



KX EASYBACKUP

Wireless Wan Mobile Broadband Router

User Guide



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FCC 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 radio interference in a commercial environment. This equipment can generate, use and radiate radio frequency energy and, if not installed and used in accordance with the instructions in this manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures are necessary to correct the interference.

CE Declaration of Conformity

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022/A1 Class B.

| | |
|--|----|
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Package Contents

Importance: Check your product package contents FIRST.

The Wireless WAN Mobile Broadband Router package should contain the items listed below. If any of the items are missing, please contact your reseller.

| Description | Quantity |
|--------------------------------------|----------|
| Wireless WAN Mobile Broadband Router | 1 |
| RJ-45 Cable | 1 |
| Power adapter 5V 3.0A | 1 |
| Quick Installation Guide | 1 |
| Cradle | 1 |

Caution: Using a power supply with a different voltage rating than the one included with the Wireless WAN Mobile Broadband Router will cause damage and void the warranty for this product.

System Requirements for Configuration

- A compatible either 16-bit or 32-bit PCMCIA 3G modem card *with service*
- Note:** Subject to services and service terms available from your carrier.
- Computers with Windows, Macintosh, or Linux-based operating systems with an installed Ethernet adapter.
 - Internet Explorer version 6.0 or Netscape Navigator version 7.0 and above.

WiFi System Requirements

- A 802.11b, or 802.11g Adapter

1. Introduction

The Wireless WAN Mobile Broadband Router is a high-performance tool that supports wireless networking at home, work, or in a public place. The Wireless WAN Mobile Broadband Router supports a 16-bit and 32-bit Type II mobile card, either WCDMA or EVDO and even HSDPA as well, and supports wireless data transfers up to 54 Mbps, and wired data transfers up to 100 Mbps.

The Wireless WAN Mobile Broadband Router is compatible with industry security features.

Connections

Wireless WAN Mobile Broadband Router (Rear View)

Antenna



Receptor for
Power adapter

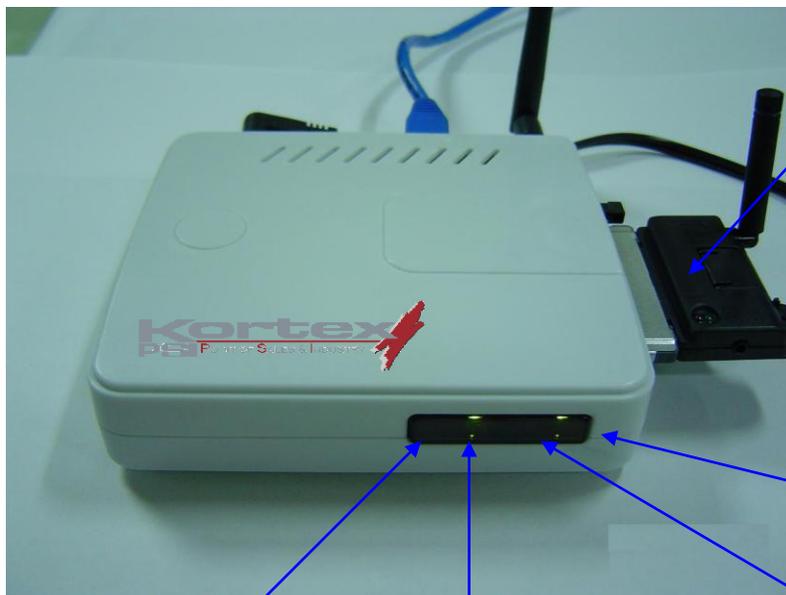
Reset Button
Restore to Original factory
defaulted setting

Auto MDI/MDIX RJ-45 Ports
Automatically sense the types of WAN
and LAN when connecting to Ethernet

Note:

Contains a reset button to restore the setting back to original factory defaulted setting as if your convenience of forgetting your applicable setting

1.1.2. LEDs– Wireless WAN Mobile Broadband Router (Front View)



Type II PC card slot
Insert the 3G PC card as 3G WAN connection is needed

WiFi LED
A green light as connection on WLAN available

Power LED
A green light as power is on and ready

LAN LED
A green light as connected to local Ethernet and blinks during data is transmission

WAN LED
A green light as WAN is connected

1.2. Features

- Automatic take over back up with 3G connection as Ethernet WAN failover.
- Implementation within 3 minutes allows the network to go where wires cannot go – even outside the home or office.
- Fully compatible with the 802.11g standard to provide a wireless data transfer rate of up to 54Mbps.
- Backwards compatible with the 802.11b standard to provide a wireless data rate of up to 11Mbps.
- Utilizes **OFDM** technology (**O**rtogonal **F**requency **D**ivision **M**ultiplexing).
- User-friendly configuration and diagnostic utilities.
- Operates in the 2.4GHz frequency range.
- Advanced Firewall features.
- Supports NAT with VPN pass-through, providing added security.
 - MAC Filtering
 - IP Filtering
 - Port Scheduling
- DHCP server enables all networked computers to automatically receive IP addresses.
- Web-based interface for Managing and Configuring.
- Access Control to manage users on the network.
- Supports special applications that require multiple connections.
- Equipped with 2*10/100 Ethernet ports, for LAN and WAN access, and a Type II PC card (for both 16-Bit and 32Bit)Slot for 3G network connection.

- Connects multiple computers to a Broadband either WCDMA or EV-DO even HSDPA modem to share the Internet connection.

Note: The Wireless WAN Mobile Broadband Router is designed to work with either EVDO or WCDMA (UMTS) even up to 3.5G HSDPA PC cards.
Please refer to your service provider for detailed feature information.

2. Configuring Wireless WAN Mobile broadband Router

2.1. Installation Considerations

The Wireless WAN Mobile Broadband Router allows you access your network using a wireless connection, from virtually anywhere within its operating range. Keep in mind however, that the number, thickness, and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit this range. Typical ranges vary depending on the types of materials used, and background RF (radio frequency) noise in your home or business.

To maximize your wireless range, please follow these guidelines:

1. Keep the number of walls and ceilings between the Wireless WAN Mobile Broadband Router and other network devices to a minimum. Each wall or ceiling can reduce the Wireless WAN Mobile Broadband Router's range from 3-90 feet (1-30 meters).
Note: The same considerations apply to your broadband EVDO connection.
2. Keep your product aware from electrical devices (such as microwaves, air conditioners, and televisions) that emit large quantities of RFI (Radio Frequency Interference).

2.1.1. Installation Instructions- Get Start Networking

Connect the Wireless Router to Your Network

Note: *DO NOT connect Wireless WAN Mobile Broadband Router to power before performing the installation steps below.*

1. Attach the antenna.---picture 2.1



Picture 2.1

- a. Screw the antenna in a clockwise direction to the back panel of the unit.
 - b. Once secured, position the antenna upward at its connecting joint. This will ensure optimal reception.
2. Connect a compatible Type II 3G cards *with service* to the Wireless WAN Mobile Broadband Router in one of the following ways:
- > Insert your wireless Type II 3G card (either 16-bit or 32-bit) into the WAN PCMCIA Card Slot.---see **Picture 2.2**



Picture 2.2

Note: The Wireless WAN Mobile Broadband Router is designed to work with either UMTS or EV-DO and even HSDPA 3G card that can be used as a modem (support tethered data). Please refer to your service provider for detailed feature information.

2. Insert the Ethernet patch cable into LAN Port on the back panel of the Wireless WAN Mobile Broadband Router, and an available Ethernet port on the network adapter in the computer you will use to configure the unit.-see **Picture 2.3**



Picture 2.3

Note: The Wireless WAN Mobile Broadband Router LAN Port is “Auto-MDI/MDIX.” This provides patch Ethernet cable LAN Port access.

4. Connect the power adapter to the receptor on the back panel of your Wireless WAN Mobile Broadband Router. Then plug the other end of the power adapter into a wall outlet or power strip
 - a. The Power LED will turn ON to indicate power has been applied.
 - b. Other LEDs will flash ON and OFF as the Wireless WAN Mobile Broadband Router performs initialization and Internet connection processes. This will take a few minutes.
 - c. When complete, the following LEDs will illuminate green: M1, WAN, LAN, and WiFi



2.1.2. Establish WiFi Connection

If you selected either **WEP** or **WPA-PSK** encryption, ensure these settings match your WiFi adapter settings.

WiFi and encryption settings must match for access to the Wireless WAN Mobile Broadband Router Configuration Menu, and the Internet. Please refer to your WiFi adapter documentation for additional information.

