

CV-7428nS

User Manual

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The product you have purchased and the setup screen may appear slightly different from those shown in this QIG. For more information about this product, please refer to the user manual on the CD-ROM. The software and specifications are subject to change without notice. Please visit our website www.edimax.com for updates. All brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

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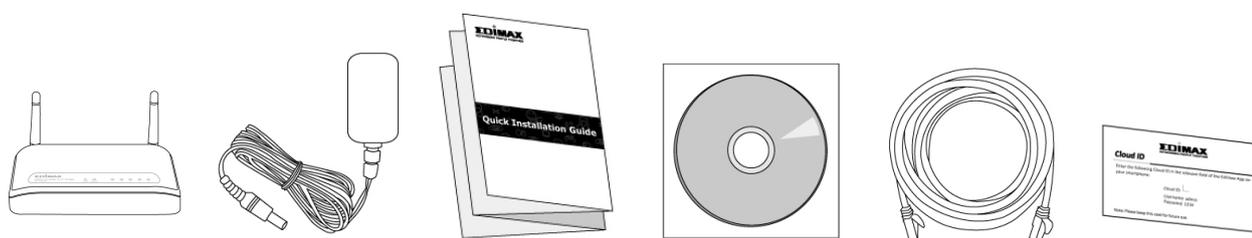
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I. PRODUCT INFORMATION

Thank you for purchasing the Edimax CV-7428nS N300 Universal Wi-Fi Bridge. For smart TV's, Blu-ray, gaming or other home entertainment devices, the CV-7428nS enables you to bridge a Wi-Fi connection to a wired-only device. Eliminate Ethernet cables and enjoy 802.11n Wi-Fi connection across multiple entertainment devices.

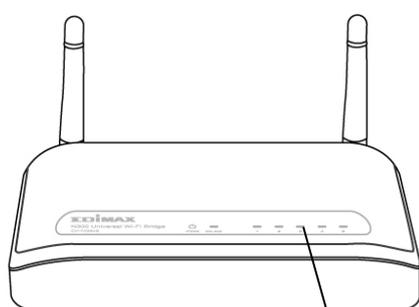
I-1. Package Contents

Before you start using the wireless bridge, please check if there's anything missing in the package, and contact your dealer of purchase to claim any missing items.



- CV-7428nS wireless bridge
- Power adapter
- Quick installation guide
- CD with multi-language QIG and user manual
- RJ45 Ethernet cable
- Access key card

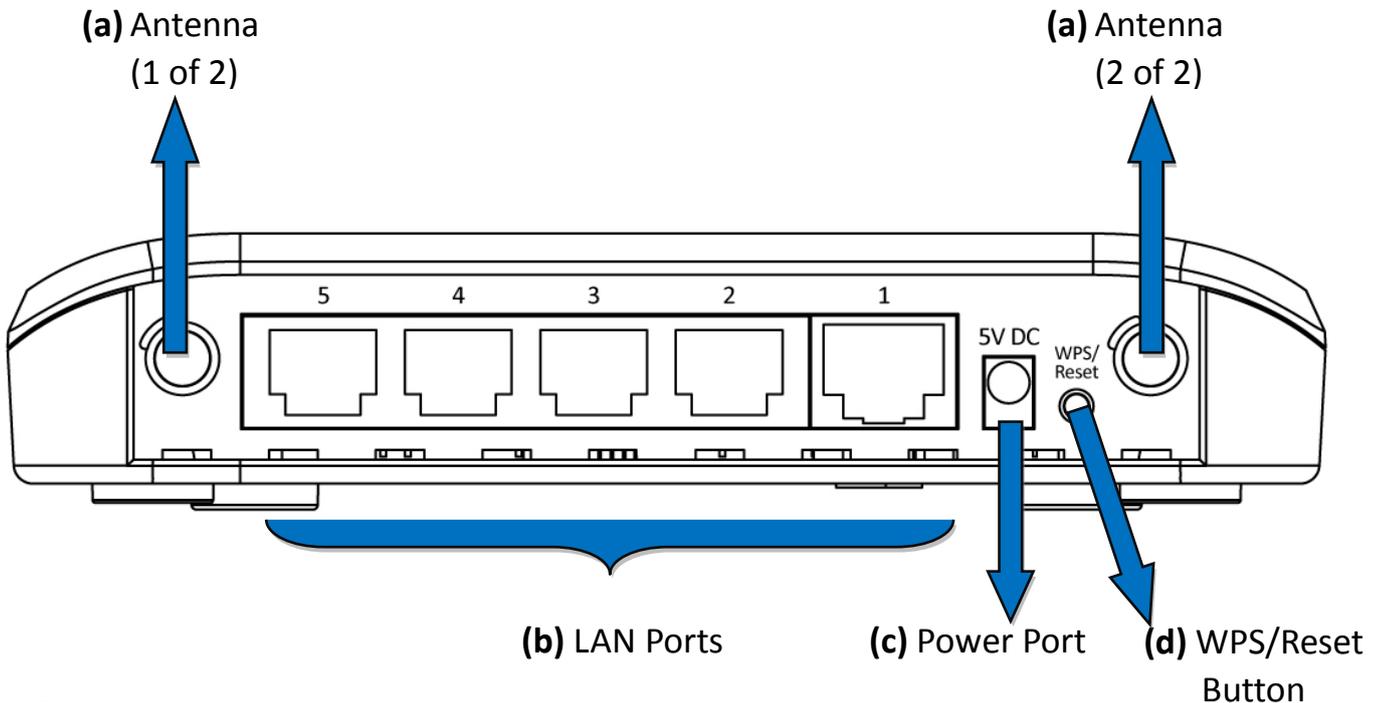
I-2. Top Panel



I-3. LED Status

Item	Color	Status	Description
<u>PWR</u> (Power)	Green	On	Wireless bridge is on.
		Flashing	Device is booting up.
		Off	Wireless bridge is off.
<u>WLAN</u> (Wireless LAN)	Orange	On	WPS connection has been established successfully. The LED will remain on for 5 minutes.
		Flashing	WLAN activity – transferring or receiving data.
		Slow Flashing	WPS is activated and waiting for WPS connection. The LED will flash two seconds on, two seconds off. The wireless bridge will wait for a WPS connection for two minutes.
		Off	Wireless network is off.
<u>1 to 5</u> (LAN Ports 1 to 5)	Green	On	Corresponding Ethernet port is connected to a device.
		Flashing	Data is being transmitted through the Ethernet cable.
		Off	Corresponding Ethernet port is not connected to a device.

I-4. Rear Panel



- a. **Antenna**
Fixed dipole antenna.
- b. **10/100M LAN Ports**
Connect computers or other network devices to these ports using an Ethernet cable.
- c. **Power Port**
Connect the included 5V DC power adapter here.
- d. **WPS/Reset Button**
Press and hold this button for 2 seconds to activate the WPS function. Press and hold this button for 10 seconds, until the PWR LED starts flashing, to reset the wireless bridge to factory default settings.

I-5. Safety Information

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

1. The wireless bridge is designed for indoor use only; do not place the wireless bridge outdoors.
2. Do not place the wireless bridge 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 wireless bridge.
4. Ensure that the wireless bridge is firmly secured to a wall or ceiling. In the event of damage due to the wireless bridge falling from its location, the warranty of the wireless bridge is void.
5. The device contains small parts which are a danger to small children under 3 years old. Please keep the wireless bridge out of reach of children.
6. Do not place the wireless bridge on paper, cloth, or other flammable materials. The wireless bridge will become hot during use.
7. There are no user-serviceable parts inside the wireless bridge. If you experience problems with the wireless bridge, please contact your dealer of purchase and ask for help.
8. The wireless bridge 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 wireless bridge or A/C power adapter, then disconnect the wireless bridge and A/C power adapter immediately, as far as it is safely possible to do so. Call your dealer of purchase for help.

I-6. System Requirements

- Network device with Ethernet port e.g. smart TV, Blu-ray or DVD player, NAS, games console or other devices.
- Existing 2.4GHz wireless network (11b, 11g, 11b/g/n)
- Computer with Ethernet port and web browser (Internet Explorer 7 or above, Google Chrome, Firefox or the latest version of Safari).

II. QUICK SETUP

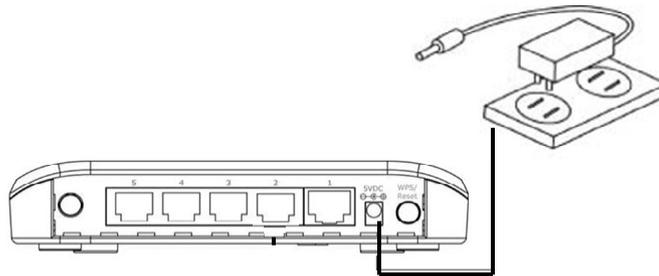
Your wireless bridge can be up and running in a matter of minutes. There are two ways you can quickly setup your wireless bridge - using the **WPS button** or using **iQ Setup** on your computer.

II-1. WPS Button Setup

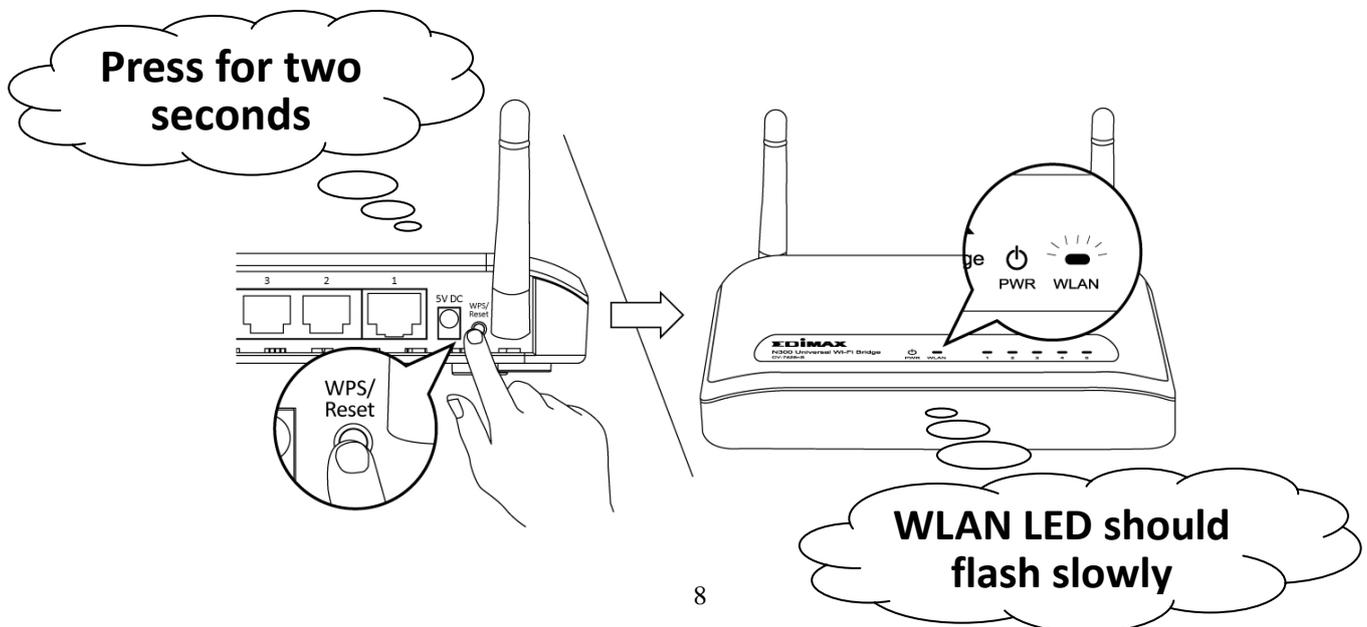


Note: If your root network access point/router does not have a WPS button or if you encounter difficulties establishing a WPS connection, please refer to [II-2. iQ Setup](#) as an alternative.

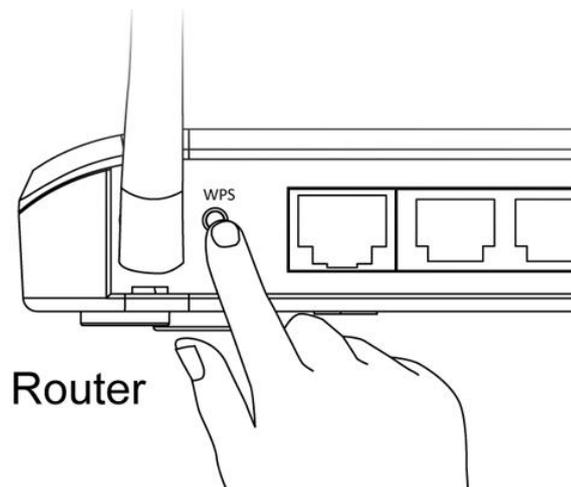
1. Plug the power adapter into the device's 5V power port, and plug the adapter into a wall socket. The PWR LED will light up as **on** when the device is ready.



2. Press and hold the WPS button on the wireless bridge for **2 seconds** to activate the WPS function. The WLAN LED should **flash slowly** (two seconds on, two seconds off) to indicate that WPS is in progress.



3. The WPS function of the wireless bridge will now be **active for 2 minutes**. So, **within 2 minutes**, please press the WPS button on the wireless router/access point of your root network, to activate its WPS function also.



Note: Different routers/access points may require you to press and hold the WPS button for different lengths of time – if you are unsure, please consult the user manual of your device.



Note: Please take care not to hold the WPS button for **too long**. It is common for a WPS button to have a secondary function as a reset button, depending on the length of time which the button is held for. Holding the WPS button for too long may result in inadvertently resetting the device.

4. A WPS connection will now be established between your wireless bridge and root network router/access point within two minutes. The WLAN LED will **stop flashing**, and display **on** to indicate a successful connection. The WLAN LED will remain on for 5 minutes.



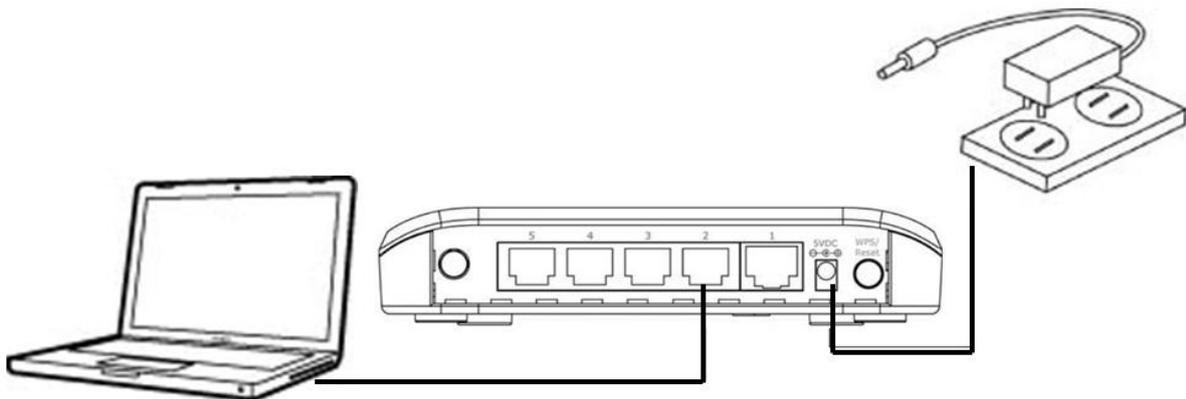
Note: If the WPS function on your wireless bridge timed out after 2 minutes, before you activated WPS on your router/access point, then please return to **step 2** and try again.

Your wireless bridge is now configured and ready for use with your wired network device, such as smart TV, Blu-ray player or games console. Please see

Hardware Installation for guidance on using the wireless bridge with your network device.

II-2. iQ Setup

1. Connect one end of an Ethernet cable (included in the package contents) to the Ethernet port on your computer. Connect the other end to an LAN port on the wireless bridge.
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.



Note: Before you use the wireless bridge, please make sure your computer is set to use a **dynamic IP address**. This is a simple procedure, and step by step instructions for how to do this, can be found in [IV-1-1. How to configure your computer to use a dynamic IP address.](#)

3. Open a web browser, and you will be prompted for a username and password.



Note: If you are not prompted for a username and password, please enter “<http://edimax.go>” into the URL bar.

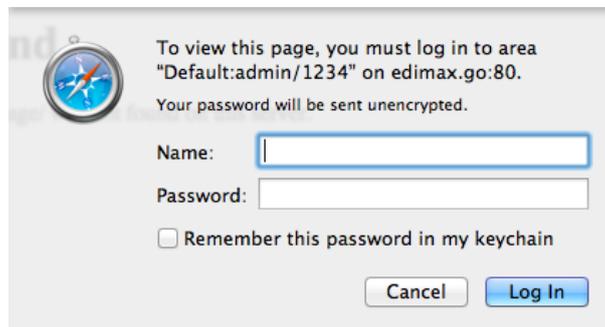
4. Please enter the default username “**admin**” and the default password “**1234**”.

Windows:



A Windows dialog box titled "Connect to 192.168.2.2" with a key icon. It shows a default username/password of "admin/1234". There are input fields for "User name:" and "Password:", a "Remember my password" checkbox, and "OK" and "Cancel" buttons.

Mac:



A Mac login dialog box with a compass icon. It says: "To view this page, you must log in to area 'Default:admin/1234' on edimax.go:80. Your password will be sent unencrypted." It has "Name:" and "Password:" input fields, a "Remember this password in my keychain" checkbox, and "Cancel" and "Log In" buttons.

5. You will see the **iQ Setup** screen, as shown below. All available Wi-Fi networks will be listed – please select the Wi-Fi network you would like the wireless bridge to connect to. If your selected Wi-Fi network requires a security key, a new field will appear when you select your Wi-Fi network. Please enter your security key.

iQ Setup

Please connect this device to one of the following Wi-Fi networks.

Select	SSID	Band	Channel	Encryption	Signal
<input type="radio"/>	EdimaxHQ	(B+G+N)	9	no	91
<input checked="" type="radio"/>	6228NC	(B+G+N)	7	WPA2-PSK	91
Security Key: <input type="text"/>					
<input type="radio"/>	6596	(B+G+N)	7	WPA2-PSK	87
<input type="radio"/>	EdimaxHQ	(B+G+N)	9	no	86



Note: If you do not know your network security key, please refer to [IV-1-3. How to Find Your Network Security Key](#) for guidance on how to find it.

