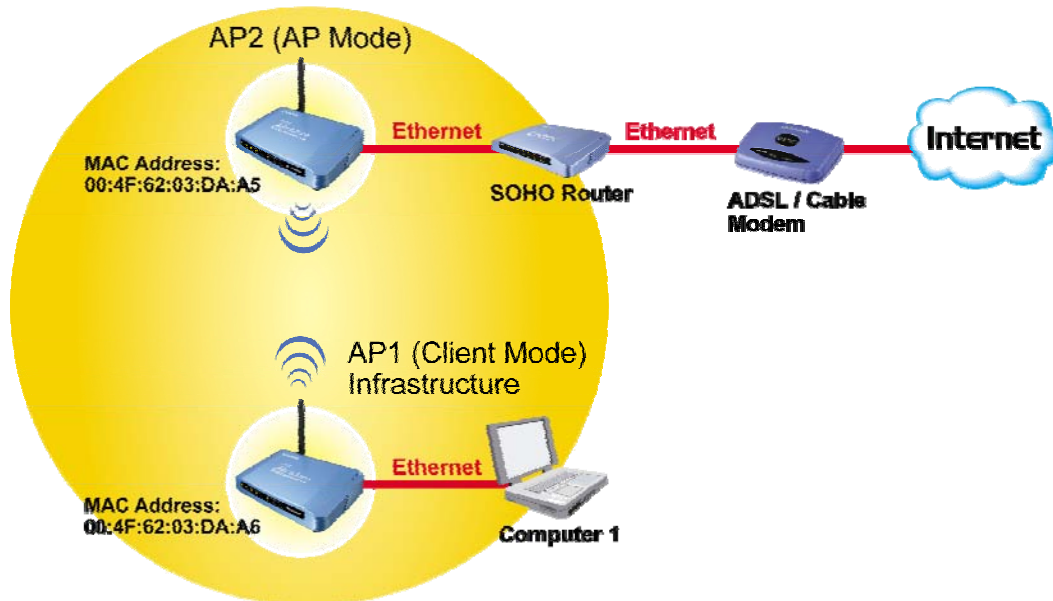


Client Mode (Infrastructure)

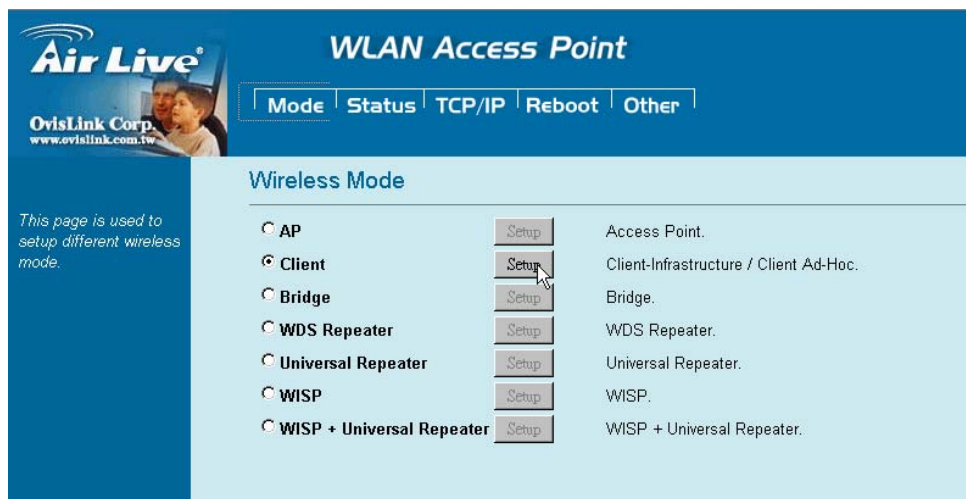
If set to Client (Infrastructure) mode, this device can work like a wireless station when it's connected to a computer so that the computer can send packets from wired end to wireless interface.

