

User's Guide

High Power Wireless-N 600mW Gigabit Dual Band Router R20000G

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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 Wireless-N 600mW Gigabit Dual Band Router
- Two Detachable 5dBi High Gain Antennas
- Two RJ-45 Ethernet Cable
- Power Adapter
- Setup Guide
- CD: User's Guide, Installation Video, Setup Guide, Wi-Fi Analytics Android App
- Vertical Mounting Stand

LED Indicators



(From top to bottom)

Power: Indicates when the High Power Router is powered on. The LED will remain on.

5.0GHz Wireless Activity: Blinks rapidly when wireless data traffic is transmitted or received over the wireless network.

2.4GHz Wireless Activity: Blinks rapidly when wireless data traffic is transmitted or received over the wireless network.

Gigabit Wired Ports 1-4: Indicates when a networking device is connected to a wired port on the back of the High Power Router. The LED blinks rapidly when wired data traffic is transmitted or received.

Internet Connection: Indicates when a USB storage device is connected to the USB port.

USB Connection: Indicates when a networking device is connected to a wired port on the back of the High Power Router. The LED blinks rapidly when wired data traffic is transmitted or received.

WPS: Wi-Fi Protected Setup activity. When the WPS mode is activated the WPS LED blinks as it awaits a connection.

Back Panel Description



Antenna Connectors (1-2): RJ-SMA antenna connectors. Attach the included high gain dual band antennas to these connectors

USB Port: Attach USB storage devices, such as USB flash drives and external hard drives, for file sharing.

Reset: Push down once to reboot the High Power Router. Hold down for 5-10 seconds to reset the router back to factory settings.

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

Wired Devices: Gigabit RJ-45 ports for connecting to wired computers or network devices.

Modem: Gigabit RJ-45 port for connecting to your Broadband Modem.

Power: Power adapter port. Output: 12V 1A, Input: 100-240v

SETUP GUIDE

Setup Preparations

Disconnect and power off your existing router.

Disconnect your existing router from your computer, your broadband modem and its power outlet. If you do not have an existing router please continue to the next step.



Power off your Modem

Power off the modem by disconnecting the modem's power adapter from the power outlet. If your modem has a backup battery, remove the backup battery from your modem. Do NOT power on the modem until prompted at a later step.



Connect the High Power Router to your Modem

Do NOT connect the power adapter to the High Power Router at this time.



- a) Use the included Ethernet cable and connect one end of the cable to your modem
- b) Connect the other end of the cable to the blue "Modem" port on the High Power Router

Power on your Modem

Plug in your modem's power adapter and backup battery (if available):



Power On the High Power Router and Connect it to your Computer



- a) Attach the antennas of the High Power Router to the antenna ports labeled 1 and 2
- b) Connect the included grey network cable to an available port on your computer
- c) Attach the power adapter to the High Power Router's PWR port and a power outlet

Open your Web Browser to Access the Setup Wizard

- a. Open your web browser.
- b. Type in: <u>http://setup.ampedwireless.com</u> 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://192.168.3.1



http://setup.ampedwireless.com

d. When prompted, enter the login and password.

Authentication Requ	ired	[23]
The server setup.ar and password. The	npedwireless.com requires a userna server says: the High Power Router.	me
User Name: Password:		
	Log In Can	cel

LOGIN:	admin
PASSWORD:	admin

Welcome to the Smart Setup Wizard

When the web menu appears, click Start to proceed with the Smart Setup Wizard.

The Smart Setup Wizard will guide you through the following settings:

- 1) Internet Connection
- 2) System Clock
- 3) Wireless Settings
- 4) Setup Summary



Configure your Internet Connection

Configure your Internet settings using the Automatic Configuration settings. The wizard will check the connection to your modem and attempt to automatically configure your Internet connection settings. If there is a problem with the connection, the wizard will provide you with information regarding the problem.

internet connet	and other
The Smart Setup Wiza automatically.	rd will attempt to detect your internet connection and configure the settings
	Automatic Configuration
Select Manual Configu	ration if you wish to configure your settings manually:
	Manual Configuration

More advanced users may choose to configure their connections manually by selecting Manual Configuration. DSL users may require additional login information. Select the appropriate connection type and enter the required information.

Click Next to continue.

If there was a problem with the Automatic Configuration, the wizard will notify you of the issue. If you continue to have problems, contact our support department at 888-573-8820.



Click Next to continue.





Set the System Clock

The System Clock is used for system logs and setting schedules for Internet access. Click Sync to synchronize the System Clock with the time on your computer.

Click Next to continue.

		WELCOME	1	2	3	FINISH
System Clock						
Update the System Clock	for the High Power	Router by clicki	ng the Sync	button b	elow.	
Current Time:	Month	Day Minute	Ye Sec	ar		
	Sync with your con	mputer: Sync				
Click Next to confirm your	settings and conti	nue.				
						NEXT

Configure your Wireless and Security Settings

5.0GHz Wireless Settings:

The default SSID of the 5GHz wireless network is "Amped_5.0GHz"

To change it, enter a new name in the SSID field. Users connecting wirelessly to the High Power Router will use this ID to identify your wireless network.

The default Security Key (WPA/WPA2) for your 5GHz wireless network is "wireless".

To change it, enter a new key in the Security Key field. The key must be 8-characters minimum.

Click Next to apply your settings.

Wireless Settings - 5.0GHz Network
S.Gdr2 Wirders Hetwork
SSID Setup (Network ID) The Identification name of your 5.0GHz wireless network is "Amped_5.0GHz." This is the name that wireless users will use to connect to your wireless network. You may change the settings below: Wireless Network ID (SSID): Amped_5.0GHz
Security Settings Your 5 OGHz wireless network is secured with the following (WPA/WPA2) security password/key. You must enter this key when connecting wirelessly for the first time to the High Power Router. You may change the key below.
for more security options after your setup is complete.
Network Security Key: 8 Character Minimum Leave blank for no security
Click Next to confirm your settings and continue.
BACK

2.4GHz Wireless Settings:

The default SSID of the 2.4GHz wireless network is "Amped_2.4GHz"

To change it, enter a new name in the SSID field. Users connecting wirelessly to the High Power Router will use this ID to identify your wireless network.

The default Security Key (WPA/WPA2) for your 2.4GHz wireless network is "wireless".

To change it, enter a new key in the Security Key field. The key must be 8-characters minimum.

Click Next to apply your settings. The High Power Router will reboot. This process may take up to 1 minute. The page will automatically reload after the countdown. If it does not, you may need to refresh the page manually or check your connection to the router.



Setup Summary

Once the High Power Router has rebooted, it will load the Setup Summary page and provide you with the details of your setup. It is recommended that you print this page for your records.

Open a new web browser window and check that you have access to the Internet.

At this time, you may disconnect from the High Power Router and start a wireless connection.

If you have any wired devices that you would like to attach to the High Power Router you may do so now as well.

Enjoy your Amped Wireless network.



5.0GHz WI-FI SETTINGS

5.0GHz Wi-Fi Settings: Basic Settings (5.0GHz)

The Basic Settings page allows you to adjust settings for your 5.0GHz local wireless network.

Disable 5.0GHz Wireless Connections: Disabling will turn off all 5.0GHz Wi-Fi activity. Users will no longer be able to connect wirelessly to your 5.0GHz network.

Band: Select the compatible Wi-Fi standard and speed for your wireless network.

Broadcast SSID: Selecting Disable Broadcast SSID will hide the visibility of the router's 5.0GHz network SSID. Users must manually enter the SSID to connect.

Data Rate: Sets the maximum wireless data rate that your network will operate on.

