

EW-7416APn v2 & EW-7415PDn





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I. Product Information

Thank you for purchasing an Edimax EW-7416APn V2/EW-7415PDn wireless access point. This product provides wireless access to an existing wired Ethernet network, at speeds of up to 300Mbps for 802.11n compatible wireless devices.

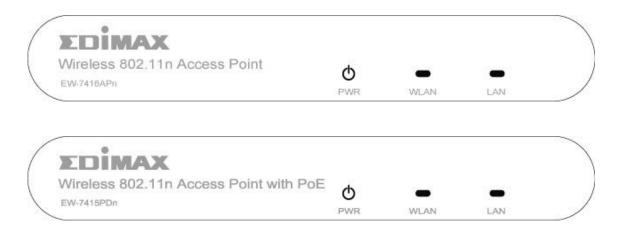
I-1. Package Contents

Before you start using the access point, please check if there is anything missing from the package, and contact your dealer to claim the missing item(s):

- Wireless access point x 1
- CD (EZmax Setup Wizard, Multi-language Quick Installation Guide and User Manual) x 1
- Power adapter x 1
- 3dBi antenna x 2
- Accessory kit x 1
- Quick installation guide x 1

I-2. Description

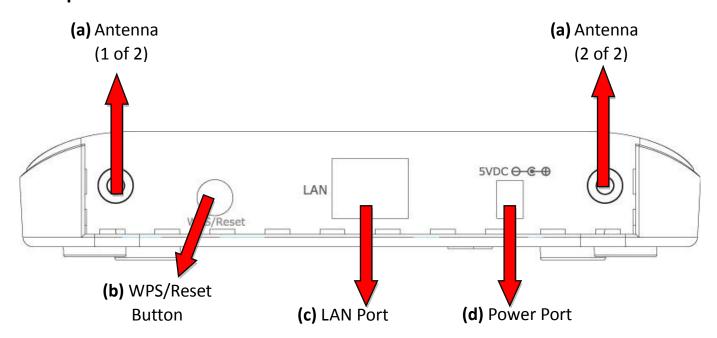
Front panel



Item	Color	Status	Description
PWR		On	Device is powered.
	Green	Flashing	Device is booting up/resetting.
(Power)		Off	Device is not powered.
WLAN	Orange	On	WPS mode is enabled.

(Wireless LAN)		Flashing	Data is being transmitted wirelessly.
		Off	Data is not being transmitted wirelessly.
LANI		On	Ethernet port is connected to a valid device.
LAN	Green	Flashing	Data is being transmitted through the Ethernet cable.
		Off	No valid connection.

Back panel



a. Antenna Connector

This is where you connect the antennas. It is a round connector (standard reverse SMA).

b. WPS/Reset Button

Press this button for less than 5 seconds to activate the WPS function. Press and hold this button for 10 seconds, until the PWR LED starts flashing, to reset the access point to factory default settings.

c. LAN Port

Connects this access point to other Ethernet devices (switches, routers or other wired network devices) – for the EW-7415PDn this is where you connect the access point to a PoE switch.

d. 5V DC

This is where you connect the power adapter.

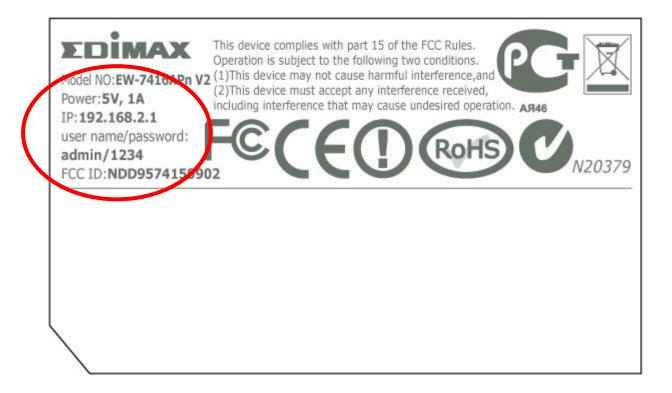


Note: If you are using the EW-7415PDn with a PoE switch, you **do not** need to connect the power adapter.

Product Label

The product label on the underside of the device displays the default IP address, username and password of the access point.

50x30mm



I-3. Safety Information

In order to ensure the safe operation of the access point and its users, please read and act in accordance with the following safety instructions.

- 1. The access point is designed for indoor use only; do not place the access point outdoors.
- 2. Do not place the access point in or near hot/humid places, such as a kitchen or bathroom.
- 3. Do not pull any connected cable with force; carefully disconnect it from the access point.
- 4. Take care when moving and handling the access point; accidental damage is not covered by the access point's warranty.
- 5. The device contains small parts which are a danger to small children under 3 years old. Please keep the access point out of reach of children.
- 6. Do not place the access point on paper, cloth, or other flammable materials. The access point will become hot during use.
- 7. There are no user-serviceable parts inside the access point. If you experience problems with the access point, please contact your dealer of purchase and ask for help.
- 8. The access point is an electrical device and as such, if it becomes wet for any reason, do not attempt to touch it without switching the power supply off. Contact an experienced electrical technician for further help.
- 9. If you smell burning or see smoke coming from the access point, then disconnect the access point immediately, as far as it is safely possible to do so. Call your dealer of purchase for help.

I-4. System Requirements

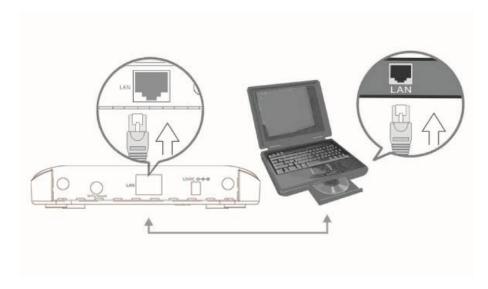
- Computer (with Fast Ethernet adapter or wireless adapter) running Windows XP/Vista/7, Mac OS.
- Web Browser for software configuration (Internet Explorer 7 or above, Google Chrome, Firefox, Safari)

II. Quick Installation

Your wireless access point can be up and running in a matter of minutes.

If you need to make more detailed configurations after setup, you can refer to III. Browser Based Configuration Interface.

1. Connect one end of an Ethernet cable to the Ethernet port on your computer. Connect the other end to an Ethernet port on the access point.



2. Plug the power adapter into the device's 5V power port, and plug the adapter into a wall socket. The PWR LED should light up.

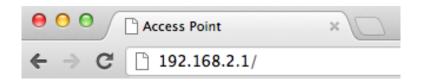
Refer to the following instructions appropriate for your operating system.

II-1. Mac

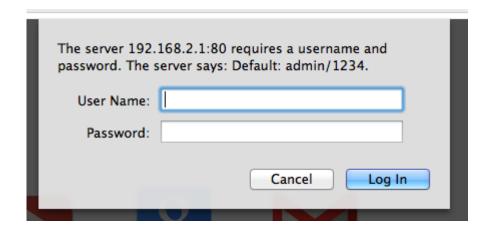


Note: You need to modify the IP address of your computer before you can setup the access point. For guidance on how to do this, please see <u>Appendix IV-1</u>. Configuring your IP Address.

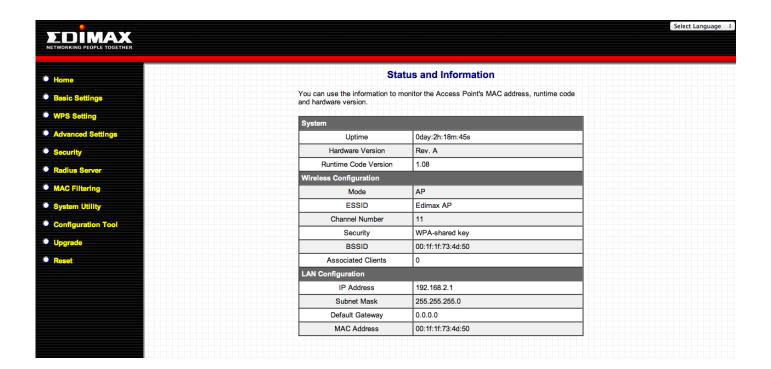
For Mac users it is necessary to configure the access point manually, using the browser based configuration interface. Please open a web browser and enter the access point's default IP address "http://192.168.2.1" into the URL bar.



You will then be prompted to enter the device's username and password. The default username is **admin** and the default password is **1234**.



From here, you will see the browser based configuration interface home screen.

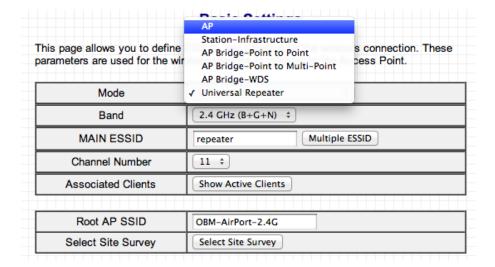




Select "Basic Settings" from the menu on the left side of the screen. "Basic Settings" allows you to set the mode of the access point and configure the settings accordingly.

Open the drop down menu labeled "Mode" and select from the 6 available modes:

The available modes are:



AP	Access point mode allows wireless clients to
	connect to this device and exchange data with
	devices connected to the wired network.
Station-Infrastructure	Also known as wireless client mode. Enables
	Ethernet-only devices such as smart TVs and game
	consoles to connect to a wireless network
AP Bridge-Point to Point	Establishes a wireless connection with another
	wireless access point using the same mode, and
	links any wired networks connected to these two
	wireless access points together. Only one access
	point can be connected in this mode.
AP Bridge-Point to	Establishes a wireless connection with other
Multi-Point	wireless access points using the same mode, and
	links any wired networks connected to these
	wireless access points together. Up to 4 access
	points can be connected in this mode.
AP Bridge-WDS	This mode is similar to "AP Bridge to Multi-Point",
	but the device is not in bridge-dedicated mode, and
	will be able to accept wireless clients while the
	device is working as a wireless bridge.
Universal Repeater	The device will act as a wireless range extender

that will help you to extend your Wi-Fi network.
The device acts as a client and AP at the same time.
It its client function to connect to a root AP, and
uses its AP function to service wireless clients
within its coverage.

Please refer to the appropriate chapter of the user manual for your desired operating mode:

- III-2-1. AP Mode
- III-2-2. Station Infrastructure Mode
- III-2-3. AP Bridge-Point to Point Mode
- III-2-4. AP Bridge-Point to Multi-Point Mode
- III-2-5. AP Bridge-WDS
- III-2-6. Universal Repeater Mode

II-2. Windows

1. Windows users can run the setup wizard on the included CD. Insert the Edimax CD into your computer's CD drive. When the AutoPlay screen appears, select "Run Autorun.exe."



Note: If a popup window appears asking "Do you want to allow the following program to make changes to this computer", please click "Yes" to continue.

3. Click on "Setup Utility" in the main menu, then select "English" to continue.



4. The setup wizard will search for the access point. When it has successfully found the device, click "Next" to continue.



5. The setup wizard will prompt you for a password. Enter the default password "1234".



6. The setup wizard will then show the access point's IP information. The default IP is 192.168.2.1. Click "Next" to continue.



Note: Please do not select "Automatically assign an IP address from your network" unless you are performing more advanced setup. For first-time installation, please use the default IP address.



7. You now have the option of selecting which mode you want to use.



II-2-1. Access Point Mode

- 1. Select Access Point Mode and click "Next".
- 2. You will be prompted to set the SSID of this access point. The SSID will be the name of the access point when you connect to it wirelessly. The default SSID is **Edimax AP**. This page also offers the option to change the password used to access the device's configuration settings.



For first time setup, please simply click "Next" without changing anything.

3. You will now be prompted to set up a wireless encryption password. You have the option of using no security encryption, or selecting the WEP or WPA pre-shared key encryption schemes. It is recommended that you set up an encryption method, though, for security reasons.







 You will see a final confirmation screen, listing the settings you have selected. If everything is correct, click "Set" to continue.



