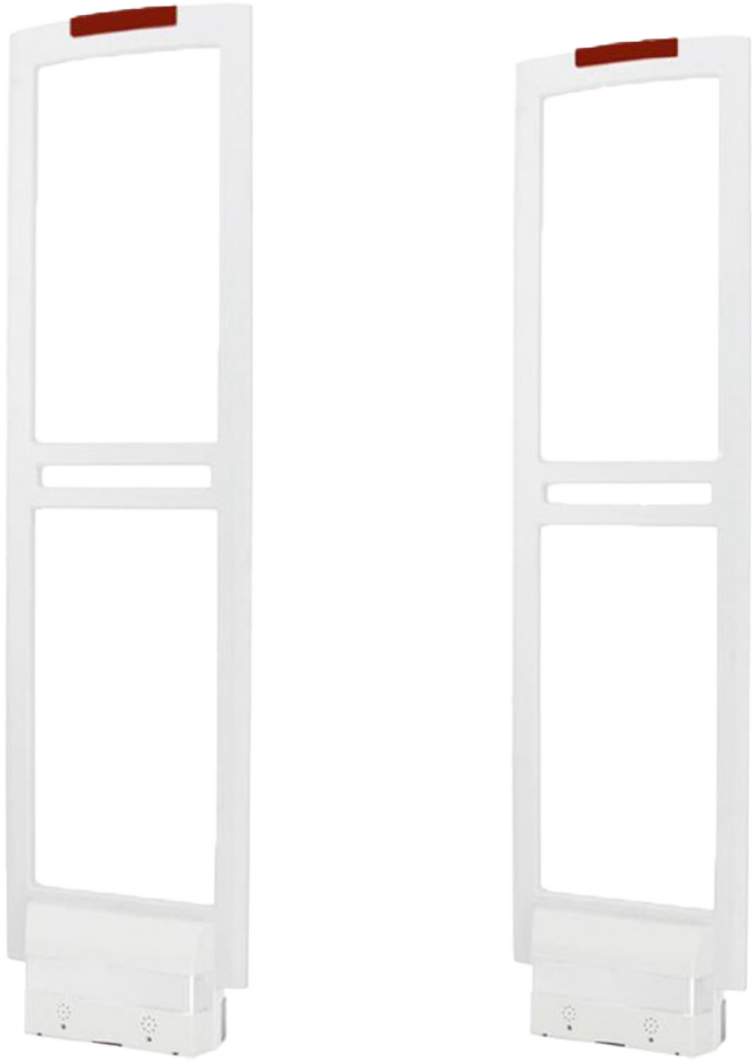
safire



Anti Theft EAS Antenna

User Manual

Safety Protection and Attentions

High-voltage electronics! Non-professionals should not warning open the power supply and antenna frame.

Inside is sensitive electronic components.

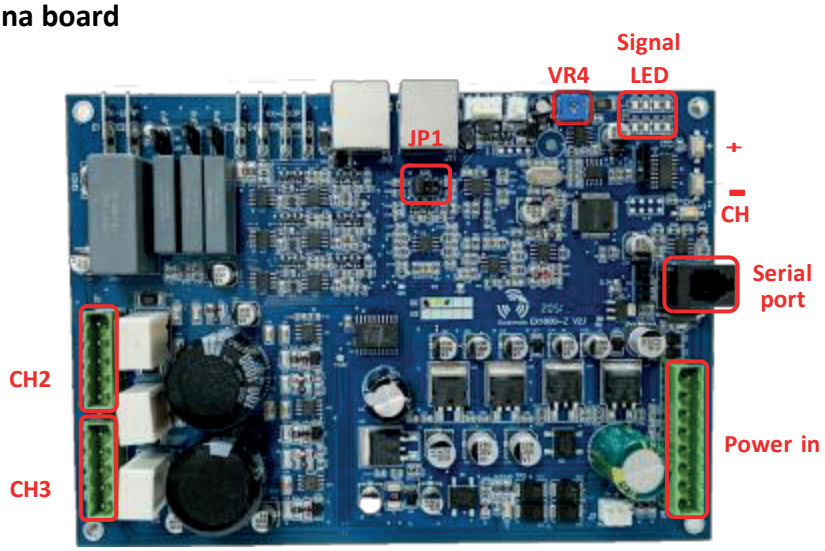
Please ensure that the equipment is well grounded to avoid damage caused by static electricity.

All AM equipment should be powered by a separate commercial power line. Do not use generator-type power lines to avoid abnormal use of the equipment..

