



# User Guide

300Mbps Wireless N Router

MW305R

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<http://www.mercusys.com>

## CE Mark Warning



This is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

## OPERATING FREQUENCY (the maximum transmitted power)

2400 MHz -2483.5 MHz(20dBm)

## EU declaration of conformity

MERCUSYS hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/53/EU, 2009/125/EC and 2011/65/EU.

The original EU declaration of conformity may be found at <http://www.mercusys.com/en/ce>

## RF Exposure Information

This device meets the EU requirements (2014/53/EU Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

The device complies with RF specifications when the device used at 20 cm from your body.




Продукт сертифіковано згідно с правилами системи УкрСЕПРО на відповідність вимогам нормативних документів та вимогам, що передбачені чинними законодавчими актами України.






## Safety Information

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device.
- Do not use damaged charger or USB cable to charge the device.
- Do not use any other chargers than those recommended

- Do not use the device where wireless devices are not allowed.
- Adapter shall be installed near the equipment and shall be easily accessible.
-  Use only power supplies which are provided by manufacturer and in the original packing of this product. If you have any questions, please don't hesitate to contact us.

Please read and follow the above safety information when operating the device. We cannot guarantee that no accidents or damage will occur due to improper use of the device. Please use this product with care and operate at your own risk.

## Explanation of the symbols on the product label

Symbol	Explanation
	DC voltage
	Indoor use only
	<p>RECYCLING</p> <p>This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.</p> <p>User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.</p>

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## Conventions

The router or MW305R, or device mentioned in this User Guide stands for MW305R 300Mbps Wireless N Router without any explanations.

Parameters provided in the pictures are just references for setting up the product, which may differ from the actual situation.

You can set the parameters according to your demand.

## More Info

Specifications and the latest software can be found at the product page at the official website <http://www.mercusys.com>.

The Quick Installation Guide can be found where you find this guide or inside the package of the router.

## Chapter 1. Introduction

### 1.1 Product Overview

The router integrates 3-port Switch, Firewall, NAT-Router and Wireless AP. Powered by 2x2 MIMO technology, the router delivers exceptional range and speed, which can fully meet the need of Small Office/Home Office (SOHO) networks and the users demanding higher networking performance.

### 1.2 Product Appearance

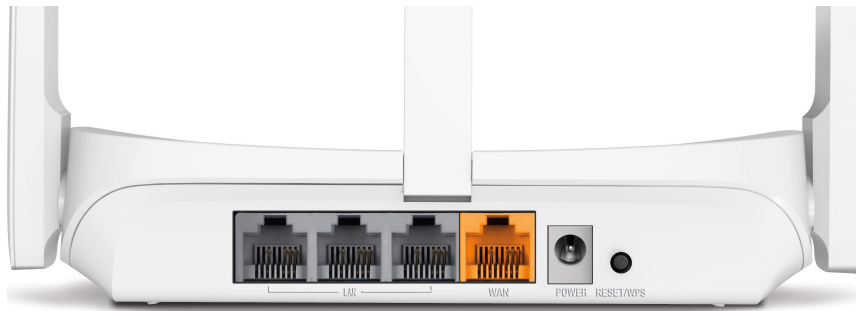
#### 1.2.1 The Front Panel



The router's LED is located on the front panel.

Status	Indication
Off	Power is off.
On	Power is on.
Flashing Slowly	WPS is in progress. This may take up to 2 minutes.
Flashing Quickly	Flashing quickly for 3 seconds indicates a successful WPS connection.

### 1.2.2 The Rear Panel



The following items are located on the rear panel (View from left to right).

Items	Description
LAN Port	These ports connect the router to the local PC(s).
WAN Port	This port is where you will connect the DSL/cable Modem, or Ethernet.
POWER Socket	The power socket is where you will connect the power adapter. Please use the power adapter provided with this router.
RESET/WPS Button	Press and hold this button for more than 5 seconds to reset the router. Press for 1 second to use the WPS function.
Wireless Antennas	To receive and transmit the wireless data.

## Chapter 2. Connecting the Router

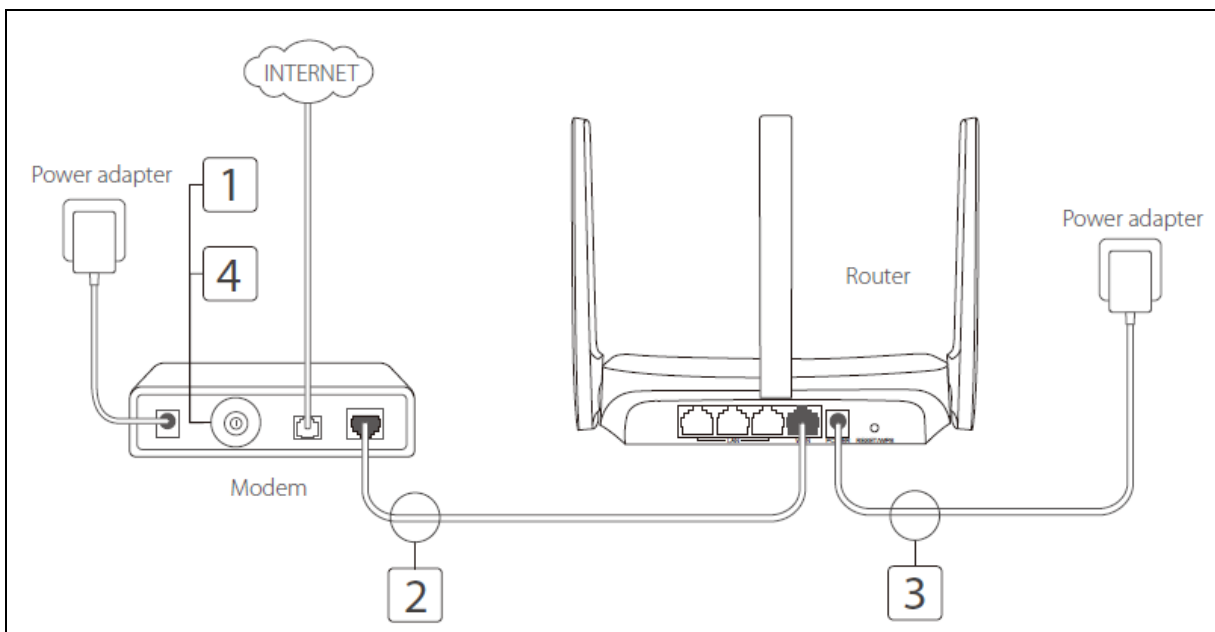
### 2.1 Position Your Router

- The product should not be located in a place where it will be exposed to moisture or excessive heat.
- Place the router in a location where it can be connected to multiple devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way so they do not create a tripping hazard.
- The router can be placed on a shelf or desktop.
- Keep the router away from devices with strong electromagnetic reference, such as Bluetooth devices, cordless phones and microwaves.

### 2.2 Connecting the Router

Follow the steps below to connect your router.

If your Internet connection is through an Ethernet cable from the wall instead of through a DSL/Cable/Satellite modem, connect the Ethernet cable directly to the router's Internet port, then follow steps 4 and 5 to complete the hardware connection.



1. Turn off the modem and remove the backup battery if it has one.
2. Connect the modem to the Internet port on your router with an Ethernet cable.
3. Turn on the modem, and then wait about 2 minutes for it to restart.
4. Turn on the router.

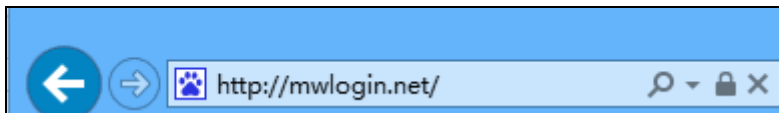
## Chapter 3. Quick Installation Guide


This chapter will show you how to configure the basic functions of your router using Quick Setup Wizard within minutes.

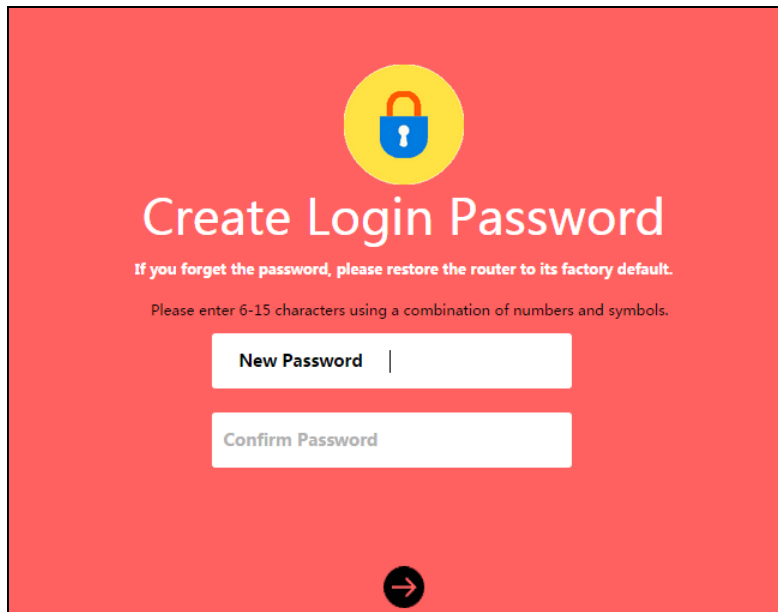
**NOTE:**


Before configuring the router, you need to set up the TCP/IP Protocol to **Obtain an IP address automatically** on your PC. For detailed instructions, please refer to [Appendix B: Configuring the PC](#).

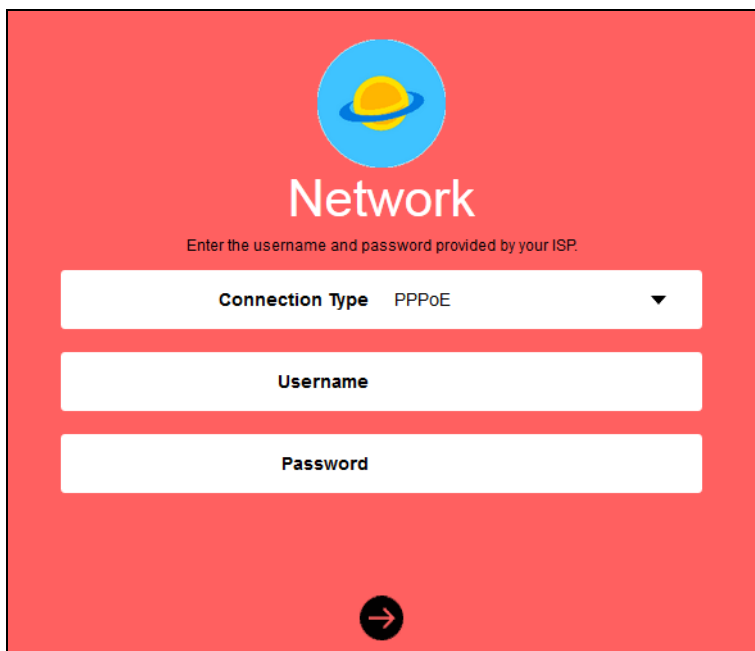
1. To access the web management page, open a web browser and enter the default domain name <http://mwlogin.net> in the address field.




2. A login window will appear. Create a login password when prompted. Then click . For subsequent login, use the password you have set.