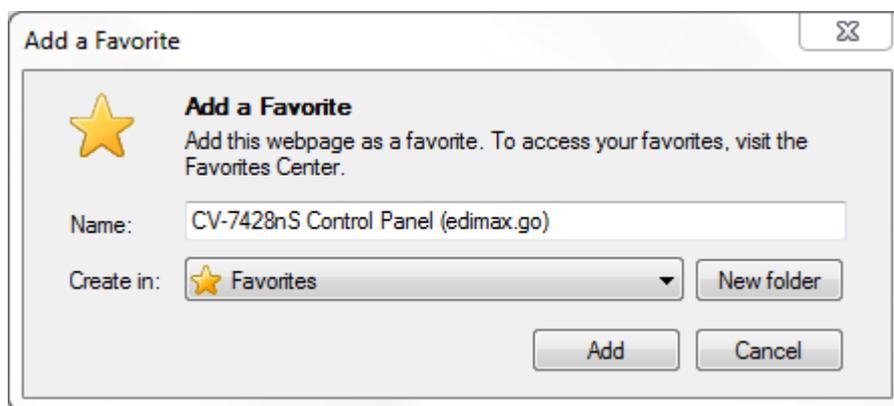


Note: If the Wi-Fi network you wish to connect to is not listed, try clicking “**Refresh**” to refresh the list.

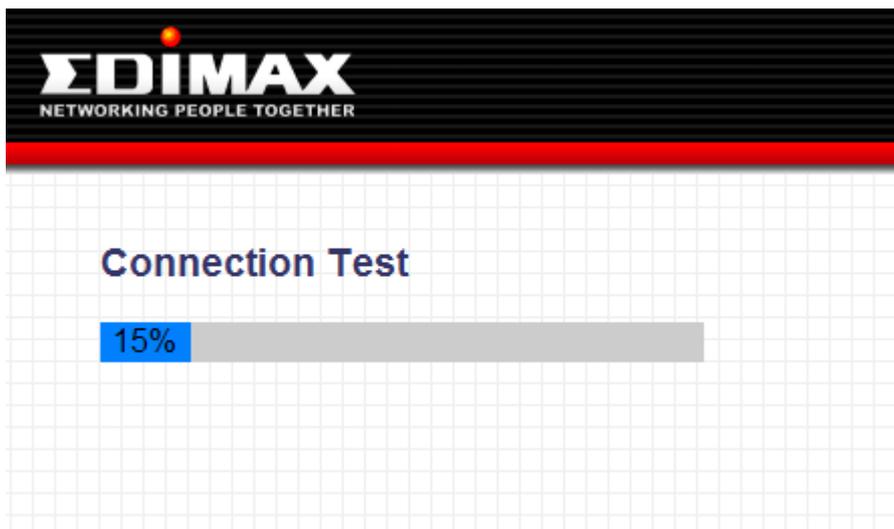
6. Click “**NEXT**” to continue, and Internet Explorer and Firefox users will be asked to confirm if you wish to add “**http://edimax.go**” to your bookmarks. We recommend that you do so for future use.



Note: If you are using a different browser, it is recommended that you copy the URL “**http://edimax.go**” and add it to your bookmarks manually.



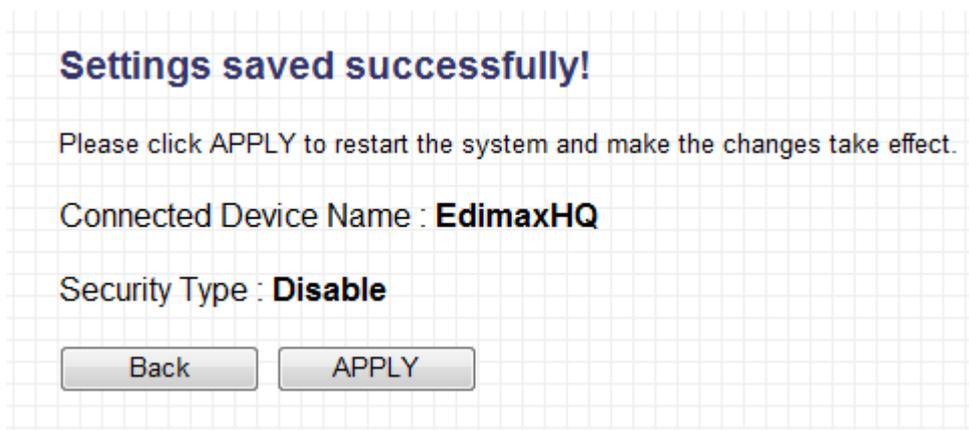
7. Next, please wait while the wireless bridge tests the connection.



8. When the test has finished, the following screen will be displayed. Please click “**NEXT**” to continue.



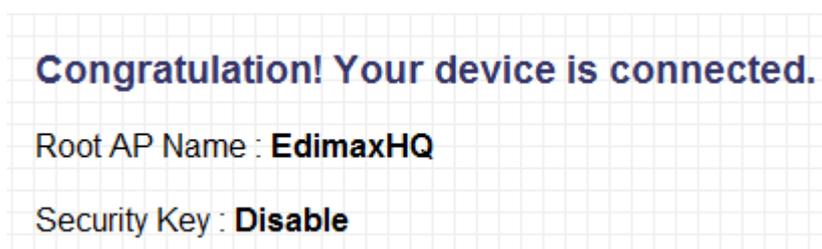
9. The device name and security type will be displayed on the screen. Click “APPLY” to restart the wireless bridge and make the settings take effect, or click “Back” to go back to the previous screen.



10. When you click “APPLY”, the system will restart. Please wait until the restart completes.



11. The following screen will confirm that your wireless bridge is connected to your Wi-Fi network, and the root AP name and security key will also be displayed.



Your wireless bridge is now configured and ready for use with your wired network device, such as smart TV, Blu-ray player or games console. Please see **Hardware Installation** for guidance on using the wireless bridge with your network device.

II-3. Hardware Installation

I. After WPS button setup

Connect the wireless bridge to one or more of your network devices, using an Ethernet cable (included). Switch on your network device and connect to your network as usual. See **Figure i & Figure ii**.

II. After iQ Setup

After you have completed iQ Setup, disconnect the wireless bridge from your computer and power supply. Connect the wireless bridge to one or more of your network devices, using an Ethernet cable (included) and reconnect the power supply – remember to wait for the PWR LED to display **on** to indicate that the device has finished booting up. Switch on your network device and connect to your network as usual. See **Figure i & Figure ii**.

Figure i

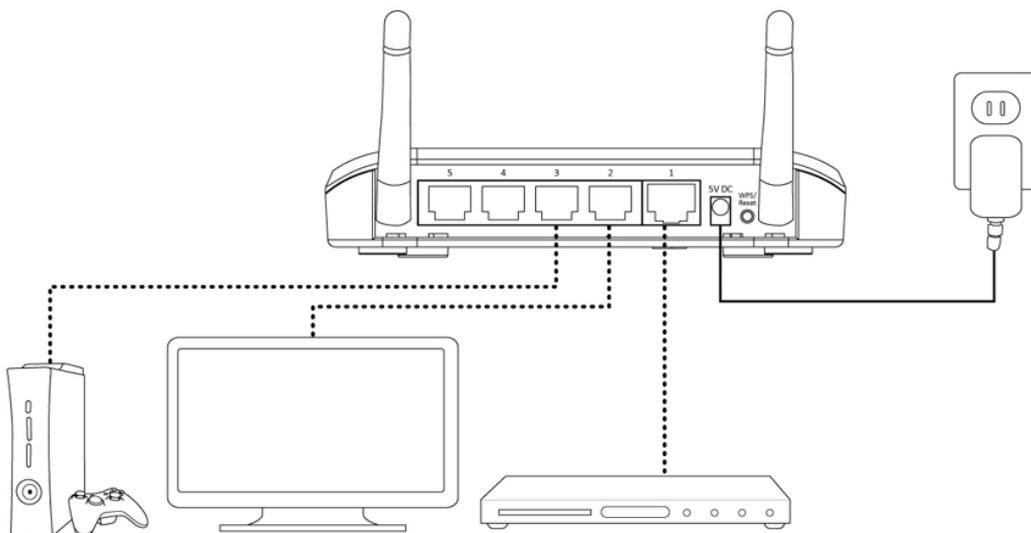
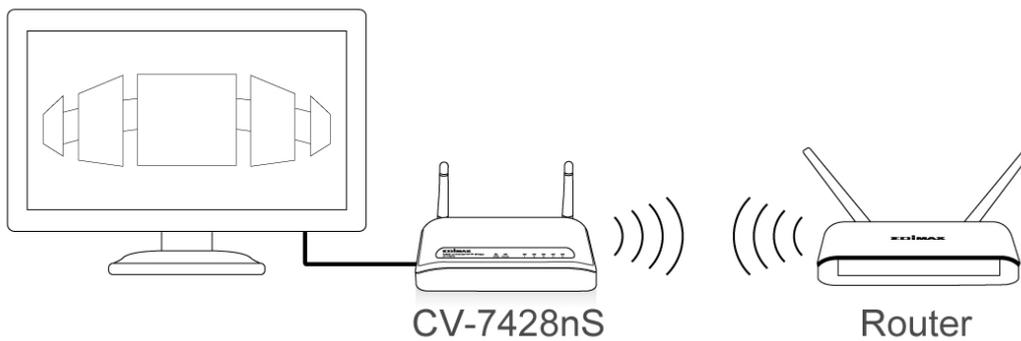
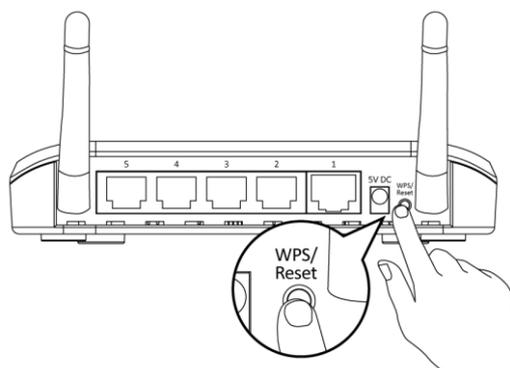


Figure ii



II-4. Resetting the Wireless Bridge

In the event that the wireless bridge malfunctions or stops responding, you can reset the device back to its factory settings. To do so, press and hold the WPS/Reset button on the rear panel of the device for at least 10 seconds. When the green PWR LED begins to flash, release the WPS/Reset button and wait for the device to restart. The device is ready when the PWR LED has **stopped flashing**, and displays **on**.



III. BROWSER BASED CONFIGURATION INTERFACE

Once you have setup the wireless bridge as detailed in [II. Quick Setup](#) or the included **QIG**, you can further configure the settings of the wireless bridge anytime using the browser based configuration interface.



Note: Before you use the wireless bridge, please make sure your computer is set to use a **dynamic IP address**. This is a simple procedure, and step by step instructions for how to do this, can be found in [IV-1-1. How to configure your computer to use a dynamic IP address.](#)

Ensure that your wireless bridge is powered on and connected to your computer via an Ethernet cable as explained in [II-2. iQ Setup](#) steps 1 – 2.

Please follow the instructions appropriate for your operating system:

Windows

Open a web browser (Internet Explorer is recommended) and enter “<http://www.edimax.go>” into the URL bar. You will be prompted for a username and password, please enter the default username “**admin**” and the default password “**1234**”.



Mac:

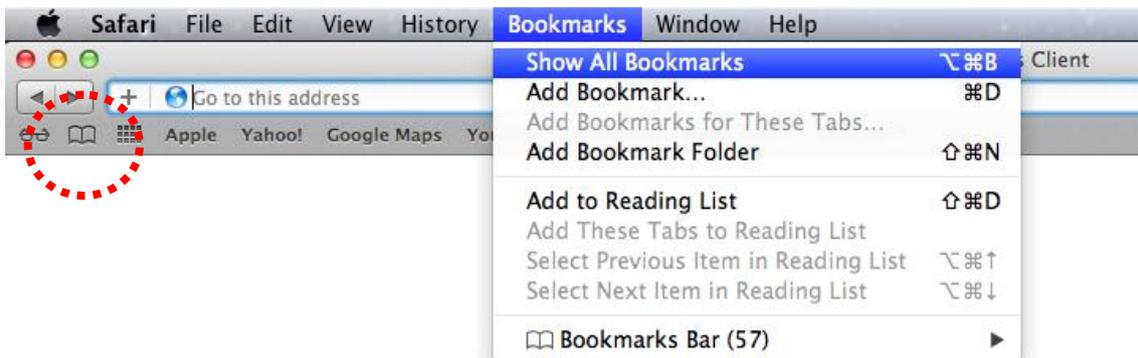
Open a web browser and enter “<http://www.edimax.go>” into the URL bar. You will be prompted for a username and password, please enter the default username “**admin**” and the default password “**1234**”.

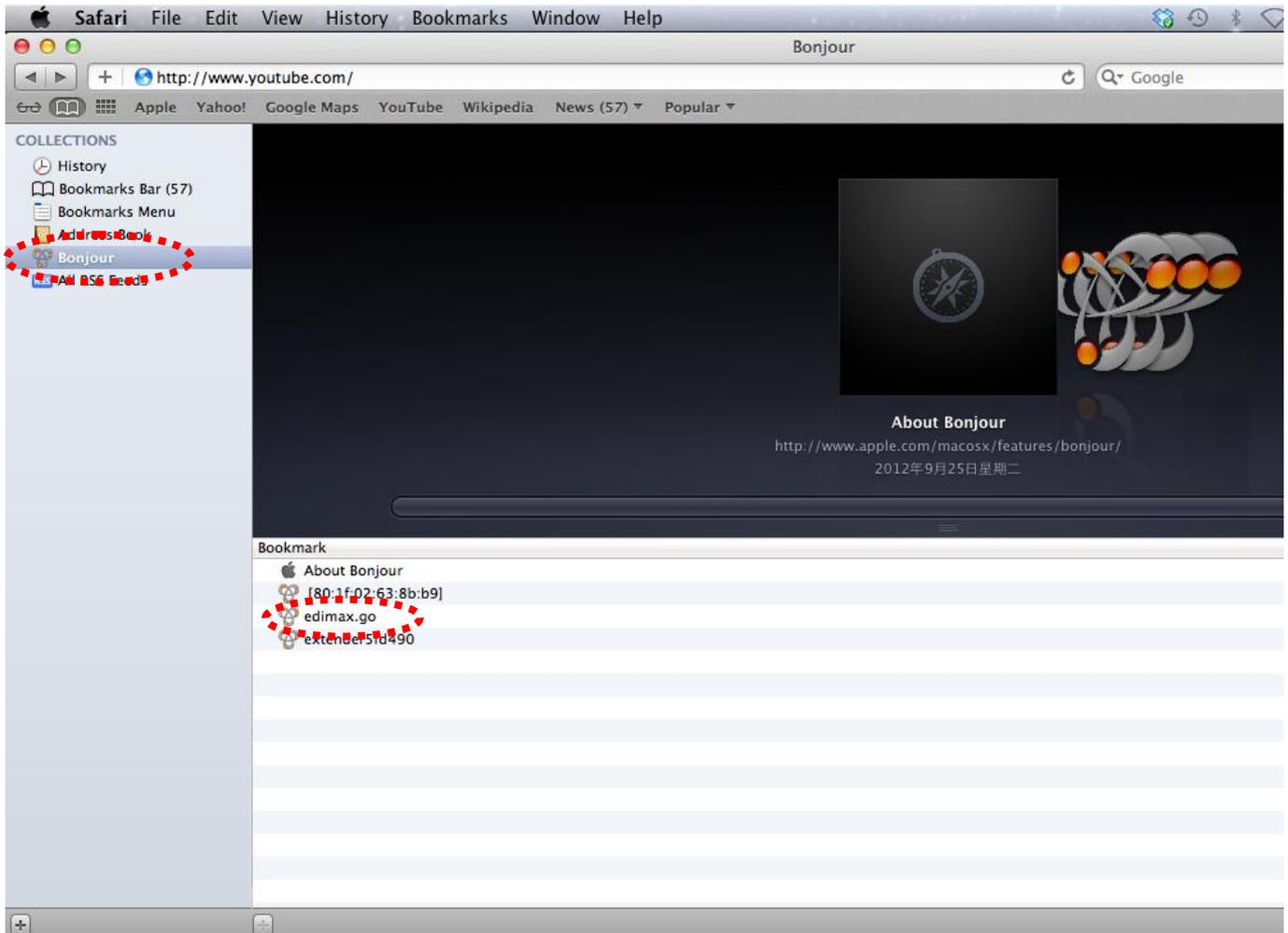


Note: Mac users can also use the **Bonjour** function of **Safari** to access the browser based configuration interface, as explained below.

Open **Safari** web browser and open the “Bookmarks” menu across the top of the screen, and select “Show All Bookmarks”. **Or** you can click on the bookmarks icon under the URL bar.

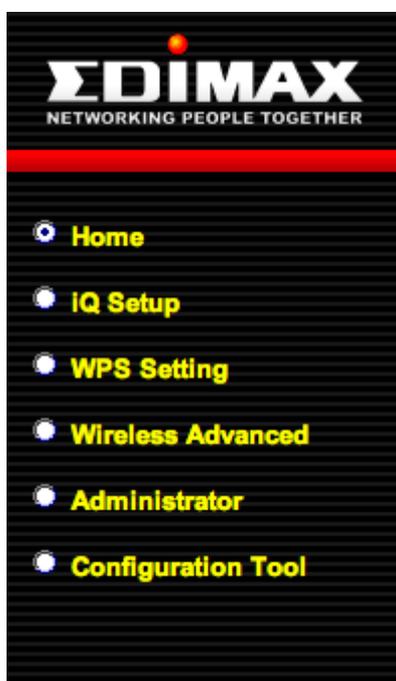
Then, select “Bonjour” from the menu in the left panel. Finally, click on “edimax.go” in the lower panel on the right side.





You will be prompted for a username and password. Please enter the default username “**admin**” and the default password “**1234**”.

Both Windows and Mac users will now arrive at the browser based configuration interface home screen. You can navigate around this interface using the menu down the left side, which contains 6 categories:



- [III-1. Home](#)
- [III-2. iQ Setup](#)
- [III-3. WPS Setting](#)
- [III-4. Wireless Advanced](#)
- [III-5. Administrator](#)
- [III-6. Configuration Tool](#)

III-1. Home

The Home page shows the basic status and information of the wireless bridge.

Status and Information	
You can check the device's MAC address, runtime code, hardware version, and network status below.	
System	
Uptime	0day:0h:1m:22s
Hardware Version	Rev. A
Runtime Code Version	NFR_1.05
Wireless Settings	
Mode	Station-Infrastructure
ESSID	OBM-AirPort-2.4G
Channel Number	11
Security	WPA-Shared Key
BSSID (MAC)	00:E0:4C:81:96:C1
State	Connected
LAN Settings	
IP Address	192.168.77.100
Subnet Mask	255.255.255.0
Default Gateway	192.168.77.1
MAC Address	00:E0:4C:81:96:C1

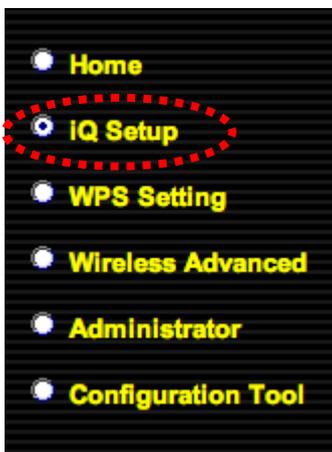


Note: This screenshot is an example. The information you see on your screen will likely differ from this screenshot.

