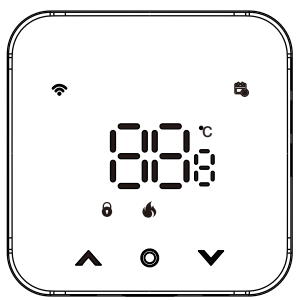
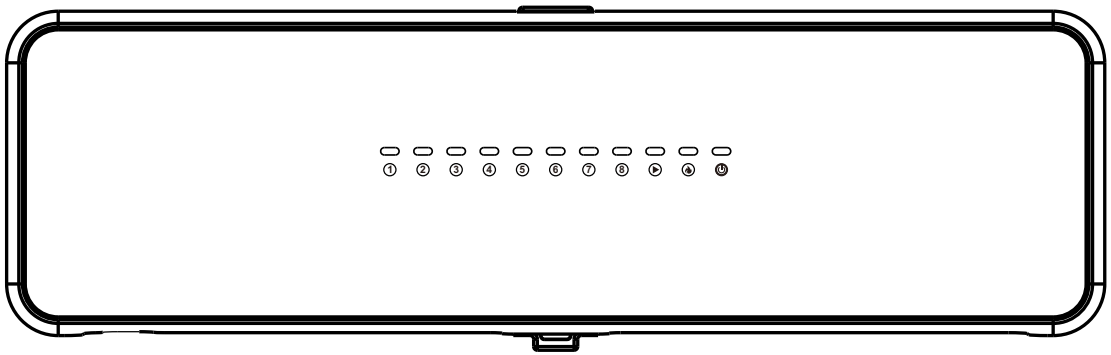
SAS931XWHL-XT-WIFI(TY)
INSTRUCTIONS





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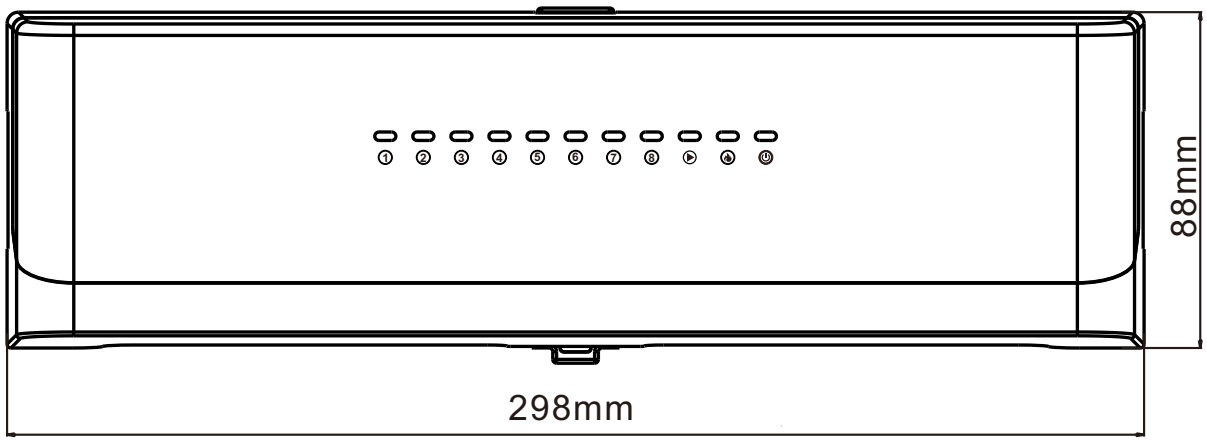
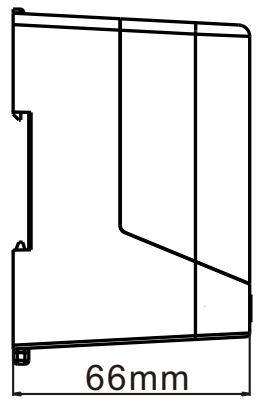
Technical Parameters

