

Quick Installation Guide



HWREG1

Hi-Gain Wireless-G Range Extender

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Step

1

Check the Requirements for Installation



HWREG1

Hi-Gain Wireless-G Range Extender

This QIG Will Guide You Through
the Initial Setup of your Product

What You Will Need To Get Started:

- Pentium compatible CPU or above.
- Wireless 802.11b/g network. (i.e. AP or Wireless Device)
- One CD-Rom Drive.

Check Your Package Contents:



Hi-Gain Wireless-G Range Extender



CD-Rom

Contains: Setup Wizard, Users Manual, Wireless Hot Spot Locator Software



Power Adapter



Ethernet Cable



HWREG1

Product Overview

Overview

PWR, LAN, and WLAN LEDs

- A solid light on the PWR LED indicates that the unit is on and operational.
- A solid light on the LAN LED indicates a successful connection between the Wireless Range Extender and a wired Ethernet network or PC.
- A blinking light on the WLAN LED indicates a successful and active data transfer connection between the Wireless Range Extender and a wireless network.



Antenna

- Adjustable for optimal reception.
- Removeable for upgrade to Hawking Hi-Gain Antenna line products.

Power Port

- Connects to supplied AC Adapter



10/100M Ethernet Port

- Connects to local network devices such as a PC or Laptop for Setup Purposes.

"Reset" Button

- Pressing the reset button with a pencil tip (for less than 5 seconds) will reboot the device, keeping your original configurations intact.
- If problems continue to persist or you have forgotten your password, pressing the reset button for more than 5 seconds will reset the device back to its factory default settings.

Step

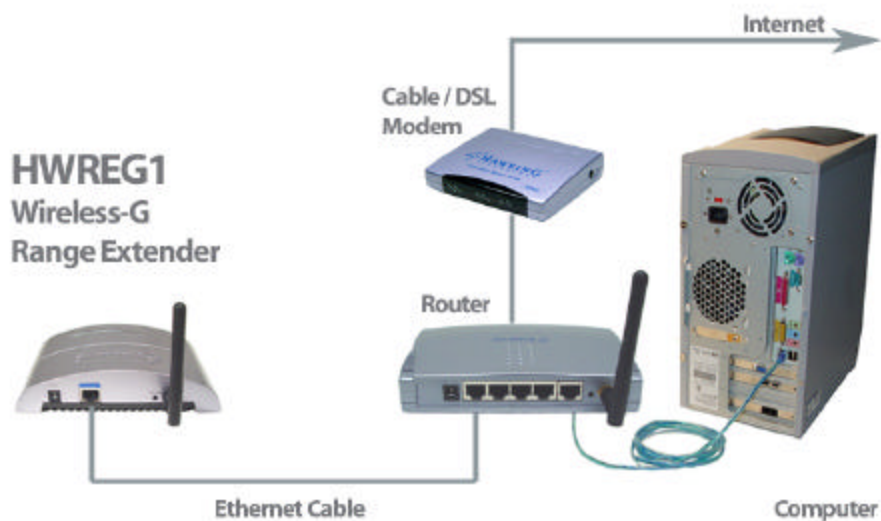
2

Connect the Range Extender

- 1) Remove the HWREG1 and the power adapter from your package. Plug one end of the power into an available power outlet and the other into the 12VDC Plug on the Range Extender.



- 2) Connect one end of the included Ethernet cable to an available LAN port on your Router. Plug the other end of the Ethernet cable into the LAN port (Blue) of the HWREG1 Wireless-G Range Extender. Your setup should look similar to the diagram shown below.



