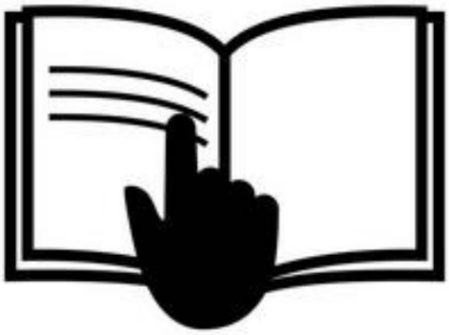
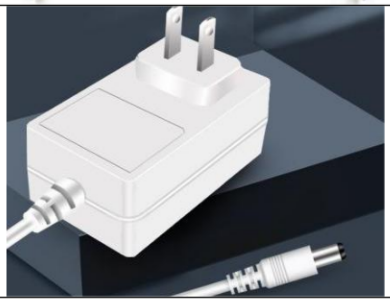
GIL100 Touch Screen Master Controller

Customer		Model No		Item No	
Cust No		Revision	RVE:01	Date	2022-9-15

Date	Revision	Change Description	
2022-9-15	RVE01	new release	

CONTENTS

1、Parts List：

Manual*1	
RJ45 cable*1	
Power Adapter*1	
Temperature, Humidity, Sensor*1	

2 、Electrical Requirement

2-1 Input Requirement

2-1-1 Input Voltage

Nomal Voltage: 12V±5%

2-1-2 Input Current

0.5-1Arms

2-2 Output Requirement

2-2-1 PWM signal amplitude value 10V ± 5% duty cycle 0%-100%

2-2-2 Analog signal 0-10V

2-2-3 Interface definition

Interface	MODEL / parameters
Signal output	OUT RJ-45 8P8C*1/RJ14 6P6C*1 (The definition can be found in the attached diagram）
Sensor signal input	Audio seat PJ393*1
DC IN	DC5.5*2.1

2-2-4 Standby Power

Standby Power less than 0.1W .

3 Environmental Requirements

3-1 Temperature

Operation : 0℃ to 25℃

Storage: 0℃ to 60℃

3-2 Humidity

Operation : 20%-85%

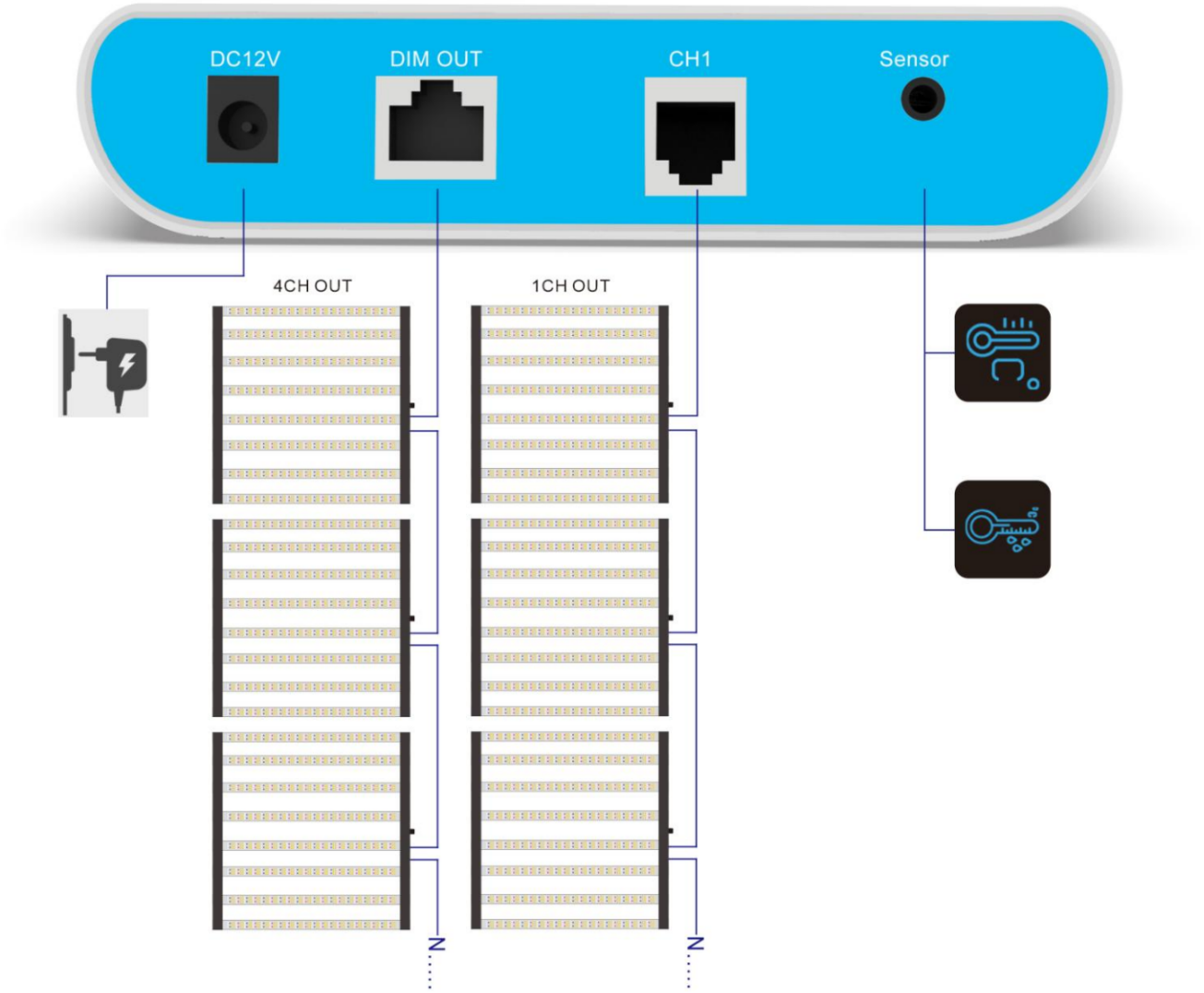
Storage: 10%-95%

4 Reliability

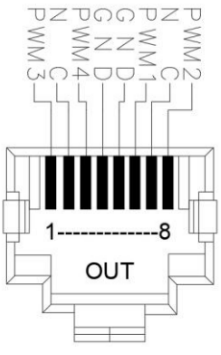
4-1 Mean Time between Failures (MTBF)

