

11Mbps Wireless Inter-building Access Point

Quick Start Guide

Version 2.9.0

The next-generation wireless LAN device – 11Mbps Wireless Inter-building Access Point, are specially designed for Point-to-Point and Point-to-Multipoint applications, offering campus-wide connections between buildings at a speed of up to 11Mbps. Fully compliant with IEEE802.11b standard, the Wireless Inter-building Access Point provides powerful features such as Windows-based Access Point Utility, WEB Management, WEP, Access Control, SNMP and more.

Package Content

11Mbps Wireless Inter-building Access Point.....	.x1	AC Power Adapter.....	.x1
Default Dipole Antenna.....	x2	AP Stand.....	x1
Product CD or Floppy Diskette.....	.x1	Quick Start Guide.....	x1

NOTE: If any of the above items are missing or damaged, please contact your local dealer for support.

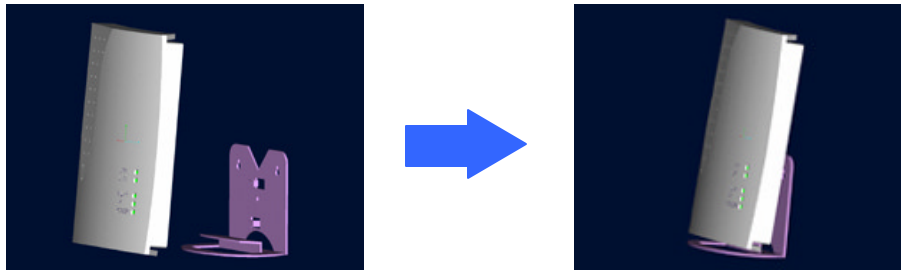
Installing the Wireless Inter-Building Access Point

- Connect the two dipole antennas to the connectors on the two sides of the Access Point. For inter-building application, however, it is sufficient that an antenna is used. You may control which antenna to do Tx/Rx for better performance (to avoid interfering signals). The configuration is as follows:
 - Assign an IP Address for the Wireless Inter-Building Access Point. (For instructions please refer to page 6.)
 - Telnet into the Access Point.
 - Type the command “**set antenna**”. The following screen shows up.

```
ap1635B7> set antenna
Usage: set antenna <diversity|a_only|b_only>
diversity: find optimal antenna automatically,
a_only: use A-side antenna only,
b_only: use B-side antenna only
ap1635B7> set antenna a_only
ap1635B7> save
```

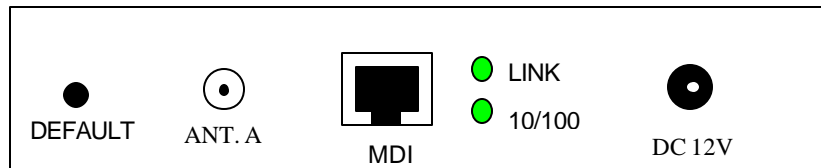
- Enter “**set antenna a_only/b_only**”. (Antenna A labeled “ANT. A” is on the back panel of the Access Point.) (Default value: Diversity)
- Type the “**save**” and “**reset**” to make the configuration take effect.

- Insert the stand into the side slot of the Inter-Building Access Point, figured as below:



- Connect the Wireless Inter-building Access Point to a hub/station with a UTP Ethernet cable. When connecting the Access Point to a PC, please use a cross-over RJ-45 cable.
- Connect the power adapter to the power socket on the Access Point, and plug the other end of the power pack into an electrical outlet.

NOTE: Use **ONLY** the power adapter supplied with the Wireless Inter-building Access Point. Otherwise, the product may be damaged.



NOTE: The button, labeled **“DEFAULT”** on the back panel of the Access Point, enables you to retrieve the Access Point’s default setting. *This is used when you forget the password.* Please detach the DC power plug and press the **“DEFAULT”** button on the back panel of the Access Point. Reconnect the power and keep holding the button in for a few seconds until the **“AP”** LED indicator blinks. This will start the Access Point with default settings and enable you to configure the Access Point via utility, telnet or Web again.

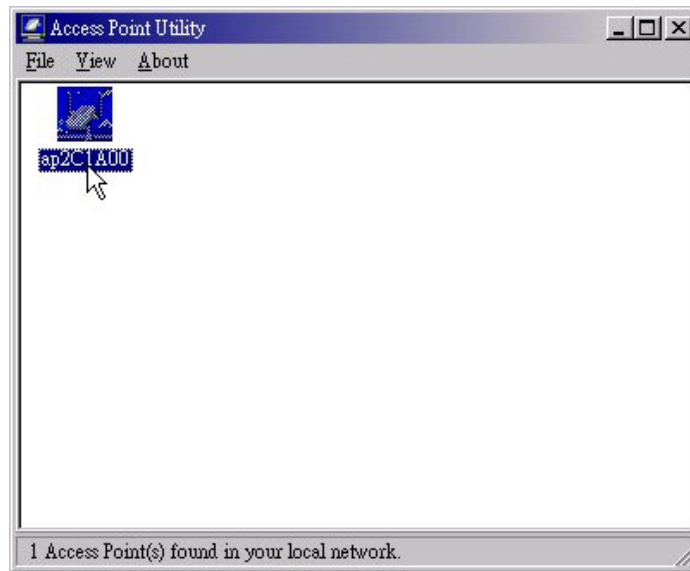
Configuring the Wireless Inter-Building Access Point

The 11Mbps Wireless Inter-building Access Point allows configuration either via the configuration utility, known as Access Point Utility, Web Management, or remote access through TCP/IP (Telnet) connection.

Access Point Utility

The following gives instructions guiding you through the installations of the Access Point Utility.

1. Insert the Software CD-ROM or floppy disk into the corresponding drive on your computer.
2. Run the **setup** utility.
3. Follow the on-screen instructions to install the Access Point Utility.
4. Upon completion, execute the Access Point Utility, and it will browse all the Access Points available on the network.

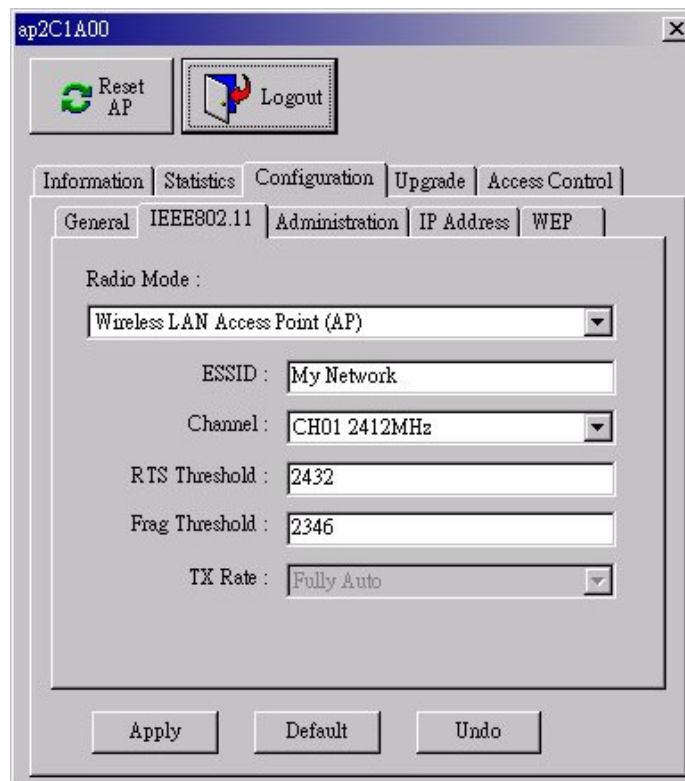


5. Double click an Access Point icon to access its property dialog box. After entering the default password, you will be able to view/make configuration of the Wireless Inter-building Access Point as you desire.



NOTE: The default password to get access to the Access Point is “**default**”.

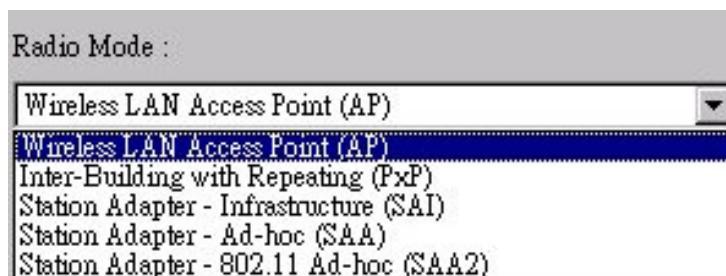
After you type the password, a main screen shows up.



Parameter	Description
Information	Include Access Point's MAC address, frequency domain and firmware version.
Statistics	Monitor the Ethernet and wireless network traffic.
Configuration	Set the Radio mode, IEEE802.11 parameters (ESSID, channel, RTS threshold, fragmentation threshold), password, IP address, WEP and Access Control.
Upgrade	Upgrade the firmware of the Wireless Inter-building Access Point.
Access Control	Restrict the accessibility of the wireless devices.

■ **Set the Radio Mode**

From the Access Point Utility, go to the **Configuration** tab and select **IEEE802.11**. You will see there are 5 choices of operation mode for the Access Point (Default value: **AP** mode):



- **Wireless LAN Access Point (AP):** Enables the Access Point to act as a wireless bridge connecting to your network backbone.
- **Inter-building with Repeating (PxP):** Allows for multi-point connection among buildings.
- **Station Adapter – Infrastructure (SAI):** Served as a wireless station (infrastructure). Connect the Access Point (SAI) to a PC with a cross over RJ-45 cable, and it is able to access the network via Access Point (AP).

- **Station Adapter – Ad-Hoc (SAA):** Served as a wireless station (Ad-hoc). Connecting to a PC with a cross-over RJ-45 cable, the station adapter along with other wireless stations can establish a small wireless network without Access Points.
- **Station Adapter – 802.11 Ad-Hoc (SAA2):** Similar to SAA, the Access Point acts as a wireless stations (AdHoc). The only difference is that this Ad-Hoc mode complies with 802.11 standard.

NOTE: When setting the operation mode to either **PxP** or **SAA**, you need to set the Access Points with the *same channel*. ESSID however can be ignored. When the **SAA2** is selected, you need to set the Access Point for the *same ESSID and channel*.

■ **Assigning the ESSID**

The ESSID is a unique ID given to the Wireless Inter-building Access Point. Assign an ESSID to your Access Point (Default value: My Network). The ESSID can be up to 32 characters.

■ **Assigning the Channel**

From **Configuration ? IEEE802.11**, select a clear channel for your Inter-Building Access Point. You may use the **Site Survey** tool came with the wireless PC Card utility to monitor each channel and choose a channel with good quality.

■ **Assigning IP address (optional)**

Assign an IP address to your Access Point if you wish to configure the Wireless Inter-building Access Point via the Web Management or Telnet. Consult your network administrator to obtain an available IP address for your Access Point.

IP Address :	192.168.1 .1
Netmask :	255.255.255.0
Gateway :	192.168.1 .254

■ **Using the WEP Encryption (optional)**

If data transmission with high security is required on your network, it is recommended that the WEP encryption be used. To activate the WEP encryption, select **Configuration**, go to the **WEP** tab, and do the following:

- Pull down the **WEP Encryption** menu and select **WEP40** or **WEP128**.
- From the 4 Key entry field, enter the corresponding key value for each encryption

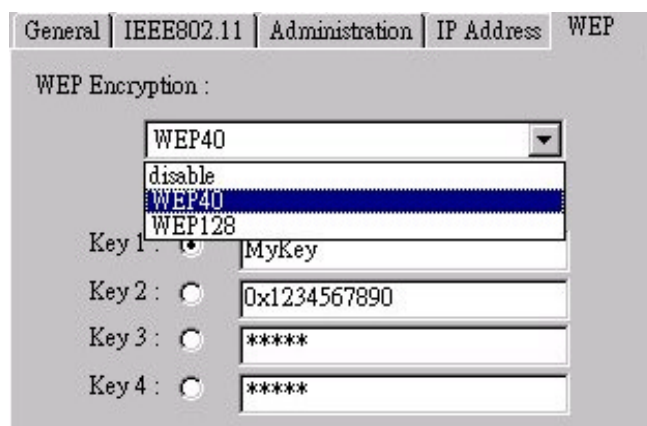
method.

For **WEP40** data encryption:

- **5 alphanumeric characters** in the range of “a-z”, “A-Z” and “0-9” (e.g. MyKey).
- **10 digit hexadecimal** values in the range of “A-F” , “a-f” and “0-9”, preceded by the characters “0x” values (e.g. 0x11AA22BB33).

For **WEP128** data encryption:

- **13 alphanumeric characters** in the range of “a-z”, “A-Z” and “0-9” (e.g. MyKey12345678).
- **26 digit hexadecimal** values in the range of “A-F” , “a-f” and “0-9”, preceded by the characters “0x” values (e.g. 0x00112233445566778899AABBCC).



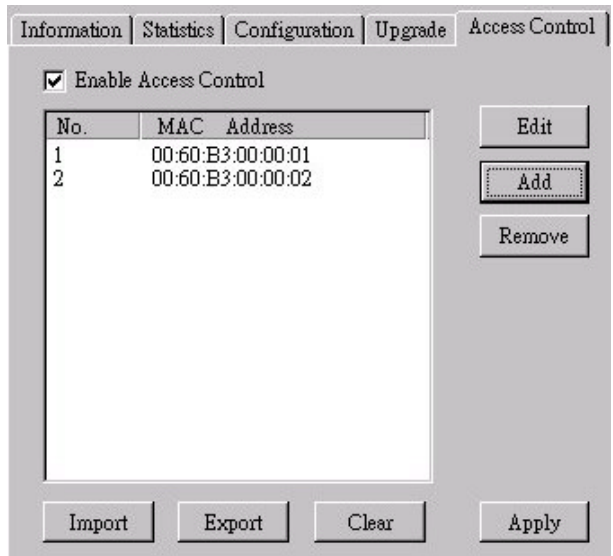
- Enter the 4 WEP keys in the Key 1, Key 2, Key 3 and Key 4 entry filed respectively. Select one WEP key as an active key and click “**Apply**” to make the setting take effect.

NOTE: The WEP key must be set up exactly the same on the Access Point as they are on the wireless client stations. If you set “MyKey” for the Access Point, the same WEP Key “MyKey” must be assigned to other client stations.

■ Using the Access Control (optional)

With the Access Control enabled, you can authorize wireless units to access the Access Point by identifying the **MAC address** of the wireless devices that are allowed access to transmit data. Note that, only when the MAC addresses of the wireless stations are in the Access Control Table, they will be able to access network via Access Point. To create or edit the Access Control Table, do the following:

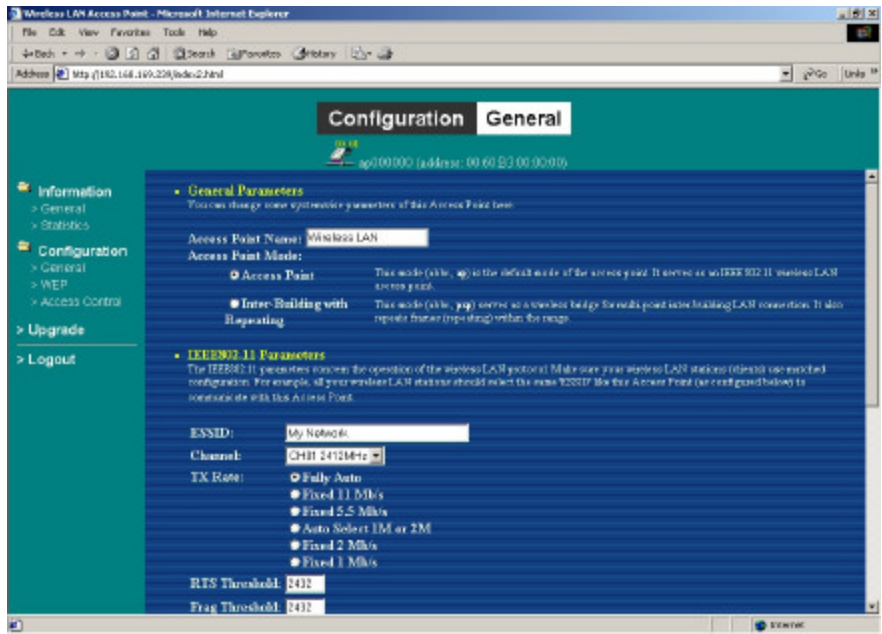
- Go to the **Access Control** tab and check “**Enable Access Control**”.
- Click the “**Add**” button and enter the MAC addresses of the wireless stations you allow to access.
- Click “**Apply**” to make the setting take effect.



NOTE: Be aware that, when you enable the Access Control Table without any MAC address in the table, no access is allowed to communicate with the Access Point.

Web Management

The built-in Web Management provides you with a set of user-friendly graphical user interfaces (web pages) to manage your Wireless Inter-building Access Point. With the assigned IP address (e.g. <http://192.168.1.1>) to the Access Point, you may get access to the **Access Point Web Pages** via a web browser (Netscape Navigator 3.0 ~ 4.5 or MS Internet Explorer 4.0 and later) to monitor and configure the Wireless Inter-building Access Point.



Access Point Console

The Wireless Inter-building Access Point can be configured via the command prompt console with Telnet (TCP/IP) connection.

- **Telnet (TCP/IP) Connection:** Assign an IP address to your Wireless Inter-building Access Point through Access Point Utility and then telnet to the Access Point anywhere to get access to the Access Point console. Then, you will be able to make the configuration via the TCP/IP connection.

NOTE: The default password to get access to the Access Point is “default”.

For detailed configuration procedures under Telnet, please refer to 11Mbps Wireless Inter-building Access Point User’s Manual.

Technical Support

You can find the most recent software and user documentation will be updated periodically on the supplier Web site. If you have difficulty resolving the problem while installing or using the 11Mbps Wireless Micro Access Point, please contact the supplier for support.

FCC Information

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication.

Operation of this equipment in residential area is likely to cause harmful interference in which case the user will be required to correct the interference at this own expense.

The user should not modify or change this equipment without written approval from company name. Modification could void authority to use this equipment.

For the safety reason, people should not work in a situation which RF Exposure limits be exceeded. To prevent the situation happening, people who work with the antenna should be aware of the following rules:

1. Install the antenna in a location where a distance of 20 cm from the antenna may be maintained.
2. While installing the antenna in the location, please do not turn on the power of wireless card.
3. While the device is working, please do not contact the antenna.