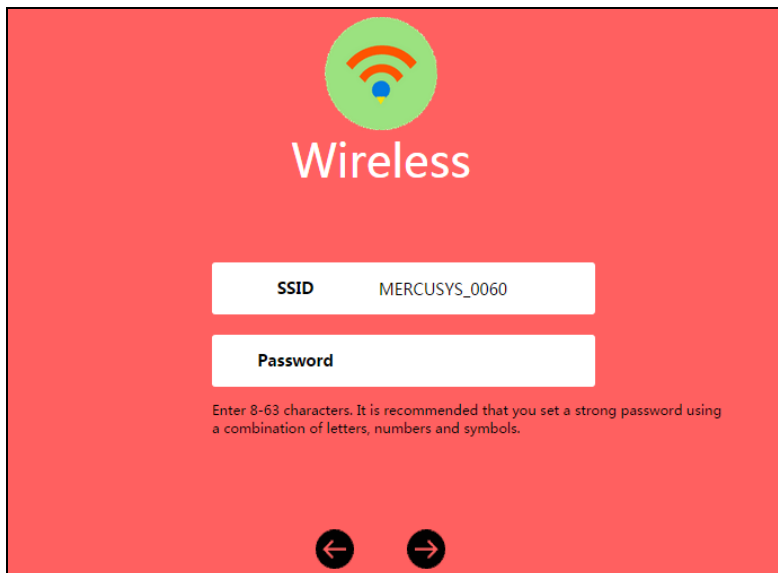


3. Select your Internet connection type and enter the corresponding parameters with the information provided by your ISP and click .



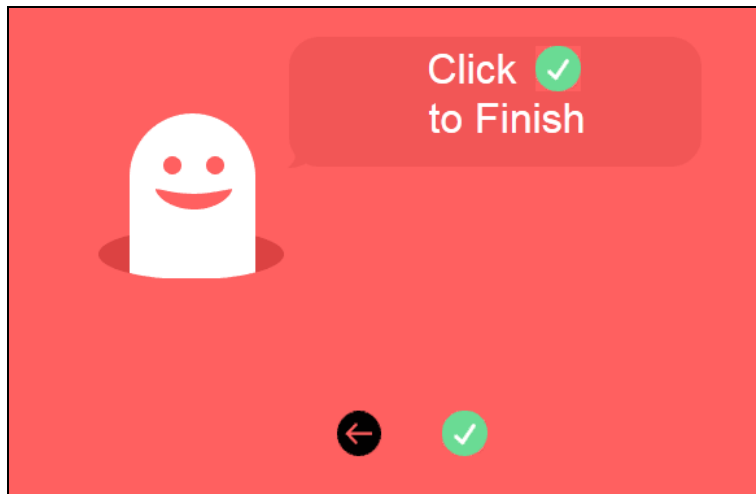
The 'Network' configuration screen has a red background. At the top is a logo of a yellow sun with blue rings. Below the logo is the title 'Network' in white. A subtitle in small white text says 'Enter the username and password provided by your ISP.' There are three white input fields: 'Connection Type' with a dropdown arrow showing 'PPPoE', 'Username', and 'Password'. At the bottom center is a black circular button with a white right-pointing arrow.

4. Customize the SSID (network name) and password or leave them as default. It is recommended that you set a strong password using a combination of letters, numbers and symbols. Then click .



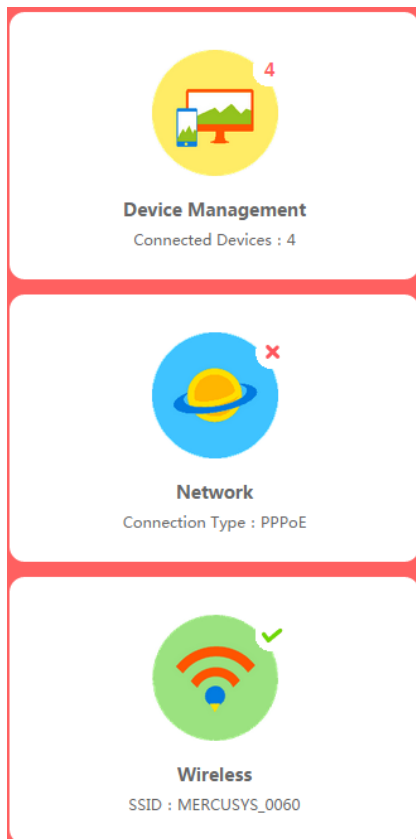
The 'Wireless' configuration screen has a red background. At the top is a logo of a green circle with a white Wi-Fi symbol. Below the logo is the title 'Wireless' in white. There are two white input fields: 'SSID' with the text 'MERCUSYS\_0060' and 'Password'. Below the 'Password' field is a note in small white text: 'Enter 8-63 characters. It is recommended that you set a strong password using a combination of letters, numbers and symbols.' At the bottom center are two black circular buttons with white left and right arrows.

5. Click  to complete the Quick Setup.



## Chapter 4. Basic Configuration

After your successful login, you will see the basic configuration page. The main menus are on the left of the page. On the right you can configure the corresponding function.






















There are three functions on the **Basic** page: **Device Management**, **Network** and **Wireless**. The detailed explanations for each function are listed below.



### 4.1 Device Management

Choose **Device Management**, you can view and manage the connected or blocked devices on the page.

## 1. Connected Devices

Connected Devices 4 Blocked Devices 0

Device		Rate	Upstream	Downstream	Block
 Unknown IP 192.168.1.200	 Wired	↑ 0B/s ↓ 0B/s			Host
 Unknown IP 192.168.1.18	 Wired	↑ 0B/s ↓ 0B/s			
 Unknown IP 192.168.1.19	 Wired	↑ 0B/s ↓ 0B/s			
 Unknown IP 192.168.1.60	 Wired	↑ 0B/s ↓ 0B/s			

- **Device** - Displays the name and IP address of the device. You can click  to edit the device name.
- **Rate** - Displays the current upstream and downstream speed of the device.
- **Upstream/Downstream** - You can click the button in the column to set the upstream or downstream speed for the device.
- **Block** - Click  to remove the device from the list.

## 2. Blocked Devices

Connected Devices


3

Blocked Devices

1


Device


Allow





Unknown

MAC 40-16-9F-BF-50-F2






- **Device** - Displays the name and MAC address of the blocked device. You can click  to edit the device name.
- **Allow** - Click  to remove the device from the list.

## 4.2 Network

Choose **Network**, you can view and customize the basic internet settings on the page.


### 1. PPPoE

Select this type if you use DSL (Digital Subscriber Line) service and are provided with a username and password by the ISP.

Connection Type	PPPoE ▼
Username	<input type="text"/>
Password	<input type="password"/>
IP Address	0.0.0.0
DNS Server	0.0.0.0, 0.0.0.0
 Save	


### 2. Static IP

Select this type if your ISP provides a static IP address, subnet mask, gateway and DNS settings.

Connection Type	Static IP ▼
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Gateway	0.0.0.0
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0
 Save	


### 3. Dynamic IP

Select this type if your ISP provides the DHCP service, and the router will automatically get IP parameters from your ISP.

Connection Type	Dynamic IP ▼
IP Address	0.0.0.0
Gateway	0.0.0.0
Subnet Mask	0.0.0.0
DNS Server	0.0.0.0, 0.0.0.0
 Save	

### 4. L2TP

Select this type if you connect to an L2TP VPN Server and are provided with a username, password, and IP address/domain name of the server by the ISP.

Connection Type	L2TP ▼
Username	
Password	
Server IP/Domain Name	
Internet IP	0.0.0.0
Internet DNS	0.0.0.0
<input checked="" type="radio"/> Dynamic IP <input type="radio"/> Static IP	
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Gateway	0.0.0.0
DNS Server	0.0.0.0
 Save	

### 5. PPTP

Select this type if you connect to a PPTP VPN Server and are provided with a username,

password, and IP address/domain name of the server by the ISP.

Connection Type: PPTP

Username:

Password:

Server IP/Domain Name:

Internet IP: 0.0.0.0

Internet DNS: 0.0.0.0

☒ Dynamic IP ☐ Static IP

IP Address: 0.0.0.0

Subnet Mask: 0.0.0.0

Gateway: 0.0.0.0

DNS Server: 0.0.0.0

Save

### 4.3 Wireless

Choose **Wireless**, and you can change the SSID (network name) and password on the page.

Wireless ☒ ON

SSID: MERCUSYS\_A9E4

Password:

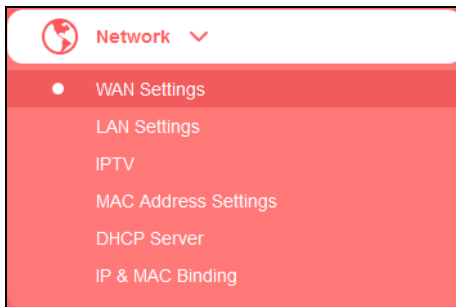
Save

- **SSID** - Enter a value of up to 32 characters. The default SSID is MERCUSYS\_XXXX. This field is case-sensitive.
- **Password** - Enter 8-63 characters using a combination of numbers, letters and symbols. The security version is WPA2-PSK/WPA-PSK, which supports AES encryption that provides a good level of security. If you select No Security, the field will be left blank.

## Chapter 5. Advanced Configuration

This chapter will show each web page's key functions and the configuration way.

### 5.1 Network



There are six submenus under the Network menu: **WAN Settings**, **LAN Settings**, **IPTV**, **MAC Address Settings**, **DHCP Server** and **IP & MAC Binding**. Click any of them, and you can configure the corresponding function.

#### 5.1.1 WAN Settings

Go to **Network**→**WAN Settings**, you can configure the IP parameters of the WAN.

##### 1. PPPoE

Select this type if you use DSL (Digital Subscriber Line) service and are provided with a username and password by the ISP.

- WAN Settings

- **Username/Password** - Enter the username and password provided by your ISP. These

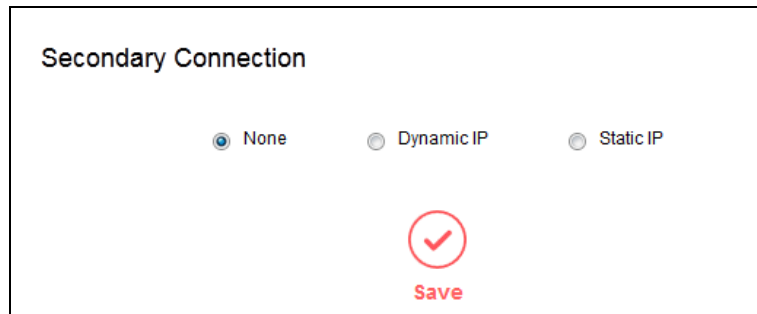
fields are case-sensitive.

- **IP Address/DNS Server** - Displays the current IP address/DNS server of your device.

Click **Save** to make your settings effective.


- **Secondary Connection**

If you have a secondary connection, select and enter the corresponding parameters.

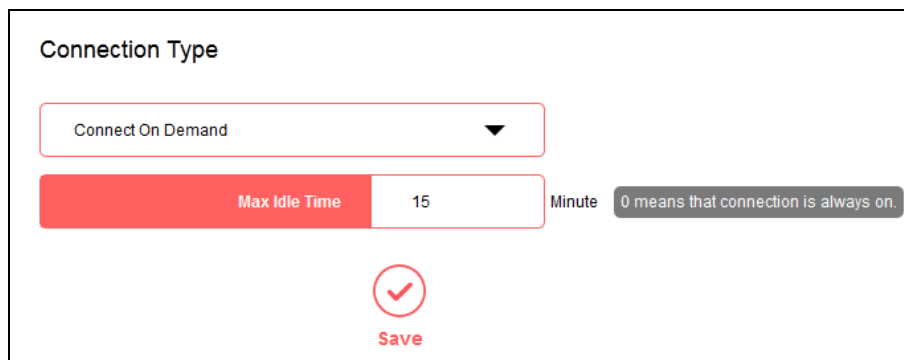


Secondary Connection

☒ None ☐ Dynamic IP ☐ Static IP

  
**Save**


- **Connection Type**



Connection Type

Connect On Demand ▼

Max Idle Time 15 Minute 0 means that connection is always on.