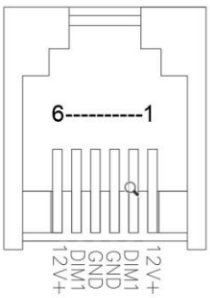
The shall be designed and produced to have a mean time Between failures (MTBF) of 20,000 operating hours

Connection diagram:



Interface definition diagra:



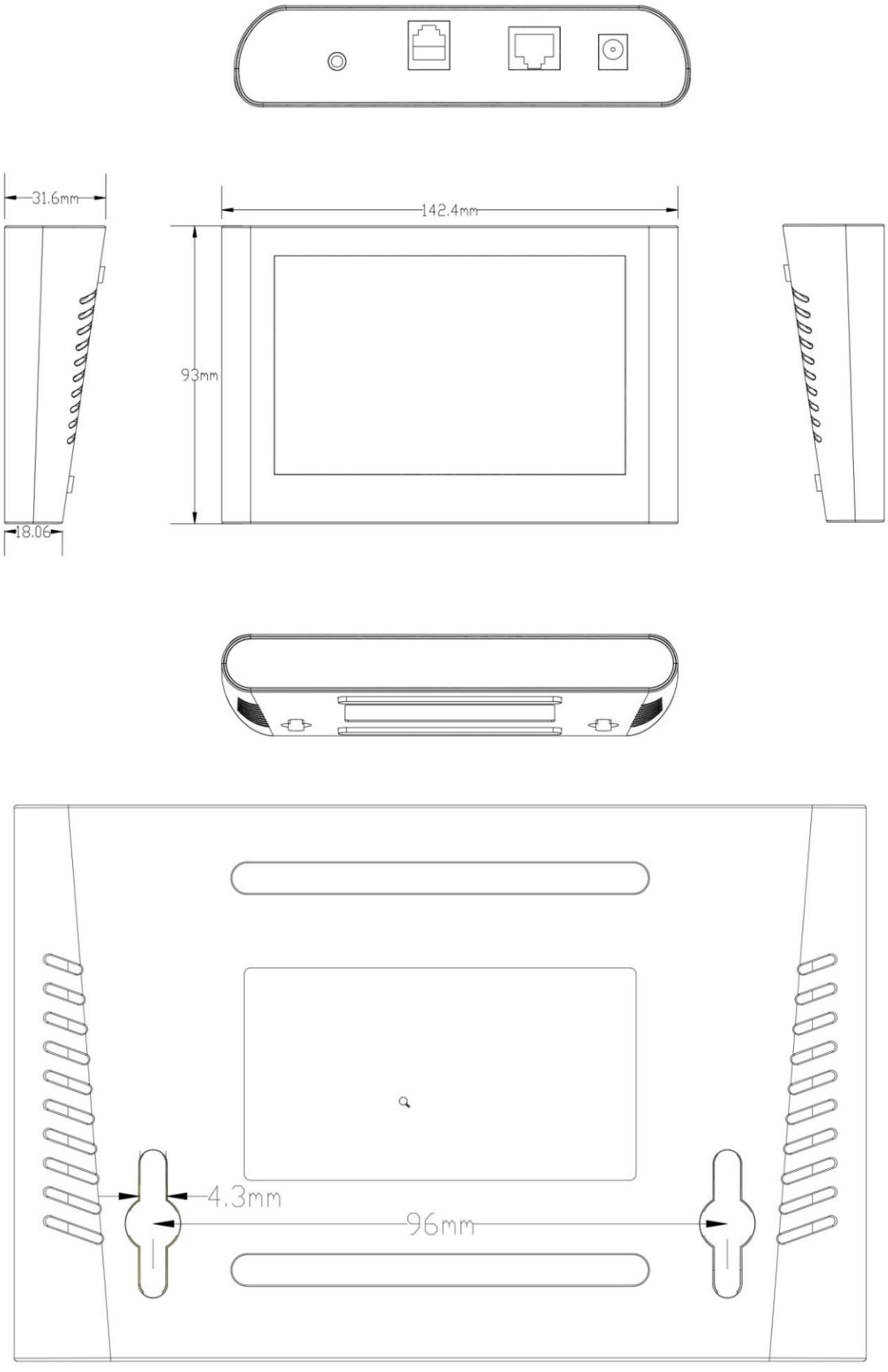


Note:

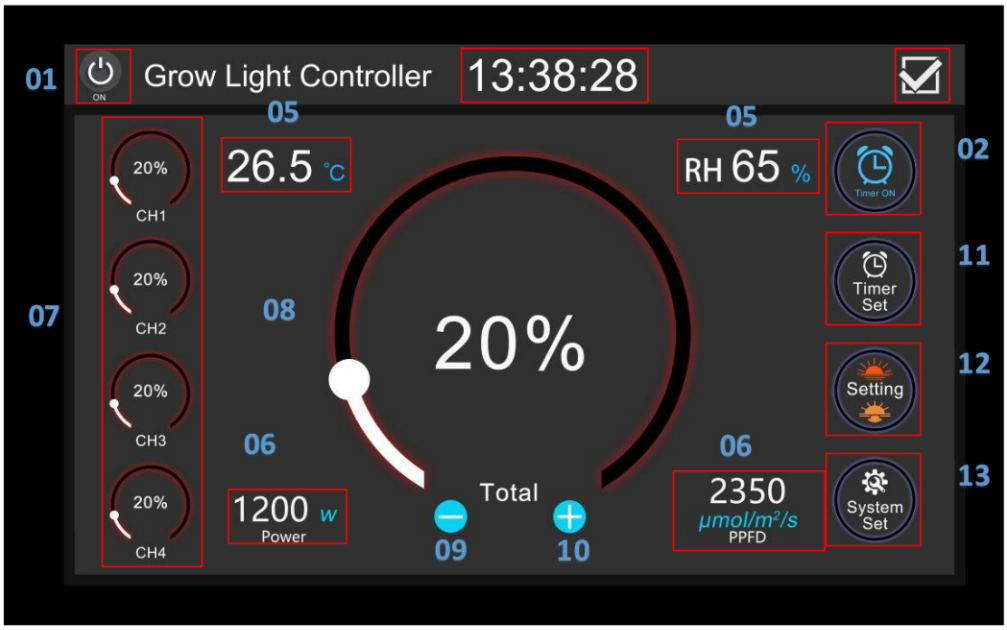
1. The sensor in the picture is an optional accessory, not standard; (The sensor is already built into the product, and an external sensor can only be selected if the controller and the position to be monitored are different)

