



EMINENT

EM4591
Universal Wi-Fi repeater with WPS

en

Manual

EM4591 – Universal Wi-Fi repeater with WPS

Table of contents

1.0 Introduction	2
1.1 Packing contents	2
1.2 Device Overview.....	3
2.0 Where to place the EM4591 repeater?	4
3.0 Configure the wireless repeater using the WPS button	5
4.0 Connecting a wireless WPS adapter to the EM4591	6
5.0 Configuring the EM4591 manually	6
5.1 Manual configuration (PC)	7
5.2 Manual configuration (Tablet/Smartphone)	11
6.0 Changing the wireless network name (SSID) of the repeater	15
7.0 Frequently Asked Questions and other related information	16
8.0 Service and support.....	16
9.0 Warning and points of attention	17
10.0 Warranty conditions	18

1.0 Introduction

Congratulations with the purchase of this high-quality Eminent product! This product has undergone extensive testing by Eminent's technical experts. Should you experience any problems with this product, you are covered by a five-year Eminent warranty. Please keep this manual and the receipt in a safe place.

Register your product now on www.eminent-online.com and receive product updates!

1.1 Packing contents

The following parts need to be present in the packing:

- EM4591
- QIG
- Ethernet cable

1.2 Device Overview

Front Panel



LABEL	STATE	DESCRIPTION
LED Signal strength		
3 BARS	Connected	90% and above (Excellent)
2 BARS	Connected	55-89% (Recommended)
1 BAR	Connected	10-54% (Weak)

Top Panel



LABEL	DESCRIPTION
WPS Button	Connect EM4591 to any WPS capable devices (5 sec. to connect to router/AP or 2 sec. when connecting a wireless client)

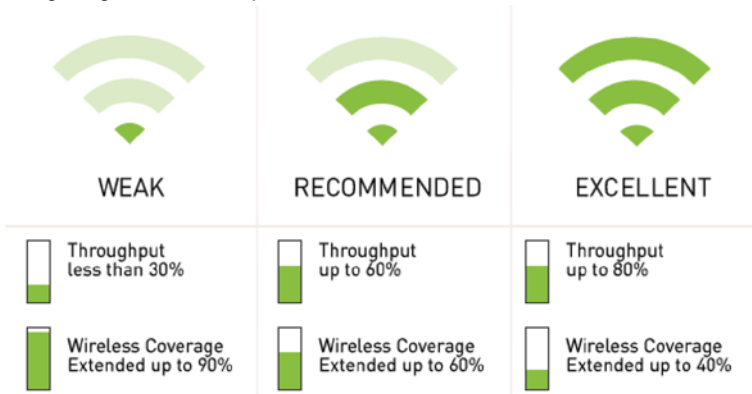
Bottom Panel



LABEL	DESCRIPTION
RESET	If the signal indicator is orange please wait for the indicator to turn green. Press the reset button for 5-7 seconds to restore the device to default factory settings wait approx. 1 minute for the device to reboot (Signal indicator flashes green).
Ethernet port	Connect to computers / Ethernet devices

2.0 Where to place the EM4591 repeater?

The best location to place the EM4591 is approximately half-way between your wireless router and your wireless computer(s) which has/have the weakest wireless reception. This way, the signal strength will be as good as possible. Refer to the following images for an example:





Hint: Before placing the EM4591 on its destined location, the device needs to be setup. Setting up the EM4591 wireless repeater can be done best, if the EM4591 is located near your wireless router. After setting up the EM4591, you can place the EM4591 at a location defined by using the signal indicator LEDs and the recommended setup as described previously.

3.0 Configure the wireless repeater using the WPS button

1. Please check if your wireless router has a WPS button. Also, check whether your wireless router has a properly configured internet connection.
2. Connect the EM4591 to a wall outlet.
3. Wait for the LED to turn green (flashing).
4. Press the WPS button on your wireless router for approximately 3 seconds*.
5. Now press the WPS button on the EM4591 Wireless Repeater for approximately 5 seconds. Refer to the following image for the WPS button:



6. The connection between your wireless router and the EM4591 wireless repeater will be established automatically (this will take approx. 1 minute including reboot). The signal indicator will stop flashing and indicate the signal strength.

