# Wireless 802.11ag AP

User’s Manual

Version 1.1

## 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.
If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**The WX-7800A ( FCC ID: RYK-7800A ) is limited in CH1~CH11 for 2.4 GHz by specified firmware controlled in U.S.A.**

## Copyright Statement



**MAY. 2005**

## Contents

## 1. Introduction

Thank you for purchasing your Wireless 802.11ag AP.

This user guide will assist you with the installation procedure.

The package you have received should contain the following items:

- Wireless 802.11ag AP
- Quick Installation Guide
- User Manual CD-ROM
- Antenna
- Universal AC/DC Power Adapter
- RJ-45 Network Cable

Note: if anything is missing, please contact your vendor

## 2. Safety Notification

Your Wireless AP should be placed in a safe and secure location. To ensure proper operation, please keep the unit away from water and other damaging elements. Please read the user manual thoroughly before you install the device.
The device should only be repaired by authorized and qualified personnel.

- Please do not try to open or repair the device yourself.
- Do not place the device in a damp or humid location, i.e. a bathroom.
- The device should be placed in a sheltered and non-slip location within a temperature range of +5 to +40 Celsius degree.
- Please do not expose the device to direct sunlight or other heat sources. The housing and electronic components may be damaged by direct sunlight or heat sources.

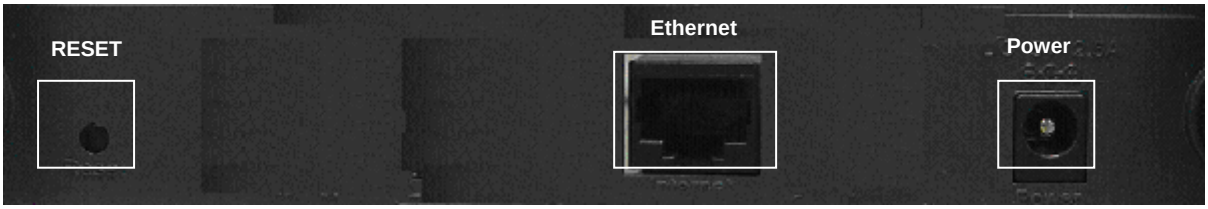
## 3. Hardware Installation

**Front Panel**
The front panel provides LED's for device status. Refer to the following table for the meaning of each feature.


| | |
|---|---|
| **Power** | The **Power** LED lights up and will keep while the AP is powered on. When the AP goes through its self-diagnostic mode during every boot-up, this LED will flash. When the diagnostic is complete, the LED will be lit continuously. |
| **11a** | The **11a** LED flashes when there is a successful Wireless-A connection. |
| **11g** | The **11g** LED flashes when there is a successful Wireless-G connection. |
| **Ethernet** | The **Ethernet** LED lights up when Ethernet port of AP was connected to LAN. When the LED is flashing that indicates the network activity over that port. |

**Rear Panel**

The rear panel features 1 Ethernet port, Reset button and Power port. Refer to the following table for the meaning of each feature.




| | |
|---|---|
| **RESET Button** | The **RESET button** can restore device to factory default settings by press this button for approx. 10 seconds during device power on status. |
| **Ethernet** | The port connects the AP to your networked PCs and other Ethernet network devices. |
| **Power** | The **POWER** port is where you will connect the power adapter. |

**AP Default Settings**

| | |
|---|---|
| User | |
| Password | admin |
| IP Address | 192.168.1.250 |
| Subnet Mask | 255.255.255.0 |
| RF ESSID | A band: wlan-a G band: wlan-g |
| Channel | A band: Auto G band: 6 |
| Mode | G band: Mixed |
| Encryption | Disabled |

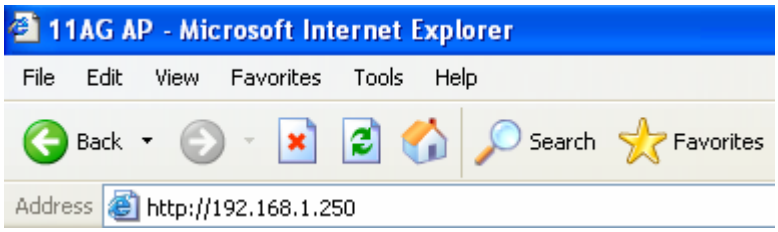
## Hardware Installation for Connection to Your local network

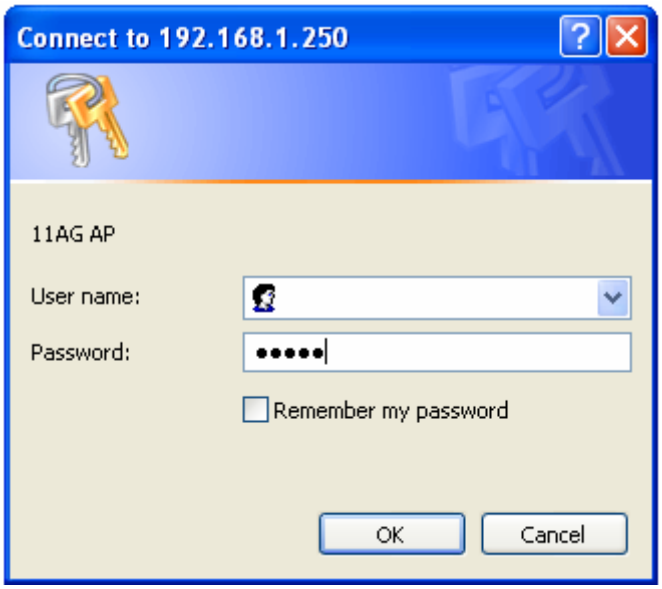
1. Power off your network devices.
2. Locate an optimum location for the AP. The best place for the AP is usually at the center of your wireless network, with line of sight to all of your wireless devices.
3. Adjust the antennas. Normally, the higher location of your AP will get better the performance.
4. Using a standard Ethernet network cable, connect the AP’s Internet port to your broadband modem.
5. Connect your network PCs or Ethernet devices to the AP’s LAN ports using standard Ethernet network cabling.
6. Connect the AC power adapter to the AP's Power port. Then connect the other end to an electrical outlet. Only use the power adapter supplied with the AP. Use of a different adapter may cause product damage.
7. The Hardware installation is completed, please refer to the following content for AP configuration.

## 4. How to Configuring the Dual Band AP

**TURN ON POWER SUPPLY**
Quick power cycle would caused system corruption. When power on, be careful not to shut down in about 5 seconds, because data is writing to the flash.

