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Elitech iCold

RCW-3000/3200

OPERATION MANUAL V1.0

Product overview

RCW-3000 split network monitoring systems , using Lora, 4G , a WiFi , Ethernet and other communication transmission technology , a wireless collector, gateways , cloud platforms, mobile phones and other APP composition . Wireless collector may be based on monitoring the position of any deployment requirements , the gateway can . 4 G / W i F i / Ethernet like manner to upload data, with cloud platform and the APP, can view the remote data, historical data query, remote alarm functions Push . The R CW-3000 split network monitoring system is widely used in large-scale cold storage, shade storage, hospitals , fresh supermarkets and other scenes.

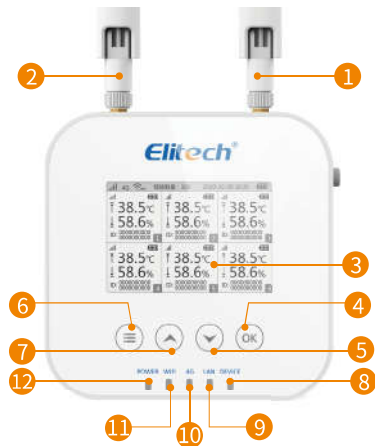
1. Product features

- ◆ Wireless deployment, no need to punch wiring, easy installation ;
- ◆ Wireless communication, meeting data transmission of 1000 meters within the visible distance;
- ◆ Long standby, built-in battery life is not less than 12 months (10 minutes or 3 minutes upload interval);
- ◆ Multiple communication, 4G/ W i F i / Ethernet version gateway can be freely selected to meet the communication requirements of different environments;



2. Product structure

RCW-3000 product structure



① Lora antenna

② 4G antenna

③ LCD display

④ Confirm button (OK)

⑤ Navigation key (^)

⑥ Navigation key (v)

⑦ Menu button

⑧ 4G indicator

Green: 4G normal operation indication
4G error operation indication, red light flashing for 3S

⑨ WiFi indicator

Green: WiFi Normal operation indication
Red: WiFi Error operation indication, red light flashing for 3S

⑩ Power indicator

Red: Charging
Green: Charged

⑪ DEVICE indicator

Green: Lora normal operation indication
Red: Lora error operation indication, red light flashing for 3S

⑫ LAN indicator

Green: Ethernet normal operation indication
Red: Ethernet error operation indication, red light flashing for 3S

⑬ SIM card access

⑭ SIM card

⑮ WiFi switch key / network configuration key

Short press: WiFi module on / off
Long press: press and hold for 3s to select the network configuration mode for network configuration.

⑯ on / off button

⑰ Type-C interface

⑱ Ethernet interface (wired version)

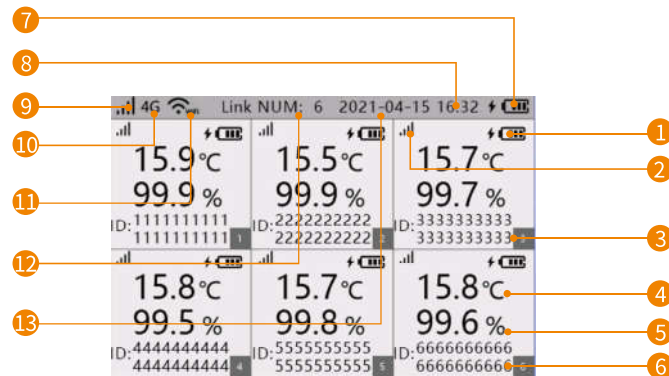
RCW-3200 product structure



- | | |
|------------------------------|--------------------|
| ① Charging Indicator | ② Status Indicator |
| ③ LCD | ④ Switch button |
| ⑤ The built-in sensor | ⑥ Bracket |
| ⑦ C/F unit conversion button | |
| ⑧ Micro USB interface | ⑨ External probe |

