

WAP-5920 AC750 Wireless Extender User Manual

Version A1.0, July 27, 2015





Preface

This manual provides information related to the installation and operation of this Dual-Band Wireless LAN Extender. The individual reading this manual is presumed to have a basic understanding of home networking terminology and concepts.

If you find the product to be inoperable or malfunctioning, please contact technical support for immediate service by email at homesupport@comtrend.com

For product updates, new product release, manual revision, or software upgrades, please visit our website at http://www.comtrend.com

Important Safety Instructions

With reference to unpacking, installation, use, and maintenance of your electronic Dual-Band Wireless LAN Extender, the following basic guidelines are recommended:

Do not use or install this product near water, to avoid fire or shock hazard. For example, near a bathtub, kitchen sink or laundry tub, or near a swimming pool. Also, do not expose the equipment to rain or damp areas (e.g. a wet basement).



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NOTE:

This document is subject to change without notice.

Protect Our Environment



This symbol indicates that when the equipment has reached the end of its useful life, it must be taken to a recycling center and processed separate from domestic waste.

The cardboard box, the plastic contained in the packaging, and the parts that make up this router can be recycled in accordance with regionally established regulations. Never dispose of this electronic equipment along with your household waste; you may be subject to penalties or sanctions under the law. Instead, please be responsible and ask for disposal instructions from your local government.



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Chapter 1 Product Information

1-1 Introduction and Features

The AC750 Dual-Band Wireless Extender has a compact design, and provides excellent network performance to extend your Wi-Fi signal and wireless coverage.

Features of this wireless extender include:

- Easily extends the wireless signal inside your home or office.
- Compact design while maintaining excellent network performance.
- Supports 802.11a/b/g/n and 802.11ac standards, it can provide up to 300Mbps for 2.4Ghz on 11n mode and 433Mbps for 5Ghz on 11ac mode.
- LED signal indicators to easily realize the best location placement to extend the WiFi signal for best wireless performance.
- Supports Repeater mode, AP mode and Access Point client mode.
- Integrated hardware switch to change the operation mode quickly without logging into the web interface.
- WPS (Wi-Fi Protected Setup) hardware button for easy installation and wireless security.



1-2 System Requirements

- Wireless network card which is compatible with 802.11a/b/g/n and 802.11 ac wireless network standards.
- Windows XP, Windows 7, Windows 8 or MAC OS or Linux operating system.
- CD-ROM drive.



1-3 Package Contents

Before you start to use this wireless extender, please check if there's anything missing in the package, and contact your place of purchase to claim for missing items:

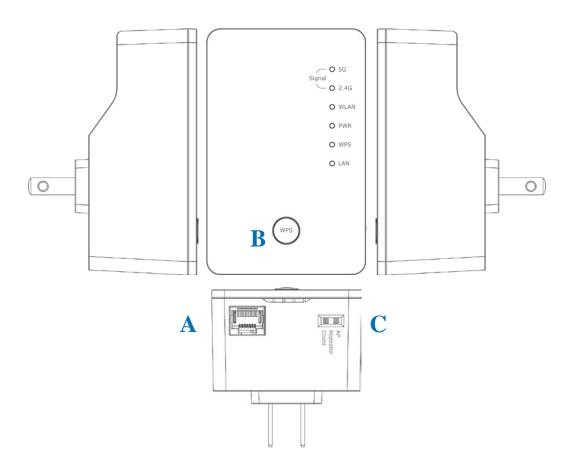
•	Wireless Extender	(1	pcs)	 1	

•	Quick	Installation	Guide	(1	pcs)			2
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1-4 Get familiar with your new wireless extender

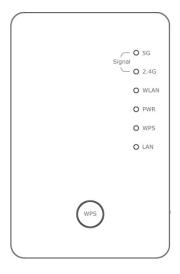
Interface Descriptions



Item	Item Name	Description
Α	LAN	10/100M Ethernet LAN Port with Auto-MDI/MDI-X.
		Connect to a computer, switch or hub for local
		network sharing.
В	Reset / WPS	Reset the extender to factory default settings (clear
		all settings) or start the WPS function. Press this
		button and hold for 10 seconds to restore all settings
		to factory defaults, or press this button for less than
		5 seconds to start the WPS function.
С	AP/Repeater/Client	Switch the button to change operating mode to
		Access Point, Repeater or Client mode.



LED Activity



LED	Color	LED Status	Description
		Steady ON	Good signal reception (signal strength 100%~50%)
Signal Status (5G)	Green	Blinking	Normal signal reception Slow blinking (signal strength 50%~25%) Poor signal reception Quick blinking (signal strength <25%)
		Off	Out of signal range or disconnected/ or in LED off mode.
		Steady ON	1. Good signal (strength 100%~50%)
Signal Status (2.4G)	Green	Blinking	 Poor signal Slow blinking (signal strength <50%~25%) Quick blinking (signal strength <25%)
		Off	1. No signal/ or LED off mode
WLAN	Green	Blinking	Connect to wireless Router/or AP, wireless function is active (transferring or receiving data)
		Off	Wireless network is switched off/ or LED off mode
Power	Green	Steady ON	Power is turned on In LED off mode (except power LED is on, other LEDs are off *)



		1	1
			*If user selects to enable "LED OFF mode",
			power LED On/Off depends on user's selection,
			user can select to leave only power LED on or
			turn off all LEDs including this power LED
			Ready for "Reset to factory default", power LED
		Slow Blinking	is blinking
		Off	Power is turned off
		Blinking	WPS is in progress of waiting for another WPS
			device's connection, blinking (0.2 second on,
WDC	C		0.1 second off) for 2 minutes
WPS	Green		WPS error, blinking (0.1 second on, 0.1 second
		Quick blinking	off)
		Off	NO WPS is in progress/ LED off mode
		Steady ON	LAN port is connected
		Dlimking	LAN port is active (transferring or receiving
LAN	Green	Blinking	data)
	Off		LAN port is not connected/ or LED off mode



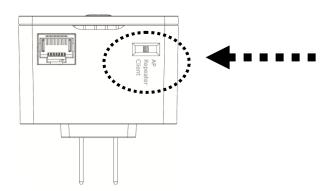
CHAPTER 2 Repeater Mode

This chapter will explain how to quickly install this device by using the quick setup method and explain each detailed setting on the web user interface while in repeater mode.

2-1 Repeater Mode Quick Installation Guide

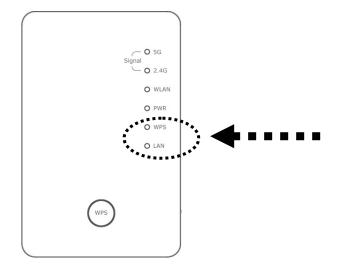
For first time setup and installation, move this Wireless LAN Extender close to the Wireless Broadband Router or Access point you wish to connect to. After installation is complete, move this Wireless LAN Extender to the place you wish to permanently wish to use it.

Switch mode selector to 'Repeater'.



Plug this Wireless LAN Extender into a power outlet on the wall, and you should see the '*Power'* LED light up in few seconds. If not, check if the power outlet you're using is working.





You can setup the wireless connection via the 'Hardware WPS button' or 'Software web browser'.

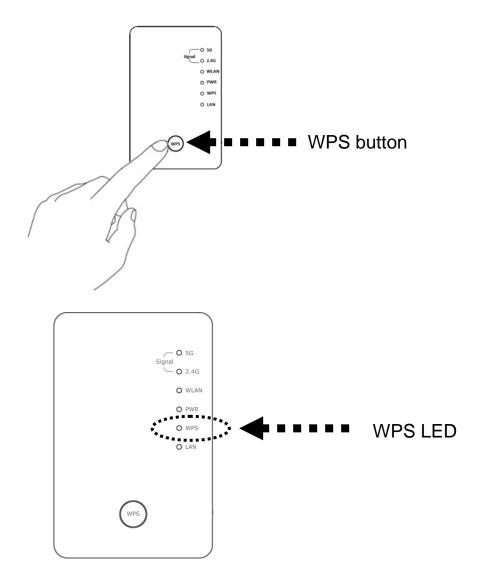
If your broadband router or access point also supports a 'WPS button', we recommend you to use the WPS button to establish connection.

Using WPS button - please go to section 2-1-1
Using Web browser - please go to section 2-1-2

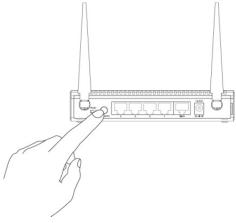
2-1-1 Hardware WPS button setup

 Press and hold the WPS button on the Wireless LAN Extender for 2 seconds, the 'WPS' LED will start flashing.





2. Press the WPS button on the wireless broadband router or access point you wish to connect to within 2 minutes.



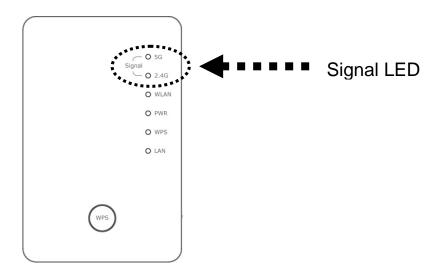
NOTE: the WPS button position on the access point above is for reference; different devices may have different WPS button positions or locations.



TIP: If the access point you wish to connect to does not have a hardware WPS button, you can also use its web configuration menu's WPS function to establish connection. Or you can login to the WAP-5920's web user interface to perform quick setup (for detailed setup refer to '2-1-2 Web browser quick setup' manual)

3. When WPS connection is successfully established, the extender will reboot immediately to make your settings take effect; if the 'WPS' LED flashes fast, a problem has occurred, please wait for 2 minutes until the 'WPS' LED goes off, and start from step(1) again.

When quick installation is successful, the 'Signal' LED will turn on.



4. Please move the Wireless LAN Extender to the place you wish to use it (the ideal place will be the center of your house) and plug this Wireless LAN Extender into a power outlet on the wall, the wireless connection will be established automatically as long as it's within range of your wireless router or access point.

You can check the 'Signal' LED status to understand signal reception level.

Steady light: Excellent, Flashing: Good, Fast flash: poor.

If the Signal LED is off, it means the device is out of wireless range of your wireless broadband router or access point. Move the extender closer to the broadband router until the extender device can receive a signal from the broadband router and extend its signal.

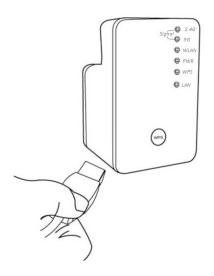


The quick installation setup is complete, you can refer to '2-2 Repeater mode Advanced Settings' to login to the web user interface for other advanced settings.

2-1-2 Web browser quick setup

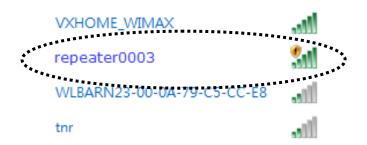
Before you can connect to the extender and start the configuration procedures, your computer must be able to get an IP address automatically (use dynamic IP address). If it's set to use a static IP address, or you're unsure, please refer to 'Chapter 5: 5-1 Configuring TCP/IP on PC' to set your computer to use dynamic IP address.

1. Use an Ethernet cable to connect your computer's Ethernet port and the wireless extender's Ethernet port.



Or use your computer's wireless configuration utility to search for an access point named 'repeater0003' and get connected. (The default SSID of this extender device is 'repeater0003', 0003 is for reference, it is the last 4 digits of the device's MAC number. Each device has a different MAC number; please find it on your device label.)

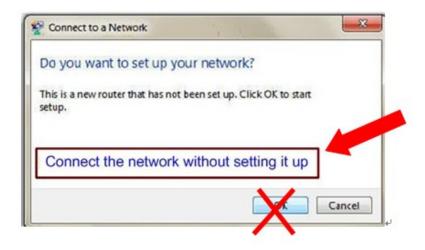




NOTE: this default SSID 'repeater0003" is for reference, different devices may have different last 4 digits.

If you are using a wireless connection in Windows 7 and encountered the following screen, please click "Connect the network without setting it up" then you can successfully link to the extender. Do NOT click "OK ".

In case you click 'OK', Windows 7 will ask for the security key, please click "Cancel" to go back to this page.



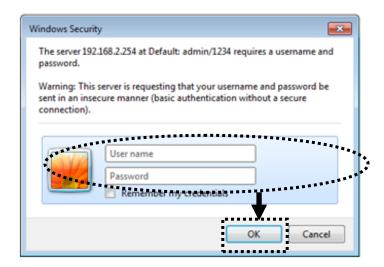
NOTE: this 'repeater0003" is for reference, 0003 are the last 4 digits of the device's MAC number. Each device has a different MAC number; please find it on your device label.)

2. Open your web browser, it will redirect to the web user interface setting page. (or you can input the default IP address 'http://repeater.setup' in the address bar) You can also input the default IP 'http://192.168.2.252 or repeater.setup if your PC is Windows OS based.



