

MERCUSYS®

User Guide

300Mbps Wi-Fi Range Extender

MW300RE

REV3.1.0
1910080050

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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)

2412MHz—2472MHz(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, 2011/65/EU and (EU)2015/863..

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.



NCC Notice

注意！

依據低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即

停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信規定作業之無線電信。低功率射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備之干擾。

BSMI Notice

安全諮詢及注意事項

- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- 注意防潮，請勿將水或其他液體潑灑到本產品上。
- 插槽與開口供通風使用，以確保本產品的操作可靠並防止過熱，請勿堵塞或覆蓋開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風，否則不可放在密閉位置中。
- 請不要私自打開機殼，不要自行維修此產品，若有損壞，請聯繫廠家維修。

限用物質含有情況標示聲明書

產品元件名稱	限用物質及其化學符號					
	鉛 Pb	鎘 Cd	汞 Hg	六價鉻 CrVI	多溴聯苯 PBB	多溴二苯醚 PBDE
PCB	○	○	○	○	○	○
外殼	○	○	○	○	○	○
電源供應板	-	○	○	○	○	○

備考 1. "超出 0.1 wt %" 及 "超出 0.01 wt %" 系指限用物質之百分比含量超出百分比含量基準值。


備考 2. "○" 系指該項限用物質之百分比含量未超出百分比含量基準值。

備考 3. "-" 系指該項限用物質為排除項目。

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 the device where wireless devices are not allowed.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

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.



CAUTION:
 Double pole, neutral fusing.
 Disconnect mains before servicing.

Explanation of the symbols on the product label

Symbol	Explanation
	Class II equipment
	AC 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>
	Warning electric shock
	Fuse is used in neutral N

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Conventions

The extender or MW300RE, or device mentioned in this User Guide stands for MW300RE Wireless Wi-Fi extender 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 extender.

*Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput and wireless coverage per ft² are not guaranteed and will vary as a result of 1) environmental factors, including building materials, physical objects, and obstacles, 2) network conditions, including local interference, volume and density of traffic, product location, network complexity, and network overhead, and 3) client limitations, including rated performance, location, connection quality, and client condition.

*The maximum extended Wi-Fi coverage specification is based on performance testing results. Actual Wi-Fi coverage may vary due to environmental factors, including building materials and wireless interferences.

Chapter 1. Introduction

1.1 Product Overview

The range extender connects to your router wirelessly, strengthening its signal and expanding its coverage into areas that could not otherwise be reached.

Multicolor LED helps you find the right location for your range extender for the best Wi-Fi extension.

1.2 Product Appearance



1.2.1 LED Explanation

LED	Status	Indication
Signal	Blinking red	The extender is connecting to the router.
	Solid red	The extender is not connected to the router.
	Solid green	The extender is connected to the router, and is in a good location.
	Solid orange	The extender is connected to the router, but is too far away from the router.

1.2.2 Button Explanation

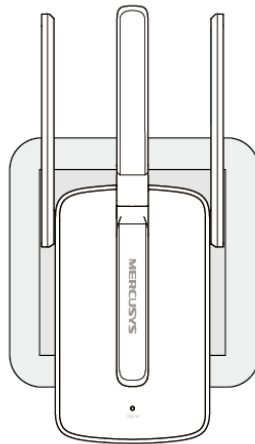
Button	Description
RESET/WPS	Press and hold this button for more than 5 seconds until the Signal LED starts blinking quickly to reset the extender. Press for 1 second to use the WPS function.

Chapter 2. Connect the Extender to the Internet

Power On

Plug the extender into a power outlet **near your router**, and the Signal LED turns solid red.

Note: For safety and best performance, we suggest that you position the extender vertically as shown below.

