IEEE 802.11n Wireless Series

Wireless 11n 1T1R Router

W142C	W142D

User Manual

Version 2.1

Date: October 20, 2010

FCC Certifications

Federal Communication Commission Interference Statement

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

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

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

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Mark Warning

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class B for ITE, the essential protection requirement of Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility and R&TTE Directive 1999/5/EC to meet the regulation of the radio equipment and telecommunications terminal equipment.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

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Unpacking Information

Thank you for purchasing the product. Before you start, please check all the contents of this package.

The product package should include the following:

1. One Wireless Router
2. One USB cable
3. One CD

Note:
Make sure that the package contains the above items. If any of the listed items are damaged or missing, please contact with your distributor.

Conventions

The router mentioned in this guide stands for IEEE 802.11n Wireless 1T1R Router without any explanation.

Chapter 1 Introduction to the Wireless Router

1.1 General Description

This is a wireless router with 1T1R SISO technology, providing an excellent network solution for home, SOHO and hotspot users. It complies with standards IEEE 802.11n with data rate up to 150 Mbps, and IEEE 802.11b/g with maximum data rate of 54 Mbps. It can also interoperate with all the 11/54 Mbps wireless (802.11b/g) products.

The router allows multiple users to share one broadband connection, as well as secures your private network. LAN users can share files, printers, or playing network games all at a blazing speed in a large area.

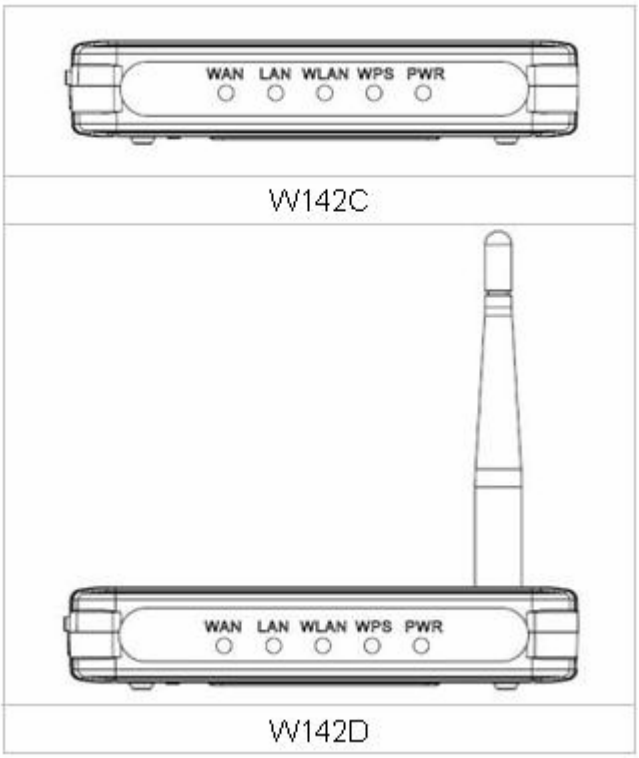
As to information security, this router supports up-to-date security encryption, such as WPA, WPA2, open shared key, and pair-wise key authentication services, ensuring you the best encryption types. What's more, this router supports energy efficient Ethernet and saves power consumption, prefering a cost-effective network connection.

1.2 Key Features

- Comply with IEEE 802.11n and IEEE802.11b/g wireless standards
- 2.4GHz frequency band and 1T1R
- High speed transfer rate up to 150Mbps
- Support auto-MDI/MDI-X, backpressure and flow control
- Support IEEE802.1x port-based and MAC-based network access control
- Support wireless data encryption with WPA, WPA2, Open shared key, and pair-wise key authentication services
- Support Static IP, DHCP Client, PPPoE, Firewall and NAT IP Sharing
- Support IEEE802.3az Energy Efficient Ethernet
- Provide one WPS/RESET button
- Provide one slide switch to control AP/Router/Client mode

1.3 The Front Panel

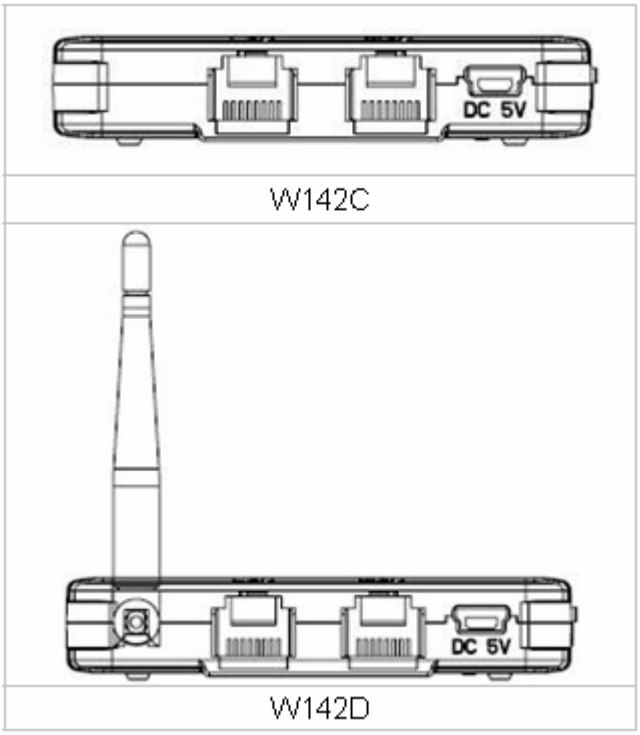
The front panel of the Wireless Router:



Name	Status	Indication
PWR	Green	Power on
	Dark	Power off
WPS	Blink green one time	System reboot
	Blink green	WPS connecting
	Dark	System stability
WLAN	Off	The wireless function is disabled.
	Flashing	The wireless function is enabled.
	Flashing fast	Sending or receiving data over wireless.
WAN / LAN	Off	There is no device linked to the corresponding port or the connection is dropping off.
	On	There are devices linked to the corresponding ports but no data transmitted or received.
	Flashing	Sending or receiving data over corresponding port.

1.4 The Rear Panel

The rear panel of the Wireless Router is shown below.



- **LAN:** Through this port, you can connect the router to your PCs and the other Ethernet network devices.
- **WAN:** This WAN port is where you will connect the cable/DSL Modem, or Ethernet.
- **DC IN:**
  Plug the circle end of the power adapter firmly into the rear panel of the router, and put the other end into an electric service outlet, then the system is ready.
- **WPS/Reset Button:**
  Click this button for once it means to start PBC configuration method, in which users can easy setup WPS connection.
  If you push the button for more than 5 seconds and then release it, the system will return to factory default setting. In the meantime, system rewrites flash to default value and then system reboot. Approximately 60 seconds later, the whole system parameters have returned to factory default value. If the process has been interrupted by any reason(like power off), the system will fail. Before perform the process, please ensure a safe operating environment!

Warning : Incomplete factory setting recovery procedure will cause the Wireless Router malfunction ! If you are unfortunately in this situation, do not try to repair it by yourself. Consult your local distributor for help!

Chapter 2 Installation and Basic Configuration

This chapter will guide you steps by steps to install and configure the Wireless Router. We suggest you go over the whole chapter first and then do more advanced operation.

2.1 Operation Mode

In this device, there are three modes for your selection:

- **AP mode**
- **Router mode**
- **Client mode**

Different mode functions different. You can glide the slide switch on the left side of the device to the left hand side (AP mode), middle (Router mode) or right hand side (Client mode) to choose the mode you want.
Before installation, please choose an operation mode first and then go on other configurations.

2.2 Connect This Router to Your Network

Steps to build up the network:

1. Connect the phone line from the wall socket to the line-in port on the ADSL modem, or the coaxial cable to the line-in port on the cable modem.
2. **A---Router Mode:** Connect the ADSL or cable modem to the Ethernet WAN port on the back of the Wireless Router by using the UTP cable.

   B---AP Mode: Connect a router to one of the two ports on the back of this device by using the UTP cable.

   C---Client Mode: Skip step 1 and Go to steps 3 directly.
3. Plug-in the power adapter to the modem and turn on the power. Install the Ethernet card into the computer by referring to the User Guide that came with the card.
4. Connect the computer to the Wireless Router by using standard twisted-pair Ethernet cable from the computer's Ethernet card to a 10/100Mbps Ethernet LAN port on the back of the Wireless Router. (In AP/Client mode both the ports can be used as LAN ports)
5. Plug-in the power adapter to the router and the other side to the wall outlet.

2.3 Configure the IP Address of Your Computer

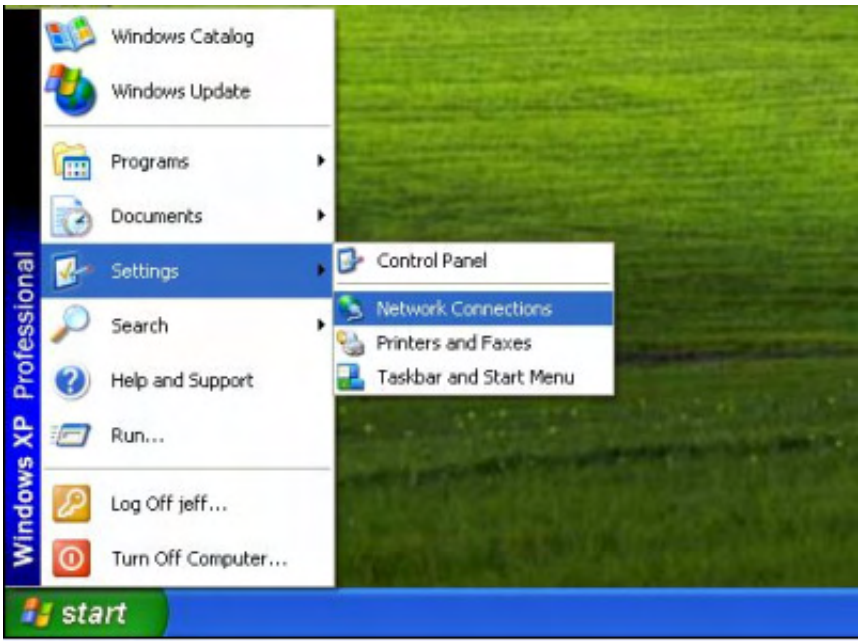
In order to communicate with this Wireless Router, you have to configure the IP address of your computer to make it compatible with the device.

Note: The router supports DHCP server and it is enabled as default. Users who configure his IP address as **"Obtain an IP address automatically"** may skip the following IP configuration instruction.

