



WAB-3003
108M 11g Outdoor PoE AP

Quick Installation Guide v1.0



Preface

The 802.11 b/g compliant **WAB-3003** is a Long Range Outdoor CPE/AP/Bridge device that can be used for dual purposes. First, it can be deployed as a traditional fixed wireless Access Point (AP). Secondly, it can be used as a Customer Premises Equipment (CPE) that connects to the wireless outdoor network of Wireless Internet Service Provider (WISP).

The metal sealed WAB-3003 is compact in size and weatherproof. Coming with a mounting kit, it can be mounted on a pole or wall. It is suitable for both indoor and outdoor usage with its 200mW output power, which is higher than a typical indoor AP (100mW) and lower than a typical WISP's outdoor AP (500mW).

This Quick Installation Guide (including FAQ Instruction Guide) provides instructions for getting started with WAB-3003.

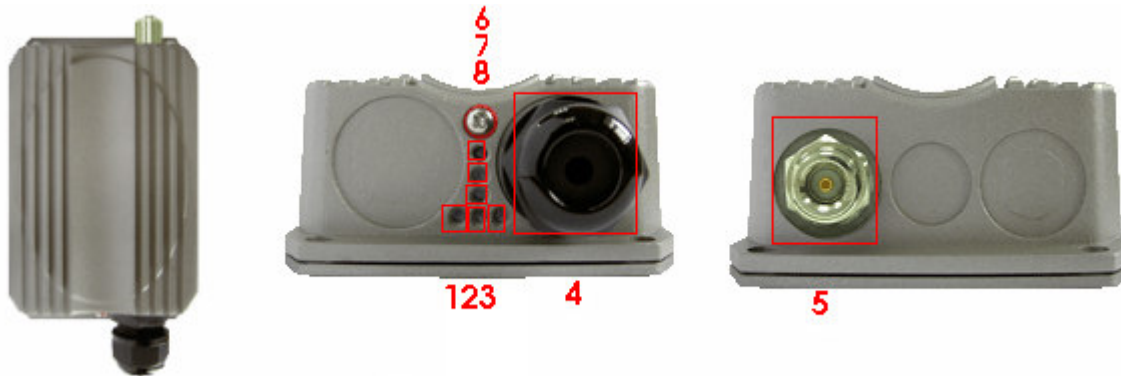
Package Contents

1. WAB-3003 x 1
2. Quick Installation Guide (QIG) x 1
3. User's Manual with CD-ROM x 1
4. Power Sourcing Equipment (PSE) with AC cable x 1
5. Mounting Kit x 1
6. Water Proof Connector Pack x 1

Caution: *It is recommended to keep the original packing material for possible future shipment when repair or maintenance is required. Any returned product should be packed in its original packaging to prevent damage during delivery.*

System Overview

WAB-3003

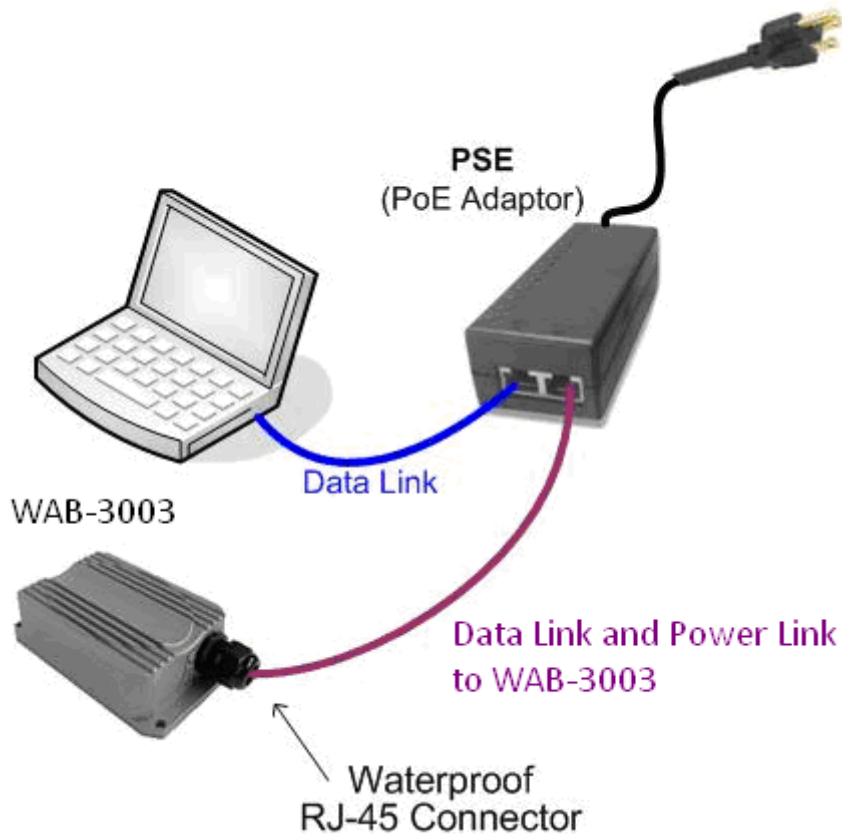


| | | |
|------------|---------------------------------|--|
| 1 | WLAN | Green LED ON indicates system ready |
| 2 | Wireless Signal Strength | For showing the signal strength situation |
| 3 | Ethernet | Green LED ON indicates connection, OFF indicates no connection, and BLINKING indicates transmitting data. |
| 4 | PoE Connector | For connecting to the Power Sourcing Equipment (PSE) |
| 5 | N-type Connector | For connecting to an antenna |
| 6 | Power | Red LED ON indicates power on, and OFF indicates power off |
| 7~8 | Wireless Signal Strength | For showing the signal strength situation (7: Yellow; 8: Green) |

Hardware Installation

WAB-3003

The following diagram is a **basic network topology** which can be used for testing and configuring the WAB-3003.



Installation Steps:

- Step 1.** Connect an N-type antenna to the N-type connector.
- Step 2.** Connect the PSE (POWER & DATA OUT) to the PSE 1 connector on the lower panel.
- Step 3.** Connect one end of an Ethernet cable to the PSE 2 connector on the lower panel and the other end to a computer.
- Step 4.** Connect the power cord to the PSE.
- Step 5.** Power on the PSE in order to supply power to the WAB-3003.

Getting Started

WAB-3003 supports web-based configuration. WAB-3003 is a dual-mode system, **AP Mode** as the default mode for the first time entering the system, which also can be configured as either an access point (**AP Mode**) or a gateway (**CPE Mode**) based on your needs. It is required to follow the respective installation procedures provided to properly set up the desired mode for this system.

- **Default IP Address of Web Management Interface:**

The default IP address and Subnet Mask for the AP mode and CPE mode are as follows:

| Mode | AP Mode | CPE Mode |
|--------------------|----------------|-----------------|
| IP Address | 192.168.0.1 | 192.168.0.1 |
| Subnet Mask | 255.255.255.0 | 255.255.255.0 |

- **Default User Name and Password:**

The default user name and password for both the **root** and **admin** account are as follows:

| Mode | AP Mode | CPE Mode | |
|---------------------------|---------------------|---------------------|----------------------|
| Management Account | Root Account | Root Account | Admin Account |
| User Name | root | root | admin |
| Password | admin | admin | password |

Access WMI (Web Management Interface) Login Pages

Step 1: IP Segment Setup for Administrator PC

Set a static IP address on the same subnet mask as WAB-3003 in TCP/IP of the administrator PC, such as the following example. Do not duplicate the IP address used here with the IP address of WAB-3003 or any other devices within the same network. (AP Mode – Default Mode needed; CPE Mode can set DHCP IP address without setting static IP address)

>> Example of IP Segment:

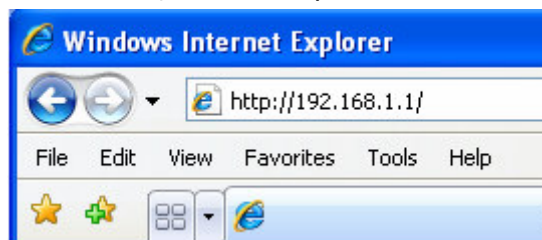
The valid range of IP address is 1 ~ 254. However, **1** must be avoided as it is already used by WAB-3003. Below depicts an example of using **100** (the underlined value can be changed as desired).

IP Address: 192.168.0.100

Subnet Mask: 255.255.255.0

Step 2: Launch Web Browser

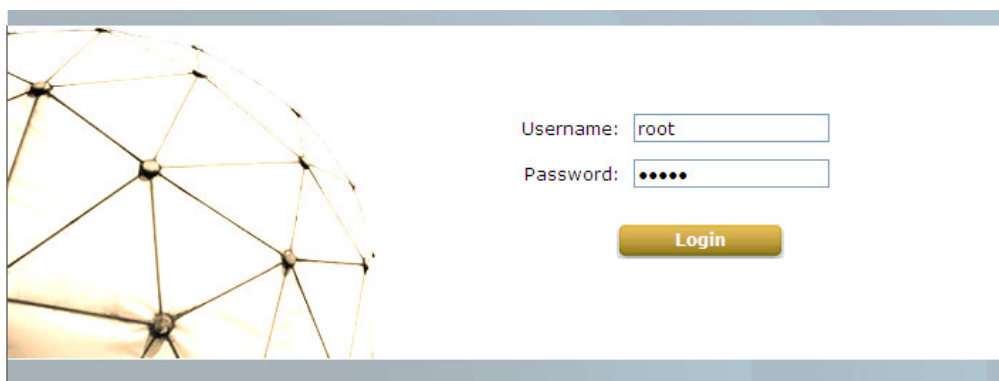
Launch a web browser to access the web management interface by entering the default IP address, **http://192.168.0.1/**, in the URL field, and then press **Enter**.



Step 3: System Login


The system manager Login Page will then appear.


Enter "**root**" in the *User name* field and "**admin**" in the *Password* field, and then click **Login** to log in. (CPE Mode has two Management Account that the front pages mentions before)





Step 4: Login Success


After a successful login to WAB-3003, a **System Overview** page of WMI will appear. To logout, simply click on the **Logout** button at the upper right hand corner of the interface.


System


Wireless


Firewall


Utilities


Status

Overview

Clients

Repeater

Event Log

Home > Status > System Overview

System Overview

System

| | |
|------------------|---------------------|
| System Name | |
| Firmware Version | 4.10.00 |
| Build Number | 1.5-1.2393 |
| Location | |
| Site | EN-A |
| Device Time | 1999/12/31 16:20:23 |
| System Up Time | 0 days, 0:20:23 |
| Operating Mode | AP |

Radio Status

| | |
|-------------|-------------------|
| MAC Address | 00:1F:D4:00:21:25 |
| Band | 802.11b+g |
| Channel | 1 |
| TX Power | Highest |

LAN Interface

| | |
|-------------|-------------------|
| MAC Address | 00:1F:D4:00:21:24 |
| IP Address | 192.168.0.1 |
| Subnet Mask | 255.255.255.0 |
| Gateway | 192.168.0.254 |

AP Status

| Profile Name | BSSID | ESSID | Security Type | Online Clients |
|--------------|-------------------|-------|---------------|----------------|
| VAP-1 | 00:1F:D4:00:21:25 | VAP-1 | None | 0 |

AP Mode – System Overview

Note:

By default, AP mode is enabled. Therefore, the administrator must access the system via the AP mode login page for the first time. The administrator is then able to switch between modes afterwards.



System Overview | Event Log | DHCP Lease | UPnP

Home > Status > System Overview

System Overview



System

| | |
|------------------|---------------------|
| System Name | |
| Firmware Version | 4.10.00 |
| Build Number | 1.5-1.2393 |
| Location | |
| Site | EN-A |
| Device Time | 1999/12/31 16:01:48 |
| System Up Time | 0 days, 0:01:48 |
| Operating Mode | CPE |



Radio Status

| | |
|-----------------|-------------------|
| Status | Scanning |
| SSID | N/A |
| MAC Address | 00:00:00:00:00:00 |
| Channel | 10 |
| Signal Strength | 0 |
| Security | None |



LAN Interface

| | |
|-------------|-------------------|
| MAC Address | 00:1F:D4:00:21:24 |
| IP Address | 192.168.0.1 |
| Subnet Mask | 255.255.255.0 |
| DHCP Server | Enabled |



WAN Interface

| | |
|-------------|-------------------------------|
| Mode | Static |
| MAC Address | 00:1F:D4:00:21:25 |
| IP Address | 192.168.10.1 |
| Subnet Mask | 255.255.255.0 |
| Gateway | 192.168.10.254 |
| Bandwidth | Down: Unlimited UP: Unlimited |

CPE Mode – System Overview

Common Settings

<AP Mode – Default Mode>

Step 1: Mode Confirmation

The screenshot shows the configuration interface for an AP. At the top, there are five main menu items: System, Wireless, Firewall, Utilities, and Status. The Status menu item is highlighted with a red box. Below the main menu, there are sub-menu items: Overview, Clients, Repeater, and Event Log. The Overview sub-menu item is also highlighted with a red box. The main content area shows the breadcrumb path: Home > Status > System Overview. The title of the page is "System Overview". There are four main sections: System, Radio Status, LAN Interface, and AP Status. The System section is highlighted with a red box and shows the following information:

| | |
|------------------|---------------------|
| System Name | |
| Firmware Version | 4.10.00 |
| Build Number | 1.5-1.2393 |
| Location | |
| Site | EN-A |
| Device Time | 1999/12/31 17:23:26 |
| System Up Time | 0 days, 1:23:26 |
| Operating Mode | AP |

The Radio Status section shows the following information:

| | |
|-------------|-------------------|
| MAC Address | 00:1F:D4:00:21:25 |
| Band | 802.11b+g |
| Channel | 1 |
| TX Power | Highest |

The LAN Interface section shows the following information:

| | |
|-------------|-------------------|
| MAC Address | 00:1F:D4:00:21:24 |
| IP Address | 192.168.0.1 |
| Subnet Mask | 255.255.255.0 |
| Gateway | 192.168.0.254 |

The AP Status section shows the following information:

| Profile Name | BSSID | ESSID | Security Type | Online Clients |
|--------------|-------------------|-------|---------------|----------------|
| VAP-1 | 00:1F:D4:00:21:25 | VAP-1 | None | 0 |

- Ensure the *Operating Mode* is currently in **AP** mode.
- Click on the **Status** button and then select the **System Overview** tab. The *Operating Mode* is at the **System** section on the **System Overview** page.

Step 2: Change Password

The screenshot shows a network management interface with a top navigation bar containing buttons for System, Wireless, Firewall, Utilities, and Status. The Utilities button is highlighted with a red box. Below this is a sub-menu with buttons for Change Password, Network Utilities, Config Save & Restore, System Upgrade, and Reboot. The Change Password button is also highlighted with a red box. The main content area displays the 'Change Password' utility with a breadcrumb trail 'Home > Utilities > Change Password'. The utility title is 'Change Password'. It features a form with the following fields: 'Name' (root), 'Old Password' (masked with dots), 'New Password' (masked with dots, with a red note '*up to 32 characters'), and 'Re-enter New Password' (masked with dots). At the bottom of the form are two yellow buttons: 'SAVE' and 'CLEAR'.

- Click on the **Utilities** button and then select the **Password** tab.
- Enter a new password in the *New Password* field and retype it in the *Re-enter New Password* field.
- Click **SAVE** to save the changes.

Step 3: Network Settings

System Information Operating Mode **Network** Management QoS Classification

Home > System > Network Interface

Network Settings

Mode : Static DHCP

IP Address : *

Netmask : *

Default Gateway : *

Primary DNS Server : *

Alternate DNS Server :

Layer2 STP : Disable Enable

SAVE **CLEAR**

Settings here are for example only

- Click on the **System** button and then select the **Network** tab.
- Enable *Static*, and then enter the related information in the fields marked with red asterisks.
- Click **SAVE** to save the settings.

Step 4: ESSID Settings

System Wireless Firewall Utilities Status

VAP Overview General VAP Config Security Repeater Advanced Access Control Site Survey

Home > Wireless > General

General Settings

Band : 802.11b+802.11g

Super G : Bursting Fast Frames Dynamic Turbo

Short Preamble : Disable Enable

Channel : 1

Max Transmit Rate : Auto

Transmit Power : Auto

SAVE CLEAR

- Click on the **Wireless** button and then select the **General** tab.
- **Band:** Select an appropriate band from the drop-down list box.

System Wireless Firewall Utilities Status

VAP Overview General VAP Config Security Repeater Advanced Access Control Site Survey

Home > Wireless > VAP Config

VAP Configuration

Profile Name : VAP-1

VAP : Disable Enable

Profile Name : VAP-1

ESSID : VAP

VLAN ID : Disable Enable

VLAN ID : *(1 - 4094)

SAVE CLEAR

- Click on the **Wireless** button and then select the **VAP Config** tab.
- **ESSID:** Enter respective ESSID for each VAP in the *ESSID* field or use the default. **ESSID** (Extended Service Set Identifier) is a unique identifier used for networking devices to get associated with WAB-3003.

Note:

For QoS classification, please enable VLAN ID and specify a VLAN ID with respective ESSID.

- Click **SAVE** to save the settings.

Step 5: Security Settings

System Wireless Firewall Utilities Status

VAP Overview General VAP Config Security Repeater Advanced Access Control Site Survey

Home > Wireless > Security

Security Settings

Profile Name : VAP-1

Security Type : WEP

Note! The WEP keys are global setting for all virtual APs. The key value will apply to all VAPs.

802.11 Authentication: Open System Shared Key Auto

WEP Key Length : 64 bits 128 bits 152 bits

WEP Key Format : ASCII Hex

WEP Key Index : 1

WEP Keys :

1

2

3

4

SAVE CLEAR

- Click on the **Wireless** button and then select the **Security** tab.
- Select the desired *VAP Profile and Security Type* from the drop-down list boxes. The above figure depicts an example of selecting VAP-1 and **WEP**.
- Enter the information required in the blank fields.

Caution:

You must use the same information provided here to configure the network devices that are to be associated with WAB-3003.

- Click **SAVE** to save all settings configured so far. All updated settings will take effect upon reboot

Congratulation!

The AP mode is now successfully configured.

Caution:

After WAB-3003's network configuration completes, please remember to change the IP Address of your PC Connection Properties back to its original settings in order to ensure that your PC functions properly in its real network environments.

<CPE Mode>

Step 1: Mode Confirmation

The screenshot shows the device's web interface. At the top, there are navigation buttons for System, Wireless, Firewall, Utilities, and Status. The Status button is highlighted with a red border. Below these buttons are tabs for System Overview, Event Log, DHCP Lease, and UPnP. The System Overview tab is selected, and the breadcrumb path is Home > Status > System Overview. The main content area is titled 'System Overview' and contains four sections: System, Radio Status, LAN Interface, and WAN Interface. The 'Operating Mode' is highlighted in red and set to 'CPE'.

| System | Value |
|------------------|---------------------|
| System Name | |
| Firmware Version | 4.10.00 |
| Build Number | 1.5-1.2393 |
| Location | |
| Site | EN-A |
| Device Time | 1999/12/31 16:01:48 |
| System Up Time | 0 days, 0:01:48 |
| Operating Mode | CPE |

| Radio Status | Value |
|-----------------|-------------------|
| Status | Scanning |
| SSID | N/A |
| MAC Address | 00:00:00:00:00:00 |
| Channel | 10 |
| Signal Strength | 0 |
| Security | None |

| LAN Interface | Value |
|---------------|-------------------|
| MAC Address | 00:1F:D4:00:21:24 |
| IP Address | 192.168.0.1 |
| Subnet Mask | 255.255.255.0 |
| DHCP Server | Enabled |

| WAN Interface | Value |
|---------------|-------------------------------|
| Mode | Static |
| MAC Address | 00:1F:D4:00:21:25 |
| IP Address | 192.168.10.1 |
| Subnet Mask | 255.255.255.0 |
| Gateway | 192.168.10.254 |
| Bandwidth | Down: Unlimited UP: Unlimited |

- Ensure the *Operating Mode* is currently in **CPE** mode.
- Click on the **Status** button and then select the **System Overview** tab. The *Operating Mode* is at the **System** section on the **System Overview** page.

Step 2: Change Password

System Wireless Firewall Utilities Status

Change Password Network Utilities Config Save & Restore System Upgrade Reboot

Home > Utilities > Change Password

Change Password

Name : root

Old Password :

New Password : *up to 32 characters

Re-enter New Password :

Name : admin

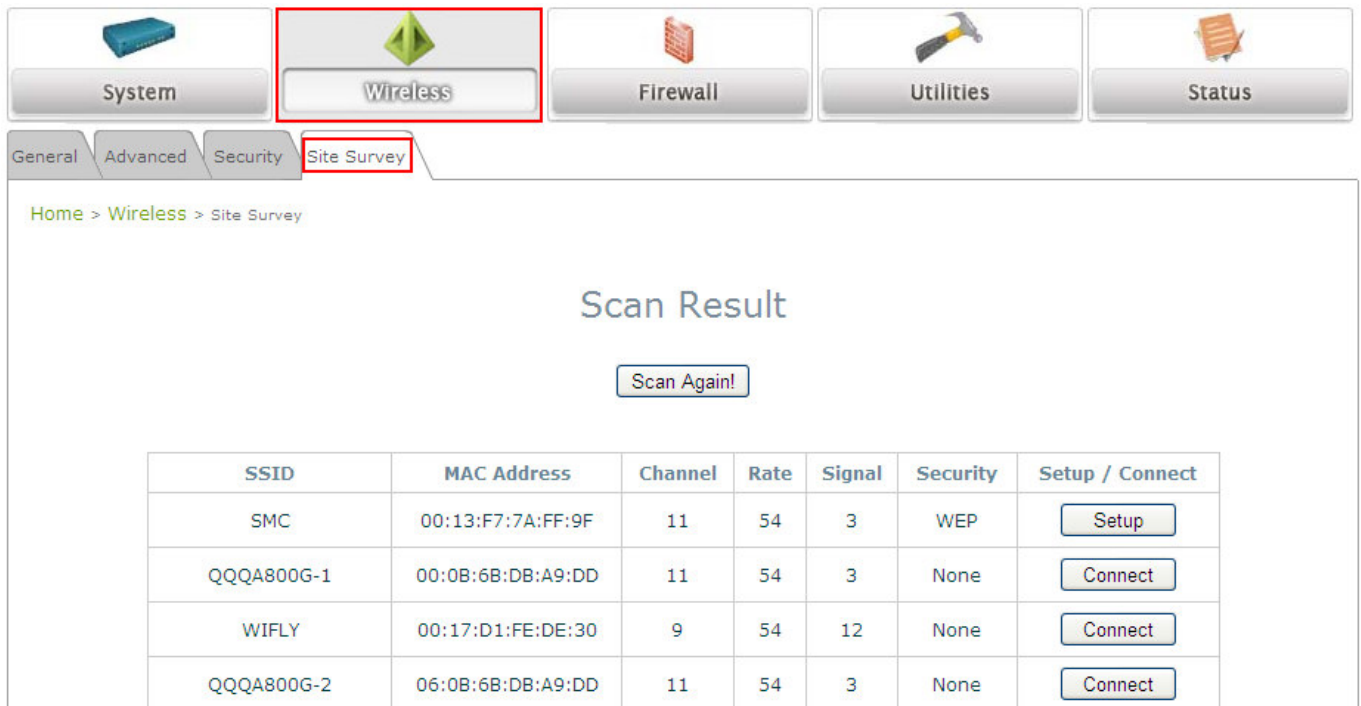
New Password : *up to 32 characters

Re-enter New Password :

SAVE CLEAR

- Click on the **Utilities** button and then select the **Password** tab.
- **Change Root Account Password**
 - Enter the old password in the *Old Password* field; default password is "**admin**".
 - Enter a new password in the *New Password* field and retype it in the *Re-enter New Password* field.
- **Change Admin Account Password**
 - Enter a new password in the *New Password* field and retype it in the *Re-enter New Password* field.
- Click **SAVE** to save the changes.

Step 3: Site Survey



The screenshot shows a web interface for a wireless router. At the top, there are five main menu buttons: System, Wireless, Firewall, Utilities, and Status. The 'Wireless' button is highlighted with a red box. Below these are sub-tabs for General, Advanced, Security, and Site Survey, with 'Site Survey' also highlighted in red. The breadcrumb path is 'Home > Wireless > Site Survey'. The main content area is titled 'Scan Result' and contains a 'Scan Again!' button. Below the button is a table with the following data:

| SSID | MAC Address | Channel | Rate | Signal | Security | Setup / Connect |
|------------|-------------------|---------|------|--------|----------|--|
| SMC | 00:13:F7:7A:FF:9F | 11 | 54 | 3 | WEP | <input type="button" value="Setup"/> |
| QQQA800G-1 | 00:0B:6B:DB:A9:DD | 11 | 54 | 3 | None | <input type="button" value="Connect"/> |
| WIFLY | 00:17:D1:FE:DE:30 | 9 | 54 | 12 | None | <input type="button" value="Connect"/> |
| QQQA800G-2 | 06:0B:6B:DB:A9:DD | 11 | 54 | 3 | None | <input type="button" value="Connect"/> |

The scan result displayed here is an example only

- Click on the **Wireless** button and then select the **Site Survey** tab.
- The system will automatically scan and display all APs in its coverage area.
- Click **Scan Again!** If the APs to be associated with are not listed on the **Scan Result** list.

Step 4: Select AP to be Associated

- Select an AP to be associated with from the **Scan Result** list provided in **Step 3**.

Step 5: Security Settings

General Advanced Security Site Survey

Home > Wireless > Site Survey

Scan Result

Scan Again!

| SSID | MAC Address | Channel | Rate | Signal | Security | Setup / Connect |
|------------|-------------------|---------|------|--------|----------|-----------------|
| Cherry | 06:11:A3:08:09:56 | 6 | 54 | 34 | WPA-PSK | Setup |
| QQQA800G-1 | 00:0B:6B:DB:A9:DD | 11 | 54 | 3 | None | Connect |
| SMC | 00:13:F7:7A:FF:9F | 11 | 54 | 3 | WEP | Setup |
| QQQA800G-2 | 06:0B:6B:DB:A9:DD | 11 | 54 | 3 | None | Connect |

Pre-shared Cipher : TKIP

Pre-shared Key Type : PSK(Hex) *(64 chars)
 Passphrase *(8 - 63 chars)

Pre-shared Key :

Connect

- The above figure depicts an example of selecting **Cherry** (encrypted via WPA-PSK security type).
- Click **Setup** of **Cherry**, and then a related encryption configuration box will appear.
- Enter the information required in the configuration box. Information to be entered must be exactly the same as configured in the selected AP.
- Click **Connect** to start the connection.

Step 6: Network Interface Configuration

System Information Operating Mode **Network** Management

Home > System > Network Interface

WAN Configuration

Mode : Static DHCP

IP Address : 192.168.10.1 *

Netmask : 255.255.255.0 *

Default Gateway : 192.168.10.254 *

Primary DNS Server : 168.95.1.1 *

Alternate DNS Server :

Bandwidth Limit :

Download : Unlimited

Upload : Unlimited

Settings here are for example only

- Click on the **System** button and then select **Network** tab.
- Enable *Static*, and then enter the related information in the fields marked with red asterisks.
- Click **SAVE** to save the settings.

Step 7: LAN Configuration

- Click on the **System** button and then select the **Network** tab.
- The **LAN Configuration** section is on the same page as the **WAN Configuration** section.
- Enter the *IP Address* and *Netmask* of the LAN port.
- Click **SAVE** to save all settings configured so far, all updated settings will take effect upon reboot.

Congratulation!

The CPE mode is now successfully configured.

Caution:

After WAB-3003's network configuration completes, please remember to change the IP Address of your PC Connection Properties back to its original settings in order to ensure that your PC functions properly in its real network environments.

- **It is strongly recommended to make a backup copy of configuration settings.**
- **For further configuration and backup information, please refer to the User's Manual.**