

Wireless HSPA 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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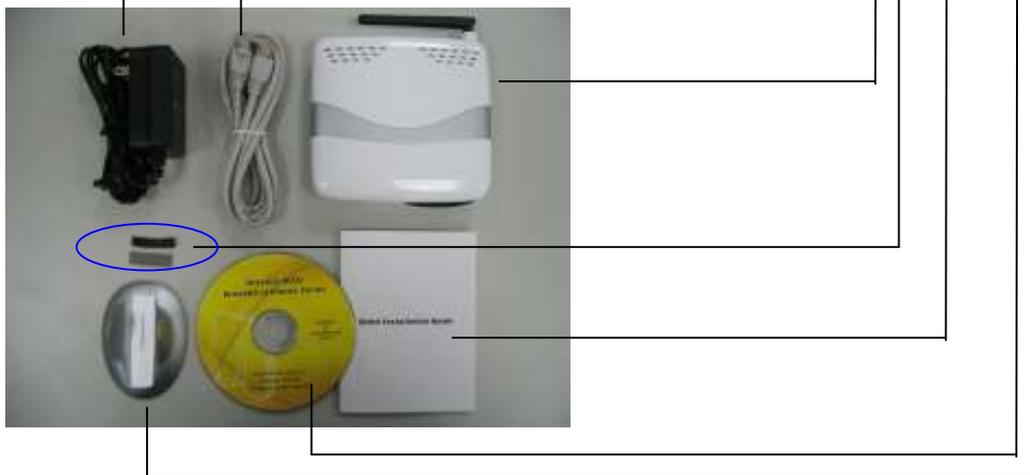
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Package Contents

Importance: Check your product package contents FIRST.

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

items	Description	Quantity
1	Wireless WAN Mobile Broadband Router	1
2	RJ-45 Cable	1
3	Power adapter 5V 3.0A	1
4	Quick Installation Guide	1
5	CD ROM	1
6	Cradle set	1
7	Rubber pad and Sponge	1



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

System Requirements for Configuration

- A compatible either 16-bit or 32-bit PCMCIA , USB or PCI express HSPA modem card slot *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.