2. RJ45 interface outputs four channel signals of CH1, CH2, CH3 and CH4; The RJ12 interface can only output CH1 channel signals;

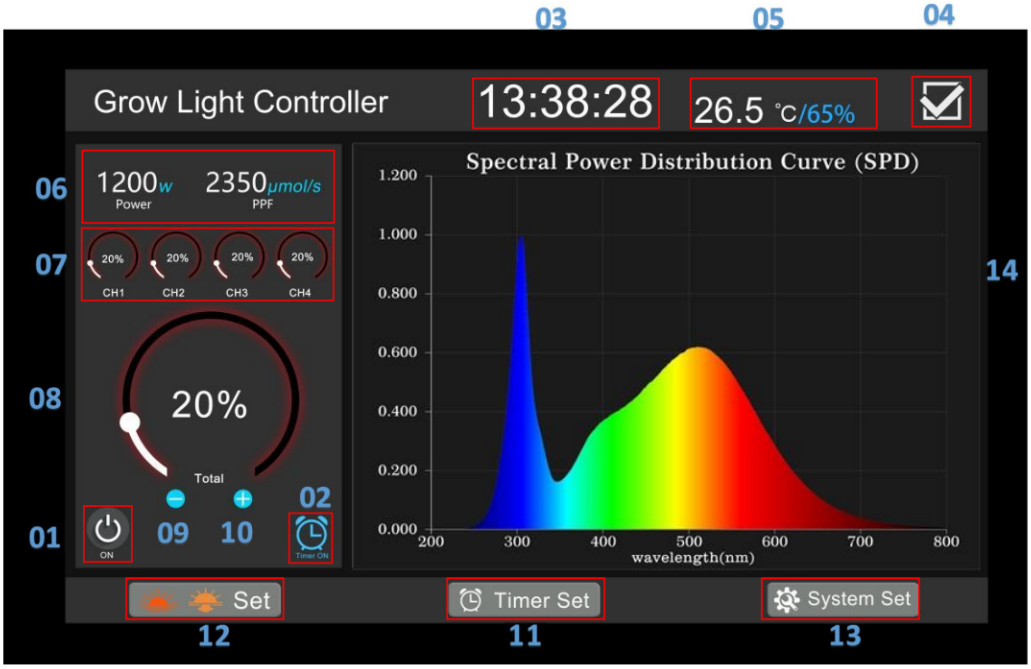
Product size drawing:



Operating Instructions：



Main interface (dimming mode) 1

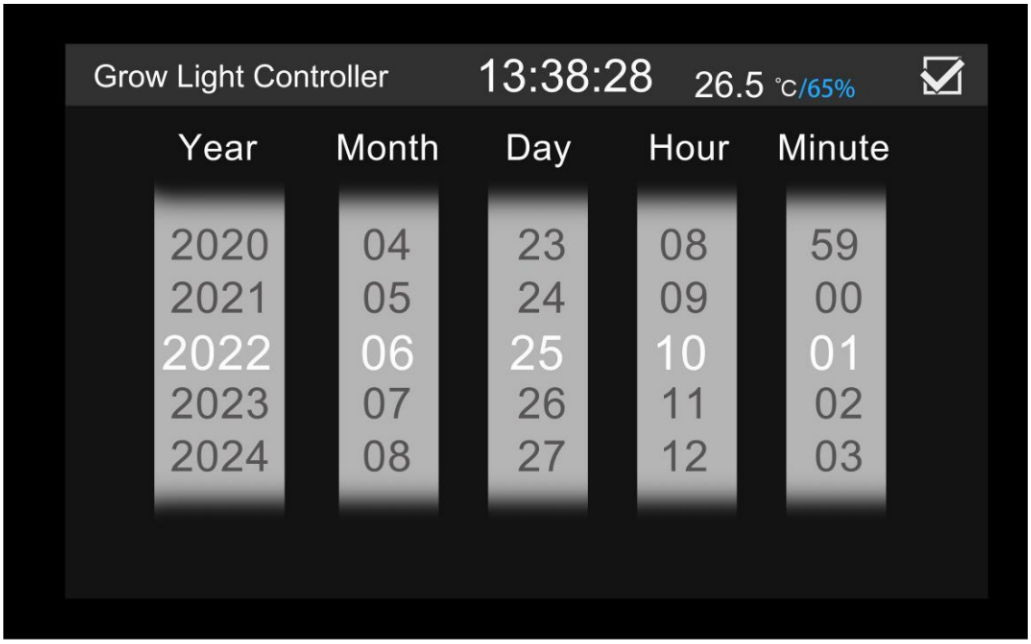


Main interface (Spectral mode) 2

01：ON/OFF  ON  OFF (When off, the screen is always bright, close all PWM output)

02：Timer master switch，  ON  OFF（When off, all set times are off）

03：System time display and setting entrance, long press the red area 2S to enter the setting, as follows:



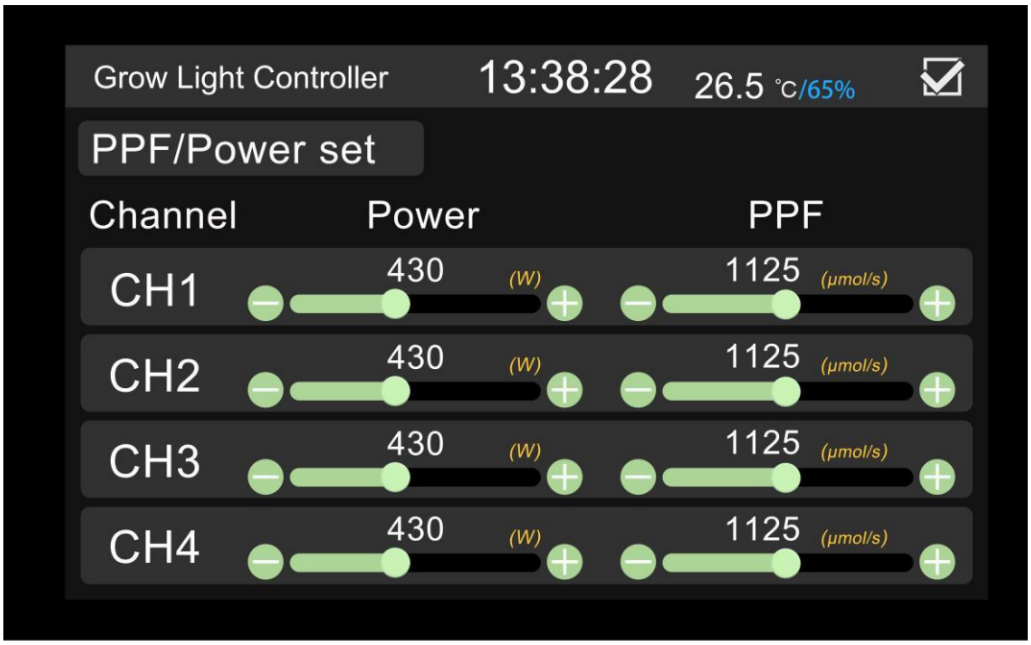
Move up and down to set up to adjust After setting up, press "tick" in the top right corner to confirm and exit