The power supply of related AM equipment must be independent and not allowed to be used together with other electronic and electrical equipment (such as neon lights, electronic engines, computers, LCD screens, cash registers, etc.), otherwise the detector and the degaussing device may not work properly.

When the detector is installed in the field, it should be far away from the frequency converter and variable frequency power supply, because the frequency converter will interfere with the detector when it is working, which will eventually lead to detector detection distance reduction or even false alarm.

Master antenna board



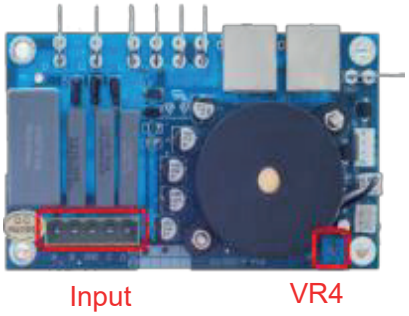
VR4： The alarm sound size can be adjusted, clockwise to increase, counterclockwise to small.
+： Increase receive gain of currently selected channel.
-： Increase receive gain of currently selected channel.
CH： Switch signal display channel.
Signal LED： DS1-DS4 is environmental noise signal, DS5-DS7 is status and channel indicators.ALARM is alarm light.
Serial port： Used to connect to a computer or wireless routing module for software debugging.
JP1： The receiving gears are H high gear, M mid gear, and L low gear.

When the system starts, it will first enter the system self-test program. At this time, the DS5-DS7 indicator lights will light up in sequence. DS5 is the power supply module light, which is on when normal and off when abnormal; DS6 is the communication status light, on when normal and off when abnormal; DS7 is the configuration status light, on when normal and off when abnormal. As long as one of them is abnormal, the ALARM light will remain on, the device will be in standby mode and cannot be started. After the fault needs to be eliminated, the device will automatically return normal working status.

The self-test is normal and the system will automatically enter the working state. At this time, DS5 indicator is steady on, representing the CH1 (main) channel. DS1-DS4 shows the noise signal strength of the current environment. Under normal circumstances, only the DS1 signal light flashes for optimal operation.

The self-test is normal and the system will automatically enter the working state. At this time, DS5 indicator isteady on, representing the CH1 (main) channel. DS1-DS4 shows the noise signal strength of the current environment. Under normal circumstances, only the DS1 signal light flashes for optimal operation.

Slave antenna board



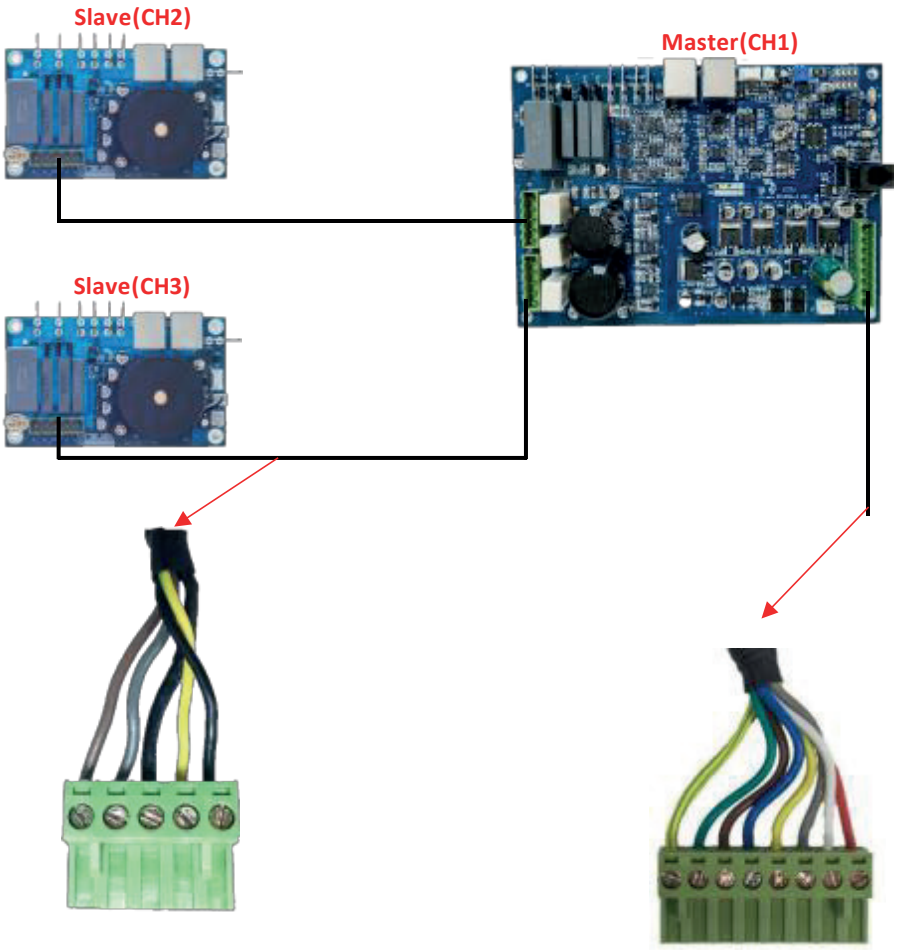
VR4: The alarm sound can be adjusted, clockwise to increase, counterclockwise to decrease.

