



# User Manual

---

## HUMAX High Performance Router

T9, T7, T5

This user manual describes HUMAX Router T9, T7, T5.

- HUMAX T9 AC2400 High Performance Router
- HUMAX T7 AC1900 High Performance Router
- HUMAX T5 AC 1700 High Performance Router

## Contents

Chapter 1. Introducing Your Router .....	1
1.1 Package contents .....	1
1.2 Overview of the Router .....	2
1.3 Main Features .....	2
1.4 Requirements for Operation .....	4
1.5 Product Overview.....	5
Chapter 2. Connecting Your Router .....	7
2.1 Connection .....	8
2.2 Position .....	10
Chapter 3. Logging into Your Router .....	12
3.1 Access to Web Interface .....	12
3.2 Installation Wizard .....	13
3.3 Installation Wizard (Repeater Mode).....	19
Chapter 4. Knowing Connection Status .....	23
4.1 Quick Menu .....	23
4.2 Home Menu.....	23
Chapter 5. Setting Network Environment .....	27
5.1 Internet Connection .....	27
5.2 LAN Port Allocation .....	28
5.3 Operation mode Setting.....	30
Chapter 6. Setting Wireless Network .....	36
6.1 Main Network Setting.....	36
6.2 Guest Network Setting .....	38
6.3 WPS Connection.....	40
Chapter 7 Sharing Media or Server .....	42

7.1 USB Connection Setting.....	42
7.2 Network Server Setting .....	45
Chapter 8 Quality of Service (QoS).....	52
Chapter 9 Securing Up Network .....	54
9.1 Parental Control.....	54
9.2 Firewall Setting.....	55
9.3 VPN Setting .....	57
9.4 Filtering Rule Setting .....	62
Chapter 10 Setting Advanced Options.....	65
10.1 Advanced Network Setting.....	65
10.2 Advanced Wireless Network Setting .....	66
10.3 IPTV Setting.....	68
10.4 DDNS / WoL Setting .....	69
10.5 Port Forwarding Rule / DMZ Setting.....	72
10.6 Port Triggering Rule Setting.....	74
10.7 Routing Rule Setting .....	75
10.8 UPnP Setting .....	76
10.9 IPv6 Setting.....	77
10.10 Diagnosing .....	78
Chapter 11. Troubleshooting.....	80
Chapter 12. Supplemental Information.....	82






## 1. Introducing Your Router

### Chapter 1. Introducing Your Router

Thank you for purchasing a HUMAX product. Please read this user's manual carefully to be able to safely install, use and maintain the product at maximum performance. Keep this user's manual next to your product for future reference. The information in this user's manual is subject to change without notice. The detailed description may slightly differ depending on each product, and the images are merely for illustrational purposes and thus may differ from the screens you actually see.

Throughout the whole manual, pay special attention to the following marks that indicate hazardous situations.

	<b>Warning</b>	Indicates a hazardous situation which could result in serious injury.
	<b>Note</b>	Indicates additional information to make the user aware of possible problems and information of any importance to help understand, use and maintain the installation.
	<b>Tips</b>	Indicates information helpful to the user, like showing an easier way to do something.

#### 1.1 Package contents

The following items should be found in your package.

	<b>T9</b>	<b>T7</b>	<b>T5</b>
<b>HUMAX Router</b>	✓	✓	✓
<b>Power Adaptor</b>	✓	✓	✓
<b>Ethernet Cable</b>	✓	✓	✓
<b>Quick Start Guide</b>	✓	✓	✓

## 1. Introducing Your Router



Note: Make sure that the package contains the above items. If any of the listed items are damaged or missing, please contact your distributor.

### 1.2 Overview of the Router

HUMAX T9, T7, T5 AC2400/AC1900/AC1700 High Performance Router provides revolutionary Gigabit 802.11ac wireless speed up to 2400/1900/1700Mbps. HUMAX T9, T7, T5 allow users to experience outstanding Wi-Fi performance with dual band radio and MU-MIMO technology, and to enjoy CPU intensive games and 4K UHD content with Dual core-HEXA CPU.



Note: The number of ports, data rate, wireless standard and others are dependent on each model. The number of ports in the internal port range should be the same as that of external port range.

### 1.3 Main Features

HUMAX T9, T7, T5 support exceptional network security features and superior performance. For more detail, refer to the feature list of your router.

#### 1.3.1 HUMAX T9 / T7 / T5

##### **Category**

- AC2400 High Performance Router (T9)
- AC1900 High Performance Router (T7)
- AC1700 High Performance Router (T5)

##### **Wireless**

## 1. Introducing Your Router

- Complies with IEEE 802.11a/b/g/n/ac Wi-Fi Standard.
- Supports simultaneous 2.4GHz and 5GHz connections for 2400Mbps (T9), 1900Mbps (T7), 1700Mbps (T5) of total available bandwidth.

### **Internet**

- Shares data and Internet access for users, supports Dynamic IP/Static IP/PPPoE/ Internet access.
- Supports Dual WAN via 3G/4G USB dongle.

### **Ports**

- Provides one(1) 10/100/1000M RJ45 Internet port, two(2) 10/100/1000M RJ45 Ethernet ports, supporting Auto MDI/MDIX.
- Provides one(1) USB 3.0 port supporting media sharing and printer server.

### **Security**

- Provides WPA-PSK, WPA2-PSK, WPA2-Enterprise, WPA2/WPA-Enterprise, WEP(64/128bit), WPS.
- Allows guest network access that provides secure Wi-Fi access for guests to share home or office network.
- Provides WEP encryption security and wireless LAN ACL (Access Control List).
- Supports IP/MAC filter and URL filter, Access Control list.
- Supports IPv6. (Internet Protocol Version 6).
- Parental Controls allow parents or administrators to establish restricted access policies for children or staff.
- Built-in NAT and DHCP server supporting static IP address distributing.

### **Fire Sharing**

- Supports USB storage sharing, printer server, FTP server, Media server. Shares a printer locally and files & media with networked devices or remotely via FTP server.
- Supports UPnP, Dynamic DNS.

### **MU-MIMO**

## 1. Introducing Your Router

- Supports MU-MIMO (WAVE2) for communication with several devices at the same time.

### **User Interface**

- Supports installation wizard on user interface and provides detailed instructions step by step in the user guide.
- Supports automatic firmware update and Web management.
- Supports Mobile app for network configuration on iOS and Android.

### **Performance**

- Provides automatic-connection and scheduled connection on certain time to the Internet.
- Intelligent Quality of Service (QoS) makes it easier to manage the priority of devices connected to the router.
- Adopts Beamforming technology that enables highly efficient wireless connection.
- WPS button for one touch WPS connection and Wi-Fi on/off.

## 1.4 Requirements for Operation

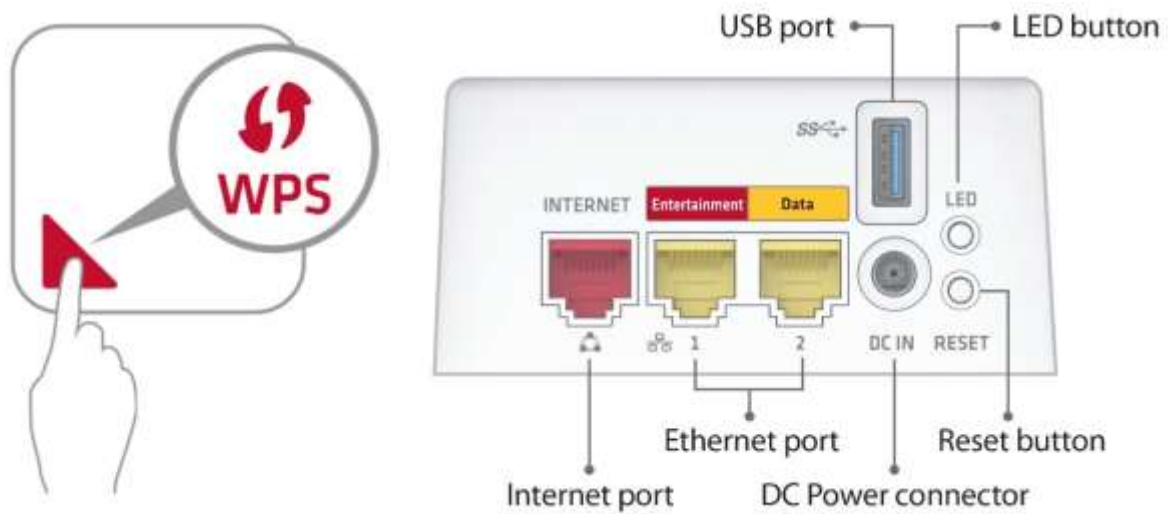
To operate your product, the following environment is required:

- Broadband Internet Access Service (xDSL, Cable, Ethernet)
- PC having an Ethernet port
- Microsoft Windows 7 or later, MAC OS 10.7 or later, Netware, UNIX or Linux
- Web browsers: Latest versions of Chrome, Firefox Safari and Safari for iOS, as well as Internet Explorer versions 9-11.
- iOS or Android for HUMAX Wi-Fi Mobile App



## 1. Introducing Your Router

### 1.5 Product Overview



#### 1.5.1 Buttons & Ports

- **WPS button** Short press for one touch WPS connection  
Long press for simple Wi-Fi on/off (more than three seconds)
- **Internet port** Use an Ethernet cable to connect to the Internet.
- **Entertainment port** Use an Ethernet cable to connect a multimedia device (ex. Gaming console, NAS, IPTV). The Entertainment port has the priority in transmitting multimedia data without transmission delay or interruption.
- **Data port** Use an Ethernet cable to connect a network device.
- **USB3.0 port** Connect a USB storage device to share files or a network printer to share it over the network.
- **LED button** Press to turn the LEDs on or off. Each time pressing the LED button, the brightness level changes to mid, low, off and high.
- **DC Power connector** Connect the AC power adaptor from the power connector to the wall outlet.

## 1. Introducing Your Router

- **Reset button** Keep pressing the reset button for 5 seconds to return to the factory default settings.



### Note

- If you want to use the router to share files or printer, plug the USB storage device(s) to the USB port(s) or connect the printer to the router with a matching cable.
- The USB port is only for USB devices like flash drives, hard drives and printers. Do not connect PCs, USB modems, CD drives, USB power bank or DVD drives.

### 1.5.2 LED Lights

You can adjust the LED brightness by pressing the LED button. Each time pressing the LED button, the brightness level changes to mid, low, off and high.

To set the LED operation, go to **System > LED Mode**. You can schedule the LED on/off time as well as adjust the LED brightness.



HUMAX router needs to be turned on.

Note that if the LED brightness is set to off, the LEDs do not emit light.



White

HUMAX router is on and Internet is active.



Green

Wi-Fi is off (Eco mode).



Orange

Something is wrong. Check your Internet and router.



Red

Stand your router upright and place it on a flat surface.

## **Chapter 2. Connecting Your Router**

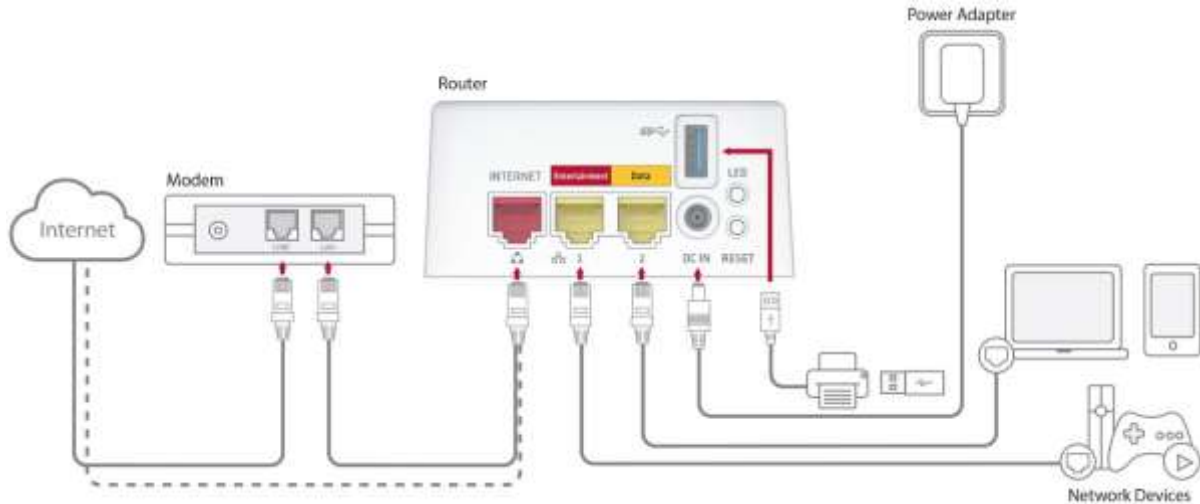
This chapter contains the following sections:

- How to connect your product to use it as a host router
- Where to locate your router to obtain maximum performance

## 2. Connecting Your Router

### 2.1 Connection

When you use your product as a host router, follow the steps below.



#### 1. Connecting the Internet

You can connect your router to the Internet over a direct WAN or through a modem.

##### Over a direct WAN

If you access the Internet by WAN broadband, plug the Ethernet cable to the red Internet port of your router.

##### Through a modem

If you access Internet by the modem such as ADSL, VDSL, cable and FTTH, plug one end of the Ethernet cable to the red Internet port of your router and the other end to the LAN port of your modem.

#### 2. Powering On

- ① Plug in the power connector from the DC IN port to an electrical outlet.
- ② If the power successfully turns on, your router lights white around the head.



Note: Use only the AC power adaptor provided in this router. Using other adaptors may damage the router.

## 2. Connecting Your Router

### 3. Connecting the Network Devices

#### Over wired Ethernet connection

- ① Turn off the Wi-Fi on your network devices such as PC, IPTV, OTT or gaming console.
- ② Connect the devices using Ethernet cables.



Note: We recommend you to connect entertainment devices such as OTT, gaming console and IPTV to the **Entertainment port**. The port has the priority in transmitting multimedia data without transmission delay or interruption.

#### Wirelessly

- ① Go to the Wi-Fi setting menu on your network devices.
- ② Select the network name (SSID) of your router from the Wi-Fi list and enter the password. If the network name is not shown, you need to enter it manually. The default network name (SSID) and password are printed on the bottom of your router.



[PC]



[Mobile Device]

#### Using WPS button

If your network device supports WPS, you can connect it to the router by simply pressing the WPS button.

## 2. Connecting Your Router

① Tap the WPS icon or press the WPS button on your network device.

② Press the WPS button on your router within 2 minutes.



Note:

- Make sure the Wi-Fi of your router is turned on. You can turn on or off Wi-Fi by long pressing the WPS button on the top of router. Green light around the head means Wi-Fi off.
- The WPS does not work when the wireless encryption protocol is set to WEP.
- Place your network device close to the router during WPS configuration.



Warning:

- Always turn off all devices before you connect or disconnect any cables including power cord.
- Hazardous electrical voltages can exist on your devices and can be present on any connected cables.

### 2.2 Position

When you install your router, there are some tips to make Wi-Fi network more stable and strong at home.

- Locate your router near the center of the area where your PC and other devices operate. The center will be the best place for optimum connection.
- Place your router in the location where it can be connected to various devices as well as to a power source.
- Safely place the cables and power cord out of the way so they do not create a tripping hazard.
- Place your router in an elevated location, minimizing the number walls and ceilings between the router and your other devices.

## 2. Connecting Your Router

- Keep away from the strong electromagnetic radiation and the device of electromagnetic sensitive.
- Stand your router on a flat surface in an upright position not to tilt it.

### 3. Logging into Your Router

## Chapter 3. Logging into Your Router

With a web-based utility, it is easy to configure and manage the router. The web-based utility can be used on any Windows, Macintosh or UNIX OS with a Web browser, such as Microsoft Internet Explorer, Google Chrome, Mozilla Firefox or Apple Safari.

### 3.1 Access to Web Interface

When you access the user interface for the first time, you need to log into the router with the default ID and password and then proceed the installation wizard.

For quick and easy setup, follow the instructions. The wizard will guide you to configure your network.

#### 1. Logging in

- ① Open the web browser.
- ② Enter `http://dearmyrouter.net` to the address bar, and then press the Enter key.
- ③ Enter the ID and password to log in to the router. The default ID and password are printed on the bottom of your router. They are case-sensitive.



Note: We recommend you change the default password to secure your network. Click the system icon at the top right and select **Change Password** to change your password.

The image shows the router's login page and a box with default settings. The login page has a 'WELCOME!' header, two input fields for 'Enter the Router Login ID' and 'Enter the Router Login Password', and a blue 'Login' button. Below the button is a small note: 'For the default ID and Password, see the label of the router.' The settings box on the right contains the following information:

**Router Login:**  
`http://dearmyrouter.net`  
**ID:** admin / **Password:** XXXX

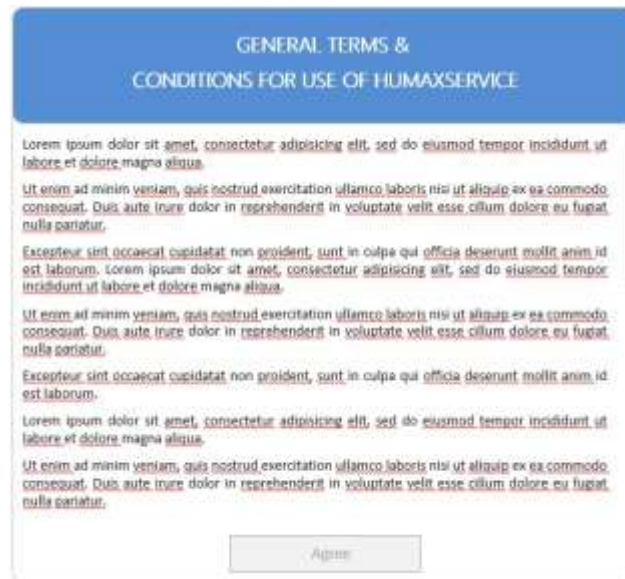
**Wireless Settings**  
2.4G SSID: We Love You So Much\_2G!  
5G SSID: We Love You So Much\_5G!  
Password: humax\_XXXX



### 3. Logging into Your Router

#### 2. Agreeing to Privacy Policy

- ① Read through the general terms & conditions to use HUMAX service. Don't forget, we will always treat all your personal information as private and confidential.
- ② Click **Agree**. Agreeing will help us improve our products, software and services in the future.