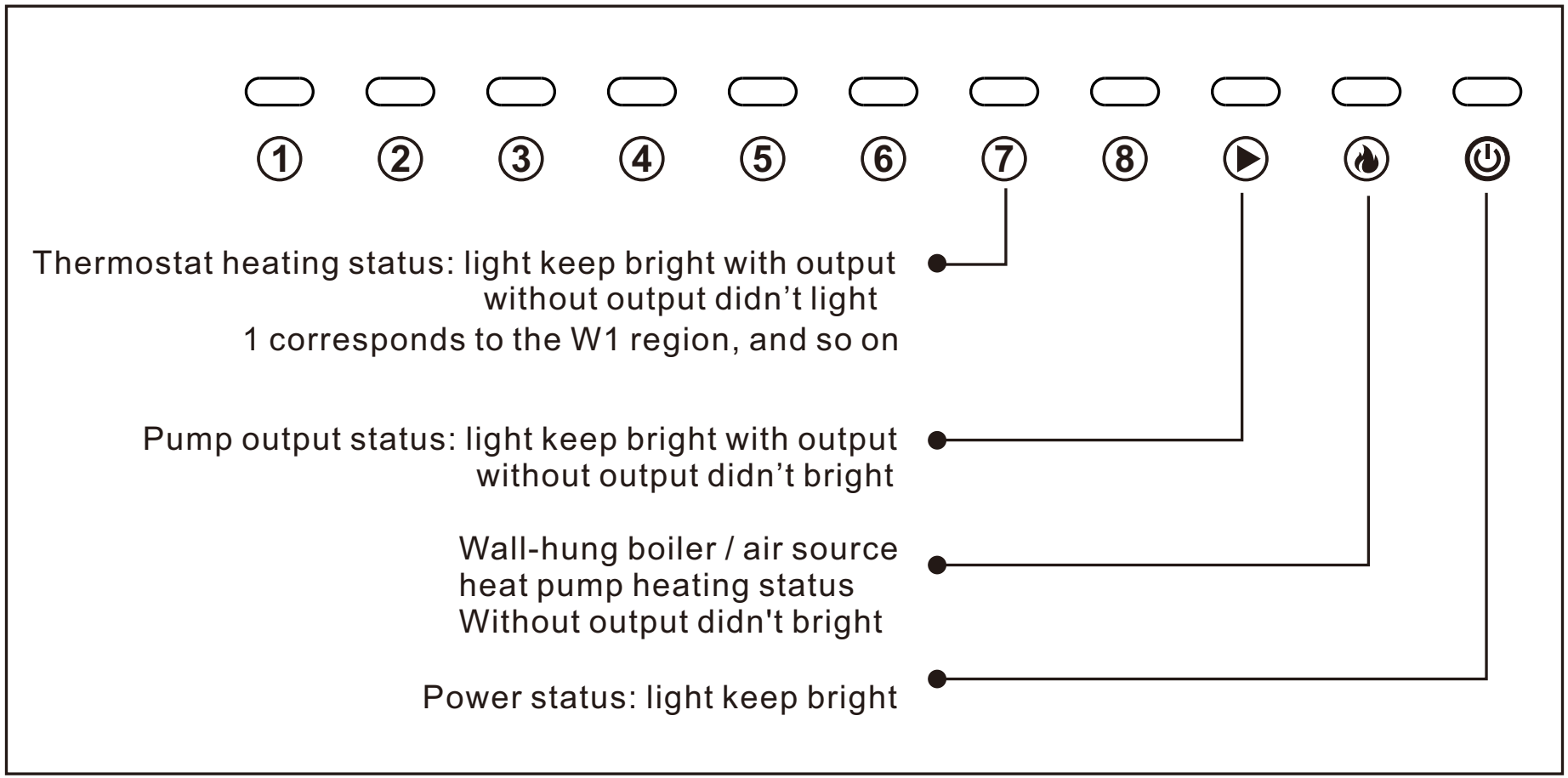
Wiring control centre (SCU211-BUS)

Power source: 100-240VAC 50 / 60Hz (maximum current 10A)
Storage environment temperature and humidity: -10 ~ 60°C, 0 ~ 90% RH (non-condensing)
Working environment temperature and humidity: 0 ~ 50 °C, 0 ~ 80% RH (non-condensing)
Color: White
Size: 298 X 88 X 66mm
IP rating: IP40