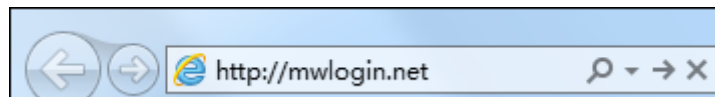


2.1 Method One: Via a Web Browser

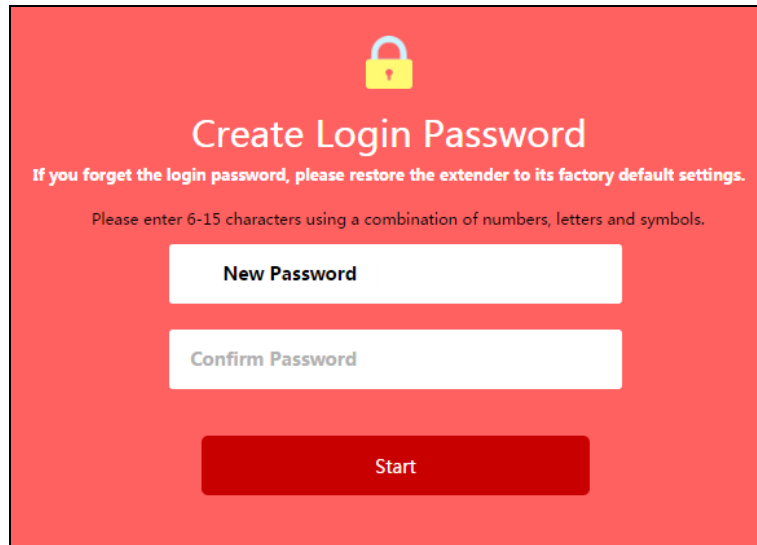
1. Connect your wireless device to the extender's network **MERCUSYS_RE_XXXX**.

Note:

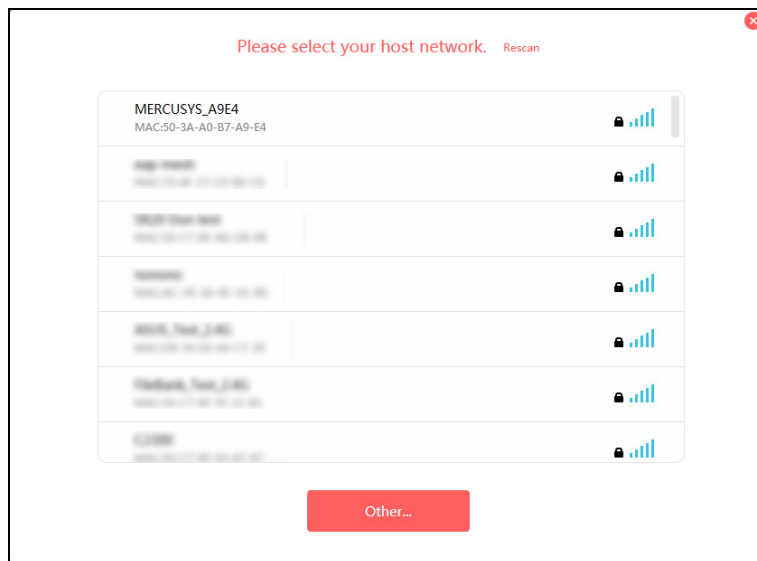
1. The default SSID (network name) is printed on the product label at the back of the extender.
 2. If you are using a computer, unplug the Ethernet cable from your computer first (if any).
2. Follow the instructions of the Quick Setup Wizard to connect the extender to your router.
 - 1) Launch a web browser and enter **http://mwlogin.net** in the address field.



- 2) A login window will appear. Create a login password when prompted, then click **Start**. For subsequent logins, use the password you have set.



- 3) The extender will scan and display all available networks. Select your router's host network from the list.

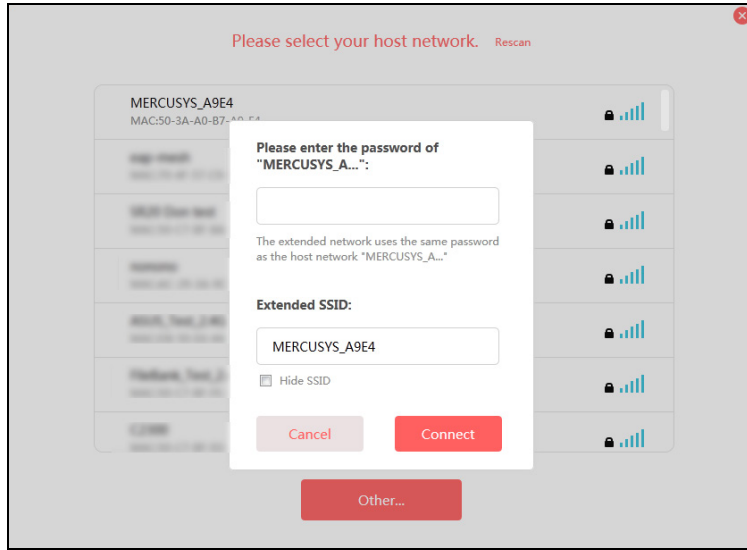


Note:

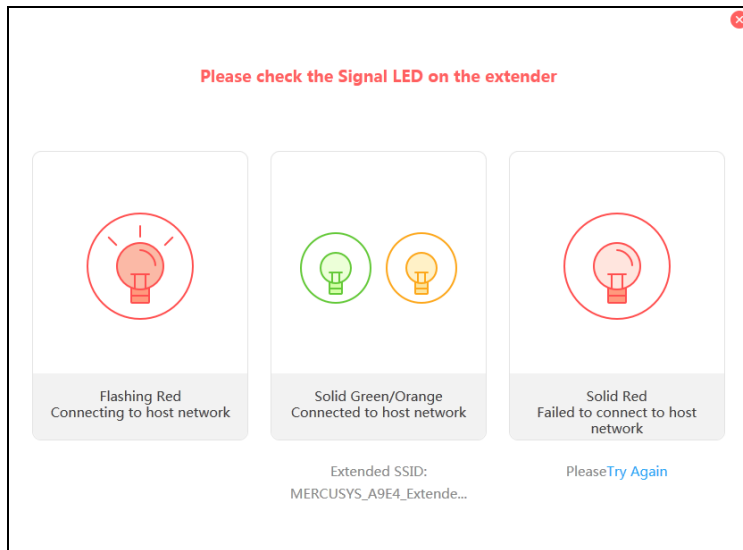
If the network you want to extend is on but not listed, please try the following steps.

- Move the extender closer to your router, and click **Rescan** in the top-right corner of the list.
- Click **Other...** to manually enter the SSID (network name) and password of the network you want to extend, and click **Connect**.

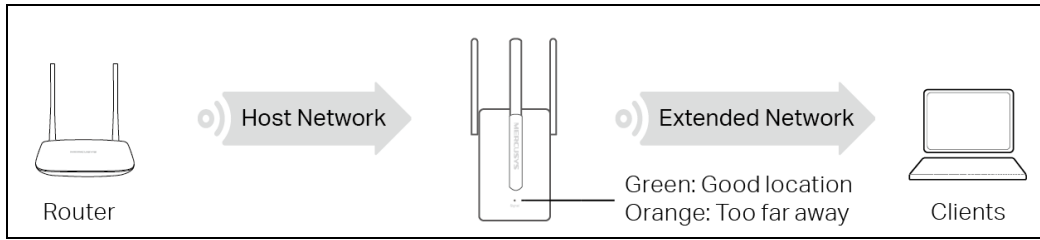
- 4) Enter the network password when prompted, then click **Connect**. You can also customize the extended network name on this page.



- 5) Check the Signal LED on your extender. Green or orange LED indicates a successful connection.



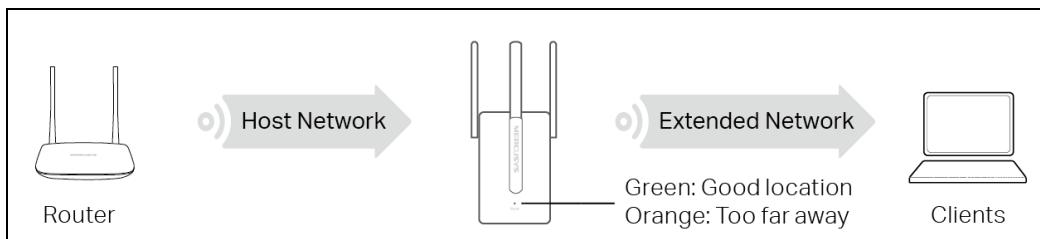
3. Relocate the extender.
 - 1) Plug the extender into an electrical outlet between your host router and the Wi-Fi "dead" zone. The location you choose must be within the range of your existing host network.
 - 2) Wait until the Signal LED is lit and solid green. If it's not, relocate it closer to the host router to achieve better signal quality.