Basic Wireless Settings (5.0GHz)	
Manually configure the settings for your home wirele	iss network.
	5 OGH: Window Hetwork
	(()
	SSR: Amped_5.00hz Password: wireless
Internet Modem High Power Rout	er :
5.0GHz Wireless Settings:	
Disable 5.0GHz Wireless Connections:	
Band:	5.0 GHz (A+N) 💌
Broadcast SSID:	Disabled -
Data Rate:	Auto 💌
Wireless Network ID (SSID):	Amped_5.0GHz
	Guest Networks
Channel Number:	11 -
WMM.	Disabled •
Associated Clients:	Show Active Cilents
	APPLY RESET

Wireless Network ID (SSID): The name of your 5.0GHz wireless network.

Channel Number: Wi-Fi networks operate on specific wireless channels. Some network channels may have more interference than others. If your performance is unstable, try a different channel number. If you are using a repeater with this network, it is recommended you set a static channel, instead of using "Auto."

WMM: Prioritizes multimedia data over the wireless network.

Associated Clients: Shows the active users connected wirelessly to your 5.0GHz network.

5.0GHz Wi-Fi Settings: Basic Settings: Guest Networks (5.0GHz)

Guest Networks: You may add additional names (SSID) to your Wireless Network with different characteristics for each SSID.

Each additional Network or SSID can have its own security, band and data rate settings. You may restrict users to specific SSIDs or provide access only to some users with lower bandwidth by changing the band (i.e. only allow 802.11b access to specific users).

Guest Networks may also be set with restrictions so that guests can only access the Internet and not the local network.

onfigure the settir	igs for a	idditional Guest Networ	ks. Each Guest M	letwork may l	have its own sp	ecific settings.		
No.	Enable	Band	S SID	Data Rate	Broadcast \$\$1D	WMM	Access	Active Client
Guest Network 1	13	2.4 GHz (B+G+N) -	Amped_Networf	Auto 👻	Enabled +	Enabled -	LAN+WAN +	Show
Guest Network 2	13	2.4 GHz (B+G+N) =	Amped_Networl	Auto 👻	Enabled +	Enabled -	LAN+WAN -	Show
Guest Network 3	13	2.4 GHz (B+G+N) *	Amped_Networl	Auto -	Enabled 👻	Enabled -	LAN+WAN -	Show
Guest Network 4	13	2.4 GHz (B+G+N) +	Amped Networl	Auto 👻	Enabled 👻	Enabled -	LAN+WAN -	Show

Associated Clients: View all computers and network devices that are connected to your network wirelessly.

5.0GHz Wi-Fi Settings: Security Settings (5.0GHz)

The Security page allows you to change the type of wireless security settings for your 5.0GHz wireless network.

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 Guest Network feature, you will be able to adjust the security settings for your additional SSIDs as well. (For 2.4GHz Guest Networks, view the 2.4GHz Wi-Fi Settings menu)

Main - Amped_5.0GHz	APPLY RESET
Encryption:	WEP
802.1x Authentication:	
Authentication:	🔍 Open System 🔍 Shared Key 🔘 Auto
Key Length:	64-bit 💌
Key Format	Hex (10 characters)
Encryption Key:	*****

Encryption Types:

WEP is rated as a low level encryption and is compatible with all wireless devices and operating systems. Using WEP may slow down your wireless performance.

WPA is a medium level encryption and is supported by most wireless devices and operating systems.

WPA2 is a high level encryption and is supported by most wireless devices and operating systems. WPA Mixed Mode allows the use of both WPA and WPA2 at the same time.

If you are not sure which encryption type to use, we recommend you choose WPA/WPA2 Mixed Mode.

5.0GHz Wi-Fi Settings: Advanced Settings (5.0GHz)

Advanced Wireless Settings should only be adjusted by technically advanced users. It is not recommended that novice users adjust these settings to avoid degrading wireless performance.

Fragment Threshold: The default and recommended setting is at 2346, meaning the High Power Router will never fragment any frames that it sends to wireless 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.

These settings apply to your 5.0GHz wireless network. 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 Threshold: (0-2347)
Beacon Interval: (20-1024 ms)
Preamble Type: O Long Preamble O Short Preamble
IAPP: C Enabled Disabled
Protection: C Enabled C Disabled
Aggregation: 🔘 Enabled 🔘 Disabled
Short GI: C Enabled Disabled
WLAN Partition: © Enabled © Disabled
STBC: CEnabled Disabled
20/40MHz Coexist: Cenabled Disabled
TX Beamforming: 🔘 Enabled 💿 Disabled

Beacon Interval: Indicates the frequency interval of the beacon. A beacon is a packet broadcast by the router to synch the wireless network.

Preamble Type: Defines the length of the Cyclic Redundancy Check for communication between the router and roaming wireless users.

IAPP: Inter-Access Point Protocol

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

5.0GHz Wi-Fi Settings: Wi-Fi Protected Setup – WPS (5.0GHz)

WPS is a Wi-Fi feature created to make Wi-Fi setup simple and easy. Some wireless 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 High Power Router supports all types of WPS setup:

Online A.	Konstanting and have a WE Ci Destantial Cature button which as an a the
Option A.	WPS PBC (Push Button Configuration) button here:
	Start PBC
Option B:	If your wireless device requires a WPS PIN number to join the wireless
Option C:	If your wireless user has a Wi-Fi Protected Setup PIN number, enter that number here:

Option A: Push button: You may push the WPS button on the web menu or use the physical button on the back of the High Power Router.

Option B: PIN: Some wireless devices use PIN number to access wireless network. If your wireless device requests for a PIN number, use the PIN code located here.

Option C: Enter PIN: Some wireless devices require that you use a PIN number to add them to the wireless network. If your wireless device has a PIN number locate the number and enter in the field, then press Start Pin.

5.0GHz Wi-Fi Settings: Wireless Coverage Controls (5.0GHz)

Adjust the output power of the High Power Router to control the coverage distance of your 5.0GHz wireless network. For a smaller coverage area, you can select a lower output power. For the maximum wireless coverage, select the 100% selection.



5.0GHz Wi-Fi Settings: Access Schedule (5.0GHz)

Access Schedules will enable or disable your 5.0GHz wireless access at a set time based on your predefined schedule. This feature is often used for restricting access to all users (such as children, employees, guests) during specific times of the day for parental control or security reasons.

- a. Enable Access Schedule
- b. Select which days you wish for your 5.0GHz Wi-Fi to be available
- c. Select the time frame during that day that you wish for your 5.0GHz Wi-Fi to be available
- d. Apply Changes

Note: Make sure you have already configured your Time Zone

Settings in order for your schedule to work correctly. Time Zone Settings can be adjusted from the web menu under Management > Time Zone Settings.

a schedi					
Diamo	sie for wh	en the 5-0GHz with	eless network is en-	abled or disa	bied on the High Powe
1.4.40006	oe sore a	tas your time aone	nem de nave veel	reangues	pervie using mis real.
ElEnal	ble Acces	s Schedule (5.0GH	tx)		
Day	1.876-2	From	Charles the set of	To	
Sun		00 = (hours	00 + (min)	00 w	(hour) 00 - (min)
Sun .		00 - (hour)	00 ~ (min)	00 v	(hour) 00 - (min)
Sun		00 - (hour)	00 - (min)	00 +	(hour) 00 - (min)
Sun		00 - (hour)	00 ~ (min)	00 -	(hour) 00 - (min)
Sun		00 - (hour)	00 - (mm)	00 -	(hour) 00 - (met)
Sun		00 - (hours	00 - (min)	00 -	(hour) 00 - (min)
Sun	-	(hour) ~ 00	00 ~ (min)	00 -	(hour) 00 - (min)
Sun		00 - (hour)	00 ~ (min)	00 +	(hour) 00 - (min)
Sun	-	03 - (hour)	00 - (mm)	00 -	(hour) 00 - (min)
Sut		02 - Mours	00 - (min)	00 -	(hours of - Desire)

2.4GHz WI-FI SETTINGS

2.4GHz Wi-Fi Settings: Basic Settings (2.4GHz)

The Basic Settings page allows you to adjust settings for your 2.4GHz local wireless network.

Disable 2.4GHz Wireless Connections: Disabling will turn off all 2.4GHz Wi-Fi activity. Users will no longer be able to connect wirelessly to your 2.4GHz network.