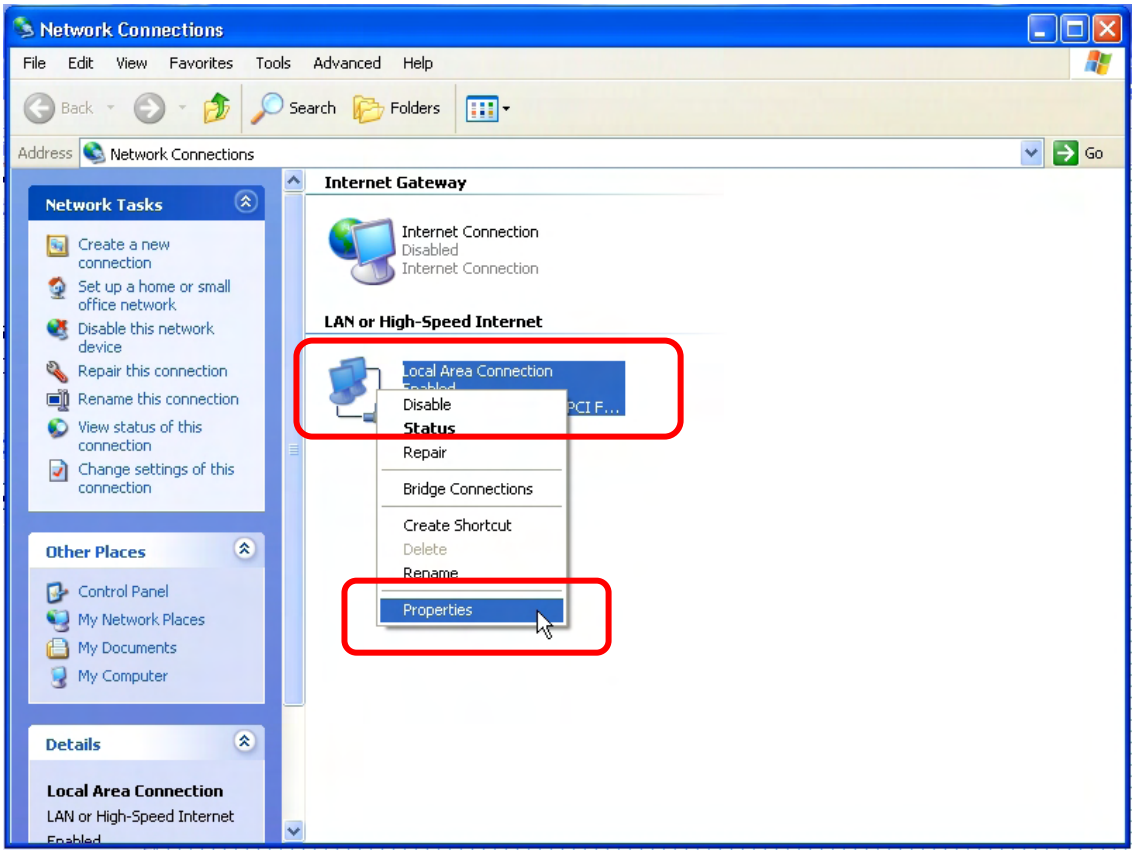
1. The default network setting of the device:
   IP address: 192.168.100.1
   Subnet Mask: 255.255.255.0
   DHCP Server: enable
2. In the following TCP/IP configuration guide, the IP address "192.168.100.2" is assumed to be your IP address if you want to specify IP addresses manually. Please **DO NOT** choose "192.168.100.1" as the IP address, for the IP address "192.168.100.1"has been set as the default IP for this device.
3. The following TCP/IP configuration guide uses windows XP as the presumed operation system.

Procedures to configure IP addresses for your computer:

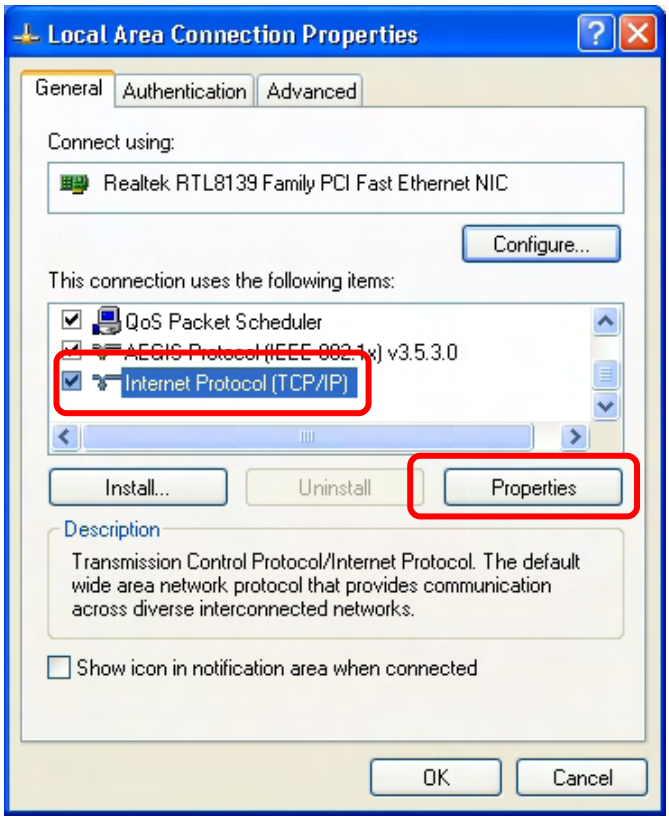
1. If you are in Classic Start menu view, click **Start** > **Settings** > **Network Connections**.
   If you are in Start menu view, click **Start** > **Control Panel** > **Network Connections**.



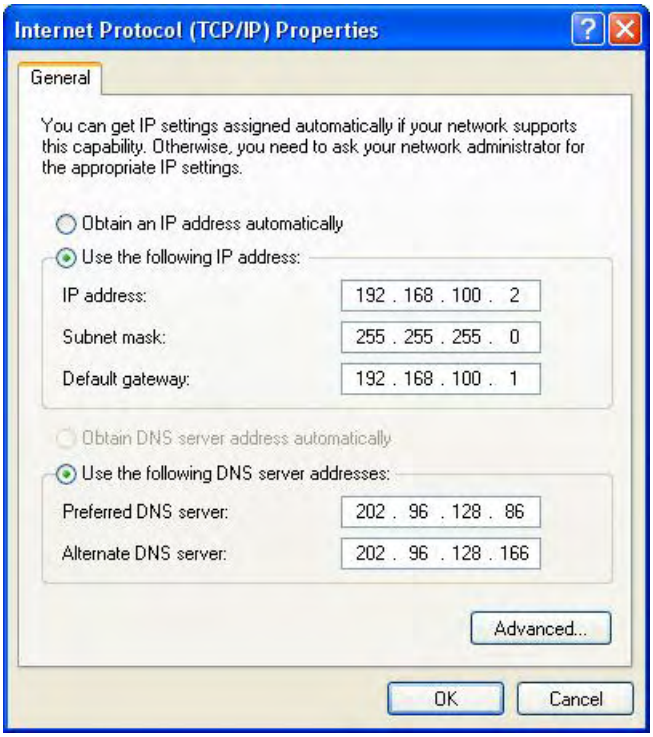
2. Right-click **Local Area Connection** item and click **Properties**.



3. Choose **Internet Protocol (TCP/IP)** and click **Properties**.



4. You may choose **Obtain an IP address automatically** (recommend) to get an IP address automatically. Or you can choose **Use the following IP address** to specify an IP address manually. Please click the **OK** button after your configuration.



Chapter 3 Web-Based Management

3.1 Start the Web-Based Management Interface

The device uses Web as the management interface. You can use a browser to access the management interface easily. Please follow the steps listed below.

1. Open the Internet Web browser.
2. Type **192.168.100.1** into the URL Web address location and press Enter.
3. The Login window appears.

- Enter **admin** in the User Name location (default value).

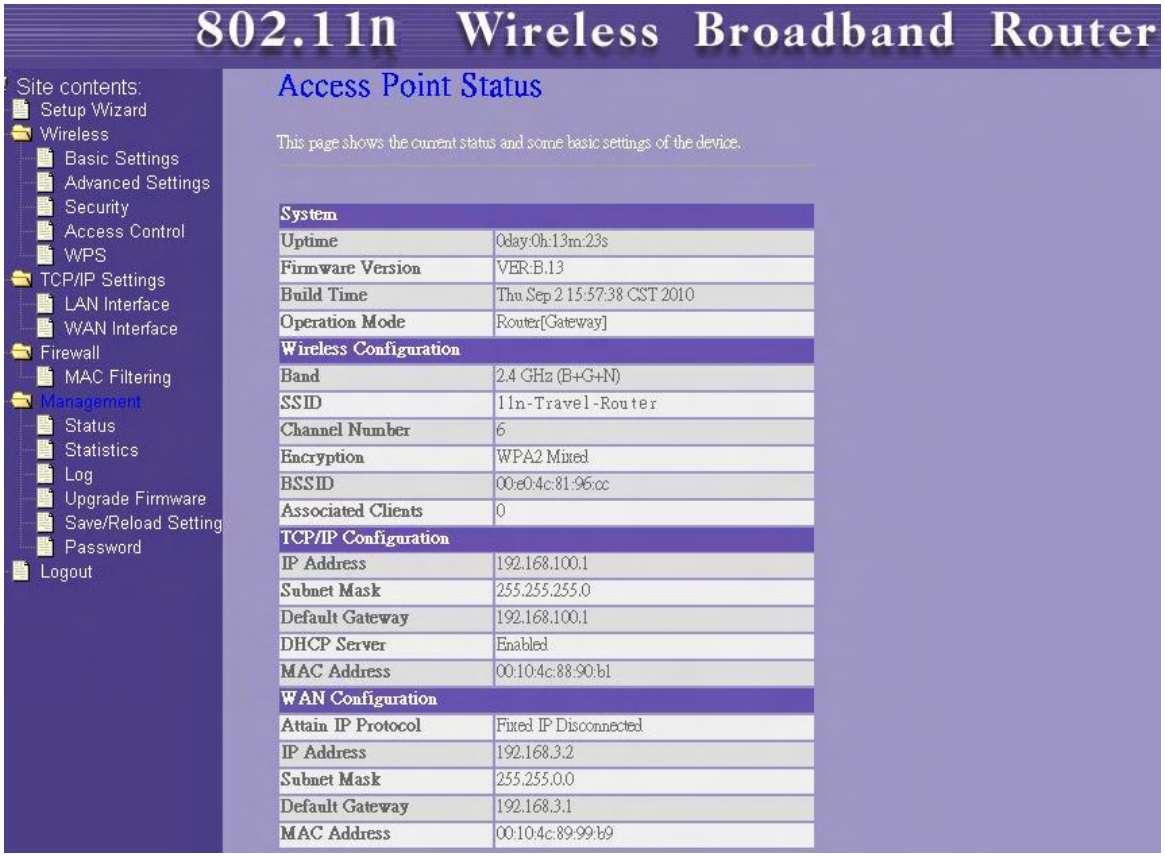
- Enter **admin** in the Password location (default value).