5. The device will save your settings, then reboot. Please do not disconnect or turn off the device during this process.



6. After the device reboots, you will see a final congratulation screen. Click "Finish" to complete the setup.



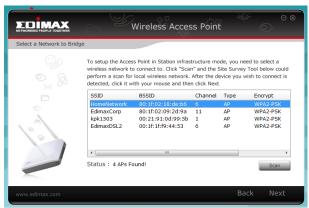
II-2-2. AP Client Mode

- 1. Select AP Client Mode and click "Next".
- 2. You will have the option to change the password used to access the device's configuration settings. For first time setup, please simply click "Next" without changing anything.



3. The device will search for nearby wireless networks to connect to. If you

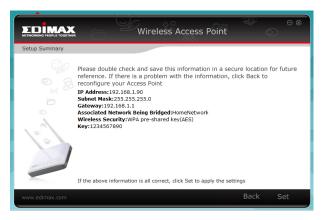
cannot find the access point you wish to connect to, click "Scan" to refresh the list of wireless networks. Select the wireless network you wish to connect to, and click "Next" to continue.



4. If the wireless network you selected requires a network security key, enter it here. If you do not know the network security key then please refer to Appendix "How to Find Your Network Security Key" for guidance. Click "Next" to continue when finished.



5. You will see a final confirmation screen, listing the settings you have selected. If everything is correct, click "Set" to continue.



6. The device will save your settings, then reboot. Please do not disconnect or turn off the device during this process.

7. After the device reboots, you will see a final congratulation screen. Click "Finish" to complete the setup.





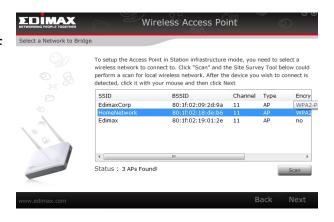
II-2-3. Repeater Mode (Wi-Fi Extender)

- 1. Select Repeater Mode and click "Next".
- 2. You will be prompted to set the SSID of this device. The SSID will be the name of the device when you connect to it wirelessly. The default SSID is **Edimax AP**, you are option to change it to the same SSID as your current wireless network. This page also offers the option to change the



password used to access the device's configuration settings.

3. The device will search for nearby wireless networks to connect to. If you cannot find the access point you wish to connect to, click "Scan" to refresh the list of wireless networks. Select the wireless network you wish to connect to, and click "Next" to continue.



- 4. If the wireless network you selected requires a network security key, enter it here. If you do not know the network security key then please refer to Appendix "How to Find Your Network Security Key" for guidance. Click "Next" to continue when finished.
- 5. You will see a final confirmation screen, listing the settings you have selected. If everything is correct, click "Set" to continue.



- 6. The device will save your settings, then reboot. Please do not disconnect or turn off the device during this process.
- 7. After the device reboots, you will see a final congratulation screen. Click "Finish" to complete the setup.



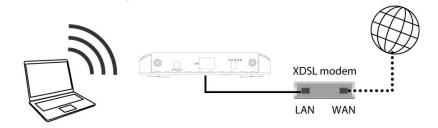


II-6. Hardware Installation

After configuring your device, you can install it in its final location.

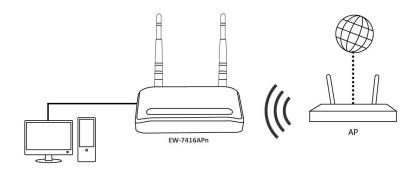
Access Point Mode

Connect one port of the device to your router or xDSL modem. You can now connect to the device through a wired connection by connecting your computer to it with an Ethernet cable, or connect to the device wirelessly by searching and connecting to the device name you set up.



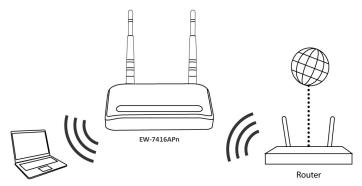
AP Client Mode

Connect one port of the device to the appliance you wish to connect to the Internet wirelessly, such as a computer, game console, or smart TV.



Repeater Mode

Position the device in a location for optimal wireless extension, such as the middle of your house. You can connect to the device wirelessly by searching and connecting to the device name you set up.



III. Browser Based Configuration Interface

Once you have setup the access point in its desired operating mode as detailed in II. Quick Installation, you can further configure the settings of the access point anytime using the browser based configuration interface.



Note: You may need to modify the IP address of your PC or Macintosh before you can access the browser based configuration interface.

This is because the access point's default IP address 192.168.2.1 may not be in the same IP address subnet as your network. In this case, you need to modify the IP address of your PC or Macintosh to 192.168.2.10. For guidance on how to do this, please see Appendix IV-1. Configuring your IP Address.

To access the browser based configuration interface, enter the access point's default IP address "http://192.168.2.1" into the URL bar of a web browser on a computer which is connected to the access point's Wi-Fi network, or via Ethernet cable as explained in II. Quick Installation steps 1 - 2.



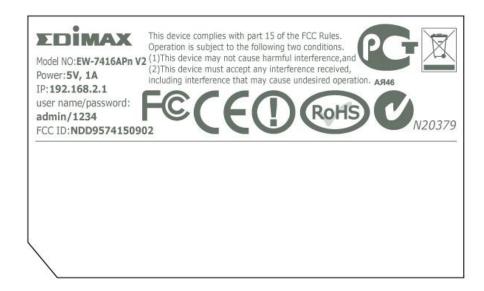
Note: If you modified the IP address of the access point during iQ Setup then enter this IP into the URL bar of a web browser instead of the default IP 192.168.2.1





Note: For your reference, the access point's default IP address, username and password are all displayed on the product label on the underneath of the device, as shown below.

50x30mm



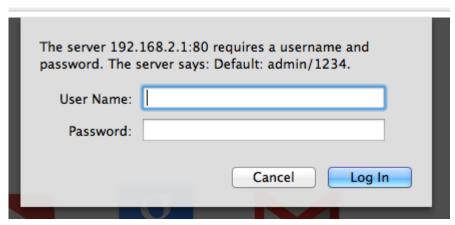
You will then be prompted to enter the device's username and password. The default username is **admin** and the default password is **1234**.

Windows:

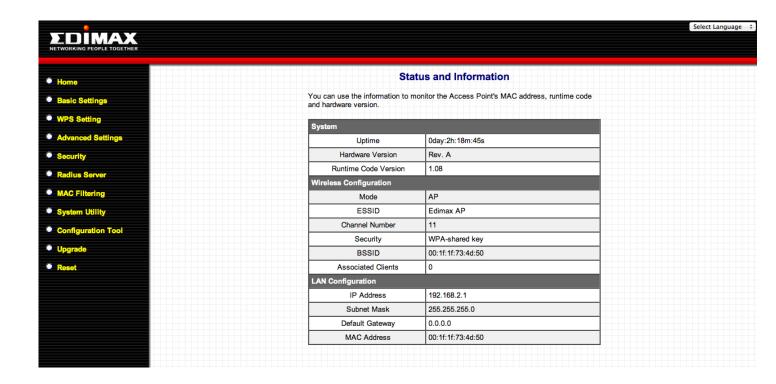




Mac:

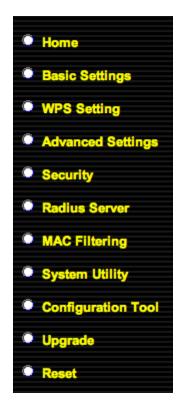


From here, you will see the browser based configuration interface home screen.



III-1. Home

The Home page displays 11 categories in the left panel which you can select:



- III-1. Home
- III-2. Basic Settings
- III-3. WPS Setting
- III-4. Advanced Settings
- III-5. Security
- III-6. Radius Server
- III-7. MAC Filtering
- III-8. System Utility
- III-9. Configuration Tool
- III-10. Upgrade
- III-11. Reset

At the top of the screen on the right side there is a drop down menu to change the language of the browser based configuration interface.



The "Status and Information" screen is displayed in the main window. This shows basic system information about the access point for reference, such as firmware version, wireless mode and SSID, and the access point's IP and MAC address.

Status and Information

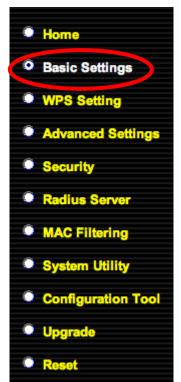
You can use the information to monitor the Access Point's MAC address, runtime code and hardware version.

System	
Uptime	0day:0h:13m:22s
Hardware Version	Rev. A
Runtime Code Version	1.09
Wireless Configuration	
Mode	AP
ESSID	Edimax AP
Channel Number	11
Security	Disable
BSSID	00:e0:4c:81:96:c1
Associated Clients	0
LAN Configuration	
IP Address	192.168.2.1
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
MAC Address	00:e0:4c:81:96:c1

System	
Uptime	Displays the total time the access point has been
	operational since it was last switched on.
Hardware Version	Displays hardware version. This information is helpful
	if you experience problems with your access point
	and need technical support.
Runtime Code Version	Displays current firmware version. This information is
	useful when performing a firmware upgrade.
Wireless Configuration	
Mode	Displays the current operating mode of the access
	point.
ESSID	Displays current ESSID (the name used to identify the
	access point).
Channel Number	Displays current wireless channel number.
Security	Displays the current wireless security setting.
BSSID	Displays the current BSSID (a unique ID of the access
	point, which cannot be modified).
Associated Clients	Displays the number of connected wireless clients.

LAN Configuration	
IP Address	Displays the IP address of the access point.
Subnet Mask	Displays the subnet mask of the IP address.
Default Gateway	Displays the IP address of the default gateway.
MAC Address	Displays the MAC address of the Access Point.

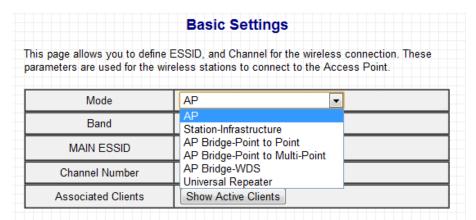
III-2. Basic Settings



"Basic Settings" allows you to set the access point to any of several different modes and configure the settings accordingly.

Open the drop down menu labeled "Mode" and select from the 6 available modes:

The available modes are:



AP	The device acts as a wireless "access point" to a
	wired Ethernet network. Wireless clients can
	connect to this device and exchange data with
	devices connected to the wired network.
Station-Infrastructure	Also known as wireless client mode. Enables
	Ethernet-only devices such as smart TVs and game
	consoles to connect to a wireless network.
AP Bridge-Point to Point	Establishes a wireless connection with another
	wireless access point using the same mode, and
	links any wired networks connected to these two
	wireless access points together. Only one access
	point can be connected in this mode.
AP Bridge-Point to	Establishes a wireless connection with other
Multi-Point	wireless access points using the same mode, and
	links any wired networks connected to these
	wireless access points together. Up to 4 access

	points can be connected in this mode.
AP Bridge-WDS	This mode is similar to "AP Bridge to Multi-Point",
	but the device is not in bridge-dedicated mode, and
	will be able to accept wireless clients while the
	device is working as a wireless bridge.
Universal Repeater	The device will act as a wireless range extender.
	Acting as both a client and access point at the same
	time, client function will connect to a root AP, while
	access point function will service wireless clients
	within range.

Please follow the appropriate chapter of the user manual for your desired operating mode:

- <u>III-2-1. AP Mode</u>
- III-2-2. Station Infrastructure Mode
- III-2-3. AP Bridge-Point to Point Mode
- III-2-4. AP Bridge-Point to Multi-Point Mode
- III-2-5. AP Bridge-WDS
- III-2-6. Universal Repeater Mode

III-2-1. AP Mode

In access point (AP) mode the device acts as a wireless access point to a wired Ethernet network for IEEE 802.11b/g/n wireless devices.