4. **Enjoy!** Connect to the extended network and enjoy the internet. The extended network uses the same wireless password as your host networks, but may have different network name if you have customized the SSID during the configuration.

2.2 Method Two: Via WPS

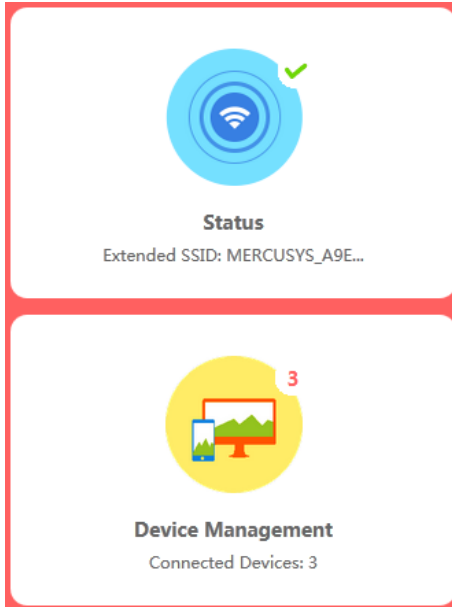
1. Press the **WPS** button on your router.
2. Within two minutes, press the **RESET/WPS** button on your extender for 1 second. The Signal LED should change from flashing to a solid state, indicating a successful WPS connection.
3. Relocate the extender.
 - 1) Plug the extender into an electrical outlet between your host router and the Wi-Fi "dead" zone. The location you choose must be within the range of your existing host network.
 - 2) Wait until the Signal LED is lit and solid green. If it's not, relocate it closer to the host router to achieve better signal quality.



4. **Enjoy!** Connect to the extended network and enjoy the internet. The extended network uses the same wireless password as your host networks, but may have different network name if you have customized the SSID during the configuration.

Chapter 3. Basic Configuration

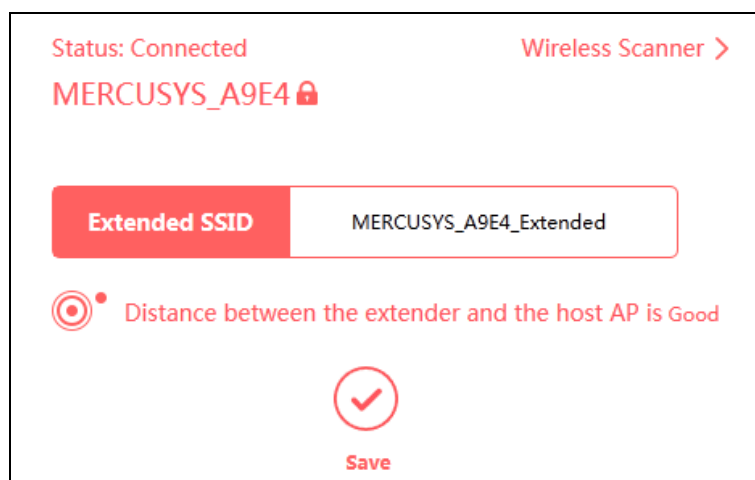
After your successful login, you will see the basic configuration page. The main menus are on the left of the page. On the right you can configure the corresponding function.



There are two functions on the **Basic** page: **Status** and **Device Management**. The detailed explanations for each function are listed below.

3.1 Status

Go to **Basic**→**Status**, you can view the internet status of your extender.











- **Status** - Displays the connection status and the name of the host network.
- **Wireless Scanner** - Click to find all available networks if you want to extend another host network.



- **Extended SSID** - Displays the name of the extended network. You can edit the name on this page.
- **Distance between the extender and the host AP is Good** – Displays whether the extender is in a proper location. If the distance is too far, relocate the extender closer to your router.

3.2 Device Management




Go to **Basic**→**Device Management**, you can view and manage the connected or blocked devices.



