

User's Guide

High Power Compact
Wi-Fi Range Extender

REC10

CONTENTS

INTRODUCTION	2	SMART FEATURES	26
GETTING STARTED	3	Access Schedule	27
Package Contents	3	User Access Control	28
LED Indicators	4	Wi-Fi Coverage Controls	29
Back Panel Description	6	IP SETTINGS	30
SETUP GUIDE	7	MANAGEMENT FEATURES	33
Welcome to the Dashboard	10	System Status	34
Scan for a Home Network	11	Statistics	36
Connecting to a Secure Network	12	System Clock	37
Range Extender Settings	13	System Logs	38
Connect to the New Extended Network	134	Upgrade Firmware	39
Setup Summary	15	Save and Reload Settings	40
WI-FI SETTINGS	18	Password Settings	41
Home Network Settings	18	TECHNICAL SPECIFICATIONS	42
Extended Network Settings	19	DEFAULT SETTINGS	43
Wi-Fi Protected Setup (WPS)	23	TROUBLESHOOTING	44
Advanced Settings	24	WARRANTY INFORMATION	53
		REGULATORY INFORMATION	53

INTRODUCTION

Thank you for purchasing this Amped Wireless product. At Amped Wireless we strive to provide you with the highest quality products through innovation and advanced technology. We pride ourselves on delivering products that outperform the competition and go beyond your expectations. If you have any questions please feel free to contact us. We'd love to hear from you and thank you for your support!

Email: sales@ampedwireless.com

Call: 888-573-8830

Web: www.ampedwireless.com

GETTING STARTED

Package Contents

Check to make sure you have all the contents within your package:

- High Power Compact Wi-Fi Range Extender
- Detachable 2dBi High Gain Antennas
- Setup Guide
- CD: User's Manual, Installation Video

LED Indicators

(From Top to Bottom)



Power/Logo LED: Indicates when the Range Extender is powered on. The LED will stay lit when the Range Extender is plugged into a power outlet.

When the WPS or Reset buttons are pressed, the LED will begin to blink.

Wired Port LED: Indicates when a networking device is connected to a wired port on the bottom of the Range Extender. The LED blinks rapidly when wired data traffic is transmitted or received.



Top and Bottom Panel Description



Top

Antenna Connector: RJ-SMA antenna connector. Compatible with all antennas that have RP-SMA connectors. Upgradable to a high gain antenna for more range.

Bottom

Reset: Push down once to reboot the Range Extender. Hold down for 5-10 seconds to reset the Range Extender back to factory settings.

WPS: Hold down for 3 seconds to enable WPS push button configuration.

Wired: RJ-45 port for connecting wired computers or network devices.



SETUP GUIDE

Find a Setup Location

The location of where you install the Range Extender is very important to how it will function. The optimal setup location should be somewhere no more than halfway between your Wi-Fi router and your Wi-Fi dead zone.



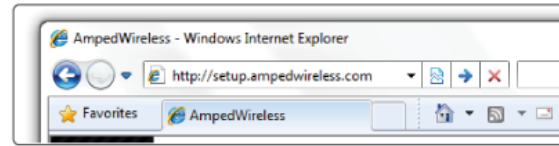
Connect your PC or Tablet to the Range Extender



- a. Connect the included high gain antenna by screwing it into the antenna connector.
- b. Plug the Range Extender into an available power outlet.
- c. Connect your PC or Tablet to the Range Extender's Wi-Fi network: Amped_REC10

Open your Web Browser to Access the Setup Wizard

- a. Open your web browser.
- b. Type in: <http://setup.ampedwireless.com> into the web address bar
- c. If the web menu fails to open, type in the following IP address into your web address bar: <http://192.168.1.240>



<http://setup.ampedwireless.com>

NOTE: IF YOU HAVE PROBLEMS ACCESSING THE WEB MENU

- a. Disconnect your PC from all Wi-Fi networks
- b. Attach an Ethernet cable between the PC and the Range Extender
- c. Open your web browser and go to <http://setup.ampedwireless.com> again.

Welcome to the Dashboard

The Dashboard will provide you with the current status of the Range Extender.

Click **SCAN** to find an available network to extend.

The diagram on this page displays the terms used to describe:

- 1) The network you are trying to extend (Home Network).
- 2) The network that is rebroadcasted and extended (Extended Network).

Study this diagram carefully as the terms used in the following instructions will refer to these names.

Welcome to the Dashboard

Home Network: Internet, Router
Extended Network: Range Extender, Laptop

CONNECTED

To connect to a new network, click Scan:

SCAN

System Status

Connection to Home Network		Extended Network Details	
Status:	Not Connected	Wireless SSID:	Amped_REC10
Wireless SSID:	Not Available	Security Key:	****
Security Key:	****	Channel:	6
Signal Strength:	0%	IP Address:	192.168.1.240
Gateway IP:	0.0.0.0	DHCP Mode:	Auto

For additional features and settings, click/tap on **More Settings** from the left side menu.

Scan for a Home Network to Extend

Highlight and select the Wi-Fi network that you wish to extend and click **Next** to continue. Check that your Wi-Fi Network has a signal strength of 70% or greater.

If you fail to find any Wi-Fi networks, or your signal strength is below 70%, the Range Extender may be placed too far from the Wi-Fi network that you are trying to extend. Move your Range Extender closer to the Wi-Fi network that you are trying to extend and click **RESCAN**.

Select a Network to Extend

Select your network and click **Next** below.
 If you do not see your network... **RESCAN**

RECOMMENDED SIGNAL STRENGTH
 +70%

Router Range Extender

Connect to Wi-Fi networks with greater than 70% signal strength.
 Connecting to networks with poor signal strength may cause the connection to be slow or unstable.

