COMTREND

WAP-5922

AC1200 WiFi Extender

User Manual

Version A2.0, September 14, 2018

Federal Communication Commission Interference Statement

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

WiFi

To prevent interference with cordless phones, ensure that gateway is at least 5 feet (1.5m)from the cordless phone base station. This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

EMC Warning

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

Safety

1. This product is designed for indoor use only; DO NOT install the adapter outdoors.
2. Do NOT use near water.
3. DO NOT put this product at or near hot or humid places, e.g. kitchen or bathroom. DO NOT use any spray or liquids on it.
4. DO NOT touch the product with wet hands and DO NOT clean the product with a wet cloth. Use a soft, dry cloth to clean the device.
5. DO NOT expose the product to lit candles, cigarettes, open flames, high or low temperatures, etc.
6. DO NOT pull any connected cable with force; disconnect it from the power first.
7. Ensure proper ventilation, so that air flows freely around the product.
8. If you find that the product is not working properly, please contact your dealer of purchase and ask for help. Do NOT open the casing
9. DO NOT disassemble the product, warranty will be void.

Power Specifications

I/P： 100-240Vac, 50/60Hz, 0.16A

Federal Communications Commission (FCC) Statement

15.21
You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

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

-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
1) this device may not cause interference and
2) this device must accept any interference, including interference that may cause undesired operation of the device.

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

ISED

Canadian Notice

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. *This device may not cause interference.*
2. *This device must accept any interference, including interference that may cause undesired operation of the device.*

Avis Canadien

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. *L'appareil ne doit pas produire de brouillage;*
2. *L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

Caution: Exposure to Radio Frequency Radiation.

1. To comply with the Canadian RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.
2. To comply with RSS 102 RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

Attention: exposition au rayonnement radiofréquence.

1. Pour se conformer aux exigences de conformité RF canadienne l'exposition, cet appareil et son antenne ne doivent pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.
2. Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil et toutes les personnes.

Operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.
La bande 5 150-5 250 MHz est réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de

satellites mobiles utilisant les mêmes canaux.

For the frequency 5600-5650 MHz, no operation is permitted
Pour la fréquence 5600-5650 MHz, aucune opération est autorisée.

Preface

This manual provides information related to the installation and operation of this Dual-Band Wireless Mesh Point. 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

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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 in the packaging, and the parts that make up this device 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, ask for disposal instructions from your municipal government.
Please be responsible and protect our environment.

Save Our Environment
When this equipment has reached the end of its useful life, it must be taken to a recycling centre and processed separately from domestic waste.
The cardboard box, the plastic in the packaging, and the parts that make up this device 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, ask for disposal instructions from your municipal government.
Please be responsible and protect our environment.

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Chapter 1 Product Information

1.1 Introduction and Features

The AC1200 Dual-Band Wireless Mesh Point has a compact design, and provides excellent network performance to extend your Wi-Fi signal and wireless coverage.

Features of this Wireless Mesh Point 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 866Mbps 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 and AP mode.
- 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, Windows 10 or MAC OS or Linux operating system.

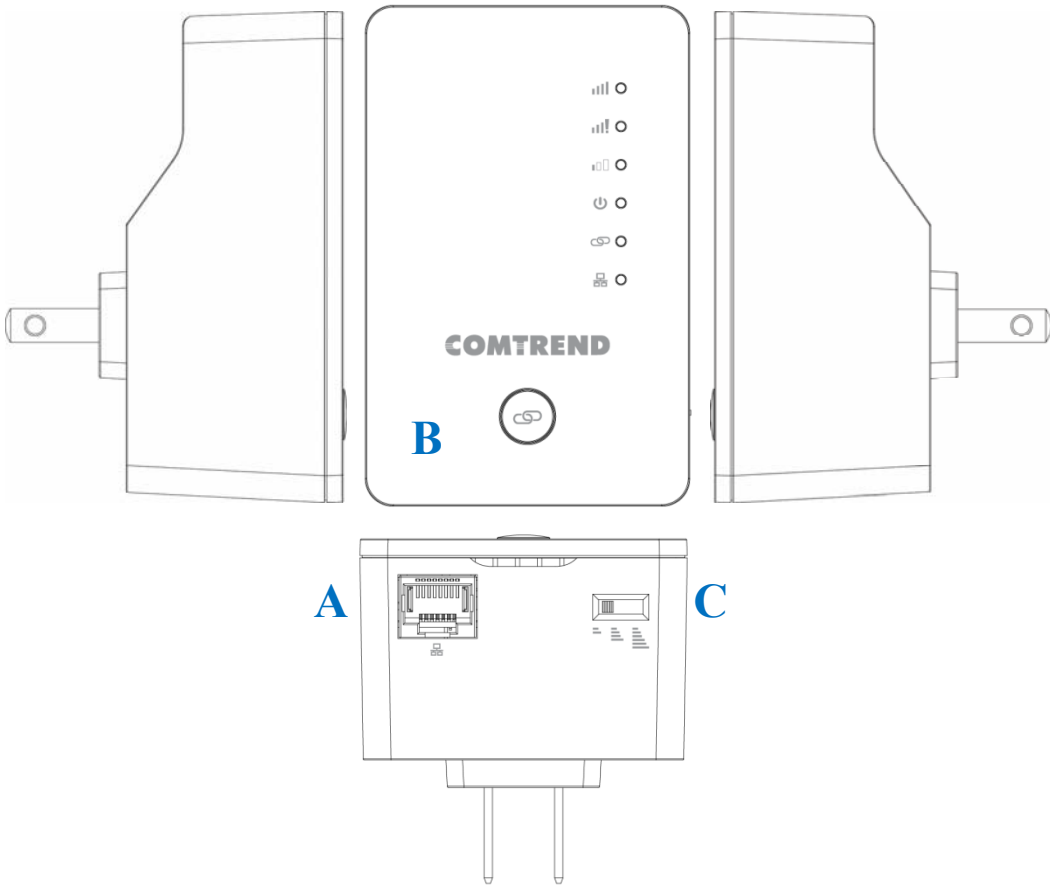
1.3 Package Contents

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

- Wireless Mesh Point (1 pcs)
- Quick Install Guide (1 pcs)

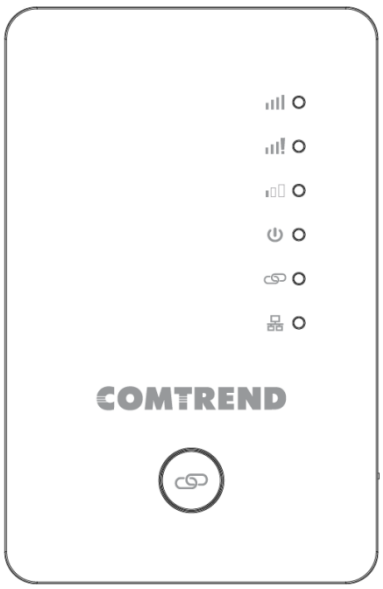
1.4 Get familiar with your Wireless Mesh Point

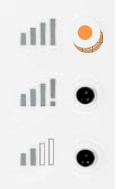
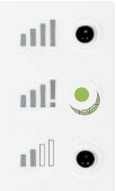
Interface Descriptions

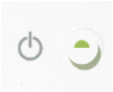


Item	Item Name	Description
A	LAN	10/100/1000M Ethernet LAN Port with Auto-MDI/MDI-X. Connect to a computer, switch or hub for local network sharing.
B	Reset / WPS	Reset the Wireless Mesh Point to factory default settings (clear all settings) or start the WPS function. Press this button and hold for 10 seconds to restore all settings to factory defaults, or press this button for less than 5 seconds to start the WPS function.
C	WiFi Output Power Switch	Switch the button to change.

LED Activity



LEDs	Behavior	Description	Note
Signal Strength			
	LED1 on LED2 off LED3 off 	1. The device is in repeater mode, when LED2 & 3 are off and LED1 is on. It means the device has optimal signal quality. 2. Device in **AP mode**, when LED1 is solid on, it represents the device is ready. (Device ready means it obtained an IP from the uplink DHCP server.)	An optimal signal means the Wireless Mesh Point is placed with proper distance to help to extend the network. Good signal: -45 to -60dBm
	LED1 off LED2 on LED3 off 	1. The device is in repeater mode, when LED1 & 3 are off and LED2 is on. It indicates the current placement is too close to the uplink router, which is not an effective placement of the wireless mesh point.	Signal too strong: > -45dBm

	LED1 off LED2 off LED3 on 	3. The device is in repeater mode, when LED1 & 2 are off and LED3 is on. It indicates the current placement is too far from the uplink router, which potentially makes the uplink connection weak and may result in slow speed or disconnection.	signal too weak: < -60dBm
	LED1 LED2 LED3 flashing 	1. The device is not with a stable connection. It may be in the progress of pairing, grouping, and or synchronising. 2. The device will not be able to configure before these 3 LEDs stop flashing.	The device in factory default and powered (with power LED on), in this state, it is not ready to make any configuration, and it needs to wait until LED1, 2 & 3 are flashing. (If only the power LED on, the Wireless Mesh Point is still in booting process.)
Power	LED 4 on 	The device is powered on.	
	LED4 flashing 	Firmware upgrading is taking place.	
	LED4 off 	Device is powered off or no power.	

WPS & Paring status	LED5 on	1. The device is successfully finished WPS handshaking. 2. The device is already paired or grouped with the current network.	
	LED5 flashing	The device is processing WPS PBC handshaking.	There is a 120 second open window to process WPS PBC handshaking and after 120 seconds time out, the LED will turn Off.
	Off	1. The device is not performing WPS handshaking. 2. The device is not paired or grouped with any network.	
Ethernet	LED6 on	The device is connected to another device via Ethernet cable.	
	Off	The device is not connected to another device via Ethernet cable or no Ethernet cable is attached.	
	Flashing	There is Ethernet traffic.	

Chapter 2 Mesh WiFi-Supported Installation

Scenario 1: Using a Comtrend Mesh WiFi-Supported Gateway
Use anywhere from 1-10 Mesh Points on a single network.

Scenario 2: Using a Non-Comtrend Mesh WiFi-Supported Gateway
Use anywhere from 2-10 Mesh Points on a single network.
Note: A minimum of 2 Mesh Points are required to create a connection for this scenario.

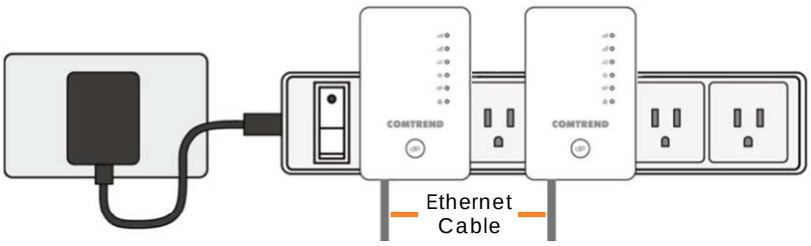
2.1 Device Setup

The following steps show how to setup your Whole-Home WiFi Mesh System using Ethernet Pairing. For additional setup options (including WPS), please refer to the User Manual available online.

NOTE: If you are using a Comtrend WiFi Mesh-Supported Gateway, then the Mesh Points will work in conjunction with your Gateway's WiFi. If you are not using a Comtrend WiFi Mesh-Supported Gateway, then the WiFi Mesh Points will create a separate WiFi Mesh System (Note: This application will require at least two WiFi Mesh Devices to create a Mesh System).

1. Connect one end of an Ethernet Cable into each Mesh Point (WAP-5922) that you wish to have in your Whole-Home WiFi Mesh System. For this example, we will use two Mesh Points.

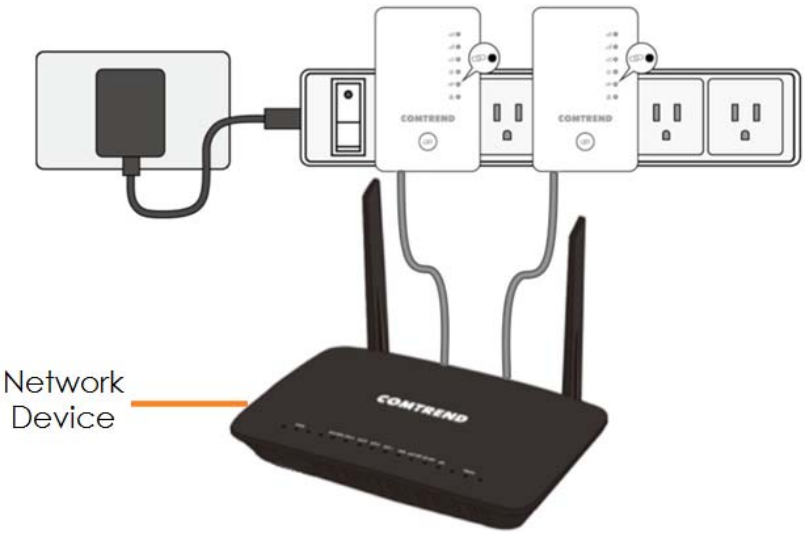
2. Plug the Mesh Points into an outlet near your Network Device (Router, Modem).



Steps 1-2

3. Connect the other end of the Ethernet Cables into your Network Device. The pairing process will then automatically begin.

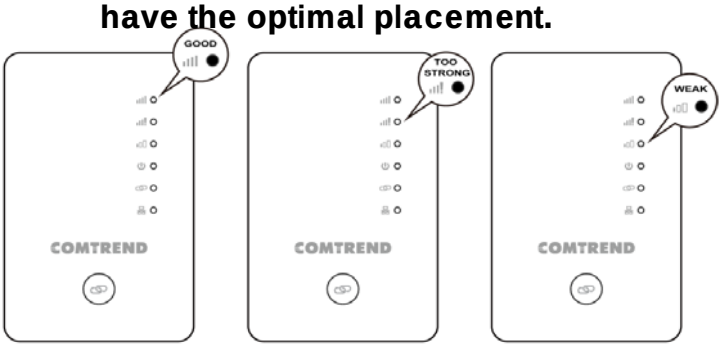
4. Wait until all WPS/Grouping LED's light up solid (around 3 to 5 minutes). This means the two Mesh Point's are now in the same WiFi Mesh System. If you are using a Comtrend WiFi Mesh-Supported Gateway, then the two Mesh Points are now in the same WiFi Mesh System as the Comtrend Gateway as well.



5. Disconnect the Ethernet Cables and unplug the Mesh Points. Then find a suitable location for each Mesh Point with an accessible power outlet. The Mesh Points should be placed in different directions between the Network Device and the areas farthest from the Network Device.

NOTE: If you are not using a Comtrend WiFi Mesh-Supported Gateway, then you will need to leave one Mesh Point connected via Ethernet to the Network Device.

The following LED's will show you if you have the optimal placement.



LED / Icon		Status	Indication
	Signal - Optimal	First LED On	The extender has an optimal signal connection with its uplink device. The distance in between is ideal.
	Signal - Too Strong	Second LED On	The extender has too strong a signal connection with its uplink device. The distance in between is too close.
	Signal - Too Weak	Third LED On	The extender has too weak a signal connection with its uplink device. The distance in between is too far.

6. Once the Mesh Points are plugged into their new locations, wait for the WPS/Grouping LEDs to light up solid. This means they are grouped again and the WiFi Mesh System is ready to use.

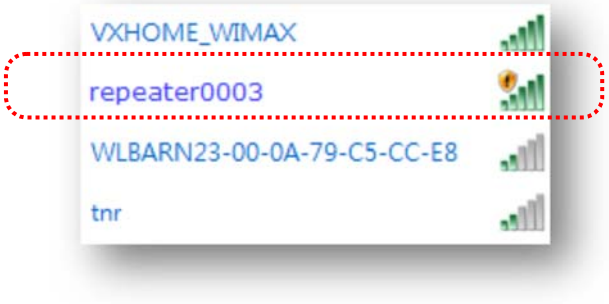
7. To add new Mesh Points to the Mesh System, simply plug the new device(s) into an outlet and press the WPS Button for 2-3 seconds. Within two minutes, press the WPS Button on a Mesh Point in the existing system. The WPS/Grouping LED will light up solid.

8. If you are using a Comtrend WiFi Mesh-Supported Gateway, then the WiFi Mesh System will automatically use the original WiFi settings on your Gateway. If you are using a Non-Comtrend WiFi-Supported Gateway, then please reference the back of the Mesh Point that is connected to the Gateway for the default SSID and Password WiFi settings.

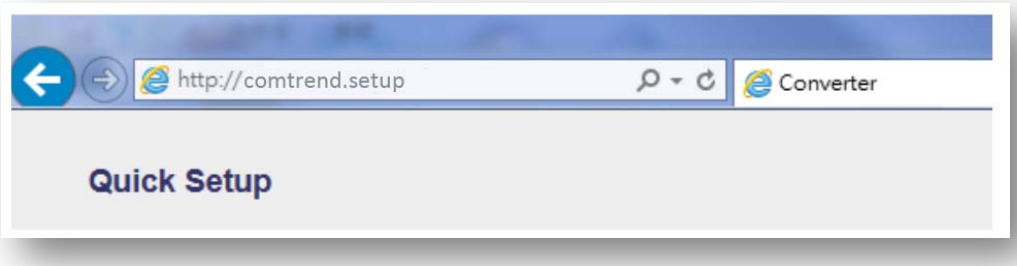
If you would like to change your network's SSID or Password please continue to section 2.1.1.

2.1.1 WiFi Network Setup

1. You can now use your computer's Wireless configuration utility to search for a Wireless Network name such as: **repeater0003**. (The default SSID of this Mesh point is '**repeater0003**', and 0003 is for reference. It will be the last 4 digits of the device's MAC number.)

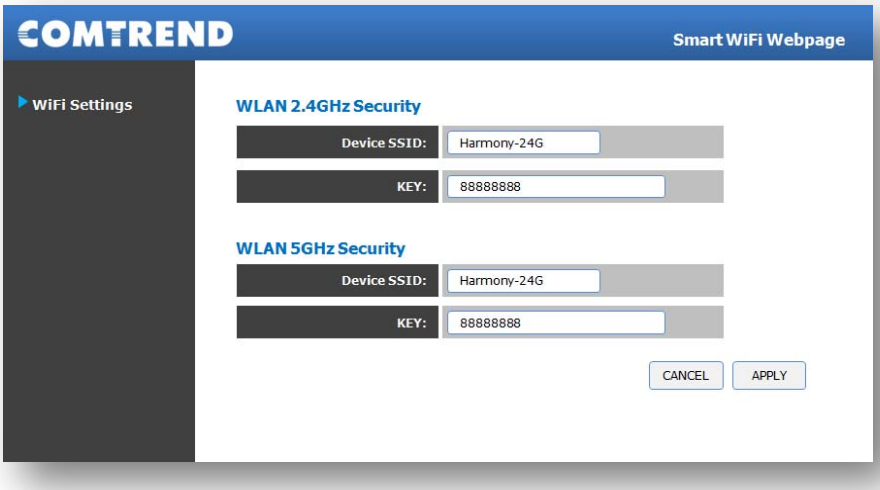


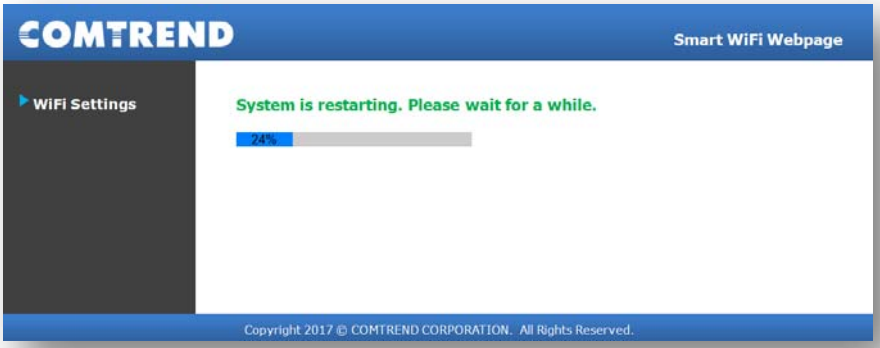
2. Open your Web browser, and input '**http://comtrend.setup**' in the address bar.



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

4. After you log into the Webpage, input your WiFi network name in the 'Device SSID' field, and also the password in the 'KEY' field for both the 2.4GHz and 5GHz WiFi networks. After the configuration, click the 'APPLY' button to finish the setup. The devices will reboot, and when the WPS/Grouping LEDs on all of the Mesh Points light up solid, the Whole-Home WiFi Mesh System is ready.





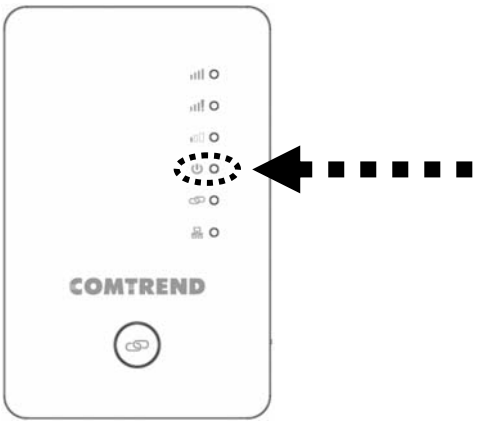
Chapter 3 Repeater Mode

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.

