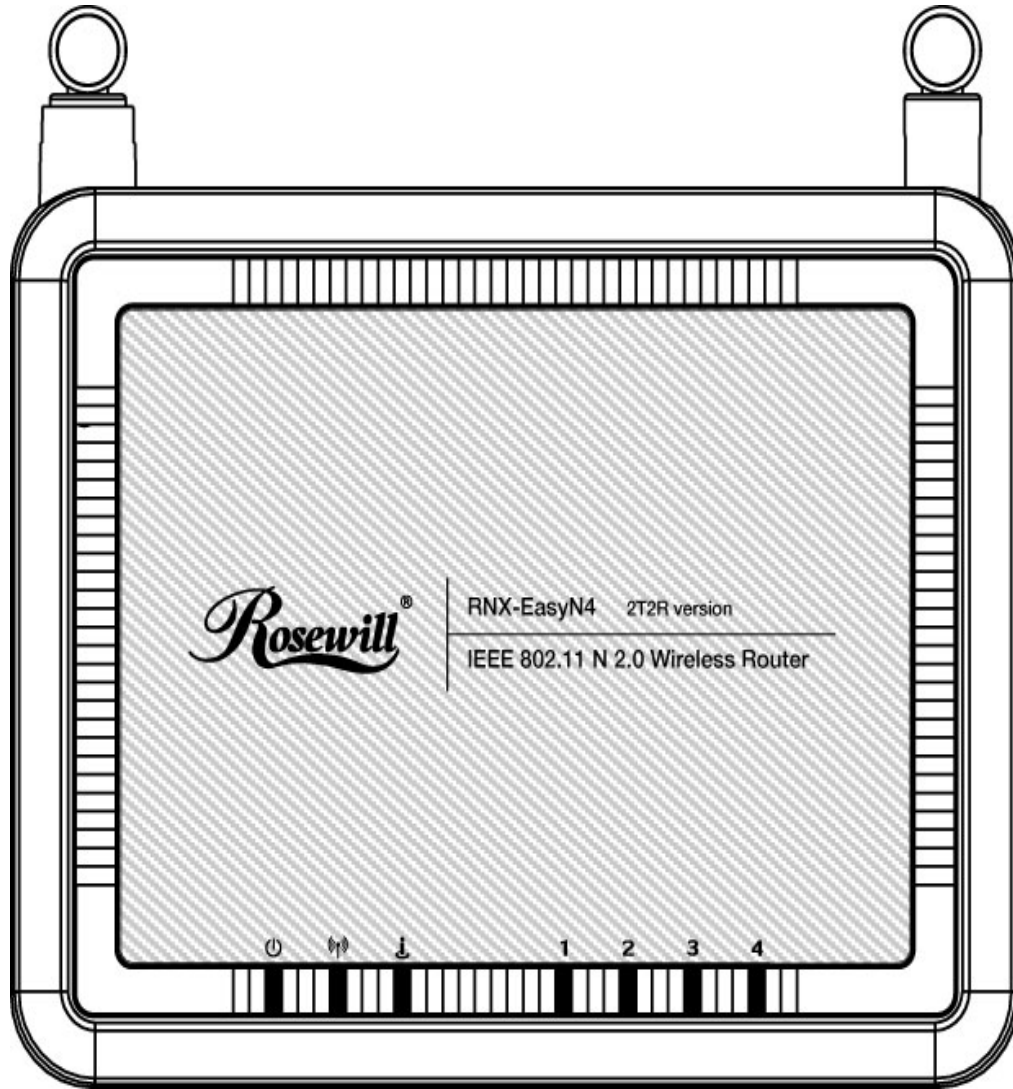
*** Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate. All specifications are subject to change without notice.*

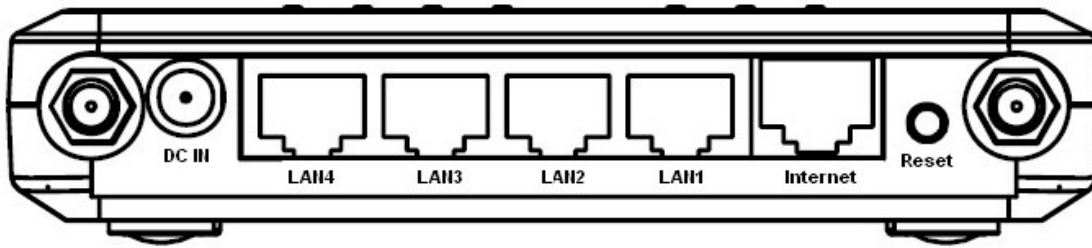
2 Package Contents

Open the package carefully, and make sure that none of the items listed below are missing. Do not discard the packing materials, in case of return; the unit must be shipped back in its original package.

1. 802.11n SOHO Router
2. 100V~120V Power Adapter
3. 2dBi 2.4GHz Fixed Antennas
4. Quick Install Guide
5. CD (User's Manual)

3 Product Layout





LED	Description
POWER	Lights up when powered ON. Blinks on TEST/RESET
WLAN	Lights up in ORANGE when WLAN is enabled. Blinks on traffic
LAN PORT ACTIVY	Blinks on traffic for specific LAN PORT
100 Mbps	Lights up when 100 Mbps data rate enabled on that specific port

ITEM	Description
Reset	Click this button to restart the system, or Press this button and hold for 10 seconds to restart the system.

WPS	Click this button to start WPS function.
DC IN	Power connector, connects to DC 12V Power Adapter
LAN1 ~ 4	Local Area Network (LAN) ports 1 to 4
INTERNET	Wide Area Network(WAN) port

4 Network + System Requirements

To begin using the RNX-EASYN4, make sure you meet the following as minimum requirements:

- PC/Notebook.
- Operating System – Microsoft Windows 98SE/ME/XP/2000/VISTA
- 1 Free Ethernet port.
- WiFi card/USB dongle (802.11b/g/n) – optional.
- External xDSL (ADSL) or Cable modem with an Ethernet port (RJ-45).
- PC with a Web-Browser (Internet Explorer, Safari, Firefox, Opera etc.)
- Few Ethernet compatible CAT5 cables.

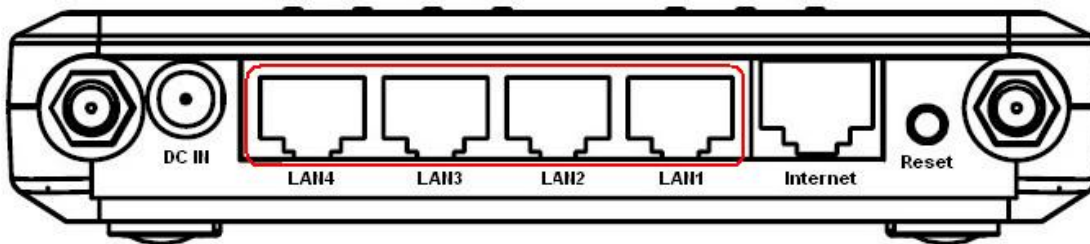
5 RNX-EASYN4 Placement

You can place RNX-EASYN4 on a desk or other flat surface, or you can mount it on a wall. For optimal performance, place your Wireless Broadband Router in the center of your office (or your home) in a location that is away from any potential source of interference, such as a metal wall or microwave oven. This location must be close to a power connection and your ADSL/Cable modem. If the antennas are not positioned correctly, performance loss can occur.

6 Setup LAN, WAN

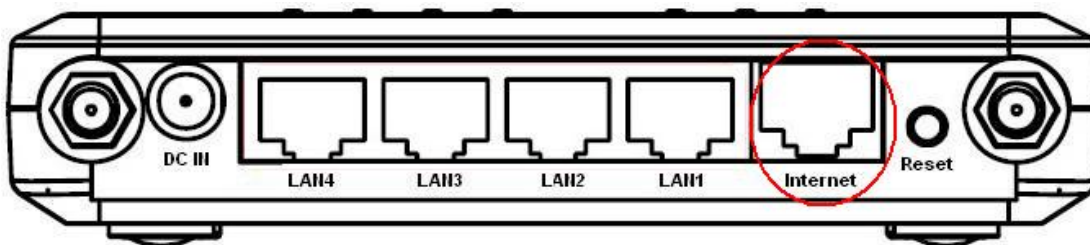
LAN connection:

Connect Ethernet cable between your PC/Notebook LAN port & one of the 4 available LAN ports on RNX-EASYN4.



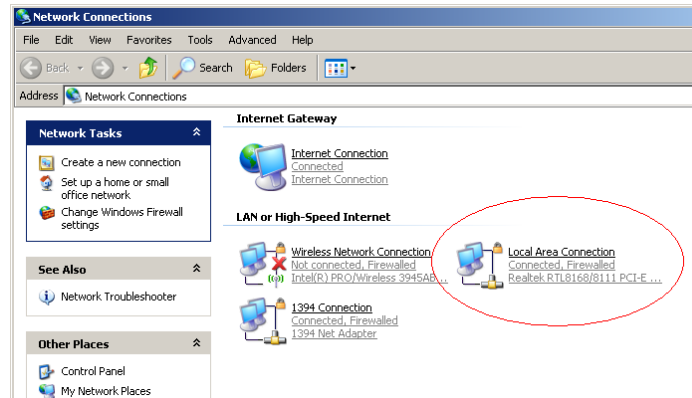
WAN connection:

Connect Ethernet cable between WAN ports of your ADSL/CABLE modem & INTERNET port of RNX-EASYN4. Make sure your ADSL/CABLE modem is working well. Contact your ISP if you have any questions.

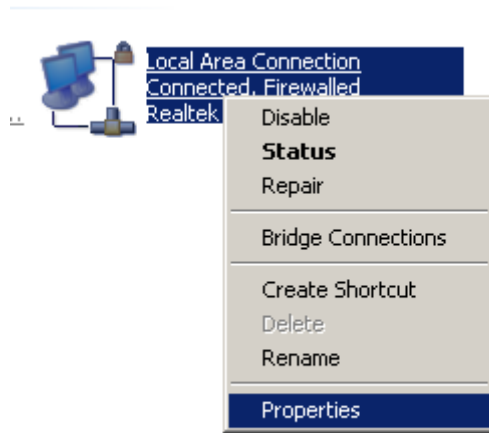


7 PC Network Adapter setup (*Windows XP*)

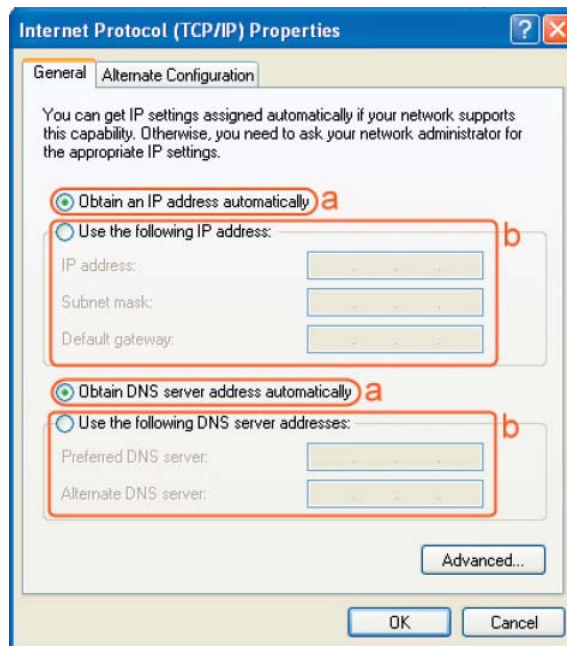
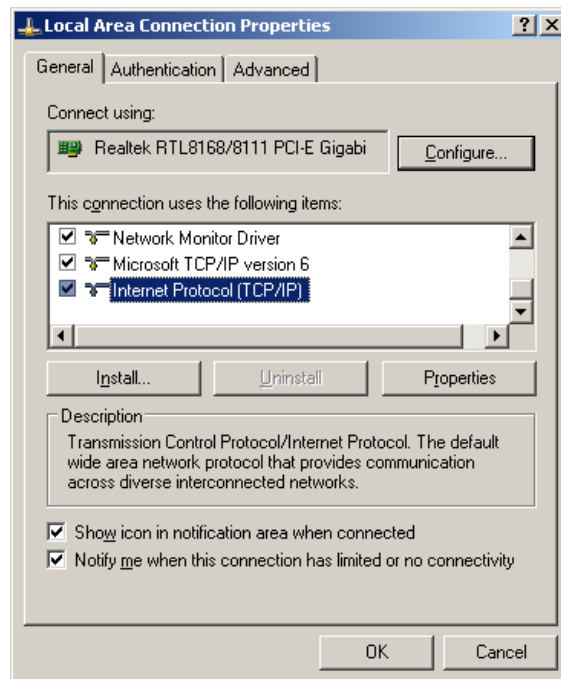
- Enter [Start Menu] → select [Control panel] → select [Network].



- Select [Local Area Connection] icon=>select [properties]



- Select [Internet Protocol (TCP/IP)] =>Click [Properties].



- Select the [General] tab.
RNX-EASYN4 supports [DHCP] function, please select both [Obtain an IP address automatically] and [Obtain DNS server address automatically].

8 Bring up RNX-EASYN4

Connect the supplied power-adaptor to the power inlet port and connect it to a wall outlet. Then, RNX-EASYN4 automatically enters the self-test phase. During self-test phase, Power LED will blink briefly, and then will be lit continuously to indicate that this product is in normal operation.

9 Smart Wizard

CHECK

- Internet connection should be setup & ready to use (ADSL or cable modem).
- Modem must provide RJ45 port to connect with RNX-EASYN4.
- Microsoft Windows compatible PC/Notebook with UPnP enabled network adapter
- CAT 5 network cable(s), RJ45 port on PC/Notebook.

STEP 1

Connect **RNX-EASYN4 WAN** port & your **modem WAN** port with RJ45 cable.

STEP 2

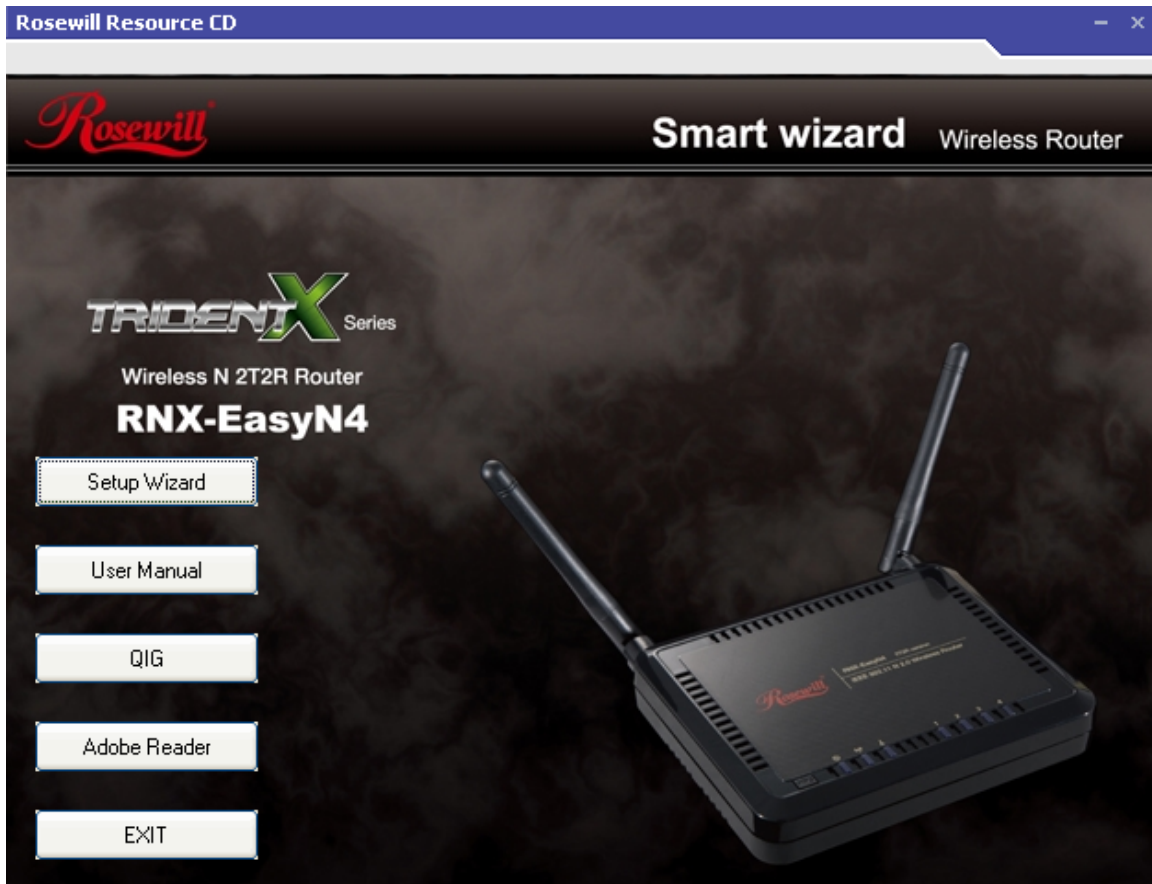
Power up **RNX-EASYN4**. POWER led on front panel lights up & remains stable.

STEP 3

Connect **RNX-EASYN4 LAN** port & **PC/Notebook RJ45** port with network cable.



Click on this icon to run **SMART WIZARD**.

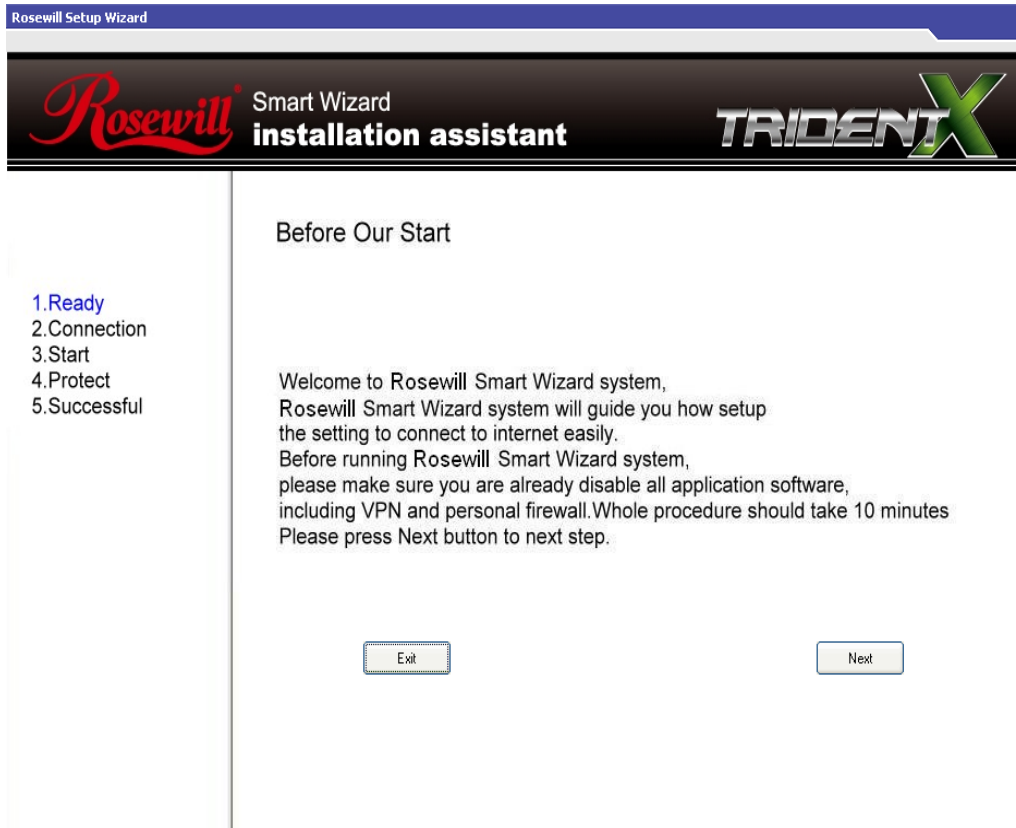


Click **Setup Wizard** to setup your RNX-EASYN4 router.

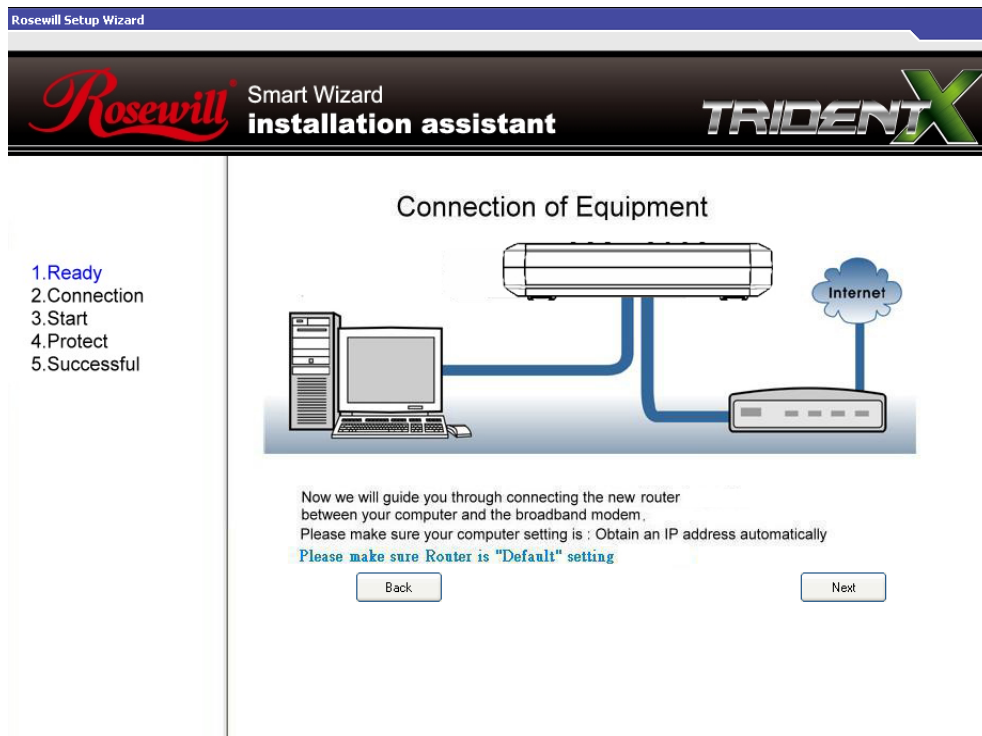
Click **User Manual** to launch smart wizard user manual.

