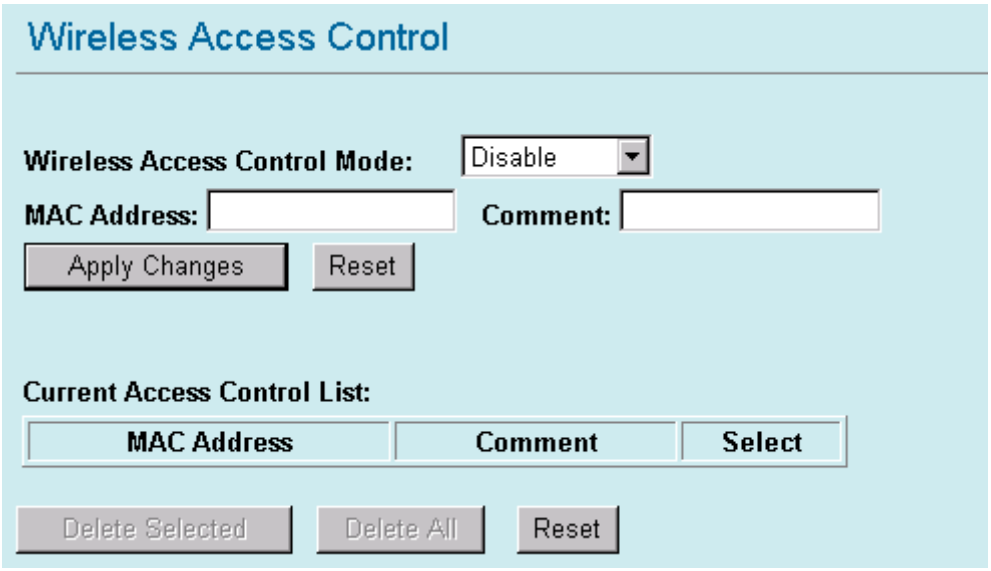
	network, you can enter new Fragment Threshold value to split the packet. The value can be set from 256 to 2346. The default value is **2346**.
RTS Threshold	RTS Threshold is a mechanism implemented to prevent the "**Hidden Node**" problem. "Hidden Node" is a situation in which two stations are within range of the same Access Point, but are not within range of each other. Therefore, they are hidden nodes for each other. When a station starts data transmission with the Access Point, it might not notice that the other station is already using the wireless medium. When these two stations send data at the same time, they might collide when arriving simultaneously at the Access Point. The collision will most certainly result in a loss of messages for both stations. Thus, the RTS Threshold mechanism provides a solution to prevent data collisions. When you enable RTS Threshold on a suspect "hidden station", this station and its Access Point will use a Request to Send (RTS). The station will send an RTS to the Access Point, informing that it is going to transmit the data. Upon receipt, the Access Point will respond with a CTS message to all station within its range to notify all other stations to defer transmission. It will also confirm the requestor station that the Access Point has reserved it for the time-frame of the requested transmission. If the "Hidden Node" problem is an issue, please specify the packet size. *The RTS mechanism will be activated if the data size exceeds the value you set.*. The default value is **2347**. **Warning:** Enabling RTS Threshold will cause redundant network overhead that could negatively affect the throughput performance instead of providing a remedy. This value should remain at its default setting of **2347**. Should you encounter inconsistent data flow, only minor modifications of this value are recommended.
Beacon Interval	Beacon Interval is the amount of time between beacon transmissions. Before a station enters power save mode, the station needs the beacon interval to know when to wake up to receive the beacon (and learn whether there are buffered frames at the access point).
Data Rate	By default, the unit adaptively selects the highest possible rate for transmission. Select the basic rates to be used among the following options: Auto, 1, 2, 5.5, 11or 54 Mbps. For most networks the default setting is **Auto** which is the best choice. When **Auto** is enabled the transmission rate will

	select the optimal rate. If obstacles or interference are present, the system will automatically fall back to a lower rate.
Preamble Type	A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter. In a "noisy" network environment, the Preamble Type should be set to **Long Preamble**. The **Short Preamble** is intended for applications where minimum overhead and maximum performance is desired. If in a "noisy" network environment, the performance will be decreased.
Broadcast SSID	Select **enabled** to allow all the wireless stations to detect the SSID of this Access Point.
IAPP	IAPP (Inter Access Point Protocol) is designed for the enforcement of unique association throughout a ESS (Extended Service Set) and a secure exchange of station's security context between current access point (AP) and new AP during handoff period.
802.11g Protection	The 802.11g standard includes a protection mechanism to ensure mixed 802.11b and 802.11g operation. If there is no such kind of mechanism exists, the two kinds of standards may mutually interfere and decrease network's performance.
TX Power Level	For countries that impose limit on WLAN output power, it might be necessary to reduce TX (transmit) power. There are 7 TX Power Levels to choose from — select a level to make sure that the output power measured at the antenna end will not exceed the legal limit in your country. **Notice: Output Power selection feature to be disabled for products marketed to the US.**
Enable Watch dog	Check and enable this watch dog function
Watch Interval	Setup the interval time for watch dog function between 1 to 60 mins
Watch Host	Enter the watch dog host ip address .
ACK Timeout	When a packet is sent out from one wireless station to the other, it will waits for an Acknowledgement frame from the remote station. If the ACK is NOT received within that timeout period then the packet will be re-transmitted resulting in reduced throughput. If the ACK setting is too high then throughput will be lost due to waiting for the ACK Window to timeout on lost packets. By having the ability to adjust the ACK setting we can effectively optimize the throughput over long distance links. This is especially true for 802.11a and 802.11g networks You can set as default for auto adjustment.
Apply Change	Press to save the new settings on the screen.
Reset	Press to discard the data you have entered since last time you press Apply Change.

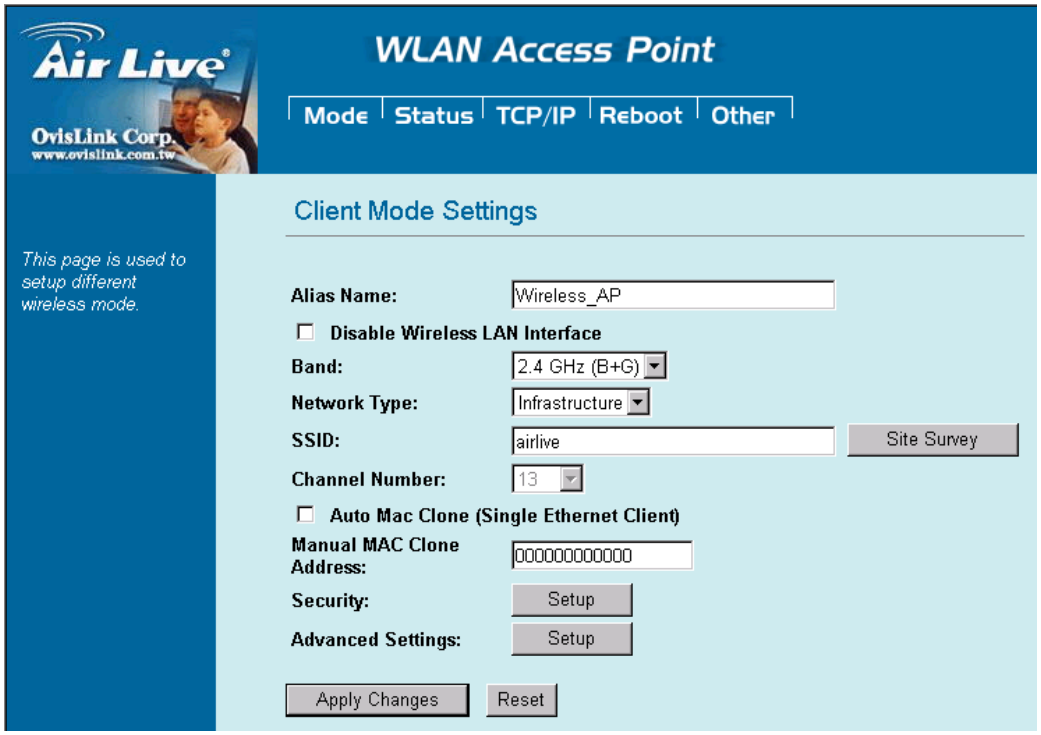
Access Control	Press the setup button for detail configurations