Home Network (SSID)	Channel	Security	Signal	Select
Network 1	1 (B+G+N)	WPA2-PSK	97%	<input type="radio"/>
Network 2	3 (B+G+N)	WPA-PSK/WPA2-PSK	93%	<input type="radio"/>
Network 3	1 (B+G+N)	WPA-PSK/WPA2-PSK	91%	<input type="radio"/>
Network 4	1 (B+G+N)	WPA-PSK/WPA2-PSK	91%	<input type="radio"/>
Network 5	11 (B+G+N)	WPA-PSK/WPA2-PSK	87%	<input type="radio"/>
Network 6	11 (B+G)	WPA2-PSK	81%	<input type="radio"/>
Network 7	2 (B+G+N)	WPA2-PSK	51%	<input type="radio"/>
Network 8	6 (B+G)	WEP	45%	<input type="radio"/>

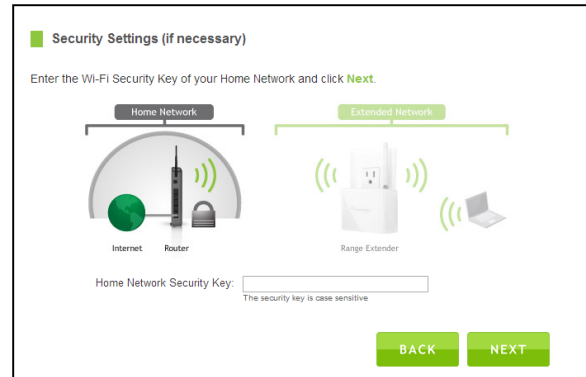
The Scan results page will display information regarding the name of the network (SSID), the channel which the Wi-Fi network is operating on and the security type of network. The results page will also display what the signal strength is coming from each specific network detected.

Connecting to a Secure Network

If the Wi-Fi network you are trying to extend has Wi-Fi security enabled, you will be prompted to enter a security key. If you did not select a secure network, you will not see this page.

Enter the security key in the space provided. You do not need to select what type of security it is, just simply type in the key and click **Next**.

The Wizard will automatically detect your home network's security settings. If you do not know the key to the network you are trying to extend, then click **Back** and select another network.



Extended Network Settings

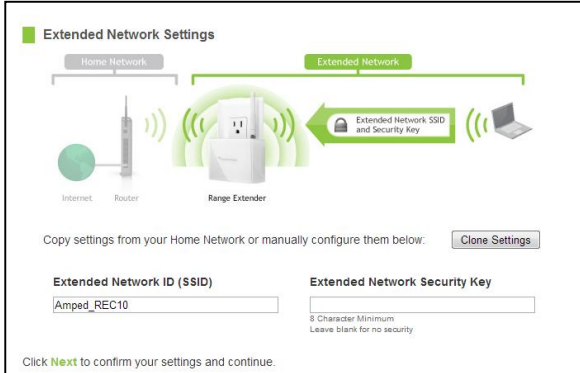
The default SSID of the Range Extender is "Amped_REC10"

If you choose to "Clone" the settings from your Home Network, the wizard will copy the SSID and security key of your Home Network.

The SSID of the Extended Network will have a "_RE" at the end of its name. For example: Home_Network_RE

You can also manually enter a new network ID and security key. The new security key must be at least 8 characters long.

Click **Next** to apply the settings.



Extended Network Settings

Home Network Extended Network

Internet Router Range Extender

Extended Network SSID and Security Key

Copy settings from your Home Network or manually configure them below:

Extended Network ID (SSID)

Extended Network Security Key

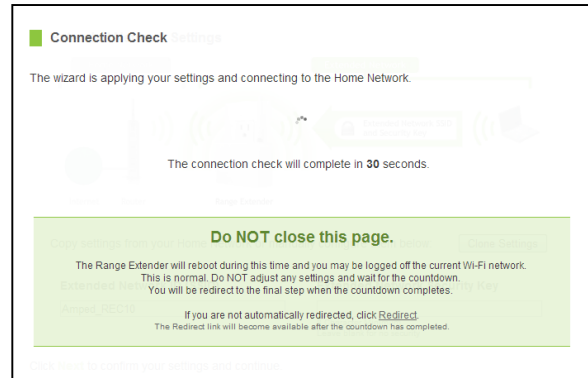
8 Character Minimum
Leave blank for no security

Click **Next** to confirm your settings and continue.

Connection Check

DO NOT LEAVE OR REFRESH THIS PAGE

Allow the countdown to complete and the Wizard will automatically redirect you to the next step.



Connect to the new Extended Network

During the countdown process, the Range Extender will reboot and disconnect the Wi-Fi connection. At this point, you will need to reconnect your PC or tablet to the new Extended Network. Follow the instructions on the screen to connect to the Extended Network.

Once you have connected, click the check box to confirm. The **Next** button will appear allowing you to complete the setup process.

If there are problems with your configuration, the Wizard will inform you to rescan for a network to extend.

If there are no problems, you will see the Setup Summary on the following page.

Connect to your Extended Network


Go to your Wi-Fi connection manager and connect to one of your Extended Networks using the settings below.

Extended Wi-Fi Network SSID: Extended Network ID


Security Key:

Select your operating system for instructions: Windows 8


1 Access Settings by swiping the right edge of your screen or putting your mouse cursor in the upper right corner. Click/tap on Settings.




2 Click or tap the Wireless icon and select the Extended Network SSID (shown Above). Click Connect.



3 When prompted enter the Wi-Fi security key (shown above) and click Next.



4 Switch back to this web browser window (back to this page).



Confirm that you are now connected to your Extended Network:
Once you have confirmed, the **Next** button will appear below for you to complete the setup process.

Setup Summary

Congratulations, the Range Extender is now successfully configured. Your settings are now saved.

If you haven't already positioned your Range Extender in an optimal location, you may do so now. All Range Extender settings are saved and can be safely powered off for relocation.

You may also attach any wired network devices to the wired port on the bottom of the Range Extender.

If you experience any problems during this process please contact Amped Wireless Elite Support at 888-573-8820.

The screenshot displays the 'Setup Summary' page. At the top, a green header contains the text 'Setup Summary'. Below this, a message reads: 'Congratulations, the Range Extender is now successfully connected to your Home Network.' Underneath the message is a 'Print' button and the text 'PRINT THIS PAGE FOR YOUR RECORDS:'. The page is divided into two sections: 'Home Network Settings:' and 'Extended Network Settings:'. The 'Home Network Settings' section lists: SSID: Network 1, Channel Number: 1, Encryption: WPA2, Security Key: [redacted], BSSID: 00:00:00:00:00:00, and Connection State: Connected. The 'Extended Network Settings' section lists: SSID: Amped_REC10, Encryption: WPA2 Mixed, Security Key: [redacted], IP Address of the Range Extender: 192.168.10.163, Subnet Mask: 255.255.255.0, Default Gateway: 192.168.10.1, DHCP Server: Auto, and MAC Address: 00:00:00:00:00:00.

If the Home/Office Network connection fails try the following...