04：Confirm the button, and press the button to save it after setting it;

05：Temperature and humidity display, real-time data collection;

Click the left temperature position to switch between Fahrenheit and degrees Celsius；

06： Power and PPF value are displayed and set the entrance, red area long press 2S to enter the setting interface as follows:

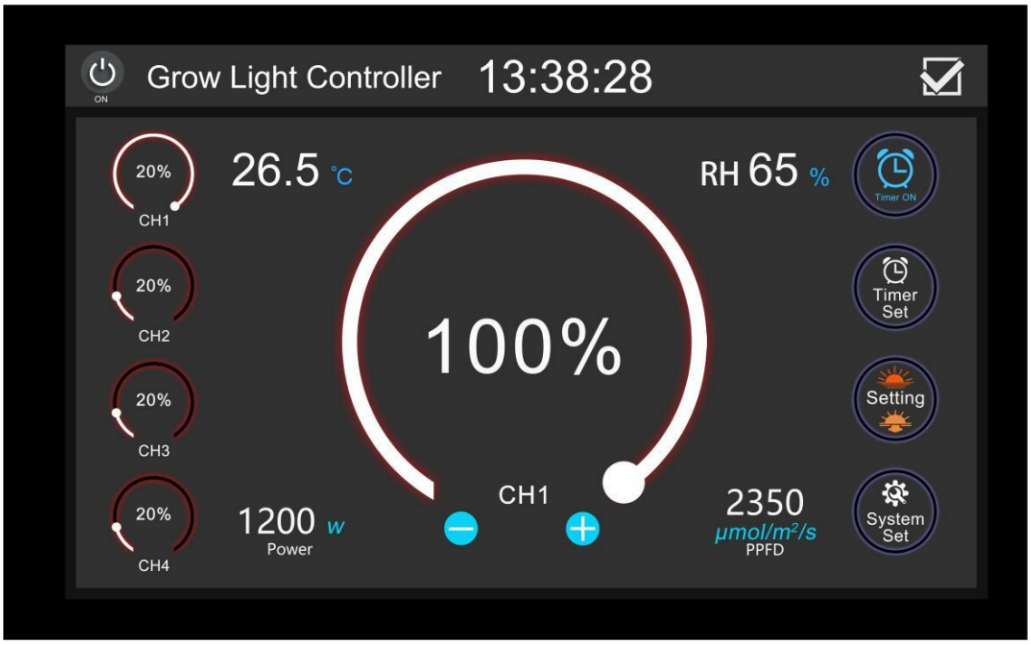


Set it according to the actual lamp parameters
Power: Power setting, stroke adjustment power size (adjustment range 0-1500);
PPF: PPF value setting, stroke to adjust the light effect size (adjustment range 0-4800);
The number above the stroke corresponds to the value displayed Click "+" "-" to adjust the brightness, press the step into 1%, long press can be continuously adjusted;
After setting, press "tick" in the top right corner to confirm and exit, or click exit not to save

07: Channel brightness adjustment
08: Total luminance adjustment

operation notice ：

& After selecting any small circle in 07, The name of the selected small circle is displayed at the brightness adjustment of the large circle, After clicking to select the small circle, Corresponding to the small circle flashing, At this time, the adjustment of the large circle is only for the selected channel adjustment, 5 Stop flashing after S indicates that the setting is complete (or click "tick" in the top right corner to confirm), Exit the selected large circle display "Total", The adjustment is for all currently open channels (e. g., set with a CH1 brightness of 80%, If the main interface adjusted brightness is 80%, the actual output PWM of the channel is 64%, Small circle display remains unchanged), After adjustment, click the "tick" in the upper right corner to confirm the automatic saving, And automatically save the state before the shutdown;
& The CH1-CH4 4 channels were set up in the same way;
& Each channel is 0-100% adjustment selected before adjustment;



The aph shows adjusting CH1 channel brightness

09: Reduce the brightness
10: Increase the brightness
Click "+" "-" to adjust the brightness, press the step 1%, long press can be continuously adjusted;

11: Time setting button, click to enter the setting interface, as follows:

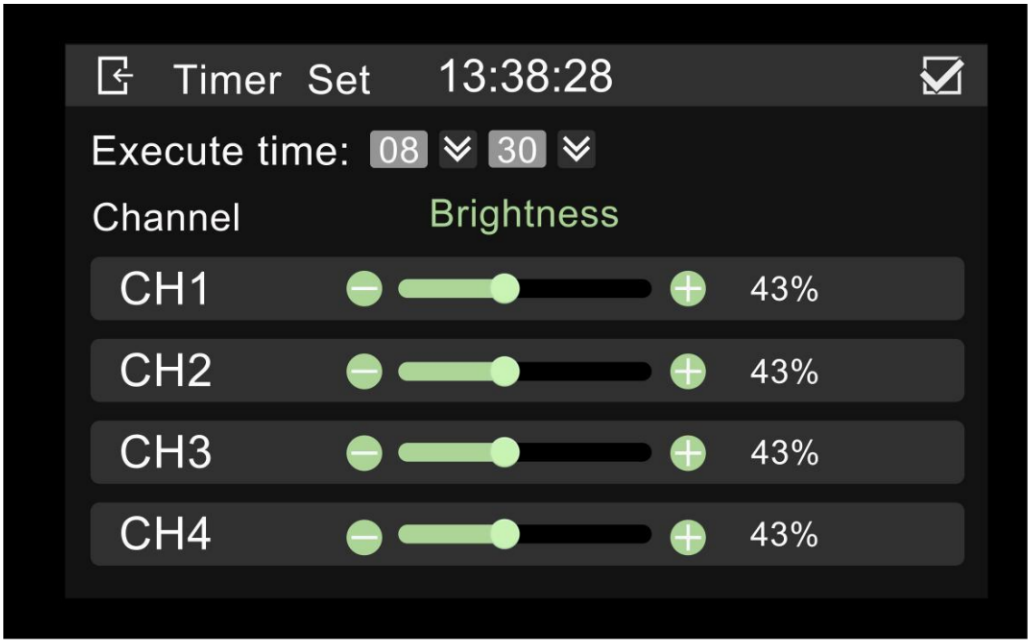
Only puts this period on (not on lights)