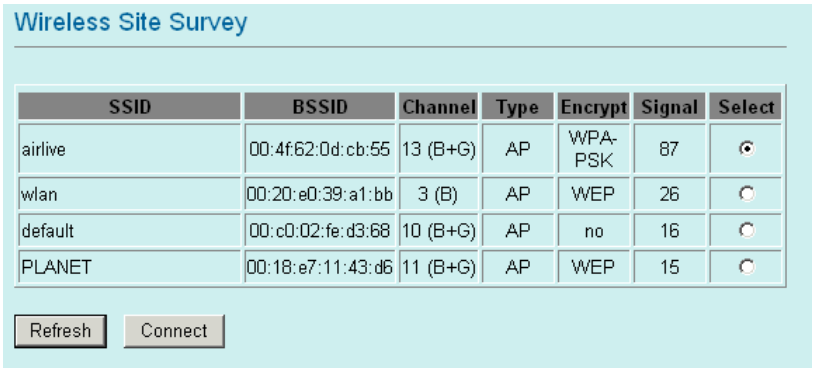
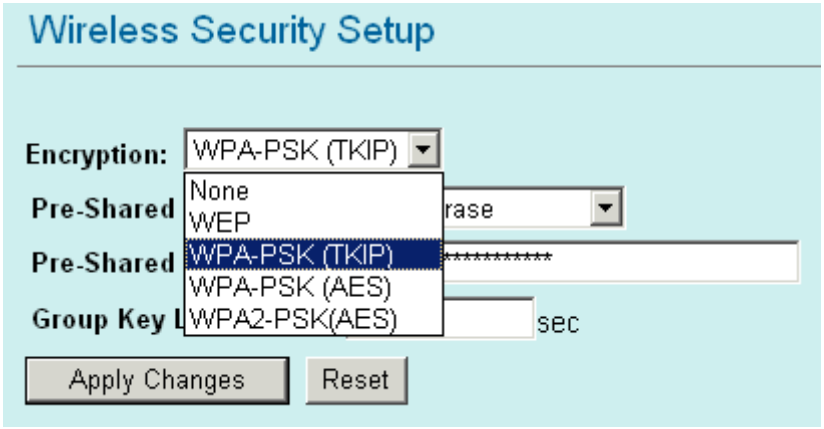
When **Enable Wireless Access Control** is checked, only those clients whose wireless MAC addresses listed in the access control list can access this Access Point. If the list contains no entries with this function being enabled, then no clients will be able to access this Access Point.

Wireless Access Control Mode	Select the Access Control Mode from the pull-down menu. **Disable**: Select to disable Wireless Access Control Mode. **Allow Listed**: Only the stations shown in the table can associate with the AP. **Deny Listed**: Stations shown in the table won't be able to associate with the AP.
MAC Address	Enter the MAC Address of a station that is allowed to access this Access Point.
Comment	You may enter up to 20 characters as a remark to the previous MAC Address.
Apply Changes	Press to save the new settings on the screen.
Reset	Press to discard the data you have entered since last time you press Apply Change.
Delete Selected	To delete clients from access to this Access Point, you may firstly check the **Select** checkbox next to the MAC address and Comments, and press **Delete Selected**.
Delete All	To delete all the clients from access to this Access Point, just press **Delete All** without selecting the checkbox.
Reset	If you have made any selection, press **Reset** will clear all the select mark.

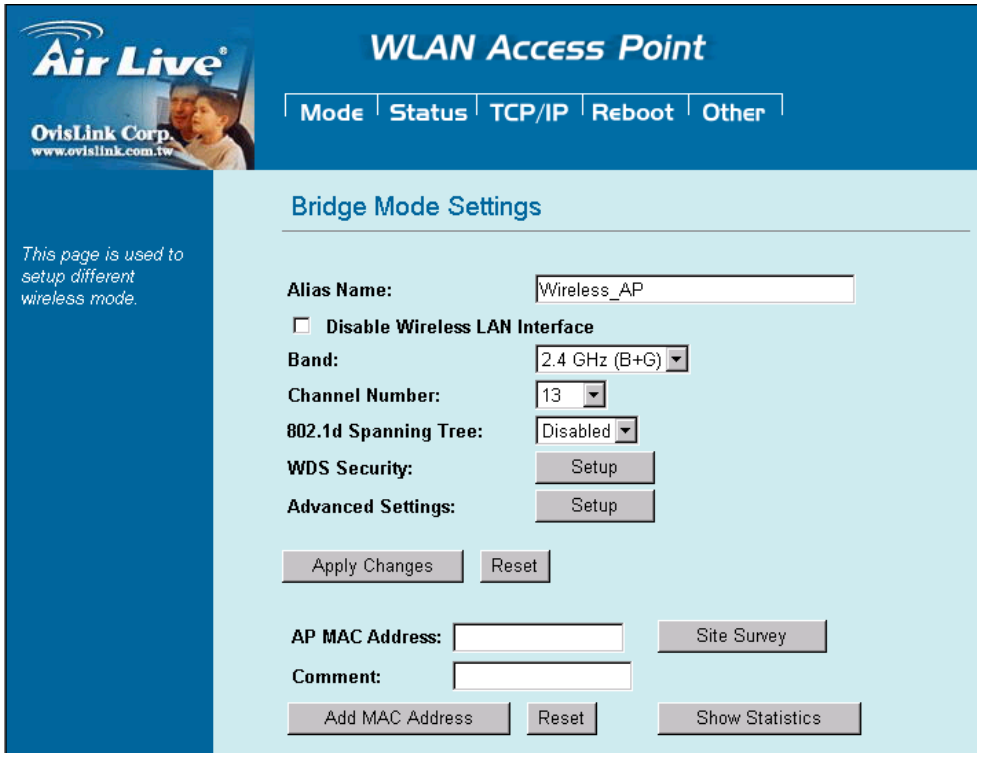
Client Mode Setting



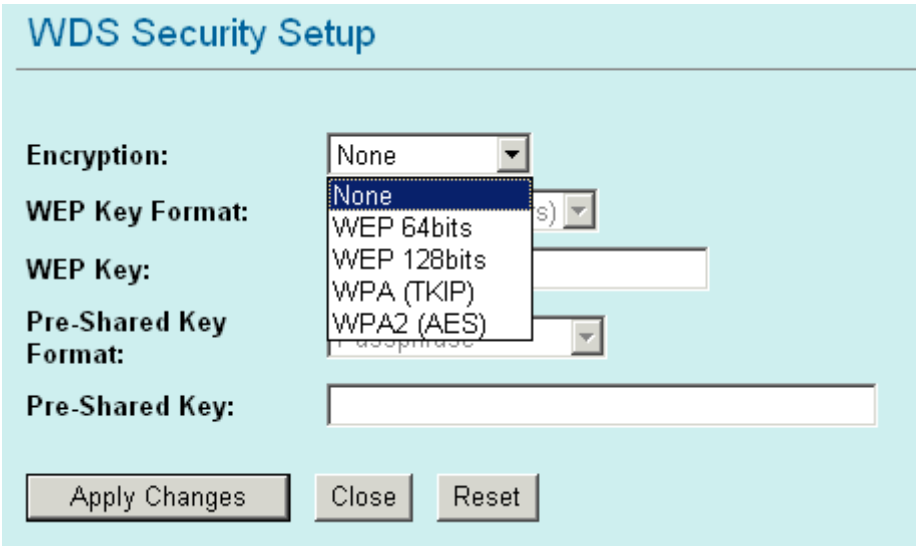
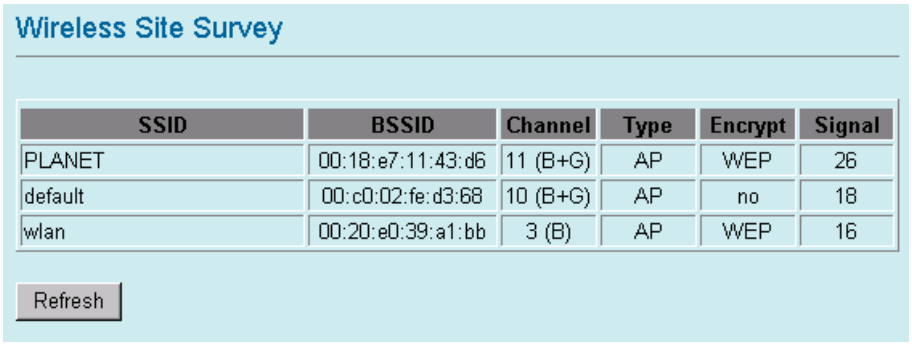
Alias Name	You can set the alias name for this device. limited not exceed 32 characters.
☐ Disable Wireless LAN Interface	Check the box to disable the Wireless LAN Interface, by so doing, you won't be able to make wireless connection with this Access Point in the network you are located. In other words, 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.
Network Type	Client mode have two Network type : **Infrastructure** A wireless network that is built around one or more access points, providing wireless clients access to wired LAN or Internet service. It is the most popular WLAN network structure today. **AdHoc** wireless network do not use wireless AP orrouter as the central hub of the network. Instead, wireless client are connected directly to each other.
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.
Site Survey	 Site survey displays all the active Access Points and IBSS in the neighborhood. You can select one AP to associate. Press Site Survey button to search the wireless device that this client want to connect.
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. All stations communicating with the Access Point must use the same channel. when setup infrastructure of Client mode, the channel number can not Be changed. You have to go to AP mode to change the channel number
Auto MAC Clone	Check the box to enable MAC Clone for Single Ethernet Client.
Manual MAC Clone Address	Enter the MAC Address of Single Ethernet Client.
Security	Please refer the AP mode settings→ Security for details. In client mode are not supported with RADIUS 802.1x authentication. 
Advance Setting	Please refer the AP mode settings→ Advance Setting for details.