Uptime	Displays the total passed time since the device was turned on.
Hardware Version	Displays the hardware version. This information is helpful when you need online help from the dealer of purchase.
Runtime Code Version	Displays the current firmware version. If you want to perform a firmware upgrade, this number will help you to determine if you have the latest version of the firmware.
Mode	Displays the current wireless operating mode.

ESSID	Displays the current ESSID (the name used to identify this wireless bridge).
Channel Number	Displays the current wireless channel number
Security	Displays the current wireless security setting.
BSSID (MAC)	Displays the device's MAC address. A MAC address is a unique, fixed ID for this device, it cannot be modified.
State	Displays the current status of the wireless bridge.
IP Address	Displays the IP address of this device.
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 LAN interface.

III-2. iQ Setup



If you wish to perform the initial setup process again, select iQ Setup to restart the setup process.

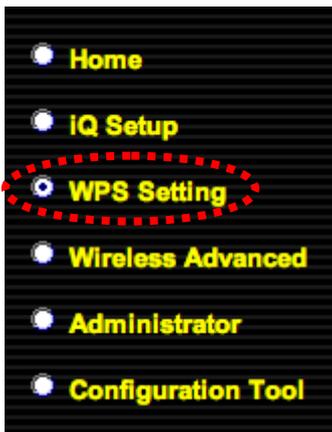
When you select “iQ Setup” from the menu you will see the screen below. Please refer back to [II-2. iQ Setup](#) for guidance on the iQ Setup process.

iQ Setup

Please connect this device to one of the following Wi-Fi networks.

Select	SSID	Band	Channel	Encryption	Signal
<input type="radio"/>	EdimaxHQ	(B+G+N)	9	no	91
<input type="radio"/>	6228NC	(B+G+N)	7	WPA2-PSK	88
<input type="radio"/>	OBM-AirPort-2.4G5FD490	(B+G+N)	11	WPA2-PSK	88
<input type="radio"/>	6596	(B+G+N)	7	WPA2-PSK	84
<input type="radio"/>	AirPortExpress_Jimmy	(B+G+N)	1	WPA2-PSK	83
<input type="radio"/>	EDIMAX.6478	(B+G+N)	11	WPA2-PSK	83
<input type="radio"/>	EdimaxHQ	(B+G+N)	9	no	82
<input type="radio"/>	4iPAD	(B+G+N)	11	WPA-PSK	80
<input type="radio"/>	EdimaxHQ	(B+G+N)	9	no	74
<input type="radio"/>	OBM-AirPort-2.4G	(B+G+N)	11	WPA-PSK/WPA2-PSK	74
<input type="radio"/>	MEETING_ROOM_6F	(B+G+N)	1	no	68
<input type="radio"/>	EdimaxHQ	(B+G+N)	9	no	64
<input type="radio"/>	EdimaxHQ	(B+G+N)	9	no	64
<input type="radio"/>	DemoRoom_Router1	(B+G+N)	3	WPA-PSK/WPA2-PSK	62
<input type="radio"/>	PnV_NAT-4	(B+G+N)	8	no	58
<input type="radio"/>	PA_A_EW-7811GTA-1(2.4G)	(B+G+N)	4	WPA2-PSK	58
<input type="radio"/>	EDIMAX-wisp	(B+G+N)	11	WPA2-PSK	52
<input type="radio"/>	EDIMAX	(B+G+N)	11	no	49
<input type="radio"/>	Radius-2.4G	(B+G+N)	1	WPA/WPA2	48

III-3. WPS Setting



Wi-Fi Protected Setup (WPS) is the simplest way to build a connection between your wireless router/access point and the wireless bridge. You don't have to select an encryption mode and enter a long encryption passphrase – simply press a button on the wireless router/access point and on the wireless bridge, and WPS will do the rest for you.

The wireless bridge supports two types of WPS: Push-Button Configuration (PBC), and PIN code. If you want to use PBC, you will need to switch the wireless bridge to WPS mode by pushing the WPS/Reset button or clicking the "Start PBC" button in the web configuration interface - and pushing a specific button on the wireless router/access point. To use PIN code, you will need to enter the PIN code of the wireless router/access point you wish to connect to and then activate WPS mode in the wireless router/access point.

WPS (Wi-Fi Protected Setup) Settings

This page allows you to configure WPS (Wi-Fi Protected Setup) settings. WPS allows wireless clients to connect to this device automatically.

Enable WPS

• Wi-Fi Protected Setup Information

WPS Status:	Configured
Device PIN Code:	35611530
SSID:	OBM-AirPort-2.4G
Authentication Mode:	WPA-Shared Key
Passphrase Key:	*****

• Device Configuration

(Client Device) Config Mode:	Enrollee
Configure via Push Button:	<input type="button" value="Start PBC"/>
Send PIN Code to AP/Router :	35611530 <input type="button" value="Send PIN"/>

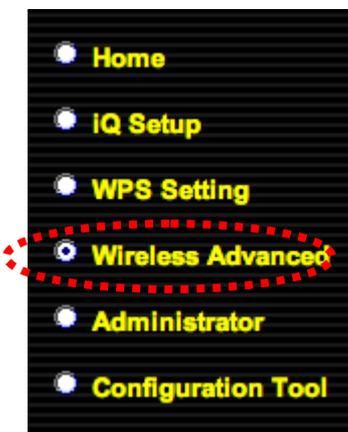
Enable WPS	Check this box to enable or disable WPS
Wi-Fi Protected Setup Information	All information related to WPS will be displayed here.
WPS Status	Displays WPS status. If data encryption settings for the wireless bridge have never been set, “unConfigured” will be shown here. If data encryption settings have been set, “Configured” will be shown here.
Device PIN Code	This is the WPS PIN code of the wireless bridge. This code is used when you need to build a wireless connection by WPS with other WPS-enabled wireless devices.
SSID	Displays the SSID (ESSID) of the wireless bridge.
Authentication Mode	The wireless security authentication mode of the wireless bridge will be shown here. If you don’t enable the security functions of the wireless bridge before WPS is activated, the wireless bridge 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 wireless bridge, this field will be blank.
Device Configuration	Configuration options for the device's WPS settings can be found here.
(Client Device) Config Mode	"Enrollee" mode is for the WPS connection. When "Enrollee" mode is enabled, the wireless bridge will follow the wireless settings of wireless router/access point for WPS connections.
Configure via Push Button	Click "Start PBC" to start Push-Button style WPS setup. The wireless bridge will wait for WPS requests from wireless clients for 2 minutes. The "WLAN" LED on the wireless bridge will stay on for 2 minutes while the wireless bridge waits for incoming WPS requests.
Send PIN Code to AP/Router	You can use this WPS PIN code number then key into firmware WPS page of your wireless router(or Access Point).



Note: When using PBC-type WPS setup, you must press the hardware or software WPS button on the wireless router/access point within 120 seconds. If you do not do so in time, you will need to activate WPS on the wireless bridge again.

III-4. Wireless Advanced



In "Wireless Advanced" you can configure the advanced features of the wireless bridge. Please do not modify these settings unless you are sure what effect the changes will have on your wireless bridge; advanced settings are for experienced users only.

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



Wireless Advanced

These settings are only for more technical advanced users who have sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effects the changes will have.

Fragment Threshold:	<input type="text" value="2346"/> (256-2346)
RTS Threshold:	<input type="text" value="2347"/> (0-2347)
Channel Width:	<input checked="" type="radio"/> Auto 20/40MHz <input type="radio"/> 20MHz
WMM:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
IPTV Multicast to Unicast:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Multicast Data Rate:	<input type="text" value="6Mbps"/>
Tx Power:	<input type="text" value="100 %"/>

- Enable LED Off Mode**
- Turn off all LED indicators
 - Turn off all LED indicators except the power LED

APPLY

Cancel

Fragment Threshold	Set the Fragment threshold of the wireless radio. Please do not modify the default value if you don't know what this does, the default value is 2346.
RTS Threshold	Set the RTS threshold of the wireless radio. Please do not modify the default value if you don't know what this does, the default value is 2347.
Channel Width	Select wireless channel width (bandwidth used by wireless signals from the wireless bridge). It's suggested you select "Auto 20/40MHz". Do not change to "20 MHz" unless you know what that does.
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 you enable WMM, the wireless bridge will define the priority of

	different kinds of data, to give higher priority to applications which require instant responses. This improves the performance of such network applications.
IPTV Multicast to Unicast	Enable internet TV multicast packet to unicast.
Multicast Data Rate	When you disable IPTV multicast to unicast, you can set the data rate of the multicast packet here.
TX Power	You can set the output power of the wireless radio. Unless you're using the wireless bridge in a very large space, you may not require 100% output power. This will enhance security (malicious/unknown users in distant areas will not be able to reach your wireless bridge).
Enable LED Off Mode	Check this box to enable "LED Off Mode" which allows you to turn off all LEDs, or all LEDs except the power LED. After checking the box, select "Turn off all LED indicators" or "Turn off all LED indicators except the power LED" according to your preference.

Click "APPLY" to make changes take effect. The following message will appear:

Settings saved successfully!

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

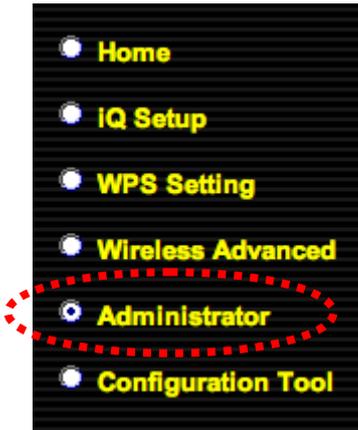
CONTINUE

APPLY

Click "CONTINUE" to save the changes but not apply them yet. This allows you to make further changes in the browser based configuration interface, before applying them all at once.

Click "APPLY" to restart the device and implement any changes. The device will restart itself.

III-5. Administrator



In “Administrator” you can change the login information for your wireless bridge, which you use to access the browser based configuration interface. Additionally, you can modify the IP address of the wireless bridge.

Administrator

If you wish to customize the login information for your device, please enter the new user name and password in the following columns.

- **Password Settings**

Current Password :	<input type="text"/>
New Password :	<input type="text"/>
Re-Enter Password :	<input type="text"/>

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 :	<input type="text"/>
New Password :	<input type="text"/>
Re-Enter Password :	<input type="text"/>

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.

Management IP

You can modify the IP address of the wireless bridge, enabling it to become a part of your local area network.



Note: If you use a **static IP** address, and modified the IP address of your PC or Mac in order to access the browser based configuration interface as explained in [IV-1. Configuring your IP Address](#) then it is recommended that you change the IP address of the wireless bridge.



Note: If you select “Obtain an IP address automatically” then you will need to use the access key (<http://edimax.go>) to access the browser-based configuration device.

Select “Obtain an IP address automatically” to assign an automatic IP address to the wireless bridge or select “Use the following IP address” and input the required information to modify the IP address of the wireless bridge.



Note: For static IP users, the wireless bridge needs to have an IP address in the same subnet as your network, in order that you can access the browser based configuration interface.

For example, if your static IP is **192.168.9.2** then you need to assign the wireless bridge an IP address in the range **192.168.9.x** where **x = 3 – 254**.



Note: To ensure that you assign a correct IP address to the wireless bridge, you can also check the IP address of your **router**. Please refer to [IV-1-4. How to Find your Router’s IP Address](#). Your ISP can also provide you with such information as IP address, subnet mask and gateway address.

• Management IP

<input type="radio"/> Obtain an IP address automatically	
<input checked="" type="radio"/> Use the following IP address	
IP Address :	<input type="text" value="192.168.2.2"/>
Subnet Mask :	<input type="text" value="255.255.255.0"/>
Gateway Address :	<input type="text"/>

IP Address	Specify an IP address here. This IP address will be assigned to wireless bridge.
Subnet Mask	Input the subnet mask of the new IP address.
Gateway Address	Input the network's gateway IP address.



Note: After you modify the IP address of the wireless bridge, enter this IP address into the URL bar of a web browser in order to access the browser based configuration interface. **Please make a note of this IP address.**



Note: If you forget the new IP address of the wireless bridge and you are unable to connect to the browser based configuration interface, then you can reset the wireless bridge back to its default IP address. See [II-4. Resetting The Wireless Bridge.](#)

Click “APPLY” to make changes take effect. The following message will appear:

Settings saved successfully!

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

Click “CONTINUE” to save the changes but not apply them yet. This allows you to make further changes in the browser based configuration interface, before applying them all at once.

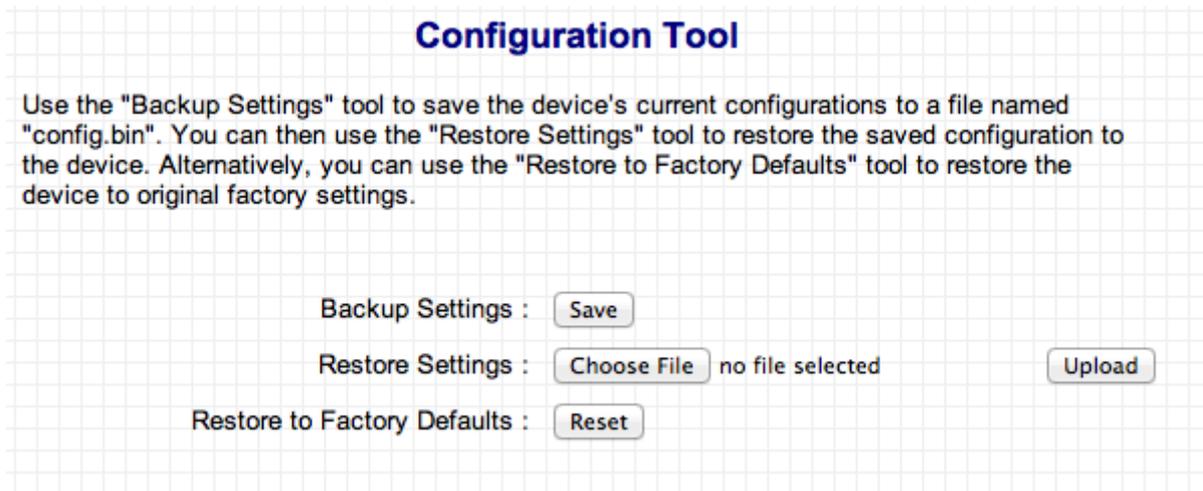
Click “APPLY” to restart the device and implement any changes. The device will restart itself.

III-6. Configuration Tool



The wireless bridge’s configuration tool enables you to back up or restore the settings, upgrade the firmware and reset the device. Select “Configuration tool” from the sidebar.

You will see the following screen:



Backup Settings	Click “Save” to save the current settings on your computer as a config.bin file.
Restore Settings	Click the browse button to locate a previously saved config.bin 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 at least 10 seconds. When the green PWR LED begins to flash, release the WPS/Reset button and wait for the device to restart. The device is ready when the PWR LED has **stopped flashing**, and displays **on**. The **Reset/WPS** button is located at the rear of the device. See [II-4. Resetting The Wireless Bridge](#).

III-6-1. Firmware Upgrade



Selecting “Firmware upgrade” from the “Configuration Tool” menu allows you to update the system firmware to a more recent version. You can download the latest firmware from the Edimax website.



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.

Click on the browse button to open a window and locate the downloaded firmware file in your computer.



Confirm your selection and click “APPLY” to make changes take effect. The following message will appear:

Settings saved successfully!

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

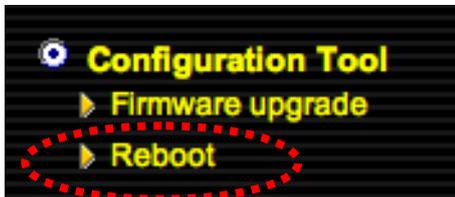
CONTINUE

APPLY

Click “CONTINUE” to save the changes but not apply them yet. This allows you to make further changes in the browser based configuration interface, before applying them all at once.

Click “APPLY” to restart the device and implement any changes. The device will restart itself.

III-6-2. Reboot



If the wireless bridge malfunctions or is not responding, then it is recommended that you reboot the device. This feature is useful if the location of the wireless bridge is not convenient.

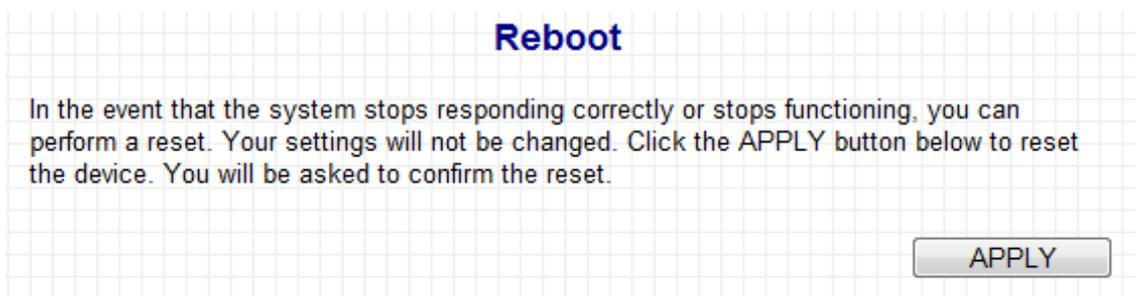


Note: If the wireless bridge is still not responding after a system reboot, switch off the device by unplugging the power supply. Plug it back in after 10 seconds.



Note: Rebooting the wireless bridge will not affect the current configuration of the device.

To reboot the device, please click “Reboot” from the “Configuration Tool” menu in the sidebar. The following screen will be displayed:

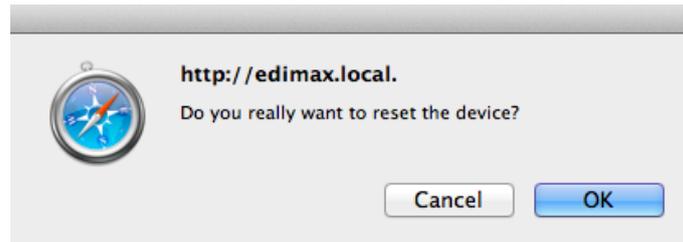


Click “Apply” to reboot the device. A pop up window will ask you to confirm, please click “Ok” to confirm or “Cancel” to abort. If you click “Ok” to continue, all connections between wireless client and access will be disconnected at this point.