- Click **OK** button.

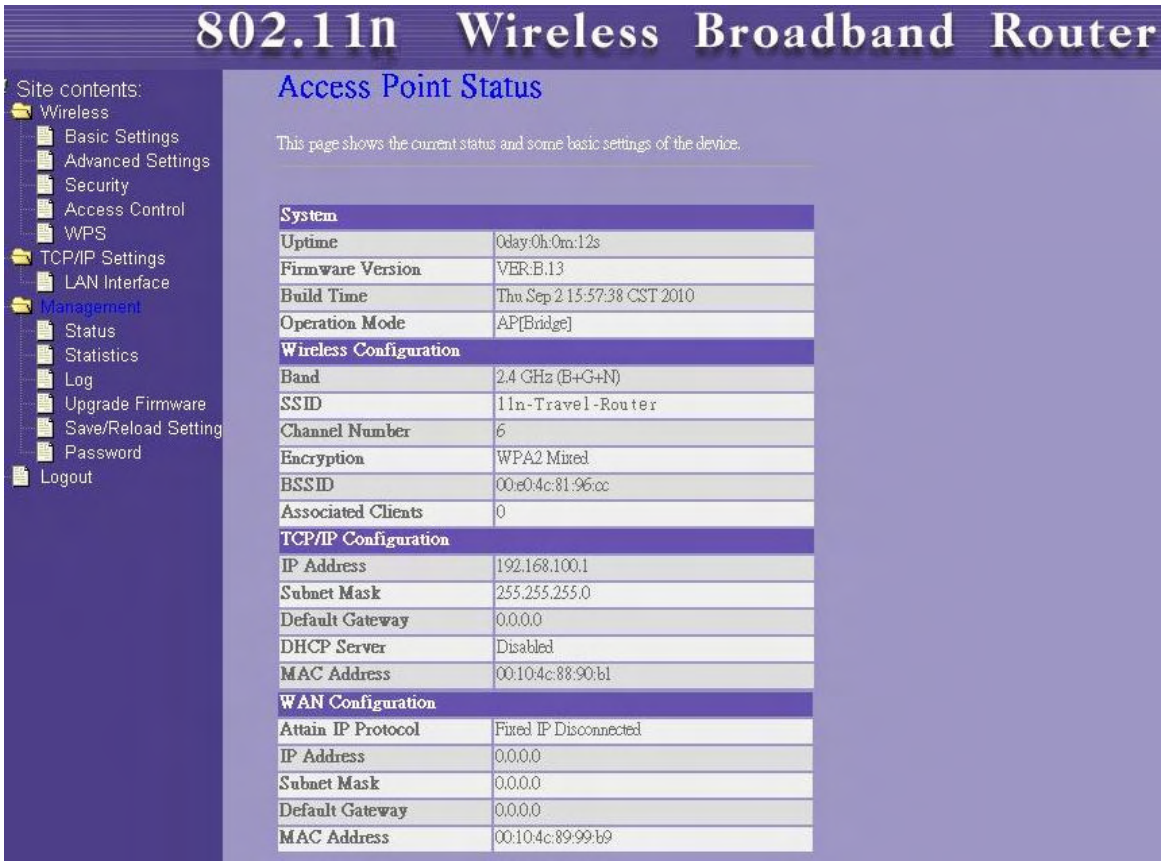
3.2 The Graphic User Interface

After the password authorization, the information page shows up as the home page of the graphic user interface. You may click the menu link on left column of the window to get access to each configuration page.

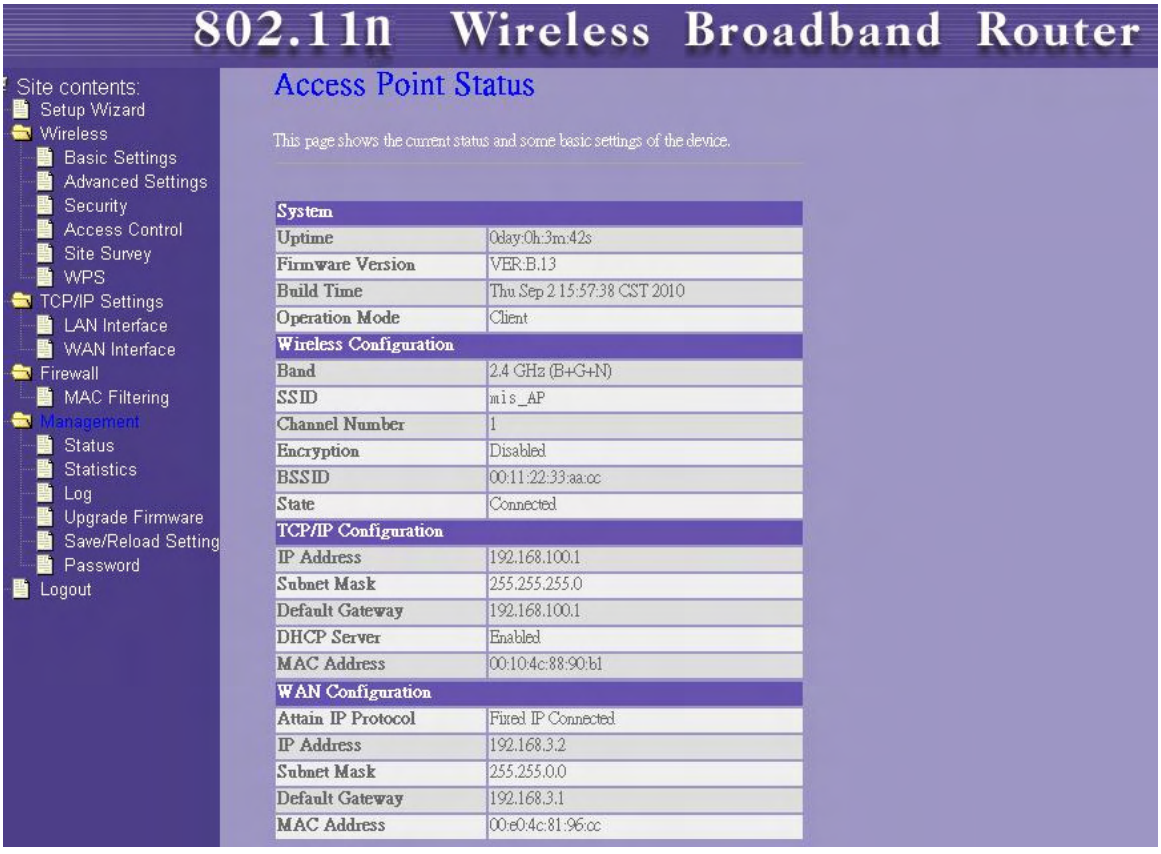
Router Mode:



AP Mode:



Client Mode:

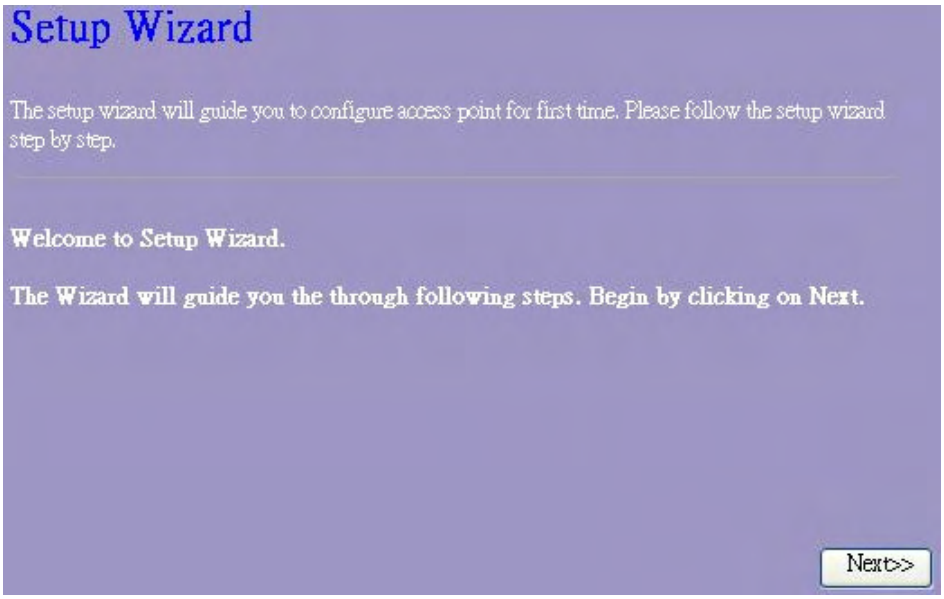


3.3 Setup Wizard (Router mode and Client mode)

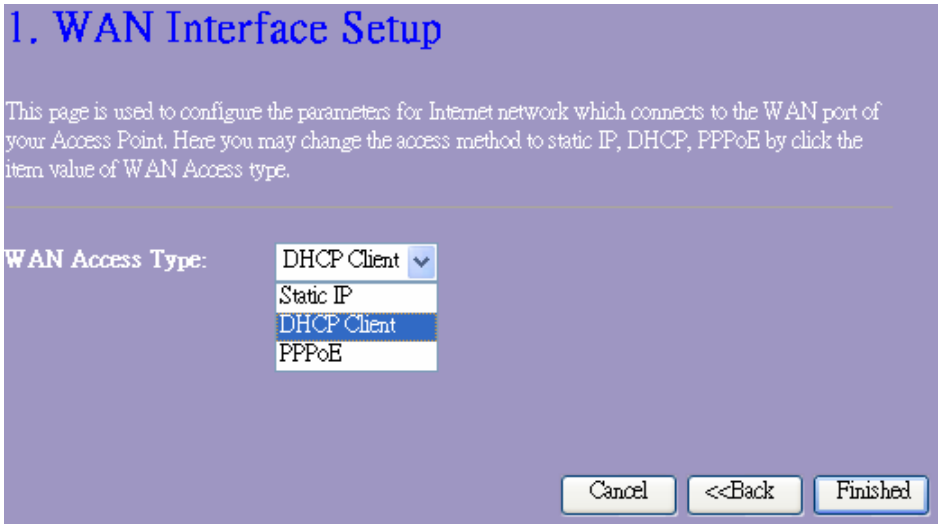
If you are using the router for the first time, please follow the procedures of the setup wizard to do a step-by-step configuration.