Band: Select the compatible Wi-Fi standard and speed for your wireless network.

Broadcast SSID: Selecting Disable Broadcast SSID will hide the visibility of the router's 2.4GHz network SSID. Users must manually enter the SSID to connect.

Data Rate: Sets the maximum wireless data rate that your network will operate on.

Wireless Network ID (SSID): The name of your 2.4GHz wireless network.

Basic Wireless Settings (2.4GHz)	
Manually configure the settings for your home wirele	ess network.
	2.40th Windows Network
2.4GHz Wireless Settings: Disable 2.4GHz	1.40re
Wireless Connections:	
Broadcast SSID	Disabled
Data Rate	Auto
Wireless Network ID (SSID):	Amped_2.4GHz
	Guest Networks
Channel Number:	11 -
WMM:	Disabled •
Associated Clients:	Show Active Clients
	APPLY

Channel Number: Wi-Fi networks operate on specific wireless channels. Some network channels may have more interference than others. If your performance is unstable, try a different channel number. If you are using a repeater with this network, it is recommended you set a static channel, instead of using "Auto."

WMM: Prioritizes multimedia data over the wireless network.

Associated Clients: Shows the active users connected wirelessly to your 2.4GHz network.

2.4GHz Wi-Fi Settings: Basic Settings: Guest Networks (2.4GHz)

Guest Networks: You may add additional names (SSID) to your Wireless Network with different characteristics for each SSID.

Each additional Network or SSID can have its own security, band and data rate settings. You may restrict users to specific SSIDs or provide access only to some users with lower bandwidth by changing the band (i.e. only allow 802.11b access to specific users).

Guest Networks may also be set with restrictions so that guests can only access the Internet and not the local network.

onfigure the settin	igs for a	idditional Guest Networ	ks. Each Guest M	letwork may I	have its own sp	ecific settings.		
No.	Enable	Band	SSID	Data Rate	Broadcast SSID	WMM	Access	Active Client
Guest Network 1	13	2.4 GHz (B+G+N) +	Amped_Networf	Auto 👻	Enabled +	Enabled -	LAN+WAN +	Show
Guest Network 2	13	2.4 GHz (B+G+N) =	Amped_Networl	Auto 👻	Enabled 👻	Enabled -	LAN+WAN -	Show
Guest Network 3	13	2.4 GHz (B+G+N) *	Amped_Networl	Auto -	Enabled 👻	Enabled -	LAN+WAN -	Show
Guest Network 4	13	2.4 GHz (B+G+N) +	Amped Networl	Auto 👻	Enabled +	Enabled -	LAN+WAN -	Show

Associated Clients: View all computers and network devices that are connected to your network wirelessly.

2.4GHz Wi-Fi Settings: Security Settings (2.4GHz)

The Security page allows you to change the type of wireless security settings for your 2.4GHz wireless network.

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 Guest Network feature, you will be able to adjust the security settings for your additional 2.4GHz SSIDs as well.

Main - Amped_2.4GHz	APPLY RESET
Encryption:	WEP
802.1x Authentication:	8
Authentication:	🔍 Open System 🔍 Shared Key 🖲 Auto
Key Length:	64-bit 💌
Key Format	Hex (10 characters)
Encryption Key:	*****

Encryption Types:

WEP is rated as a low level encryption and is compatible with all wireless devices and operating systems. Using WEP may slow down your wireless performance.

WPA is a medium level encryption and is supported by most wireless devices and operating systems. WPA2 is a high level encryption and is supported by most wireless devices and operating systems. WPA Mixed Mode allows the use of both WPA and WPA2 at the same time.

If you are not sure which encryption type to use, we recommend you choose WPA/WPA2 Mixed Mode.

2.4GHz Wi-Fi Settings: Advanced Settings (2.4GHz)

Advanced Wireless Settings should only be adjusted by technically advanced users. It is not recommended that novice users adjust these settings to avoid degrading wireless performance.

Fragment Threshold: The default and recommended setting is at 2346, meaning the High Power Router will never fragment any frames that it sends to wireless 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.

Advanced Settings (9.4GHz)								
These settings apply to your 5 40Hz wireless network. 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 Threshold:		(0-2347)						
Beacon Interval:		(20-1024 ms)						
Preamble Type:	C Long Pre	amble 💿 Short Preamble						
IAPP:	Enabled	C Disabled						
Protection:	Carabled	Disabled						
Aggregation:	Enabled	Disabled						
Short GI:	Enabled	Disabled						
WLAN Partition:	Enabled	C Disabled						
STBC:	Enabled	C Disabled						
20/40MHz Coexist:	Enabled	Disabled						
TX Beamforming:	C Enabled	© Disabled						

Beacon Interval: Indicates the frequency interval of the beacon. A beacon is a packet broadcast by the router to synch the wireless network.

Preamble Type: Defines the length of the Cyclic Redundancy Check for communication between the router and roaming wireless users.

IAPP: Inter-Access Point Protocol.

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

2.4GHz Wi-Fi Settings: Wi-Fi Protected Setup - WPS (2.4GHz)

WPS is a Wi-Fi feature created to make Wi-Fi setup simple and easy. Some wireless 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 High Power Router supports all types of WPS 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:					
	Start PBC					
Option B:	If your wireless device requires a WPS PIN number to join the wireless network, use this PIN: 888888888					
Option C:	If your wireless user has a Wi-Fi Protected Setup PIN number, enter that number here:					

Option A: Push button: You may push the WPS button on the web menu or use the physical button on the back of the High Power Router.

Option B: PIN: Some wireless devices use PIN number to access wireless network. If your wireless device requests for a PIN number, use the PIN code located here.

Option C: Enter PIN: If your wireless device has a PIN number, locate the number and enter it into the field. Press Start PIN when ready.

2.4GHz Wi-Fi Settings: Wireless Coverage Controls (2.4GHz)

Adjust the output power of the High Power Router to control the coverage distance of your 2.4GHz wireless network. For a smaller coverage area, you can select a lower output power. For the maximum wireless coverage, select the 100% selection.



2.4GHz Wi-Fi Settings: Access Schedule (2.4GHz)

Access Schedules will enable or disable your 2.4GHz wireless access at a set time based on your predefined schedule. This feature is often used for restricting access to all users (such as children, employees, guests) during specific times of the day for parental control or security reasons.

- a. Enable Access Schedule
- b. Select which days you wish for your 2.4GHz Wi-Fi to be available
- c. Select the time frame during that day that you wish for your 2.4GHz Wi-Fi to be available
- d. Apply Changes

Note: Make sure you have already configured your Time Zone

Settings in order for your schedule to work correctly. Time Zone Settings can be adjusted from the web menu under Management > Time Zone Settings.

a schedu	ue for white	en the 2.4GHz with hat your time zone	eless n setting	etwork is er	nabled or en configu	dis	abled o	n Ita	e H	ligh Power this featur
Enal	ble Acces	s Schedule (2.4GH	(z)							
Day		From		La contra	To			-		
Sun		00 - (hours	00 +	(min)	00	-10	(boor)	00		(min)
Sun		00 - (hour)	00 -	(min)	00	4	(hour)	00	-	(min)
Sun		00 - (hour)	80 +	(min)	00	+	(hour)	00	-	(rein)-
Sun		00 - (hour)	00 +	(min)	00		(hour)	00	-	(min)
Sun	•	00 - (hour)	00 =	(/141)	00	÷	(hour)	00	-	(min)
Sun		00 - (hour)	00 +	(min)	00	*	(hour)	00	*	(rein)
Sun	-	00 - (tout)	00 ·+	(min)	00	-	(hour)	00	-	(min)
Sun		00 - (hour)	- 00	(man)	00	+	(hour)	00	-	(min)
Sun		00 - (hour)	00 -	(min)	00		(hour)	00	1	(min)
Sut		00 - 00000	00 -	(min)	00	E	marri	00	Ľ.	(deniers)

NETWORK SETTINGS

Network Settings: Local Network (LAN)

These settings are for your local network only and do not apply to your Internet / ISP connection.