2.2. Using the Configuration Menu

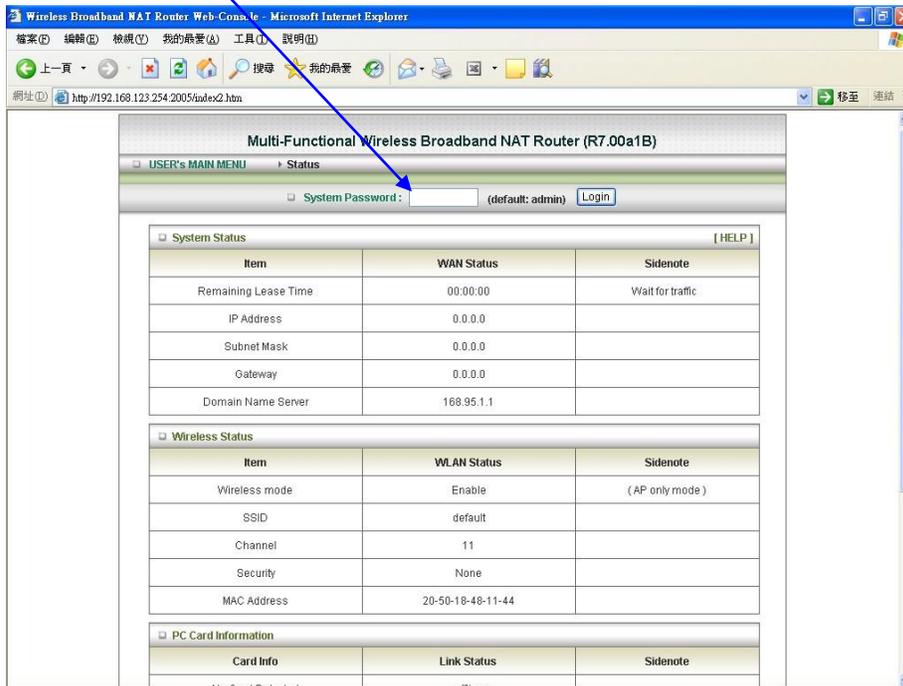
Once properly configured, the Wireless WAN Mobile Broadband Router will obtain and assign IP address information automatically. Configuration settings can be established through the Wireless WAN Mobile Broadband Router Configuration Menu. You can access this interface by performing the steps listed below:

1. Open a web-browser.

2. Type in the **IP Address** (<http://192.168.123.254>) of the Wireless WAN Mobile Broadband Router

Note: If you have changed the **default** IP Address assigned to the Wireless WAN Mobile Broadband Router, ensure you enter the correct IP Address

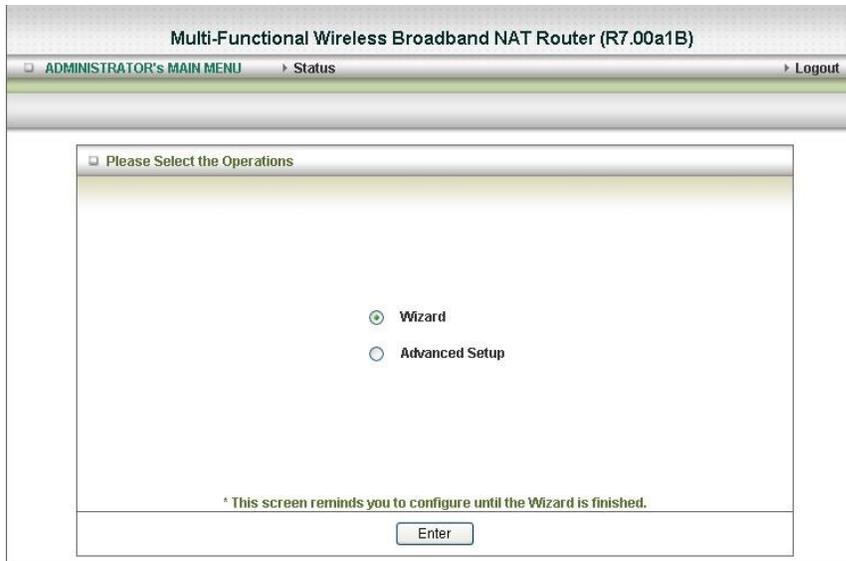
3. Type “**admin**” in the **Password** field.



3. Click “**logon**” button.

2.2.1. Wizard setting

- Press “**Wizard**” button -> for basic settings with simpler way. (Please check section 2.2.1)
- Or you may click on “**Advanced Setup**” -> for advanced settings. (Please check each item from section 2.2.2)

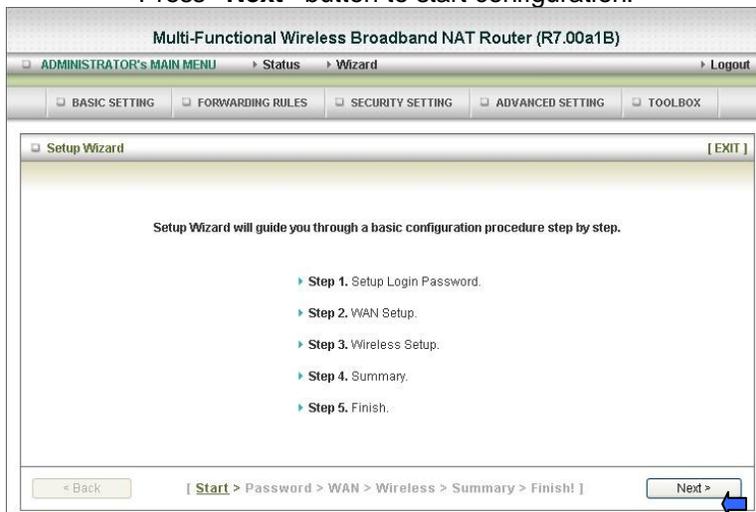


- Click on “Enter” button to get start.

With wizard setting steps, you could configure the router in a very simple way. This configuration wizard includes settings of

- a. **Login Password,**
- b. **WAN Setup**
- c. **Wireless Setup,**

Press “Next” button to start configuration.



Step 1: Allow you to change the system password.

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU ▶ Status ▶ Wizard ▶ Logout

▢ BASIC SETTING ▢ FORWARDING RULES ▢ SECURITY SETTING ▢ ADVANCED SETTING ▢ TOOLBOX

▢ Setup Wizard - Setup Login Password [EXIT]

▶ Old Password

▶ New Password

▶ Reconfirm

< Back [Start > Password > WAN > Wireless > Summary > Finish!] Next >

You can change Password here.

It is recommended that you change the system password into the one you prefer to on the basis of security

1. Key in your Old Password (if it is the first initiation, the “ admin” will be the defaulted one.
2. Enter your New Password
3. Enter your Password again for confirmation; it must be the same as the New Password.
4. Then click on “Next” to get into next installation.

Step 2 : Select WAN Types will be used for Internet connection

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

Setup Wizard - Select WAN Type [EXIT]

- ISP assigns you a static IP address. (Static IP Address)
- Obtain an IP address from ISP automatically. (Dynamic IP Address)
- Dynamic IP Address with Road Runner Session Management. (e.g. Telstra BigPond)
- Some ISPs require the use of PPPoE to connect to their services. (PPP over Ethernet)
- Some ISPs require the use of unnumbered PPPoE to connect to their services.
- Some ISPs require the use of unnumbered PPPoE + NAPT to connect to their services.
- Some ISPs require the use of PPTP to connect to their services.
- Some ISPs require the use of L2TP to connect to their services.
- Some ISPs require the use of 3G to connect to their services.

< Back [Start > Password > WAN > Wireless > Summary > Finish!] Next >

Pick up one of types you preferred to.

1. Click on “Next” button

Step 3 : Configure the LAN IP Address, Host Name and WAN MAC Address.

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

Setup Wizard - WAN Settings - Dynamic IP Address [EXIT]

▶ LAN IP Address 192.168.123.254

▶ Host Name ROUTER (optional)

▶ WAN's MAC Address 20-50-18-48-11-46 Clone MAC

< Back [Start > Password > WAN > Wireless > Summary > Finish!] Next >

LAN is short for Local Area Network, and is considered your internal network. These are the IP settings of the LAN interface for the Wireless WAN Mobile Broadband Router, and they may be referred to as Private settings. You may change the LAN IP

address if needed. The LAN IP address is private to your internal network and cannot be seen on the Internet.

Note: There are 254 addresses available on the Wireless WAN Mobile Broadband Router when using a 255.255.255.0 (Class C) subnet. Example: The router's IP address is 192.168.123.1. The available client IP range is 192.168.123.2 through 192.168.123.254.

1. **LAN IP Address-** The IP address of the LAN interface. The **default** IP address is: **192.168.123.254**
2. **Host Name is optional**
3. **WAN's MAC Address**
If you click the Clone MAC button, you will find the MAC address of your NIC shown in WAN's MAC Address
4. Click on ” **Next**” to continue.

Step 4: Configure the wireless settings.