WiFi module

MAC: Use software to remote access address information.
RESTAR: Use software to remote access address information.
RESET: Reset button, hold down for 6 seconds and then release, the wireless routing module will be restored to factory settings.
AP/STA: Connection mode setting button, **[AP] local connection** mode, **[STA] remote connection** mode. Press and hold for 6 seconds to switch connection modes.
LED: connection status indicator light, **[AP] local connection** indicator light is always on, **[STA] remote connection** indicator light flashes intermittently.

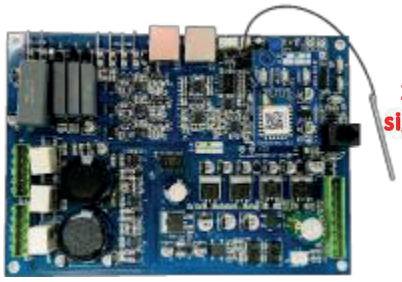
Each module has a unique MAC address. When remote access is required, must connect th correct MAC address, then can connect the specified module. Please save the MAC address properly to prevent loss.

System Connection



The connection between master and slave machines does not support hot plugging. The port must be removed after the power is turned off. Live plugging may cause the board break down.

Module Assembly



When using wireless routing module, please install 2.4G WIFI signal antenna correctly,and the antenna should not be in contact with the metal to ensure that the module signal can be received at a long distance.

AM Manager Software Installation

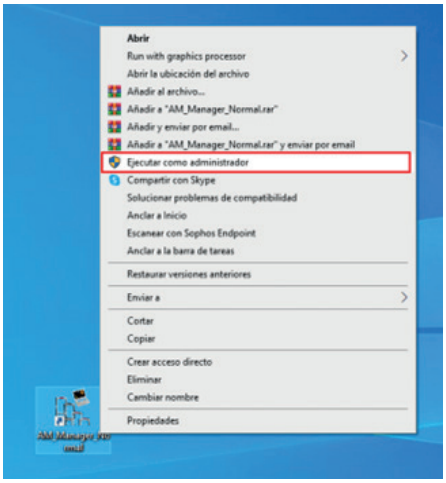
The software runs on Windows systems only. Please close all anti-virus programs when installing the software. Opening anti-virus program installation may result in the software not working.

Step 1:Double-click AM_Manager_Setup.exe to launch the installer.

Step 2: Select the language of the installer and click 【OK】 to continue.

Step 3: After entering the installation program, follow the software instructions to complete the installation.

When you use the software, it is recommended to run as administrator is order to avoid any problems.