Click **Adobe Reader** to setup Adobe Acrobat reader on your PC/Notebook. Click

EXIT anytime you want to abort.



Click <Next> to proceed. Click <Exit> to abort.



RNX-EASYN4 should be setup as depicted above.

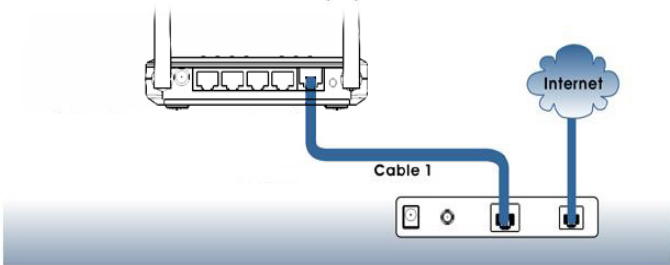
Make sure your **DSL/CABLE modem** is setup and working. Else take the help of your internet service provider.

Click **<Next>** to proceed.

Rosewill Setup Wizard

Rosewill Smart Wizard
installation assistant **TRIDENT X**

Connection of Equipment

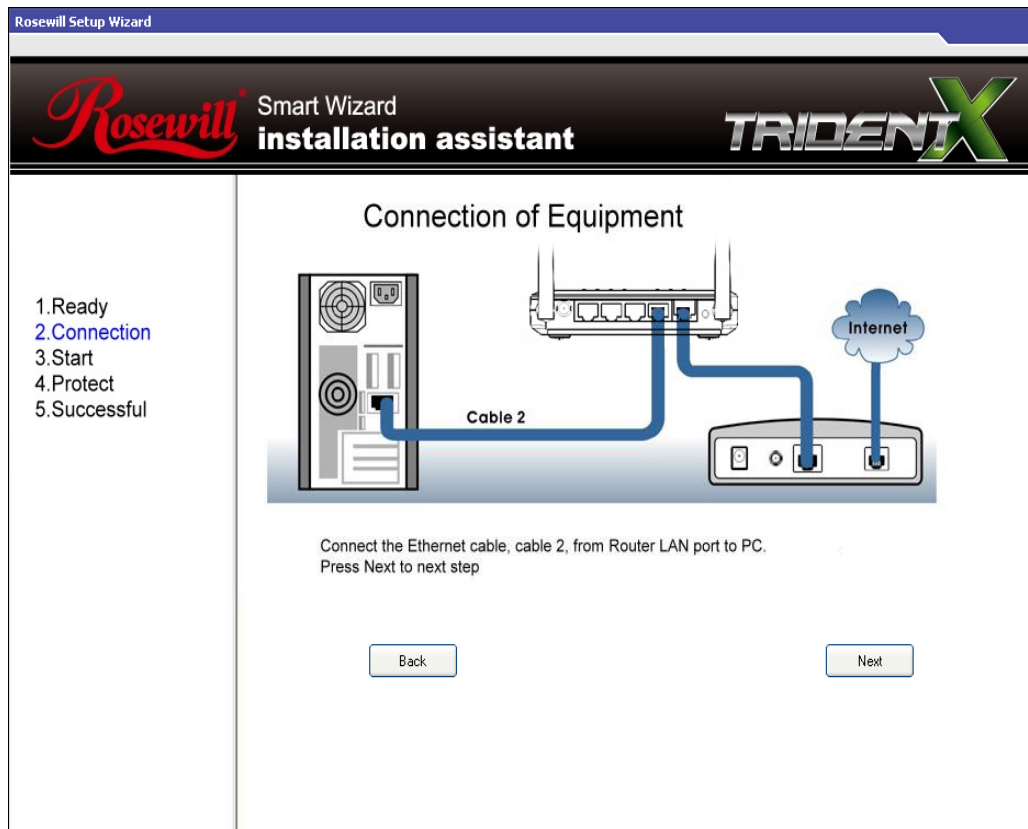


1. Ready
2. **Connection**
3. Start
4. Protect
5. Successful

Before starting Setup wizard, please make sure your Ethernet cables of PC are located on Router and modem.
Connect the Ethernet cable, cable 1, from Router WAN port to Modem.
Press Next to next step

Back Next

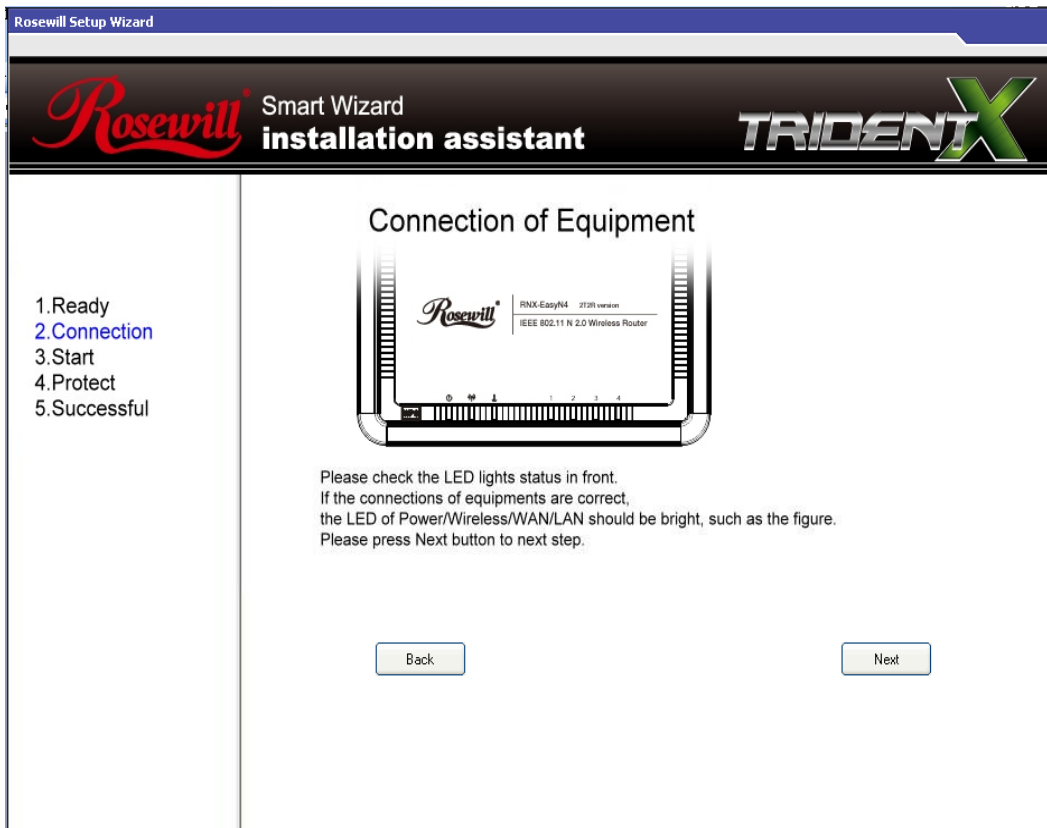
Check the MODEM and RNX-EASYN4 connection. It should be as shown below.



Check power connection for modem as well as RNX-EASYN4.

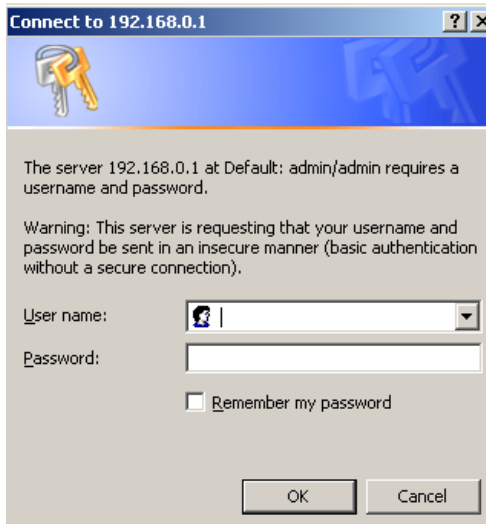
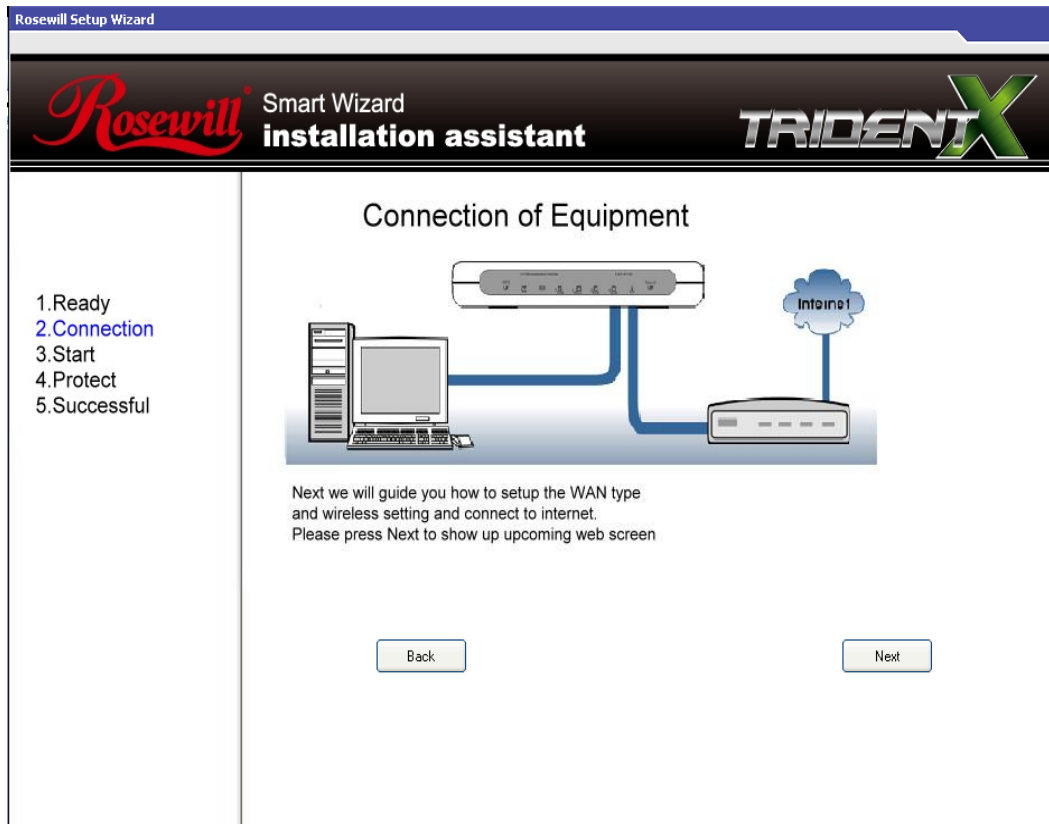
Make sure antenna is connected to rear panel of RNX-EASYN4.

Click **<Next>** to proceed.

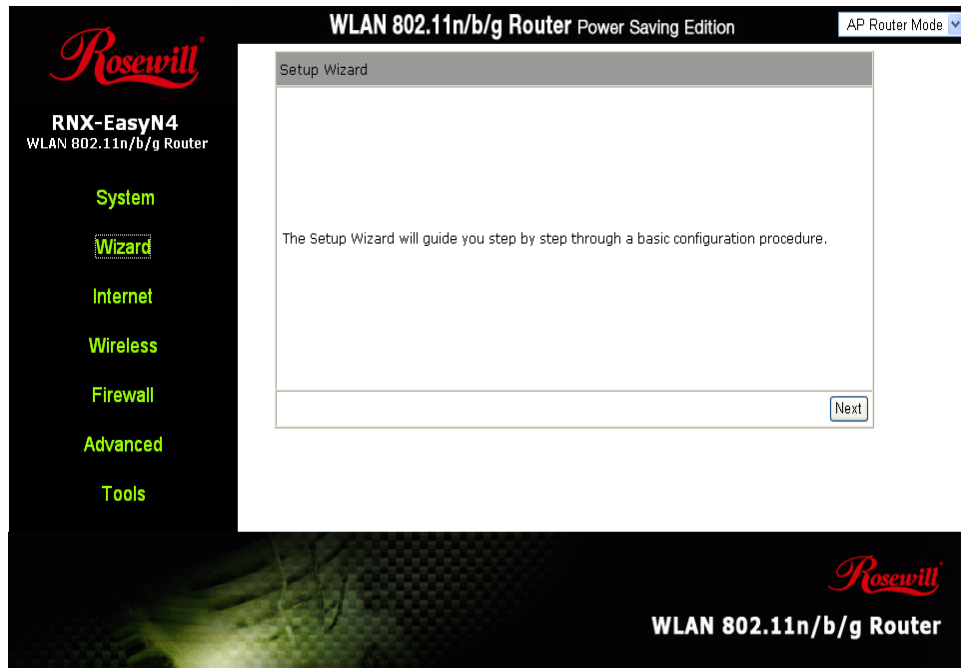


Notice the LED that should be light up at this stage. If not, check your procedures again.

Click **<Next>** to configure WAN & Wireless settings.

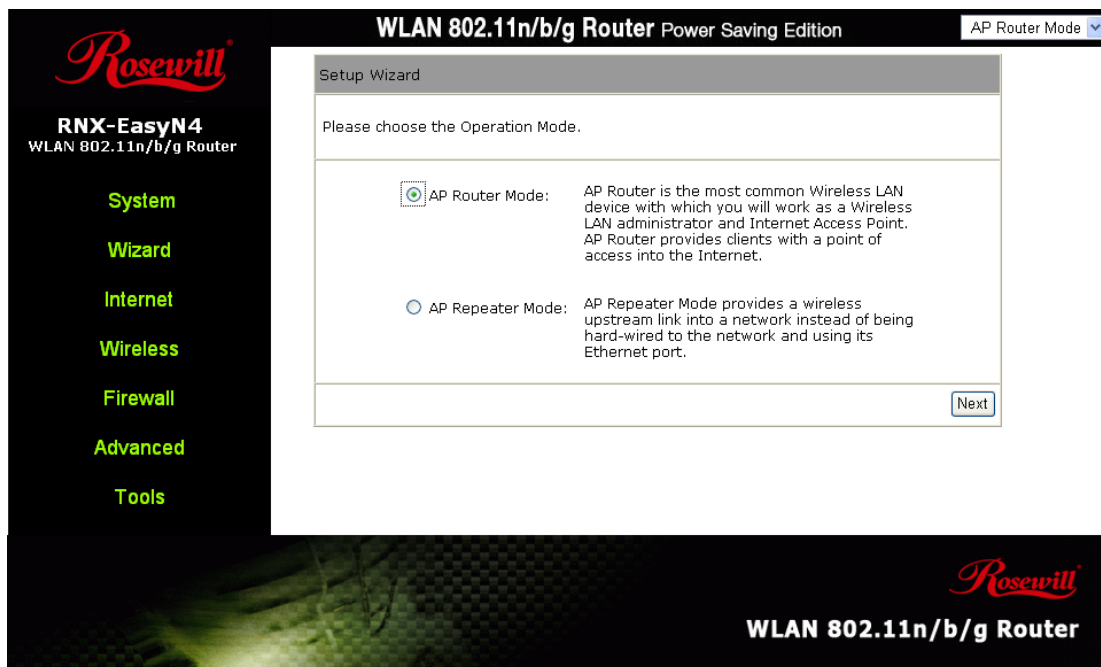


User name and password are **admin/admin**. Click **<OK>**. Your default browser will connect to RNX-EASYN4 Web Server <http://192.168.0.1> .



Click **<Next>** to enter mode selection.

Select the mode that RXN-EASYN4 is going to be and set its configurations. **AP Router mode** does not enable WAN interface, Setup Wizard will skip WAN Configuration.



Click **<Next>** to automatically detect your **Internet Network** settings.

You could choose your service type or select Others to setup WAN configurations manually.

WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode

Rosewill
RNX-EasyN4
WLAN 802.11n/b/g Router

System
Wizard
Internet
Wireless
Firewall
Advanced
Tools

WAN Configuration

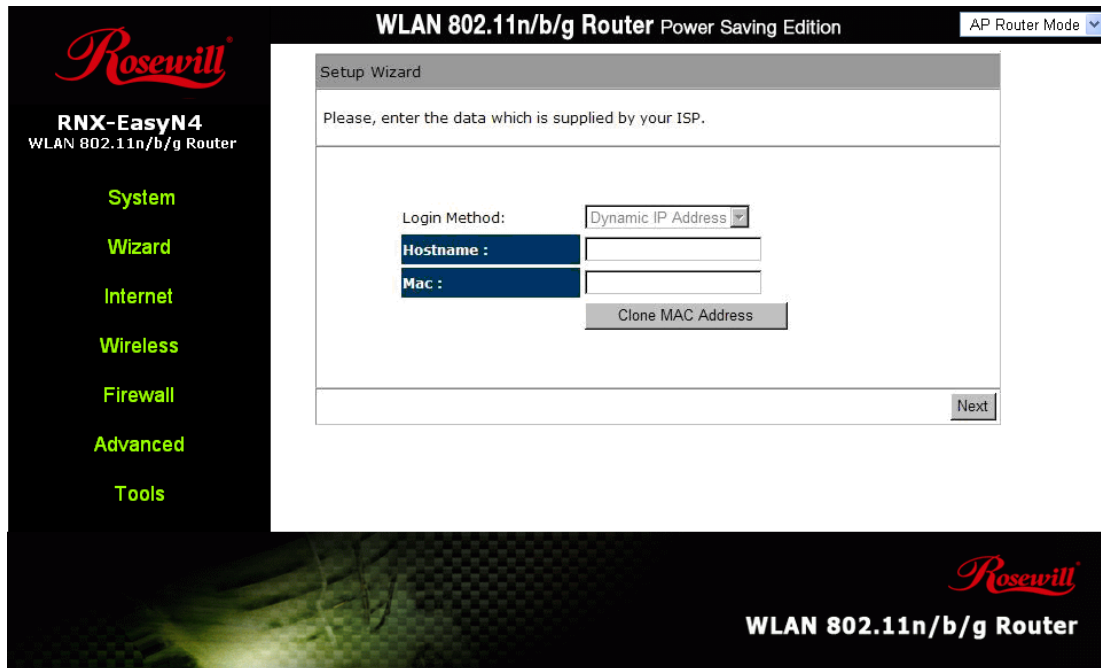
Please choose your service type or select Others to setup WAN configurations manually.

No.	Service	Description
<input checked="" type="radio"/> 1.	DHCP	DHCP is used when your Modem is controlling your internet connection the Username & Password is stored on the Modem.
<input type="radio"/> 2.	PPPoE	PPPoE is used when your modem is set in Bridge Mode and your Router is used to control the internet connection. IE: router houses ISP's Username & Password.
<input type="radio"/> 3.	Others	

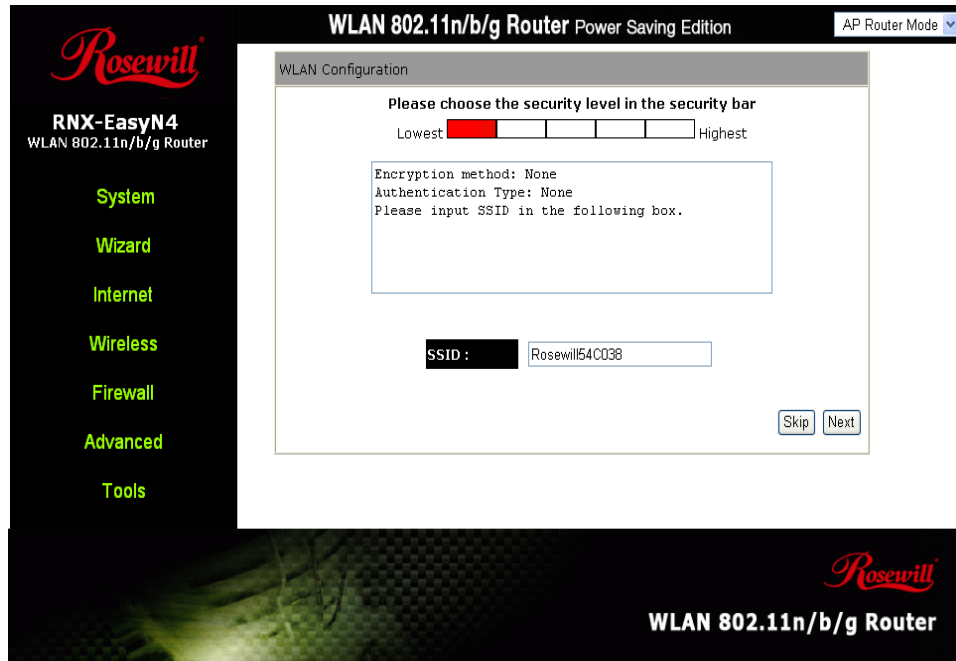
Rescan Skip Next

Rosewill
WLAN 802.11n/b/g Router

Smart Wizard has detected DHCP client. Configure the host name and MAC address of your ADSL modem. Click Next to proceed.



Smart Wizard has finished setting up **WAN Configuration**. Click **<Next>** to proceed.



Enter the name for your wireless network (SSID) and security key
Click **<Next>** to proceed

The screenshot displays the configuration interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" with a dropdown menu set to "AP Router Mode". A "Setup Successfully" message is shown, detailing the following configurations:

- System Configuration:**
 - Operation Mode : AP Router
- WAN Configuration:**
 - Connection Type : Dynamic IP
- WLAN Configuration :**
 - SSID : Rosewill54C038
 - Security : Disabled
 - WLAN Key : ---

Below the configuration details, a message states: "WLAN Router setup successfully. Please click reboot button to reboot system." A "Reboot" button is located at the bottom right of the configuration area. The left sidebar contains navigation links: System, Wizard, Internet, Wireless, Firewall, Advanced, and Tools. The bottom right corner features the Rosewill logo and the text "WLAN 802.11n/b/g Router".

To apply the entire configuration, click **<Reboot>**.

NOTE:

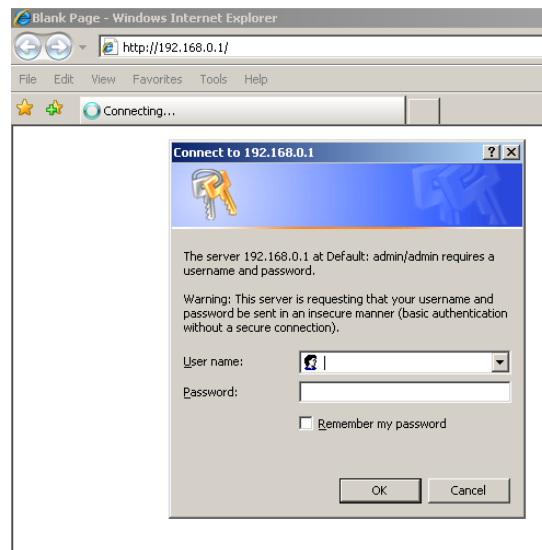
After Wireless settings are applied, you need to connect from your WLAN client with the security settings you just finished configuring. Remember the type of security & security key.