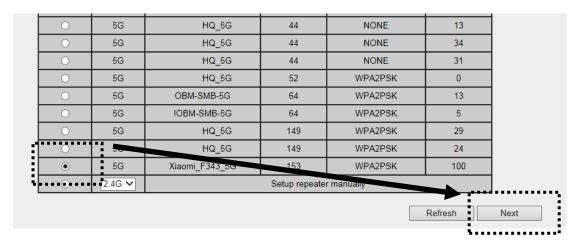


3. The Wireless Extender will prompt you to input the username and password. Default username is 'admin' and password is '1234'. Click the 'OK' button to continue.

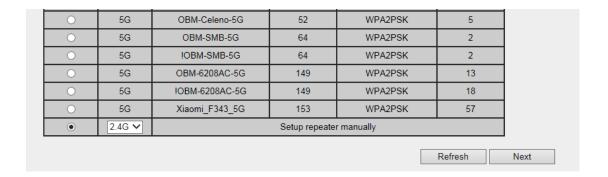


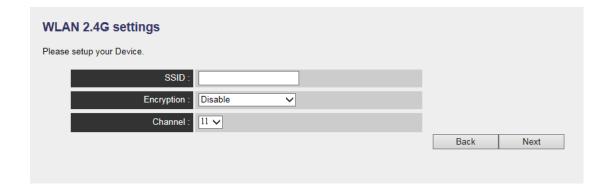
4. All wireless access points nearby will be displayed on the list. Select one access point you want to connect to and click the 'Next' button to continue. If the access point you wish to connect to does not appear here, click the 'Refresh' button until it appears on the list, or try to move the wireless extender closer to the access point you wish to connect to.





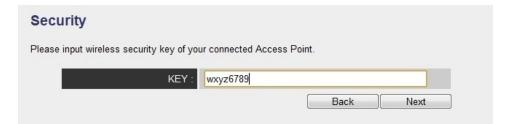
If you want to connect to a hidden access point, you can select "**Setup** repeater manually" to input the wireless setting manually.





5. You'll be prompted to input the access point's wireless security key, input it in the 'KEY' field and click the 'Next' button to continue.

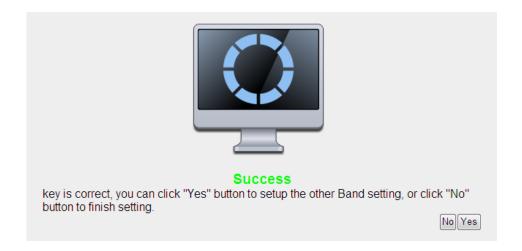




6. It will start to verify the wireless key with your associated access point and show you result within 20 seconds. Please follow the instructions to continue setup.

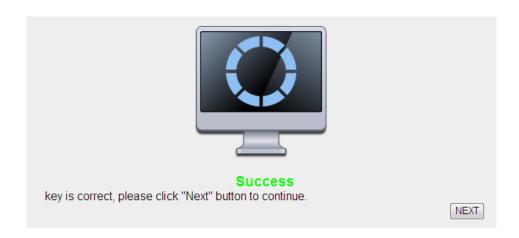


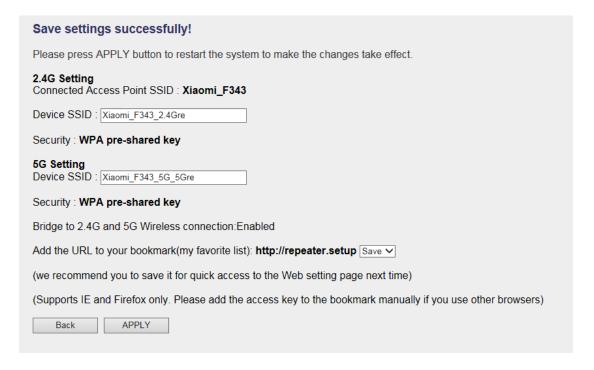
7. When the key is correct, this Range Extender will display the connection information for you.



8. When you have setup dual band successfully (or setup single band manually), you will see the page below, press the "Next" button to continue.







If everything is correct, click the 'APPLY' button to get connected.

The 'Device SSID' will be the same as the access point's SSID you connected in this step.

We recommend you to copy your 'firmware URL' (for example: http://repeater.setup) to your bookmarks for quick login to the settings page next time.

NOTE: If you use browsers other than IE and Firefox, you need to copy this firmware URL and add it to bookmark manually.



9. Please wait a few moments for the wireless extender to restart.

System Restarting! Please wait for a while!

NOTE: After the wireless connection of this extender and wireless broadband router is built, the extender is DHCP client and will get an IP address from the broadband router automatically. If you want to login to the web user interface of the extender, please refer to '2-2 Repeater mode Advanced Settings' for more functions or learn how to login to the web user interface again.



2-2 Repeater mode Advanced Settings

2-2-1 Connect to web configuration menu

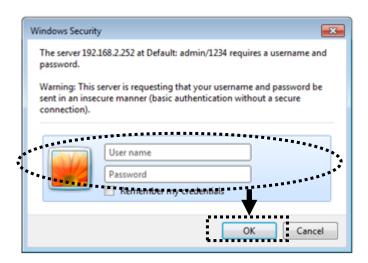
Open your web browser (IE, Firefox, Chrome etc.) and find the 'Wireless Repeaterxxxx Web UI' firmware link on your bookmark list if you saved it when you installed this device for the first time.

10. Or you can directly input *repeater.setup* in the address bar, then press the ENTER key:

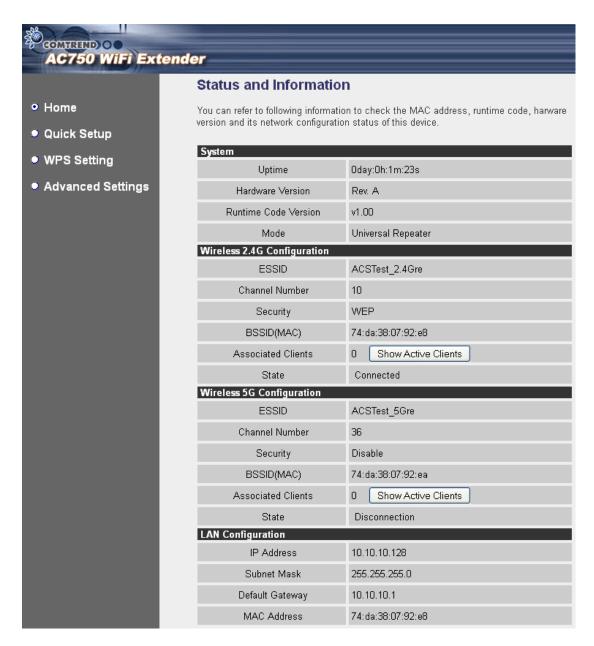


11. NOTE: The default IP address of repeater mode is 192.168.2.252, you can also input repeater.setup if your PC is Windows OS based.

The wireless extender will prompt you to input the username and password. The default username is 'admin' and password is '1234'. Click the 'OK' button to continue.





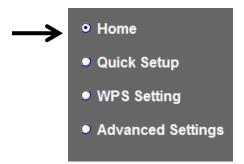


Detailed operation instructions will be given below.



2-2-2 Home

The following information provides an overview of this wireless LAN extender. To access the 'Home' menu, click 'Home' on the left.



You should see a screen that looks like this (the contents will vary depending on your actual settings):



You can click the 'Show Active Clients' button to show all connected wireless clients.



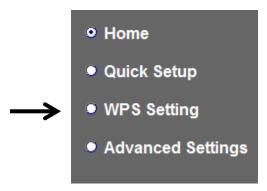
Please note: By clicking the 'Show Active Clients' button, a new browser window will appear. If your browser prevents the pop-up window from appearing, please disable this function or you will not be able to use the 'Show Client' function.



2-2-3 WPS Setting

You can configure WPS (Wi-Fi Protected Setup) here. By using WPS, you can establish a secure connection between this wireless extender and other wireless devices which also support WPS in a fast and secure manner.

To access the 'WPS Setting' menu, click 'WPS Setting' on the left.



The following setup page will appear:





The description of every setup item is listed as follows:

Item	Description
WPS Status	If the wireless security (encryption) function of this device
W o claras	is properly set, the WPS status will display 'Configured'. If
	the wireless security function has not been set, the WPS
	status will display 'unConfigured'.
Self PinCode	This displays an 8-digit number for WPS PIN-style
Sell I lilicode	configuration. When another WPS-compatible device
	wishes to connect to this wireless extender and supports
	Self-PIN type WPS, input this number to the wireless
CCID	device to establish connection.
SSID	SSID stands for Service Set Identifier. All stations must be
	configured with the correct SSID to access the Wireless
	Network.
Authentication Mode	Shows the authentication mode of this wireless extender.
Passphrase Key	This shows asterisks (*) to indicate that the wireless
	security is properly set.
WPS Setting	You can select which band (2.4G or 5G) you want to build
	the wireless connection via 'Start PBC' button. Default is
	'2.4G'.
Config Mode	There are 'Registrar' and 'Enrollee' modes for the WPS
	connection. When 'Registrar' is enabled, the wireless
	clients will follow the extender's wireless settings for WPS
	connection. When 'Enrollee' mode is enabled, the extender
	will follow the wireless settings of the wireless router for
	WPS connection.
Start PBC	Click the 'Start PBC' button to start the Push-Button style
	WPS setup procedure. This wireless extender will wait for
	WPS requests from another wireless device for 2 minutes.
	The 'WPS' LED on the wireless extender will be blinking for
	2 minutes when this wireless extender is waiting for an
	incoming WPS request.
Start PIN	Input the PIN code of the wireless client you wish to
	connect to, and the click 'Start PIN' button.
	The 'WPS' LED on the wireless extender will be blinking
	when this wireless extender is waiting for an incoming
	WPS request.
L	ı



NOTE: For WPS2.0 compliance specification, WEP and WPA-PSK can't support WPS connection; some of your wireless devices may follow this latest WPS2.0 specification, so we recommend not using WEP and WPA-PSK to avoid WPS interoperability problems.

2-2-4 Advanced Settings

You can configure advanced wireless settings in this page. Please note that these settings are not safe to be configured by novice users. Configure these settings only when you understand what you're doing.

To access the 'Advanced Settings' menu, click 'Advanced Settings' on the left.

- Home
- Quick Setup
- WPS Setting



- Advanced Settings
 - ▶ WLAN 2.4G settings
 - ▶ WLAN 5G settings
 - MAC Filtering
 - System utility
 - Configuration

The following setup page will appear:



Fragment Threshold:	unless you know what effect the changes will have on your repeater device. 2346 (256-2346)
RTS Threshold:	2347 (0-2347)
Beacon Interval:	100 (20-1024 ms)
DTIM Period:	3 (1-10)
Preamble Type:	Short Preamble
Broadcast ESSID:	Enable
CTS Protect:	Auto Always None
TX Power:	100 % 🗸
Enable LED OFF mode Turn off all LED Turn off all LED except Po	DWER LED
	APPLY CANCEL

The description of every setup item is listed as follows:

Item	Description	
Fragment Threshold	The threshold (number of bytes) of the fragmentation	
	boundary for directed messages.	
	It is the maximum data fragment size that can be sent.	
	Input a value between 256 and 2346. Do not modify the	
	default value if you don't know what it is. The default	
	value is 2346.	
RTS Threshold	The RTS (Request To Send) threshold parameter controls	
	what size data packet (number of bytes) the low level RF	
	protocol issues to an RTS packet. The default is 2347.Do	
	not modify the default value if you don't know what it is.	
	The default value is 2347.	
Beacon Interval	The Beacon Interval value indicates the frequency	
	interval of the beacon. Enter a value between 20 and	
	1000.	



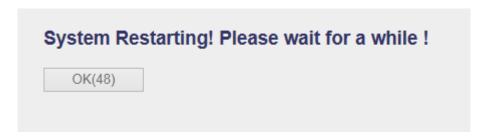
	A beacon is a packet broadcast by the Router to
	synchronize the wireless network. The default value is
	100. Do not modify the default value if you don't know
	what it is. The default value is 100.
DTIM Period	Configures DTIM (Delivery Traffic Indication Message)
	send period. The default value is 3.
Preamble Type	The Preamble type defines the length of the CRC (Cyclic
	Redundancy Check) block for communication between
	the Access Point and roaming wireless adapters.
	Do not modify the default value if you don't know what it
	is. The default setting is 'Short Preamble'.
Broadcast ESSID	When set to 'enabled', every wireless device can scan
	and find this Wireless-N Range Extender; when set to
	'disabled', only wireless clients who know the exact SSID
	can get connected with this Wireless-N Range Extender.
	Setting to disabled will help to improve security.
CTS Protect	This function provides CTS (Clear to Send) protection
	when transferring data. Selecting 'Auto' for this option is
	recommended.
TX Power	Select the wireless transmitting power level, from 10%
	to 100%. When wireless clients are not too far from this
	Wireless-N Range Extender, you don't have to select a
	higher power level, since this may cause some
	individuals to attempt to break into your wireless
	network if you have a bad password, or no password.
Enable LED off mode	You can enable or disable LED lights. Check 'Enable LED
	OFF ' mode to setup LED behavior:
	Turn off all LED: disables all LED lights.
	Turn off all LED except POWER LED: all LED lights will be
	disabled, except the 'POWER' LED.