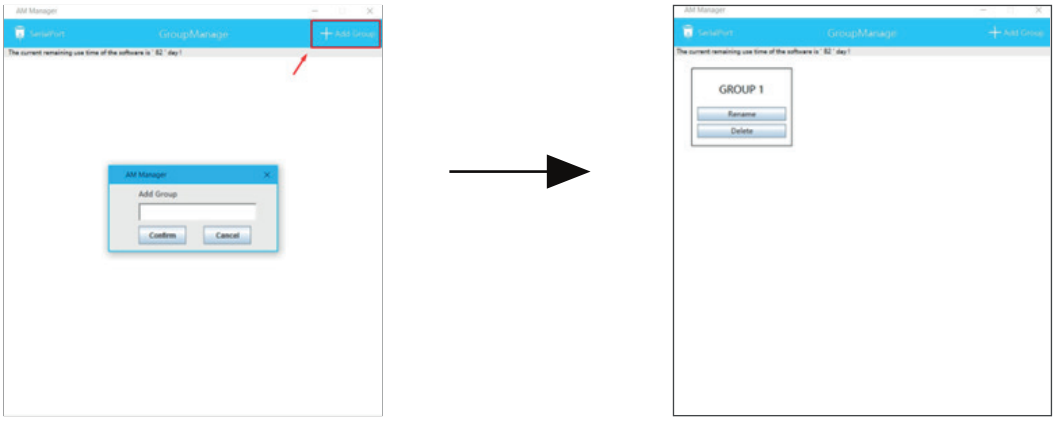


System Connection

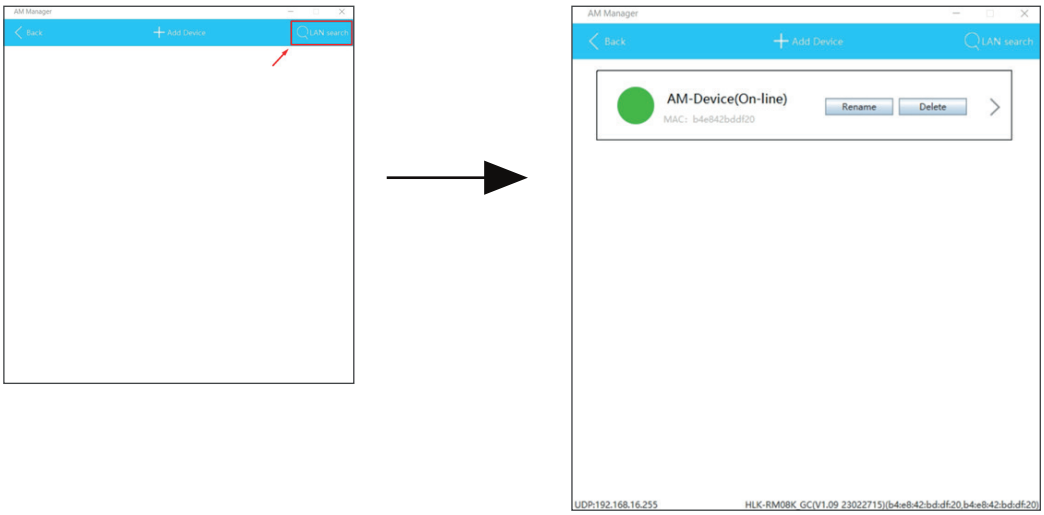
Factory setting is AP mode.

Step 1: Use your computer Wi-Fi to search for and connect to the module. Login account: EX-Link_XXXX (XXXX corresponds to the last four digits of the MAC address), login password: 12345678

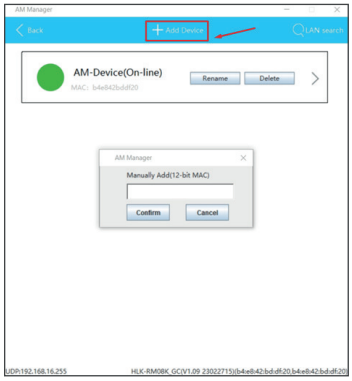
Step 2: Start the AM Manager software, click the software [Add Group] to create a new module management Group, enter the management group name and click [Confirm] to save.



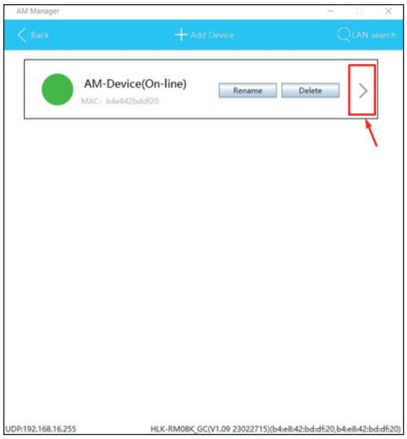
Step 3: Enter the new module management group, click [LAN search], and the module will be automatically added. Enter the management list, and then click the added module to enter the settings page to start debugging.

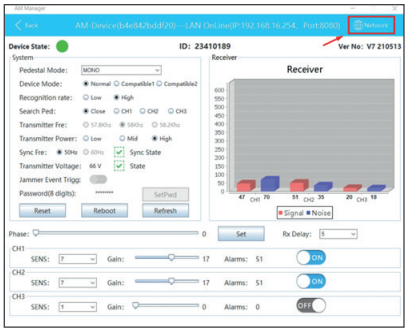


NOTE: it is also possible to add the device manually by the MAC address of the antenna.