10 Initial Setup RNX-EASYN4

RNX-EASYN4 uses web-interface for configuration to be accessed through your web browser, such as Internet Explorer or Netscape Communicator.

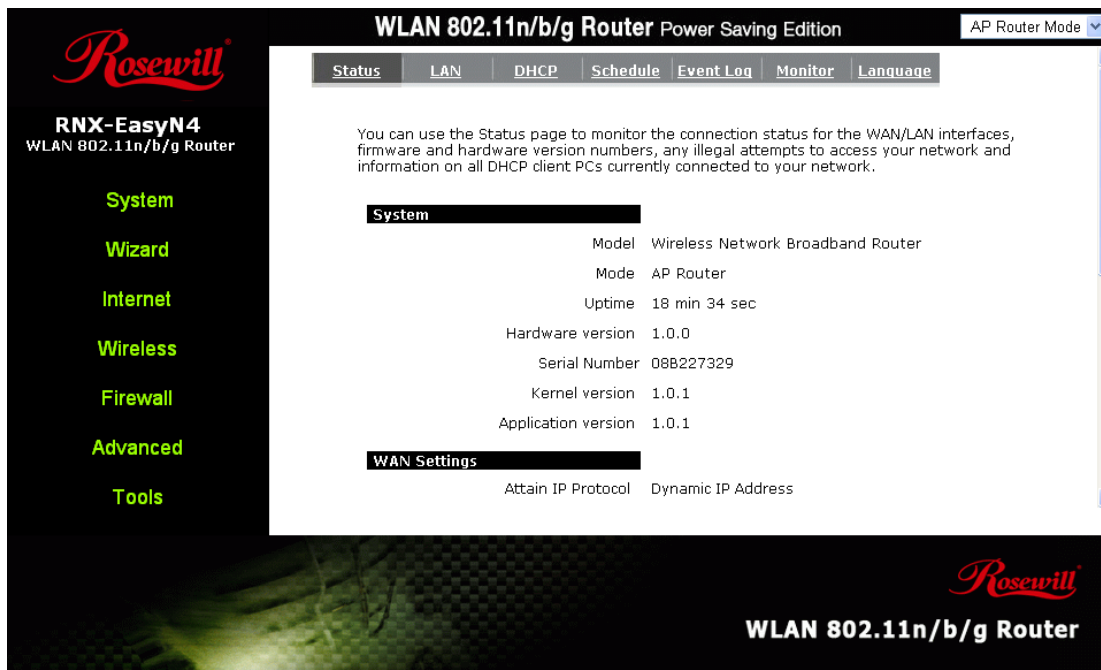
- LOGIN Procedure

1. OPEN your browser (e.g. Internet Explorer).
2. Type <http://192.168.0.1> in address bar and hit [Enter] button on your keyboard.





3. Click **<OK>** to navigate into RNX-EASYN4 configuration home page.
4. You will see the home page of RNX-EASYN4 as follows.



12 AP Router Mode

■ System

- Status

This page allows you to monitor the current status of your router. You can use the status page to quickly see if you have any updated firmware available (bug fixes, updates). You can navigate from this page with a few interesting options for reminding or skipping this page forever & so forth.

Once you click on **<OK>** button to go to the requested page, you can see the status page of the RNX-EASYN4.

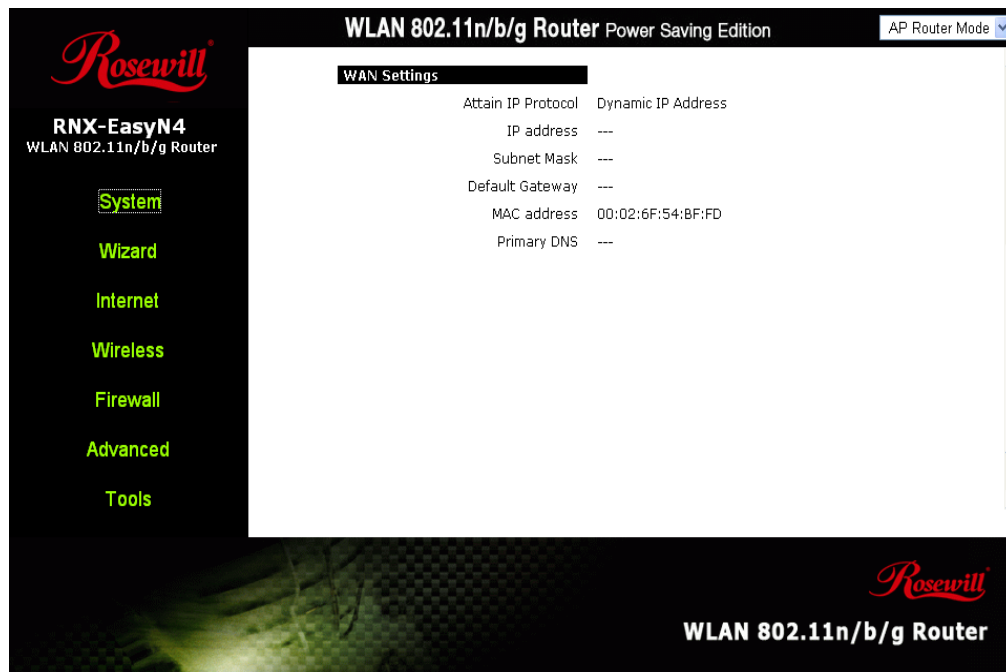
System: You can see the UP time, hardware information, serial number as well as firmware version information.

The screenshot displays the web interface of a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and the mode is set to "AP Router Mode". The left sidebar contains navigation links: System (highlighted), Wizard, Internet, Wireless, Firewall, Advanced, and Tools. The main content area shows the "System" status page with the following information:

Model	Wireless Network Broadband Router
Mode	AP Router
Uptime	19 min 34 sec
Hardware version	1.0.0
Serial Number	08B227329
Kernel version	1.0.1
Application version	1.0.1

The bottom of the page features the Rosewill logo and the text "WLAN 802.11n/b/g Router".

WAN Settings: This section displays whether the WAN port is connected to a Cable/DSL connection. It also displays the router's WAN IP address, Subnet Mask, and ISP Gateway as well as MAC address, the Primary DNS.



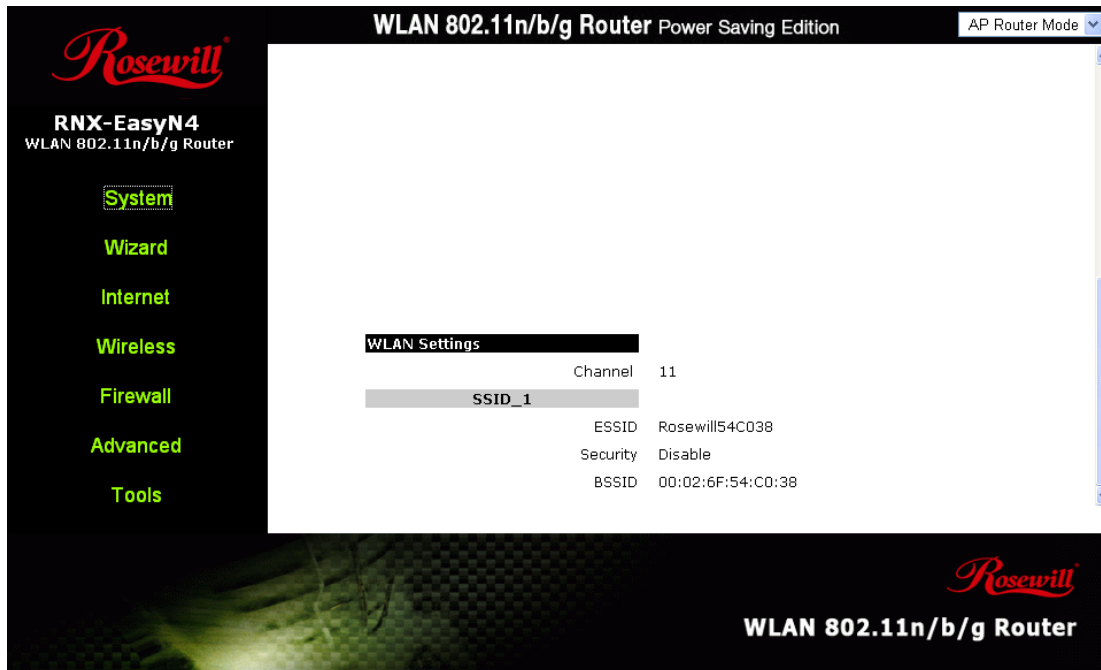
LAN Settings: This section displays the Broadband router LAN port's current LAN & WLAN information. It also shows whether the DHCP Server function is enabled / disabled.

The screenshot displays the web management interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The interface is titled "WLAN 802.11n/b/g Router Power Saving Edition" and is set to "AP Router Mode". A left-hand navigation menu includes options for System, Wizard, Internet, Wireless, Firewall, Advanced, and Tools. The "LAN Settings" section is active, showing the following configuration:

LAN Settings	
IP address	192.168.0.1
Subnet Mask	255.255.255.0
DHCP Server	Enabled
MAC address	00:02:6F:54:C0:38

The bottom of the interface features the Rosewill logo and the text "WLAN 802.11n/b/g Router".

WLAN Settings: This section displays the current WLAN configuration settings you've configured in the Wizard / Basic Settings / Wireless Settings section. Wireless configuration details such as SSID, Security settings, BSSID, Channel number, mode of operation are briefly shown.



- LAN

The LAN Tabs reveals LAN settings which can be altered at will. If you are an entry level user, try accessing a website from your browser. If you can access website without a glitch, just do not change any of these settings.

Click **<Apply>** at the bottom of this screen to save the changed configurations.

Rosewill
RNX-EasyN4
WLAN 802.11n/b/g Router

System
Wizard
Internet
Wireless
Firewall
Advanced
Tools

WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode

Status LAN **DHCP** Schedule Event Log Monitor Language

You can enable the Broadband routers DHCP server to dynamically allocate IP Addresses to your LAN client PCs. The broadband router must have an IP Address for the Local Area Network.

LAN IP

IP address : 192.168.0.1
IP Subnet Mask : 255.255.255.0
802.1d Spanning Tree : Disabled

DHCP Server

DHCP Server : Enabled
Lease time : Forever
Start IP : 192.168.0.100
End IP : 192.168.0.200
Domain name : rnxeasyN4

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WLAN 802.11n/b/g Router

LAN IP

IP address: 192.168.0.1. It is the router's LAN IP address (Your LAN clients default gateway IP address). It can be changed based on your own choice.

IP Subnet Mask: 255.255.255.0 Specify a Subnet Mask for your LAN segment.

802.1d Spanning Tree: This is disabled by default. If 802.1d Spanning Tree function is enabled, this router will use the spanning tree protocol to prevent network loops.

DHCP Server

DHCP Server: This will enable or disable the Dynamic Pool setting..

Lease time: This is the lease time of each assigned IP address.

Start IP: This will be the beginning of the pool of IP addresses available for client devices.

End IP: This will be the end of the pool of IP addresses available for client devices.

Domain name: The Domain Name for the existing or customized network.

- DHCP

View the current LAN clients which are assigned with an IP Address by the DHCP-server. This page shows all DHCP clients (LAN PCs) currently connected to your network. The table shows the assigned IP address, MAC address and expiration time for each DHCP leased client. Use the **<Refresh>** button to update the available information. Hit **<Refresh>** to get the updated table.

You can check **"Enable Static DHCP IP"**. It is possible to add more static DHCP IPs. They are listed in the table **"Current Static DHCP Table"**. IP address can be deleted at will from the table.

Click **<Apply>** button to save the changed configuration.

WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode ▾

Status LAN DHCP **Schedule** Event Log Monitor Language

DHCP Client Table :

This DHCP Client Table shows client IP address assigned by the DHCP Server

IP address	MAC address	Expiration Time
192.168.0.101	00:02:6F:52:7F:2D	Forever

You can assign an IP address to the specific MAC address

Enable Static DHCP IP

IP address	MAC address
<input type="text"/>	<input type="text"/>

WLAN 802.11n/b/g Router

- Schedule

This page allows user to set up schedule function for Firewall and Power Saving

WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode ▾

Status LAN DHCP **Schedule** Event Log Monitor Language

You can use the Schedule page to Start/Stop the Services regularly. The Schedule will start to run, when it get GMT Time from Time Server. Please set up the Time Server correctly in Toolbox. The services will start at the time in the following Schedule Table or it will stop.

Enabled Schedule Table (up to 8)

NO.	Description	Service	Schedule	Select
<input type="button" value="Add"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete Selected"/>	<input type="button" value="Delete All"/>	

WLAN 802.11n/b/g Router

Add schedule, edit schedule options to allow configuration of firewall and power savings services. Fill in the schedule and select type of service. Click <Apply> to implement those settings.

The screenshot shows the configuration interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is in "AP Router Mode". The navigation menu includes Status, LAN, DHCP, Schedule, Event Log, Monitor, and Language. The "Schedule" section is active, showing a form to create or edit a schedule. The form includes fields for "Schedule Description" (set to "schedule 01"), "Service" (with checkboxes for Firewall and Power Saving), "Days" (with checkboxes for Every Day and individual days Mon-Sun), and "Time of day" (with checkboxes for All Day and a 24-hour clock range). "Apply" and "Cancel" buttons are at the bottom right of the form.

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RNX-EasyN4
WLAN 802.11n/b/g Router

WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode

Status LAN DHCP **Schedule** Event Log Monitor Language

You can use the Schedule page to Start/Stop the Services regularly. The services will start at the time in the following Schedule Table or it will stop.

Schedule Description : schedule 01

Service : Firewall Power Saving

Days : Every Day
 Mon Tue Wed Thu Fri Sat Sun

Time of day : All Day (use 24-hour clock)
From 0 : 0 To 0 : 0

Apply Cancel

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WLAN 802.11n/b/g Router

The schedule table lists the pre-schedule service-runs. You can select any of them using the check box.

WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode

Status LAN DHCP **Schedule** Event Log Monitor Language

You can use the Schedule page to Start/Stop the Services regularly. The Schedule will start to run, when it get GMT Time from Time Server. Please set up the Time Server correctly in Toolbox. The services will start at the time in the following Schedule Table or it will stop.

Enabled Schedule Table (up to 8)

NO.	Description	Service	Schedule	Select
1	schedule 01	Firewall	All Time---Mon	<input type="checkbox"/>
2	schedule 02	Power Saving	All Time---Tue	<input type="checkbox"/>
3	schedule 03	Power Saving+Firewall	All Time---Thu	<input type="checkbox"/>

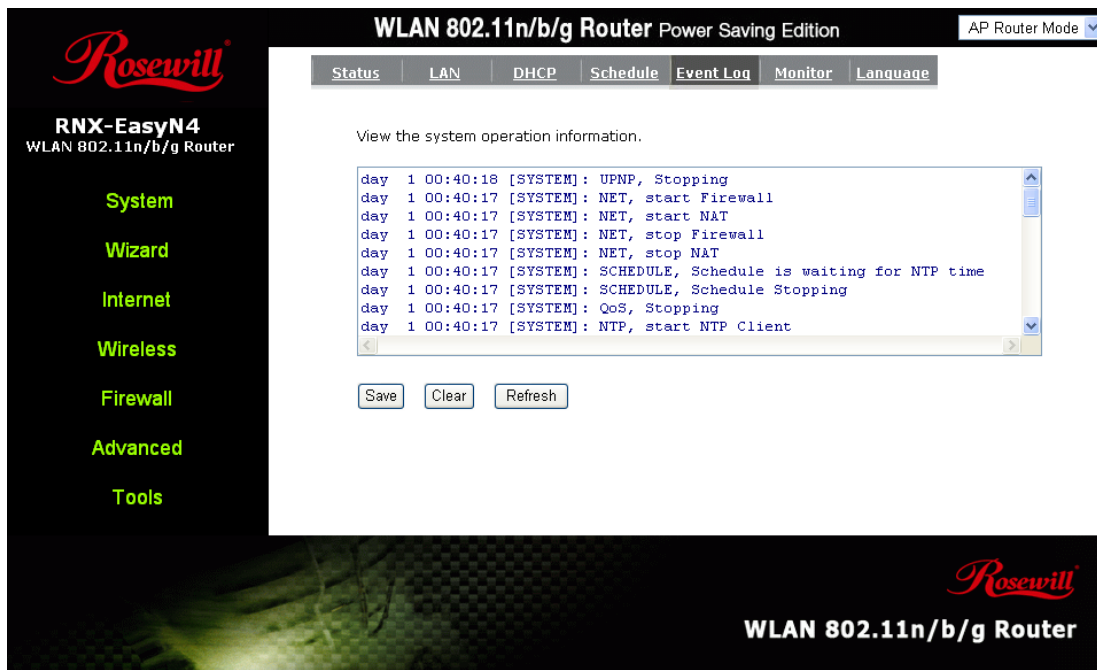
Add Edit Delete Selected Delete All

Apply Cancel

WLAN 802.11n/b/g Router

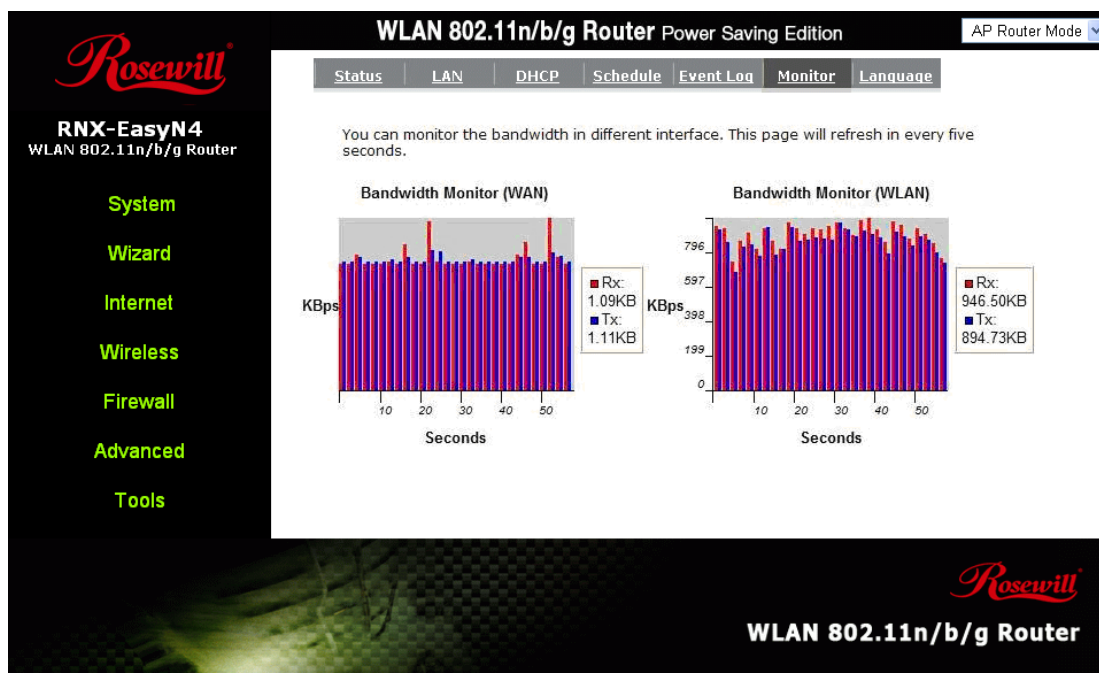
- Event Log

View **operation event log**. This page shows the current system log of the Broadband router. It displays any event occurred after system start up. At the bottom of the page, the system log can be saved **<Save>** to a local file for further processing or the system log can be cleared **<Clear>** or it can be refreshed **<Refresh>** to get the most updated information. When the system is powered down, the system log will disappear if not saved to a local file.



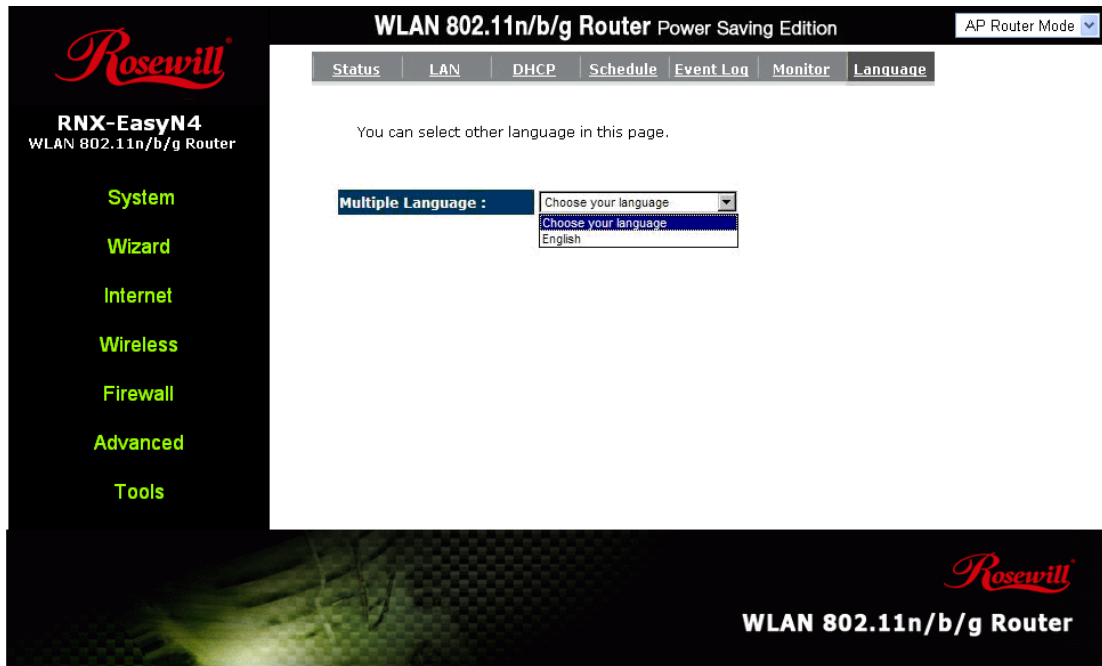
- Monitor

Show histogram for network connection on WAN, LAN & WLAN. Auto refresh keeps information updated frequently.