Step

3

Configure the Range Extender

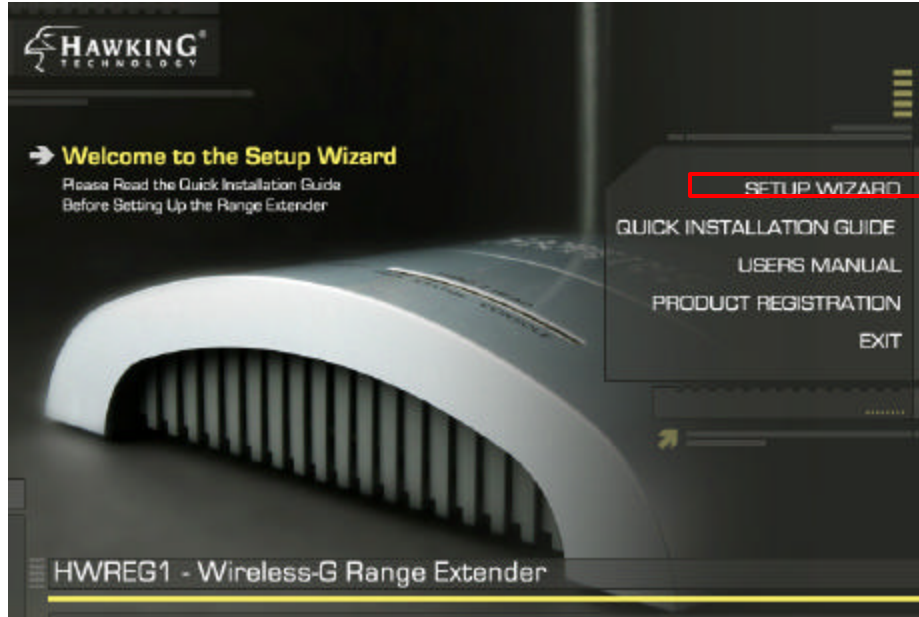
1) POWER UP

After you have correctly connected your Range Extender to an available Ethernet port on your Network, please power on the Extender and a PC that is also on the network.

2) INSERT THE SETUP CD

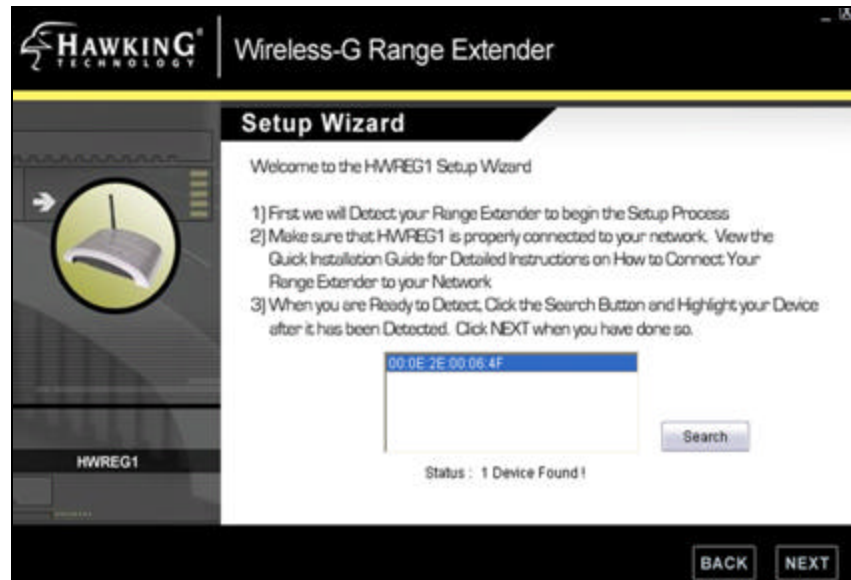
(Mac Users skip this section and view the Mac setup page in the next section)

Find the Setup-CD in your package and insert it into your CD-Rom drive of the PC you wish to configure the Extender from. Wait for the Auto-Load Page to load. If the page does not load, please click on the **“My Computer”** icon of your PC and find your CD-Rom Drive. Right-Click on the CD-Rom drive icon and choose **“Explore.”** Find the file titled **“autorun”** and execute it.