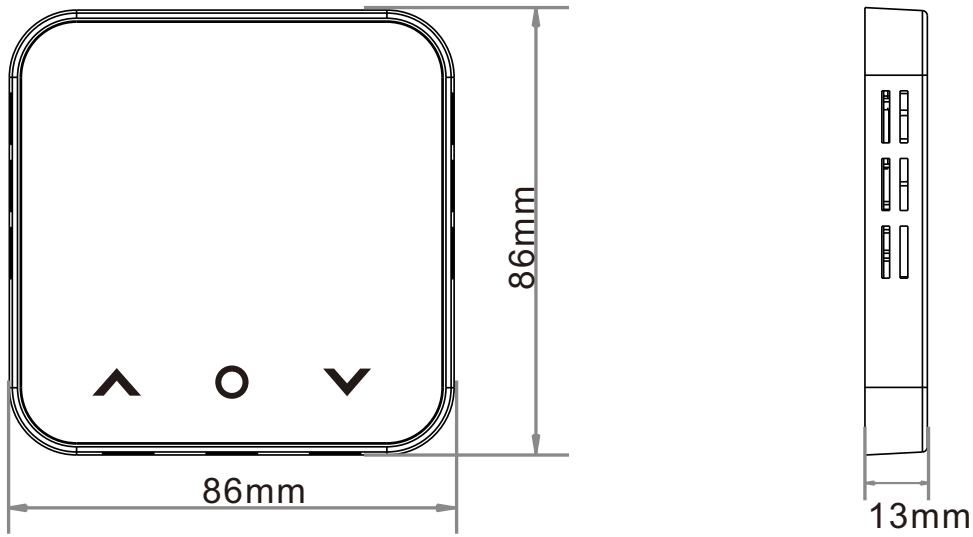


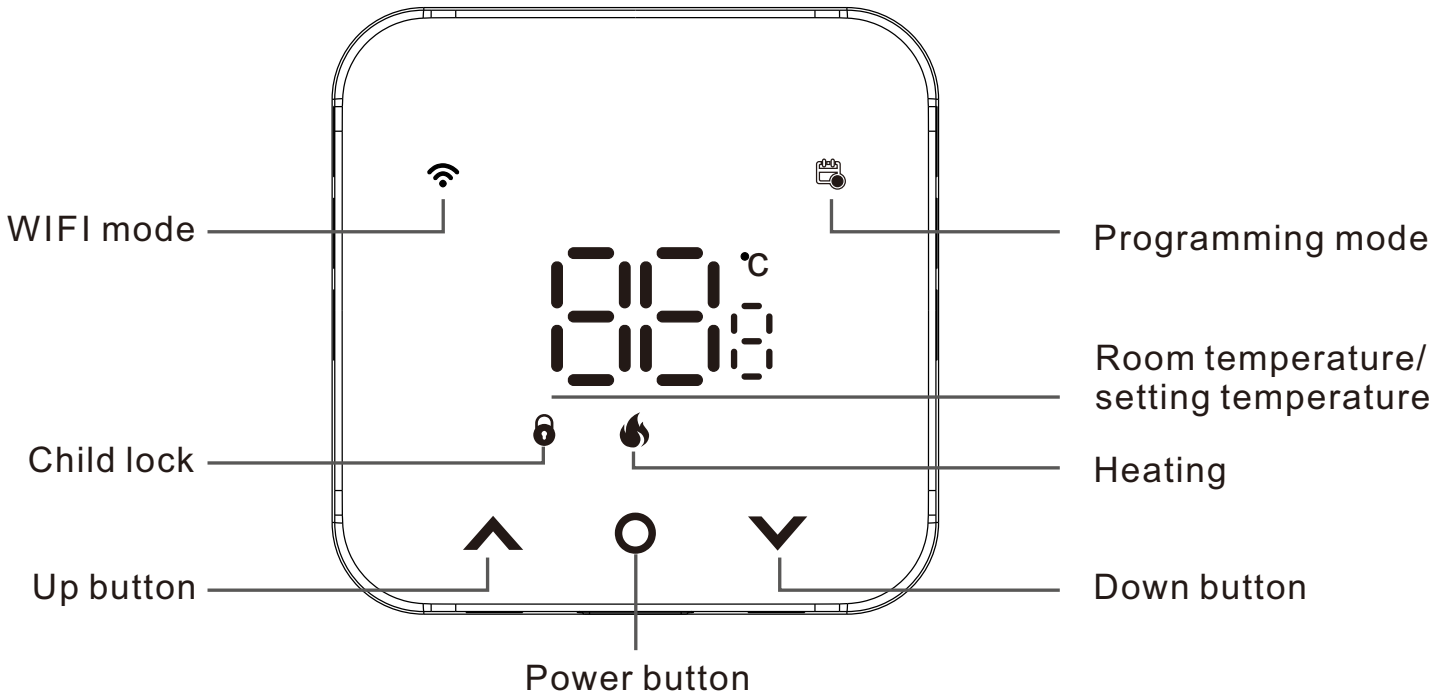
Wiring control centre interface introduction



Master [SAS931XWHL-0-BUS-WIFI(TY)] / Slave [SAS931XWHL-0-BUS-S]

* Power supply and signal input: DC12 ~ 18V carrier non-polarity input
  (power supply wiring control centre, maximum current 100mA)
* Storage environment temperature and humidity: -10 ~ 60°C, 0 ~ 90% RH (non-condensing)
* Working environment temperature and humidity: 0 ~ 50°C, 0 ~ 80% RH (non-condensing)
* Temperature display range: 0 ~ 50°C
* Display accuracy: 0.1°C
* Color: White
* Size: 86x86x13mm
* Protection level: IP21
* WIFI antenna emission frequency(master controller): 2.4GMHz
* WIFI wireless transmission distance(master controller): 60M in the open area




WIFI mode
Programming mode
Room temperature/
setting temperature
Child lock
Heating
Up button
Down button
Power button

Adjust temperature

In switch off status, short press to switch on thermostat.
In switch on status, long press over 5 seconds to switch off; and display OFF.

In power on mode, long press“^”and“ v ”button over 5 seconds could enter key lock mode, and show lock icon. Press “ ^”and“ v ”unlock in lock status.

Manually switch programming mode:Short press“ O ” button while switching on,switch programming and non-programming operation mode. Programming icon“ ” light on when in programming mode. Without display mean in non-programming operation mode.

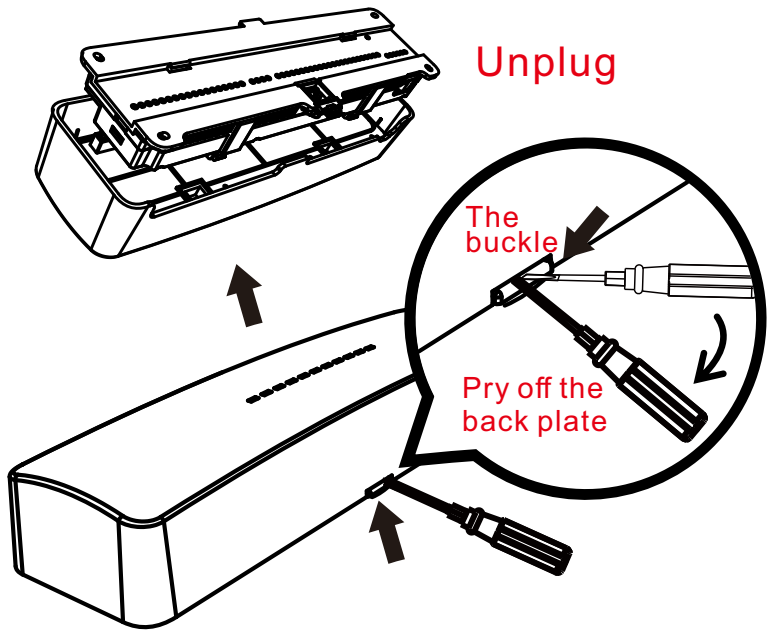
WIFI mode: In switch on mode, long press“ ^ ”and “ O ”button over 5 seconds, WIFI icon keep faster flash mean ready for WIFI connect.
Stable WIFI icon: successful WIFI connect