Only shows this period off (not lights off)


Click to delete this timing period

The number of times that can be set is 9 segments;
After setting, press "tick" in the upper right corner to confirm and exit, or click to exit not to save;

Click the  icon on the right to enter the add timing interface, as follows:



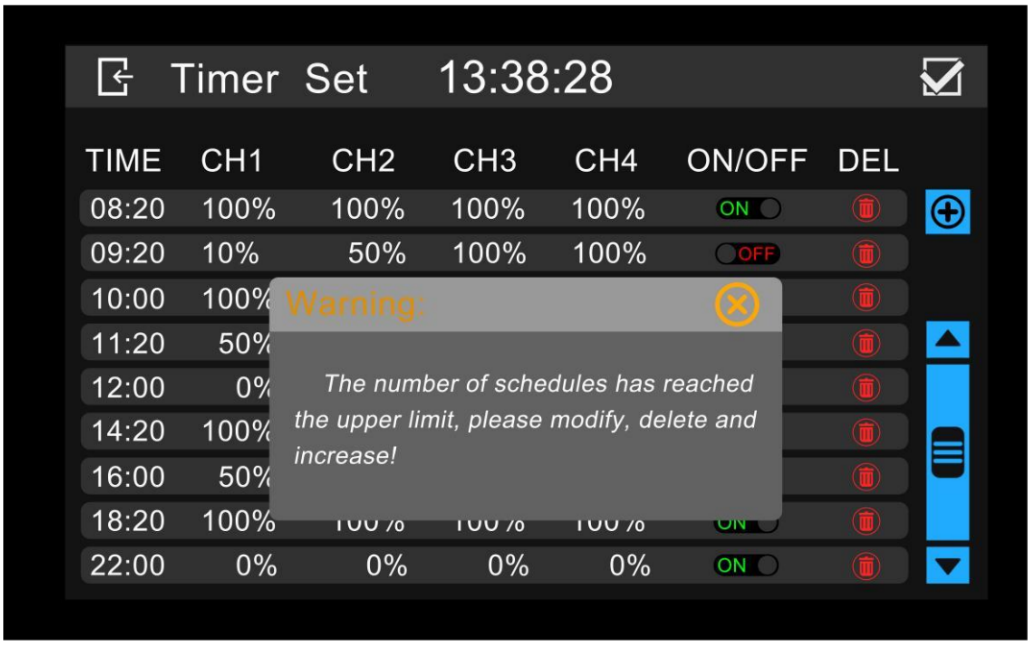
Execute time:Represents the timing execution time, click the pull-down arrow behind "08" to set what points (00-23 points), and click the pull-down arrow behind "30" to set how many minutes (00-59 points);

Brightness:Brightness setting, stroke can set the brightness 0-100%, after the number is corresponding to the value of the stroke, click "+" "-" to conduct brightness adjustment, press the step into 1%, long press can be continuously adjusted;

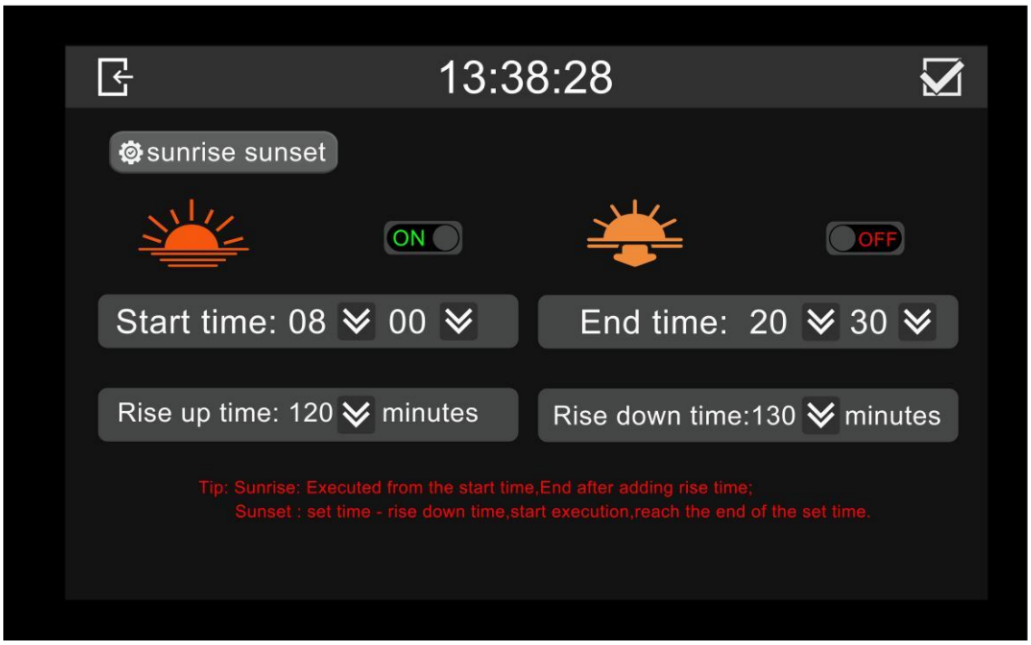
A uminance of 0% indicates lights off

After setting, press "tick" in the top right corner to confirm and exit, or click exit not to save;

The popup prompts when the number of bar is as follows:



12: Simate the sunset setting button, click to enter the setting interface, as follows:



Set the simulated sunrise and sunset time, the time format is 24 hours, (rise and down, minimum 10 minutes, maximum 180 minutes);

Sunrise:

start time:When the lamp brightness rises, click the pull-down arrow behind, " 08, to set some points (00-23points) Click drop-down arrow behind "30" (00-59);

Rise up time:For the brightness rise time, click the arrow behind "120" minutes to select minutes, minimum 10 min max 180 min Increase evenly to the set brightness according to the set rise up time time；

For example:

Set the start time to 8:00

The rise up time is performed for 60 min

It rises evenly to the set brightness value within 60 minutes from 8:00 PM, that is, 9 PM to the set brightness value If the lamp is on, the brightness should drop to zero before starting the rise.