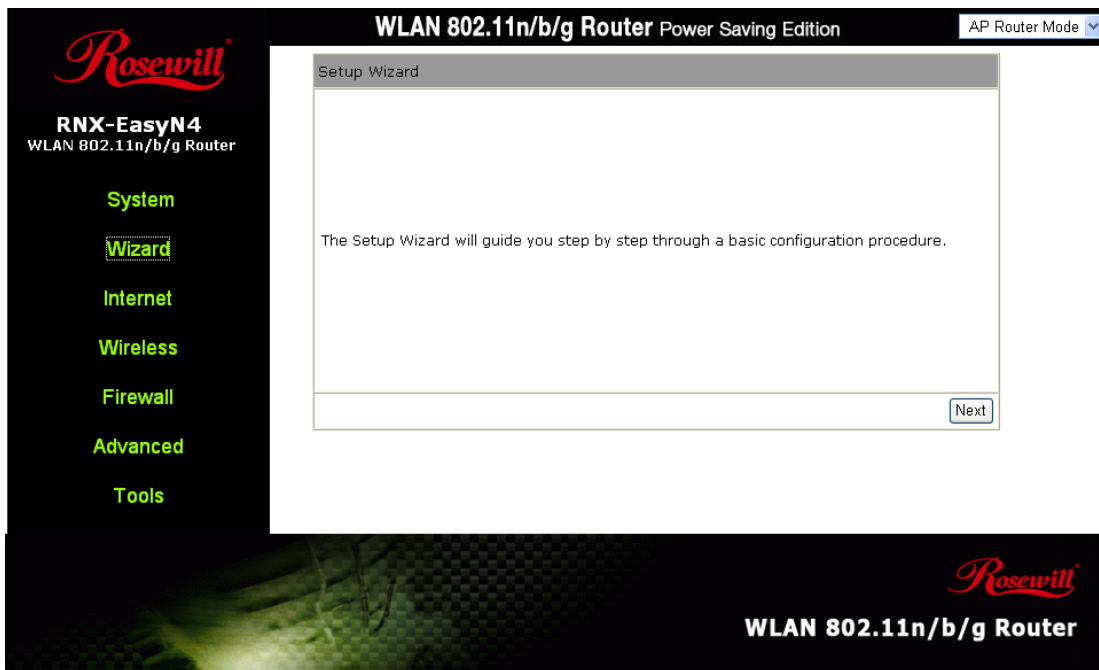
- Language

This Wireless Router support multiple language of web pages, You could select your native language here.



■ Wizard

Click **Wizard** to configure the Broadband Router. Setup wizard will now be displayed; check that the modem is connected and click **<Next>**. The details please refer to **Smart Wizard**.



■ INTERNET

- Status

This page shows the current Internet connection type and status

The screenshot displays the 'Status' page for the Rosewill RNX-EasyN4 router. The page title is 'WLAN 802.11n/b/g Router Power Saving Edition'. The left sidebar contains navigation links: System, Wizard, Internet (highlighted), Wireless, Firewall, Advanced, and Tools. The main content area shows the 'WAN Settings' section with the following table:

WAN Settings	
Attain IP Protocol	Dynamic IP Address
IP address	---
Subnet Mask	---
Default Gateway	---
MAC address	00:02:6F:54:BF:FD
Primary DNS	---

Below the table is a 'Renew' button. The page footer includes the Rosewill logo and 'WLAN 802.11n/b/g Router'.

- Dynamic IP

Use the MAC address when registering for Internet service, and do not change it unless required by your ISP. If your ISP used the MAC address of the Ethernet card as an identifier, connect only the PC with the registered MAC address to the broadband router and click the **<Clone MAC Address>** button. This will replace the current MAC address with the already registered Ethernet card MAC address

The screenshot shows the configuration interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" with a dropdown menu for "AP Router Mode". The left sidebar contains navigation links: System, Wizard, Internet, Wireless, Firewall, Advanced, and Tools. The main content area is titled "Dynamic IP" and includes a "Status" tab. Below the tabs, there is a text prompt: "You can select the type of the account you have with your ISP provider." The "Dynamic IP" section contains two input fields: "Hostname :" and "MAC address:". The "MAC address:" field is pre-filled with "000000000000" and has a "Clone MAC" button next to it. At the bottom right of the form area are "Apply" and "Cancel" buttons. The Rosewill logo and "WLAN 802.11n/b/g Router" text are visible at the bottom of the page.

Host Name: This is optional.

MAC address: The default value is set to the WAN's physical interface of the broadband router.

- Static IP

If your ISP Provider has assigned a fixed IP address, enter the assigned IP address, Subnet mask, Default Gateway IP address, and Primary DNS of your ISP provider.

The screenshot shows the configuration page for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router in Power Saving Edition. The page is titled "WLAN 802.11n/b/g Router Power Saving Edition" and has a dropdown menu for "AP Router Mode". The left sidebar contains navigation options: System, Wizard, Internet, Wireless, Firewall, Advanced, and Tools. The main content area has tabs for "Status", "Dynamic IP", "Static IP", "PPPOE", and "PPTP". The "Static IP" tab is selected, and the text below it says "You can select the type of the account you have with your ISP provider." The form fields are: IP address (172.1.1.1), IP Subnet Mask (255.255.0.0), Default Gateway (172.1.1.254), Primary DNS (empty), and Secondary DNS (empty). There are "Apply" and "Cancel" buttons at the bottom right.

IP address:	172.1.1.1
IP Subnet Mask :	255.255.0.0
Default Gateway :	172.1.1.254
Primary DNS :	
Secondary DNS :	

- Point-to-Point over Ethernet Protocol (PPPoE)

The screenshot shows the configuration page for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router in Power Saving Edition. The page is titled "WLAN 802.11n/b/g Router Power Saving Edition" and has a dropdown menu for "AP Router Mode". The left sidebar contains navigation options: System, Wizard, Internet, Wireless, Firewall, Advanced, and Tools. The main content area has tabs for "Status", "Dynamic IP", "Static IP", "PPPOE", and "PPTP". The "PPPOE" tab is selected, and the text below it says "You can select the type of the account you have with your ISP provider." The form fields are: Login (username), Password (masked with dots), Service Name (empty), MTU (1492, with a note "(512<=MTU Value<=1492)"), Authentication type (Auto), Type (Keep Connection, with "Connect" and "Disconnect" buttons), and Idle Timeout (10, with a note "(1-1000 Minutes)"). There are "Apply" and "Cancel" buttons at the bottom right.

Login :	username
Password :	*****
Service Name	
MTU :	1492 (512<=MTU Value<=1492)
Authentication type :	Auto
Type :	Keep Connection
Idle Timeout :	10 (1-1000 Minutes)

Login / Password: Enter the PPPoE username and password assigned by your ISP Provider.

Service Name: This is normally optional.

Maximum Transmission Unit (MTU): This is the maximum size of the packets.

Type: Enable the Auto-reconnect option to automatically re-establish the connection when an application attempts to access the Internet again.

Idle Timeout: This is a maximum period of time for which the Internet connection is maintained during inactivity. If the connection is inactive for longer than the Maximum Idle Time, it will be dropped.

- Point-to-Point Tunneling Protocol (PPTP)

The screenshot shows the configuration page for a Rosewill WLAN 802.11n/b/g Router, Power Saving Edition, in AP Router Mode. The page is divided into several sections: Status, Dynamic IP, Static IP, PPPoE, and PPTP. The PPTP section is active, showing the following settings:

- WAN Interface Settings :**
 - WAN Interface Type :** Dynamic IP Address
 - Hostname :** [Empty field]
 - MAC Address:** 000000000000 [Clone Mac button]
- PPTP Settings :**
 - Login :** [Empty field]
 - Password :** [Empty field]
 - Service IP address :** [Empty field]
 - ConnectionID :** 0 (Optional)
 - MTU :** 1400 (512 <= MTU Value <= 1492)

The page also features a sidebar with navigation options: System, Wizard, Internet, Wireless, Firewall, Advanced, and Tools. The Rosewill logo and product name are visible at the bottom of the page.

PPTP allows the secure connection over the Internet by simply dialing in a local point provided by your ISP provider. The following screen allows client PCs to establish a normal PPTP session and provides hassle-free configuration of the PPTP client on each client PC.

Click **<Apply>** to save configuration and connect to ISP provider.

■ Wireless Settings

- Basic

In basic setting page, you can set wireless Radio, Mode, Band, SSID, and Channel.

The screenshot displays the configuration interface for the Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page is titled "WLAN 802.11n/b/g Router Power Saving Edition" and is set to "AP Router Mode". The interface includes a navigation menu on the left with options: System, Wizard, Internet, **Wireless**, Firewall, Advanced, and Tools. The main content area has tabs for "Basic", "Advanced", "Security", "Filter", "WPS", and "Client List". A descriptive text states: "This page allows you to define SSID, and Channel for the wireless connection. These parameters are used for the wireless stations to connect to the Access Point." The configuration fields are as follows:

Radio :	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Mode :	AP
Band :	2.4 GHz (B+G+N)
Enabled SSID#:	1
SSID1 :	Rosewill54C038
Auto Channel :	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Channel :	11

Buttons for "Apply" and "Cancel" are located at the bottom right of the configuration area.

Radio: You can turn on/off wireless radio. If wireless Radio is off, you cannot associate with AP through wireless.

Mode: In this device, we support three operation modes which are **AP router** and **AP route with WDS** (we will introduce this function later section). If you choose AP Router Mode, you can select AP or WDS function in the drop-down menu.

Band: You can select the wireless standards running on your network environment.

- 2.4 GHz(B):** If all your clients are 802.11b, select this one.
- 2.4 GHz(N):** If all your clients are 802.11n, select this one.
- 2.4 GHz(B+G):** Either an 802.11b or an 802.11g wireless devices are in your environment.
- 2.4 GHz(G):** If all your clients are 802.11g, select this one.
- 2.4 GHz(B+G+N):** Either 802.11b, 802.11g, or 802.11n wireless devices are in your environment.

Enable ESSID: We support 4 multiple SSIDs in this device. Please select how many SSIDs you would like to use in your network environment.

ESSID1~4: ESSID is the name of your wireless network. It might be a unique name to identify this wireless device in the Wireless LAN. It is case sensitive and up to 32 printable characters. You might change the default ESSID for added security.

Auto Channel: Device will search all valid channels, then decide a most clean channel and change to this channel if you enable this function. Depend on this function enable or not, you will see different item below **Auto Channel**.

Channel: If Auto Channel is disabled, you should choose a static channel and AP will use this channel to communicate with other clients.

Check Channel Time: If Auto Channel is enabled, you can choose a period from the drop-down menu. AP will change to a clean channel periodically.

- WDS with AP Router

Wireless Distribution System, a system that enables the wireless interconnection of access point, allows a wireless network to be expanded using multiple access points without a wired backbone to like them. Each WDS APs need setting as same channel and encryption type.

The screenshot shows the configuration interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page is titled "WLAN 802.11n/b/g Router Power Saving Edition" and is in "AP Router Mode". The "WPS" tab is selected, and the "WDS" sub-tab is active. The page allows defining SSID and Channel for the wireless connection. The settings are as follows:

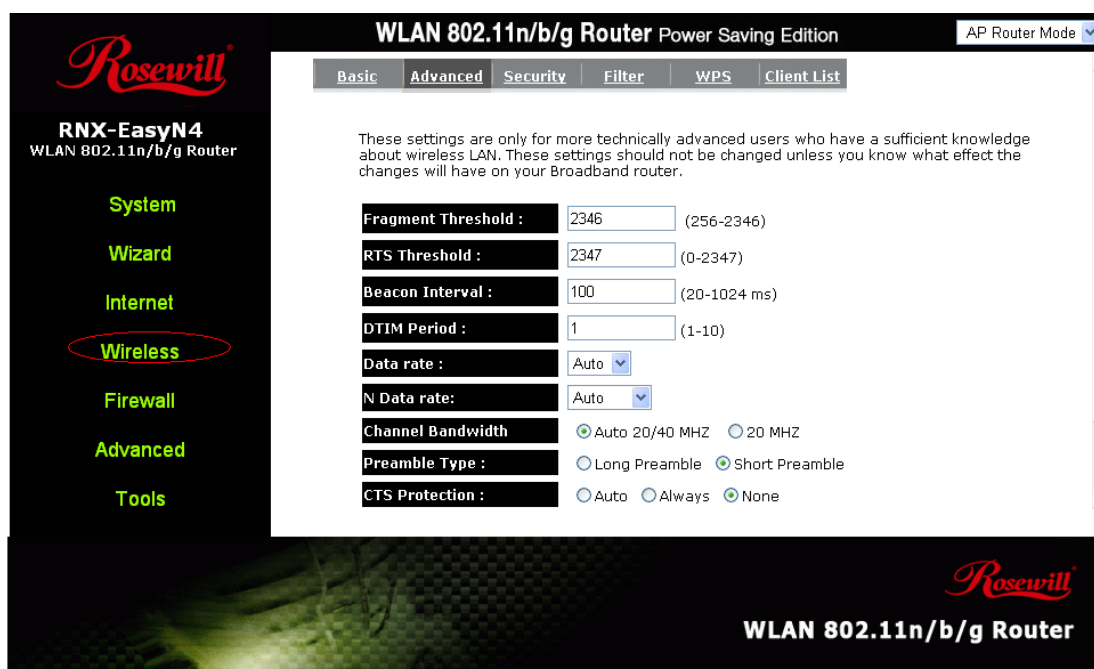
Field	Value
Radio	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Mode	WDS
Band	2.4 GHz (B+G+N)
Enabled SSID#	1
SSID1	Rosewill54C038
Auto Channel	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Channel	11
MAC address 1	000000000000
MAC address 2	000000000000

MAC address 1~4: Please enter the MAC address of the neighboring APs that participates in WDS, we support 4 devices now.

Set Security: WDS Security depends on your AP security settings. Note: it does not support **mixed mode** such as WPA-PSK/WPA2-PSK Mixed mode.

- Advanced

This tab allows you to set the advanced wireless options. The options included are Authentication Type, Fragment Threshold, RTS Threshold, Beacon Interval, and Preamble Type. You should not change these parameters unless you know what effect the changes will have on the router.



Fragment Threshold: This specifies the maximum size of a packet during the fragmentation of data to be transmitted. If you set this value too low, it will result in bad performance.

RTS Threshold: When the packet size is smaller than the RTS threshold, the wireless router will not use the RTS/CTS mechanism to send this packet.

Beacon Interval: is the interval of time that this wireless router broadcasts a beacon. A Beacon is used to synchronize the wireless network.

DTIM Period: Enter a value between 1 and 255 for the Delivery Traffic Indication Message (DTIM). A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages

Data Rate: The “Data Rate” is the rate that this access point uses to transmit data packets. The access point will use the highest possible selected transmission rate to transmit the data packets.

N Data Rate: The “Data Rate” is the rate that this access point uses to transmit data packets for N compliant wireless nodes. Highest to lowest data rate can be fixed.

Channel Bandwidth: This is the range of frequencies that will be used.

Preamble Type: The “Long Preamble” can provide better wireless LAN compatibility while the “Short Preamble” can provide better wireless LAN performance.

CTS Protection: It is recommended to enable the protection mechanism. This mechanism can decrease the rate of data collision between 802.11b and 802.11g wireless stations. When the protection mode is enabled, the throughput of the AP will be a little lower due to a lot of frame-network that is transmitted.

TX Power: This can be set to a bare minimum or maximum power.

- Security

This Access Point provides complete wireless LAN security functions, included are WEP, IEEE 802.1x, IEEE 802.1x with WEP, WPA with pre-shared key and WPA with RADIUS. With these security functions, you can prevent your wireless LAN from illegal access. Please make sure your wireless stations use the same security function, and are setup with the same security key.

The screenshot shows the configuration interface for the Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page is titled "WLAN 802.11n/b/g Router Power Saving Edition" and is in "AP Router Mode". The "Security" tab is selected, and the page allows users to setup wireless security. The configuration options are as follows:

Field	Value
SSID Selection :	Rosewill54C038
Broadcast SSID :	Enable
WMM :	Enable
Encryption :	Disable

There is an unchecked checkbox for "Enable 802.1x Authentication". "Apply" and "Cancel" buttons are present at the bottom right of the form area.

ESSID Selection: This broadband router support multiple ESSID, you could select and set up the wanted ESSID.

Broadcast ESSID: If you enabled "Broadcast ESSID", every wireless station located within the coverage of this access point can discover this access point easily. If you are building a public wireless network, enabling this feature is recommended. Disabling "Broadcast ESSID" can provide better security.

WMM: Wi-Fi MultiMedia if enabled supports QoS for experiencing better audio, video and voice in applications.

Encryption: When you choose to disable encryption, it is very insecure to operate RNX-EASYN4.

Enable 802.1x Authentication

IEEE 802.1x is an authentication protocol. Every user must use a valid account to login to this Access Point before accessing the wireless LAN. The authentication is processed by a RADIUS server. This mode only authenticates users by IEEE 802.1x, but it does not encrypt the data during communication.

The screenshot shows the configuration interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page is titled "WLAN 802.11n/b/g Router Power Saving Edition" and is in "AP Router Mode". The "Security" tab is selected, and the "Wireless" option in the left sidebar is highlighted. The main content area contains the following fields and options:

- SSID Selection : Rosewill54C038
- Broadcast SSID : Enable
- WMM : Enable
- Encryption : Disable
- Enable 802.1x Authentication
- RADIUS Server IP address : [Empty field]
- RADIUS Server port : 1812
- RADIUS Server password : [Empty field]

Buttons for "Apply" and "Cancel" are located at the bottom right of the form.

WEP Encryption

When you select 64-bit or 128-bit WEP key, you have to enter WEP keys to encrypt data. You can generate the key by yourself and enter it. You can enter four WEP keys and select one of them as a default key. Then the router can receive any packets encrypted by one of the four keys.

The screenshot shows the configuration page for the Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router, Power Saving Edition, in AP Router Mode. The page is divided into several tabs: Basic, Advanced, Security (selected), Filter, WPS, and Client List. The Security tab contains the following settings:

- SSID Selection:** Rosewill54C038
- Broadcast SSID:** Enable
- WMM:** Enable
- Encryption:** WEP
- Authentication type:** Open System (selected), Shared Key, Auto
- Key Length:** 64-bit
- Key type:** ASCII (5 characters)
- Default key:** Key 1
- Encryption Key 1:** *****
- Encryption Key 2:** *****
- Encryption Key 3:** *****
- Encryption Key 4:** *****
- Enable 802.1x Authentication

The left sidebar shows navigation options: System, Wizard, Internet, **Wireless** (highlighted), Firewall, Advanced, and Tools. The Rosewill logo and product name are visible in the top left and bottom right corners of the interface.

Authentication Type: There are two authentication types: "**Open System**" and "**Shared Key**". When you select "**Open System**", wireless stations can associate with this wireless router without WEP encryption. When you select "**Shared Key**", you should also setup a WEP key in the "**Encryption**" page. After this has been done, make sure the wireless clients that you want to connect to the device are also setup with the same encryption key.

Key Length: You can select the WEP key length for encryption, 64-bit or 128-bit. The larger the key will be the higher level of security is used, but the throughput will be lower.

Key Type: You may select ASCII Characters (alphanumeric format) or Hexadecimal Digits (in the "A-F", "a-f" and "0-9" range) to be the WEP Key.

Key1 - Key4: The WEP keys are used to encrypt data transmitted in the wireless network. Use the following rules to setup a WEP key on the device.

64-bit WEP: input 10-digits Hex values (in the "A-F", "a-f" and "0-9" range) or 5-digit ASCII character as the encryption keys.

128-bit WEP: input 26-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 13-digit ASCII characters as the encryption keys.

Click **<Apply>** at the bottom of the screen to save the above configurations. You can now configure other sections by choosing Continue, or choose Apply to apply the settings and reboot the device.

WPA Pre-Shared Key Encryption

Wi-Fi Protected Access (WPA) is an advanced security standard. You can use a pre-shared key to authenticate wireless stations and encrypt data during communication. It uses TKIP or CCMP (AES) to change the encryption key frequently. So the encryption key is not easy to be cracked by hackers. This is the best security available.

The screenshot shows the configuration interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page is titled "WLAN 802.11n/b/g Router Power Saving Edition" and is in "AP Router Mode". The "Security" tab is selected, and the "Wireless" menu item in the left sidebar is highlighted. The configuration fields are as follows:

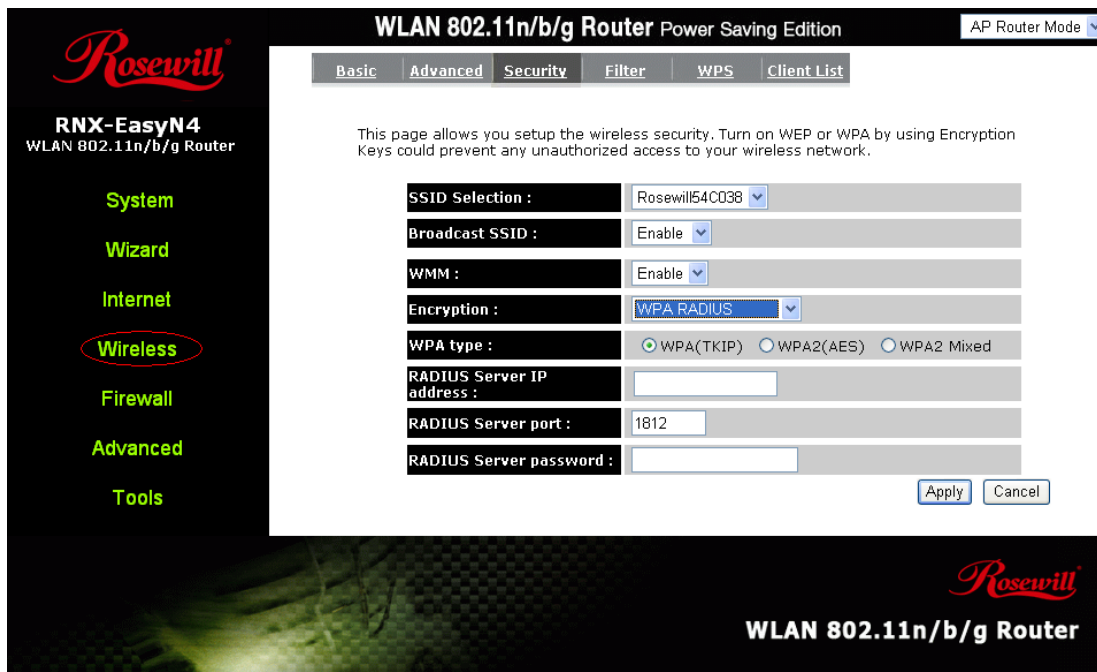
SSID Selection :	Rosewill54C038
Broadcast SSID :	Enable
WMM :	Enable
Encryption :	WPA pre-shared key
WPA type :	<input checked="" type="radio"/> WPA(TKIP) <input type="radio"/> WPA2(AES) <input type="radio"/> WPA2 Mixed
Pre-shared Key type :	Passphrase
Pre-shared Key :	

Buttons for "Apply" and "Cancel" are located at the bottom right of the form.