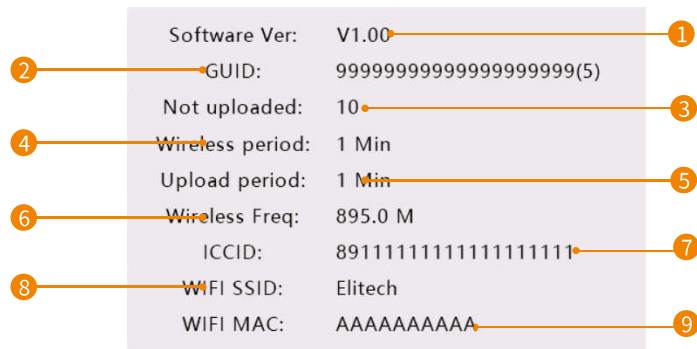
3. Display interface

RCW-3000 display interface

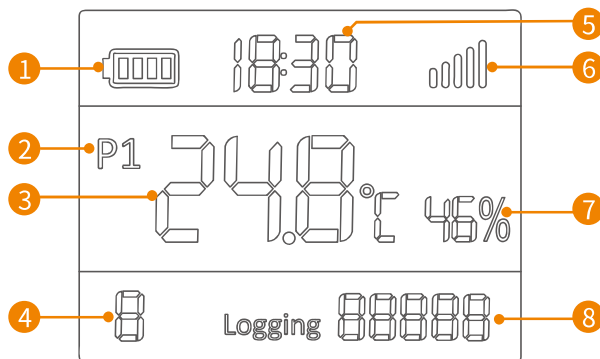


- | | | |
|---------------------------------------|------------------------------------|------------------------|
| ① Sensor battery power indicator | ② Sensor Lora signal strength | ③ Number of Sensor |
| ④ Temperature value of Sensor probe * | ⑤ Humidity value of Sensor probe * | |
| ⑥ Sensor GUID | ⑦ Gateway power indicator | ⑧ Gateway current time |
| ⑨ Gateway 4G signal strength | ⑩ Network mode of gateway | ⑪ WiFi signal strength |
| ⑫ Number of linked wireless Sensors | ⑬ Gateway current date | |

*The value is higher than the upper limit, the value is displayed in red, the normal range is displayed in black, the value is lower than the lower limit, the value is displayed in blue).



- ① Software ver: Device firmware version
- ② Gateway GUID
- ③ not uploaded: The number of non uploaded data stored in the gateway
- ④ Wireless period: communication interval between Sensor and gateway
- ⑤ Upload period: data upload cycle of cloud platform
- ⑥ Wireless Freq: Lora wireless networking frequency
- ⑦ ICCID: Iccid of SIM card
- ⑧ WIFI SSID: SSID of WiFi linked by gateway
- ⑨ WIFI MAC: Gateway WiFi MAC



- ① Battery power
- ② Probe serial number
- ③ Temperature value
- ④ Equipment status(E : Lora connectionstatus)
- ⑤ Time display
- ⑥ Signal strength
- ⑦ Humidity value
- ⑧ Number of local record groups

4. Selection list

Gateway RCW-3000 selection list			
model	RCW-3000 Warehouse Edition	RCW-3000 mobile version	RCW- 3000 Wired version
Communication method	4G+WiFi+LoRa	4G+GPS+LoRa	Ethernet+LoRa
Positioning method	LBS (base station positioning)	GPS+LBS (base station positioning	/

Wireless collector RCW-3200 selection list			
model	Built-in temperature and humidity	External temperature and humidity	External single temperature
Communication method	Lora		
sensor type	Integrated temperature and humidity sensor		Temperature Sensor
External measuring range	Temperature: -20°C~50°C Humidity: 0%RH~99%RH	Temperature: -40°C~85°C Humidity: 0%RH~99%RH	Temperature: -40°C~85°C
External sensor accuracy	Temperature accuracy: ±0.3°C (-20°C ~ 40°C), ±0.5°C others		
	Humidity accuracy: ±3%RH		/

