

EM4590R1 Wireless WPS Repeater



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EM4590R1 – Wireless WPS Repeater

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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:

- EM4590
- Manual
- LAN Cable

2.0 Where to place the EM4590 wireless WPS repeater?

The best location to place the EM4590 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 image for an example:



Hint: If you have an iOS or Android smartphone or tablet, you can find the best location for the EM4590 by using an App called 'WiFi Analyzer'. This App allows you to search for wireless networks and it also shows the signal strength, which is ideal if you want to search for the correct location to place the EM4590. The App can be downloaded from Apple's Appstore (iOS) and from Google's Play Store (Android).

Hint: Before placing the EM4590 on its destined location, the device needs to be setup. Setting up the EM4590 wireless repeater can be done best, if the EM4590 is located near your wireless router. After setting up the EM4590, you can place the EM4590 on the location you want.

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 EM4590 to a wall outlet.
- 3. Press the WPS button on your wireless router for approximately 3 seconds*.
- Now press the WPS button on the EM4590 Wireless Repeater for approximately 7-10 seconds. Refer to the following image for the WPS button:



5. The connection between your wireless router and the EM4590 wireless repeater will be established automatically.

*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 EM4590

- 1. Press the WPS button on the EM4590 for about 2-3 seconds.
- 2. Now press the WPS button on your wireless adapter.
- If correct, the connection between the wireless WPS adapter and EM4590 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 EM4590 manually (wired)

It is possible to configure the repeater manually instead of using the WPS button. If you want to configure the repeater manually, it is advisable to use the wired connection. Also, it is advisable to fill out a fixed IP-Address for your LAN card in order to access the EM4590.

- 1. Connect a network cable to the EM4590 and connect the other end to the network card of your computer.
- 2. Connect the EM4590 to a wall outlet.
- 3. Make sure your computer is completely started.
- 4. Go to the 'Control Panel' of your computer.
- 5. Windows XP users need to click 'Network connections'. Windows Vista users need to click 'Network and Sharing center' and then click 'Show network connections'. Windows 7 users need to click 'Network and Sharing Center' and then click 'Change adapter settings'. Windows 8 users need to go to 'Start' (Apps) and then choose 'All Apps'. Choose 'Control Panel' and click 'Network and Sharing Center'. Click 'Change adapter settings'.
- 6. Right-click your 'LAN' connection and click 'Properties'.
- Windows XP users: Double-click 'Internet protocol TCP/IP'. Windows Vista, Windows 7 and Windows 8 users: Double-click 'Internet protocol 'TCP/IPv4' as shown in the following image:

| | netwerkcontroller | |
|--|---|-------------------------------------|
| | | Configure |
| nis connection uses | the following items: | |
| 🗹 🌺 Client for Mic | crosoft Networks | |
| 🗹 🛃 QoS Packet | Scheduler | |
| 🗹 🛃 File and Prini | ter Sharing for Microsoft | Networks |
| Internet Prot | ocol Version 6 (TCP/IP) | /6) |
| Internet Prot | ocol Version 4 (TCP/IP) | (4) |
| 🗹 🔺 Link-Layer T | opology Discovery Map | per I/O Driver |
| 🛃 🤲 Link-Layer I | opology Discovery Resp | bonder |
| | | - |
| Install | Uninstall | Properties |
| a recommendation of the second s | | |
| Description | | |
| Description Transmission Contr | ol Protocol/Internet Pro | tocol. The default |
| Description Transmission Contr wide area network | ol Protocol/Internet Prot protocol that provides o | tocol. The default communication |

 Since the EM4590 has its own IP-Address, you need to manually fill out the IPsettings. You can fill out the following IP-settings as shown in the following image:

| Use the following IP addr | ess: |
|---------------------------|---------------------|
| Paddress: | 102 168 10 2 |
| duuress. | 192 . 100 . 10 . 2 |
| ubnet mask: | 255 . 255 . 255 . 0 |
| efault gateway: | 192 168 10 1 |