When you select AP Mode, the following appears:

	Basic Settings
	ESSID, and Channel for the wireless connection. These ireless stations to connect to the Access Point.
Mode	AP
Band	2.4 GHz (B+G+N) ‡
MAIN ESSID	Edimax AP Multiple ESSID
Channel Number	11 ÷
Associated Clients	Show Active Clients

Band	Select the wireless band you wish to use for the access
	point: 802.11b, 802.11g, 802.11n or selected

	combinations of each. Only wireless clients of the same
	band or bands as you select will be able to connect.
MAIN ESSID	Specify an ESSID (the name used to identify the access
	point) of up to up to 32 alphanumerical characters.
	Please note that the ESSID is case sensitive.
Channel Number	Select a channel number for the access point. Where
	possible, select a channel number which is not already
	in use by another access point/router.
Associated Clients	Click the "Show Active Clients" button and a new
	window will appear which displays information about
	wireless clients connected to this access point. Click the
	"Refresh" button in the new window to refresh the list.

Click "APPLY" to save changes. The following message will appear:



Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-2-2. Station Infrastructure Mode

In station-infrastructure mode, the device acts as a wireless client and can be connected to Ethernet-only Internet devices, such as smart televisions or video game consoles. This gives these devices the capability to connect to the Internet wirelessly.

Mode	Station-Infrastructure T
Band	2.4 GHz (B+G+N) 🔻
MAIN ESSID	Edimax AP
Site Survey	Select Site Survey

Band	Select the wireless band you wish to use for the access
	point: 802.11b, 802.11g, 802.11n or selected
	combinations of each. Only access points of the same
	band or bands as you select will be able to connect.

MAIN ESSID	Specify an ESSID (the name used to identify the access point) of up to up to 32 alphanumerical characters. Please note that the ESSID is case sensitive.
Site Survey	Click the "Select Site Survey" button to display the "Wireless Site Survey Table" which shows all available Wi-Fi networks. Select which network the access point will connect to (see below).

Click "APPLY" to save changes. The following message will appear:

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

Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

Wireless Site Survey

Wireless Site Survey

The "Wireless Site Survey Table" displays available Wi-Fi networks. Select one and click "Done".

This page provides tool to scan the wireless network. If any Access Point or IBSS is found, you could choose to connect it manually when client mode is enabled. Channel SSID **BSSID** Encryption Signal Band NONE OPEN MEETING_ROOM_6F 00:1F:1F:1F:73:FC 29 11b/g/n 1 WPA2PSK 1 AirPortExpress_Jimmy 28:37:37:46:D3:CA AES 11b/g/n 2 PA-HamaRootAP 80:1F:02:0D:EF:DC TKIPAES WPA1PSKWPA2PSK 11b/g/n 2 PA-HamaRootAP 80:1F:02:4F:32:56 AES WPA2PSK 0 0 11b/g/n 3 00:1F:1F:61:C0:08 TKIPAES WPA1PSKWPA2PSK DemoRoom_Router1 11b/g/n 5 XXXXXXX NONE OPEN 00:11:22:33:44:50 20 11b/g/n WPA1PSKWPA2PSK 6 ! Ken PassBook 00:17:31:D6:3B:B9 TKIPAES 11b/g 7 6228NC 00:1F:1F:C0:24:31 AES WPA2PSK 11b/g/n 0 9 EdimaxHQ 10:6F:3F:47:04:00 NONE OPEN 100 11b/g/n EdimaxHQ OPEN 9 10:6F:3F:47:03:D0 NONE 11b/g/n 9 EdimaxHQ 10:6F:3F:47:07:30 NONE OPEN 20 11b/g/n 9 EdimaxHQ 00:10:20:30:40:50 NONE OPEN 11b/g/n 11b/g/n 11 OBM-AirPort-2.4G 10:9A:DD:87:47:CF TKIPAES WPA1PSKWPA2PSK 11 6258GN Test 80:1F:02:1A:D9:64 WPA2PSK 34 0 AES 11b/g/n 11 00:E0:4C:81:96:C1 NONE OPEN Edimax 11b/g/n 11 80:1F:02:57:22:78 Belkin-Demo-2.4 NONE OPEN 11b/g/n



Note: If the SSID of the access point you wish to connect to is not listed, try clicking the "Refresh"

button.		
---------	--	--

III-2-3. AP Bridge-Point to Point Mode

In AP bridge-point to point mode, the access point connects to another wireless access point in the same mode, and all connected Ethernet clients of both devices are connected together. This allows two physically isolated networks to communicate with each other.

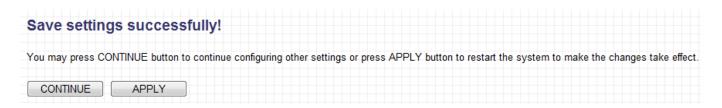


Note: The access point will not accept regular wireless clients in this mode.

п		<u> </u>
	Mode	AP Bridge-Point to Point ▼
	Band	2.4 GHz (B+G+N) 🔻
	Channel Number	9 🔻
_	MAC address 1	0000000000
	Set Security	Set Security

Band	Select the wireless band you wish to use for the access
	point: 802.11b, 802.11g, 802.11n or selected
	combinations of each. Only access points of the same
	band or bands as you select will be able to connect.
Channel Number	Select a channel number for the access point. The
	channel number must be the same as the other access
	point you wish to connect to.
MAC address 1	Enter MAC address of the wireless access point you
	wish to connect to.
Set Security	Click "Set Security" to select an encryption mode for
	this wireless link. A new window with security options
	will appear.

Click "APPLY" to save changes. The following message will appear:



Click "CONTINUE" to save the changes and continue configuring other settings,

or click "APPLY" to restart the system and make the changes take effect.

III-2-4. AP Bridge-Point to Multi-Point Mode

In AP bridge-point to multi-point mode the access point can connect to up to four other wireless access points also using the same mode, and all connected Ethernet clients of all access points will be connected together. This allows several physically isolated networks to communicate with each other.



Note: The access point will not accept regular wireless clients in this mode.

	<u> </u>
Mode	AP Bridge-Point to Multi-Point ▼
Band	2.4 GHz (B+G+N) ▼
Channel Number	9 🔻
MAC address 1	00000000000
MAC address 2	00000000000
MAC address 3	00000000000
MAC address 4	00000000000
Set Security	Set Security

Band	Select the wireless band you wish to use for the access point: 802.11b, 802.11g, 802.11n or selected combinations of each. Only access points of the same band or bands as you select will be able to connect.
Channel Number	Select a channel number for the access point. The channel number must be the same as the other access points you wish to connect to.
MAC address 1-4	Enter the MAC addresses of the wireless access points you wish to connect to.
Set Security	Click "Set Security" to select an encryption mode for this wireless link. A new window with security options will appear.

Click "APPLY" to save changes. The following message will appear:

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

Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-2-5. AP Bridge-WDS

In this mode, the access point can connect to up to four other wireless access points also using the same mode, and all connected Ethernet clients of all access points will be connected together. This allows several physically isolated networks to communicate with each other.



Note: The access point will still be able to accept regular wireless clients in this mode.

	<u>, , , , , , , , , , , , , , , , , , , </u>
Mode	AP Bridge-WDS ▼
Band	2.4 GHz (B+G+N) 🔻
MAIN ESSID	Edimax AP
Channel Number	9 🔻
Associated Clients	Show Active Clients
MAC address 1	00000000000
MAC address 2	00000000000
MAC address 3	00000000000
MAC address 4	00000000000
Set Security	Set Security

Band	Select the wireless band you wish to use for the access point: 802.11b, 802.11g, 802.11n or selected combinations of each. Only wireless devices of the same band or bands as you select will be able to connect.
MAIN ESSID	Specify an ESSID (the name used to identify the access point) of up to up to 32 alphanumerical characters. Please note that the ESSID is case sensitive.
Channel Number	Select a channel number for the access point. The

	channel number must be the same as the other access points you wish to connect to.
Associated Clients	Click the "Show Active Clients" button and a new window will appear which displays information about wireless clients connected to this access point. Click the "Refresh" button in the new window to refresh the list.
MAC address 1-4	Enter the MAC addresses of the wireless access points you wish to connect to.
Set Security	Click "Set Security" to select an encryption mode for this wireless link. A new window with security options will appear.

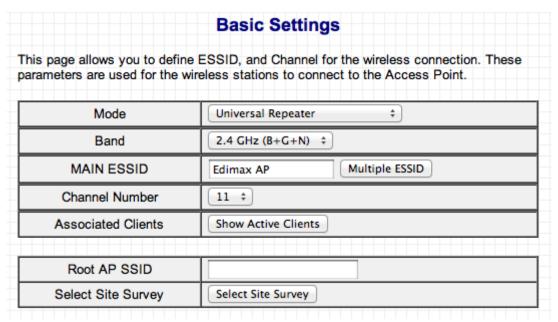
Click "APPLY" to save changes. The following message will appear:



Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-2-6. Universal Repeater Mode

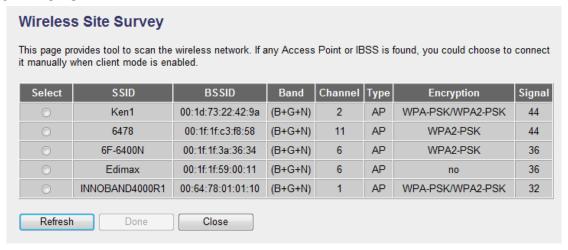
In universal repeater mode, the access point acts as a wireless extender, performing both the functions of a client and an access point. It can extend the Wi-Fi coverage of an access point and eliminate Wi-Fi dead zones.



Band	Select the wireless band you wish to use for the access point: 802.11b, 802.11g, 802.11n or selected combinations of each. Only wireless devices of the same band or bands as you select will be able to connect.
MAIN SSID	Specify an ESSID (the name used to identify the access point) of up to up to 32 alphanumerical characters. Please note that the ESSID is case sensitive.
Channel Number	Select a channel number for the access point. The channel number must be the same as the other access point you wish to connect to.
Associated Clients	Click the "Show Active Clients" button and a new window will appear which displays information about wireless clients connected to this access point. Click the "Refresh" button in the new window to refresh the list.
Root AP SSID	Enter the SSID of the root access point/router here or click the "Select Site Survey" button to select from a list of available SSIDs.
Select Site Survey	Click the "Select Site Survey" button to display the "Wireless Site Survey Table" which shows all available Wi-Fi networks. Select which network the access point will connect to (see below).

Wireless Site Survey

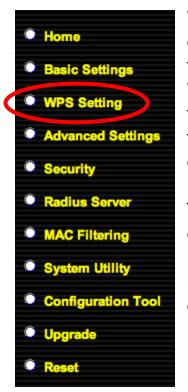
The "Wireless Site Survey Table" displays available Wi-Fi networks. Select one and click "Done".





Note: If the SSID of the access point you wish to connect to is not listed, try clicking the "Refresh" button.

III-3. WPS Setting

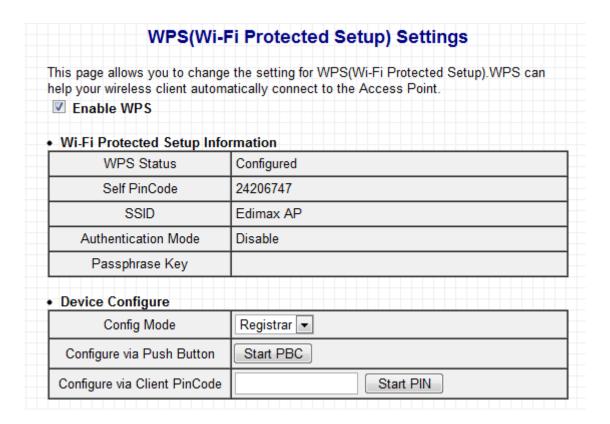


WPS (Wi-Fi Protected Setup) is a simple way to establish connections between WPS compatible devices. WPS devices feature a WPS function which can be activated by pushing a WPS button on the device or from within the device's firmware/configuration interface. When WPS is activated in the correct manner and at the correct time for two compatible devices, they will automatically connect.