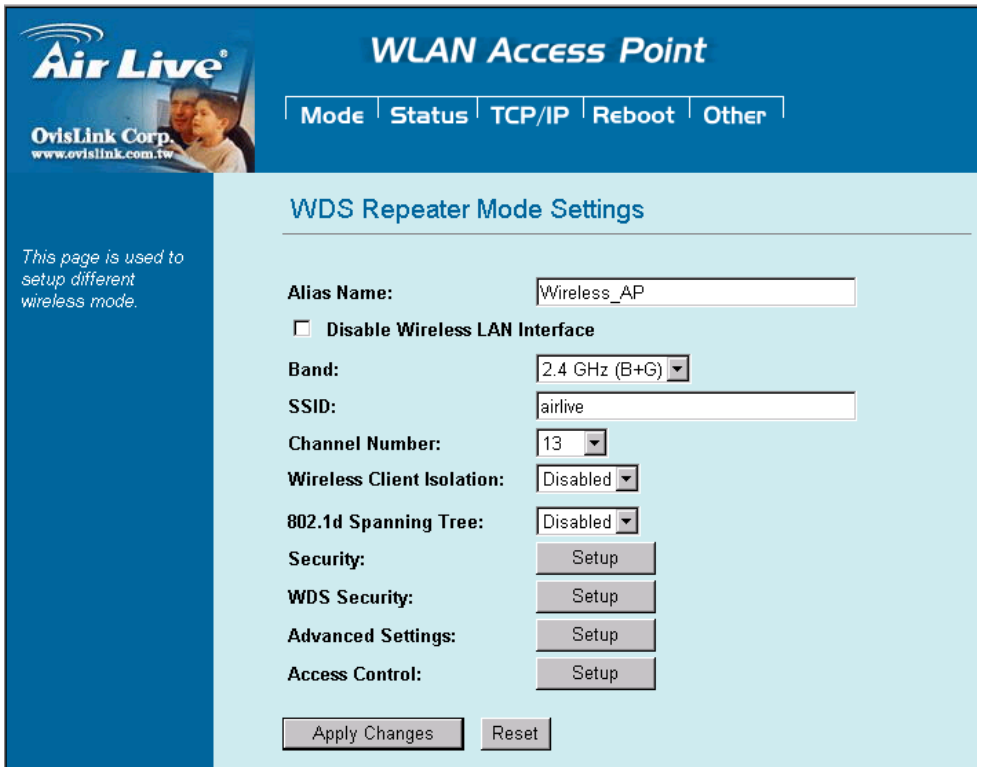
Bridge Mode Setting



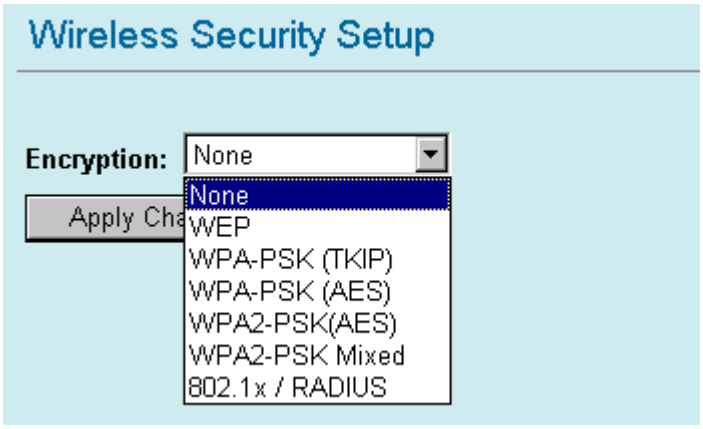
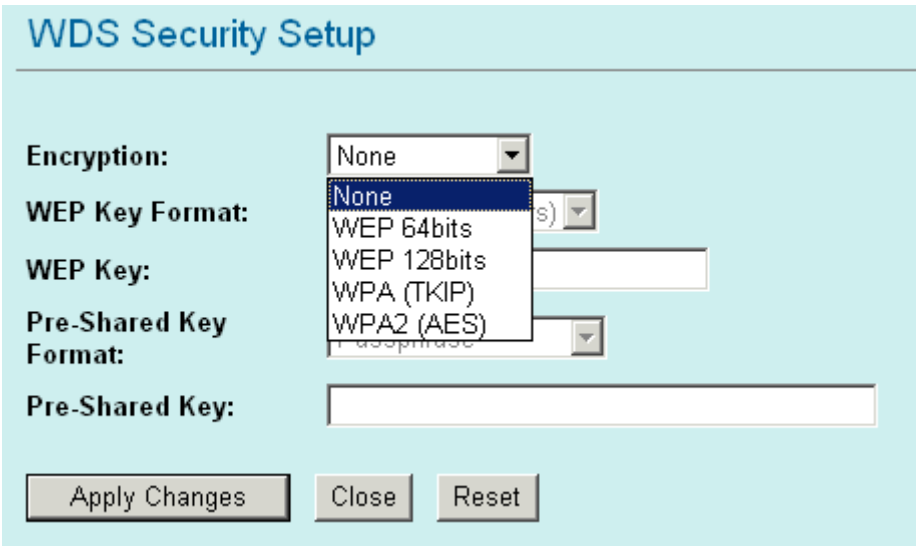
Alias Name	You can set the alias name for this device. limited not exceed 32 characters.
☐ **Disable Wireless LAN Interface**	Check the box to disable the Wireless LAN Interface, by so doing, you won't be able to make wireless connection with this Access Point in the network you are located. In other 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.
Channel Number	In Bridge mode, both wireless AP/Router device need set to the same Channel number.
Security	Please refer the AP mode settings→ Security for details. But bridge mode are not supported with RADIUS 802.1x authentication.
WDS Security	To enable security between wireless AP/Router , you can select WEP 64bits, WEP 128bits, WPA (TKIP), WPA2(AES) for data encryption. For WEP encryption, Select **ASCII** if you are using ASCII characters. Select **HEX** if you are using hexadecimal numbers (**0-9, or A-F**). For WPA/WPA2 encryption, you need enter the Pre-Shared Key Information for the authentication purpose.

	
Advance Setting	Please refer the AP mode settings→ Advance Setting for details.
AP MAC address	Enter 12 digits in hex numbers in the AP MAC address (**BSSID**) field and press the Add MAC Address Button to associate with other's Wireless access point. Before you want to use bridge mode to connect each other to provide A wireless bridge between 2 remote LANs, you need add the BSSID of other's wireless AP first.
Site Survey	Site survey displays all the active Access Points and IBSS in the neighborhood. Press Site Survey button to search the wireless device. 
Add MAC Address	Enter MAC address of remote access point.
Reset	Press to discard the data you have entered since last time you press Apply Change.
Show Statistics	List all packets information of traffic.
Delete Selected	To delete bridge from access to this Access Point, you may firstly check the **Select** checkbox next to the MAC address and Comments, and press **Delete Selected**.
Delete All	To delete all the clients from access to this Access Point, just press **Delete All** without selecting the checkbox.