technical indicators

Gateway RCW-3000 technical indicators	
Data upload interval	Data upload interval: 1-1440 minutes (default 1min)
Wireless connection interval	Wireless connection interval: 1-1440 minutes (default 1min)
Maximum transmission distance	Open communication distance ≥1000 meters
Gateway access number	Upload 1 minute interval, the number of access wireless harvester ≥ 100 units
storage capacity	1 million groups
Data storage method	Cyclic storag
interface	USB Type -C (support charging and data export)
Battery life	Not less than 48 hours, (@25°C, upload interval 5 min , 20 Sensors access) ; Not less than 24 hours (@ -10 °C, upload interval 5 min , 20 Sensors access);
Power input	5V/2A DC
Battery capacity	5000mAh rechargeable lithium battery
Operating temperature	- 10 deg.] C ~ + 50 deg.] C
Indicator light	Power indicator, W i F i indicator , 4G indicator , Ethernet indicator, Lora status indicator
Button	Switch machine , menu, up, down, confirm , WiFi button
Display screen	TFT color screen
Alarm method	Local sound and light alarm, platform alarm
Product Size	130mm*130mm *35mm (length × width × height)

Wireless Sensor RCW-3200	
Collection interval	Normal collection interval: 1-1440 minutes (default 5min)
Alarm collection interval	Alarm collection interval: 1-1440 minutes (default 2min)
Storage capacity	32000 groups
interface	Micro USB (support charging and data export)
button	Switch machine, (C/F) unit switch /light up the screen
Working frequency	470 ~ 510 MHz ISM frequency band
Display screen	1.7 inch broken code screen
Battery capacity	3200 ma H rechargeable lithium battery
usage time	Not less than 1 year (@ 2~8°C , connection interval 5min)
Power Adapter	5V/1A
Protection level	Built-in IP65, external IP64
Product Size	110 × 70 × 18mm (length × width × height)

Operation instructions

1. Charging

By the USB line connected to the power adapter.

RCW-3000 : Connect to the power adapter via Type-C data cable.

When charging: the battery power icon on the display turns into a charging icon, and the charging indicator red light is always on; After charging is completed , the charging indicator green light is always on.

* When the device is turned off , the device can be charged normally, and the charging indicator does not display .

RCW-3200 : Connect to the power adapter via a Micro USB cable

When charging, charging indicator red light; charging is completed, charging indicator green lamp lit;

2. Turn on and off

RCW-3000 : Device off / open the machine, press the power button, the display lighting / off , the device power / off successfully .

RCW-3200 : When the device is in the shutdown/running state, press and hold the power button for about 3 seconds. After the screen turns on/off, let go, and the device is turned on/off successfully. RCW-3200 : When the device is in the shutdown/running state, press and hold the power button for about 3 seconds . After the screen turns on/off, let go, and the device is turned on/off successfully.

*After the wireless Sensor RCW-3200 is powered on, it will automatically connect to the gateway (default group : 0) to upload data . You can use the client configuration software to modify the group .



press and hold the power button for about 3 seconds

3 . management software configuration

1. Download and install management software

Log in to [www. e-elitech.com/xiazaizhongxin](http://www.e-elitech.com/xiazaizhongxin) and download the latest version of **【Internet of Things Recorder Configuration Software】** .

2. Open the **【Internet of Things Recorder Configuration Software】** , connect the device to the computer via a USB cable , wait for the device model to be displayed at the bottom right of the software , and then perform **【device information】** view, **【 parameter configuration】** , and **【data export】** on the device, etc. operating.

3. **【Equipment Information】**

In the **【 Device Information】** interface , the configuration software can display device GUID , grouping, firmware version , binding gateway, recording interval, and alarm upper and lower limits and other related device information.

4. **【Parameter configuration】**

The parameter configuration includes but is not limited to the following :

Display content	Display the GUID serial number of the current device
GUID	Device grouping serial number , setting range is 0 ~ 255 grouping , default 0 grouping
Grouping	Display the firmware version number of the current device
Firmware version	Display the GUID of the gateway bound to the current Sensor
Bind the gateway GUID	1min ≤ input value ≤ 1440min (default 5 min)
Normal recording interval	1min ≤ input value ≤ 1440min (default 5 min)