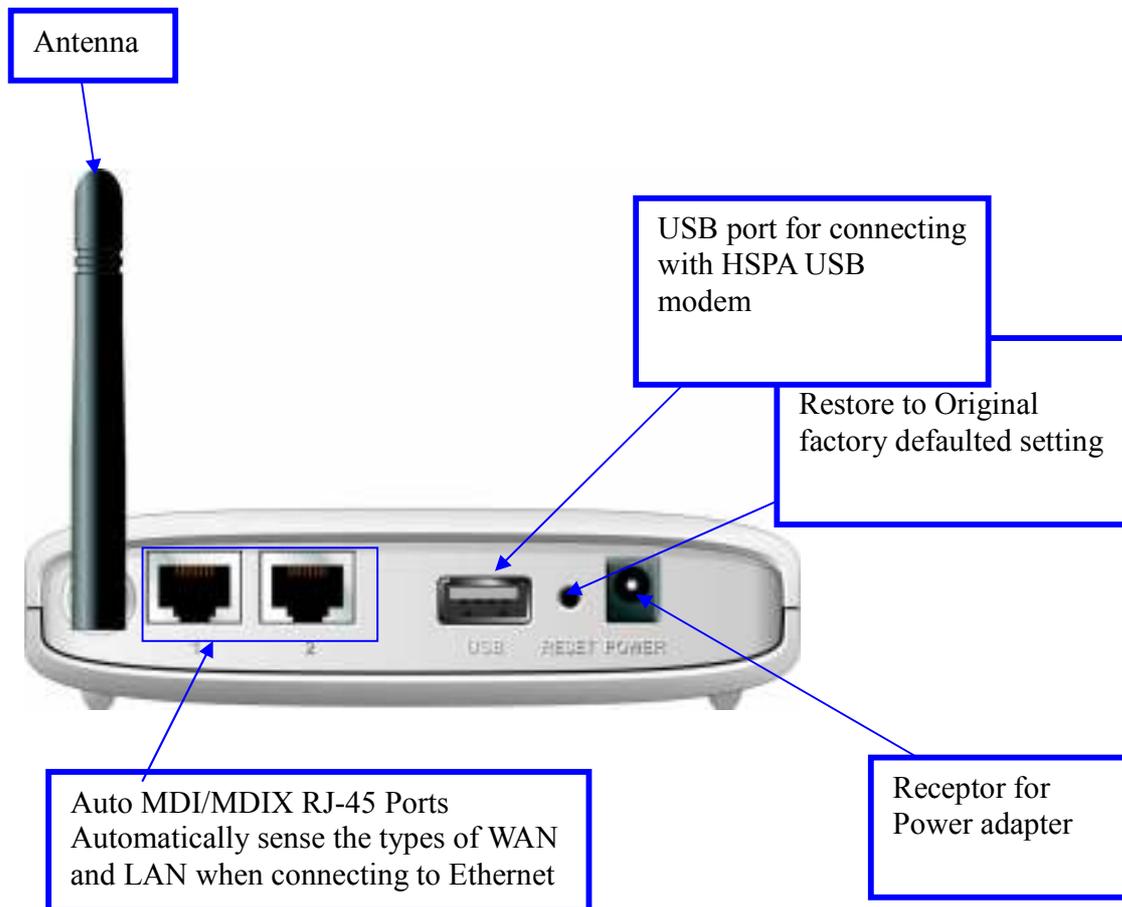
Wi-Fi System Requirements

- A 802.11b, 802.11g Adapter, or 802.11n

1. Introduction

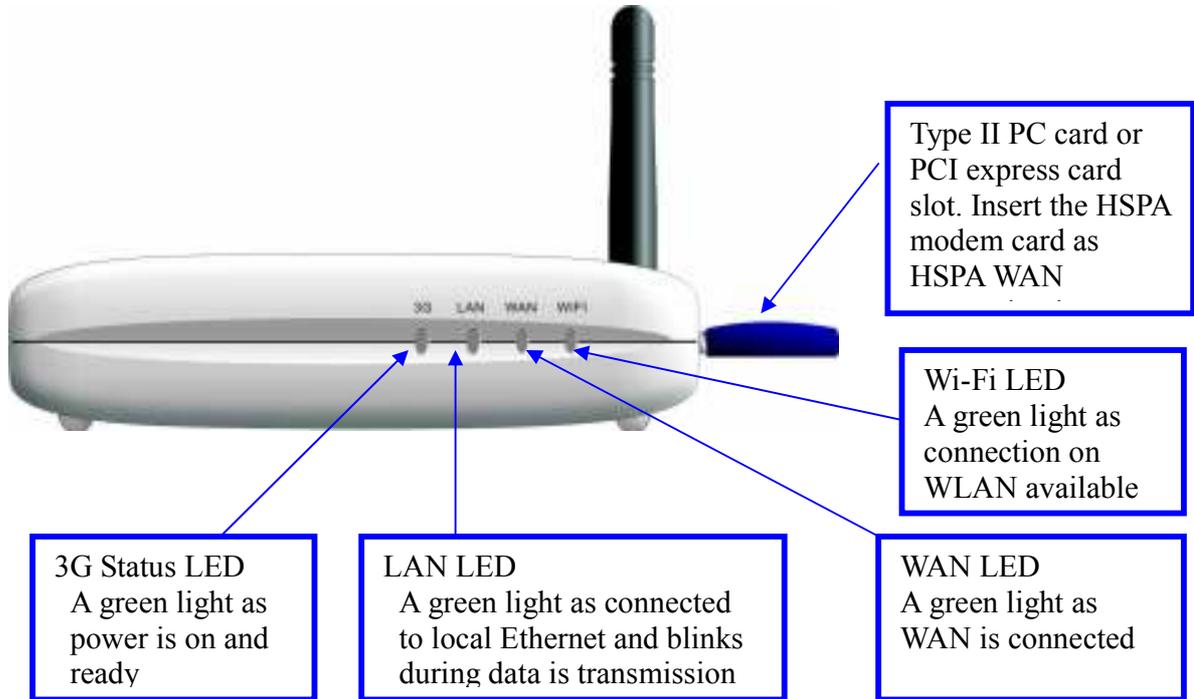
The Wireless HSPA Router is a high-performance tool that supports wireless networking at home, work, or in a public place. The Wireless HSPA Router supports uses a Type II PC card, USB, even PCI express HSPA modem card either WCDMA or EVDO and even HSUPA as well, and supports wireless data transfers up to 54 Mbps even 802.11n, and wired data transfers up to 100 Mbps. The Wireless HSPA Router is compatible with industry security features.