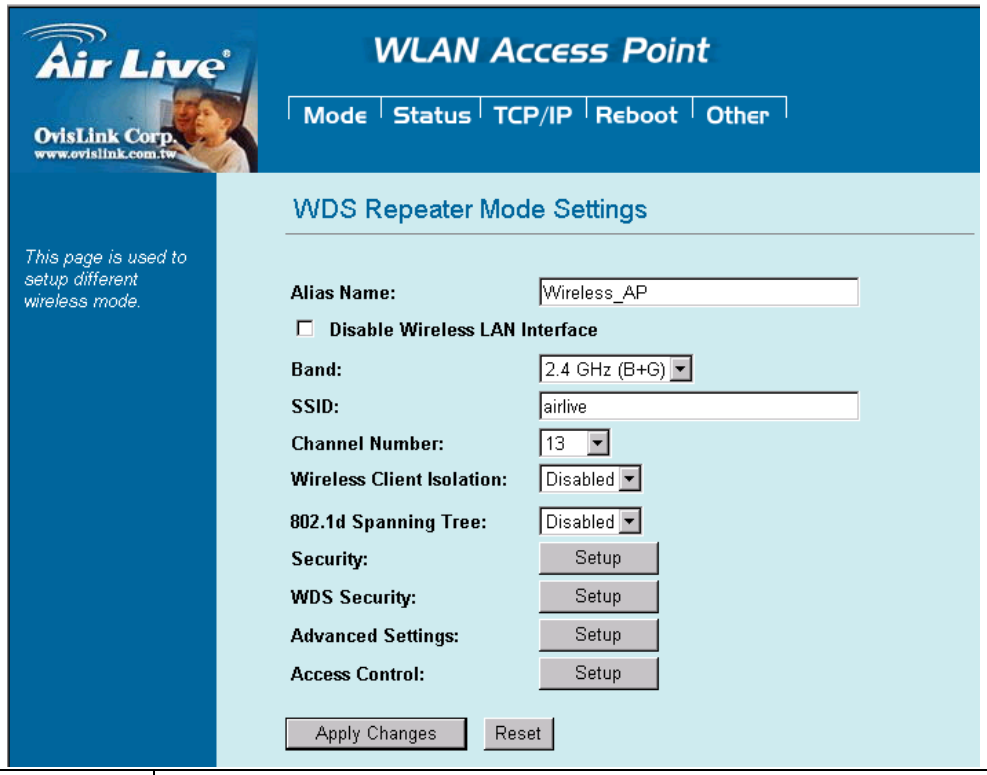
WDS Repeater Mode Setting



Alias Name	You can set the alias name for this device. limited not exceed 32 characters.
☐ **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 the network you are located. 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
Channel Number	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.
Wireless Client Isolation	When enabled, the wireless clients are separated from each other. Please refer the AP mode settings→ Wireless Client Isolation for details.
Security	Please refer the AP mode settings→ Security for details,

	This setting is use between Wireless client and this device. 
WDS Security	Please refer to the Bridge mode settings → WDS Security for details This setting is use between both wireless AP/Router devices. 
Advance Setting	Please refer the AP mode settings→ Advance Setting for details.
Access Control	Please refer the AP mode setting → Access Control for details.
AP MAC Address	Enter 12 digits in hex numbers in the AP MAC address (**BSSID**) field and press the Add MAC Address Button to associate with other's Wireless access point. Before you want to use bridge mode to connect each other to provide A wireless bridge between 2 remote LANs, you need add the BSSID of other's wireless AP first.
Delete Selected	To delete bridge from access to this Access Point, you may firstly check the **Select** checkbox next to the MAC address and Comments, and press **Delete Selected**.
Delete All	To delete all the clients from access to this Access Point, just press **Delete All** without selecting the checkbox.

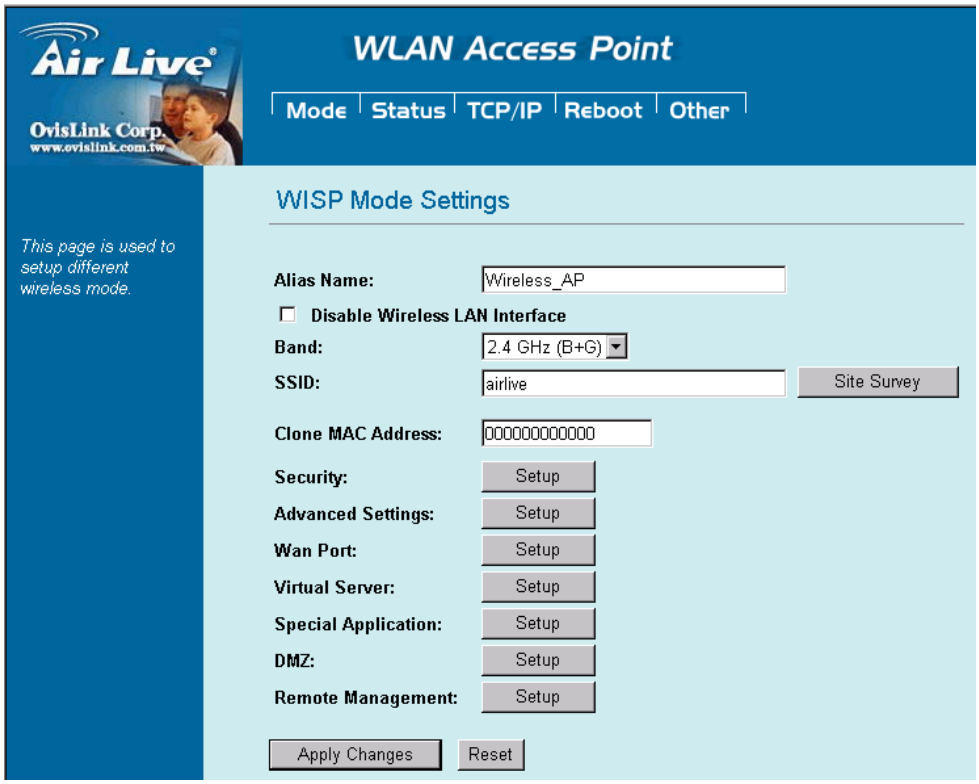
Universal Repeater Mode Setting



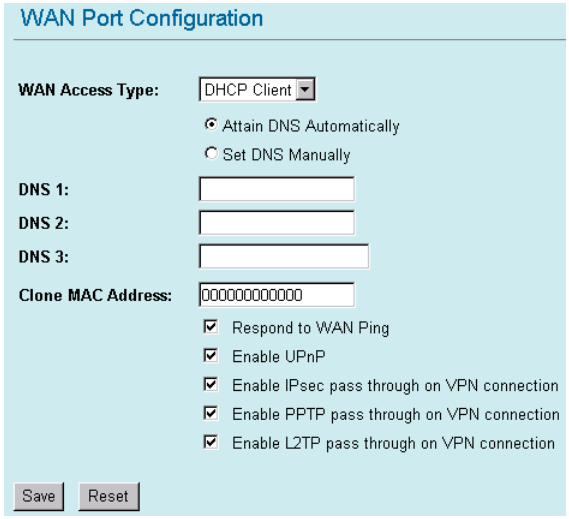
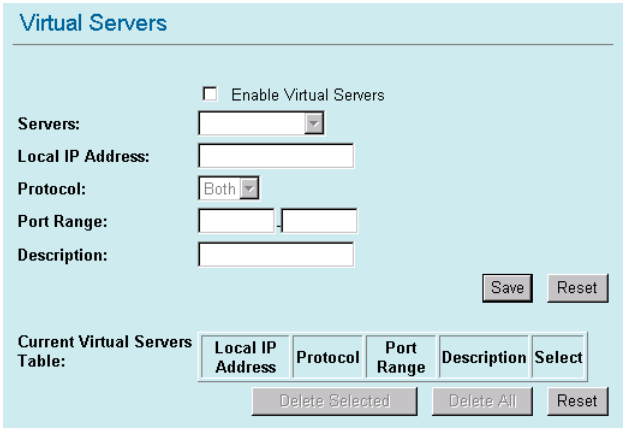
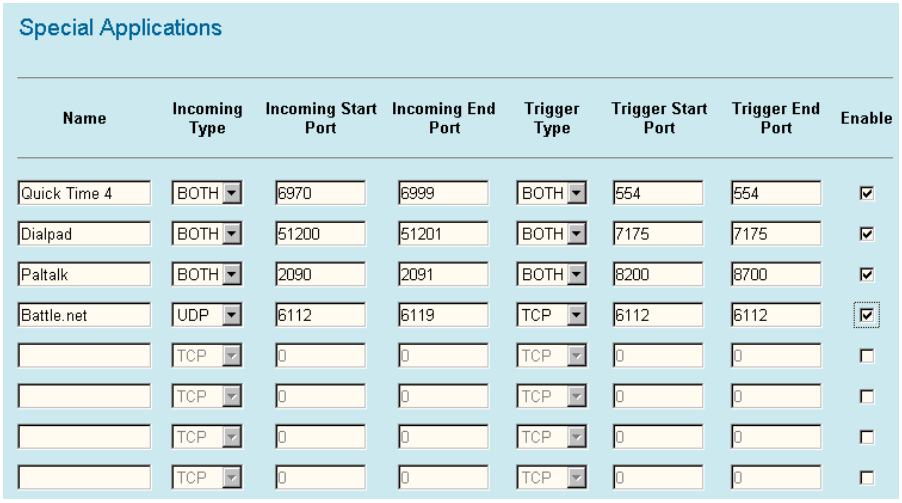
Alias Name	You can set the alias name for this device. limited not exceed 32 characters.
☐ **Disable Wireless LAN Interface**	Check the box to disable the Wireless LAN Interface, by so doing, you won't be able to make wireless connection with this Access Point in the network you are located. In other 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
Channel Number	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.
SSID of extended Interface	When in Universal Repeater mode, you have to enter the ESSID of other's AP/Router that device want to connect. The device SSID and the SSID of extended interface can be the same or different. When you are using the universal repeater mode, please make sure the remote