The access point supports two types of WPS for wireless clients: PBC (Push Button Configuration) and PIN code. For PBC you can activate WPS on the wireless extender by pushing the WPS/Reset button on the access point or clicking the "Start PBC" button on the screen.

PIN code setup varies slightly in that it requires you to manually enter a PIN code into each device via the WPS

Settings before activating WPS.



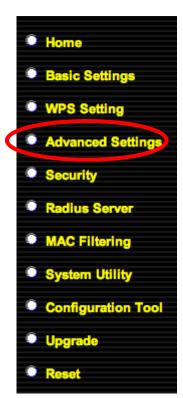
Enable WPS Check this box to enable or disable WPS.

Wi-Fi Protected Setup Information

WPS Status	Displays "Configured" or "unConfigured" depending on whether WPS Settings for the access point have been configured or not, either manually or using the WPS button.
Self PIN Code	This is the WPS PIN code of the wireless access point for use with other WPS-enabled wireless devices.
SSID	Displays the SSID (ESSID) of this access point.
Authentication Mode	The wireless security authentication mode of this access point will be shown here. If you don't enable the security functions of the access point before WPS is activated, the access point will automatically set the security to WPA (AES) and generate a passphrase key for WPS connection.
Passphrase Key	Shows the WPA passphrase here, though all characters will be replaced by asterisks for security reasons. If encryption is not set on the access point, this field will be blank.
Device Configuration	
Config Mode	There are two modes for the WPS connection, "Registrar" and "Enrollee". When "Registrar" is enabled, the wireless clients will follow the access point's wireless settings for WPS connections. When "Enrollee" mode is enabled, the access point will follow the wireless settings of wireless client for WPS connections.
Configure via Push Button	Click "Start PBC" to activate WPS. This access point will wait for WPS requests from wireless clients for 2 minutes.
Input Client PIN Code	Enter the PIN code of the wireless client, and click the "Start PIN" button to activate WPS. The "WLAN" LED on the access point will stay on while this access point waits for incoming WPS requests.

When WPS is activated on the access point, the "WLAN" LED will display on for two minutes. **Within two minutes**, activate WPS on your client device (refer to client device's user manual for guidance on how to do so) in order to establish a connection.

III-4. Advanced Settings



In "Advanced Setting" you can configure the advanced features of the access point. Please do not modify these settings unless you know what effect the changes will have on your access point; advanced settings are for experienced users only.

Note: Changing these settings can adversely affect the performance of your access point.



Advanced Settings

These settings are only for more technically advanced 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 Broadband router.

Fragment Threshold	2346	(256-2346)
RTS Threshold	2347	(0-2347)
Beacon Interval	100	(20- 1024 ms)
DTIM Period	3	(1-10)
Data Rate	Auto 🔻	
N Data Rate	Auto 🔻	
Transmit Rate	•	
Channel Width	Auto 20/40	MHZ 0 20 MHZ
Preamble Type	Short Pream	nble 🔘 Long Preamble
Broadcast ESSID	Enable	Disable
WMM	○ Enable ●	Disable
CTS Protect	Auto	Always None

Fragment Threshold

Set the Fragment threshold of the wireless radio. The default value is 2346 - please do not modify unless

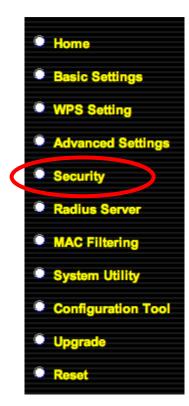
	you are familiar with this setting.
RTS Threshold	Set the RTS threshold of the wireless radio. The default
	value is 2347 - please do not modify unless you are
	familiar with this setting.
Beacon Interval	Set the beacon interval of the wireless radio. The
	default value is 100 - please do not modify unless you
	are familiar with this setting.
DTIM Period	Set the DTIM period of wireless radio. The default
	value is 3 - please do not modify unless you are
	familiar with this setting.
Data Rate	Set the wireless data transfer rate. The default is set to
	Auto - please do not modify unless you are familiar
	with this setting.
N Data Rate	Set the data rate of 802.11n. The default is set to Auto
	- please do not modify unless you are familiar with
	this setting.
Channel Width	Select wireless channel width (bandwidth used by
	wireless signals from the access point) - the
	recommended value is Auto 20/40MHz please do not
	modify unless you are familiar with this setting.
Preamble Type	Set the wireless radio preamble type. The default value
	is "Short Preamble" - please do not modify unless you
	are familiar with this setting.
Broadcast ESSID	Set if the access point will broadcast its own ESSID. To
	hide the ESSID of your access point select "Disable" -
	only users who know the ESSID of your access point will
	be able to connect.
WMM	WMM (Wi-Fi Multimedia) technology can improve the
	performance of certain network applications, such as
	audio/video streaming, network telephony (VoIP), and
	others. When WMM is enabled, the access point will
	prioritize different kinds of data and give higher priority
	to applications which require instant responses. This
	improves the performance of such network
	applications.
CTS Protect	Enabling this setting will reduce the chance of radio
	signal collisions between 802.11b and 802.11g wireless
	access points. It's recommended to set this option to
	"Auto".
TX Power	Set the power output of the wireless radio. Unless
	you're using the access point in a very large space, you

may not require 100% output power. Setting a lower power output can enhance security since potentially
malicious/unknown users in distant areas will not be able to access your signal.



Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

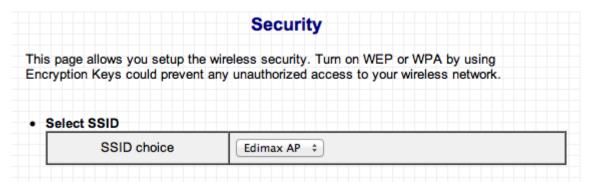
III-5. Security



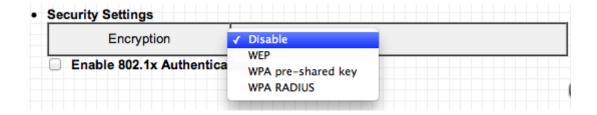
The access point provides a variety of wireless security options (wireless data encryption). When data is encrypted, information transmitted wirelessly cannot be read by anyone who does not know the encryption key.

Note: It is important to configure security to prevent intruders from accessing your local network and causing damage to computers and servers. Use complicated, hard-to-guess security keys which include combinations of letters and numbers – and change your security key regularly.





Select SSID	
SSID choice	Select which SSID to configure security settings for.



Security Settings	
Encryption	Select an SSID from the drop down menu to configure security for. Refer to the next section for more details about each security type.

III-5-1. Disable

When you select "Disable", wireless encryption for the network is disabled. This means anyone who knows the device's SSID can connect to it, and is not recommended.

Enable 802.1x	Check this box to enable 802.1x user authentication.
Authentication	See III-5-2. 802.1x Authentication.

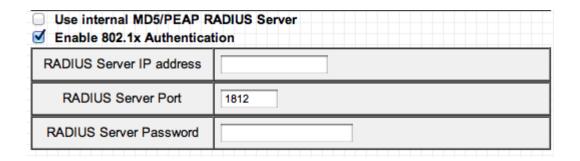
Click "APPLY" to save changes. The following message will appear:



Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-5-2. Enable 802.1x Authentication

If you select "Disable" or "WEP" as your encryption type, you can check the "Enable 802.1x Authentication" box to enable 802.1x authentication based on a RADIUS user authentication server.



Use internal	Check the box to use an internal MD5/PEAP RADIUS
MD5/PEAP RADIUS	Server.
Server	
Enable 802.1x	Enable or disable the use of 802.1x user authentication.
Authentication	
RADIUS Server IP	Enter the IP address of the RADIUS authentication
Address	server here.

RADIUS Server Port	Enter the port number of the RADIUS authentication
	server here. Default value is 1812.
RADIUS Server	Enter the password of the RADIUS authentication
Password	server here.

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

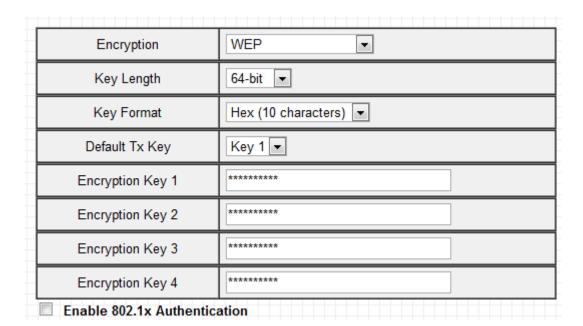
Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-5-3. WEP

WEP (Wired Equivalent Privacy) is a basic encryption type. For a higher level of security, consider using WPA encryption..



Note: Most wireless devices support WPA encryption, though some legacy wireless devices only support WEP encryption.
WEP only supports up to 54Mbps transmission data rate.



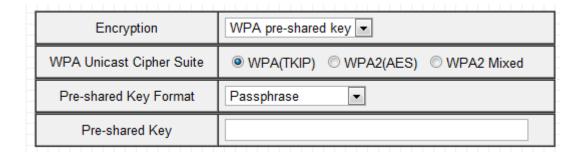
	128-bit. Using "128-bit" is safer than "64-bit", but will
	reduce some data transfer performance.
Key Format	Select a key format: ASCII or Hex. The key length will
	also be displayed here - ASCII and Hex keys vary in
	length according to "Key Length" (above)".
Default Tx Key	You can set up to four sets of WEP keys, and you can
	decide which key is used the default. If you are unsure,
	leave the value as the default "Key 1".
Encryption Key 1 to	Enter WEP key here, the number of characters must be
4	the same as the number displayed in the "Key Format"
	field. For "ASCII" key format, you can use any
	alphanumerical characters (0-9, a-z, and A-Z). For "Hex"
	format, you can use the characters 0-9, a-f, and A-F. You
	must enter at least one encryption key here and if you
	enter multiple WEP keys, each should be unique.
Enable 802.1x	Check this box to enable 802.1x user authentication.
Authentication	See III-5-2. Enable 802.1x Authentication.



Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-5-4. WPA Pre-Shared Key

WPA pre-shared key is the recommended and most secure encryption type.



Suite	AES is safer than TKIP, but not supported by all wireless clients. Please make sure your wireless client supports your selection. WPA2(AES) is recommended, or WPA2 Mixed if your client does not support AES.
Pre-shared Key	Select the pre-shared key format from "Passphrase" (8
Format	to 63 alphanumerical characters) or "Hex (64 characters
	0 to 9 and a to f.)
Pre-shared Key	Please enter the key according to the key format you
	selected above. For security reasons, it's best to use a
	complex, hard-to-guess key.



Note: TKIP only supports up to 54Mbps transmission data rate.

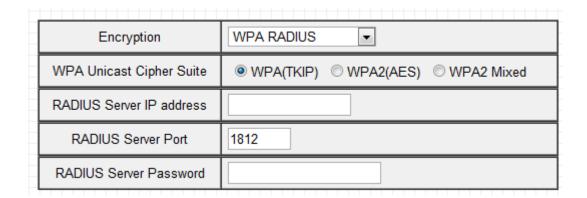
Click "APPLY" to save changes. The following message will appear:



Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-5-5. WPA Radius

WPA RADIUS is a combination of WPA encryption and RADIUS user authentication. If you have a RADIUS authentication server, you can authenticate the identity of every wireless client against a user database.



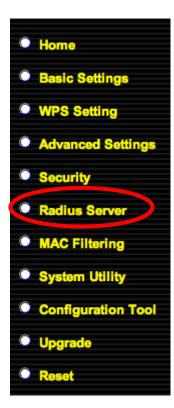
-	Select from WPA (TKIP), WPA2 (AES) or WPA2 Mixed.
Suite	AES is safer than TKIP, but not supported by all wireless

clients. Please make sure your wireless client supports your selection. WPA2(AES) is recommended, or WPA2 Mixed if your client does not support AES.
Check the box to use an internal MD5/PEAP RADIUS Server.
Enter the IP address of the RADIUS authentication server here.
Enter the port number of the RADIUS authentication server here. Default value is 1812.
Enter the password of the RADIUS authentication server here.