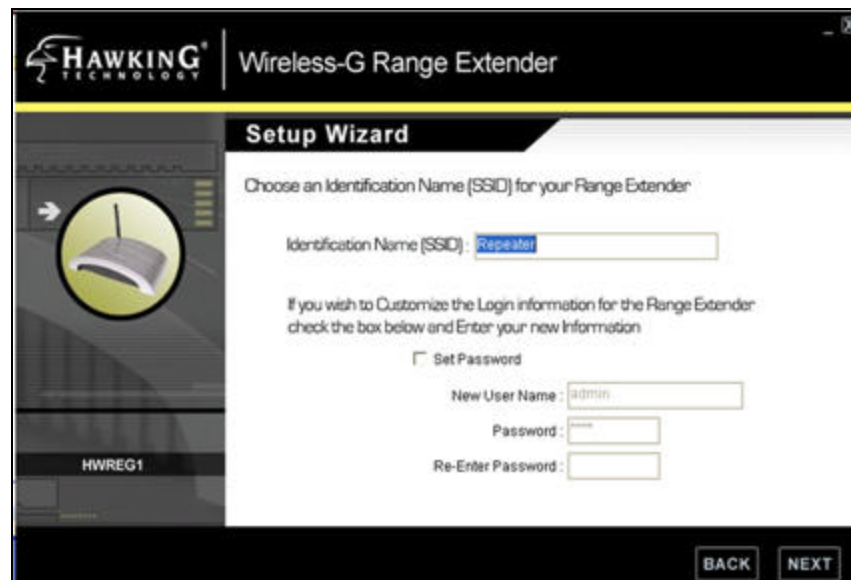
Click on the **“Setup Wizard”** tab to begin configuration of your Router.

3) SCAN FOR THE DEVICE



Once the Setup Wizard has loaded you will need to select your device from a list of HWREG1 devices in your network. If nothing appears in the box, double check all your connections and click on ‘**Refresh.**’ Once the Wizard has detected your device click ‘**Next**’ to move on to the next step.

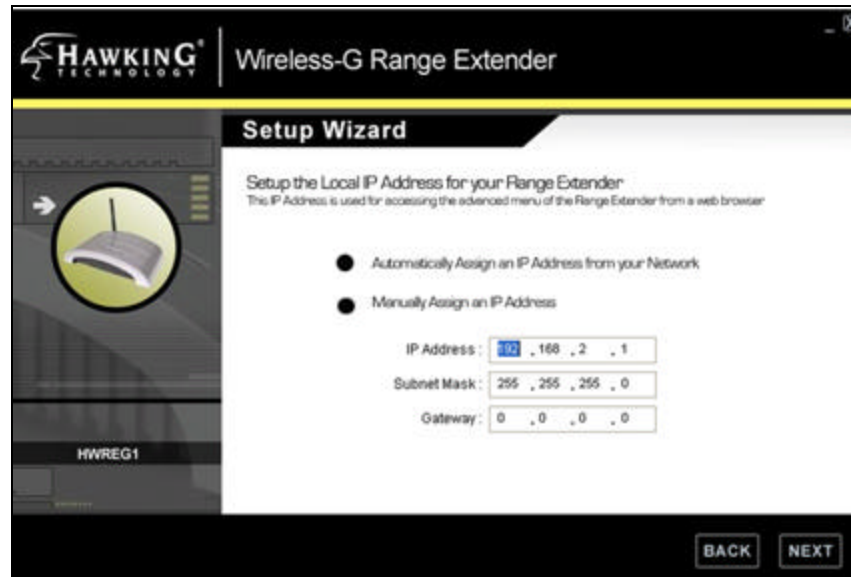
4) SELECT A WIRELESS ID FOR YOUR RANGE EXTENDER



Select an Identification Name (SSID) for your Wireless-G Range Extender. Computers attempting to connect to the network through the Range Extender will use the SSID to identify which wireless network is associated to the Range Extender.

In this section you may also change your login password (up to 4 characters) The new password settings will be used when accessing the web-based configuration utility of the Range Extender (for advanced settings).