When you finish the settings in this page, click the 'Apply' button. You'll see the following message:



Save settings successfully! You may press CONTINUE button to continue configuring other settings or press APPLY button to restart the system to make the changes take effect. CONTINUE APPLY

If you still need to configure this wireless extender, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button.



You'll be prompted to wait for 50 seconds before you can reconnect to this wireless extender.

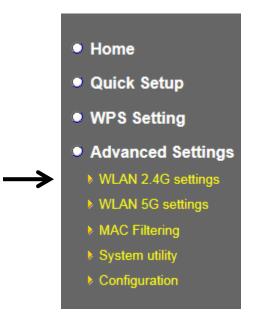


After the countdown click the 'OK!' button.

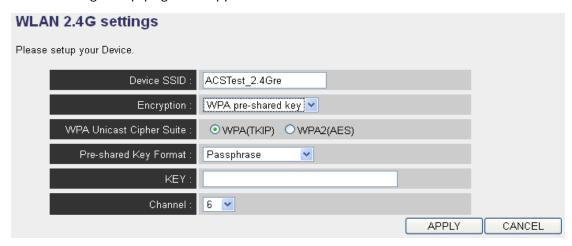


2-2-5 WLAN 2.4G settings

To access the 2.4GHz Wireless menu, click 'WLAN 2.4G settings' on the left.



The following setup page will appear:



Please Note: If your extender is working properly, it is not recommended to make changes here.

The description of every setup item is listed as follows:

Item	Description	
Device SSID	This is the current SSID name of the extender. The SSID	
	is used to identify your own extender from others when	
	there are other wireless devices in the same area. You	
	can type any alphanumerical characters to change the	
	SSID here, maximum 32 characters.	



Encryption	This is the current security setup of the extender. You can
	select an encryption method from the drop-down menu,
	there are three options.
WPA Unicast Cipher	This is the current security setup of the extender. Please
Suite	select a type of WPA cipher suite.
	Available options are: WPA (TKIP) and WPA2 (AES). You
	can select one of them, but you have to make sure your
	wireless client supports the cipher you selected.
Pre-shared Key Format	This is the current security setup of the extender. You can
	select the type of pre-shared key, you can select the
	Passphrase (8 or more alphanumerical characters, up
	to 63), or Hex (64 characters of 0-9, and a-f).
Key	This is the current security setup of the extender. You can
	change the WPA passphrase here. It's not recommended
	to use a word that can be found in a dictionary due to
	security reasons.
Channel	This is the current channel of the extender.

2-2-6 WLAN 5G settings

To access 5GHz Wireless menu, click 'WLAN 2.4G settings' on the left.

- Home
- Quick Setup
- WPS Setting
- Advanced Settings
 - ▶ WLAN 2.4G settings
 - ▶ WLAN 5G settings
 - ▶ MAC Filtering
 - ▶ System utility
 - **▶** Configuration



The following setup page will appear:



Please Note: If your extender is working properly, it is not recommended to make changes here.

The description of every setup item is listed as follows:

Item	Description
Device SSID	This is the current SSID name of the extender. The SSID
	is used to identify your own extender from others when
	there are other wireless devices in the same area. You
	can type any alphanumerical characters to change the
	SSID here, maximum 32 characters.
Encryption	This is the current security setup of the extender. You can
	select an encryption method from the drop-down menu,
	there are three options.
WPA Unicast Cipher	This is the current security setup of the extender. Please
Suite	select a type of WPA cipher suite.
	Available options are: WPA (TKIP) and WPA2 (AES). You
	can select one of them, but you have to make sure your
	wireless client supports the cipher you selected.
Pre-shared Key Format	This is the current security setup of the extender. You can
	select the type of pre-shared key, you can select the
	Passphrase (8 or more alphanumerical characters, up
	to 63), or Hex (64 characters of 0-9, and a-f).



Key	This is the current security setup of the extender. You can
	change the WPA passphrase here. It's not recommended
	to use a word that can be found in a dictionary due to
	security reasons.
Channel	This is the current channel of the extender.

2-2-7 MAC Address Filtering

Besides using wireless security to only allow permitted wireless users to use this wireless extender, you can also use MAC address filter to allow wireless users with certain MAC addresses to use this wireless extender.

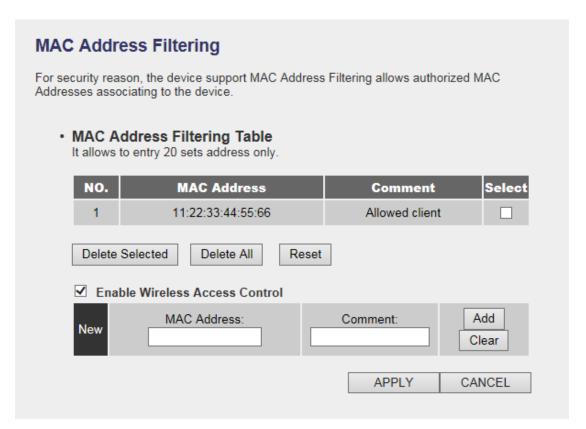
This will enhance security because you can make a 'white list' to allow users on the list to use this wireless extender. Clients who aren't listed on this white list, can't get connected, even if they know the password.

To access the 'MAC Filtering' menu, click 'MAC Filtering' on the left.

- Home
- Quick Setup
- WPS Setting
- Advanced Settings
 - WLAN 2.4G settings
 - ▶ WLAN 5G settings
 - MAC Filtering
 - System utility
 - ▶ Configuration

The following setup page will appear:





The description of every setup item is listed as follows:

Item	Description
Enable Wireless Access	Check this box to enable MAC filtering. If you don't check
Control	this box, anyone who knows the wireless password can
	get connected to this wireless extender.
MAC Address	Input the MAC address of the clients you wish to deny or
	provide access to the extender into the MAC address list.
	Input 12 HEX characters here, you don't have to add:
	(colon) or - (dash) characters every 2 characters.
	If you don't know how to get the MAC address of a
	network client, see the following page.
Comment	Input any descriptive text about this rule, so you can
	remember the purpose of this rule. You can input up to
	20 alphanumerical characters in this field.
Add	Add this MAC address to the list.
Clear	Clear 'MAC Address' and 'Comment' field.
Delete Selected	Delete MAC address(es) you selected.



Delete All	Delete all MAC addresses on the list. You'll be prompted
	to confirm the deletion first.
Reset	Uncheck all checked boxes.
Select	All existing MAC addresses will be listed here. To delete a
	MAC address from the list, check the box of the MAC
	address you wish to delete first. You can select more
	than one MAC address here.

When you complete the settings in this page, click the 'Apply' button. You'll see the following message:



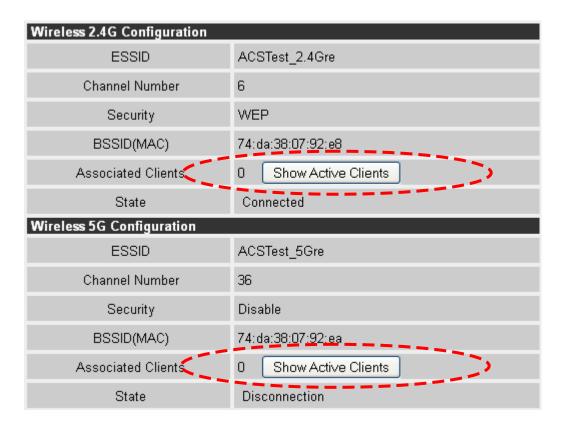
If you still need to configure this wireless extender, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button. You'll be prompted to wait for 50 seconds before you can reconnect to this wireless extender.

2-2-8 How to find the MAC address of your device

If you don't know the MAC address of your computer or wireless device, you can follow the procedure below:

For wireless devices and computers which are connected to this wireless extender already, you can click the 'Show Active Clients' button on the 'Home' setting page.

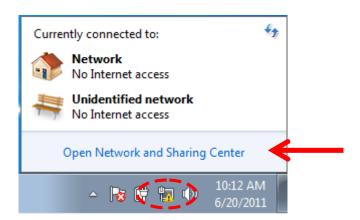




Their MAC address will be displayed in the 'MAC Address' field.

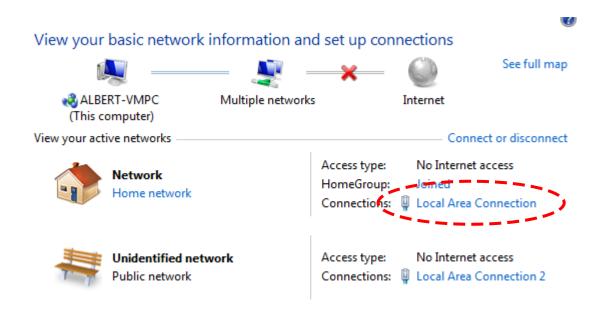
If you still can't identify the MAC address of your computer, you can follow this procedure:

Click the network icon located at the lower-right corner, then click 'Open Network and Sharing Center'.

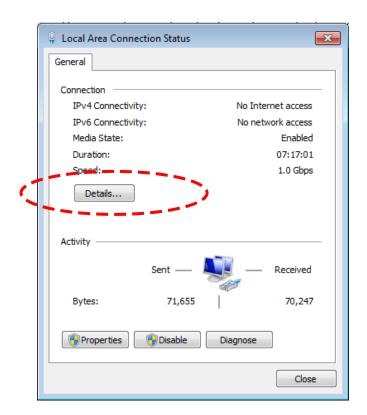


Click the connection that will be used to connect the wireless extender (in this example, 'Local Area Connection'):



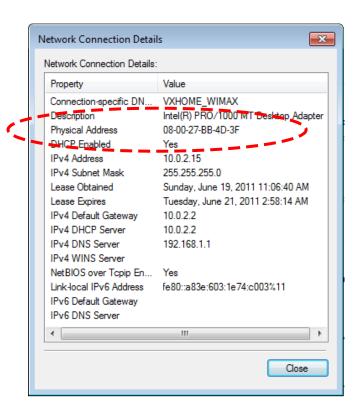


Click the 'Details...' button.



The MAC address of the selected network connection will be displayed here as 'Physical Address'.







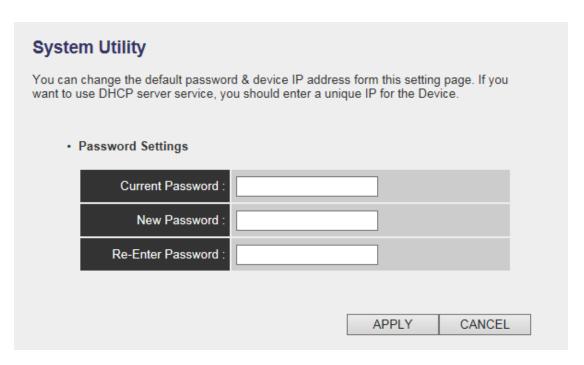
2-2-9 System Utility

You can change the settings of several system-level parameters in this page, including the administrator's password, and the IP address.

To access the 'System Utility' menu, click 'System Utility' on the left.

Home
Quick Setup
WPS Setting
Advanced Settings
WLAN 2.4G settings
WLAN 5G settings
MAC Filtering
System utility
Configuration

The following setup page will appear:





The description of every setup item is listed as follows:

Password Settings

The default password of this extender is 1234, and it's displayed on the login prompt when accessed from the web browser. There's a security risk if you don't change the default password, since everyone can see it. This is very important when you have the wireless function enabled.

Here are descriptions of every setup item:

Item	Description
Current Password	To change the password, you have to input the current
	password first.
New Password	Input the new password here. You can use the
	combination of letters, numbers, and symbols up to 20
	characters.
Re-Enter Password	Input the new password again for conformation.

When you complete the settings in this page, click the 'Apply' button. You'll see the following message:



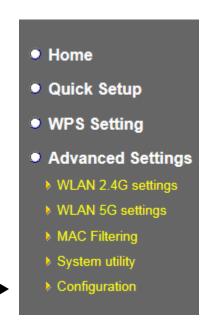
If you still need to configure this wireless extender, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button. You'll be prompted to wait for 50 seconds before you can reconnect to this wireless extender.



2-2-10 Configuration

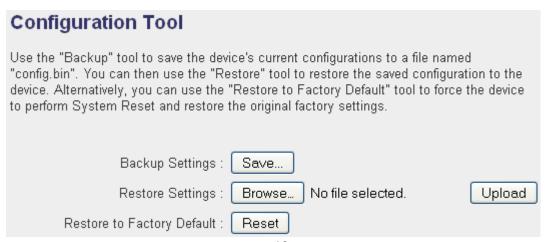
You can backup and restore the configuration of this wireless extender, so you can recall all settings, without the need to reconfigure again. This function is especially useful when you need to use this mini Wi-Fi extender in different places, like your home and hotels.

To access the 'Configuration' menu, click 'Configuration' on the left.