WPA-RADIUS Encryption

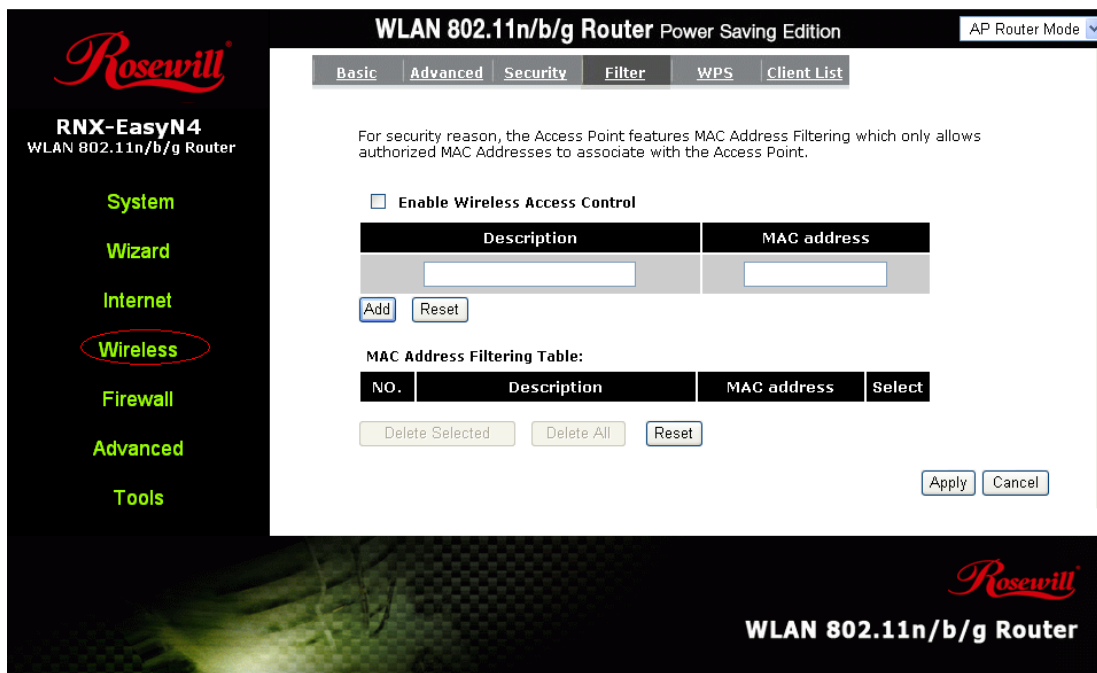
Wi-Fi Protected Access (**WPA**) is an advanced security standard. You can use an external RADIUS server to authenticate wireless stations and provide the session key to encrypt data during communication.

It uses **TKIP** or **CCMP (AES)** to change the encryption key frequently. Press **<Apply>** button when you are done.



- MAC Address Filtering

This wireless router supports MAC Address Control, which prevents unauthorized clients from accessing your wireless network.



Enable wireless access control: Enable the wireless access control function

Adding an address into the list

Enter the "MAC Address" and "Comment" of the wireless station to be added and then click **<Add>**. The wireless station will now be added into the "Current Access Control List" below. If you are having any difficulties filling in the fields, just click "Clear" and both "MAC Address" and "Comment" fields will be cleared.

Remove an address from the list

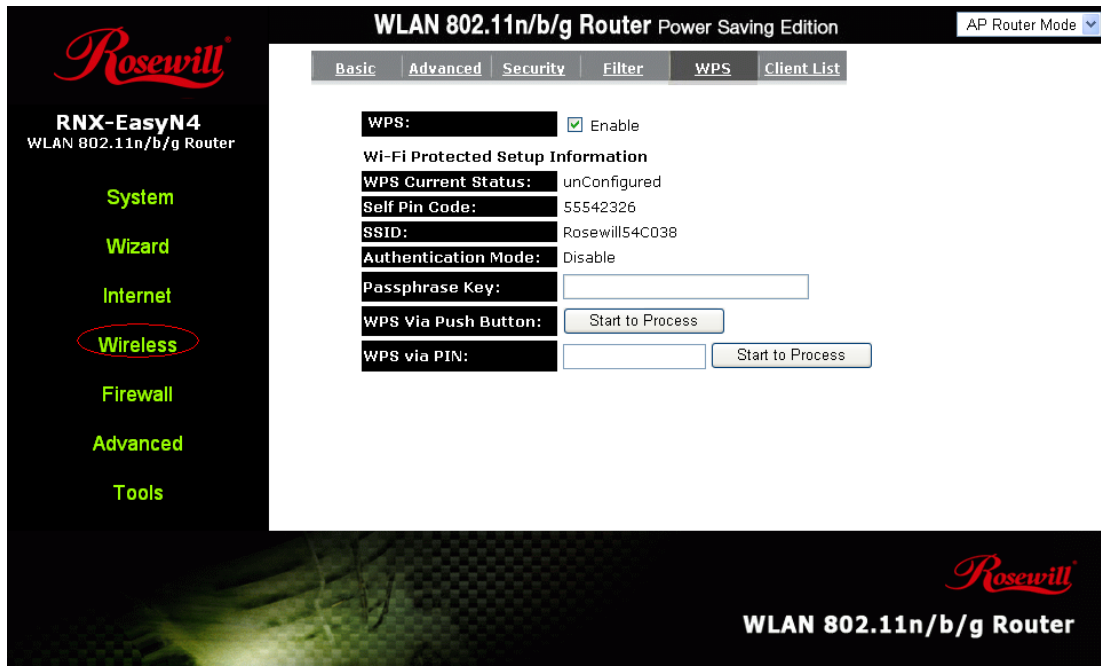
If you want to remove a MAC address from the "Current Access Control List", select the MAC address that you want to remove in the list and then click "Delete Selected". If you want to remove all the MAC addresses from the list, just click the **<Delete All>** button. Click **<Reset>** will clear your current selections.

Click **<Apply>** at the bottom of the screen to save the above configurations.

- Wi-Fi Protected Setup (WPS)

WPS is the simplest way to establish a connection between the wireless clients and the wireless router. You don't have to select the encryption mode and fill in a long encryption passphrase every time when you try to setup a wireless connection. You only need to press a button on both wireless client and wireless router, and the WPS will do the rest for you.

The wireless router supports two types of WPS: WPS via Push Button and WPS via PIN code. If you want to use the Push Button, you have to push a specific button on the wireless client or in the utility of the wireless client to start the WPS mode, and switch the wireless router to WPS mode. You can simply push the WPS button of the wireless router, or click the 'Start to Process' button in the web configuration interface. If you want to use the PIN code, you have to know the PIN code of the wireless client and switch it to WPS mode, then fill-in the PIN code of the wireless client through the web configuration interface of the wireless router.



WPS: Check the box to enable WPS function and uncheck it to disable the WPS function.

WPS Current Status: If the wireless security (encryption) function of this wireless router is properly set, you'll see a 'Configured' message here. Otherwise, you'll see '**UnConfigured**'.

Self Pin Code: This is the WPS PIN code of the wireless router. You may need this information when connecting to other WPS-enabled wireless devices.

SSID: This is the network broadcast name (SSID) of the router.

Authentication Mode: It shows the active authentication mode for the wireless connection.

Passphrase Key: It shows the passphrase key that is randomly generated by the wireless router during the WPS process. You may need this information when using a device which doesn't support WPS.

Interface: If device is set to repeater mode, you can choose "**Client**" interface to connect with other AP by using WPS, otherwise you may choose "**AP**" interface to do WPS with other clients.

WPS via Push Button: Press the button to start the WPS process. The router will wait for the WPS request from the wireless devices within 2 minutes.

WPS via PIN: You can fill-in the PIN code of the wireless device and press the button to start the WPS process. The router will wait for the WPS request from the wireless device within 2 minutes.

- Client List

This WLAN Client Table shows the Wireless client associate to this Wireless Router.

The screenshot displays the web interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is set to "AP Router Mode". The navigation menu includes "Basic", "Advanced", "Security", "Filter", "WPS", and "Client List", with "Client List" being the active tab. The "Wireless" option in the left sidebar is circled in red. The main content area shows the "WLAN Client Table" with a description: "This WLAN Client Table shows client MAC address associate to this Broadband Router". Below this is a table with two columns: "Interface" and "MAC address", and two rows of data. A "Refresh" button is located below the table.

Interface	MAC address	Signal (%)	Idle Time
Rosewill54C038	00:02:6F:52:7F:2D	100	0 secs
Rosewill54C038	00:13:D3:83:35:52	50	0 secs

- Policy

The Broadband router can allow you to set up the Wireless Access Policy.

WAN Connection: Allow Wireless Client on specific SSID to access WAN port.

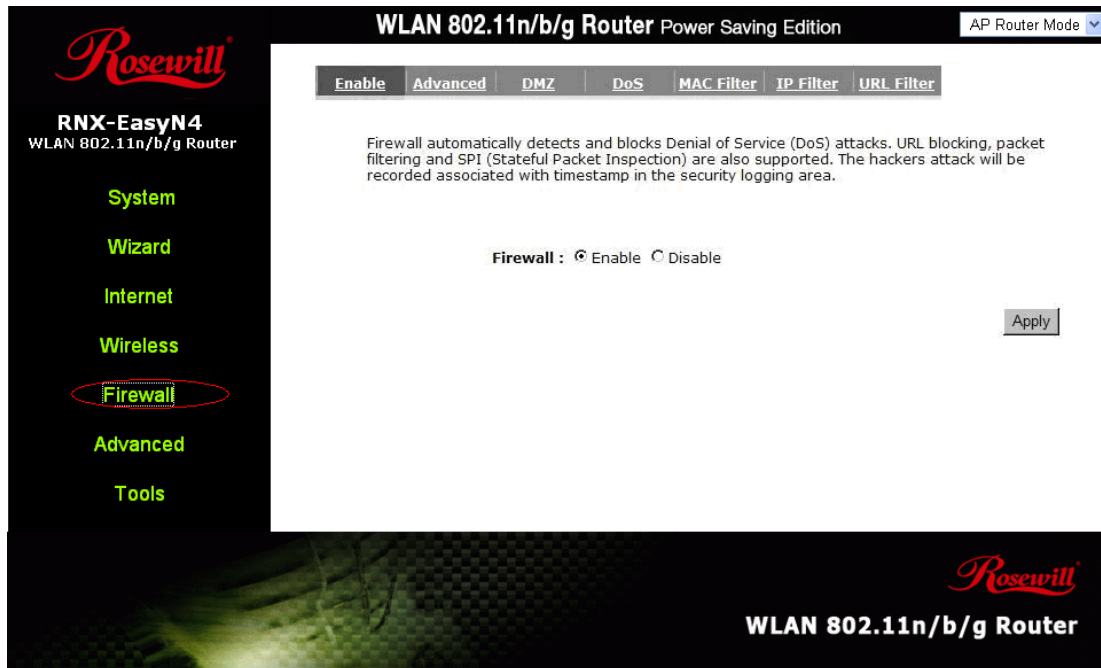
Communication between Wireless clients: Allow Wireless Client to communicate with other Wireless Client on specific SSID.

Communication between Wireless clients and wired clients: Allow Wireless Client to communicate with other Wireless Client on specific SSID and Wired Client on the switch. Or Wireless Client will allow to access WAN port only

The screenshot displays the web management interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The interface is titled "WLAN 802.11n/b/g Router Power Saving Edition" and is set to "AP Router Mode". A navigation menu on the left includes System, Wizard, Internet, Wireless (highlighted with a red circle), Firewall, Advanced, and Tools. The main content area shows the "SSID 1 Connection Control Policy" settings, which are currently set to "Enable" for three categories: "WAN Connection", "Communication between Wireless clients", and "Communication between Wireless clients and Wired clients". "Apply" and "Cancel" buttons are located at the bottom right of the settings area. The Rosewill logo and "WLAN 802.11n/b/g Router" text are visible in the bottom right corner of the interface.

■ Firewall Settings

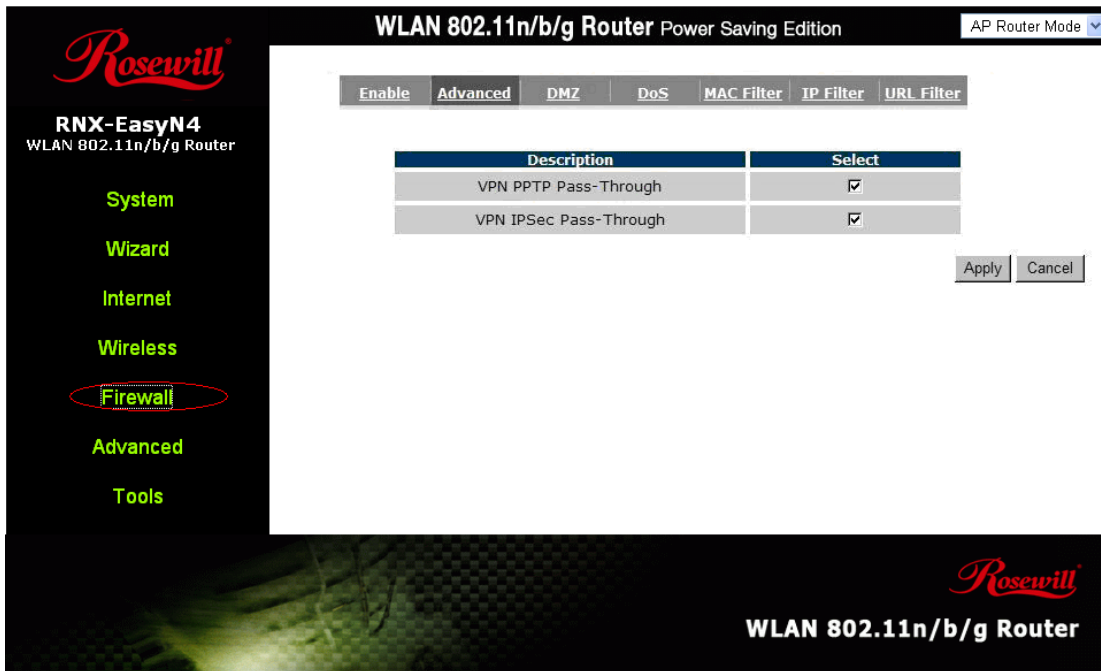
The Broadband router provides extensive firewall protection by restricting connection parameters, thus limiting the risk of hacker attacks, and defending against a wide array of common Internet attacks. However, for applications that require unrestricted access to the Internet, you can configure a specific client/server as a Demilitarized Zone (DMZ).



Note: To enable the Firewall settings select Enable and click Apply

- Advanced

You can allow the VPN packets to pass through this Broadband router.



WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode

Enable Advanced **DMZ** DoS MAC Filter IP Filter URL Filter

Description	Select
VPN PPTP Pass-Through	<input checked="" type="checkbox"/>
VPN IPSec Pass-Through	<input checked="" type="checkbox"/>

Apply Cancel

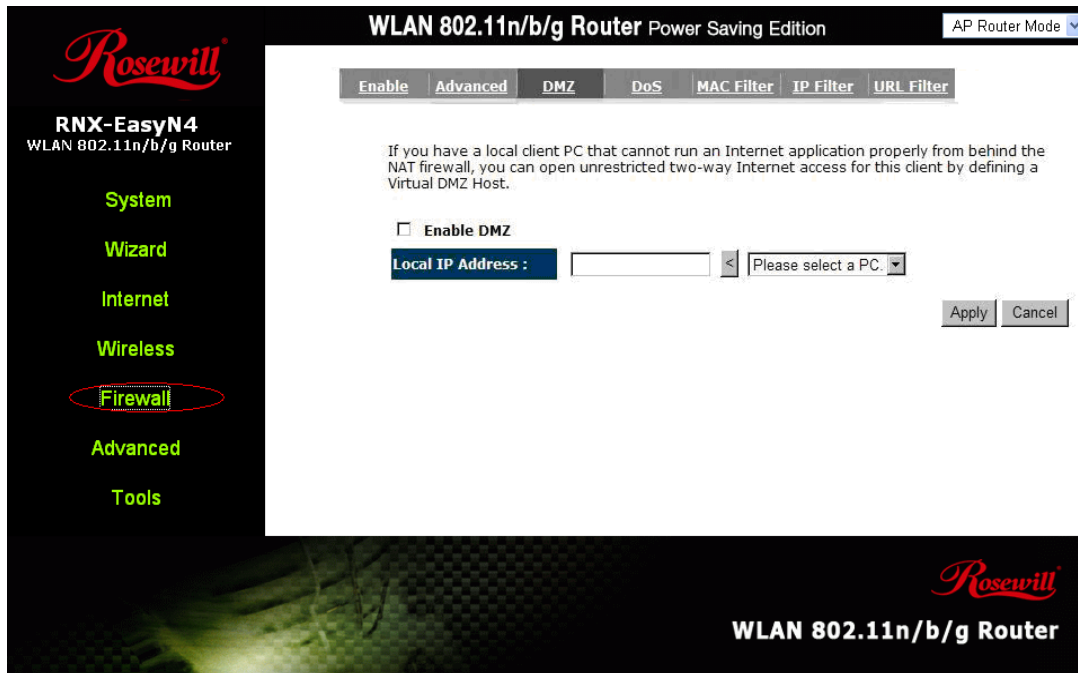
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Wireless
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- Demilitarized Zone (DMZ)

If you have a client PC that cannot run an Internet application (e.g. Games) properly from behind the NAT firewall, then you can open up the firewall restrictions to unrestricted two-way Internet access by defining a DMZ Host. The DMZ function allows you to re-direct all packets going to your WAN port IP address to a particular IP address in your LAN. The difference between the virtual server and the DMZ function is that the virtual server re-directs a particular service/Internet application (e.g. FTP, websites) to a particular LAN client/server, whereas DMZ re-directs all packets (regardless of services) going to your WAN IP address to a particular LAN client/server.



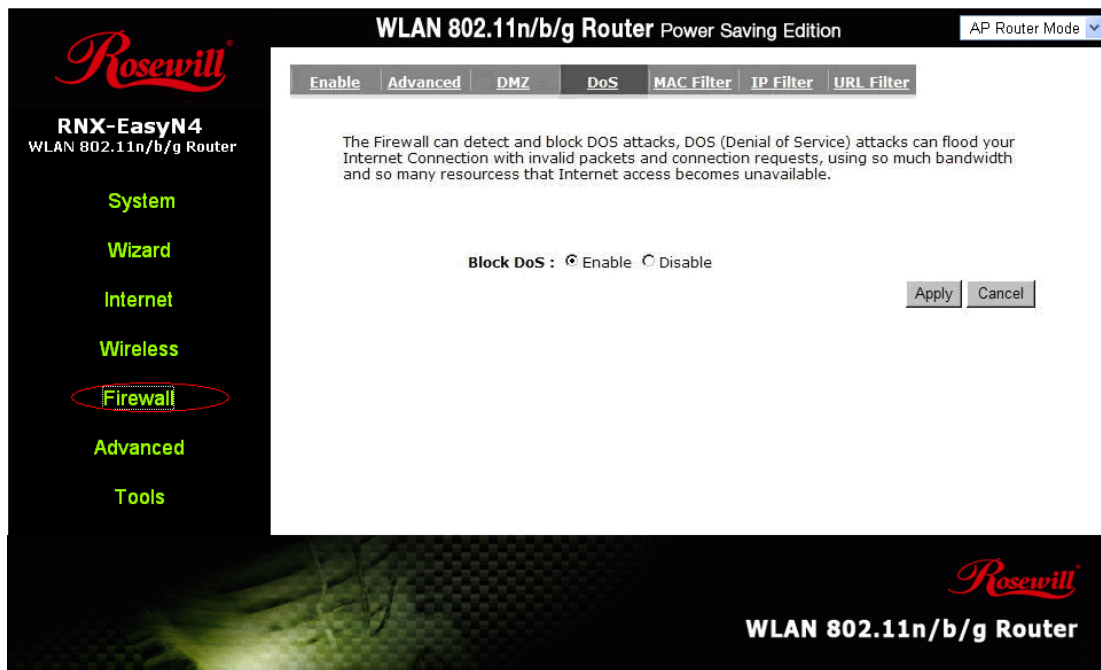
Enable DMZ: Enable/disable DMZ

LAN IP Address: Fill-in the IP address of a particular host in your LAN Network that will receive all the packets originally going to the WAN port/Public IP address above.

Click **<Apply>** at the bottom of the screen to save the above configurations.

- Denial of Service (DoS)

The Broadband router's firewall can block common hacker attacks, including Denial of Service, Ping of Death, Port Scan and Sync Flood. If Internet attacks occur the router can log the events.



Ping of Death: Protections from Ping of Death attack.

Discard Ping From WAN: The router's WAN port will not respond to any Ping requests

Port Scan: Protects the router from Port Scans.

Sync Flood: Protects the router from Sync Flood attack.

- MAC Filter

If you want to restrict users from accessing certain Internet applications / services (e.g. Internet websites, email, FTP etc.), and then this is the place to set that configuration. Access Control allows users to define the traffic type permitted in your LAN. You can control which PC client can have access to these services.

WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode

Enable Advanced DMZ DoS **MAC Filter** IP Filter URL Filter

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

Enable MAC filtering

Deny all clients with MAC address listed below to access the network

Allow all clients with MAC address listed below to access the network

Description	LAN MAC Address
<input type="text"/>	<input type="text"/>

Add Reset

MAC Filtering table:

NO.	Description	LAN MAC Address	Select
Delete Selected Delete All Reset			

Apply Cancel

WLAN 802.11n/b/g Router

Enable MAC Filtering: Check to enable or disable MAC Filtering.

Deny: If you select “Deny” then all clients will be allowed to access Internet except for the clients in the list below.