3.1 Repeater Mode Quick Installation Guide

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

Plug this Wireless Mesh Point 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.



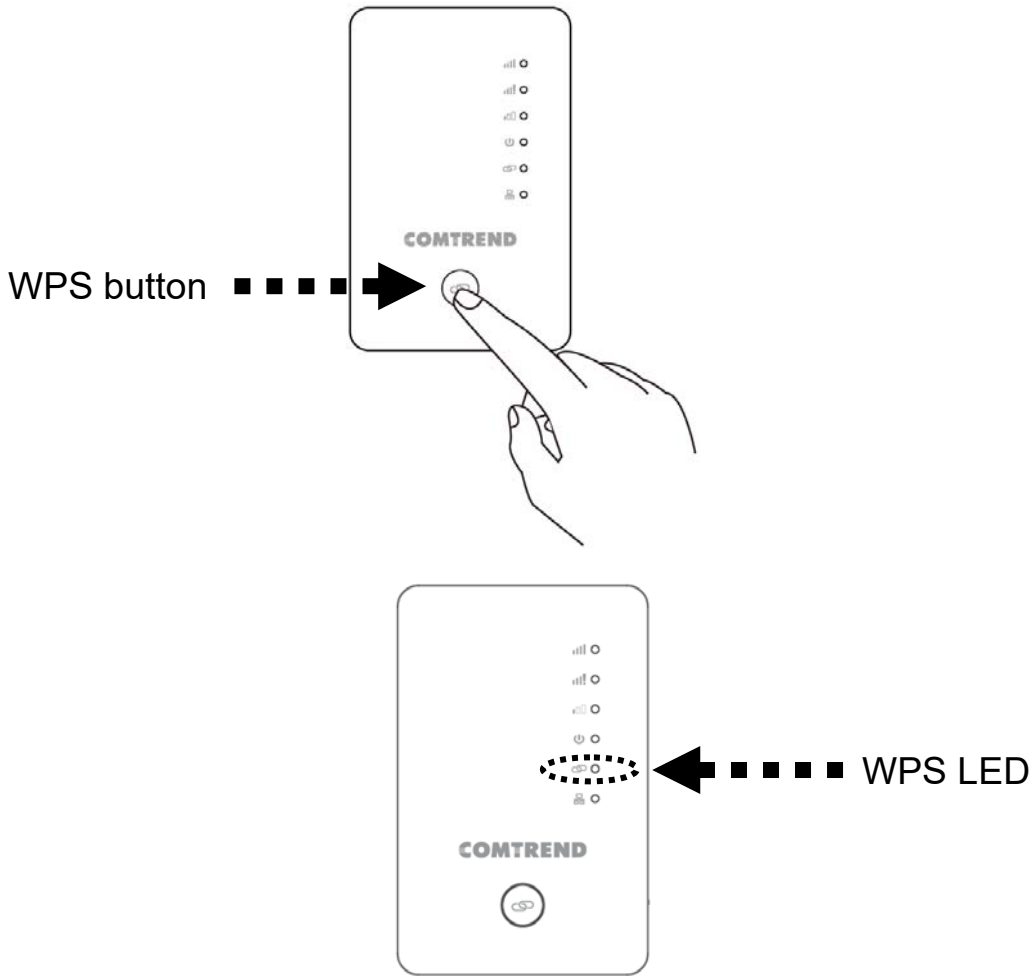
You can setup the wireless connection via the 'Hardware WPS button' or 'Software web browser'.

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

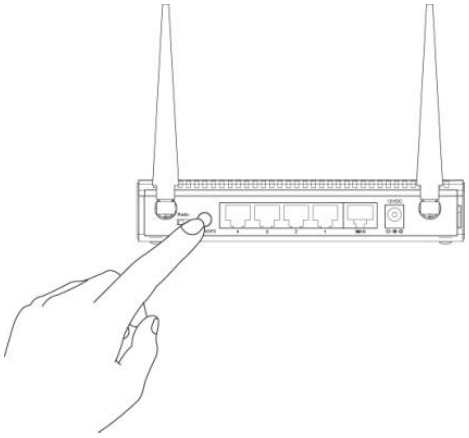
Using WPS button **- please go to section 3.1.1**
Using Web browser **- please go to section 3.1.2**

3.1.1 Hardware WPS button setup

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



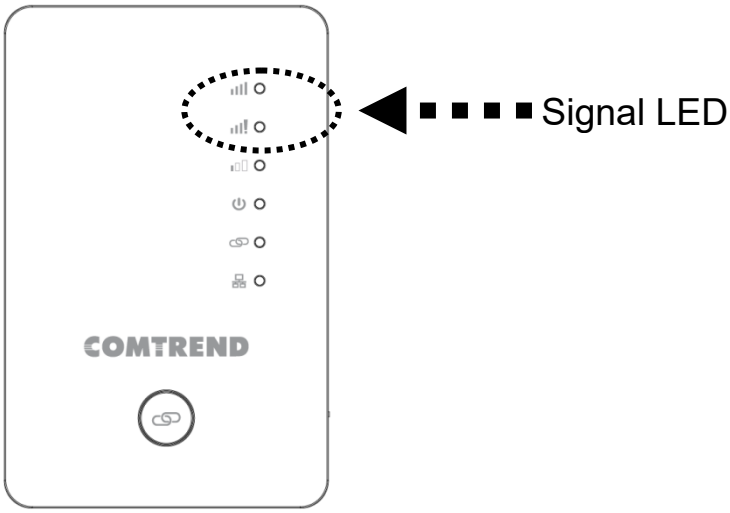
2. Press the WPS button on the wireless broadband router or access point you wish to connect to within 2 minutes.



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-5922's web user interface to perform quick setup (for detailed setup refer to '3.1.2 Web browser quick setup' manual)

3. When WPS connection is successfully established, the Wireless Mesh Point 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 plug this Wireless Mesh Point into a power outlet on the wall in the place you wish to use it (the ideal place will be the center of your house) and, the wireless connection will be established automatically as long as it's within range of your wireless router or access point.

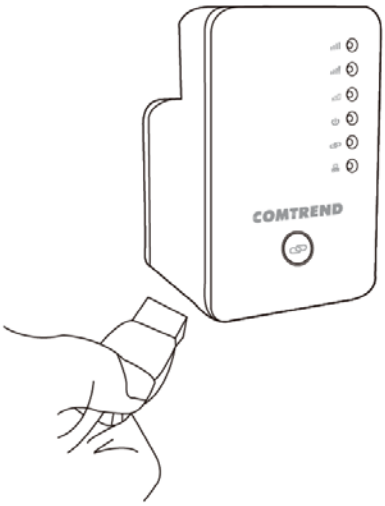
You can check the 'Signal' LED status to understand signal reception level. (Please see the table on page 14 for details.)
If the Signal LED is off, it means the device is out of wireless range of your wireless broadband router or access point. Move the Mesh Point closer to the broadband router until the Wireless Mesh Point device can receive a signal from the broadband router and extend its signal.

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.

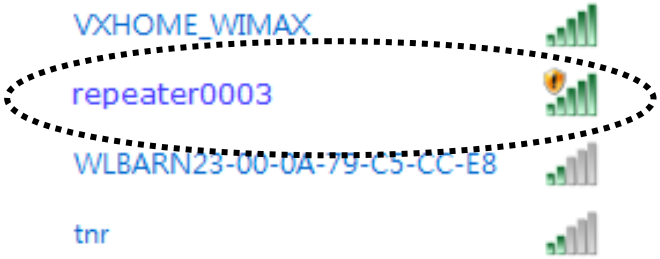
3.1.2 Web browser quick setup

Before you can connect to the Wireless Mesh Point 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 6: 6.1 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 Mesh Point'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 Wireless Mesh Point 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.*)



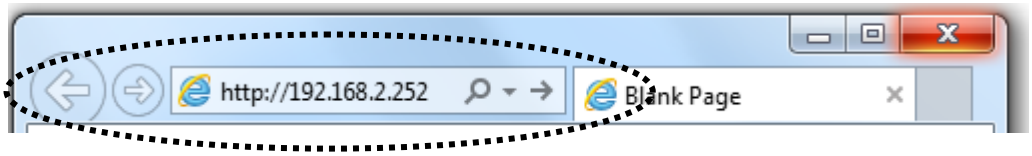
NOTE: this default SSID 'repeater0003" is for reference, different devices may have different last 4 digits.

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

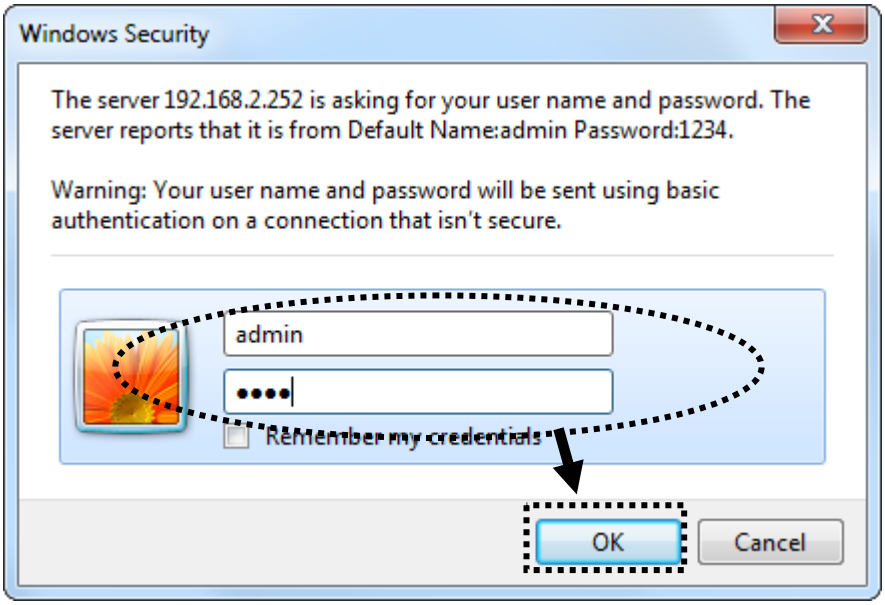
In case you click 'OK', Windows Operating System will ask for the security key, please click "Cancel" to go back to this page.

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.)

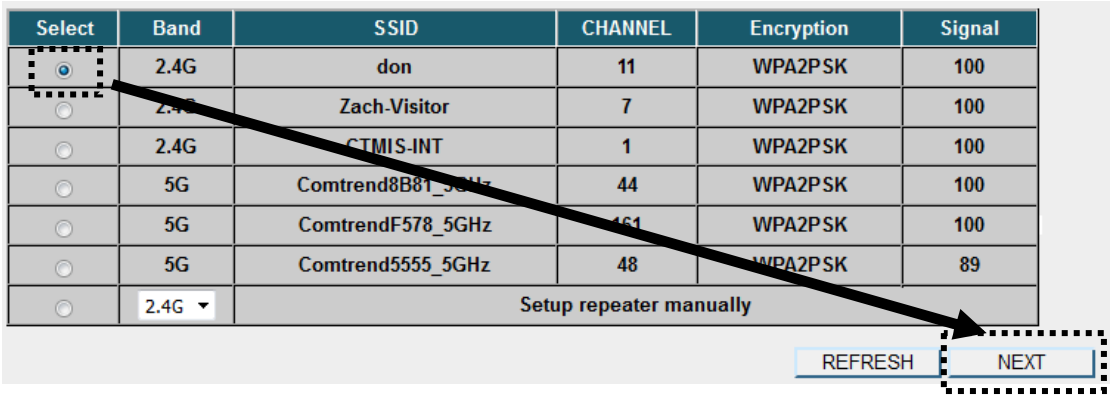
2. Open your web browser, it will redirect to the web user interface setting page. (or you can input the default IP address in the address bar)
   http://192.168.2.252



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

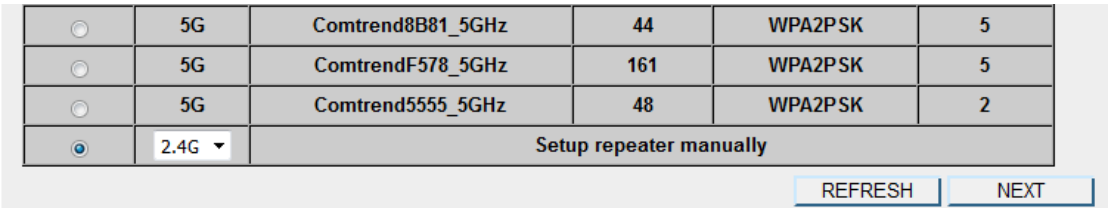


4. All wireless access points nearby will be displayed on the list. Select one access point you want to connect to and click the 'Next' button to continue. If the access point you wish to connect to does not appear here, click the 'Refresh' button until it appears on the list, or try to move the Wireless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

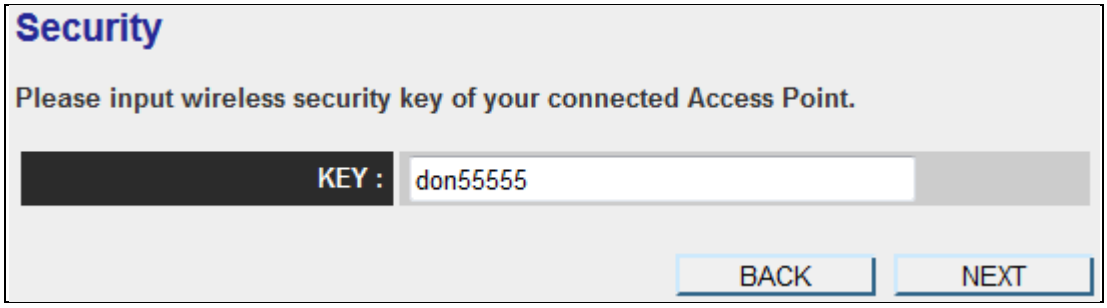


Select	Band	SSID	CHANNEL	Encryption	Signal
	2.4G	don	11	WPA2PSK	100
	2.4G	Zach-Visitor	7	WPA2PSK	100
	2.4G	CTMIS-INT	1	WPA2PSK	100
	5G	Comtrend8B81_5GHz	44	WPA2PSK	100
	5G	ComtrendF578_5GHz	161	WPA2PSK	100
	5G	Comtrend5555_5GHz	48	WPA2PSK	89
	2.4G	Setup repeater manually			

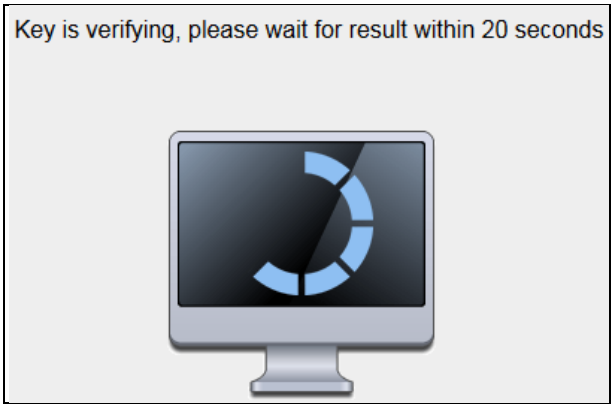
If you want to connect to a hidden access point, you can select "**Setup repeater manually**" to input the wireless setting manually.



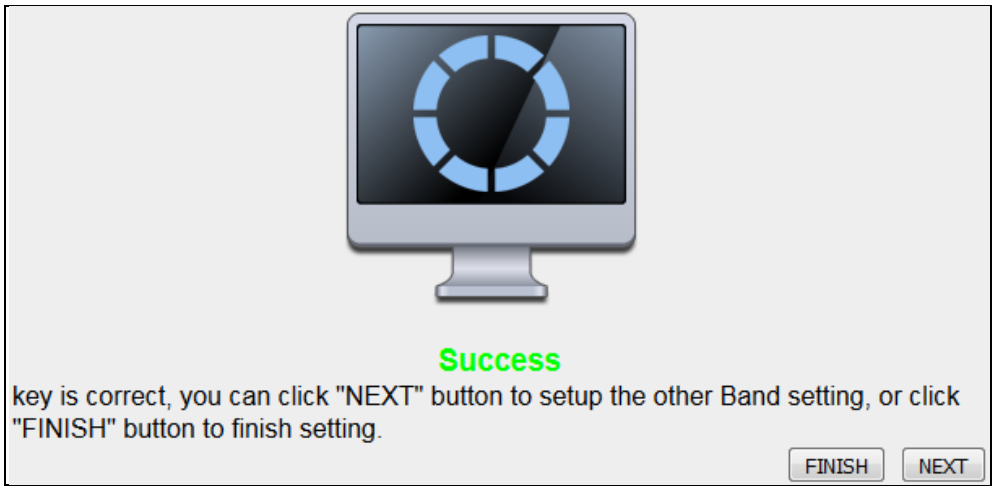
5. You'll be prompted to input the access point's wireless security key, input it in the 'KEY' field and click the 'Next' button to continue.



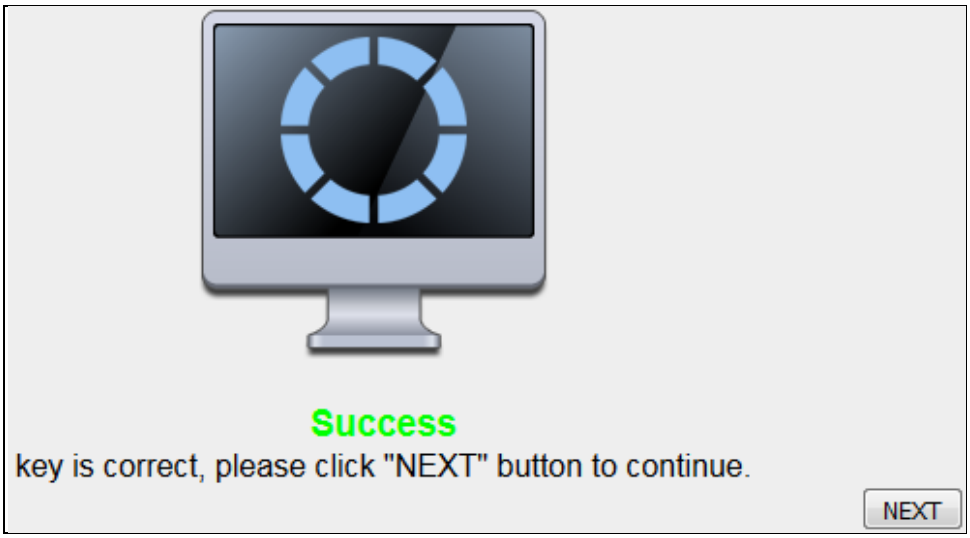
6. It will start to verify the wireless key with your associated access point and show you result within 20 seconds. Please follow the instructions to continue setup.

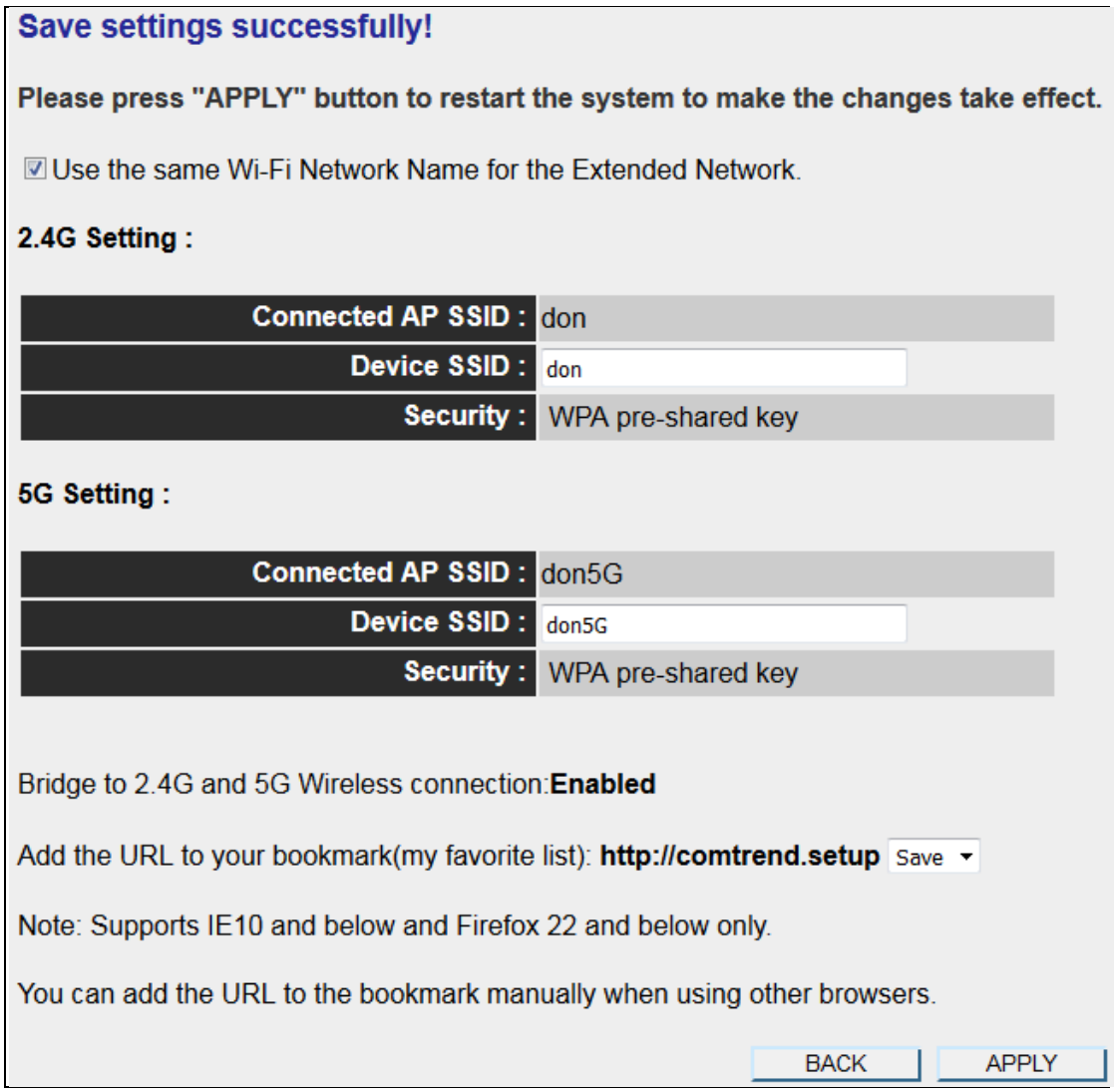


7. When the key is correct, this Wireless Mesh Point will display the connection information for you.



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.