5) ASSIGN AN IP ADDRESS TO YOUR RANGE EXTENDER



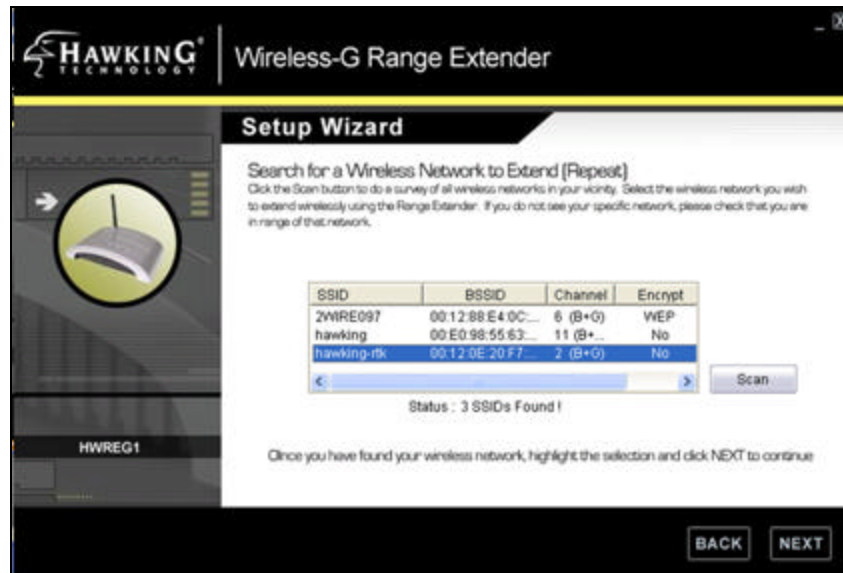
To successfully communicate to the HWREG1, an IP Address must be assigned to the unit. If you are on a network with a router that distributes IP Address automatically (DHCP) you have the option to automatically configure the IP Address. However the Extender must be connected to your network and not directly to the PC for this to work.

You may also manually assign your IP Address (Recommended).

Note: The IP Address of the device must be in the same context/subnet of the PC it is connected to in order to complete the setup of the device. The listed IP Address in the Setup Wizard is the recommended IP based on the IP Address on your PC. You may change the last number of the IP Address but it is highly recommended that you **DO NOT** adjust the other numbers.

When you have selected your IP Address click **“Next”** to continue the setup.

5) SELECT A WIRELESS NETWORK TO EXTEND



This section lets you scan for networks within the wireless vicinity of your Range Extender. Click the SCAN button to display the networks in your area. Highlight the network that you wish to extend. (Based on the SSID of your original network) Click NEXT when you are finished.

If the network you selected has security enabled, the Setup Wizard will take you to a page to configure your Security settings. (The settings here MUST match the security settings of your current wireless access point) If you are not sure what your security settings are, contact your network administrator for the correct information.



5) STATUS



This screen displays the results of your settings. Please save this information somewhere secure for future use. You will need to enter the IP address in your web-browser for future configurations.

Click **SET** to confirm these settings and continue.

You may now skip the next section (Mac Users Setup) of this Installation Guide and continue to Step 4: Position the Range Extender.

1) MAC USERS SETUP

To set up your Range Extender using a Mac computer you will need to first configure the IP address of your computer.

In order to pull up the Web Based Configuration Menu your computer must be in the same IP subnet as your Range Extender. To setup an IP address on a Mac:

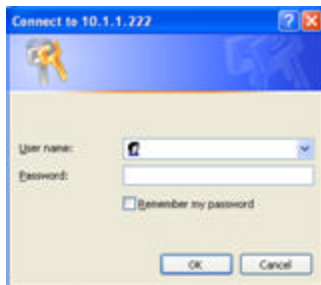
- Select the Apple Icon on the top left of your desktop
- Select System Preferences
- Select Network
- Select either your Airport or Built-in Ethernet to configure the IP
- Select Manual IP Configuration and enter the information below:

IP: 192.168.1.2 Subnet 255.255.255.0 Gateway: 192.168.1.235

Once these values match you should be able to pull up the Web Menu.

Open your Web-Browser and type <http://192.168.1.235> into your web address bar.
Hit Enter.

A login page should appear:



A small login dialog box titled "Connect to 10.1.1.222". It features a "User name:" field with a dropdown arrow, a "Password:" field, and a checkbox labeled "Remember my password". At the bottom are "OK" and "Cancel" buttons.