**START UP & LOGIN**
In order to configure the Wireless 11ag AP, you must use web browser and manually input http://**192.168.1.250** into the Address box and press Enter. The Main Page will appear.




In order to configure the Wireless 11ag AP, you must input the password into the **Password** box and leave blank on the **User Name** box. The default password is "**admin**".

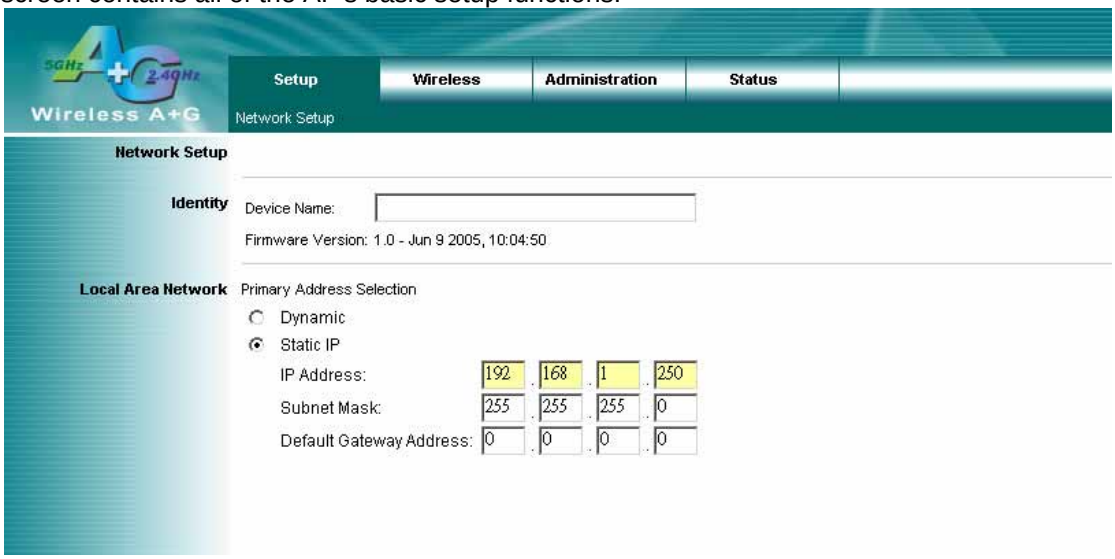
Once you have logged-in as administrator, it is a good idea to change the administrator password to ensure a secure protection to the Wireless 11ag AP. The Security Settings section described later in this manual describes how to change the password.

Once you have input the correct password and logged-in, the screen will change to the Setup page screen.

## 4.1 Setup – Network Setup

**MAKE CORRECT NETWORK SETTINGS OF YOUR COMPUTER**
To change the configuration, use Internet Explorer (IE) or Netscape Communicator to connect the WEB management **192.168.1.250**.

This following screen contains all of the AP's basic setup functions.




Most users will be able to configure the AP and get it working properly using the default settings.
**Network Setup**
Identity
Device Name: These fields allow you to input a host name for the AP.

Local Area Network

- **Dynamic:** If your LAN supports DHCP assigning dynamic IP address then please select this type.
- **Static IP:**
  This' s default connection type. If you are required to use a fixed IP address to connect to the LAN, then select **Static IP**.
  **IP Address**: This' s the AP's IP address.
  **Subnet Mask**: This' s the AP's Subnet Mask.
  **Default Gateway**: This' s the AP's Gateway Address.
  Those above items can be adjusted that depends on real network architecture if it is necessary.

Change these settings as described here and click the **Apply** button to apply your changes or click **Cancel** to cancel your changes. For additional information, click **Help**.

## 4.2 Wireless – Wireless Settings

## Wireless Settings

**Enable L2 isolation:** Enable this checkbox can isolate each wireless client which associated this AP.

### Wireless-A Settings

If you are using a Wireless-A network, then the following settings that you may need to configure.

**Mode**: This mode is controlling the Wireless-A (802.11a) networking, **Enabled** or **Disabled**.

**Turbo Mode**: Using this mode enables high-speed connections but severely limits range. To perform this Turbo Mode, both the AP and wireless PCs must support this function. Turbo Mode is Atheros proprietary technology, so it does not compatible with non-Atheros chipset Wireless LAN device, only with Atheros Wireless-A turbo adapters. To increase the speed of your wireless transmissions up to 108 Mbps, select **Enabled.** (Note: the AP's range will decrease in Turbo Mode.) If you do not want to use Turbo Mode, select **Disabled**.

**Network Name (SSID)**: The service set identifier ( SSID ) or network name. It is case sensitive and must not exceed 32 characters, which may be any keyboard character. You shall have selected the same SSID for all the APs that will be communicating with mobile wireless stations.

**Broadcast SSID**: When wireless clients survey the local area for wireless networks associated, they will detect the SSID broadcast by the AP. To broadcast the AP's SSID, keep the default setting, **Enabled**. If you do not want to broadcast the AP's SSID, then select **Disabled**.

**Channel**: Select the appropriate channel from the list provided to correspond with your network settings. You shall assign a different channel for each AP to avoid signal interference. If you want the AP to automatically scan for a clear channel, then select **Auto (DFS)**.