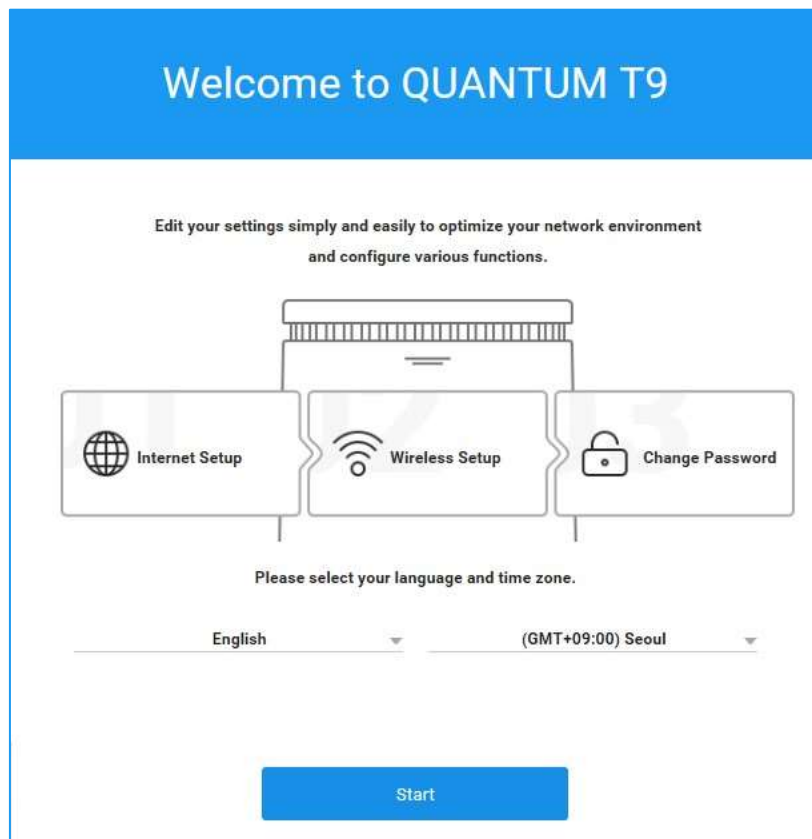


### 3.2 Installation Wizard

#### 1. Starting

- ① Select your preferred language and local time zone to set a system time on your router. If your router is connected to the Internet, the system time will be set automatically. The system language will be set according to the language of your web browser. The time-based features are considered with the system time and thus if it is not correct, the time-based features may not operate properly.
- ② Click **Start**. The system will start the installation wizard.

### 3. Logging into Your Router



Note:

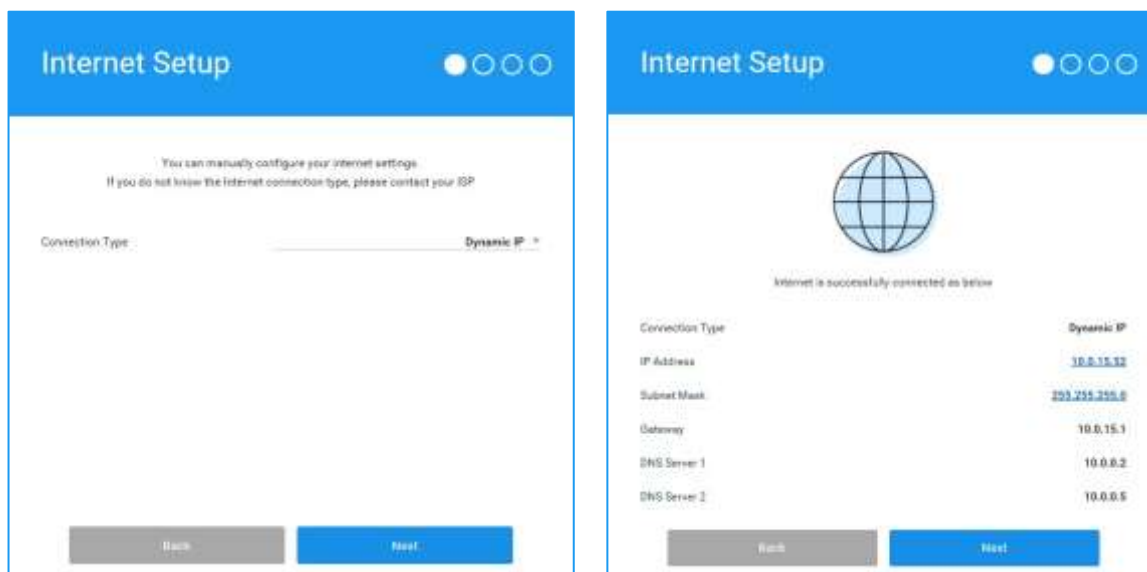
- If you want to skip the installation wizard, click **Skip**. This button is available always during proceeding the installation wizard.
- You can start the installation wizard even though you skip the procedure. Click the system icon at the top right and then select **Wizard** to start the installation wizard anytime you want.

## 2. Connecting to the Internet

### 2-1 Automatic Connection

Select **Dynamic IP** for the Internet connection type. The router will detect your Internet connection type automatically. If the automatic Internet connection is successful, click **Next**. Then, the result of Internet connection will be displayed.

### 3. Logging into Your Router



#### 2-2 Manual Connection

Select your Internet connection type from the drop-down list. In most cases, it will be **Dynamic IP**. But, the Internet connection is not working, you need to manually configure the settings. If you are not sure about the Internet connection information, contact your ISP.

- If you are provided more information such as IP address, subnet mask and default gateway, select **Static IP**. In **Static IP** type, you need to enter manually the Internet information.
- If you use DSL line and you are only provided with an account name and a password by your ISP, select **PPPoE**. Enter the information provided from your ISP.

### 3. Logging into Your Router

The image shows two side-by-side screenshots of the 'Internet Setup' page in a router's web interface. Both pages have a blue header with the title 'Internet Setup' and a progress indicator with four circles, the second of which is filled. Below the header, there is instructional text: 'You can manually configure your internet settings. If you do not know the internet connection type, please contact your ISP.' The left page is for 'Static IP' configuration, featuring input fields for 'IP Address', 'Subnet Mask', 'Gateway', 'DNS Server 1', and 'DNS Server 2', each with a placeholder text like 'Enter the IP Address'. The right page is for 'PPPoE' configuration, featuring input fields for 'User Name' and 'Password', and a 'Dynamic IP' checkbox that is checked. Both pages have 'Back' and 'Next' buttons at the bottom.

### 3. Configuring Wi-Fi

- ① Enter a new network name (SSID) and password to customize your own wireless network.
- ② Click **Next**.

The image shows a screenshot of the 'Wireless Setup' page in a router's web interface. The page has a blue header with the title 'Wireless Setup' and a progress indicator with four circles, the second of which is filled. Below the header, there is a 'Country' dropdown menu set to 'Republic of Korea'. There are two columns for configuring 2.4GHz and 5GHz wireless networks. Each column has a frequency label, a 'Network Name(SSID)' field, and a 'Password' field. The 2.4GHz SSID is 'We Love You So Much\_2G!' and the 5GHz SSID is 'We Love You So Much\_5G!'. The password fields are masked with dots. A checkbox labeled 'Same as 2.4GHz password.' is checked. At the bottom, there is a text box with instructions: 'You can change the password setting between 8 and 63 characters(letters, numbers and special characters). The default security type is WPA/WPA2-PSK(AES). If you want to change the security type, go to the Wireless > Primary Network page after complete the wizard.' Below this are 'Back' and 'Next' buttons.

### 3. Logging into Your Router



Note:

- The password type should be WPA/WPA2-PSK for authentication purposes and you can change it from 8 to 63 characters.
- Once they are changed, the wireless network will be disconnected automatically. You must enter the new SSID and password to regain access to the Internet.

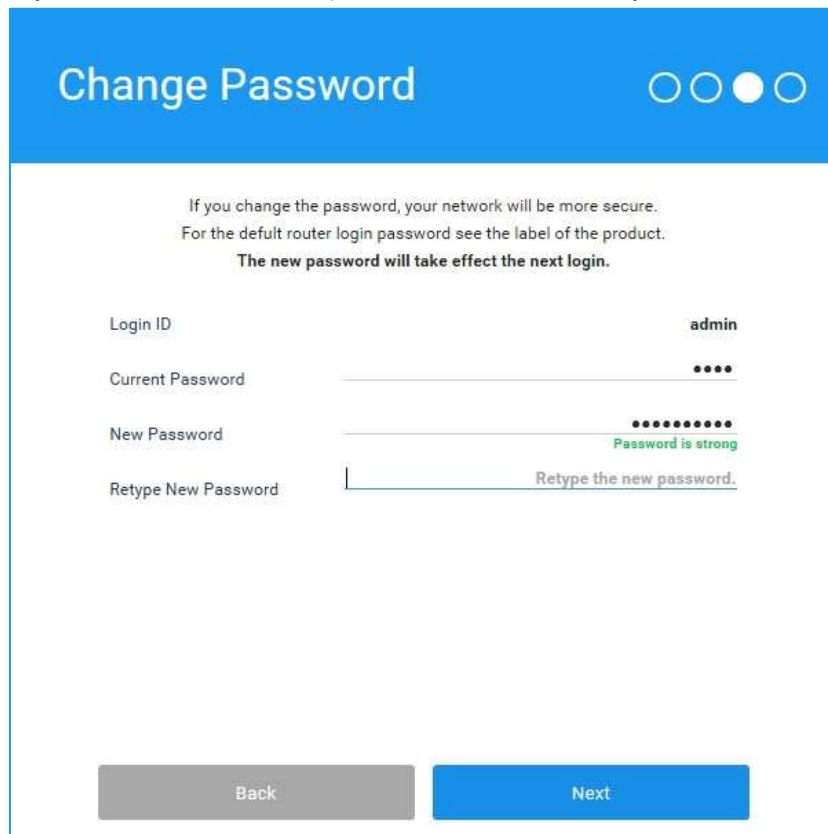
### 4. Changing Password

- ① Enter the current password.
- ② Enter a new password to change and enter it again.
- ③ Click **Next**.



Note: We recommend you change the default password to secure your network.

You can enter only letters, numbers and special characters and they are case-sensitive.



The image shows a 'Change Password' web form. At the top, there's a blue header with the title 'Change Password' and four progress indicators (three empty circles, one filled). Below the header, a message states: 'If you change the password, your network will be more secure. For the default router login password see the label of the product. The new password will take effect the next login.' The form contains four input fields: 'Login ID' with the value 'admin', 'Current Password' with masked dots, 'New Password' with masked dots and a green 'Password is strong' indicator, and 'Retype New Password' with a placeholder 'Retype the new password.'. At the bottom, there are two buttons: a grey 'Back' button and a blue 'Next' button.

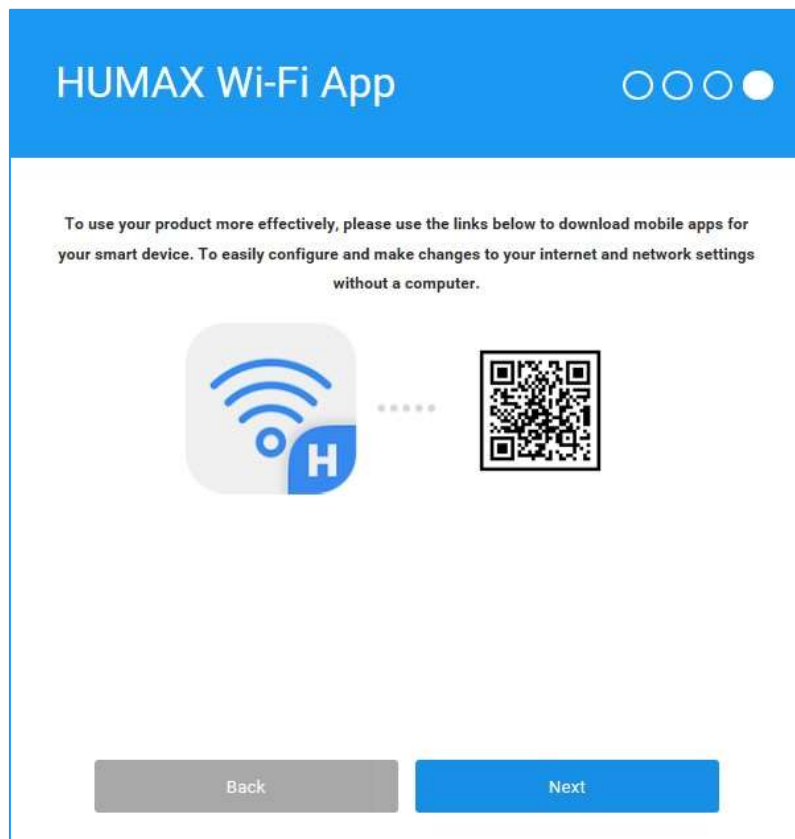
### 3. Logging into Your Router

## 5. Installing HUMAX Wi-Fi App

① Scan the QR code to download HUMAX Wi-Fi app on your mobile device.

Using your mobile device, you can manage your network environment anytime, anywhere. Refer to the mobile App manual for more detail.

② Click **Next**.



## 6. Checking Result

① Confirm the information on your network.

### 3. Logging into Your Router

② Click **Lets' go**.

## Summary

<b>Internet</b>	Connection Type	Dynamic IP
	IP Address	<a href="#">10.0.15.52</a>
	Subnet Mask	<a href="#">255.255.255.0</a>
<b>Wireless 2.4GHz</b>	Network Name (SSID)	We Love You So Much_2G!
	Password	humax_0003
<b>Wireless 5GHz</b>	Network Name (SSID)	We Love You So Much_5G!
	Password	humax_0003

Let's Go

## 7. Completing

Now, your computer and network devices can connect to the Internet over wired or wirelessly.



Tips: You can connect your computer to the router's Ethernet port using an Ethernet cable to join the local area network. You can also find and select the wireless network name on your network device to join the Wi-Fi network.

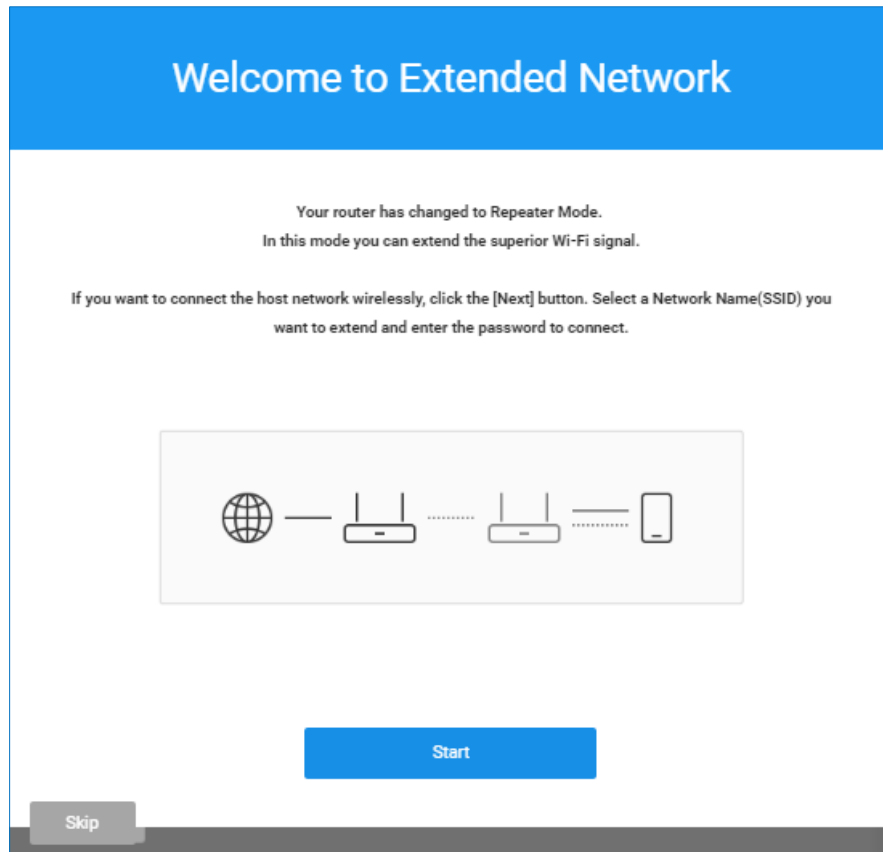
### 3.3 Installation Wizard (Repeater Mode)

After changing the operation mode to repeater mode, you can connect the router to a host router with the installation wizard of the repeater mode if it is not connected to the host router.

### 3. Logging into Your Router

#### 1. Start

- ① Click **Start**. The system starts the installation wizard in repeater mode.



**Note:**

- Click **Skip** to skip the simple setting. This button is available on all pages. Note, however, that the simple setting is recommended since the host router is not connected.
- You can run the simple setting at any time. You can start the installation wizard at any time by clicking the system icon on the upper right corner and then selecting **Simple Setting**.

#### 2. Repeater Setting

- ① Select the host router to connect and enter the password.



### 3. Logging into Your Router

## Repeater Setting

Select a Network Name(SSID) you want to extend and enter the password to connect. It is not supported for host routers whose Security Type is set to WEP.

When you connect HUMAX product only, you will experience better Wi-Fi roaming performance. Please refer to the manual or FAQ for detailed models supported.

Network Name(SSID)	CH	RSSI	Security	MAC Address	Band
Messi_5G!	161	-29	WPA2/WPA-PSK	a0:72:2c:ad:b9:a2	5GHz
T9_5G_JY!	36	-38	WPA2/WPA-PSK	a0:72:2c:f2:d8:2c	5GHz
NetworkBiz.5G	36	-39	WPA2/WPA-PSK	a0:72:2c:f3:0c:16	5GHz
ahjee3_5G!	149	-55	WPA2/WPA-PSK	40:3d:ec:a5:0e:3f	5GHz
We Love You So Much_5G!	153	-55	WPA2/WPA-PSK	40:3d:ec:89:09:50	5GHz
##T9x-Mesh-2GHz	40	-56	WPA2/WPA-PSK	40:3d:ec:89:70:50	5GHz
##T9x-Mesh-5GHz	36	-57	WPA2/WPA-PSK	40:3d:ec:89:50:50	5GHz
1234567890_5g	36	-60	NONE	4c:d0:8a:26:4a:89	5GHz

Password

Enter the password

Back

Next

Skip



#### Note

- If the security type of the host router is WEP, WPA2/WPA-Enterprise, or WPA2-Enterprise, the connection is not supported due to speed and security issues.