The screenshot shows the configuration interface for a Multi-Function Wireless Broadband NAT Router (R7.00a1B). The page is titled "Setup Wizard - Wireless settings" and includes an "[EXIT]" button in the top right corner. The main configuration area contains three settings:

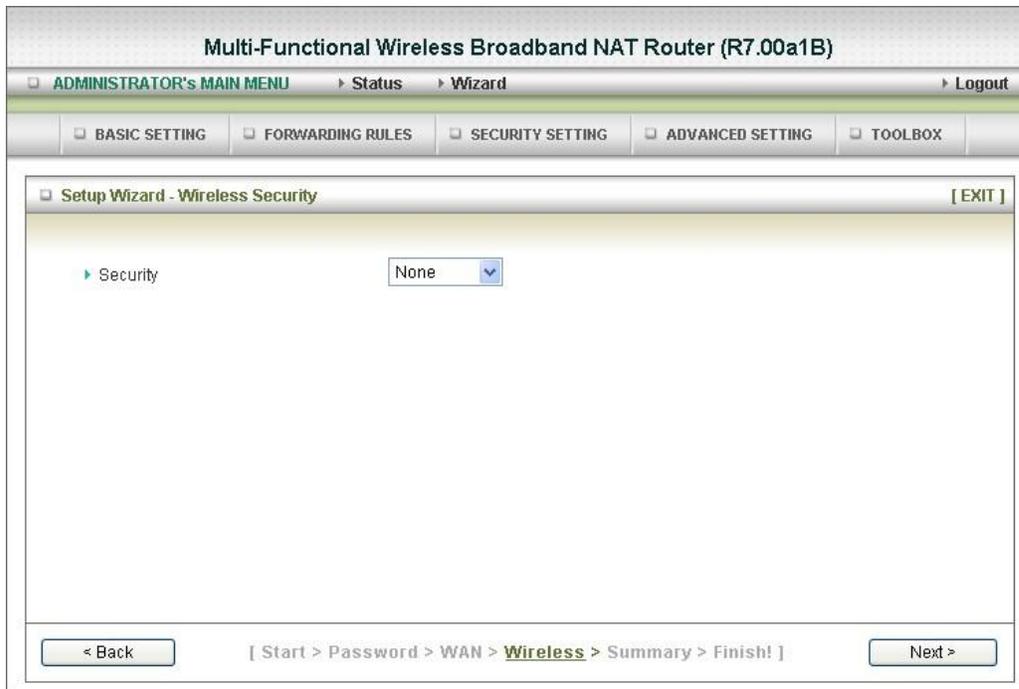
- Wireless Radio:** A radio button group with "Enable" selected (indicated by a filled circle) and "Disable" unselected (indicated by an empty circle).
- Network ID(SSID):** A text input field containing the value "default".
- Channel:** A dropdown menu currently showing "11".

At the bottom of the page, there is a navigation bar with the following elements:

- A "< Back" button on the left.
- A breadcrumb trail: "[Start > Password > WAN > **Wireless** > Summary > Finish!]".
- A "Next >" button on the right, with a blue arrow pointing to it.

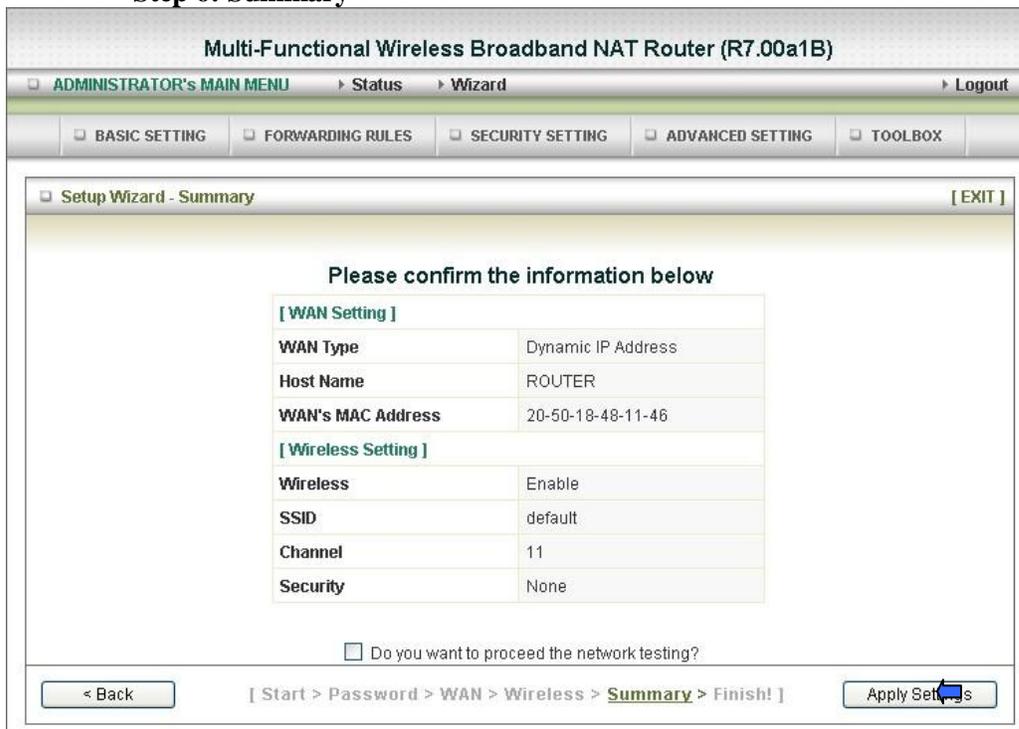
1. Select **Enabled** or **Disabled**. The **default** setting is **Enabled**.
2. **Network ID(SSID) will be defaulted**
- 3: **Channel**-> **Select Wireless Channel** matching to your local area for **Wireless connection**
- 4: Click on ” **Next**” to continue.

Step 5: Select the Wireless security method of your wireless configuration.



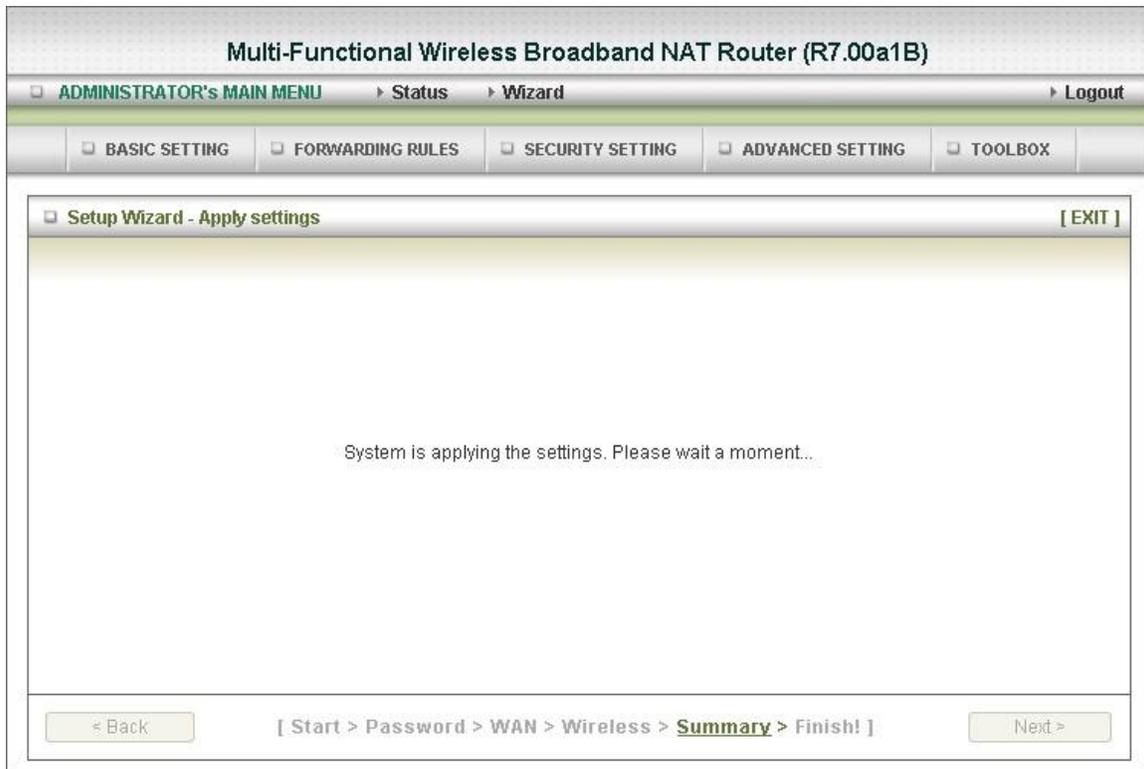
Click on "Next" to continue.

Step 6: Summary



Click on the "Apply Settings" button

Step 7: System is applying.