### Wireless-G Settings

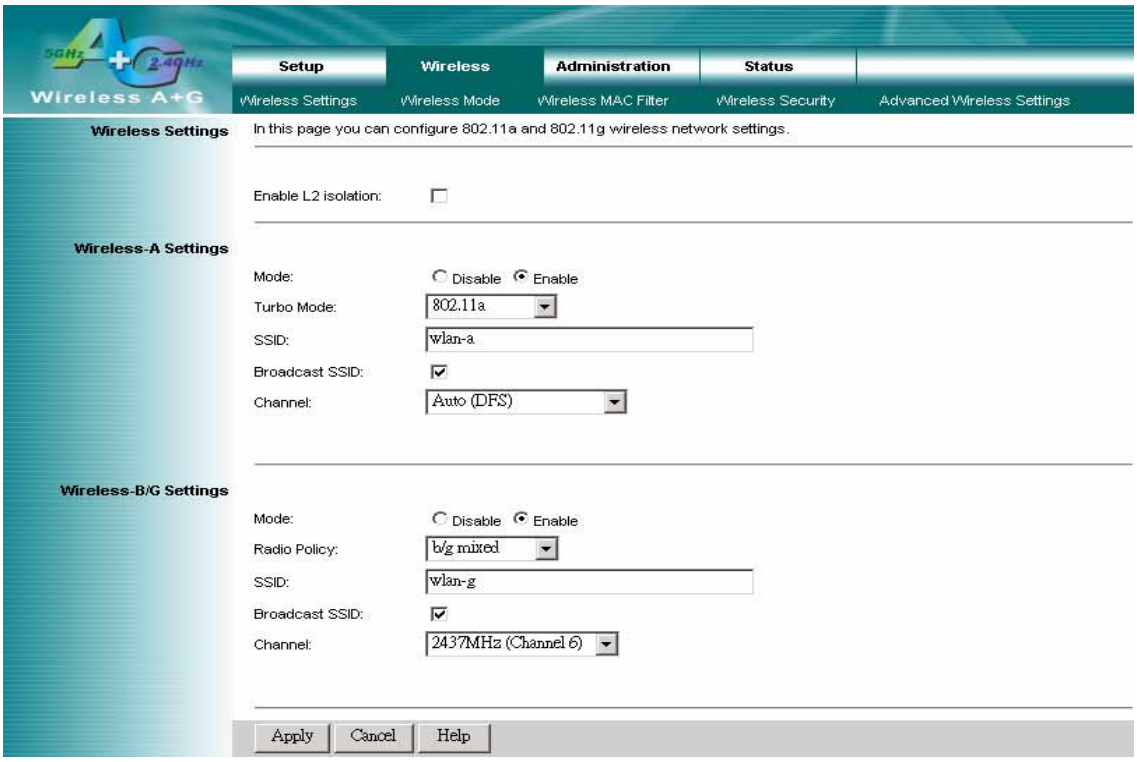
If you are using a Wireless-B, Wireless-G, or Wireless B+G network, then the following settings that you may need to configure.

**Mode**: This option can control B/G band on/off.
**Radio Policy**: From this drop-down menu, you can select the wireless standards running on your network.
If you have both 802.11g and 802.11b devices in your network, keep the default setting ---**b/g mixed**.
If you have only 802.11g devices, select **802.11g Only**.
If you have only 802.11b devices, select **802.11b Only**.
If you want to run a high-speed transmission, select **802.11g Turbo**.

**Network Name (SSID)**: The service set identifier ( SSID ) or network name. It is case sensitive and must not exceed 32 characters, which may be any keyboard character. You shall have selected the same SSID for all the APs that will be communicating with mobile wireless stations.

**Broadcast SSID**: When wireless clients survey the local area for wireless networks to associate with, they will detect the SSID broadcast by the AP. To broadcast the AP's SSID, keep the default setting, **Enabled**. If you do not want to broadcast the AP's SSID, then select **Disabled**.

**Channel**: Select the appropriate channel from the list provided to correspond with your network settings. You shall assign a different channel for each AP to avoid signal interference.




Change these settings as described here and click the **Apply** button to apply your changes or click **Cancel** button to cancel your changes. For additional information, click **Help**.

## 4.3 Wireless – Wireless Mode

There are 3 operating modes in each A,B/G band, using the following setting can perform each function.

### Wireless-A Settings

**Access Point:** This mode provides access for wireless stations to wired LANs and from wired LANs to wireless stations. This mode is not only performing AP function but also support WDS connection. Input remote AP's MAC address in below 4 fields can generate 4 WDS connections with this AP.

**Repeater:** This mode can be a repeater in your WLAN architecture. Input a SSID that you want to associate in right field.

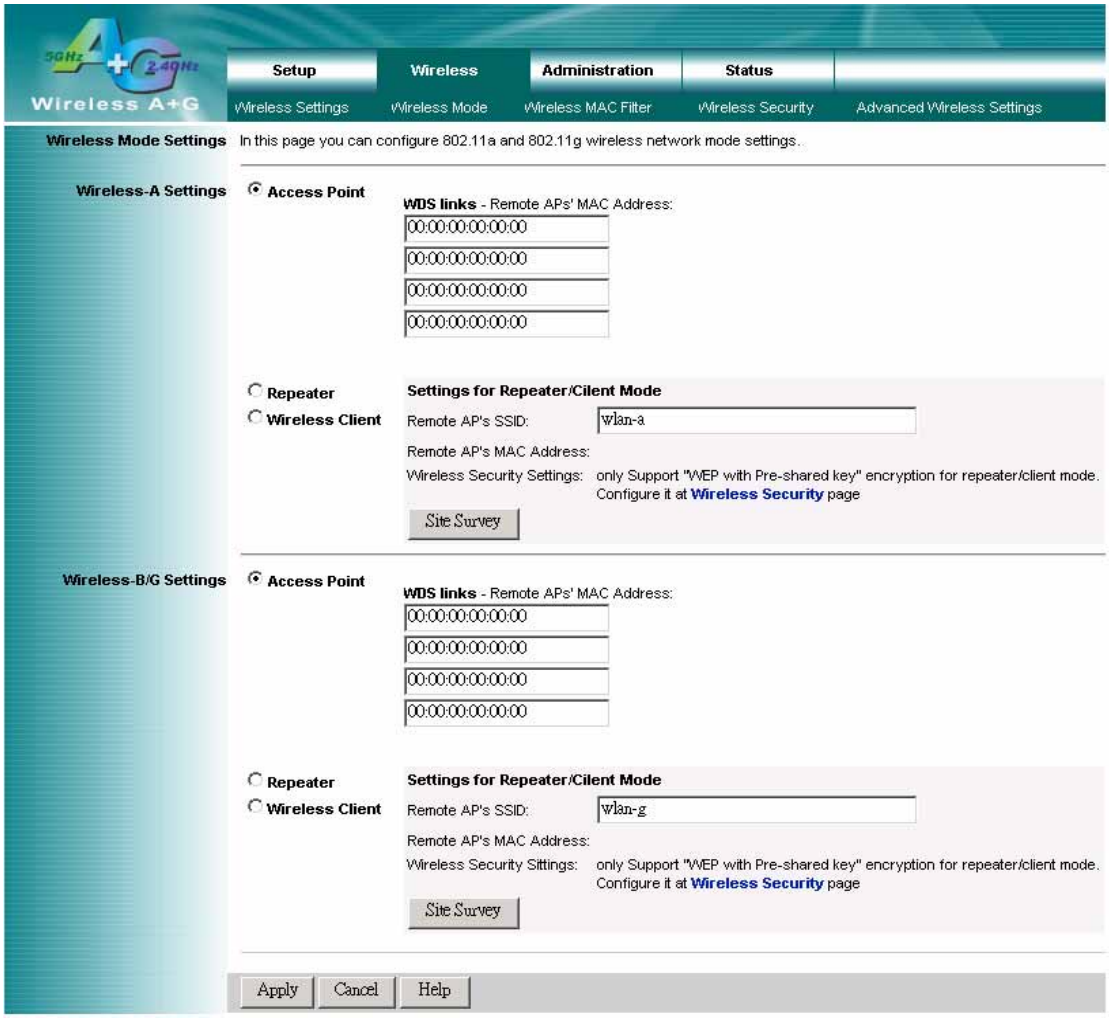
**Wireless Client:** This mode can be a client as general WLAN card in your WLAN architecture. Input a SSID that you want to associate in right field. Using one computer with Ethernet interface to connect this device, then the computer will has capacity of WLAN association.