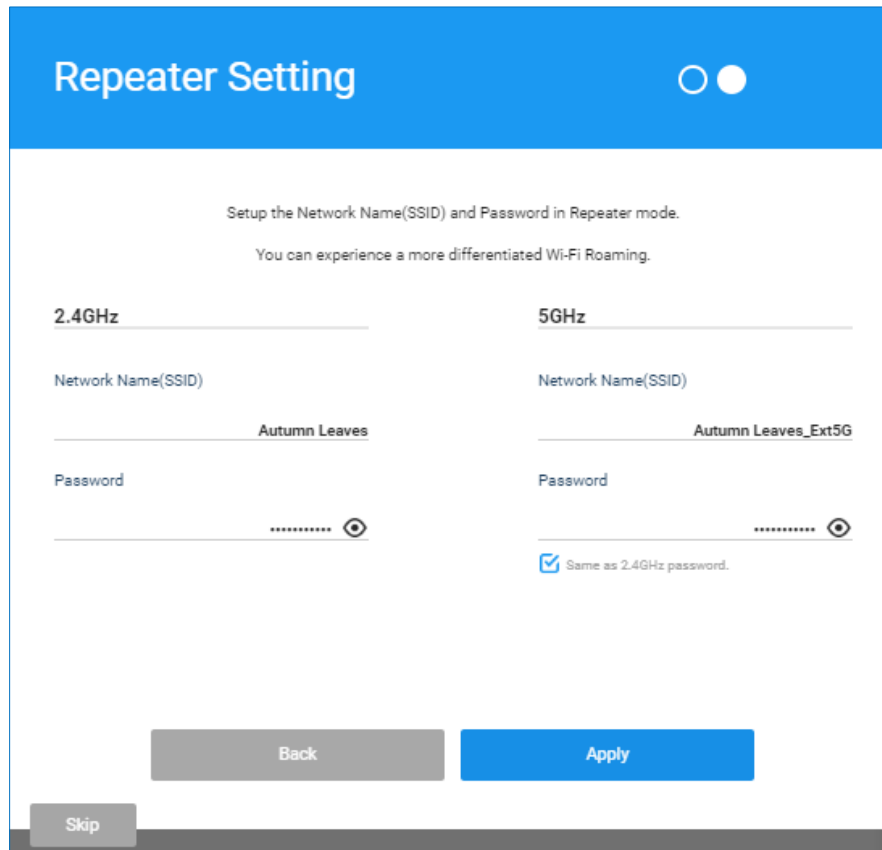
② The **Next** button is enabled if you enter a valid password. Click **Next** to proceed to the next page.

### 3. Wi-Fi Configuration

- ① Set the Network Name (SSID) and password for the repeater mode.

### 3. Logging into Your Router

Network Name (SSID) is usually the same as the network name of the host router, or it has the suffix "\_Ext2G" (or "\_Ext5G"). The password is set to be the same as that of the host router.



The image shows a web interface titled "Repeater Setting". At the top, there's a blue header with the title and two status indicators (one white circle, one black circle). Below the header, a message says "Setup the Network Name(SSID) and Password in Repeater mode. You can experience a more differentiated Wi-Fi Roaming." The interface is divided into two columns: "2.4GHz" and "5GHz". Each column has fields for "Network Name(SSID)" and "Password". In the 2.4GHz section, the SSID is "Autumn Leaves" and the password is masked with asterisks. In the 5GHz section, the SSID is "Autumn Leaves\_Ext5G" and the password is also masked. There's a checkbox labeled "Same as 2.4GHz password." which is checked. At the bottom, there are three buttons: "Skip", "Back", and "Apply".

② Click **Apply** after completion of the setting.



**Note:**

- The wireless network connection is automatically terminated after the change. You must enter the new SSID and password to connect to the Internet again.

The screen returns to the simple setting page if connection to the higher-level network fails.

**Ethernet port status:** You can check the Ethernet connection status.

# Chapter 4. Knowing Connection Status

## 4.1 Quick Menu

You can see the quick menu at the top right. Using the quick menu, you can check the Wi-Fi signal strength, access the HUMAX website and simply change the system environment.



- **Brand / Product Name** to identify the product.
- **Internet** to display Internet connection status.
- **Wi-Fi** to display Wi-Fi signal strength.
- **Help** to have direct access to the support web site of HUMAX.
- **System** to change simple settings or start the installation wizard.
- **Log out** to log out from the web interface.

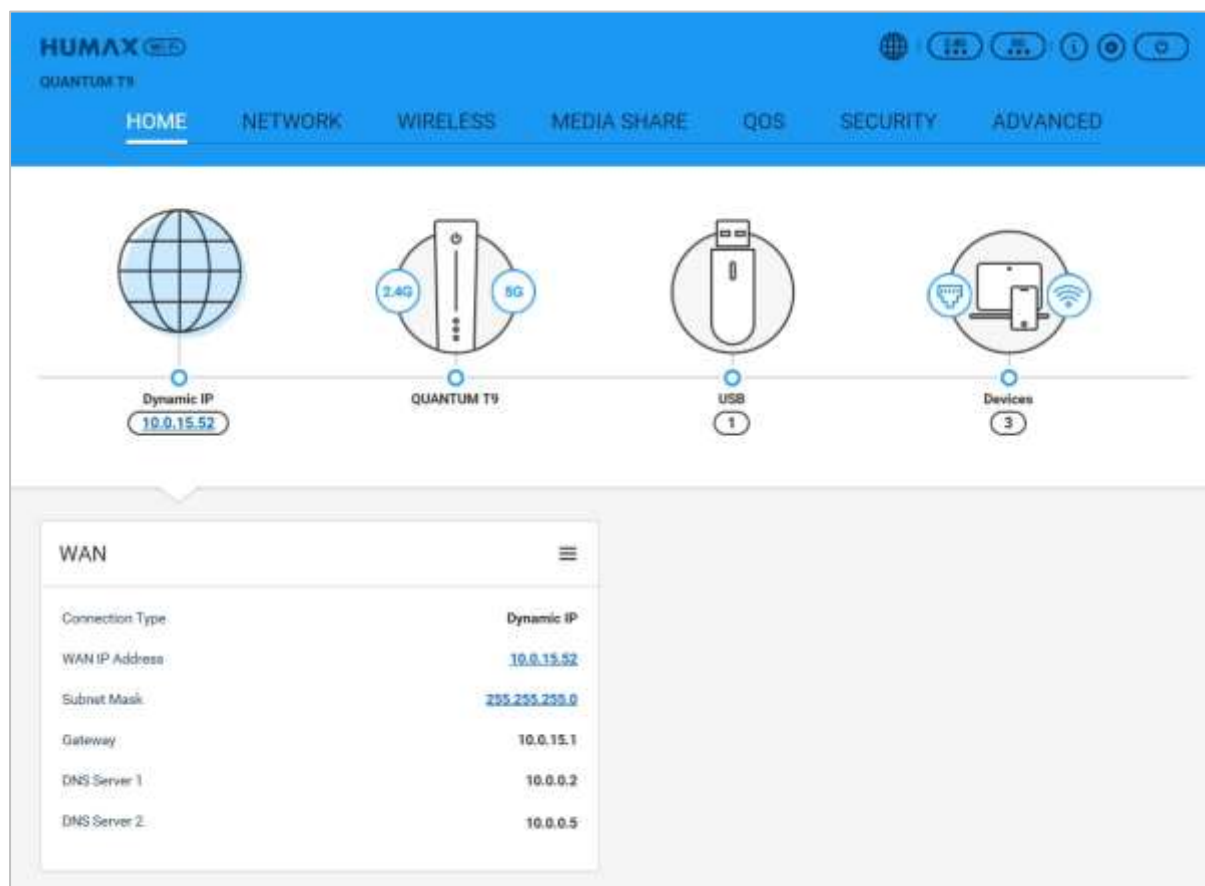
## 4.2 Home Menu

In HOME menu, you can see the information on the Internet and the connected devices. Click the images to see the information in more detail.

### Internet Connection

Click the globe image to see the Internet connection status.

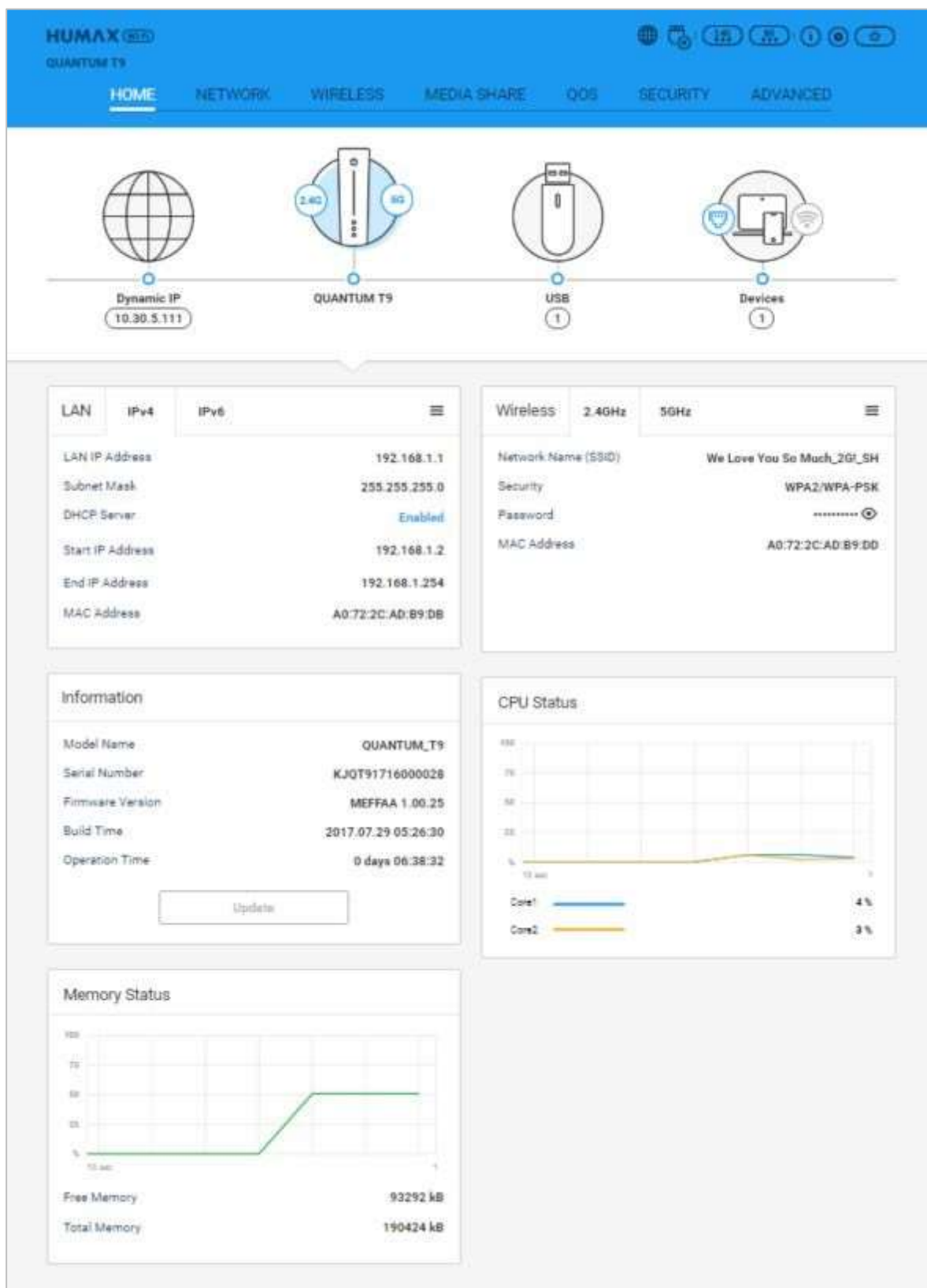
#### 4. Knowing Connection Status



#### Router Connection

Click the router image to see the information on your router.

#### 4. Knowing Connection Status



- **LAN:** You can check the connection information over IPv4 and IPv6.
- **Wireless:** You can check the wireless network connection information.

#### 4. Knowing Connection Status

- **Information:** You can check the product name and serial number. If there is a new firmware available, you can update to the latest version.
- **CPU Status:** You can check the CPU's performance currently running on your router.
- **Memory Status:** You can check the size of total and free memory.

## Chapter 5. Setting Network Environment

### 5.1 Internet Connection

#### NETWORK > INTERNET

You can set the Internet connection and check the connection status.

Internet Status	
Connection status:	Connected
IP Address:	10.0.15.22
Subnet Mask:	255.255.255.0
Gateway:	10.0.15.1
DNS Server 1:	10.0.0.2
DNS Server 2:	10.0.0.5

Internet Setting	
Connection Type:	Dynamic IP

Dual WAN	
Dual WAN:	<input checked="" type="checkbox"/>
Primary WAN:	Ethernet
Secondary WAN:	USB
Dual WAN Type:	Fail Over
<button>Apply</button>	

#### Internet Status

You can see the Internet connection status of your router.

#### Internet Setting

When you connect your router to the Internet, you can set up the Internet connection according to your Internet service provider.

① Select a connection type: Dynamic IP, Static IP, PPPoE.

If the Internet is already connected, the system automatically sets the connection type.

- If you use cable TV or fiber cable, select **Dynamic IP**. Your ISP dynamically assigns an IP address when your router establishes a connection.
- If you are provided with more information such as IP address, subnet mask and default gateway, select **Static IP**.
- If you use a DSL cable, select **PPPoE**. You need a username and password provided by

## 5. Setting Network Environment

your ISP to gain access to the Internet.

② Click **Apply** to save your changes.



Tips: If you are not sure what Internet connection type you should choose, contact your ISP.

### Dual WAN

You can use two Internet types. Apart from the dedicated Ethernet WAN port, you can either plug in a 3G or 4G USB modem or use android tethering.

① Toggle to use two Internet channels or not.

If turned on,

- **Primary WAN:** Select a main Internet channel.
- **Secondary WAN:** Select a second Internet channel.
- **Dual WAN Type:** Select **Failover** or **Load Balance** to use a single or both Internet connection. In **Failover**, when the Internet connection is down, it automatically switches to the other one. In **Load Balance**, both connections are active and a load balancer distributes client requests or network load efficiently across multiple servers.

② Click **Apply** to save your changes.

## 5.2 LAN Port Allocation

### NETWORK > LAN

You can set LAN IP address, subnet mask and DHCP server and allocate specific IP addresses to MAC address.



## 5. Setting Network Environment

The image shows two side-by-side configuration panels. The left panel, titled 'LAN', contains fields for IP Address (192.168.1.1), Subnet Mask (255.255.255.0), a DHCP Server toggle (checked), Start IP Address (192.168.1.2), End IP Address (192.168.1.254), and Lease Time (60 Minutes). The right panel, titled 'Reserved IP Address', has a table with columns 'Device Name / MAC Address' and 'IP Address'. It contains one entry with device name '1' and IP address '192.168.1.2'. Below the table are 'Save' and 'Cancel' buttons.

### LAN

① Enter the options:

- **IP Address:** Enter the IP address of your router. You can access the web UI page via the IP address. The default value is 192.168.1.1.
- **Subnet Mask:** Leave the subnet mask as the default settings.
- **DHCP Server:** Toggle to enable the DHCP server or not.
- **Start IP Address:** Enter the starting IP address to be assigned.
- **End IP Address:** Enter the ending IP address.
- **Lease Time:** Select the lease time. After the time is up, your router is automatically assigned to a new IP address.

② Click **Apply** to save your changes.



Note:

- If the LAN IP address is changed, you need to access the web page with a new address. If you are accessed to the web page with <http://dearmyrouter.net>, just refresh the web page.
- If DHCP server is turned off, all the network devices will be disconnected from the network.
- We recommend the range between start and end IP addresses is over 32.

### Reserved IP Address

## 5. Setting Network Environment

You can allocate IP addresses to MAC address. Your device is allocated for the same IP address whenever accessing the DHCP server. Allocating IP address is similar to configuring static IP address.

- ① Click **Add** to add a rule.
- ② Select a device from the list of connected devices. You can enter the MAC address if there is no device name in the list.
- ③ Enter the last digit of IP address to allocate to the selected device.
- ④ Click **Save** to list up the allocation. You can see the list of reserved IP address. To edit or delete the reserved IP address from the list, click the pencil or trash icon. To add a new rule, click **Add** to add a new rule. You can add up to 32 devices.
- ⑤ Click **Apply** to save your changes.


### 5.3 Operation mode Setting

You can set the operation mode of the router. It can operate in either Router mode, Repeater mode, or Access Point mode.

## 5. Setting Network Environment


☒ **Router Mode** Roaming Mesh

Your router connects to the internet via Dynamic IP, Static IP, PPPoE, PPTP or L2TP and shares a wired or wireless network. The NAT, DHCP server are enabled.




☐ **Repeater Mode**

In Repeater mode, your router wirelessly connects to the host router to extend the wireless coverage. In this mode, NAT is disabled and the DHCP server switches to client mode. For wireless connection, disconnect the cable from Internet Port.



☐ **Access Point Mode**

In Access Point mode, your router wired to the host router to extend the wireless coverage. In this mode, NAT is disabled and the DHCP server switches to client mode.



Apply

### Operation Mode

Select the operation mode to use.

- Router mode: ISP automatically allocates the IP address when the router is connected. The NAT and DHCP functions are executed. It is the most widely used operation mode.
- Repeater mode: The mode is used to broaden the wireless domain through the wireless connection to the host router.
- Access Point mode: The mode is used to broaden the wireless domain through the wired connection to the host router.



#### Tip

- Please inquire with your ISP (Internet Service Provider) if you are not sure which Internet connection mode to select.
- If you select the repeater mode, you need to know the Network Name (SSID), security type, and

## 5. Setting Network Environment

password of the host router.

### Settings the router to Router mode

- ① Select Router Mode.
- ② Connect the Internet cable to the WAN port.
- ③ Click **Apply** to save the change after selecting the Router mode. When you click **Apply**, a confirmation message will display asking if you want to restart the system to apply Router Mode. Click **OK** to proceed or **Cancel** to cancel the operation and move to the previous screen.



#### **Note:**

- If the LAN IP address is changed, you need to access the web page with a new address. If you are accessed to the web page with <http://dearmyrouter.net>, just refresh the web page.

### Settings the router to Repeater mode

- ① Select Repeater Mode.
- ② Click **Next** after selecting the Repeater mode. It redirects you to the page for selecting the host router.
- ③ Select the host router to connect and enter the password of the selected host router.

## 5. Setting Network Environment

### Repeater Mode

Select a Network Name(SSID) you want to extend and enter the password to connect. It is not supported for host routers whose Security Type is set to WEP.

When you connect HUMAX product only, you will experience better Wi-Fi roaming performance. Please refer to the manual or FAQ for detailed models supported.

Network Name(SSID)	CH	RSSI	Security	MAC Address	Band
Messi_5G!	161	-30	WPA2/WPA-PSK	a0:72:2c:ad:b9:a2	5GHz
T9_5G_JYI	36	-36	WPA2/WPA-PSK	a0:72:2c:f2:d8:2c	5GHz
NetworkBiz_5G	36	-40	WPA2/WPA-PSK	a0:72:2c:f3:0c:16	5GHz
We Love You So Much_5G!	153	-55	WPA2/WPA-PSK	40:3d:ec:89:09:50	5GHz
##T9x-Mesh-5GHz	36	-57	WPA2/WPA-PSK	40:3d:ec:89:50:50	5GHz
ahjlee3_5G!	149	-58	WPA2/WPA-PSK	40:3d:ec:a5:0e:3f	5GHz
1234567890_5g	36	-60	NONE	4c:d0:8a:26:4a:89	5GHz
t10x_5G_Aqing2	153	-70	WPA2/WPA-PSK	4c:d0:8a:26:6a:ca	5GHz

Enter the password

8 - 64 characters

Manual AP Scan

BackNext



### Note

- If the security type of the host router is WEP, WPA2/WPA-Enterprise, or WPA2-Enterprise, the connection is not supported due to speed and security issues.
- If you cannot find the Network Name (SSID) of the host router to connect, click **Manual AP Scan** button to enter the Network Name (SSID) for the search.

④ The **Next** button is enabled if you enter the valid password. Click **Next** to proceed to the next page.