2-2-10-1 Configuration Tool

The following setup page will appear:





The description of every setup item is listed as follows:

Item	Description
Backup Settings	Click the 'Save' button to save the current settings to a file on
	your computer.
Restore Settings	If you want to upload a saved configuration file to the wireless
	extender, click the 'Browse' button to select a saved
	configuration file on your computer. Then click the 'Upload'
	button to replace the current settings.
Reset to Factory	To reset all settings of this wireless extender to factory defaults,
Default	including the password. You'll be prompted to confirm the
	settings reset:
	Message from webpage Do you really want to reset the current settings to default?
	OK Cancel
	Click 'OK' if you really want to restore all settings, or click
	'Cancel' to abort.



2-2-10-2 WEB Upgrade

The software running on this wireless extender (i.e. 'Firmware') can be upgraded to improve the functionality of this wireless extender.

You can access our website to look for the latest firmware file. Then download the latest firmware file and save on your computer and upload to this wireless extender.



The description of every setup item is listed as follows:

Item	Description
Browse	Select a firmware file saved on your computer.

When you are ready, click the 'Apply' button to start the firmware upgrade procedure.

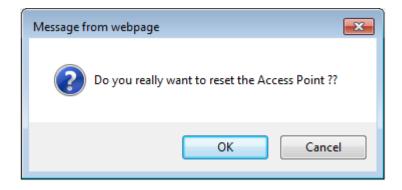


2-2-10-3 Reset

In the event that the system stops responding correctly or stops functioning, you can perform a standard Reset or Reset to Defaults. A standard Reset will retain your settings and reboot the extender, while resetting the device to defaults will erase all configuration settings.

Reset In the event that the system stops responding correctly or stops functioning, you can perform a Reset. Your settings will not be changed. To perform the reset, click on the APPLY button below. You will be asked to confirm your decision. APPLY

To reset this wireless extender, click the 'Apply' button. You'll be prompted to confirm the reset:



Click the 'OK' button to reset the wireless extender, or click 'Cancel' to abort.



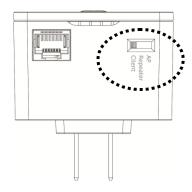
CHAPTER 3 Client Mode

Client mode allows your networking device to have wireless capability; it will become your networking device's wireless network adapter. You can connect this device to the Ethernet port of your existing Internet TV or DVD player or game console device with an Ethernet cable.

This chapter will explain how to quickly install this device by using the quick setup method and explain the detailed settings on the web user interface page of client mode.

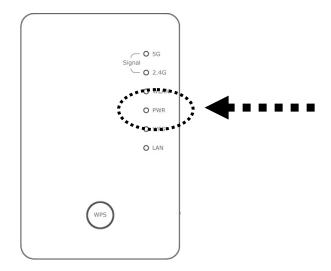
3-1 Client Mode Quick Installation Guide

Switch mode selector to 'Client'.



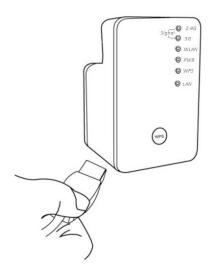
Plug this device into a power outlet on the wall. You should see the '*Power'* LED light up in few seconds. If not, check if the power outlet you're using is working.





Connect your wired networking device (wired PC, or Internet TV, or game console..etc.) and this wireless LAN extender by Ethernet cable.

NOTE: You must set your networking device as DHCP client (obtain an IP address automatically from the DHCP server)



You can setup a wireless connection via the 'Hardware WPS button' or 'Software web browser'.

If your broadband router or access point also supports a 'WPS button', we recommend you to use the WPS button to establish connection.



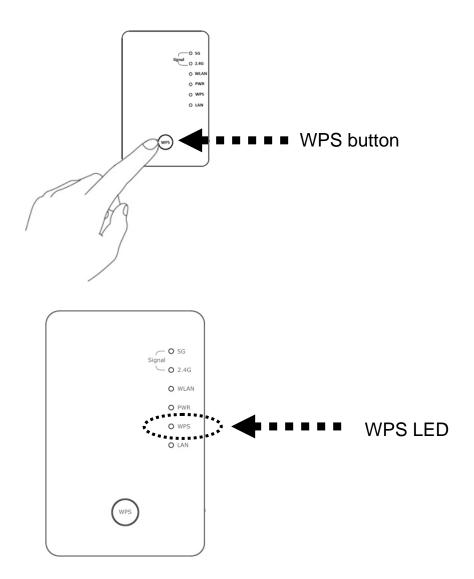
Using WPS button
Using Web browser

- please go to section 3-1-1

- please go to section 3-1-2

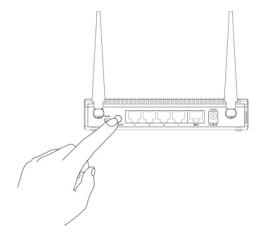
3-1-1 Hardware WPS button setup

1. Press and hold the *WPS button* on the extender for 2 seconds, the '*WPS*' LED will start flashing.



2. Press the WPS button on the wireless broadband router or access point you wish to connect to within 2 minutes.





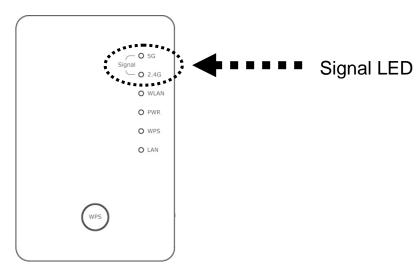
NOTE: the WPS button position on this access point is for reference, different devices may have different WPS button positions or locations.

TIP: If the access point you wish to connect does not have a hardware WPS button, you can also use its web configuration menu's WPS function to establish connection. Or you can login this extender's web user to perform quick setup (detailed setup refers to '3-1-2 Web browser to perform quick setup)

3. If WPS connection is successfully established, the extender will reboot immediately to make your settings take effect; if the 'WPS' LED flashes fast, a problem has occurred, please wait for 2 minutes until the 'WPS' LED is off, and start from step(1) again.

When quick installation is successful the 'Signal" LED will turn on.





4. Please move the extender to the place you wish to use it (the ideal place will be the center of your house) and plug this extender into a power outlet on the wall, the wireless connection will be established automatically. You can check the 'Signal' LED status to understand the signal reception level.

Steady light: Excellent, Flashing: Good, Fast flash: poor.

If the Signal LED is off, it means this place is out of wireless range of your wireless broadband router or access point. Please move this extender closer to your broadband router until the extender device can receive a signal from the broadband router.

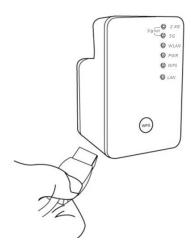
The quick installation setup is complete, you can refer to '3-2 Repeater mode Advanced Settings' to login to the web user interface for other advanced settings.



3-1-2 Web browser quick setup

Before you can connect to the extender and start configuration procedures, your computer must be able to get an IP address automatically (use dynamic IP address). If it's set to use static IP address, or you're unsure, please refer to 'Chapter 5: 5-1 Configuring TCP/IP on PC' to set your computer to use dynamic IP address.

1. Use an Ethernet cable to connect your computer's Ethernet port and this wireless extender's Ethernet port.



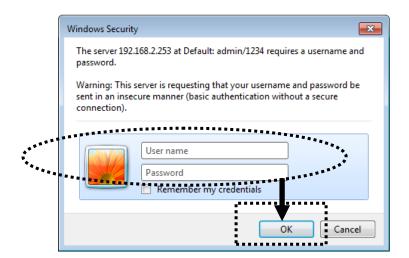
Open your web browser, it will redirect to the web user interface setting page.
 (or you can input the default IP address *repeater.setup* in the address bar)



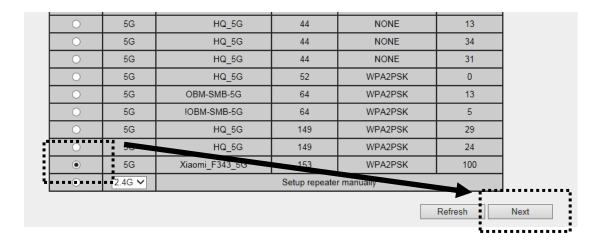
NOTE: You can also input the default IP 'http://192.168.2.253 or repeater.setup if your PC is Windows OS based.

3. The wireless extender will prompt you to input the username and password. The default username is 'admin' and password is '1234'. Click the 'OK' button to continue.

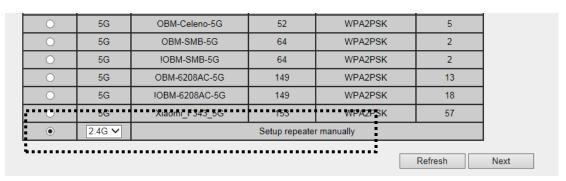




4. All wireless access points nearby will be displayed on the list. Select one access point you want to connect to and click the 'Next' button to continue. If the access point you wish to connect to does not appear here, click 'Refresh' until it appears on the list, or try to move this wireless extender closer to the access point you wish to connect to.



Or if you want to connect to a hidden access point, please select to input the SSID manually.







5. You'll be prompted to input the access point's wireless security key, input it in the 'KEY' field and click 'Next' to continue.



6. It will start to verify the wireless key with your associated access point and show you result within 20 seconds. Please follow the instructions to continue setup.



7. When the key is correct, the Wireless extender will display the connection information for you.



Save settings successfully! You may press CONTINUE button to continue configuring other settings or press APPLY button to restart the system to make the changes take effect. Device SSID(5GHz): Xiaomi_F343_5G Security: WPA2-shared key Back APPLY

The 'Device SSID' is the SSID of your access point that you selected to connect to in the previous step, please double confirm all the information is correct, if you want to change it, you can press 'Back' to select again or press 'APPLY' to make the changes effective.

We recommend you to copy your 'firmware URL' (for example: 'http://repeater.setup) to you bookmark for quick login to the settings page next time.

8. Please wait for few seconds for the wireless extender to reboot.





9. After reboot is complete, you can connect to the access point and use it to access the network / Internet.

NOTE: After the wireless connection of this extender and wireless broadband router is built, this device becomes DHCP client and will get an IP address from your broadband router automatically. If you want to login to the web user interface of this extender again, please refer to '3-2 Client mode Advanced Settings' for more setup functions or learn how to login to the web user interface again.



3-2 Client mode Advanced Settings

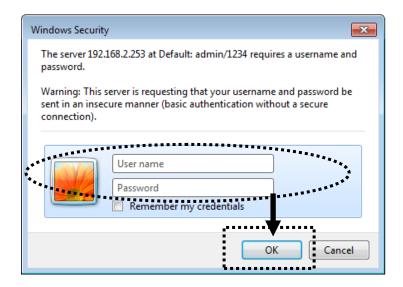
3-2-1 Connect to web configuration menu

Please open your web browser (IE, Firefox, Chrome etc.) and directly input 'http:/repeater.setup in the address bar then press the ENTER key:



NOTE: The default IP address of client mode is IP 'http://192.168.2.253, you can also input repeater.setup if your PC is Windows OS based.

The wireless extender will prompt you to input the username and password. The default username is 'admin' and password is '1234'. Click the 'OK' button to continue.

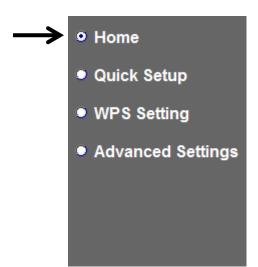


Detailed operation instructions will be given below.



3-2-2 Home

The status and information of client mode will be displayed here. To access the 'Home' menu, click 'Home' on the left.



You will see the following (the contents will vary depending on your actual setting):



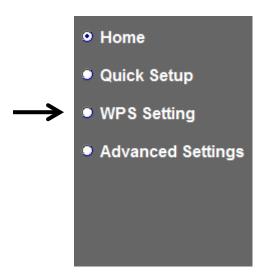


3-2-3 WPS Setting

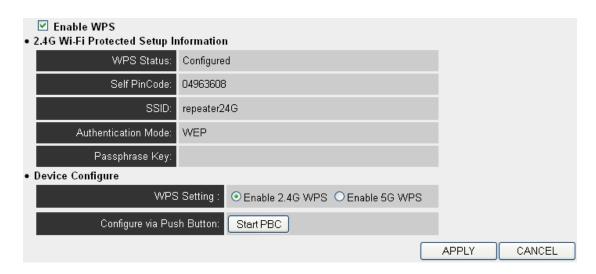
You can configure WPS (Wi-Fi Protected Setup) here. By using WPS, you can establish a secure connection between this wireless extender and other wireless devices which also support WPS in a fast and secure manner.

To access the 'WPS Setting' menu, click 'WPS Setting' on the left.





The following setup page will appear:



The description of every setup item is listed as follows:

Item	Description
Enable WPS	You can enable or disable the WPS function. Disabling
	the WPS function is included in the hardware WPS button
	function.
	Default is 'enable WPS'.
WPS Status	Shows the security setting status of WPS. If the wireless
	security (encryption) function of this device is properly
	set, you'll see the 'Configured' message here. If wireless
	security function has not been set, the WPS Status will
	display 'unConfigured'.