- a. Check to see that your Home Network security settings are correct.
- b. Check on the SCAN page that your Home Network is showing a signal of 70% or greater. If not, move the Range Extender closer to your Home Network router and try again.
- c. Check that your Home Network router's DHCP server is enabled.
- d. Try changing the channel of the Home Network router to a higher channel number (5-11) and run the Wizard again.
- e. If possible, check the Internet connection for your Home Network Wi-Fi router. Connect directly to your Home Network Wi-Fi router. If you are unable to access the internet through the Home Network Wi-Fi router, you must first fix this problem. The Range Extender will not be able to obtain internet access through a router that does not have internet access. Once Internet access is restored, connect to the Range Extender again and retry the Wizard.
- f. Return to the Wizard and attempt to connect to another Home Network known to have Internet access.
- g. Try to reboot (unplug the Range Extender from the power outlet and plug it back in) the Range Extender and check to see if the connection is established (some networks may be very slow and take longer than the allotted time for the Range Extender to successfully connect).

WI-FI SETTINGS

Home Network Settings

The Home Network Settings page allows you to adjust settings for your Home Network connection. These settings are for adjusting the Range Extender after you have already gone through the Wizard and wish to adjust your current configurations.

Home Network SSID: Manually enter the Identification name of the Home Network you wish to connect to.

Channel Number: Enter the channel number of the Home Network. If the channel number does not match, a connection will not be established.

Channel Width: Wi-Fi operates in two separate channel widths, 20Hz and 40Hz. 20Hz allows operation on channels 1-11, while 40Hz is 5-11. 40Hz allows for faster speeds. Select the channel width you wish to use for your network. This setting must match that of your Home Network for a successful connection.

Extended Network Settings

The Extended Network Settings page allows you to adjust settings for your Extended Network.

Home Network Settings

Manually configure the settings for your Home Network connection.

Home Network: Router connected to Internet.

Extended Network: Range Extender connected to Home Network.

Home Wireless Connection

Home Network SSID:

Channel Number: Must be same as your Home Network router

Channel Width:

Control Sideband:

If you are manually setting your Home Network connection, you will need to enter the security setting in the Security page for your Home Network. After clicking Apply on this page, click Reboot Later and go to the Security page to set your security settings. Click Reboot Now after all settings are applied. The Range Extender cannot connect to your Home Network until all settings have been set and applied.

APPLY **RESET**

REC10 USER'S GUIDE

Band: Allows you to setup access under a specific combination of Wi-Fi speed standards.

Broadcast SSID: Selecting Disable Broadcast SSID will hide the visibility of the Range Extender's SSID. Users must manually enter the SSID to connect.

Extended Network Settings

Home Network: Internet, Router

Extended Network: Range Extender, Laptops

Extended Wireless Network Settings

Disable Wireless Connections:

Band: 2.4 GHz (B+G+N)

Broadcast SSID: Enable Disable

Data Rate: Auto

SSID of Extended Network: Home_Network_RE Guest Network

Channel Number: (same as Home Network)

WMM: Enabled

Associated Clients:

Guest Network

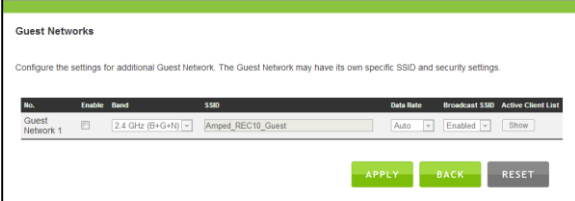
Click “Enable” to create a Guest Network. Guest Networks provide a separate Wi-Fi network, with unique settings for users to connect to.

SSID: This is the name of your Guest Network.

Data Rate: You can restrict access to the Guest Network by setting a lower bandwidth by changing the band (i.e. only allow 802.11b access to specific users).

Associated Clients: View all computers and network devices that are connected to your Guest Network Wirelessly.

To set security settings for the Guest Network go to: Wi-Fi Settings > Security.



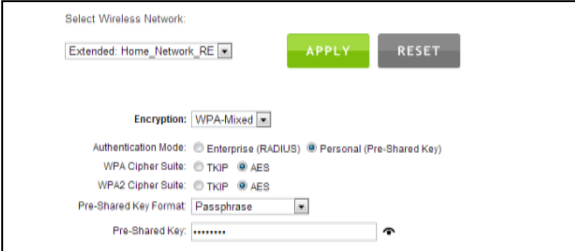
The screenshot shows a web interface for configuring Guest Networks. At the top, it says "Guest Networks" and "Configure the settings for additional Guest Network. The Guest Network may have its own specific SSID and security settings." Below this is a table with columns: No., Enable, Band, SSID, Data Rate, Broadcast SSID, and Active Client List. There is one row for "Guest Network 1" with an "Enable" checkbox checked, a "Band" dropdown set to "2.4 GHz (B+G+N)", an "SSID" text field containing "Amped_REC10_Guest", a "Data Rate" dropdown set to "Auto", a "Broadcast SSID" dropdown set to "Enabled", and a "Show" button. At the bottom right of the table are three buttons: "APPLY", "BACK", and "RESET".

No.	Enable	Band	SSID	Data Rate	Broadcast SSID	Active Client List
Guest Network 1	<input checked="" type="checkbox"/>	2.4 GHz (B+G+N)	Amped_REC10_Guest	Auto	Enabled	Show

Wi-Fi Settings: Security

Wi-Fi security allows you to change the type of Wi-Fi security settings for your Extended Network or your Home Network.

Note: If you adjust the security in your Home Network and it is incorrect, you will no longer have a successful connection to your Home Network.



The screenshot shows a web interface for configuring Wi-Fi security. At the top, there is a section titled "Select Wireless Network:" with a dropdown menu currently set to "Extended: Home_Network_RE". To the right of this dropdown are two buttons: a green "APPLY" button and a grey "RESET" button. Below this, the "Encryption:" dropdown is set to "WPA-Mixed". Underneath, there are several radio button options for "Authentication Mode": "Enterprise (RADIUS)" and "Personal (Pre-Shared Key)", with the latter being selected. Below these are two rows of radio button options for "Cipher Suites": "WPA Cipher Suite" with "TKIP" and "AES" (selected), and "WPA2 Cipher Suite" with "TKIP" and "AES" (selected). Below the cipher suite options is a "Pre-Shared Key Format" dropdown set to "Passphrase". At the bottom, there is a "Pre-Shared Key" input field with a masked password "*****" and a small eye icon to toggle visibility.