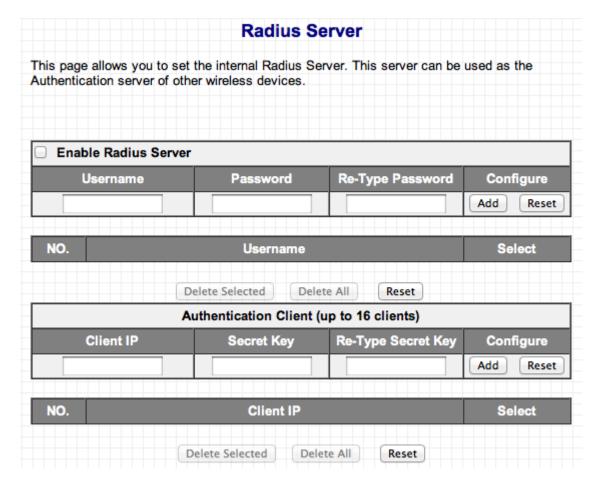
Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-6. Radius Server



Radius server settings can be configured on this page. A Radius server provides user-based authentication to improve security and offer wireless client control – users can be authenticated before gaining access to a network.

The access point's internal radius server only supports 96 users and 16 IP addresses – for more users and/or IP addresses please use an external radius server.



Enable Radius Server	Check the box to enable the Radius server.
Username	Enter a username for a Radius user profile.
Password	Enter a password for a Radius user profile.
Re-Type Password	Confirm the password.
Configure	Select "Add" to add the user profile – all user profiles will be displayed underneath once they have been added. Select "Reset" to clear all fields.
Select	Check this box to select Radius user(s).
Delete Selected	Click this button to delete selected Radius user(s).
Delete All	Delete all Radius user(s) in the table.
Reset	Uncheck all selected Radius user(s).
Authentication Client (up to 16 clients)	
Client IP	Enter the IP address of the client to be authorized.
Secret Key	Enter a secret key for the client.
Re-Type Secret Key	Confirm the secret key.
Configure	Select "Add" to add the client to the list of authorized clients – all authorized clients will be displayed underneath once they have been added. Select "Reset" to clear all fields.
Select	Check this box to select client(s).
Delete Selected	Click this button to delete selected client(s).
Delete All	Delete all Radius client(s) in the table.
Reset	Uncheck all selected client(s).

III-7. MAC Filtering



Select SSID

SSID choice

The MAC filtering feature allows you to define a list of wireless devices permitted to connect to this access point, identified by their unique MAC address. When devices not on the list of MAC addresses attempt to connect to this access point, they will be denied.

MAC Address Filtering For security reason, the Access Point features MAC Address Filtering that only allows authorized MAC Addresses associating to the Access Point. Select SSID: Edimax AP ‡ MAC Address Filtering Table It allows to entry 64 sets address only. NO. **MAC Address** Comment Selec Delete All Delete Selected Reset **Enable Wireless Access Control** MAC Address: Comment: Add New Clear

MAC Address Filtering Table	Displays MAC addresses which have been added to the list of permitted devices.
Select	Check this box to select MAC address(es).

Select which SSID to configure MAC address filtering.

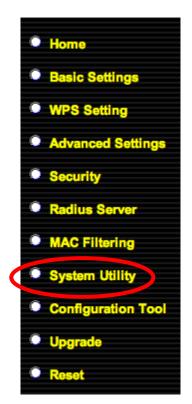
Delete Selected	Click this button to delete selected MAC address(es).
Delete All	Delete all MAC addresses in the table.
Reset	Uncheck all selected MAC address entries.

Enable Wireless	Check this box to enable MAC address filtering.
Access Control	
MAC address	Enter a MAC address permitted to connect to the
	access point. Only enter characters 0 to 9 or a to f.
Comment	Enter an optional comment associated with the
	specified MAC address for reference/identification,
	consisting of up to 16 alphanumerical characters.
Add	Add the MAC address entry to the list.
Clear	Remove all characters in the "MAC address" and
	"Comments" fields.



Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-8. System Utility



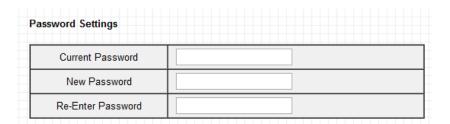
In "System Utility" you can configure basic system and administrative parameters.

System Utility

Enter the IP Address of the Access Point. If you want to use DHCP server service, you should enter a unique IP for the Access Point.

III-8-1. Password Settings

You can change the password used to login to the browser-based configuration interface here. It is advised to do so for security purposes.



Password Settings	
Current Password	Enter your current password. The default password is 1234 .
New Password	Enter your desired new password here. You can use any combination of letters, numbers and symbols up to 20 characters.
Re-Enter Password	Confirm your new password.



Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-8-2. Management IP

You can modify the IP address of the access point, enabling it to become a part of your local area network. To do so, input the IP address, subnet mask and gateway address into the corresponding fields.

192.168.2.1
255.255.255.0
0.0.0.0
Disabled •

Management IP	
IP Address	Specify an IP address here. This IP address will be assigned to your access point, and will replace the default IP address 192.168.2.1.
Subnet Mask	Input the subnet mask of the new IP address.
Gateway Address	Input the network's gateway IP address.
DHCP Server	Select "Enabled" if you wish to use the DHCP function
	of the access point, as detailed below.

Typically, your ISP will provide you with such information as IP address, subnet mask and gateway address.



Note: Please write down and remember the new IP address you assigned to the access point. If you forget this IP address you may not be able to connect to the browser-based configuration interface in the future.



Note: To reset the IP address back to its default value of 192.168.2.1, press and hold the WPS/Reset button on the access point for 10 seconds. Be aware that doing so restores all settings and passwords back to factory defaults.

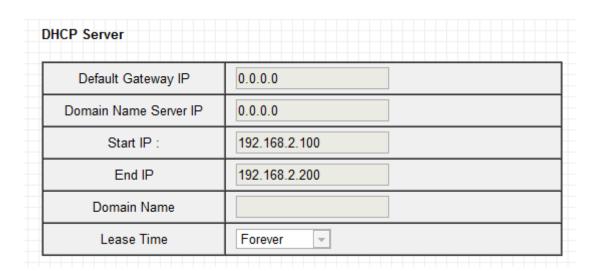
Click "APPLY" to save changes. The following message will appear:



Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-8-3. DHCP Server

The access point can be configured to act as a DHCP server for your network. By default DHCP is disabled. Enable DHCP by selecting "Enable" in the field "DHCP Server" of "Management IP" as detailed in the previous section.



DHCP Server	
Default Gateway IP	Specify the IP address of the default gateway of your
	network here.

Domain Name	Input the IP address of the domain name server (DNS).
Server IP	
Start IP	Input the start address of the IP range.
End IP	Input the end address of the IP range.
Domain Name	Input the domain name for your network (optional).
Lease Time	Choose a lease time (the duration that every computer
	can keep a specific IP address) of every IP address
	assigned by the access point.

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

Click "CONTINUE" to save the changes and continue configuring other settings, or click "APPLY" to restart the system and make the changes take effect.

III-9. Configuration Tool



The access point's configuration tool enables you to back up the current settings, restore the settings to a previously backed up version or reset the access point back to its original factory settings.

Configuration Tool

Use the "Backup" tool to save the Access Point's current configurations to a file named "config.bin". You can then use the "Restore" tool to restore the saved configuration to the Access Point. Alternatively, you can use the "Restore to Factory Default" tool to force the Access Point to perform System Reset and restore the original factory settings.

Backup Settings :	Save
Restore Settings	Choose File no file selected Upload
Restore to Factory Default	Reset

Backup Settings	Click "Save" to save the current settings on your computer as a .bin file. The default filename is config.bin.
Restore Settings	Click the browse button to locate a previously saved configuration file and then click "Upload" to upload the file and replace your current settings.
Restore to Factory Defaults	Click "Reset" to restore settings to the factory default. A pop-up window will appear and ask you to confirm and enter your log in details. Enter your username and password and click "Ok". See below for more information.



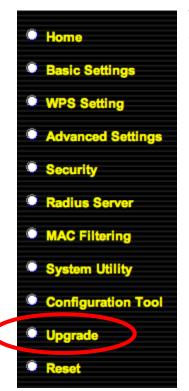
Note: Restoring settings to the factory default will restore all settings, configurations and passwords back to the factory default.



Note: You can also reset the device to the factory default by pressing and holding the Reset/WPS button for 10 seconds, until the Power LED () goes out. The Reset/WPS

button is located on the front panel of the device.

III-10. Upgrade



The access point's upgrade feature allows you to update the system firmware to a more recent version. You can download the latest firmware from the Edimax website.

Selecting "Upgrade" from the menu on the left side will bring you to the following screen.

Note: Do not turn off or disconnect the access point during a firmware upgrade, as this could damage the device.

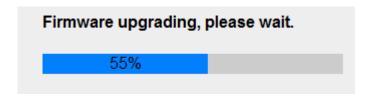


Note: It is recommended that you use a wired Ethernet connection to upload the firmware file.



WEB Upgrade This tool allows you to upgrade the Access Point's system firmware.It is recommended that upgrading the firmware from wired stations. Enter the path and name of the upgrade file and then click the APPLY button below. You will be prompted to confirm the upgrade. Choose File no file selected

Click on the "Choose file" button to open a window and locate the downloaded firmware file. Confirm your selection and click "APPLY". A firmware upgrade may take several minutes. The following message will appear:



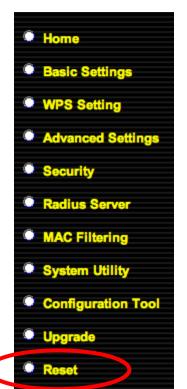
Please wait for the upgrade to complete. When it is complete, you will see the following message.

Upgrade Accomplished.

You should be able to reconnect to the router by refreshing the web page now. If not, please restart the router by reconnecting the power line manually.

Refresh your browser to return to the "Status and Information" homepage of the browser based configuration device.

III-11. Reset



If the access point malfunctions or is not responding, then it is recommended that you reset the device. This feature is useful if the location of the access point is not convenient.

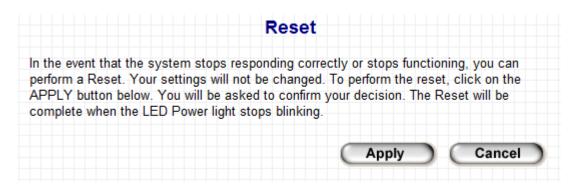
Note: If the access point is still not responding after a reset, then switch off the device by disconnecting the power supply and wait for 10 seconds before reconnecting the power.



Note: Resetting the device will not affect the current settings and configuration.

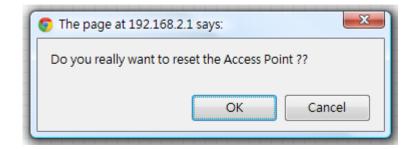


To reset the access point, click "Reset" in the menu on the left side of the browser based configuration interface and the following screen will be displayed.

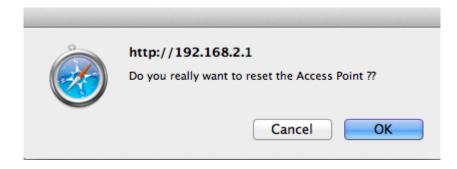


Please click "Apply" to reset the device. A new window will ask you to confirm, as shown below.

Windows:



Mac:

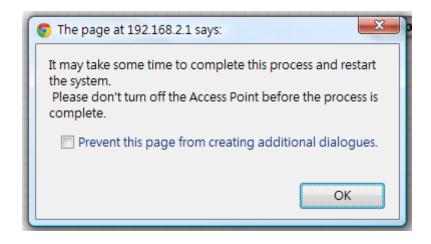


Click "OK" to continue, or "Cancel" to abort. You will see a warning that it may take a while for the access point to reset.