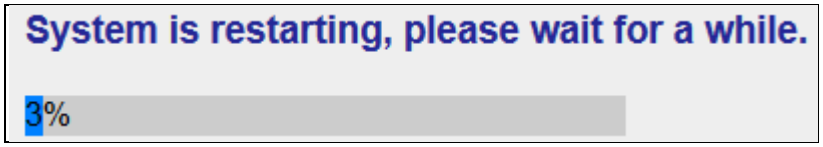




If everything is correct, click the 'APPLY' button to get connected.

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

9. Please wait a few moments for the Wireless Mesh Point to restart.



NOTE: After the wireless connection of this Wireless Mesh Point and wireless broadband router is built, the Wireless Mesh Point 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 Wireless Mesh Point, please refer to '3.2 Repeater mode Advanced Settings' for more functions or learn how to login to the web user interface again.

Congratulation! Your repeater is connected.

2.4G Settings :

SSID :	don
Security Key :	don55555

5G Settings :

SSID :	don5G
Security Key :	don55555

3.2 Repeater mode Advanced Settings

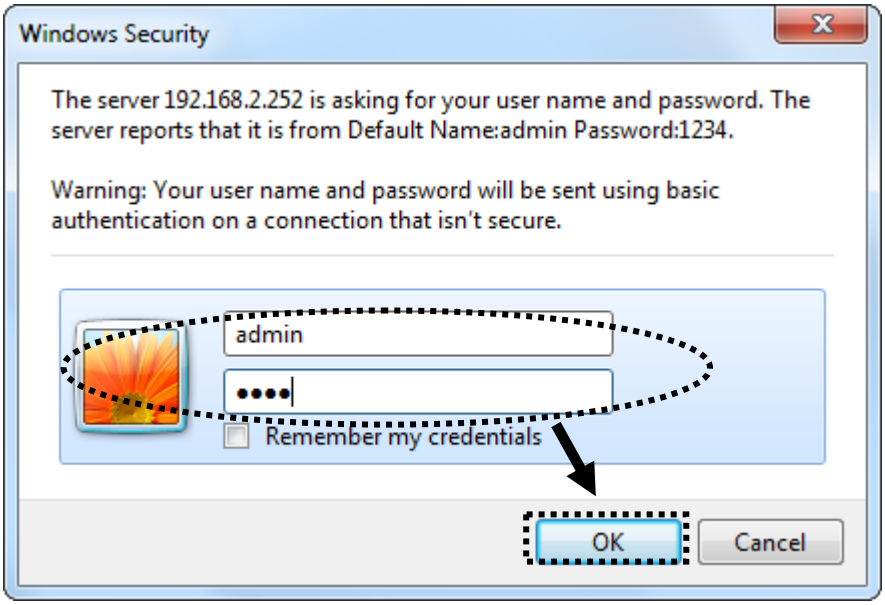
3.2.1 Connect to web configuration menu

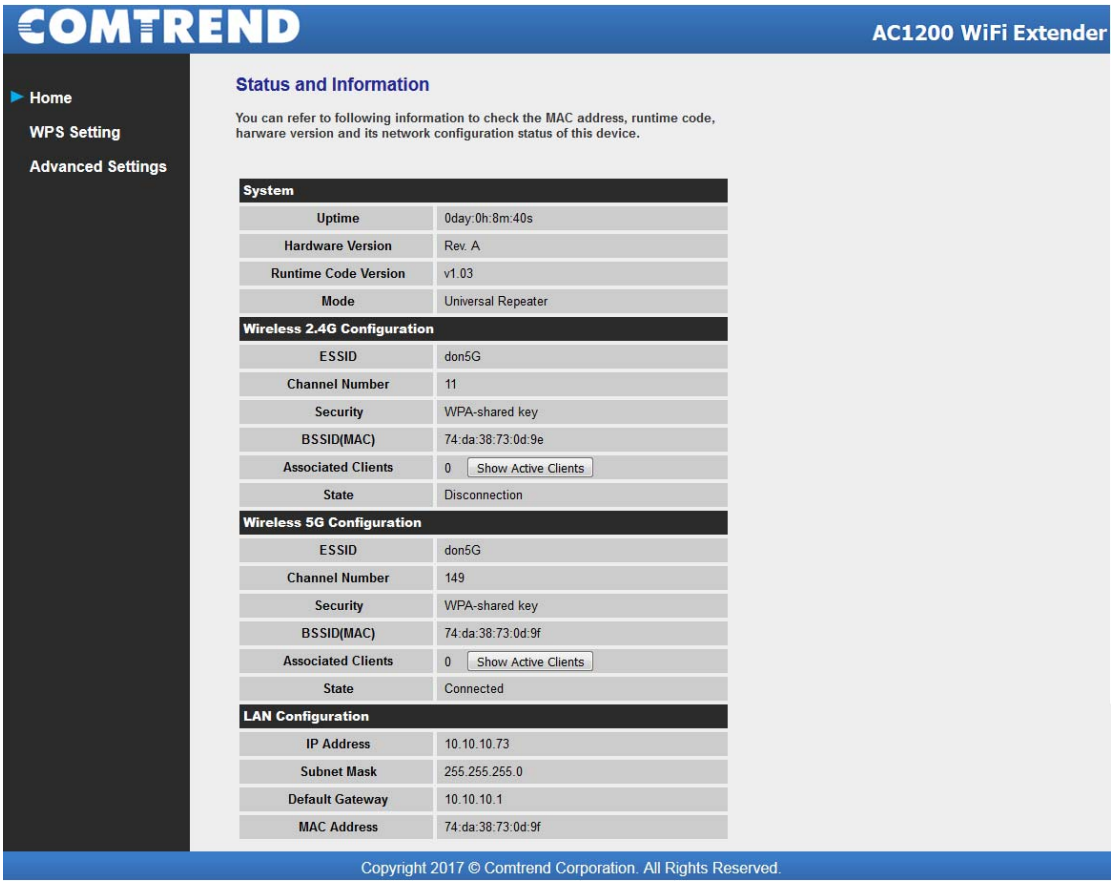
Open your web browser (IE, Firefox, Chrome etc.) and find the 'Wireless Repeaterxxxx Web UI' firmware link on your bookmark list if you saved it when you installed this device for the first time.

10. Input ***http://192.168.2.252*** in the address bar, then press the ENTER key:

NOTE: The default IP address of repeater mode is 192.168.2.252

The Wireless Mesh Point will prompt you to input the username and password. The default username is '**admin**' and password is '**1234**'. Click the 'OK' button to continue.

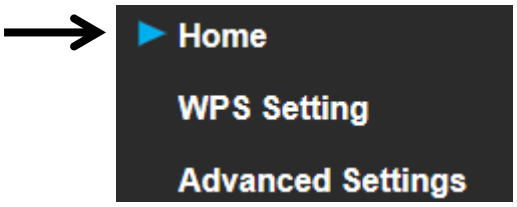




Detailed operation instructions will be given below.

3.2.2 Home

The following information provides an overview of this Wireless Mesh Point. 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):

System	
Uptime	0day:0h:12m:6s
Hardware Version	Rev. A
Runtime Code Version	v1.03
Mode	Universal Repeater
Wireless 2.4G Configuration	
ESSID	don5G
Channel Number	11
Security	WPA-shared key
BSSID(MAC)	74:da:38:73:0d:9e
Associated Clients	0 Show Active Clients
State	Disconnection
Wireless 5G Configuration	
ESSID	don5G
Channel Number	149
Security	WPA-shared key
BSSID(MAC)	74:da:38:73:0d:9f
Associated Clients	0 Show Active Clients
State	Connected
LAN Configuration	
IP Address	10.10.10.73
Subnet Mask	255.255.255.0
Default Gateway	10.10.10.1
MAC Address	74:da:38:73:0d:9f

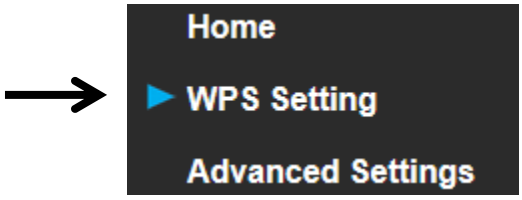
You can click the 'Show Active Clients' button to show all connected wireless clients.

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.

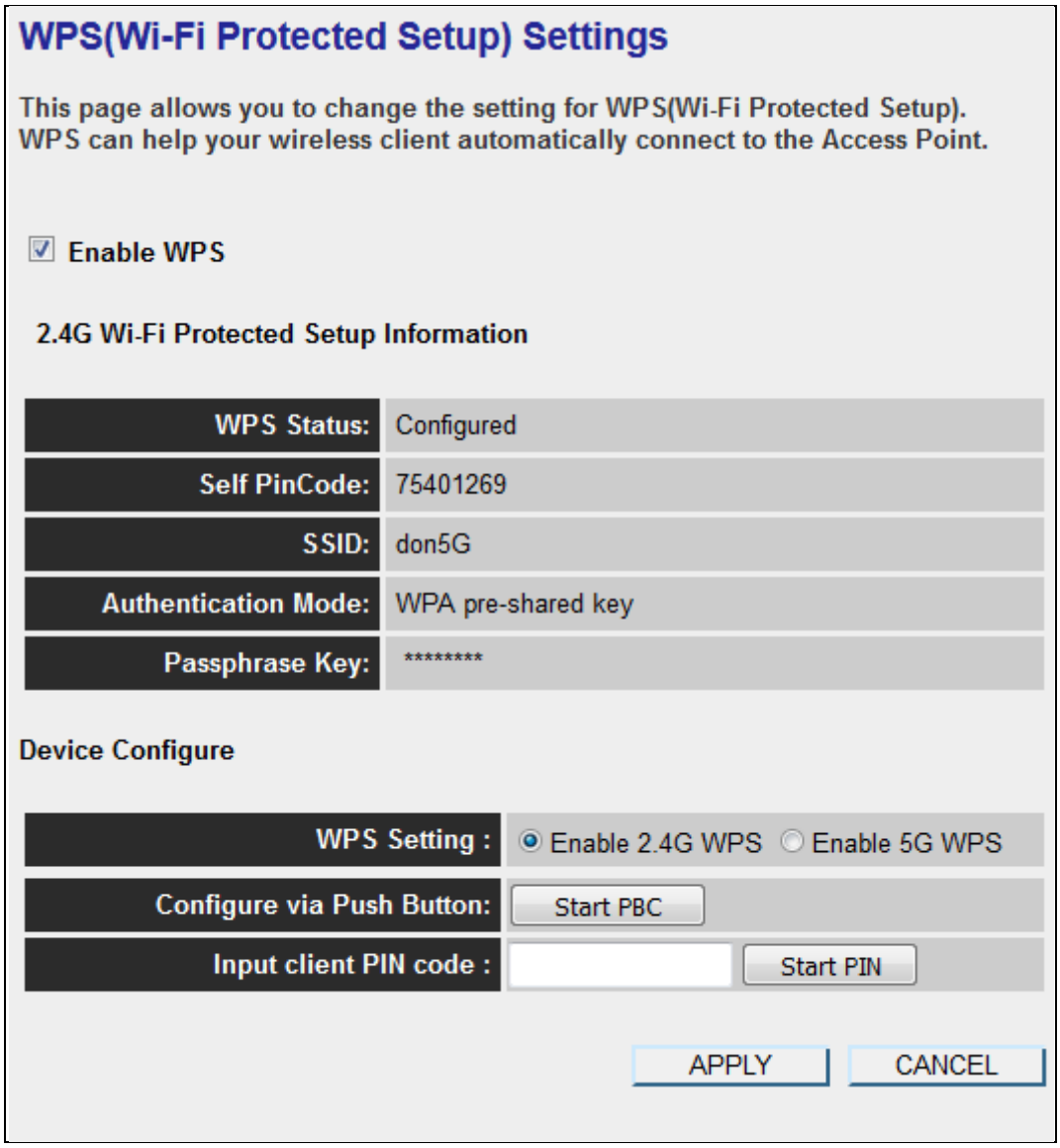
3.2.3 WPS Setting

You can configure WPS (Wi-Fi Protected Setup) here. By using WPS, you can establish a secure connection between this Wireless Mesh Point 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:

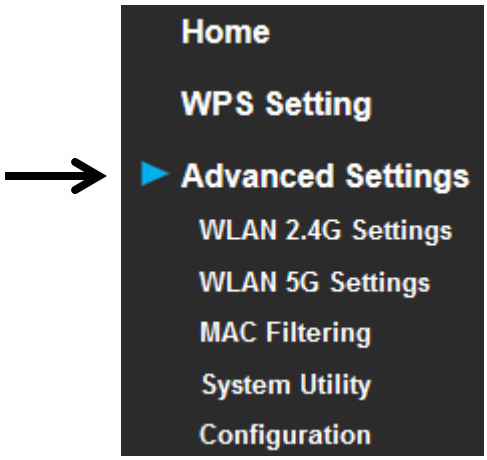
Item	Description
WPS Status	If the wireless security (encryption) function of this device is properly set, the WPS status will display 'Configured'. If the wireless security function has not been set, the WPS status will display 'unConfigured'.
Self PinCode	This displays an 8-digit number for WPS PIN-style configuration. When another WPS-compatible device wishes to connect to this Wireless Mesh Point and supports Self-PIN type WPS, input this number to the wireless 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 Mesh Point.
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'.
Start PBC	Click the 'Start PBC' button to start the Push-Button style WPS setup procedure. This Wireless Mesh Point will wait for WPS requests from another wireless device for 2 minutes. The 'WPS' LED on the Wireless Mesh Point will be blinking for 2 minutes when this Wireless Mesh Point 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 Mesh Point will be blinking when this wireless Mesh Point is waiting for an incoming WPS request.

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.

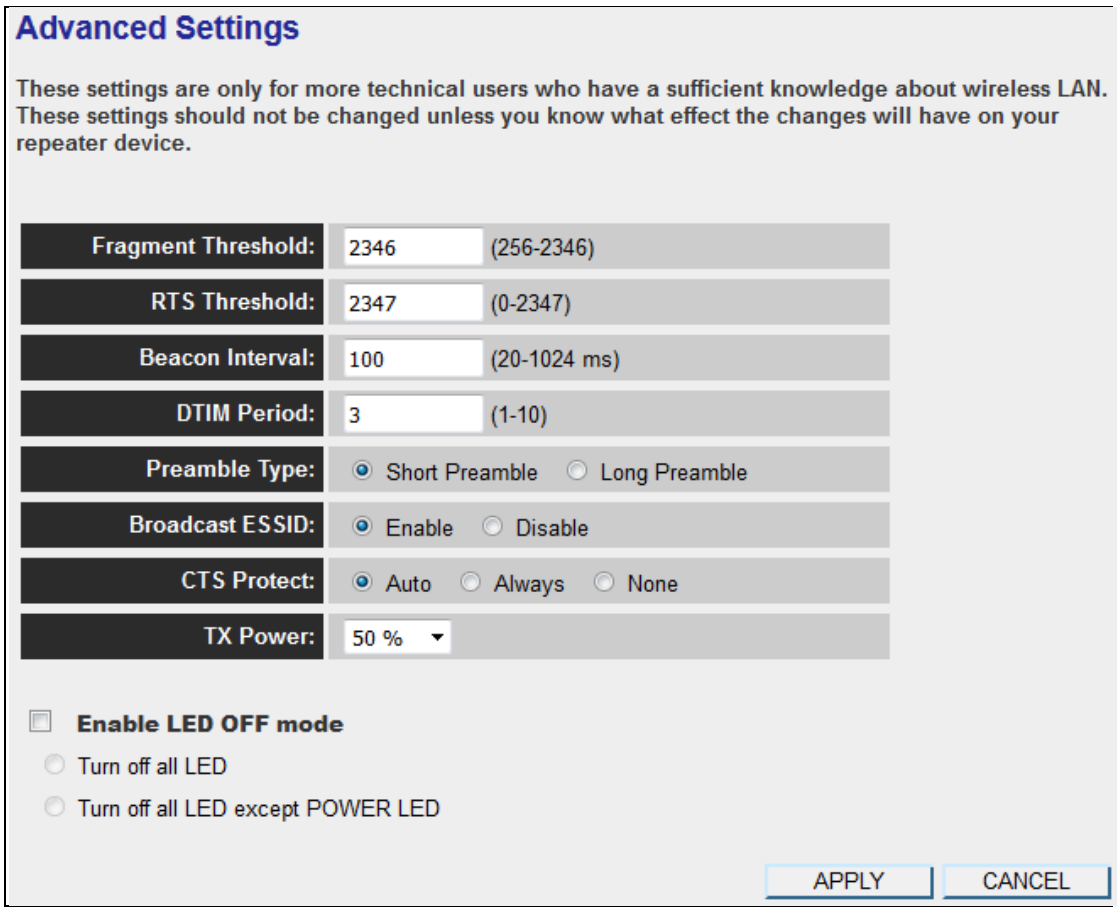
3.2.4 Advanced Settings

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.



The following setup page will appear:

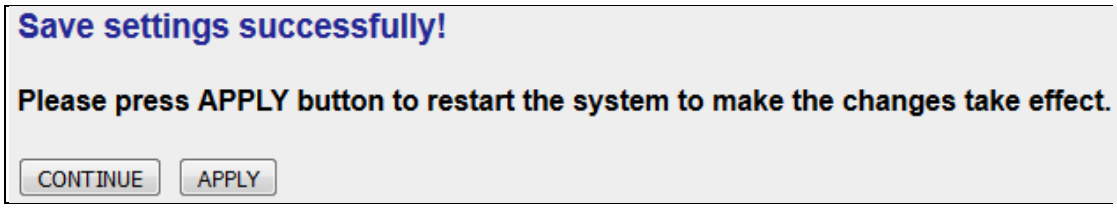


The description of every setup item is listed as follows:

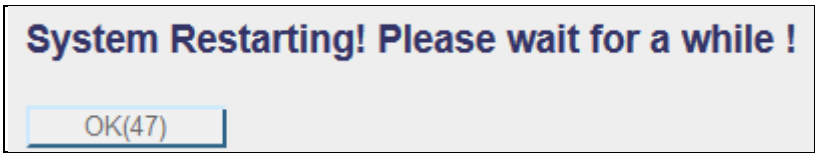
Item	Description
Fragment Threshold	The threshold (number of bytes) of the fragmentation boundary for directed messages. It is the maximum data fragment size that can be sent. Input a value between 256 and 2346. Do not modify the default value if you don't know what it is. The default value is 2346.
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 Mesh Point; when set to 'disabled', only wireless clients who know the exact SSID can get connected with this Wireless-N Range Mesh Point. 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 Mesh Point, 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.