Clicking “Finish” button to back to Status Page

2.2.2. Advanced Setup > Basic Setting

1. **LAP IP Address:** the local IP address of this device. The computers on your network must use the LAN IP address of your product as their Default Gateway. You can change it if necessary.
2. **LAN Netmask:** the Netmask of the local IP address
3. **WAN's MAC Address:** The WAN's MAC of this device. If you want to clone the MAC address from your NIC, just click the Clone MAC and save
4. **WAN Type:** WAN connection type of your ISP. You can select a correct one from the following options

Advanced Setup > Basic Setting > Primary Setup

Select the WAN types you prefer to get on the internet connection

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING
 FORWARDING RULES
 SECURITY SETTING
 ADVANCED SETTING
 TOOLBOX

Primary Setup [HELP]

| Item | Setting |
|--|---|
| ▶ LAN IP Address | <input type="text" value="192.168.123.254"/> |
| ▶ LAN NetMask | <input type="text" value="255.255.255.0"/> |
| ▶ WAN's MAC Address | <input type="text" value="00-50-18-11-22-24"/> <input type="button" value="Save"/> <input type="button" value="Clone MAC"/> |
| ▶ WAN Type | |
| <input type="radio"/> Static IP Address | ISP assigns you a static IP address. |
| <input checked="" type="radio"/> Dynamic IP Address | Obtain an IP address from ISP automatically. |
| <input type="radio"/> Dynamic IP Address with Road Runner Session Management | Dynamic IP Address with Road Runner Session Management is a WAN connection used in Australia. (eg. Telstra BigPond) |
| <input type="radio"/> PPP over Ethernet | Some ISPs require the use of PPPoE to connect to their services. |
| <input type="radio"/> Unnumbered PPPoE | Some ISPs require the use of unnumbered PPPoE to connect to their services. |
| <input type="radio"/> Unnumbered PPPoE + NAPT | Some ISPs require the use of unnumbered PPPoE + NAPT to connect to their services. |
| <input type="radio"/> MultiSession PPPoE | You may use more than one PPPoE session to connect to different ISP's services. |
| <input type="radio"/> L2TP | Some ISPs require the use of L2TP to connect to their services. |
| <input type="radio"/> PPTP | Some ISPs require the use of PPTP to connect to their services. |
| <input type="radio"/> 3G | 3G |

Caution: For 3G WAN Networking. The WAN fields may not be necessary for your connection. The information on this page will only be used when your service provider requires you to enter a **User Name** and **Password** to connect to the 3G network.

Please refer to your documentation or service provider for additional information.

- **APN-** Enter the APN for your PC card here.
- **Pin Code-** Enter the Pin Code for your PC card
- **Dial-Number-** This field should not be altered except when required by your service provider.
- **User Name-** Enter the new **User Name** for your PC card here.
- **Password-** Enter the new **Password** for your PC card here.
- **Maximum Idle Time-** The Connection will be broken when the idle time arrives.

- 1: Pick up one of the types you preferred to.
- 2: Click on “ **Next** ” button

Advanced Setup > Basic Setting > DHCP Server

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING
 FORWARDING RULES
 SECURITY SETTING
 ADVANCED SETTING
 TOOLBOX

DHCP Server [HELP]

| Item | Setting |
|----------------------------|---|
| ▶ DHCP Server | <input type="radio"/> Disable <input checked="" type="radio"/> Enable |
| ▶ Lease Time | <input type="text" value="1440"/> Minutes |
| ▶ IP Pool Starting Address | <input type="text" value="50"/> |
| ▶ IP Pool Ending Address | <input type="text" value="199"/> |
| ▶ Domain Name | <input type="text"/> |
| ▶ Primary DNS | <input type="text" value="0.0.0.0"/> |
| ▶ Secondary DNS | <input type="text" value="0.0.0.0"/> |
| ▶ Primary WINS Server | <input type="text" value="0.0.0.0"/> |
| ▶ Secondary WINS Server | <input type="text" value="0.0.0.0"/> |
| ▶ Gateway | <input type="text" value="0.0.0.0"/> (optional) |

1. **DHCP Server:** Choose either **Disable** or **Enable**
2. **Lease Time:** DHCP lease time to the DHCP client
3. **IP Pool Starting/Ending Address:** Whenever there is a request, the DHCP server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting / ending address of the IP address pool
4. **Domain:** Optional, this information will be passed to the client
5. **Primary DNS/Secondary DNS:** This feature allows you to assign a DNS Servers
6. **Primary WINS/Secondary WINS:** This feature allows you to assign a WINS Servers
7. **Gateway:** The Gateway Address would be the IP address of an alternate Gateway. This function enables you to assign another gateway to your PC, when DHCP server offers an IP to your PC.

After you finish your selection then

Either Click on **“Save”** to store what you just pick or click **“Undo”** to give up

Advanced Setup > Basic Setting > Wireless

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

Primary Setup
DHCP Server
Wireless
Change Password

Wireless Settings [HELP]

| Item | Setting |
|---------------|---|
| ▶ Wireless | <input checked="" type="radio"/> Enable <input type="radio"/> Disable |
| ▶ WMM Capable | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
| ▶ SSID | default |
| ▶ Channel | 11 |
| ▶ Security | None |

Save Undo WDS Setting

- **Wireless - Enabled** is the **default**. Selecting this option will allow you to set your Wireless Access Point (WAP) settings.
- **WMM Capable-** Choose Enable or Disable WMM function
- **SSID-** Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID's factory **default** setting is **default**. The SSID can be easily changed to establish a new wireless network.(Note: SSID names may contain up to 32 ASCII characters).
- **Channel- Channel 11** is the **default**. Devices on the network must share the same channel. (Note: Wireless adapters automatically scan and match the wireless settings. You may also select the channel you wish to use).
- **Security-** You may select from three levels of encryption to secure your wireless network:
- **No Encryption, WEP.802.1x, WPA-PSK, WPA, WPA2-PSK, or WPA2.**
- **Security- No Encryption** is the **default** (as shown in the screen above).
 1. **WEP Security:** Select the data privacy algorithm you want. Enabling the security can protect your data while it is transferred from one station to another. The standardized IEEE 802.11 WEP (128 or 64-bit) is used here.
 2. **WEP Key 1, 2, 3 & 4:** When you enable the 128 or 64 bit WEP key security, please select one WEP key to be used and input 26 or 10 hexadecimal (0, 1, 2...8, 9, A, B...F) digits.
 3. **802.1X:** Check Box was used to switch the function of the 802.1X. When the 802.1X function is enable
 4. **WPA-PSK/WPA-PSK2 :** Another encryption options for WPA-PSK-TKIP and WPA-PSK2-ADE . Enter a password in the WPA-PSK /WPA-PSK2 field between 8 and 63 characters long for ASCII.64 characters(0~9,a~f) for HEX.
WPA/WPA2 :The uses have to get a access form RADIUS server by performing user authentication. Enter the IP address of Radius server and RADIUS Shared

Key.
5: Click on “Save” to store you just select

Advanced Setup > Basic Setting > Change Password

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

- Primary Setup
- DHCP Server
- Wireless
- Change Password

| Item | Setting |
|----------------|----------------------|
| ▶ Old Password | <input type="text"/> |
| ▶ New Password | <input type="text"/> |
| ▶ Reconfirm | <input type="text"/> |

You can change Password here. We **strongly** recommend you to change the system password for security reason.

Click on “Save” to store what you just select or “Undo” to give up

Advanced Setup > Forwarding Rules > Virtual Server

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU Status Wizard Logout

BASIC SETTING **FORWARDING RULES** SECURITY SETTING ADVANCED SETTING TOOLBOX

Virtual Server Special AP Miscellaneous

Virtual Server [HELP]

Well known services: -- select one -- Copy to ID: --

Use schedule rule: ---ALWAYS ON---

| ID | Service Ports | Server IP | Enable | Schedule Rule# |
|----|----------------------|-----------------------------------|--------------------------|--------------------------------|
| 1 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 2 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 3 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 4 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 5 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 6 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 7 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 8 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 9 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 10 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 11 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 12 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |

Save Undo

This product's NAT firewall filters out unrecognized packets to protect your Intranet, so all hosts behind this product are invisible to the outside world. If you wish, you can make some of them accessible by enabling the Virtual Server Mapping.

A virtual server is defined as a **Service Port**, and all requests to this port will be redirected to the computer specified by the **Server IP**. **Virtual Server** can work with **Scheduling Rules**, and give user more flexibility on Access control. For Detail, please refer to **Scheduling Rule**.

For example, if you have an FTP server (port 21) at 192.168.123.1, a Web server (port 80) at 192.168.123.2, and a VPN server at 192.168.123.6, then you need to specify the following virtual server mapping table:

| Service Port | Server IP | Enable |
|--------------|---------------|--------|
| 21 | 192.168.123.1 | V |
| 80 | 192.168.123.2 | V |
| 1723 | 192.168.123.6 | V |

Click on "Save" to store what you just select or "Undo" to give up

Advanced Setup > Forwarding Rules > Special AP

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU Status Wizard Logout

BASIC SETTING **FORWARDING RULES** SECURITY SETTING ADVANCED SETTING TOOLBOX

Virtual Server
Special AP
Miscellaneous

Special Applications [HELP]

Popular applications -- select one -- Copy to ID --

| ID | Trigger | Incoming Ports | Enable |
|----|----------------------|----------------------|--------------------------|
| 1 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 2 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 3 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 4 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 5 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 6 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 7 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 8 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 9 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 10 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 11 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 12 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |

Save Undo

Some applications require multiple connections, like Internet games, Video conferencing, Internet telephony, etc. Because of the firewall function, these applications cannot work with a pure NAT router. The **Special Applications** feature allows some of these applications to work with this product. If the mechanism of Special Applications fails to make an application work, try setting your computer as the **DMZ** host instead.

1. **Trigger**: the outbound port number issued by the application.
2. **Incoming Ports**: when the trigger packet is detected, the inbound packets sent to the specified port numbers are allowed to pass through the firewall.

This product provides some predefined settings.

1. Select your application and
2. Click **Copy to** to add the predefined setting to your list.

Note! At any given time, only one PC can use each Special Application tunnel.