Alarm record interval	1min ≤ input value ≤ normal recording interval (default 2 min)
Upper limit of temperature alarm	Lower temperature limit °C ≤ input value ≤ 60.0°C (external sensor 80°C)
Lower limit of temperature alarm	-20.0°C (external sensor -40 °C) ≤ input value ≤ temperature upper limit°C
Humidity alarm upper limit	Display the GUID of the gateway bound to the current Sensor
Humidity Alarm lower limit	1min ≤ input value ≤ 1440min (default 5 min)
Display content	RCW-3000
GUID	Display the GUID serial number of the current device
Grouping	Device grouping serial number , setting range is 0 ~ 255 grouping , default 0 grouping
Firmware version	Display the firmware version number of the current device
Bind Sensor ID	Display the GUID of the gateway bound to the current Sensor
Upload interval	1min ≤ input value ≤ 1440min (default 1 min)
Wireless connection interval	1min ≤ input value ≤ normal recording interval (default 1 min)
WIFI SSID	Displays the current device connected to a WIFI name (configurable WIFI network)
WIFI MAC address	Display the MAC address of the current device

Firmware update

Click the " firmware upgrade", select upgrade the needed files that are used (such as RCW-3000-CN-V1 .0 . Bin) , the software will automatically issued a document to upgrade equipment after the upgrade is complete will pop up " upgrade document by success , The device is about to restart and upgrade " prompts, the firmware upgrade is complete . After the device restarts , the firmware version will be updated.

Clear data

Click " Clear Data " , confirm the clear data, the current equipment in all stored data will be cleared , the device will reboot .

** Clearing data will clear the data stored in the device itself (uploaded data can still be viewed and exported on the platform) , and it cannot be restored , please operate with caution.*

factory settings

Click " restore factory settings " to confirm restore the factory settings will remove the device all the configuration information and device data stored in itself , device restart, restore factory settings successfully .

Restore factory settings will clear the device data and all configuration information stored in the device itself (has been uploaded data is still in the platform view and export) , and can not be restored, please exercise caution.

【Data export 】 (RCW-3200)

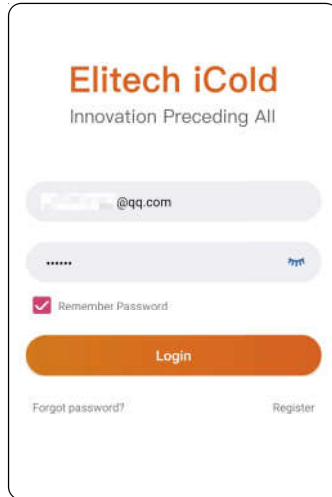
Click "Data Export " and follow the prompt pop-up window to choose to export " Unuploaded Data " or "Filtered Data " . Click "Filter data " and select the time range of data records to be filtered , then the data export can be completed , and it can be exported in PDF format and saved to the local computer.

APP operation instructions

1.Register & login

Please scan the QR code on the front of the manual or search Elitech iCold on App store or Google Play to download Elitech iCold app.Register and log in to your account.





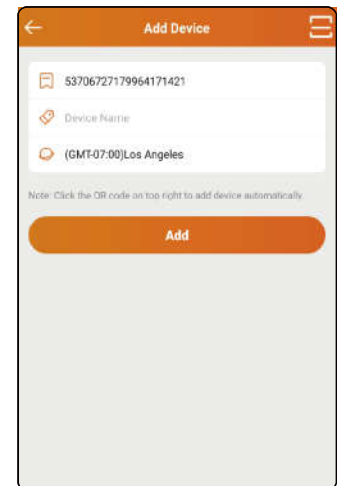
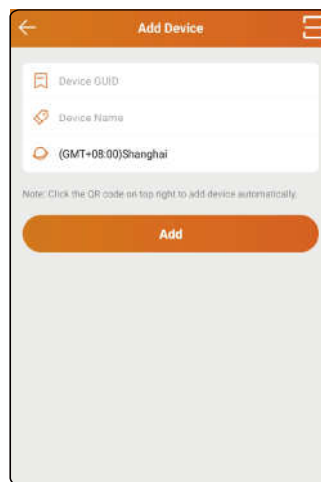
2. Add equipment

Non- WIFI device operation instructions : Please press the following steps ① ~ ⑤ for operation ;

① Open the APP and click the "+" icon;