⑤ Set the Network Name (SSID) and password for the repeater mode.

Network Name (SSID) is usually the same as the network name of the host router, or it has the suffix “\_Ext2G” (or “\_Ext5G”). The password is set to be the same as that of the host router.

## 5. Setting Network Environment

Repeater Mode

Setup the Network Name(SSID) and Password in Repeater mode.

<b>2.4GHz</b>	<b>5GHz</b>
Network Name(SSID)	Network Name(SSID)
Autumn Leaves	Autumn Leaves_Ext5G
Password	Password
*****	*****
	<input checked="" type="checkbox"/> Same as 2.4GHz password.
Back	Apply

⑥ Click **Apply**.

When you click **Apply**, a confirmation message will display asking if you want to restart the system to apply Repeater Mode. Click **OK** to proceed or **Cancel** to cancel the operation and move to the previous screen.



**Note:**

- If the LAN IP address is changed, you need to access the web page with a new address. It is available to check the new address on the host router.
- If you are accessed to the web page with <http://dearmyrouter.net>, just refresh the web page.

### Settings the router to Access Point mode

- ① Select Access Point Mode.
- ② Remove the Internet cable and connect WAN port to host router to connect.
- ③ Click **Apply** after selecting the Access Point Mode. When you click **Apply**, a confirmation message will display asking if you want to restart the system to apply Access Point Mode. Click **OK** to proceed or **Cancel** to cancel the operation and move to the previous screen.

## 5. Setting Network Environment



### **Note:**

- If the LAN IP address is changed, you need to access the web page with a new address. It is available to check the new address on the host router.
- If you are accessed to the web page with <http://dearmyrouter.net>, just refresh the web page.

## 6. Setting Wireless Network

## Chapter 6. Setting Wireless Network

Your router T9, T7, T5 uses concurrent dual band which supports both 2.4GHz and 5GHz wireless network at the same time.

## 6.1 Main Network Setting

## WIRELESS > Primary Network

You can configure the primary network and its security settings according to your needs.

2.4GHz

Network Name (SSID)

We Love You So Much\_2G!

23/30

Security

WPA2/WPA-PSK

Encryption

AES

Password

8 - 63 characters

Hide SSID

Web UI Access

MAC Address Control

5GHz

Network Name (SSID)

We Love You So Much\_5G!

33/30

Security

WPA2/WPA-PSK

Encryption

AES

Password

8 - 63 characters

Hide SSID

Web UI Access

MAC Address Control

The configuration on both 2.4GHz and 5GHz network is identical to each other. Therefore, how to configure the 2.4GHz wireless network will be described and the description for the 5GHz wireless network will be omitted.

- **Network Name (SSID):** Enter a network name of your router if you want to change it.



Note:

- We recommend you use your own unique name. The network name will be shown on a client device to identify your network from other wireless networks that are in range of your device.
- After changing the SSID, you need to restart the system and then connect to the Wi-Fi with a new SSID.
- **Security:** Select a security type for your router. Your product provides **WPA2-PSK**, **WPA2/WPA-PSK**, **WPA2-Enterprise**, **WPA2/WPA-Enterprise** and **WEP** authentication.
- **None** does not provide any security. Any devices have access to the Wi-Fi network.



## 6. Setting Wireless Network

- **WPA2-PSK** and **WPA2/WPA-PSK** provide a secure and fast connection and they are appropriate for most home networks but not business networks. For the encryption type, WPA2-Enterprises uses only AES that is faster and more secure and WPA2/WPA-Enterprise uses both AES and AES/TKIP for backward-compatibility.
- **WPA2-Enterprise** and **WPA2/WPA-Enterprise** provide the security needed for wireless networks in business environment where a RADIUS sever is deployed. For the encryption type, WPA2-Enterprises uses only AES that is faster and more secure and WPA2/WPA-Enterprise uses both AES and AES/TKIP for backwardcompatibility.
- **WEP** is a legacy 802.11 security. If selected, you need to set the encryption type, key type and password.



Note: We recommend you use the default value **WPA2/WPA-PSK** or **WPA2-PSK** for more secure and faster wireless network.

- **Encryption:** Select the encryption mode when using any of the WPA authentication schemes. **AES** provides the strongest encryption. **AES/TKIP** provides strong encryption with improved backward compatibility. The default value **AES/TKIP** is recommended.
- **Password:** Enter the password of Wi-Fi network. You can enter only letters, numbers and special characters and they are case-sensitive. The default password is printed on the label of your product. This will be required when you connect a mobile device wirelessly to your home network. You can change it proper for the security type if you want. If the security type is set to **WPA2-PSK**, **WPA2/WPA-PSK**, **WPA2-Enterprise**, **WPA2/WPA-Enterprise**, or **WEP (Character String)**, the password can be letters, numbers and special characters (!@#^&\*()+\_-={}[]:;~`\$%W;'"<>.,/) and they are case-sensitive. If set to **WEP (Hexadecimal)**, letters and numbers are allowable and they are not case-sensitive.
- **Hide SSID:** Toggle to show your network name or not. You can prevent other users from detecting your network when they scan for available wireless network.

## 6. Setting Wireless Network



Note:

- We recommend you turn it off. If turned on, the Wi-Fi is disconnected as well as you cannot use WPS connection.
- If the SSID is hidden, some devices may not detect the Wi-Fi network of your router.  
You need to manually search the SSID to connect to the Wi-Fi network.
- **Web UI Access:** Toggle to allow Wi-Fi connected devices to access the web interface or not. If turned on, you can have access to the web interface with the devices. Regardless of this option, the devices connected via wired LAN are allowed to have access to the web interface. The default value is on.
- **MAC Address Control:** Toggle to prevent unauthorized wireless devices from connecting to your network. You can allow or block the devices on your wireless network.

Click **Apply** to save your changes.

### 6.2 Guest Network Setting

#### **WIRELESS > Guest Network**

You can configure the guest network to allow wireless network access for guests without disclosing your main network.

## 6. Setting Wireless Network

The image shows two side-by-side configuration panels for wireless networks. The left panel is for the 2.4GHz band and the right panel is for the 5GHz band. Both panels have a toggle switch at the top right that is turned on (blue). Each panel contains the following fields and controls:

- Network Name (SSID):** A text input field. In the 2.4GHz panel, it contains 'HUMAX\_Guest\_2G!'. In the 5GHz panel, it contains 'HUMAX\_Guest\_5G!'.
- Security:** A dropdown menu showing 'WPA2/WPA-PSK'.
- Encryption:** A dropdown menu showing 'AES/TKIP'.
- Password:** A text input field with masked characters (dots) and a toggle to show/hide the password. Below the field, it says '8 - 63 characters'.
- Hide SSID:** A toggle switch, currently turned off.
- Web UI Access:** A toggle switch, currently turned off.
- MAC Address Control:** A toggle switch, currently turned off.
- Buttons:** At the bottom of each panel are 'Apply' (blue) and 'Cancel' (grey) buttons.

① Click **Add** to add a new rule. You can add up to 7 guest network on each band.

② Toggle to allow wireless network access for guests or not.

③ Enter the option values:

- **Network Name (SSID):** Enter another network name of your router to broadcast to your guests.
- **Security:** Select a security option for your router. Your product provides WPA2-PSK, WPA2/WPA-PSK, WPA2-Enterprise, WPA2/WPA-Enterprise and WEP authentication.



Note: We recommend you use the default value WPA2/WPA-PSK or WPA2-PSK.

- **Encryption:** Select the encryption mode when using any of the WPA authentication schemes. **AES** provides the strongest encryption. **AES/TKIP** provides strong encryption with improved backward compatibility. The default value **AES/TKIP** is recommended.
- **Password:** Enter the password for the guest network.
- **Hide SSID:** Turn it off to show the guest network name. If turned on, your guests have to manually enter the network name for wireless network access.
- **Web UI Access:** Toggle to allow the guests to access the web interface or not. If turned on, your guest can have access to the web interface with the Wi-Fi connected devices. The default value is off.

## 6. Setting Wireless Network

- **MAC Address Control:** Toggle to prevent client devices from connecting to your guest network. You can allow or block the devices on your wireless guest network.

④ Click **Apply** to save your changes. To edit or delete the guest network, click the pencil or trash icon.

The screenshot displays the wireless network configuration interface. It is divided into two sections: 2.4GHz and 5GHz. Each section contains a table with columns for Network Name (SSID), Security, and MAC Address Control. The 2.4GHz section shows a network named HUMAX\_Guest\_2G with WPA2/WPA-PSK security and MAC Address Control set to Allowed Devices. The 5GHz section shows a network named HUMAX\_Guest\_5G with WPA2/WPA-PSK security and MAC Address Control set to Allowed Devices. Both sections have a toggle switch for WPS and a button to add more devices (+ Add (1/7)).

2.4GHz			
	• Network Name (SSID)	• Security	• MAC Address Control
01	HUMAX_Guest_2G	WPA2/WPA-PSK	Allowed Devices
+ Add (1/7)			

5GHz			
	• Network Name (SSID)	• Security	• MAC Address Control
01	HUMAX_Guest_5G	WPA2/WPA-PSK	Allowed Devices
+ Add (1/7)			

## 6.3 WPS Connection

### WIRELESS > WPS

You can connect your router to a network device conveniently with Wi-Fi Protected Setup (WPS) function. WPS is a procedure for establishing secure wireless LAN connection.

The screenshot shows the WPS connection interface. On the left, there is a toggle switch labeled WPS. On the right, there is a section titled 'Use WPS Button' with a subtext: 'If your client device has a Wi-Fi Protected Setup button, press it and click the WPS button below within 120 seconds.' Below this text is a blue button labeled WPS.

① Check if your network device supports WPS feature. If not, WPS connection is unavailable.

## 6. Setting Wireless Network

- ② Place the network device next to your router.
- ③ Press the WPS buttons on both devices within 2 minutes.
- ④ When the WPS connection is successful, the message "WPS Success" will display. Just press the WPS button.



Note: If the security type is set to WEP, the WPS connection is unavailable. Go to **WIRELESS** > **Primary Network** and check first the security type is set to WPA2-PSK or WPA2/WPA-PSK.

## 7. Sharing Media or Server

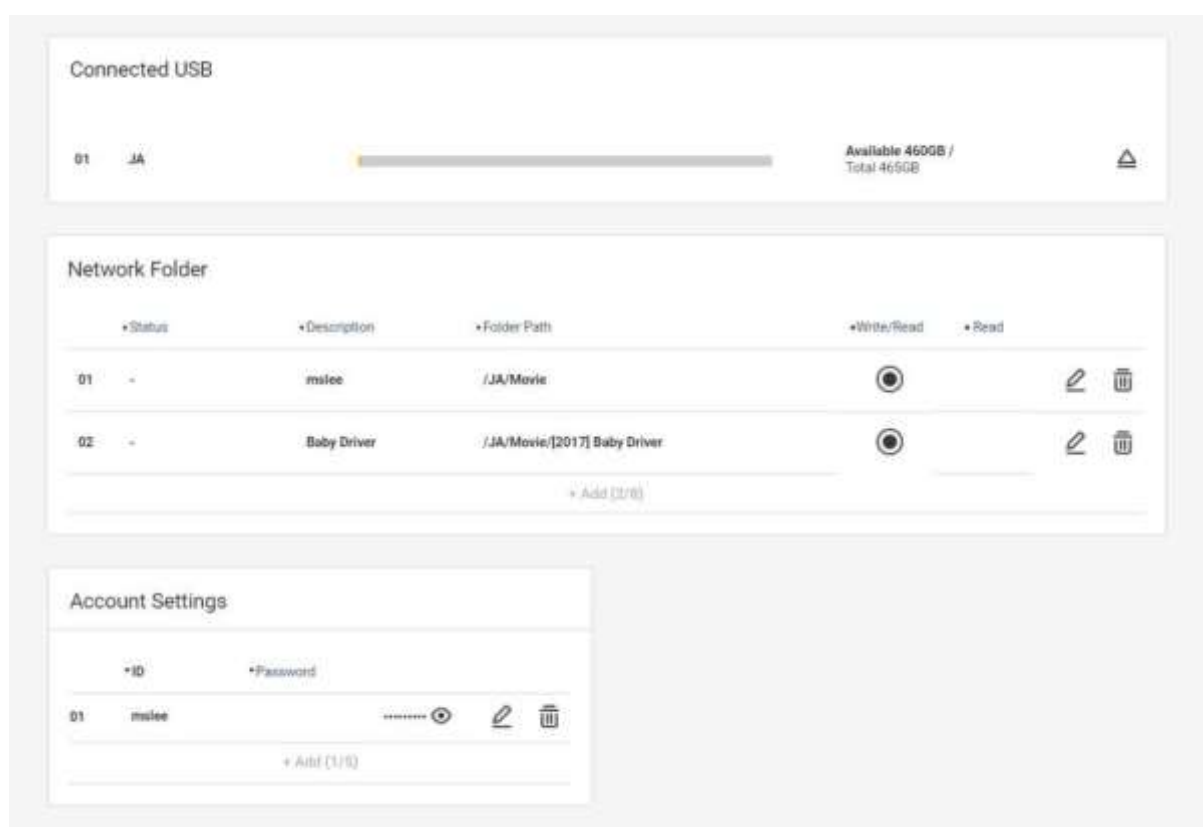
### Chapter 7 Sharing Media or Server

You can share a USB storage device and a USB printer connected to your router with client devices. In addition, you can have access to your server while you are away from your home. By default, the router acts as a media server when a USB storage device is connected to the USB port. You can enjoy various content like music, movies and photos on a DLNA/UPnP compliant media players.

#### 7.1 USB Connection Setting

##### MEDIA SHARE > USB

You can see the information on the USB device connected to your router and safely remove it from the router. This page is accessible only when a USB device is connected to the router.



##### Connected USB

- ① Insert your USB storage device into the USB port of your router.

## 7. Sharing Media or Server

② Click the refresh icon. Then, the USB connection status will be updated.

To detach the USB storage device from the router, click the remove icon to safely remove it.



Note: Ejecting a USB storage device before safely removing it may cause data loss. Your router works with USB compliant devices. The router supports the file system for read and write access as follows, but not detects the others.

- FAT32
- NTFS
- exFAT
- EXT3/EXT4

### Network Folder

Status	Description	Folder Path	Write/Read	Read
	Enter the description	/Expansion (rev:060E) Seagate	<input checked="" type="radio"/>	<input type="radio"/>

Save Cancel

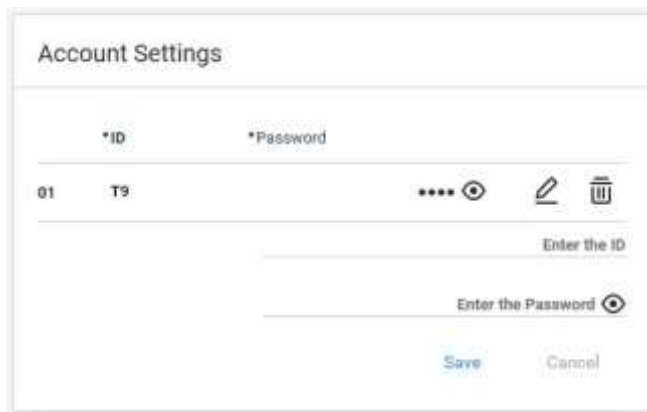
① Click **Add** to make a separate folder within the connected USB device.

② Select a destination folder and set whether to allow reading and writing or reading only. Since folders under the third level subfolder are not visible, we recommend the destination folder is not too deep.

③ Click **Save** and then **Apply** to save your changes. You can share the folder with others.

### Account Settings

## 7. Sharing Media or Server



The image shows a dialog box titled "Account Settings". It contains a table with two columns: "\*ID" and "\*Password". The first row of the table has the values "01" and "T9". To the right of the table, there are icons for adding a new account (a plus sign), editing an account (a pencil), and deleting an account (a trash can). Below the table, there are two input fields: "Enter the ID" and "Enter the Password". At the bottom of the dialog, there are two buttons: "Save" and "Cancel".

*ID	*Password
01	T9

Enter the ID

Enter the Password

Save Cancel

① Set the ID and password. The account will be required when you access the shared network folder.

② Click **Save** and then **Apply** to save your changes.



## 7. Sharing Media or Server

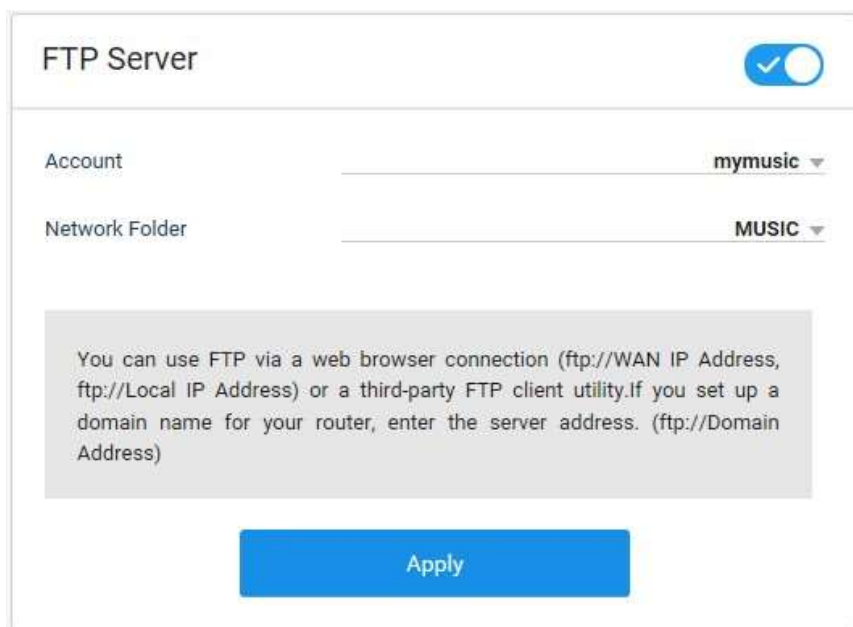
### 7.2 Network Server Setting

#### **MEDIA SHARE > Server Settings**

You can set up how to share and access a USB storage device from all clients through FTP, DLNA, Samba, or Torrent server.

To use this feature, you need to connect first a USB storage device to your router. And then, make a folder to share and create an account and password. Refer to **7.1 USB Connection Setting**.

#### FTP Server



**FTP Server** ☒

Account mymusic ▼

Network Folder MUSIC ▼

You can use FTP via a web browser connection (ftp://WAN IP Address, ftp://Local IP Address) or a third-party FTP client utility. If you set up a domain name for your router, enter the server address. (ftp://Domain Address)

**Apply**

You can access the connected USB storage device outside the local area network.

#### To set the FTP server,

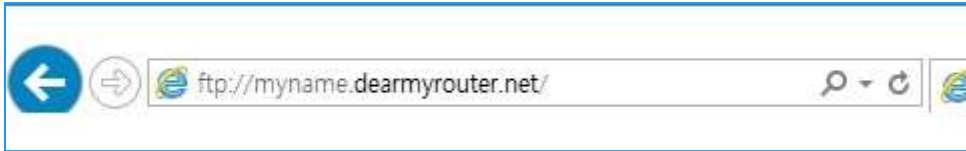
- ① Toggle to allow remote access from a FTP client to the FTP server or not.
- ② Select an account and network folder. You need it when logging in to your server.
- ③ Click **Apply** to save your changes.