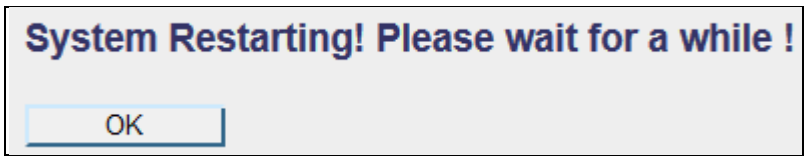
When you finish the settings in this page, click the 'Apply' button. You'll see the following message:



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



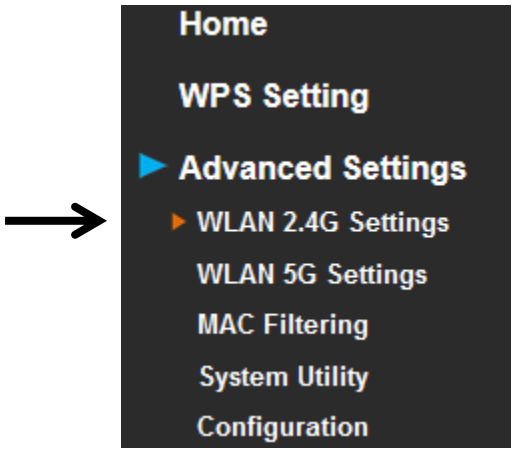
You'll be prompted to wait for 50 seconds before you can reconnect to this Wireless Mesh Point.



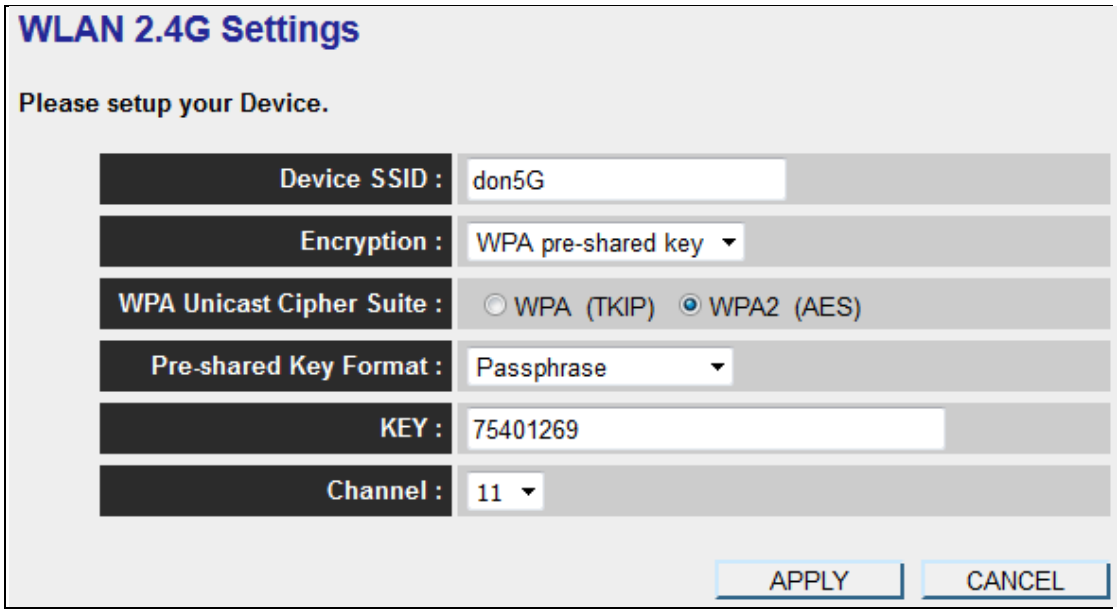
After the countdown click the 'OK!' button.

3.2.5 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 Wireless Mesh Point is working properly, it is not recommended to make changes here.

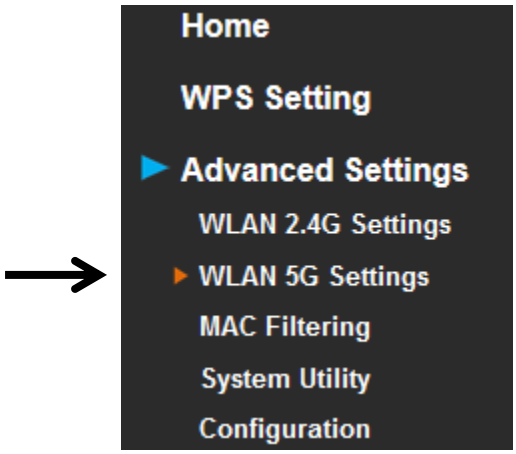
The description of every setup item is listed as follows:

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

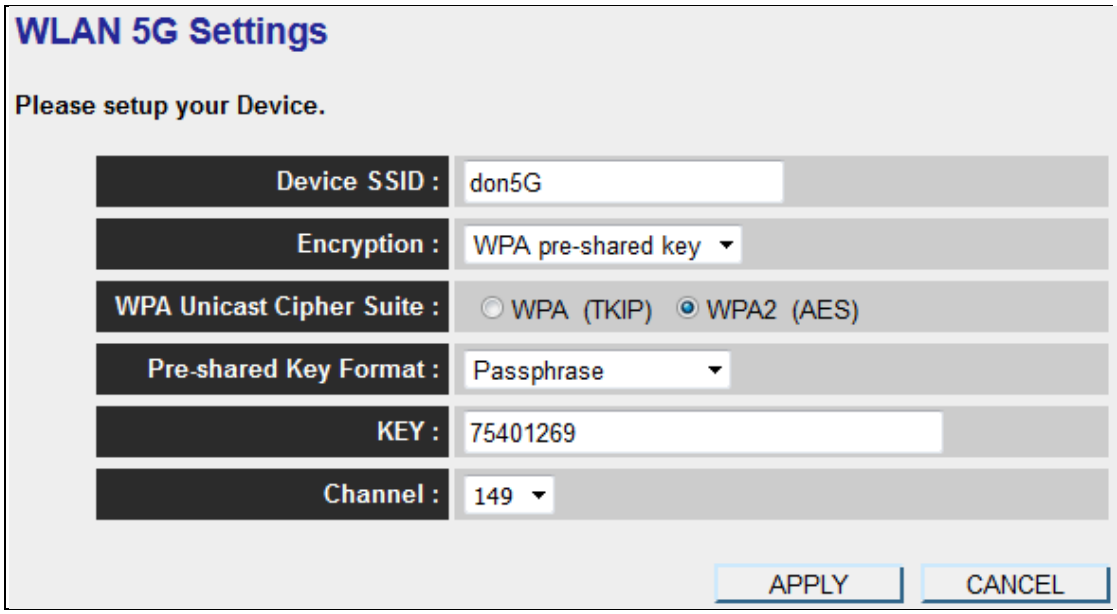
	the SSID here, maximum 32 characters.
Encryption	This is the current security setup of the Wireless Mesh Point. You can select an encryption method from the drop-down menu, there are three options.
WPA Unicast Cipher Suite	This is the current security setup of the Wireless Mesh Point. Please select a 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 Wireless Mesh Point. 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 Wireless Mesh Point. 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 Wireless Mesh Point.

3.2.6 WLAN 5G settings

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



The following setup page will appear:



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

The description of every setup item is listed as follows:

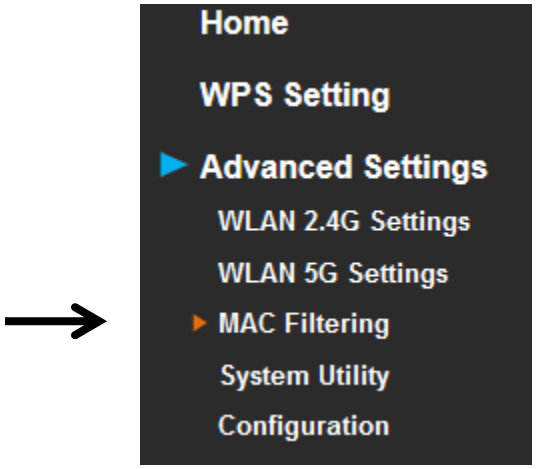
Item	Description
Device SSID	This is the current SSID name of the Wireless Mesh Point. The SSID is used to identify your own Wireless Mesh Point from others when there are other wireless devices in the same area. You can type any alphanumerical characters to change the SSID here, maximum 32 characters.
Encryption	This is the current security setup of the Wireless Mesh Point. You can select an encryption method from the drop-down menu, there are three options.
WPA Unicast Cipher Suite	This is the current security setup of the Wireless Mesh Point. Please 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 Wireless Mesh Point. 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 Wireless Mesh Point. 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 Wireless Mesh Point.

3.2.7 MAC Address Filtering

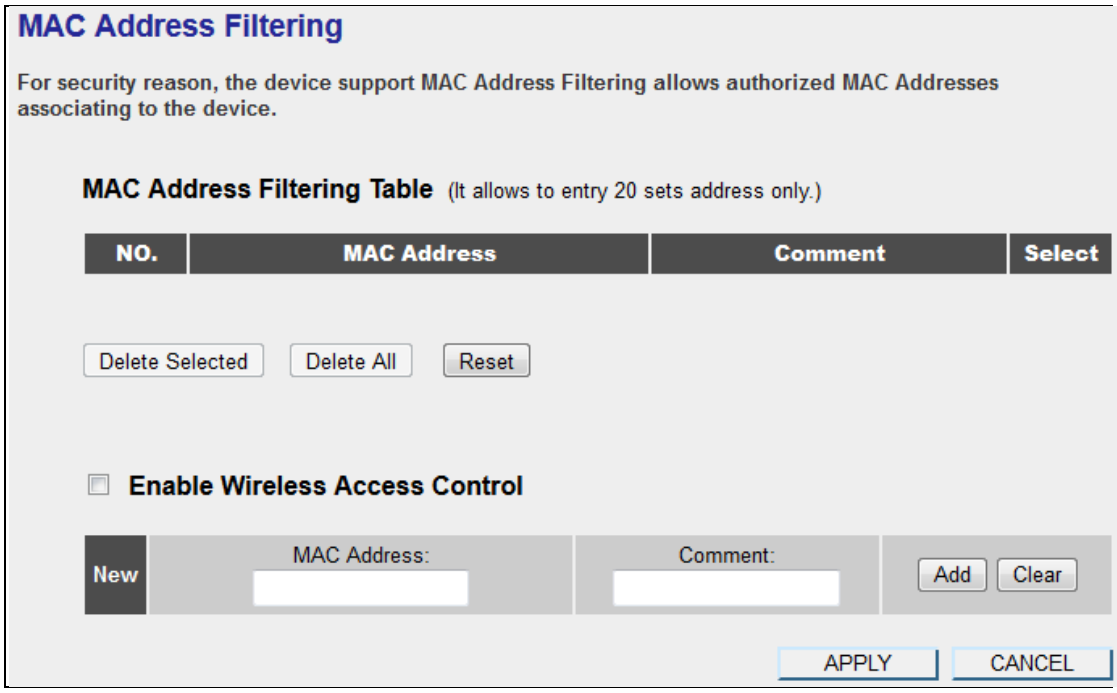
Besides using wireless security to only allow permitted wireless users to use this Wireless Mesh Point, you can also use the MAC address filter to allow wireless users with certain MAC addresses to use this Wireless Mesh Point.

This will enhance security because you can make a 'white list' to allow users on the list to use this Wireless Mesh Point. 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.



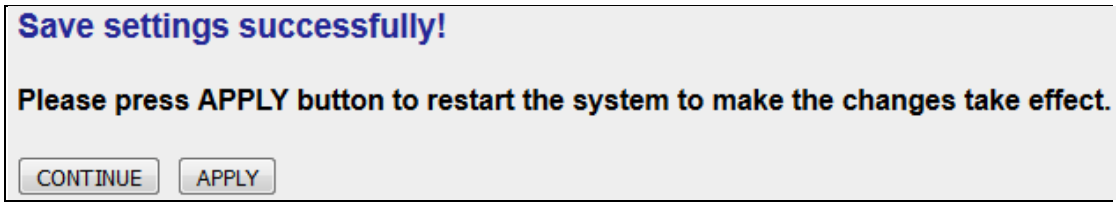
The following setup page will appear:



The description of every setup item is listed as follows:

Item	Description
Enable Wireless Access Control	Check this box to enable MAC filtering. If you don't check this box, anyone who knows the wireless password can get connected to this Wireless Mesh Point.
MAC Address	Input the MAC address of the clients you wish to deny or provide access to the Wireless Mesh Point 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:

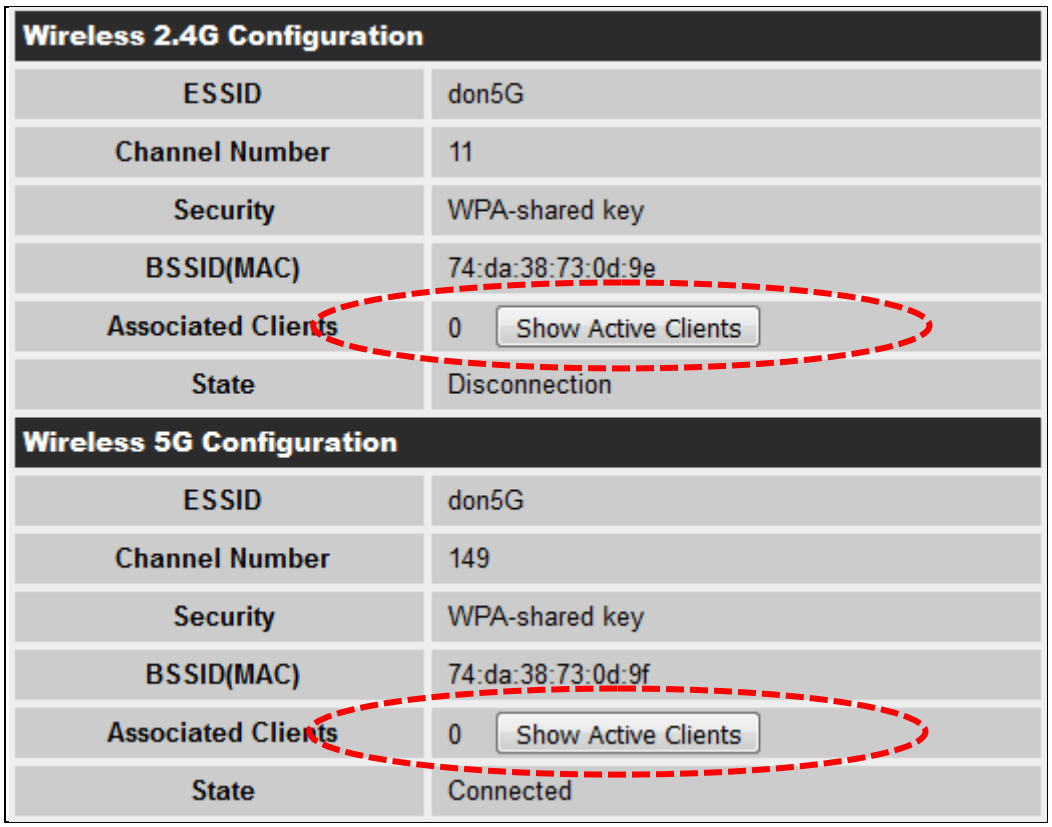


If you still need to configure this Wireless Mesh Point, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button. You'll be prompted to wait for 50 seconds before you can reconnect to this Wireless Mesh Point.

3.2.8 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 Mesh Point already, you can click the 'Show Active Clients' button on the 'Home' setting page.



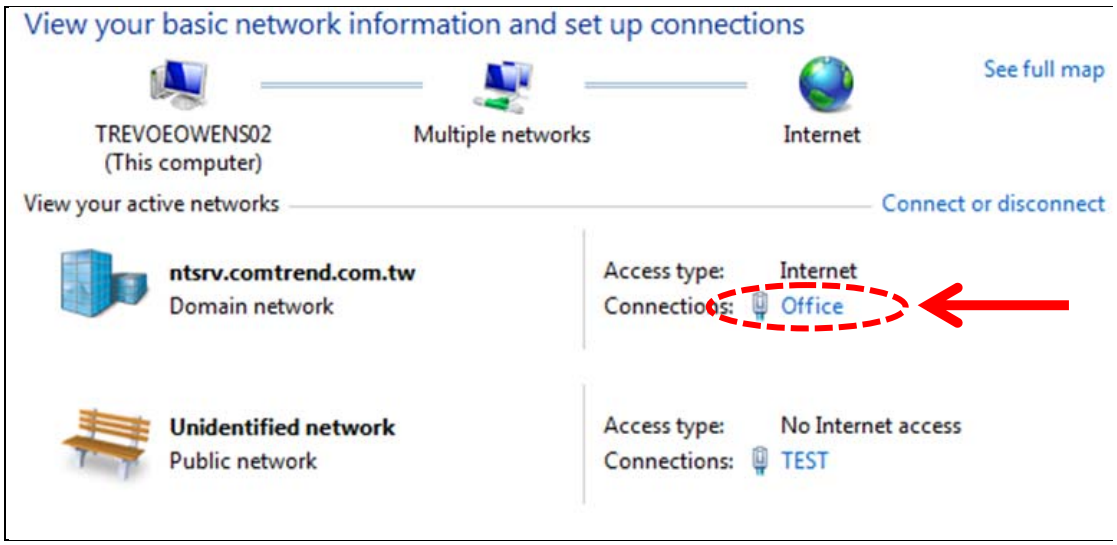
Wireless 2.4G Configuration	
ESSID	don5G
Channel Number	11
Security	WPA-shared key
BSSID(MAC)	74:da:38:73:0d:9e
Associated Clients	0 Show Active Clients
State	Disconnection
Wireless 5G Configuration	
ESSID	don5G
Channel Number	149
Security	WPA-shared key
BSSID(MAC)	74:da:38:73:0d:9f
Associated Clients	0 Show Active Clients
State	Connected

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

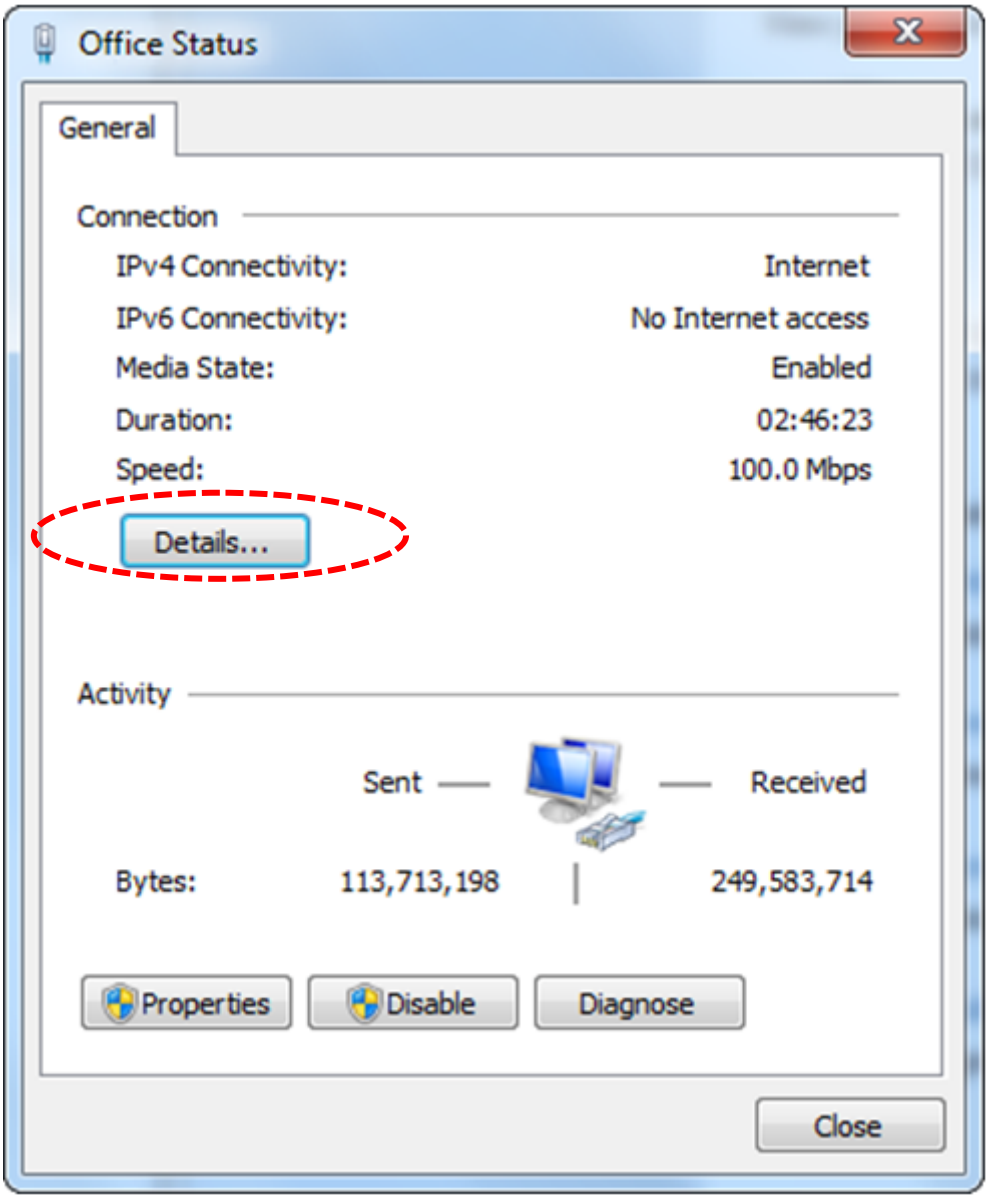
If you still can't identify the MAC address of your computer, you can follow this procedure:

Go to your computer's Control Panel, Then click 'Network and Sharing Center'.