**Refer to the manual of your wireless router for the exact duration of pressing the WPS button. This can differ from brand or model.*

Note: If the WPS button is used, the SSID and network key are the same as used on your wireless router. Some WPS routers will change their original SSID to another SSID if WPS is used. In this installation guide, the SSID of the wireless router is 'Eminent'.

4.0 Connecting a wireless WPS adapter to the EM4591

1. Press the WPS button on the EM4591 for about 2-3 seconds.
2. Now press the WPS button on your wireless adapter.
3. If correct, the connection between the wireless WPS adapter and EM4591 will be established. Depending on the Windows version you are using, you should see a connected icon in the taskbar.

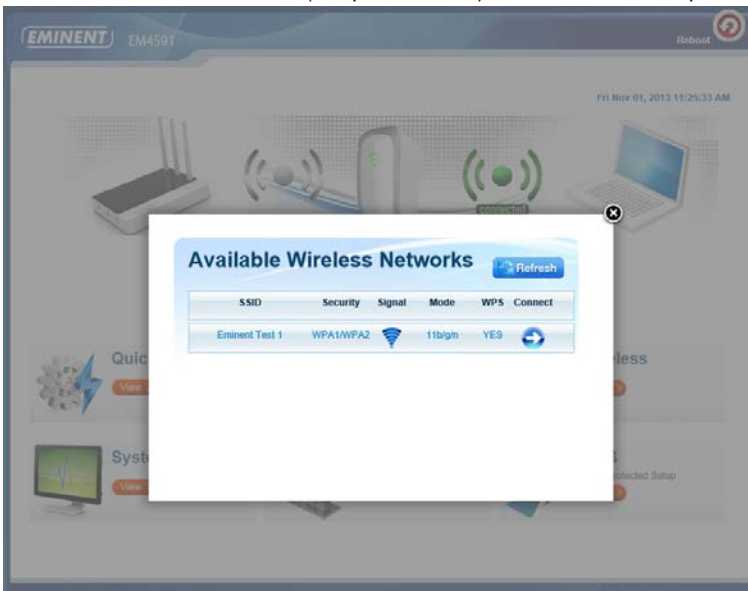
Note: Some wireless WPS adapters require the use of the supplied software to create a WPS connection. Refer to the manual of your wireless WPS adapter for more information.


5.0 Configuring the EM4591 manually

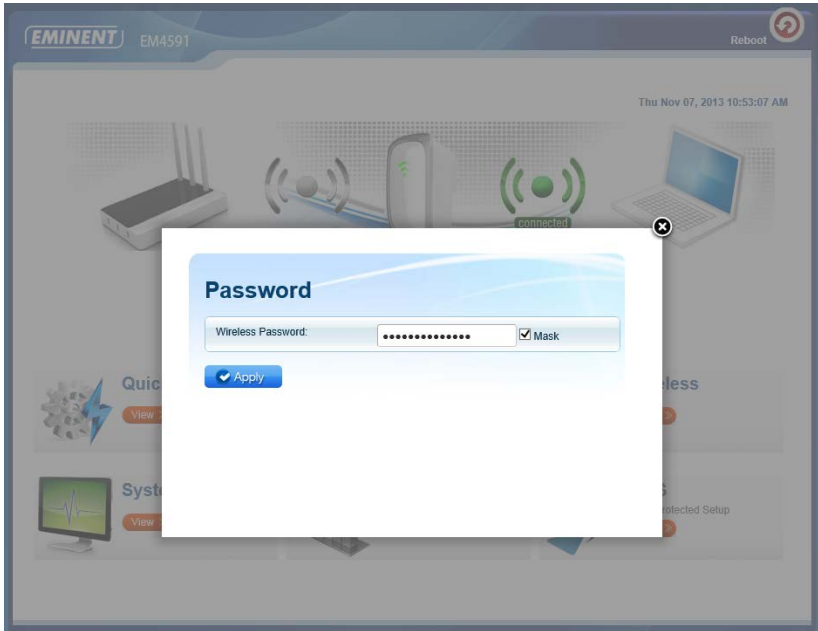
It is possible to configure the repeater manually instead of using the WPS button.