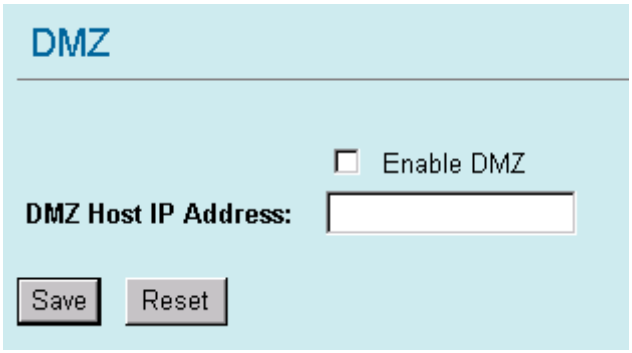
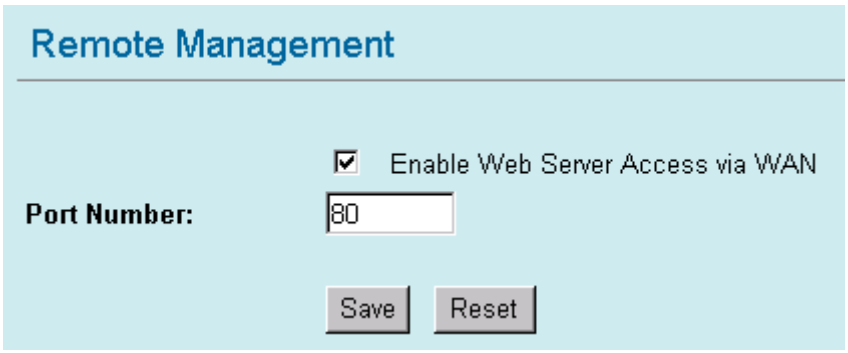
	AP/Router WDS function is turned off.
Site Survey	Please refer the Bridge mode settings→ Site Survey for details.
Security	Please refer the AP mode settings→ Security for details, This setting used Wireless client or remote AP to link this device.
Advance Setting	Please refer the AP mode settings→ Advance Setting for details.
Access Control	Please refer the AP mode setting → Access Control for details.

WISP (Client Router) Mode Setting

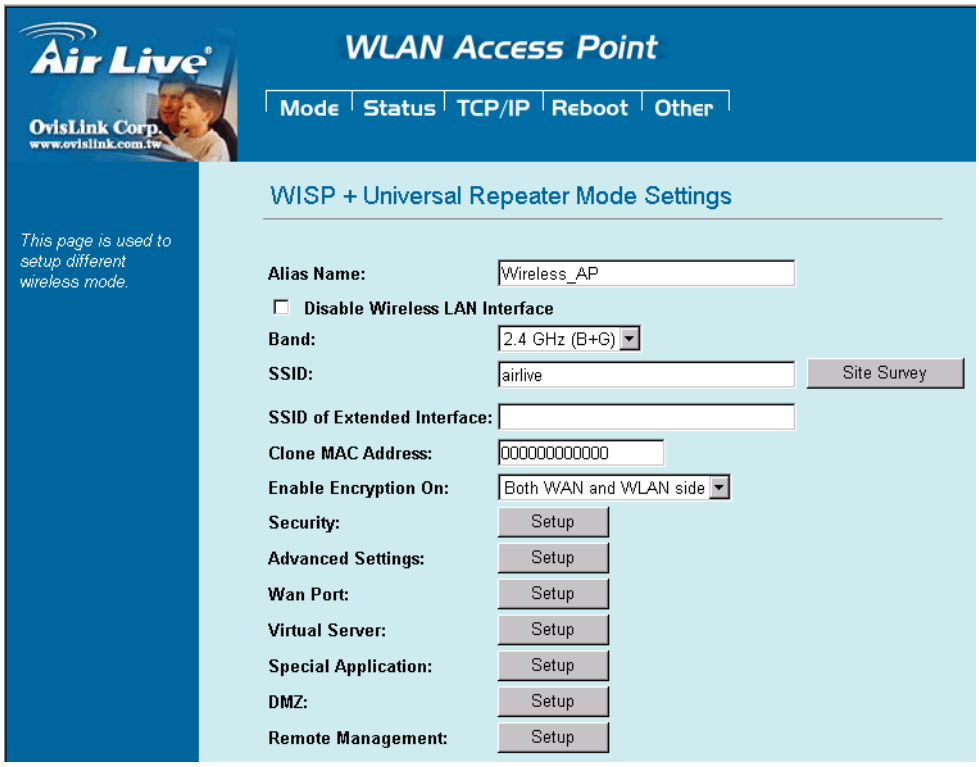


Alias Name	You can set the alias name for this device. limited not exceed 32 characters
☐ **Disable Wireless LAN Interface**	Check the box to disable the Wireless LAN Interface, by so doing, you won't be able to make wireless connection with this Access Point in the network you are located. In other 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. In WISP mode, you have to enter the WISP Outdoor AP SSID manually or click the "site survey" button to connect and get SSID automatically.
Site Survey	Please refer the Client mode settings→ Site Survey for details.
MAC Clone Address	Enter the MAC Address of Single Ethernet Client.
Security	Please refer the AP mode settings→ Security Survey for details. Not supported with RADIUS 802.1x authentication.
Advance Setting	Please refer the AP mode settings→ Advance Setting for details.

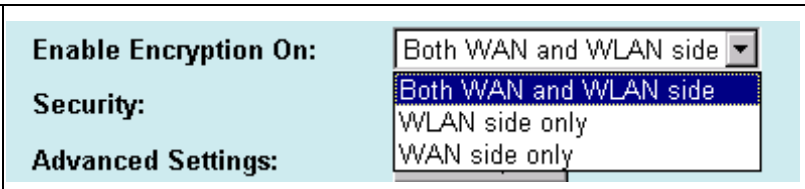
WAN port	 You can select many WAN Access Type : Static IP , DHCP Client, PPPOE, PPTP, and L2TP for WAN connection depend on you WISP provided.
Virtual Server	 In WISP mode, you can setup and enable Virtual server function. Like Web, FTP, Email, DNS, Telnet server. Select one virtual server type and enter the Local IP address, Local Port Range and click the save button.
Special Application	 You can enable some system default special application, like Qucktime 4 Audio/Video application, Dialpad internet phone service. or define the special

	application manually, select the incoming type (TCP/UDP) Incoming start ~ End port ,Trigger Start ~ End port. Select the Trigger Type.
DMZ	 Enable DMZ and enter the DMZ Host IP address.
Remote Management	 Enable the function that setting configuration from Internet.