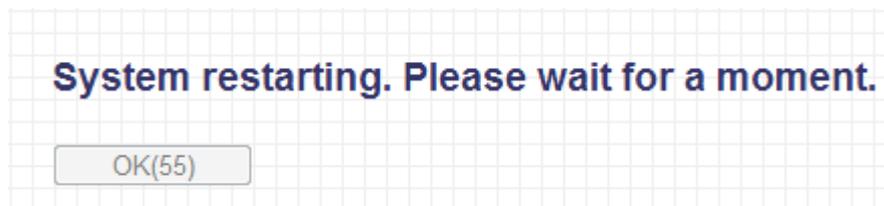
Windows:



Mac:



You will see the following screen, and a timer will count down from 60 seconds. When the timer reaches zero, click "OK" to return to the browser-based configuration interface.



IV.APPENDIX

IV-1. Configuring your IP address

Before you use the wireless bridge, please make sure your computer is set to use a **dynamic IP address**. This means your computer can obtain an IP address automatically from a DHCP server. This is a simple procedure, which is explained step by step in [IV-1-1. How to configure your computer to use a dynamic IP address.](#)



Note: If your existing network setting is to use a **static IP address**, then please and make a note of your **static IP** before you switch to a **dynamic IP** address. This is for your convenience if you wish to modify the IP address of the wireless bridge in future.

You can find your **existing static IP** by following the steps in **IV-1-2 How to modify the IP address of your PC or Macintosh**. Your static IP will be displayed in:

- [Step 2 \(Windows XP\)](#)
- [Step 2 \(Windows Vista\)](#)
- [Step 6 \(Windows 7\)](#)
- [Step 5 \(Mac\)](#)



Note: Also make a note of your static IP if you are going to modify the IP of your PC or Mac as shown in [IV-1-2. How to modify the IP address of your PC or Macintosh.](#)

Unfortunately, not all networks support DHCP capability. In this case, you need to use a static IP address for the wireless bridge and your PC or Macintosh. The wireless bridge uses the default IP address **192.168.9.2**, which may not be in the same IP address subnet of your network; meaning you are unable to access the browser based configuration interface. So, you need to modify the IP address of your PC or Macintosh to **192.168.9.x (x = 1 – 254)** in order to access the browser-based configuration interface.

The procedure for doing so varies across different operating systems; please

follow the guide appropriate for your operating system in [IV-1-2. How to modify the IP address of your PC or Macintosh.](#)



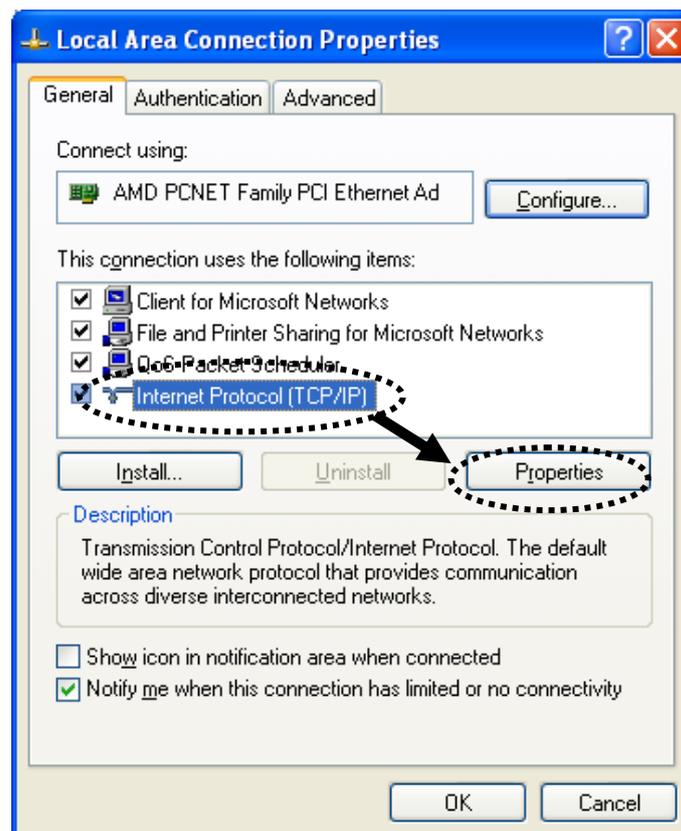
Note: For guidance on how to assign a new IP address to the **wireless bridge**, so that it is within the **same** IP address subnet of your network, please refer to [III-5. Administrator](#). In cases where you need to modify the IP of your PC or Macintosh in order to access the browser based configuration interface, if the default IP of the **wireless bridge** remains unchanged, you may need to repeat this process and modify the IP of your PC or Macintosh every time you wish to configure the wireless bridge.

IV-1-1. How to configure your computer to use a dynamic IP address

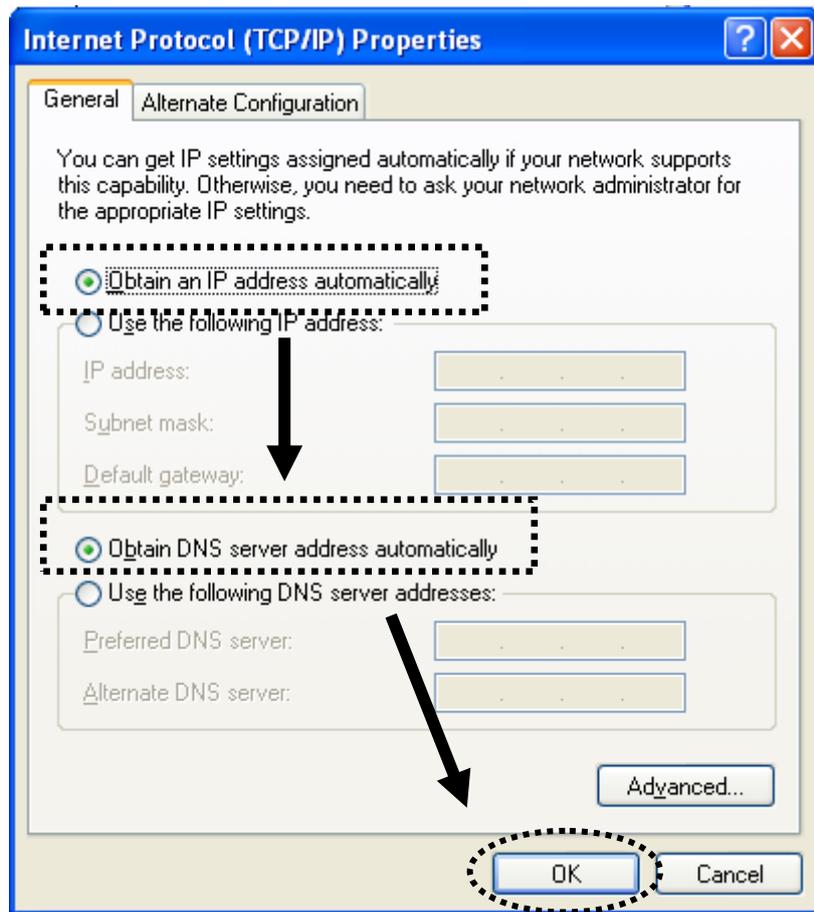
Please follow the instructions appropriate for your operating system.

IV-1-1-1. Windows XP

1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”. Double-click the “Network and Internet Connections” icon, click “Network Connections”, and then double-click “Local Area Connection”. The “Local Area Connection Status” window will then appear, click “Properties”.

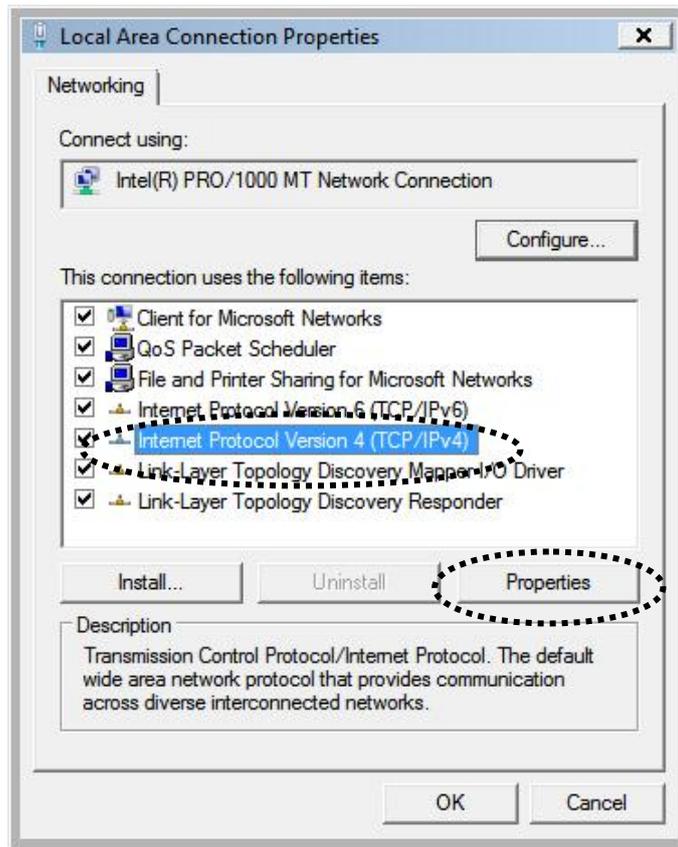


2. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically”, then click “OK”.

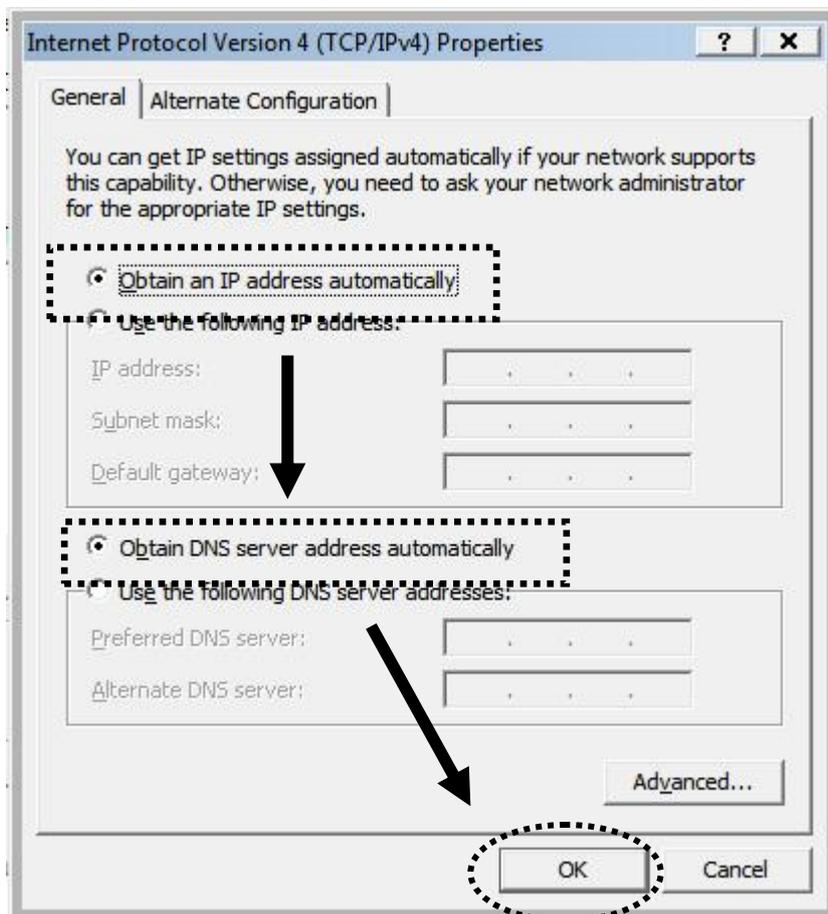


IV-1-1-2. Windows Vista

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

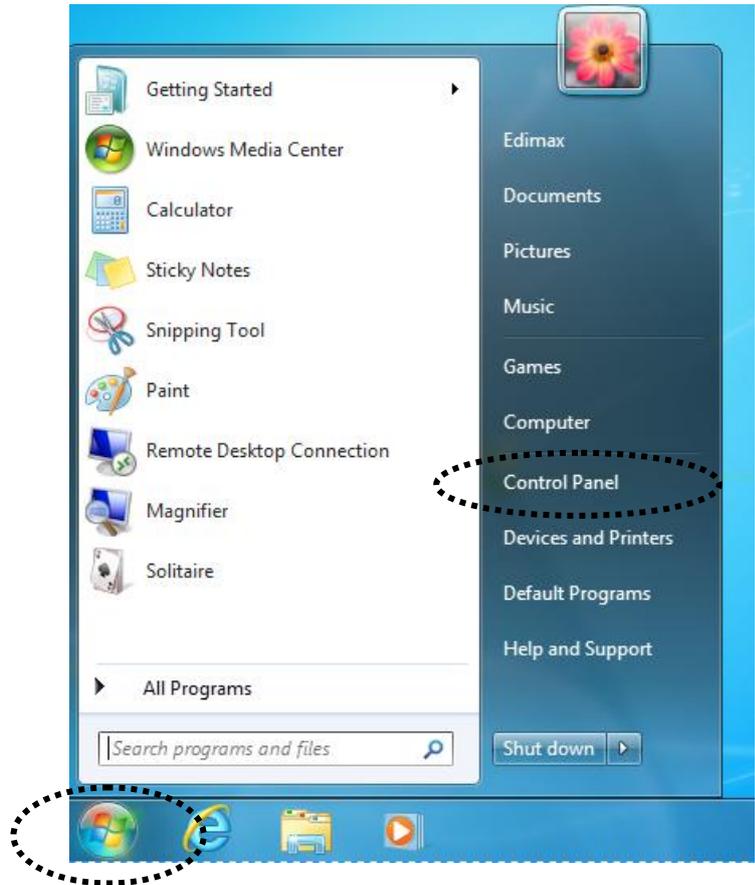


2. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically”, then click “OK”.



IV-1-1-3. Windows 7

1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”.



2. Under “Network and Internet” click “View network status and tasks”.



3. Click “Local Area Connection”.

View your basic network information and set up connections

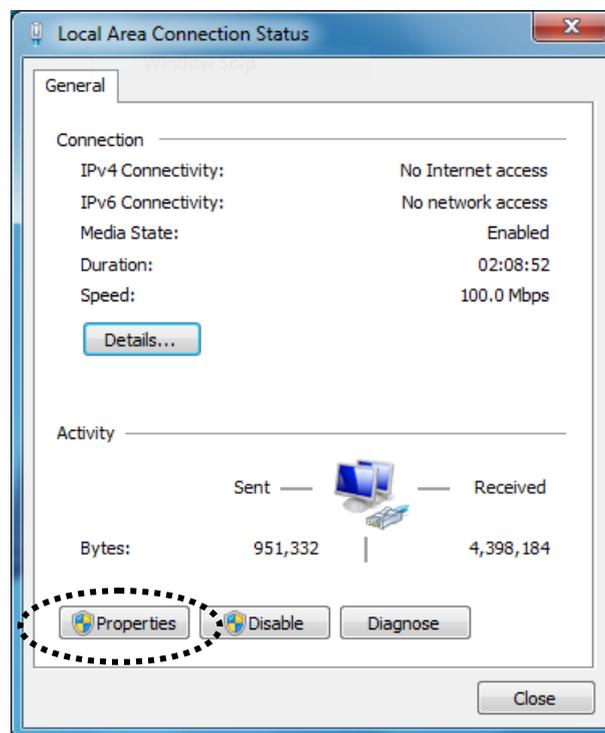
TS-WIN7 (This computer) — Home network — Internet

View your active networks — Connect or disconnect

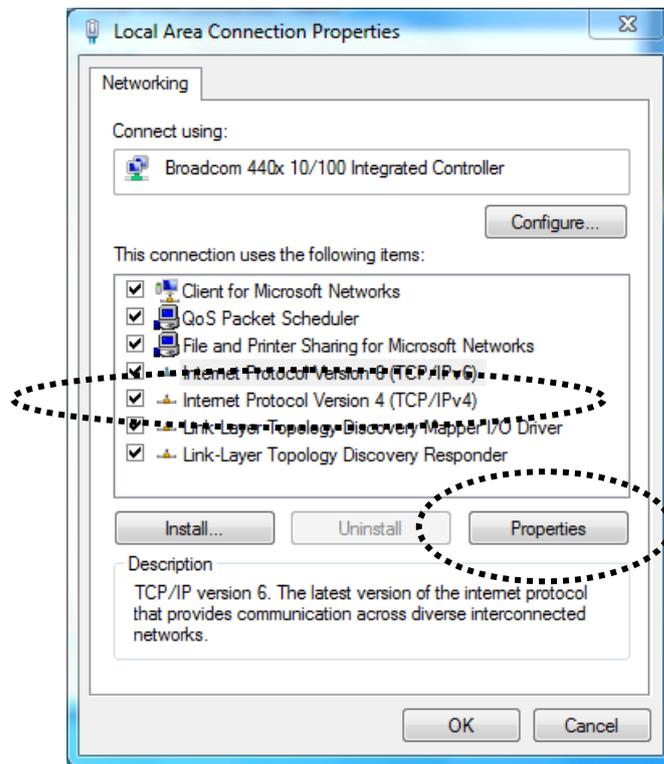
Home network
Home network

Access type: No Internet access
HomeGroup: Ready to create
Connections: Local Area Connection

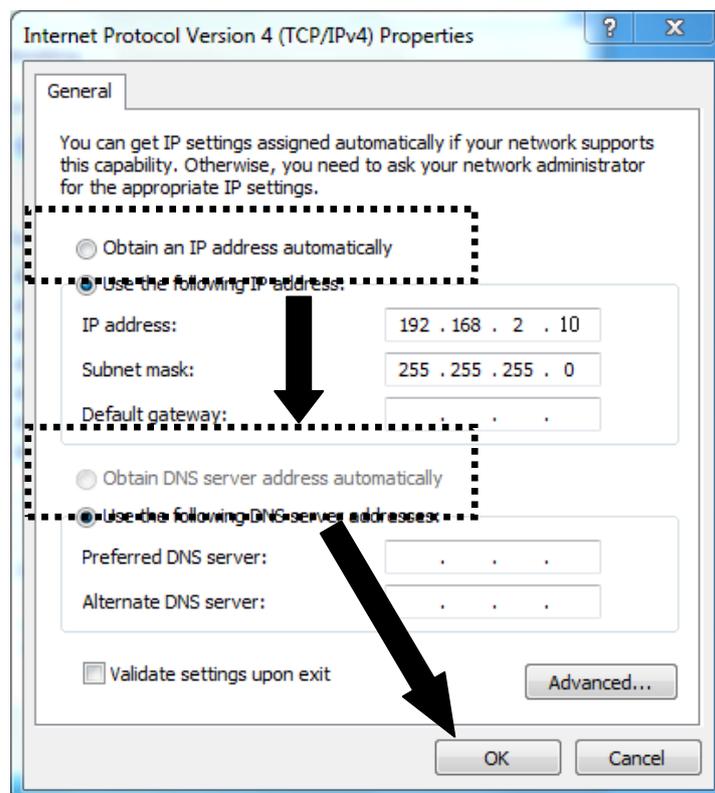
4. Click “Properties”.