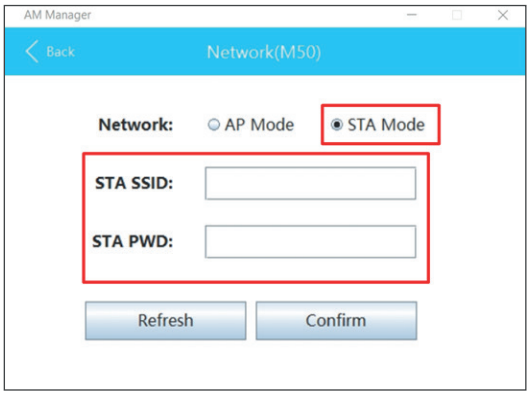


Step 4: To connect the antenna to the WiFi, access to the interface of the device and click the [Network] button.

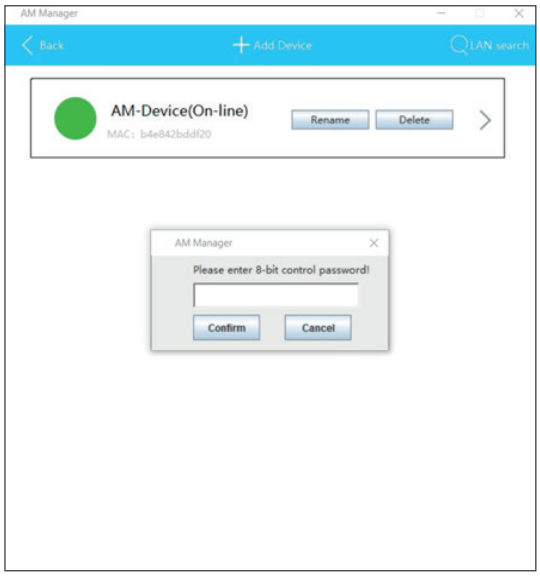




Step 5: Select [STA Mode] and fill in the WiFi name and the WiFi password (only supports WiFi 2.4 GHz). Then, click [Confirm].



Step 6: After that, you will have to write the password of the antenna the first time you access.

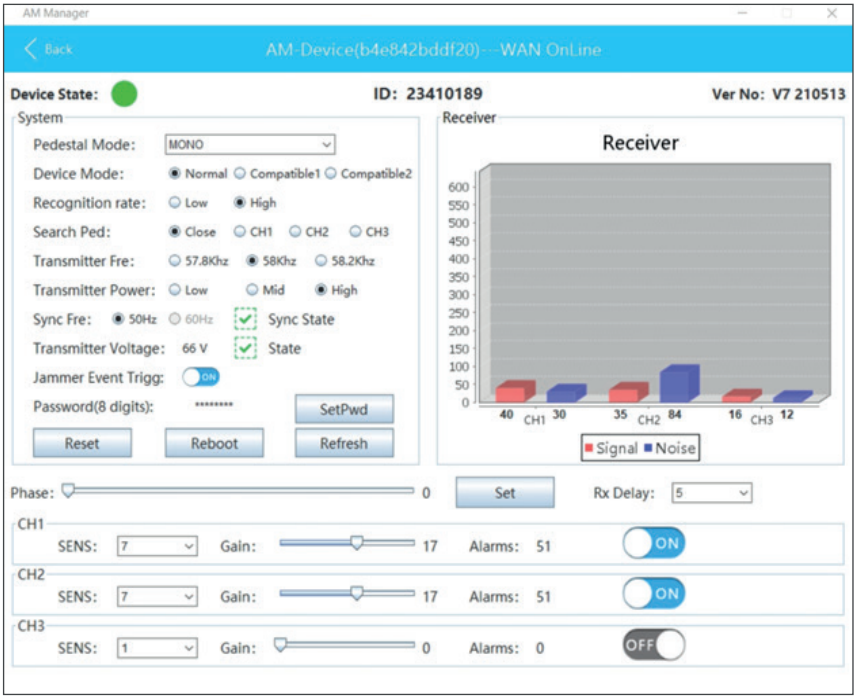


When the status of the added module is displayed in green, it means the connection is normal and can be accessed directly. If the status is displayed in red, it means that the module's connection is abnormal and cannot be accessed.

When the module connection status displays abnormally, (offline) means the network is not connected, please check the module and computer network settings. (illegal device) indicates that the module MAC address is incorrect, please check the MAC address.

The added modules will always remain in the software, and the module status will be automatically displayed the next time you open it. The software homepage can store multiple module management groups to facilitate module management.