Self PinCode	This displays an 8-digit number for WPS PIN-style
Jen i moduc	
	configuration. When another WPS-compatible device
	wishes to connect to this wireless extender and supports
	Self-PIN type WPS, input this number to the wireless
	device to establish connection.
SSID	Shows the SSID of this wireless extender.
Authentication Mode	Shows the authentication mode of this wireless extender.
Passphrase Key	This shows asterisks (*) to indicate wireless security is
	properly set.
WPS Setting	You can select which band(2.4G or 5G) you want to build
	wireless connection via the 'Start PBC' button. The
	default is '2.4G'.
Start PBC	Click 'Start PBC' to start the Push-Button style WPS
	setup procedure. This wireless extender device will wait
	for WPS requests from another wireless device for 2
	minutes.
	The 'WPS' LED on the wireless extender will be blinking
	for 2 minutes when this wireless extender is waiting for
	an incoming WPS request.

NOTE: For WPS2.0 compliance specification, WEP and WPA-PSK can't support WPS connection, some of the wireless devices may follow this latest WPS2.0 specification, so we recommend not using WEP and WPA-PSK to avoid WPS interoperability problems.

3-2-4 Advanced Settings

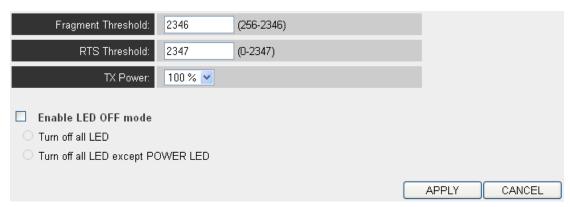
You can configure advanced wireless settings in this page. Please note that these settings are not safe to be configured by novice users. Configure these settings only when you understand what you're doing.

To access the 'Advanced Settings' menu, click 'Advanced Settings' on the left.



Home
Quick Setup
WPS Setting
Advanced Settings

The following setup page will appear:



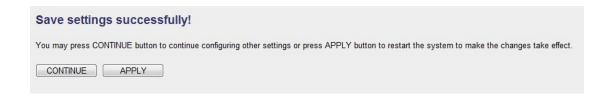
The description of every setup item is listed as follows:

Item	Description
Fragment Threshold	Set the Fragment threshold of wireless radio. Do not
	modify the default value if you don't know what it is. The
	default value is 2346.
RTS Threshold	Set the RTS threshold of wireless radio. Do not modify
	the default value if you don't know what it is. The default
	value is 2347.
TX Power	Select the wireless transmitting power level, from 10%
	to 100%. When wireless clients are not too far from this
	wireless extender, you don't have to select a higher
	power level, since this may cause some individuals to
	attempt to break into your wireless network if you have a
	bad password or no password.



Enable LED off mode	You can enable or disable LED lights .
	Check 'Enable LED OFF' mode to setup LED behavior:
	Turn off all LED: disables all LED lights.
	Turn off all LED except POWER LED: all LED lights will be
	disabled, except the 'POWER' LED.

When you complete the settings in this page, click the 'Apply' button. You'll see the following message:



If you still need to configure this device, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button.



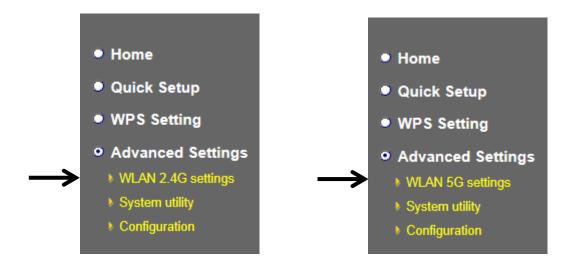
You'll be prompted to wait for 50 seconds before you can reconnect to Web user interface of this device.



3-2-5 WLAN 5G(or 2.4G) settings

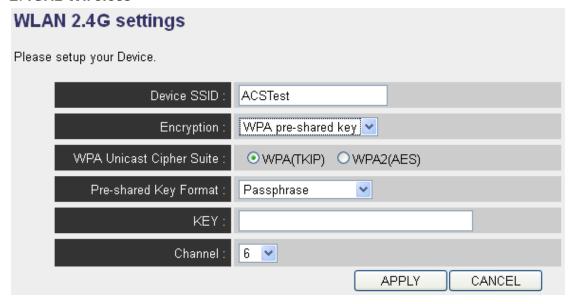
This extender provides supports both 2.4GHz and 5GHz wireless bands simultaneously; the wireless settings for both wireless bands are almost the same. The following sections will only highlight the different descriptions between these two selections.

Enter into 'Advanced Settings' page, select 'WLAN 2.4G settings' or 'WLAN 5G settings' to configure the wireless settings for the different wireless radio.



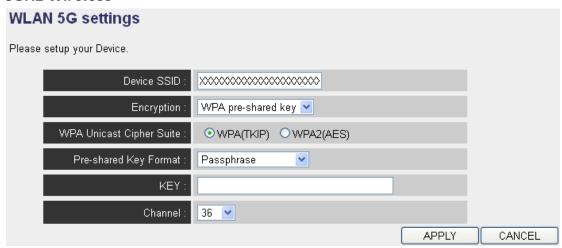
The following setup page will appear, it is the settings that you have setup:

2.4GHz Wireless





5GHz Wireless



The description of every setup item is listed as follows:

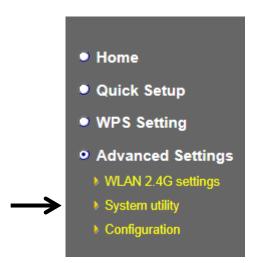
Item	Description
Device SSID	This is the SSID of the wireless network that you're
Device 331D	-
	extender is currently connected to. The SSID is used to
	identify your own extender from others when there are
	other wireless devices in the same area. You can type
	any alphanumerical characters to change the SSID here,
	maximum 32 characters.
Encryption	This is the current security setup of the extender. You can
	select an encryption method from the drop-down menu,
	there are three options.
WPA Unicast Cipher	This is the current security setup of the extender. Please
Suite	select a type of WPA cipher suite.
	Available options are: WPA (TKIP) and WPA2 (AES). You
	can select one of them, but you have to make sure your
	wireless client supports the cipher you selected.
Pre-shared Key Format	This is the current security setup of the extender. You can
	select the type of pre-shared key, you can select the
	Passphrase (8 or more alphanumerical characters, up
	to 63), or Hex (64 characters of 0-9, and a-f).
Key	This is the current security setup of the extender. You can
	change the WPA passphrase here. It's not recommended
	to use a word that can be found in a dictionary due to
	security reasons.
Channel	This is the current channel of the extender.



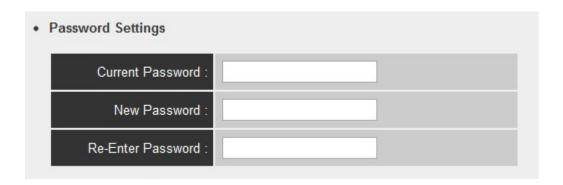
3-2-6 System Utility

You can change the settings of several system-level parameters in this page, including the administrator's password, and IP address.

To access the 'System Utility' menu, click 'System Utility' on the left.



The following setup page will appear:



The description of every setup item is listed as follows:

Password Settings

Default password of this extender is 1234, and it's displayed on the login prompt when accessed from web browser. There's a security risk if you don't change the default password, since everyone can see it. This is very important when you have the wireless function enabled.



Here are descriptions of every setup item:

Item	Description
Current Password	To change the password, you have to input the current
	password first.
New Password	Input the new password here. You can use the
	combination of letters, numbers, and symbols up to 20
	characters.
Re-Enter Password	Input the new password again for conformation.

When you complete the settings in this page, click the 'Apply' button. You'll see the following message:

Save settings successfully! You may press CONTINUE button to continue configuring other settings or press APPLY button to restart the system to make the changes take effect. CONTINUE APPLY

If you still need to configure this device, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button. You'll be prompted to wait for 50 seconds before you can reconnect to the web user interface of this device.

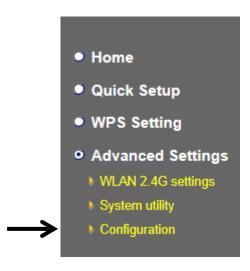


3-2-7 Configuration

You can backup and restore the configuration of this device, so you can recall all settings, without the need to reconfigure again.

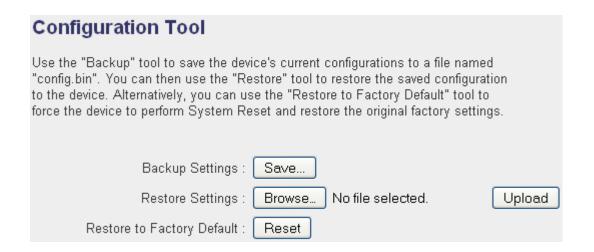
This function is especially useful when you need to use this mini Wi-Fi extender in different places, like your home and hotels.

To access the 'Configuration' menu, click 'Configuration' on the left.



3-2-7-1 Configuration Tool

The following setup page will appear:





The description of every setup item is listed as follows:

Item	Description
Backup Settings	Click the 'Save' button to save the current settings to a file on
	your computer.
Restore Settings	If you want to upload a saved configuration file to the wireless
	extender, click the 'Browse' button to select a saved
	configuration file on your computer. Then click the 'Upload'
	button to replace the current settings.
Reset to Factory	To reset all settings of this wireless extender to factory defaults,
Default	including password. You'll be prompted to confirm the settings
	reset:
	Message from webpage Do you really want to reset the current settings to default? OK Cancel
	Click 'OK' if you really want to restore all settings, or click
	'Cancel' to abort.



3-2-7-2 WEB Upgrade

The software running on this wireless extender (i.e. 'Firmware') can be upgraded to improve the functionality of this wireless extender.

You can access our website to look for the latest firmware file. Then download the latest firmware file and save on your computer and upload to this wireless extender.



The description of every setup item is listed as follows:

Item	Description
Browse	Select a firmware file saved on your computer.

When you are ready, click the 'Apply' button to start the firmware upgrade procedure.

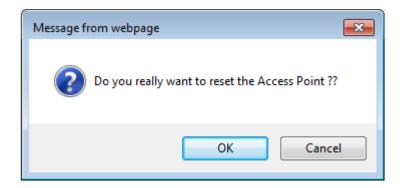


3-2-7-3 Reset

In the event that the system stops responding correctly or stops functioning, you can perform a standard Reset or Reset to Defaults. A standard Reset will retain your settings and reboot the extender, while resetting the device to defaults will erase all configuration settings.

Reset In the event that the system stops responding correctly or stops functioning, you can perform a Reset. Your settings will not be changed. To perform the reset, click on the APPLY button below. You will be asked to confirm your decision. APPLY

To reset this wireless extender, click the 'Apply' button. You'll be prompted to confirm the reset:



Click the 'OK' button to reset the wireless extender, or click 'Cancel' to abort.



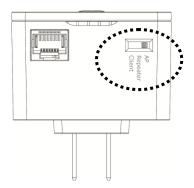
CHAPTER 4 AP Mode

You can build a wireless networking environment for the home or small office, please switch this device to wireless access point mode and connect it to your wired router. Then your wireless client users can access Internet by wirelessly connecting to this AP without wired cable burden.

This chapter will show you how to quickly install this device by using quick setup and explain each detailed setting on the web user interface page of AP mode.

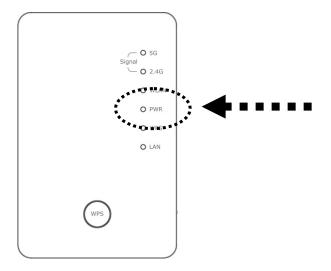
4-1 AP Mode Quick Installation Guide

Switch mode selector to 'AP'.



Plug this device into power outlet on the wall. You should see the '*Power'* LED light up in few seconds. If not, please check if the power outlet you're using is working.





You can setup a wireless connection via the 'Hardware WPS button' or 'Software web browser'.

If your wireless client also supports 'WPS button', we recommend you to use WPS button to establish connection.

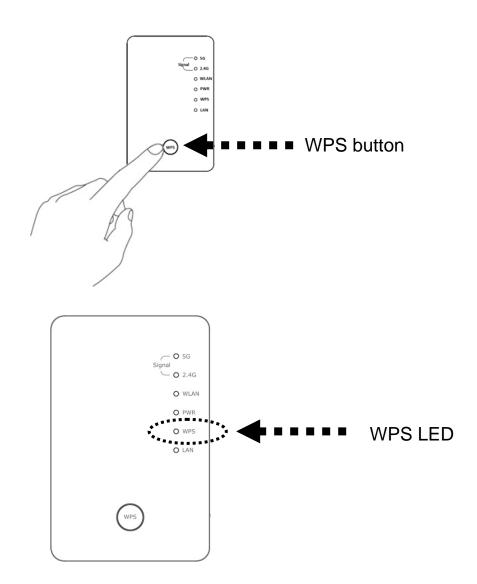
Using WPS button - please go to section 4-1-1

Using Web browser - please go to section 4-1-2



4-1-1 Hardware WPS button setup

1. Press and hold the *WPS button* on the extender for 2 seconds, the '*WPS*' LED will start flashing.



2. Press the WPS button on the wireless client you wish to connect to within 2 minutes.



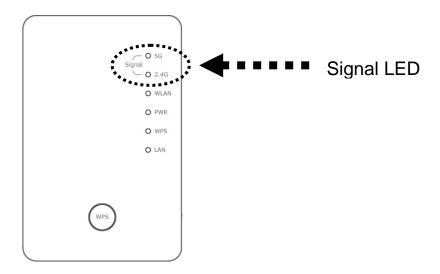
Please NOTE: this WPS button position on client card is for reference, different devices may have different WPS button positions.