Allow: If you select “Allow” then all clients will be denied to access Internet except for the PCs in the list below.

Add PC MAC Address

Fill in “**LAN MAC Address**” and **<Description>** of the PC that is allowed to access the Internet, and then click **<Add>**. If you find any typo before adding it and want to retype again, just click **<Reset>** and the fields will be cleared.

Remove PC MAC Address

If you want to remove some PC from the "**MAC Filtering Table**", select the PC you want to remove in the table and then click **<Delete Selected>**. If you want to remove all PCs from the table, just click the **<Delete All>** button. If you want to clear the selection and re-select again, just click **<Reset>**.

Click **<Apply>** at the bottom of the screen to save the above configurations.

- IP Filter

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System
Wizard
Internet
Wireless
Firewall
Advanced
Tools

WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode

Enable Advanced DMZ DoS MAC Filter **IP Filter** URL Filter

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

Enable IP Filtering Table

Deny all clients with IP address listed below to access the network
 Allow all clients with IP address listed below to access the network

Description :	<input type="text"/>
Protocol :	Both
Local IP Address :	<input type="text"/> ~ <input type="text"/>
Port range :	<input type="text"/> ~ <input type="text"/>

Add Reset

Rosewill
WLAN 802.11n/b/g Router

Enable IP Filtering: Check to enable or disable IP Filtering.

Deny: If you select “Deny” then all clients will be allowed to access Internet except for the clients in the list below.

Allow: If you select “Allow” then all clients will be denied to access Internet except for the PCs in the list below.

Add PC IP Address

You can click **<Add>** PC to add an access control rule for users by an IP address or IP address range.

Remove PC IP Address

If you want to remove some PC IP from the **<IP Filtering Table>**, select the PC you want to remove in the table and then click **<Delete Selected>**. If you want to remove all PCs from the table, just click the **<Delete All>** button.

Click **<Apply>** at the bottom of the screen to save the above configurations.

- URL Filter

You can block access to some Web sites from particular PCs by entering a full URL address or just keywords of the Web site.

WLAN 802.11n/b/g Router Power Saving Edition AP Router Mode

Enable Advanced DMZ DoS MAC Filter IP Filter **URL Filter**

You can block access to certain Web sites for a particular PC by entering either a full URL address or just a keyword of the Web site

Enable URL Blocking

URL/keyword

Add Reset

Current URL Blocking Table:

NO.	URL/keyword	Select
1	hello	<input type="checkbox"/>

Delete Selected Delete All Reset

Apply Cancel

WLAN 802.11n/b/g Router

Enable URL Blocking: Enable or disable URL Blocking

Add URL Keyword

Fill in "URL/Keyword" and then click **<Add>**. You can enter the full URL address or the keyword of the web site you want to block. If you happen to make a mistake and want to retype again, just click "Reset" and the field will be cleared.

Remove URL Keyword

If you want to remove some URL keywords from the "**Current URL Blocking Table**", select the URL keyword you want to remove in the table and then click **<Delete Selected>**.

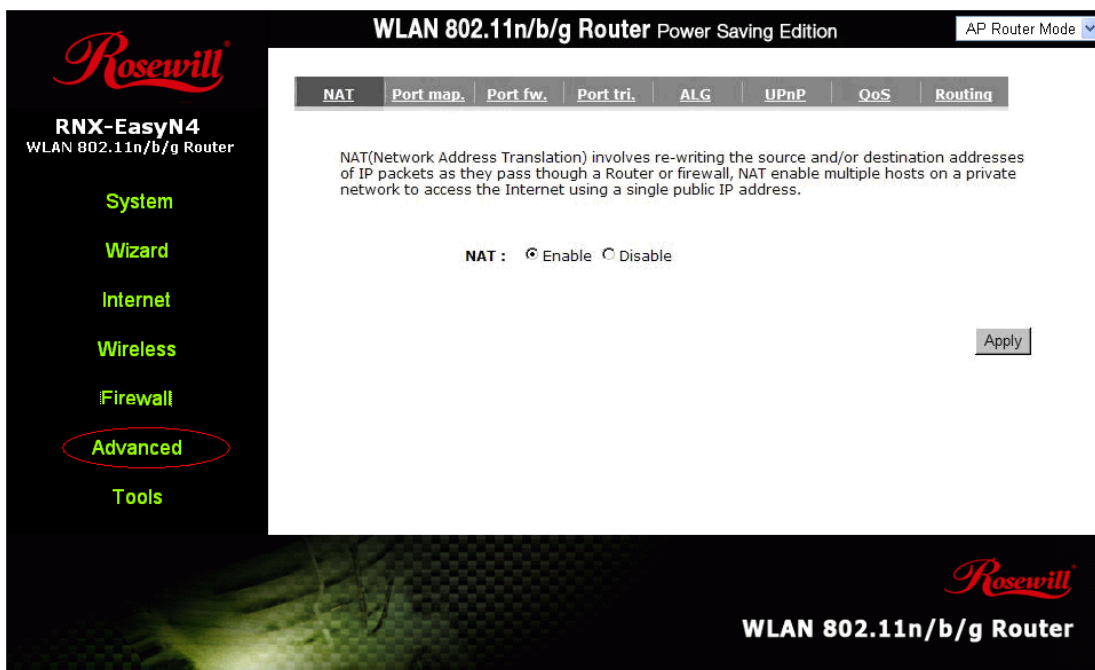
If you want remove all URL keywords from the table, click **<Delete All>** button. If you want to clear the selection and re-select again, just click **<Reset>**.

Click **<Apply>** at the bottom of the screen to save the above configurations

■ Advanced Settings

- Network Address Translation (NAT)

Network Address Translation (NAT) allows multiple users at your local site to access the Internet through a single Public IP Address or multiple Public IP Addresses. NAT provides Firewall protection from hacker attacks and has the flexibility to allow you to map Private IP Addresses to Public IP Addresses for key services such as Websites and FTP. Select Disable to disable the NAT function.



- Port Mapping

Port Mapping allows you to re-direct a particular range of service port numbers (from the Internet / WAN Port) to a particular LAN IP address. It helps you to host servers behind the router NAT firewall.

The screenshot shows the web interface for the Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and the mode is "AP Router Mode". The "Port map." tab is selected. The configuration area includes a checkbox for "Enable Port Mapping", a text input for "Description", a text input for "Local IP", a dropdown for "Protocol" (set to "Both"), and a text input for "Port range" with a tilde separator. "Add" and "Reset" buttons are at the bottom.

Enable Port Mapping: Enable or disable port mapping function.

Description: description of this setting.

Local IP: This is the local IP of the server behind the NAT firewall.

Type: This is the protocol type to be forwarded. You can choose to forward "TCP" or "UDP" packets only, or select "BOTH" to forward both "TCP" and "UDP" packets.

Port Range: The range of ports to be forward to the private IP.

Add Port Mapping

Fill in the "Local IP", "Type", "Port Range" and "Description" of the setting to be added and then click "Add". Then this Port Mapping setting will be added into the "Current Port Mapping Table" below. If you find any typo before adding it and want to retype again, just click <Clear> and the fields will be cleared.

Remove Port Mapping

If you want to remove a Port Mapping setting from the "Current Port Mapping Table", select the Port Mapping setting that you want to remove in the table and then click **D<Delete Selected>**. If you want to remove all Port Mapping settings from the table, click **<Delete All>** button. Click **<Reset>** will clear your current selections.

Click **<Apply>** at the bottom of the screen to save the above configurations.

- Port Forwarding (Virtual Server)

Use the Port Forwarding (Virtual Server) function when you want different servers/clients in your LAN to handle different service/Internet application type (e.g. Email, FTP, Web server etc.) from the Internet. Computers use numbers called port numbers to recognize a particular service/Internet application type. The Virtual Server allows you to re-direct a particular service port number (from the Internet/WAN Port) to a particular LAN private IP address and its service port number. (See Glossary for an explanation on Port number).

The screenshot shows the web interface of a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is in "AP Router Mode". A navigation menu includes NAT, Port map., Port fw., Port tri., ALG, UPnP, QoS, and Routing. The "Port fw." tab is active, displaying instructions on configuring the router as a Virtual Server. A checkbox for "Enable Port Forwarding" is present but unchecked. Below it are input fields for Description, Local IP, Protocol (set to Both), Local Port, and Public Port. "Add" and "Reset" buttons are at the bottom of the form. A sidebar on the left contains menu items: System, Wizard, Internet, Wireless, Firewall, Advanced (circled in red), and Tools. The Rosewill logo and product name are visible in the footer.

Enable Port Forwarding: Enable or disable Port Forwarding.

Description: The description of this setting.

Local IP / Local Port: This is the LAN Client/Host IP address and Port number that the Public Port number packet will be sent to.

Type: Select the port number protocol type (TCP, UDP or both). If you are unsure, then leave it to the default "both" setting. Public Port enters the service (service/Internet application) port number from the Internet that will be re-directed to the above Private IP address host in your LAN Network.

Public Port: Port number will be changed to Local Port when the packet enters your LAN Network.

Add Port Forwarding

Fill in the "**Description**", "**Local IP**", "**Local Port**", "**Type**" and "**Public Port**" of the setting to be added and then click **<Add>** button. Then this Virtual Server setting will be added into the "**Current Port Forwarding Table**" below. If you find any typo before adding it and want to retype again, just click **<Clear>** and the fields will be cleared.

Remove Port Forwarding

If you want to remove Port Forwarding settings from the "**Current Port Forwarding Table**", select the Port Forwarding settings you want to remove in the table and then click "**Delete Selected**". If you want to remove all Port Forwarding settings from the table, just click the **<Delete All>** button. Click **<Reset>** will clear your current selections.

Click **<Apply>** at the bottom of the screen to save the above configurations.

- Port Triggering (Special Applications)

Some applications require multiple connections, such as Internet games, video Conferencing, Internet telephony and others. In this section you can configure the router to support multiple connections for these types of applications.

The screenshot shows the web interface of a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is in "AP Router Mode". The navigation menu includes NAT, Port map., Port fw., Port tri., ALG, UPnP, QoS, and Routing. The "Port tri." tab is selected. The main content area explains that Port Triggering (also called Special Applications) allows using Internet applications behind a firewall. There is a checkbox for "Enable Trigger Port" which is currently unchecked. Below this are several input fields: "Description" (text box), "Popular applications" (dropdown menu with an "Add" button), "Trigger port" (two text boxes with a tilde separator), "Trigger type" (dropdown menu set to "Both"), "Public Port" (text box), and "Public type" (dropdown menu set to "Both"). There are "Add" and "Reset" buttons at the bottom of the form. The left sidebar contains navigation links for System, Wizard, Internet, Wireless, Firewall, Advanced (highlighted with a red oval), and Tools. The bottom right corner of the interface features the Rosewill logo and the text "WLAN 802.11n/b/g Router".

Enable Trigger Port: Enable or disable the Port Trigger function.

Trigger Port: This is the outgoing (Outbound) range of port numbers for this particular application.

Trigger Type: Select whether the outbound port protocol is "TCP", "UDP" or "BOTH".

Public Port: Enter the In-coming (Inbound) port or port range for this type of application (e.g. 2300-2400, 47624)

Public Type: Select the Inbound port protocol type: "TCP", "UDP" or "BOTH"

Popular Applications: This section lists the more popular applications that require multiple connections. Select an application from the Popular Applications selection. Once you have selected an application, select a location (1-5) in the Copy to selection box and then click the Copy to button. This will automatically list the Public Ports required for this popular application in the location (1-5) you specified.

Add Port Triggering

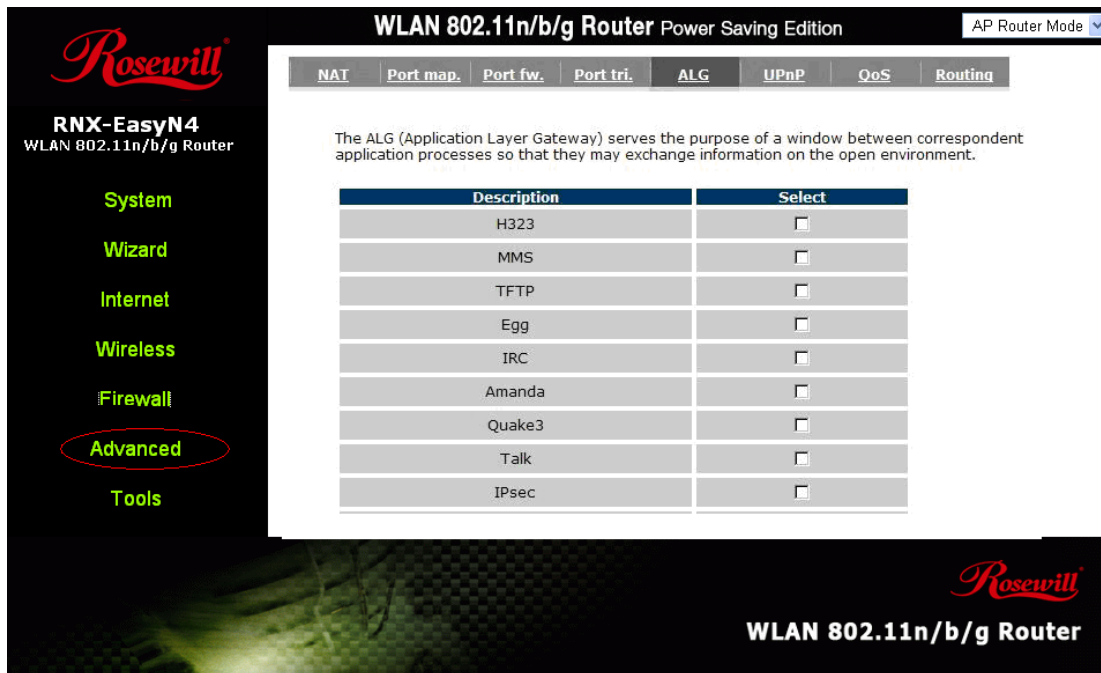
Fill in the "**Trigger Port**", "**Trigger Type**", "**Public Port**", "**Public Type**", "**Public Port**" and "**Description**" of the setting to be added and then Click **<Add>**. The Port Triggering setting will be added into the "**Current Trigger-Port Table**" below. If you happen to make a mistake, just click **<Clear>** and the fields will be cleared.

Remove Port Triggering

If you want to remove Special Application settings from the "**Current Trigger-Port Table**", select the Port Triggering settings you want to remove in the table and then click **<Delete Selected>**. If you want remove all Port Triggering settings from the table, just click the **<Delete All>** button. Click **<Reset>** will clear your current selections.

- Application Layer Gateway (ALG)

You can select applications that need **ALG** support. The router will let the selected application to correctly pass through the NAT gateway.

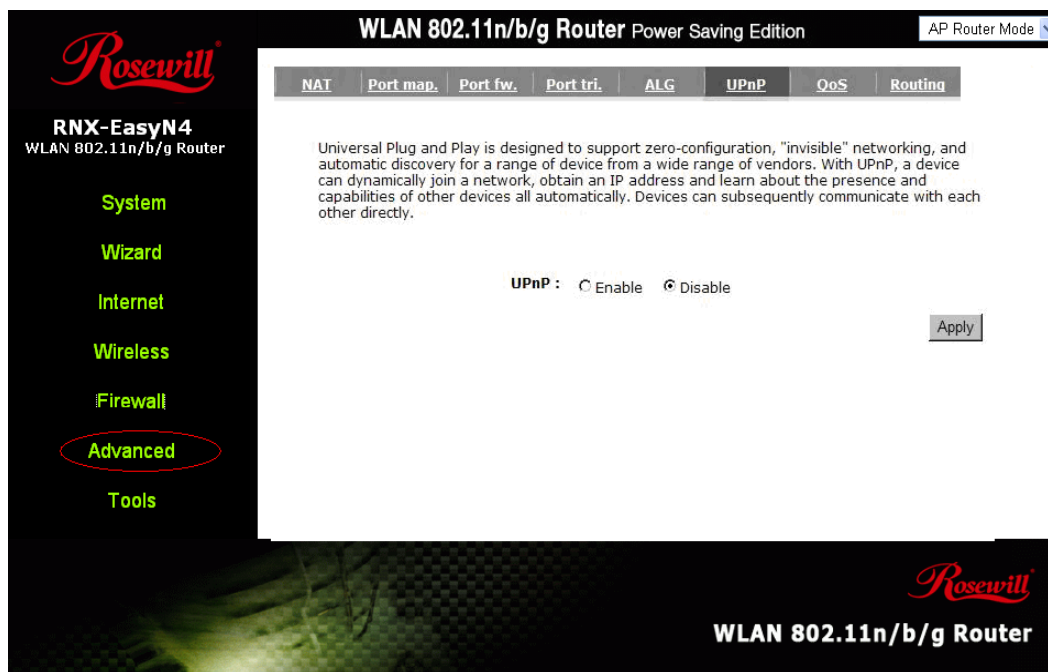


The screenshot shows the web interface of a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is in "AP Router Mode". The navigation menu includes NAT, Port map., Port fw., Port tri., **ALG**, UPnP, QoS, and Routing. The ALG section is active, displaying a table of applications to be configured. The table has two columns: "Description" and "Select". The applications listed are H323, MMS, TFTP, Egg, IRC, Amanda, Quake3, Talk, and IPsec, each with an unchecked checkbox in the "Select" column. A descriptive text above the table states: "The ALG (Application Layer Gateway) serves the purpose of a window between correspondent application processes so that they may exchange information on the open environment." The left sidebar shows a menu with "Advanced" highlighted in red. The bottom right corner of the interface features the Rosewill logo and the text "WLAN 802.11n/b/g Router".

Description	Select
H323	<input type="checkbox"/>
MMS	<input type="checkbox"/>
TFTP	<input type="checkbox"/>
Egg	<input type="checkbox"/>
IRC	<input type="checkbox"/>
Amanda	<input type="checkbox"/>
Quake3	<input type="checkbox"/>
Talk	<input type="checkbox"/>
IPsec	<input type="checkbox"/>

- UPNP

With UPnP, all PCs in your Intranet will discover this router automatically. So, you don't have to configure your PC and it can easily access the Internet through this router.



Enable/Disable UPnP: You can enable or Disable the UPnP feature here. After you enable the UPnP feature, all client systems that support UPnP, like Windows XP, can discover this router automatically and access the Internet through this router without having to configure anything. The NAT Traversal function provided by UPnP can let applications that support UPnP connect to the internet without having to configure the virtual server sections.

- Quality of Service (QoS)

QoS can let you classify Internet application traffic by source/destination IP address and port number. You can assign priority for each type of application and reserve bandwidth for it. The packets of applications with higher priority will always go first. Lower priority applications will get bandwidth after higher priority applications

get enough bandwidth. This can let you have a better experience in using critical real time services like Internet phone, video conference ...etc. All the applications not specified by you are classified as rule "Others". The rule with a smaller priority number has a higher priority; the rule with a larger priority number has a lower priority. You can adjust the priority of the rules by moving them up or down.

Priority Queue

This can put the packets of specific protocols in High/Low Queue. The packets in High Queue will process first.

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NAT Port map. Port fw. Port tri. ALG UPnP QoS Routing

Quality of Service (QoS) refers to the capability of a network to provide better service to selected network traffic. The primary goal of QoS is to provide priority including dedicated bandwidth, controlled jitter and latency (required by some real-time and interactive traffic), and improved loss characteristics. Also important is making sure that providing priority for one or more flows does not make other flows fail.

QoS : Priority Queue Bandwidth Allocation Disabled

Unlimited Priority Queue

Local IP Address	Description
<input type="text"/>	The IP address will not be bounded in the QoS limitation

High/Low Priority Queue

Protocol	High Priority	Low Priority	Specific Port
FTP	<input checked="" type="radio"/>	<input type="radio"/>	20,21
HTTP	<input type="radio"/>	<input type="radio"/>	80

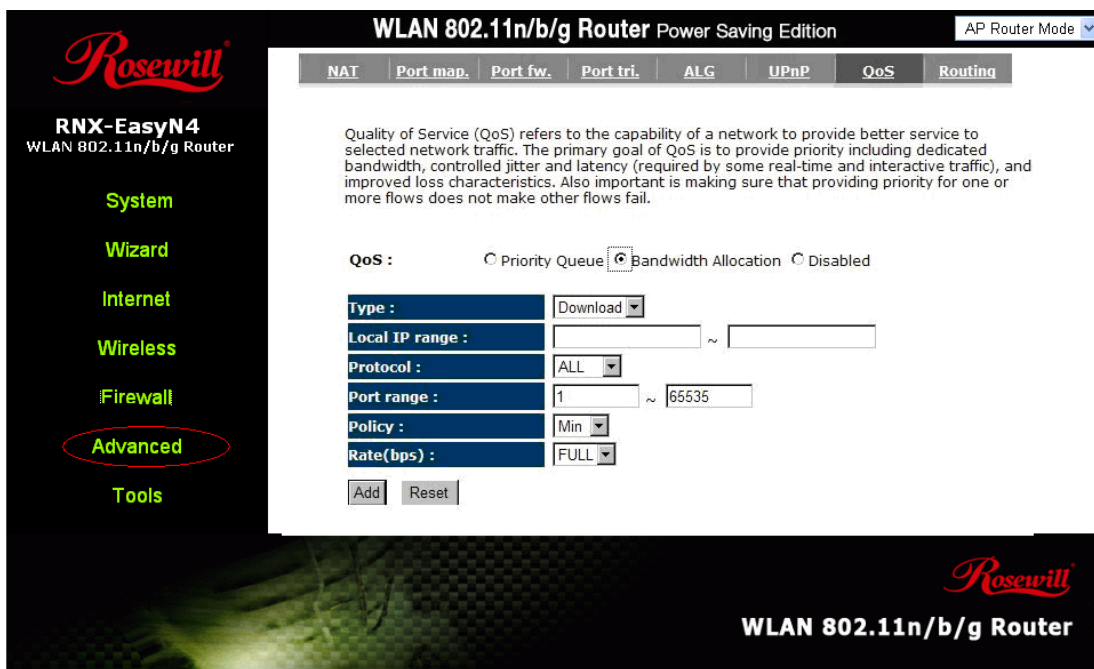
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Unlimited Priority Queue: The LAN IP address will not be bounded in the QoS limitation.

High/Low Priority Queue: This can put the packets in the protocol and port range to High/Low QoS Queue.

Bandwidth Allocation:

This can reserve / limit the throughput of specific protocols and port range. You can set the upper bound and Lower bound.