WISP + Universal Repeater Mode Setting

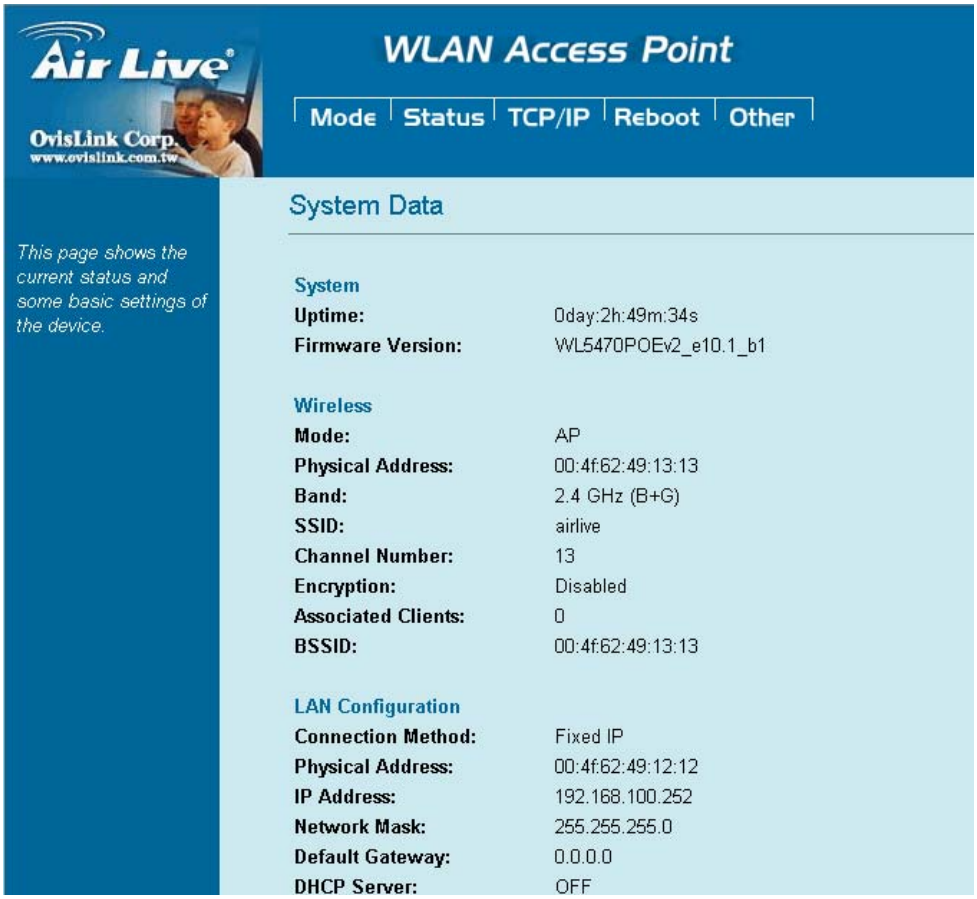


Alias Name	You can set the alias name for this device. limited not exceed 32 characters
☐ **Disable Wireless LAN Interface**	Check the box to disable the Wireless LAN Interface, by so doing, you won't be able to make wireless connection with this Access Point in the network you are located. In other 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. In WISP mode, you have to enter the WISP Outdoor AP SSID manually or click the "site survey" button to connect and get SSID automatically.
Site Survey	Please refer the Client mode settings→ Site Survey for details.
SSID of extended Interface	Please refer the Universal repeater mode settings→ SSID of extended Interface for details.
MAC Clone Address	Enter the MAC Address of Single Ethernet Client.

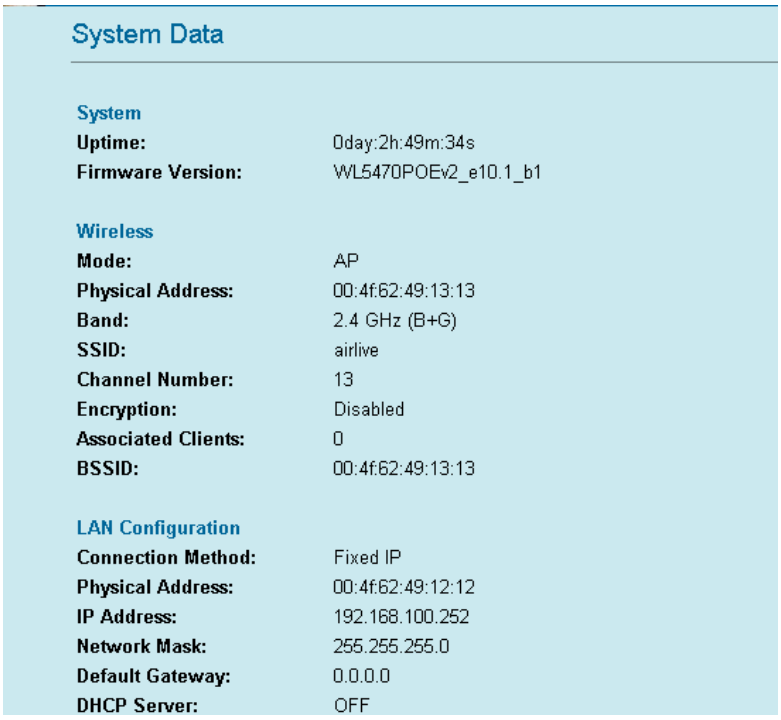
Enable Encryption On	 You can designate security to use for WLAN side, WAN side or both sides. **Both WAN and WLAN side:** The security is used on both the WISP and the Wireless Client(PC side) connection.. **WLAN side only:** The security used on wireless client connection only. The WISP side is not encrypted. **WAN side only:** The security used on WISP connection only. The WLAN side is not encrypted..
Security	Please refer the AP mode settings→ Security Survey for details. Not supported with RADIUS 802.1x authentication.
Advance Setting	Please refer the AP mode settings→ Advance Setting for details.
WAN port	Please refer the WISP mode settings→ WAN port Setting for details.
Virtual Server	Please refer the WISP mode settings→ Virtual Server Setting for details.
Special Application	Please refer the WISP mode settings→ Special Application Setting for details.
DMZ	Please refer the WISP mode settings→ DMZ Setting for details.
Remote Management	Please refer the WISP mode settings→ Remote Management Setting for details.

Status

In this screen, you can see the current settings and status of this Access Point. You can change settings by selecting specific tab described in below.



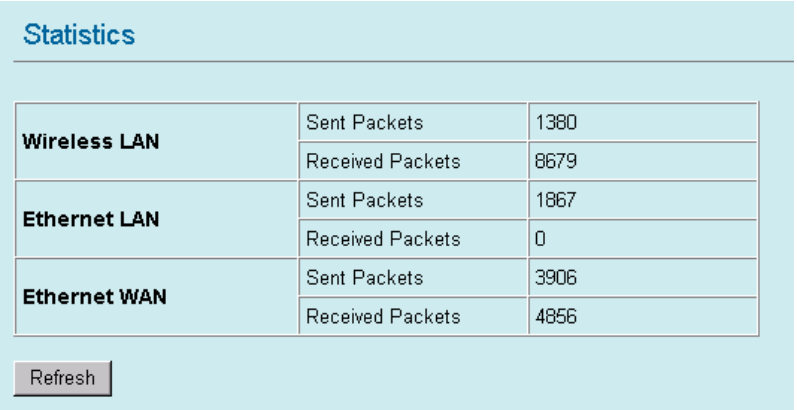
- **System**



System	
Uptime	The time period since the device was up.
Firmware Version	The current version of the firmware installed in this device.
Wireless	
Mode	There are 7 modes supported, The default mode is Access Point. If you want to change to other mode, please click the Mode and select the wireless mode you want.
Physical Address	Display wireless MAC address information.
Band	Display wireless band type information.
SSID	Display the SSID of this device.
Channel Number	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.
Encryption	Display encryption setting information.
Associated Clients	Displays the total number of clients associated to this AP. You can have up to 64 clients to associate to this Access Point.
BSSID	BSSID displays the ID of current BSS, which uniquely identifies each BSS. In AP mode, this value is the MAC address of this Access Point.
LAN Configuration (TCP/IP)	
Connection Method:	Display the connection method, you can setup in TCP/IP section
Physical Address:	Display the LAN MAC address
IP Address:	Display the LAN IP address, you can setup in TCP/IP section
Network Mask:	Display the network mask, you can setup in TCP/IP section
Default Gateway:	Display the default gateway ip , you can setup in TCP/IP section
DHCP Server:	Default the DHCP Server is enabled(ON)
DHCP Start IP Address:	Display the DHCP server start IP address.
DHCP Finish IP Address:	Display the DHCP server finish IP address.
Internet Configuration	
Connection Method:	Display the internet connection method, you can setup in WISP mode→WAN Port configuration
Physical Address:	Display the AP MAC address information
IP Address:	Display the internet IP Address, you can setup in WISP mode→WAN Port configuration
Network Mask:	Display the network mask, you can setup in WISP mode→WAN Port configuration