Software setting interface



System

Pedestal Mode

Working mode option. There are five working modes to choose from (the factory setting is MONO mode). When set to MONO, each antenna can independently alarm. When it is necessary to reduce the alarm distance outside the channel, other options can be set. For options, please refer to Appendix A Working Mode Introduction.

Device Mode

Device mode selection, divided into standard mode (Normal) and compatibility mode(Compatible), factory setting is standard mode. Compatibility mode is mainly used to synchronize with other manufacturers' acoustic and magnetic devices, and the standard mode is generally used.

Recognition rate

Signal recognition accuracy is divided into high precision (High) and low precision (Low), and the factory setting is high precision. When set to low precision, the recognition range of the tag frequency can be increased, but in someenvironments, the probability of false positives is also increased.

Search Ped

Antenna inquiry function, when clicking on the query, the corresponding antenna will continuously alarm and remind. After the query, click（Close）to stop the alarm.

Transmitter Power

The transmit power setting is divided into three high (High), medium (Mid), and low (Low), and the factory setting is high. When the installed equipment is close to the label, transmission power can be appropriately reduced to avoid false alarms.

Sync Fre

The self-test of synchronization signal automatically detects the frequency of current synchronization signal and marks it. When it is normal, it displays green √， and abnormal display shows red × .

Transmitter Voltage

The self-test of emission voltage automatically detects current emission voltage value and marks it. When it is normal, it displays green √， and the abnormal display shows red × .

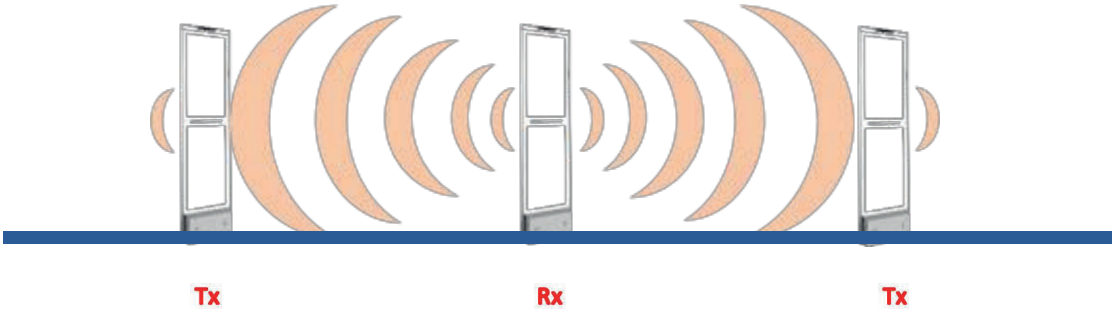
NOTE: Is is not recommended to change the values by default of Recognition rate and Trasnmitter Power.

Acceptance

Receiver	Receive signal display window, red is tag signal, blue is background noise. The signal size can be controlled by adjusting the corresponding GAIN value, which is typically controlled below 100.
Phase	Phase setting, adjustment range 0-249, factory setting is 0. You can click or drag the slider to set. Click once to increase or decrease the value by 1. After setting, click SET to save.
Rx Delay	Receive delay setting, adjustment range 0-15, factory setting is 5.
SENS	Receive sensitivity setting, adjustment range 1-8, factory setting is 6. The higher the value, the higher the sensitivity
Gain	Receive gain setting, adjustment range 0-30,factory setting is 25. The gain adjustment can be performed separately for each antenna according to the display of the received signal window.
Alarms	The number of alarms is displayed, and the number of alarms for each antenna is recorded. The display range is 0-99, and is automatically cleared after restart.

Attention: Just phase setting need to click [SET] to save. The other settings will be saved automatically. After clicking multiple setting options, you can click Refresh to view the current setting status.

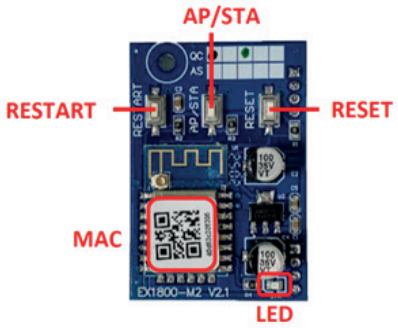
Appendix A: Working Mode



Appendix B: Change the WiFi network

If you need to change the WiFi network, follow these steps:

1) Hold the AP/STA button of the WiFi module for 6 seconds. The LED light will change from light flashes to static light.



2) Follow the steps described in the manual to connect the antenna to the new WiFi.