  
**Save**

- **Connect on Demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want your internet connection keeps active all the time, please enter 0 in the Max Idle Time field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.
- **Connect Automatically** - The connection can be re-established automatically when it is down.
- **Connect Manually** - This mode also supports the Max Idle Time function as Connect on Demand mode. The Internet connection can be disconnected automatically after a specified inactivity period.

Click **Save** to make the settings effective.

## ● PPPoE Advanced settings

PPPoE Advanced settings

MTU Size (in bytes) 1480 The default value is 1480. Do NOT change unless necessary.

WAN Rate Settings Auto Negotiation ▼

Service Name

Server Name

☐ Use ISP Specified IP Address

ISP Specified IP Address 0.0.0.0

☐ Manually set DNS server

Primary DNS 0.0.0.0

Secondary DNS 0.0.0.0 Optional

Save

- **MTU Size (in bytes)**- The default MTU size is 1480 bytes. It is NOT recommended that you change the default **MTU Size** unless required by your ISP.
- **WAN Rate Settings** - Select the rate and duplex mode for the WAN port. It is recommended to keep the default auto mode.
- **Service Name/Server Name** - The service name and server name should not be configured unless it is necessary for your ISP. In most cases, leaving these fields blank will work.
- **Use ISP Specified IP Address** - If your ISP does not automatically assign IP addresses to the router during login, select this option and enter the IP address provided by your ISP in dotted-decimal notation.
- **Manually set DNS server** - If your ISP gives you one or two DNS addresses, select this option and enter the primary and secondary addresses into the corresponding fields. Otherwise, the DNS servers will be assigned dynamically from your ISP.

Click **Save** to make the settings effective.

## 2. Dynamic IP

Select this type if your ISP provides the DHCP service, and the router will automatically get IP parameters from your ISP.

**WAN Settings** ?



**Connection Type** Dynamic IP ▼

**IP Address** 0.0.0.0

**Subnet Mask** 0.0.0.0

**Gateway** 0.0.0.0

**DNS Server** 0.0.0.0, 0.0.0.0

 **Renew**  **Release**

**MTU Size (in bytes)** 1500 The default value is 1500. Do NOT change unless necessary.

☐ **Manually set DNS server**


**Primary DNS** 0.0.0.0

**Secondary DNS** 0.0.0.0 Optional

**Host Name** MW305R

☐ **Get IP with Unicast DHCP** Do NOT select unless necessary

**WAN Rate Settings** Auto Negotiation ▼

 **Save**

- **Renew** - Click to renew the IP parameters from your ISP.
- **Release** - Click to release the IP parameters.
- **MTU Size (in bytes)** - The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 bytes. Do not change the default MTU Size unless required by your ISP.
- **Manually set DNS server** - If your ISP gives you one or two DNS addresses, select this option and enter the primary and secondary addresses into the corresponding fields. Otherwise, the DNS servers will be assigned dynamically from your ISP.
- **Host Name** - This option specifies the host name of the router.
- **Get IP with Unicast DHCP** - A few ISPs' DHCP servers do not support the broadcast

applications. If you cannot get the IP Address normally, you can choose this option. (It is rarely required.)

Click **Save** to make the settings effective.

### 3. Static IP

Select this type if your ISP provides a static IP address, subnet mask, gateway and DNS settings.

The screenshot shows the 'WAN Settings' interface. At the top, there's a title 'WAN Settings' with a red question mark icon. Below it, the 'Connection Type' is set to 'Static IP' with a dropdown arrow, and an 'Auto Detect' button is to its right. The 'IP Address' field is set to '0.0.0.0'. The 'Subnet Mask' field is also set to '0.0.0.0'. The 'Gateway' field is set to '0.0.0.0'. The 'Primary DNS' field is set to '0.0.0.0'. The 'Secondary DNS' field is set to '0.0.0.0' with an 'Optional' label to its right. The 'MTU Size (in bytes)' field is set to '1500', with a grey box next to it stating 'The default value is 1500. Do NOT change unless necessary.' The 'WAN Rate Settings' dropdown is set to 'Auto Negotiation'. At the bottom, there is a red circular icon with a white checkmark and the word 'Save' below it.

- **IP Address** - Enter the IP address in dotted-decimal notation provided by your ISP.
- **Subnet Mask** - Enter the subnet mask in dotted-decimal notation provided by your ISP, usually is 255.255.255.0.
- **Gateway** - Enter the gateway IP address in dotted-decimal notation provided by your ISP.
- **Primary/Secondary DNS** - Enter one or two DNS addresses in dotted-decimal notation provided by your ISP.
- **MTU Size (in bytes)**- The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 bytes. Do not change the default MTU Size unless required by your ISP.
- **WAN Rate Settings** - Select the rate and duplex mode for the WAN port. It is recommended to keep the default auto mode.

Click **Save** to make the settings effective.

#### 4. L2TP

Select this type if you connect to an L2TP VPN Server and are provided with a username, password, and IP address/domain name of the server by the ISP.

The screenshot shows the 'WAN Settings' interface. At the top right is a red question mark icon. The 'Connection Type' is set to 'L2TP'. Below are input fields for 'Username', 'Password', and 'Server IP/Domain Name'. Further down are read-only fields for 'Internet IP' (0.0.0.0), 'Internet DNS' (0.0.0.0, 0.0.0.0), and 'DNS Server' (0.0.0.0, 0.0.0.0). There are radio buttons for 'Dynamic IP' (selected) and 'Static IP'. Below these are input fields for 'IP Address' (0.0.0.0), 'Subnet Mask' (0.0.0.0), and 'Gateway' (0.0.0.0). At the bottom are two buttons: 'Disconnect' with a red 'X' icon and 'Save' with a green checkmark icon.

- **Username/Password** - Enter the username and password provided by your ISP. These fields are case-sensitive.
- **Server IP/Domain Name** - Enter the VPN server's IP address or domain name provided by your ISP.
- **Internet IP/Internet DNS** – Displays the internet IP address/DNS server address assigned by your L2TP server.
- **Dynamic IP/Static IP** –Select Dynamic IP the IP address and subnet mask are assigned automatically by the ISP. Select if the IP address, subnet mask, gateway, and DNS addresses are provided by the ISP, and enter these information into the corresponding fields.

## ● Connection Type

Connection Type

Connect On Demand ▼

Max Idle Time 15 Minute 0 means that connection is always on.

Save

- **Connect on Demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want your internet connection keeps active all the time, please enter 0 in the Max Idle Time field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.
- **Connect Automatically** - The connection can be re-established automatically when it is down.
- **Connect Manually** - This mode also supports the Max Idle Time function as Connect on Demand mode. The Internet connection can be disconnected automatically after a specified inactivity period.

## ● L2TP Advanced settings

L2TP Advanced settings

MTU Size (in bytes) 1460 The default is 1460, do not change unless necessary.

WAN Rate Settings Auto Negotiation ▼

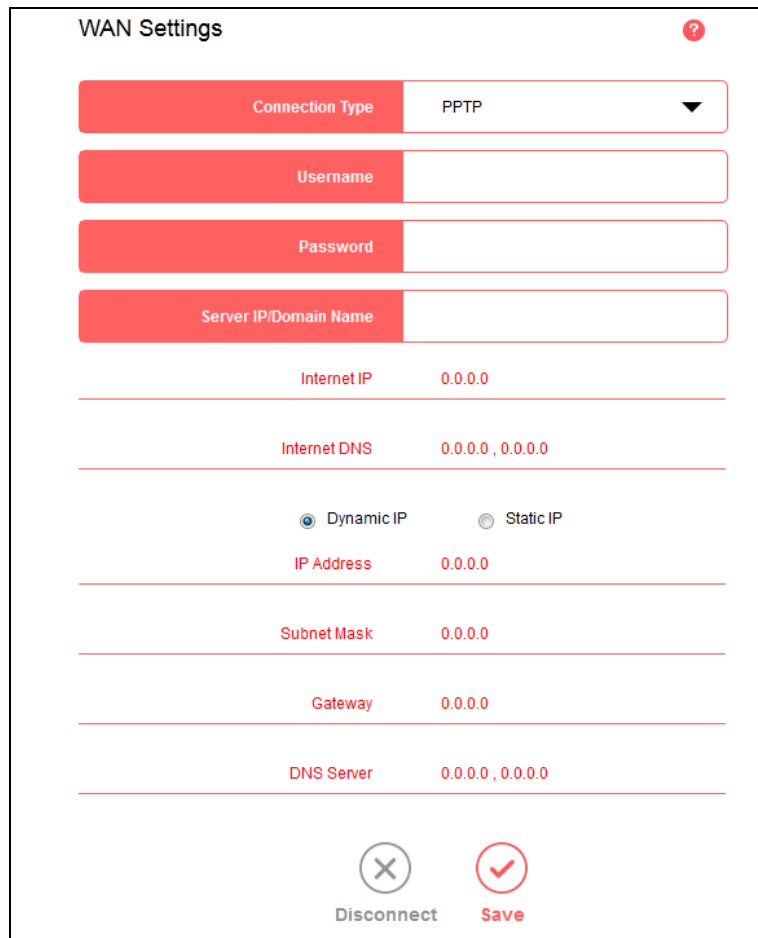
Save

- **MTU Size (in bytes)** - The default MTU size is 1480 bytes. It is NOT recommended that you change the default MTU size unless required by your ISP.
- **WAN Rate Settings** - Select the rate and duplex mode for the WAN port. It is recommended to keep the default auto mode.

Click **Save** to make the settings effective.

## 5. PPTP

Select this type if you connect to a PPTP VPN Server and are provided with a username, password, and IP address/domain name of the server by the ISP.



**WAN Settings** ?

Connection Type: PPTP ▼

Username:

Password:

Server IP/Domain Name:

---

Internet IP: 0.0.0.0

---

Internet DNS: 0.0.0.0, 0.0.0.0

---

☒ Dynamic IP
 ☐ Static IP

IP Address: 0.0.0.0

---

Subnet Mask: 0.0.0.0

---

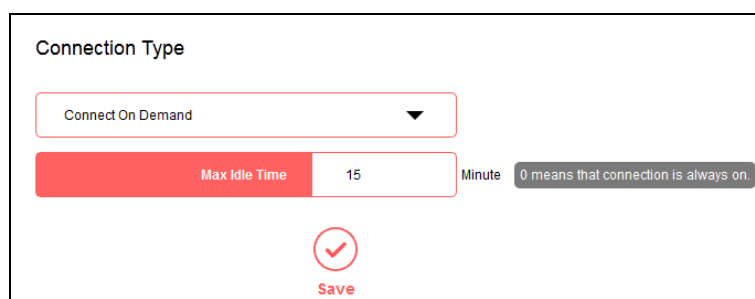
Gateway: 0.0.0.0

---

DNS Server: 0.0.0.0, 0.0.0.0

---

- **Username/Password** - Enter the username and password provided by your ISP. These fields are case-sensitive.
  - **Server IP/Domain Name** - Enter the VPN server's IP address or domain name provided by your ISP.
  - **Internet IP/Internet DNS** – Displays the internet IP address/DNS server address assigned by your L2TP server.
  - **Dynamic IP/Static IP** –Select Dynamic IP the IP address and subnet mask are assigned automatically by the ISP. Select if the IP address, subnet mask, gateway, and DNS addresses are provided by the ISP, and enter these information into the corresponding fields.
- **Connection Type**



**Connection Type**

Connect On Demand ▼

Max Idle Time: 15 Minute

0 means that connection is always on.