IP Address: The IP address of the High Power Router.

Subnet Mask: The subnet of the High Power Router.

Default Gateway: The access point to another network.

DHCP: Each network device on your local network will have its own IP Address. The DHCP server automatically assigns the IP addresses to each device

IP Address:	192.168.3.1
Subnet Mask:	255.255.255.0
Default Gateway:	0.0.0.0
DHCP:	Server •
DHCP Client Range:	192.168.3.100 - 192.168.3.200 Show Client
DHCP Lease Time:	480 (1 ~ 10080 minutes)
Static DHCP:	Set Static DHCP
Domain Name:	Realtek
802.1d Spanning Type:	Disabled •
Clone MAC Address:	0000000000

connected to your network. Disabling DHCP will require that each device on your network be assigned a manual or static IP address.

DHCP Client Range: The range of IP addresses provided by the DHCP server is defined by this field. You can limit how many IP addresses are used in your network by setting a smaller or larger range.

DHCP Lease Time: The amount of time each device is given a specific IP is decided by the DHCP lease time. After the Lease Time expires, the DHCP server will assign another IP address to the device.

Set Static DHCP: This allows specific devices to be given a specific IP address each time the device connects to the network. The DHCP server will always assign the same IP address to the same device. This feature is often used for shared devices such as network printers or servers.

802.1d Spanning Type (STP): A network protocol that ensures a loop-free topology for networks that have Ethernet bridges. The STP prevents bridge loops and allows a network design to include redundant links to provide automatic backup paths if active links fails.

Clone MAC Address: The High Power Router can use a MAC address that you define as its own. This is often used when an Internet Provider only authorizes one MAC address to access the Internet. Cloning the MAC address will make it so that the cloned MAC address is the only MAC address seen by the Internet Provider.
Network Settings: Internet Network (WAN)

The Smart Setup Wizard will assist you in setting up your Internet connection. However, in the case that you wish to adjust settings manually, the options on this page provides you with the tools to do this easily.

Select your Internet Connection type from the drop down menu:

Internet Connection Type:	Automatic/Dynamic IP (DHCP)
Host Name:	
MTU Size:	1492 (1400-1492 bytes)
Obtain DNS Automatically	 Set DNS Manually
DNS 1:	
DNS 2:	
DNS 3:	
Clone MAC Address:	00000000000 Clone MAC Address

Manual IP (Static): For Internet connections where the Internet provider does not provide you with an IP address automatically. If you know the IP address and DNS settings that your Internet provider uses, select this option.

Automatic/Dynamic (DHCP): This is the configuration type most often used by Internet providers. Automatic configurations are used by both DSL and Cable as well as other providers. Under the Automatic Configuration method, the Internet provider will assign your router an Internet IP address automatically.

If for some reason you do not get an IP address and you know that your Internet provider uses DHCP, try resetting your modem. Remove the power adapter from the modem as well as the backup battery (if available). Wait about 30 seconds and then power the modem back on. You can run through the Smart Setup Wizard again to see if that fixes your Internet connection issues.

PPPoE connections normally requires login information. If you do not know the settings for your PPPoE connection, please contact your Internet provider.

PPTP and L2TP connections requires login information as well as IP address settings. If you do not know the settings for your PPTP / L2TP connection, please contact your Internet provider.

Network Settings: Advanced Settings

These settings apply to the Local Network and your Internet Connection Network. If you are not familiar with these settings, please refer to a network administrator to avoid putting your network at risk.

Enable uPnP: Universal Plug and Play is a network feature that allows uPnP enabled devices to "just work" with each other when connected to the same network. UPnP can work across different network media, such as an Ethernet connection or wireless



connection. With UPnP enabled, network devices may change security settings within the High Power Router's firewall to allow access over the Internet. By default, UPnP is disabled to avoid exposing your network to security issues.

Enable IGMP Proxy: Internet Group Management Protocol is a communication protocol used by hosts and routers on the network to establish multicast group memberships. IGMP Proxy is typically used to implement multicast routing and commonly used when advanced protocols such as PIM is not suitable.

Enable Ping Access on WAN: Allows users to ping the WAN interface IP address from the internet.

Enable Web Server Access on WAN (Remote Management): Allows access to the Web Menu over the Internet

Enable IPsec pass through on VPN connection: Allows the IP security protocol suite to pass through on a VPN connection.

Enable IPv6 pass through on VPN connection: Allows the IPv6 protocol suite to pass through on a VPN connection.

SMART FEATURES

The High Power Router provides your network with Smart Features that helps to provide convenience and protection for your wired and wireless network.

The Smart Features allows you to control access of your wireless network through: on/off schedules, specific user authorizations, and wireless coverage control.

These settings apply to your local wireless and wired network.

Smart Features: Block Websites

To block a website, you must first enable URL filtering. After it has been enabled, you can begin adding as many websites as you wish into the URL Address field.

Note: If you wish to block www.google.com, simply type in "google" and the High Power Router will block all websites with the text "google" in the URL.

Block Websites (URL Filtering)
URL Filtering blocks users on your from accessing specific websites that you deem unsafe or inappropriate. Enter a keyword or the actual web address below to begin blocking.
Note: If you wish to block www.google.com, simply type in "google" and the High Power Router will block all websites with the text "google" in the URL.
Enable URL Filtering
URL Address:
APPLY RESET

Smart Features: User Access (MAC Address Filtering)

User Access allows you to deny access or allow access to specific users connecting to the 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 (MAC Ad	dress Filtering)
Each networking device has a physical a access to your network from computers (physical address). To begin blocking ac without spaces or symbols (i.e. A1B2C3)	address known as a MAC address. MAC Address Filtering blocks or network devices based on their unique MAC address cess, enable MAC Filtering and enter the MAC address below D4E5F6)
Enable MAC Filtering	
MAC Address:	
Comment:	
	APPLY

A MAC Address may sometimes be referred to as a Physical Address. Most networking devices have their MAC Address located on a label on the actual device.

For Windows computers with internal networking adapters, the MAC Address can be found by viewing the Network Connection Details of the network adapter. The MAC Address will be listed as the Physical Address.

Be sure to enter the MAC Address without any symbols. For example, a MAC Address of 78-DD-78-AA-78-BB would be entered as 78DD78AA78BB.

Smart Features: User Access (IP Address Filtering)

User Access (IP Filtering) is similar to User Access (MAC filtering) except that the High Power Router uses the local IP address to filter the specific data from the specified network protocol. For example, if you chose to block TCP data packets from a specific computer, you would need to figure out what that device's IP address is and select TCP from the Protocol drop down menu.

User Access Control (IP Filterin	g)
IP Filtering is used to block internet or net The restricted user may still be able to log begin blocking access to an IP address, e to block.	work access to specific IP addresses on your local network. In to the network but will not be able to access the internet. To nable IP Filtering and enter the IP address of the user you wish
Enable IP Filtering	
Local IP Address:	
Protocol:	Both v
Comment:	
	APPLY RESET

If you are not sure which Protocol to filter, select "Both" as your Protocol selection.

USB STORAGE

USB Storage: Local Sharing

Share a USB storage device with computers on the local network of the High Power Router.

Insert a USB storage device, such as a flash drive or external hard drive, to the USB port on the back of the High Power Router and follow the directions below for your operating system. The computer must be connected to the router to access the storage device. You may also want to Map the Network Drive so it shows up as a standard drive on your computer for easier access.