Using the drop down menu, you can select which network you wish to configure and may adjust the security settings below.

If you are using the Multiple AP/SSID feature, you will be able to adjust the security settings for your additional SSIDs here as well.

For more information on the differences between the types of Wi-Fi security available, please visit the Learning Center of the Amped Wireless website: www.ampedwireless.com

Wi-Fi Settings: Wi-Fi Protected Setup (WPS)


WPS is a Wi-Fi feature created to make Wi-Fi setup simple and easy. Some Wi-Fi routers and adapters support this feature with varying names (i.e. one touch setup or WPS).

You may enable WPS setup here by selecting the type of WPS setup you wish to use. The Range Extender supports all types of WPS setup:

Push button: You may push the WPS button on the web menu or use the physical button on the back of the Range Extender.

Wi-Fi Protected Setup (WPS)

WPS provides hassle free setup for wireless users connecting to the Range Extender. Use one of the following WPS processes to configure WPS.



Disable Wi-Fi Protected Setup (WPS)

Enable Wi-Fi Protected Setup

Option A: If your wireless user has a Wi-Fi Protected Setup button, click or press the WPS PBC (Push Button Configuration) button here.

Option B: If your wireless user asks for the Range Extender's PIN number, use this number on the user's device: **00000000**

Option C: If your wireless user has a Wi-Fi Protected Setup PIN number, enter that number here:

and then click

Wi-Fi Settings: Advanced Settings

It is recommended that only experts in Wi-Fi configuration adjust the advanced Wi-Fi settings for the Range Extender.

These settings allow you to control the details of your Wi-Fi network configuration.

Here are a few definitions on some settings.

Fragment Threshold: The Default and Recommended setting is at 2346, meaning the Range Extender will never fragment any frames that it sends to Wi-Fi users.

RTS Threshold: Adjusts the size of RTS data packets.

Lower values reduce throughput, but allow the system to recover quicker from interference/collisions. Higher values provide the fastest throughput.

Beacon Interval: Indicates the frequency interval of the beacon. A beacon is a packet broadcast by the Range Extender to sync the Wi-Fi network.

Advanced Settings

Advanced wireless settings are for technically advanced users. It is recommended that these settings not be changed unless it is understood what the effects will be on your local wireless network.

Fragment Threshold: (256-2346)

RTS Thresold: (0-2347)

Beacon Interval: (20-1024 ms)

Preamble Type: Long Preamble Short Preamble

IAPP: Enabled Disabled

Protection: Enabled Disabled

Aggregation: Enabled Disabled

Short GI: Enabled Disabled

WLAN Partition: Enabled Disabled

STBC: Enabled Disabled

20/40MHz Coexist: Enabled Disabled

Preamble Type: Defines the length of the Cyclic Redundancy Check for communication between the Range Extender and roaming Wi-Fi users.

IAPP: Inter-Access Point Protocol

STBC: Space Time Block Coding improves reception by coding the data stream in blocks.

SMART FEATURES

The Range Extender provides your Extended Network with Smart Features that help to provide convenience and protection for your Extended Network.

Smart Features allow you to control access to your Extended Network through on/off schedules, specific user authorizations, as well as Wi-Fi coverage controls for your Extended Network.

These settings are ONLY for your Extended Network and do not apply to your Home Network.

Wi-Fi Settings: Access Schedule

You can set a schedule for when your Wi-Fi is enabled or disabled (both Home Network and the Extended Network) through the Access Schedule feature. To do so:

- Enable Access Schedule.
- Select which days you wish for your Wi-Fi to be available.
- Select the time frame during that day that you wish for Wi-Fi to be available.
- Apply Changes.

Access Schedule

Define a schedule for when Wi-Fi is enabled or disabled on the Range Extender. Please be sure that your time zone settings have been configured before using this feature.

Note: When Wi-Fi is disabled, wired users will no longer have access to the Internet.

Enable Access Schedule

Wi-Fi Enabled Days:

Everyday Sun Mon Tue Wed Thu Fri Sat

Hours of Each Day:

24 Hours From : To :

Enabling Access Schedule will also disable internet access for wired connections on specified days.

Note: Make sure you have already configured your System Clock in order for your schedule to work correctly. Time Zone Settings can be adjusted from the web menu under Management > Time Zone Settings.

Wi-Fi Settings: User Access Control

User Access allows you to deny access or allow access to specific users connecting wirelessly to the Extended Network. Each networking device has a unique address called a MAC address (a 12 digit hex number).

By inputting the MAC address into the field, you can define whether that device is allowed into your network or not allowed.

User Access Control

Allow or deny wireless access to specific users by entering the MAC address of the device below. The MAC address of a networking device is a 12 digit hex number normally found on a label on the bottom of the device (e.g. 1A2B3C4F5A6D).

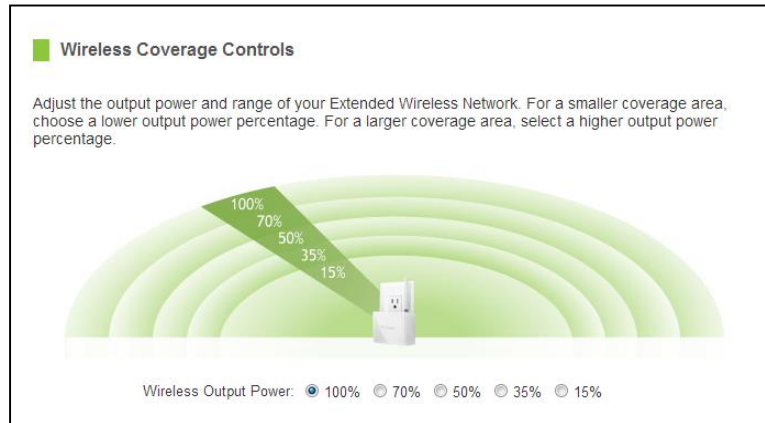
Wireless Access Control Mode:

MAC Address:

Comment:

Wi-Fi Settings: Wi-Fi Coverage Controls

Adjust the output power of the Range Extender to control the coverage distance of your Extended Wi-Fi Network. For a smaller coverage area you can select a lower output power. For the maximum Wi-Fi coverage select the 100% selection. Note that if you select a lower output power, your connection to your Home Network will also decrease in range. So be careful and test your signal strength after each adjustment.



IP SETTINGS

REC10 USER'S GUIDE

IP Address: The IP address of the Range Extender.