Refer to the illustration below. This station (AP1 plus the connected computer 1) can associate to another Access Point (AP2), and then can have the Internet access if the other Access Point (AP2) has the Internet connection.

Client Mode (Infrastructure)



To set the operation mode to “Client (Infrastructure)”, Please go to “Mode → Client” and click the **Setup** button.



In the “Network Type” field, select as “infrastructure” for configuration.



WLAN Access Point

Mode | Status | TCP/IP | Reboot | Other

This page is used to setup different wireless mode.

Client Mode Settings

Alias Name:

Disable Wireless LAN Interface

Band:

Network Type:

SSID:

Channel Number:

Auto Mac Clone (Single Ethernet Client)

Manual MAC Clone Address:

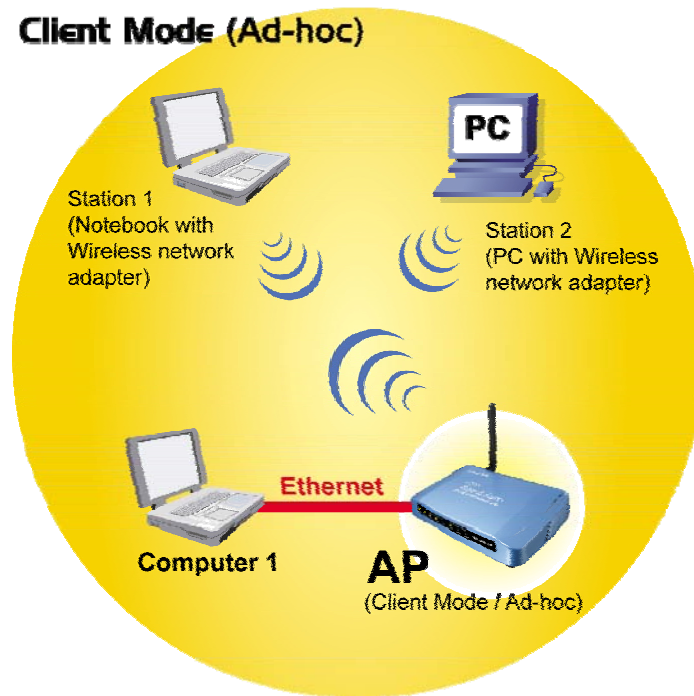
Security:

Advanced Settings:

Client Mode (Ad-hoc)

If set to the Client (Ad-hoc) mode, this device can work like a wireless station when it is connected to a computer so that the computer can send packets from wired end to wireless interface. You can share files and printers between wireless stations (PC and laptop with wireless network adapter installed).

See the sample application below.



To set the operation mode to “**Client (Ad-Hoc)**”, Please go to “**Mode → Client**” and click the **Setup** button. In the “**Network Type**” field, select as “**Ad hoc**” for configuration.

The screenshot shows the "Air Live" web interface for a "WLAN Access Point". The top navigation bar includes "Mode", "Status", "TCP/IP", "Reboot", and "Other". The "Client Mode Settings" section contains the following fields and options:

- Alias Name:
- Disable Wireless LAN Interface
- Band:
- Network Type:
- SSID:
- Channel Number:
- Auto Mac Clone (Single Ethernet Client)
- Manual MAC Clone Address:
- Security:
- Advanced Settings:

At the bottom, there are "Apply Changes" and "Reset" buttons. A sidebar on the left contains the Air Live logo and the text: "This page is used to setup different wireless mode."