1. Host Devices

Host Devices 3		Blocked Devices 0	
Device Name	IP Address	MAC Address	Block
 W7	 192.168.0.100	00-0C-43-53-70-42	Me
 Unknown	 192.168.0.40	50-C7-BF-08-42-D5	
 Unknown	 192.168.0.60	22-33-44-55-66-00	

- **Device Name/IP Address/MAC Address** - Displays the name, IP address and MAC address of the device. You can click  to edit the device name.
- **Block** - Click  to remove the device from the list.

2. Blocked Devices

Host Devices 2		Blocked Devices 1	
Device Name	Allow		
 Unknown	 MAC 22-33-44-55-66-00		

- **Device Name** - Displays the name of the device. You can click  to edit the device name.
- **Allow** - Click  to remove the device from the list.

Chapter 4. Advanced Configuration

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

4.1 Wireless

Go to **Advanced**→**Wireless**, you can view and configure the extended wireless network settings.

Wireless

Network Name (SSID): MERCUSYS_A9E4_Ext Hide SSID

Save

- **Network Name (SSID)** - The extended wireless network name. You can change the name on this page.
- **Hide SSID** – Select this option if you want to hide the extended network from others.

4.2 Profile

Profile is used for managing the information of connected host networks. You can view recently connected networks or manually add new ones.

Profile

<input type="checkbox"/>	Extended SSID	Host SSID	Host MAC Address	Security	Operation
<input type="checkbox"/>	MERCUSYS_A9E4_Ext...	MERCUSYS_A9...	50-3a-a0-b7-a9-e4	WPA-PSK/WPA2-PSK	Connect Edit

Add Delete All Delete Selected

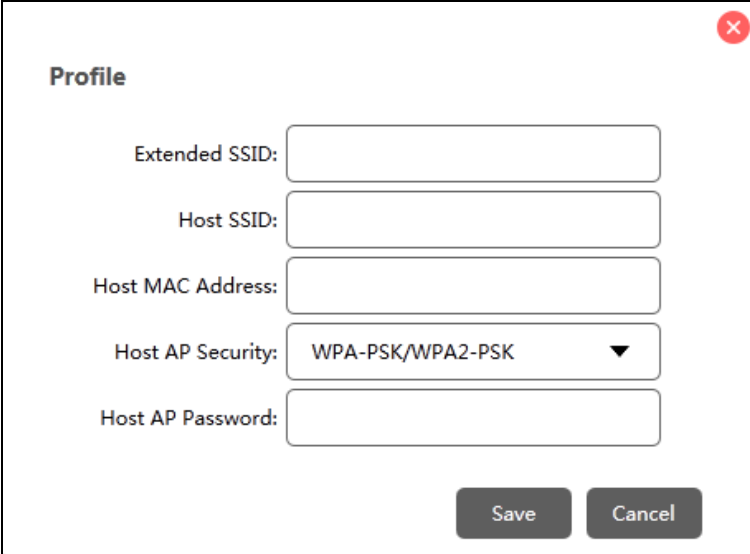
- **Operation** – Click **Connect** to connect to the host network in this profile or click Edit to edit an existing profile.
- **Add** - Manually add a host AP by entering the extended network name, host network name,

host MAC address, security type and password.

- **Delete All** - Click to delete all profiles.
- **Delete Selected** - Click to delete selected profiles.

To add a new profile

- 1) Click **Add**.
- 2) Complete the settings as shown below, and click **Save**.



The image shows a 'Profile' configuration dialog box with a red close button in the top right corner. The dialog contains the following fields and controls:

- Extended SSID:** A text input field.
- Host SSID:** A text input field.
- Host MAC Address:** A text input field.
- Host AP Security:** A dropdown menu currently showing 'WPA-PSK/WPA2-PSK' with a downward arrow.
- Host AP Password:** A text input field.
- At the bottom right, there are two buttons: **Save** and **Cancel**.

- **Extended SSID** - Enter the extended network name.
- **Host SSID** - Enter the host network name.
- **Host MAC Address** - Enter the MAC address of the host router.
- **Host AP Security** - Select the security type of the host network.
- **Host AP Password** - Enter the password of the host network.

To connect to a host network

To connect to a host network that is listed in the profile screen, just find the profile and then click **Connect**.