TIP: If your wireless client card does not have a hardware WPS button, you can also use its web configuration menu's WPS function to establish connection. Or you can login this extender's web user interface to perform quick setup (detailed setup refers to '4-1-2 Web browser quick setup' manual)

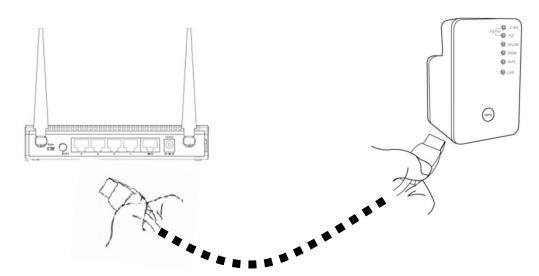
3. If WPS connection is successfully established, the extender will reboot immediately to make your settings take effect; if the 'WPS' LED flashes fast, a problem has occurred, please wait for 2 minutes until the 'WPS' LED off, and start from step(1) again.

When quick installation is successful, the 'Signal" LED will turn on.



- 4. When the '**Signal**' LED in AP mode is steady, the best wireless signal is provided to clients.
- 5. Connect this access point to an ADSL modem, wired router, or switch/hub in your network through the LAN port of the access point by Ethernet cable.





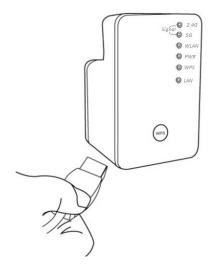
The quick installation setup is complete, you can refer to '4-2 AP mode Advanced Settings' to login to the web user interface for other advanced settings.

4-1-2 Web browser quick setup

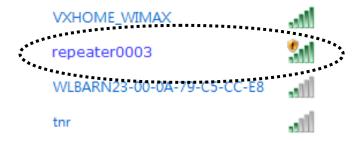
Before you can connect to the extender and start configuration procedures, your computer must be able to get an IP address automatically (use dynamic IP address). If it's set to use static IP address, or you're unsure, please refer to 'Chapter 5: 5-1 Configuring TCP/IP on PC' to set your computer to use a dynamic IP address.

 Use an Ethernet cable to connect your computer's Ethernet port and wireless extender's Ethernet port.





Or use your computer's wireless configuration utility to search for an access point named 'repeater0003' and get connected. (The default SSID of this extender device is 'repeater0003', 0003 is a reference, it is the last 4 digits of the device's MAC number. Each device has a different MAC number, please find it on your device label.)

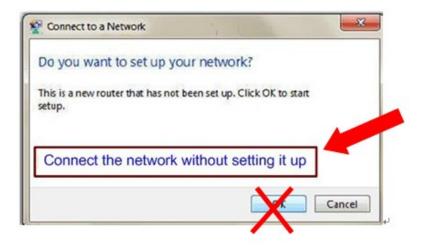


NOTE: this default SSID 'repeater0003" is for reference, different devices may have different last 4 digits.

If you are using a wireless connection in Windows 7 and encountered the following screen, please click "Connect the network without setting it up" then you can successfully link to the extender. Do NOT click "OK ".

In case you click 'OK', Windows 7 will ask for security key, please click "Cancel" to revert back to this page.





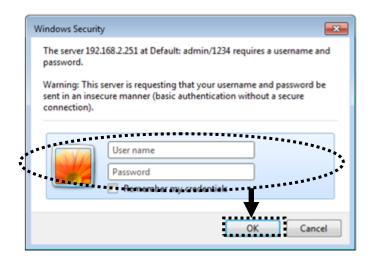
 Open your web browser, it will redirect to the web user interface setting page. (or you can input the default IP address 'http://repeatersetup' in the address bar)



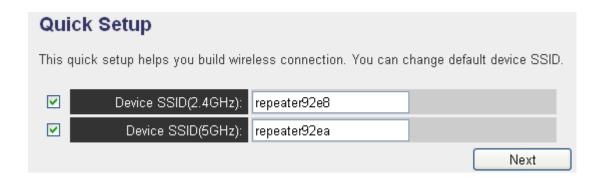
NOTE: The default IP address of AP mode is 'http://192.168.2.1,you can also input repeater.setup if your PC is Windows OS based.

3. The wireless extender will prompt you to input the username and password. Default username is 'admin' and password is '1234'. Click the 'OK' button to continue.





4. Please input an SSID (a name used to identify this access point) in the 'Device SSID(2.4GHz)' and 'Device SSID(5GHz)' field, then click the 'Next' button. The default SSID is repeaterxxxx, you can change this default SSID if you want.

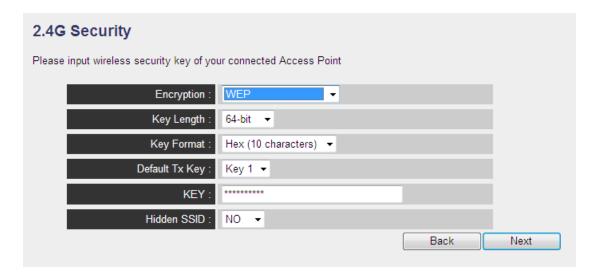


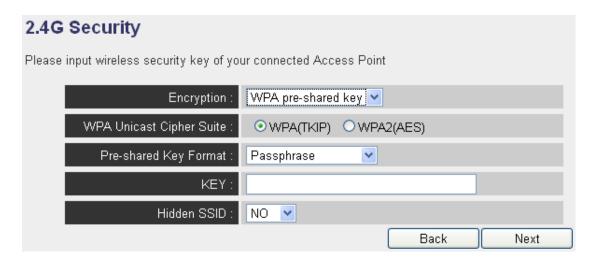
Select security type of the wireless link to include 2.4Ghz and 5Ghz :
 Encryption: Disable (no security), WEP, WPA pre-shared key, or WPA RADIUS.

2.4GHz Wireless





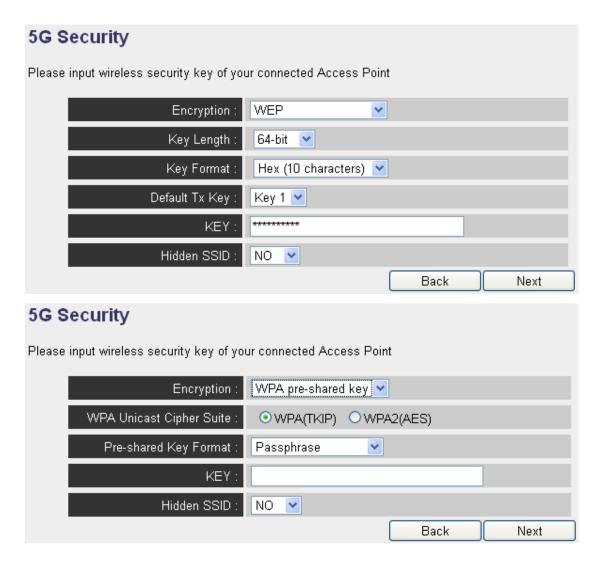




5GHz Wireless







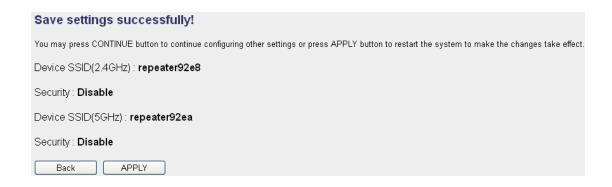
Note: WEP encryption: Select key length (64 or 128bit), key format (Hex or ASCII characters), Default Tx Key (usually use 'Key 1'), and input key characters (refer to 'Key Format' you selected for number of characters).

WPA pre-shared key: Select one WPA Unicast Cipher Suite (usually use default setting 'WPA(TKIP)'), Pre-shared Key Format: Passphrase (alphanumeric characters) or Hex (64 Hex Characters), and input key characters in the 'KEY' field.

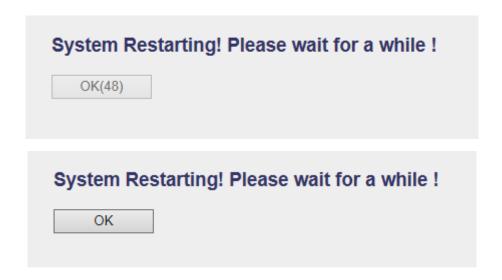
WPA RADIUS: Only use this option if you have a RADIUS authentication server on your LAN. You have to input the RADIUS server's parameters (Server IP, port number, and password).



6. Please recheck the settings you made, and click 'Apply' to continue.



7. Please wait for few seconds for device to reboot.



8. After reboot is complete, you can close the browser to finish this quick setup and connect this access point to an ADSL modem, wired router, or switch/hub in your network through the LAN port of the access point by Ethernet cable.

NOTE: After quick installation is successful and you want to login to the web user interface of the extender, please refer to '4-2 AP mode Advanced Settings' for more functions or learn how to login to the web user interface again.



4-2 AP Mode Advanced Settings

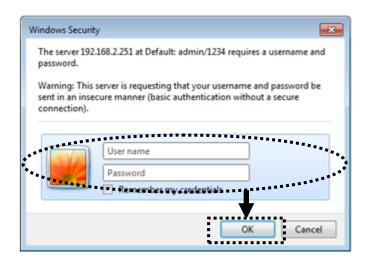
4-2-1 Connect to web configuration menu

Please open your web browser (IE, Firefox, Chrome etc.) and input 'http:/repeater.setup in the address bar, then press the ENTER key:



12. NOTE: The default IP address of AP mode is 'http://192.168.2.1 you can also input repeater.setup if your PC is Windows OS based.

The wireless extender will prompt you to input the username and password. The default username is 'admin' and password is '1234'. Click the 'OK' button to continue.



You should be able to see the configuration page of this Access Point mode in a very short time:

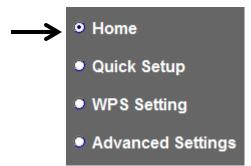
Detailed operation instructions will be given below.



4-2-2 Home

The status and information of this access point will be displayed here.

To access the 'Home' menu, click 'Home' on the left.



You should see the following (the contents will vary depending on your actual setting):



System	
Uptime	0day:0h:6m:7s
Hardware Version	Rev. A
Runtime Code Version	v1.00
Mode	Access Point
Wireless 2.4G Configuration	
ESSID	repeater92e8
Channel Number	11
Security	Disable
BSSID(MAC)	74:da:38:07:92:e8
Associated Clients	0 Show Active Clients
Wireless 5G Configuration	
Wireless 5G Configuration ESSID	repeater92ea
	repeater92ea 36
ESSID	
ESSID Channel Number	36
ESSID Channel Number Security	36 Disable
ESSID Channel Number Security BSSID(MAC)	36 Disable 74:da:38:07:92:ea
ESSID Channel Number Security BSSID(MAC) Associated Clients	36 Disable 74:da:38:07:92:ea
ESSID Channel Number Security BSSID(MAC) Associated Clients LAN Configuration	36 Disable 74:da:38:07:92:ea 0 Show Active Clients
ESSID Channel Number Security BSSID(MAC) Associated Clients LAN Configuration IP Address	36 Disable 74:da:38:07:92:ea 0 Show Active Clients 192.168.2.100

You can click the 'Show Active Clients' button to show all connected wireless clients.

Please note: By clicking the 'Show Active Clients' button, a new browser window will appear. If your browser prevents a pop-up window from appearing, please disable this function or you will not be able to use the 'Show Client' function.



4-2-3 WPS Setting

You can configure WPS (Wi-Fi Protected Setup) here. By using WPS, you can establish a secure connection between this wireless extender and other wireless devices which also support WPS in a fast and secure manner.

To access the 'WPS Setting' menu, click 'WPS Settings' on the left.

Home
Quick Setup
WPS Setting
Advanced Settings

The following setup page will appear:





The description of every setup item is listed as follows:

Item	Description
WPS Status	Shows the security setting status of WPS. If the wireless
	security (encryption) function of this device is properly
	set, you'll see the 'Configured' message here. If the
	wireless security function has not been set, you'll see
	'unConfigured'.
Self PinCode	This displays an 8-digit number for WPS PIN-style
	configuration. When another WPS-compatible device
	wishes to connect to this wireless extender and supports
	Self-PIN type WPS, input this number to the wireless
	device to establish connection.
SSID	Shows the SSID of this wireless extender.
Authentication Mode	Shows the authentication mode of this wireless extender.
Passphrase Key	This shows asterisks (*) to indicate wireless security is
	properly set.