Subnet Mask: The subnet of the Range Extender.

Default Gateway: The access point to another network, normally the Range Extender or your router.

DHCP: The Range Extender includes a complex AUTO DHCP feature to help manage the IP addresses within your Extended network and with your Home Network. When connected to a Home Network, the Range Extender will obtain an IP address from your Home Network's router and act as a DHCP Client. However, when there is no connection available, the Range Extender will act as a DHCP Server. You may also manually control the IP settings of the Range Extender by choosing Client, Server or Disabled from the DHCP drop down menu. This is only for advanced users.

Extended Network IP Settings (LAN)

Adjust the IP Settings for the Range Extender as well as the DHCP server for the Extended Network.



IP Address:

Subnet Mask:

Default Gateway:

DHCP:

DHCP Client Range: -

Static DHCP:

Auto-Load Menu (Auto-DNS): Enabled Disabled
Note: Disabling Auto-DNS will require that you access the web menu using the IP address of this device. It is recommended that you note your IP address before changing this mode. If you are no longer able to access the web menu, you will need to perform a hardware reset.

Domain Name:

802.1d Spanning Type:

Clone MAC Address:

DHCP Client Range: The range of IP addresses the Range Extender's DHCP server will assign to users and devices connecting to the Range Extender.

Static DHCP: You may set a static IP address within your DHCP network. The Range Extender will track the device via its MAC address and assign it a pre-defined IP address each time the device logs into the network. Obtain IP settings from the Home router or manually enter your IP settings.

Auto-Load Menu (Auto-DNS): When the Range Extender loses connection to your Home Network it will automatically redirect your web browser to the web menu. To turn this feature off, you can disable Auto-DNS. **Note:** Disabling Auto-DNS will require that you access the web menu using the IP address of this device. It is recommended that you note your IP address before changing this mode. If you are no longer able to access the web menu, you will need to perform a hardware reset.

Domain Name: The Domain Name allows you to change the URL which is used to access the Setup Menu for the Range Extender. For example, entering <http://setup.ampedwireless.com> into your web browser while connected to the Range Extender, will guide you to the Web menu for the Range Extender. By changing the Domain Name, you will change the URL entered to access the Web menu. If you forget the Domain Name you entered and can no longer access the Web menu, then you will need to reset your Range Extender to default settings by holding down the reset button on the back panel for 5-10 seconds.

MANAGEMENT FEATURES

The Management features on the Range Extender allow you to view the status of your Range Extender and adjust other settings such as your System Clock, Passwords, and Firmware Upgrades among other administrative functions.

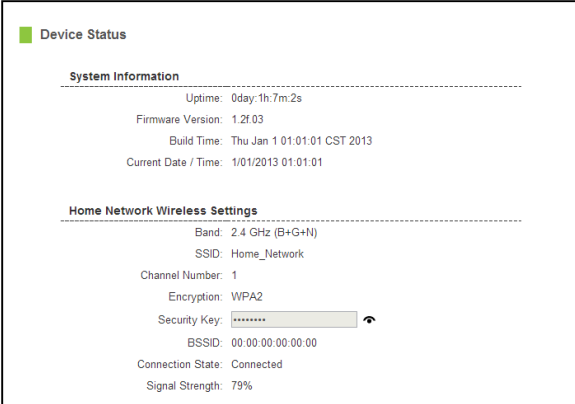
Management: Device Status

The Device Status provides you with a snapshot of your Range Extender's current connections and settings.

System Information: This section provides you with information on the version and build time of your firmware. This is used to help our support department determine what firmware version your device is running.

The Current Date / Time is the setting for the system clock. If this time is off, go to the System Clock section and configure your system time.

Home Wi-Fi Network Settings: This section displays the current status of the connection between the Range Extender and your Home Network. When viewing this section, it is important to check that your Home Network SSID is correct and the channel number matches your Home Network's channel number settings.



The screenshot displays the 'Device Status' interface. It is divided into two main sections: 'System Information' and 'Home Network Wireless Settings'. The 'System Information' section lists the following details: Uptime: 0day:1h:7m:2s, Firmware Version: 1.21.03, Build Time: Thu Jan 1 01:01:01 CST 2013, and Current Date / Time: 1/01/2013 01:01:01. The 'Home Network Wireless Settings' section shows: Band: 2.4 GHz (B+G+N), SSID: Home_Network, Channel Number: 1, Encryption: WPA2, Security Key: [masked], BSSID: 00:00:00:00:00:00, Connection State: Connected, and Signal Strength: 79%.

Connection State: The Connection State will say "Connected" when there are no problems with the connection to your Home Network.

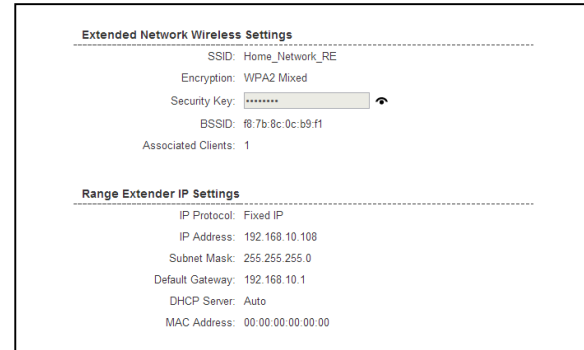
If the Connection State shows "Waiting for Keys" then the WPA/WPA2 security key you entered is incorrect.

If the Connection State shows "Scanning" the Range Extender may be too far away from your home/office router.

The Signal Strength display can be updated by refreshing the page and is a good tool to use for finding the optimal installation location. A signal strength of 70% or greater is recommended for stable operation of the Range Extender.

Extended Wi-Fi Network Settings: Shows the current settings for your Extended Wi-Fi Network.

Range Extender IP Settings: The network IP settings for your Range Extender will change as you connect and disconnect from your Home Network. When connected to your Home Network, the network IP settings will be assigned by your Home Network. When not connected, the Range Extender will use its own default network IP settings.



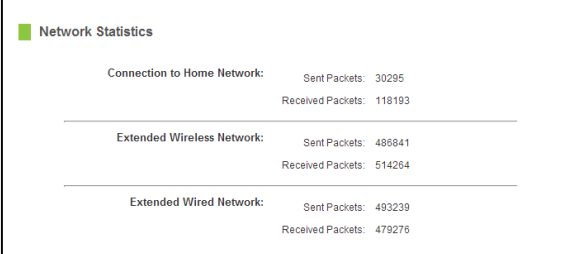
Management: Statistics

These statistics show the data activity for each network connection.