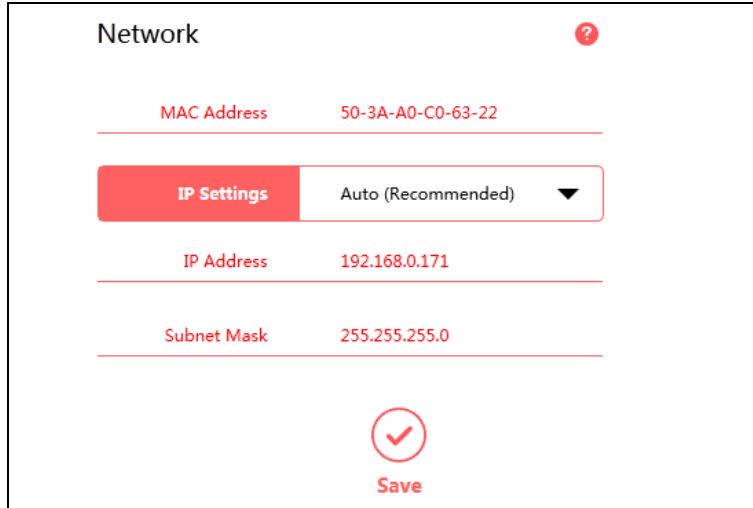
To manage an existing profile

To change the settings of an existing profile, find the profile and click **Edit**, then you can edit the settings of this profile.

If you want to delete a profile that you no longer use, select the profile and click **Delete Selected**.

4.3 Network

Go to **Advanced**→**Network**, you can configure network settings of the extender.



Network

MAC Address 50-3A-A0-C0-63-22

IP Settings Auto (Recommended) ▼

IP Address 192.168.0.171

Subnet Mask 255.255.255.0

Save

- **MAC Address** - The unique physical address of the extender.
- **IP Settings** - Select Auto or Manual. It is recommended to select Auto. If you want to set the IP address and subnet mask manually, select Manual and enter them manually.
- **IP Address** - The LAN IP address of the extender.
- **Subnet Mask** - Subnet mask determines the size of the network. Normally it is 255.255.255.0.

4.4 DHCP Server

Go to **Advanced**→**DHCP Server**, you can configure the DHCP Server settings. DHCP server will automatically assign IP address and subnet mask to devices on your network.

DHCP Server ?

DHCP Server: On Off Auto

Start IP Address 192.168.0.100


End IP Address 192.168.0.199

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

Current DHCP Server Status: Auto On

- **DHCP Server** - Select On, Off or Auto. When Auto is selected, the extender will detect other DHCP server on the network to determine whether to renew IP address, Gateway and DNS of this DHCP server or not.
- **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 extender 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.) The default is 0.0.0.0. Enter the LAN IP address of your host router.
- **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.

DHCP Client

Host	MAC Address	IP Address	Effective Time
W7	00-0C-43-53-70-42	192.168.0.100	01:53:05

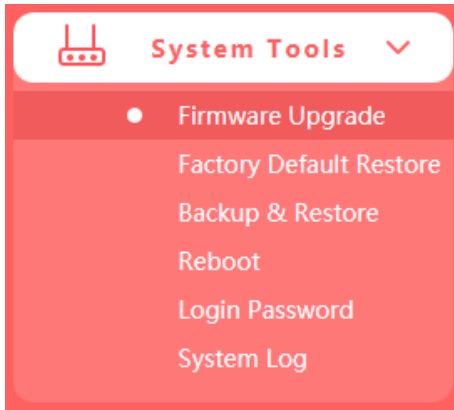

Refresh

- **Host** - The name of the DHCP client.

- **MAC Address** - The MAC address of the DHCP client
- **IP Address** - The IP address that has been 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.