#### To access remotely from your home,

- ④ Open a web browser on your PC.
- ⑤ Enter the FTP server address ftp://<WAN IP address of your router>. (ex. ftp://192.168.1.1)

## 7. Sharing Media or Server

⑥ If you set up a domain name for your router, enter the server address [ftp://domain name of your router](ftp://myname.dearmyrouter.net/). Refer to the DDNS setting page to learn how to set up a domain name for your router.



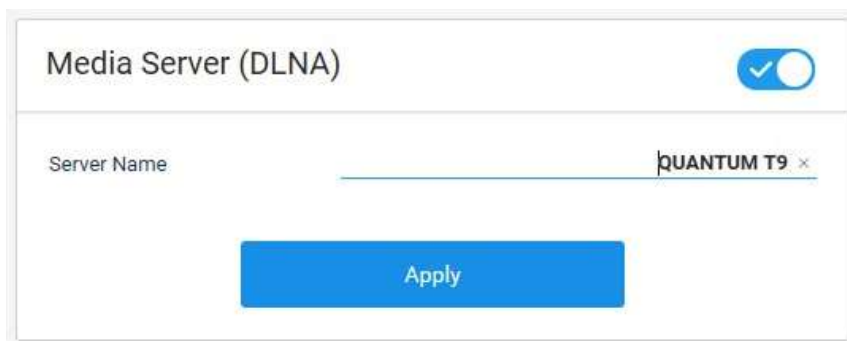
⑦ Log in to the server with the user name and password. Then, you can see the shared folder. ⑧ Enjoy multimedia contents from the USB storage device even though you are away from your home.



Note:

- To use this FTP server, you need to create an account and network folder first in **MEDIA SHARE > USB** page.
- We recommend you have remote access to the server with a domain name.

### Media Server (DLNA)



You can access the connected USB storage device on DLNA compliant devices such as Blu-ray disc players, televisions, computers, smartphones, tablets and more.

- ① Toggle to allow access to the DLNA server or not.
- ② Enter a server name to find it on your DLNA devices.
- ③ Click **Apply** to save your changes.

## 7. Sharing Media or Server

- ④ Connect your DLNA device to your router over an Ethernet cable or wirelessly.
- ⑤ Open a file sharing application on the DLNA device.
- ⑥ Enter the server name. The shared folders will be listed.
- ⑦ Enjoy multimedia contents from the USB storage device right on your DLNA device.

### Windows Network (Samba)



Windows Network (Samba)

Connection Name: samba

Account: humax

Network Folder: share

You can access the connected USB storage device through window network server. The application protocol differs depending on the operating system.

- ① Toggle to allow access to the window network server direct on your PC or not.
- ② Enter a connection name. This will be a part of server address.
- ③ Enter an account. You need it when logging in to your server. If you set to **Anonymous**, you are not required to enter the password when you have access to the samba server.
- ④ Connect your PC to your router over an Ethernet cable or wirelessly.
- ⑤ Go to the windows explorer and then enter the server address `\\192.168.1.1`. If you use a tablet PC, use a third party app for network file sharing.



## 7. Sharing Media or Server

- ⑥ Log in to the server with the account and password.
- ⑦ Enjoy multimedia contents from the USB storage device right on your PC.



Note: To use this network server, you need to create an account and network folder first in **MEDIA SHARE > USB** page.

### Torrent

The screenshot shows a web interface for the 'Torrent' section. At the top, the word 'Torrent' is displayed next to a blue toggle switch that is turned on. Below this, there are two dropdown menus. The first is labeled 'Account' and has 'test' selected. The second is labeled 'USB Device' and has 'Ultra USB 3.0 (rev:1.00) SanDisk' selected. At the bottom of the form, there is a blue link that says 'Access the Torrent Program'.

Your router works as a torrent programme and thus you can download torrent files to the USB storage connected to the router.

- ① Toggle to allow access to the torrent programme or not.
- ② Select an account and USB storage device.
- ③ Click **Access the Torrent Program**. Alternatively, open a web browser and enter the server address <http://dearmyrouter.net:9091> to the address bar.
- ④ Log in to the server with the account and password.

The screenshot shows a web browser window with the address bar set to '192.168.1.1:9091'. An 'Authentication required' dialog box is open on the right side of the browser. The dialog box contains the text 'http://192.168.1.1:9091' and 'Your connection to this site is not private'. It has two input fields: 'Username' with 'user1' entered and 'Password' with '\*\*\*\*\*' entered. At the bottom of the dialog box, there are two buttons: 'Log in' and 'Cancel'.

## 7. Sharing Media or Server

⑤ Click the folder icon and then browse a file to upload. The file will be uploaded to the torrent programme. Then, you can download the file to your USB storage device.



**Note:** Uploading too large file may affect the performance of your router.

### WebDAV Server

WebDAV Server ☒

Account

Network Folder

Port   
1024 - 49151, Default 5005

**Apply**

The LAN and external network can access the connected USB storage device.

- ① Set if you will allow remote access to the WebDAV server.
- ② Set the server user and network folder. They are necessary for login to the server.
- ③ Click **Apply** to save the change.

The links shown at the bottom enable internal and external accesses.

### Printer Server

Printer Server ☒

Device Name

Status

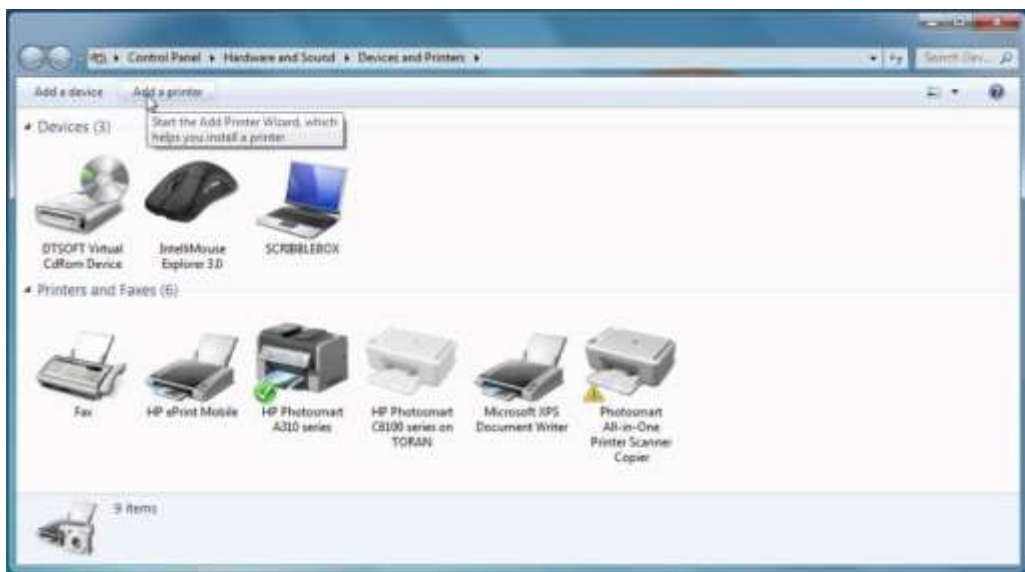
**Apply**

## 7. Sharing Media or Server

You can share a USB printer with all clients connected to your router. Note that the USB printer is connected to the USB port of your router.

- ① Connect a printer to the USB port of your router using a USB cable.
- ② Toggle on the printer server to allow access from the client devices.
- ③ Install the printer driver on each computer that needs printer service.
- ④ To install the printer driver on your PC, go to **Start > Control Pad > Device & Printers**.

Then you get the Printers page.



- ⑤ Click add a printer and then follow the printer setup wizard.



Note:

- How to add a USB printer may differ depending on the operating system of your PC.
- The USB port is only for USB devices like flash drives, hard drives and printers. Do not connect PCs, USB modems, CD drives, USB power bank or DVD drives.
- For detailed information, refer to the FAQ on the web site.

## Time Machine

A MAC user can back up the system to the connected USB device with the time machine function.

## 7. Sharing Media or Server



The screenshot shows the 'Time Machine' settings window. At the top, the title 'Time Machine' is on the left and a blue toggle switch with a checkmark is on the right. Below the title bar, there are three settings: 'Account' with a dropdown menu showing 'abcde', 'Network Folder' with a dropdown menu showing 'My favorite music', and 'Limit Volume Size' with a text field showing '0'.

Setting	Value
Account	abcde
Network Folder	My favorite music
Limit Volume Size	0

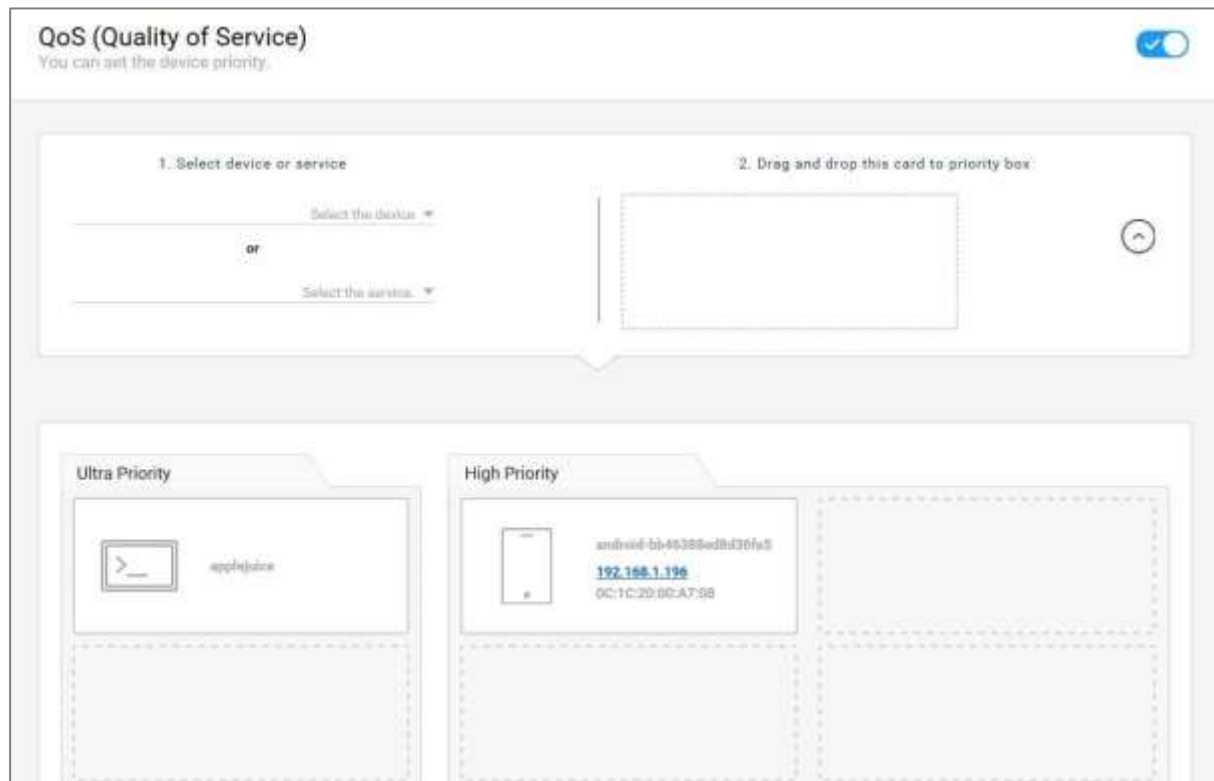
- ① Specify if you will use the time machine backup.
- ② Enter the server user account. They are necessary for login to the server.
- ③ Specify the network folder to back up.
- ④ Specify the maximum capacity of the folder to back up. Set to 0 if you want to use the maximum capacity available.
- ⑤ Click **Apply** to save the change.

## 8. Quality of Service (QoS)

# Chapter 8 Quality of Service (QoS)

### QoS (Quality of Service)

You can set a client device or service to have the priority in transmitting data without transmission delay or interruption.



When you use multiple devices or a lot of services, the prioritized device will be guaranteed first for the bandwidth. You can enjoy entertainment services without transmission delay or interruption.

### Connect to the Entertainment port,

- ① Connect an entertainment device such as OTT, gaming console and IPTV to the **Entertainment** port of your router.
- ② Toggle on the QoS to prioritize the device. Then, the device has the highest priority automatically.



## 8. Quality of Service (QoS)

### **Drag and drop the card,**

- ① Connect a device to your router over a wired Ethernet connection or wirelessly.
  - ② Toggle to prioritize a client device or not. If you turn it off, all options below will disappear. ③
- Select a device or service (ex. Youtube, Facebook) from the list. Then, the device or service will be added to the right box.
- ④ Click the card in the right box, and then drag and drop the card to the priority box. You can set the priority level to Ultra or High. The order of cards in the priority box does not matter.

## 9. Securing Up Network

# Chapter 9 Securing Up Network

You can secure a home wireless network by setting the security options. You can block inappropriate, explicit and malicious websites, and control access to specified websites during specified time.

### 9.1 Parental Control

#### SECURITY > Parental Control

You can configure the parental controls to block access to the websites by URL including specific keywords and to restrict Internet access during specified time.

Toggle to set the blocking rules or not.

#### Control Rule

The screenshot shows the 'Control Rule' configuration interface. It is divided into three columns: 'Device Name/MAC Address', 'Service Filters', and 'Block Schedule'. In the first column, there is a dropdown menu 'Select the device' and a text input field containing the MAC address '6C:96:CF:BE:13:D7'. The second column has a blue button 'Setup the Filters'. The third column has a blue button 'Setup the Schedule' and a toggle switch labeled 'Only Specific Time'. At the bottom right, there are 'Save' and 'Cancel' buttons.

- ① Click **Add** to add a rule
- ② Select a device from the list. You can enter the MAC address if there is no device name in the list.
- ③ Click **Setup the Filters** and select a service to block access to the unwanted websites. You can enter a specific keyword in the user define menu (e.g. facebook, youtube, etc.).
- ④ Click **Setup the Schedule** to block on a schedule or block all the time. The sites are only blocked during the scheduled time with certain URL or keywords.
- ⑤ Click **Save** to save your changes.

## 9. Securing Up Network



Note: Since the web pages compressed using HTTP compression cannot be filtered, you cannot use the word https as a filtering keyword. Also, the word www is not regarded as a keyword.

### Parental Code

When you access the parental control setting page for the first time and toggle on the button, you are required to set a parental control code. The code will be required whenever you have access to this page.

Parental Code

Change Parental Code

New Parental Code

New Parental Code

Retype New Parental Code

- ① Enter a new parental code and enter the code again to confirm.
- ② Click **Apply** to save your changes.

## 9.2 Firewall Setting

### SECURITY > Firewall

Firewall can protect cyber-attacks and validate the traffic that is passing through the router based on the protocol.

## 9. Securing Up Network

### Firewall

☒

Protection Level

Low

Medium

High

Allowed Service : **Total 29**

	• Service	• Port (Start - End)	• Protocol
1	AIM/ICQ	5190 - 5190	TCP
2	DHCPv6	546 - 547	UDP
3	DNS TCP	53 - 53	TCP
4	DNS UDP	53 - 53	UDP
5	FTP-S	989 - 990	TCP
6	HTTP	80 - 80	TCP

Block TCP SYN Flood

☐

×

Block IP Spoofing

☐

×

IPv6 Firewall

☒

✓

Apply

① Toggle to set a firewall.

② Click the level **Low**, **Medium** or **High** to set a protection level. Whenever the level is changed, the services allowed for the level will be listed below.

- **Block TCP SYN Flood:** Toggle to prevent SYN flood attack that works by not reacting to the server with the normal ACK code.
- **Block IP Spoofing:** Toggle to prevent IP spoof attacks or not. An IP spoof is to make packets appear to come from a trusted source.
- **IPv6 Firewall:** Toggle to use IPv6 firewall protection or not. This option is available only when the IPv6 is turned on.

Click **Apply** to save your changes.

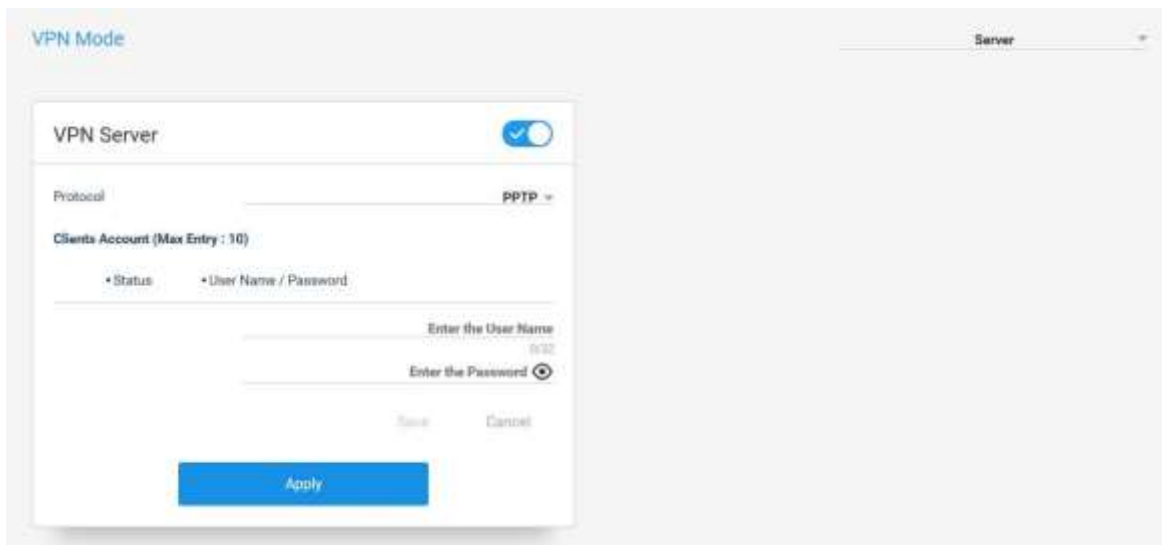
## 9. Securing Up Network

### 9.3 VPN Setting

#### SECURITY > VPN

You can configure a virtual private network (VPN) across the public network. VPN provides a secure tunnel between your home network and a remote computer. You can securely access your home network through the tunnel from anywhere.