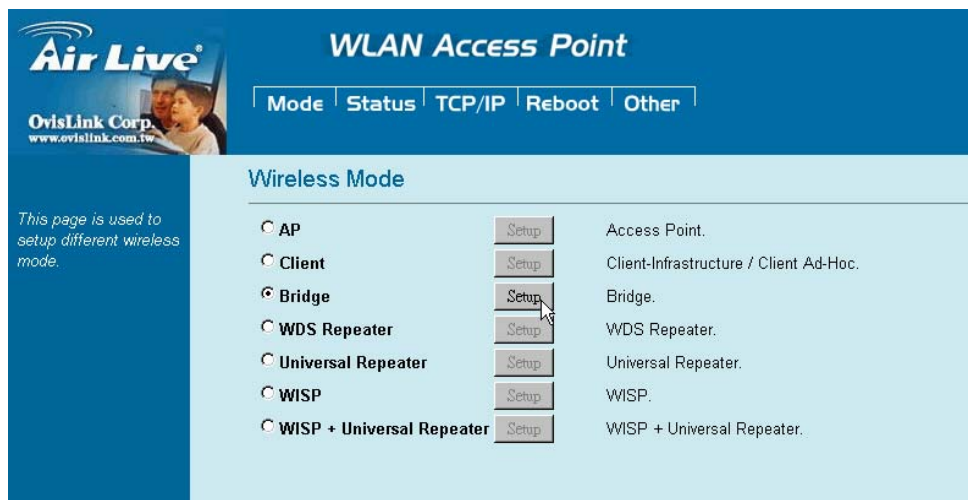
Bridge Mode

In this mode, 2 access points in two remote locations connect to each other to provide a wireless bridge between 2 remote LANs. It is mostly used by enterprise to connect 2 remote office's network together. The bridge modes are connected by using either the WDS (Wireless Distribution System) or Ad-Hoc topology.

This feature is also useful when users want to bridge networks between buildings where it is impossible to deploy network cable connections between these buildings.



To set the operation mode to “**Bridge**”, Please go to “**Mode → Bridge**” and click the **Setup** button for configuration.



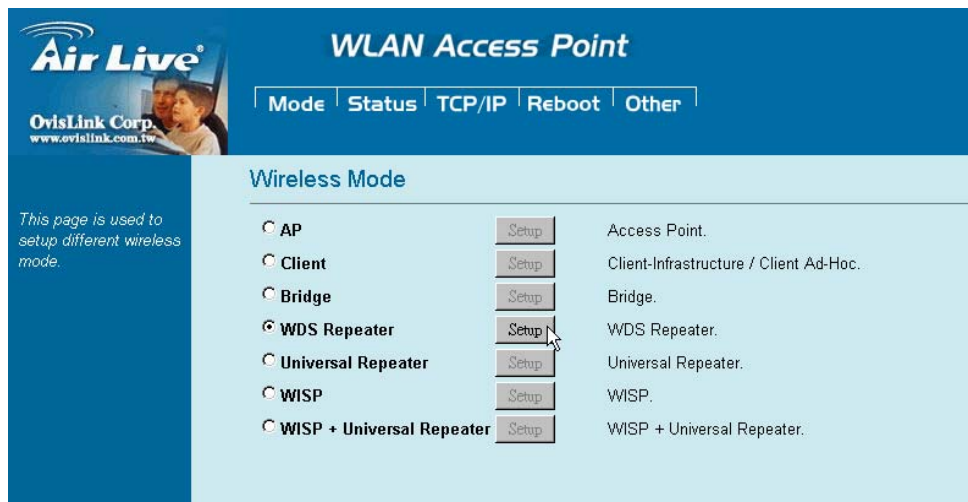
WDS Repeater Mode

A repeater's function is to extend the wireless coverage of another wireless AP or router.

For WDS repeater to work, the remote wireless AP/Router must also support WDS function.



To set the operation mode to “WDS Repeater”, Please go to “Mode →WDS Repeater” and click the **Setup** button for configuration.