- **Connect on Demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want your Internet connection keeps active all the time, please enter 0 in the Max Idle Time field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.
- **Connect Automatically** - The connection can be re-established automatically when it is down.
- **Connect Manually** - This mode also supports the Max Idle Time function as Connect on Demand mode. The Internet connection can be disconnected automatically after a specified inactivity period.

- **PPTP Advanced settings**

PPTP Advanced settings

MTU Size (in bytes) 1420 The default is 1420, do not change unless necessary.

WAN Rate Settings Auto Negotiation

Save

- **MTU Size (in bytes)** - The default MTU size is 1480 bytes. It is NOT recommended that you change the default MTU size unless required by your ISP.
- **WAN Rate Settings** - Select the rate and duplex mode for the WAN port. It is recommended to keep the default auto mode.

Click **Save** to make the settings effective.

### 5.1.2 LAN Settings

Go to **Network→LAN Settings**, you can configure the IP parameters of the LAN on the screen as below.

LAN Settings

MAC Address 50-3A-A0-B7-A9-E4

LAN IP Settings Manual

IP Address 192.168.1.1

Subnet Mask 255.255.255.0

Save

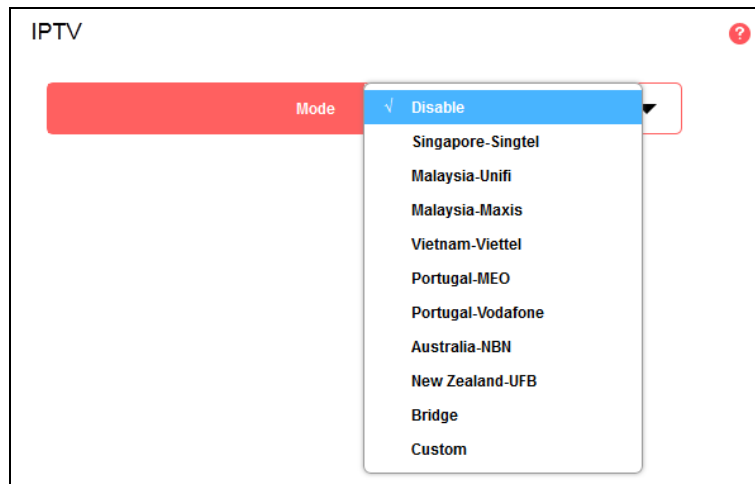
- **MAC Address** - The physical address of the router, as seen from the LAN. The value can't be changed.
- **LAN IP Settings** - Select Auto or Manual. In Auto mode, the router will automatically detect the LAN-WAN IP address confliction.
- **IP Address** - Enter the IP address of your router.
- **Subnet Mask** - An address code that determines the size of the network. Normally use 255.255.255.0 as the subnet mask.

**NOTE:**

- 1) If you change the LAN IP address, you must use the new IP address to log in to the router.
- 2) If the new LAN IP address you set is not in the same subnet with the previous one, the IP Address pool in the DHCP server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

### 5.1.3 IPTV

Go to **Network→IPTV**, you can configure IPTV setup to enable IPTV service provided by your ISP.

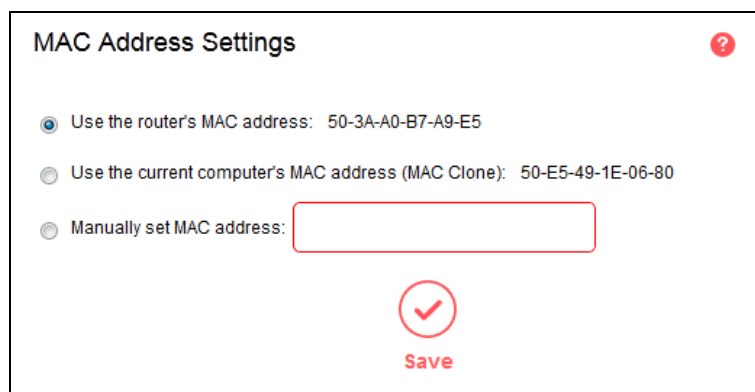


To configure IPTV, follow the steps below.

1. Select the appropriate mode according to your ISP.
  - Select **Bridge** if your ISP is not listed and no other parameters are required.
  - Select **Custom** if your ISP is not listed but provides necessary parameters.
2. After you have selected a mode, the necessary parameters, including the LAN port for IPTV connection, are predetermined.
3. Click **Save**.
4. Connect the set-top box to the corresponding LAN port which is predetermined or you have specified.

#### 5.1.4 MAC Address Settings

Go to **Network→MAC Address Settings**, you can configure the MAC address of the WAN on the page.



Some ISPs require that you register the MAC address of your adapter. Changes are rarely needed here.

- **Use the router's MAC address** - By default, this option is selected.
- **Use the current computer's MAC address (MAC Clone)** - Some ISPs will register the MAC address of your computer when you access the Internet for the first time through their Cable modem. If you add a router into your network to share your Internet connection, the ISP will

not accept it as the MAC address is changed. In this case, you need to clone your computer's MAC address to the router.

- **Manually set MAC address** - If your ISP requires you to register the MAC address, please enter the correct MAC address into this field in XX-XX-XX-XX-XX-XX format (X is any hexadecimal digit).

Click **Save** to make the settings effective.

**NOTE:**

Only the PC on your LAN can use the MAC Clone function.

### 5.1.5 DHCP Server

Go to **Network→DHCP Server**, you can configure the DHCP Server settings on the page. The router is set up by default as a DHCP (Dynamic Host Configuration Protocol) server, which provides the TCP/IP configuration for all the PCs that are connected to the router on the LAN.

DHCP Server ☒ ON

Start IP Address: 192.168.1.100

End IP Address: 192.168.1.199

Address Lease Time: 120 minutes (1-2880, the default value is 120)

Gateway: 0.0.0.0

Primary DNS: 0.0.0.0

Secondary DNS: 0.0.0.0

Save

DHCP Equipment

Host	MAC Address	IP Address	Effective Time

Refresh

- **DHCP Server** - Click the button to enable or disable the DHCP server. If you disable the server, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.1.100 is the default start address.

- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.1.199 is the default end address.
- **Address Lease Time** - The amount of time a network user will be allowed connection to the router with their current dynamic IP Address. Enter the amount of time in minutes and the user will be leased this dynamic IP Address. After the time is up, the user will be automatically assigned a new dynamic IP address. The range of the time is 1 ~ 2880 minutes. The default value is 120 minutes.
- **Gateway** - (Optional.) It is recommended to enter the IP address of the LAN port of the router. The default value is 192.168.1.1.
- **Primary DNS** - (Optional.) Enter the DNS IP address provided by your ISP or consult your ISP.
- **Secondary DNS** - (Optional.) Enter the IP address of another DNS server if your ISP provides two DNS servers.

**NOTE:**

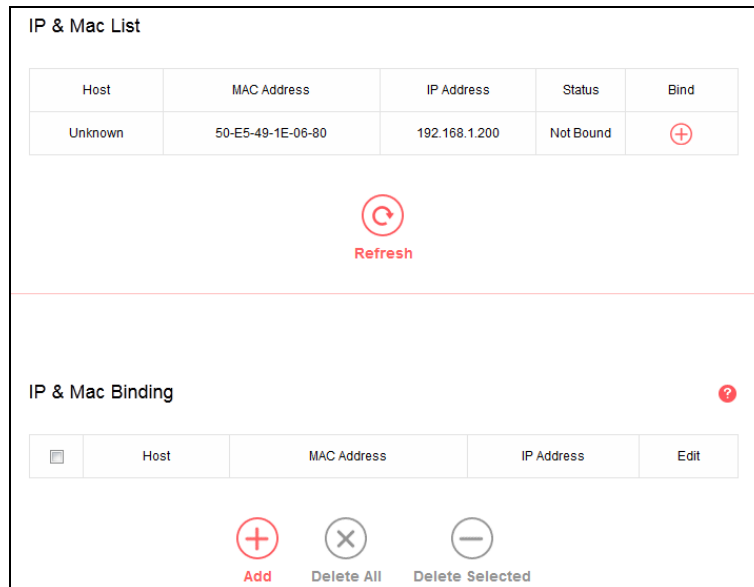
To use the DHCP server function of the router, you must configure all computers on the LAN as Obtain an IP Address automatically.

- **Host** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client
- **IP Address** - The IP address that the router has allocated to the DHCP client
- **Effective Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

Click **Refresh** to show the current attached devices.

### 5.1.6 IP & MAC Binding

Go to **Network→IP & MAC Binding**, you can control access of a specific computer in the LAN by binding the IP address and the MAC address of the device together.



Host	MAC Address	IP Address	Status	Bind
Unknown	50-E5-49-1E-06-80	192.168.1.200	Not Bound	

Refresh

**IP & Mac Binding** ?

<input type="checkbox"/>	Host	MAC Address	IP Address	Edit
Add            Delete All            Delete Selected				

- **Host** - The name of the controlled computer in the LAN.
- **MAC Address** - The MAC address of the controlled computer in the LAN.
- **IP Address** - The assigned IP address of the controlled computer in the LAN.
- **Status** - Displays whether the MAC and IP address are bound or not.
- **Bind** - Click to add an entry to the IP & Mac binding list.

Click **Refresh** to refresh all items.

**To add an IP & MAC Binding entry, follow the steps below.**

1. Click **Add**.




<input type="checkbox"/>	Host	MAC Address	IP Address	Edit
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Cancel"/> <input type="button" value="Save"/>

2. Enter the **Host** name.
3. Enter the **MAC Address** of the device.
4. Enter the **IP Address** that you want to bind to the MAC address.
5. Click **Save**.

**To edit an existing entry, follow the steps below.**

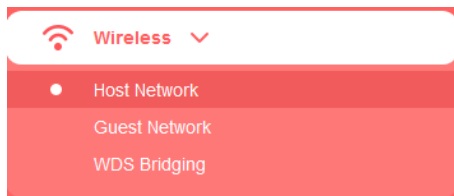
1. Find the entry in the table.

- Click  in the **Edit** column.
- Enter the parameters as you desire, then click **Save**.

To delete existing entries, select the entries in the table, then click **Delete Selected**.

To delete all entries, click **Delete All**.

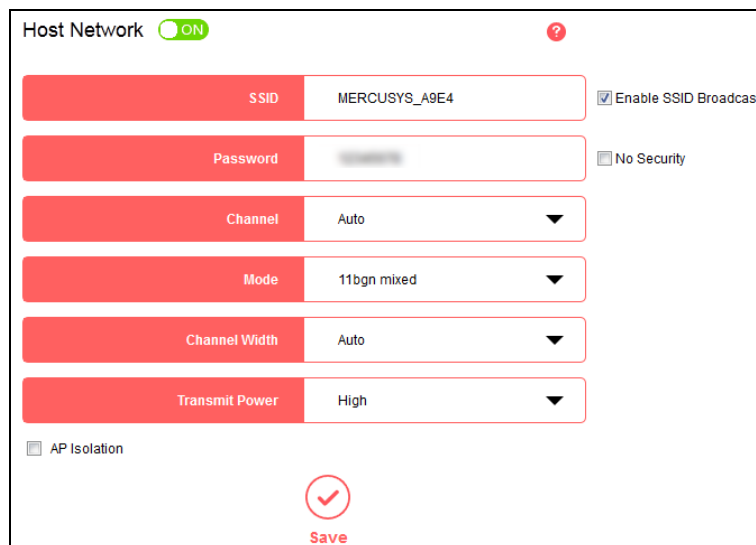
## 5.2 Wireless



There are three submenus under the Wireless menu: **Host Network**, **Guest Network** and **WDS Bridging**. Click any of them to configure the corresponding function.