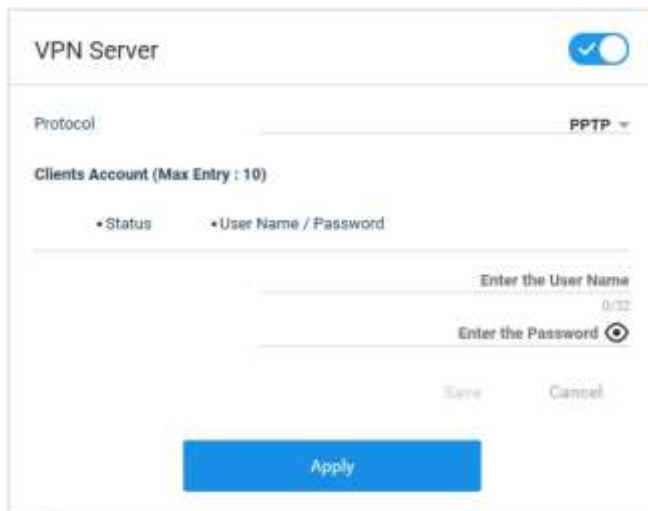
**When you use your router as a VPN server:**



- ① Select **Server** in VPN mode to use your router as a VPN server.
- ② Toggle to use a VPN connection or not.
- ③ Select a VPN type to use when a VPN server works. Available types are PPTP, L2TP and OpenVPN.

#### Using PPTP

## 9. Securing Up Network

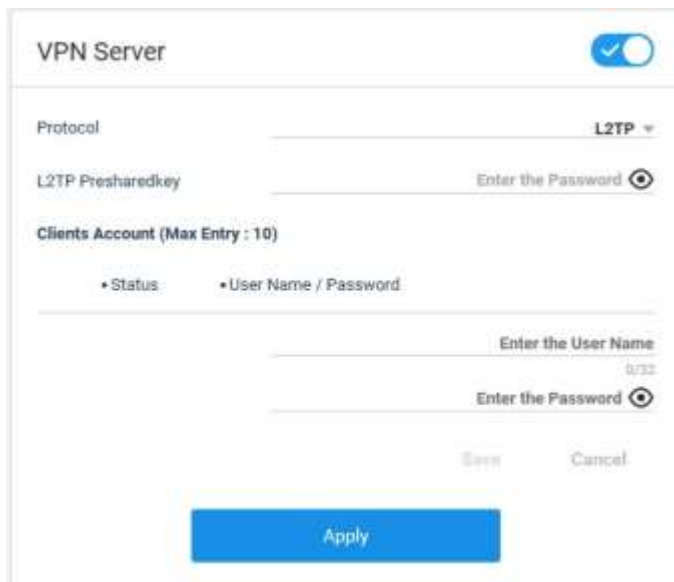


The image shows a 'VPN Server' configuration window. At the top right, there is a toggle switch labeled 'VPN Server' which is turned on. Below this, the 'Protocol' is set to 'PPTP'. Under the 'Clients Account (Max Entry : 10)' section, there is a table with two columns: 'Status' and 'User Name / Password'. Below the table, there are two input fields: 'Enter the User Name' and 'Enter the Password'. The 'Enter the Password' field has a character count '0/32' and a visibility icon. At the bottom, there are 'Save' and 'Cancel' buttons, and a large blue 'Apply' button.

④ Enter a user name and password to allow access to your home network. The password will be required when a client logs in to your home network.

⑤ Click **Save** and then **Apply** to save your changes. To edit or delete the client, click the pencil or trash icon. To add a new client allowable, click **Add**. You can add up to 10 clients.

### Using L2TP



The image shows a 'VPN Server' configuration window. At the top right, there is a toggle switch labeled 'VPN Server' which is turned on. Below this, the 'Protocol' is set to 'L2TP'. Under the 'L2TP Presharedkey' section, there is an input field labeled 'Enter the Password' with a character count '0/32' and a visibility icon. Below this, under the 'Clients Account (Max Entry : 10)' section, there is a table with two columns: 'Status' and 'User Name / Password'. Below the table, there are two input fields: 'Enter the User Name' and 'Enter the Password'. The 'Enter the Password' field has a character count '0/32' and a visibility icon. At the bottom, there are 'Save' and 'Cancel' buttons, and a large blue 'Apply' button.

④ Enter a presharedkey for the VPN connection.

⑤ Enter a user name and password to allow access to your home network. The password will be required when a client logs in to your home network.

## 9. Securing Up Network

⑥ Click **Save** and then **Apply** to save your changes. To edit or delete the client, click the pencil or trash icon. To add a new client allowable, click **Add**. You can add up to 10 clients.

### Using Open VPN

The screenshot shows a web-based configuration interface for a VPN server. At the top, there's a 'VPN Server' header with a toggle switch that is turned on. Below this, the 'VPN Type' is set to 'OpenVPN' with a dropdown arrow. The 'Auto Configuration' toggle is also turned on. There is a 'Download' button next to the 'OpenVPN File' label. Under the 'Clients Account (Max Entry : 10)' section, there's a label '• User Name / Password'. Below this, there are two input fields: 'Enter the User Name' and 'Enter the Password' (which has an eye icon for toggling visibility). At the bottom of the form, there are 'Save' and 'Cancel' buttons, and a large 'Apply' button at the very bottom.

④ Select a protocol type.

**TCP** is a connection oriented protocol and **UDP** is a connectionless Internet protocol. In TCP type, data is transmitted bidirectional and this it is more reliable than UDP.

⑤ Set a server port from 1024 to 49151. The default value is 1194.

⑥ Toggle on the authorization mode to authenticate the account or not.

⑦ Click **Download** to download the server configuration file.

⑧ Click **Add** to and then enter a user name and password to allow access to your home network.

You can add up to 10 clients. To edit or delete the client, click the pencil or trash icon.

⑤ Click **Apply** to save your changes.

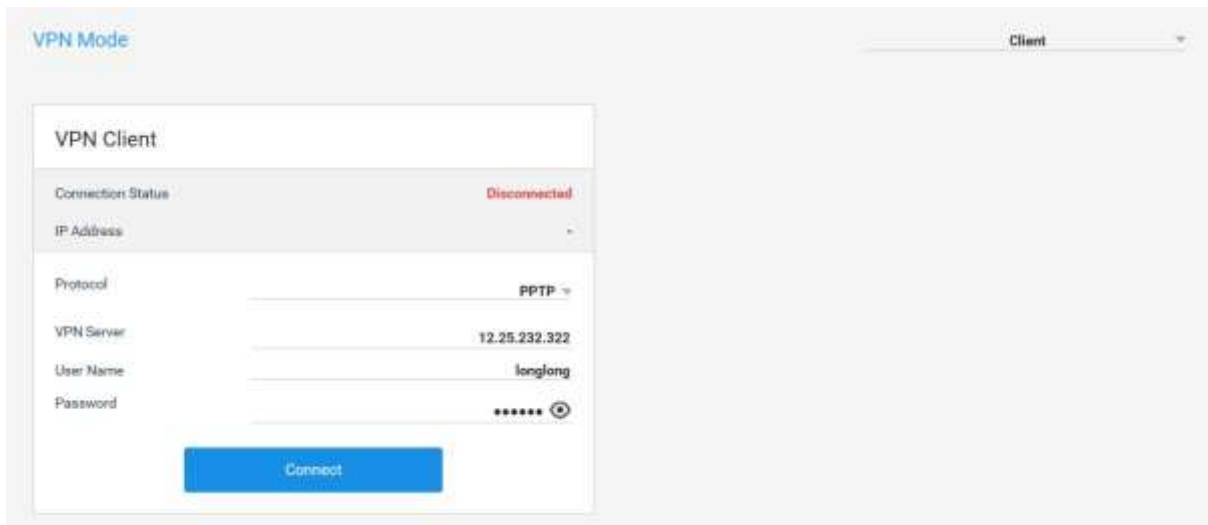


Note: This type of VPN access is called a client-to-gateway tunnel. You can access VPN server (Router) through a VPN tunnel remotely. When the router is enabled, a VPN server and you must install and run VPN client software on each Windows computer, Mac

## 9. Securing Up Network

computer, iOS device or Android device that you plan to use for VPN connections to your router. VPN uses DDNS or a static IP address to connect with your router. To use a DDNS service, register an account with a host name (sometimes called a domain name). Please refer to the DDNS explanation.

### When you use your router as a VPN client:



The screenshot shows the 'VPN Mode' configuration page with a 'Client' tab selected. The 'VPN Client' section displays the following information:

Field	Value
Connection Status	Disconnected
IP Address	
Protocol	PPTP
VPN Server	12.25.232.322
User Name	longlong
Password	*****

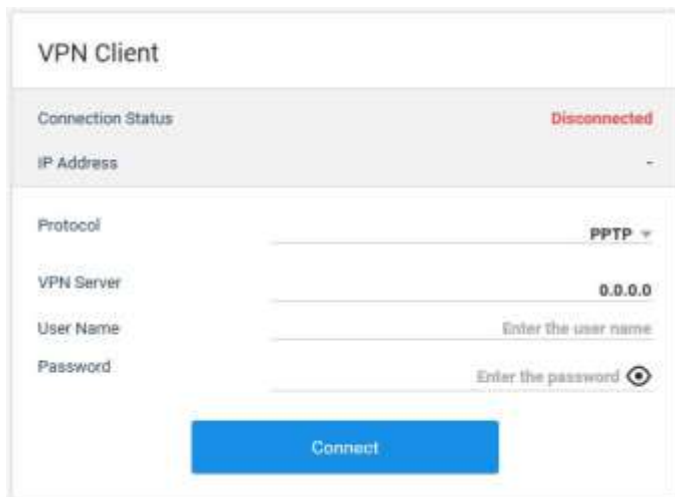
A blue 'Connect' button is located at the bottom of the configuration fields.

- ① Check whether a client is connected and the IP address assigned by a VPN server. The connection status and IP address show whether the connection is successful.
- ② Select **Client** in VPN mode to use your router as a VPN client. VPN clients can access their local network with their own user name and password.
- ③ Select a protocol to use when a VPN server works.

### PPTP



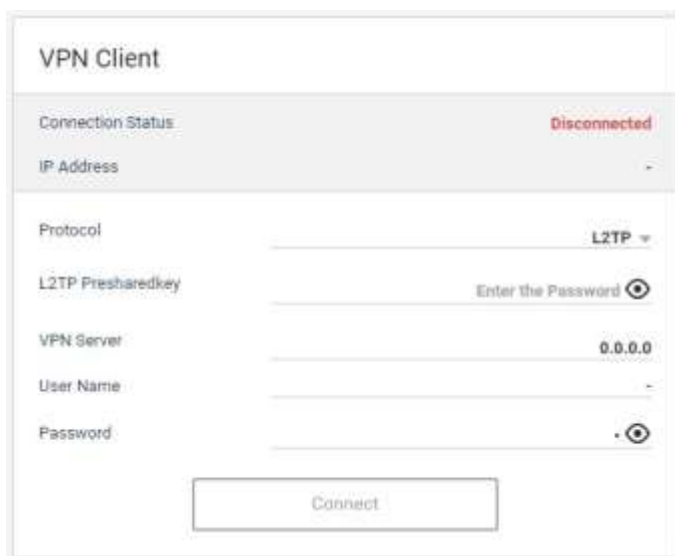
## 9. Securing Up Network



The screenshot shows the 'VPN Client' window. At the top, the 'Connection Status' is 'Disconnected' in red. Below it, the 'IP Address' field is empty. The 'Protocol' is set to 'PPTP'. The 'VPN Server' is set to '0.0.0.0'. The 'User Name' field has the placeholder text 'Enter the user name'. The 'Password' field has the placeholder text 'Enter the password' and a toggle icon. A blue 'Connect' button is at the bottom.

- ④ Enter the user name and password given by your VPN provider.
- ⑤ Click **Connect** to connect to a VPN server.

### L2TP

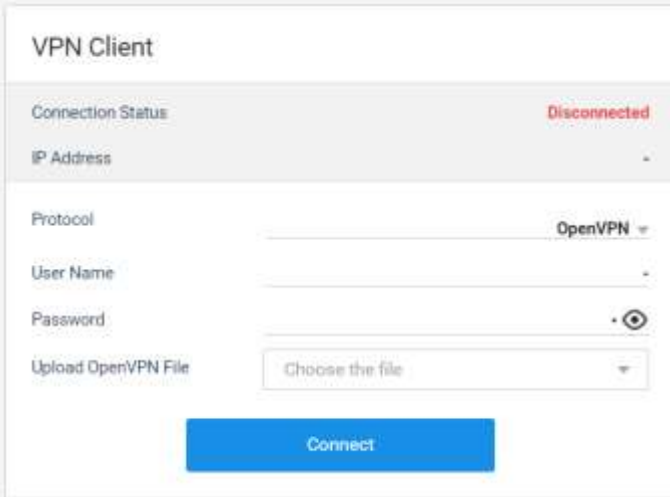


The screenshot shows the 'VPN Client' window. At the top, the 'Connection Status' is 'Disconnected' in red. Below it, the 'IP Address' field is empty. The 'Protocol' is set to 'L2TP'. The 'L2TP Presharedkey' field has the placeholder text 'Enter the Password' and a toggle icon. The 'VPN Server' is set to '0.0.0.0'. The 'User Name' field is empty. The 'Password' field has a toggle icon. A 'Connect' button is at the bottom.

- ④ Enter the VPN server address to have access to. You can enter IP address or domain address.
- ⑤ Enter the user name and password given by your VPN provider.
- ⑥ Click **Connect** to connect to a VPN server.

### Open VPN

## 9. Securing Up Network



The image shows a 'VPN Client' configuration window. At the top, the title is 'VPN Client'. Below it, the 'Connection Status' is 'Disconnected' in red text. There is a field for 'IP Address'. The 'Protocol' is set to 'OpenVPN'. There are fields for 'User Name' and 'Password' (with a toggle for visibility). Below these is an 'Upload OpenVPN File' section with a 'Choose the file' button. At the bottom is a large blue 'Connect' button.

- ④ Enter the user name and password given by your VPN provider.
- ⑤ Click **Upload** to upload the client configuration file.
- ⑥ Click **Connect** to connect to a VPN server.

### 9.4 Filtering Rule Setting

#### SECURITY > Filtering

You can configure the filtering rules to prevent network devices from sending outgoing TCP/UDP traffic to the Internet to the Internet via their MAC addresses or your router. It can be useful to prevent unauthorized devices from connecting to your network.

#### IP/Port Filtering



The image shows the 'IP/Port Filtering' configuration window. It has a table with columns: ID, Status, Description, IP Address, Port (Start-End), Protocol, and Actions. There is one rule listed with ID 01, Status 'On' (blue toggle), Description 'Another user', IP Address '192.168.1.2', Port '1 - 1', and Protocol 'TCP'. At the bottom is a '+ Add (1/32)' button.

ID	Status	Description	IP Address	Port (Start-End)	Protocol	Actions
01	<input checked="" type="checkbox"/>	Another user	192.168.1.2	1 - 1	TCP	

- ① Click **Add** to add a filtering rule. You can add up to 32 rules.
- ② Take a note to remember the rule if you need.
- ③ Enter an IP address to block access.

## 9. Securing Up Network

- ④ Enter the start and end ports to block access to the ports. If the start and end ports are the same, the single port is blocked, and if the input box is blank, any client is allowed to use the service.
- ⑤ Select a protocol from TCP, UDP or TCP+UDP. UDP controls endpoint filtering for packets of the UDP protocol, TCP controls endpoint filtering for packets of the TCP protocol.
- ⑥ Click **Save** to list up the filtering rule.

### MAC Filtering

	Device Name	MAC Address	
01		mslee2	28:F1:0E:21:62:FA
+ Add (1/32)			

**Apply**


- ① Click **Add** to add a filtering rule. You can add up to 32 rules.
- ② Select a device from the list of connected devices. You can enter the MAC address if there is no device name in the list.
- ③ Click **Save** and then **Apply** to list up the filtering rule. The devices that are restricted to have access to your network will be listed. To edit or delete the rule, click the pencil or trash icon.

## 9.5 Security Check

### SECURITY > Security Check

You can check how secure your router is and have direct access to each page for security settings.

## 9. Securing Up Network

Security check		
Login Password Changed	Yes	
Login Password Security Level	Strong	
2.4GHz Wireless Password Security Type	Good(WPA2/WPA-PSK)	
5GHz Wireless Password Security Type	Good(WPA2/WPA-PSK)	
UPnP Service	<a href="#">Enable</a>	
Remote Access	<a href="#">Enable</a>	
PING from WAN	Disable	
DMZ	Disable	
Port Triggering	Disable	
Port Forwarding	Disable	
Anonymous Login to FTP Server	Disable	

Click the refresh icon to check the current security status.

If the security is weak, the option values are displayed in red text and linked to the corresponding pages. Then, you can change the settings to secure the router.

# Chapter 10 Setting Advanced Options

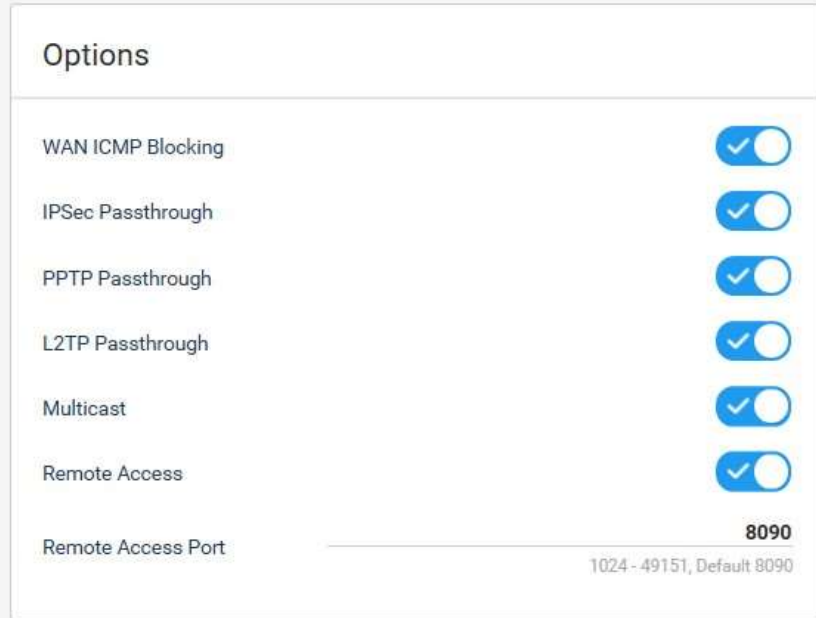
You can set the advanced network options. If you are not familiar with network settings, we recommend not to change the settings in the advanced menus. Most users have no need to change these settings.

## 10.1 Advanced Network Setting

### ADVANCED > Network

You can block network traffic from any sources in several ways.