5.1 Manual configuration (PC)

1. Connect the EM4591 to a wall outlet.
2. Wait for the signal indicator to flash green.
3. Connect to the EM4591 via WiFi SSID: **Eminent_repeater** or use the Ethernet cable to connect to the EM4591 directly.
4. Launch the internet browser from your computer.
5. You will be redirected to the EM4591 repeater's user interface. (If in any case it doesn't, type `http://10.0.10.254` in your internet browser and then hit Enter.
6. If you configure the device the first time you will see a pop-up screen displaying all the available WiFi networks (see picture below). If not continue to step 9



7. Click  next to the wireless network you wish to connect to.




8. In the next step you will need to enter the WPA Passphrase of the Wi-Fi network you wish to connect to and click "Apply". After the settings have been applied, the EM4591 will reboot and connect to your wireless router.
9. The following steps will explain how to configure the EM4591 if the device does not automatically start the wizard.



10. Click "Quick Connect"



11. The first step of the wizard appears, where you need to select the wireless network you wish to connect to by clicking  as shown in the following image:



12. In the next step you will need to enter the WPA Passphrase of the Wi-Fi network you wish to connect to (do not change the other settings).

SETUP FOR EM4591

Mode of Operation:	<input checked="" type="radio"/> Repeater	<input type="radio"/> Access Point	<input type="radio"/> Bridge
SSID:	<input type="text" value="Eminent"/>		
MAC Address:	<input type="text" value="00:14:5c:8c:20:10"/>		
Broadcast SSID:	<input checked="" type="checkbox"/> ENABLED	<input type="checkbox"/> DISABLED	
Security Mode:	<input type="text" value="WPA2 PSK"/>		
WPA Passphrase:	<input type="text" value="1234567890"/>	<input type="checkbox"/> Mask	
WPA Encryption:	<input type="radio"/> TKIP	<input checked="" type="radio"/> AES	
Channel:	<input type="text" value="2412MHz (Channel 1)"/>		
Enhanced Compatibility:	<input checked="" type="checkbox"/> On	<input type="checkbox"/> Off	

13. Click 'Apply' to save and apply the configuration.
14. After the settings have been applied, the EM4591 will reboot and connect to your wireless router.

Note: The EM4591 now has the same SSID (no longer "Eminent_repeater") as the wireless network you connected to in the previous step. To make sure you are connected to the repeater and not the modem/router keep your device close to the repeater (approx. 1m). Turn off your WiFi and turn it back on again. The device will now connect to the repeater. You can only access the "User Interface" of the EM4591 if you are connected directly to the repeater.

15. Check the connection status by entering the User Interface via the browser (10.0.10.254) and clicking "Device Status". Here, you can check whether a connection has been established. Refer to the following image.

The screenshot shows a web interface for system status. At the top, it says 'System Status' and 'AP Client Connection Status'. Below this, there are two status boxes. The first box shows 'Connection Status: Connected', with 'Connected' highlighted in a red box. The second box shows 'Extension Access Point: Eminent Test 1'. Below these is a 'Client List' section with a table of MAC addresses.


MAC Address
FC:25:3F:AB:AA:2F
00:13:33:93:B2:F9
70:73:CB:27:83:85
78:D6:F0:F3:31:2A

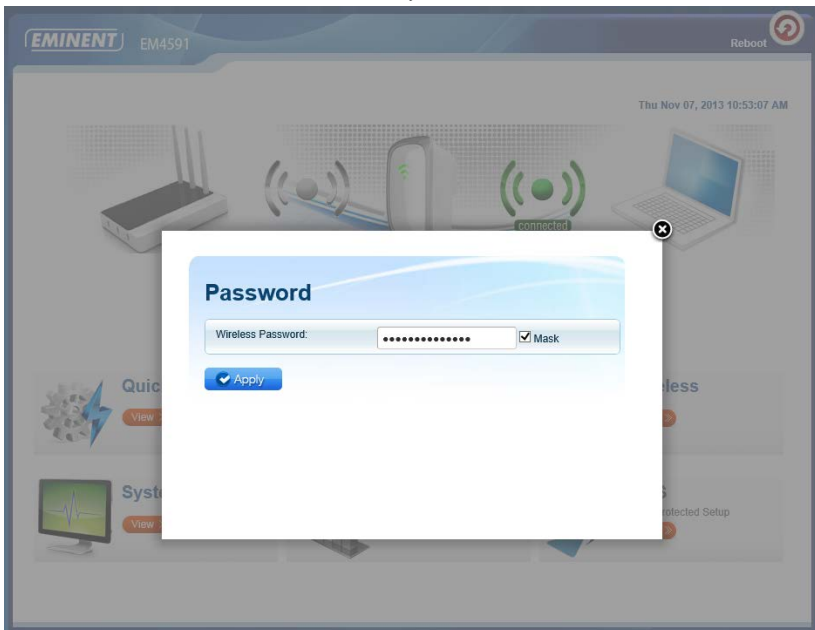
16. You can now connect your wireless network adapter(s) to the EM4591 as described in chapter 'Connecting a wireless WPS adapter to the EM4591', or by connecting to the Wi-Fi connection and entering the wireless encryption key of the wireless network you previously connected.