### 5.2.1 Host Network

Go to **Wireless→Host Network**, you can configure the settings for the wireless host network on this page.


 A screenshot of the 'Host Network' configuration page. At the top, it says 'Host Network' with a green 'ON' indicator and a red question mark icon. The page contains several configuration fields:
 

- SSID**: A text box containing 'MERCUSYS\_A9E4'. To its right is a checkbox labeled 'Enable SSID Broadcast' which is checked.
- Password**: A text box with a masked password. To its right is a checkbox labeled 'No Security' which is unchecked.
- Channel**: A dropdown menu set to 'Auto'.
- Mode**: A dropdown menu set to '11bgn mixed'.
- Channel Width**: A dropdown menu set to 'Auto'.
- Transmit Power**: A dropdown menu set to 'High'.

 At the bottom left, there is an unchecked checkbox labeled 'AP Isolation'. At the bottom center, there is a red circular icon with a white checkmark and the word 'Save' below it.

- **SSID** - Enter a value of up to 32 characters. The default SSID is MERCUSYS\_XXXX (XXXX indicates the last unique four numbers of each router's MAC address). This field is case-sensitive.
- **Password** - Enter 8-63 characters using a combination of numbers, letters and symbols. The security version is WPA2-PSK/WPA-PSK, which supports AES encryption that provides a good level of security. If you select No Security, the field will be left blank.
- **Channel** - This field determines which operating frequency will be used. The default channel is set to **Auto**, so the router will choose the best channel automatically. It is not necessary to

change the wireless channel unless you notice interference problems with another nearby access point.

- **Mode** - Select the desired mode.

Select the desired wireless mode. It is strongly recommended to select **11bgn mixed**, and all of 802.11b, 802.11g and 802.11n wireless stations can connect to the router.

**11bgn mixed** - Select if you are using a mix of 802.11b, 11g, and 11n wireless clients.

**11n only** - Select if you are using only 11n wireless clients.

**11bg mixed** - Select if you are using both 802.11b and 802.11g wireless clients.

**11g only** - Select if you are using only 11g wireless clients.

**11b only** - Select if you are using only 11b wireless clients.

**NOTE:**

If **11bg mixed** is selected in the **Mode** field, the **Channel Width** field will turn grey and the value will become 20M, which is unable to be changed.

- **Channel Width** - Select the channel width from the drop-down list. The default setting is **Auto**.
- **Transmit Power** - Select either High, Middle, or Low to specify the data transmit power. The default and recommended setting is High.
- **AP Isolation** - Select this checkbox to enable the AP Isolation feature that allows you to confine and restrict all wireless devices on your network from interacting with each other, but still able to access the Internet. AP isolation is disabled by default.
- **Enable SSID Broadcast** - If you select the Enable SSID Broadcast checkbox, the wireless router will broadcast its name (SSID) on the air.

### 5.2.2 Guest Network

Go to **Wireless→Guest Network**, you can configure the settings for the wireless guest network on this page.

Guest Network ☐ OFF

SSID: MEGuest\_A9E4

Password:  ☒ No Security

Access my local network: No

Upstream Bandwidth: 0 KB/s 0 means no limit

Downstream Bandwidth: 0 KB/s 0 means no limit

Set Guest Access Time: No

☒ Save

- **Guest Network** - Click to enable or disable the Guest Network function here.
- **SSID/Password** - Set the network name and password for Guest Network. Password may contain 8-63 characters. It is recommended you use a combination of numbers, letters and symbols.
- **Access my local network** - Select whether to allow wireless devices on the guest network to access your local network. The default value is No.
- **Upstream Bandwidth** - The upload speed through the WAN port for Guest Network.
- **Downstream Bandwidth** - The download speed through the WAN port for Guest Network.
- **Set Guest Access Time** - Set the time period to enable guest network.

### 5.2.3 WDS Bridging

Go to **Wireless→WDS Bridging**, and follow the steps below to configure WDS bridging settings.

1. Click **Next** to start the setup.

WDS Bridging

WDS Bridging

- With WDS enabled, the router can bridge with another router (the root router) to extend its wireless network.

☒ Next

2. Select a network from the table and enter the password when prompted, or you can click **Add router manually** and enter the network name and password. Then click **Next**.

WDS Bridging

Choose the router to be bridged.

SSID	Signal Strength	Security	Select
MERCUSYS_0103		WPA-PSK/WPA2-PSK	<input type="radio"/>
MERCUSYS_0103		WPA-PSK/WPA2-PSK	<input type="radio"/>
MERCUSYS_0103		WPA-PSK/WPA2-PSK	<input type="radio"/>
MERCUSYS_0103		WPA-PSK/WPA2-PSK	<input type="radio"/>
MERCUSYS_0103		WPA-PSK/WPA2-PSK	<input type="radio"/>
MERCUSYS_0103		WPA-PSK/WPA2-PSK	<input type="radio"/>
MERCUSYS_0103		WPA-PSK/WPA2-PSK	<input type="radio"/>
MERCUSYS_0103		WPA-PSK/WPA2-PSK	<input type="radio"/>

K < 1 2 3 4 5 > X

3. Enter the wireless parameters of your router. It is recommended to set the same SSID and Password as the root router. Then click **Next**.

WDS Bridging

Please enter the wireless parameters.

SSID: MERCUSYS\_0103

Password:

< Back Next >

4. Check the parameters and click **Finish** to complete the setup.

WDS Bridging

WDS Setup

Root Router

SSID: MERCUSYS\_0103

Password:

This Router

SSID: MERCUSYS\_0103

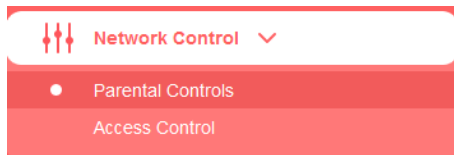
Password:

DHCP Server: Off

LAN IP Address: 192.168.1.30

Note: If you have changed the LAN IP address of your router during the setup, you need to log in to the web management page using the domain name (<http://mwlogin.net>) or the new LAN IP you have just set.

## 5.3 Network Control



There are two submenus under the Network Control menu: **Parental Controls** and **Access Control**. Click any of them to configure the corresponding function.

### 5.3.1 Parental Controls

Go to **Network Control**→**Parental Controls**, and then you can configure the parental controls in the screen. The Parental Controls function can be used to control the internet activities of the child, limit the child to access certain websites and restrict the time of surfing.

 A screenshot of the 'Parental Controls' configuration page. At the top, it says 'Parental Controls' with a toggle switch set to 'OFF'. Below this is a text prompt: 'Please add parental devices (computer, mobile phone or Pad)'. There is a table with one header row: 'Parental Devices' and an 'Edit' button. Below the table are three buttons: 'Add' (with a red plus icon), 'Delete All' (with a grey X icon), and 'Delete Selected' (with a grey minus icon). Below these buttons is another text prompt: 'Please set the effective time period during which the restriction applies.' This is followed by a calendar grid with days of the week (Mon. to Sun.) on the y-axis and hours (0 to 23) on the x-axis. At the bottom left, there is an 'Effective Time' label with a green square. At the bottom center, there is a red checkmark icon and a 'Save' button.

- **Parental Controls** – Click to enable or disable this function.
- **Parental Devices** – Displays the MAC address of the controlling PC.
- **Edit** - Here you can edit an existing entry.
- **Add** - Click to add a new device.
- **Delete All** - Click to delete all devices in the table.
- **Delete Selected** - Click to delete selected devices from the table.
- **Effective Time** - All devices except the parental devices will be restricted. Click and drag across the cells to set the restriction time periods.

To add a new entry, follow the steps below.

1. Click **Add**.

Please add parental devices (computer, mobile phone or Pad)

	Parental Devices	Edit
	Select	

Cancel Save

+ Add    X Delete All    - Delete Selected

2. Select a device from the drop-down list.
3. Click **Save**.

To set the effective time, follow the steps below.

1. Click and drag across the cells to set the restriction time periods.
2. Click **Save**.

### 5.3.2 Access Control

Go to **Network Control**→**Access Control**, and then you can configure the access control in the screen.

Access Control OFF

Rule

☐ Whitelist

☒ Blacklist

	Description	Hosts Under Control	Target	Schedule	Edit
--	-------------	---------------------	--------	----------	------

+ Add    X Delete All    - Delete Selected

- **Access Control** - Click the button to enable or disable Access Control.
- **White List** - Select to **allow** only the internet activities specified in the table.
- **Black List** - Select to **block** only the internet activities specified in the table
- **Description** - Displays the name of the rule and this name is unique.
- **Hosts Under Control** - Displays the host selected in the corresponding rule.
- **Target** - Displays the target selected in the corresponding rule.
- **Schedule** - Displays the schedule selected in the corresponding rule.
- **Edit** - Here you can edit an existing rule.

- **Add** - Click to add a new rule entry.
- **Delete All** - Click to delete all the entries in the table.
- **Delete Selected** - Click to delete selected entries in the table.

To add a new rule, follow the steps below.

1. Toggle on to enable Access Control.

<input type="checkbox"/>	Description	Hosts Under Control	Target	Schedule	Edit
<input type="checkbox"/>	<input type="text"/>	<input type="button" value="Configure"/>	<input type="button" value="Configure"/>	<input type="button" value="Configure"/>	<input type="button" value="Cancel"/> <input type="button" value="Save"/>

2. Select Whitelist or Blacklist.
3. Click Add and enter a brief description for the rule.
4. Click **Configure** in the **Hosts Under Control** column to add a host, then click **Apply**.

Hosts Under Control
×

Host Description

Mode

IP Address ▼

IP Address Range

- **Host Description** - In this field, create a unique description for the host.
- **Mode** - Here are two options, **IP Address** and **MAC Address**. You can select either of them from the drop-down list.

If the **IP Address** is selected, you can see the following item:

- **IP Address Range** - Enter the IP address or address range of the host in dotted-decimal format (e.g. 192.168.1.23).

If the MAC Address is selected, you can see the following item:

- **MAC Address** - Enter the MAC address of the host in XX-XX-XX-XX-XX-XX format (e.g. 00-11-22-33-44-AA).

5. Click **Configure** in the **Target** column, you can select **Any Target**, or select **Add** to add a new target. Then click **Apply**.

- **Description** - In this field, create a description for the target. Note that this description should be unique.
- **Mode** - Here are two options, IP Address and Website Domain. You can choose either of them from the drop-down list.

If the **IP Address** is selected, you will see the following items:

- **IP Address Range** - Enter the IP address (or address range) of the target (targets) in dotted-decimal format.
- **Common Service** - Here lists some common service ports. Select one from the drop-down list, and the corresponding port number will be filled in the Port field automatically. For example, if you select **HTTP**, **80** will be filled in the Port automatically.
- **Port** - Specify the port or port range for the target. For some common service ports, you can make use of the Common Service item above.
- **Protocol** - Here are three options, All, TCP and UDP. Select one of them from the drop-down list for the target.