Click on “Save” to store what you just select or” Undo” to give up

Advanced Setup > Forwarding Rules > Miscellaneous

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING
 FORWARDING RULES
 SECURITY SETTING
 ADVANCED SETTING
 TOOLBOX

- Virtual Server
- Special AP
- **Miscellaneous**

Miscellaneous Items [HELP]

| Item | Setting | Enable |
|--------------------------|--|--------------------------|
| ▶ IP Address of DMZ Host | 192.168.123. <input style="width: 50px;" type="text"/> | <input type="checkbox"/> |

IP Address of DMZ Host

DMZ (Demilitarized Zone) Host is a host without the protection of firewall. It allows a computer to be exposed to unrestricted 2-way communication for Internet games, Video conferencing, Internet telephony and other special applications.

Click on “Save” to store what you just select or “Undo” to give up

NOTE: This feature should be used only when needed.

Advanced Setup > Security Setting > Packet Filters

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING
 FORWARDING RULES
 SECURITY SETTING
 ADVANCED SETTING
 TOOLBOX

Packet Filters
 Domain Filters
 URL Blocking
 MAC Control
 Miscellaneous

[HELP]

| Item | Setting | | | |
|--|---------------------------------|----------------------|--------------------------|--------------------------------|
| ▶ Outbound Filter | <input type="checkbox"/> Enable | | | |
| <input checked="" type="radio"/> Allow all to pass except those match the following rules. <input type="radio"/> Deny all to pass except those match the following rules. | | | | |
| Use schedule rule: ---ALWAYS ON--- <input type="button" value="Copy to"/> ID -- <input type="button" value="v"/> | | | | |
| ID | Source IP:Ports | Destination IP:Ports | Enable | Schedule Rule# |
| 1 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 2 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 3 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 4 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 5 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 6 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 7 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |
| 8 | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <input type="text" value="0"/> |

Packet Filter enables you to control what packets are allowed to pass the router. Outbound filter applies on all outbound packets. However, inbound filter applies on packets that destined to Virtual Servers or DMZ host only. You can select one of the two filtering policies:

1. Allow all to pass except those match the specified rules
2. Deny all to pass except those match the specified rules

You can specify 8 rules for each direction: inbound or outbound. For each rule, you can define the following:

- Source IP address
- Source port
- Destination IP address
- Destination port
- Protocol: TCP or UDP or both.
- Use Rule#

For source or destination IP address, you can define a single IP address (4.3.2.1) or a range of IP addresses (4.3.2.1-4.3.2.254). An empty implies all IP addresses.

For source or destination port, you can define a single port (80) or a range of ports (1000-1999). Add prefix "T" or "U" to specify TCP or UDP protocol. For

example, T80, U53, U2000-2999, No prefix indicates both TCP and UDP are defined. An empty implies all port addresses. **Packet Filter** can work with **Scheduling Rules**, and give user more flexibility on Access control. For Detail, please refer to **Scheduling Rule**. Each rule can be enabled or disabled individually.

Click on “Save” to store what you just select or “Undo” to give up

Inbound Filter:

To enable **Inbound Packet Filter** click the check box next to **Enable** in the **Inbound Packet Filter** field

Click on “Save” to store what you just select or “Undo” to give up

Advanced Setup > Security Setting > Domain Filters

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

- Packet Filters
- **Domain Filters**
- URL Blocking
- MAC Control
- Miscellaneous

Domain Filter [HELP]

| Item | Setting |
|--------------------------|--|
| ▶ Domain Filter | <input type="checkbox"/> Enable |
| ▶ Log DNS Query | <input type="checkbox"/> Enable |
| ▶ Privilege Host/NetMask | 192.168.123. <input style="width: 40px;" type="text"/> / <input style="width: 40px;" type="text"/> |

| ID | Domain Suffix | Action | Enable |
|----|--|--|--------------------------|
| 1 | <input style="width: 80%;" type="text"/> | <input type="checkbox"/> Drop <input type="checkbox"/> Log | <input type="checkbox"/> |
| 2 | <input style="width: 80%;" type="text"/> | <input type="checkbox"/> Drop <input type="checkbox"/> Log | <input type="checkbox"/> |
| 3 | <input style="width: 80%;" type="text"/> | <input type="checkbox"/> Drop <input type="checkbox"/> Log | <input type="checkbox"/> |
| 4 | <input style="width: 80%;" type="text"/> | <input type="checkbox"/> Drop <input type="checkbox"/> Log | <input type="checkbox"/> |
| 5 | <input style="width: 80%;" type="text"/> | <input type="checkbox"/> Drop <input type="checkbox"/> Log | <input type="checkbox"/> |
| 6 | <input style="width: 80%;" type="text"/> | <input type="checkbox"/> Drop <input type="checkbox"/> Log | <input type="checkbox"/> |
| 7 | <input style="width: 80%;" type="text"/> | <input type="checkbox"/> Drop <input type="checkbox"/> Log | <input type="checkbox"/> |
| 8 | <input style="width: 80%;" type="text"/> | <input type="checkbox"/> Drop <input type="checkbox"/> Log | <input type="checkbox"/> |
| 9 | <input style="width: 80%;" type="text"/> | <input type="checkbox"/> Drop <input type="checkbox"/> Log | <input type="checkbox"/> |
| 10 | * (all others) | <input type="checkbox"/> Drop <input type="checkbox"/> Log | - |

Domain Filter

let you prevent users under this device from accessing specific URLs.

Domain Filter Enable

Check if you want to enable Domain Filter.

Log DNS Query

Check if you want to log the action when someone accesses the specific URLs.

Privilege HOST/ Netmask

Setting a group of hosts and privilege these hosts to access network without restriction.

Domain Suffix

A suffix of URL to be restricted; For example, ".com", "xxx.com".

Action

When someone is accessing the URL met the domain-suffix, what kind of action you want.

Check drop to block the access. Check log to log these access.

Enable

Check to enable each rule.

Click on "Save" to store what you just select or "Undo" to give up

Advanced Setup > Security Setting > URL Blocking

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

- Packet Filters
- Domain Filters
- URL Blocking**
- MAC Control
- Miscellaneous

Http URL Blocking [HELP]

| Item | Setting |
|----------------|---------------------------------|
| ▶ URL Blocking | <input type="checkbox"/> Enable |
| ▶ Proxy port | <input type="text" value="0"/> |

| ID | URL | Enable |
|----|----------------------|--------------------------|
| 1 | <input type="text"/> | <input type="checkbox"/> |
| 2 | <input type="text"/> | <input type="checkbox"/> |
| 3 | <input type="text"/> | <input type="checkbox"/> |
| 4 | <input type="text"/> | <input type="checkbox"/> |
| 5 | <input type="text"/> | <input type="checkbox"/> |

Save Undo

URL Blocking will block LAN computers to connect to pre-defined Websites.

The major difference between “Domain filter” and “URL Blocking” is Domain filter require user to input suffix (like .com or .org, etc), while URL Blocking require user to input a keyword only. In other words, Domain filter can block specific website, while URL Blocking can block hundreds of websites by simply a **keyword**.

URL Blocking Enable

Check if you want to enable URL Blocking.

URL

If any part of the Website's URL matches the pre-defined word, the connection will be blocked.

For example, you can use pre-defined word "sex" to block all websites if their URLs contain pre-defined word "sex".

Enable

Check to enable each rule.

Click on “Save” to store what you just select or “Undo” to give up

Advanced Setup > Security Setting > MAC Control

Multi-Function Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU | Status | Wizard | Logout

BASIC SETTING | FORWARDING RULES | SECURITY SETTING | ADVANCED SETTING | TOOLBOX

Packet Filters
Domain Filters
URL Blocking
MAC Control
Miscellaneous

MAC Address Control [HELP]

| Item | Setting |
|---------------------|---|
| MAC Address Control | <input type="checkbox"/> Enable |
| Connection control | Wireless and wired clients with C checked can connect to this device; and <input type="checkbox"/> allow unspecified MAC addresses to connect. |
| Association control | Wireless clients with A checked can associate to the wireless LAN; and <input type="checkbox"/> deny unspecified MAC addresses to associate. |

DHCP clients: -- select one -- Copy to ID --

| ID | MAC Address | IP Address | Wake On Lan | C | A |
|----|----------------------|-----------------------------------|--|--------------------------|--------------------------|
| 1 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="button" value="Trigger"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="button" value="Trigger"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="button" value="Trigger"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | <input type="text"/> | 192.168.123. <input type="text"/> | <input type="button" value="Trigger"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Previous page | Next page | Save | Undo

MAC Address Control allows you to assign different access right for different users and to assign a specific IP address to a certain MAC address.

MAC Address Control Check "Enable" to enable the "MAC Address Control". All of the settings in this page will take effect only when "Enable" is checked.

Connection control Check "Connection control" to enable the controlling of which wired and wireless clients can connect to this device. If a client is denied to connect to this device, it means the client can't access to the Internet either. Choose "allow" or "deny" to allow or deny the clients, whose MAC addresses are not in the "Control table" (please see below), to connect to this device.