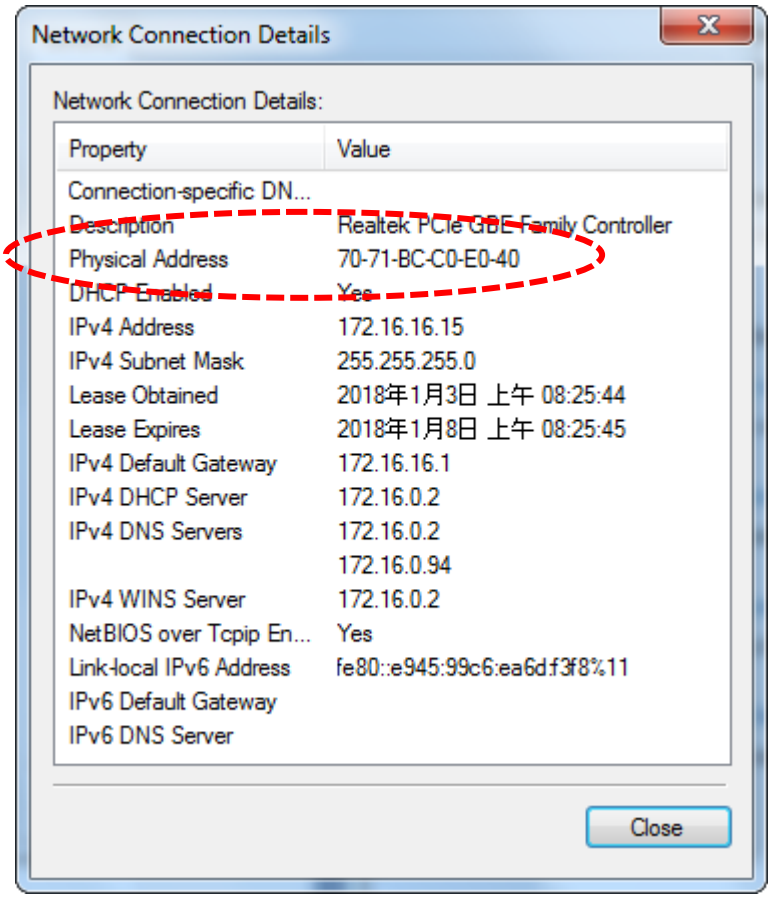
Click the connection that will be used to connect the Wireless Mesh Point (in this example, 'ofiice):



Click the 'Details…' button.



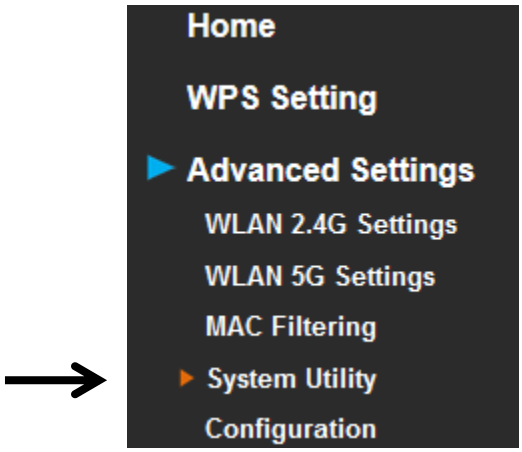
The MAC address of the selected network connection will be displayed here as 'Physical Address'.


Network Connection Details
Network Connection Details:
Property
Value
Connection-specific DN...
Description
Realtek PCIe GBE Family Controller
Physical Address
70-71-BC-C0-E0-40
DHCP Enabled
Yes
IPv4 Address
172.16.16.15
IPv4 Subnet Mask
255.255.255.0
Lease Obtained
2018年1月3日 上午 08:25:44
Lease Expires
2018年1月8日 上午 08:25:45
IPv4 Default Gateway
172.16.16.1
IPv4 DHCP Server
172.16.0.2
IPv4 DNS Servers
172.16.0.2
172.16.0.94
IPv4 WINS Server
172.16.0.2
NetBIOS over Tcpip En...
Yes
Link-local IPv6 Address
fe80::e945:99c6:ea6d:f3f8%11
IPv6 Default Gateway
IPv6 DNS Server
Close

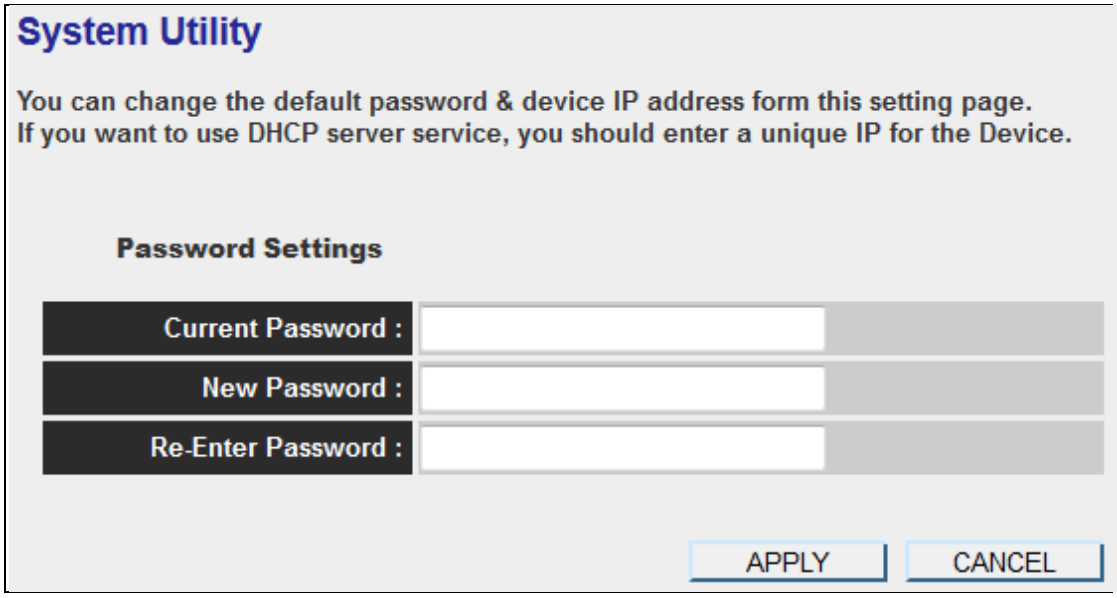
3.2.9 System Utility

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.



The following setup page will appear:



The description of every setup item is listed as follows:

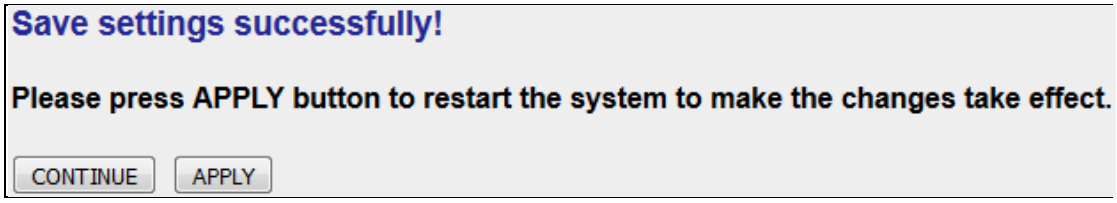
Password Settings

The default password of this Wireless Mesh Point 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:

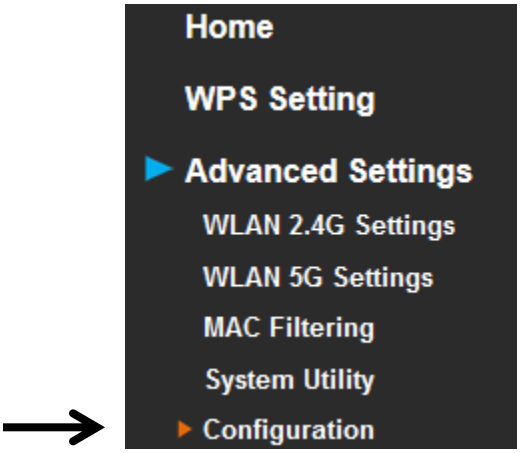


If you still need to configure this Wireless Mesh Point, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button. You'll be prompted to wait for 50 seconds before you can reconnect to this Wireless Mesh Point.

3.2.10 Configuration

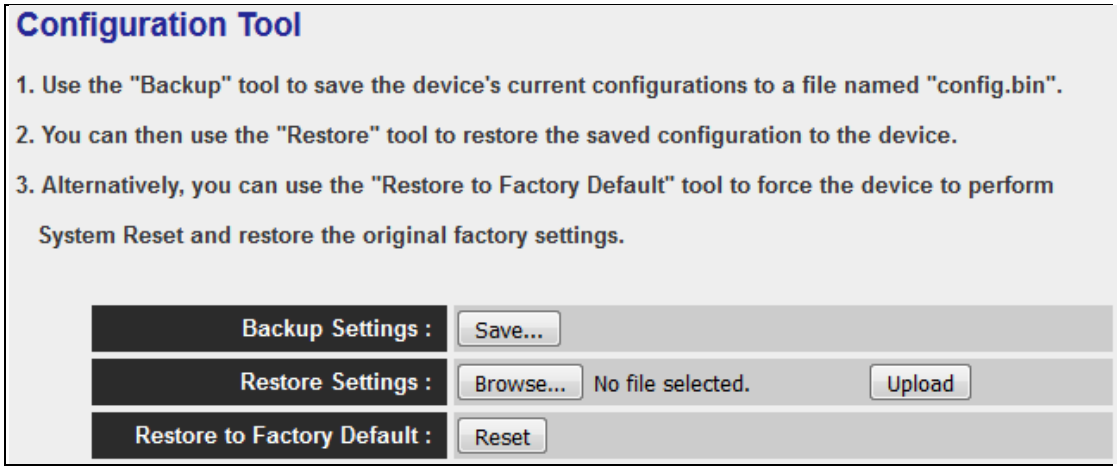
You can backup and restore the configuration of this Wireless Mesh Point, so you can recall all settings, without the need to reconfigure again. This function is especially useful when you need to use this mini Wi-Fi Mesh Point in different places, like your home and hotels.

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

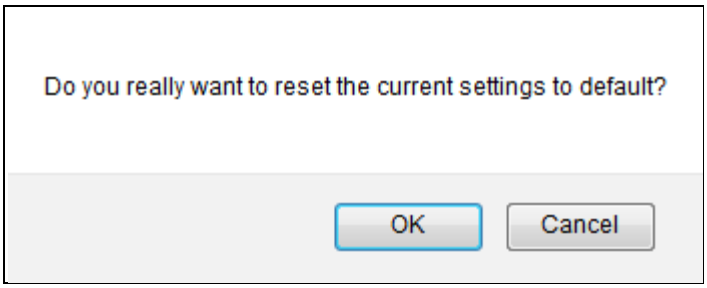


3.2.10.1 Configuration Tool

The following setup page will appear:



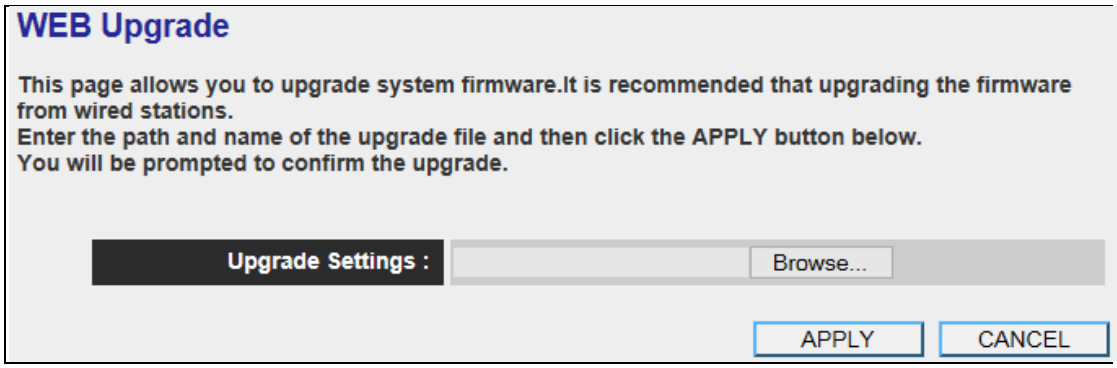
The description of every setup item is listed as follows:

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 Mesh Point, 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 Default	To reset all settings of this Wireless Mesh Point to factory defaults, including the password. You'll be prompted to confirm the settings reset:  Click 'OK' if you really want to restore all settings, or click 'Cancel' to abort.

3.2.10.2 WEB Upgrade

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



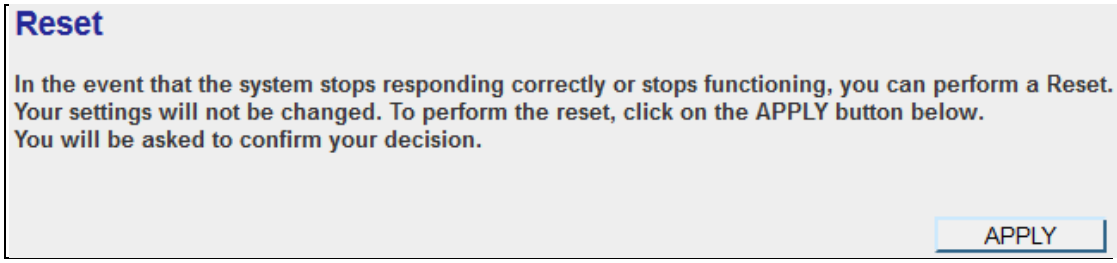
The description of every setup item is listed as follows:

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

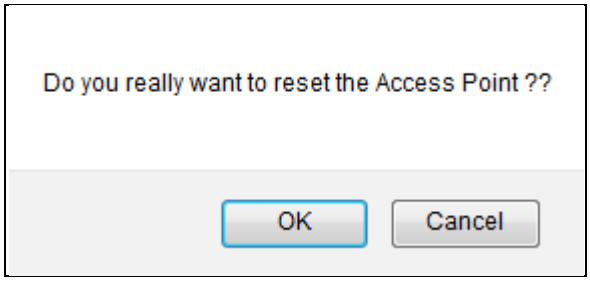
When you are ready, click the 'Apply' button to start the firmware upgrade procedure.

3.2.10.3 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 Wireless Mesh Point, while resetting the device to defaults will erase all configuration settings.



To reset this Wireless Mesh Point, click the 'Apply' button. You'll be prompted to confirm the reset:



Click the 'OK' button to reset the Wireless Mesh Point, or click 'Cancel' to abort.

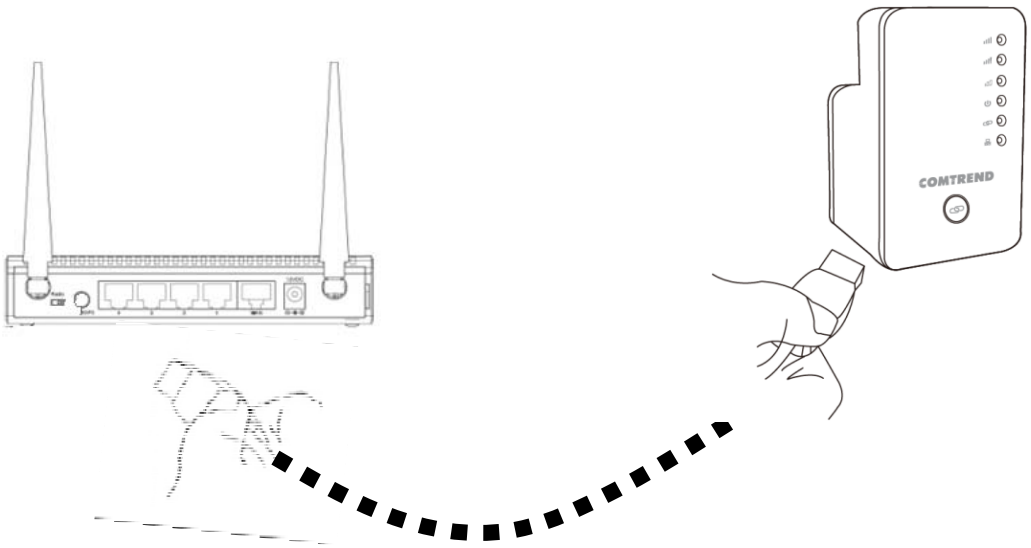
Chapter 4 AP Mode

You can build a wireless networking environment for the home or small office. 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

1. Connect this access point to an ADSL/VDSL modem, wired router, or switch/hub in your network through the LAN port of the access point by Ethernet cable.



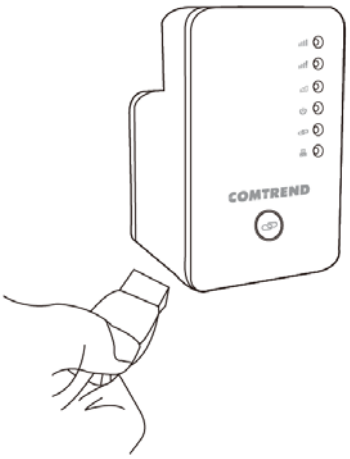
The quick installation setup is complete, you can refer to '4.2 AP mode Advanced Settings' to login to the web user interface for other advanced

settings.

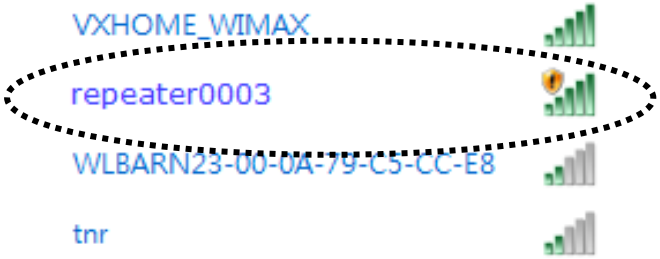
4.1.2 Web browser quick setup

Before you can connect to the Wireless Mesh Point 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 6: 6.1 Configuring TCP/IP on PC*' to set your computer to use a dynamic IP address.

1. Use an Ethernet cable to connect your computer's Ethernet port and Wireless Mesh Point'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 Wireless Mesh Point 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.)

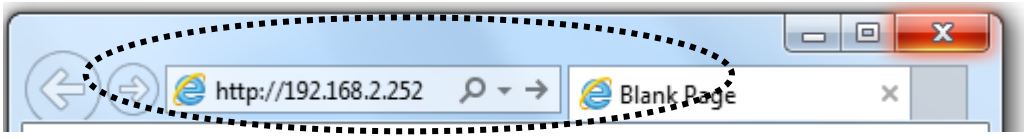


NOTE: this default SSID 'repeater0003" is for reference, different devices may have different last 4 digits.

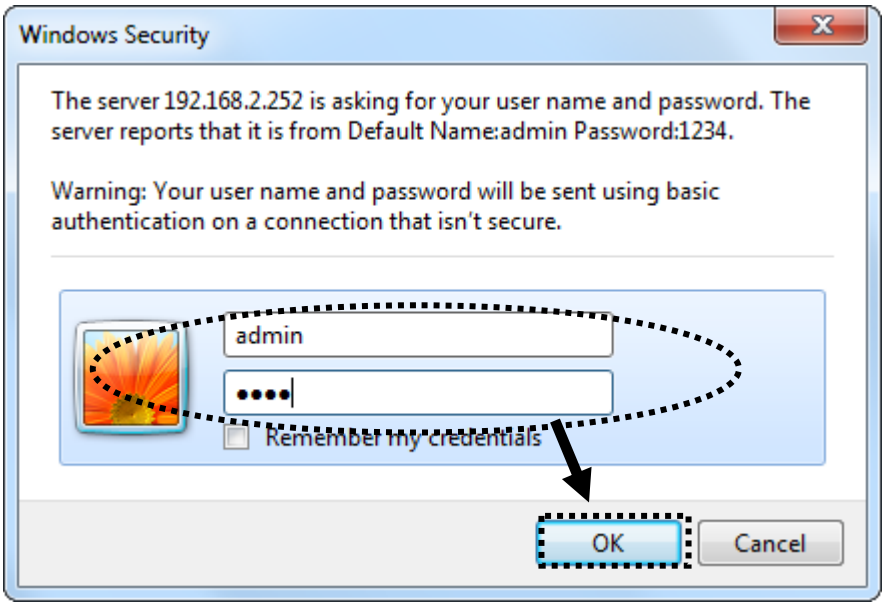
If you are using a wireless connection in Windows Operating System and encountered the following screen, please click "Connect the network without setting it up" then you can successfully link to the Wireless Mesh Point. Do NOT click "OK ".