User Name: admin
Password: 1234

Select the Basic Settings Tab and fill in the information within the page according to the diagram. Click Apply to confirm the settings.



The image shows the configuration interface for a HAWKING TECHNOLOGY HWREG1 Wireless-G Range Extender. The page has a navigation bar with tabs: STATUS, BASIC SETTINGS (selected), SECURITY, ADVANCED SETTINGS, CONFIGURATION, UPGRADE, and RESET. The main content area is titled "Wireless Setting" and includes a "SETUP DIAGRAM" showing the connection between a Router (Source AP) and the HWREG1 Range Extender, which then connects to Wireless Desktop and Wireless Laptop devices. Below the diagram are configuration fields: Band (2.4 GHz (B+G)), Range Extender ID (Repeater), Source AP ID (hawking-ts, Ch: 11), and Associated Clients (Show Active Clients). "Apply" and "Cancel" buttons are at the bottom right.

After you have selected the network you wish to extend you will need to change the IP address of your Range Extender to match that of your wireless network. To do this follow the steps below:

- 1) From the top navigation bar select Advanced Settings
- 2) Select System Utility from the left bar
- 3) Adjust the Management IP Settings so that they match your current network's settings.

For Example:

If the IP Address of your existing wireless network's router is:

IP Address: 192.168.0.1

Subnet: 255.255.255.0 (Most Common)

Then the Management IP Address of your Range Extender should be:

IP Address: 192.168.0.235

Note: The last number of your IP address must be a number that is not currently used in your network AND not the same number taken by your router.

Subnet: 255.255.255.0

Gateway: 192.168.0.1 (IP Address of your network router)

- 4) Click Apply after you have set your settings.
- 5) After the settings have been applied you may remove the Ethernet cable from your Range Extender and continue on with Step 4 of the Installation Guide.
- 6) You will need to reset the IP Address on your Mac computer to use it with the network again. To do this:
 - To reset IP address on a Mac:
 - Select the Apple Icon on the top left of your desktop
 - Select System Preferences
 - Select Network
 - Select either your Airport or Built-in Ethernet to configure the IP
 - Select Using DHCP Configuration and enter the information below and click apply.

For more advanced settings of the HWREG1 refer the Users Manual.

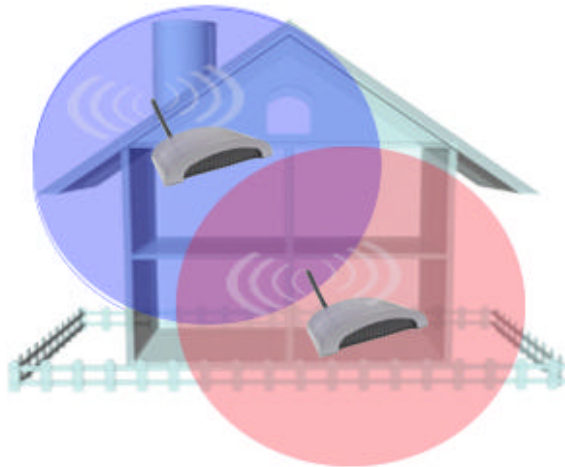
Step

4

Position the Range Extender

- 1) After you have completely configured your Range Extender you can disconnect the Ethernet cable that connects the Extender to your network or PC for configuration.
- 2) Take the Range Extender and Power Adapter and place the Extender in a location half way between your original Access Point and the area that you are extending your wireless coverage to. See the image below for more details:

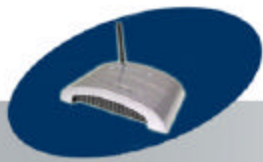
Original Wireless Network Radius



*Extended Network Radius
Using the Hawking Range Extender*

- 3) Once you have located a good location, plug the power adapter into an available power outlet and view the LEDs on the Range Extender. If the Range Extender is working the WLAN light should be blinking repeatedly and the PWR LED should remain on constantly.