Association control Check "Association control" to enable the controlling of which wireless client can associate to the wireless LAN. If a client is denied to associate to the wireless LAN, it means the client can't send or receive any data via this device. Choose "allow" or "deny" to allow or deny the clients, whose MAC addresses are not in the "Control table", to associate to the wireless LAN

- 1: Click on "Save" to store what you just select or "Undo" to give up
- 2: Click on "Next Page" to go down or "Previous page" back to last page

Advanced Setup > Security Setting > Miscellaneous

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

Packet Filters

Domain Filters

URL Blocking

MAC Control

Miscellaneous

Miscellaneous Items [HELP]

| Item | Setting | Enable |
|------------------------------------|----------------------------|--------------------------|
| ▶ Remote Administrator Host / Port | 0.0.0.0 / 80 | <input type="checkbox"/> |
| ▶ Administrator Time-out | 600 seconds (0 to disable) | |
| ▶ Discard PING from WAN side | | <input type="checkbox"/> |
| ▶ Disable UPnP | | <input type="checkbox"/> |

Save Undo

Remote Administrator Host/Port

In general, only Intranet user can browse the built-in web pages to perform

administration task. This feature enables you to perform administration task from remote host. If this feature is enabled, only the specified IP address can perform remote administration. If the specified IP address is 0.0.0.0, any host can connect to this product to perform administration task. You can use subnet mask bits "/nn" notation to specified a group of trusted IP addresses for example, "10.1.2.0/24".
NOTE: When Remote Administration is enabled, the web server port will be shifted to 80. You can change web server port to other port, too.

Administrator Time-out

The time of no activity to logout automatically, you may set it to zero to disable this feature.

Discard PING from WAN side

When this feature is enabled, any host on the WAN cannot ping this product.

Disable UPNP: Choose enable or disable the UPNP feature

Click on "Save" to store what you just select or" Undo" to give up

Advanced Setup > Advanced Setting > Routing I/F by IP

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING **ADVANCED SETTING** TOOLBOX

- Routing I/F by IP
- Routing I/F by Domain
- System Log
- Dynamic DNS
- SNMP
- Routing
- System Time
- Scheduling
- Performance

Routing Interface by IP

| ID | IP | Interface | Enable |
|----|--------------------------------------|--|--------------------------|
| 1 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |
| 2 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |
| 3 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |
| 4 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |
| 5 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |
| 6 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |
| 7 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |
| 8 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |
| 9 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |
| 10 | <input type="text" value="0.0.0.0"/> | PPPoE <input type="button" value="1"/> | <input type="checkbox"/> |

The Routing Interface by IP allows you to specify what range of IPs of packets to be delivered to Internet via which session of connection

Click on “Save” to store what you just select or “Undo” to give up

Advanced Setup > Advanced Setting > Routing I/F by Domain

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING **ADVANCED SETTING** TOOLBOX

- Routing I/F by IP
- **Routing I/F by Domain**
- System Log
- Dynamic DNS
- SNMP
- Routing
- System Time
- Scheduling
- Performance

Routing Interface by Domain

| ID | Domain | Interface | Enable |
|----|----------------------|---|--------------------------|
| 1 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |
| 2 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |
| 3 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |
| 4 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |
| 5 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |
| 6 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |
| 7 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |
| 8 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |
| 9 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |
| 10 | <input type="text"/> | PPPoE <input type="button" value="v"/> 1 <input type="button" value="v"/> | <input type="checkbox"/> |

The Routing Interface by Domain allows you to specify what range of domains of packets to be delivered to Internet via which session of connection

Click on “Save” to store what you just select or “Undo” to give up

Advanced Setup > Advanced Setting > System Log

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING **ADVANCED SETTING** TOOLBOX

- Routing I/F by IP
- Routing I/F by Domain
- System Log**
- Dynamic DNS
- SNMP
- Routing
- System Time
- Scheduling
- Performance

System Log [HELP]

| Item | Setting | Enable |
|---------------------------|-----------------------------------|--------------------------|
| ▶ IP Address for Syslog | 192.168.123. <input type="text"/> | <input type="checkbox"/> |
| ▶ E-mail Alert | | <input type="checkbox"/> |
| ▶ SMTP Server IP and Port | <input type="text"/> | |
| ▶ Send E-mail alert to | <input type="text"/> | |
| ▶ E-mail Subject | <input type="text"/> | |

This page support two methods to export system logs to specific destination by means of syslog (UDP) and SMTP(TCP). The items you have to setup including:

IP Address for Syslog

Host IP of destination where syslog will be sent to.
Check **Enable** to enable this function.

E-mail Alert Enable

Check if you want to enable Email alert (send syslog via email).

SMTP Server IP and Port

Input the SMTP server IP and port, which are concated with ':'. If you do not specify port number, the default value is 25.
For example, "mail.your_url.com" or "192.168.1.100:26".

Send E-mail alert to

The recipients who will receive these logs, you can assign more than 1 recipient, using ';' or ',' to separate these email addresses.

E-mail Subject

The subject of email alert, this setting is optional.

Click on "Save" to store what you just select or "Undo" to give up

Advanced Setup > Advanced Setting > Dynamic DNS

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING **ADVANCED SETTING** TOOLBOX

• Routing I/F by IP

• Routing I/F by Domain

• System Log

• **Dynamic DNS**

• SNMP

• Routing

• System Time

• Scheduling

• Performance

Dynamic DNS [HELP]

| Item | Setting |
|---------------------|---|
| ▶ DDNS | <input checked="" type="radio"/> Disable <input type="radio"/> Enable |
| ▶ Provider | DynDNS.org(Dynamic) ▼ |
| ▶ Host Name | <input type="text"/> |
| ▶ Username / E-mail | <input type="text"/> |
| ▶ Password / Key | <input type="text"/> |

To host your server on a changing IP address, you have to use dynamic domain name service (DDNS).

So that anyone wishing to reach your host only needs to know the name of it. Dynamic DNS will map the name of your host to your current IP address, which changes each time you connect your Internet service provider.

Before you enable **Dynamic DNS**, you need to register an account on one of these Dynamic DNS servers that we list in **provider** field.

To enable **Dynamic DNS** click the check box next to **Enable** in the **DDNS** field.

Next you can enter the appropriate information about your Dynamic DNS Server.

You have to define:

Provider

Host Name

Username/E-mail

Password/Key

You will get this information when you register an account on a Dynamic DNS server.

Click on “Save” to store what you just select or “Undo” to give up

Advanced Setup > Advanced Setting > SNMP

The screenshot shows the configuration interface for a Multi-Functional Wireless Broadband NAT Router (R7.00a1B). The page is titled "Multi-Functional Wireless Broadband NAT Router (R7.00a1B)" and has a navigation bar with "ADMINISTRATOR's MAIN MENU", "Status", "Wizard", and "Logout". Below the navigation bar are tabs for "BASIC SETTING", "FORWARDING RULES", "SECURITY SETTING", "ADVANCED SETTING", and "TOOLBOX". The "ADVANCED SETTING" tab is selected, and the "SNMP Setting" sub-tab is active. The left sidebar contains a list of configuration categories: "Routing I/F by IP", "Routing I/F by Domain", "System Log", "Dynamic DNS", "SNMP", "Routing", "System Time", "Scheduling", and "Performance". The main content area displays the "SNMP Setting" configuration table.

| Item | Setting |
|-----------------|--|
| ▶ Enable SNMP | <input type="checkbox"/> Local <input type="checkbox"/> Remote |
| ▶ Get Community | <input type="text"/> |
| ▶ Set Community | <input type="text"/> |
| ▶ IP 1 | <input type="text" value="0.0.0.0"/> |
| ▶ IP 2 | <input type="text" value="0.0.0.0"/> |
| ▶ IP 3 | <input type="text" value="0.0.0.0"/> |
| ▶ IP 4 | <input type="text" value="0.0.0.0"/> |
| ▶ SNMP Version | <input checked="" type="radio"/> V1 <input type="radio"/> V2c |

At the bottom of the configuration area, there are "Save" and "Undo" buttons.

In brief, SNMP, the Simple Network Management Protocol, is a protocol designed to give a user the capability to remotely manage a computer network by polling and setting terminal values and monitoring network events.

Enable SNMP

You must check either Local or Remote or both to enable SNMP function. If Local is checked, this device will response request from LAN. If Remote is checked, this device will response request from WAN.

Get Community

Setting the community of GetRequest your device will response.

Set Community

Setting the community of SetRequest your device will accept.

IP 1,IP 2,IP 3,IP 4

Input your SNMP Management PC's IP here. User has to configure to where this device should send SNMP Trap message.

SNMP Version

Please select proper SNMP Version that your SNMP Management software supports.

Click on "Save" to store what you just select or "Undo" to give up.

Advanced Setup > Advanced Setting > Routing

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING **ADVANCED SETTING** TOOLBOX

- Routing I/F by IP
- Routing I/F by Domain
- System Log
- Dynamic DNS
- SHMP
- Routing
- System Time
- Scheduling
- Performance

Routing Table [HELP]

| Item | Setting | | | | |
|-------|--|----------------------|----------------------|----------------------|--------------------------|
| ▶ RIP | <input type="checkbox"/> Enable <input type="radio"/> RIPv1 <input type="radio"/> RIPv2 | | | | |
| ID | Destination | Subnet Mask | Gateway | Hop | Enable |
| 1 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 2 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 3 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 4 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 5 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 6 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 7 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 8 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |

Routing Tables

Allow you to determine which physical interface address to use for outgoing IP data grams. If you have more than one routers and subnets, you will need to enable routing table to allow packets to find proper routing path and allow different subnets to communicate with each other.