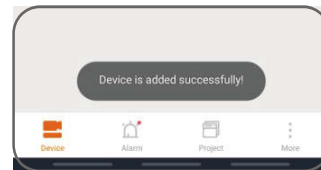
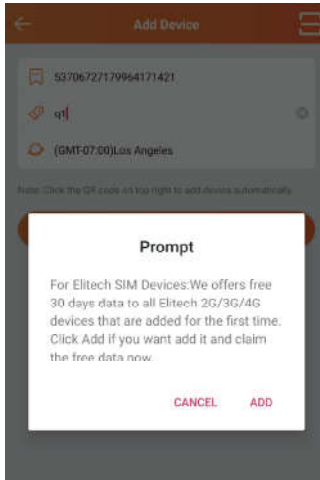
② Click the "☰" icon, scan the QR code on the back of the device or manually enter the device GUID ;

③ Edit the device name, select the time zone, and click "Add" to add the device successfully;



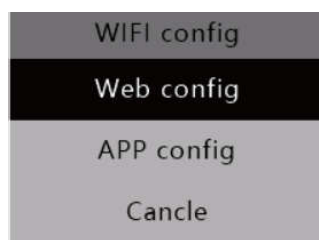
④ At the pop-up page , click"ADD".

⑤ Device added successfully!



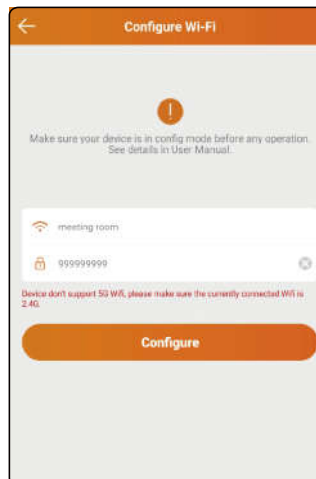
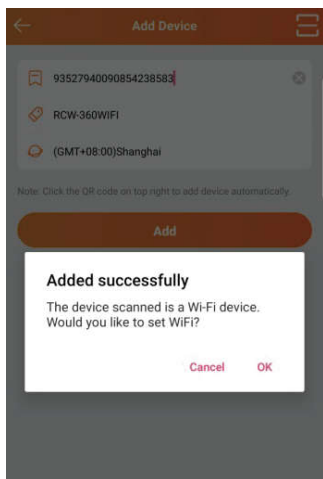
WiFi device operating instructions

- 1) Connect the mobile phone to the WiFi network and open the APP ;
- 2) After the device is turned on, in the main interface of the display , long press the **WiFi button** for 3 seconds , and the device enters the **WiFi networking configuration** mode . Select APP configuration , click **OK** button to start WiFi configuration of the device ;

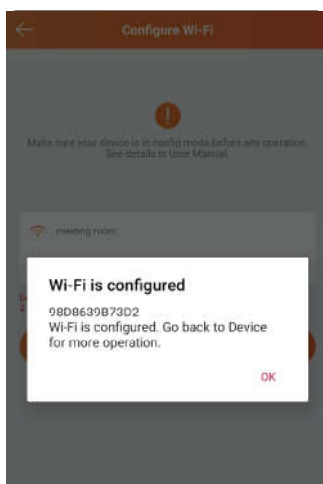


3) according to the steps ① ~ ⑧ (wherein ① ~ ⑤ supra), the top of the screen display , "📶" , the device WIFI arranged successful ;

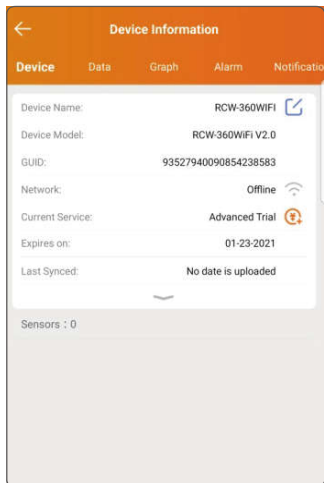
⑥ Click **【OK】** to start configuring WiFi ; ⑦ Enter **【WiFi Password】** in the APP ;



⑧ Click **【Confirm】** , the APP prompts WiFi **【 Configuration successful】** , and at the same time, the device prompts **【Network configuration successful】** ;