Type: Specify the direction of packets. Upload, download or both.

IP range: Specify the IP address range. You could also fill one IP address

Protocol: Specify the packet type. The default ALL will put all packets in the QoS priority Queue.

Port range: Specify the Port range. You could also fill one Port.

Policy: Specify the policy the QoS, **Min** option will reserve the selected data rate in QoS queue. **Max** option will limit the selected data rate in QoS queue.

Rate: The data rate of QoS queue.

Disabled: This could turn off QoS feature.

The screenshot displays the configuration interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is in "AP Router Mode". The navigation menu on the left includes System, Wizard, Internet, Wireless, Firewall, **Advanced** (highlighted with a red circle), and Tools. The main content area shows the QoS settings. A text block explains: "Quality of Service (QoS) refers to the capability of a network to provide better service to selected network traffic. The primary goal of QoS is to provide priority including dedicated bandwidth, controlled jitter and latency (required by some real-time and interactive traffic), and improved loss characteristics. Also important is making sure that providing priority for one or more flows does not make other flows fail." Below this, the "QoS" section has three radio button options: "Priority Queue", "Bandwidth Allocation", and "Disabled" (which is selected). "Apply" and "Cancel" buttons are located at the bottom right of the configuration area.

- Routing

You can set enable Static Routing to let the router forward packets by your routing policy.

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Enable Routing

You can enable Static Routing to turn off the NAT function of the router and let the router forward packets by your routing policy.

To take Static Route effect, please disable NAT function.

Enable Static Routing

Destination LAN IP:

Subnet Mask:

Default Gateway:

Hops:

Interface : LAN

Add Reset

Current Static Routing Table:

NO.	Destination LAN IP	Subnet Mask	Default Gateway	Hops	Interface	Select
-----	--------------------	-------------	-----------------	------	-----------	--------

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WLAN 802.11n/b/g Router

Destination LAN IP: Specify the destination LAN IP address of static routing rule.

Subnet Mask: Specify the Subnet Mask of static routing rule.

Default Gateway: Specify the default gateway of static routing rule.

Hops: Specify the Max Hops number of static routing rule.

Interface: Specify the Interface of static routing rule.

■ TOOLS Settings

- Admin

You can change the password required to log into the broadband router's system web-based management. By default, the password is: admin. Passwords can contain 0 to 12 alphanumeric characters, and are case sensitive.

The screenshot shows the web management interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The interface is titled "WLAN 802.11n/b/g Router Power Saving Edition" and is in "AP Router Mode". The left sidebar contains navigation options: System, Wizard, Internet, Wireless, Firewall, Advanced, and Tools (which is circled in red). The main content area has tabs for Admin, Time, DDNS, Power, Diagnosis, Firmware, Back-up, and Reset. The "Admin" tab is active, showing a password change section. A message states: "You can change the password that you use to access the router, this is not your ISP account password." Below this are three input fields: "Old Password :", "New Password :", and "Repeat New Password :". A "Remote management" section follows, with a text description: "Remote management allows the router to be configured from the Internet by a web browser, A username and password is still required to access the Web-Management interface." Below this is a table with columns "Host Address", "port", and "Enable". The "port" field contains "8080" and the "Enable" checkbox is unchecked. "Apply" and "Reset" buttons are at the bottom right of the form area. The Rosewill logo and "WLAN 802.11n/b/g Router" are visible in the bottom right corner of the interface.

Old Password: Fill in the current password to allow changing to a new password.

New Password: Enter your new password and type it again in **Repeat New Password** for verification purposes

Remote management

This allows you to designate a host in the Internet the ability to configure the Broadband router from a remote site. Enter the designated host IP Address in the Host IP Address field.

Host Address: This is the IP address of the host in the Internet that will have management/configuration access to the Broadband router from a remote site. If the Host Address is left 0.0.0.0 this means anyone can access the router's web-based configuration from a remote location, providing they know the password.

Port: The port number of the remote management web interface.

Enabled: Check to enable the remote management function.

Click <**Apply**> at the bottom of the screen to save the above configurations.

- Time

The Time Zone allows your router to reference or base its time on the settings configured here, which will affect functions such as Log entries and Firewall settings.

Time Setup:

Synchronize with the NTP server

The Router reads the correct time from NTP servers on the Internet and sets its system clock accordingly. The Daylight Savings option merely advances the system clock by one hour. The time zone setting is used by the system clock when displaying the correct time in schedule and the log files.

Time Setup : Synchronize with the NTP Server

Time Zone : (GMT)Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London

NTP Time Server :

Daylight Saving : Enable
From January 1 To January 1

Apply Reset

Time Zone: Select the time zone of the country you are currently in. The router will set its time based on your selection.

NTP Time Server: The router can set up external NTP Time Server.

Daylight Savings: The router can also take Daylight Savings into account. If you wish to use this function, you must select the Daylight Savings Time period and check/tick the enable box to enable your daylight saving configuration.

Click **<Apply>** at the bottom of the screen to save the above configurations.

Synchronize with PC

You could synchronize timer with your Local PC time.

The Router reads the correct time from NTP servers on the Internet and sets its system clock accordingly. The Daylight Savings option merely advances the system clock by one hour. The time zone setting is used by the system clock when displaying the correct time in schedule and the log files.

Time Setup : Synchronize with PC

PC Date and Time : _____

Daylight Saving : Enable
From January 1 To January 1

Apply Reset

PC Date and Time: This field would display the PC date and time.

Daylight Savings: The router can also take Daylight Savings into account. If you wish to use this function, you must select the Daylight Savings Time period and check/tick the enable box to enable your daylight saving configuration.

Click **<Apply>** at the bottom of the screen to save the above configurations.

- DDNS

DDNS allows you to map the static domain name to a dynamic IP address. You must get an account, password and your static domain name from the DDNS service

providers. This router supports DynDNS, TZO and other common DDNS service providers.

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Admin Time **DDNS** Power Diagnosis Firmware Back-up Reset

DDNS allows users to map a static domain name to a dynamic IP address. You must get an account, password and your static domain name from the DDNS service provider..

Dynamic DNS : Enable Disable

Server Address : 3322(qdns)

Host Name :

Username :

Password :

Apply Cancel

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Enable/Disable DDNS: Enable or disable the DDNS function of this router

Server Address: Select a DDNS service provider

Host Name: Fill in your static domain name that uses DDNS.

Username: The account that your DDNS service provider assigned to you.

Password: The password you set for the DDNS service account above

Click **<Apply>** at the bottom of the screen to save the above configurations.

- Power

Saving power in WLAN mode can be enabled / disabled in this page.

The screenshot displays the web management interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is currently in "AP Router Mode". The navigation menu on the left includes System, Wizard, Internet, Wireless, Firewall, Advanced, and Tools (which is circled in red). The main content area shows the "Power" tab selected, with a sub-section for "Power Saving Mode". Under "Power Saving Mode", the "WLAN" option is selected, and the "Disable" radio button is chosen. There are "Apply" and "Cancel" buttons at the bottom right of the form.

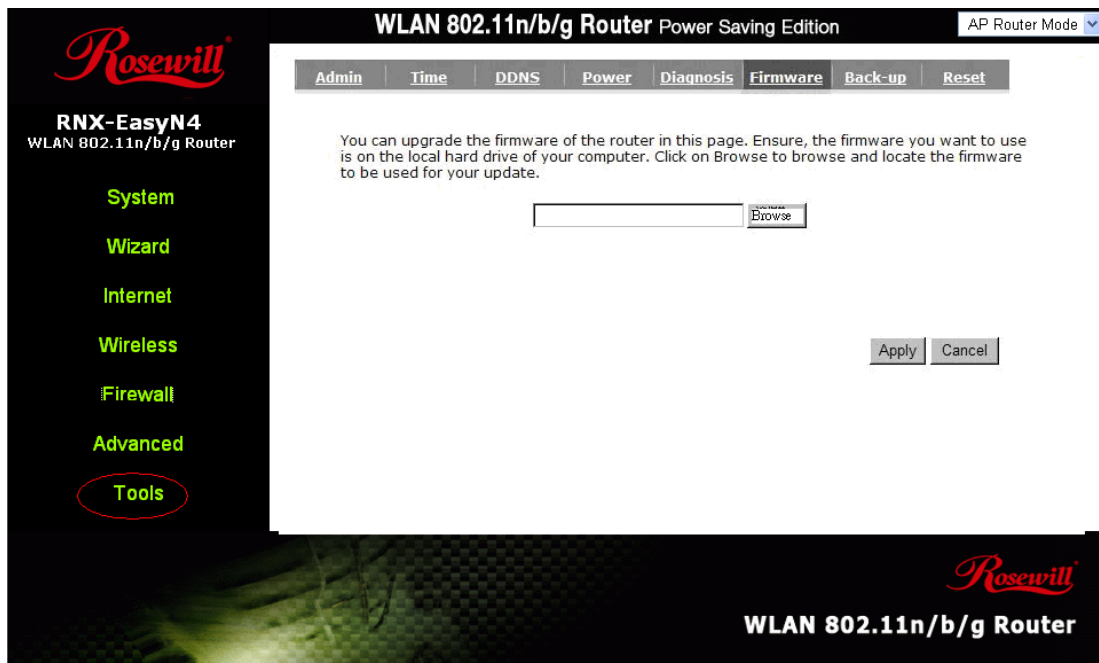
- Diagnosis

This page could let you diagnosis your current network status.

The screenshot displays the web management interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is currently in "AP Router Mode". The navigation menu includes "Admin", "Time", "DDNS", "Power", "Diagnosis", "Firmware", "Back-up", and "Reset". The "Diagnosis" tab is active, showing a message: "This page can diagnose the current network status". Below this, there are two input fields: "Address to Ping :" and "Ping Result :", with a "Start" button to the right of the first field. The left sidebar menu includes "System", "Wizard", "Internet", "Wireless", "Firewall", "Advanced", and "Tools", with "Tools" circled in red. The bottom right corner of the interface features the Rosewill logo and the text "WLAN 802.11n/b/g Router".

- Firmware

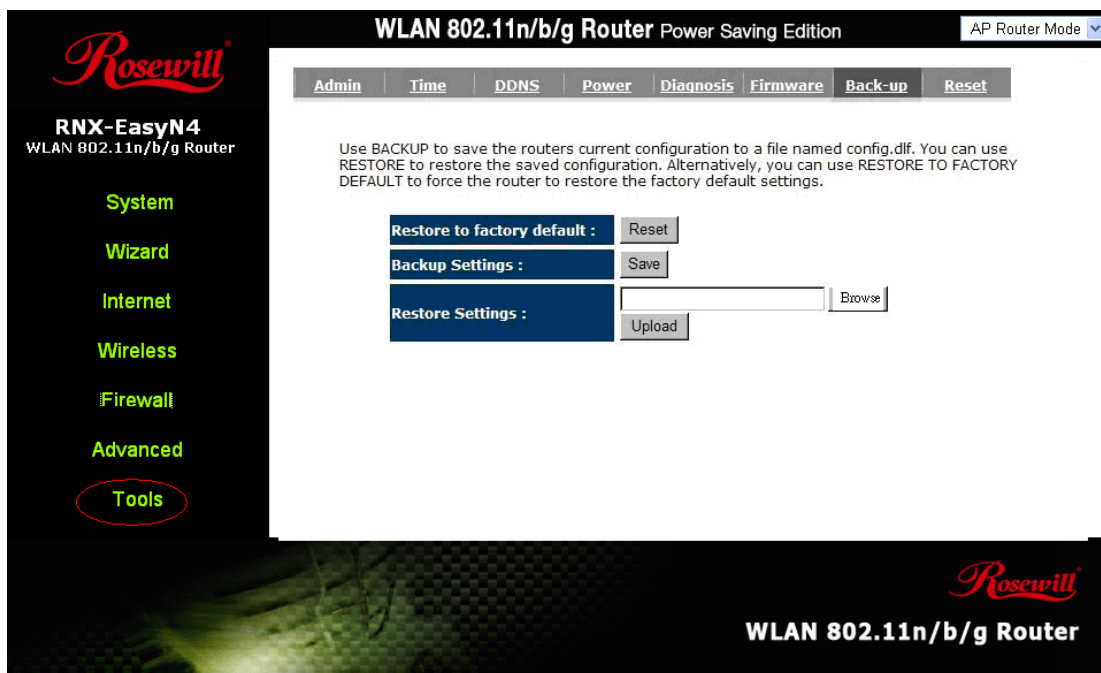
This page allows you to upgrade the router's firmware. To upgrade the firmware of your Broadband router, you need to download the firmware file to your local hard disk, and enter that file name and path in the appropriate field on this page. You can also use the Browse button to find the firmware file on your PC.



Once you've selected the new firmware file, click **<Apply>** at the bottom of the screen to start the upgrade process

- Back-up

This page allows you to save the current router configurations. When you save the configurations, you also can re-load the saved configurations into the router through the **Restore Settings**. If extreme problems occur you can use the **Restore to Factory Defaults** to set all configurations to its original default settings.



Backup Settings: This can save the Broadband router current configuration to a file named "config.bin" on your PC. You can also use the <Upload> button to restore the saved configuration to the Broadband router. Alternatively, you can use the "Restore to Factory Defaults" tool to force the Broadband router to perform a power reset and restore the original factory settings.

- Reset

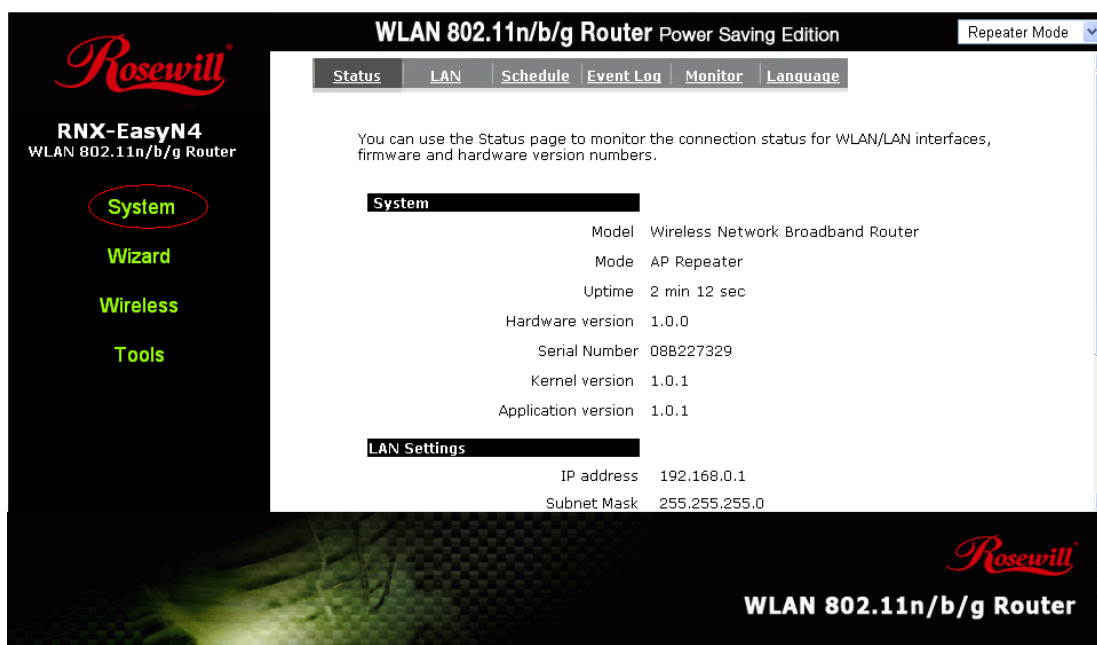
You can reset the broadband router when system stops responding correctly or stop functions.

The screenshot displays the web management interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The interface is titled "WLAN 802.11n/b/g Router Power Saving Edition" and shows "AP Router Mode" selected in a dropdown menu. A navigation bar includes tabs for Admin, Time, DDNS, Power, Diagnosis, Firmware, Back-up, and Reset. The "Reset" tab is active, showing a warning message: "In the event the system stops responding correctly or stops functioning, you can perform a reset. Your settings will not be changed. To perform the reset, click on the APPLY button. You will be asked to confirm your decision. The reset will be completed when the LED Power light stops blinking." Below the message are "Apply" and "Cancel" buttons. A left sidebar contains menu items: System, Wizard, Internet, Wireless, Firewall, Advanced, and Tools (which is circled in red). The footer features the Rosewill logo and the text "WLAN 802.11n/b/g Router".

13 Repeater Mode

Repeater mode has limited settings compared to the AP mode. Choose “Repeater mode” on the top right corner of the configuration page.

System restarts and connects to the IP address <http://192.168.0.1>
You will see the configuration homepage under “REPEATER” mode now.



■ System

- Status

System status section allows you to monitor the current status of your router. You can use the status page to quickly see if you have any updated firmware available (bug fixes, updates). You can navigate from this page with a few interesting options for reminding or skipping this page forever & so forth.

Once you click on <OK> button to go to the requested page, you can see the status page of the RNX-EASYN4.

You can see the UP time, hardware information, serial number as well as firmware version information.

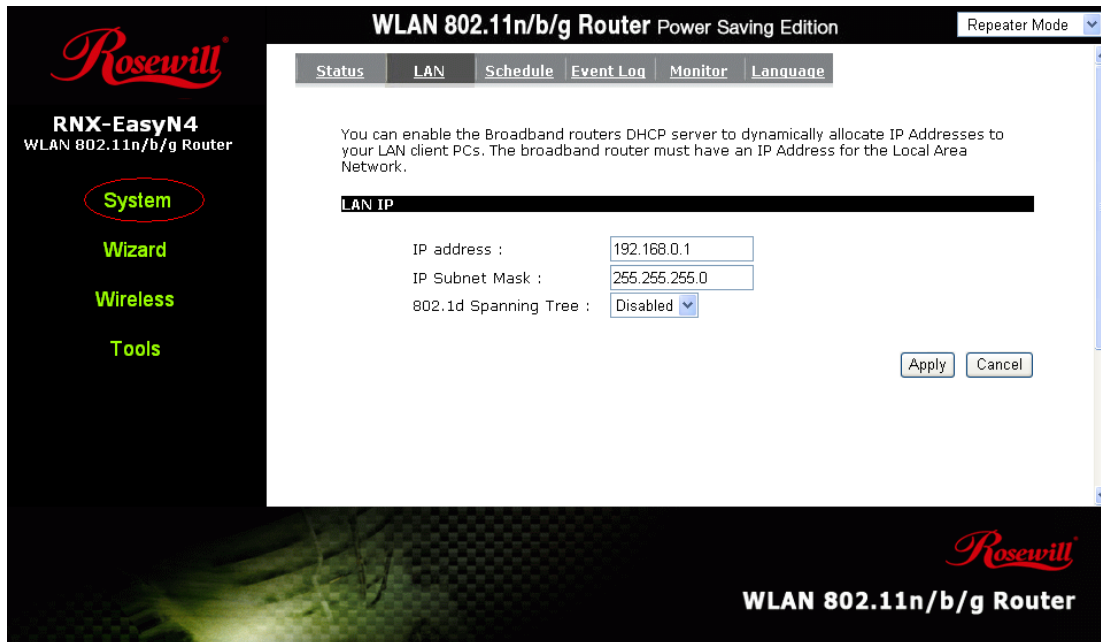
LAN Settings: This page displays the Broadband router LAN port's current LAN & WLAN information. It also shows whether the DHCP Server function is enabled / disabled. Wireless configuration details such as SSID, Security settings, BSSID, Channel number, mode of operation are briefly shown.

WLAN Settings: View Broadband router's current configuration settings. Device Status displays the configuration settings you've configured in the Wizard / Basic Settings / Wireless Settings section

- LAN

The LAN Tabs reveals LAN settings which can be altered at will. If you are an entry level user, try accessing a website from your browser. If you can access website without a glitch, just do not change any of these settings.

Click **<Apply>** at the bottom of this screen to save the changed configurations.



IP address: It is the router's LAN IP address (Your LAN clients default gateway IP address). It can be changed based on your own choice.

IP Subnet Mask: Specify a Subnet Mask for your LAN segment.

802.1d Spanning Tree: This is disabled by default. If 802.1d Spanning Tree function is enabled, this router will use the spanning tree protocol to prevent network loops.

- Schedule

Add schedule, edit schedule options allow configuration of power savings services. Fill in the schedule and select type of service. Click **<Apply>** to implement the settings.



The schedule table lists the pre-schedule service-runs. You can select any of them using the check box.

- Event Log

View operation **log of RNX-EASYN4**. This page shows the current system log of the Broadband router. It displays any event occurred after system start up. At the bottom of the page, the system log can be saved **<Save>** to a local file for further processing or the system log can be cleared **<Clear>** or it can be refreshed **<Refresh>** to get the most updated information. When the system is powered down, the system log will disappear if not saved to a local file.