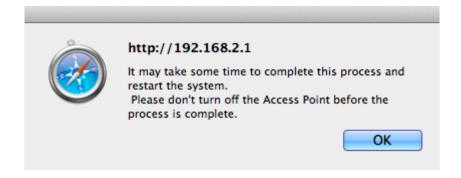


Note: Do not turn off the Access point during the reset process.

Windows:



Mac:



Please click "OK" to start the reset process. You will see the following screen while the system resets, the timer will count down from 30 seconds.



When the timer reaches zero and the reset is complete, please click "OK". You will return to the "Reset" page of the browser based configuration interface.

IV. APPENDIX

IV-1. Configuring your IP address

Before you use this access point, you may need to **modify the IP address of your PC or Macintosh**. The procedure for doing so varies across different operating systems; please follow the appropriate guide:

- IV-1-1. Windows XP
- IV-1-2. Windows Vista
- **IV-1-3.** Windows 7
- <u>IV-1-4. Windows 8</u>
- IV-1-5. Mac OS

This is since the access point's default IP address 192.168.2.1 may not be in the same IP address subnet of your network; meaning you are unable to access the browser based configuration interface. In order to access the browser based configuration interface, your computer's IP must be 192.168.2.x where x is a number in the range 1-254, meaning the access point's default IP address is in the same IP address subnet of your network. So if it isn't already, then you need to modify the IP address of your computer to 192.168.2.10.

After you access the browser based configuration interface, you can change the IP address of the access point as shown in III-8-2. Management IP, to one that is within the same IP address subnet of your network; meaning you will not have to modify the IP address of your computer again in future when you wish to access the browser based configuration interface.

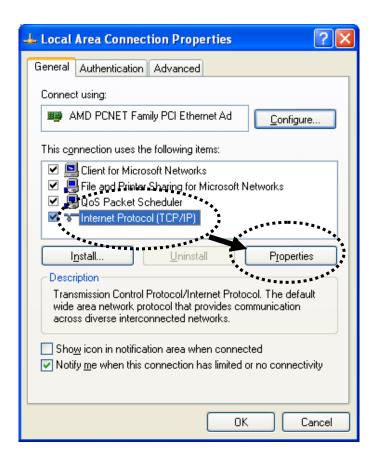


Note: Please ensure that your access point is switched on and connected to your computer via Ethernet cable before you begin.

IV-1-1. Windows XP

1. Click the "Start" button, located in the lower-left corner of your computer, and then click "Control Panel". Double-click the "Network and Internet Connections" icon, followed by "Network Connections" and then double-click "Local Area Connection".

The "Local Area Connection Status" window will appear, click "Properties".



2. Select "Use the following IP address", and input the following values:

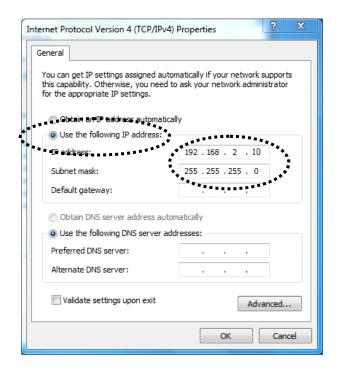


Note: Please note your existing setting before changing it. After you have finished using the browser based configuration interface, change this setting back to its original value.

IP address: 192.168.2.10

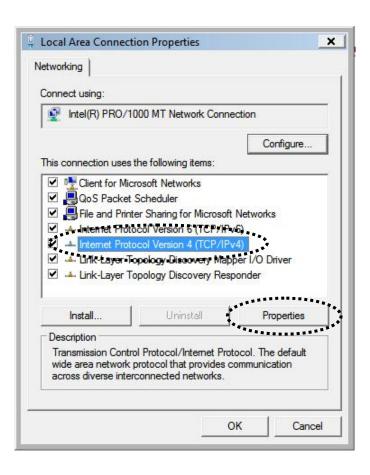
Subnet Mask: 255.255.255.0

Click 'OK' when finished.



IV-1-2. Windows Vista

1. Click the "Start" button, located in the lower-left corner of your computer, and then click "Control Panel". Click "View Network Status and Tasks" and then click "Manage Network Connections". Right-click "Local Area Network", and select "Properties". The "Local Area Connection Properties" window will appear, select "Internet Protocol Version 4 (TCP / IPv4)", and click "Properties".



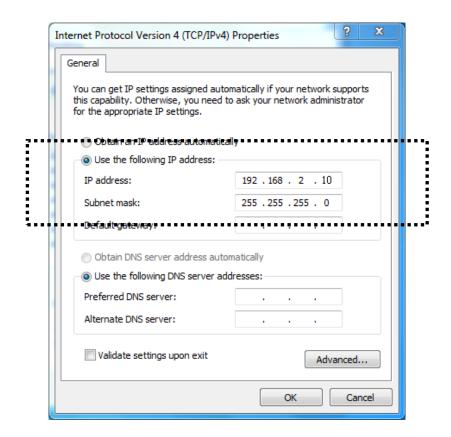
2. Select "Use the following IP address", and input the following values:

IP address: 192.168.2.10 Subnet Mask: 255.255.255.0



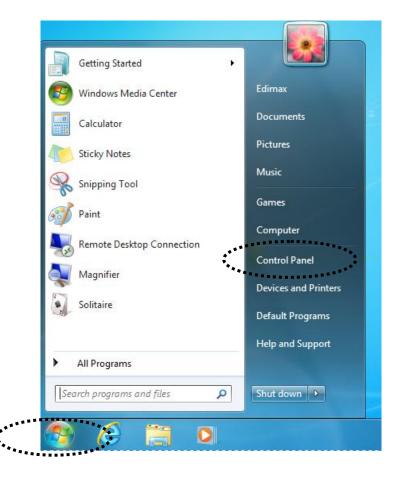
Note: Please note your existing setting before changing it. After you have finished using the browser based configuration interface, you can change this setting back to its original value.

Click 'OK' when finished.



IV-1-3. Windows 7

1. Click the "Start" button, located in the lower-left corner of your computer, and then click "Control Panel".

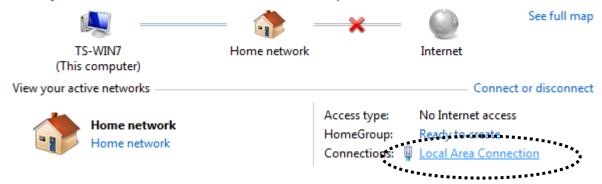


1. Under "Network and Internet" click "View network status and tasks".

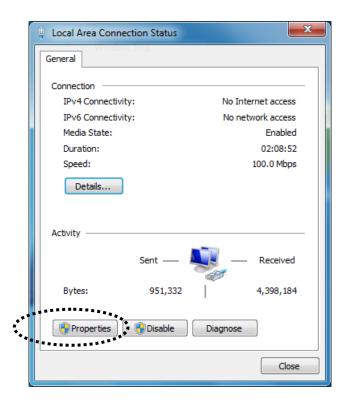


2. Click "Local Area Connection".

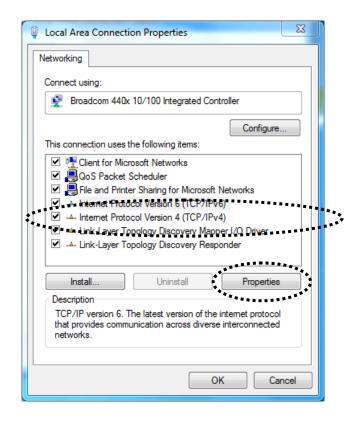
View your basic network information and set up connections



3. Click "Properties".



4. Select "Internet Protocol Version 4 (TCP/IPv6) and then click "Properties".



5. Select "Use the following IP address", and input the following values:

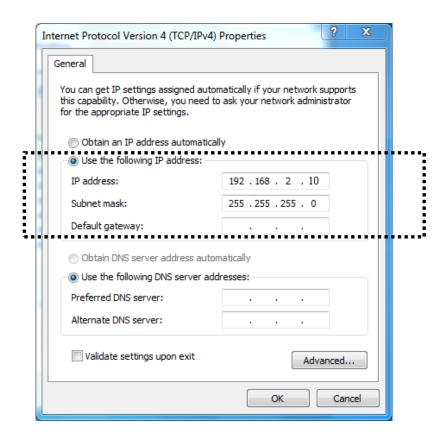


Note: Please note your existing setting before changing it. After you have finished using the browser based configuration interface, you can change this setting back to its original value.

IP address: 192.168.2.10

Subnet Mask: 255.255.255.0

Click 'OK' when finished.

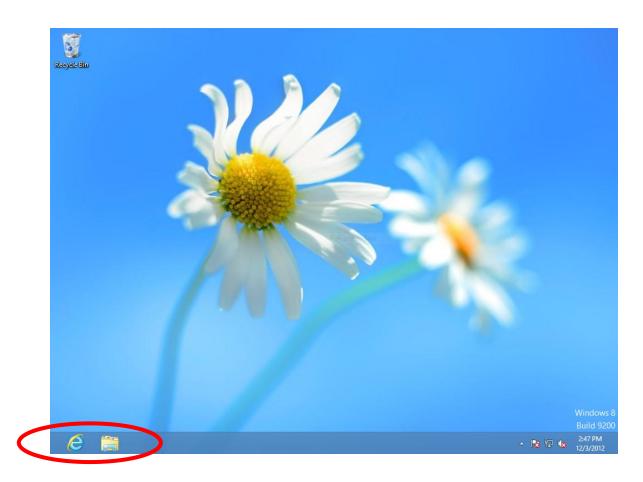


IV-1-4. Windows 8

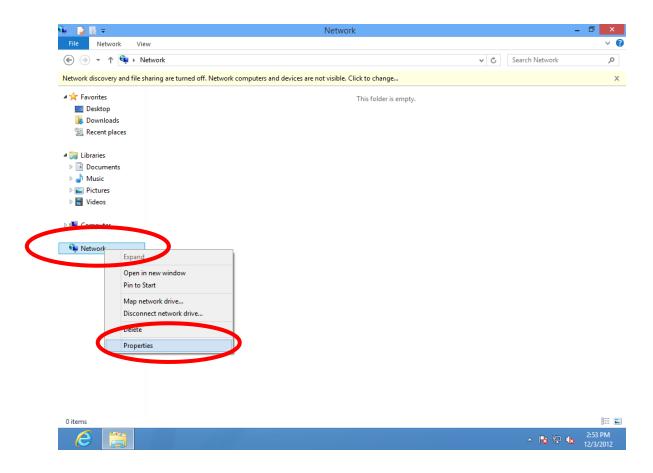
1. From the Windows 8 Start screen, you need to switch to desktop mode. Move your curser to the bottom left of the screen and click.



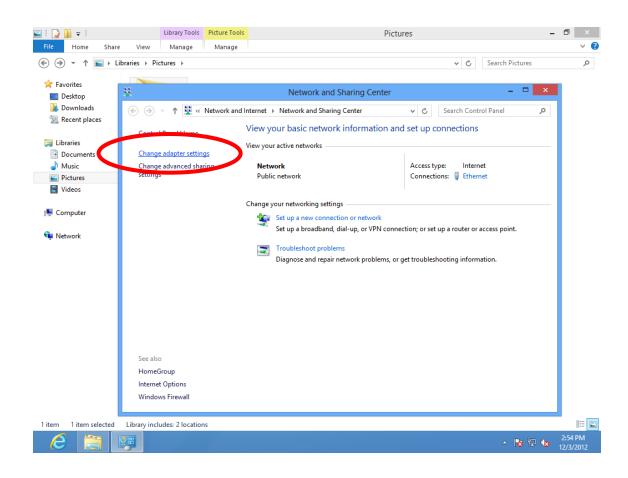
2. In desktop mode, click the File Explorer icon in the bottom left of the screen, as shown below.