WPS Setting	You can select which band(2.4G or 5G) you want to build
-	wireless connection via the 'Start PBC' button. Default is
	'2.4G'.
Start PBC	Click the 'Start PBC' button to start the Push-Button style
	WPS setup procedure. This wireless extender will wait for
	WPS requests from another wireless device for 2
	minutes.
	The 'WPS' LED on the wireless extender will be blinking
	for 2 minutes when this wireless extender is waiting for
	an incoming WPS request.
Start PIN	Please input the PIN code of the wireless client you wish
	to connect, and click the 'Start PIN' button.
	The 'WPS' LED on the wireless extender will be blinking
	when this wireless extender is waiting for an incoming
	WPS request.

NOTE: For WPS2.0 compliance specification, WEP and WPA-PSK can't support WPS connection, some of wireless devices may follow this latest WPS2.0 specification, so we recommend not using WEP and WPA-PSK to avoid WPS interoperability problems.



4-2-4 Advanced Settings

You can configure advanced wireless settings in this page. Please note that these settings are not safe to be configured by novice users. Configure these settings only when you understand what you're doing.

To access the 'Advanced Setting's menu, click 'Advanced Settings' on the left.

- Home
- Quick Setup
- WPS Setting



- Advanced Settings
 - WLAN 2.4G settings
 - ▶ WLAN 5G settings
 - ▶ MAC Filtering
 - System utility
 - **>** Configuration

The following setup page will appear:



Advanced Settings These settings are only for more technical users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes will have on your repeater device. Fragment Threshold: 2346 (256-2346)RTS Threshold: 2347 (0-2347)100 (20-1024 ms) Beacon Interval: DTIM Period: 3 (1-10) Auto 80 MHz(5G Only) Auto 20/40 MHz Channel Width: 20 MHz Short Preamble Long Preamble Preamble Type: Broadcast ESSID: Enable O Disable O Enable O Disable WMM: CTS Protect: AutoAlwaysNone TX Power: 100 % 💌 Enable LED OFF mode Turn off all LED Turn off all LED except POWER LED APPLY: CANCEL

The description of every setup item is listed as follows:

Item	Description
Fragment Threshold	Set the Fragment threshold of wireless radio. Do not
	modify the default value if you don't know what it is. The
	default value is 2346.
RTS Threshold	Set the RTS threshold of wireless radio. Do not modify
	the default value if you don't know what it is. The default
	value is 2347.
Beacon Interval	Set the beacon interval of wireless radio. Do not modify
	the default value if you don't know what it is. The default
	value is 100.



DTIM Period	Configures DTIM (Delivery Traffic Indication Message)
	send period. The default value is 3.
Channel Width	Set channel width of wireless radio. You can modify the
	default value if you know what channel width you need,
	default setting is 'Auto 80MHz'.
Preamble Type	Set the type of preamble of wireless radio. Do not modify
	the default value if you don't know what it is. The default
	setting is 'Short Preamble'.
Broadcast ESSID	When set to 'enabled', every wireless device can scan
	and find this wireless extender; when set to 'disabled',
	only wireless clients who know the exact SSID can get
	connected with this wireless extender. Set to disabled
	will help to improve security.
WMM	Enable or disable Wireless Multi-Media. When enabled,
	the wireless extender will give priority to multimedia
	related network applications so they will have better
	performance.
CTS Protect	This function provides CTS (Clear to Send) protection
	when transferring data. It's recommended to select
	'Auto' for this option.
TX Power	Select the wireless transmitting power level, from 10%
	to 100%. When wireless clients are not too far from this
	wireless extender, you don't have to select a higher
	power level, since this may cause some individuals to
	attempt to break into your wireless network if you have a
	bad password or no password.
Enable LED off mode	You can enable or disable LED lights. Check 'Enable LED
	OFF' mode to setup LED behavior:
	Turn off all LED: disables all LED lights.
	Turn off all LED except POWER LED: all LED lights will be
	disabled, except the 'POWER' LED.

When you complete the settings in this page, click the 'Apply' button. You'll see the following message:



Save settings successfully! You may press CONTINUE button to continue configuring other settings or press APPLY button to restart the system to make the changes take effect. CONTINUE APPLY

If you still need to configure this wireless extender, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button.



You'll be prompted to wait for 50 seconds before you can reconnect to the web user interface of this access point.

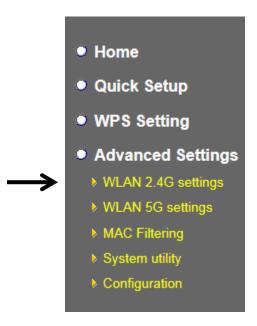


After the countdown click the 'OK!' button.

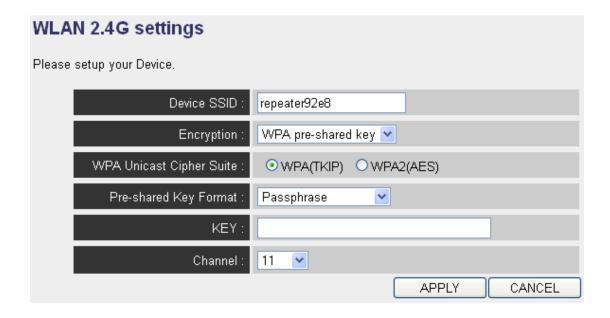


4-2-5 WLAN 2.4G settings

To access the 2.4GHz Wireless menu, click 'WLAN 2.4G settings' on the left.



The following setup page will appear, it is the settings that you have setup:



Please Note: If your extender is working properly, please do not change the settings here.

The description of every setup item is listed as follows:



Item	Description
Device SSID	This is the current SSID name of the extender. The SSID
	is used to identify your own extender from others when
	there are other wireless devices in the same area. You
	can type any alphanumerical characters to change SSID
	here, maximum 32 characters.
Encryption	This is the current security setup of the extender. You can
	select an encryption method from the drop-down menu,
	there are three options.
WPA Unicast Cipher	This is the current security setup of the extender. Please
Suite	select a type of WPA cipher suite.
	Available options are: WPA (TKIP) and WPA2 (AES). You
	can select one of them, but you have to make sure your
	wireless client supports the cipher you selected.
Pre-shared Key Format	This is the current security setup of the extender. You can
	select the type of pre-shared key, you can select the
	Passphrase (8 or more alphanumerical characters, up
	to 63), or Hex (64 characters of 0-9, and a-f).
Key	This is the current security setup of the extender. You can
	change the WPA passphrase here. It's not recommended
	to use a word that can be found in a dictionary due to
	security reasons.
Channel	This is the current channel of the extender.

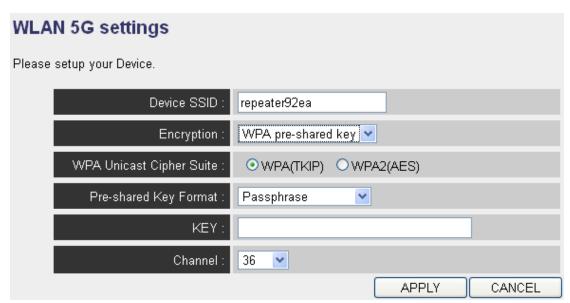


4-2-6 WLAN 5G settings

To access the 5GHz Wireless menu, click 'WLAN 5G settings' on the left.



The following setup page will appear, it is the settings that you have setup:



Please Note: If your extender is working properly, please do not change the settings here.

The description of every setup item is listed as follows:



Item	Description
Device SSID	This is the current SSID name of the extender. The SSID
	is used to identify your own extender from others when
	there are other wireless devices in the same area. You
	can type any alphanumerical characters to change the
	SSID here, maximum 32 characters.
Encryption	This is the current security setup of the extender. You can
	select an encryption method from the drop-down menu,
	there are three options.
WPA Unicast Cipher	This is the current security setup of the extender. Please
Suite	select a type of WPA cipher suite.
	Available options are: WPA (TKIP) and WPA2 (AES). You
	can select one of them, but you have to make sure your
	wireless client supports the cipher you selected.
Pre-shared Key Format	This is the current security setup of the extender. You can
	select the type of pre-shared key, you can select the
	Passphrase (8 or more alphanumerical characters, up
	to 63), or Hex (64 characters of 0-9, and a-f).
Key	This is the current security setup of the extender. You can
	change the WPA passphrase here. It's not recommended
	to use a word that can be found in a dictionary due to
	security reasons.
Channel	This is the current channel of the extender.

4-2-7 MAC Address Filtering

Besides using wireless security to only allow permitted wireless users to use this wireless access point, you can also use the MAC address filter to allow wireless users with certain MAC addresses to use this access point.

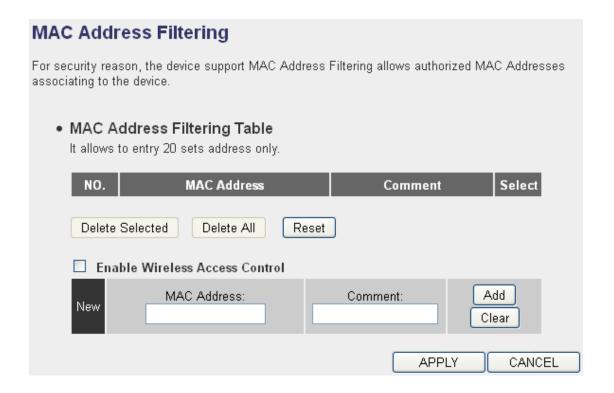
This will enhance security because you can make a 'white list' to allow users on the list to use this wireless extender. Clients who aren't listed on this white list, they can't get connected, even if they know the password.

To access the 'MAC Filtering' menu, click 'MAC Filtering' on the left.



Home
Quick Setup
WPS Setting
Advanced Settings
WLAN 2.4G settings
WLAN 5G settings
MAC Filtering
System utility
Configuration

The following setup page will appear:



The description of every setup item is listed as follows:

Item	Description
Enable Wireless Access	Check this box to enable MAC filtering. If you don't check
Control	this box, anyone who knows the wireless password can
	get connected to this access point.



MAC Address	Input the MAC address of the clients you wish to deny or
	provide access to this AP into the MAC address list.
	Please input 12 HEX characters here, you don't have to
	add: (colon) or - (dash) characters every 2 characters.
	If you don't know how to get the MAC address of a
	network client, see the following page.
Comment	Input any descriptive text about this rule, so you can
	remember the purpose of this rule. You can input up to
	20 alphanumerical characters in this field.
Add	Add this MAC address to the list.
Clear	Clear 'MAC Address' and 'Comment' field.
Delete Selected	Delete MAC address(es) you selected.
Delete All	Delete all MAC addresses on the list. You'll be prompted
	to confirm deletion first.
Reset	Uncheck all checked boxes.
Select	All existing MAC addresses will be listed here. To delete a
	MAC address from the list, check the box of the MAC
	address you wish to delete first. You can select more
	than one MAC address here.

Click the 'Apply' button. You'll see the following message:

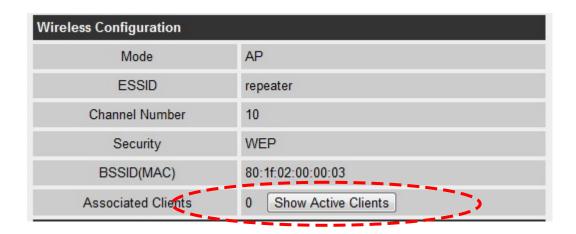
Save settings successfully! You may press CONTINUE button to continue configuring other settings or press APPLY button to restart the system to make the changes take effect. CONTINUE APPLY

If you still need to configure this wireless extender, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button. You'll be prompted to wait for 50 seconds before you can reconnect to this access point.

TIPS: If you don't know the MAC address of your computer or wireless device, you can the procedure below:



For wireless devices and computers which are connected to this wireless extender already, you can click the 'Show Active Clients' button on the 'Home' setting page.

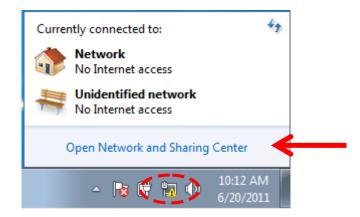


Their MAC address will be displayed in the 'MAC Address' field.

4-2-8 How to know the MAC address of your device

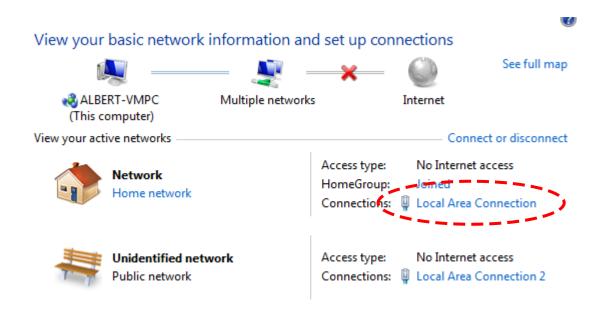
If you still can't identify the MAC address of your computer, you can follow this procedure:

Click the network icon located at the lower-right corner, then click 'Open Network and Sharing Center'.