5. Select “Internet Protocol Version 4 (TCP/IPv6)” and then click “Properties”.



3. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically”, then click “OK”.



IV-1-1-4. Mac OS



Note: Please ensure that your wireless bridge is switched on and connected to your Macintosh via Ethernet cable before you begin.

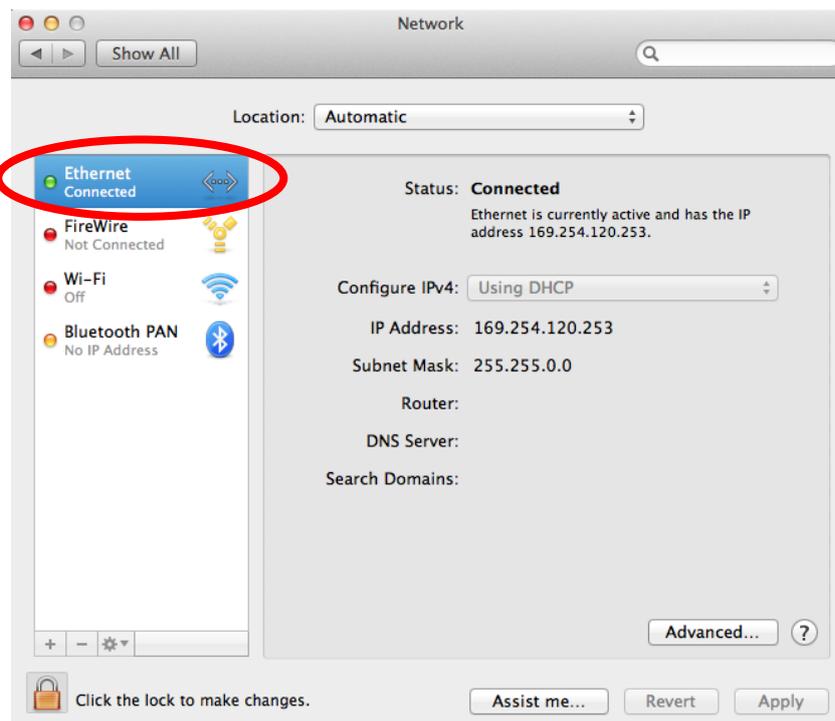
1. Have your Macintosh computer operate as usual, and click on “System Preferences”.



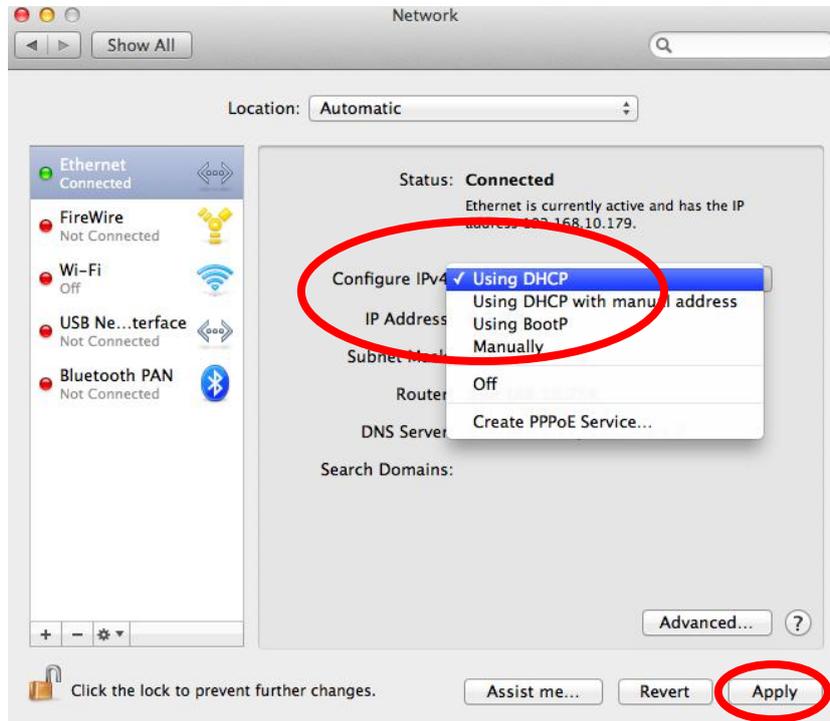
2. In System Preferences, click on “Network”.



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”.



- 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 “Using DHCP” and then click “Apply”.



IV-1-2. How to modify the IP address of your PC or Macintosh

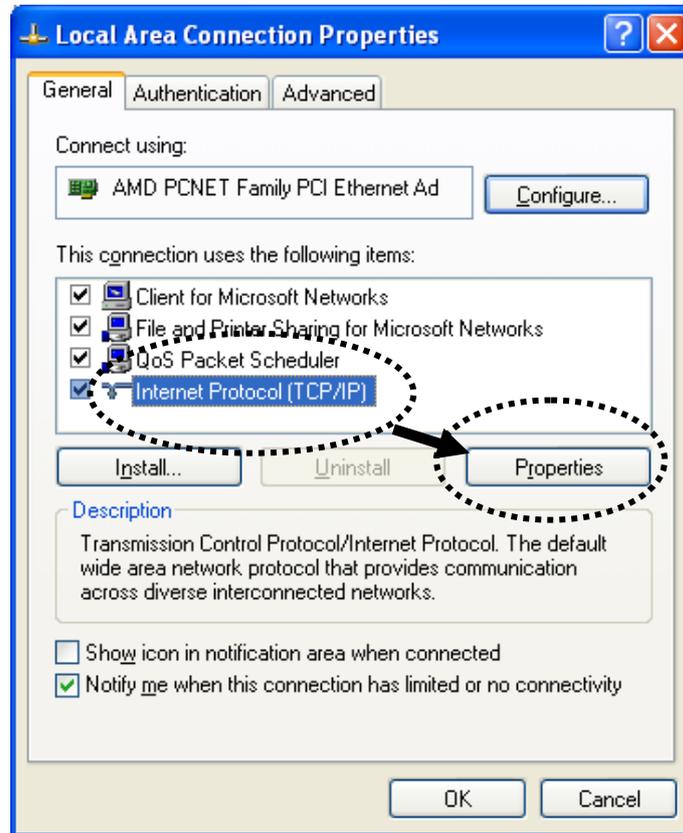
Please follow the instructions appropriate for your operating system. In the following examples we use the IP address **192.168.9.20** though you can use any IP address in the range **192.168.9.x (x = 3 – 254)** in order to access the browser based configuration interface.



Note: Please make a note of your **static IP** before you change it. This is for your convenience if you wish to modify the IP address of the wireless bridge in future. To modify the IP address of the wireless bridge, please refer to [III-5. Administrator](#).

IV-1-2-1. Windows XP

- Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”. Double-click the “Network and Internet Connections” icon, click “Network Connections”, and then double-click “Local Area Connection”. The “Local Area Connection Status” window will then appear, click “Properties”.



2. Select “Use the following IP address”, then input the following values:

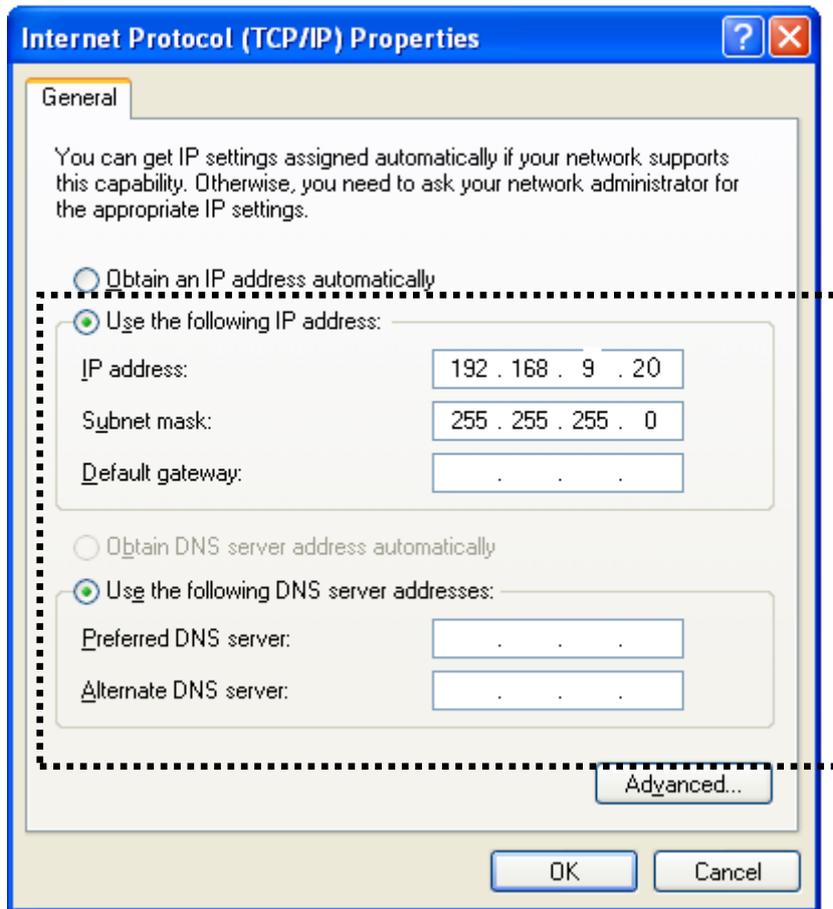


Note: Your **existing static IP address** will be displayed in the “IP address” field before you replace it. Please make a note of this IP address, subnet mask, default gateway and DNS server addresses.

IP address: 192.168.9.20

Subnet Mask: 255.255.255.0

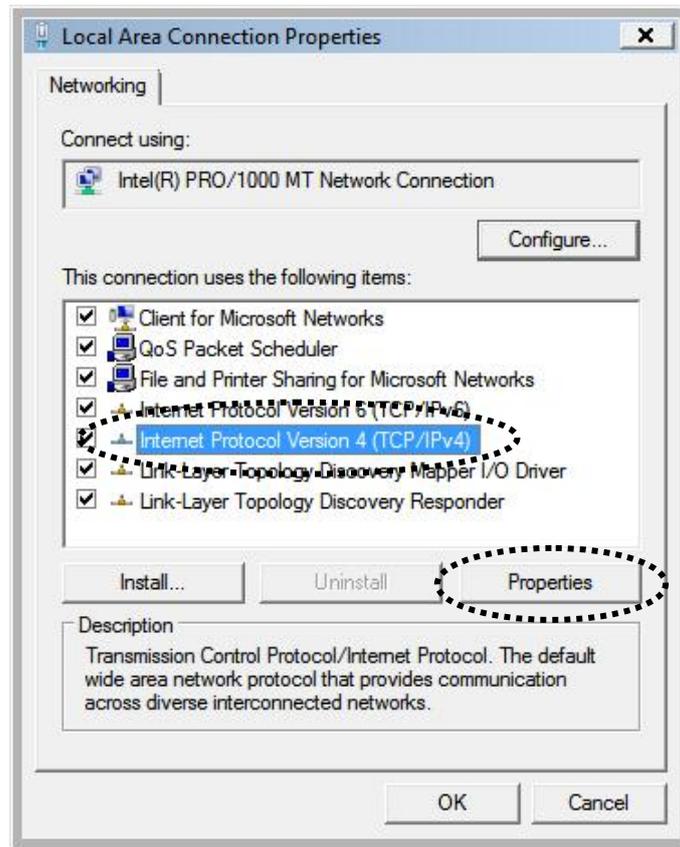
Click ‘OK’ when finished.



<

IV-1-2-2. Windows Vista

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



2. Select “Use the following IP address”, then input the following values:

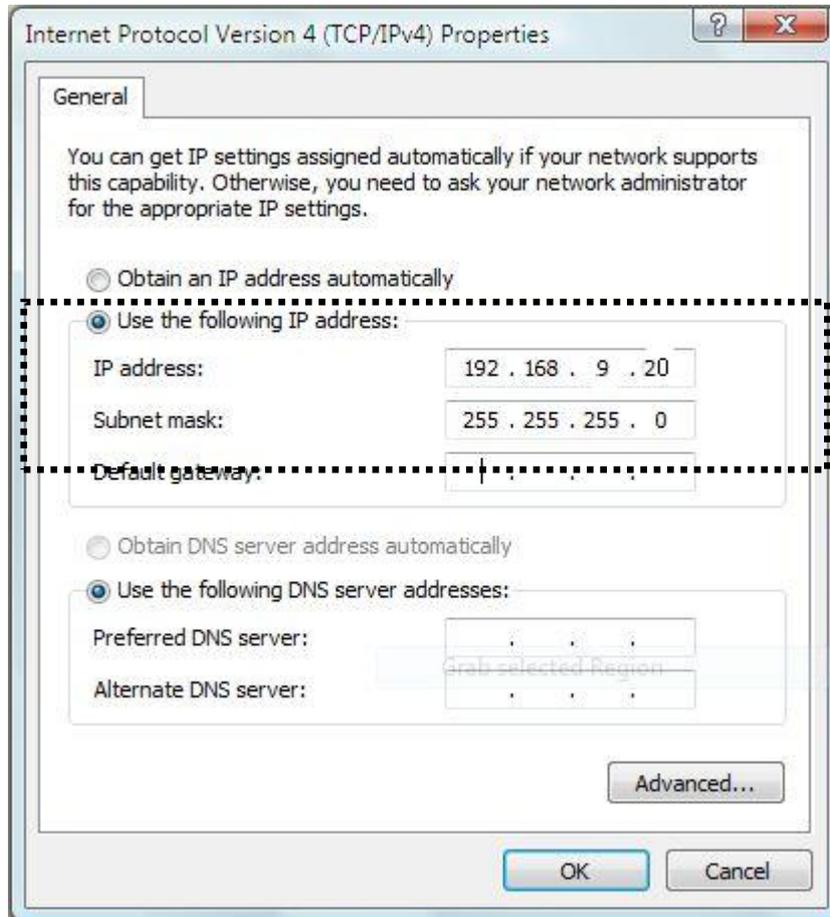


Note: Your **existing static IP address** will be displayed in the “IP address” field before you replace it. Please make a note of this IP address, subnet mask, default gateway and DNS server addresses.

IP address: 192.168.9.20

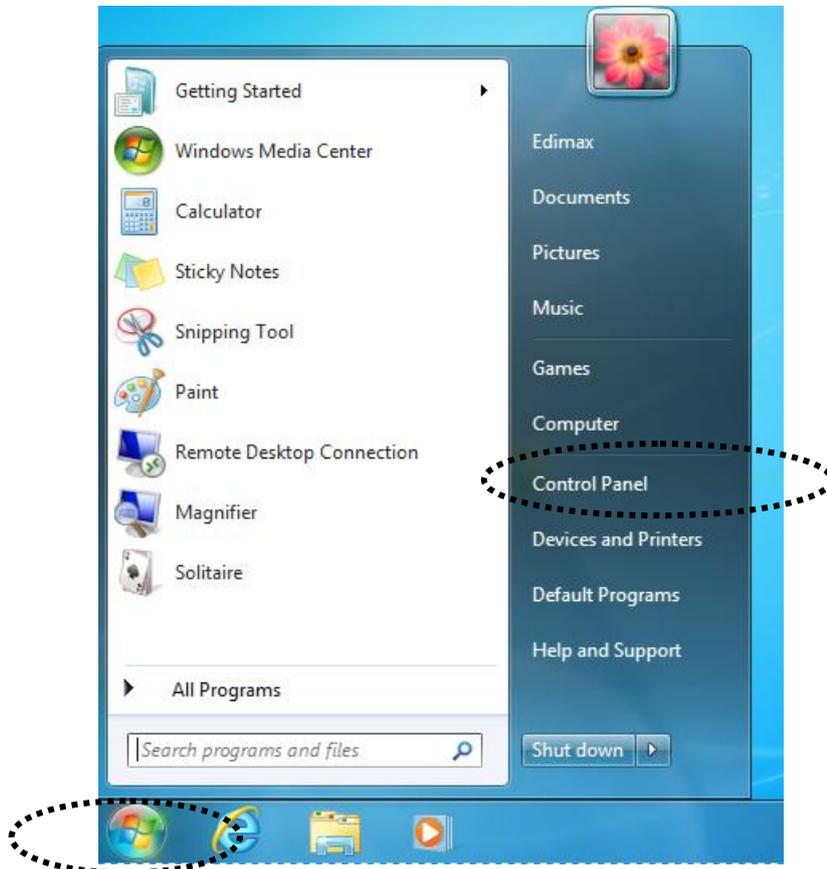
Subnet Mask: 255.255.255.0

Click ‘OK’ when finished.

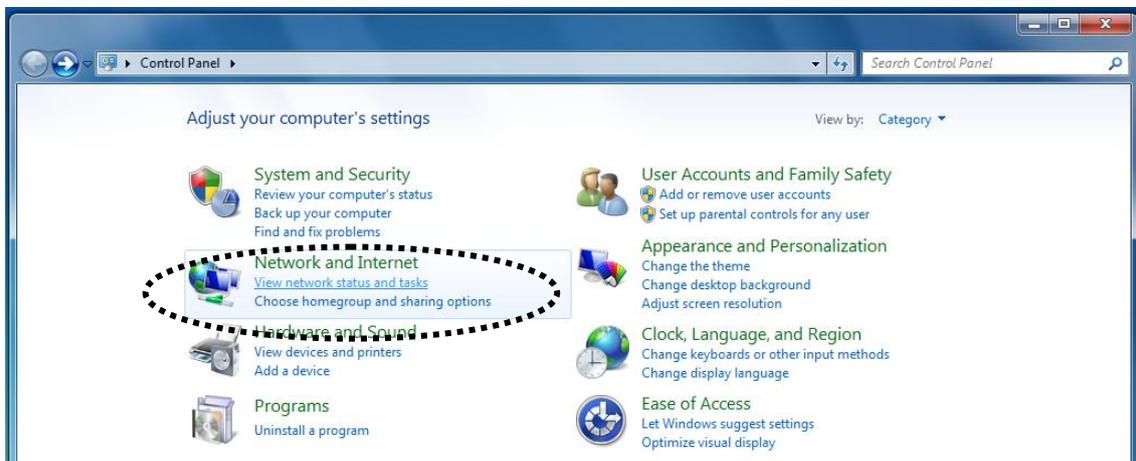


IV-1-2-3. Windows 7

1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”.