Product installation and testing

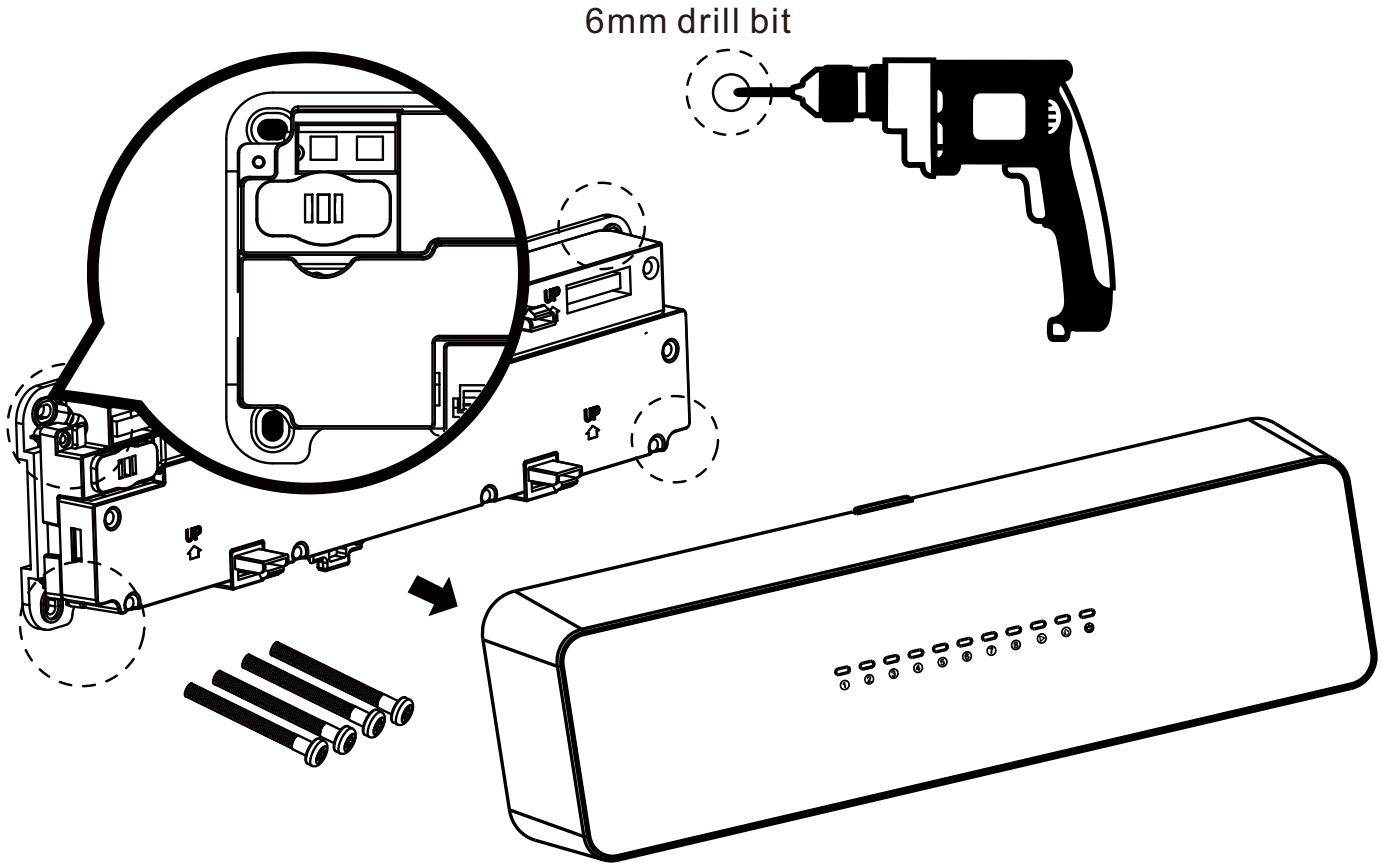
Wiring control centre installation

In order to ensure the quality of network communication, the master thermostat must be installed in the living room, in the same area as the router. Please pay attention to distinguish the master and slave thermostat during the installation.
The master thermostat is packaged with the wiring control centre and named SAS931XWHL-0-BUS-WIFI(TY)

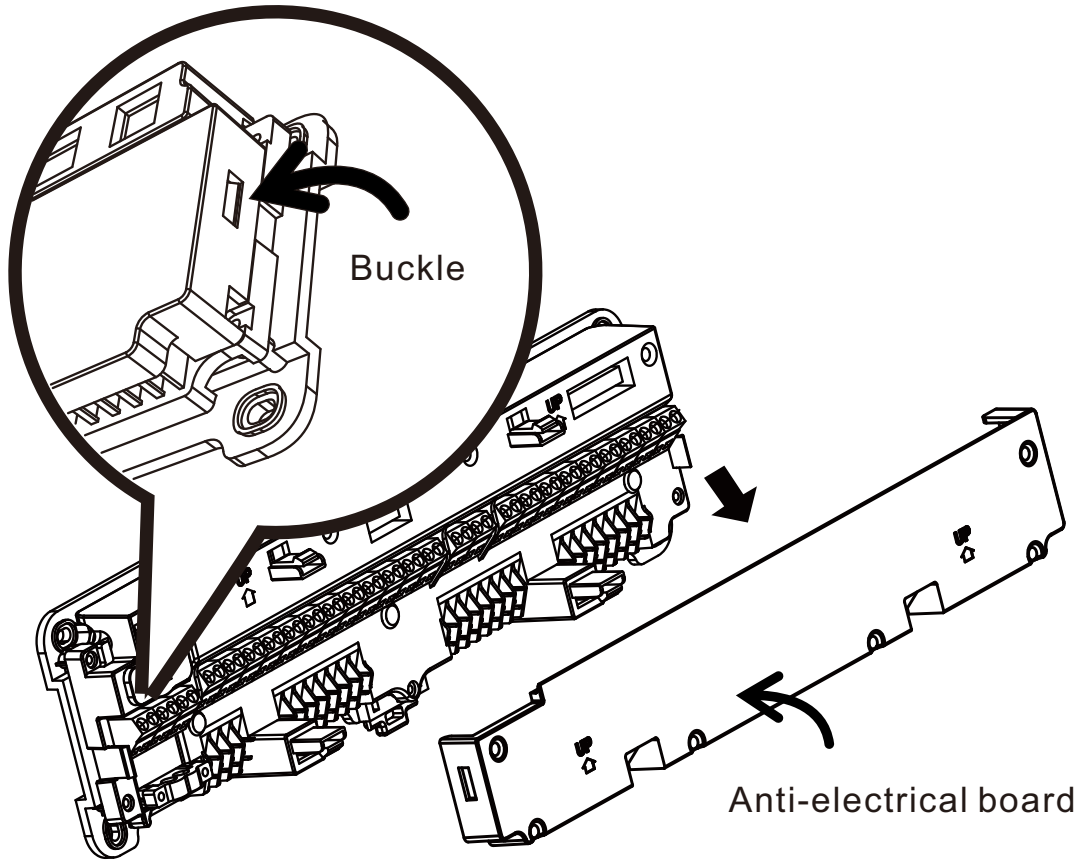
1. There is a slit above the wiring control centre. Use a small flat-blade screwdriver to insert it and pry it out and remove the back plate.