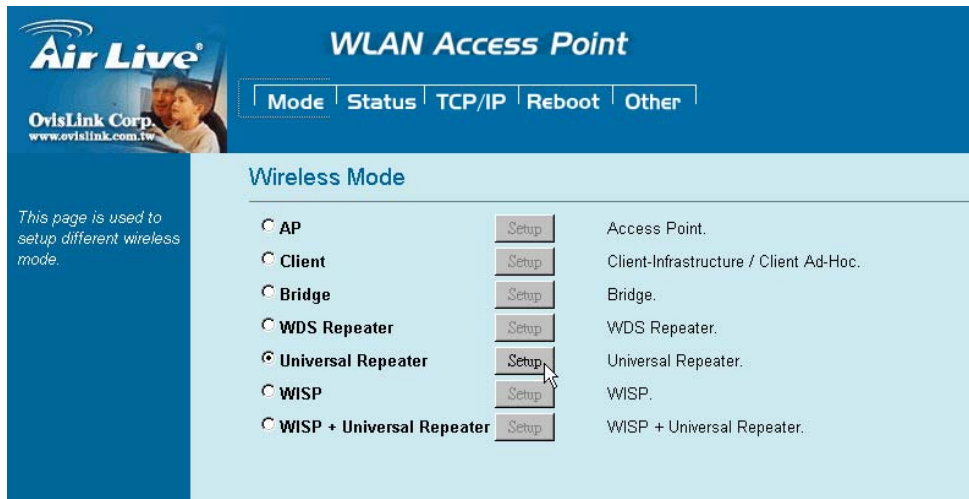
Universal Repeater Mode

A universal repeater can also extend the wireless coverage of another wireless AP or router. But the universal repeater does not require the remote device to have WDS function. Therefore, it can work with almost any wireless device.

Note: When you are using the universal repeater mode, please make sure the remote AP/Router's WDS function is turned off.



To set the operation mode to “**Universal Repeater**”, Please go to “**Mode → Universal Repeater**” and click the **Setup** button for configuration.



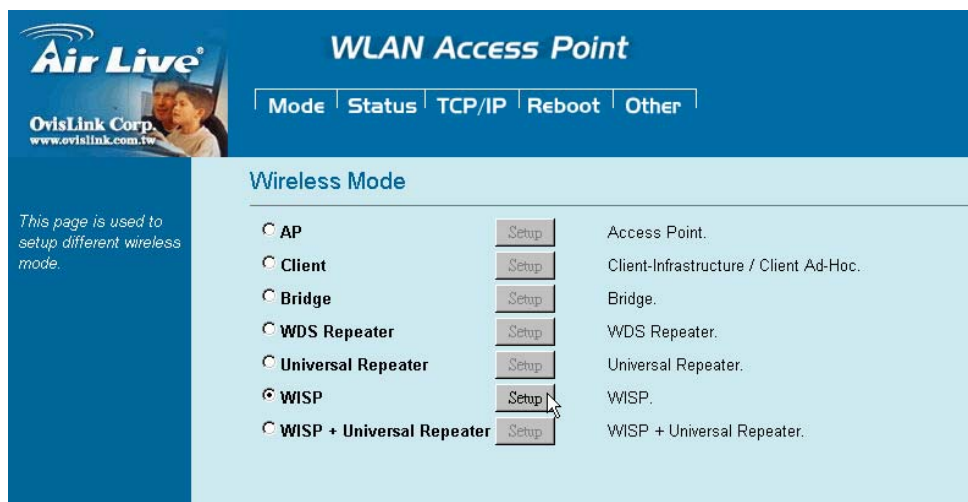
WISP (Client Router) Mode

WISP (Client Router) mode

In WISP mode, the AP will behave just the same as the Client mode for wireless function. However, Router functions are added between the wireless WAN side and the Ethernet LAN side. Therefore, The WISP subscriber can share the WISP connection without the need for extra router.



To set the operation mode to “WISP”, Please go to “Mode →WISP” and click the **Setup** button for configuration.