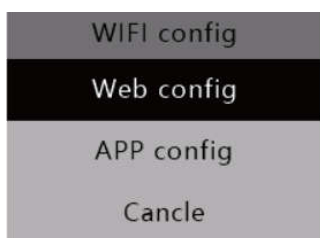
- 4) If the device WiFi configuration is unsuccessful, repeat the above steps 1) ~ 3);
- 5) When the device needs to reconfigure WiFi , first follow steps 1) ~ 2). Then open the "device information" of the device in the APP,and click the " 📶 " icon in the details page (Figure 3). Follow the steps ⑤ ~ ⑥ in step 3) to complete the device WiFi configuration.



web page configuration instructions

The equipment provides configuration software for network distribution and APP network distribution , as well as web page distribution methods for selection . The detailed configuration information is as follows:

- 1) After the device is turned on, press and hold the WiFi button for 3 s in the main interface , the device enters the WIFI networking configuration mode , and select **【Web Configuration】** ;



2) Use a computer or smart phone with a wireless network card to search for the wireless network and connect to the wireless network of the corresponding device: 3000 WiFi ;



3) Open the browser: Enter the IP address: 10.10.100.254 ;



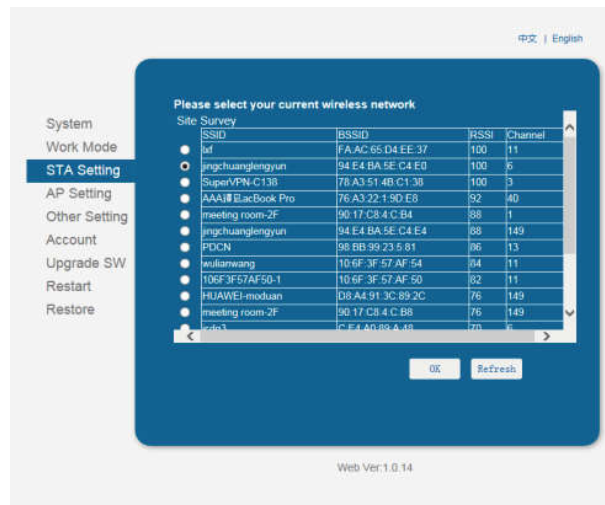
4) Enter the login page and enter the initial user name: admin ; initial password : admin ;

5) Operating Instructions mode selection: Select " STA mode";



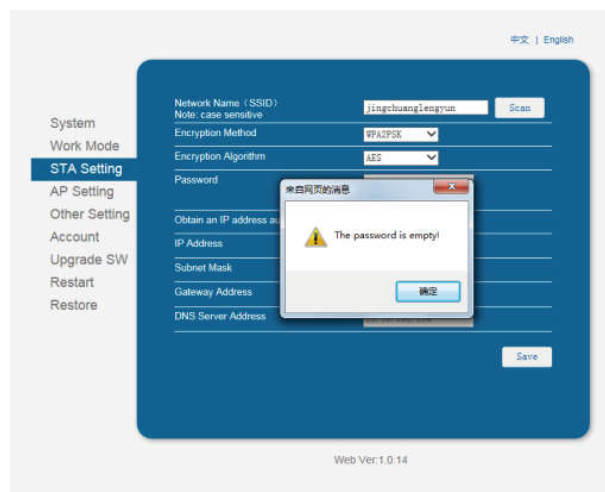
6) Click " Search " ;

7) Select the available WiFi network, such as "jingchuanglengyun" ;

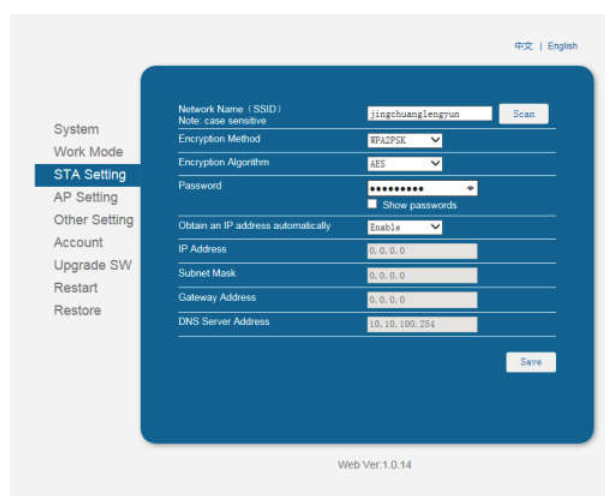


8) Click "OK" ;