#### Options



Option	Status
WAN ICMP Blocking	On
IPSec Passthrough	On
PPTP Passthrough	On
L2TP Passthrough	On
Multicast	On
Remote Access	On
Remote Access Port	8090

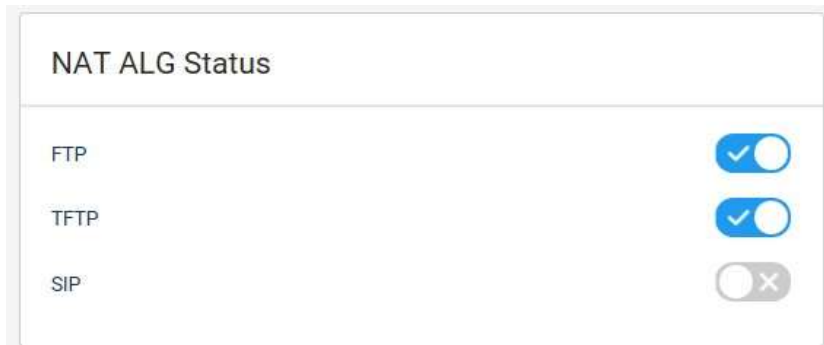
1024 - 49151, Default 8090

- **WAN ICMP Blocking:** Toggle to block ICMP ping over WAN or not. The default value is on.
- **IPSec Passthrough:** Toggle to block IPSec passthrough or not. The default value is off.
- **PPTP Passthrough:** Toggle to block PPTP passthrough or not. The default value is off.
- **L2TP Passthrough:** Toggle to block L2TP passthrough or not. The default value is off.
- **Multicast:** Toggle to allow multicast from broadband network or not. The default value is on.
- **Remote Access:** Toggle to allow remote access to your router or not. You can view or configure router's settings over the Internet. The default value is off.

## 10. Setting Advanced Options

- **Remote Access Port:** Enter the port number to access the router remotely when the remote access is allowed. This number will be needed when you enter the WAN IP address or when you remotely access the router. You can set the port number from 1024 to 49151 and the default value is 8090.

### NAT ALG Status.



The image shows a configuration window titled "NAT ALG Status". It contains three rows, each with a protocol name on the left and a toggle switch on the right. The first row is for "FTP" with a blue toggle switch that is turned on (indicated by a checkmark). The second row is for "TFTP" with a blue toggle switch that is also turned on (indicated by a checkmark). The third row is for "SIP" with a grey toggle switch that is turned off (indicated by an 'x').

NAT ALG Status	
FTP	<input checked="" type="checkbox"/>
TFTP	<input checked="" type="checkbox"/>
SIP	<input type="checkbox"/>

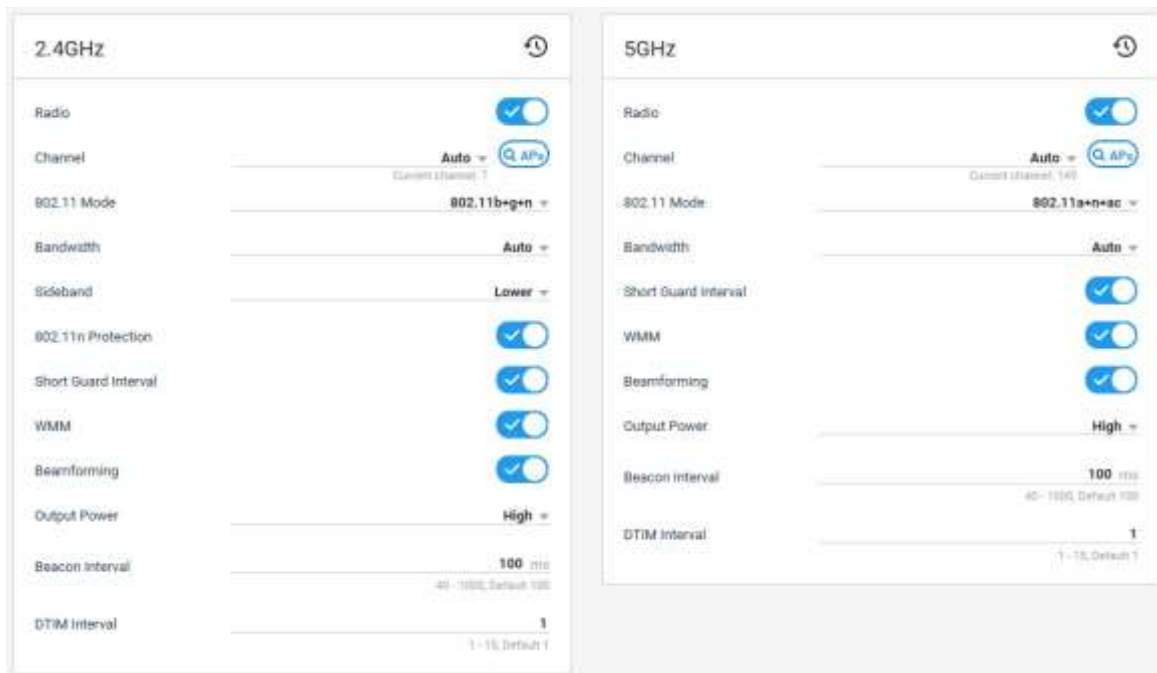
- **FTP:** Toggle to allow remote access from an FTP client to the FTP server or not.
- **TFTP:** Toggle to use trivial file transfer protocol (TFTP) or not. TFTP allows a user to get a file from or put a file onto a remote host.
- **SIP:** Toggle to use session initiation protocol (SIP) or not.

## 10.2 Advanced Wireless Network Setting

### ADVANCED > Wireless

You can configure the wireless network and its security settings according to your needs.

## 10. Setting Advanced Options



**Radio:** Toggle to use wireless network or not. If you turn it off, all the options below will disappear and you cannot use Wi-Fi.

- **Channel:** Select an operating channel for the wireless network. The default value is **Auto** that enables selecting an optimal channel for the current network environment.
- **802.11 Mode:** Select 802.11 mode according to your wireless client devices to allow 802.11 supported devices on your wireless network.
- **Bandwidth:** Select a channel width for the wireless network. The default value is **Auto** that enables setting an optimal bandwidth for the current network environment.
- **Sideband:** Select **Upper** to use higher frequency band than the carrier frequency or **Lower** below it.
- **802.11n Protection:** Toggle to enable the protection mechanisms or not. This feature is supported only in 802.11n, 802.11g+n or 802.11b+g+n. You can see this option only at 2.4GHz band.
- **Short Guard Interval:** Toggle to lower the interval or not. If turned on, data rate will be increased.

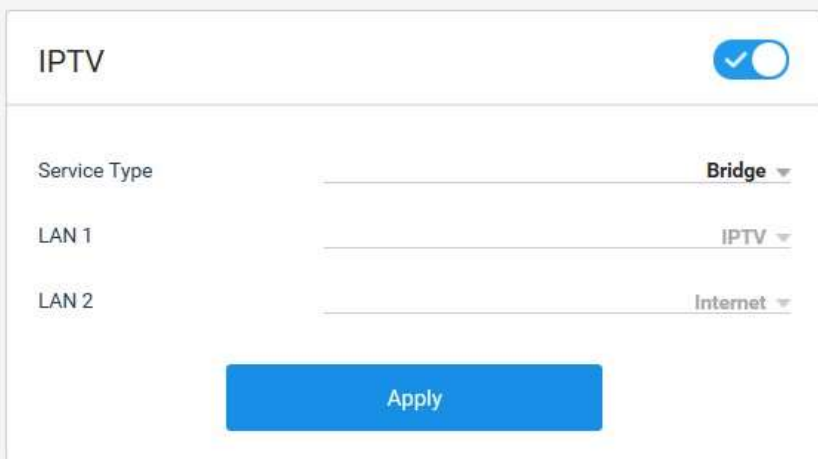
## 10. Setting Advanced Options

- **Wi-Fi Multimedia (WMM):** Toggle to give the priority to Wi-Fi multimedia data or not. The multimedia data packets have a higher priority than normal traffic.
- **Beamforming:** Toggle to allow the AP to effectively concentrate its signal at the client device.
- **Output Power:** Set the radio signal strength. Medium is 25% lower and low is 50% lower than high level. The default value is **High**. The medium and low options affect wireless signal attenuation.
- **Beacon Interval:** Enter the beacon interval in milliseconds for the AP. The default is 100, which is fine for nearly all applications.
- **DTIM Interval:** Enter the data beacon rate to set the wakeup interval for clients in power-save mode. When a client is running in power save mode, lower values provide higher performance but result in decreased client battery life while higher values provide lower performance but result in increased client battery life. The default value is 1.

### 10.3 IPTV Setting

#### ADVANCED > IPTV

You can set up the LAN port to use IPTV, IP-phone and Internet services that are available only through the Internet. Your product has a LAN port for gaming and streaming IPTV and IP phone service. We recommend you connect the IPTV or IP phone to the Entertainment port.



The screenshot shows a web interface for IPTV settings. At the top, the word "IPTV" is displayed next to a blue toggle switch that is turned on. Below this, there are three rows of configuration options. The first row is labeled "Service Type" and has a dropdown menu currently set to "Bridge". The second row is labeled "LAN 1" and has a dropdown menu set to "IPTV". The third row is labeled "LAN 2" and has a dropdown menu set to "Internet". At the bottom of the form is a large blue button labeled "Apply".



## 10. Setting Advanced Options

- **IPTV:** Toggle to use IPTV service or not. If you turn it off, all the options below will disappear.
- **Service Type:** Select an appropriate connection mode for your ISP. If there is no your ISP in the list, select **User Define**. In User Define, you can set the IPTV, IP-phone and Internet service for each LAN port. For each service, you can set the VLAN ID and VLAN priority. For **Singapore-ExStream, Malaysia-Unifi, Malaysia-Maxis, SKB/LGU+ or KT**, connect the device to the preset LAN port. The VLAN ID and the VLAN priority are automatically preset and thus you do not need to enter each value.
- **LAN Port 1, 2:** LAN port options are activated if available. Select a LAN port to connect your IPTV, IP phone and Internet service.

Click **Apply** to save your changes.

### 10.4 DDNS / WoL Setting


#### **ADVANCED > DDNS/WoL**

You can set a domain name utilizing Dynamic Domain Name Service for your router to have access to your router and local network. Your Internet Service Providers (ISPs) assign a dynamic IP addresses to identify each Internet account because variable IP address is assigned dynamically. You can use the IP address to access your router remotely. However, the IP address dynamically changes and you cannot know it whenever it changes. In this case, you can access the router using the domain name if the DDNS is registered.

#### **DDNS**

To use free HUMAX account,

## 10. Setting Advanced Options

DDNS 

Connection Status **The update was successful, and the hostname is now updated**

IP Address 59.12.187.126

Service Provider

Host Name

You can access from anywhere at the address below.  
<http://myname.dearmyrouter.net:8090>

**Apply**

- ① Open a web browser on a PC or Wi-Fi device that is connected to the network.
- ② Enter <http://dearmyrouter.net>. A login page will display.
- ③ Log in with the ID and password. The default ID and password are printed on the bottom of your product. The ID and password are case-sensitive.
- ④ Go to **Advanced > DDNS / WoL**.
- ⑤ Toggle on to use a dynamic DNS service.
- ⑥ Select **HumaxDDNS** from the service provider list.
- ⑦ In the host name field, type the name you want to use for your URL. You can enter up to 32 alphanumeric characters or the hyphen (-) character, but it cannot start or end with a hyphen (-).

If a host name is already in use, another name will be recommended.

Your free URL includes the host name that you specify and ends with dearmyrouter.net. For example, specify <http://myname.dearmyrouter.net:8090>. When you remotely access your router, enter myname.dearmyrouter.net:8090. You can change the remote access port number 8090 in **ADVANCED > Network**, but we recommend you use the default value.

- ⑧ Click **Apply** to save the DDNS name. Then the URL will be displayed and you can be redirected to the path.

To use the others,

## 10. Setting Advanced Options

DDNS ☒

Connection Status **The update was successful, and the hostname is now updated**

IP Address 59.12.187.126

Service Provider  <https://dyndns.org>

User Name/Email

Password

Domain Name

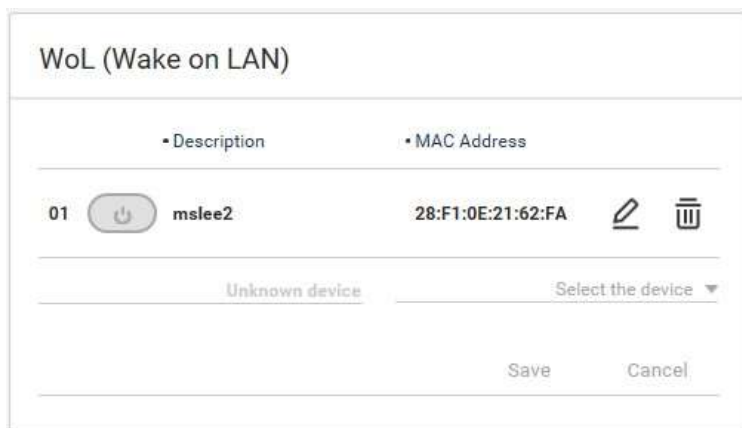
**Apply**




If you already have a DDNS account with other DDNS services like Dynamic DNS, No-IP or Duck DNS you can set up the router to use your account.

- ① Open a web browser on a PC or Wi-Fi device that is connected to the network.
- ② Enter <http://dearmyrouter.net>. A login page will display.
- ③ Log in with the ID and password. The default ID and password are printed on the bottom of your product. The ID and password are case-sensitive.
- ④ Go to **Advanced > DDNS / WoL**.
- ⑤ Toggle on to use a dynamic DNS service.
- ⑥ Select one from the service provider list.
  - <https://dyn.com/dns/>
  - <https://www.noip.com/>
  - <http://www.duckdns.org/>
- ⑦ In the host name field, type the name (sometimes called the domain name) for your account.
- ⑧ For noip.com or dyn.com account, in the user name field, enter the user name for your account.
- ⑨ In the password field, type the password for your DDNS account.
- ⑩ Click **Apply** to save your changes.

## 10. Setting Advanced Options

### WoL (Wake on LAN)



• Description		• MAC Address	
01	 mslee2	28:F1:0E:21:62:FA	 
Unknown device		Select the device ▼	
		Save Cancel	

You can turn on or wake your PC remotely over the Internet.

- ① Click **Add** to register a device.
- ② Select a wired-connected device from the list or directly enter the MAC address.
- ③ Click **Save** and then **Apply** to add the device. To edit or delete the device, click the pencil or trash icon.



Note: This feature is available on the device connected to your router over a wired Ethernet connection.

## 10.5 Port Forwarding Rule / DMZ Setting

### ADVANCED > Port Forwarding/DMZ

#### Port Forwarding

You can run a publicly accessible server on the LAN to grant controlled access to the PCs or mobile devices over your network to other clients. Specify the mapping of TCP/UDP ports to a local LAN.

This will be used to open multiple ports in your router and redirect data through those ports to a single PC on your network. You need networking knowledge to set up these features.

## 10. Setting Advanced Options

	* Service Type	* IP Address	* Local Port (Start-End)	* External Port (Start-End)	* Protocol	
01	<input checked="" type="checkbox"/> HTTP	192.168.1.2	80 - 80	80 - 80	TCP/UDP	

+ Add (1/20)

Apply

① Click **Add** to add a rule.

② Select a service type from the list.

③ Enter the IP address.



Note: Since dynamically assigned IP addresses vary, we recommend you allocate a static IP address.

④ Enter the local and external port ranges. The range can be from 0 to 65535. For the local and external ports, refer to your network devices.

⑤ Select a port protocol from TCP, UDP or TCP+UDP. If you are not sure, select **TCP+UDP**.

⑥ Click **Save** and then **Apply** to save your changes.



Note: If your home network includes a server, you can allow certain types of incoming traffic to reach the server. For example, you might want to make a local web server, FTP server or game server visible and available on the Internet. The router can forward incoming traffic with specific protocols to PCs on your local network. You can specify the servers for applications and you can also specify a default DMZ to which the router forwards all other incoming protocols.

### DMZ

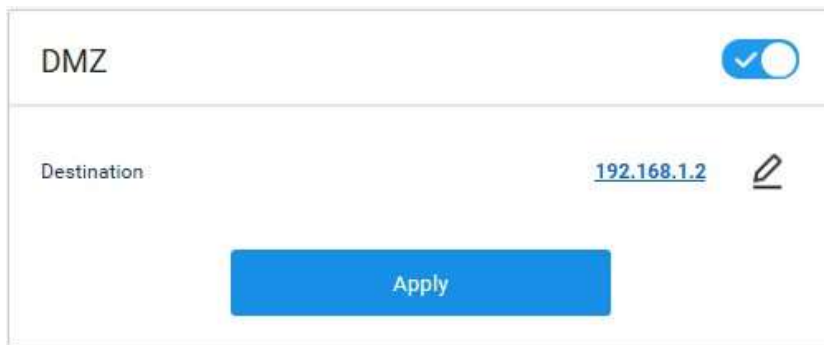
You can configure the DMZ to make applications free from port restrictions.

When a PC is set to be a DMZ host in the local network, it is totally exposed to the Internet, which can realize the unlimited bidirectional communication between internal hosts and external hosts.

The DMZ host becomes a virtual server with all ports opened. When you are not clear about

## 10. Setting Advanced Options

which ports to open in some special applications, such as IP camera and database software, you can set the PC to be a DMZ host. But, in this case, all ports open and it may cause security vulnerable.



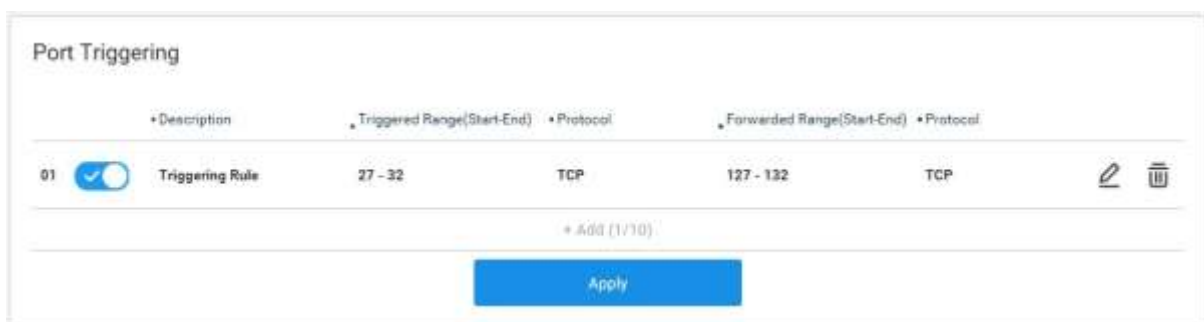
The image shows a DMZ configuration window. At the top, there is a toggle switch labeled 'DMZ' which is currently turned on (indicated by a blue checkmark). Below this, there is a 'Destination' field containing the IP address '192.168.1.2'. To the right of the IP address is an edit icon (a pencil). At the bottom of the window is a large blue button labeled 'Apply'.

- ① Toggle to configure a DMZ host or not.
- ② Enter the host IP address.
- ③ Click **Apply** to save your changes.

## 10.6 Port Triggering Rule Setting

### ADVANCED > Port Triggering

You can configure a port triggering rule to control communication between internal and external host devices in an IP network. By setting up port triggering, your network devices will have access to the Internet without any interruption.



The image shows the 'Port Triggering' configuration window. It features a table with columns: 'Description', 'Triggered Range(Start-End)', 'Protocol', 'Forwarded Range(Start-End)', and 'Protocol'. There is a single rule listed with ID '01', a checked toggle, description 'Triggering Rule', triggered range '27 - 32', protocol 'TCP', forwarded range '127 - 132', and protocol 'TCP'. To the right of the rule are edit and delete icons. Below the table is a link '+ Add (1/10)'. At the bottom is a large blue button labeled 'Apply'.