2. Under “Network and Internet” click “View network status and tasks”.



3. Click “Local Area Connection”.

View your basic network information and set up connections

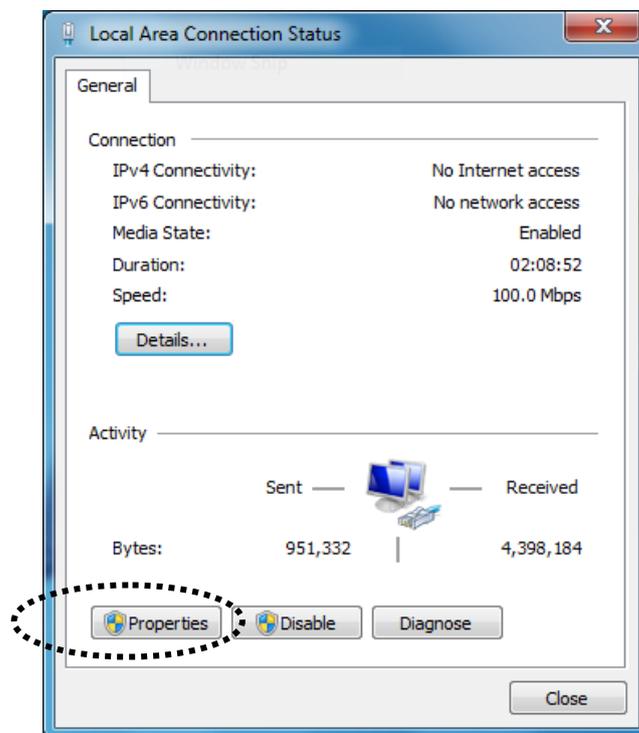
TS-WIN7 (This computer) — Home network — ~~Internet~~ [See full map](#)

View your active networks [Connect or disconnect](#)

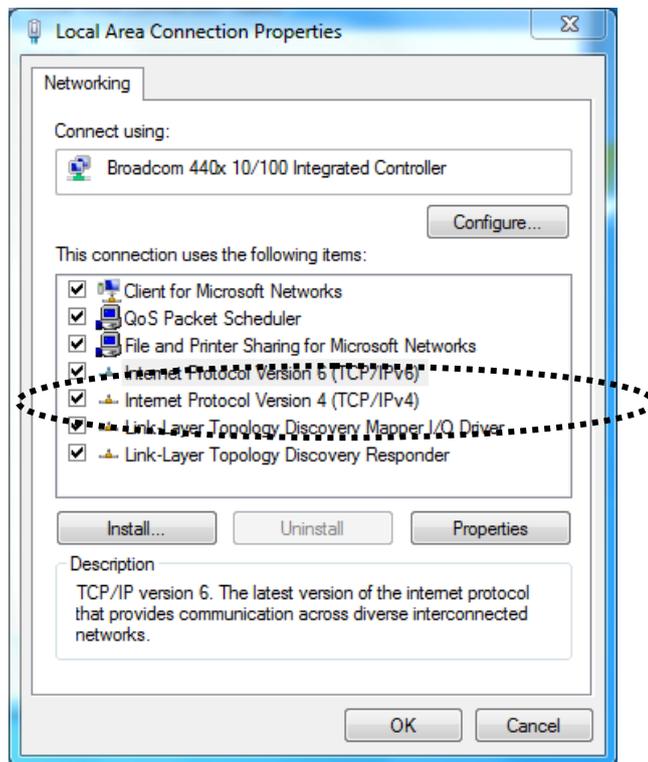
Home network
Home network

Access type: No Internet access
HomeGroup: [Ready to create](#)
Connections: [Local Area Connection](#)

4. Click “Properties”.



5. Select “Internet Protocol Version 4 (TCP/IPv6)” and then click “Properties”.



6. Select “Use the following IP address”, then input the following values:

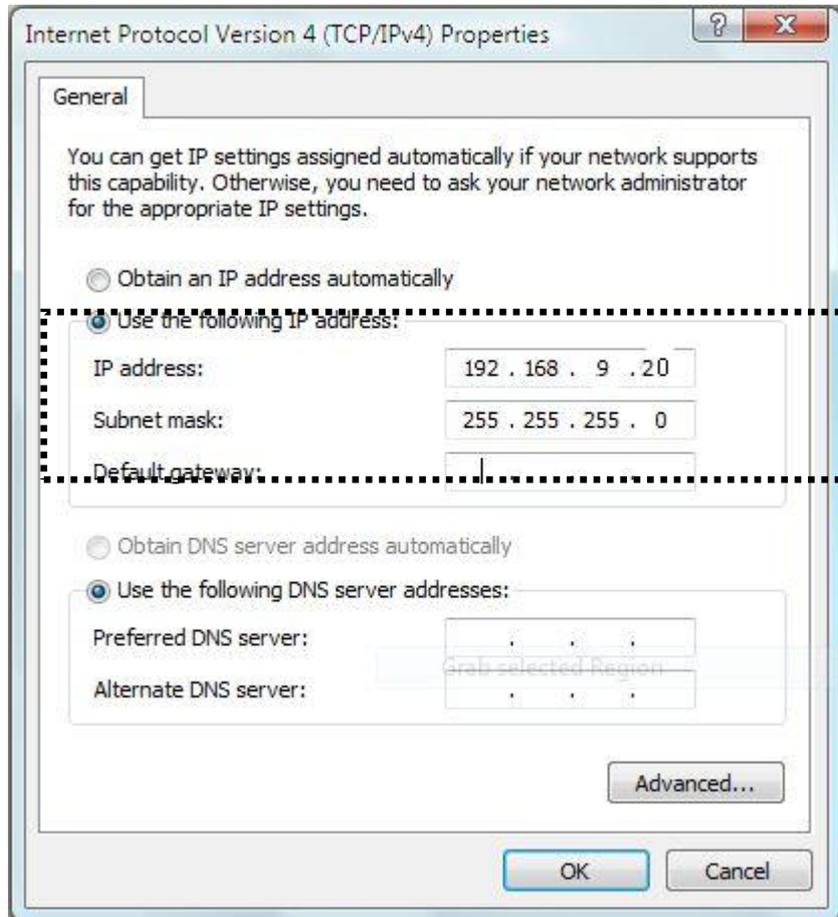


Note: Your **existing static IP address** will be displayed in the “IP address” field before you replace it. Please make a note of this IP address, subnet mask, default gateway and DNS server addresses.

IP address: 192.168.9.20

Subnet Mask: 255.255.255.0

Click ‘OK’ when finished.



IV-1-2-4. Mac OS



Note: Please ensure that your wireless bridge is switched on and connected to your Macintosh via Ethernet cable before you begin.

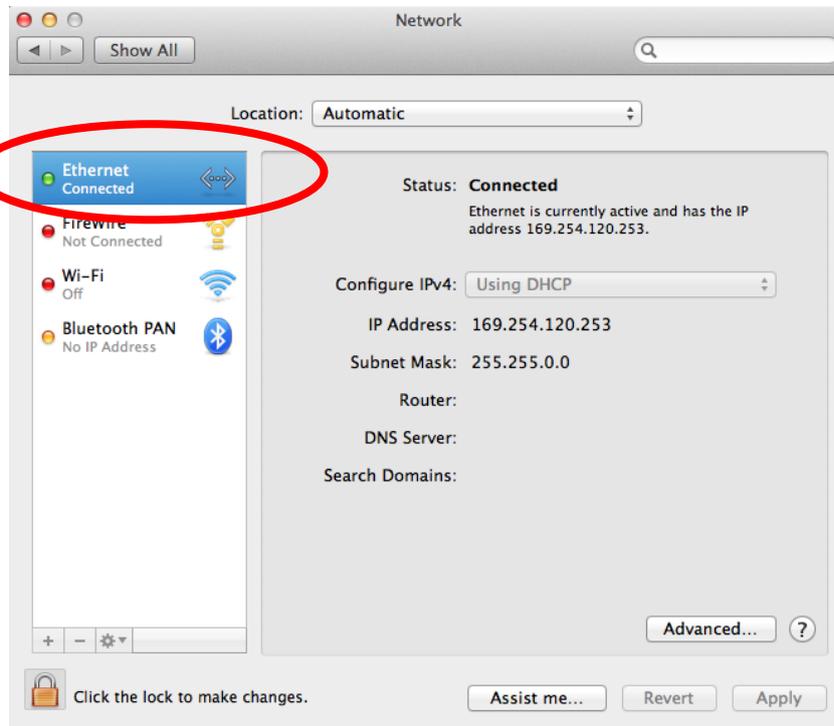
1. Have your Macintosh computer operate as usual, and click on “System Preferences”



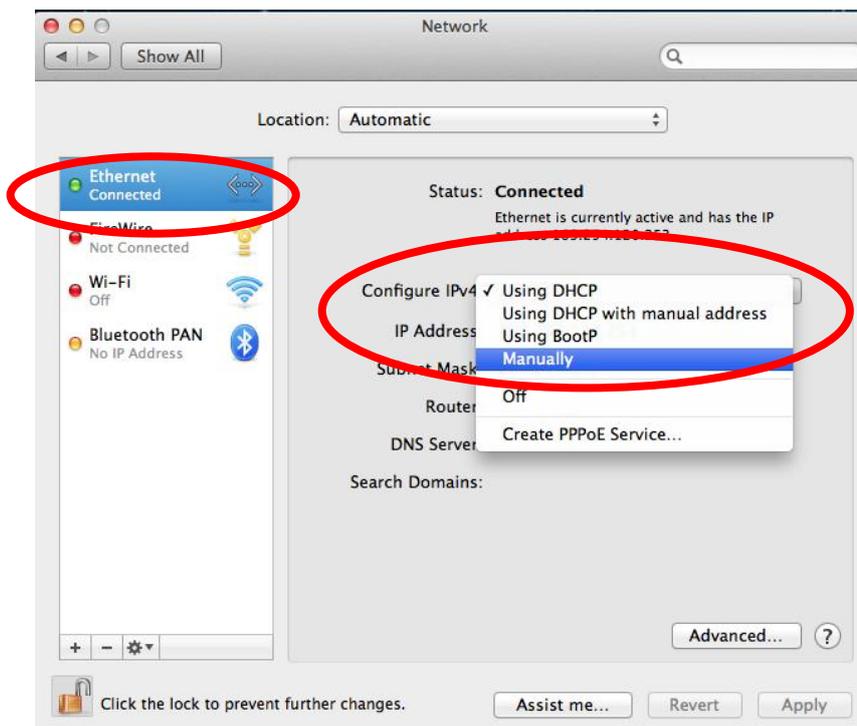
2. In System Preferences, click on “Network”.



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”.



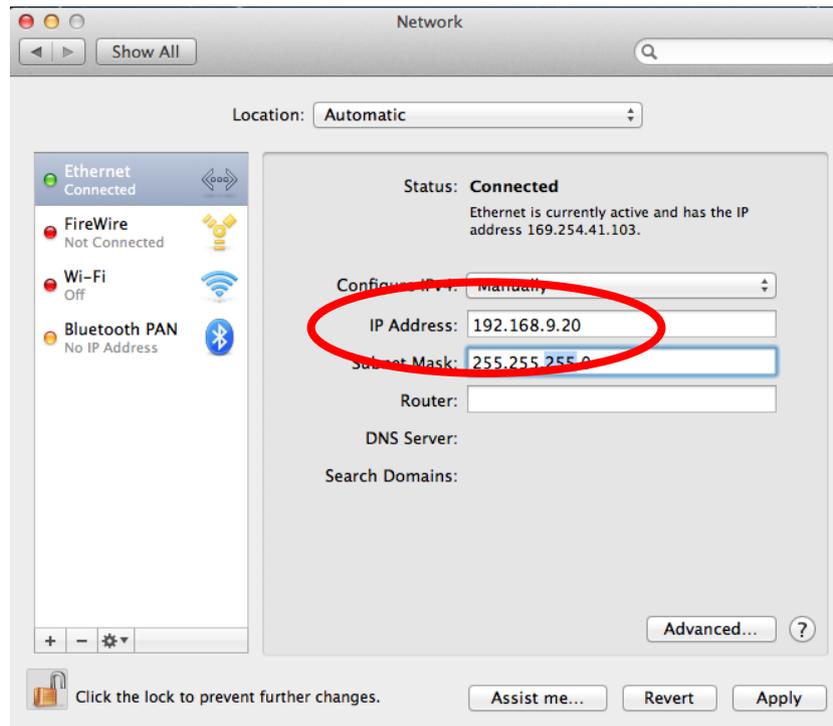
4. Click on “Ethernet” in the left panel and then click the drop down arrow for the menu labeled “Configure IPv4” in the right panel. From the drop down menu, select “Manually”.



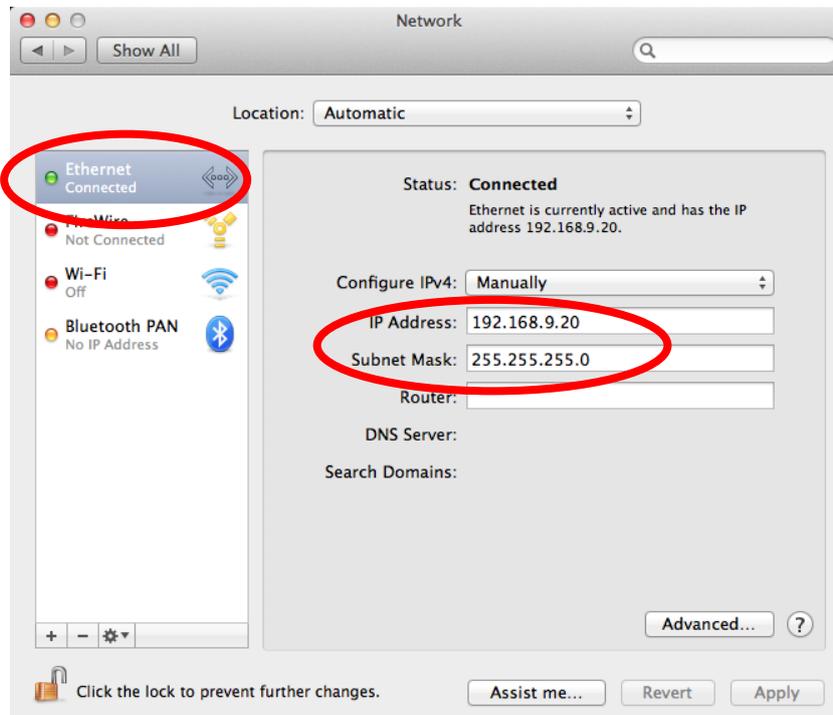
5. In the panel on the right side, enter IP address 192.168.9.20 and subnet mask 255.255.255.0. Click on “Apply”.



Note: Your **existing static IP address** will be displayed in the “IP address” field before you replace it. Please make a note of this IP address, subnet mask, router IP and DNS server address.



6. In the left sidebar, “Ethernet” should now display “Connected” as shown below. In the right panel, you should see the IP address 192.168.9.20 and subnet mask 255.255.255.0.



IV-1-3. How to Find your Network Security Key

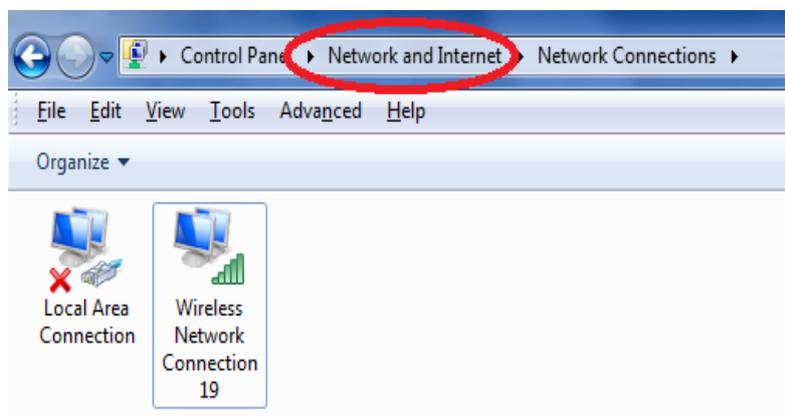
To find your network security key, please follow the instructions appropriate for your operating system.



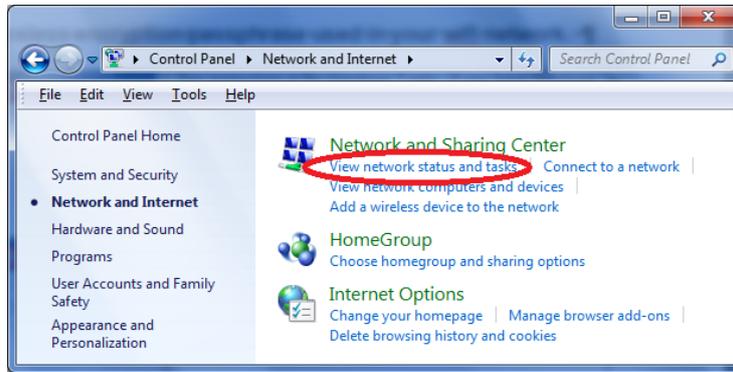
Note: If you are using Windows XP or earlier, please contact your ISP or router manufacturer to find your network security key.

IV-1-3-1. Windows 7 & Windows Vista

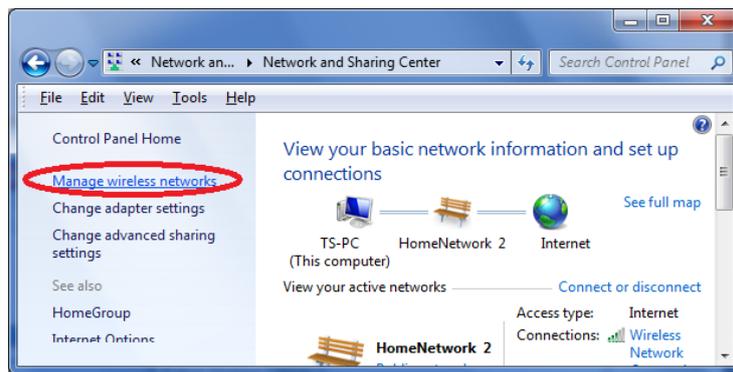
1. Open “Control Panel” and click on “Network and Internet” in the top menu.



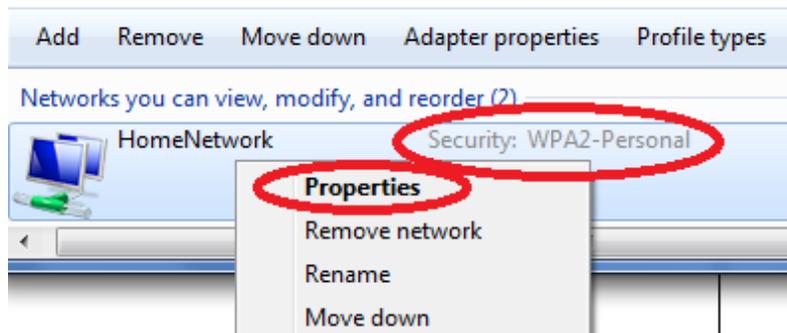
2. Click on “View network status and tasks” which is under the heading “Network and Sharing Center”.



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.