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

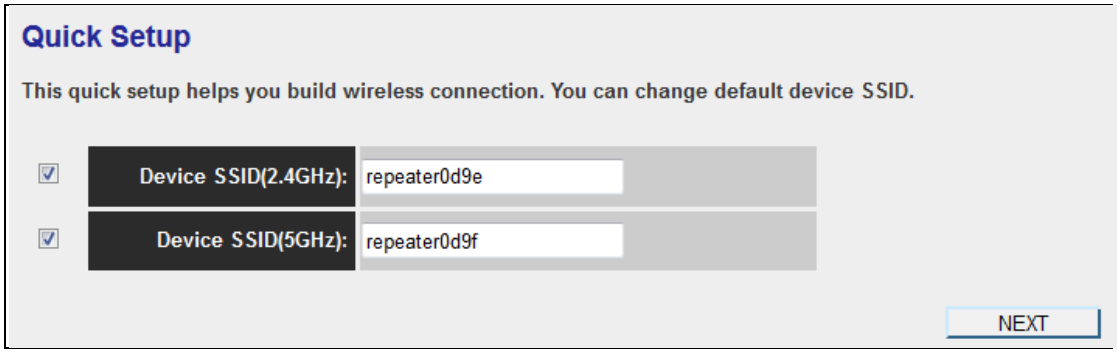
2. Open your web browser, it will redirect to the web user interface setting page. (or you can input the default IP address *http://192.168.2.252* in the address bar)



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

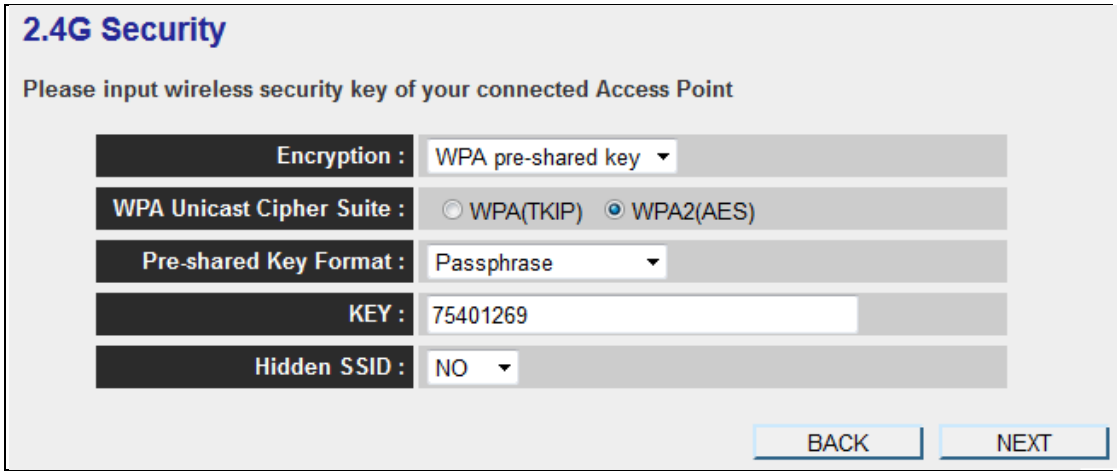


4. Please input an SSID (a name used to identify this access point) in the 'Device SSID(2.4GHz)' and 'Device SSID(5GHz)' field, then click the 'Next' button. The default SSID is repeaterxxxx, you can change this default SSID if you want.

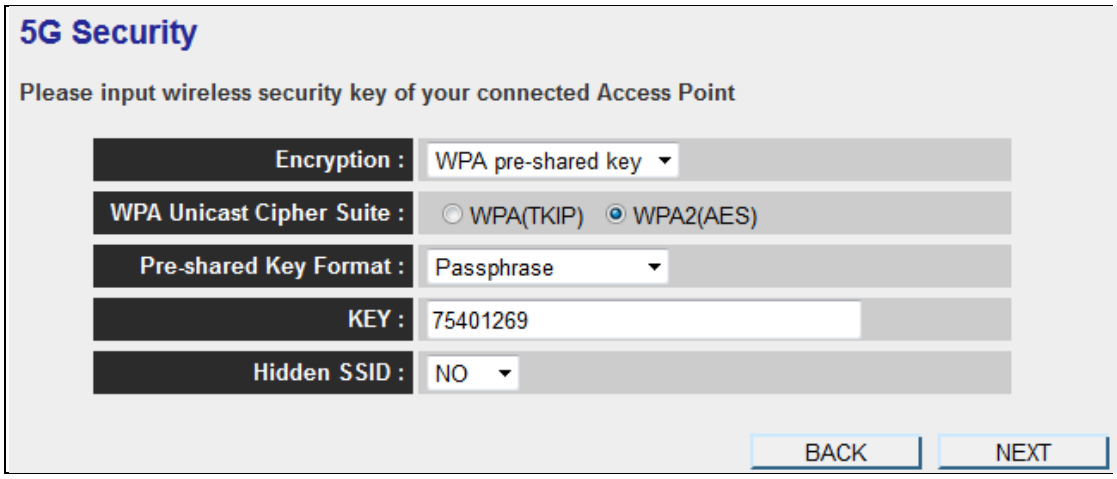


5. Select security type of the wireless link to include 2.4Ghz and 5Ghz : Encryption: Disable (no security), WEP, WPA pre-shared key, or WPA RADIUS.

2.4GHz Wireless



5GHz Wireless

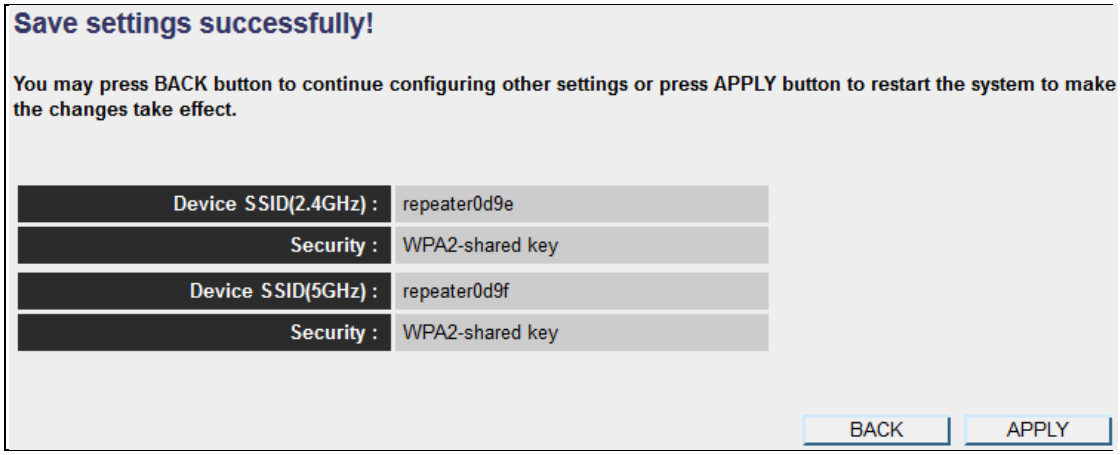


Note: WEP encryption: Select key length (64 or 128bit), key format (Hex or ASCII characters), Default Tx Key (usually use 'Key 1'), and input key characters (refer to 'Key Format' you selected for number of characters).

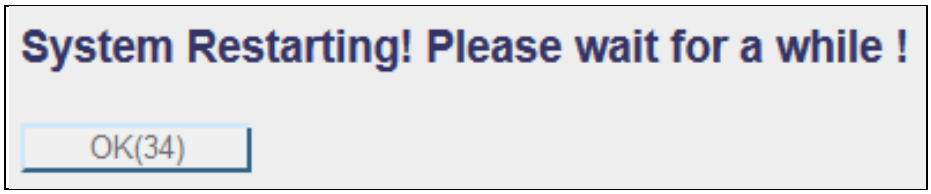
WPA pre-shared key: Select one WPA Unicast Cipher Suite (usually use default setting 'WPA(TKIP)'), Pre-shared Key Format: Passphrase (alphanumeric characters) or Hex (64 Hex Characters), and input key characters in the 'KEY' field.

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.

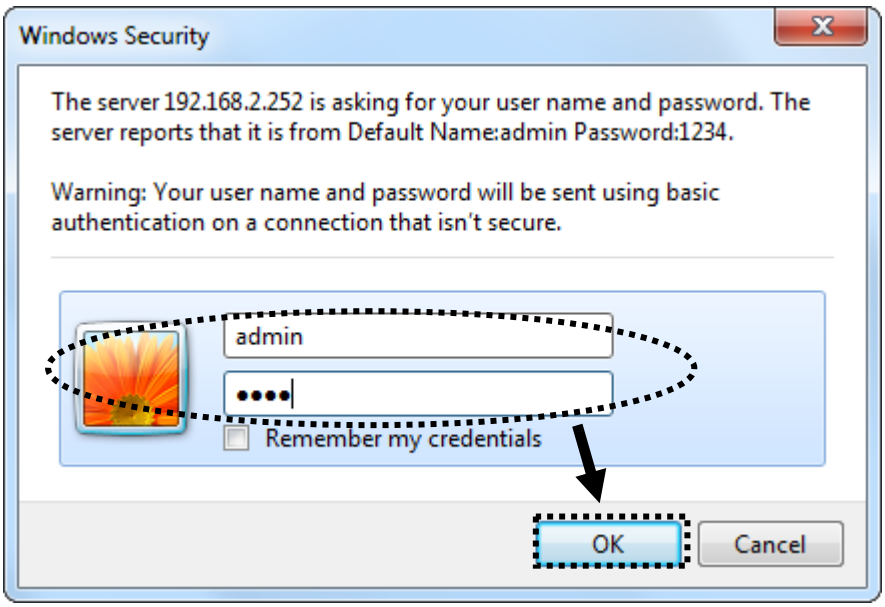
NOTE: After quick installation is successful and you want to login to the web user interface of the Wireless Mesh Point, please refer to '4.2 AP mode Advanced Settings' for more functions or learn how to login to the web user interface again.

4.2 AP Mode Advanced Settings

4.2.1 Connect to web configuration menu

11. Please open your web browser (IE, Firefox, Chrome etc.) and input ***'http:/ 192.168.2.252*** in the address bar, then press the ENTER key:

The Wireless Mesh Point will prompt you to input the username and password. The default username is '**admin**' and password is '**1234**'. Click the 'OK' button to continue.



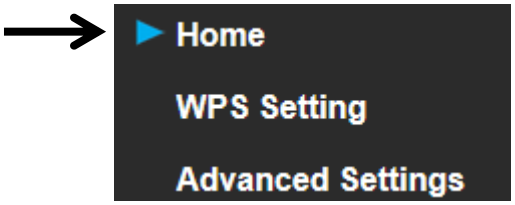
You should be able to see the configuration page of this Access Point mode in a very short time:

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:0m:34s
Hardware Version	Rev. A
Runtime Code Version	v1.03
Mode	Access Point
Wireless 2.4G Configuration	
ESSID	repeater0d9e
Channel Number	11
Security	WPA-shared key
BSSID(MAC)	74:da:38:73:0d:9e
Associated Clients	0 Show Active Clients
Wireless 5G Configuration	
ESSID	repeater0d9f
Channel Number	149
Security	WPA-shared key
BSSID(MAC)	74:da:38:73:0d:9f
Associated Clients	0 Show Active Clients
LAN Configuration	
IP Address	192.168.2.100
Subnet Mask	255.255.255.0
Default Gateway	192.168.2.1
MAC Address	74:da:38:73:0d:9e

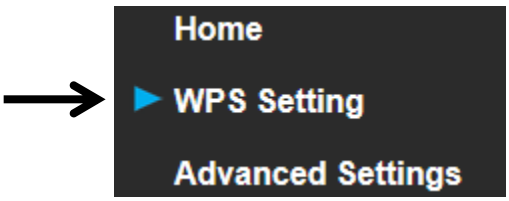
You can click the 'Show Active Clients' button to show all connected wireless clients.

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.

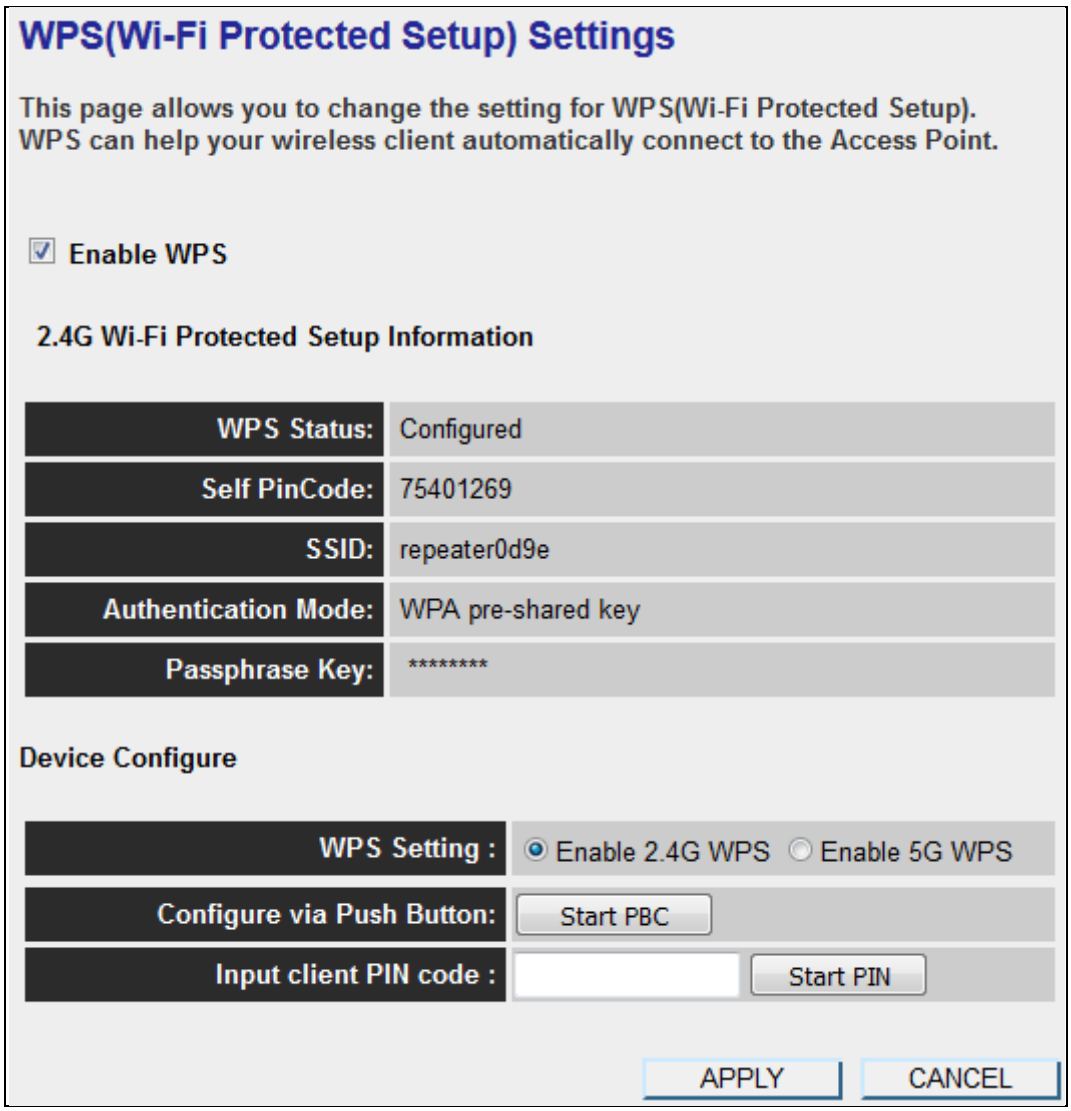
4.2.3 WPS Setting

You can configure WPS (Wi-Fi Protected Setup) here. By using WPS, you can establish a secure connection between this Wireless Mesh Point 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.



The following setup page will appear:



The description of every setup item is listed as follows:

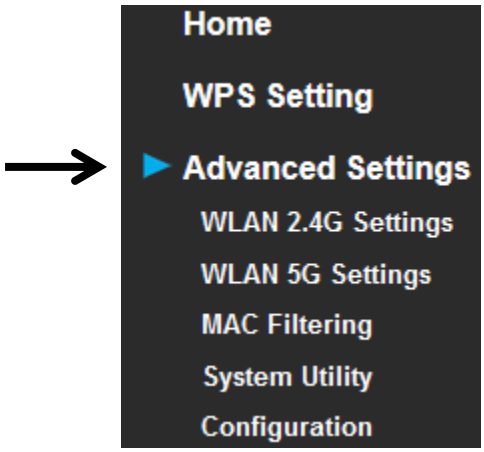
Item	Description
WPS Status	Shows the security setting status of WPS. If the wireless security (encryption) function of this device is properly set, you'll see the 'Configured' message here. If the wireless security function has not been set, you'll see 'unConfigured'.
Self PinCode	This displays an 8-digit number for WPS PIN-style configuration. When another WPS-compatible device wishes to connect to this Wireless Mesh Point and supports Self-PIN type WPS, input this number to the wireless device to establish connection.
SSID	Shows the SSID of this Wireless Mesh Point.
Authentication Mode	Shows the authentication mode of this Wireless Mesh Point.
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 Mesh Point will wait for WPS requests from another wireless device for 2 minutes. The 'WPS' LED on the Wireless Mesh Point will be blinking for 2 minutes when this Wireless Mesh Point 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 Mesh Point will be blinking when this Wireless Mesh Point 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.

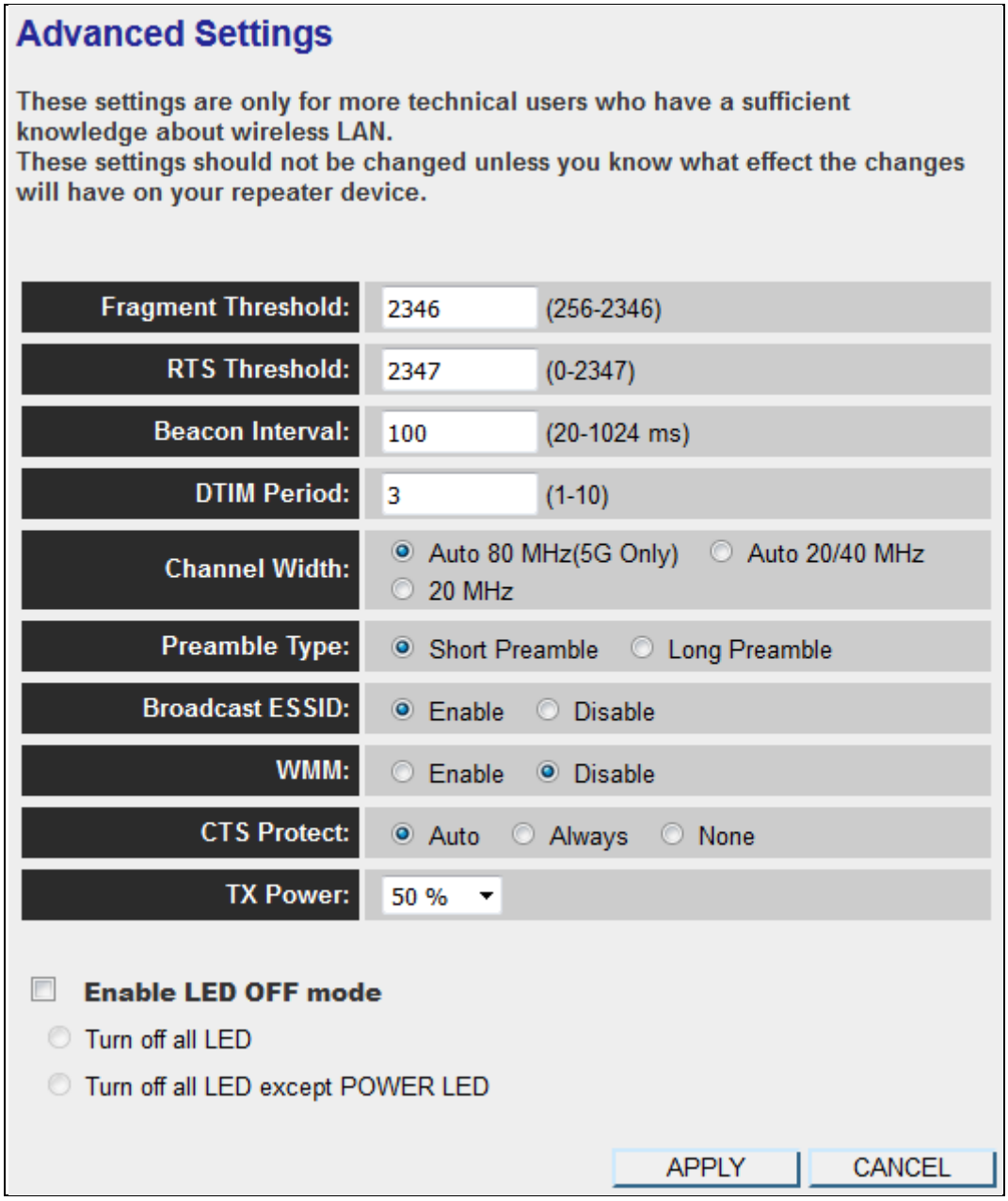
4.2.4 Advanced Settings

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.