Note: The configurations in AP, Router and Client modes are almost the same. The following guide mainly introduces this device under the Router mode environment. Users want to do management in AP/Client mode please refer to the Router mode. The following instruction makes an overall introduction to the Setup Wizard

1. Click “Setup Wizard” on the left menu link, and then click the “Next” button to proceed.



2. Select a WAN access type for the router to connect to the Internet. And then click the “Finish” button. Or you can click “Back/Cancel” for any changing. You may get those parameters from your ISP. WAN Access Type: Static IP, DHCP Client and PPPoE.



3.4 Wireless

3.4.1 Basic Settings

You can set up the configuration of your Wireless basic settings and monitor the Wireless Clients associate with your router.

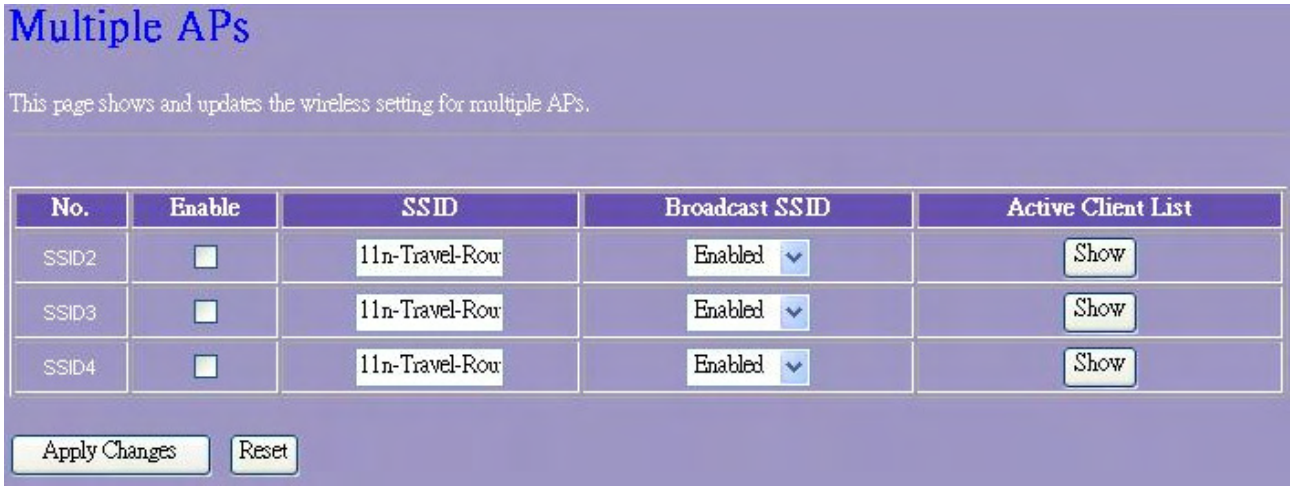
Items	Information
Disable Wireless LAN Interface	Mark the checkbox to disable interface of Wireless LAN.
Multiple AP	The Multiple AP button is to show and update the wireless settings for Multiple APs. Click this button to do more configurations.
SSID	Service set identifier (SSID) for the name of the wireless network.
Channel Width	Select 20MHz or 40MHz as the wireless channel frequency.
Control Sideband	Upper, Lower
Channel Number	Select a channel (Auto, 1~13) for the wireless network of this device.
Country	It contains USA(FCC), Canada(IC), Europe(ETSI), Spain, France, Japan(MKK) for your selection.
Broadcast SSID	If you enable "Broadcast SSID", every wireless station located within the coverage of this wireless router can discover this wireless router easily. If you are building a public wireless network, enabling this feature is recommended. Disabling "Broadcast SSID" can be more safe.

Associated Client	Click "Show Active Clients" button, then an "Active Wireless Client Table" will pop up. You can see the status of all active wireless stations that are connecting to the access point.

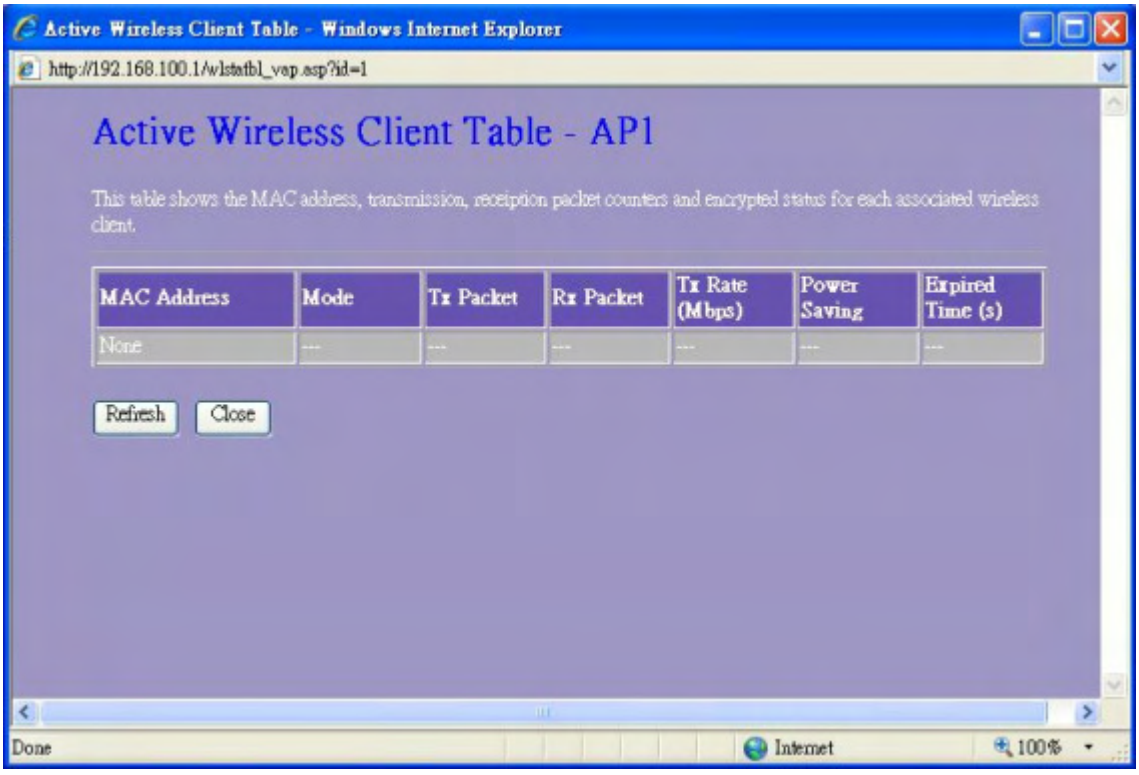
* Please click on the **Apply Changes** button or the **Reset** button at the bottom to save/reset the configurations.

1. Multiple APs

This is the window that pops up after clicking the Multiple AP button.

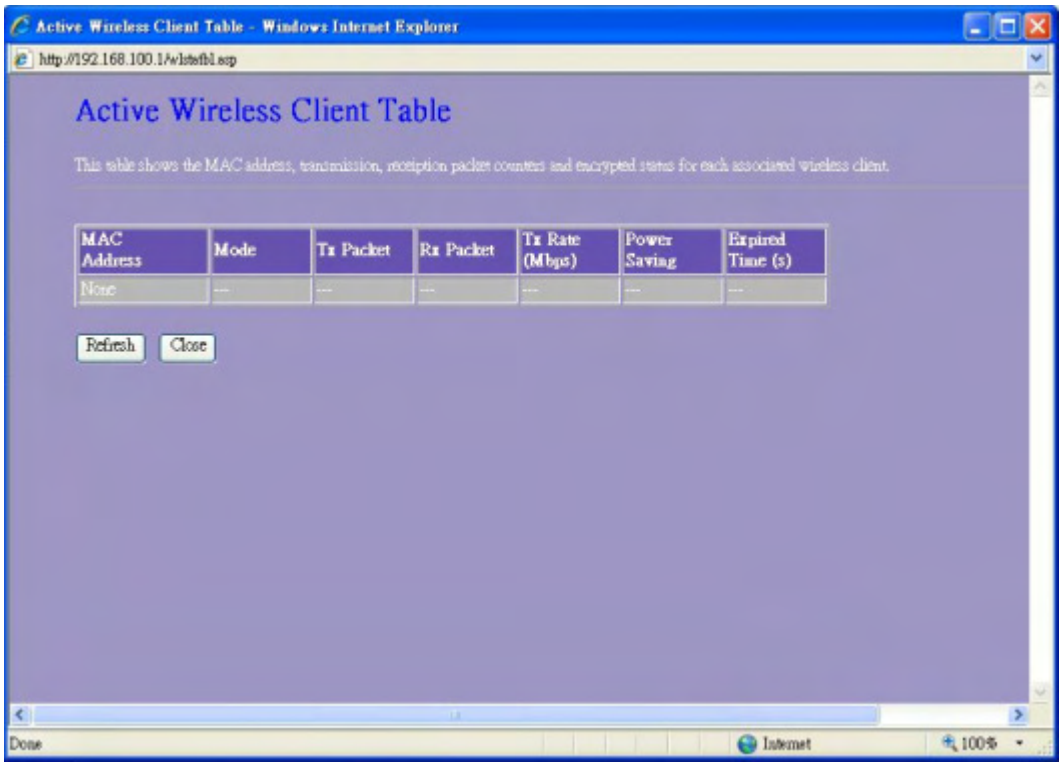


Click “Enable” to activate this AP, and then click the button “Show”, “Active Wireless Client Table – AP1” window pops up as the following:



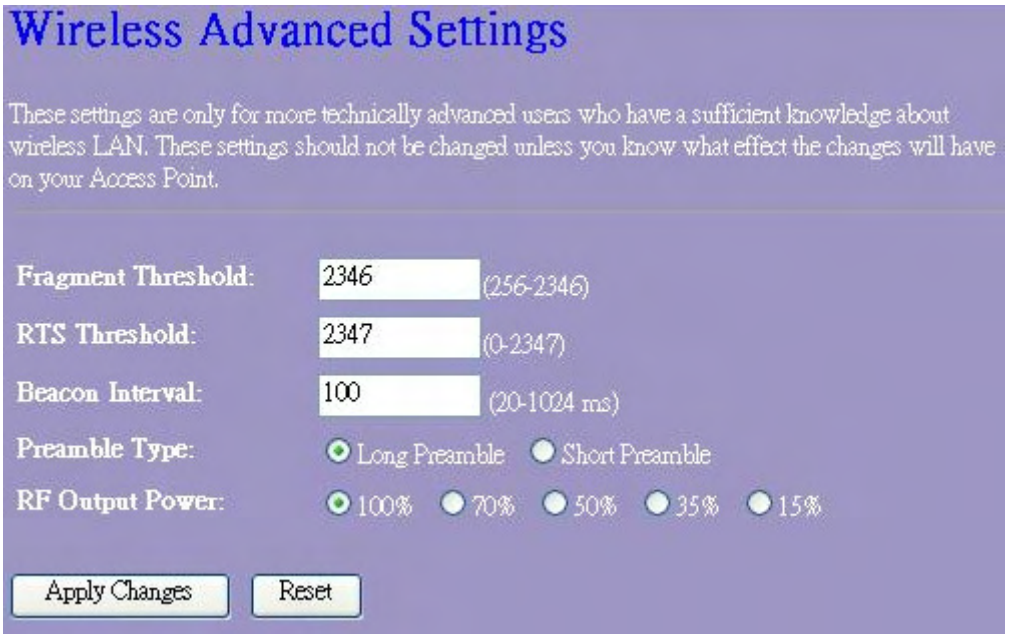
2. Active Wireless Client Table

This is the window that pops up after clicking the Show Active Clients button.