- 4) Test the Range Extender by connecting to it wirelessly with a wireless enabled computer. Give the computer 15 seconds to obtain information from the Range Extender after associating to the Range Extender's SSID. Open your web browser and enter www.hawkingtech.com into the web address bar. If the page loads your Wireless Range Extender is working correctly. If not please check the troubleshooting section or reconfigure your Wireless Range Extender.



HWREG1

Troubleshooting

1) I Can't Pull up the Web Menu Screen?

In order to pull up the Web Based Configuration Menu your computer must be in the same IP subnet as your Range Extender. For example, if your PC's IP configuration is the following:

IP: 192.168.0.5 Subnet 255.255.255.0 Gateway: 192.168.0.1

Then your Range Extender LAN IP address must be:

IP: 192.168.0.? (any # except 1 and 5) Subnet 255.255.255.0

Gateway: 192.168.0.1

Once these values match you should be able to pull up the Web Menu.

2) I Can't Connect to the Wireless Repeater or the Internet

Make sure that all your settings are correct on the Range Extender. Remember that the Original SSID must match the SSID of your original network. The channel number of the extender must also match that of your original network. For example, **if your original network had the following settings:**

SSID: HawkingAP

Channel: 6

LAN IP: 192.168.1.2

SUBNET: 255.255.255.0

DNS: 212.43.32.3

- Then the settings of your Range Extender must be:

Original SSID: HawkingAP

Channel: 6

SSID of Range Extender: (any SSID other than HawkingAP)

LAN IP: 192.168.1.x (any number other than 2)

SUBNET: 255.255.255.0

GATEWAY: 192.168.1.2

DNS: 212.43.32.3

After you have matched the settings check if you can connect to the internet through the Wireless Range Extender. If you still cannot access the internet please contact our technical support department using the number below.



Networking Terms

Ethernet: A networking standard using cables (Category 5) to create a network.

Network Adapter: Also known as a NIC (Network Interface Card). Used to provide PC's or laptops with an Ethernet port or wireless access to the network.

Broadband Modem: A device that allows broadband connection to the internet. Broadband connections include speeds faster than 56k (dial up modem speed). The two most common types of Broadband connections are DSL and Cable. Cable modem relies on the bandwidth of cable television lines while DSL modems rely on the telephone lines operating at DSL speeds.

Router: A device used to share internet access from one user to multiple users. By taking one IP address (Addresses used by ISP's to assign broadband services to your computer) the Router distributes the services of your broadband access among multiple users and IP's.

Wireless IEEE 802.11 – Wireless Network Specifications

Access Point: A network device that connects to a wired network and adds wireless access into the existing network.

- **802.11** -- applies to wireless LANs (Networks) and provides 1 or 2 Mbps transmission in the 2.4 GHz band using either frequency hopping spread spectrum (FHSS) or direct sequence spread spectrum (DSSS).
- **802.11b** (also referred to as *802.11 High Rate or Wi-Fi*) -- an extension to 802.11 that applies to wireless LANs and provides 11 Mbps transmission (with a fallback to 5.5, 2 and 1 Mbps) in the 2.4 GHz band. 802.11b uses only DSSS. 802.11b was a 1999 ratification to the original 802.11 standard, allowing wireless functionality comparable to Ethernet.
- **802.11g** -- applies to wireless LANs and provides 54 Mbps in the 2.4 GHz band. Backwards compatible with IEEE 802.11b products.

ESSID: A unique name identification for your wireless network. All wireless devices must have the same ID or else they will not work together.

Channel: A Channel that all Wireless devices communicate on. All Wireless devices on the network must be set on the same channel to work.

WEP/WPA: Wireless networking security protocols and standards, used to keep hackers from entering your wireless network.

Thank you for choosing Hawking Technologies

If you are having technical difficulties using the product, Hawking Technologies offers free technical support to assist you.

Technical Support (For US and Canada):

Phone: 800-756-7832

Email: techsupport@hawkingtech.com

Website: <http://www.hawkingtech.com/servicesupport.php>

RMA Information (For Warranty Issues / Returns)

Website: <http://www.hawkingtech.com/rma.php>



Thank You for choosing Hawking Technologies.