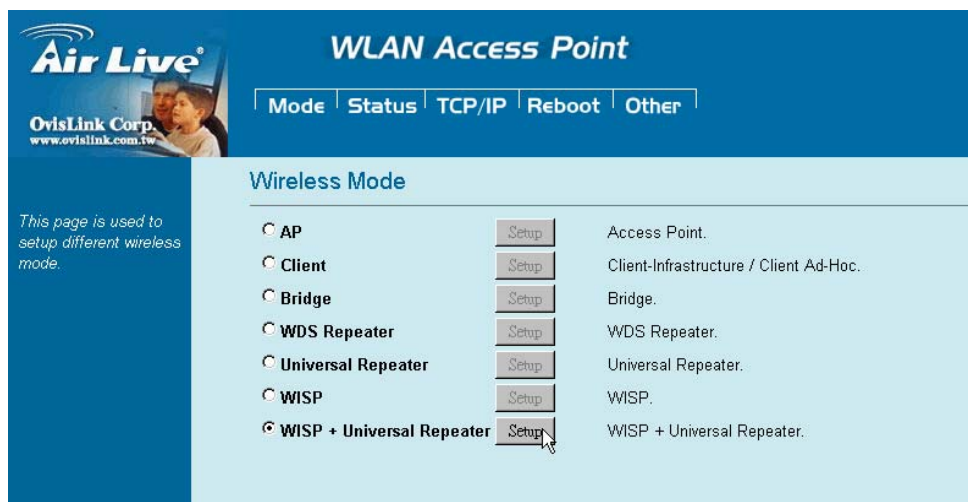


WISP + Universal Repeater Mode

In this mode, the AP behaves virtually the same as the WISP mode, except one thing: the AP can also send wireless signal to the LAN side. That means the AP can connect with the remote WISP AP and the indoor wireless card, and then provide IP sharing capability all at the same time! However, the output power is divided between 2 wireless sides and proper antenna installation can influence the performance greatly.



To set the operation mode to “**WISP + Universal Repeater**”, Please go to “**Mode →WISP + Universal Repeater**” and click the **Setup** button for configuration.



Configuration

1. Start your computer. Connect an Ethernet cable between your computer and the Wireless Access Point.
2. Make sure your wired station is set to the same subnet as the Wireless Access Point, i.e. 192.168.100.X
3. Start your WEB browser. In the *Address* box, enter the following:

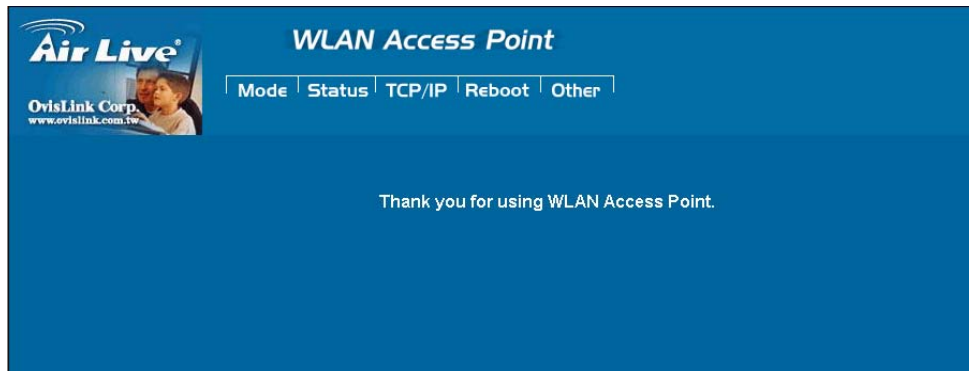
<http://192.168.100.252/>



The configuration menu is divided into five categories:

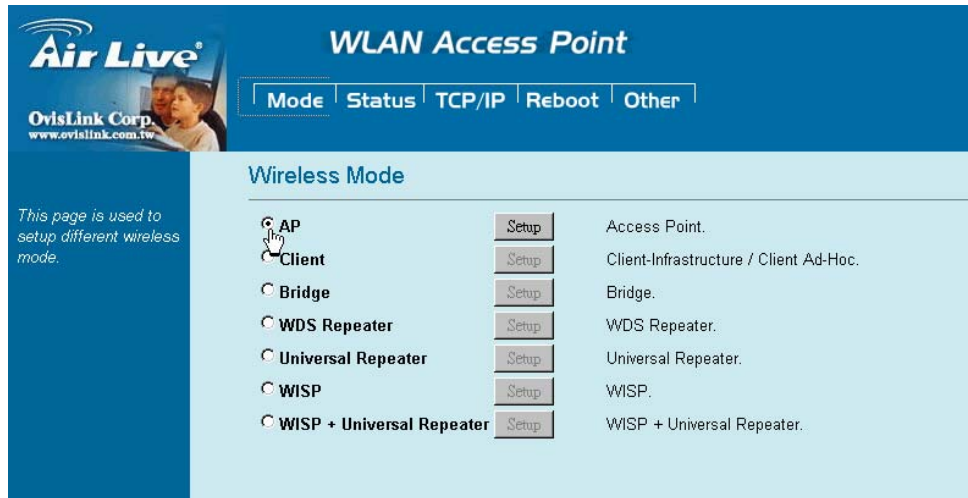
Mode, Status, TCP/IP, Reboot and **Other**.

Click on the desired setup item to expand the page in the main navigation page. The setup pages covered in this utility are described below.



Mode

You can choose and setup different wireless mode for detail configurations



| Wireless Mode | |
|----------------------------------|---|
| AP | Select the AP and press Setup button for Wireless AP mode configuration. |
| Client | Select the Client and press Setup button for Wireless Client mode configuration. |
| Bridge | Select the Bridge and press Setup button for Wireless Bridge mode configuration. |
| WDS Repeater | Select the WDS Repeater and press Setup button for Wireless WDS Repeater mode configuration. |
| Universal Repeater | Select the Universal Repeater and press Setup button for Wireless Universal repeater mode configuration. |
| WISP | Select the WISP and press Setup button for WISP (Client Router) mode configuration. |
| WISP + Universal Repeater | Select the WISP + Universal Repeater and press Setup button for WISP + Universal Repeater mode configuration. |

AP Mode Setting

Air Live
OvisLink Corp.
www.ovislink.com.tw

WLAN Access Point

Mode | Status | TCP/IP | Reboot | Other

AP Mode Settings

Alias Name:

Disable Wireless LAN Interface

Band:

SSID:

Channel Number:

Wireless Client Isolation:

Security:

Advanced Settings:

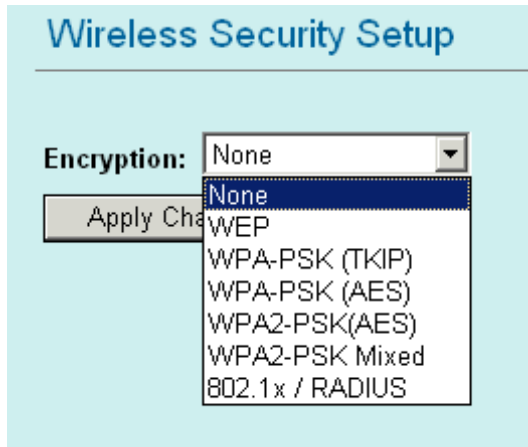
Access Control:

This page is used to setup different wireless mode.

| | |
|--|--|
| Alias Name | You can set the alias name for this device. Limited not exceed 32 characters. |
| <input type="checkbox"/> Disable Wireless LAN Interface | Check the box to disable the Wireless LAN Interface, by so doing; you won't be able to make wireless connection with this Access Point in your located network. In other words, this device will not be visible by any wireless station. |
| Band | You can choose one mode of the following you need. ◎ 2.4GHz (B) : 802.11b supported rate only. ◎ 2.4GHz (G) : 802.11g supported rate only. ◎ 2.4GHz (B+G) : 802.11b supported rate and 802.11g supported rate. The default is 2.4GHz (B+G) mode. |
| SSID | The SSID differentiates one WLAN from another; therefore, all access points and all devices attempting to connect to a specific WLAN must use the same SSID. It is case-sensitive and must not exceed 32 characters. A device will not be permitted to join the BSS unless it can provide the unique SSID. An SSID is also referred to as a network name because essentially it is a name that identifies a wireless network. The default SSID is airlive . |
| Channel Number | Allow user to set the channel manually or automatically . If set channel manually, just select the channel you want to specify. If "Auto" is selected, user can set the channel range to have Wireless Access Point automatically survey and choose the channel with best situation for communication. The number of channels supported depends on the region of this Access Point. All stations communicating with the Access Point must use the same channel. The default channel is 13 . |
| Wireless Client | Allow user to set the function Enabled or Disabled . |