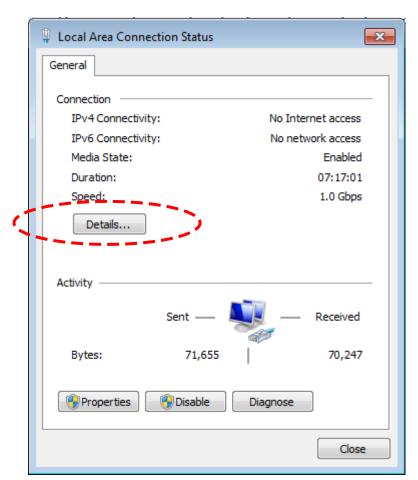


Click the connection that will be used to connect the wireless AP (in this example, 'Local Area Connection'):



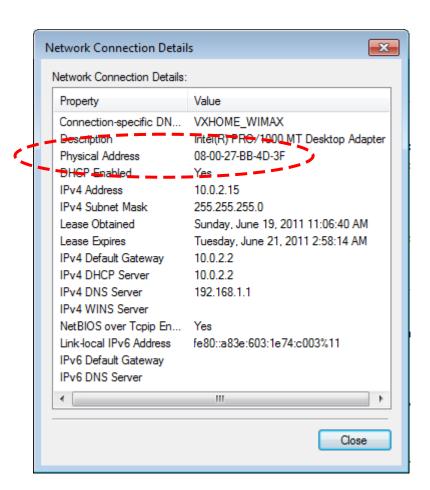


Click the 'Details...' button.



The MAC address of selected network connection will be displayed here as 'Physical Address'.







4-2-9 System Utility

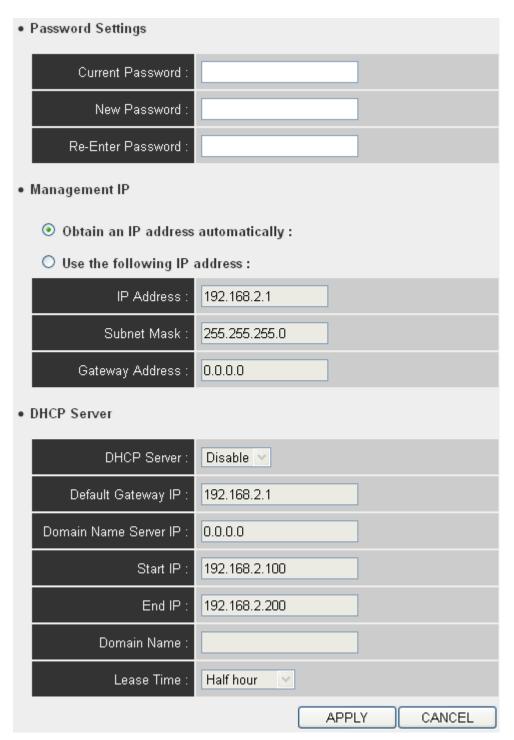
You can change the settings of several system-level parameters in this page, including the administrator's password, and IP address.

To access the 'System Utility' menu, click 'System Utility' on the left.

- Home
- Quick Setup
- WPS Setting
- Advanced Settings
 - ▶ WLAN 2.4G settings
 - ▶ WLAN 5G settings
 - ▶ MAC Filtering
 - System utility
 - Configuration

The following setup page will appear:



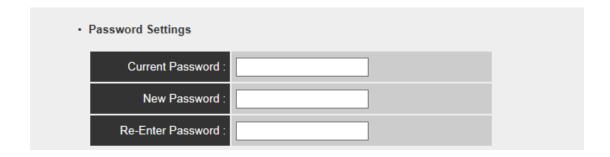


The description of every setup item is listed as follows:



4-2-9-1 Password Settings

The default password of this extender is 1234, and it's displayed on the login prompt when accessed from the web browser. There's a security risk if you don't change the default password, since everyone can see it. This is very important when you have the wireless function enabled.



Here are descriptions of every setup item:

Item	Description
Current Password	To change the password, you have to input the current
	password first.
New Password	Input the new password here. You can use the
	combination of letters, numbers, and symbols up to 20
	characters.
Re-Enter Password	Input the new password again for conformation.



4-2-9-2 Management IP

The default is set to DHCP client to obtain an IP address automatically from your broadband router.

To set up the IP address of this wireless extender, please see the following description.



Here are descriptions of every setup item:

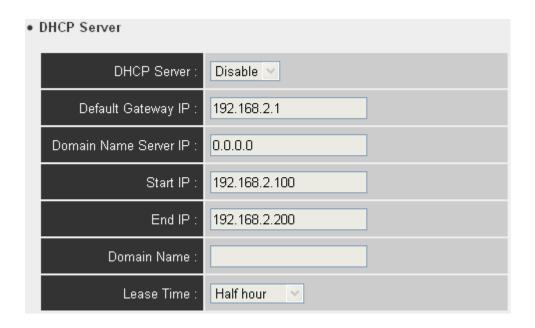
Item	Description
IP Address	Input the IP address of the LAN / Wi-Fi port of this access
	point. (Default IP of AP mode is 192.168.2.1)
	NOTE: If you enable DHCP server, please input one static
	IP address here. Please remember this IP address or you
	can open browser to input the default value
	'http://repeaterxxxx' (refer to 4-2-1 setting) to login to
	the Web user interface page or reset to default.(Press
	the WPS button and hold for 10 seconds to restore all
	settings to factory defaults)
Subnet Mask	Input the subnet mask of the IP address you're using.
Gateway Address	Input the gateway's IP address of your network.
	Generally you can use '0.0.0.0' (default value) since this
	wireless extender will access the Internet via the WAN
	port.



4-2-9-3 DHCP Server

This wireless access point is capable of acting as a DHCP server for your network, and it is disabled by default. If you want to activate this function, please select 'Enabled' in the 'DHCP Server' option, and see the following detailed instructions; if you don't want to use the DHCP server function of this wireless access point, or there's another DHCP server on the network this access point connects to, please select 'Disable'.

NOTE: If you select 'Disable' in the 'DHCP Server' option, all DHCP-related fields will be grayed out, and you will not be able to input any DHCP parameter.



Here are descriptions of every setup item:

DHCP Server	If you want to activate the DHCP server function of this
	router, select 'Enable', or set it to 'Disable'.
Default Gateway IP	Please input the IP address of the default gateway of your
	network here.
Domain Name Server	Please input the IP address of the domain name server
IP	(DNS) here.
Start IP	Please input the start IP address of the IP range.
End IP	Please input the end IP address of the IP range.



Domain Name	If you wish, you can also input the domain name for your
	network. This is optional.
Lease Time	Please choose a lease time (the duration that every
	computer can keep a specific IP address) of every IP
	address assigned by this access point from the drop-down
	menu.

When you complete the settings in this page, click the 'Apply' button. You'll see the following message:



If you still need to configure this wireless extender, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button. You'll be prompted to wait for 50 seconds before you can reconnect to this device.

4-2-10 Configuration

You can backup and restore the configuration of this access point, so you can recall all settings, without the needing to reconfigure again.

This function is especially useful when you need to use this mini Wi-Fi AP in different places, like your home and hotels.

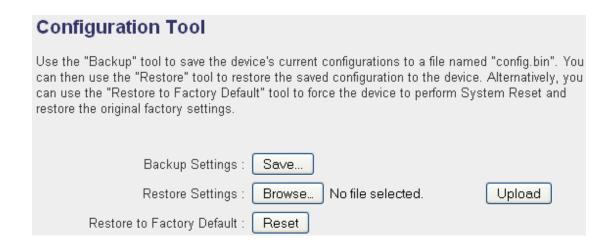
To access the 'Configuration' menu, click 'Configuration' on the left.



Home
Quick Setup
WPS Setting
Advanced Settings
WLAN 2.4G settings
WLAN 5G settings
MAC Filtering
System utility
Configuration

4-2-10-1 Configuration Tool

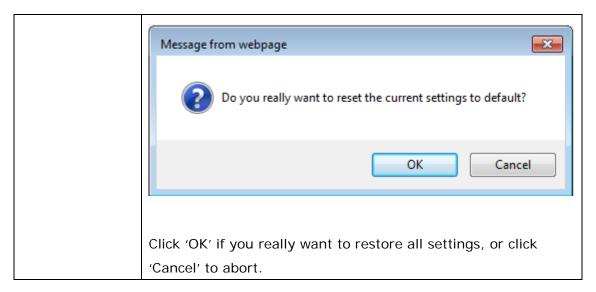
The following setup page will appear:



The description of every setup item is listed as follows:

Item	Description
Backup Settings	Click the 'Save' button to save the current settings to a file on
	your computer.
Restore Settings	If you want to upload a saved configuration file to this device,
	please click the 'Browse' button to select a saved configuration
	file on your computer. Then click the 'Upload' button to replace
	the current settings.
Reset to Factory	To reset all settings of this device to factory defaults, including
Default	the password. You'll be prompted to confirm the settings reset:





4-2-10-2 WEB Upgrade

The software running on this device (i.e. 'Firmware') can be upgraded to improve the functionality of this access point.

You can access our website to look for the latest firmware file. Then download the latest firmware file and save on your computer and upload to this wireless AP.



The description of every setup item is listed as follows:

Item	Description
Browse	Select a firmware file saved on your computer.

When you are ready, click the 'Apply' button to start the firmware upgrade procedure.

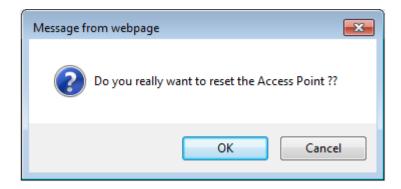


4-2-10-3 Reset

When you think this wireless AP is not working properly, resetting it may help.

Reset In the event that the system stops responding correctly or stops functioning, you can perform a Reset. Your settings will not be changed. To perform the reset, click on the APPLY button below. You will be asked to confirm your decision.

To reset this wireless extender, click the 'Apply' button. You'll be prompted to confirm the reset:



Click the 'OK' button to reset the wireless extender, or click 'Cancel' to abort.

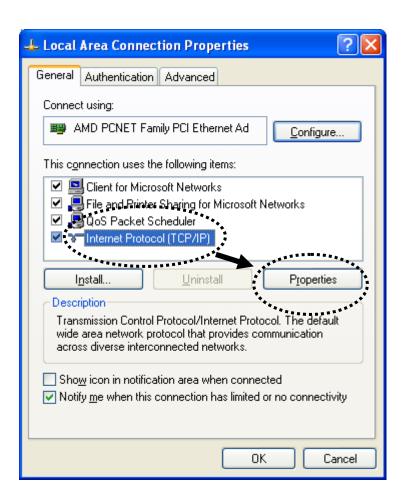


Chapter 5 Appendix

5-1 Configuring TCP/IP on PC

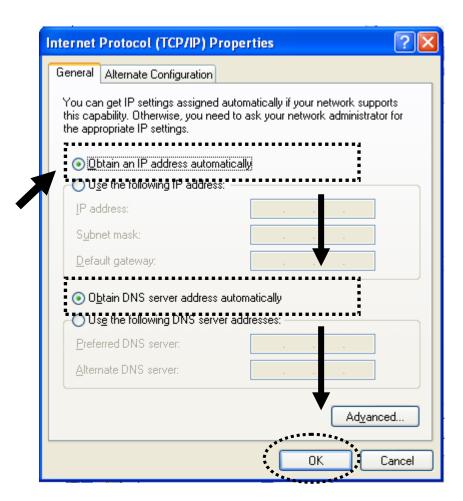
5-1-1 Windows XP IP address setup:

Click the 'Start' button (it should be located at the lower-left corner of your computer screen), then click control panel. Double-click Network and Internet Connections icon, and then click Network Connections, then double-click Local Area Connection, the Local Area Connection Status window will appear, and then click the 'Properties' button.



2. Select 'Obtain an IP address automatically' and 'Obtain DNS server address automatically', then click the 'OK' button.

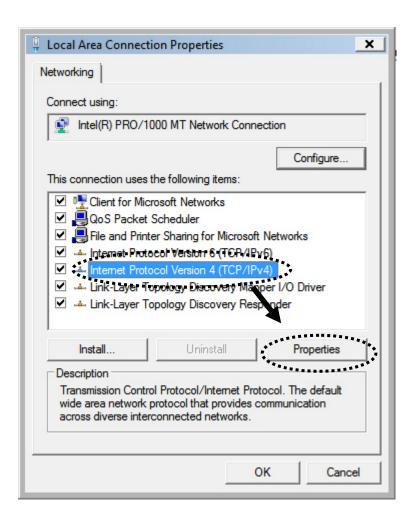




5-1-2 Windows Vista/Windows 7 IP address setup:

Click the 'Start' button (it should be located at lower-left corner of your computer screen), then click control panel. Click View Network Status and Tasks, and then click Manage Network Connections. Right-click Local Area Network, then select 'Properties'. The Local Area Connection Properties window will appear, select 'Internet Protocol Version 4 (TCP / IPv4), and then click the 'Properties' button.





2. Select 'Obtain an IP address automatically' and 'Obtain DNS server address automatically', then click the 'OK' button.