ID	Description	Triggered Range(Start-End)	Protocol	Forwarded Range(Start-End)	Protocol
01	Triggering Rule	27 - 32	TCP	127 - 132	TCP

- ① Click **Add** to add a triggering rule.
  - ② Enter the option values.
- **Description:** Take a note to remember the rule if you need.
  - **Triggered Range(Start-End):** Enter a port range. You can set the range from 0 to 65535.

## 10. Setting Advanced Options

- **Protocol:** Select a protocol to apply to the triggered ports.
  - **Forwarded Range(Start-End):** Enter a forwarding range. You can set the range from 0 to 65535.
  - **Protocol:** Select a protocol to apply to the forwarded ports.
- ③ Click **Save** and then **Apply** to save your changes.

### 10.7 Routing Rule Setting

#### ADVANCED > Routing

##### Static Routing

You can manually set the network routing path of packets for data to travel from one network to another with optimal speed and minimal delay.

Status	Destination IP	Subnet Mask	Gateway
	0.0.0.0	255.255.255.0	0.0.0.0

Save Cancel

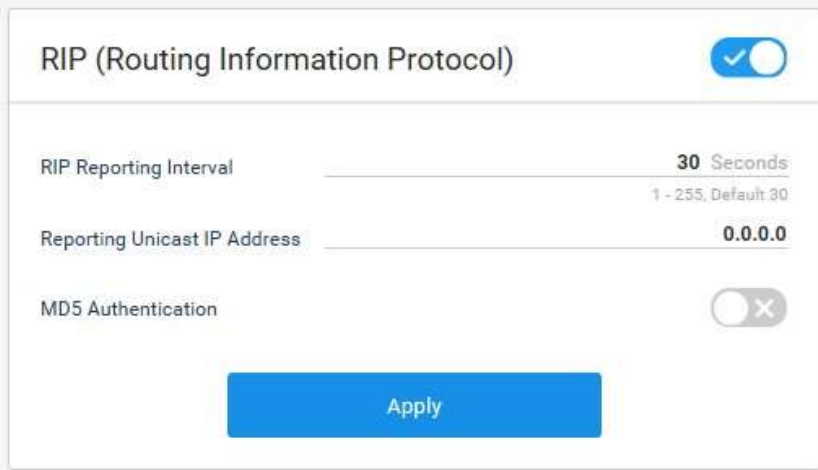
Apply

- ① Toggle to use static routing or not. The default value is off.
- ② Click **Add** to add a rule.
- ③ Enter the option values:
- **Destination IP Address:** Enter a destination IP address.
  - **Subnet Mask:** Enter a subnet mask.
  - **Gateway:** Enter a gateway address.
- ④ Click **Save** to save your changes and then **Apply** to list up the fixed network routes.

##### RIP (RIP (Routing Information Protocol))

## 10. Setting Advanced Options

You can set the RIP parameters to employ the hop count as a routing metric. RIP prevents routing loops by implementing a limit on the number of hops allowed in a path from source to destination.



- ① Toggle to use RIP or not. The default value is off.
- ② Enter the option values:
  - **RIP Reporting Interval:** Enter a time interval between routing updates. The default value is 30 seconds.
  - **Reporting Unicast IP Address:** Enter the IP address to report.
- ③ Toggle to use MD5 Authentication or not.
  - **MD5 Authentication Key ID:** Enter a key ID used when a receiving routing device verifies the packet.
  - **MD5 Authentication Key String:** Enter an authentication key password used to authenticate sent and received packets.
- ④ Click **Apply** to save your changes.

### 10.8 UPnP Setting

**ADVANCED > UPnP**



## 10. Setting Advanced Options

Universal Plug and Play (UPnP) helps devices, such as Internet appliances, mobile devices and PCs, access the network and connect to other devices as needed. You can enable UPnP to allow a device to discover automatically the services from other registered UPnP devices on the network.

ID	Status	Protocol	IP Address	External Port	Internal Port
01	Active	UDP	192.168.1.7	49475	49475

① Toggle to allow free communication between a host router and client devices or not.

② Enter the option values:

- **Notification Interval:** Enter the time interval between 15 and 360 in seconds to be notified.
- **Time To Live:** Enter the TTL value. A packet will be discarded if the hop-count exceeds the value.

③ Click the refresh button to update the UPnP port mapping table. The table will show the information on each UPnP device that is accessing the router, including what type of port is open and whether that port is still active for each IP address.



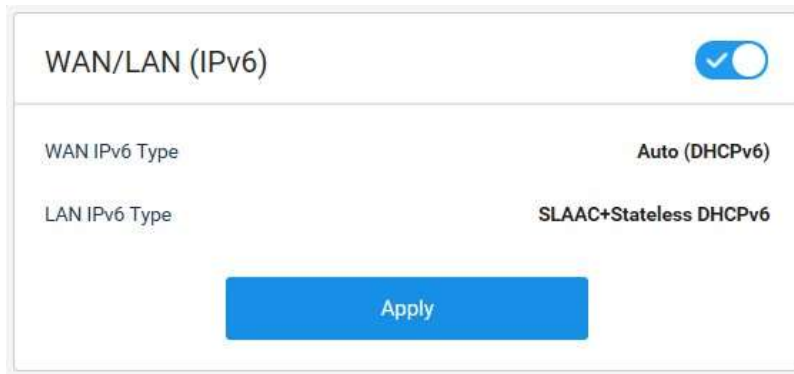
Note: If you want to use applications such as multiplayer gaming, peer-to-peer connections, real-time communications like an instant messaging or remote assistance (a feature in Windows OS), enable UPnP. Free the improved network connections with UPnP.

### 10.9 IPv6 Setting

#### ADVANCED > IPv6

Your router supports IPv6 and thus in this page you can set to use IPv6 feature or not.

## 10. Setting Advanced Options



The image shows a configuration panel titled "WAN/LAN (IPv6)" with a toggle switch set to "On". Below the title, there are two rows of configuration options. The first row has "WAN IPv6 Type" on the left and "Auto (DHCPv6)" on the right. The second row has "LAN IPv6 Type" on the left and "SLAAC+Stateless DHCPv6" on the right. At the bottom of the panel is a blue "Apply" button.

There are many cases to configure IPv6 address. You can automatically obtain WAN IP address and LAN IP address, or manually set the addresses.

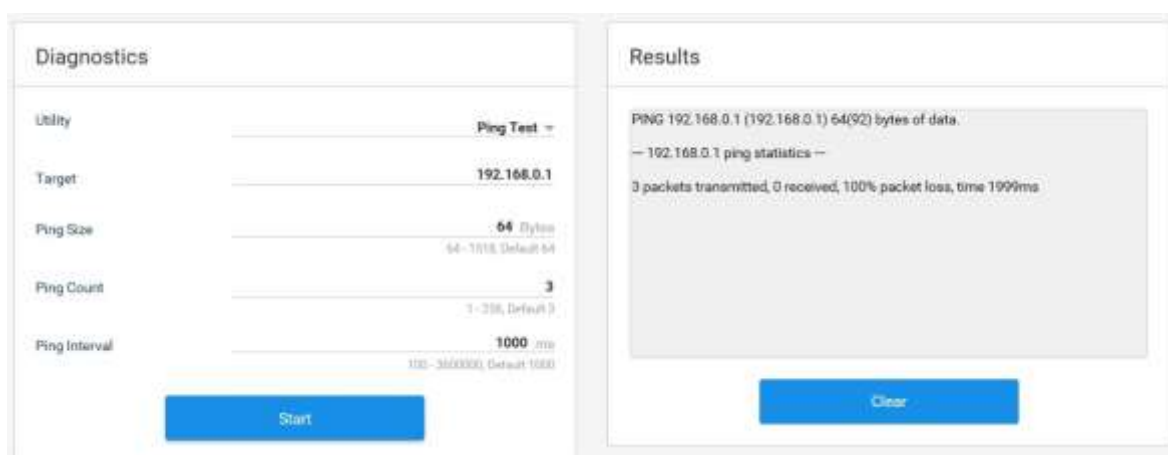
- **WAN/LAN (IPv6):** Toggle to use IPv6 address or not. More types of IPv6 will be provided later.

The type of WAN IPv6 and LAN IPv6 is preset to automatically obtain the WAN IP address from your ISP. The wireless VPN firewall obtains an interface address, configuration information such as DNS server information and other parameters from a DHCPv6 server.

### 10.10 Diagnosing

#### ADVANCED > Diagnostics

You can diagnose the network connection problems with the ping test or traceroute.



The image shows two side-by-side panels. The left panel is titled "Diagnostics" and contains a form for configuring a network test. It has fields for "Utility" (set to "Ping Test"), "Target" (set to "192.168.0.1"), "Ping Size" (set to "64 Bytes", with a range of "64-1024, Default 64"), "Ping Count" (set to "3", with a range of "1-256, Default 3"), and "Ping Interval" (set to "1000 ms", with a range of "100-3000000, Default 1000"). A blue "Start" button is at the bottom. The right panel is titled "Results" and shows the output of a ping test. It displays "PING 192.168.0.1 (192.168.0.1) 64(92) bytes of data:" followed by "— 192.168.0.1 ping statistics —" and "3 packets transmitted, 0 received, 100% packet loss, time 1999ms". A blue "Clear" button is at the bottom.

① Select the network test type either **Ping Test** or **Traceroute**. A ping test is a method for checking if your PC is connected to a network. It also determines the latency or delay between

## 10. Setting Advanced Options

two PCs. A traceroute is a method for recording the route through the Internet between your PC and a specified destination device. It also calculates and displays the amount of time each hop took.

According to the test type, the following options will be changed.

- ② Enter the option values.
- ③ Click **Start** to run the test.
- ④ Check the test results at the right table. You can use the results to rule out a connection issue or identify where in the network the issue is occurring. To clear the results, click **Clear**.

# Chapter 11. Troubleshooting

You can find information to diagnose and solve problems you might have with your product. Before contacting the customer service center, make sure to read the tips below carefully. If the problem persists after you complete the following procedure, please contact the customer service for further instructions.

### **The product does not work**

- Check the LEDs light white.
- Check the power adaptor is plugged into a suitable power outlet.
- Connect the power adaptor to another power outlet.
- Restart the system and wait until the LEDs light white.

### **Cannot access the Internet but the router**

- Check the router is obtaining an IP address from the Internet Service Provider (ISP). If your router cannot obtain an IP address, you may need to contact your ISP.

### **Cannot access the web interface**

- Check the Ethernet cable is correctly connected between the product and PC.
- If the PC is connected to the Wi-Fi, check with the SSID the connected router is correct.
- Check the web access address <http://dearmyrouter.net> is correct.
- Try to access with IP address 192.168.1.1.
- Power off the router by detaching the power adaptor and then restart the system within a few seconds.

### **Cannot log in to the router**

- Check the IP address of your PC is on the same subnet as the router.
- Check your login information is correct. The default ID and password are printed on the label of your product. The ID and password are case-sensitive.

### **Cannot remember the login ID and password**

## 12. Supplemental Information

- Reset the router to the factory settings. Press the reset button for 5 seconds. Then, log in to the router with a default ID and password. The ID and password are printed on the label of your product.

### Cannot search for SSID on the network devices

- Check the wireless network is turned on in **ADVANCED > Wireless**.

## 11. Troubleshooting

### Cannot connect to Wi-Fi

- Check the LED status. During normal operation, the LEDs on the router stays lighting white. If green, the Wi-Fi is off. Then, long press the WPS button to turn on the Wi-Fi.
- Check your wireless network is broadcast on your wireless devices or PC. If not, check the Hide SSID is set to off in **WIRELESS > Primary Network**.

### Cannot remember the Wi-Fi password

- Go to **Home** menu and click the eye icon at the password option. You can change the password in **WIRELESS > Primary Network**.

## Chapter 12. Supplemental Information

### Copyright (Copyright © 2018 HUMAX Corporation)

Not to be copied, used or translated in part or whole without HUMAX's prior consent in writing except approval of ownership of copyright and copyright law.

### Warranty

The warranty does not cover parts which may become defective due to misuse of the information contained in this manual.

### 'WEEE' Instructions

This product should not be disposed with other household waste at the end of its working life. Please separate this from other types of waste and recycle it responsibly to promote the sustainable reuse of material resources. This will prevent possible harm to the environment or human health from uncontrolled waste disposal.

Domestic users:

Please contact either the retailer where you purchased this product or their local government office for details of where and how they can take this item for environmentally safe recycling.

Business users:

Contact your supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial waste for disposal.

### FCC Customer Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operations.

### KC

본 제품은 국내 (대한민국)에서 사용하도록 만들어진 제품이므로 외국에서  
사용하실 수 없습니다. (This unit, which is designed for Korea only, cannot be used  
in foreign countries.)

본 제품의 외관 디자인, 제품규격 등은 제품의 질을 더 높이기 위해 소비자에게  
알리지 않고 변경될 수 있습니다.



## 12. Supplemental Information





본 제품은 정규 서비스 기사 이외에는 내부를 열어 볼 수 없도록 고안되었으며 사용자가 뚜껑을 열거나 수리를 시도하는 것은 위험하오니 서비스 기사에게 의뢰하시기 바랍니다.

## 12. Supplemental Information

제작자 및 설치자는 해당 무선설비가 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다.

B 급기기 (가정용 방송통신기기): 이 기기는 가정용 (B 급)으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

### Appliance Classes

	Double insulated Class II equipment (IEC 60417-5172). Do not require an earth connection.
	For indoor use only (IEC 60417-5957).
	Direct current (IEC 60417-5031).
	Stand by (IEC 60417-5009)



## 12. Supplemental Information

### **Safety and Regulatory Information**

This HUMAX router's user guide contains important safety and license information.

#### **Safety instructions**

Please read these instructions before using your product. We do not want you to get hurt or your product to get damaged.

- Do not use your product near water and keep your product dry. If you need to clean it, do not use a wet towel. Wipe the product with a clean and dry cloth. Never use cleaning fluid or similar chemicals.
- Do not spray cleaners directly on the product or use forced air to remove dust.
- Do not place your product near any heat sources, such as hot appliances like heaters and radiators, other electronics like computers and stereos, or inside your fireplace. Your product is cool, and you should help it to that way.
- Do not place the product on a soft surface, such as a carpeted floor, which may block the airflow. It is important that the product is placed on an unobstructed, solid surface.
- Do not cover the product, or block the airflow to the product with any other objects. Keep the product away from excessive heat and humidity and keep the product free from vibration and dust.
- The product is for indoor use only. Do not try to use it outside.
- Do not try to open, modify or repair your product. This could cause electric shock or injury to you. Any customer modification voids your authority to operate the equipment and will void your product warranty.
- Protect your product's power cord by allowing it to loosely rest between the product and the power outlet. Do not stretch it or compress it between objects.
- Handle your product with care. Do not drop or shake your product.

## 12. Supplemental Information

- This product was qualified under test conditions that included the use of the supplied cables between systems components. To ensure regulatory and safety compliance, use only the provided power and interface cables and install them properly.
- Postpone installation until there is no risk of thunderstorm or lightning activity in the area.
- Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in safe operating condition.

### **Choking hazards**

The product packaging may include plastic bags and tie-wraps. Please dispose of these properly and keep them out of reach of children, as they could present a choking hazard. Keep the product, its cords, and its accessories out of the reach of small children.

## 12. Supplemental Information

### Simplified EU Declaration of Conformity

The simplified EU declaration of conformity referred to in Article 10(9) shall be provided as follows:

Hereby, HUMAX declares that the radio equipment type [HUMAX T9, HUMAX T7, HUMAX T5] is in compliance with Directive 2014/53/EU and relevant directives.

The full text of the EU declaration of conformity is available at the following internet address:

- United Kingdom : <http://uk.humaxdigital.com/ec>
- Germany : <http://de.humaxdigital.com/ec>

### Wireless Equipment Use Information

#### 1. In France

Authorization for outdoor usage is limited to Channels 1~7 (2.400 ~ 2.454 GHz).

#### 2. In Italy

For outdoor usage a general authorization is required from the national spectrum authorities.

#### 3. In Latvia

For outdoor usage an authorization is required from the Electronic Communications Office.

4. 5GHz Radio Local Area Networks (RLANs) Band only indoor use.

5. This equipment may be operated in all European Union member countries and Turkey.

Radio Frequency Specifications	
Frequency mode (band)	Wi-Fi b/g/n (20/40MHz), RF4CE(Zigbee), BT
RF output power	Maximum power level is not exceeding 20dBm
Frequency range (MHz)	2.4GHz

And

Radio Frequency Specifications
--------------------------------

## 12. Supplemental Information

Frequency mode (band)	Wi-Fi a, n(20/40MHz), ac(20/40/80MHz)
RF output power (EIRP)	Maximum power level is not exceeding 23dBm (for TPC) / 20dBm (without TPC)
Frequency range (MHz)	5150MHz to 5350MHz

And

Radio Frequency Specifications	
Frequency mode (band)	Wi-Fi a, n(20/40MHz), ac(20/40/80MHz)
RF output power (EIRP)	Maximum power level is not exceeding 14dBm
Frequency range (MHz)	5725MHz to 5875MHz

## 12. Supplemental Information

### Product Specification

	<b>T9</b>	<b>T7</b>	<b>T5</b>
<b>Wi-Fi</b>	Simultaneous dual band 600Mbps at 2.4GHz, 1800Mbps at 5GHz	Simultaneous dual band 600Mbps at 2.4GHz, 1300Mbps at 5GHz	Simultaneous dual band 400Mbps at 2.4GHz, 1300Mbps at 5GHz
<b>Processor</b>	1.6GHz dual-core	1.6GHz dual-core	1.6GHz dual-core
<b>Antenna</b>	Internal 2.4GHz 3T3R / 5G 4T4R	Internal 2.4GHz 3T3R / 5G 3T3R	Internal 2.4GHz 2T2R / 5G 3T3R
<b>Memory</b>	256MB flash 512MB RAM	256MB flash 512MB RAM	256MB flash 512MB RAM
<b>Ethernet ports</b>	Three(3) 10/100/1000 (1 WAN and 2 LAN) Gigabit Ethernet ports	Three(3) 10/100/1000 (1 WAN and 2 LAN) Gigabit Ethernet ports	Three(3) 10/100/1000 (1 WAN and 2 LAN) Gigabit Ethernet ports
<b>USB ports</b>	One (1) USB 3.0 port	One (1) USB 3.0 port	One (1) USB 3.0 port
<b>Power</b>	Input: 100-240~50/60hz 0.5A max. Output: 12V = 2.5A	Input: 100-240~50/60hz 0.5A max. Output: 12V = 2.5A	Input: 100-240~50/60hz 0.5A max. Output: 12V = 2.5A
<b>Size (WxDxH)</b>	105 x 105 x 185 mm	105 x 105 x 185 mm	105 x 105 x 185 mm
<b>Weight</b>	835g	835g	835g
<b>Operating Temperature</b>	0 ~ 40 °C	0 ~ 40 °C	0 ~ 40 °C
<b>Operating Humidity</b>			