Sunset：

End time: End time of lamp luminance drop (set the same as "start time")

Rise down time: End time of lamp luminance decrease Drop evenly to the lamp is off according to the set rise down time " time；

For example:

Set the end time to 20:00 The rise down time of 60 minutes drops evenly within 60 minutes from 19:00,60 minutes, when it drops at 19:00, and closes at 20:00；

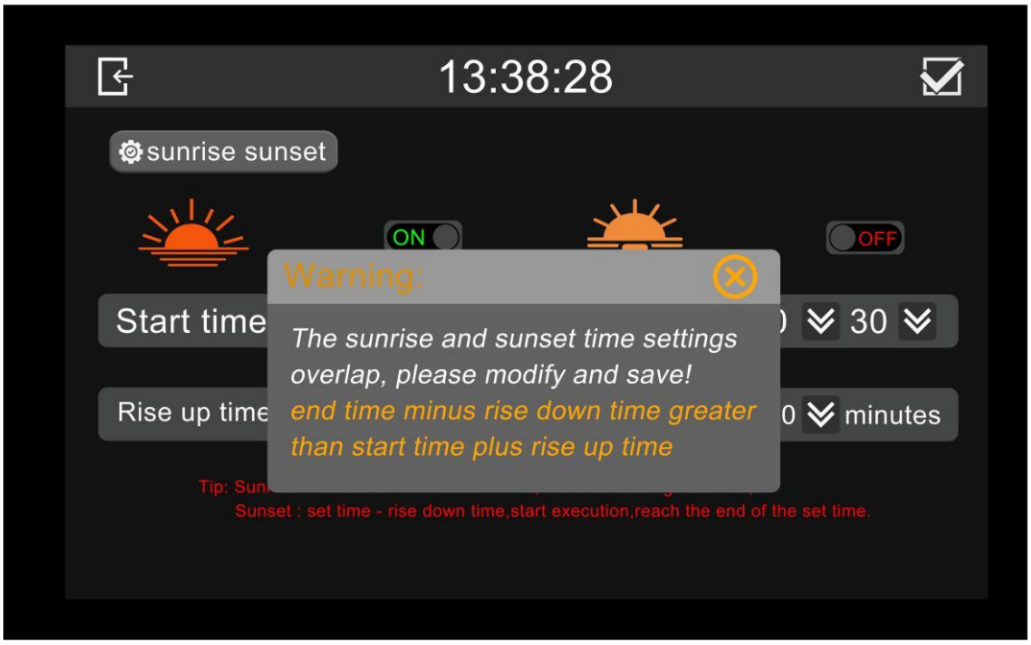
The "ON" means that the feature is enabled；

The " OFF function means that the feature is not enabled；

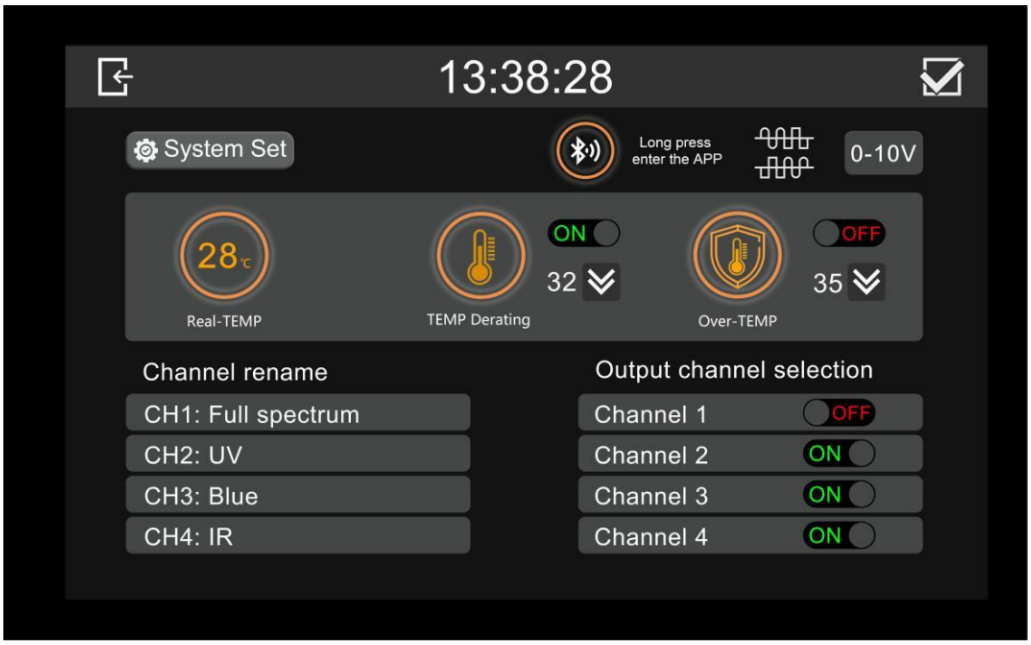
After setting, press "tick" in the top right corner to confirm and exit, or click exit not to save；

When the settings parameters overlap, the pop-up prompts are as follows:

Parameter overlap is: end time minus rise down time must be greater than start time plus rise up time popup prompts if less than or equal；



13: System Settings button, click to enter the setting interface, as follows:



Real-TEMP:Collect temperature in real time;

TEMP Derating:Temperature reduction protection, when the collected temperature reaches the set value, the current open all channel brightness began to press the speed of 1% every 5 minutes to reduce the brightness of the light, until the temperature returns to 5℃ lower than the set value, began to press the speed of 5 minutes up 1% back to the original brightness (if the temperature cannot recover is down to 0%);

Example:

Set the decrease temperature to 32 ℃. When the collected temperature reaches 32 ℃, the brightness starts to decrease until the temperature drops to 27 ℃;

Over-TEMP:Over-temperature protection, when the collected temperature reaches the set value, all the currently opened channels are closed until the temperature returns to 5℃ below the set value, returning to the original brightness.