5.2 Manual configuration (Tablet/Smartphone)

1. Connect the EM4591 to a wall outlet.
2. Wait for the signal indicator to flash green.
3. Connect to the EM4591 via WiFi SSID: **Eminent_repeater**.
4. The device will launch the internet browser automatically and open the EM4591 User Interface (If in any case it doesn't, open your devices browser and type <http://10.0.10.254> in the address bar).
5. If you configure the device the first time you will see a pop-up screen displaying all the available WiFi networks (see picture below). If not continue to step 8



6. Click  next to the wireless network you wish to connect to.



7. In the next step you will need to enter the WPA Passphrase of the Wi-Fi network you wish to connect to and click "Apply". After the settings have been applied, the EM4591 will reboot and connect to your wireless router.
8. The following steps will explain how to configure the EM4591 if the device does not automatically start the wizard.



9. Click "Quick Connect"

Channel	SSID	MAC Address	Security	Signal	Mode	Type	WPS	Connect
1	intronic-guest	00:14:5c:8f:ba:10	WPA2		11b/g/n	Infrastructure	YES	
1	Eminent Test 1	00:14:5c:8f:6b:d0	WPA1/WPA2		11b/g/n	Infrastructure	YES	
6		00:3a:9a:44:48:d0	WPA1		11b/g	Infrastructure	NO	
11	NIEBO	44:ad:d9:57:c2:30	WPA1		11b/g	Infrastructure	NO	

10. The first step of the wizard appears, where you need to select the wireless network you wish to connect to by clicking as shown in the following image:

Available Wireless Networks

[Refresh](#)

Channel	SSID	MAC Address	Security	Signal	Mode	Type	WPS	Connect
1	Eminent 1	00:14:5c:8c:20:10	WPA1/WPA2		11b/g/n	Infrastructure	YES	
6	Eminent 2	08:76:ff:89:81:64	WPA1/WPA2		11b/g/n	Infrastructure	YES	

11. In the next step you will need to enter the WPA Passphrase of the Wi-Fi network you wish to connect to (do not change the other settings).

SETUP FOR EM4591

Mode of Operation: **Repeater** Access Point Bridge

SSID: Eminent

MAC Address: 00:14:5c:8c:20:10

Broadcast SSID: **ENABLED** DISABLED

Security Mode: WPA2 PSK

WPA Passphrase: 1234567890 Mask

WPA Encryption: TKIP **AES**

Channel: 2412MHz (Channel 1)

Enhanced Compatibility: **On** Off

12. Click 'Apply' to save and apply the configuration.
13. After the settings have been applied, the EM4591 will reboot and connect to your wireless router.

Note: The EM4591 now has the same SSID (no longer "Eminent_repeater") as the wireless network you connected to in the previous step. To make sure you are connected to the repeater and not the modem/router keep your device close to the repeater (approx. 1m). Turn off your WiFi and turn it back on again. The device will now connect to the SSID closest to the device. You can only access the "User Interface" of the EM4591 if you are connected directly to the repeater.

14. Check the connection status by entering the User Interface via the browser (10.0.10.254) and clicking "Device Status". Here, you can check whether a connection has been established. Refer to the following image.

System Status

AP Client Connection Status

Connection Status:	Connected
Extension Access Point:	Eminent Test 1

Client List

MAC Address
FC:25:3F:AB:AA:2F
00:13:33:93:B2:F9
70:73:CB:27:83:85
78:D6:F0:F3:31:2A

15. You can now connect your wireless network adapter(s) to the EM4591 as described in chapter 'Connecting a wireless WPS adapter to the EM4591', or by connecting to the Wi-Fi connection and entering the wireless encryption key of the wireless network you previously connected.

6.0 Changing the wireless network name (SSID) of the repeater.

If you wish to use a different WiFi network name SSID for the EM4591 repeater. You can change this by entering the User Interface of the EM4591.