3.4.2 Advanced Settings

You can set advanced wireless LAN parameters for this router. We recommend not changing these parameters unless you know what changes will be on this router.



Items	Information
Fragment Threshold	This value should remain at its default setting of 2346. If you experience a high packet error rate, you may slightly increase your fragmentation threshold within the value range of 256 to 2346. Setting the fragmentation threshold too low may result in poor performance.
RTS Threshold	Request To Send threshold. This value should remain at its default setting of 2347. If you encounter inconsistent data flow, only minor modifications to the value range between 0 and 2347 are recommended.
Beacon Interval	Beacons are packets sent by an access point to synchronize a wireless network. Specify a beacon interval value. Default (100ms) is recommended.
Preamble Type	The length of CRC blocks in the frames during the wireless communication.
RF Output Power	Select the signal strength for the wireless network.

* Please click on the **Apply Changes** button or the **Reset** button at the bottom to save/reset the configurations.

3.4.3 Security

The Security function protects your wireless network from invasion. We provide WEP and WPA encryption to secure your wireless network. Please select “Disable”, “WEP”, “WPA”, “WPA2”, or “WPA2-Mixed” in the drop list. If you select “Disable”, any data will be transmitted without encryption and any station can access the router.

Items	Information
Select SSID	Please choose a SSID you have set for this router in the Wireless > Basic Settings from the drop-down list. The SSID will be shown on the wireless network for recognizing.
Encryption	There are 5 modes for you to select: Disable, WEP, WPA, WPA2, and WPA2-Mixed. Please refer to the following description.
Show Password	Select to show the password or not.

* Please click on the **Apply Changes** button or the **Reset** button to save/reset the configurations.

1. Security Mode – Disable

Select “Disable” means to access your wireless network without any encryption.

2. Security Mode -- WEP

Items	Information
Select SSID	Please choose a SSID you have set for this router in the Wireless > Basic Settings from the drop-down list. The SSID will be shown on the wireless network for recognizing.
Encryption	Select a security encryption mode for this router.
Authentication	There provide three options for selecting: Open System, Shared Key, Auto.
Key Length	Select “64-bit” or “128-bit” as the key encryption length.
Key Format	Select “ASCII[1]” or “Hex[2]” to setup the key value.
Encryption Key	Enter the key according to the key format you select.
Show Password	Select to show the password or not.

* Please click on the **Apply Changes** button or the **Reset** button to save/reset the configurations.

3. Security Mode – WPA / WPA 2

Items	Information
Select SSID	Please choose a SSID you have set for this router by clicking “Wireless > Basic Settings” from the drop-down list. The SSID will be shown on the wireless network for your recognition.
Encryption	Select a security encryption mode for this router.
WPA/WPA2 Cipher Suite	WPA Cipher Suite: the default setting is TKIP.

[1] ASCII (American Standard Code for Information Interchange) is a code for representing English letters as numbers from 0-127.
[2] Hexadecimal digits consist of the numbers 0-9 and the letters A-F.

	WPA2 Cipher Suite: the defaulting setting is AES
Pre-Shared Key Format	To decide the format, select “Passphrase” or “Hex” in the drop list.
Pre-Shared Key	Enter the “Pre-shared Key” according to the pre-shared key format you select. This is the shared secret between AP and STA. This field must be filled with character longer than 8 and less than 64 lengths.
Show Password	Select to show the password or not.

* Please click on the **Apply Changes** button or the **Reset** button to save/reset the configurations.

4. Security Mode – WPA2-Mixed

Items	Information
Select SSID	Please choose a SSID you have set for this router by clicking “Wireless > Basic Settings” from the drop-down list. The SSID will be shown on the wireless network for your recognition.
Encryption	Select a security encryption mode for this router.
WPA / WPA2 Cipher Suite	The Cipher Suite is mixed (TKIP and AES).
Pre-Shared Key Format	To decide the format, select “Passphrase” or “Hex” in the drop list.
Pre-Shared Key	Enter the “Pre-shared Key” according to the pre-shared key format you select. This field must be filled with character longer than 8 and less than 64 lengths.
Show Password	Select to show the password or not.

* Please click on the **Apply Changes** button or the **Reset** button to save/reset the configurations.

3.4.4 Access Control

To restrict the station access authentication of the clients, you can set up the control list in this page.

Items	Information
Wireless Access Control Mode	Click the drop list to choose the access control mode. You may select “Allow listed” to give those MAC addresses access to this device or select “Deny Listed” to ban it or select “Disable”.
MAC Address & Comment	Fill in the MAC address that you wish to control, and give a definition to it.
Current Access Control list	List the MAC Access Control settings you have added before. Click on the list to change configuration. To Delete the station on the list, mark the check box in the select item and click the “Delete Selected”. If you want to delete all stations on the list, click “Delete All” to remove all of them.

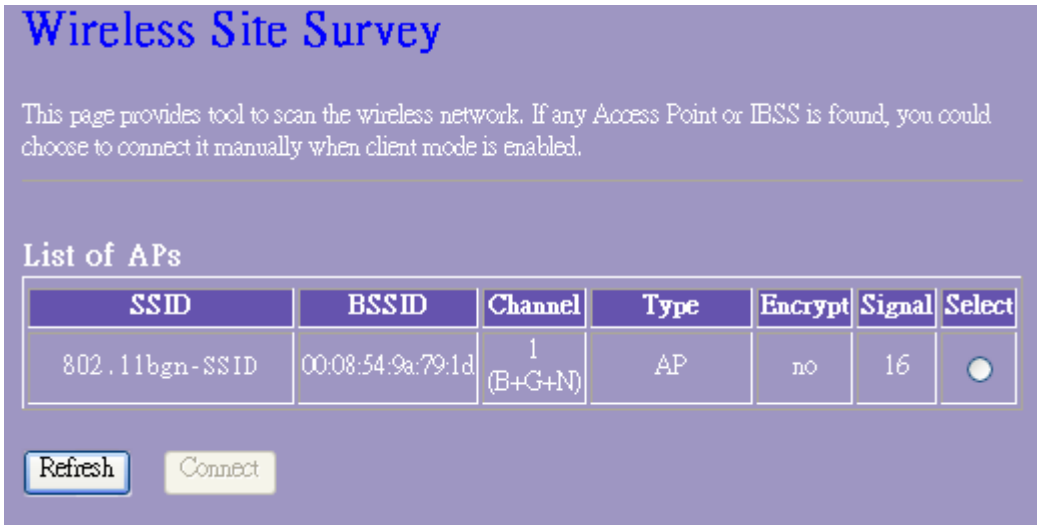
* Please click on the **Apply Changes** button or the **Reset** button to save/reset the configurations.

3.4.5 Wireless Site Survey (only in Client mode)

If you are under the **Client mode**, click **Wireless** > **Wireless Site Survey** in the menu links to display the screen as shown below.

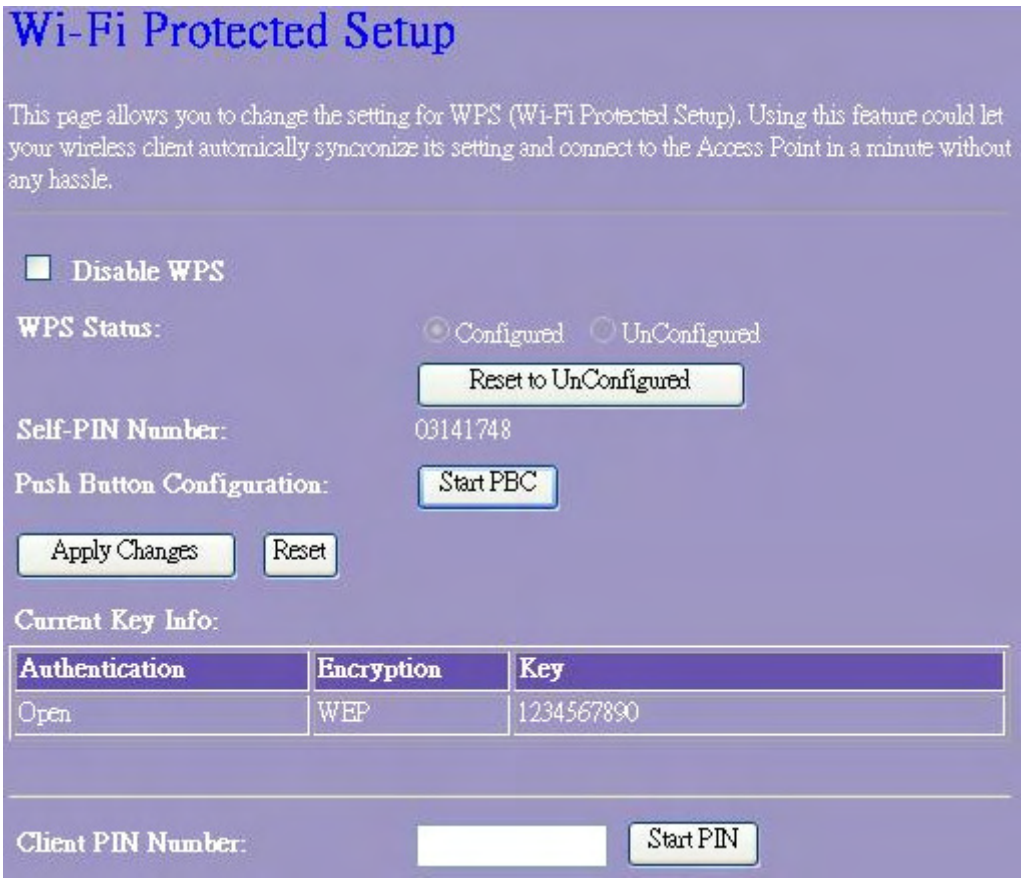
This page shows the available wireless network information. When you use this device as a client station (STA), you may connect to other AP or Router. Select one of the networks existing in the list of the site survey table and click “Connect” then your device can share the same

network with others successfully. Click the “Refresh” button can scan nearby Router and AP again.