HomeNetwork Wireless Network Properties

Connection Security

Security type: WPA2-Personal

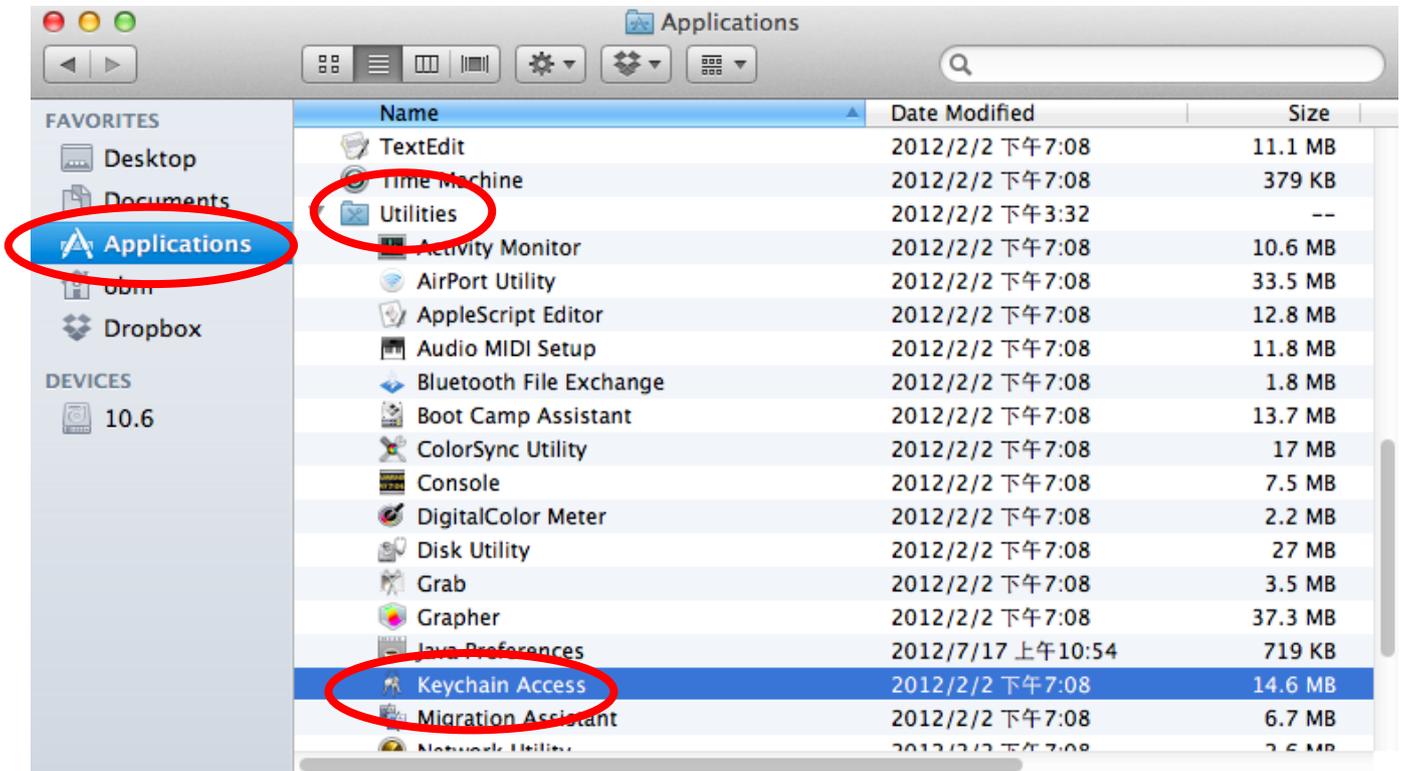
Encryption type: AES

Network security key 1234567890

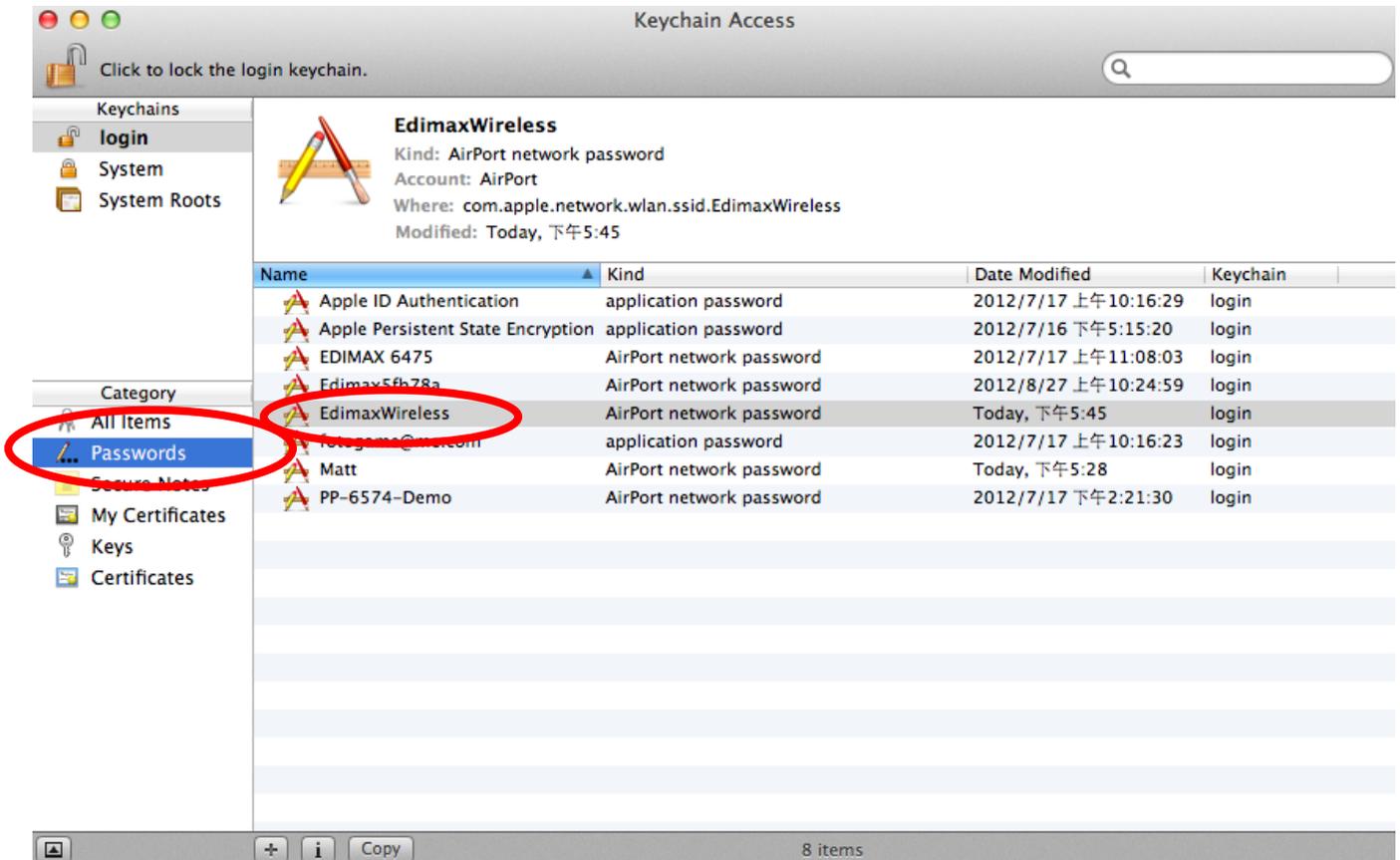
Show characters

IV-1-3-2. Mac

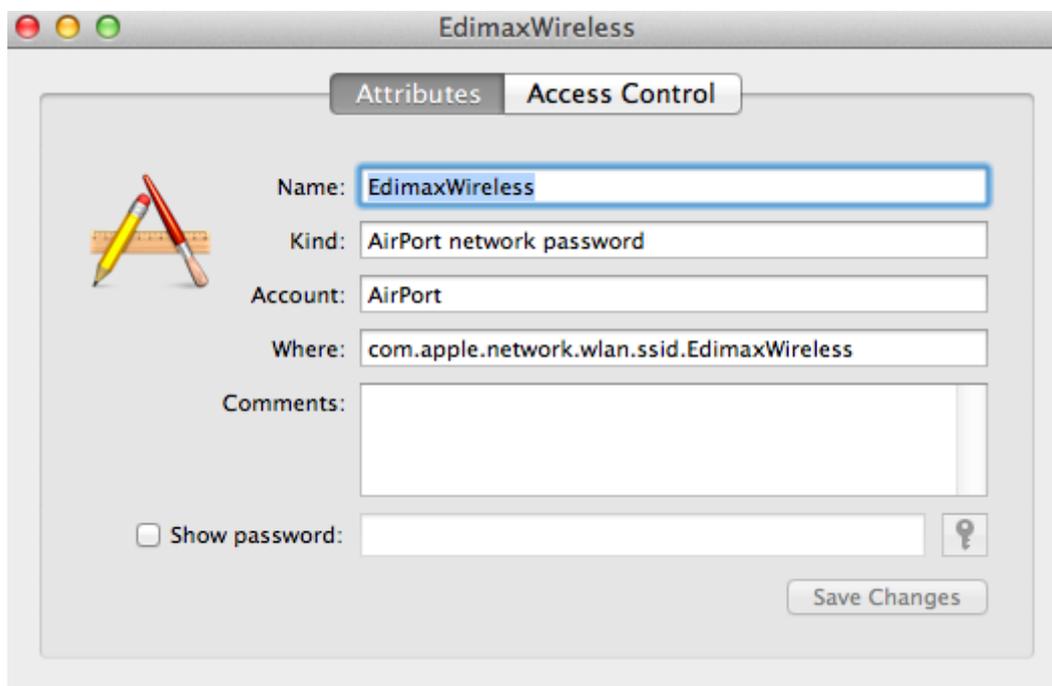
1. Open a new Finder window, and select “Applications” from the menu on the left side. Open the folder labeled “Utilities” and then open the application “Keychain Access”.



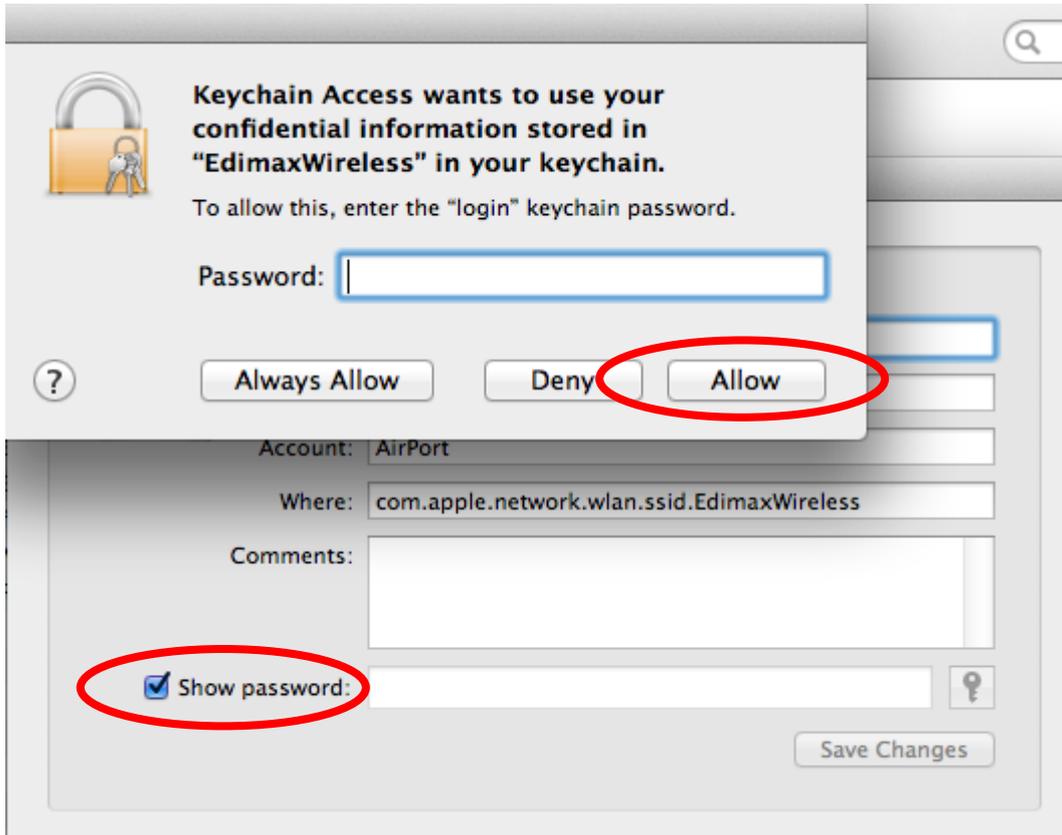
2. Select “Passwords” from the sub-menu labeled “Category” on the left side, as shown below. Then search the list in the main panel for the SSID of your network. In this example, the SSID is “EdimaxWireless” – though your SSID will be unique to your network.



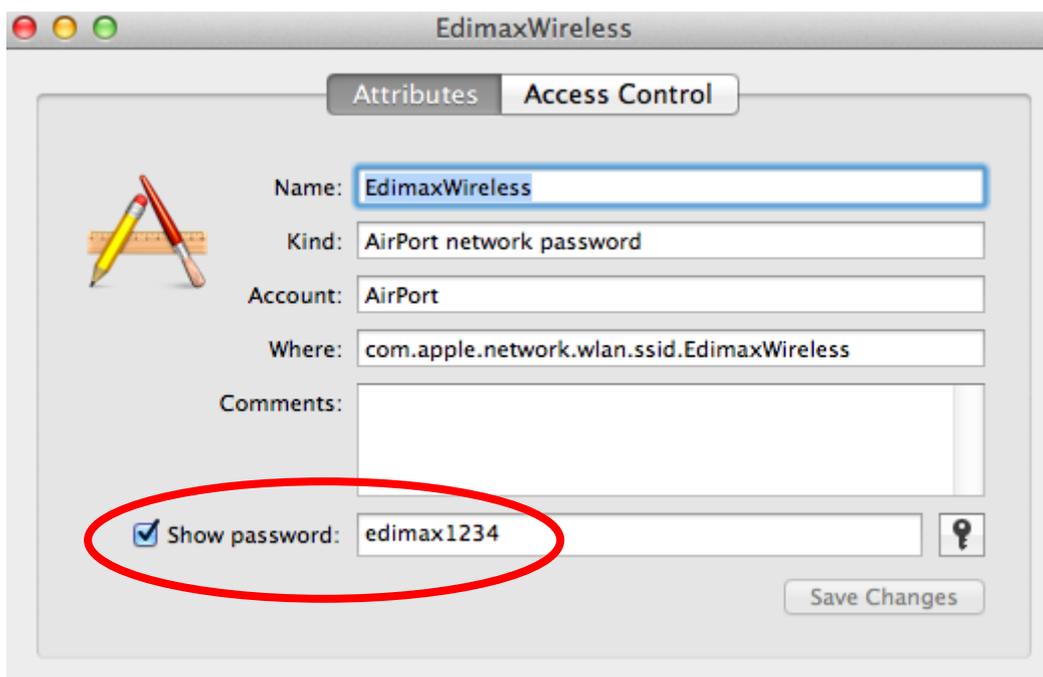
3. Double click the SSID of your network and you will see the following window.



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.

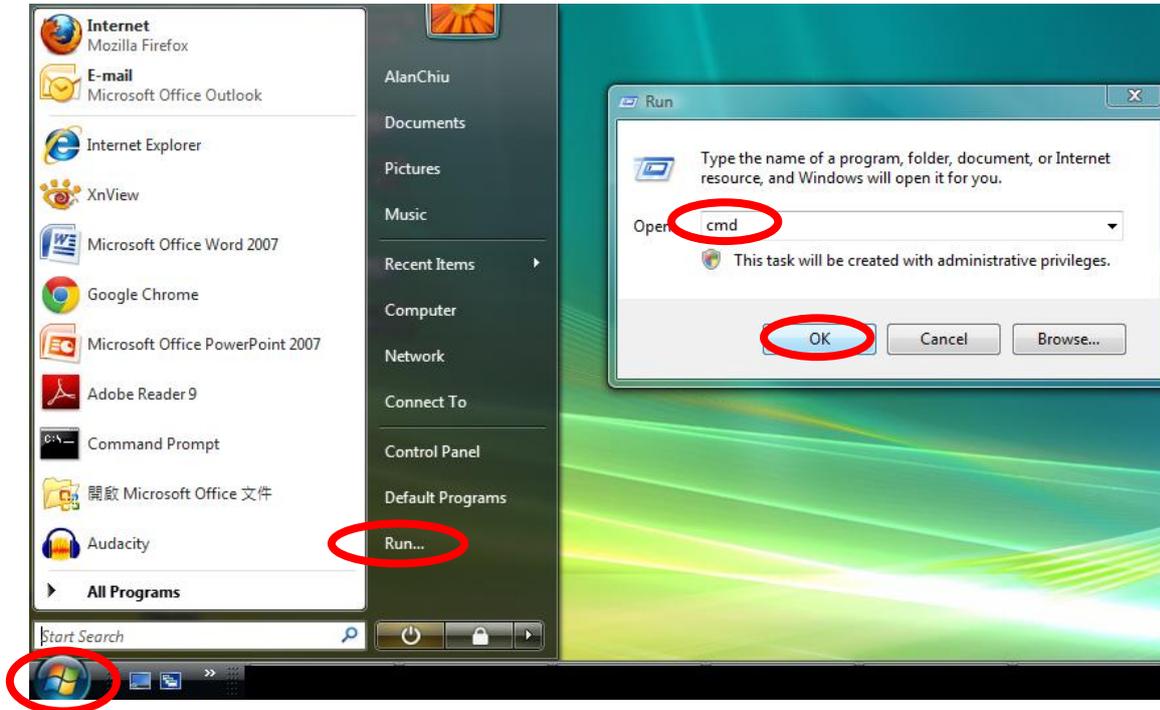


IV-1-4. How to Find your Router's IP Address

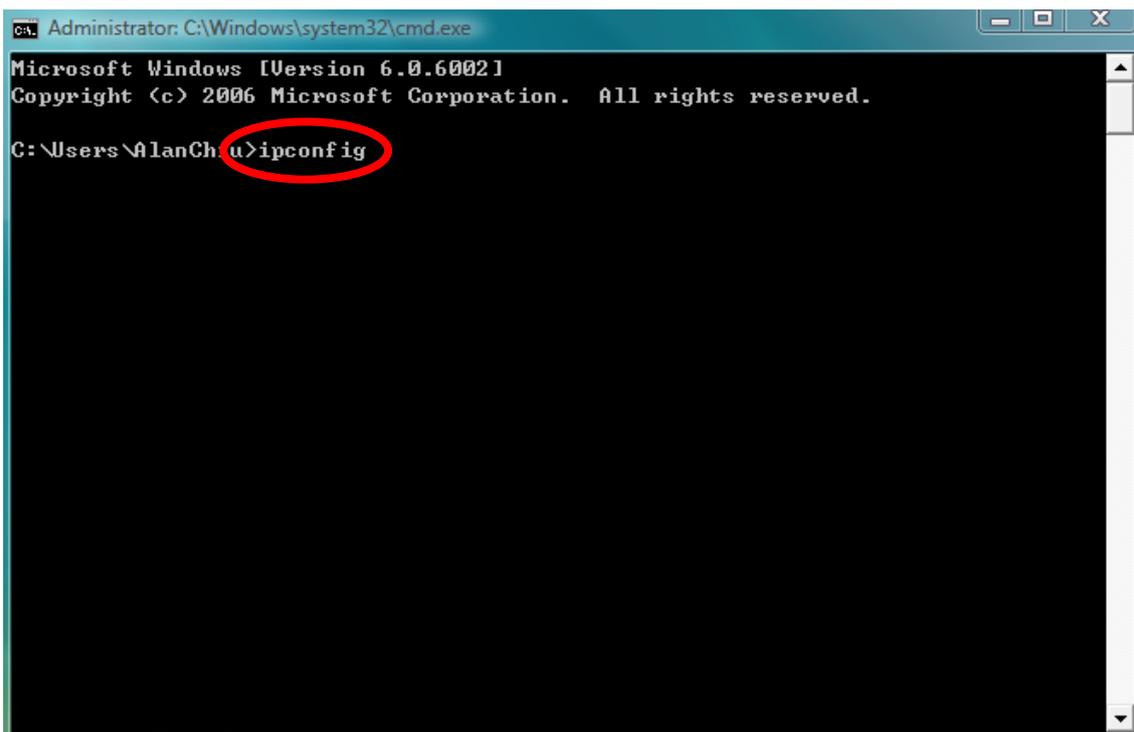
To find your router's IP address, please follow the instructions appropriate for your operating system.