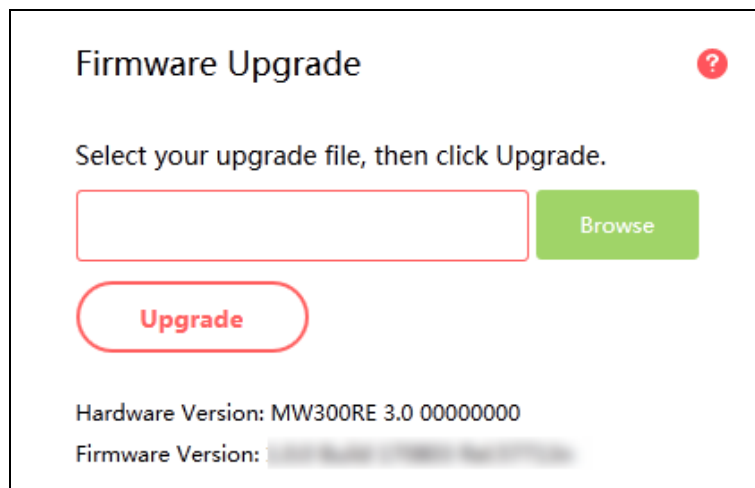
Click **Refresh** to show the current attached devices.

4.5 System Tools



4.5.1 Firmware Upgrade

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



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

To upgrade the extender's firmware, follow the steps below:

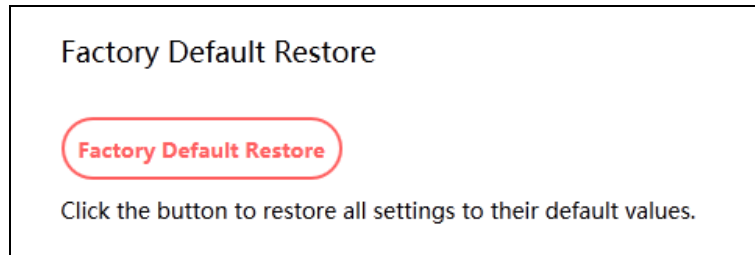
Note: To avoid any damage, it is important to keep the extender powered on during the entire process.

1. Download the latest firmware upgrade file from our website ([http:// www.mercusys.com](http://www.mercusys.com)).

2. Click **Browse** to locate and select the downloaded firmware file.
3. Click **Upgrade**.
4. The extender will reboot automatically after the upgrade.

4.5.2 Factory Default Restore

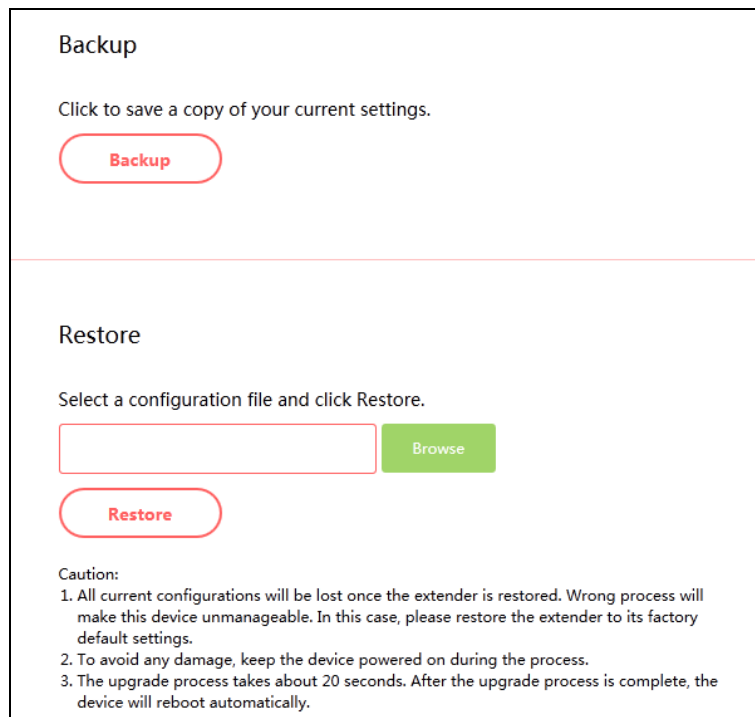
Go to **System Tools**→**Factory Default Restore**, and then you can restore the configurations of the extender to factory defaults.



Click **Factory Default Restore** to reset all configuration settings to their default values. All your custom settings will be lost when the extender is restored.