- 9. After filling out the IP-Address settings, click 'OK' and close the screen.
- 10. Open your computer's web browser and fill out 'http://192.168.10.1' in the address bar and press the 'Enter' key.
- 11. A username and password will be asked. Fill out 'admin' as username. Fill out 'admin' as password and login after which the following screen appears:

| ENT WirFi Rep | peater | EM459 |
|--|---|-------|
| er/AP | | |
| d Access Point | Status | |
| I Setupi face This page shows the cu device. | rrent status and some basic settings of the | _ |
| nent | | |
| System | | |
| Uptime | 0day:1h:51m:19s | |
| Firmware Version | RptW-B.344.0.20130822 | |
| Build Time | Thu Aug 22 10:00:33 CST 2013 | |
| Wireless Configuration | | |
| Sh 🔹 Mode | AP | |
| Band | 2.4 GHz (B+G+N) | |
| SSID | Eminent_VAP | |
| Channel | 13 | |
| Encryption | WPA2 | |
| BSSID | 80:3f:5d:9c:a4:dc | |
| Associated Clients | 1 | |
| Wireless Repeater Inte | erface Configuration | |
| Mode | Infrastructure Client | |
| SSID | Eminent Test 1 | |
| Encryption | WPA2 | |
| BSSID | 00:14:5c:8c:20:10 | |
| State | Connected | |
| TCP/IP Configuration | | |
| Attain IP Protocol | Fixed IP | |
| IP Address | 192.168.10.1 | |
| Subnet Mask | 255.255.255.0 | |
| Default Gateway | 192.168.10.1 | |
| DHCP | Disabled | |
| MAC Address | 80:3f:5d:9c:a4:dc | |

- 12. Click 'Setup wizard'
- 13. The first step of the wizard appears where you need to select 'Wireless Repeater Mode (station)' as shown in the following image:

| ofessional Setup | The setup wizard will guide you to configure Wireless Repeater first time. |
|----------------------|---|
| LAN Interface | Please follow the setup wizard step by step. |
| Wireless | Wireless Repeater Mode(Station) |
| Status | Ethernet connect PC or local network, Wireless work for a WAN port connects to of wireless AP or router. |
| Save/Reload Settings | whereas ar or router. |
| Reboot | |
| | |
| ce: English | User-PC Repeater With AP Router Internet |
| | C Standard Wireless AP Mode |
| | Wireless work for access point, Ethernet connect to local network. |
| | 106 B |
| | |
| | User-PC Repeater RouterSwitch xDSL Modem Internet |
| | |
| | Next >> |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

14. During the following step, a list of available wireless networks will be shown. Select your own network and click 'Next'. If your wireless network does not appear in the list, click 'Refresh List'. Refer to the following image:

| Welcome to the Confin The Wizard assists you extended. | eater Mode(guration Wizard of th u in registering the Wi | Statio e Wireles Fi Repea | n) as Repeater ter at the radio nei | twork to t | be |
|--|---|---------------------------------|---|------------|--------|
| | Refre | esh List | | | |
| S SID | BSSID | Channel | Encryption | Signal | Select |
| Eminent Test 1 | 00:14:5c:8c:20:10 | 13 B+G+N | WPA- PSK/WPA2-PSK | 100% | Select |
| Eminent | 00:14:5c:8c:03:50 | 1 B+G+N | NO | 100% | Select |
| intronics-beek-guest | 00:14:5c:8c:1f:d8 | 1 B+G+N | WPA- PSK/WPA2-PSK | 100% | Select |
| EXPERIA_EMINENT | 08:76:ff:89:81:64 | 6 B+G+N | WPA- PSK/WPA2-PSK | 65% | Select |
| << [| Back | | Save & R | eboot | |

15. During the next step, you need to fill out the network security key as shown in the following image:

Wireless Repeater Mode(Station)

Welcome to the Configuration Wizard of the Wireless Repeater The Wizard assists you in registering the WiFi Repeater at the radio network to be extended.

| | Refresh List | |
|-----------------|----------------|---------------|
| Main AP's SSID: | Eminent Test 1 | |
| Repeater SSID: | WiFi-Repeater | |
| Key: | ••••• | |
| << Back | | Save & Reboot |

 Click 'Save & Reboot' after which a counter appears as shown in the following image:



17. After the settings have been applied, the EM4590 will be connected to your wireless router which can be verified by clicking the 'Status' icon at the left side of the menu. Here, you can check whether a connection has been established. Refer to the following image where the red arrow points towards the connected status:

10 | ENGLISH



Wi ?Fi Repeater

EM4590

Access Point Status

This page shows the current status and some basic settings of the device.