| | |
|------------------|--|
| Isolation | By the function, all wireless clients can't mutual link, but wireless client still link with LAN port adapter. The default value is Disabled . |
|------------------|--|

| | |
|-----------------|--|
| Security | Press the setup button for detail configurations |
|-----------------|--|



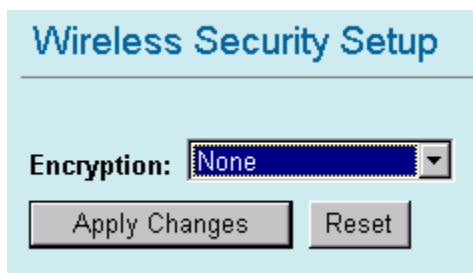
To provide a certain level of security, the IEEE 802.11 standard has defined two types of authentication methods: **Open System** or **Shared Key**. And WL-5470POE also support other wireless authentication and encryption methods for enhance your wireless network.

With Open System authentication, a wireless PC can join any network and receive any messages that are not encrypted. With Shared Key authentication, only those PCs that possess the correct authentication key can join the network. By default, IEEE 802.11 wireless devices operate in an Open System network and None data encryption. If you want secure your wireless network, you need to setup wireless security related function to enable security network.

None

Encryption: **None** (Encryption is set to **None** by default.)

If the Access Point is using **Encryption None**, then the wireless adapter will need to be set to the same authentication mode.



WEP

Encryption: **WEP**

If selected WEP encryption, you must set WEP key value:

Wireless Security Setup

Encryption:

Authentication Type:

Key Length:

Key Format:

Default Tx Key:

Encryption Key 1:

Encryption Key 2:

Encryption Key 3:

Encryption Key 4:

| | |
|----------------------------|--|
| Encryption | WEP |
| Authentication Type | You can select Open System or Shared Key type for authentication. |
| Key Length | You can set 64bit or 128bit Encryption. |
| Key Format | Select ASCII if you are using ASCII characters (case-sensitive). Select HEX if you are using hexadecimal numbers (0-9, or A-F). |
| Default TX Key | You can enter 4 different Encryption Key and select one key to use as default. |

10 hexadecimal digits or **5 ASCII characters** are needed if **64-bit WEP** is used;

26 hexadecimal digits or **13 ASCII characters** are needed if **128-bit WEP** is used.

Shared Key is used when both the sender and the recipient share a secret key. So you can choose Open system, or one Shared Key authentication method.

WPA-PSK

Encryption: or

Wi-Fi Protected Access (WPA) with Pre-Shared Key (PSK) provides better security than WEP keys. It does not require a RADIUS server in order to provide association authentication, but you do have to enter a shared key for the authentication purpose. The encryption key is generated automatically and dynamically.

Wireless Security Setup

Encryption:

Pre-Shared Key Format:

Pre-Shared Key:

Group Key Life Time: sec

Wireless Security Setup

Encryption:

Pre-Shared Key Format:

Pre-Shared Key:

Group Key Life Time: sec

| | |
|----------------------------|--|
| Encryption | You can select WPA-PSK (TKIP) or WPA-PSK (AES) method for data encryption. |
| Pre-shared Key | There are two formats for choice to set the Pre-shared key, i.e. Passphrase and Hex . If Hex is selected, users will have to enter a 64 characters string. For easier configuration, the Passphrase (at least 8 characters) format is recommended. |
| Group Key Life Time | Enter the number of seconds that will elapse before the group key change automatically. The default is 86400 seconds. |

WPA2-PSK

Encryption: or

WPA2-PSK authentication method is almost like WPA-PSK, You can choose the Pre-Shared Key format and enter the Pre-shared key,