IV-1-4-1. Windows XP, Vista & 7

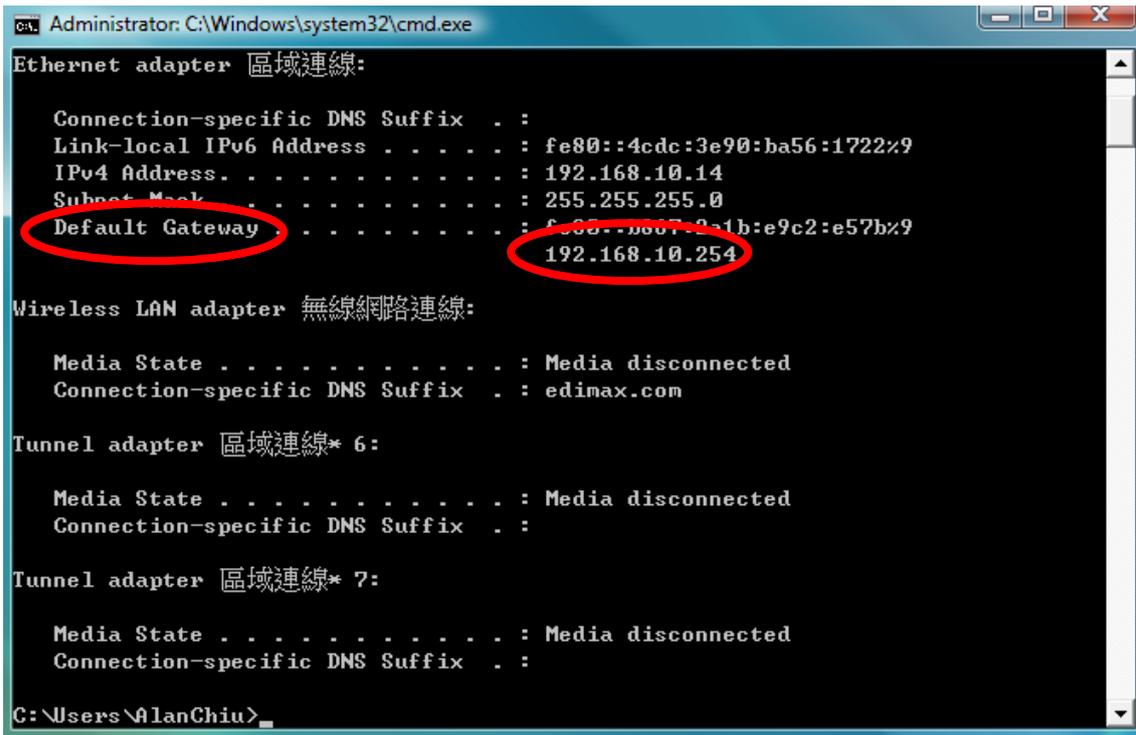
1. Go to "Start", select "Run" and type "cmd", then press Enter or click "OK".



2. A new window will open, type "ipconfig" and press Enter.

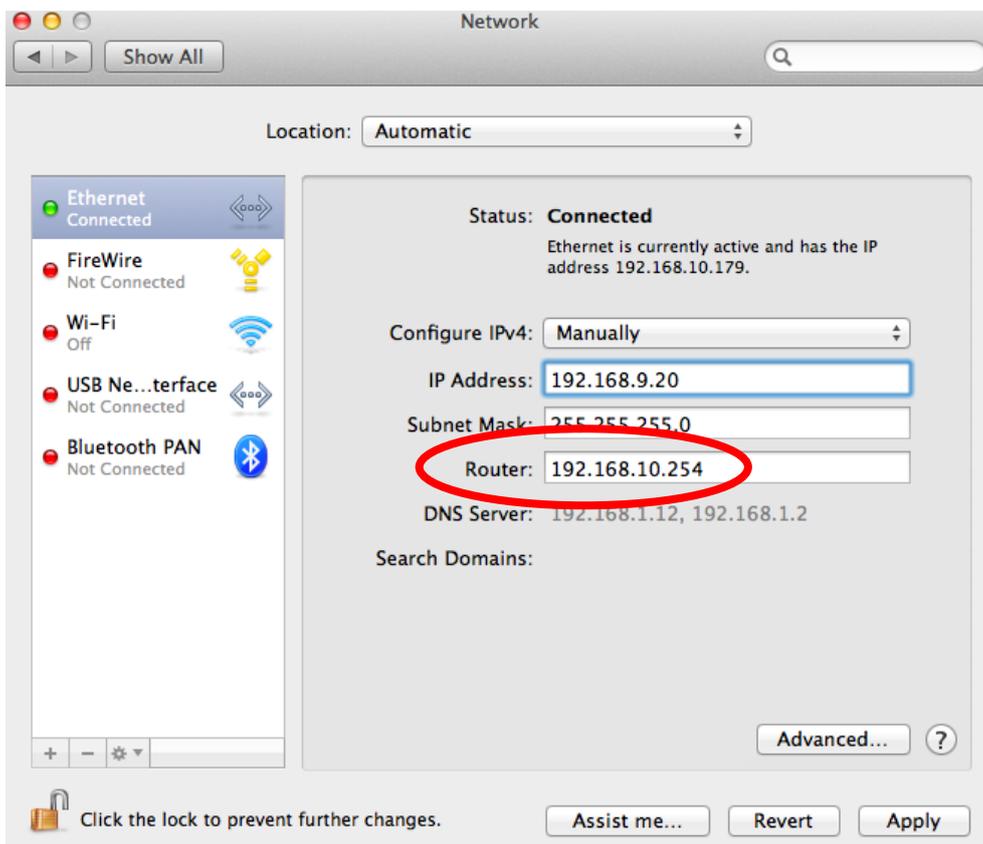


3. Your router's IP address will be displayed next to "Default Gateway".

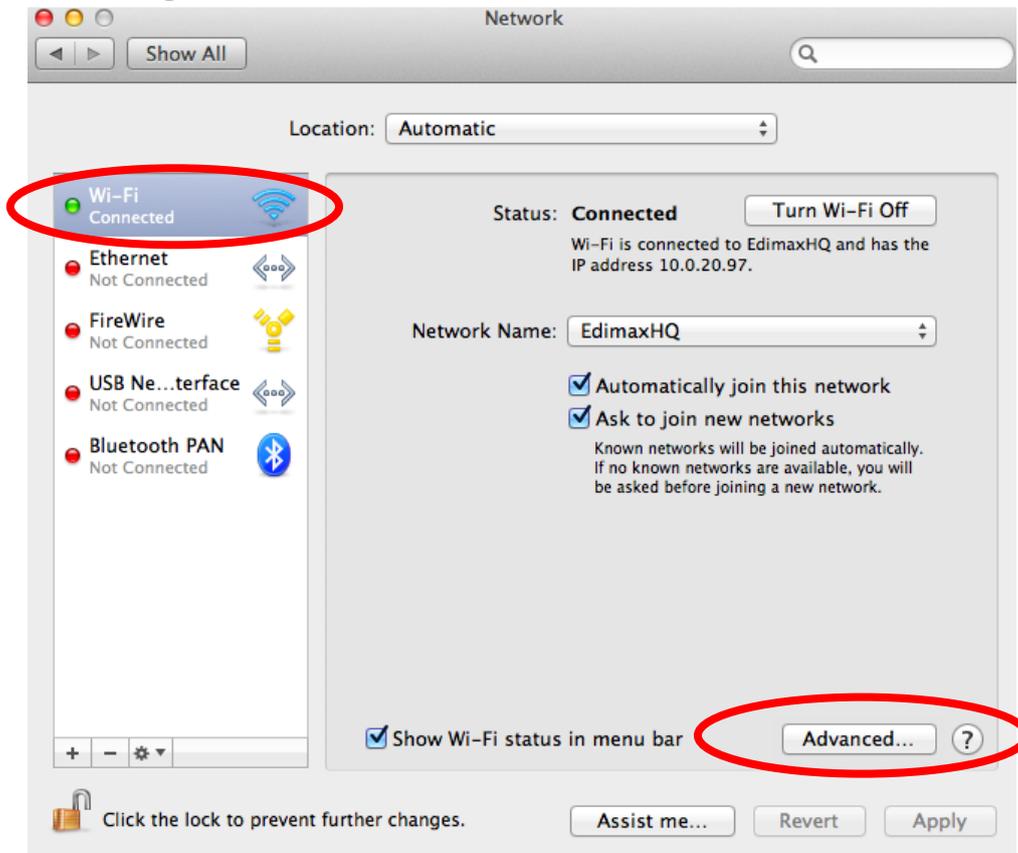


IV-1-4-2. Mac

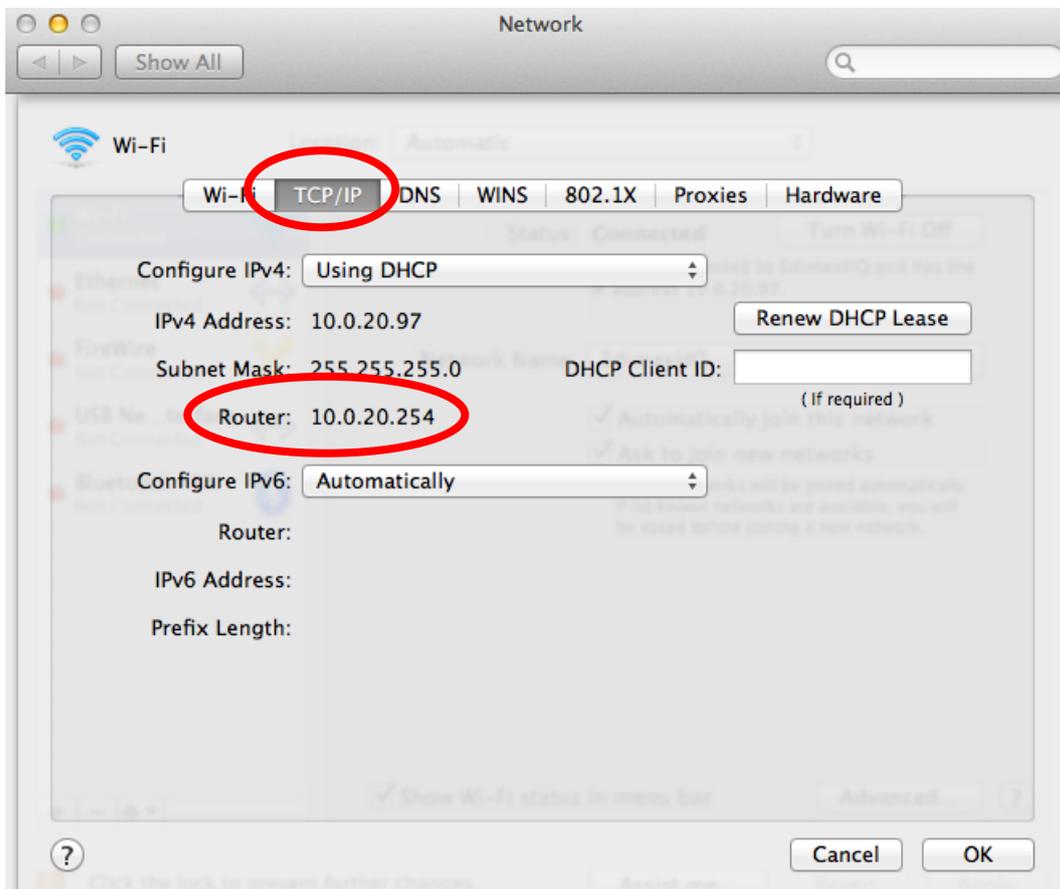
1. Launch "System Preferences" and click on "Network".
2. If you are using an Ethernet cable to connect to your network, your router's IP address will be displayed next to "Router".



3. If you are using Wi-Fi, click “Wi-Fi” in the left panel, and then “Advanced” in the bottom right corner.



4. Click the “TCP/IP” tab and your router’s IP address will be displayed next to “Router”.



IV-2. Troubleshooting

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

Scenario	Solution
I can't log onto the browser-based configuration interface: the wireless bridge is not responding.	<ul style="list-style-type: none"> a. Please check the connection of the power cord and network cable. All cords and cables should be correctly and firmly inserted. b. Check the LEDs on the front panel. If all the LEDs are out, then check the A/C power adapter. 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 wireless bridge 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. g. If all of the above solutions don't work, contact your dealer of purchase for help.
I can't establish a connection to my wireless bridge.	<ul style="list-style-type: none"> a. If encryption is enabled, please re-check WEP or WPA passphrase settings on your wireless client. b. Try moving closer to the wireless bridge. c. Unplug the A/C adapter of the wireless bridge, and plug it back again after 10 seconds. d. Check the LEDs on the front panel. If all the LEDs are out, then check the A/C power adapter.
File downloads are very slow or frequently interrupted.	<ul style="list-style-type: none"> a. Reset the wireless bridge. 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.	<ul style="list-style-type: none"> 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 wireless bridge is	<ul style="list-style-type: none"> a. It is normal for the wireless bridge to heat up during frequent use. If you can safely place your hand on the

extremely hot.	<p>wireless bridge, the temperature of the device is at a normal level.</p> <p>b. If you smell burning or see smoke coming from wireless bridge or A/C power adapter, then disconnect the wireless bridge and A/C power adapter immediately, as far as it is safely possible to do so. Call your dealer of purchase for help.</p>
My network device can't access the Internet.	<p>a. Ensure that your broadband router is fully functional.</p> <p>b. Switch off both your network device and wireless bridge, and switch back on again.</p> <p>c. Ensure that the wireless bridge is powered on (check the PWR LED) and that the Ethernet cable is properly connected to the network device.</p> <p>d. Use a computer to access the CV-7428nS's browser based configuration interface. If something is wrong, you will see an error page before the home page.</p> <p>- On the home page, check "State" under "Wireless Settings". It should be "Connected" – if it is "Disconnected" then this means the wireless bridge is not connected to your router/access point.</p>
My network is using a static IP address, how do I assign an IP address to my wireless bridge?	<p>You can modify the IP address of the wireless bridge using the browser based configuration interface. Please refer to III-5. Administrator.</p>
Netflix movies are slow to start playing.	<p>Typically, enough of the movie is pre-loaded before playback begins to ensure there are no interruptions during once playback is under way. This is known as buffering. The speed of your Internet connection is the most influential factor in determining the length of time buffering – a slower connection means more time buffering. For instant streaming of standard definition content, generally an Internet download speed of at least 2Mbps is necessary. For instant HD streaming, download speeds of at least 5 Mbps are generally required.</p>
My Internet connection is fast enough,	<p>It is possible the problem still lies with your Internet connection.</p> <p>a. Check and compare your connection speed at different</p>

<p>but buffering times are still too long and I only see standard definition video when streaming video from services such as Netflix or Youtube.</p>	<p>times. During peak usage times i.e. weekends and evenings, Internet connection speeds can fluctuate significantly depending on your ISP's total available bandwidth. If you are experiencing significant reductions in your download speeds during peak times, contact your ISP to solve this issue.</p> <p>b. If you are experiencing problems all of the time as opposed to only during peak times, then connect your computer directly to your router and test the speed, compared to when your computer is connected to directly to the wireless bridge. If your Internet connection speed is consistently fast when connected directly to your router then the problem may be related to the CV-7428nS – the connection between the wireless bridge and wireless router is not optimal. Try to re-locate the wireless bridge to improve the connection.</p> <p>c. Ensure that you're connection is secure. If you are using an unsecured wireless connection, it is possible that someone is sharing your connection without your knowledge and this could be causing low connection speeds.</p>
<p>My network device (such as TV, games console..) is set up for wireless access, but it does not work.</p>	<p>Set up your network device as you usually would for a regular Ethernet wired connection – not a wireless connection. Although the CV-7428nS is a wireless device, it is connected to your network device via a standard Ethernet cable. Effectively, the wireless bridge is “transparent” in your network, in that your network device does not actually know it is there.</p> <p>For example, if using a TV check Network Connection – (Cable or wired) or similar. For a PS3, check Internet Connection Settings for a wired connection (Settings>Network Settings>Internet Connection Settings). See: http://manuals.playstation.net/document/en/ps3/current/settings/connectwired.html</p>

IV-3. Glossary

Default Gateway (Wireless bridge): 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).

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 ".": `bbbbbbbb.bbbbbbbb.bbbbbbbb.bbbbbbbb`, where each "b" can either be 0 or 1.

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 `11111111.11111111.11111111.00000000`. Therefore sometimes a network mask can also be described simply as "x" number of leading 1's. 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, 11111111.11111111.11110000.00000000

It means the device's network address is 11011001.10110000.10010000.00000000, and its host ID is, 00000000.00000000.00000000.00000111. 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	TCP	23
FTP	TCP	21
SMTP	TCP	25
POP3	TCP	110

H.323	TCP	1720
SNMP	UCP	161
SNMP Trap	UDP	162
HTTP	TCP	80
PPTP	TCP	1723
PC Anywhere	TCP	5631
PC Anywhere	UDP	5632

Access point: An 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 protocols. 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.



EDIMAX
NETWORKING PEOPLE TOGETHER

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