	USB Storage Lo	cal Sharing			
Sh coi Ro	are a USB storage de mputers. Insert your l uter.	evice, such as a USB f JSB storage device int	lash dr to the L	ive or external hard o JSB port on the back	trive, locally among networked panel of the High Power
Ch	eck the Elite Support	Center for new USB S	Storage	features.	
	Local Network Sha	iring			
	Partition	File System		Capacity	Free Space
	NTFS	NTFS		7.454 GB	2.833 GB
	TOTAL	*		7.454 GB	2.833 GB
	Note: You ma	How to Acces y need to Map your Network I	s or Ma Drive for i	ap your Network Drive t to appear in your compute	r's networked device list.
		USB Device Name: A	MPED_	USB	
		Work Group:			
	Shar (For Mapping	ed Disk IP Address 192 the Network Drive):	2.168.3	.1	
					APPLY RESET

Windows 7 and Vista

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OSX), you will need to Map the Network Drive.

- a. Click the Start button
- b. Click Computer
- c. On the Computer page, the drive should appear on the left hand column under Network as AMPED_USB

To Map the Network Drive:

- a. Click the Start button
- b. Click Computer
- c. Click Map Network Drive from the top bar.
- d. Select a drive letter (any), then enter in the folder field: \\AMPED_USB\public\ or \\router's LAN IP address\public\
- e. If the drive fails to open, click browse and locate AMPED_USB under Network.

Windows XP

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OSX), you will need to Map the Network Drive.

- a. Click the Start button
- b. Click My Computer
- c. Click on My Network Places and locate the drive named AMPED_USB

To Map the network drive:

- a. Click the Start button
- b. Right Click My Computer and select Map Network Drive
- c. Select a drive letter (any), then enter in the folder field: \\AMPED_USB\public\ or \\router's LAN IP address\public\
- d. If the drive fails to open, click browse and locate AMPED_USB under Network.

Mac OS X

To access the drive from your Mac desktop:

Note: If the USB drive does not appear automatically under your Networked devices, you will need to Map your Network Drive (Instructions below).

- a. Open Finder
- b. On the left hand menu, under Shared, click AMPED_USB

To Map the network drive:

- a. Open Finder
- b. From the menu on the top of the desktop, select Go
- c. Select Connect To Server from the drop down menu
- d. Enter the address of the network drive: smb://amped_usb/public or smb://router's LAN ip address/public Then click Connect

If the network drive does not appear on your Mac desktop, follow these steps:

- a. Open Finder
- b. Select Preferences from the drop down menu
- c. Check show "Connected Servers"
- d. The drive should now appear on your desktop

USB Storage: FTP Server

Share a USB storage device with computers remotely over the Internet. A FTP server allows you to access files through the use of an FTP client remotely over the Internet.

Insert a USB storage device, such as a flash drive or external hard drive, to the USB port on the back of the High Power Router.

- a) From the USB Storage/FTP Server page of the web menu, enter a FTP server name.
- b) Select whether you wish to have an open or secured access to your FTP server.
- c) Open your FTP client software (not provided) and create a new FTP connection.
- d) Enter the Internet Address for the router as the IP address for your FTP connection. When prompted enter your login information to access the USB Storage device remotely.

USB Storage FTP S	erver	
ate a FTP server to acce port on the back panel	255 files remotely using a FTP client. In: of the High Power Router and configure	sert your USB storage device into the e your FTP settings below.
the Internet Address to	access the FTP server over the web.	
FTP Connect	tion Internet Address: 0.0.0.0	
If your Inter add a <u>DDN</u>	net connection uses a dynamic IP assign <u>S service</u> to access the FTP via a web add	nent, you may also ress instead.
FTP Server Setup		
	FTP Server Name:	
	FTP Server: O Enabled O Dis	abled
	FTP Port: 21	
	Anonymous FTP: O Enabled O Dis	abled
	Anonymous Write: Enabled Disc	abled
System Account List System Account	Password	Access Type
quest		Read Only
Note: Login and pagework	d are care cancilus	(dat only
		RESET
Add Additional User A	iccounts	
	User:	
	Password:	
	Access Type: 🔘 Read Only 🖲	Read & Write
	Access Type: 🔘 Read Only 🖲	Read & Write
User Account List	Access Type: 💿 Read Only 🖲	Read & Write
User Account List	Access Type: 💿 Read Only 🖲 Password	Read & Winte APPLY RESET Access Type Delete
User Account List User Account	Access Type: Read Only Ressword Delete Selected	Access Type Delete Delete A

FIREWALL SETTINGS

The High Power Router's Firewall is designed to prevent unauthorized users from accessing your network. This section will go over the different features of the Firewall and how to configure them.

Firewall Settings: Port Filtering

Port Filtering is a security measure that prevents users from using specific ports for reasons other than what those ports were originally intended for. For example, TCP port 21 is traditionally used for FTP. However, there is nothing stopping a user from using port 21 for purposes other than FTP access. By enabling Port Filtering on TCP port 21, only FTP communications would be allowed. No other types of communication would be allowed on this port.

Port Filtering
Port Filtering allows you to enable or disable TCP ports and UDP ports on computers or network devices. Port Filtering insulates your local computers from many TCP/IP security attacks, including internal attacks by malicious users.
Enable Port Filtering
Port Range: -
Protocol: Both 💌
Comment:
APPLY RESET

Hackers may sometimes scan for all open ports on your network as a method of hacking into your network. Port Filtering and other firewall features help to prevent this from happening.

To set up Port Filtering, select a range of ports you wish to filter. If you are trying to filter a single port, enter the port number twice. (For example, Port 21: 21 - 21) Select the Protocol of the port you are filtering. If you do not know what protocol you wish to filter, select "Both."

Firewall Settings: Port Forwarding

Port Forwarding is a rule that tells the High Power Router that if a specific type of request comes in on a specific port, then that request should be forwarded to a specific device on the private network.

Port Forwarding is often used for setting up servers, cameras and other devices that require remote access.

Enable Port Forwarding: Enables designated ports to begin forwarding.

Port Forwarding	
Port Forwarding allows you to automatic device or computer on your local networ servers, network cameras and other spe	ally redirect common network services to a specific network k. These settings are useful for hosting web servers, mail crific network server devices behind your network firewall.
Enable Port Forwarding	
IP Address:	
Protocol:	Both 👻
Port Range:	-
Comment:	
	APPLY

IP Address: The IP address of the device behind the Firewall that is being designated for Port Forwarding.

Protocol: Select UDP, TCP or Both for the protocols to be forwarded.

Port Range: Select a range of ports for the designated IP address that you wish to be forwarded.

Comment: Create a name that you can use to easily identify this Port Forwarding entry.

Firewall Settings: DMZ (Demilitarized Zone)

A DMZ is a network location or IP Address that is not protected by the firewall. When enabling DMZ, it is important to note that the device on the IP Address designated as part of the DMZ does not have any protection from the High Power Router's firewall. The device's only security would be those built into the operating system.

Demilitarized Zone (DMZ)
A Demilitarized Zone is used to provide unrestricted access for a single IP address on your network. The DMZ enabled IP address will have an unrestricted path directly through the firewall of the High Power Router.
Enable DMZ
DMZ Host IP Address:
APPLY RESET

As a general safety rule, devices placed on the DMZ should not have any other network connections to any other devices.

Enable DMZ: Enables the Demilitarized Zone.

DMZ Host IP Address: The designated IP Address of the network device to have unrestricted access through the High Power Router's Firewall.

Firewall Settings: Virtual LAN

A VLAN has the same attributes as a physical local area network (LAN) but it allows for devices to be grouped together even if they are not located on the same physical network switch. The benefit of a VLAN is that it allows network traffic to flow more efficiently for computers or network devices that are within sections of mutual interest. In addition, changes to the VLAN can be made virtually via a user interface rather than manually changing cables and network switches.

VLAN are often used to segment network devices based on

their department, user types or common applications. Bandwidth can then be more easily managed by adjusting the bandwidth to specific VLANs based on their priorities.