Connections: HSPA modem interface depending on the difference of models Wireless HSPA Router (Rear View)



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 HSPA Router (Front View)



1.2. Features

- Automatic take over back up with HSPA 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 even 802.11n soon.
- Backwards compatible with the 802.11b standard to provide a wireless data rate of up to 11Mbps.
- Utilizes **OFDM** technology (**O**rthogonal **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 either Type II PC card (for both 16-Bit and 32-Bit) or PCI express card slot or USB port for HSPA network connection.
- Connects multiple computers to a Broadband either WCDMA or EV-DO even HSUPA modem to share the Internet connection.

Note: The Wireless HSPA Router is designed to work with either EVDO or WCDMA (UMTS) even up to HSUPA PC interface.

Please refer to your service provider for detailed feature information.

2. Configuring Wireless HSPA Router

2.1. Installation Considerations

The Wireless HSPA 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 HSPA Router and other network devices to a minimum. Each wall or ceiling can reduce the Wireless HSPA 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. Get Start Installation

Connect the Wireless HSPA router to Your Network

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

Step1.

Attach the antenna.



- 1.1. Remove the antenna from its plastic wrapper.
- 1.2. Screw the antenna in a clockwise direction to the back panel of the unit.
- 1.3. Once secured, position the antenna upward at its connecting joint. This will ensure optimal reception.

Step2.

Plug HSPA Modem, either USB or PC Card or even PCIe express card, to router



Note: The Wireless HSPA Router is designed to work with either UMTS or EV-DO and even HSUPA modem. Please refer to your service provider for detailed feature information.

Step3.

Insert the Ethernet patch cable into LAN port on the back panel of the Wireless HSPA Router, and an available Ethernet port on the network adapter in the computer you will use to configure the unit.



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

Step 4.

- 4.1. Connect the power adapter to the receptor on the back panel of your Wireless HSPA Router.
- 4.2. 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 HSPA Router performs initialization and Internet connection processes. This will take a few minutes.
- c. When complete, the following LEDs will illuminate green: HSPA, LAN, WAN, and W-Fi.



2.1.2. Establish Wi-Fi Connection

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

Wi-Fi and encryption settings must match for access to the Wireless HSPA Router Configuration Menu, and the Internet. Please refer to your Wi-Fi adapter documentation for additional information.

2.2. Using the Configuration Menu

Once properly configured, the Wireless HSPA Router will obtain and assign IP address information automatically. Configuration settings can be established through the Wireless HSPA 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 HSPA Router



Note: If you have changed the **default IP Address** assigned to the Wireless HSPA Router, ensure you enter the correct IP Address now.

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

Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929)

USER's MAIN MENU Status

System Password : (default: admin)

System Status [HELP]

Item	WAN Status	Sidenote
Remaining Lease Time	999:58:39	
IP Address	192.168.42.199	
Subnet Mask	255.255.255.0	
Gateway	192.168.42.84	
Domain Name Server	168.95.1.1, 168.95.192.1	

3G/3.5G Modem Information

Item	Status	Sidenote
Card Info	No Card Detected	
Link Status	Disconnected	
Signal Strength	N/A	
Bytes Transmitted	0	
Bytes Received	0	

Wireless Status

Item	WLAN Status	Sidenote
Wireless mode	Enable	(AP only mode)
SSID	default	
Channel	11	
Security	None	
MAC Address	00-50-18-11-22-33	

Statistics Information

Statistics of WAN	Inbound	Outbound
Octets	2674	541526
Unicast Packets	13	927
Non-unicast Packets	0	0
Drops	0	0
Error	0	0

Display time: Tue Oct 2 00:41:01 2007

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.

Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

Setup Wizard [EXIT]

Setup Wizard will guide you through a basic configuration procedure step by step.