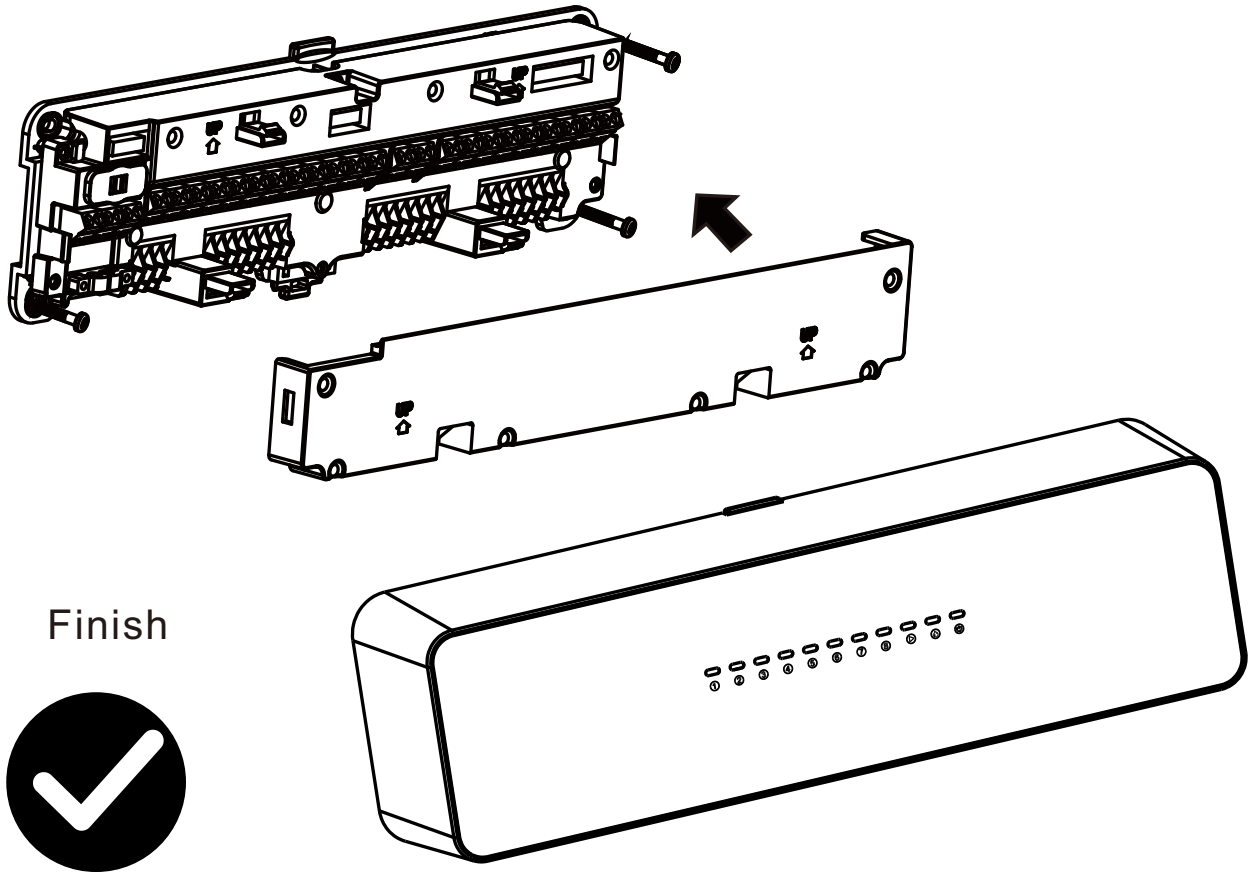
2. Use the back plate to mark the hole position, and then use an impact drill (6mm drill bit) to make the screw holes (if there is a mounting rail, you can ignore it)



3. Press the buckle to remove the anti-electrical board, and then connect the wires referring to wiring port and the marked wiring on the anti-electrical board.



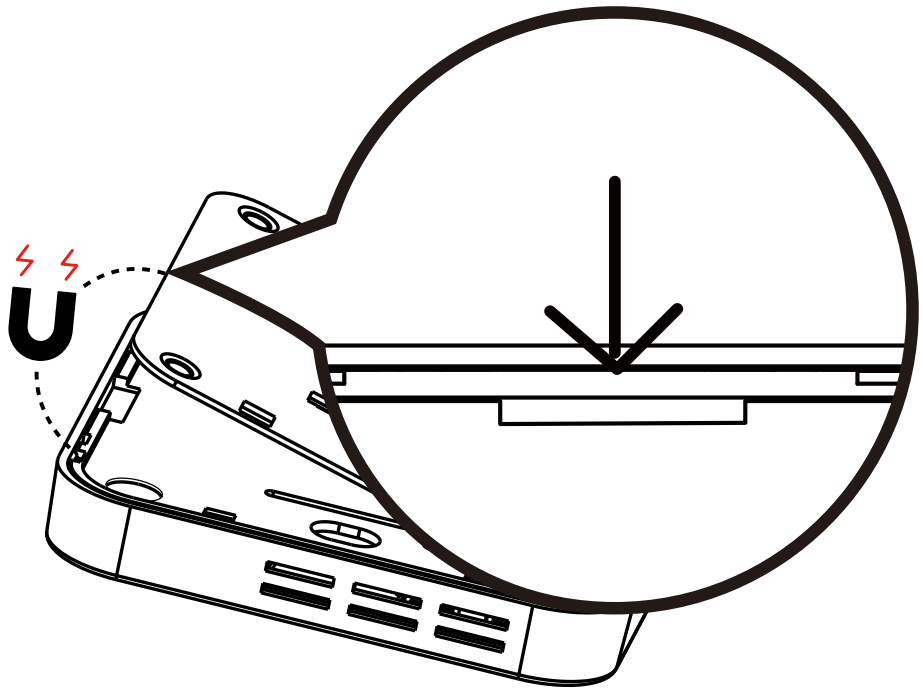
4. After wires connection, fix the back plate with screws (if there is a mounting rail,please snap to it directly) and cover the anti-electricity board and face shell.