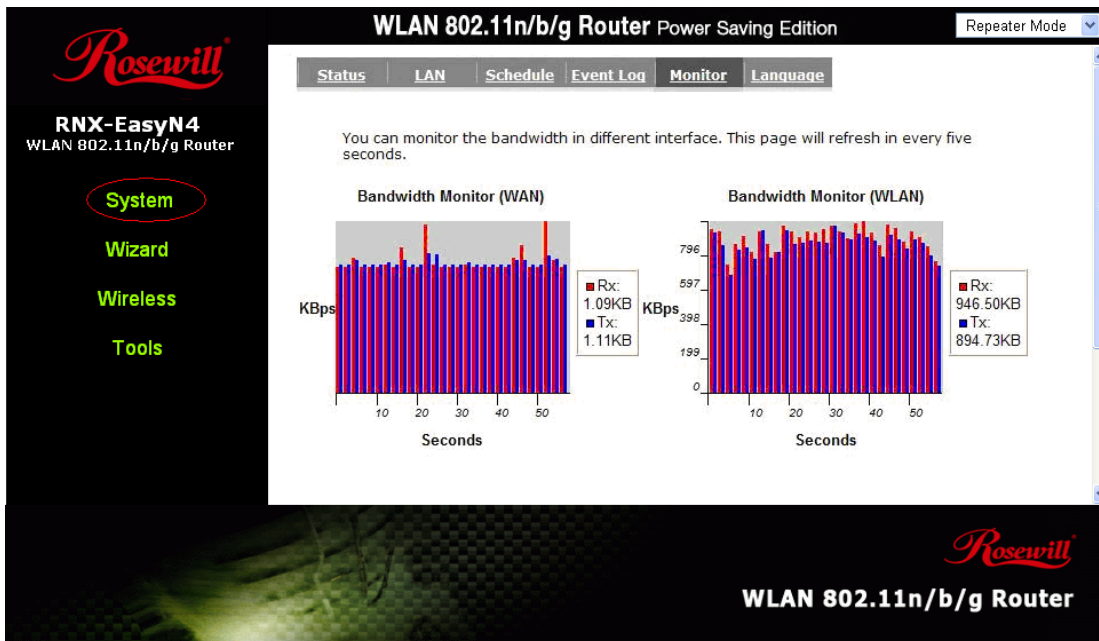
The screenshot displays the web interface of a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is in "Repeater Mode". The navigation menu includes "Status", "LAN", "Schedule", "Event Log", "Monitor", and "Language". The "Event Log" section is active, showing system operation information. The log entries are as follows:

```
day 1 00:00:04 [SYSTEM]: HTTP, start
day 1 00:00:03 [SYSTEM]: NET, Firewall Disabled
day 1 00:00:03 [SYSTEM]: NET, NAT Disabled
day 1 00:00:03 [SYSTEM]: NTP, start NTP Client
day 1 00:00:01 [SYSTEM]: WLAN, Channel = 11
day 1 00:00:00 [SYSTEM]: LAN, IP address=192.168.0.1
day 1 00:00:00 [SYSTEM]: LAN, start
day 1 00:00:00 [SYSTEM]: BR, start
day 1 00:00:00 [SYSTEM]: Start Log Message Service!
```

At the bottom of the log area, there are three buttons: "Save", "Clear", and "Refresh". The left sidebar contains navigation options: "System" (highlighted with a red circle), "Wizard", "Wireless", and "Tools". The Rosewill logo and "WLAN 802.11n/b/g Router" are visible at the bottom right of the interface.

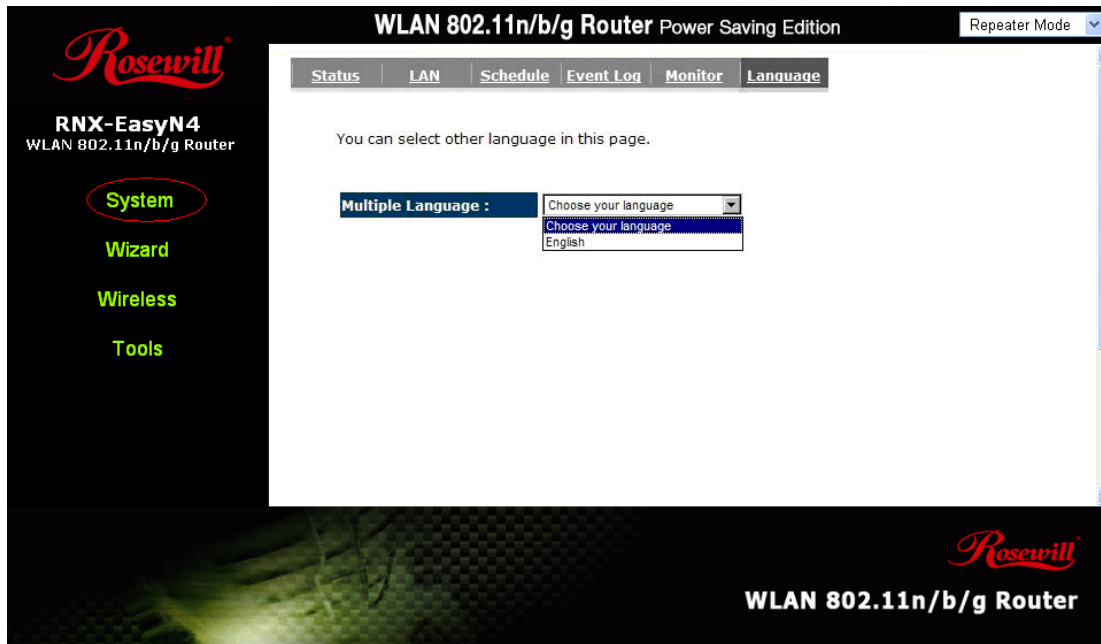
- Monitor

Show the network packets histogram for network connection on WAN, LAN & WLAN. Auto refresh keeps information updated frequently.



- Language

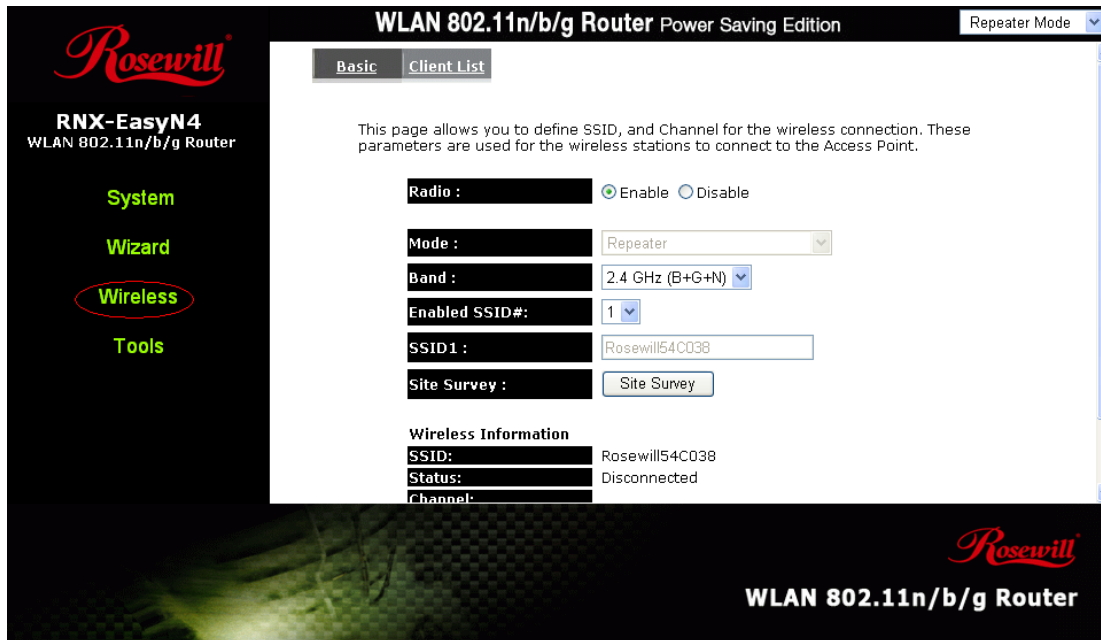
This Wireless Router support multiple language of web pages, you could select your native language here.



■ Wireless

-Basic

You can set parameters that are used for the wireless stations to connect to this router. The parameters include Mode, ESSID, Channel Number and Associated Client.



Radio: Enable or Disable Wireless function

Band: Allows you to set the AP fixed at 802.11b, 802.11g or 802.11n mode. You can also select B+G mode to allow 802.11b and 802.11g clients at the same time.

Enable ESSID: You can specify the maximum ESSID number.

ESSID1~3: Allow you to specify ESSID of WLAN.

Site Survey: You can scan the current Wireless Access Point and connect on it.

Site Survey

NO.	Select	Channel	SSID	BSSID	Encryption	Auth	Signal (%)	Mode
1	<input type="radio"/>	1	ADSL_1	00:02:6f:4c:64:a0	AES	WPA2PSK	50	11b/g/n
2	<input type="radio"/>	3	ADSL_2	00:02:6f:48:0d:8b	WEP	OPEN	100	11b/g
3	<input type="radio"/>	9	ADSL_3	00:16:b6:28:07:34	NONE	OPEN	65	11b/g

-Client List

This WLAN Client Table shows the Wireless client associate to this Wireless Router.

The screenshot displays the web interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is in "Repeater Mode". The navigation menu includes "System", "Wizard", "Wireless" (highlighted with a red circle), and "Tools". The "Client List" tab is selected, showing a table with one client entry.

WLAN Client Table :

This WLAN Client Table shows client MAC address associate to this Broadband Router

Interface	MAC address	Signal (%)	Idle Time
Rosewill54C038	00:02:6F:52:7F:2D	100	10 secs

-Policy

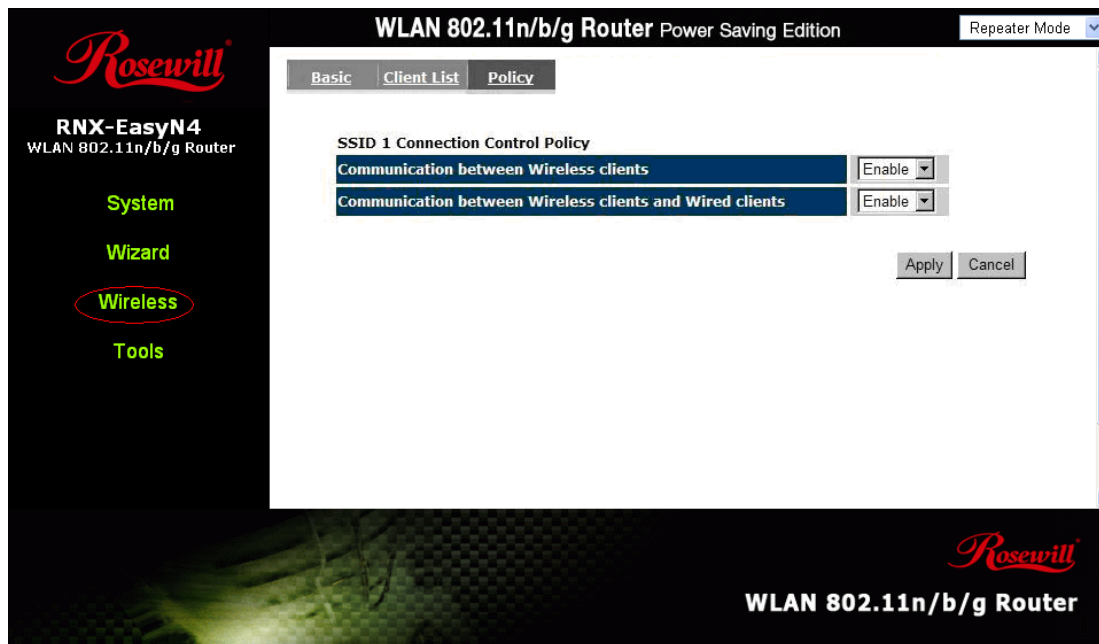
The Broadband router can allow you to set up the Wireless Access Policy.

Communication between Wireless clients:

Allow Wireless Client to communicate with other Wireless Client on specific SSID.

Communication between Wireless clients and wired clients:

Allow Wireless Client to communicate with other Wireless Client on specific SSID and Wired Client on the switch. Or Wireless Client will allow to access WAN port only



■ Tools

- Admin

You can change the password required to log into the broadband router's system web-based management. By default, the password is: admin. Passwords can contain 0 to 12 alphanumeric characters, and are case sensitive.

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RNX-EasyN4
WLAN 802.11n/b/g Router

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WLAN 802.11n/b/g Router Power Saving Edition Repeater Mode

Admin Time Power Diagnosis Firmware Back-up Reset

You can change the password that you use to access the router, this is not your ISP account password.

Old Password :

New Password :

Repeat New Password :

Remote management allows the router to be configured from the Internet by a web browser, A username and password is still required to access the Web-Management interface.

Host Address	port	Enable
<input type="text"/>	8080	<input type="checkbox"/>

Apply Reset

Rosewill
WLAN 802.11n/b/g Router

Old Password: Fill in the current password to allow changing to a new password.

New Password: Enter your new password and in **Repeat New Password** for verification purposes

Click **<Apply>** at the bottom of the screen to save the above configurations

Remote management

This allows you to designate a host in the Internet the ability to configure the Broadband router from a remote site. Enter the designated host IP Address in the Host IP Address field.

Host Address: This is the IP address of the host in the Internet that will have management/configuration access to the Broadband router from a remote site. If the Host Address is left 0.0.0.0 this means anyone can access the router's web-based configuration from a remote location, providing they know the password.

Port: The port number of the remote management web interface.

Enabled: Check to enable the remote management function.

Click **<Apply>** at the bottom of the screen to save the above configurations.

- Time

The Time Zone allows your router to reference or base its time on the settings configured here, which will affect functions such as Event Log entries and Schedule settings.

Time Setup:

Synchronize with the NTP server

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The Router reads the correct time from NTP servers on the Internet and sets its system clock accordingly. The Daylight Savings option merely advances the system clock by one hour. The time zone setting is used by the system clock when displaying the correct time in schedule and the log files.

Time Setup : Synchronize with the NTP Server

Time Zone : (GMT)Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London

NTP Time Server :

Daylight Saving : Enable
From January 1 To January 1

Apply Reset

Rosewill
WLAN 802.11n/b/g Router

Time Zone: Select the time zone of the country you are currently in. The router will set its time based on your selection.

NTP Time Server: This accept local the IP Address of Local NTP Time Server Address.

Daylight Savings: The router can also take Daylight Savings into account. If you wish to use this function, you must select the Daylight Savings Time period and check/tick the enable box to enable your daylight saving configuration.

Click <Apply> at the bottom of the screen to save the above configurations

Synchronize with PC

You could synchronize timer with your Local PC time.

The screenshot displays the configuration interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it includes a "Repeater Mode" dropdown menu. A navigation bar contains tabs for Admin, Time, Power, Diagnosis, Firmware, Back-up, and Reset. The "Time" tab is active, showing a text box with the following instructions: "The Router reads the correct time from NTP servers on the Internet and sets its system clock accordingly. The Daylight Savings option merely advances the system clock by one hour. The time zone setting is used by the system clock when displaying the correct time in schedule and the log files."

The configuration fields are as follows:

- Time Setup :** A dropdown menu set to "Synchronize with PC".
- PC Date and Time :** An empty text input field.
- Daylight Saving :** An unchecked checkbox labeled "Enable". Below it, a date range selector is set to "From October 1 To January 1".

At the bottom right of the configuration area, there are "Apply" and "Reset" buttons. The Rosewill logo and "WLAN 802.11n/b/g Router" are visible in the footer of the interface.

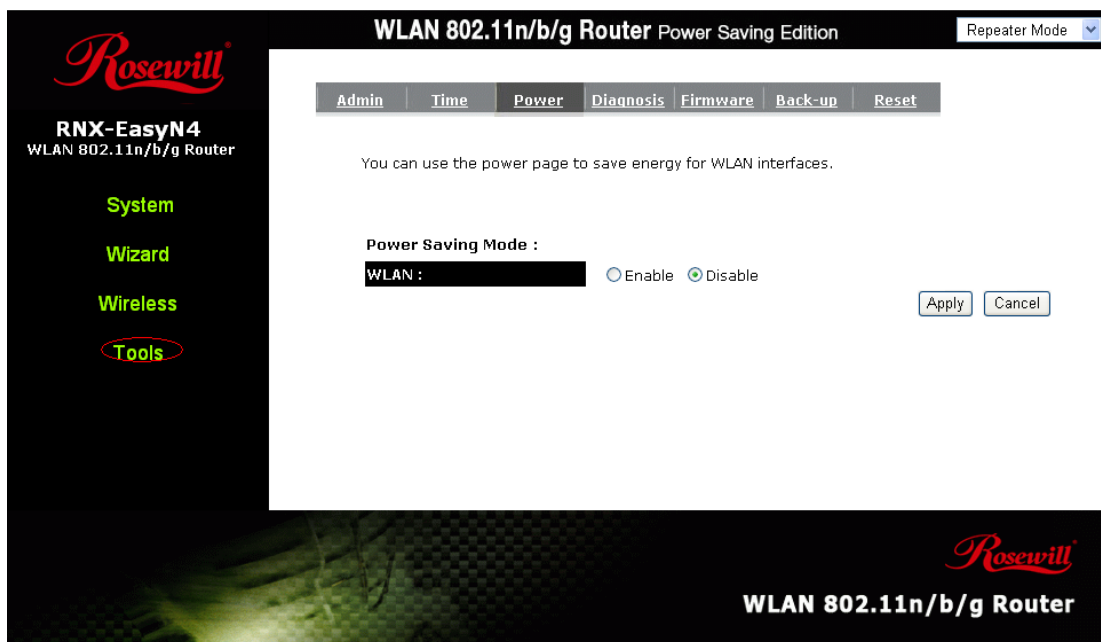
PC Date and Time: This field would display the PC date and time.

Daylight Savings: The router can also take Daylight Savings into account. If you wish to use this function, you must select the Daylight Savings Time period and check/tick the enable box to enable your daylight saving configuration.

Click **<Apply>** at the bottom of the screen to save the above configurations.

- Power

Saving power in WLAN mode can be enabled / disabled in this page.



- Diagnosis

This page could let you diagnosis your current network status.

The screenshot displays the web interface of a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it is in "Repeater Mode". The navigation menu includes Admin, Time, Power, Diagnosis (selected), Firmware, Back-up, and Reset. The main content area shows the text "This page can diagnose the current network status" and a form with two input fields: "Address to Ping :" and "Ping Result :", with a "Start" button next to the first field. The left sidebar contains the Rosewill logo and menu items: System, Wizard, Wireless, and Tools (circled in red). The footer of the interface shows the Rosewill logo and "WLAN 802.11n/b/g Router".

- Firmware

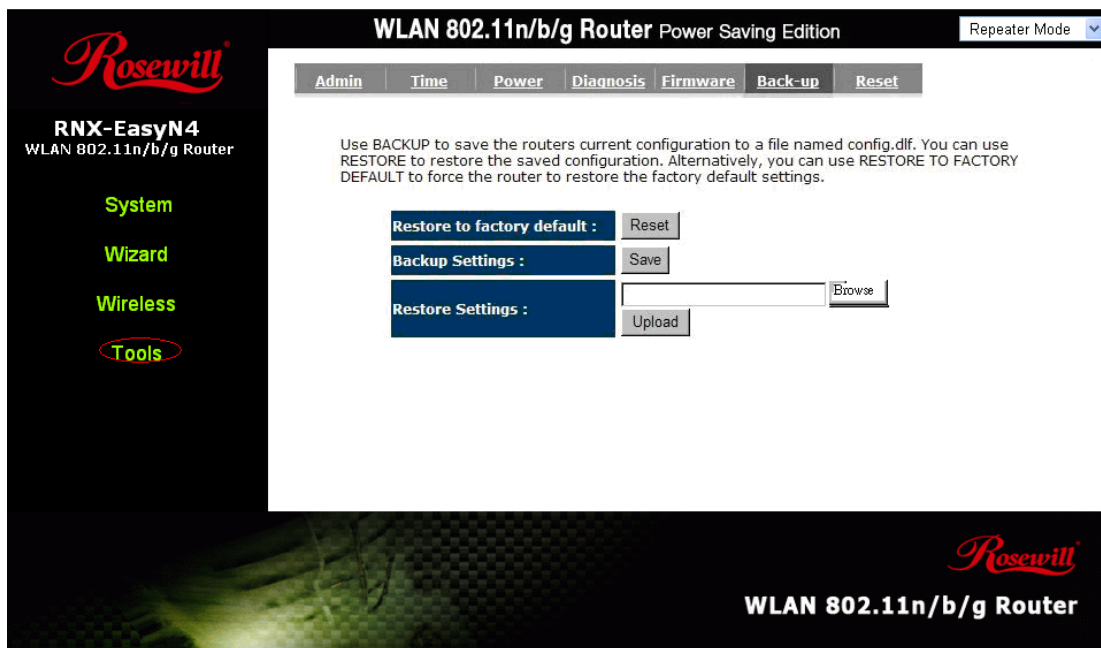
This page allows you to upgrade the router's firmware. To upgrade the firmware of your Broadband router, you need to download the firmware file to your local hard disk, and enter that file name and path in the appropriate field on this page. You can also use the Browse button to find the firmware file on your PC.

The screenshot displays the web management interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The page title is "WLAN 802.11n/b/g Router Power Saving Edition" and it includes a "Repeater Mode" dropdown menu. A navigation menu at the top contains "Admin", "Time", "Power", "Diagnosis", "Firmware", "Back-up", and "Reset". The "Firmware" tab is active, showing instructions: "You can upgrade the firmware of the router in this page. Ensure, the firmware you want to use is on the local hard drive of your computer. Click on Browse to browse and locate the firmware to be used for your update." Below the text is a file selection input field with a "Browse" button. At the bottom right, there are "Apply" and "Cancel" buttons. The left sidebar shows navigation options: "System", "Wizard", "Wireless", and "Tools" (which is circled in red). The footer of the interface features the Rosewill logo and the text "WLAN 802.11n/b/g Router".

Once you've selected the new firmware file, click **<Apply>** at the bottom of the screen to start the upgrade process

- Back-up

The page allows you to save (Backup) the router's current configuration settings. When you save the configuration setting (Backup) you can re-load the saved configuration into the router through the **Restore selection**. If extreme problems occur you can use the **Restore to Factory Defaults** selection, this will set all configurations to its original default settings (e.g. when you first purchased the router).



Backup Settings: This can save the Broadband router current configuration to a file named "config.bin" on your PC. You can also use the **<Upload>** button to restore the saved configuration to the Broadband router. Alternatively, you can use the "**Restore to Factory Defaults**" to force the Broadband router to perform a power reset and restore the original factory settings.

- Reset

You can reset the broadband router when system stops responding correctly or stop functions.

The screenshot displays the web management interface for a Rosewill RNX-EasyN4 WLAN 802.11n/b/g Router. The interface is titled "WLAN 802.11n/b/g Router Power Saving Edition" and includes a "Repeater Mode" dropdown menu. A navigation bar contains tabs for Admin, Time, Power, Diagnosis, Firmware, Back-up, and Reset. The "Reset" tab is active, showing a warning message: "In the event the system stops responding correctly or stops functioning, you can perform a reset. Your settings will not be changed. To perform the reset, click on the APPLY button. You will be asked to confirm your decision. The reset will be completed when the LED Power light stops blinking." Below the message are "Apply" and "Cancel" buttons. The left sidebar shows a menu with "Tools" highlighted. The bottom of the interface features the Rosewill logo and the text "WLAN 802.11n/b/g Router".

Appendix A – FCC Interference 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.

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.

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.

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.

We declare that the product is limited in CH1-CH11 by specified firmware controlled in the USA.

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

Appendix B – IC Interference Statement

Industry Canada statement:

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

Radiation Exposure Statement:

This equipment complies with IC 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 device has been designed to operate with an antenna having a maximum gain of 2 dBi. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

Thank you for purchasing a quality Rosewill Product.

Please register your product at : www.rosewill.com for complete warranty information and future support for your product.

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