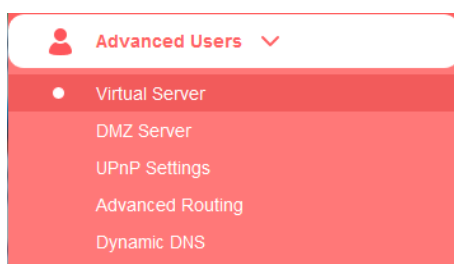
If the **Website Domain** is selected, you will see the following items:

- **Website Domain** - Here you can enter 4 domain names, either the full name or the keywords (for example, Mercusys). Any domain name with keywords in it (www.mercusys.com) will be blocked or allowed.
6. Click **Configure** in the **Schedule** column, you can select **Any Time**, or select **Add** to add a new schedule. Then click **Apply**.

- **Description** - In this field, create a description for the schedule. Note that this description should be unique.
  - **Time** - Click and drag across the cells to set the effective time periods.
7. Click **Save** to complete the settings.

	Description	Hosts Under Control	Target	Schedule	Edit
<input type="checkbox"/>	Rule_1	Host_1	Target_1	Schedule_1	Cancel
<input type="checkbox"/>					Save

## 5.4 Advanced Users






There are five submenus under the Forwarding menu: **Virtual Server**, **DMZ Server**, **UPnP**

**Settings, Advanced Routing and Dynamic DNS.** Click any of them to configure the corresponding function.

### 5.4.1 Virtual Server

Go to **Advanced Users→Virtual Server**, and then you can view and add virtual server on the page. Virtual server can be used for setting up public services on your LAN.

<input type="checkbox"/>	Common Server	External Port	Internal Port	IP Address	Protocol	Edit
 <b>Add</b>  <b>Delete All</b>  <b>Delete Selected</b>						

- **Common Server** - Some common services already exist in the drop-down list.
- **External Port** - The numbers of External Service Ports. You can enter a service port or a range of service ports (the format is XXX - YYY; XXX is the Start port and YYY is the End port).
- **Internal Port** - The Internal Service Port number of the PC running the service application. You can leave it blank if the **Internal Port** is the same as the **External Port**, or enter a specific port number when **External Port** is a single one.
- **IP Address** - The IP address of the PC running the service application.
- **Protocol** - The protocol used for this application, either **All** (all protocols supported by the router), **TCP** or **UDP**.
- **Edit** - Here you can edit an existing entry.
- **Add** - Click to add a new rule entry.
- **Delete All** - Click to delete all the entries in the table.
- **Delete Selected** - Click to delete selected entries in the table.

**To set up a virtual server entry:**

1. Click **Add**.

<input type="checkbox"/>	Common Server	External Port	Internal Port	IP Address	Protocol	Edit
	Select ▼				ALL ▼	<div>Cancel</div> <div>Save</div>

2. Select a service from drop-down list to automatically populate the appropriate port number in the **External Port** field. If the service that you want to use is not listed, enter the number of


the service port or service port range in the **External Port** field.

3. Leave the **Internal Port** blank if it is the same as the External Port, or enter a specific port number if the External Port is a single port.
4. Enter the IP address of the computer running the service application in the **IP Address** field.
5. Select the protocol used for this application in the **Protocol** drop-down list, either **TCP**, **UDP**, or **All** (All protocols supported by the router).
6. Click **Save**.

**NOTE:**

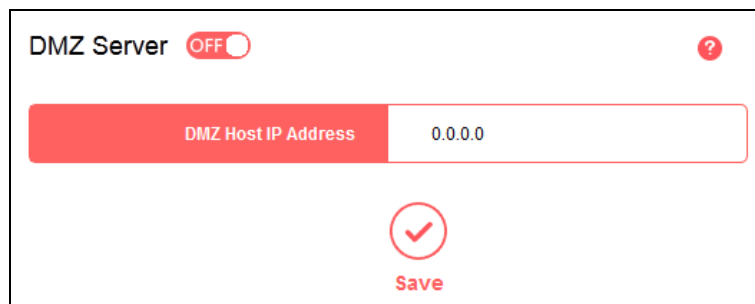
Please make sure the external port is different from the port used for local and remote management, or the virtual server may not be working properly.

**To modify an existing entry:**

1. Find the desired entry in the table.
2. Click  in the **Edit** column.
3. Click **Save**.

### 5.4.2 DMZ Server

Go to **Advanced Users**→**DMZ Server**, and then you can view and configure DMZ host on the page. The DMZ host feature allows one local host to be exposed to the Internet for a special-purpose service such as Internet gaming or video conferencing.



**To assign a computer or server to be a DMZ server:**

1. Enter the IP address of a local PC that is set to be DMZ host in the **DMZ Host IP Address** field.
2. Toggle On to enable DMZ Server.
3. Click **Save**.

### 5.4.3 UPnP Settings

Go to **Advanced Users**→**UPnP Settings**, and then you can view the information about **UPnP**. The Universal Plug and Play (UPnP) feature allows the devices, such as Internet computers, to access the local host resources or devices as needed. UPnP devices can be automatically

discovered by the UPnP service application on the LAN.

UPnP Settings ON

Application Description	External Port	Protocol	Internal Port	IP Address	Status
 Refresh					

- **Application Description** - The description about the application which initiates the UPnP request.
- **External Port** - The port which the router opened for the application.
- **Protocol** - The type of protocol which is opened.
- **Internal Port** - The port which the router opened for local host.
- **IP Address** - The IP address of the local host which initiates the UPnP request.
- **Status** – Displays the port is active or not.
- **Refresh** - Click to update the current UPnP settings List.

#### 5.4.4 Advanced Routing

Go to **Advanced Users**→**Advanced Routing**, and then you can configure the static routing and view system routing list. Advanced routing is used to predetermine a fixed route for the network information packets to reach a specific host or network.

##### ● Static Routing

Static Routing

	Destination Address	Subnet Mask	Next Hop	Edit
Add            Delete All            Delete Selected				

- **Destination Address** - The address of the network or host that you want to assign to a static route.
- **Subnet Mask** - The **Subnet Mask** determines which portion of an IP Address is the network portion, and which portion is the host portion.
- **Next Hop** - The IP Address of the gateway device that allows for contact between the router and the network or host.
- **Edit** - Here you can edit an existing entry.
- **Add** - Click to add a new rule entry.

- **Delete All** - Click to delete all the entries in the table.
- **Delete Selected** - Click to delete selected entries in the table.

**To add a static routing entry:**

1. Click **Add**.


<input type="checkbox"/>	Destination Address	Subnet Mask	Next Hop	Edit
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Cancel"/> <input type="button" value="Save"/>

2. Enter the parameters in the corresponding fields.
3. Click **Save** to make the settings effective.

#### ● System Routing List

System Routing List

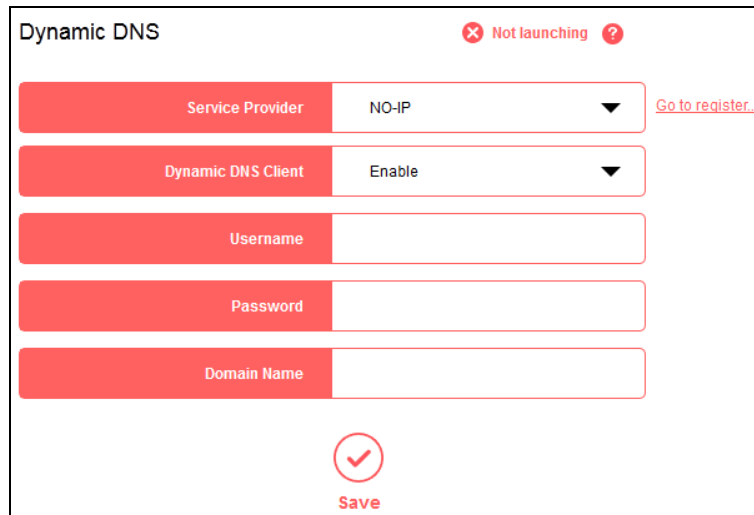
Destination Address	Subnet Mask	Next Hop	Port
192.168.1.0	255.255.255.0	192.168.1.1	LAN/WLAN


  
Refresh

- **Destination Address** - The address of the network or host to which the static route is assigned.
- **Subnet Mask** - The subnet mask determines which portion of an IP address is the network portion, and which portion is the host portion.
- **Next Hop** - The IP address of the gateway device that allows for contact between the router and the network or host.
- **Port** - Displays either the Destination IP Address is on the LAN/WLAN or on the WAN.

#### 5.4.5 Dynamic DNS

Go to **Advanced Users**→**Dynamic DNS**, and you can configure the Dynamic DNS function.



Dynamic DNS ✖ Not launching ?


Service Provider NO-IP [Go to register...](#)

Dynamic DNS Client Enable

Username

Password

Domain Name

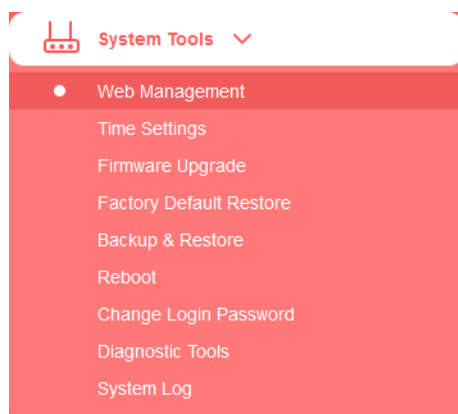
 Save

- **Service Provider** - The Dynamic DNS service provider.
- **Dynamic DNS Client** – Select to enable or disable dynamic DNS client.
- **Username/Password** - Enter the username and password of your DDNS account.
- **Domain Name** - Enter the domain name provided by the DDNS service provider.

**To set up for Dynamic DNS, follow these steps:**

1. Select your service provider from the drop-down list.
2. Enable the Dynamic DNS client.
3. Enter the username and password of your DDNS account.  
If you do not have an account, click **Go to register...** to register an account.
4. Enter domain name you registered with the Dynamic DNS service provider.
5. Click **Save**.

## 5.5 System Tools



There are nine submenus under the Forwarding menu: **Web Management**, **Time Settings**, **Firmware Upgrade**, **Factory Default Restore**, **Backup & Restore**, **Reboot**, **Change Login**

**Password, Diagnostic Tools** and **System Log**. Click any of them to configure the corresponding function.

### 5.5.1 Web Management

Go to **System Tools**→**Web Management**, and then you can configure the management rule on the page.

The screenshot shows the 'Web Management' configuration page. It is divided into two sections: 'Local Management' and 'Remote Management'. Each section has a dropdown menu and a 'Save' button with a checkmark icon.

**Local Management:** The dropdown menu is set to 'Allow all local devices.' Below it is a 'Save' button.


**Remote Management:** The dropdown menu is set to 'Disable'. Below it is a 'Save' button.

#### ● Local Management

To allow specific devices to access and manage the router locally, follow these steps:

1. Select **Allow specified local devices**.

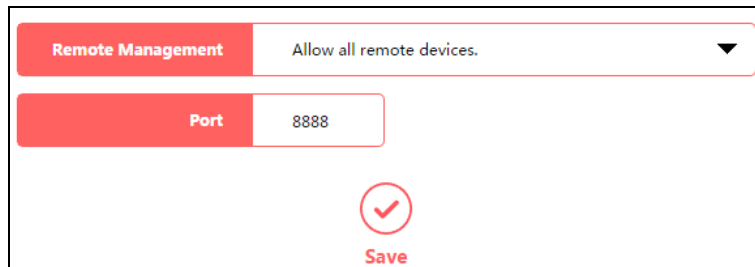
The screenshot shows the 'Web Management' configuration page with the 'Local Management' dropdown set to 'Allow specified local devices.' Below this, there is a list of four MAC address fields, each labeled 'MAC Address1' through 'MAC Address4', all containing the placeholder '00-00-00-00-00-00'. At the bottom, there is a field for 'Current Computer's MAC Address' with the value '50-E5-49-1E-06-80' and a red '+' button to add it. A 'Save' button with a checkmark icon is at the bottom.