Thermostat quick installation

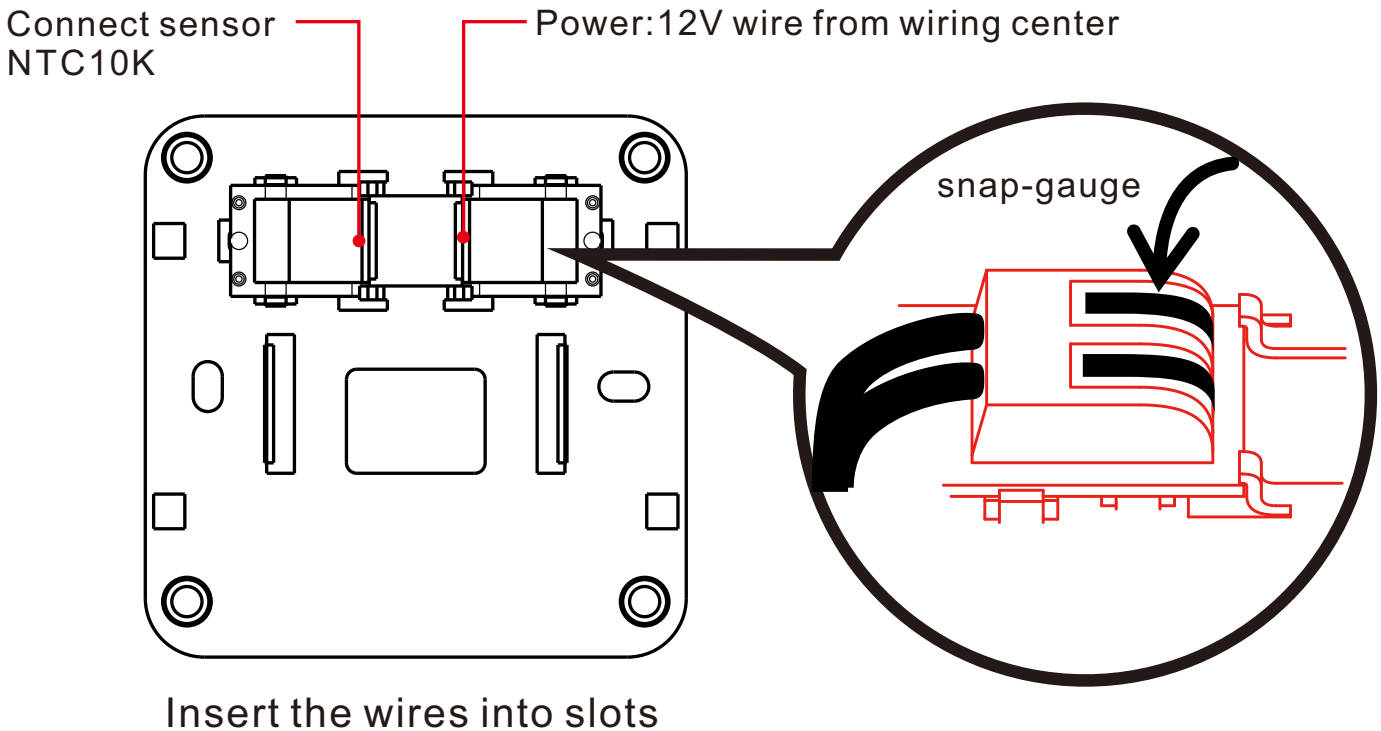
In order to ensure the quality of network communication, the master thermostat must be installed in the living room, in the same area as the router. Please pay attention to distinguish the master and slave thermostats, the master thermostat and wiring control centre are in a package,
named SAS931XWHL-0-BUS-WIFI(TY)