### Wireless-G Settings

**Access Point:** This mode provides access for wireless stations to wired LANs and from wired LANs to wireless stations. This mode is not only performing AP function but also support WDS connection. Input remote AP's MAC address in below 4 fields can generate 4 WDS connections with this AP.

**Repeater:** This mode can be a repeater in your WLAN architecture. Input a SSID that you want to associate in right field.

**Wireless Client:** This mode can be a client as general WLAN card in your WLAN architecture. Input a SSID that you want to associate in right field. Using one computer with Ethernet interface to connect this device, then the computer will has capacity of WLAN association.




Change these settings as described here and click the **Apply** button to apply your changes or click **Cancel** button to cancel your changes. For additional information, click **Help**.

## 4.4 Wireless MAC Filter

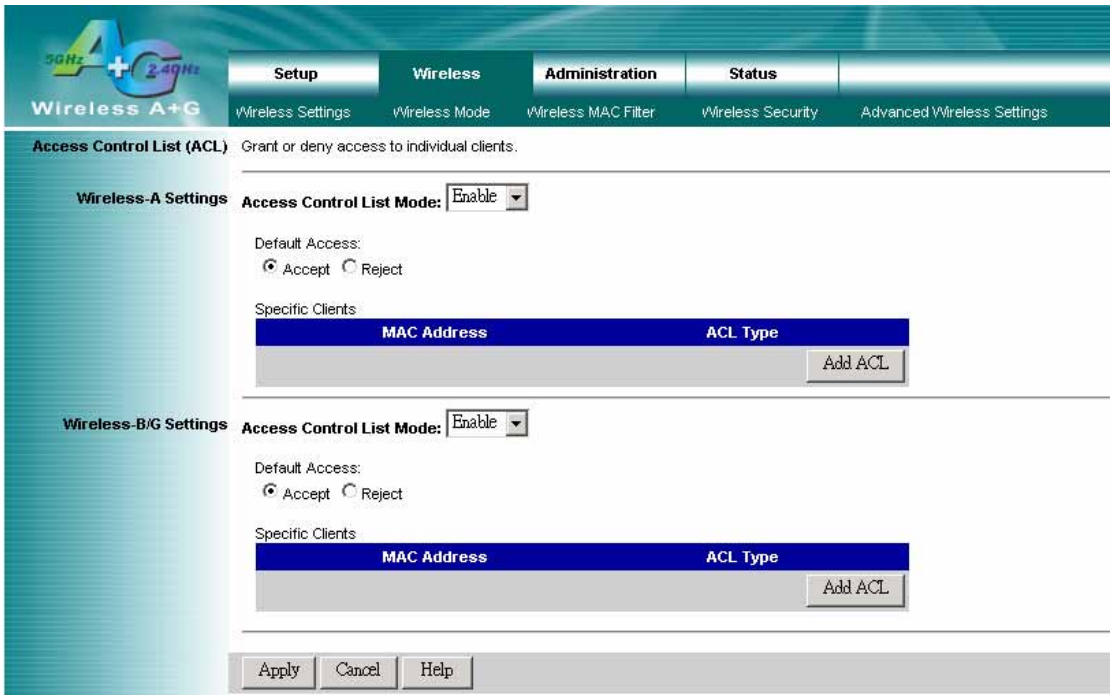
This function allows administrator to have access control by enter MAC address of wireless devices which transmitting within your wireless network.

### Wireless-A Setting

**Access Control List Mode:** This drop-down menu can set Enable/Disable the ACL function.
**Default Access:** Select the default policy for this ACL rule.
**Specific Clients list:** Except the default rule, administrator can also create one policy for special client via **Add ACL**.

### Wireless-B/G Setting

**Access Control List Mode:** This drop-down menu can set Enable/Disable the ACL function.
**Default Access:** Select the default policy for this ACL rule.
**Specific Clients list:** Except the default rule, administrator can also create one policy for special client via **Add ACL**.




Change these settings as described here and click the **Apply** button to apply your changes or click **Cancel** button to cancel your changes. For additional information, click **Help**.

## 4.5 Wireless – Wireless Security

The Wireless Security settings configure the security of your wireless network. There are three wireless security mode options supported by the AP: WEP (Wired Equivalent Privacy), WPA Pre-Shared Key, WPA RADIUS.

### Wireless Security

The security options are the same and independent for your Wireless-A and Wireless-G networks. You can use different wireless security methods for your networks; however, within each network (Wireless-A or Wireless-G), all devices must use the same security method and settings.

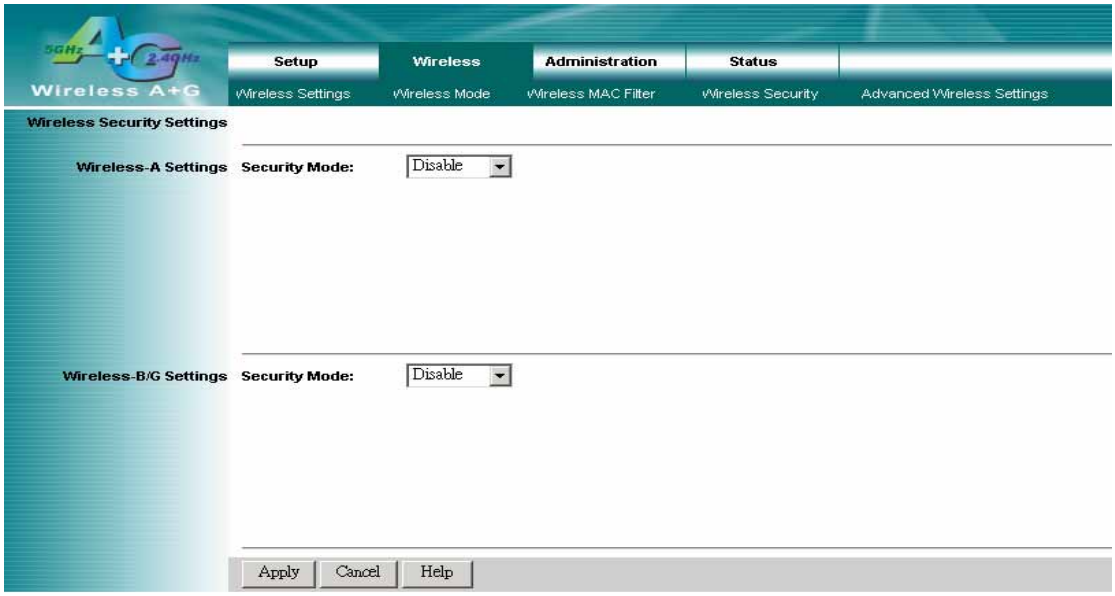
**Security Mode:**

**WEP:** WEP is a basic encryption method, select a level of WEP encryption, **40/64-bit** or **128-bit**. If you want to use a Passphrase, then enter it in the *Passphrase* field and click the **Generate** button. If you want to enter the WEP key manually, then enter it in the *WEP Key 1-4* field(s). To indicate which WEP key to use, select the appropriate *TX Key* number.

**WPA only:**

**WPA Pre-Shared Key:** This security mode offers two encryption methods, TKIP and AES, with dynamic encryption keys. Select the type of encryption method you want to use, **TKIP** or **AES**. Enter the Passphrase, which can have 8 to 63 characters. Then enter the Key Renewal period, which instructs the AP how often it should change the encryption keys.

**WPA RADIUS:** This security mode must work with a RADIUS server using EAP –TLS or PEAP for user authentication.
To use WPA RADIUS, select the type of encryption method you want to use, **TKIP** or **AES**.
Enter the RADIUS server's IP address and port number (default is 1812), along with the authentication shared key by the AP and the server.
Enter the Key Renewal period, which instructs the AP how often it should change the encryption keys.




Change these settings as described here and click the **Apply** button to apply your changes or click **Cancel** button to cancel your changes. For additional information, click **Help**.

## 4.6 Wireless – Advanced Wireless Settings

This section provides AP's advanced wireless settings. These settings should be adjusted carefully. Any improper settings will affect the AP's wireless performance.

### Advanced Wireless

**Wireless-A Settings**

**Authentication Type**:
**Open System:** This is default setting, those wireless clients that NOT use a WEP key for authentication.
**Shared Key:** This option means the wireless clients use a WEP key for authentication. Shared Key is only available if the WEP option is implemented.

**Transmission Rate**: The data transmission rate should be set depending on the speed of your wireless network. You can select a proper transmission speeds to fit your wireless clients requirement, or you can select **Auto (Default)** to have the AP automatically adjust one the fastest and suitable data rate to fit network status at the time. Usually this function can be named Auto-Fallback feature. Auto-Fallback will treat one best connection rate between the AP and a wireless client. The default value is **Auto (Default)**.

**Transmission Power**: This option provides the AP's RFoutput power adjustment. To minimize the possibility of eavesdropping by unauthorized wireless users, suggest to decrease the transmission power with a needed by your wireless environment. By drop down menu, you can select the appropriate level, **Full (Default)**, **Half**, **Quarter**, **Eighth**, or **Min**. The default is **Full (Default)**.

**Antenna Select:** This option provides antenna setting for which one you would like to set as TX/RX antenna. Using Diversity setting is proposed.

**ACK Timeout:** The Acknowledgement Timeout means from remote to local data transmission, one parameter to control both acknowledging action to guaranty those packets have already be received. Usually, for short distance, keep default setting is proposed. If there is long distance application, have minor increased with this parameter will be proposed.

**Beacon Interval**: The Beacon Interval value indicates the frequency interval of the beacon. Enter a value between 20 and 1000. A beacon is a packet broadcast by the AP to synchronize the wireless network. The default value is **100**.

**DTIM Interval**: This value indicates the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the AP has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. Its clients hear the beacons and awaken to receive the broadcast and multicast messages.
The default value is **1**.

**Fragmentation Threshold**: This value specifies the maximum size for a packet before data is fragmented into multiple packets. If you experience a high packet error rate, you may slightly increase the Fragmentation Threshold. Setting the Fragmentation Threshold too low may result in poor network performance. Only minor reduction of the default value is recommended. In most cases, it should remain at its default value of **2346**.

***Beacon interval****: The data transmitted on your wireless network that keeps the network synchronized.*

***DTIM****: A message included in data packets that can increase wireless efficiency.*

***Fragmentation****: Breaking a packet into smaller units when transmitting over a network medium that cannot support the original size of the packet.*

**RTS Threshold**: Using this setting can regulate your wireless network if you experience any inconsistent data flow situation, only by minor adjustment of the default value, the default value **2346** is recommended. The RTS/CTS mechanism will not be enabled if your wireless network packet less than RTS threshold value. The AP sends Request to Send (RTS) frames to a particular receiving station and negotiates the sending of a data frame. After receiving an RTS, the wireless station responds with a Clear to Send (CTS) frame to acknowledge the right to begin transmission. The RTS Threshold value should keep at its default value of **2346**.

**Wireless-B/G Settings**

**Authentication Type**:
**Open System:** This is default setting, those wireless clients that NOT use a WEP key for authentication.
**Shared Key:** This option means the wireless clients use a WEP key for authentication. Shared Key is only available if the WEP option is implemented.

**Transmission Rate**: The data transmission rate should be set depending on the speed of your wireless network. You can select a proper transmission speeds to fit your wireless clients requirement, or you can select **Auto (Default)** to have the AP automatically adjust one the fastest and suitable data rate to fit network status at the time. Usually this function can be named Auto-Fallback feature. Auto-Fallback will treat one best connection rate between the AP and a wireless client. The default value is **Auto (Default)**.

**Transmission Power**: This option provides the AP's RFoutput power adjustment. To minimize the possibility of eavesdropping by unauthorized wireless users, suggest to decrease the transmission power with a needed by your wireless environment. By drop down menu, you can select the appropriate level, **Full (Default)**, **Half**, **Quarter**, **Eighth**, or **Min**. The default is **Full (Default)**.

**Antenna Select:** This option provides antenna setting for which one you would like to set as TX/RX antenna. Using Diversity setting is proposed.

**ACK Timeout:** The Acknowledgement Timeout means from remote to local data transmission, one parameter to control both acknowledging action to guaranty those packets have already be received. Usually, for short distance, keep default setting is proposed. If there is long distance application, have minor increased with this parameter will be proposed.

**Beacon Interval**: The Beacon Interval value indicates the frequency interval of the beacon. Enter a value between 20 and 1000. A beacon is a packet broadcast by the AP to synchronize the wireless network. The default value is **100**.

**DTIM Interval**: This value indicates the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the AP has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. Its clients hear the beacons and awaken to receive the broadcast and multicast messages.
The default value is **1**.

**Fragmentation Threshold**: This value specifies the maximum size for a packet before data is fragmented into multiple packets. If you experience a high packet error rate, you may slightly increase the Fragmentation Threshold. Setting the Fragmentation Threshold too low may result in poor network performance. Only minor reduction of the default value is recommended. In most cases, it should remain at its default value of **2346**.

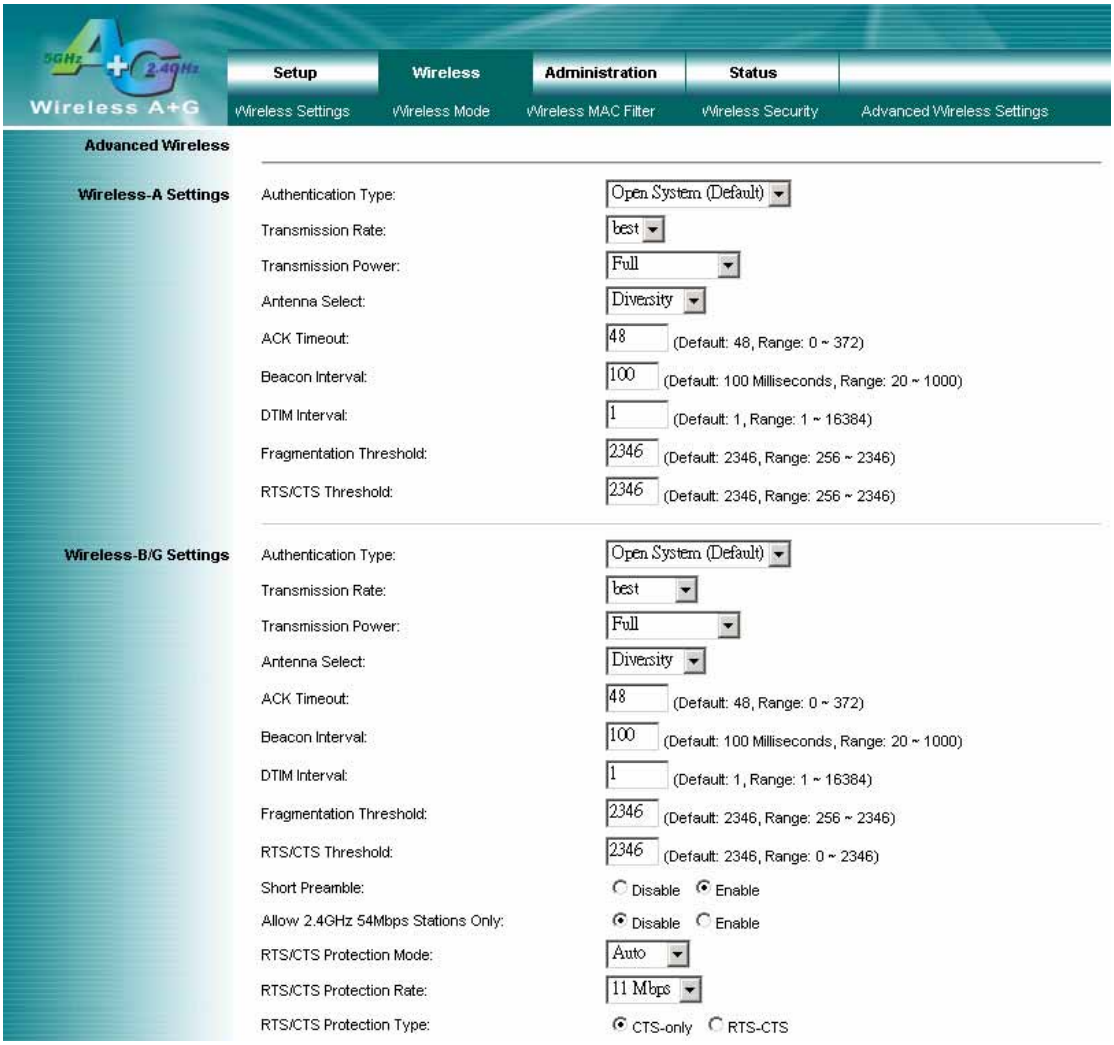
**RTS /CTS Threshold**: Using this setting can regulate your wireless network if you experience any inconsistent data flow situation, only by minor adjustment of the default value, the default value **2346** is recommended. The RTS/CTS mechanism will not be enabled if your wireless network packet less than RTS threshold value. The AP sends Request to Send (RTS) frames to a particular receiving station and negotiates the sending of a data frame. After receiving an RTS, the wireless station responds with a Clear to Send (CTS) frame to acknowledge the right to begin transmission. The RTS Threshold value should keep at its default value of **2346**.

**Short Preamble:** This setting is for 11b clients, usually set **short** value will enhance your WLAN performance for 11b client, however the 11b clients must have same feature as well.

**Allow 2.4GHz 54Mbps Station Only:** In order to keep high performance for this WLAN, set this option **Enable** will only allow stations with 54Mbps data rate to associate this AP.

**RTS/CTS Protection Mode**: CTS (Clear-To-Send) Protection Mode should be set to **Auto (Default)**. The AP will automatically use CTS Protection Mode when the Wireless-G products are experiencing severe problems and are not able to transmit to the AP in an environment with heavy 802.11b traffic. This function boosts the AP's ability to catch all Wireless-G transmissions but will severely decrease the performance. If you do not want to use CTS Protection Mode at all, select **Disabled**.

**RTS/CTS Protection Rate**: This setting is set the rate of RTS/CTS while protection mode is enabled.
**RTS/CTS Protection Type**: This protection mode provides 2 types, one is RTS/CTS and other is CTS only. Generally, using CTS only is able to fulfill most of environment.




Change these settings as described here and click the **Apply** button to apply your changes or click **Cancel** to cancel your changes. For additional information, click **Help**.

## 4.7 Administration – Management

This section allows the network's administrator to manage specific AP functions for access and security.

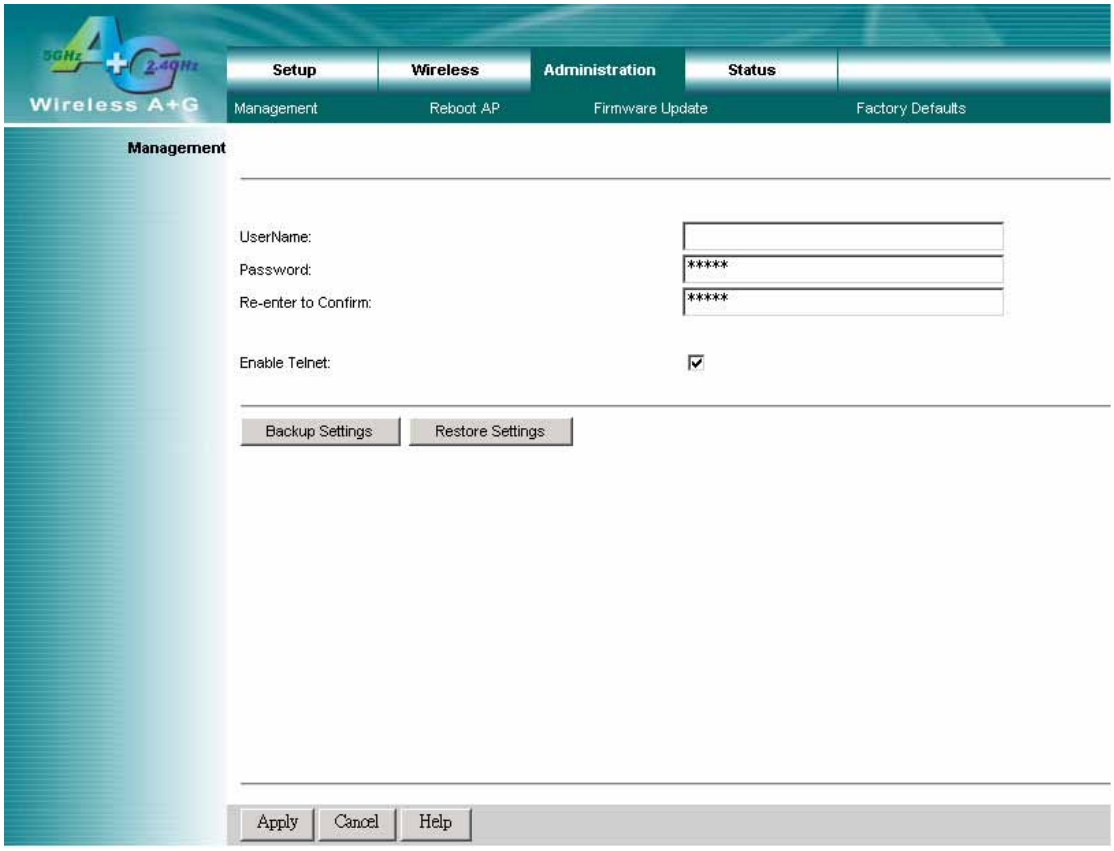
### Management

**UserName:** The login username, default value is blank(null).
**Password:** The login password, default value is **admin.**
**Re-enter to Confirm:** You can change the AP's password from here. Enter a new AP password and then type it again in the Re-enter to Confirm field to confirm.

**Enable Telnet:** Enable this checkbox can to perform Telnet configuration.

### Backup and Restore

**Backup Settings**: To back up the AP's configuration, click this button and follow the on-screen instructions.
**Restore Settings**: To restore the AP's configuration, click this button and follow the on-screen instructions. (You must have previously backed up the AP's configuration.)




Change these settings as described here and click the **Apply** button to apply your changes or click **Cancel** to cancel your changes. For additional information, click **Help**.

## 4.8 Administration – Reboot AP

**AP Reboot:** Click this button to initialize this device.

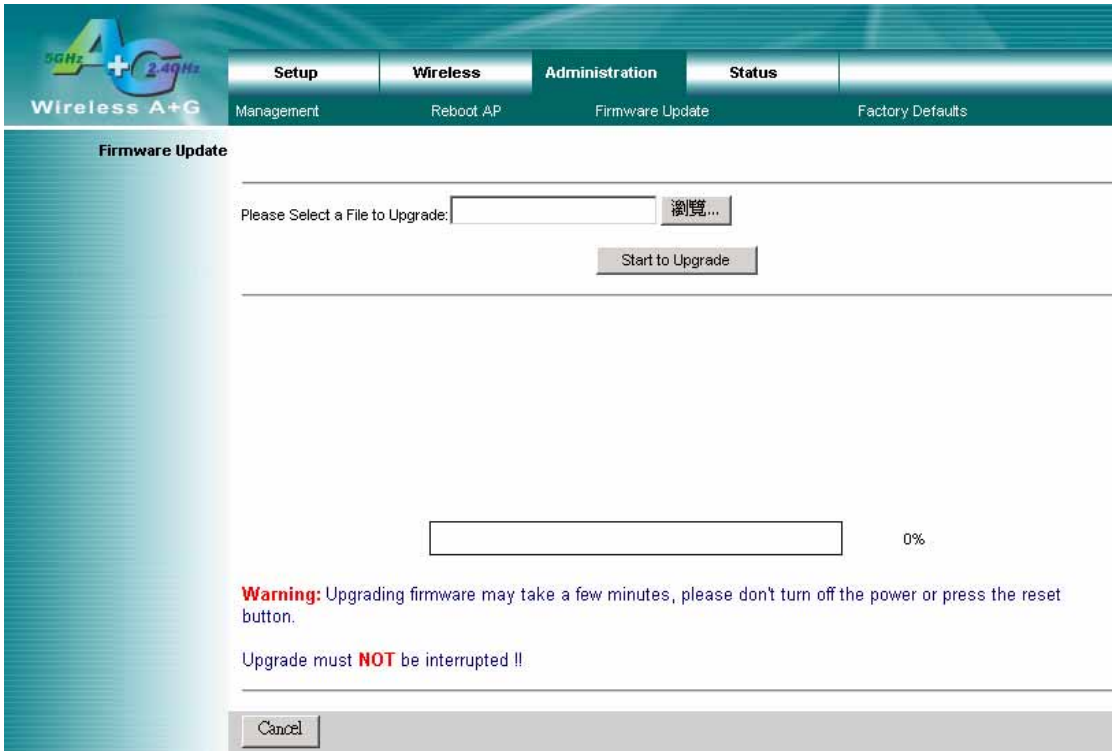
## 4.9 Administration – Firmware Upgrade

This Firmware Upgrade screen allows you to upgrade the AP's firmware. Do not upgrade the firmware unless you are experiencing problems with the AP or the new firmware has a feature you want to use.

**Firmware Upgrade**

**Please select a file to upgrade**: In the field provided, enter the name of the extracted firmware upgrade file, or click the **Browse** button to find this file.

**Start to Upgrade**: After you have selected the appropriate file, click this button for upgrade.



## 4.10 Administration – Factory Defaults

This Factory Defaults allows you to restore the AP's configuration to its factory default settings.

**Factory Defaults**

**Restore Factory Defaults**: Click this button to reset all configuration settings to their default values. Any settings you have saved will be lost when the default settings are restored.

## 4.11 Status – Local Network

The Local Network screen on the Status Tab displays the status of your network.

**Identity**
**Device Name:** The device name for user identification.
**Firmware Version**: The current AP firmware version display here.

**Local Area Network**
**Local MAC Address**: This is the AP's local physical MAC Address.

**Connection Type**: The current IP address type --- Dynamic or Static.

**IP Address**: The current AP's IP address.

**Subnet Mask**: This is AP's local subnet mask.

**Default Gateway**: This is the local network gateway IP.

## 4.12 Status – Wireless Network

The Wireless Network screen on the Status Tab displays the information of your Wireless networks.

**Wireless Settings**

**Wireless-A Settings**

**MAC Address**: This is the AP's Wireless-A band MAC Address.

**Mode**: This mode is displaying the current status of Wireless-A band network. **Enabled** means the A band network is **ON**.

**Turbo Mode**: This mode is displaying the turbo mode status. ( **Enabled/Disabled** )

**SSID**: This displays the AP's current Wireless-A SSID string.

**Broadcast SSID**: This displays the AP's SSID Broadcast status.

**Channel**: The current A band channel you are using.

**Wireless-B/G Settings**

**MAC Address**: This is the AP's Wireless-G band MAC Address.

**Mode**: This mode is displaying the current status of Wireless-B/G band network. **Enabled** means the B/G band network is **ON**.

**Radio Policy:** This displays the Wireless-G band network mode.

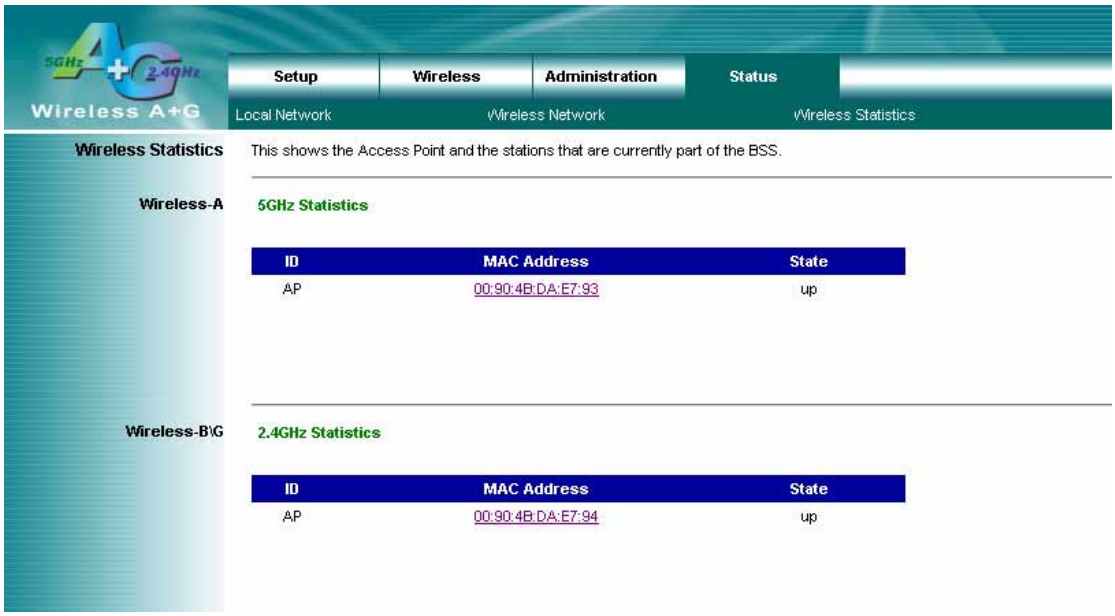
**SSID**: This displays the AP's current Wireless-B/G SSID string.

**Broadcast SSID**: This displays the AP's SSID Broadcast status.

**Channel**: The current G band channel you are using.

## 4.13 Status – Wireless Statistics

**Wireless Statistics:** This displays the AP and stations that are currently part of the BSS.



## 5. Troubleshooting – Q & A

**1. I'm trying to log on the AP's Web configuration page, but I do not see the login screen.**

**Answer:**

1. Please make sure the IP address that you input on address field of IE browser is correct.
2. Make sure the physical layer connection is established. If you are using wired to connect this AP, check the relevant LAN LED whether is lit or not.
3. On Dos Prompt screen, using " ping " command to probe this AP, check if you got reply from it.
   Command: ping < Destination IP address >
4. If you have any TCP/IP setting problem, please refer to the Quick Installation Guide.

**2. I forgot my password, how to log on this AP for configuration?**

**Answer:**

1. Reset the AP to factory default by pressing the Reset button for 10 seconds then releasing it.
2. Log on the AP's web management by http://192.168.1.250
   Leave username blank and enter the default password **admin**.

**3. How to set the AP to factory default setting.**

**Answer:**

1. Reset the AP to factory default by pressing the Reset button for 10 seconds then releasing it.
2. After release the Reset button, the AP will get back all setting to factory default and reboot system.
3. While the reboot is complete, log on the AP's web management by default IP http://192.168.1.250
   Leave username blank and enter the default password **admin**.

**4. My AP will not turn on. No LED's light up.**

**Answer:**

Usually it is caused by the power is not connected.
Please double check the power adapter if it connected to your AP and the other side is plugged into the power outlet.
If it still has no power, please contact your reseller.

**5. I can't access the AP from a wireless client.**

**Answer:**

Generally to make the wireless client unable to access AP with following possible issues:
1. Settings are not the same among each wireless adapter.
2. Out of range.
3. IP Address is not set correctly.

Resolution:
Make sure that mode, SSID, Channel and encryption settings are set the same on each wireless adapter. Make sure that your computer is within range and free from any strong electrical devices that may cause interference.

**6. What devices cause interference?**

**Answer:**

The AP is operating in the unlicensed 2.4 GHz band and 5GHz. Other devices operates in this frequency range that may cause interference include microwave ovens and 2.4 GHz portable phones. PCs or analog cellular phones do not operate at 2.4 GHz and do not cause interference. Proper placement of access points usually eliminates interference problems created by other 2.4 GHz devices.