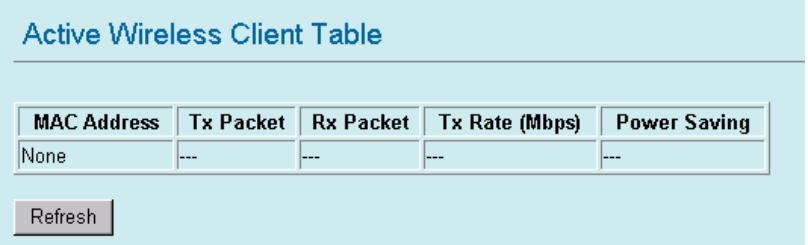
Default Gateway:	Display the default gateway , you can setup in WISP mode→WAN Port configuration

- **Statistics**



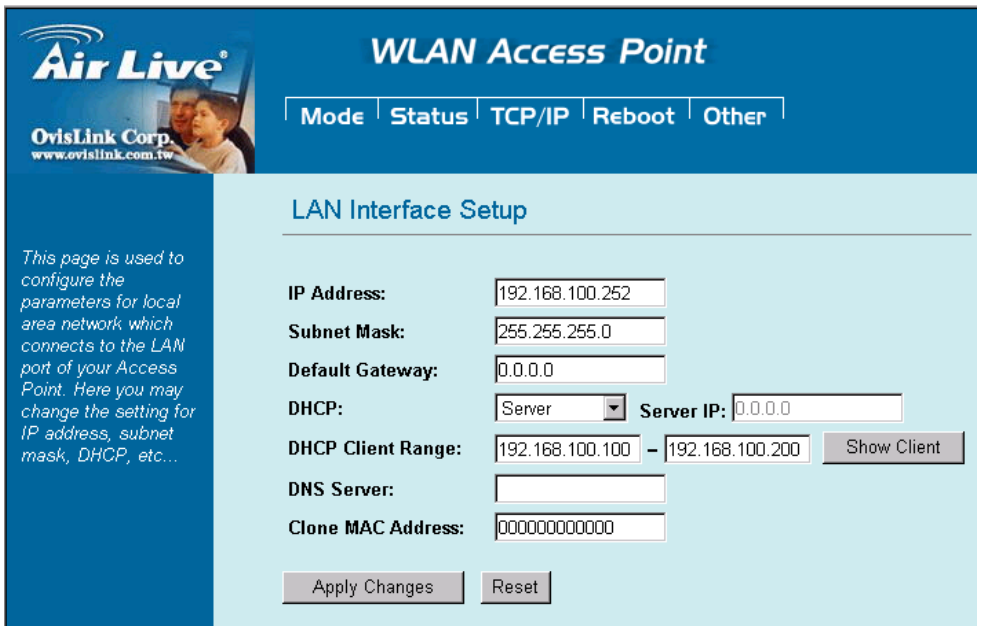
The Statistics table shows the packets sent/received over wireless and ethernet LAN respectively.

- **Active Clients**



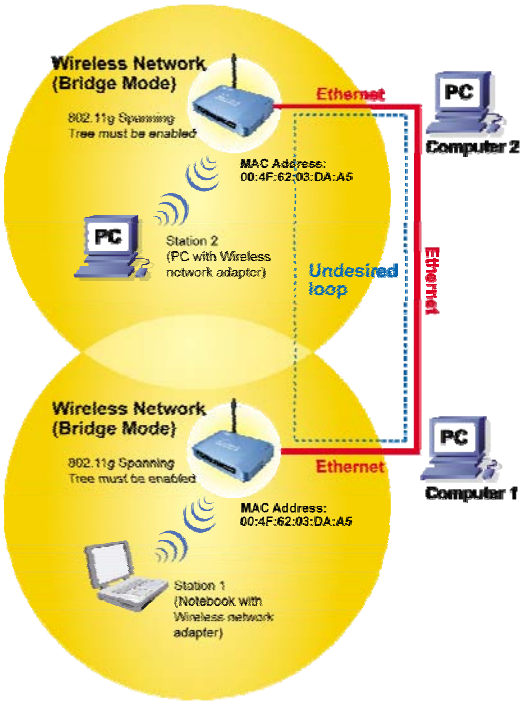
Display the active Wireless Clients information: Wireless MAC address, Tx/Rx Packet, Tx Rate, and Power Saving information.

TCP/IP



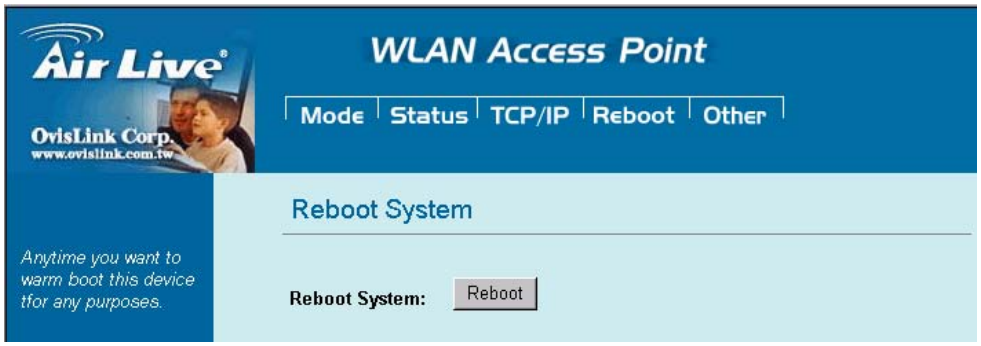
In this page, you can change the TCP/IP settings of this Access Point, select to enable/disable the DHCP Client, 802.1d Spanning Tree, and Clone MAC Address.

IP Address	This field can be modified only when DHCP Client is disabled. If your system manager assigned you static IP settings, then you will have to enter the information provided.
Subnet Mask	Enter the information provided by your system manager.
Default Gateway	Enter the information provided by your system manager.
DHCP	Select Disable, Client or Server from the pull-down menu. Disable: Select to disable DHCP server function. Client: Select to automatically get the LAN port IP address from ISP (For ADSL/Cable Modem). Server: Select to enable DHCP server function.
DHCP Client Range	WL-5060AP IP addresses continuing from 192.168.100.1 to 192.168.100.253
Show Client	Click to show Active DHCP Client table.
DNS Server	Enter the Domain Name Service IP address.
802.1d Spanning Tree	To enable 802.1d Spanning Tree will prevent the network from infinite loops. Infinite loop will happen in the network when WDS is enabled and there are multiple active paths between stations.

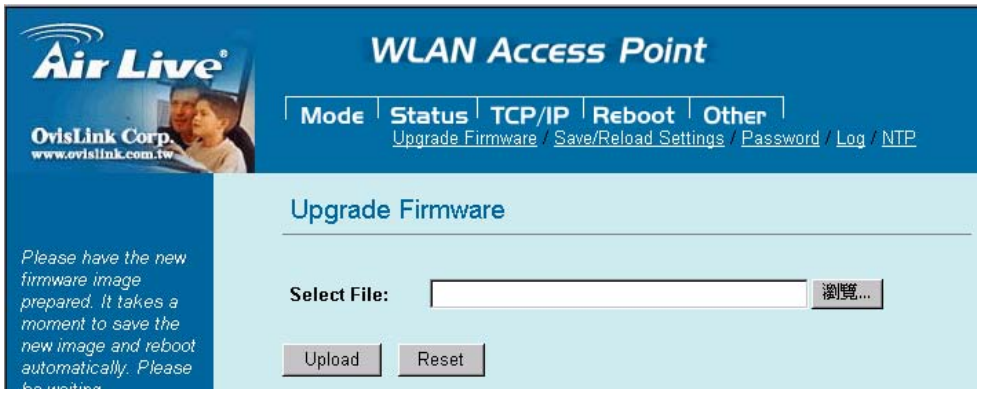
	
Clone MAC Address	You can specify the MAC address of your Access Point to replace the factory setting.