1. Pull back plate to open the thermostat (magnet adsorption)

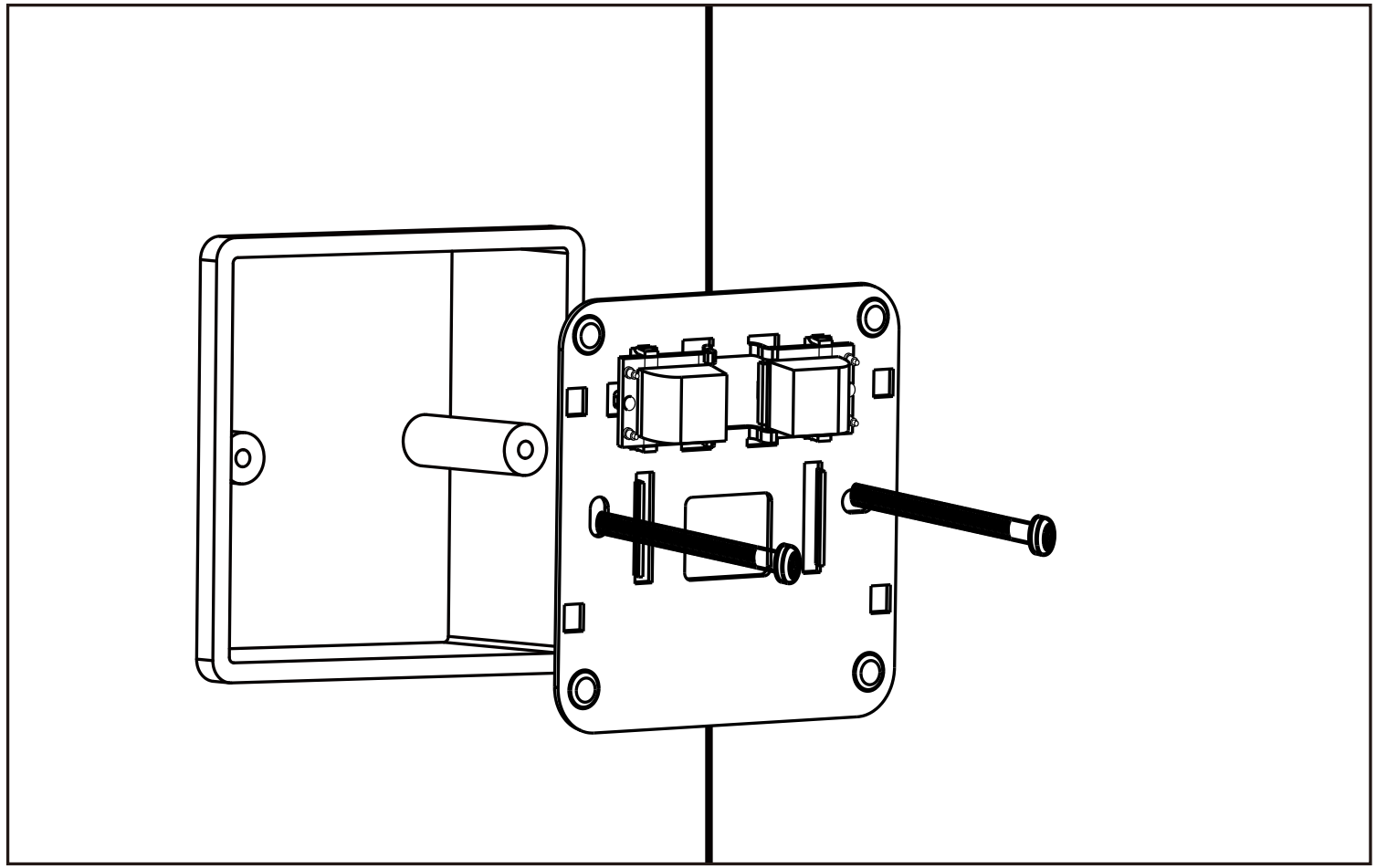


2.Wiring (It is recommended to use 0.75-1.5mm wire)

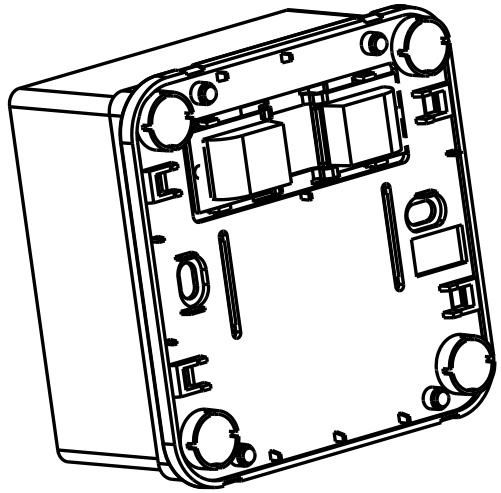
Press the snap-gauge

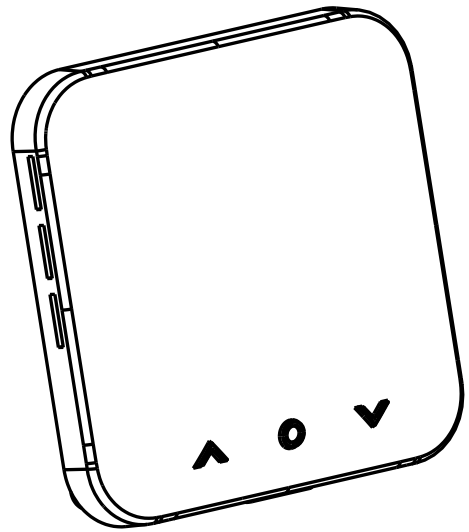


3. Fix the back plate with screws



4.Cover the face shell





Quick test

After wiring control centre energized, please check if the master thermostat was installed correctly in living room, and then check the slave thermostats in other rooms one by one.

1. The screen is off, indicating no power. Please check if the wiring is correct between the thermostat and the wiring control centre.
2. The screen displays "FX" error, indicating that the master and slave thermostats are mixed, find out the thermostat that displays "FX" in other areas, and reverse it to connect W1 in wiring center.
(X represents the numbers 2-8)