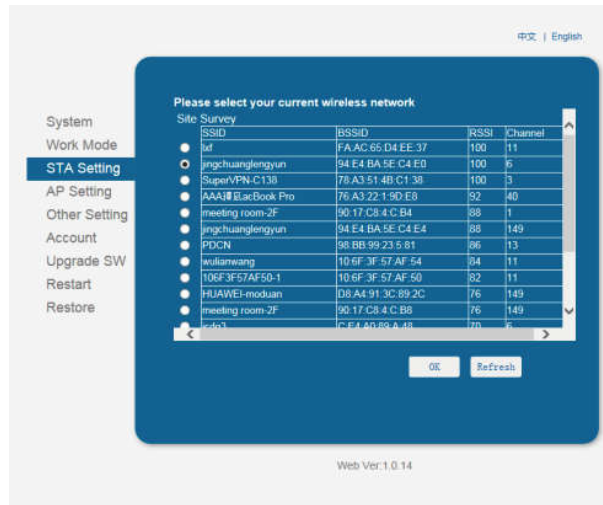
9) The web page prompts "The password is empty!" ;



10) Click 【OK】 and enter the WiFi password ;

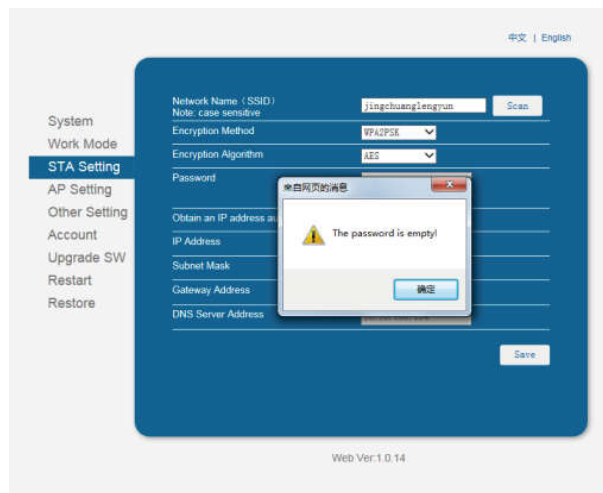


7) Select the available WiFi network, such as "jingchuanglengyun" ;

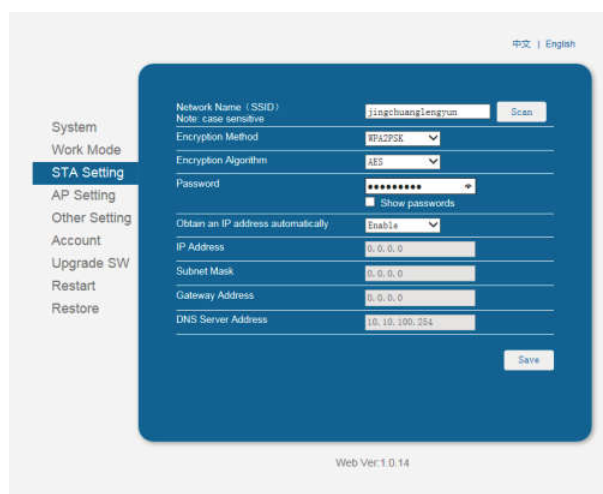


8) Click "OK" ;

9) The web page prompts "The password is empty!" ;