2. Enter each MAC address in a separate field. You can click  to add your current computer's MAC address to the list above.
3. Click **Save**.

## ● Remote Management

To allow all devices to access and manage the router remotely, follow the steps below:

1. Select **Allow all remote devices**.

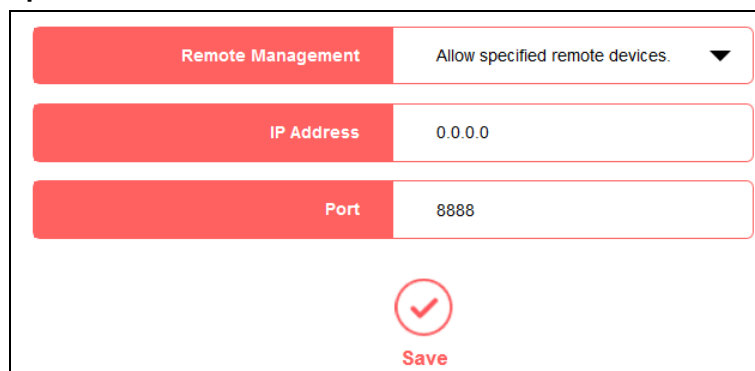


The screenshot shows the 'Remote Management' configuration interface. At the top, there is a red header bar with 'Remote Management' on the left and a dropdown menu on the right showing 'Allow all remote devices.' with a downward arrow. Below this, there is a red bar labeled 'Port' followed by a text input field containing '8888'. At the bottom center, there is a red circular icon with a white checkmark and the word 'Save' in red text below it.

2. Enter the port number to be used to access the router between 1024 and 65535. The default value is 8888.
3. Click **Save**.

To allow specified devices to access and manage the router remotely, follow the steps below:

1. Select **Allow specified remote devices**.



The screenshot shows the 'Remote Management' configuration interface for specifying devices. At the top, there is a red header bar with 'Remote Management' on the left and a dropdown menu on the right showing 'Allow specified remote devices.' with a downward arrow. Below this, there are two red bars: the first is labeled 'IP Address' followed by a text input field containing '0.0.0.0', and the second is labeled 'Port' followed by a text input field containing '8888'. At the bottom center, there is a red circular icon with a white checkmark and the word 'Save' in red text below it.

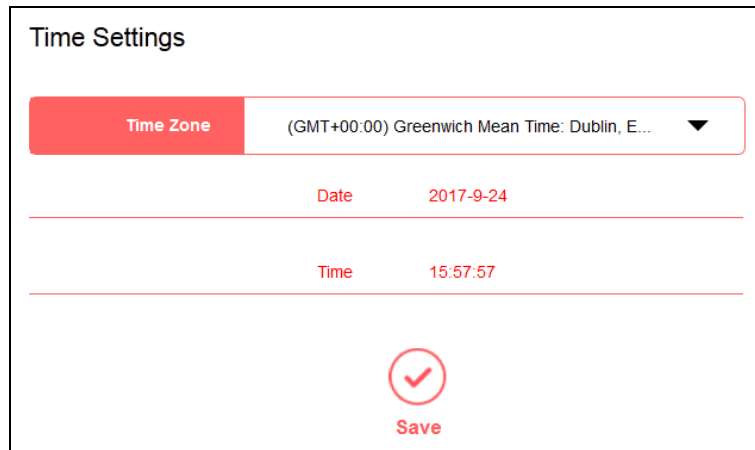
2. Enter the **IP Address** you will use when accessing your router from the Internet.
3. Enter the port number to be used to access the router between 1024 and 65535. The default value is 8888.
4. Click **Save**.

### **NOTE:**

1. To access the router, you should type your router's WAN IP address into your browser's address field, followed by a colon and the custom port number (e.g. `http://202.96.12.8:8080`). After entering the correct password, you will be able to access the router's web management page.
2. Be sure to set a very secure password for the router.

## 5.5.2 Time Settings

Go to **System Tools**→**Time Settings**, and then you can configure the time on the following page.



Time Settings

Time Zone (GMT+00:00) Greenwich Mean Time: Dublin, E... ▼

Date 2017-9-24

Time 15:57:57

Save

- **Time Zone** - Select your local time zone from this drop-down list.
- **Date/Time** - The router automatically obtains GMT from the internet based on the time zone you select.

**To change the time settings, follow these steps:**

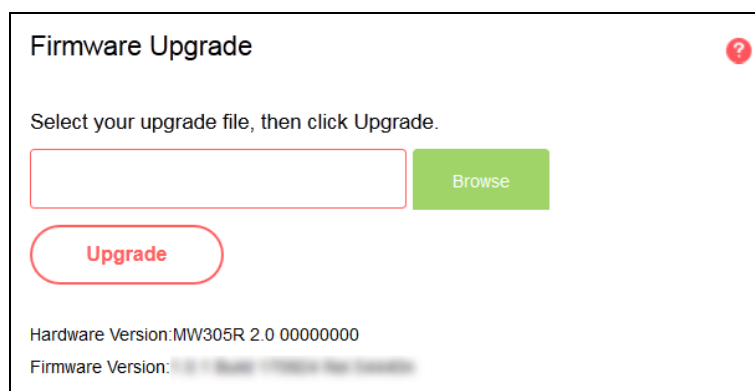
1. Select your local time zone from the drop-down list.
2. Click **Save**.

**NOTE:**

This setting will be used for some time-based functions such as Parental Controls and Access Control. Please specify your time zone before you configure these functions.

### 5.5.3 Firmware Upgrade

Go to **System Tools**→**Firmware Upgrade**, and then you can update the latest version of firmware for the router on the page.



Firmware Upgrade ?

Select your upgrade file, then click Upgrade.

Browse

Upgrade

Hardware Version: MW305R 2.0 00000000

Firmware Version: 1.0.0.0

- **Hardware Version** - Displays the current hardware version. The version of the upgrade file must accord with the router's current hardware version.
- **Firmware Version** - Displays the current firmware version.

**To upgrade the router's firmware, follow the steps below:**

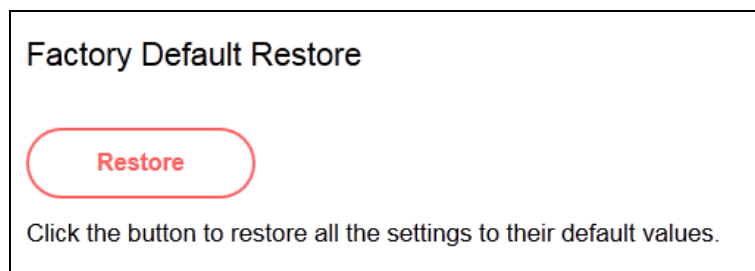
1. Download the latest firmware upgrade file from our website (www.mercusys.com).
2. Click **Browse** to locate and select the downloaded firmware file.
3. Click **Upgrade**.
4. The router will reboot automatically after the upgrade.

**NOTE:**

To avoid any damage, it is important to keep router powered on during the entire process.

#### 5.5.4 Factory Default Restore

Go to **System Tools**→**Factory Default Restore**, and then you can restore the configurations of the router to factory defaults.



Click **Restore** to reset all configuration settings to their default values.

- The default **IP address**: 192.168.1.1
- The default **Subnet Mask**: 255.255.255.0

**NOTE:**

All your custom settings will be lost when defaults are restored.

#### 5.5.5 Backup & Restore

Go to **System Tools**→**Backup & Restore**, and then you can save the current configuration of the router as a backup file and restore the configuration via a backup.

### Backup

Click to save a copy of your current settings.

**Backup**

---

### Restore

Select a configuration file and click Restore.

**Browse**

**Restore**

**Caution:**

1. All current configurations will be lost once the router is restored.
2. To avoid any damage, keep the device powered on during the process
3. After the upgrade process is complete (about 20 seconds), the device will reboot automatically.

Click **Backup** to save all configuration settings as a backup file to your local computer.

**To upgrade the router's configuration, follow the steps below.**

1. Click **Browse** to locate and select the configuration file which you want to restore.
2. Click **Restore** to update the configuration with the file you have selected.

**NOTE:**

1. All current configurations will be lost once the router is restored.
2. To avoid any damage, keep the device powered on during the process
3. After the upgrade process is complete (about 20 seconds), the device will reboot automatically.

### 5.5.6 Reboot

Go to **System Tools**→**Reboot**, and then you can click the **Reboot** button to reboot the router on the page.

### Reboot

**Reboot**

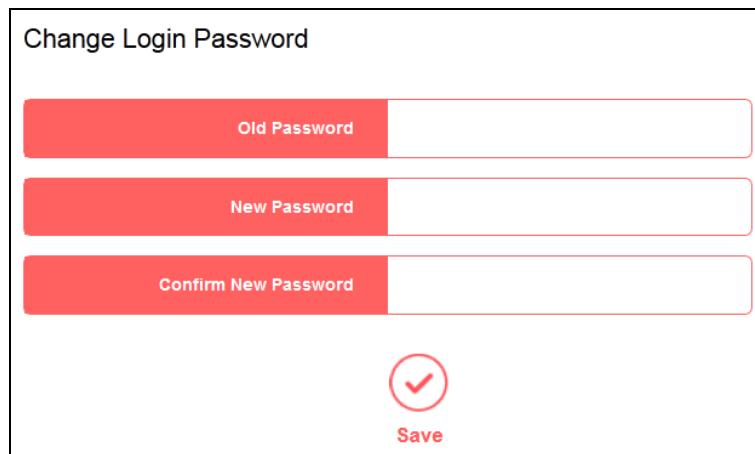
Click the button to reboot this device.

Some settings of the router will take effect only after rebooting, which include:

- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router's settings to factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

### 5.5.7 Change Login Password

Go to **System Tools→Change Login Password**, and then you can change the login username and password of the router on the page.



To change the router's login password, follow the steps below.

1. Enter the **Old Password** of the router.
2. Enter the **New Password**.
3. Enter the new password in the **Confirm New Password** field.
4. Click **Save**.

For subsequent logins, use the new password you have set.

### 5.5.8 Diagnostic Tools

Go to **System Tools→Diagnostic Tools**, and then you can test the Internet connection of your network via Ping or Tracert on the page.

### Diagnostic Tools

On this page, you can test the Internet connection of your network via Ping or Tracert.

Parameters Settings

Select ☒ Ping ☐ Tracert

IP Address/ Domain Name		
Ping Packet Number	4	(1-50)
Ping Packet Size	64	(4-1472 bytes)
Ping Timeout	800	(100-2000 milliseconds)
Tracert Max Hops	20	(1-30)

Diagnostic Results

The router is ready.

Start

- **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
- **Tracert** - This diagnostic tool tests the performance of a connection.

**NOTE:**

You can use ping/tracert to test numeric IP address or domain name. If pinging/tracerting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the specified domain name can be resolved by using Domain Name System (DNS) queries.