3.4.6 WPS Settings

The primary goal of Wi-Fi Protected Setup (Wi-Fi Simple Configuration) is to simplify the security setup and management of Wi-Fi networks. This router supports the configuration setup using PIN configuration method or PBC configuration method through an internal or external registrar.



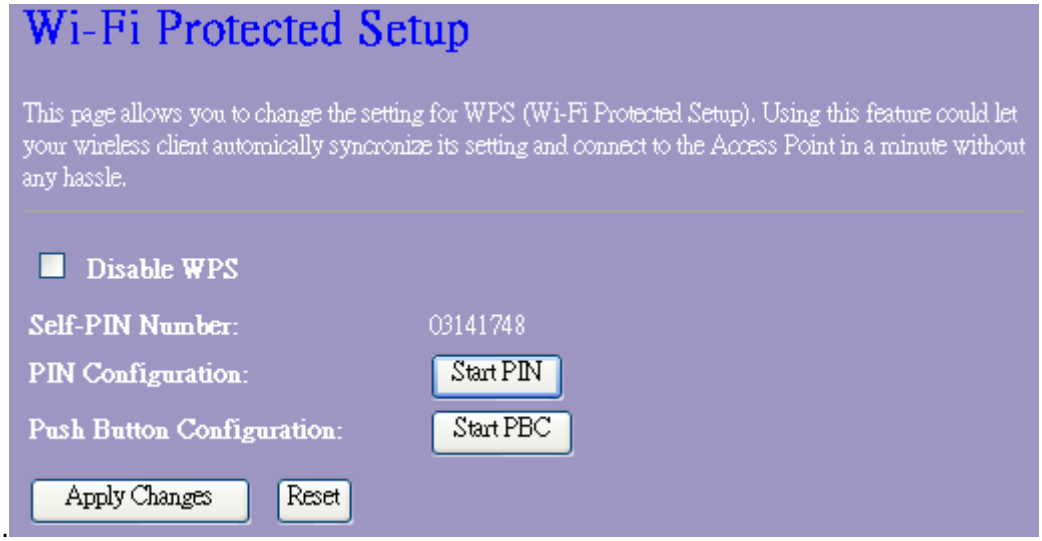
Items	Information
Disable WPS	Click this checkbox to undo WPS.
WPS Status	You cannot manually select the items here. The WPS Status will change from “UnConfigured” to “Configured” after you enable WPS function and setup a wireless security key for this device.
Self-PIN Number	If you use this device as a client, you can use this code when trying to connect this device to other AP by using the PIN method.
Push Button Configuration	Push Button Communication (PBC) method uses a simple action of pushing a button on both the AP and the new STA to reach the function of easy setup WPS connection. You can simply click the Start PBC button in this GUI page or click the WPS button under the case of the router. After click on the button, please run the client’s WPS and push the PBC button within 2 minutes.
Current Key Info	This field displays the current key information you configured.
Client PIN Number	Personal Identification Number (PIN) method. Users have to fill in the PIN code of enrollee device and click the Start PIN button to make communication between the AP and the enrollee device. After click on the button, please run the client’s WPS and push the PIN button within 2 minutes.

*Please click on the **Apply Changes** button or the **Reset** button at the bottom to save/reset the configurations.

If you are under the **Client mode**, the interface is different.

Click **Wireless** > **WPS** in the menu links to display the screen as shown below.

In this page you can connect your device to other networks by using PIN or PBC methods

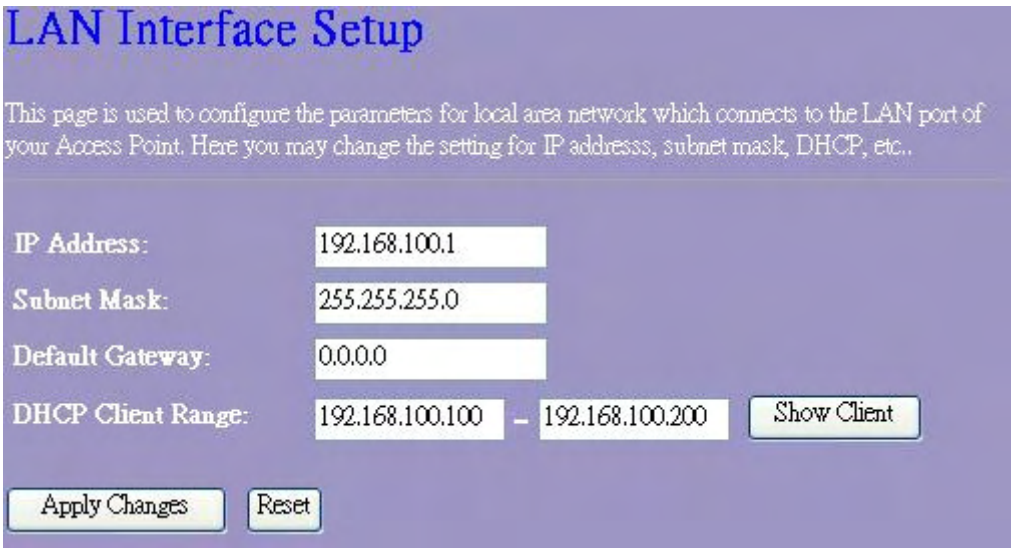


Items	Information
Disable WPS	Mark to disable the WPS, and clear to enable.
Self-PIN Number	If you use this device as a client, you can use this code when trying to connect this device to other AP by using the PIN method.
PIN Configuration	After the AP or router you share has fill in your self-pin number and click the Start PIN button in this GUI page at this moment you can click the Start PIN button in 2 minutes to establish the connection.
Push Button Configuration	You can simply click the Start PBC button (or the WPS button) together with the AP or router you want share in 2 minutes for connection.

3.5 TCP/IP Settings

3.5.1 LAN Interface Setup

To set up the configuration of LAN interface, private IP of your router LAN port and subnet mask for your LAN segment.



Items	Information
IP Address	The IP of your Router LAN port (default 192.168.100.1).
Subnet Mask	Subnet Mask of you LAN (default 255.255.255.0). All devices on the network must have the same subnet mask to communicate on the network.
Default Gateway	Enter the “IP Address” of the router in your network.

DHCP Client Range	DHCP stands for Dynamic Host Configuration Protocol. It is a protocol for assigning dynamic IP addresses “automatically”. This field asks you to specify the DHCP Client IP address range (default 100~200). You can also click the “Show Client” button to list those connected DHCP clients. **Note**: in Router/Client mode, DHCP Server default setting is enabled, however in AP mode, DHCP Server default setting is disabled.

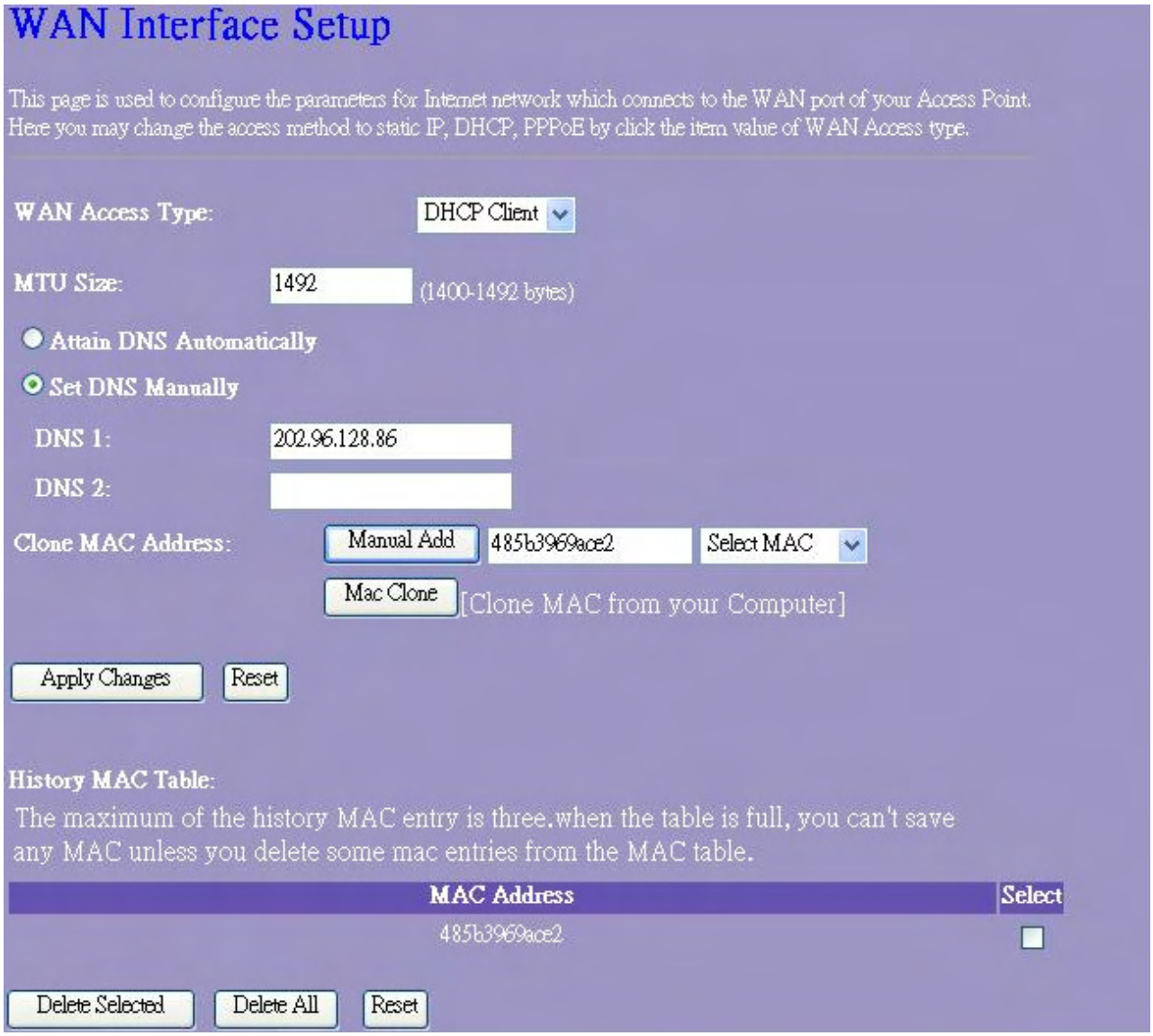
* Please click on the **Apply Changes** button or the **Reset** button at the bottom to save/reset the configurations.