Connection to Home Network: This statistics shows the data activity for all upload and download data between the Home Network and the Range Extender.

Extended Wi-Fi Network: These statistics shows all data activity for all users connected wirelessly to the Range Extender.

Extended Wired Network: The Wired Connection statistics shows all data activity for all users physically connected to the wired ports on the Range Extender.



Network Statistics	
Connection to Home Network:	Sent Packets: 30295 Received Packets: 118193
Extended Wireless Network:	Sent Packets: 486841 Received Packets: 514264
Extended Wired Network:	Sent Packets: 493239 Received Packets: 479276

Management: System Clock

Maintain the internal clock for the Range Extender by syncing with your computer's time. Your system clock settings need to be accurate in order for logs and Wi-Fi access schedules to work correctly.

System Clock

Maintain the system clock settings by syncing the system time with the time on your computer. The Range Extender's clock is used to make sure your Access Schedules and logs function correctly and on time.

Current Time: Month Day Year

Hour Minute Sec

Sync with your computer:

Management: System Logs

System Logs are useful for viewing the activity and history of the Range Extender. The System Logs are also used by Amped Wireless techs to help troubleshoot your Range Extender when needed.

It is recommended that you enable all logs in the event that troubleshooting is required. All log entries are deleted each time the Range Extender reboots or is powered off.

Management: Upgrade Firmware

Amped Wireless continuously updates the firmware for all products in an effort to constantly improve our products and their user experiences. Check the Downloads page for your product frequently to see if there are any updates.

The firmware update is downloaded as a zip file from the Support Webpage link on the left. You will need to have an unzipping program to open the file. Inside the file will be a text document with details on the current firmware release and instructions on how to upgrade the firmware.

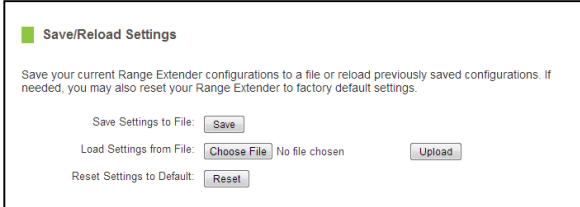
To manually upgrade your firmware:

- a. Download the file from the www.ampedwireless.com/support website and remember the location where you saved it. Firmware files may also be provided by Amped Wireless support Concierges.
- b. Click Choose File and locate the file
- c. Click Upload to begin upgrading.

Note: Firmware files normally have a [.bin](#) file extension.

Management: Save and Reload Settings

Saving your current settings allows you to back-up your current settings which may be reloaded at a later time. This feature may be useful for testing new features and settings without having to worry about returning to a stable platform.



The screenshot shows a web interface titled "Save/Reload Settings". It contains three sections: "Save Settings to File:" with a "Save" button; "Load Settings from File:" with a "Choose File" button, the text "No file chosen", and an "Upload" button; and "Reset Settings to Default:" with a "Reset" button.

To save current settings:

- a. Click Save
- b. Select a file name and location

To load previously saved settings:

- a. Click Browse
- b. Locate the previously saved settings file
- c. Click Upload to restore the settings to the saved file.

You may also reset the Range Extender's settings to factory settings by pressing Reset. By resetting the Range Extender, you will lose all previous configurations and will need to run the Wizard again to reconnect to a Home Network.

Management: Password Settings

By default, the Range Extender does not require a password to login to the web menu. If you wish to enable a password to protect unauthorized access to the web menu and Wizard, you may enter one here.

Password

Prevent unauthorized access to your Range Extender's web-based configuration menu by providing a user name and password. If no protection is necessary, leave these fields blank and you will not be prompted for a login and password when accessing this web menu.

New Login:

New Password:

Confirmed Password:

APPLY **RESET**

TECHNICAL SPECIFICATIONS

Wi-Fi Standard: 802.11n, 802.11b/g

Frequency Band: 2.4 GHz

Wi-Fi Speed: 300Mbps (Rx), 300Mbps (Tx)

Amplifier: Dual 600mW High Power Amplifiers
Dual Low Noise Amplifiers

Wi-Fi Sensitivity: -95dBm

Wi-Fi Output Power: Up to 28dBm

Wi-Fi Security:

- WEP, WPA, WPA2, WPA Mixed, WPS

Wi-Fi Access Control:

- MAC address filtering

Wi-Fi Access Scheduling:

- Specific day and time

Wi-Fi Coverage Control:

- 15% - 100% Output Power

Antennas:

- 1 x Detachable High Gain 2dBi Antennas
- 1 x Reverse SMA Connector
- 1 x Internal High Gain Antenna

Ports:

- 1 x RJ-45 10/100 LAN ports

Warranty: 1 Year

Setup Requirements:

- Wired or Wi-Fi enabled PC, Mac, Tablet or Smartphone and an available 802.11b/g/n Wi-Fi network
- Google Chrome, Internet Explorer (8.0 and up) or Safari web browser

DEFAULT SETTINGS

The default settings for your Range Extender are listed here. If for some reason you need to return your Range Extender back to default settings, hold down the Reset button on the back panel for 10 seconds. The Range Extender will reset back to factory settings as listed below:

IP Address: 192.168.1.240

Web Menu Access: <http://setup.ampedwireless.com>

SSID: Amped_REC10

TROUBLESHOOTING AND SUPPORT INFORMATION

We are here to help. If you have any issues with your Range Extender please contact us.

To contact Amped Wireless' Technical Support use one of the following methods:

Phone: 888-573-8820

Email: techsupport@ampedwireless.com

Web: www.ampedwireless.com/support

Troubleshooting

The tips in this guide are listed in order of relevance. Try solution (a) before trying solution (b), etc.

I entered <http://setup.ampedwireless.com> and it failed to open the Web Menu.

- a. Make sure your computer is connected to the Range Extender's Wi-Fi network: Amped_REC10
- b. Try to use a different web browser. We recommend the Google Chrome web browser.
- c. Try to open your web browser to the default IP address by putting this number into your web browser instead: 192.168.1.240
- d. Power off (unplug the Range Extender) the Range Extender and power it back on. Try again.
- e. Reset your Range Extender to default settings by holding the Reset Button (located on the back panel) for ten (10) seconds and try again.
- f. If steps (a) thru (e) fail, disconnect your PC from all Wi-Fi networks. Attach an Ethernet cable between the Range Extender and your PC. Try to access <http://setup.ampedwireless.com> again.