Reboot

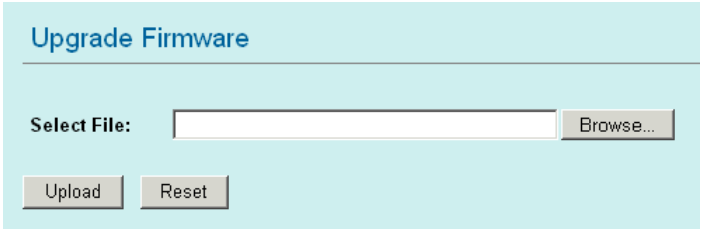
Click the **Reboot** button to restart device.



Other

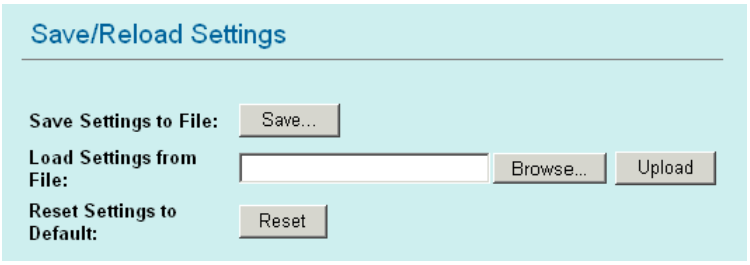


- **Upgrade Firmware**



1. Download the latest firmware from your distributor and save the file on the hard drive.
2. Start the browser, open the configuration page, click on **Other**, and click **Upgrade Firmware** to enter the **Upgrade Firmware** window.
3. Enter the new firmware's path and file name (i.e. C:\FIRMWARE\firmware.bin) or click the **Browse** button to find and open the firmware file (the browser will display to correct file path).
4. Click **Upload** button to start the upgrade function or **Reset** button to clear all the settings on this page.

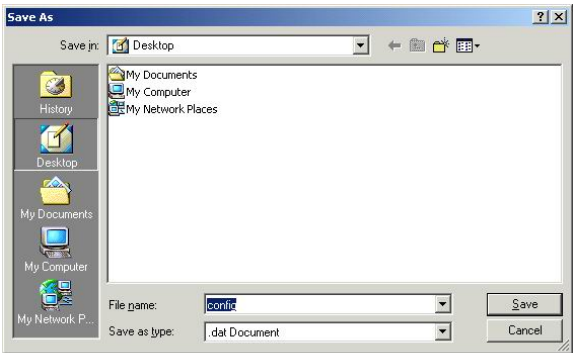
- **Save / Reload Settings**

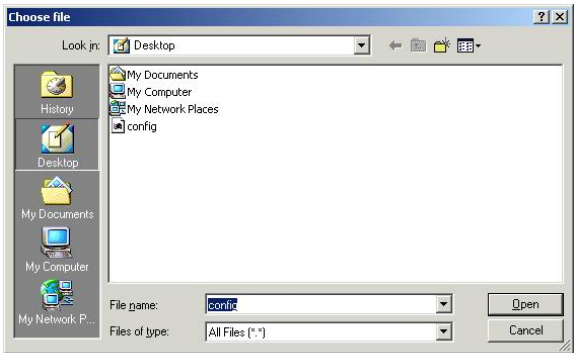


This function enables users to save the current configuration as a file (i.e. **config.dat**) or loades configuration from a file. Enter the file name or click **Browse…** to find the file from your computer.

Save Settings to File: Click **SAVE..** to save the current configuration to file.

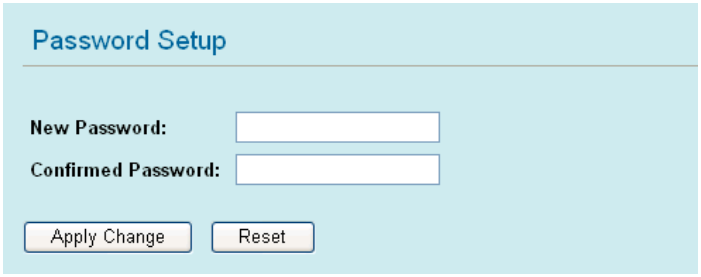
Load Settings From File: Click **Browse…** if you want to load a pre-saved file, enter the file name with the correct path and then click on **Upload** or click **Browse…** to select the file.





Reset Settings to Default: Click **Reset** button to restore the default configuration.

- **Password**

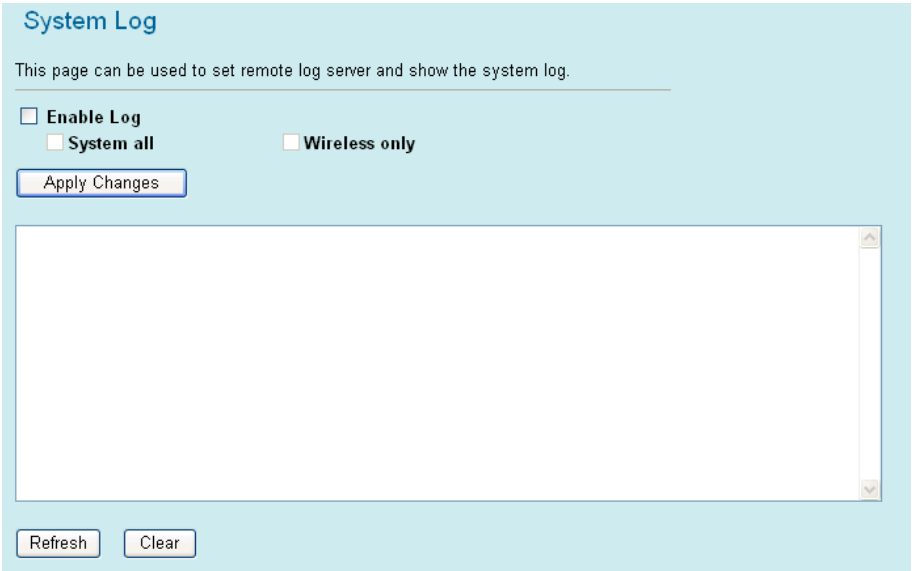


For secure reason, It is recommended that you set the account to access the web server of this Access Point. Leaving the password blank will disable the protection. The login screen prompts immediately once you finish setting password. Remember your password for you will be asked to enter them every time you access the web server of this Access Point.

New Password	Set your new password. Password can be up to 30 characters long. Password can contain letter, number and space. It is case sensitive.
Confirm Password	Re-enter the new password for confirmation.

Note: when you setup the password and click the apply change button, system will pop-up Window and ask the username and password, Please enter system default username "**admin**" (**not changeable**) and your password for entering the configuration WEB UI.

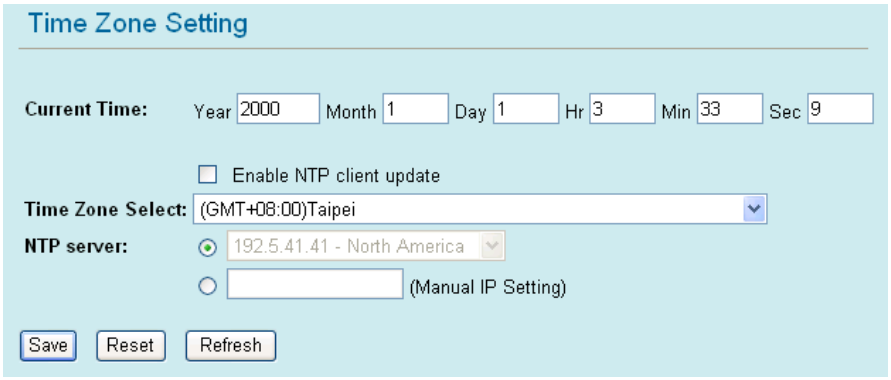
- **Log**



This function can list all log information about device.

Enable Log	Enabled or Disabled display system log information.
System All	List system all log information.
Wireless Only	List wireless log information only.
Refresh	Refresh log information.
Clear	Clear all information in window.

- **NTP**



This function can setting system time from local computer or Internet.

Current Time	Setting system time
Enable NTP client update	Enable or Disable setting system from Internet NTP Server.
Time Zone Select	Select system time zone.
NTP Server	Select NTP Server by Server List or Manual Input.
Save	Save configuration to flash.
Reset	Reset system time configuration.
Refresh	Refresh system time information.