Active DHCP Client List

This is the window that pops up after clicking the Show Client button. It shows the information of IP address, MAC address and expire time of the DHCP clients that have connected with this device.

3.5.2 WAN Interface Setup (Router mode and Client mode)

This page allows users to configure those parameters for connecting to Internet. You may select the Internet connection type from the drop list besides “WAN Access Type” and configure the parameters for each mode. There are three modes for your selection: Static, DHCP and PPPoE.

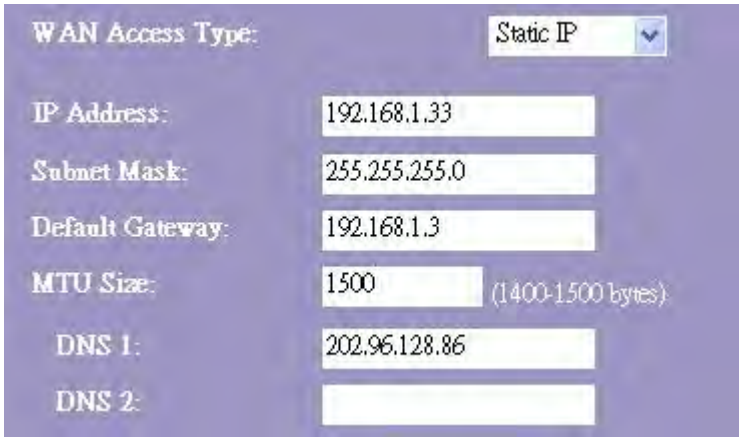


Items	Information
WAN Access Type	Select the mode to access the WAN as Static, DHCP Client or PPPoE.
MTU Size	To Enable the Maximum Transmission Unit of router setup. Any packet over this number will be chopped up into suitable size before sending. Larger number will enhance the transmission performance. Enter the MTU number in the blank to set the limitation.
Attain DNS Automatically	If your DNS provided by ISP is dynamic, choose “Attain DNS automatically.
Set DNS Manually	To specify the Domain Name System (DNS). The DNS server translates domain names into IP addresses. Enter the DNS provided by your ISP in DNS 1 and DNS 2.
Clone MAC Address	There are two ways to clone MAC address. One way is directory input MAC address in text box. Maybe you need to save the MAC Address, you can click 'Manual Add' button and add it to “History MAC Table” for easily backup; another is click 'MAC Clone' button, then it will copy the MAC address from

	your network card in the computer. **Note**: The 'History MAC Table' can save maximum three MAC Addresses.
History MAC Table	To Delete the MAC Address you add before, mark the check box in the select item on the right hand and click the “Delete Selected”. If you want to delete all the MAC Addresses, click “Delete All” to remove all of them.

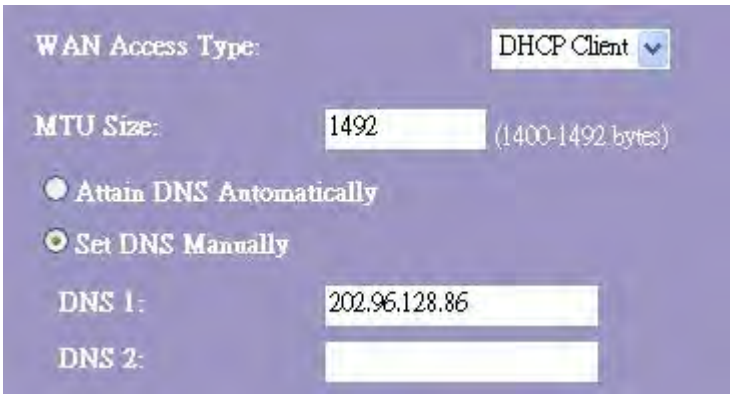
* Please click on the **Apply Changes** button or the **Reset** button at the bottom to save/reset the configurations.

1. Static Mode (fixed IP)



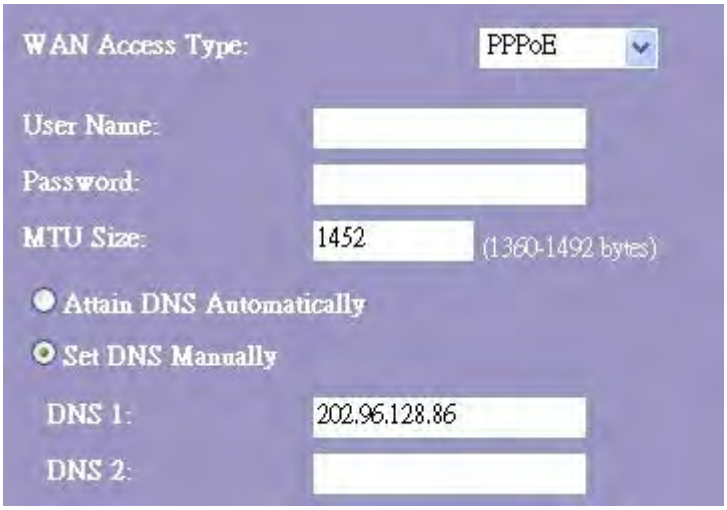
Items	Information
IP Address, Subnet Mask and Default Gateway	Fill in the IP address, Subnet Mask and Default Gateway that provided by your Internet Service Provider (ISP).
MTU Size	To Enable the Maximum Transmission Unit of router setup. Any packet over this number will be chopped up into suitable size before sending. Larger number will enhance the transmission performance. Enter the MTU number in the blank to set the limitation (default 1500 bytes).
DNS 1~2	To specify the Domain Name System (DNS). The DNS server translates domain names into IP addresses. Enter the DNS provided by your ISP in DNS 1 and DNS 2.

2. DHCP (Auto Config)



Items	Information
MTU Size	To Enable the Maximum Transmission Unit of Router setup. Any packet over this number will be chopped up into suitable size before sending. Larger number will enhance the transmission performance. Enter your MTU number in the text-box to set the limitation (default 1492 bytes).
Attain DNS Automatically	If your DNS provide by ISP is dynamic, choose “Attain DNS automatically.
Set DNS Manually	To specify the Domain Name System (DNS). The DNS server translates domain names into IP addresses. Enter the DNS provided by your ISP in DNS 1 and DNS 2.

3. PPPoE (ADSL)

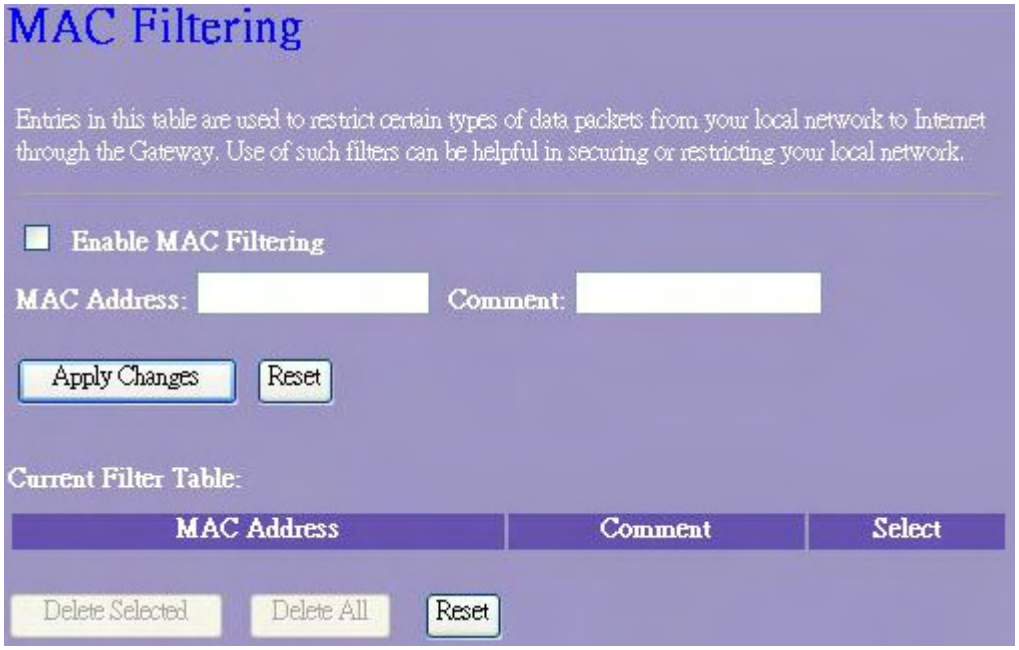


Items	Information
User Name&Password	Fill in the User Name and password that provided by your ISP.
MTU Size	To Enable the Maximum Transmission Unit of router setup. Any packet over this number will be chopped up into suitable size before sending. Larger number will enhance the transmission performance. Enter your MTU number in the text-box to set the limitation (default 1452 bytes).
Attain DNS Automatically	If your DNS provided by ISP is dynamic, choose “Attain DNS automatically.
Set DNS Manually	To specify the Domain Name System (DNS). The DNS server translates domain names into IP addresses. Enter the DNS provided by your ISP in DNS 1 and DNS 2.

3.6 Firewall Settings (Router mode and Client mode)

MAC Filtering

The Wireless Router could filter the outgoing packets for security or management consideration.



Items	Information
Enable MAC Filtering	Mark to enable the configuration, and clear to disable.
MAC Address	Fill in the MAC address of wireless stations you want to forbid to access the Internet through the Gateway.
Comment	Input any text to describe this mapping.
Current Filter Table	Lists the MAC Filter Settings you have added before. To delete the settings on the list, click the check box in the select item and click the “Delete Selected”. If you want to delete all the MAC addresses, click “Delete All” to remove all of them.

Please click on the **Apply Changes** button or the **Reset** button at the bottom to save/reset the configurations.

3.7 Management

3.7.1 Status

This information page shows the current status and basic settings of this device. You could check if the parameters match your configuration.