The following setup page will appear:

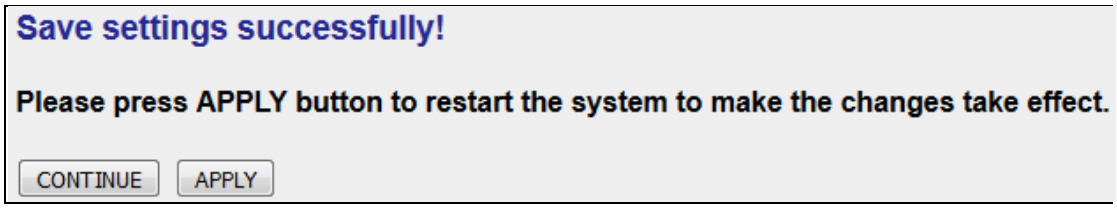


The description of every setup item is listed as follows:

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.

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 Mesh Point; when set to 'disabled', only wireless clients who know the exact SSID can get connected with this wireless Mesh Point. Set to disabled will help to improve security.
WMM	Enable or disable Wireless Multi-Media. When enabled, the Wireless Mesh Point 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 Mesh Point, 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:



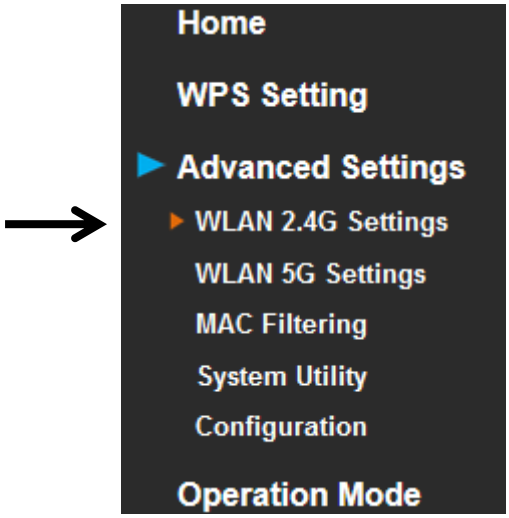
If you still need to configure this Wireless Mesh Point, click the 'CONTINUE' button; if you want to save the changes and use it now, click the 'APPLY' button.

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

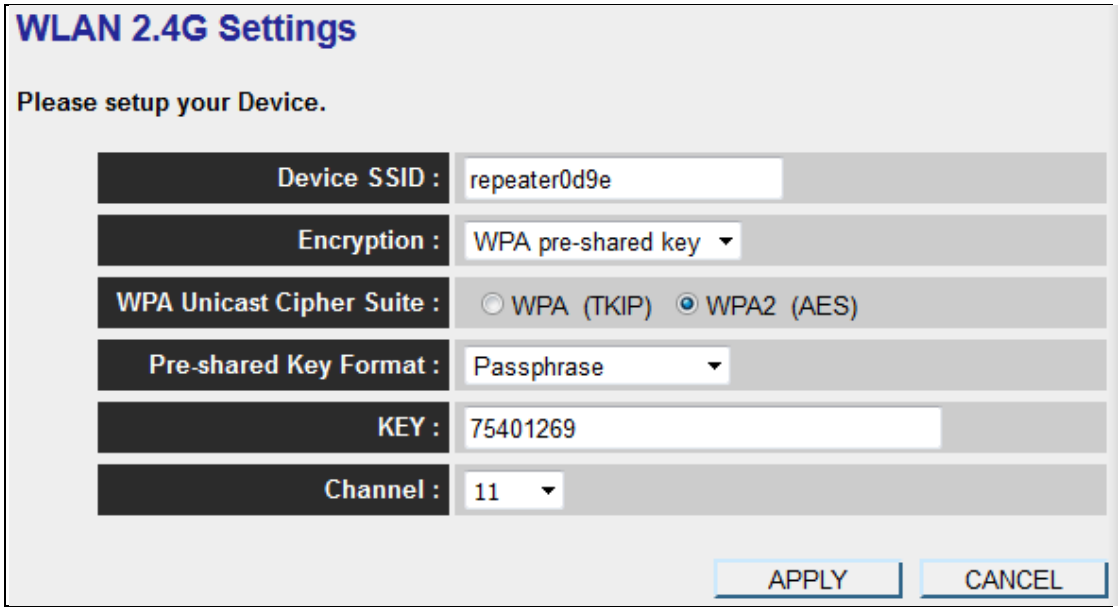
After the countdown click the 'OK!' button.

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:



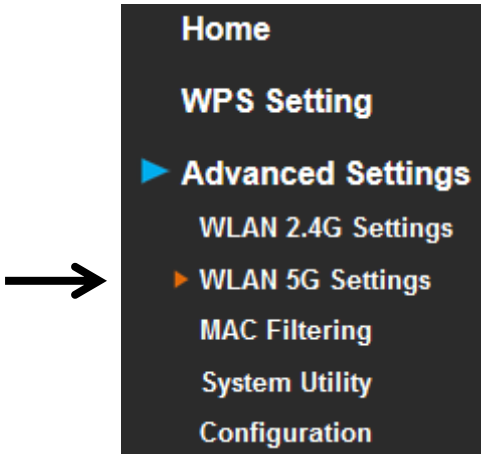
Please Note: If your Wireless Mesh Point is working properly, please do not change the settings here.

The description of every setup item is listed as follows:

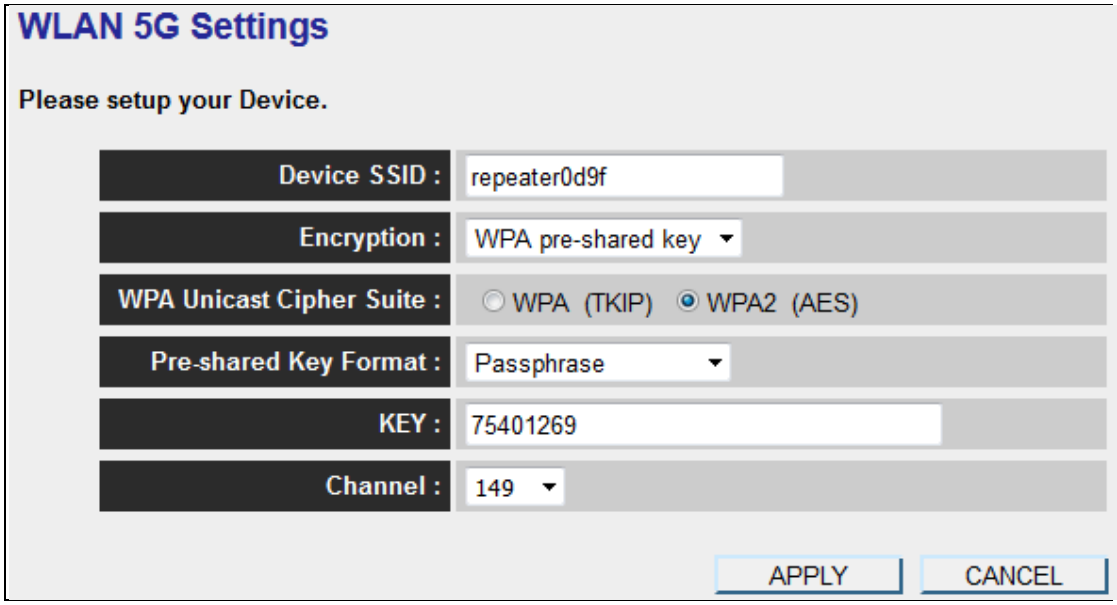
Item	Description
Device SSID	This is the current SSID name of the Wireless Mesh Point. The SSID is used to identify your own Wireless Mesh Point from others when there are other wireless devices in the same area. You can type any alphanumerical characters to change SSID here, maximum 32 characters.
Encryption	This is the current security setup of the Wireless Mesh Point. You can select an encryption method from the drop-down menu, there are three options.
WPA Unicast Cipher Suite	This is the current security setup of the Wireless Mesh Point. Please 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 Wireless Mesh Point. 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 Wireless Mesh Point. 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 Wireless Mesh Point.

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 Wireless Mesh Point is working properly, please do not change the settings here.

The description of every setup item is listed as follows:

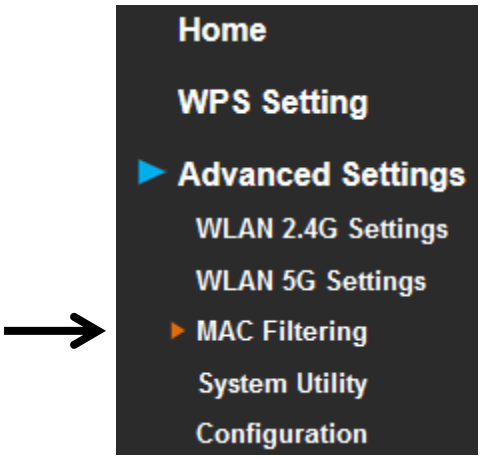
Item	Description
Device SSID	This is the current SSID name of the Wireless Mesh Point. The SSID is used to identify your own Wireless Mesh Point from others when there are other wireless devices in the same area. You can type any alphanumerical characters to change the SSID here, maximum 32 characters.
Encryption	This is the current security setup of the Wireless Mesh Point. You can select an encryption method from the drop-down menu, there are three options.
WPA Unicast Cipher Suite	This is the current security setup of the Wireless Mesh Point. Please 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 Wireless Mesh Point. 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 Wireless Mesh Point. 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 Wireless Mesh Point.

4.2.7 MAC Address Filtering

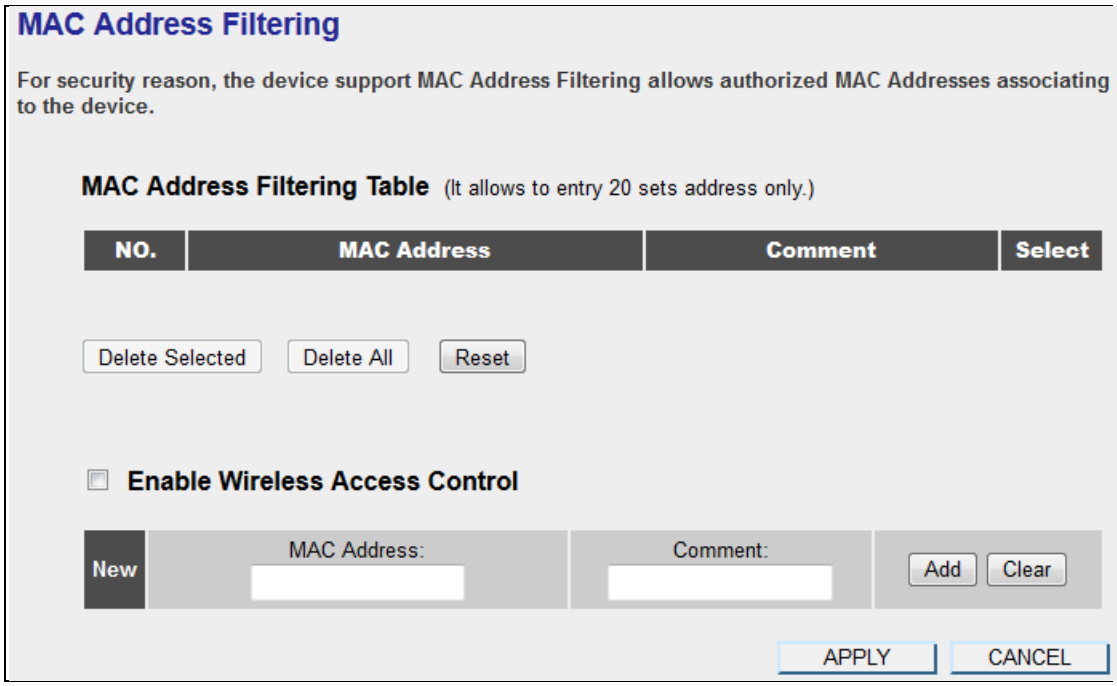
Besides using wireless security to only allow permitted wireless users to use this wireless access point, you can also use the MAC address filter to allow wireless users with certain MAC addresses to use this access point.

This will enhance security because you can make a 'white list' to allow users on the list to use this Wireless Mesh Point. 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.



The following setup page will appear:

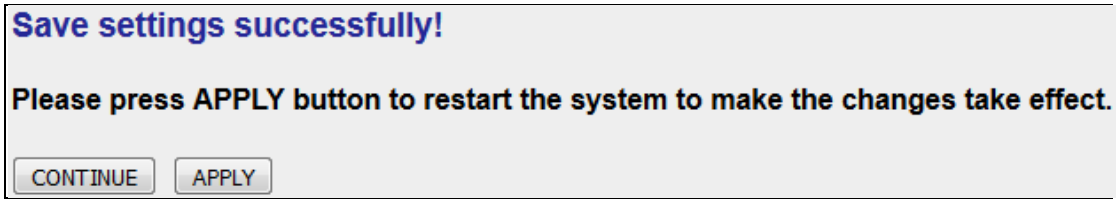


The description of every setup item is listed as follows:

Item	Description
Enable Wireless Access Control	Check this box to enable MAC filtering. If you don't check 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:



If you still need to configure this Wireless Mesh Point, 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 Mesh Point already, you can click the 'Show Active Clients' button on the 'Home' setting page.

Wireless 2.4G Configuration	
ESSID	repeater0d9e
Channel Number	11
Security	WPA-shared key
BSSID(MAC)	74:da:38:73:0d:9e
Associated Clients	0 Show Active Clients
Wireless 5G Configuration	
ESSID	repeater0d9f
Channel Number	149
Security	WPA-shared key
BSSID(MAC)	74:da:38:73:0d:9f
Associated Clients	0 Show Active Clients

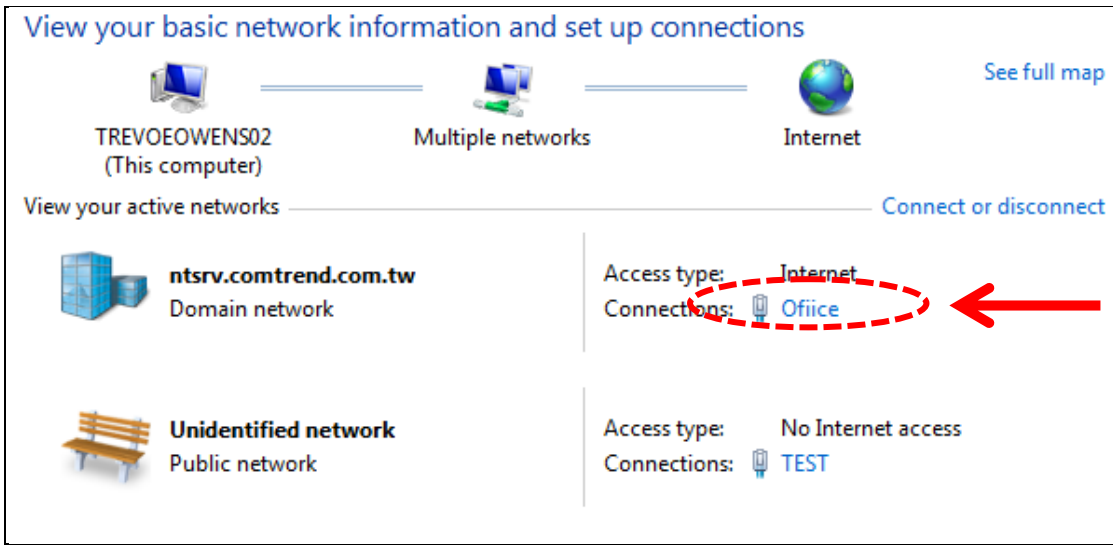
Their MAC address will be displayed in the 'MAC Address' field.

4.2.8 How to know the MAC address of your device

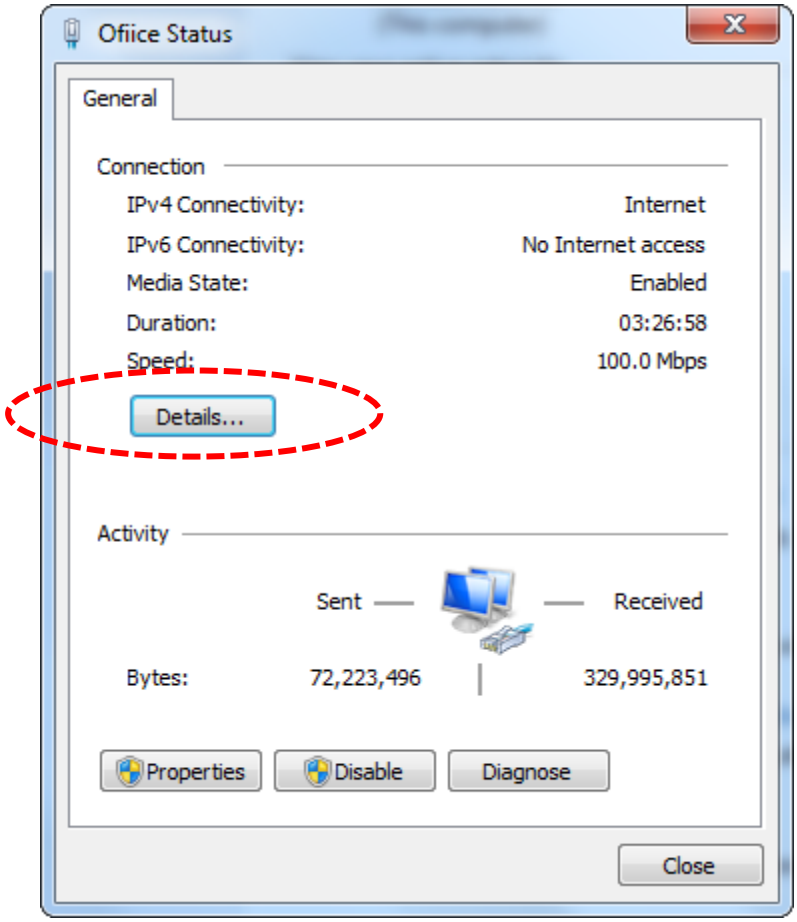
If you still can't identify the MAC address of your computer, you can follow this procedure:

Go to your computer's Control Panel, Then click 'Network and Sharing Center'.

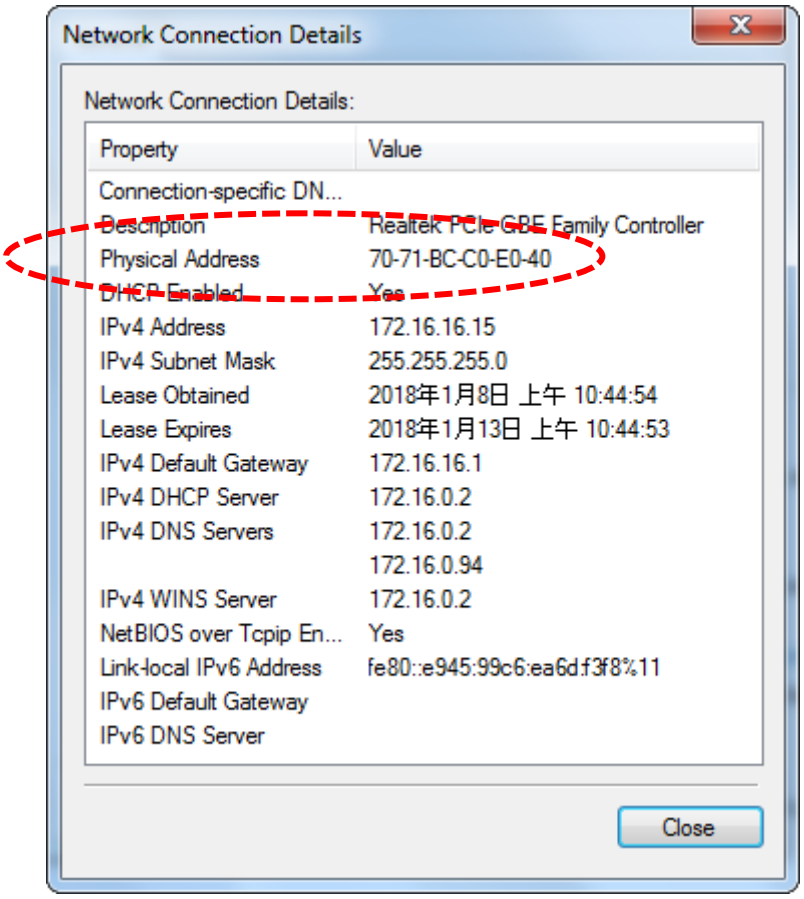
Click the connection that will be used to connect the wireless AP (in this example, 'Local Area Connection'):



Click the 'Details…' button.



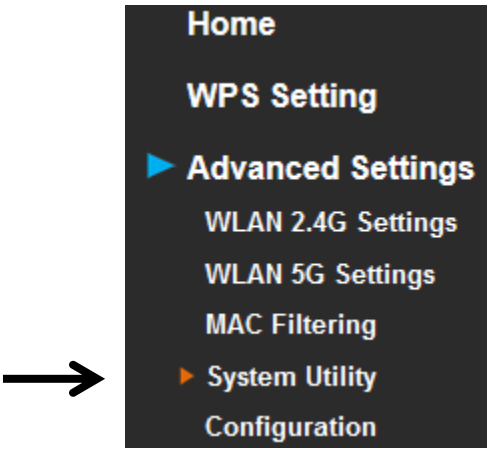
The MAC address of selected network connection will be displayed here as 'Physical Address'.