Example:
Set the descending temperature to 35 ℃. When the collected temperature reaches 35 ℃, turn off the lights until the original brightness is restored when the temperature drops to 30 ℃;

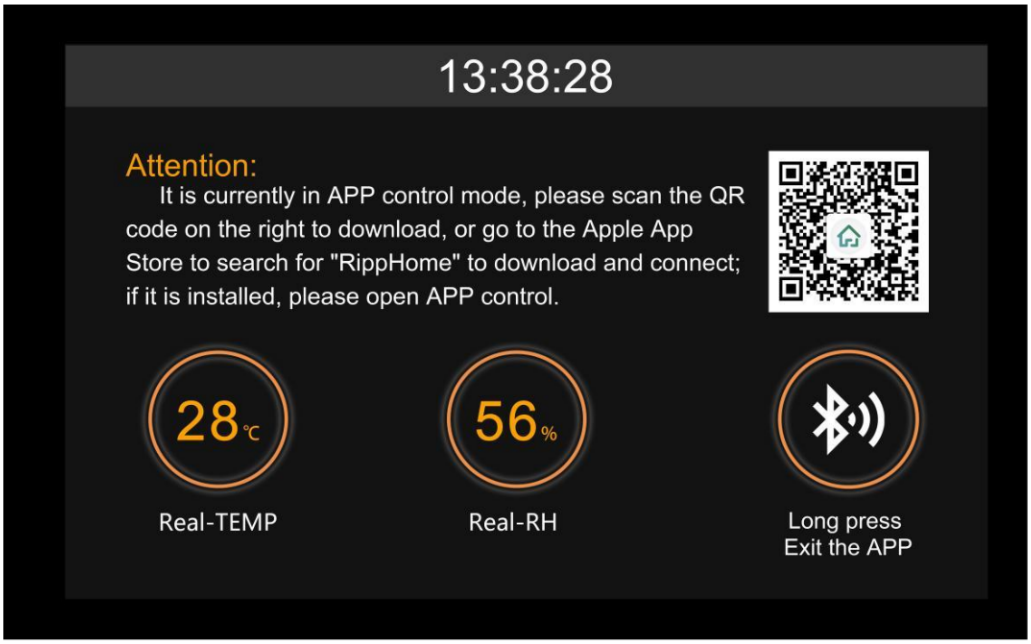
Indicates enabled

Indicates that it is not enabled

After setting, press "tick" in the top right corner to confirm and exit, or click exit not to save

APP control mode switch, long press 

2S enters the APP control interface, as follows:



Real-TEMP:Real-time temperature display
Real-RH:Real-time humidity display

After quitting the APP mode, resume the previous working state;

Output signal switching: The output signal is divided into 0-10V and PWM two options

The switch mode is to click the "0-10V" position to switch between the two;
After setting, press "tick" in the upper right corner to confirm and exit, or click to exit not to save;
Channel rename：
The 4 channels have a default name of CH1 CH2 CH3 CH4
Click the area behind "cap number" to pop up the full keyboard name (lowercase letters and numbers supported)

Press after (" " to confirm and return)

After setting, press "tick" in the top right corner to confirm and exit, or click exit not to save

Output channel selection:
OFF： That means that the current channel is closed
ON： That means that the current channel is open
After setting, press "tick" in the top right corner to confirm and exit, or click exit not to save

14： Spectrum map display area: used to display different setting conditions to display different spectra
According to the lamp beads with the actual test results into the controller, the spectrum display is very accurate, but when the light intensity changes, the spectrum will not change;
It is displayed on the white bottom when all 4 channels are closed

No spectral signal !

Display mode settings（Custom-made spectrum turns on this feature）

Long press the top Grow Light area 3S to enter the setting interface, as follows:

Green font indicates that the mode is selected, black indicates that the mode is not selected, then confirm and exit;

Boot screen display: boot screen display after product power supply (customizable)

APP operation declaration:

Luminaire/Bluetooth Timer/Gateway Adding Tutorial

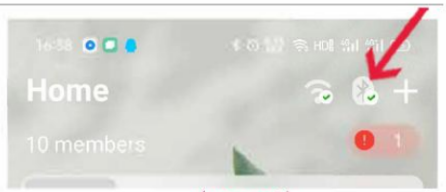
1. Scan the QR code below to download and install the software

You can use WeChat or browser to scan the QR code to download

2.Turn on the Bluetooth of the mobile phone, open the APP to complete the account registration, and then log in to the account

Network sharing, control functions must register an account before you can use

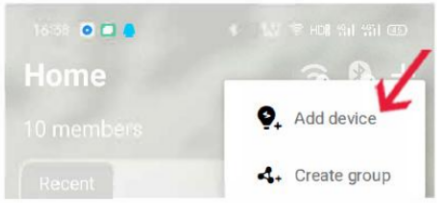
3.Power on the devices that need to be connected (such as lights, timers, gateways), and then watch the connection status of the APP Bluetooth icon (Photo1)



(Photo1)

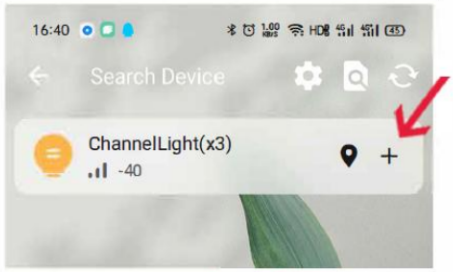
The Bluetooth icon is displayed with a "V" status to add a device

4.After Bluetooth is connected, click the "+" sign in the upper right corner to add a device Scan for devices to be added (Photo2)



(Photo2)

5.Scan to the current device to be added, click the "+" sign on the right to add it,After completion, enter the device page to find the device for control. (Photo3)



After adding the required devices one by one, you can create a group.

(Photo3)

Restore the factory settings of the lighting products:

Method 1: Reset via APP (Settings-Reset Device Function)

Method 2: Reset by hardware (power on the light and wait for about 6 seconds-turn off-wait for 2 seconds and then turn on the light-light on and wait for about 6 seconds and then turn off-light off and wait for 2 seconds and then turn on the light, repeat the power on and off operations 6 times, the device It can be reset, and the light will flash after resetting.

(Tip: wait 6 seconds for power-on to turn off, power-off and wait for 2 seconds to turn on, repeat 6 times)
The light will flash when the factory is restored successfully

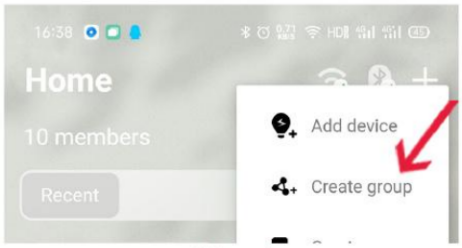
Group settings tutorial

1.After adding the devices one by one, enter the (Management-Devices) page, and press and hold the device icon to pop up a window
Or click the button in the upper right corner ••• to modify the device name.