| System | |
|------------------------|------------------------------|
| Uptime | 0day:0h:4m:56s |
| Firmware Version | RptW-B.344.0.20130822 |
| Build Time | Thu Aug 22 10:00:33 CST 2013 |
| Wireless Configuration | |
| Mode | AP |
| Band | 2.4 GHz (B+G+N) |
| SSID | WiFi-Repeater |
| Channel | 13 |
| Encryption | WPA2 |
| BSSID | 80:3f:5d:9c:a4:dc |
| Associated Clients | 1 |
| Wireless Repeater Inte | rface Configuration |
| Mode | Infrastructure Client |
| SSID | Eminent Test 1 |
| Encryption | WPA2 |
| BSSID | 00:14:5c:8c:20:10 |
| State | Connected |
| TCP/IP Configuration | |
| Attain IP Protocol | Fixed IP |
| IP Address | 192.168.10.1 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 0.0.0.0 |
| DHCP | Disabled |
| MAC Address | 80:3f:5d:9c:a4:dc |
| | |

- You can now connect your wireless network adapter(s) to the EM4590 as described in chapter 'Connecting a wireless WPS adapter to the EM4590'.
- 19. Now we need to restore the Automatic IP address for the Wired network connection. Go to the 'Control Panel' of your computer.
- 20. Windows XP users need to click 'Network connections'. Windows Vista users need to click 'Network and Sharing center' and then click 'Show network connections'. Windows 7 users need to click 'Network and Sharing Center' and then click 'Change adapter settings'. Windows 8 users need to go to 'Start' (Apps) and then choose 'All Apps'. Choose 'Control Panel' and click 'Network and Sharing Center'. Click 'Change adapter settings'.
- 21. Right-click your 'LAN' connection and click 'Properties'.
- Windows XP users: Double-click 'Internet protocol TCP/IP'. Windows Vista, Windows 7 and Windows 8 users: Double-click 'Internet protocol 'TCP/IPv4' as shown in the following image:

| ······································ | netwerkcontroller | |
|---|---|---|
| | | Configure |
| is connection uses | the following items: | |
| 🗹 🏪 Client for Mic | rosoft Networks | |
| 🗹 🛃 QoS Packet | Scheduler | |
| 🗹 📇 File and Print | er Sharing for Microsoft | Networks |
| 🖌 🛶 Internet Proto | ocol Version 6 (TCP/IPv | 6) |
| and the second se | the second se | |
| Internet Proto | ocol Version 4 (TCP/IPv | 4) |
| ✓ ▲ Internet Proto ✓ ▲ Link-Layer To | col Version 4 (TCP/IPv pology Discovery Mapp | 4) per I/O Driver |
| ✓ Internet Proto ✓ Link-Layer To ✓ Link-Layer To | ocol Version 4 (TCP/IPv opology Discovery Mapp opology Discovery Resp | 4) ber I/O Driver bonder |
| Internet Proto Link-Layer To Link-Layer To Link-Layer To | pology Discovery Mapp pology Discovery Mapp pology Discovery Resp | 4) oper I/O Driver oonder |
| ✓ Internet Proto ✓ Link-Layer To ✓ Link-Layer To Install | Decol Version 4 (TCP/IPv Depology Discovery Mapp Depology Discovery Resp Uninstall | 4) ber I/O Driver bonder Properties |
| ✓ Internet Proto ✓ Link-Layer To ✓ Link-Layer To Install | Decol Version 4 (TCP/IPv Depology Discovery Mapp Depology Discovery Resp Uninstall | 4) ber I/O Driver vonder Properties |
| ✓ Internet Proto ✓ Link-Layer To ✓ Link-Layer To ✓ Install Description Transmission Control | bool Version 4 (TCP/IPv popology Discovery Mapp popology Discovery Resp Uninstall | 4) per I/O Driver vonder Properties |
| Internet Proto Install | Decol Version 4 (TCP/IPv Depology Discovery Mapp Depology Discovery Resp Uninstall DI Protocol/Internet Proto Di Protocol that provides co connected networks | 4) per I/O Driver vonder Properties ocol. The default ommunication |

 Since you have configured the IP-Address in step 4 to 9, you need to restore these settings to be able to use your Network card in your network again.

| Obtain an IP address automatically | | | | |
|------------------------------------|--|--|--|--|
| O Use the following IP address: | | | | |
| IP address: | | | | |
| Subnet mask: | | | | |
| Default gateway: | | | | |

24. Click 'Obtain an IP address automatically' and press OK.

6.0 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 <u>www.eminent-online.com</u> for more information about your product.

7.0 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 <u>www.eminent-online.com/support</u>.

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

8.0 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 <u>www.eminent-online.com/warranty</u>.

*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.

9.0 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.



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