Virte	ial Loc	al Area Network (VLA	N)				
A Virtual basis of to map a	LAN is a their ge a networ	a local area network (LA) ographic location or netv k by department, user typ	 that maps vork switch c be or primary 	networ onfigur applica	k devices virtu ation. For exa ation.	ually rather t mple, a VLA	han on the N may be used
	Enabl	e VLAN					
	Enable	Ethernet/Wireless	WAN/LAN	Tag	VID(1~4090)	Priority	CFI
		Wired Port1	LAN		3022	0 🖵	
		Wired Port2	LAN		3030	7 👻	
		Wired Port3	LAN		500	0 👻	
		Wired Port4	LAN		1	3 👻	
		Wireless 1 Primary AP	LAN		1	0 🖵	
		Guest Wireless Network1	LAN		1	0 👻	
		Guest Wireless Network2	LAN		1	0 🖵	
		Guest Wireless Network3	LAN		1	0 👻	
		Guest Wireless Network4	LAN		1	0 🖵	
		Wired Port5	WAN		1	0 🖵	

Firewall Settings: Denial of Service

A Denial of Service attack is an attempt by a user (or users) to make a server's or network's services unavailable. The user sends a server multiple requests with false return addresses.

The server will attempt to respond by sending a request back to the user; however, since the address is false, the server will wait for a response before closing the connection. When multiple requests like this occur, servers may often get overloaded with too many requests and stop functioning altogether. This is a typical DoS attack, although DoS attacks may not be limited to this type of attack.

The High Power Router can assist in preventing these types of attacks by scanning the network for patterns of activity that represent DoS attacks. If a pattern comes in frequently, the High Power Router can attempt to block messages containing that pattern and thus protect the server from becoming overloaded and unresponsive.

DoS) attack is characterized by an explici ise of a specific internet service. To activi onfigure the specific settings.	t attempt by ma ate your protec	licious users to prevent legitimate users fron ion, enable the DoS Prevention below and
Enable Denial of Service (DoS) Prevention	
Whole System Flood: SYN	0	Packet/Second
Whole System Flood: FIN	0	Packet/Second
Whole System Flood: UDP	0	Packet/Second
Whole System Flood: ICMP	0	Packet/Second
Per-Source IP Flood: SYN	0	Packet/Second
Per-Source IP Flood: FIN	0	Packet/Second
Per-Source IP Flood LIDP	0	Packet/Second
Rer-Source IP Flood ICMP	0	Packet@acond
	u line	
	LOW	sensionly
IPI and		
IP Spoof		
IP TearDrop		
PingotDeath		
TCP Scan		
TCP SynWithData		
UDP Bomb		
UDP EchoChargen		
	Sele	ct All Clear All
Enable Source IP Blocking	0	Block Time (sec)

QUALITY OF SERVICE

QoS prioritizes and guarantees network performance for a specific IP Address range or MAC Address. QoS is often used for applications that require steady bandwidth. Common applications include VoIP phones, video streaming applications (i.e. DVRs, network cameras, video on demand), online gaming and servers.

It is important to note that while QoS helps to prioritize and guarantee bandwidth for a specific device, it does not provide you with more bandwidth than you currently have. For example, if your Internet Provider rates your internet connection speed at 5Mbps, QoS will not improve that

Quality of Service (QoS) enables the priorit of Service you can guarantee that a specifi bandwidth and is prioritized over all other no	izing of specific data traffic through your network. With Quali computer or network device has sufficient (user defined) etwork traffic.
Enable Quality of Service	
Z Automatic Uplink Sp	eed
Manual Uplink Speed	(Kbps): 512
Z Automatic Downlink	Speed
Manual Downlink Sper	ed (Kbps): 512
Quality of Service Rules Address Type: Local IP Address: MAC Address:	P Address MAC Address -
Mode:	Guaranteed minimum bandwidth
Uplink Bandwidth (Kbps):	
Downlink Bandwidth (Kbps):	
Comment:	

connection. QoS helps you better manage the 5Mbps that you have so that the bandwidth is prioritized for devices on your network that may need the provided 5Mbps more than other devices. However, if you have an application that requires more than 5Mbps of steady bandwidth, the application will continue to experience "lag" with or without QoS since your available bandwidth is less than the required bandwidth of your application.

ROUTING SETUP

Dynamic Routing allows the High Power router to automtically learn network destinations for devices/networks that are directly connected to the router. RIP and RIP2 are routing protocols that may be used for the router to learn routes from other routers running those same protocols. This allows the High Power Router to adapt to changes and failures within the network topology and find the best route.

Static Routing allows the administrator to manually enter into the High Power Router's routing table. These routes do not change and must be manually reconfigured if the route fails.

Routing Setup	
This page is used to setup dynamic routing	protocol or edit static route entry.
Enable Dynamic Route	
NAT:	C Enable C Disable
Transmit:	ODisabled ORIP 1 ORIP 2
Receive:	ODisabled ORIP 1 ORIP 2
	APPLY
Enable Static Route	
IP Address:	
Subnet Mask:	
Gateway:	
Metric:	
Interface:	LAN
	APPLY RESET Show Route Table

MANAGEMENT FEATURES

The Management Features on the High Power Router allows you to view the status of the system, your Internet connection, wireless network and local area network.

The Network Statistics page provides detailed traffic data for each connection type.

Management: System Status

The System Status provides you with a snapshot of your High Power Router's current connections and settings.

The System Information section provides you with the router's firmware version and build. 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.

The Internet Connection Status displays the information from your Internet Provider. If for some reason your Internet connection stops working, you may try running through the Smart Setup Wizard again or contact our support department at 888-573-8820.

The Wireless Settings shows the details of the 2.4GHz and 5.0GHz wireless networks.

The Local Area Network settings displays the current configurations for local network IP address and DHCP server settings.

System Information	
Uptime:	0day.2h.36m.43sec
Firmware Version:	v1.0
Build Time.	02/16/12
Current Date / Time:	00/00/00 00:00:00
nternet Connection Status	
Internet Connection Type:	DHCP
IP Address	192.168.3.180
Subnet Mask:	255 255 255 0
Default Gateway:	192 168 3 254
MAC Address	00.00.00.00.00.00
5.0GHz Wireless Netwo	rk Settings
Band	5.0 GHz (A+N)
SSID	Amped_5.0GHz
Channel Number:	48
Encryption	Disabled
BSSID	00.00.00.00.00.00
Associated Clients:	1
2.4GHz Wireless Netwo	rk Settings
Band	2.4 GHz (B+G+N)
SSID	Amped_2.4GHz
Channel Number:	6
Encryption:	Disabled
BSSID	00.00.00.00.00
Associated Clients:	1
Local Area Network Setting	
Router IP Address:	192.168.2.1
Subnet Mask:	255 255 255 0
Default Gateway:	192.168.2.1
DHCP Server	Enabled
	22.22.22.22.22.22.22

Management: Network Statistics

Network statistics shows the data activity for each connection type on the High Power Router (Internet, Wireless and Wired).

The Wireless Connection statistics shows all data activity for both the 2.4GHz and 5.0GHz wireless networks separately.

The Wired Connection statistics shows all data activity for all users physically connected to the wired ports on the High Power Router.

The Internet Connection statistics shows the data activity for all upload and download data over your Internet connection.

Management: Dynamic DNS Settings

The Dynamic Domain Name System (DDNS) is a method to keep a web domain name, or web address, linked to a changing IP address as most Internet Providers do not provide static IP addresses.

To use DDNS, you must first set up an account with a DDNS provider. The High Power Router supports two of these providers (TZO and DynDNS). Once the DDNS service has been set up and configured correctly on the High Power Router, the DDNS service will constantly track the IP address of your Internet connection. Each time your Internet Provider changes your IP address, the High Power Router will inform the DDNS service and the DDNS service will update your new IP address. The DDNS web domain that you have chosen to use will then be updated to redirect to your new Internet IP address.

The DDNS service makes it so you never have to check or remember your Internet IP address. This feature is typically used for users running servers, network cameras and other devices that require remote access.

Enable DDNS	
Service Provider:	DynDNS 👻
Domain Name:	host.dyndns.org
User Name / Email:	
Password Key:	

Management: System Clock

Maintain the internal clock for the High Power Router by syncing with your computer's time. Your system clock settings need to be accurate in order for logs and wireless access schedules to work correctly.