4.5.3 Backup & Restore

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



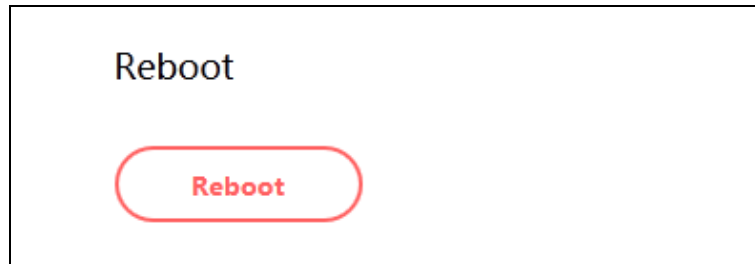
Click **Backup** to save all settings as a backup file to your local computer.

Click **Browse** to locate and select your backup file, then click **Restore** to restore the settings.

The restore process may take a few minutes to complete and the extender will automatically reboot itself when finished.

4.5.4 Reboot

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

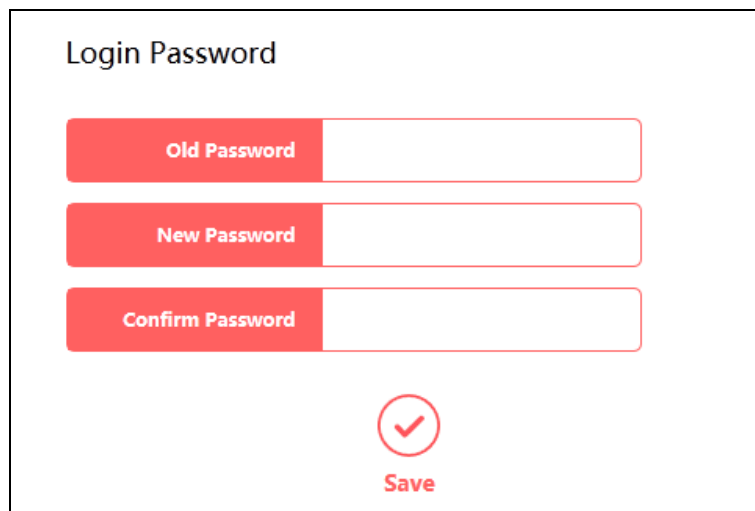


Some settings of the extender will take effect only after rebooting, which include:

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

4.5.5 Login Password

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

A screenshot of a web interface titled "Login Password". It contains three input fields stacked vertically, each with a red header: "Old Password", "New Password", and "Confirm Password". Below the fields is a red button with a white checkmark icon and the word "Save" in white text.

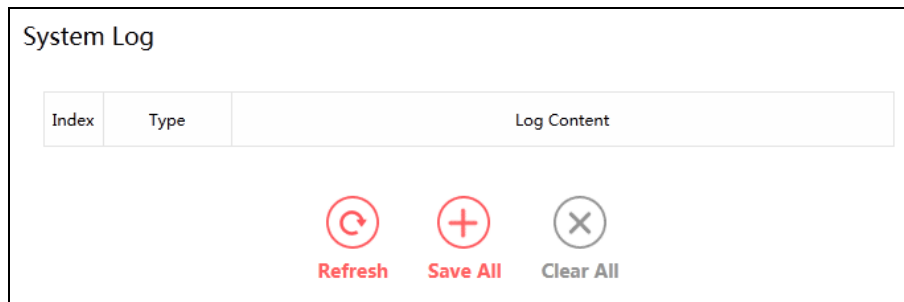
To change the extender's login password, follow the steps below.

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

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

4.5.6 System Log

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



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

FAQ (Frequently Asked Questions)

Q1. How to restore my extender's configuration to its factory default settings?

Option One: With the extender powered on, press and hold the RESET/WPS button for more than 5 seconds until the Signal LED starts blinking quickly, then release the button.

Option Two: Log in to the extender's web management page via a web browser, go to System Tools > Factory Default Restore, and click Factory Default Restore.

Q2. What should I do if I forgot my login password?

Restore the extender's configuration to its factory default settings referring to Q1, then create a new password when prompted.

Q3. What should I do if I cannot log in to the extender's web management page?

- Make sure your wireless device is connected to the extended network using the extended SSID.
- Verify that <http://mwlogin.net> is correctly entered in the web browser.
- If you are using a computer, make sure it is set to obtain an IP address automatically.
- Refer to Q1 to reset the extender and try again.