I cannot connect to my Home Network. I received an error when running the Wizard.

- a. Your Home Network may be secured. Double check that you have the correct security key to connect to the Home Network.
- b. Your Range Extender may be located too far from your Home Network. Run through the Setup Wizard again. On the SCAN page, your Home Network should show a signal strength of 70% or greater. If it does not, move the Range Extender closer to your Home Network and try again.
- c. Check to see that your Home Network router's DHCP server is enabled. The Range Extender needs to obtain an IP from your Home Network router.

I cannot find my Home Network when scanning for Wi-Fi networks in the Wizard.

- a. The Range Extender may be out of range. Move the Range Extender closer towards the Wi-Fi router and try the Wizard again from the Web Menu. It is recommended that your Home Network shows a signal strength of 70% or greater in the Wizard SCAN results.
- b. The Home Network may be a dual band Wi-Fi router. The Range Extender supports 802.11b/g/n 2.4GHz routers. If your Home Network uses a dual-band router, it will not work with the Range Extender. Adjust the dual-band router's configuration to disable the 5GHz band.
- c. Go to the Smart Features tab in the web menu and access the Wi-Fi Coverage Controls. Make sure the setting is at 100% and try again.

- d. Make sure that your Home Network's Wi-Fi SSID is broadcasting and not hidden. If your Home Network SSID is hidden, you will need to manually setup the Range Extender through the Wi-Fi Settings > Home Network Settings menu.

My Range Extender was working fine previously but now I can no longer access the Internet through the Range Extender. Or, I had a **POWER OUTAGE and now the Range Extender no longer works.**

- a. The connection to your Home Network has been dropped. This can be caused by several events to your home Wi-Fi connection. When this occurs, simply run the Wizard again from the web menu and reconfigure the Range Extender.
- b. The Range Extender automatically reconfigures itself in the event of a channel change on your router. However, in the case that it does not, check to see that your home Wi-Fi router settings have not changed. Any changes to the SSID, security, or channel number from the original settings will disconnect the Range Extender's connection to the home network. **A power outage can cause a change in the channel of your router.** To solve this simply run the Wizard again from the web menu and reconfigure your Home Network connection. You can also set a static channel number on your router to prevent this from happening again in the future.
- c. If you cannot access the web menu, check to see that your Range Extender is still on. Reboot the Range Extender by unplugging the Range Extender and plugging it back in. Check to see if your connection has

been reestablished by viewing a website. If you do not have a connection, logon to <http://setup.ampedwireless.com> and configure a new Home Network connection.

- d. Check to see that your home Wi-Fi router is still on. If it has been turned off please turn it back on. The Range Extender should automatically reconnect to your Home Network within 10 minutes.

I have a dual-band router and I cannot extend it.

- a. Log into the Web Menu for your dual-band Wi-Fi router and adjust the Wi-Fi settings. Change the Wi-Fi band to 2.4GHz single band mode only. The Range Extender will not be able to extend the 5GHz band.

I cannot find any Wi-Fi networks (Home Networks) to extend.

- a. The Range Extender may be out of range. Move the Range Extender closer towards the Wi-Fi router and try the Setup Wizard again from the Web Menu.
- b. The antenna on your Range Extender may be loose. Tighten the antenna connection and try again.
- c. The Wi-Fi Home Network may not be a compatible Wi-Fi network (802.11b/g/n).

I am connected to a Home Network, however, I do not have Internet Access.

- a. The Home Network itself may not have Internet access. Check to see that you have internet access by connecting directly to the Home Network first. If you are able to go online then this is not a problem. If you cannot go online, then the Home Network's Internet connection must first be resolved.
- b. You may have a DNS issue and the Range Extender is not obtaining the IP settings from your Home Network. Try to reboot the Range Extender and then accessing a website. If that fails, then reboot the Home Router to see if that fixes it.
- c. There may be an IP conflict with your Home Network and your Extended Network. Try to adjust the IP Settings of your Extended Network using IP values that are different from your Home Network.

I can no longer connect to the Range Extender wirelessly.

- a. Power on and off the Range Extender and try again.
- b. The connection to the Home Network may be down. Use an Ethernet cable and connect directly to the Range Extender. Access <http://setup.ampedwireless.com> and run through the Wizard again. After you have successfully reset the Home Network connection, try connecting wirelessly again.

I could NEVER log onto the Range Extender Wirelessly.

- a. Check that your Wi-Fi adapter supports WPA2 Wi-Fi security. If it does not then you will need to change the Wi-Fi security on the Range Extender. Go to the Web Menu, select Wi-Fi Settings and then Wi-Fi Security. Select the Extended Network from the drop down menu and either disable security or downgrade the security to WEP. Try connecting again.
- b. The connection to the Home Network may be down. Use an Ethernet cable and connect directly to the Range Extender. Access <http://setup.ampedwireless.com> and run through the Wizard again. After you have successfully reset the Home Network connection, try connecting wirelessly again.
- c. If you have previously connected to the Range Extender or a device with the same network name (SSID), the password might be saved in your devices Wi-Fi profile. Delete the Wi-Fi profile and try again. (Refer to your device Manufacturers guide on how to delete the Wi-Fi profile.)

I can no longer access the Web Menu or the Range Extender no longer responds.

- a. Connect to your Range Extender and try to access <http://setup.ampedwireless.com> using your web browser.
- b. If you are advanced in networking troubleshooting, log onto your home router's web interface. Look for the DHCP client list and try to find the IP address of your Range Extender assigned by your home

router. Once you have it, connect to the Range Extender using an Ethernet cable. Open your web browser and enter the IP address into the address bar.

- c. Reset the Range Extender back to default settings and try the Wizard again. To reset the Range Extender back to default settings, push the Reset Button (on the back panel) down for five (5) to ten (10) seconds then let go. After the Range Extender has fully reset, use an Ethernet cable and connect to the Range Extender. Login to the Web Menu at <http://setup.ampedwireless.com> and run through the Wizard.

The connection to the Home Network seems slow. File transfers take a long time to transfer.