Routing Table settings are settings used to setup the functions of static and dynamic routing.

Dynamic Routing

Routing Information Protocol (RIP) will exchange information about destinations for computing routes throughout the network. Please select RIPv2 only if you have different subnet in your network. Otherwise, please select RIPv1 if you need this protocol.

Static Routing

For static routing, you can specify up to 8 routing rules. You can enter the destination IP address, subnet mask, gateway, hop for each routing rule, and then enable or disable the rule by checking or un-checking the Enable checkbox.

Click on "Save" to store what you just select or "Undo" to give up.

Advanced Setup > Advanced Setting > System Time

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING **ADVANCED SETTING** TOOLBOX

• Routing I/F by IP
• Routing I/F by Domain
• System Log
• Dynamic DNS
• SNMP
• Routing
• **System Time**
• Scheduling
• Performance

System Time [HELP]

| Item | Setting |
|---|---|
| ▶ <input type="radio"/> Get Date and Time by NTP Protocol | <input type="button" value="Sync Now !"/> |
| Time Server | time.nist.gov |
| Time Zone | (GMT) Dublin, Edinburgh, Lisbon, London |
| ▶ <input checked="" type="radio"/> Set Date and Time using PC's Date and Time | |
| PC Date and Time | 2007 04:34:55 |
| ▶ <input type="radio"/> Set Date and Time manually | |
| Date | Year: 2002 Month: Jan Day: 1 |
| Time | Hour: 0 (0-23) Minute: 0 (0-59) Second: 0 (0-59) |
| ▶ Daylight Saving | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
| Start | Jan 1 |
| End | Jan 1 |
| <input type="button" value="Save"/> <input type="button" value="Undo"/> | |

Get Date and Time by NTP Protocol

Selected if you want to Get Date and Time by NTP Protocol.

Time Server

Select a NTP time server to consult UTC time

Time Zone

Select a time zone where this device locates.

Set Date and Time using PC's Date and Time

Set the Date and Time from your PC

Set Date and Time manually

Selected if you want to Set Date and Time manually.

Daylight Saving

Click on "Save" to store what you just select or "Undo" to give up.

Advanced Setup > Advanced Setting > Scheduling

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING **ADVANCED SETTING** TOOLBOX

- Routing I/F by IP
- Routing I/F by Domain
- System Log
- Dynamic DNS
- SNMP
- Routing
- System Time
- Scheduling
- Performance

Schedule Rule [HELP]

| Item | Setting |
|----------|---------------------------------|
| Schedule | <input type="checkbox"/> Enable |

| Rule# | Rule Name | Action |
|-------|-----------|--------|
| | | |

You can set the schedule time to decide which service will be turned on or off.

Select the “enable” item. Press “**Add New Rule**” You can write a rule name and set which day and what time to schedule from “Start Time” to “End Time”. The following example configure “ftp time” as everyday 14:10 to 16:20

Click on “Save” to store what you just select.

Advanced Setup > Advanced Setting > Performance

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING **ADVANCED SETTING** TOOLBOX

Routing I/F by IP
Routing I/F by Domain
System Log
Dynamic DNS
SNMP
Routing
System Time
Scheduling
Performance

Wireless Performance Settings

| Item | Setting |
|--------------------------|--|
| ▶ Beacon interval | <input type="text" value="100"/> (msec,range:1~1000,default 100) |
| ▶ DTIM interval | <input type="text" value="3"/> (range: 1~65535,default 3) |
| ▶ Wireless Mode | <input checked="" type="radio"/> mixed mode <input type="radio"/> G mode |
| ▶ TX Rates | <input type="text" value="Auto"/> |
| ▶ SSID Broadcast | <input checked="" type="radio"/> Enable <input type="radio"/> Disable |
| ▶ Speed Enhanced Mode | <input checked="" type="radio"/> Enable <input type="radio"/> Disable |
| ▶ Antenna Transmit Power | <input type="text" value="10017dBm"/> |

Beacon Interval

Beacons are packets sent by an Access Point to synchronize a wireless network. Specify a Beacon interval value between 1 and 1000. The default value is set to 100 milliseconds.

DTIM interval :

Enter a value between 1 and 65535 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. When the Access Point has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. AP clients hear the beacons and awaken to receive the broadcast and multicast messages. The default value for DTIM interval is set to 3

Wireless mode

Select wireless connection mode for wireless connection

TX Rates

Select the basic transfer rates based on the speed of wireless adapters on the WLAN (wireless local area network).

SSID Broadcast

Choose enable or disable the wireless SSID broadcast. By turning off the broadcast of the SSID, it is possible to make your wireless network nearly invisible.

Speed Enhanced Mode

This is Tx Burst function for Ralink wireless solution

Antenna Transmit Power:

Select the Transmit Power of the Antenna

Click on "Save" to store what you just select or "Undo" to give up

Advanced Setup > Tool Box > System Info

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING
 FORWARDING RULES
 SECURITY SETTING
 ADVANCED SETTING
 TOOLBOX

- System Info
- Firmware Upgrade
- Backup Setting
- Reset to Default
- Reboot
- Miscellaneous

System Information

| Item | Info |
|----------------|---|
| ▶ WAN Type | Dynamic IP Address (R7.00a1B) |
| ▶ Display Time | Thu Feb 1 16:36:55 2007 |
| ▶ Log Message | <input checked="" type="radio"/> System Log <input type="radio"/> DNS Proxy Statistic <input type="radio"/> Routing Table |

System Log

| Time | Log |
|----------------|--|
| Jan 1 00:00:06 | syslogd: syslogd starte |
| Jan 1 00:00:06 | boot: Machine restarting |
| Jan 1 00:00:07 | boot: LAN MAC address: 20:50:18:48:11:45 |
| Jan 1 00:00:08 | boot: WAN MAC address: 20:50:18:48:11:46 |
| Jan 1 00:00:13 | dhcpcd: Listening on LAN 192.168.123. |
| Jan 1 00:00:13 | syslogd: System log daemon exiting |
| Jan 1 00:00:13 | syslogd: syslogd starte |
| Jan 1 00:00:15 | dhcp client: dhcp client started |
| Jan 1 00:00:15 | dhcp client: Wait for traffic |
| Jan 1 00:00:16 | dhcpcd: Listening on LAN 192.168.123. |
| Feb 1 13:31:34 | httpd: time sync with user's PC |
| Feb 1 13:31:34 | httpd: 192.168.123.50 logins successful |
| Feb 1 13:31:41 | dhcp client: Trigger from 169.254.252.165 to 169.254.255.255 |
| Feb 1 13:31:43 | dhcp client: WAN interface is bound on 192.168.21.58 |

You can view the System log, Routing Table information in this page

Advanced Setup > Tool Box > Firmware Upgrade

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING **TOOLBOX**

System Info
Firmware Upgrade
Backup Setting
Reset to Default
Reboot
Miscellaneous

Firmware Upgrade

Firmware Filename

浏览...

Current firmware version is R7.00a1B. The upgrade procedure takes about 140 seconds.

Note! Do not power off the unit when it is being upgraded.
When the upgrade is done successfully, the unit will be restarted automatically.

Upgrade Cancel

You can upgrade firmware by clicking **Firmware “Upgrade”** button

Advanced Setup > Tool Box > Backup Setting

You can backup your settings by clicking the **Backup Setting** button and save it as a bin file. Once you want to restore these settings, please click **Firmware Upgrade** button and use the bin file you saved

Advanced Setup > Tool Box > Reset to Default

You can also reset this product to factory default by clicking the **Reset to default** button

Advanced Setup > Tool Box > Reboot

You can also reboot this product by clicking the **Reboot** button

Advanced Setup > Tool Box > Miscellaneous

Multi-Functional Wireless Broadband NAT Router (R7.00a1B)

ADMINISTRATOR'S MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING **TOOLBOX**

System Info
Firmware Upgrade
Backup Setting
Reset to Default
Reboot
Miscellaneous

Miscellaneous Items [HELP]

| Item | Setting |
|-----------------------------|--|
| MAC Address for Wake-on-LAN | 00-00-00-00-00-00 <input type="button" value="Wake up"/> |

MAC Address for Wake-on-LAN

Wake-on-LAN is a technology that enables you to power up a networked device remotely. In order to enjoy this feature, the target device must be Wake-on-LAN enabled and you have to know the MAC address of this device, say 00-11-22-33-44-55. Clicking "Wake up" button will make the router to send the wake-up frame to the target device immediately.

3. Troubleshooting

This section provides an overview of common issues, and possible solutions for the installation and operation of the Wireless WAN Mobile Broadband Router.