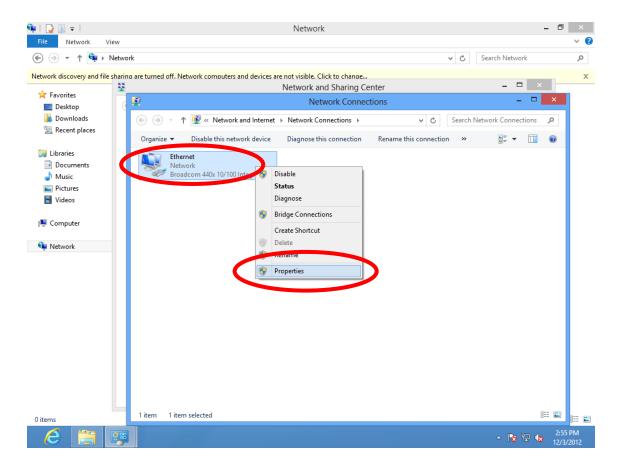
3. Right click "Network" and then select "Properties".



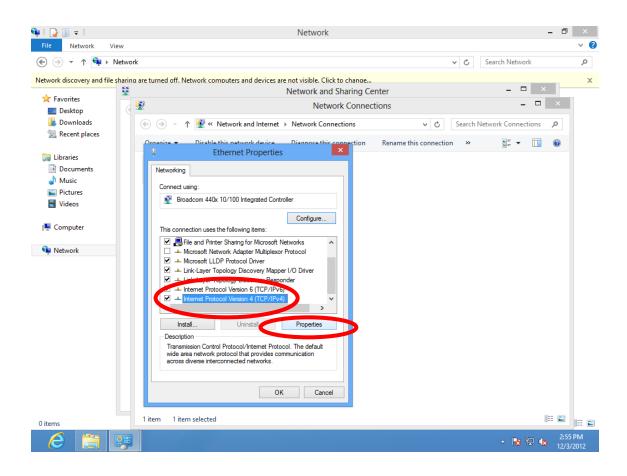
4. In the window that opens, select "Change adapter settings" from the left side.



5. Choose your connection and right click, then select "Properties".



6. Select "Internet Protocol Version 4 (TCP/IPv4) and then click "Properties".



7. Select "Use the following IP address", then input the following values:

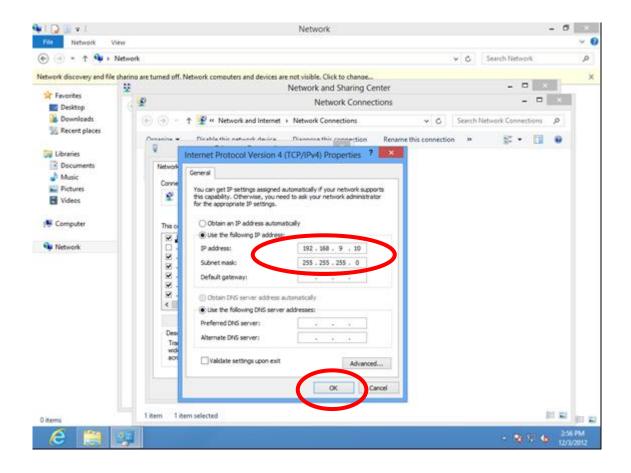


Note: Please note your existing setting before changing it. After you have finished using the browser based configuration interface, you can change this setting back to its original value.

IP address: 192.168.2.10

Subnet Mask: 255.255.255.0

Click 'OK' when finished.



IV-1-5. Mac OS

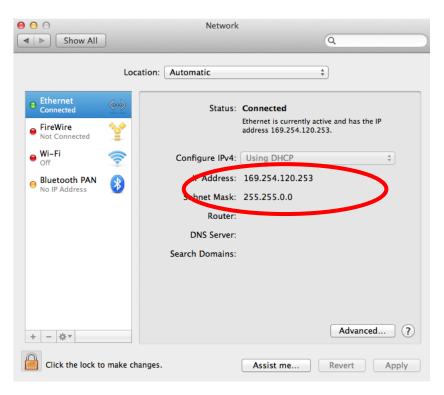
1. Have your Macintosh computer operate as usual, and click on "System Preferences".



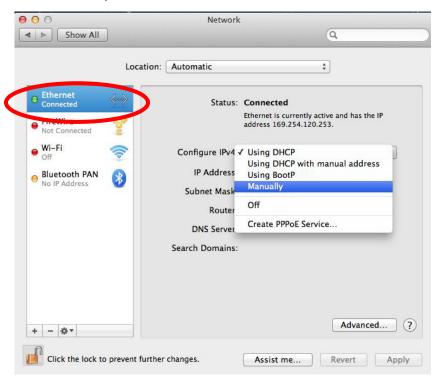
2. In System Preferences, click on "Network".



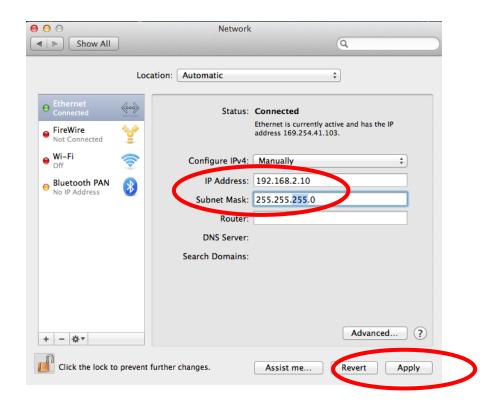
3. Here you will see all of your network connections. Network Preferences will now display an Ethernet adapter, as shown below. The status of "Ethernet" should be "Connected".



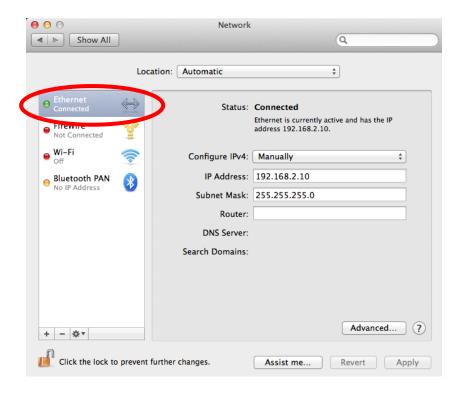
4. Click on "Ethernet" in the left panel and then click the drop down arrow for the menu labeled "Configure IPv4" in the right panel. From the drop down menu, select "Manually".



5. In the panel on the right side, enter IP address 192.168.2.10 and subnet mask 255.255.255.0. Click on "Apply".



6. In the left sidebar, "Ethernet" should now display "Connected" as shown below. In the right panel, you should see the IP address 192.168.2.10 and subnet mask 255.255.255.0.



IV-2. How to Find your Network Security Key

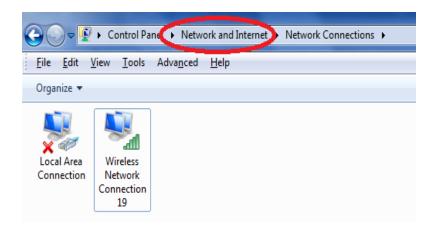
To find your network security key, please follow the instructions appropriate for your operating system.



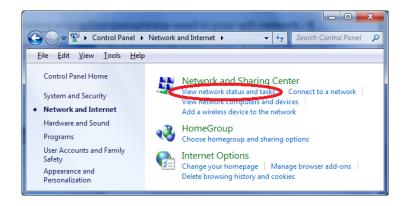
Note: If you are using Windows XP or earlier, please contact your ISP or router manufacturer to find your network security key.

IV-2-1. Windows 7 & Windows Vista

1. Open "Control Panel" and click on "Network and Internet" in the top menu.



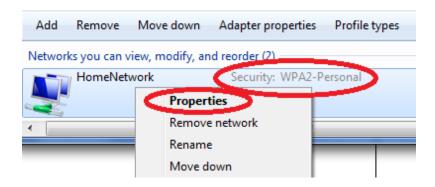
2. Click on "View network status and tasks" which is under the heading "Network and Sharing Center".



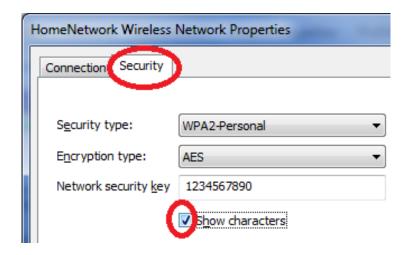
3. Click on "Manage wireless networks" in the left menu.



4. You should see the profile of your Wi-Fi network in the list. Right click on your Wi-Fi network and then click on "Properties".

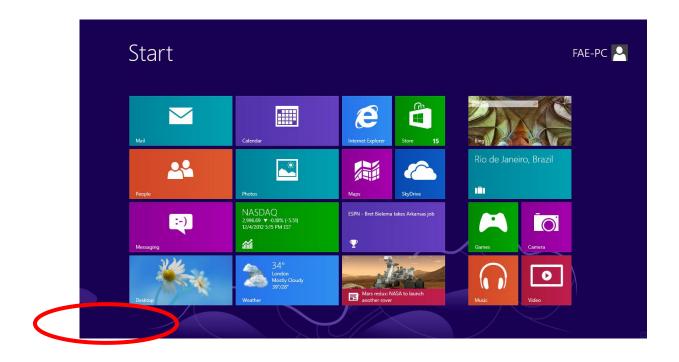


5. Click on the "Security" tab, and then check the box labeled "Show characters". This will show your network security key. Click the "Cancel" button to close the window.

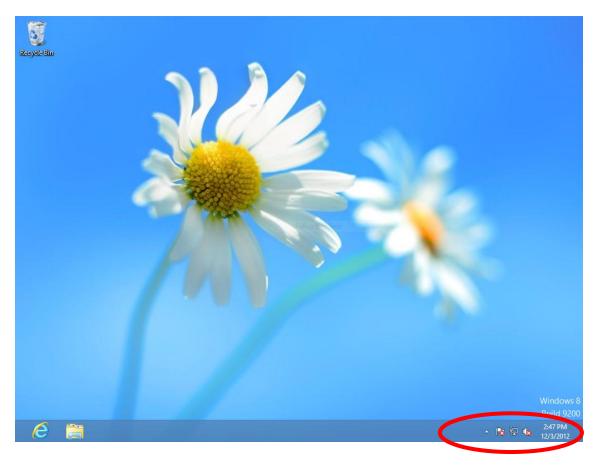


IV-2-2. Windows 8

1. From the Windows 8 Start screen, you need to switch to desktop mode. Move your curser to the bottom left of the screen and click.



2. In desktop mode, click the network icon in the bottom right corner.



3. Select your Wi-Fi connection from the list and right click. Select "View

connection properties".

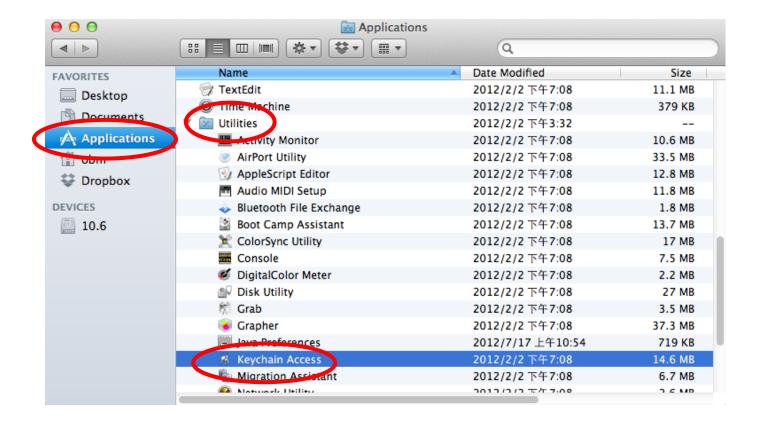


4. In the window that opens, click the "Security" tab and check the box labeled "Show characters". Your network security key will be displayed in the field "Network security key".