- **IP Address/Domain Name** - Enter the IP address or domain name of the PC whose connection you wish to diagnose.
- **Pings Packet Number** - Specifies the number of Echo Request messages sent. The default is 4.
- **Ping Packet Size** - Specifies the number of data bytes to be sent. The default is 64.

- **Ping Timeout** - Time to wait for a response, in milliseconds. The default is 800.
- **Tracert Max Hops** - Set the maximum number of hops (max TTL to be reached) in the path to search for the target (destination). The default is 20.

Click **Start** to check the connectivity of the Internet.

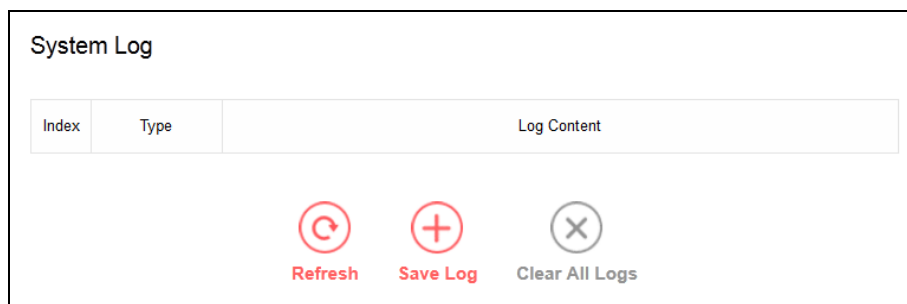
The **Diagnostic Results** page displays the result of diagnosis.

**NOTE:**

1. Only one user can use the diagnostic tools at one time.
2. Ping Packet Number, Ping Packet Size and Ping Timeout are Ping Parameters, and Tracert Max Hop is Tracert Parameter.

### 5.5.9 System Log

Go to **System Tools**→**System Log**, and then you can view the logs of the router.



- **Refresh** - Refresh the page to show the latest log list.
- **Save Log** - Click to save all the logs in a txt file.
- **Clear All Logs** - All the logs will be deleted from the router permanently, not just from the page.

## Appendix A: FAQ (Frequently Asked Questions)

### Q1. What should I do if the login window does not appear?

- Make sure the router connects to the computer correctly.
- If the computer is set to a static IP address, change its settings to obtain an IP address automatically.
- Verify that <http://mwlogin.net> is correctly entered in the web browser.
- Use another web browser and try again.
- Reboot your router and try again.
- Disable and enable the network adapter in use again.

### Q2. What should I cannot access the internet?

- Check if the internet is working properly by connecting a computer directly to the modem via an Ethernet cable. If it is not, contact your internet service provider
- Reboot your router and try again.
- Open a web browser, enter <http://mwlogin.net> and run the Quick Setup again.
- For cable modem users, reboot the modem first. If the problem persists, log in to the web management page of the router to clone MAC address.

### Q3. How do I restore my router's configuration to its factory default settings?

There are two ways to reset the router.

Method one: With the router powered on, press and hold the **RESET/WPS** button for at least 5 seconds until the LED starts blinking quickly, then release the button and wait the router to reboot to its factory default settings.

Method two: Visit <http://mwlogin.net>, go to **Advanced**→**System Tools**→**Factory Default Restore** to restore the router to its default settings.

#### **NOTE:**

Once the modem router is reset, the current configuration settings will be lost and you will need to re-configure the router.

**Q4. What should I do if I forget my web management password?**

Refer to Q3 to restore the router to its factory default settings and then create a new password when prompted.

**Q5. What should I do if I forget my wireless password?**

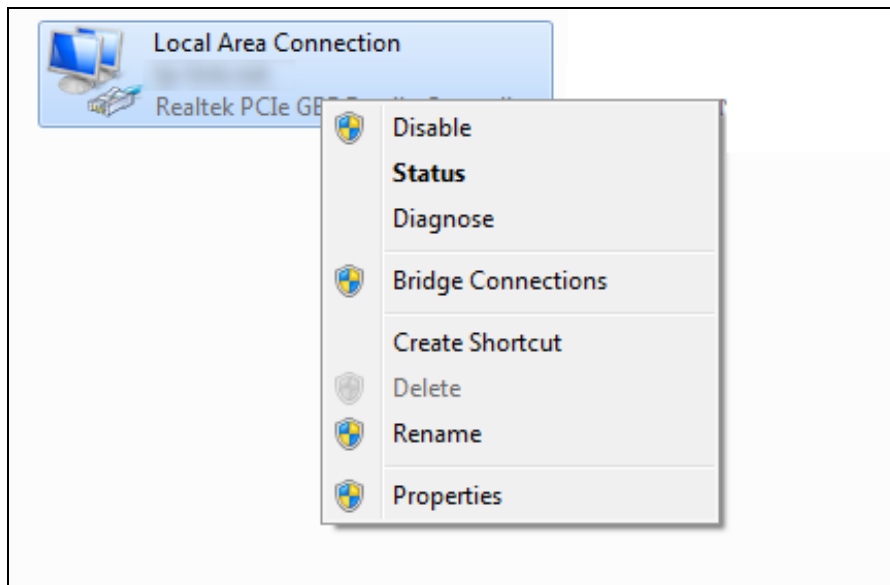
- By default, the wireless network has no password.
- If you have set password for the network:
  - 1) Connect your computer to the router using an Ethernet cable.
  - 2) Visit <http://mwlogin.net>, and log in with the password you set for the router.
  - 3) Go to **Basic**→**Wireless** to retrieve or reset your wireless password.

## Appendix B: Configuring the PC

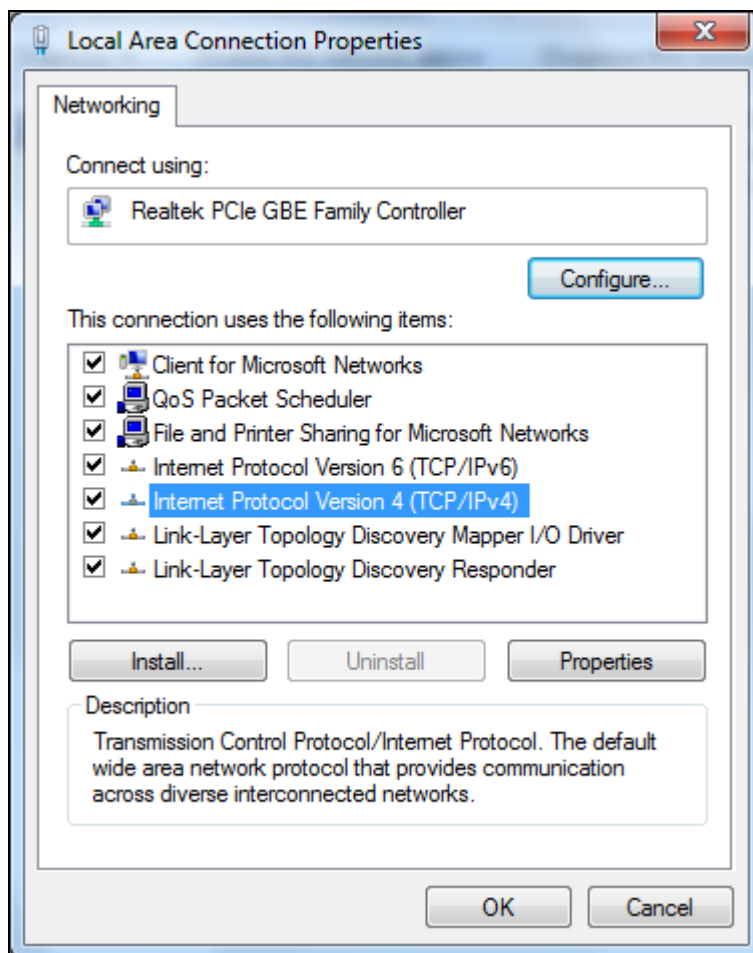
In this section, we'll introduce how to install and configure the TCP/IP correctly in Windows 7. First make sure your Ethernet Adapter is working, refer to the adapter's manual if needed.

### 1. Install TCP/IP component

- 1) On the Windows taskbar, click **Start** button, and then click **Control Panel**.
- 2) Click the **Network and Internet**, and click the **Network and Sharing Center**, then click **Change adapter settings**.
- 3) Right click the icon that showed below, select **Properties** on the prompt page.



- 4) In the prompt page that showed below, double click on the **Internet Protocol Version 4 (TCP/IPv4)**.

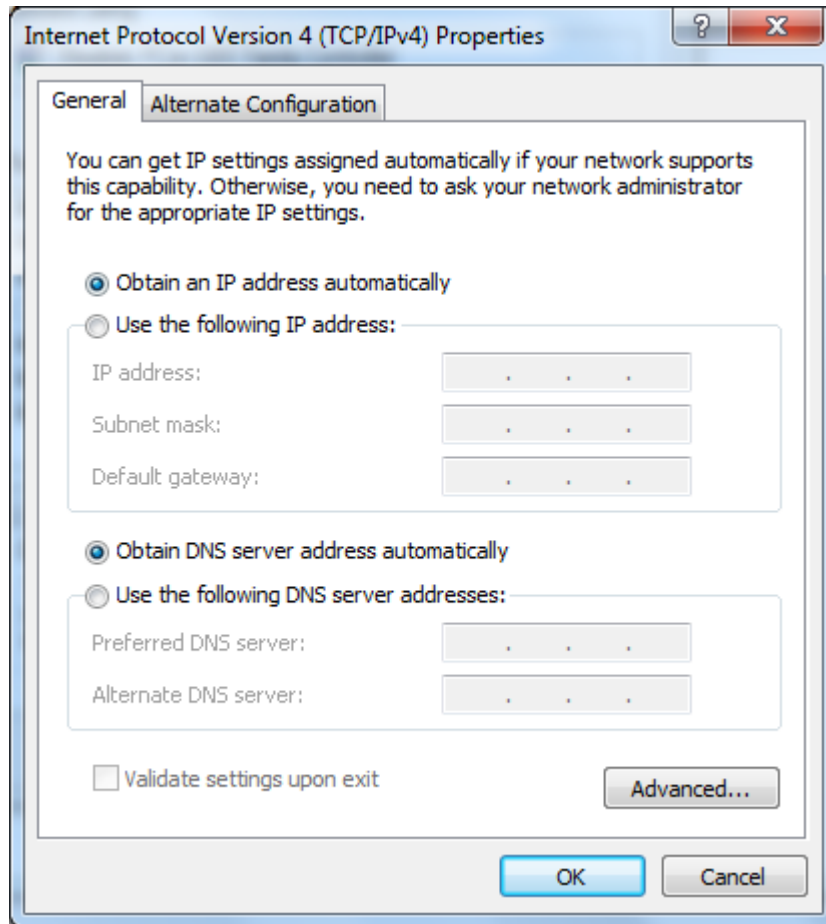


- 5) The following **TCP/IP Properties** window will display and the **IP Address** tab is open on this window by default.

Now you have two ways to configure the **TCP/IP** protocol below:

➤ **Setting IP address automatically**

Select **Obtain an IP address automatically**, Choose **Obtain DNS server automatically**, as shown in the Figure below:



➤ **Setting IP address manually**

- 1 Select **Use the following IP address** radio button. And the following items available
- 2 If the router's LAN IP address is 192.168.1.1, specify the IP address as 192.168.1.x (x is from 2 to 254), and **Subnet mask** is 255.255.255.0.
- 3 Enter the router's LAN IP address (the default IP is 192.168.1.1) in the **Default gateway** field.
- 4 Select **Use the following DNS server addresses** radio button. In the **Preferred DNS Server** field you can type the DNS server IP address, which has been provided by your ISP