1. Unable to access the Configuration Menu when I use my computer to configure the router. Why?

Note: It is recommended that you use an Ethernet connection to configure the

Ensure that the **Ethernet LED** on the Wireless WAN Mobile Broadband Router is **ON**. If the **LED** is **NOT ON**, check to see if the cable for the Ethernet connection is securely inserted.

Note: Ensure that the **IP Address** is in the same range and subnet as the Wireless WAN Mobile Broadband Router. The IP Address of the Wireless WAN Mobile Broadband Router is 192.168.123.254. All the computers on the network must have a unique IP Address within the same range (e.g., 192.168.123.x). Any computers that have identical IP Addresses will not be visible on the network. All computers must also have the same subnet mask (e.g., 255.255.255.0).

Do a **Ping test** to make sure that the Wireless WAN Mobile Broadband Router is responding.

Go to **Start > Run**.

1:Type **cmd**.

2:Press **Enter**.

3:Type "**ping 192.168.123.254**". A successful ping shows four replies.

Note: If you have changed the **default** IP Address, ensure you ping the correct IP Address assigned to the Wireless WAN Mobile Broadband Router.

Ensure that your Ethernet Adapter is working properly, and that all network drivers are installed properly.

Note: Network adapter names will vary depending on your specific adapter. The installation steps listed below are applicable for all network adapters.

1. Go to **Start > My Computer > Properties**.
2. **Select** the **Hardware Tab**.
3. Click **Device Manager**.
4. Double-click on "**Network Adapters**".
5. Right-click on **Wireless Cardbus Adapter**, or **your specific network adapter**.
6. Select **Properties** to ensure that all drivers are installed properly.
7. Look under **Device Status** to see if the device is working properly.
8. Click "**OK**".

2: Why my wireless client can NOT access the Internet?

Note: Establish WiFi Connection. As long as you select either **WEP** or **WPA-PSK** encryption, ensure encryption settings match your WiFi settings. Please refer to your WiFi adapter documentation for additional information.

Ensure that the wireless client is associated and joined with the correct Access Point.

To check this connection, follow the steps below:

1. **Right-click** on the **Local Area Connection icon** in the taskbar.
2. Select **View Available Wireless Networks in Wireless Configure**. The **Connect to Wireless Network** screen appears. Ensure you have selected the correct available network.

Ensure the IP Address assigned to the wireless adapter is within the same subnet as the Access Point and gateway. The Wireless WAN Mobile Broadband Router has an IP Address of **192.168.123.254**. Wireless adapters must have an IP Address in the same range (e.g., 192.168.123.x). Although the subnet mask must be the same for all the computers on the network, no two devices may have the same IP Address. Therefore, each device must have a unique IP Address.

To check the **IP Address** assigned to the wireless adapter, follow the steps below:

1. Enter ipconfig /all in command mode
2. Enter ping 192.168.123.254 to check if you can access the Wireless WAN Mobile Broadband Router

3. Why does my wireless connection keep dropping?

You may try following steps to solve.

- Antenna Orientation.
 - 1: Try different antenna orientations for the Wireless WAN Mobile Broadband Router.
 - 2: Try to keep the antenna at least 6 inches away from the wall or other objects.
- Try changing the channel on the Wireless WAN Mobile Broadband Router, and your Access Point and Wireless adapter to a different channel to avoid interference.
- Keep your product away (at least 3-6 feet) from electrical devices that generate RF noise, like microwaves, monitors, electric motors, etc.

4. Why I am unable to achieve a wireless connection?

Note: An Ethernet connection is required to troubleshoot the Wireless WAN Mobile Broadband Router.

If you have enabled Encryption on the Wireless WAN Mobile Broadband Router, you must also enable encryption on all wireless clients in order to establish a wireless connection.

- For 802.11g, the encryption settings are: 64 or 128 bit. Ensure that the encryption bit level is the same for both the Wireless WAN Mobile Broadband Router, and your Wireless Client.
- Ensure that the SSID (Service Set Identifier) on the Wireless WAN Mobile Broadband Router and the Wireless Client are exactly the same.
If they are not, your wireless connection will not be established.
- Move the Wireless WAN Mobile Broadband Router and the wireless client into the same room, and then test the wireless connection.
- Disable all security settings such as **WEP**, and **MAC Address Control**.
- Turn off the Wireless WAN Mobile Broadband Router and the client.
Turn the Wireless WAN Mobile Broadband Router back on again, and then turn on the client.
- Ensure that all devices are set to **Infrastructure** mode.
- Ensure that the LED indicators are indicating normal activity. If not, ensure that the AC power and Ethernet cables are firmly connected.
- Ensure that the IP Address, subnet mask, gateway and DNS settings are correctly entered for the network.
- If you are using 2.4GHz cordless phones, X-10 equipment, or other home security systems, ceiling fans, or lights, your wireless connection may degrade dramatically, or drop altogether.

To avoid interference, change the Channel on the Wireless WAN Mobile Broadband Router, and all devices in your network.

- Keep your product at least 3-6 feet away from electrical devices that generate RF noise. Examples include: microwaves, monitors, electric motors, and so forth.

5. I just do not remember my encryption key. What should I do?

- If you forgot your encryption key, the WiFi card will be unable to establish a proper connection. If an encryption key setting has been set for the Wireless WAN Mobile Broadband Router, it must also be set for the WiFi card that will connect to the Wireless WAN Mobile Broadband Router.

To reset the encryption key(s), login to the Wireless WAN Mobile Broadband Router using a wired connection. (Please refer to “Basic > Wireless (Security–No Encryption)” on page 10, for additional information).

7. How do I reset my Wireless WAN Mobile Broadband Router to its factory default settings?

If other troubleshooting methods have failed, you may choose to **Reset** the Wireless WAN Mobile Broadband Router to its factory default settings.

To hard-reset the Wireless WAN Mobile Broadband Router its factory **default** settings, follow the steps listed below:

1. Ensure the Wireless WAN Mobile Broadband Router is powered on
2. Locate the **Reset** button on the back of the Wireless WAN Mobile Broadband Router.
3. Use a paper clip to press the **Reset** button.
4. Hold for 10 seconds and then release.
5. After the Wireless WAN Mobile Broadband Router reboots, it is reset to the factory **default** settings.

Note: Please note that this process will take a few minutes.

8. What is VPN?

- VPN stands for “Virtual Private Networking.” VPNs create a "tunnel" through an existing Internet connection using PPTP (Point-to-Point Tunneling Protocol) or IPSec (IP Security) protocols with various encryption schemes including Microsoft Challenge Handshake Authentication Protocol (MS-CHAP) .
- This feature allows you to use your existing Internet connection to connect to a remote site with added security. If your VPN connection is not functional, verify that your VPN dial-up configuration is correct.

Note: This information should be provided to you from your VPN provider.

Pressing the Reset Button restores to its original factory **default** settings.

9. What can I do if my Ethernet cable does not work properly?

- First, ensure that there is a solid cable connection between the Ethernet port on the Router, and your NIC (Network Interface Card).
- Second, ensure that the settings on your NIC adapter are “Enabled,” and set to accept an IP address from the DHCP.
- If settings appear to be correct, ensure that you are not using a crossover Ethernet cable. Although the Wireless WAN Mobile Broadband Router is MDI/MDIX compatible, not all NICs are. Therefore, it is recommended that you use a patch cable when possible.

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10. Can I use in the car?

- **Yes. But please use 12V to 5V convertor. Or contact your dealer for accessory supplier. We also can supply such cable. Please start engine first, after engine is running, then plug in such cable.**

4. Technical Specifications

| | |
|---------------------|--|
| 3G Access | 1*PC card Type II Slot supports both 16-bit and 32-bit bus rate. |
| Standards | IEEE 802.11b/g IEEE 802.3 IEEE 802.3u |
| Wireless | |
| Standard | IEEE 802.11b/g Turbo |
| Data Rate | 54, 48, 36, 24, 18, 12, 9, and 6 Mbps per channel, Auto Fall-Back |
| Frequency | 2.4 – 2.462 GHz, CCK / OFDM modulation |
| Range Coverage | Tx/Rx power 18dbm/Per Cell indoors approx. 35-100 meters; outdoors up to 100-300 meters |
| # of Channels | 1-11 for N. America (FCC);1-11 for Canada (DOC) 1-13 Europe (Except Spain and France) (ETSI) 1-14 Japan (TELEC); |
| Security | 64-bit and 128-bit WEP Encryption; WPA encryption |
| Antenna | Detachable Antenna 1.8dBI |
| Firewall | IP Filtering NAT (Network Address Translation) with VPN Pass through MAC Filtering |
| Supported WAN type | Static IP, Dynamic IP, PPPoE, PPPoA |
| Connection Scheme | Connect-on-demand, Auto-Disconnect |
| NAT function | Class C ;One-to-Many; Max 253 Users; Virtual Server; DMZ Host |
| VPN | PPTP, L2TP and IPSec Pass Through |
| Config.& Management | Web-Based IE, Navigator browser and SNMP DHCP Server and Client |
| Working Environment | Temperature: 0~40°C, Humidity 10%~90% non-condensing |
| OS supported | Windows 95/98/ME/NT/2000/XP; Linux |
| Power | Switching 5V 3.0A |