- ▶ Step 1. Setup Login Password.
- ▶ Step 2. WAN Setup.
- ▶ Step 3. Wireless Setup.
- ▶ Step 4. Summary.
- ▶ Step 5. Finish.

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

Step 1: Allow you to change the system password.

Multi-Function Wireless 3G Mobile Router (R7.00b0 .070929)

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 3G Mobile Router (R7.00b0 .070929)

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 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 3G Mobile Router (R7.00b0 .070929)

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: 00-50-18-00-00-FE Save 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 HSPA 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 HSPA 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.

Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU ▶ Status ▶ Wizard ▶ Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

Setup Wizard - Wireless settings [EXIT]

▶ Wireless Radio Enable Disable

▶ Network ID(SSID)

▶ Channel ▼

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

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.

The screenshot shows the configuration interface for a Multi-Function Wireless 3G Mobile Router (R7.00b0 .070929). The interface is titled "Multi-Function Wireless 3G Mobile Router (R7.00b0 .070929)" and includes 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 main content area is titled "Setup Wizard - Wireless Security" and contains a "Security" label followed by a dropdown menu currently set to "None". At the bottom of the interface, there are navigation buttons: "< Back", "[Start > Password > WAN > **Wireless** > Summary > Finish!]", and "Next >".

Click on "Next" to continue.

Step 6: Summary

Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU Status Wizard Logout

BASIC SETTING FORWARDING RULES SECURITY SETTING ADVANCED SETTING TOOLBOX

Setup Wizard - Summary [EXIT]

Please confirm the information below

[WAN Setting]	
WAN Type	Dynamic IP Address
Host Name	ROUTER
WAN's MAC Address	00-50-18-00-00-FE

[Wireless Setting]	
Wireless	Enable
SSID	default
Channel	11
Security	None

Do you want to proceed the network testing?

< Back [Start > Password > WAN > Wireless > **Summary** > Finish!] Apply Settings

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 3G Mobile Router (R7.00b0 .070929)

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
LAN IP Address	192.168.123.254
LAN NetMask	255.255.255.0
WAN's MAC Address	00-50-18-13-92-03 Save Clone MAC
Auto-Backup	<input type="checkbox"/> Enable checking wired-WAN alive Internet host: <input type="text"/>
WAN Type	
<input type="radio"/> Static IP Address	ISP assigns you a static IP address.
<input 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"/> 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 checked="" type="radio"/> 3G	3G
APN	<input type="text"/>
Pin Code	<input type="text"/>
Dialed Number	<input type="text"/>
Username	<input type="text"/>
Password	<input type="text"/>
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0
Maximum Idle Time	300 seconds <input checked="" type="checkbox"/> Auto-reconnect

Save Undo Virtual Computers...

Caution: For HSPA 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 HSPA 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.
- **Primary DNS-** This feature allows you to assign a Primary DNS Server (Optional)
- **Secondary DNS-** This feature allows you to assign a Secondary DNS Server (Optional)
- **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 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU
 Status
 Wizard
 Logout

BASIC SETTING
 FORWARDING RULES
 SECURITY SETTING
 ADVANCED SETTING
 TOOLBOX

- Primary Setup
- **DHCP Server**
- Wireless
- Change Password

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 3G Mobile Router (R7.00b0 .070929)

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
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

Item	Setting
▶ Old Password
▶ New Password	
▶ Reconfirm	

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 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU
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BASIC SETTING
 FORWARDING RULES
 SECURITY SETTING
 ADVANCED SETTING
 TOOLBOX

- Virtual Server
- Special AP
- Miscellaneous

Virtual Server
[HELP]

Well known services: -- select one -- 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"/>

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 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU
 Status
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BASIC SETTING
 FORWARDING RULES
 SECURITY SETTING
 ADVANCED SETTING
 TOOLBOX

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

Special Applications [HELP]

Popular applications: -- select one -- 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"/>

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 3G Mobile Router (R7.00b0 .070929)

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 type="text"/>	<input type="checkbox"/>

Save Undo

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 3G Mobile Router (R7.00b0 .070929)

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

Outbound Packet Filter [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--- Copy to ID --				
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"/>

Previous page Next page Save Undo Inbound Filter... MAC Level...