System Clock					
Update the System Clock for the High Power Router by clicking the Sync button below.					
Current Time:	9 Month 22 Day 2011 Year 16 Hour 29 Minute 50 Sec				
Sync with your computer: Sync					

Management: System Logs

The System Log is useful for viewing the activity and history of your High Power Router. The System Log is also used by Amped Wireless technicians to help troubleshoot your router when needed. It is recommended that you enable all logs in the event that troubleshooting is required.

All log entries will be deleted each time the High Power Router 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 <u>www.ampedwireless.com/support</u> website and remember the location where you saved it. Firmware files may also be provided by Amped Wireless support reps.
- b. Click Browse 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.

Save/Reload Settings
Save your current High Power Router configurations to a file or reload previously saved configurations. If needed, you may also reset your High Power Router to factory default settings.
Save Settings to File: Save
Load Settings from File: Choose File No file chosen Upload
Reset Settings to Default: Reset

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 High Power Router's settings to factory settings by pressing Reset. By resetting the High Power Router you will lose all previous configurations and will need to run the Smart Setup Wizard again to configure the High Power Router's Settings.

Management: Password Settings

The default settings for the High Power Router are:

Login: admin Password: admin

If you wish to enable a password to protect unauthorized access to the web menu and Smart Setup Wizard, you may enter one here.

Password				
Prevent unauthorized access to yo user name and password. If no pro prompted for a login and password	ur High Power Router dection is necessary, when accessing this	's web-based co eave these field web menu.	nfiguration men is blank and you	u by providing a will not be
New Login:				
New Password:				
Confirmed Password:				
			APPLY	RESET

TECHNICAL SPECIFICATIONS

Wireless Standard: 802.11a/b/g/n Frequency Band: 2.4 GHz, 5.0GHz Wireless Speed: 2.4GHz: 300Mbps(Tx/Rx) 5.0GHz: 300Mbps (Tx/Rx) Amplifier: Dual 2.4GHz 600mW Amplifiers Dual 5.0GHz Amplifiers Dual Low Noise Amplifier Wireless Sensitivity: -94dBm Wireless Output Power: Up to 29dBm Wireless Security:

• WEP, WPA, WPA2, WPA Mixed, WPS Processor Clock Speed: 620Mhz Wireless Coverage Control:

• 15% - 100% Output Power

Antennas:

• 2 x Detachable High Gain

Dual Band 2dBi (for 2.4GHz) & 4dBi (for 5.0GHz) Antennas

• 2 x Reverse SMA Connector

Ports:

- 4 x RJ-45 10/100/1000 LAN ports
- 1 x RJ-45 10/100 /1000 WAN ports
- USB 2.0 Port for Storage Devices

Mounting:

• Wall, Stand or Desktop

Warranty: 1 Year

Setup Requirements:

- Wired or wireless PC/Mac
- Google Chrome, Internet Explorer (8.0 and up) or Safari web browser

DEFAULT SETTINGS

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

IP Address: 192.168.3.1 Web Menu Access: <u>http://setup.ampedwireless.com</u> Login: admin Password: admin 2.4GHz Wireless SSID: Amped_2.4GHz Wireless Security Key (WPA/WPA2 Mixed Mode): wireless 5.0GHz Wireless SSID: Amped_5.0GHz Wireless Security Key (WPA/WPA2 Mixed Mode): wireless

TROUBLESHOOTING AND SUPPORT INFORMATION

We are here to help. If you have any issues with your High Power Router 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.

Troubleshooting: Web Menu Issues

I entered setup.ampedwireless.com and it failed to open the Web Menu.

- a. Make sure your computer is connected to the High Power Router using the included Ethernet cable. Do not try to connect with a wireless connection. Ensure that the power on the High Power Router is on.
- b. Check that your computer IS NOT connected to any wireless networks. If it is, disable your Wi-Fi connection and disconnect from all wireless networks. Reboot the router and try again.
- c. Close your current web browser and reopen it. Use Google Chrome or Internet Explorer (v8.0 and up).
- d. Open your web browser and enter 192.168.3.1 into the web address bar.
- e. Reset the High Power Router to default settings by holding the Reset Button (located on the back panel) for ten (10) seconds and try again.

I have entered setup.ampedwiress.com but I cannot enter the Web Menu. I am prompted for a login and password but it does not let me continue.

- a. Check that you are using the right login and password. If this is your first time accessing the Web Menu, use the default login and password: (Login: admin, PW: admin)
- b. If you forgot your login and password for the Web Menu, reset the High Power Router to default settings and try again. To reset the High Power Router to default:
 - On the back panel of the router find the Reset button.
 - Use a pen tip to hold down the reset button for 5 to 10 seconds.
 - The router will reinitialize and restore its default settings.

I am having problems with features on the Web Menu. When clicking buttons, it does not register my action.

a. Check that you are using a supported web browser: Google Chrome, Internet Explorer (8.0 and up) and Safari. If you are using an unsupported web browser, such as Firefox, please change to one of the supported web browsers and try again.

Troubleshooting: Internet Connection Issues

The Smart Setup Wizard could not automatically configure my Internet connection.

- a. Reset your modem by holding down the reset button located on the back of the modem for approximately five seconds. Try the automatic configuration again.
- b. Static IP: Your Internet connection may require a static IP setting. Check with your ISP to obtain the IP settings.
- c. DSL Connections: Your Internet connection may require login information. If you are using PPPoE mode, you will need to manually configure your Internet connection settings and obtain your username and password.
- d. Cable Modem: Your Internet connection may require you to clone your MAC address. Go to More Settings > IP Settings > Internet Network (WAN) and select Automatic/Dynamic (DHCP) from the drop down menu. Clone your PCs MAC address under the DNS settings.
I have gone through the Setup Wizard and I do not have Internet.

- a. Detach the power adapter and disconnect all computers from the High Power Router.
 Turn off the power to your modem and remove the backup battery (if available).
 Wait 2 minutes and power the modem back on. Wait 2 minutes for the modem to initialize.
 Power on the High Power Router and connect your computer to the router.
 Open your web browser and try to access the Internet.
- b. Check that your Internet connection through the modem is working. Power off the High Power Router and disconnect your computer from the router.

Turn off the power to your modem and remove the backup battery (if available).

Wait 2 minutes and power the modem back on. Wait 2 minutes for the modem to initialize.

Attach your computer directly to the modem and power on your computer.

Open your web browser and check to see if you can go online. If you cannot go online, there may be a problem with your Internet provider. Please contact your Internet provider to troubleshoot your connection issues.

My Internet connection is unstable and drops intermittently.

- a. Power off your computer, the High Power Router and your modem.
 Power on your modem and wait 2 minutes.
 Power on the High Power Router and wait 1 minute for the router to initialize.
 Power on your computer and try again.
- b. Check to see if other computers are also having this problem. If they are not, check to see if your anti-virus software or firewall software is conflicting with your Internet connection. You may also try temporarily disabling all firewalls or anti-virus software to see if that is what is causing the problem.
- c. If you have a PPPoE or another Internet connection requiring login credentials, you may need to adjust the reconnection or time out settings. Go to the IP Settings > Internet Connection (WAN) page and configure your Internet connection to automatically reconnect.
- d. If you are using Windows XP, check that your computer is using Service Pack 2 or greater. Windows XP users with Service Pack 1 may experience intermittent wireless connections.

My Internet connection is abnormally slow.

- a. Check with your Internet provider to ensure that they are not experiencing system wide issues.
- b. Check with speedtest.net to see the speed of your Internet provider. Connect directly to your modem with your computer and check speedtest.net again. If the speed results are the same, the issue is with your Internet provider. Please contact your provider to troubleshoot the issue.
- c. Check the Internet connection speed on another computer that is connected to the High Power Router. If the other computer does not have Internet speed problems, the networking equipment or operating system on your original computer may be outdated or may be experiencing problems. Viruses and other software may slow down a computer's overall speed significantly.
- d. If you are using a wireless connection to the High Power Router, check that your wireless signal strength is above 3 bars. If not, you may need to move closer to the High Power Router.