System	
Uptime	0day:1h:7m:48s
Firmware Version	VER:B.13
Build Time	Thu Sep 2 15:57:38 CST 2010
Operation Mode	Router[Gateway]
Wireless Configuration	
Band	2.4 GHz (B+G+N)
SSID	11n-Travel-Router
Channel Number	6
Encryption	WPA2 Mixed
BSSID	00:e0:4c:81:96:cc
Associated Clients	0
TCP/IP Configuration	
IP Address	192.168.100.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.100.1
DHCP Server	Enabled
MAC Address	00:10:4c:88:90:b1
WAN Configuration	
Attain IP Protocol	Fixed IP Disconnected
IP Address	192.168.3.2
Subnet Mask	255.255.0.0
Default Gateway	192.168.3.1
MAC Address	00:10:4c:89:99:b9

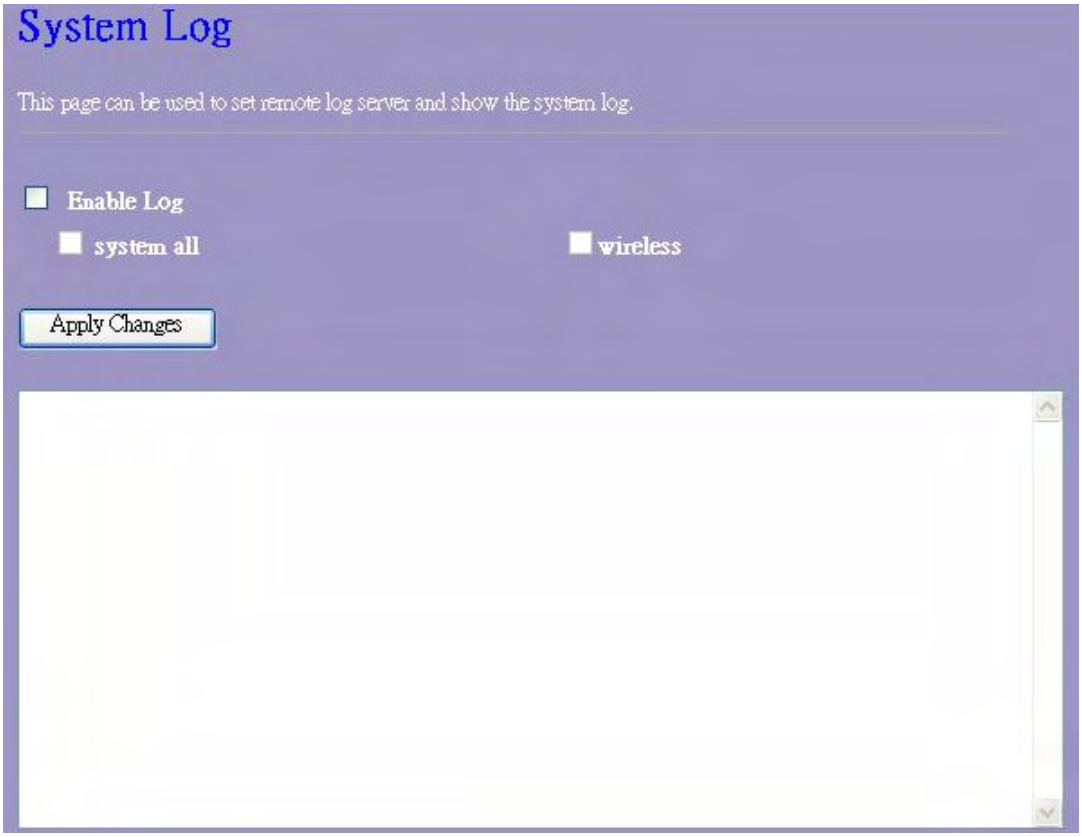
3.7.2 Statistics

This page shows users the information of data transfer, and monitors the status of this router including receiving and sending packets. To see the latest report, click Refresh button.

3.7.3 Log

This System Log page shows the information of the current activities on the router. To enable system log function:

1. Mark the “Enable Log” checkbox.
2. To see all information of the system, select the “system all” checkbox.
   To see wireless information only, select the “wireless” checkbox.
3. Click the Apply Changes button to activate. You could also click the Refresh button to refresh the log information or click the Clear button to clean the log table.

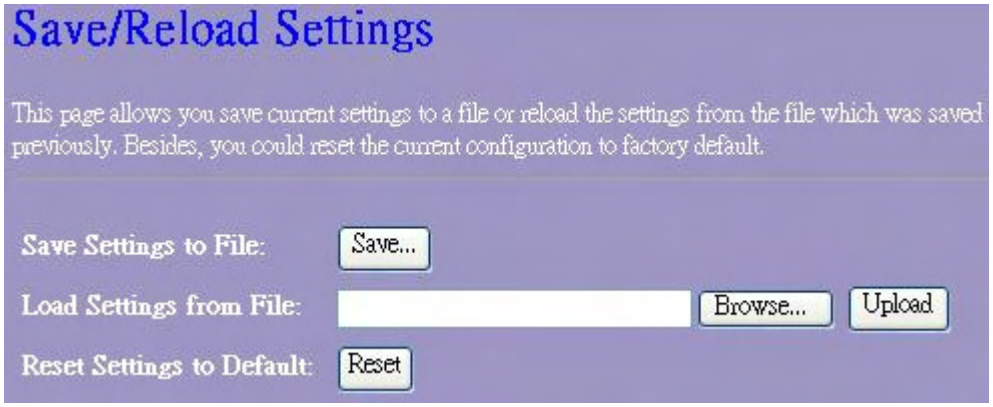


3.7.4 Upgrade Firmware

Sometimes a new firmware may be issued to upgrade the system of this device. You could upgrade the firmware you got in this page. To upgrade the firmware, please click the Browse... button, locate the firmware in your computer and then click the Upload button to execute.

3.7.5 Save/Reload Setting

The Save/Reload Setting page allows users to save and upload the configuration settings of the device or restore the factory default configuration.



Items	Information
Save Settings to File	Click the Save... button to save the currently configure settings.
Load Settings from File	Click Browse... to select the file that you save, and then click Upload to start to update the system configuration settings. Please wait until it is complete.
Reset Settings to Default	Click Reset to start to load default settings.

3.7.6 Password

To set up the Administrator Account information, enter the Username, New password, and reenter the password on the text box. Don't forget to click the Apply Changes to save the configuration.

3.7.7 Logout

Click Apply Change then you will save the settings and log off the management interface.

Appendix A: Product Specifications

Standard	IEEE 802.11n, IEEE 802.11g, IEEE 802.11b, IEEE 802.3, IEEE 802.3u
Interface	LAN: One 10/100Mbps RJ-45 port WAN: One 10/100Mbps RJ-45 port One WPS/RESET button One slide switch to control AP/Router/Client mode One USB DC JACK
Antenna(W142D)	Antenna type: Dipole Antenna connector type: Fixed
WAN Connection	Ethernet 10/100 Mbps
Cable Connections	RJ-45 (10BASE-T): Category 3,4,5 UTP RJ-45 (100BASE-TX): Category 5 UTP
Transmission Mode	Auto-Negotiation (Full-duplex, Half-duplex)
Security	64/128-bit WEP, WPA, WPA2, WPA2-Mixed
Network Data Rate	802.11b: 1,2,5.5, and 11Mbps 802.11g: 6,9,12,18,24,36,48 and 54Mbps 802.11n: up to 150Mbps
Receiver Sensitivity	802.11n Typical -68 dBm 802.11g Typical -73 dBm 802.11b Typical -84 dBm
Transmit Power	16dBm typically @ 802.11b 14dBm typically @ 802.11g 13dBm typically @ 802.11n
LED indications	1*WAN, 1*LAN, 1*WLAN, 1*WPS, 1*PWR
Channel	1~13
Range Coverage	Indoor 35~100 meters Outdoor 100~300 meters
Temperature	Operating: 0°C ~ 40°C (32°~104°F) Storage: -20°C ~ 70°C (-4°~158°F)
Humidity	Operating: 10% ~ 90% RH, non-condensing Storage: 5%~90% RH, non-condensing
Certification	FCC, CE Class B

Appendix B: Glossary

- **802.11b -** The 802.11b standard specifies a wireless networking at 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security. 802.11b networks are also referred to as Wi-Fi networks.
- **802.11g -** specification for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology, using OFDM modulation and operating in the unlicensed radio spectrum at 2.4GHz, and backward compatibility with IEEE 802.11b devices, and WEP encryption for security.
- **802.11n -** 802.11n builds upon previous 802.11 standards by adding MIMO(multiple-input multiple-output). MIMO uses multiple transmitter and receiver antennas to allow for increased data throughput via spatial multiplexing and increased range by exploiting the spatial diversity, perhaps through coding schemes like Alamouti coding. The Enhanced Wireless Consortium (EWC) was formed to help accelerate the IEEE 802.11n development process and promote a technology specification for interoperability of next-generation wireless local area networking (WLAN) products.
- **DHCP** (**D**ynamic **H**ost **C**onfiguration **P**rotocol) **-** A protocol that automatically configure the TCP/IP parameters for the all the PC(s) that are connected to a DHCP server
- **DNS** (**D**omain **N**ame **S**ystem) **–** An Internet Service that translates the names of websites into IP addresses.
- **Domain Name -** A descriptive name for an address or group of addresses on the Internet.
- **DSL** (**D**igital **S**ubscriber **L**ine) **-** A technology that allows data to be sent or received over existing traditional phone lines.
- **ISP** (**I**nternet **S**ervice **P**rovider) **-** A company that provides access to the Internet.
- **MTU** (**Maximum Transmission Unit**) **-** The size in bytes of the largest packet that can be transmitted.
- **NAT** (**N**etwork **A**ddress **T**ranslation) **-** NAT technology translates IP addresses of a local area network to a different IP address for the Internet.
- **PPPoE** (**P**oint to **P**oint **P**rotocol **o**ver **E**thernet) **-** PPPoE is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.
- **SSID -** A **S**ervice **S**et **Id**entification is a thirty-two character (maximum) alphanumeric key identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID. This is typically the configuration parameter for a wireless PC card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name.
- **WEP** (**W**ired **E**quivalent **P**rivacy) **-** A data privacy mechanism based on a 64-bit or 128-bit or 152-bit shared key algorithm, as described in the IEEE 802.11 standard.
- **Wi-Fi -** A trade name for the 802.11b wireless networking standard, given by the Wireless

Ethernet Compatibility Alliance (WECA, see http://www.wi-fi.net), an industry standards group promoting interoperability among 802.11b devices.

- **WLAN** (**W**ireless **L**ocal **A**rea **N**etwork) **-** A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.