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 3G Mobile Router (R7.00b0 .070929)

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 IP Addresses Range	192.168.123.[0] ~ [0]

ID	Domain Suffix	Action	Enable
1	<input type="text"/>	<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
2	<input type="text"/>	<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
3	<input type="text"/>	<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
4	<input type="text"/>	<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
5	<input type="text"/>	<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
6	<input type="text"/>	<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
7	<input type="text"/>	<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
8	<input type="text"/>	<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
9	<input 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 IP Address Range

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"/>

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-Functional Wireless 3G Mobile Router (R7.00b0 .070929)

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

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"/>

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 > System Log

The screenshot shows the configuration interface for a Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929). The page title is "Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929)". The navigation bar includes "ADMINISTRATOR's MAIN MENU", "Status", "Wizard", and "Logout". The main menu has tabs for "BASIC SETTING", "FORWARDING RULES", "SECURITY SETTING", "ADVANCED SETTING", and "TOOLBOX". The left sidebar lists various settings: "System Log", "Dynamic DNS", "SNMP", "Routing", "System Time", "Scheduling", and "Performance". The "System Log" section is active, showing a table with columns "Item", "Setting", and "Enable".

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"/>	

At the bottom of the table, there are four buttons: "View Log...", "Send Mail Now", "Save", and "Undo".

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

The screenshot shows the configuration page for Dynamic DNS on a Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929). The page is titled "Dynamic DNS" and includes a [HELP] link. The configuration is organized into a table with two columns: "Item" and "Setting".

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"/>

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

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

Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU Status Wizard Logout

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

- System Log
- Dynamic DNS
- **SNMP**
- Routing
- System Time
- Scheduling
- Performance

SNMP Setting [HELP]

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

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 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU > Status > Wizard > Logout

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

System Log
Dynamic DNS
SNMP
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"/>

Save Undo

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 3G Mobile Router (R7.00b0_070929)

ADMINISTRATOR's MAIN MENU Status Wizard Logout

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

System Log
Dynamic DNS
SNMP
Routing
System Time
Scheduling
Performance

System Time [HELP]

Item	Setting
<input checked="" type="radio"/> Get Date and Time by NTP Protocol	<input type="button" value="Sync Now !"/>
Time Server	time.nist.gov
Time Zone	(GMT-08:00) Pacific Time (US & Canada)
<input type="radio"/> Set Date and Time using PC's Date and Time	
PC Date and Time	2007年10月2日 下午 04:30:41
<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 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU Status Wizard Logout

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

- 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 3G Mobile Router (R7.00b0 .070929)

ADMINISTRATOR's MAIN MENU Status Wizard Logout

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

- System Log
- Dynamic DNS
- SNMP
- Routing
- System Time
- Scheduling
- Performance**

Wireless Performance Settings [HELP]

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="100% (17dBm)"/> ▼

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 3G Mobile Router (R7.00b0 .070929)

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 (R7.00b0 .070929)
▶ Display Time	Sat Jan 1 01:01:44 2005
▶ Log Message	<input checked="" type="radio"/> System Log <input type="radio"/> Routing Table

System Log

Time	Log
Jan 1 00:00:06	syslogd: syslogd started
Jan 1 00:00:07	boot: WAN MAC address: 00:50:18:00:00:fe
Jan 1 00:00:11	dhcpd: Listening on LAN 192.168.123.0
Jan 1 00:00:11	httpd: HTTP NG(bind) sd=6, port=6984
Jan 1 00:00:40	dhcpd: offer 192.168.123.50 to 00:40:f4:73:d1:f9
Jan 1 00:39:06	dhcpd: offer 192.168.123.51 to 00:13:d4:1b:e3:a4
Jan 1 00:41:00	dhcpd: offer 192.168.123.51 to 00:13:d4:1b:e3:a4
Jan 1 00:49:46	httpd: 192.168.123.51 logins successful