Wireless Security Setup

Encryption:

Pre-Shared Key Format:

Pre-Shared Key:

Group Key Life Time: sec

Wireless Security Setup

Encryption:

Pre-Shared Key Format:

Pre-Shared Key:

Group Key Life Time: sec

| | |
|----------------------------|--|
| Encryption | You can select WPA2-PSK (AES) or WPA2-PSK Mixed method for data encryption |
| Pre-shared Key | There are two formats for choice to set the Pre-shared key, i.e. Passphrase and Hex . If Hex is selected, users will have to enter a 64 characters string. For easier configuration, the Passphrase (at least 8 characters) format is recommended. |
| Group Key Life Time | Enter the number of seconds that will elapse before the group key change automatically. The default is 86400 seconds. |

802.1x / RADIUS

Wireless Security Setup

Encryption: 802.1x / RADIUS

Security: None

Authentication RADIUS Server: Port 1812 IP address Password

Enable Accounting

Accounting RADIUS Server: Port 1813 IP address Password

Apply Changes Reset

Wireless Security Setup

Encryption: 802.1x / RADIUS

Security: None

Authentication RADIUS Server: Port 1812 IP address Password

Enable Accounting

Accounting RADIUS Server: Port 1813 IP address Password

Apply Changes Reset

Encryption: **802.1x / RADIUS**

security You can select None, WEP, WPA (TKIP), WPA (AES), WPA2 (AES), WPA2 Mixed method for data encryption.

Encryption: **None**
No data encryption and Use 802.1x Authentication is disable.

Encryption: **WEP**
802.1x Authentication is enabled and the RADIUS Server will proceed to check the 802.1x Authentication, and make the RADIUS server to issue the WEP key dynamically.
You can select WEP 64bits or WEP 128bits for data encryption.

Encryption: **WPA (TKIP) / WPA (AES)**
WPA-RADIUS authentication use WPA (Wi-Fi Protect Access) data encryption for 802.1x authentication.

WPA is an encryption standard proposed by WiFi for advance protection by utilizing a password key (TKIP) or certificate. It is more secure than WEP encryption.

Encryption: **WPA2-AES / WPA2-Mixed**

The two most important features beyond WPA to become standardized through 802.11i/WPA2 are: pre-authentication, which enables secure fast roaming without noticeable signal latency. Pre-authentication provides a way to establish a PMK security association before a client associates. The advantage is that the client reduces the time that it's disconnected to the network.

| | |
|-------------------------------------|---|
| Authentication RADIUS Server | Enter the RADIUS Server IP address and Password provided by your ISP. Port: Enter the RADIUS Server's port number provided by your ISP. The default is 1812. IP Address: Enter the RADIUS Server's IP Address provided by your ISP. Password: Enter the password that the AP shares with the RADIUS Server. |
| Accounting RADIUS Server | Enter the Accounting RADIUS Server IP address and Password provided by your ISP |
| Advanced Settings | Press the setup button for detail configurations |

Wireless Advanced Settings

Fragment Threshold: (256-2346)

RTS Threshold: (0-2347)

Beacon Interval: (20-1024 ms)

Inactivity Time: (100-60480000 ms)

Data Rate:

Preamble Type: Long Preamble Short Preamble

Broadcast SSID: Enabled Disabled

IAPP: Enabled Disabled

802.11g Protection: Enabled Disabled

Tx Power Level:

Enable WatchDog

Watch Interval: (1-60 minutes)

Watch Host:

Ack timeout: (0-255, 0:Auto adjustment, Unit: 4μsec)

It is not recommended that settings in this page to be changed unless advanced users want to change to meet their wireless environment for optimal performance.

| | |
|---------------------------|---|
| Fragment Threshold | Fragmentation mechanism is used for improving the efficiency when high traffic flows along in the wireless network. If your 802.11g Wireless LAN PC Card often transmit large files in wireless |
|---------------------------|---|