Note: Make sure you are connected to the Repeater and not to your wireless Router/Modem. Keep your device close to the repeater (approx. 1m). Turn off your WiFi and turn it back on again.

1. Open your devices browser and type <http://10.0.10.254> in the address bar.
2. Click Wireless.



 <p>Quick Connect</p> <p>View ></p>	 <p>Setup</p> <p>View ></p>	 <p>Wireless</p> <p>View ></p>
 <p>System</p> <p>View ></p>	 <p>Device Status</p> <p>View ></p>	 <p>WPS</p> <p>Wi-Fi Protected Setup</p> <p>View ></p>

- Change the SSID name to the preferred name for the WiFi network of the Repeater and click “Apply”.

Wireless Basic Settings

Enable Wireless: ENABLED DISABLED

Broadcast SSID: ENABLED DISABLED

SSID:

Wireless Mode: ▼

Channel: ▼

HT Data Rate: ▼

HT Channel Bandwidth: 20/40

HT Guard Interval: Long Auto

HT Channel Mode:

Note: After the settings have been applied, the EM4591 will reboot. Your device will no longer be connected to the wireless network SSID of the EM4591. Reconnect your device to the Wireless network (SSID) you entered in step 3.

7.0 Frequently Asked Questions and other related information

The latest Frequently asked questions for your product can be found on the support page of your product. Eminent will update these pages frequently to assure you have the most recent information. Visit www.eminent-online.com for more information about your product.

8.0 Service and support

This users manual has been carefully written by Eminent’s technical experts. If you have problems installing or using the product, please fill out the support form at the website www.eminent-online.com/support.

You can also contact us by phone. Please check www.eminent-online.com/support for the helpdesk phone number and opening hours.

9.0 Warning and points of attention



Due to laws, directives and regulations set out by the European parliament, some (wireless) devices could be subject to limitations concerning its use in certain European member states. In certain European member states the use of such devices could be prohibited. Contact your (local) government for more information about this limitations.

Always follow up the instructions in the manual*, especially where it concerns devices which need to be assembled.

Warning: In most cases this concerns an electronic device. Wrong/improper use may lead to (severe) injuries!

Repairing of the device should be done by qualified Eminent staff. The warranty immediately voids when products have undergone self repair and/or by misuse. For extended warranty conditions, please visit our website at www.eminent-online.com/warranty.

**Tip: Eminent manuals are written with great care. However, due to new technological developments it can happen that a printed manual does not longer contain the most recent information.*

If you are experiencing any problems with the printed manual or you can not find what you are looking for, please always check our website www.eminent-online.com first for the newest updated manual.

Also, you will find frequently asked questions in the FAQ section. It is highly recommended to consult the FAQ section. Very often the answer to your questions will be found here.

10.0 Warranty conditions

The five-year Eminent warranty applies to all Eminent products, unless mentioned otherwise before or during the moment of purchase. After buying a second-hand Eminent product the remaining period of warranty is measured from the moment of purchase by the product's initial owner. Eminent warranty applies to all Eminent products and parts, indissolubly connected or mounted to the product it concerns. Power supply adapters, batteries, antennas and all other products not directly integrated in or connected to the main product or products of which, without reasonable doubt, can be assumed that wear and tear during use will show a different pattern than the main product, are not covered by the Eminent warranty. Products are not covered by the Eminent warranty when exposed to incorrect/improper use, external influences or when opening the service parts of the product by parties other than Eminent. Eminent may use refurbished materials for repair or replacement of your defective product. Eminent cannot be held responsible for changes in network settings by internet providers. We cannot guarantee that the Eminent networking product will keep working when settings are changed by the internet providers. Eminent cannot guarantee the working of web services, apps and other third party content that is available through Eminent products. Eminent products with an internal hard disk have a limited warranty period of two years on the hard disk. Eminent could not be held responsible for any data lost. Please make sure that if the product stores data on a hard drive or other memory source, you will make a copy before you return the product for repair.

When my product gets defective

Should you encounter a product rendered defective for reasons other than described above: Please contact your point of purchase for taking care of your defective product.



Trademarks: all brand names are trademarks and/or registered trademarks of their respective holders. The information contained in this document has been created with the utmost care. No legal rights can be derived from these contents. Eminent cannot be held responsible, nor liable for the information contained in this document.



Eminent is a member of the Intronics Group