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

Advanced Setup > Tool Box > Firmware Upgrade

The screenshot displays the web interface for a Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929). The page title is "Multi-Functional Wireless 3G Mobile Router (R7.00b0 .070929)". The navigation bar includes "ADMINISTRATOR's MAIN MENU", "Status", "Wizard", and "Logout". The main menu is divided into "BASIC SETTING", "FORWARDING RULES", "SECURITY SETTING", "ADVANCED SETTING", and "TOOLBOX". The "TOOLBOX" menu is expanded, showing options: "System Info", "Firmware Upgrade", "Backup Setting", "Reset to Default", "Reboot", and "Miscellaneous". The "Firmware Upgrade" page is active, featuring a "Firmware Filename" input field with a "Browse" button. Below the input field, it states: "Current firmware version is R7.00b0 .070929. The upgrade procedure takes about 140 seconds." A note reads: "Note! Do not power off the unit when it is being upgraded. When the upgrade is done successfully, the unit will be restarted automatically." At the bottom, there are "Upgrade" and "Cancel" buttons.

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 3G Mobile Router (R7.00b0 .070929)

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

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 HSPA 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 HSPA 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 HSPA Router. The IP Address of the Wireless HSPA 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 HSPA 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 HSPA 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 W-Fi Connection. As long as you select either **WEP** or **WPA-PSK** encryption, ensure encryption settings match your W-Fi settings. Please refer to your W-Fi 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 HSPA 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 HSPA 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 HSPA 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 HSPA 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 HSPA Router. If you have enabled Encryption on the Wireless HSPA 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 HSPA Router, and your Wireless Client.
- Ensure that the SSID (Service Set Identifier) on the Wireless HSPA Router and the Wireless Client are exactly the same.

If they are not, your wireless connection will not be established.
- Move the Wireless HSPA 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 HSPA Router and the client.

Turn the Wireless HSPA 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 HSPA 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 W-Fi card will be unable to establish a proper connection.

If an encryption key setting has been set for the Wireless HSPA Router, it must also be set for the W-Fi card that will connect to the Wireless HSPA Router.

To reset the encryption key(s), login to the Wireless HSPA 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 HSPA Router to its factory default settings?

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

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

1. Ensure the Wireless HSPA Router is powered on
2. Locate the **Reset** button on the back of the Wireless HSPA Router.
3. Use a paper clip to press the **Reset** button.
4. Hold for 10 seconds and then release.
5. After the Wireless HSPA 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 HSPA 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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4. Technical Specifications

Network Interface		WMQ136	WMQ137	WMQ138	WMR297
Mobile WAN	1 x PCIe Slot for HSPA PCIe adapter	○	○	○	●
	1 x USB2.0 port for HSPA USB adapter	●	●	○	●
	1 x PCMCIA type II slot for HSPA PCMCIA adapter	○	●	●	○
Wired WAN	10/100Mbps, auto MDI/MIDX RJ45 port	1	1	1	1
Wired LAN	10/100Mbps, auto MDI/MDIX RJ45 port	1	1	1	1
Wireless LAN	1.8dBi di-pole ant. for WLAN access	1	1	1	1
Wireless Support					
Standard	IEEE 802.11b/g/n compliance	11b/g	11b/g	11b/g/	11b/g/n
Network Mode	Infrastructure mode	●	●	●	●
	Access point	●	●	●	●
Security	64-bit / 128-bit WEP Encryption; WPA / WPA2 Encryption	●	●	●	●
Functionality					
Wired WAN	Static IP /Dynamic IP/ PPPoE	●	●	●	●
Connection Scheme	Connect-on-demand, Auto-disconnect, Failover backup	●	●	●	●
NAT	One-to-Many (Max 253 Users) Virtual Server, DMZ Host	●	●	●	●
VPN Pass Through	PPTP/L2TP/IPSec	●	●	●	●
Access Control	MAC filter, SPI firewall	●	●	●	●
Cfg. Management	Web-Based UI. / SNMP / UPnP	●	●	●	●
Support protocols	UDP/TCP/IP ARP/RARP/ICMP DHCP/PPPoE/Static IP DNS/TFTP/HTTP	●	●	●	●
Environment & Certification					
Certification	FCC, CE, RoHS Compliant	●	●	●	●
Package	Dimension: 535 * 397 * 420 mm (21.1"*15.4"*16.5") Weight: 0.78Kg (1.72 lb)	●	●	●	●
Power Supply	5V/3A switching adapter	●	●	●	●
Working Environment	Temperature: 5~50°C, Humidity: 5%~95% non-condensing	●	●	●	●