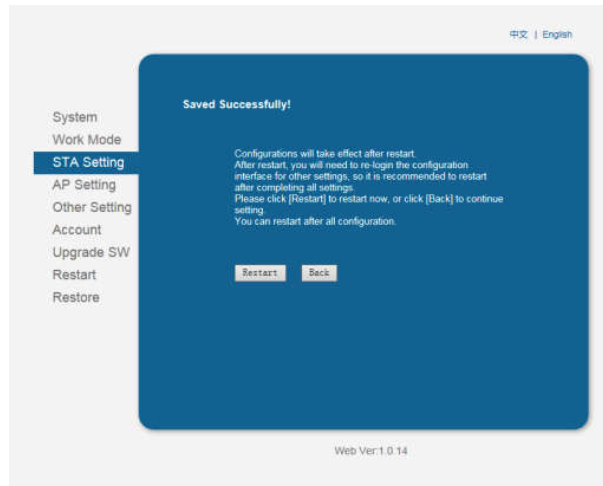


10) Click 【OK】 and enter the WiFi password ;

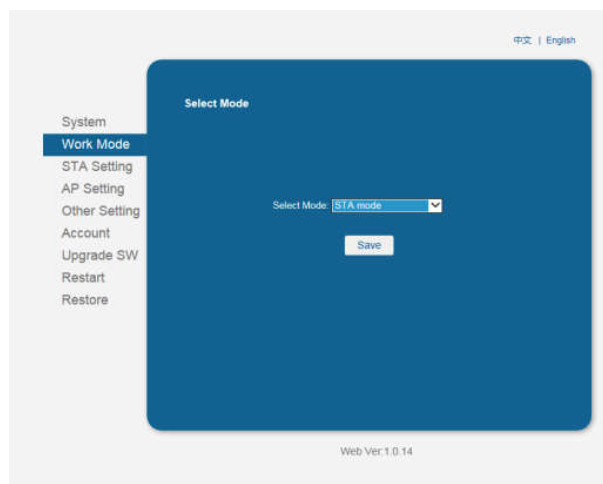


11) After inputting the network name and password, click **【Save】** . After prompting that the save is successful, click **【Return】** to set the STA ;

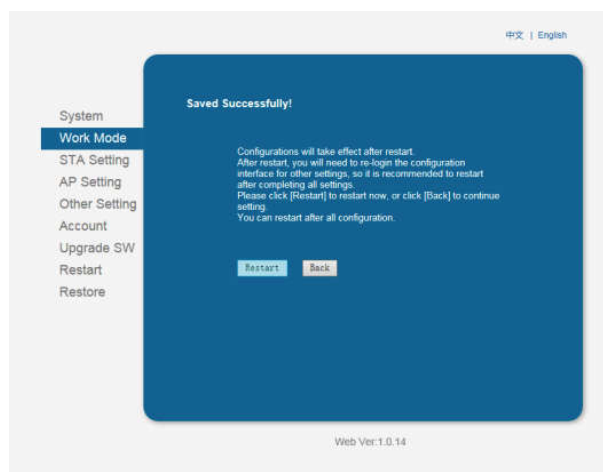
** Complete the STA setting, do not click [Restart], otherwise the network configuration fails and you need to operate the device to enter the network configuration mode again.*



12) Select **【STA Mode】** in the mode setting ;



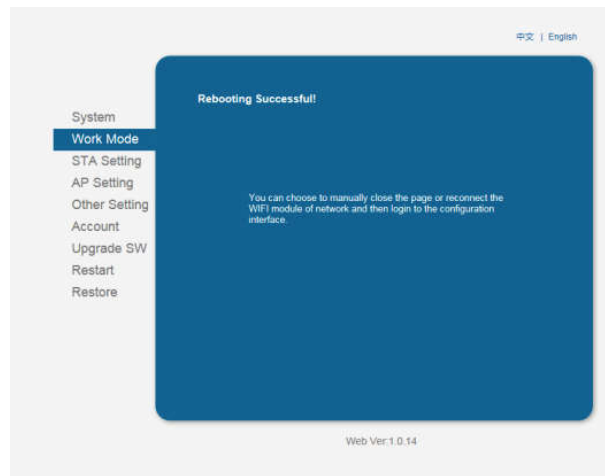
13) After the mode is configured, click **【Restart】** ;



14) After the WiFi is successfully connected, the device status displays " " and prompts 【 Configuration successful】 ;



15) If the WIFI configuration is unsuccessful, repeat the above steps 1)~5) .



Login Cloud Portal

Please type in the URL <http://www.i-elitech.com> to log in for more operation ,Click “Help” to obtain Cloud and App operation instructions.

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