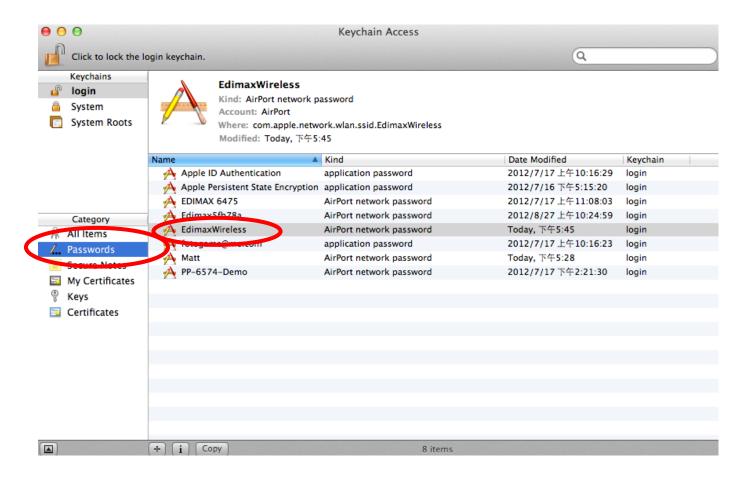


IV-2-3. Mac

1. Open a new Finder window, and select "Applications" from the menu on the left side. Open the folder labeled "Utilities" and then open the application "Keychain Access".



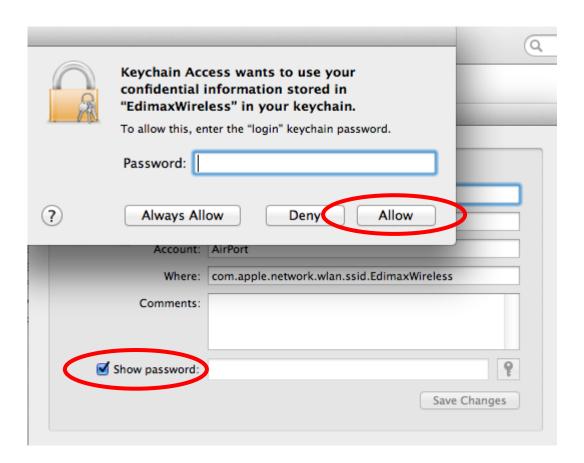
2. Select "Passwords" from the sub-menu labeled "Category" on the left side, as shown below. Then search the list in the main panel for the SSID of your network. In this example, the SSID is "EdimaxWireless" – though your SSID will be unique to your network.



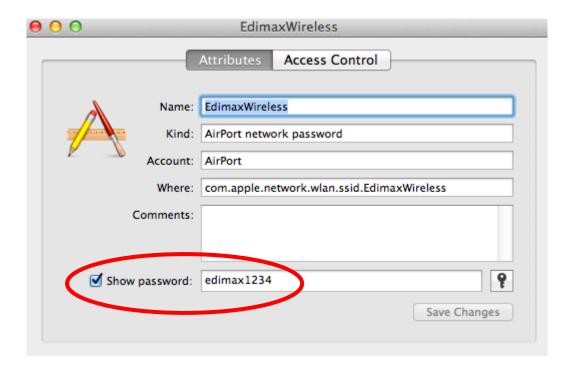
3. Double click the SSID of your network and you will see the following window.



4. Check the box labeled "Show password" and you will be asked to enter your administrative password, which you use to log into your Mac. Enter your password and click "Allow".



Your network security password will now be displayed in the field next to the box labeled "Show password". In the example below, the network security password is "edimax1234". Please make a note of your network security password.



IV-3. Troubleshooting

If you are experiencing problems with your access point, please refer to this troubleshooting guide before contacting your dealer of purchase for help.

Scenario	Solution		
My access point can't	a. Click "Rescan" several more times and see if the		
locate a wireless access	wireless access point/device appears.		
point/wireless device	b. Adjust the position of the access point, or move		
when using the "Site	closer to a known wireless access point.		
Survey" function.	c. If the SSID of the access point you wish to		
	connect to is hidden (nothing displayed in the		
	"SSID" field in the "Site Survey" function), then		
	you need to input the SSID manually. Ensure that		
	you input the correct SSID.		
My access point can't	a. Click "Connect" several more times and see if		
establish a connection	you can establish a connection.		
with a particular wireless	b. Ensure that you input the correct		
access point.	passphrase/security key if connecting to an		
	access point with encryption.		
	c. It is possible that the access point you wish to		
	connect to only allows network cards with		
	specific MAC address's to establish connections.		
	Request that the owner/administrator of the		
	access point add your MAC address to the list.		
I can't log onto the	a. Make sure access point is powered on. Check		
browser-based	the LED on the front panel. If the LED is out,		
configuration interface:	then check the USB connection.		
the access point is not responding.	 Use your wireless device connects to this access point wirelessly. 		
i sep essemig.	c. Make sure you are using the correct IP address.		
	d. If you are using a MAC or IP address filter, try to		
	connect the access point to another computer.		
	e. Set your computer to obtain an IP address		
	automatically (DHCP), and see if your computer		
	can obtain an IP address.		
	f. If you are experiencing problems after a		
	firmware upgrade, please contact your dealer of		
	purchase for help.		
I can't locate the access	a. Check if "Broadcast ESSID" (in the "Wireless		
point with my wireless	Advanced" section of the browser-based		

client.	configuration interface) is "Enabled" or "Disabled". If "Disabled" you need to input the ESSID into your wireless client manually. b. Try moving closer to the access point	
File transfers are slow or frequently interrupted.	 a. Try to move closer to where the wireless access point is located. b. Try again later. Your local network may be experiencing technical difficulties or very high usage. c. Change channel number. 	
I can't log onto the browser-based configuration interface: incorrect password.	a. Password is case-sensitive. Make sure the "Caps Lock" light is not illuminated.b. If you do not know your password, restore the device to factory settings.	
The access point is extremely hot.	 a. It is normal for the access point to heat up during frequent use. If you can safely place your hand on the access point, the temperature of the device is at a normal level. b. If you smell burning or see smoke coming from access point or A/C power adapter, then disconnect the access point and A/C power adapter immediately, as far as it is safely possible to do so. Call your dealer of purchase for help. 	

IV-4. Glossary

Default Gateway (Access point): Every non-access point IP device needs to configure a default gateway's IP address. When the device sends out an IP packet, if the destination is not on the same network, the device has to send the packet to its default gateway, which will then send it out towards the destination.

DHCP: Dynamic Host Configuration Protocol. This protocol automatically gives every computer on your home network an IP address.

DNS Server IP Address: DNS stands for Domain Name System, which allows Internet servers to have a domain name (such as www.Broadbandaccess point.com) and one or more IP addresses (such as 192.34.45.8). A DNS server keeps a database of Internet servers and their respective domain names and IP addresses, so that when a domain name is requested (as in typing "Broadbandaccess point.com" into your Internet browser), the user is sent to the proper IP address. The DNS server IP address used by the

computers on your home network is the location of the DNS server your ISP has assigned to you.

DSL Modem: DSL stands for Digital Subscriber Line. A DSL modem uses your existing phone lines to transmit data at high speeds.

Ethernet: A standard for computer networks. Ethernet networks are connected by special cables and hubs, and move data around at up to 10/100 million bits per second (Mbps).

Idle Timeout: Idle Timeout is designed so that after there is no traffic to the Internet for a pre-configured amount of time, the connection will automatically be disconnected.

IP Address and Network (Subnet) Mask: IP stands for Internet Protocol. An IP address consists of a series of four numbers separated by periods, that identifies a single, unique Internet computer host in an IP network. Example: 192.168.2.1. It consists of 2 portions: the IP network address, and the host identifier.

The IP address is a 32-bit binary pattern, which can be represented as four cascaded decimal numbers separated by ".": aaa.aaa.aaa.aaa, where each "aaa" can be anything from 000 to 255, or as four cascaded binary numbers separated by ".":

A network mask is also a 32-bit binary pattern, and consists of consecutive leading 1's followed by consecutive trailing 0's, such as

When both are represented side by side in their binary forms, all bits in the IP address that correspond to 1's in the network mask become part of the IP network address, and the remaining bits correspond to the host ID.

For example, if the IP address for a device is, in its binary form,

11011001.10110000.10010000.00000111, and if its network mask is,

1111111111111111111110000.00000000

It means the device's network address is

11011001.10110000.10010000.00000000, and its host ID is,

0000000.0000000.0000<u>0000.0000111</u>. This is a convenient and efficient method for access points to route IP packets to their destination.

ISP Gateway Address: (see ISP for definition). The ISP Gateway Address is an IP address for the Internet access point located at the ISP's office.

ISP: Internet Service Provider. An ISP is a business that provides connectivity to the Internet for individuals and other businesses or organizations.

LAN: Local Area Network. A LAN is a group of computers and devices connected together in a relatively small area (such as a house or an office). Your home network is considered a LAN.

MAC Address: MAC stands for Media Access Control. A MAC address is the hardware address of a device connected to a network. The MAC address is a unique identifier for a device with an Ethernet interface. It is comprised of two parts: 3 bytes of data that corresponds to the Manufacturer ID (unique for each manufacturer), plus 3 bytes that are often used as the product's serial number.

NAT: Network Address Translation. This process allows all of the computers on your home network to use one IP address. Using the broadband access point's NAT capability, you can access the Internet from any computer on your home network without having to purchase more IP addresses from your ISP.

Port: Network Clients (LAN PC) uses port numbers to distinguish one network application/protocol over another. Below is a list of common applications and protocol/port numbers:

Application	Protocol	Port Number
Telnet	ТСР	23
FTP	TCP	21
SMTP	ТСР	25
POP3	ТСР	110
H.323	ТСР	1720
SNMP	UCP	161
SNMP Trap	UDP	162
HTTP	TCP	80
PPTP	TCP	1723
PC Anywhere	ТСР	5631
PC Anywhere	UDP	5632

PPPoE: Point-to-Point Protocol over Ethernet. Point-to-Point Protocol is a secure data transmission method originally created for dial-up connections; PPPoE is for Ethernet connections. PPPoE relies on two widely accepted standards, Ethernet and the Point-to-Point Protocol. It is a communications protocol for transmitting information over Ethernet between different manufacturers

Protocol: A protocol is a set of rules for interaction agreed upon between multiple parties

so that when they interface with each other based on such a protocol, the interpretation of their behavior is well defined and can be made objectively, without confusion or misunderstanding.

Access point: A access point is an intelligent network device that forwards packets between different networks based on network layer address information such as IP addresses.

Subnet Mask: A subnet mask, which may be a part of the TCP/IP information provided by your ISP, is a set of four numbers (e.g. 255.255.255.0) configured like an IP address. It is used to create IP address numbers used only within a particular network (as opposed to valid IP address numbers recognized by the Internet, which must be assigned by InterNIC).

TCP/IP, UDP: Transmission Control Protocol/Internet Protocol (TCP/IP) and Unreliable Datagram Protocol (UDP). TCP/IP is the standard protocol for data transmission over the Internet. Both TCP and UDP are transport layer protocol. TCP performs proper error detection and error recovery, and thus is reliable. UDP on the other hand is not reliable. They both run on top of the IP (Internet Protocol), a network layer protocol.

WAN: Wide Area Network. A network that connects computers located in geographically separate areas (e.g. different buildings, cities, countries). The Internet is a wide area network.

Web-based management Graphical User Interface (GUI): Many devices support a graphical user interface that is based on the web browser. This means the user can use the familiar Netscape or Microsoft Internet Explorer to Control/configure or monitor the device being managed.

IV-5. Technical Support

Support documentation is available on the enclosed CD and on our global websites.

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Cambodia Service Centre

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(9am ~ 5:30pm, Monday ~ Friday except national holidays)

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Malaysia - Kuala Lumpur Authorized Service Centre

Technical Hotline: 03 2052 4288; 03 9130 7728

(11am ~ 8pm, Monday ~ Friday except national holidays)

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Indonesia - Jakarta Authorized Service Centre

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