- a. You may be too far away from your Home Network. The closer the Range Extender is to your Home Network, the better its connection will be. The Range Extender must have a strong signal in order to extend the signal with fast speeds and further range. Move the Range Extender closer to your Home Network and try again.
- b. You may be downloading from the Internet and not within your Home Network or Extended Network. Files transferred through the Internet are limited by your ISP speed and the data download speeds from the website that you are downloading from.
- c. Your computer may be using an older Wi-Fi adapter with lower speed limits (802.11b/g).

The range from the Range Extender seems low.

- a. Check to see that your Wi-Fi output settings are at 100%. Go to the Web Menu, Wi-Fi Settings and check the Advanced Settings. Make sure the output power is at 100%.
- b. Your Range Extender may be installed in a poor location. Avoid setting up your Range Extender in areas with high interference, such as near refrigerators, microwaves, metallic objects and low surfaces. Install the Range Extender in a higher location if possible.
- c. Check the connections of the Antennas to the Range Extender. Tighten them if necessary.
- d. Adjust the Antennas of the Range Extender in different angles.

My Wi-Fi Access Schedule is being erratic and not working at the correct times.

- a. You need to adjust your Time Zone Settings from the Management Web Menu page.

Wi-Fi Protected Setup (WPS) is not working. Push button configuration does not detect the connection.

- a. The Range Extender supports WPS connections, however some companies may use proprietary code for their own push button configurations. Try connecting using the Windows Wi-Fi utility or Mac Wi-Fi utility instead.

WARRANTY AND REGULATORY INFORMATION

The Amped Wireless (A division of Newo Corporation, Inc.) Limited Warranty

Warranty Period: The Amped Wireless Limited Warranty is for one (1) year from the date of purchase for new products. Refurbished products carry the Limited Warranty for thirty (30) days after the date of purchase.

Guarantee: Amped Wireless warrants to the original purchaser that the hardware of this Amped Wireless product shall be free of defects in design, assembly, material, or workmanship.

Conditions: The Amped Wireless Limited Warranty is for repair or replacement only at the sole discretion of Amped Wireless. Amped Wireless does not issue any refunds for purchased product. In the event that Amped Wireless is unable to repair or replace a product (i.e. discontinued product), Amped Wireless will offer a credit toward the purchase of a similar product of equal or lesser value direct from Amped Wireless. Any repaired or replacement products will be warranted for the remainder of the original Warranty Period or thirty (30) days, whichever is longer. Amped Wireless reserves the right to discontinue any of its products without notice, and disclaims any limited warranty to repair or replace any such discontinued product. Amped Wireless reserves the right to revise or make changes to this product, its documentation, packaging, specifications, hardware, and software without notice. If any portion of the Amped Wireless Limited Warranty is found to be

unenforceable, its remaining provisions shall remain in effect. All costs of shipping the product to Amped Wireless shall be borne solely by the purchaser.

Limitations: IN NO EVENT SHALL AMPED WIRELESS' (NEWO CORPORATION'S) LIABILITY EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, ITS ACCOMPANYING SOFTWARE, ACCESSORIES OR ITS DOCUMENTATION. The Amped Wireless Limited Warranty does not apply if: (a) the product assembly has been opened or damaged, (b) the product or its software or firmware has been altered or modified, (c) the product has not been used and installed in accordance to Amped Wireless' instructions, (d) the product has been subjected to misuse, or negligence. Amped Wireless does not guarantee the continued availability of a third party's service for which this product's use or operation may require. The Amped Wireless Limited Warranty does not protect against acts of God, vandalism, theft, normal wear and tear, obsolescence and environmental damages such as, but not limited to, weather and electrical disturbances. The Amped Wireless Limited Warranty is the sole warranty for this product. There are no other warranties, expressed or, except required by law, implied, including the implied warranty or condition of quality, performance merchantability, or fitness for any particular purpose.

How to Claim Warranty: In the event that you have a problem with this product, please go to www.ampedwireless.com/support to find help on solving your problem. In the event that you cannot and need to file a warranty claim, please call Amped Wireless' Customer Service or visit

www.ampedwireless.com/support to fill out a Return Authorization (RMA) form and obtain a Return Authorization (RMA) number. A dated proof of original purchase and the RMA number is required to process warranty claims. You are responsible for properly packaging and shipping the product at your cost and risk to Amped Wireless. The bearer of cost related to shipping repaired or replaced product back to the purchaser will be at the sole discretion of Amped Wireless and determined based on the details of each RMA case. Customers outside of the United States of America are responsible for all shipping and handling costs including custom duties, taxes and all other related charges.

Technical Support: The Amped Wireless Limited Warranty is not related to the terms, conditions and policies of Amped Wireless' Technical Support offerings. For questions regarding support, please contact techsupport@ampedwireless.com.

Regulatory Information

FCC Statement and Declaration: Amped Wireless declares that this device complies with Part 15 of the FCC Rules and Regulations. Operation of this device is subject to the following two (2) conditions:

- (1) This device may not cause harmful interference
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Notice: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.

- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution and Safety Notices: Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter. Avoid use of this product near water or during an electrical storm as there may be a remote risk of electrical shock from lightning. This product may contain lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. This device must always be used with a Listed Computer or device.

Industry Canada Statement: This Class B digital apparatus complies with RSS-210 and ICES-003 of the Industry Canada Rules. Operation of this device is subject to the following two (2) conditions:

- (1) This device may not cause harmful interference
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Radiation Exposure Statement: This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

The transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Déclaration d'Industrie Canada : Cet appareil numérique de classe B est conforme aux réglementations RSS-210 et ICES-003 d'Industrie Canada. Le fonctionnement de cet appareil est sujet aux deux conditions suivantes:

- (1) Cet appareil ne peut pas causer de brouillage préjudiciable
- (2) Cet appareil doit accepter toute interférence reçue, y compris les interférences pouvant provoquer un dysfonctionnement.

Déclaration d'exposition à la radiation : Cet équipement respecte les limites d'exposition aux rayonnements IC définies pour un environnement non contrôlé. Cet équipement doit être installé et mis en marche à une distance minimale de 20 cm qui sépare l'élément rayonnant de votre corps.

L'émetteur ne doit ni être utilisé avec une autre antenne ou un autre émetteur ni se trouver à leur proximité.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.



tech support 888-573-8820
e-mail techsupport@ampedwireless.com
web www.ampedwireless.com

Amped Wireless

A Division of Newo Corporation

Copyright © 2013 Amped Wireless / Newo Corporation. All rights reserved.

Amped Wireless, Newo Corporation, and the Amped Wireless Logo are registered trademarks or trademarks of Newo Corporation.