It is recommended to name the equipment according to the area location plus the number, such as: Plantation 01, Area A 01, Botanical Garden 01, etc.
The equipment can also be named according to its type, such as: Quantum board light 01, 8-claw fish light 01, etc.

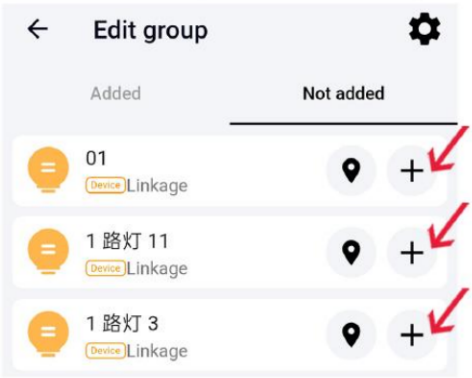
2.Complete the modification of the device name. Click the "+" button in the upper right corner,Click Create group. Enter the group name and save. (Photo1)

It is recommended that the group name be named according to the location of the area or the type of equipment, such as: plantation A, orchard 1, etc.



(Photo1)

3.After clicking Save, the edit page pops up, click the "+" sign on the right side of the device to add the devices that need to be added to the current group. (Photo2)

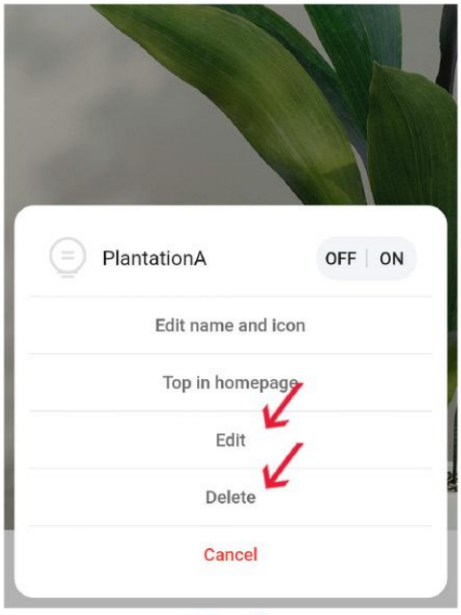


(Photo2)

4.After adding the devices needed in the current group one by one, (click Manage and click the group) click the group icon to enter the control page.

5.Long press the group icon to pop up the window or click the group to enter the control page,
Click the icon to edit or disband the group. (Photo3)

6.Multiple groups can be created for equipment management and control according to requirements.



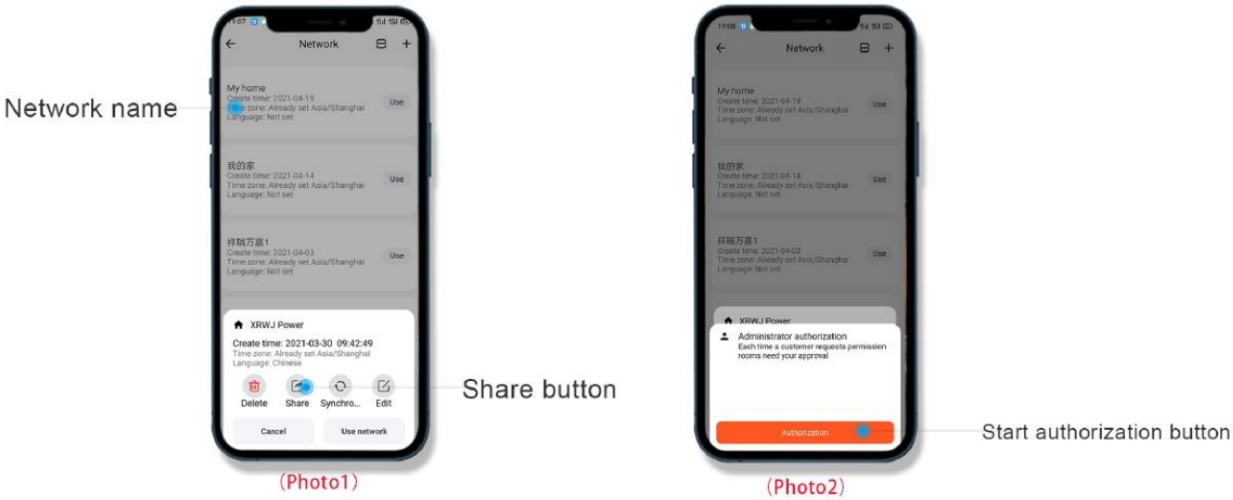
(Photo3)

Network creation/sharing network tutorial

1.APP click (Settings-Network) and click the icon in the upper right corner to create a network.

The network here is a virtual network used to store smart devices. If you have equipment in different places, you can create multiple networks to manage.If there are two plantations, you can create two networks "plantation A" and "plantation B" for management control.

2.After the network is created, you can share the network and let other administrators control it. Click the name of the network you want to share, and a window pops up. Click the "Share" icon, and then click the "Start Authorization" button to pop up a QR code to share.



(Photo1) (Photo2)

3.Other administrators gain control, open the mobile APP, click (Settings-Network), click the scan icon in the upper right corner, and scan the QR code to obtain authorization.

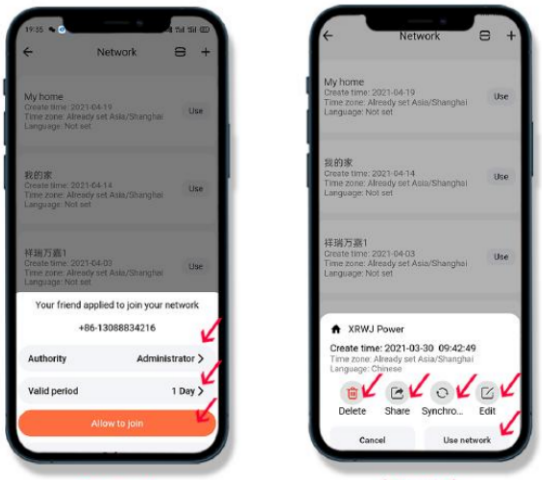
Before you need to get control, you need to download the APP on your mobile phone, complete the account registration and login, and then scan the QR code.

4.After scanning the QR code, the sharing phone will pop up a window, click "Allow to join" to help the scan code terminal to obtain authorization.

Sharing network can also set access control authority and limited period of use

5.After scanning the QR code to obtain the network permissions, enter the network, click the acquired network, and click "Use Network".

6.Click on a different network name, the network can edit, delete, synchronization and other operations.



(Photo3) (Photo4)