Troubleshooting: Local Network Issues

My computer is getting an IP address of 169.254.x.x and Windows says "Limited or no Connectivity."

- a. Make sure the High Power Router is powered on.
- b. Check that your computer's network adapter is enabled and is set to "Obtain IP Address Automatically."
- c. Release and Renew your IP Address on your computer. To do this on a Windows computer:
 - Click Start>Run and type CMD
 - When the command prompt appears, type ipconfig/release and press enter
 - Type ipconfig/renew and press enter
 - Check that your computer's network adapter has an IP address of 192.168.3.x
- d. Restart your computer and check again.
- e. Restart the High Power Router and check again.
- f. Make sure DHCP is enabled in the High Power Router's Web Menu (Go to More Settings > IP Settings > Local Area Network (LAN) > DHCP Settings.
- g. Check that your Firewall or Anti-Virus software is not preventing you from accessing shared devices on you network.

Troubleshooting: Wireless Issues

I am only getting 3 or 4 wireless signal bars on my wireless computer and I am within 10 feet of the wireless router.

- a. Step back at least 10 feet from the High Power Router and check your signal again. The High Power Router emits high power, long range Wi-Fi signals that may confuse your wireless adapter signal reading at close range. The speed and signal are at 100%, however your readout may not be displaying the data correctly.
- b. Change the wireless channel on the High Power Router to 11 or 1 and try again (2.4GHz). There may be interference in your installation environment. For 5.0GHz networks change the channel to another available channel number.

I am not getting a strong wireless connection from all distances from the wireless router.

- a. Check to see that your antennas are secured tightly to the High Power Router.
- b. Check if other computers are experiencing the same issue. If not, the wireless adapter in your computer may be experiencing problems or maybe older and have poor wireless performance.
- c. Avoid placing the High Power Router near or around Microwaves and 2.4GHz wireless phones.
- d. Avoid using wireless channels that are crowded. Change the wireless channel on the High Power Router.

- e. Place the High Power Router in a higher location near the center of your desired coverage location.
- f. Position the antennas on the High Power Router in opposite orientations.

My wireless adapter does not connect at the maximum wireless speed.

- a. Your wireless network adapter may be outdated and have older wireless technology not capable of achieving the wireless network speeds of the High Power Router. To achieve maximum wireless speeds, it is required that you have a 802.11n wireless adapter.
- b. Check that you are using the latest Wi-Fi security type: WPA or WPA2 WEP security may slow down your wireless speeds.
- c. Check that the High Power Router's wireless data rate is set to auto or 11N data rate speeds.
- d. Wireless speeds degrade as you get further away from the wireless router.
- e. Check that the wireless channel set on the High Power Router is not crowded. Try changing the wireless channel to another channel and test the speed again.
- f. Do not use Internet websites (i.e. speedtest.net or other websites) to test your wireless speeds. Speed test websites measure your Internet connection speed, which is controlled by your Internet provider. Wireless speeds are for your local network and not your Internet connection. To test wireless speeds, a local test or file transfer will be required to test the true wireless speed.

I cannot connect my Windows Vista computer to the wireless network. I enter my wireless password and I see an error.

- a. Manually add a wireless network to your Vista computer:
 - Click Start, and then click Network.
 - Select Network and Sharing Center.
 - Click Manage Wireless Networks.
 - Click Add and select Manually create a network profile.
 - Type in the SSID, and select the type of security and enter your security key.
 - Select "Start this connection Automatically" and click Next.
 - Go to Network and Sharing Center and select Manage Network Connections.
 - Right click Wireless Network Connection and then select Status.
 - Click details and check to see that your IPv4 IP address is correct (192.168.3.x).
- b. Disable IEEE 802.1x authentication on your computer.

I cannot connect my Windows XP computer to the wireless network. I enter my wireless password and I see an error.

- a. Make sure your computer has the latest Windows Service Pack. Windows Service Pack 1 does not support WPA security. Upgrade to the latest Service Pack to support the latest wireless encryption.
- b. Manually add a wireless network to your XP computer.
- c. Disable IEEE 802.1x authentication.

Troubleshooting: USB Storage Issues

I cannot access my USB storage device after I plug it into the router.

Follow the instructions below for your operating system.

Windows 7 and Vista

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OSX), you will need to Map the Network Drive.

- a. Click the Start button
- b. Click Computer
- c. On the Computer page, the drive should appear on the left hand column under Network as Amped_USB

To Map the Network Drive:

- a. Click the Start button
- b. Click Computer
- c. Click Map Network Drive from the top bar.
- d. Select a drive letter (any), then enter in the folder field: \\Amped_USB or \\shared disk IP address
- e. If the drive fails to open, click browse and locate Amped_USB under Network

Windows XP

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OSX), you will need to Map the Network Drive.

- a. Click the Start button
- b. Click My Computer
- c. Click on My Network Places and locate the drive named Amped_USB

To Map the network drive:

- a. Click the Start button
- b. Right Click My Computer and select Map Network Drive
- c. Select a drive letter (any), then enter in the folder field: \\Amped_USB or \\shareddisk IP address
- d. If the drive fails to open, click browse and locate Amped_USB under Network

Mac OS X

To access the drive from your Mac desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OSX), you will need to Map the Network Drive.

- a. Open Finder
- b. On the left hand menu, under Shared, click Amped USB

To Map the network drive:

- a. Open Finder
- b. From the menu on the top of the desktop, select Go
- c. Select Connect To Server from the drop down menu
- d. Enter the address of the network drive: Amped_USB or shared disk IP address, then click Connect

I cannot access my USB storage device remotely

- a. Insert a USB storage device, such as a flash drive or external hard drive, to the USB port on the back of the High Power Router.
- b. From the USB Storage/FTP Server page of the web menu, enter a FTP server name.
- c. Select whether you wish to have an open or secured access to your FTP server.
- d. Open your FTP client software (not provided) and create a new FTP connection.
 To find a FTP client software, go to downloads.com and search for FTP client software. Download a FTP software suitable for your needs and continue with the next step.
- e. Enter the Internet Address for the router as the IP address for your FTP connection. When prompted enter your login information to access the USB Storage device remotely.

The High Power Router freezes or I cannot access the web when a USB storage device is connected.

- a. Remove the USB storage device from the High Power Router and reboot it by unplugging the power adapter. Once rebooted, try inserting the USB storage device again.
- b. Make sure your UBS storage device is not corrupted and is working properly and try again.

Additional USB Storage troubleshooting tips may be available online at the Amped Wireless Elite Support Center. Please check the Elite Support Center for the latest updates and features for USB Storage support.

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 <u>www.ampedwireless.com/support</u> 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.ampedwirleess.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 lighting. 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.

Operations in the 5.15-5.25 GHz band are restricted to indoor usage only.

Exposure to Radio Frequency Radiation.

The device shall be used in such a manner that the potential for human contact normal operation is minimized. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

This Class B digital apparatus complies with Canadian ICES-003.

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

This device has been designed to operate with the antennas listed below, and having a maximum gain of [2] dB (for 2.4GHz band),[4] dB (for 5GHz band). Antennas not included in this list or having a gain greater than [2] dB (for 2.4GHz band), [4] dB (for 5GHz band) are strictly prohibited for use with this device. The required antenna impedance is [50] ohms. 802.11b/g/n Antenna Type: Dipole Antenna Antenna Gain: 2dBi 802.11a/an Antenna Type: Dipole Antenna Antenna Gain: 4dBi

IC Radiation Exposure Statement

This equipment complies with IC RSS-102 radiation exposure limit set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Cet appareil numérique de la classe [*] est conforme à la norme NMB-003 du Canada.

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.

les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.



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

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