Network Connection Details
Network Connection Details:
Property
Value
Connection-specific DN...
Description
Realtek PCIe GBE Family Controller
Physical Address
70-71-BC-C0-E0-40
DHCP Enabled
Yes
IPv4 Address
172.16.16.15
IPv4 Subnet Mask
255.255.255.0
Lease Obtained
2018年1月8日 上午 10:44:54
Lease Expires
2018年1月13日 上午 10:44:53
IPv4 Default Gateway
172.16.16.1
IPv4 DHCP Server
172.16.0.2
IPv4 DNS Servers
172.16.0.2
172.16.0.94
IPv4 WINS Server
172.16.0.2
NetBIOS over Tcpip En...
Yes
Link-local IPv6 Address
fe80::e945:99c6:ea6d:f3f8%11
IPv6 Default Gateway
IPv6 DNS Server
Close

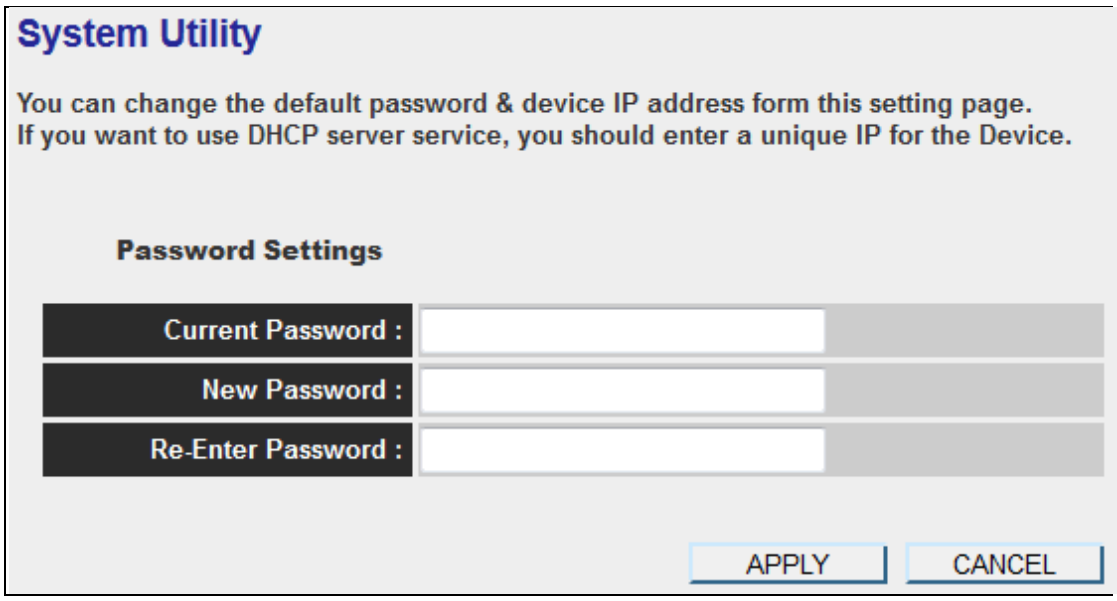
4.2.9 System Utility

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.



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 Wireless Mesh Point 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.

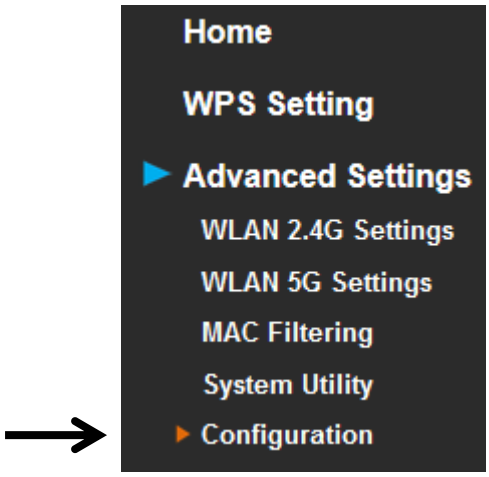
Here are descriptions of every setup item:

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.

4.2.10 Configuration

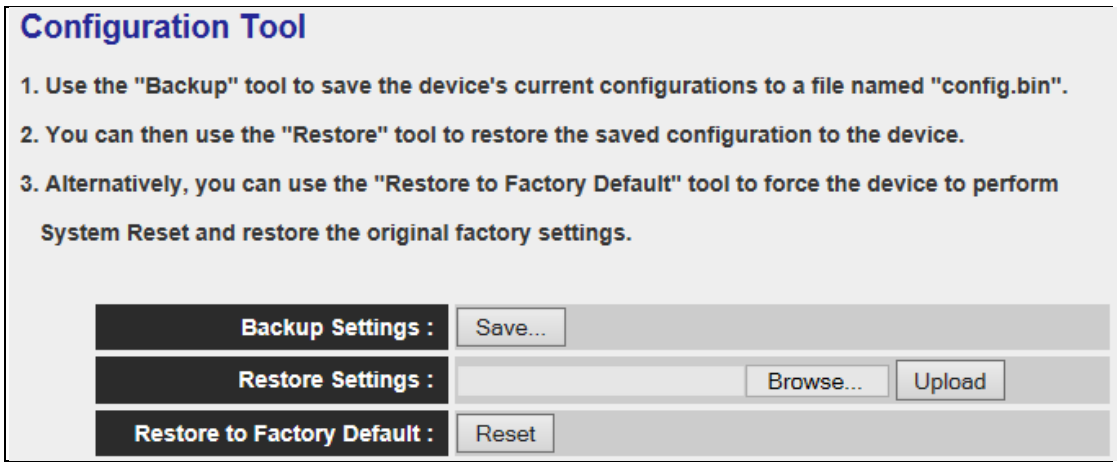
You can backup and restore the configuration of this access point, so you can recall all settings, without the needing to reconfigure again.
This function is especially useful when you need to use this mini Wi-Fi AP in different places, like your home and hotels.

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

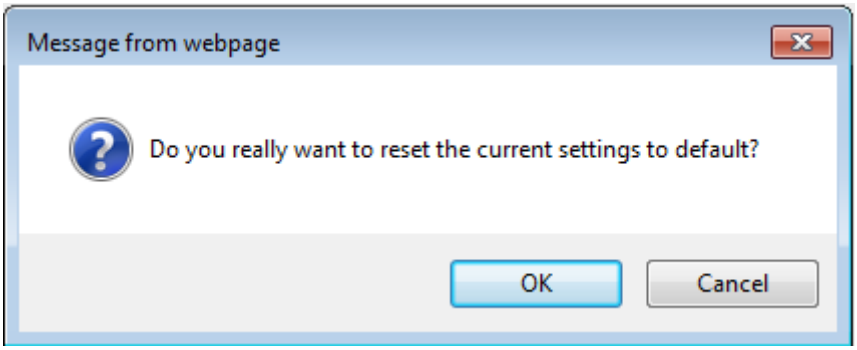


4.2.10.1 Configuration Tool

The following setup page will appear:



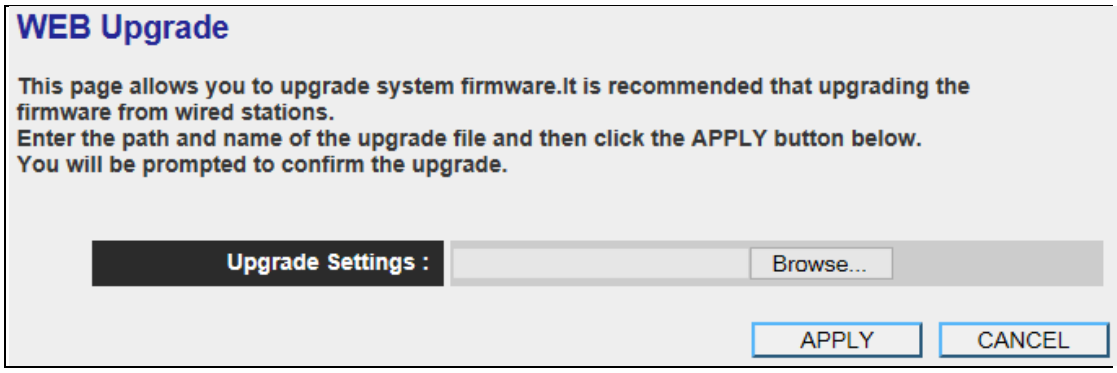
The description of every setup item is listed as follows:

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 Default	To reset all settings of this device to factory defaults, including the password. You'll be prompted to confirm the settings reset:  Click 'OK' if you really want to restore all settings, or click 'Cancel' to abort.

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.



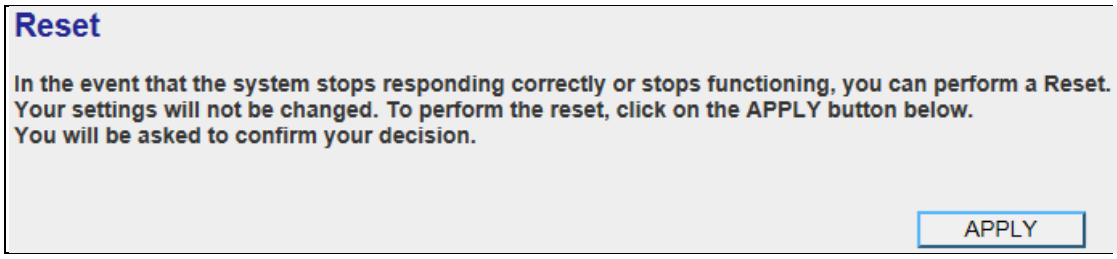
The description of every setup item is listed as follows:

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

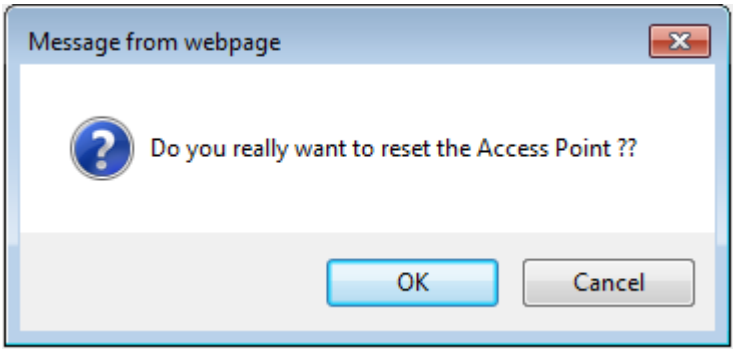
When you are ready, click the 'Apply' button to start the firmware upgrade procedure.

4.2.10.3 Reset

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



To reset this Wireless Mesh Point, click the 'Apply' button. You'll be prompted to confirm the reset:



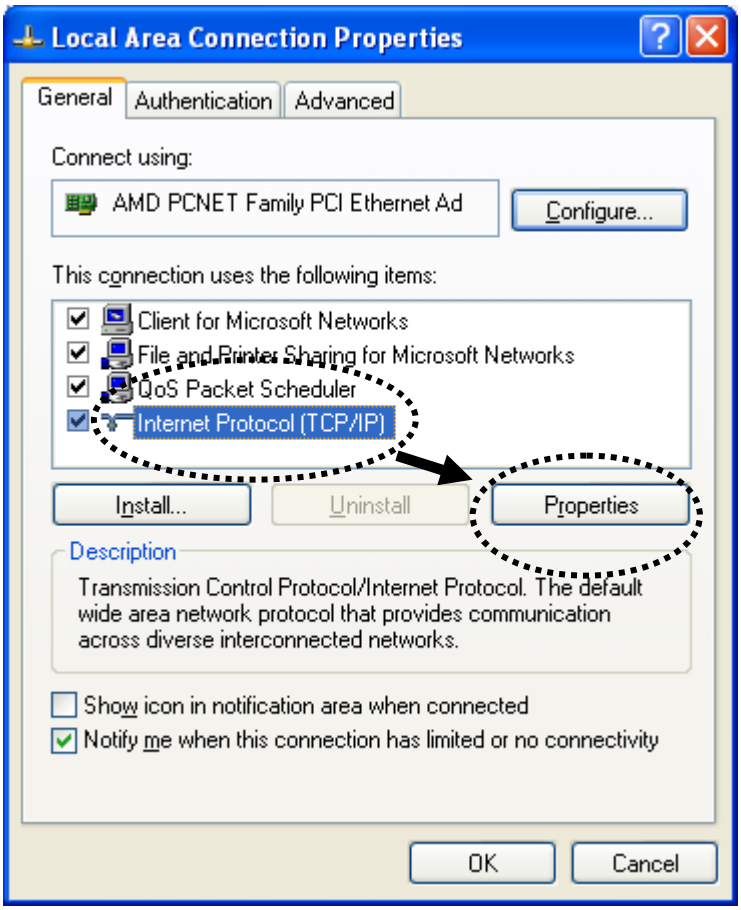
Click the 'OK' button to reset the Wireless Mesh Point, or click 'Cancel' to abort.

Chapter 5 Appendix

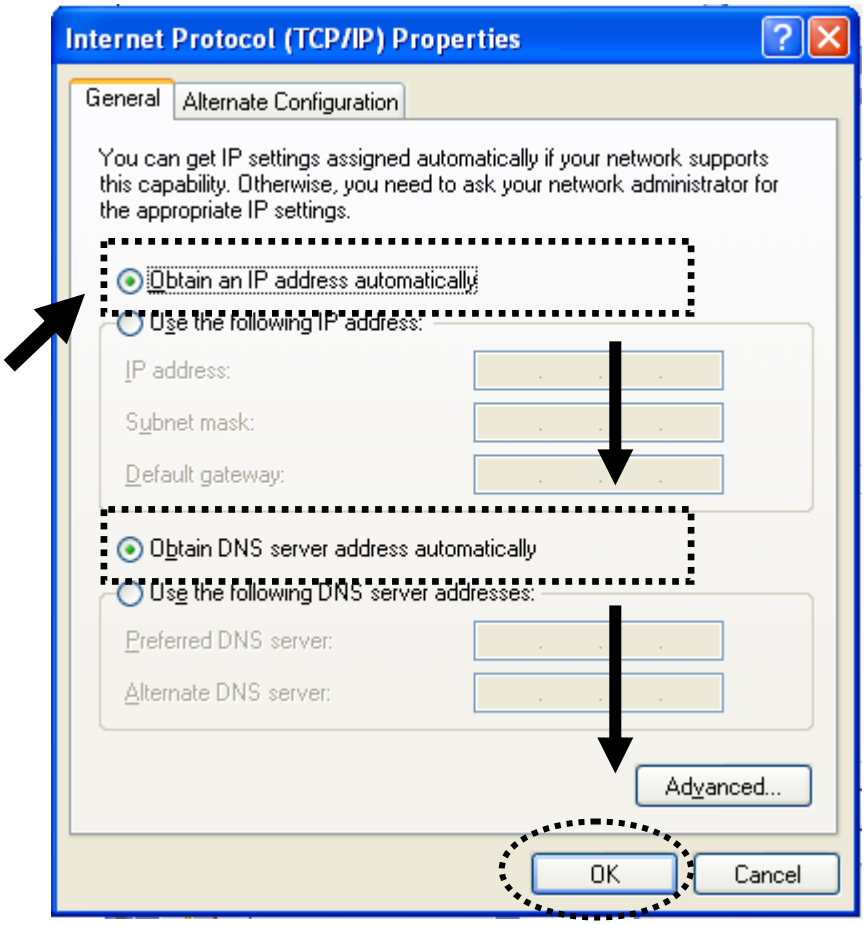
5.1 Configuring TCP / IP on PC

5.1.1 Windows XP IP address setup:

1. 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.

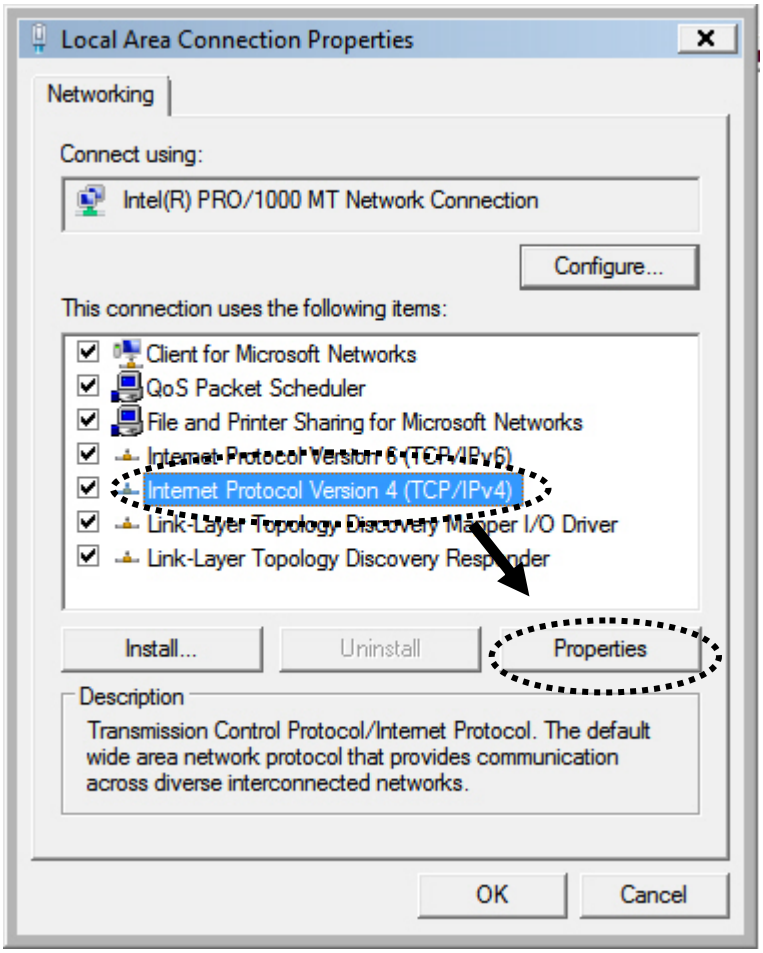


2. Select 'Obtain an IP address automatically' and 'Obtain DNS server address automatically', then click the 'OK' button.

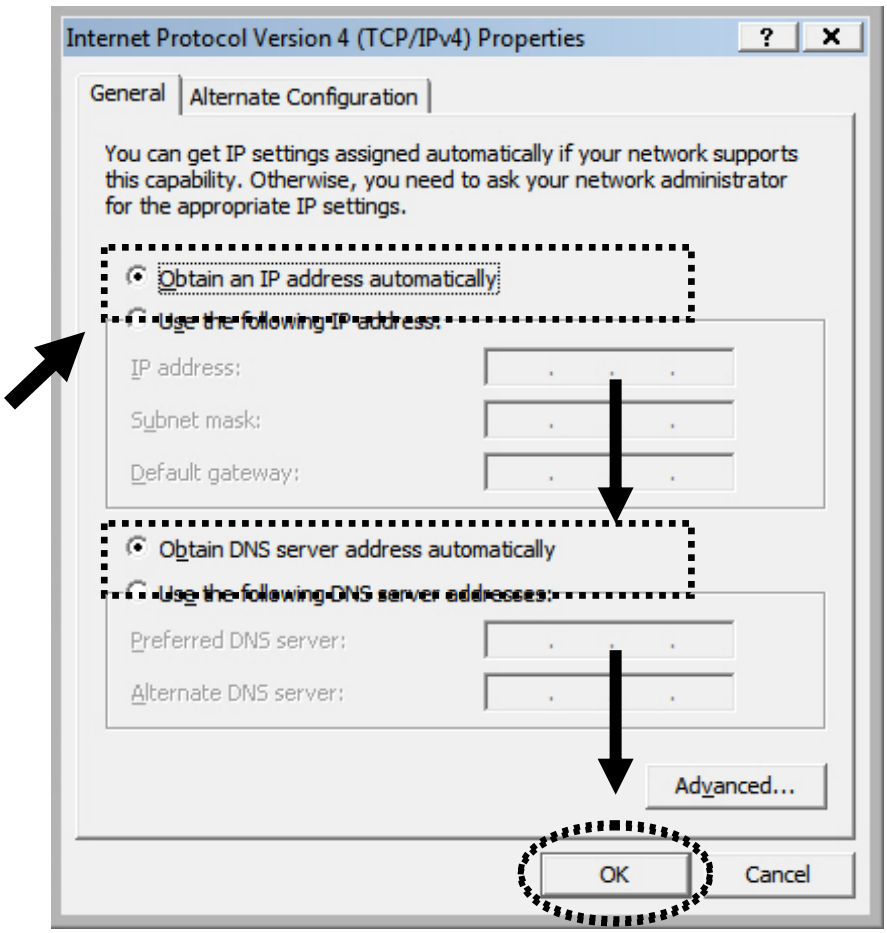


5.1.2 Windows Vista / Windows 7 IP address setup:

1. 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.


Internet Protocol Version 4 (TCP/IPv4) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel