

# **TEW-210APB Wireless Multi-mode AP**

## **User Manual**

*Version 1.7.4.5 – Apr 2002*

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## 2. Introduction

Thank you for purchasing our TEW-210APB Wireless LAN Access Point. This manual will assist you with the installation procedure.

The package you have received should contain the following items:

- User manual
- TEW-210APB Access Point
- Power adapter
- SNMP utility CD

Note: if anything is missing, please contact your vendor

A wireless LAN is normally used in a predefined environment. In such a network, Access Points are mounted at assigned places, each covering its own area in which wireless nodes can operate. These Access Points are connected to a wired network to communicate with each other and with servers and clients on that network.

The TEW-210APB Access Point can be connected to a 10/100 Mbps Ethernet network through a RJ45 (UTP) connector.

### Notice:

**This version of the TEW-210APB supports AP and Bridging features. The Client AP feature is not supported. For more information, please contact Trendware technical support service. Thank you.**

### **3. Installation**

1. Mount the Access Point firmly to the wall or proper location that is determined during the site survey.
2. Make sure the antennas are in a vertical position (if not, rotate over 90 degrees).
3. Insert the power connector.
4. Attach the UTP Ethernet cable to the Access Point.

At the front of the Access Point you will see three LEDs.

If all goes well, the middle LED (power) and the lowermost LED(LINK) will fire and uppermost LED(ACT) will flash whenever there is traffic on the respective networks which is at least ten times per second for the wireless LAN because of so-called 'beacons'.

You can reset the Access Point's settings to factory defaults by pushing a paperclip in the little hole next to the power connector.

## 4. SNMP Features

You can make use of SNMP utility software for connect TEW-210APB which you want to manage.

Supported features:

- Restrict the authority of user to access WLAN and this unit.
- Support IEEE 802.11 WEP encryption.
- Optimizing the radio configuration via assign the independent spectrum.
- Access Control and WEP encryption for network security.
- Support powerful multi mode function in a same unit.
- Access control table implemented via import or export with text file.

## 4.1 How to install and launch the SNMP Manager

There is a CD which enclosed in this product. The SNMP software can be found on this CD. Please install the SNMP Manager on your pc and change the IP address of your pc into **192.168.5.xxx** subnet for TEW-210APB configuration. The default IP of TEW-210APB is **192.168.5.100**.

To make sure your pc and TEW-210APB whether in a same subnet and the connection is well, you can do a test via “ping” command. For example, you can employ the following command “ping 192.168.5.100” to check this connection is ok or not.

After launched the SNMP Manager, Please click the “Find Access Point” which under the “File” tab for available AP searching. While find the available AP then press the “connect” button. Below is a figure for a reference.

After completed the modified setting, please remember to save the result via click the “Download Changes” which under the “File” tab.

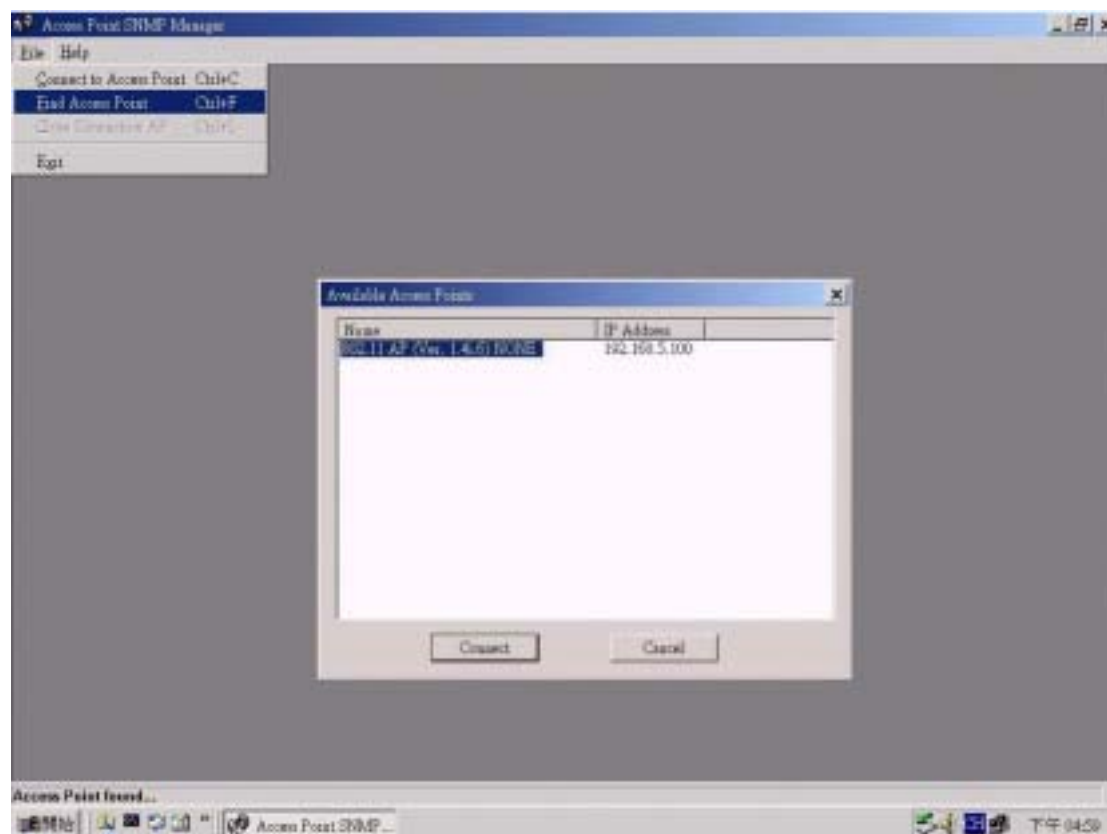


Figure 1

## 4.1-2

When you got the available AP and press the connect button, there is a pop out window will come out. You should import the community string and assign a role for administration. The default community string is “ **public** “ and the Authority need to be a “ Administrator “. Please refer to the Figure 2.

Notice: The capital letters and lowercase letters need to be differentiated.

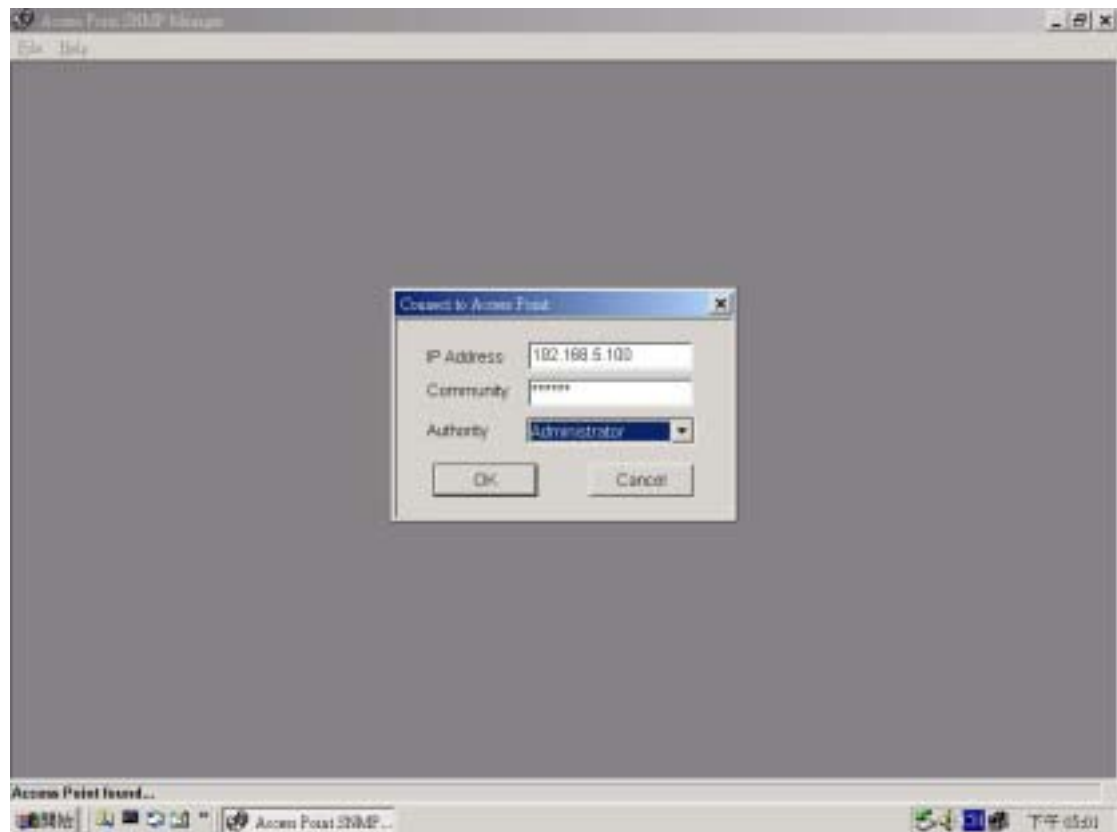


Figure 2

## 4.2 How to change the IP Address

If you wish to change the default IP address of TEW-210APB, please click the tab “ Setup “→ “ Bridge “→ “ IP configuration “ as Figure3. With this table, please change the IP address what you expected.

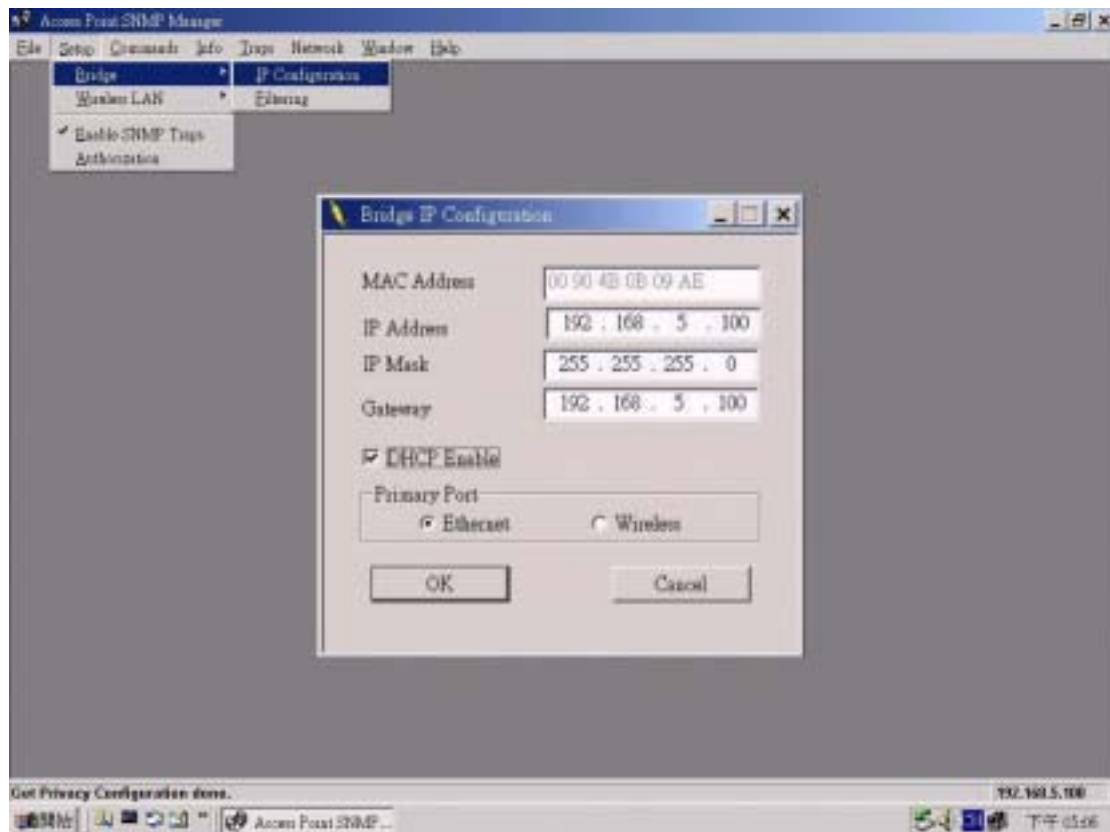


Figure 3

- **IP Address** : Please assign an unique IP address for this unit.
- **IP Mask** : Please specify the proper subnet mask for this unit.
- **Gateway** : There is a portal for packet incoming or outgoing which need to routing process.
- **DHCP Enable** : The preferred method of providing IP addresses for your Access Points is applying a DHCP server in your network. If you do and enable this setting, the Access Points will acquire an IP address automatically from this server.
- **Primary Port**: The major communication portal for configuration.



## 4.3 Managing Security

Maintaining security in a wireless LAN environment is somewhat different from a wired network, because the radio waves do not stop at your office walls. Eavesdropping or unauthorized access from outside and your building can be a serious threat.

If you wish to enable the Privacy Options function, please click the “ Setup “→ “ Wireless LAN “→ “ Privacy Options “ and choose the encryption method. The encryption key should follow the hexadecimal format. The characters are only included “0” to “9” and “a” to “f”.

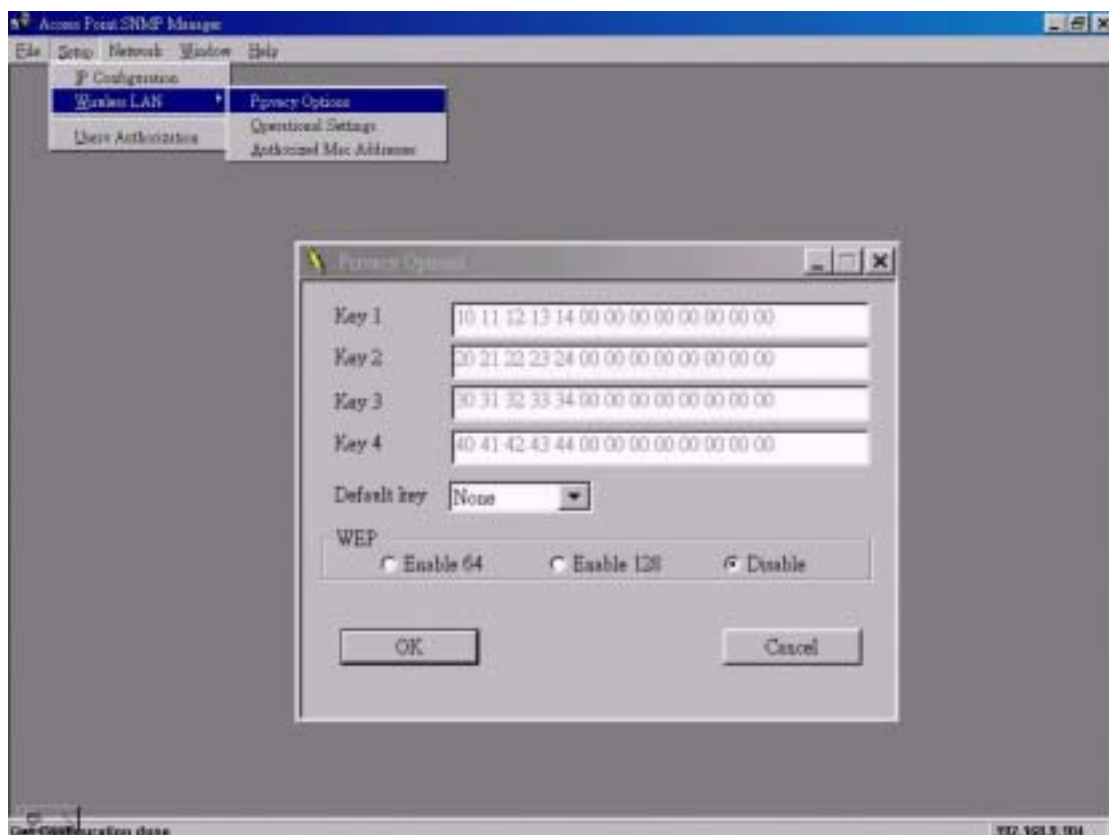


Figure 4

## 4.4 Advanced setting

You can change the settings such as ESSID, channel, operational mode and so on via the advanced setting. To click the “ Setup ” → “ Wireless LAN ” → “ Operational Settings ” . Regarding the detail setting and parameters, it will show on the following table. You can assign the proper parameters to this unit for good performance.

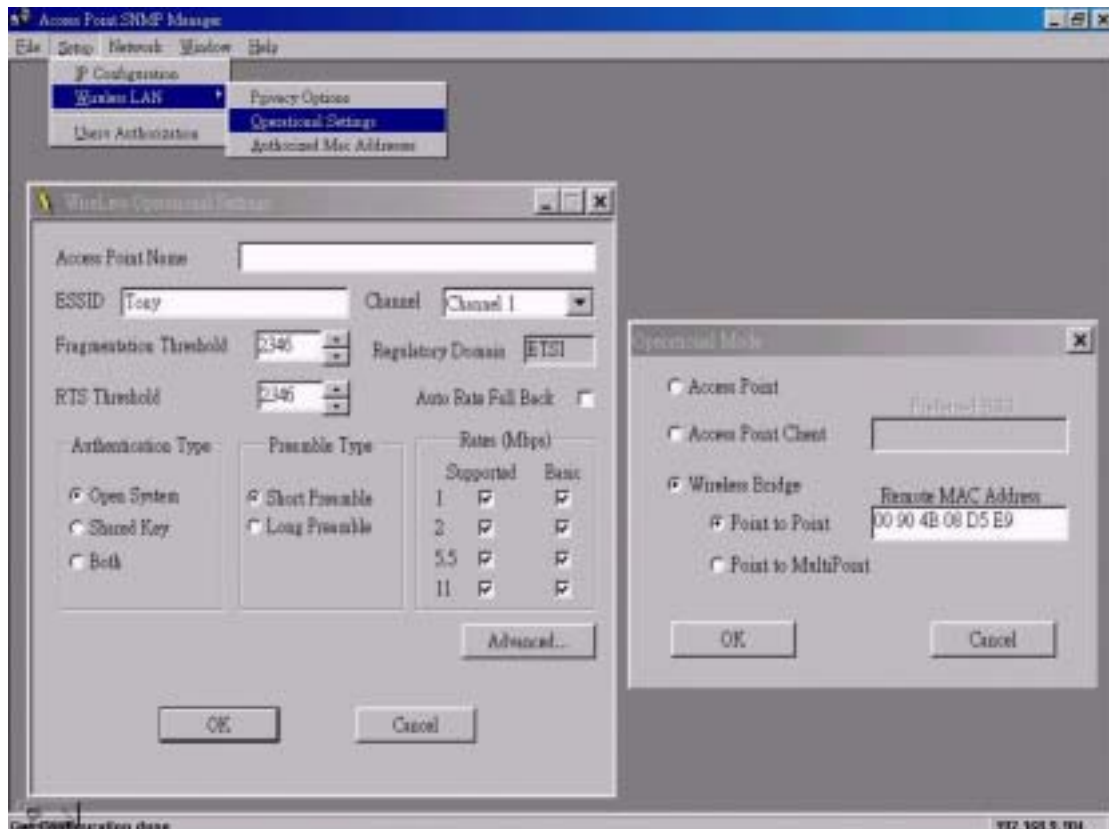


Figure 5

- **Access Point Name:** The device name.
- **ESSID:** Extended Service Set Identifier (Wireless Network Identifier) is the group name that will be shared by every member of your wireless network. You will only be able to connect with an Access Point , which has the same ESS ID.
- **Channel:** The channel selection. Via the setting to assign the proper channel for AP.
- **Fragmentation Threshold:** The parameters of fragmentation.(default value: 2346)
- **RTS Threshold:** The parameters of RTS setting.(default value: 2346 )
- **Authentications Type:**
  - Open System:** Open System is the default authentication algorithm. Open System authentication is not required to be successful while a STA

may decline to authenticate with any particular other STA.

**Shared Key:** Shared Key is only available if the WEP option is implemented. Shared Key authentication supports authentication of STAs as either a member of those who know a shared secret key or a member of those who do not. IEEE 802.11 Shared Key authentication accomplishes this without the need to transmit the secret key in clear. Requiring the use of the WEP privacy mechanism.

- **Preamble Type:** Two different preambles are defined. One is short type and the other is long type.
- **Regulatory Domain:** There is a specification of Regulatory Domain in this field.
- **Auto Rate Fall Back:** The data rate will be changed automatically once the link distance with change from AP to client. The adequate rate is going to fit via system while this setting is enabled.
- **Rates:** There are four kind of rates can be selected.
- **Access Point:** This mode provides access for wireless stations to wired LANs and from wired LANs to wireless stations.
- **Wireless Bridge:** This mode allows the connection of one or more remote LANs with a central LAN.

## 4.5 Access Control ( Authorized MAC Address )

The IEEE 802.11 standard allows for Access Control rules based on the client station's hardware address, and is fully implemented by the TEW-210APB.

The Mac address table can be specified with a text file format. Then using the "Authorized Mac Address " which under the " Setup" → " Wireless LAN " to import or export the Mac address which would like to control.

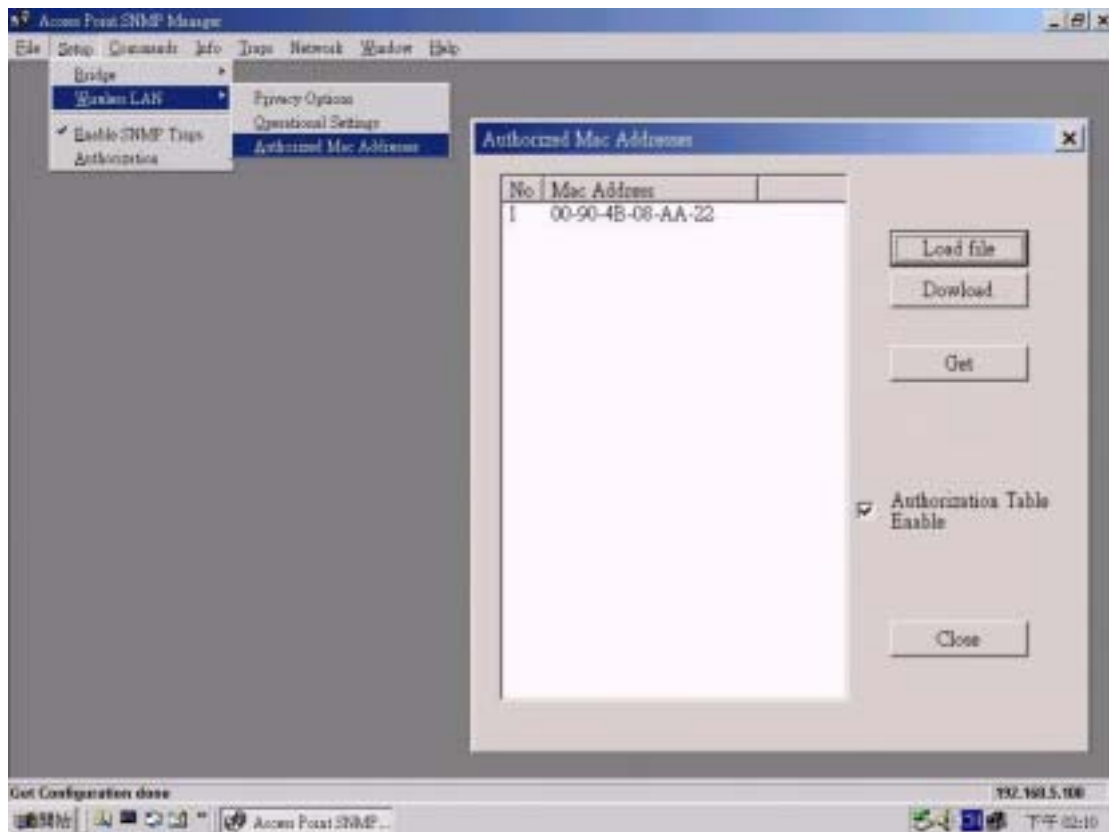


Figure 6

## 4.6 Change community string

The default community string is "public". All of the setting can be changed only the import string is fit with system.

There are two kind of authorities can connect to this unit. One is Administrator the other is general user. The community string can be changed by this pop out window. You just fill out the new string on the following field as figure 7.

Notice: Only with Administrator role could change the setting of this unit.

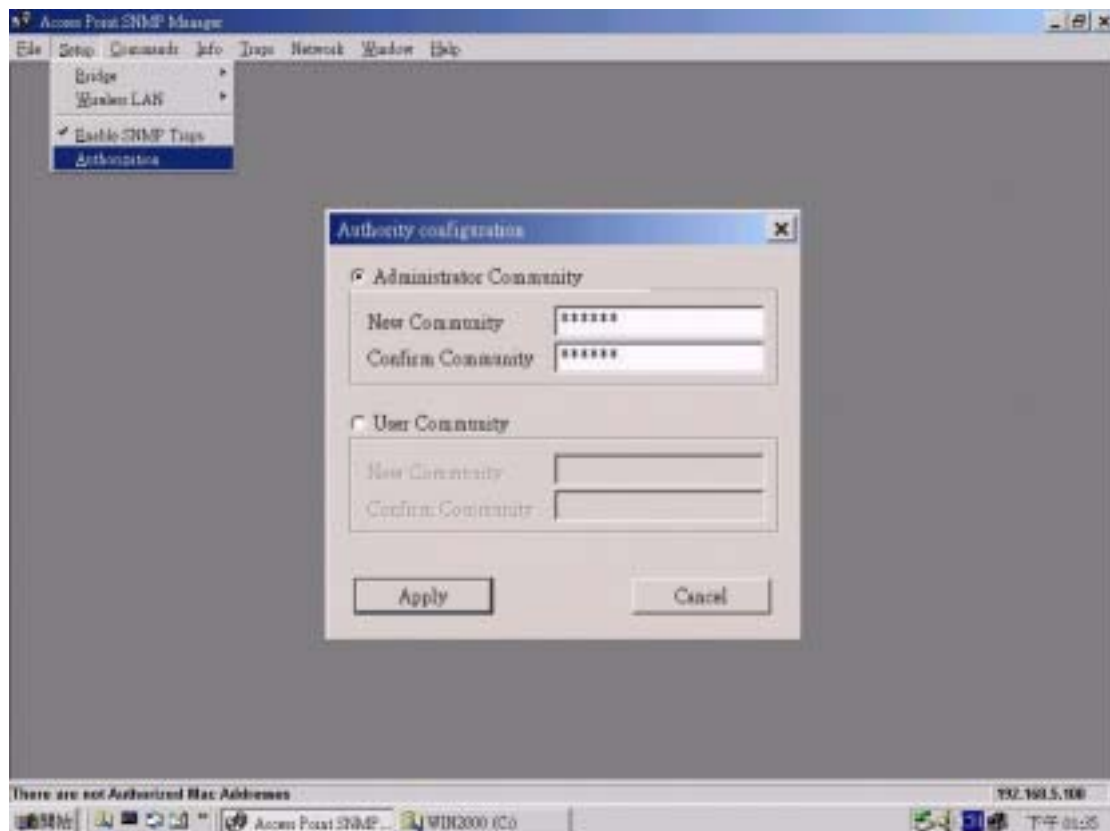


Figure 7

## **4.7 Reset device**

This unit can be reset to factory defaults by reset hole and the procedure can be done with the following steps.

- 1.You can reset the Access Point's settings to factory defaults by pushing a paperclip in the little hole next to the UTP port while the Access Point is on and do not release it right away.
- 2.Release the reset button when the " ACT " LED from burning to blinking. Normally, it may take 5~10 seconds. After release the reset button, the unit has been reverted to default setting.

## **5 Technical specifications of TEW-210APB**

### **5.1 Standards supported**

- IEEE 802.11 standard for Wireless LAN
- All major networking standards (including TCP/IP, NetBEUI, IPX)

### **5.2 Environmental**

- *Operating temperature (ambient):*
- 0 ~ 55°C

*Humidity:*

- Max. 95% Non-condensing

### **5.3 Power Specifications**

- Input: AC 100-240 50-60 Hz 1A
- Output: DC5V 0.5A

### **5.4 Radio Specifications**

*Range:*

- Per cell indoors approx. 30-100 meters
- Per cell open space approx. 100-300 meters

*Antenna:*

- Dual antenna diversity system 2 dBi gain, with swivel neck.

*Transmit power:*

- +13dBm

*Frequency range:*

- 2.4-2.4835 GHz, direct sequence spread spectrum

*Number of Channels:*

- Most European countries: 13
- US and Canada: 11 (3 non-overlapping)
- France: 4 (1 non-overlapping)
- Japan: 14

### **5.5 Specific Features**

*Supported bit rates:*

- 11 Mbps : CCK
- 5.5 Mbps : CCK
- 1 Mbps : DBSK
- 2 Mbps : DQPSK

*Data encryption:*

- 40-bits WEP Encryption
- 128-bits WEP Encryption

*Utility Software:*

- SNMP Manager to manage wireless LAN, network connection and client access control

**5.6 Physical Dimensions**

- 103mm x 145mm x 30mm