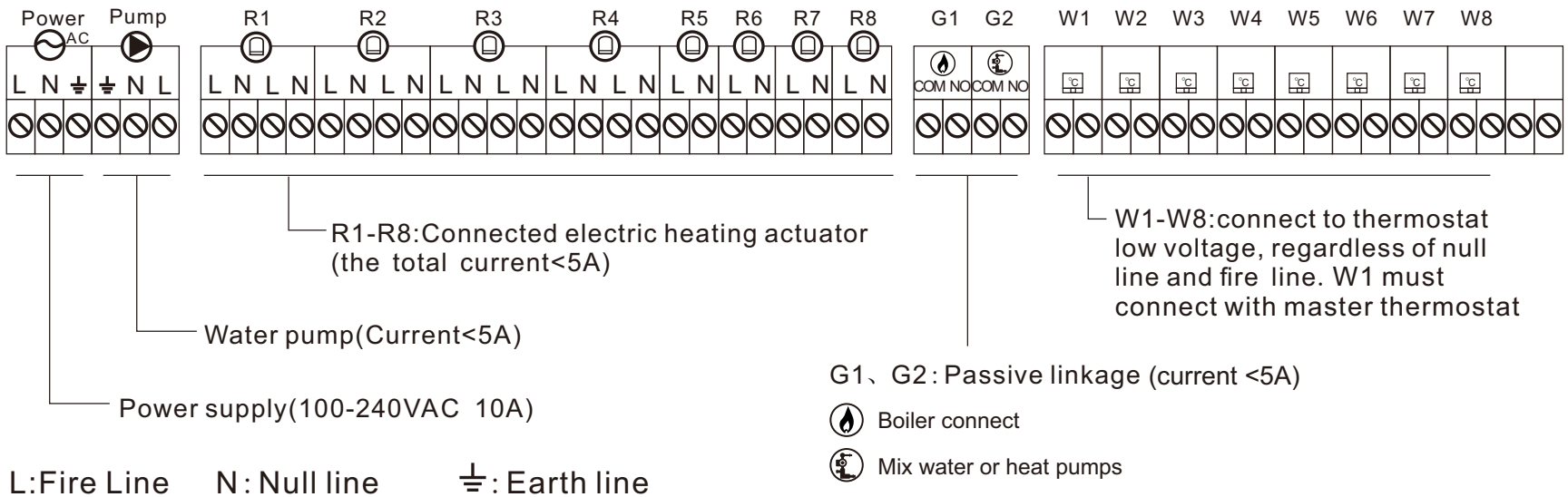
If you find that the corresponding area of the central controller line cannot be matched during installation, you can short press "∧" and "∨" button of the thermostat when switch on status to identify the corresponding line by numbers. For example"02" corresponds to "W2", and so on.

Alarm instructions

Dispaly	Condition
E1	internal sensor broken
E2	External sensor broken
E3	Wiring center and thermostat can't communication

Wiring diagram

Wiring control centre SCU211-BUS
Precautions
①W1-W8: Connected to the thermostat, low voltage, regardless of null line and fire line,
W1 must be connected to the master thermostat, W1 corresponds to an area.
② R1-R8: Connected electric heating actuator, R1 corresponds to W1, R2 corresponds to W2, and so on,
R1-R4 can be connected to two electric heating actuators respectively, the total current does not exceed 5A.



Configuration menu setting

Turn thermostat to OFF mode, hold "∧" "∨" button over 3 seconds enter the first parameter setting and display 01, press "∧""∨ " select to different parameter. Short press "O" enter specific item setting. Short press "O" again to exit. Long press "O" save all setting and back to OFF mode.
In parameter setting page, long press"∧""∨" restore factory setting and " dEF " flash 3 times.

Item	Description	Parameter options	Default
1	Temperature calibration	-6°C ~ +6°C	0°C
2	Maximum temperature setting	25~50°C	35°C
3	Minimum temperature setting	5~20°C	10°C
4	Backlight option	0: Auto adjust backlight based on ambient brightness 1: Always on (backlight keep bright all the time) 2: After 10 seconds, display dim to 50% brightness 3: After 10 seconsd, turn off display	0
5	Setting of heating conditions	0.5-3°C	0.5°C
6	Waterproof scale	ON/OFF	ON
7	Key lock	ON/OFF	ON
8	Open window	ON/OFF	ON
9	The intelligence function	ON/OFF	OFF
10	Anti-freezing	ON/OFF	ON
11	NTC function selection	**S-r**: Room temperature control; **r-F**: Dual temperature mode; **S-F**: Floor temperature control	S-r
12	Floor maximum protection temperature	5~70°C	40°C
13	Pump delay	0/3 (**0** mean without delay for pump and boiler. **3** mean 3 minutes delay for pump and boiler, only for master thermostat.)	3

Features

NTC function selection

S-r: Room temperature
A floor sensor is not present, the unit will be controlled via internal sensor and display as room temperature.

r-F: Dual temperature control
The thermostat will control based on actual room temperature detected by internal sensor and compare the floor temperature limitation set by parameter 10.If floor temperature higher than limitation, it wil stop working. If floor sensor is not connected under r-F mode, it will alarm E2.

S-F: Floor temperature control
Thermostat will control via external sensor and display as room temperature.

Intelligence function

Our thermostat features optimisation and automation to allow our thermostats to comply with boiler plus. User can decide when the heating will come on and off depending on the user requirements but keep heating event 1 the same on temperature constant through out the week, also the same with heating event two and three to allow for the best possible energy saving.

Heating conditions

Heating condition:Start heating condition are based on user setting in configuration 5. Eg: set it to 0.5°C, when setting temperature>room temperature+0.5°C, it will start heating.
When room temperature= setting tempeature it will turn off heating.

Open window function

When the room temperature drops by 6 degree or more within 4 minutes, the window open function automatically turned on display " [ ] " and the heating is stopped.You can manually restore to the previous operating mode by pressing any key. In the windowing mode, when the temperature starts to rise 3 degree or the window opening function is turned on for 48 minutes, the previous operation mode is automatically restored.

In the window opening mode, press " O " to exit the window opening mode.

Water-proof scale

If thermostat didn't work over a week or longer will let valve clogged as scale. To prevent valve from clogged, thermostat will send open signal to valve run 5 minutes. After finished it will turn to previous mode.

Anti-freezing

Thermostat will heating when temperature is below to 5°C,and turn off heating when temperature reach to 8°C. It only activate in heating mode.

Default programming

(Heating mode)

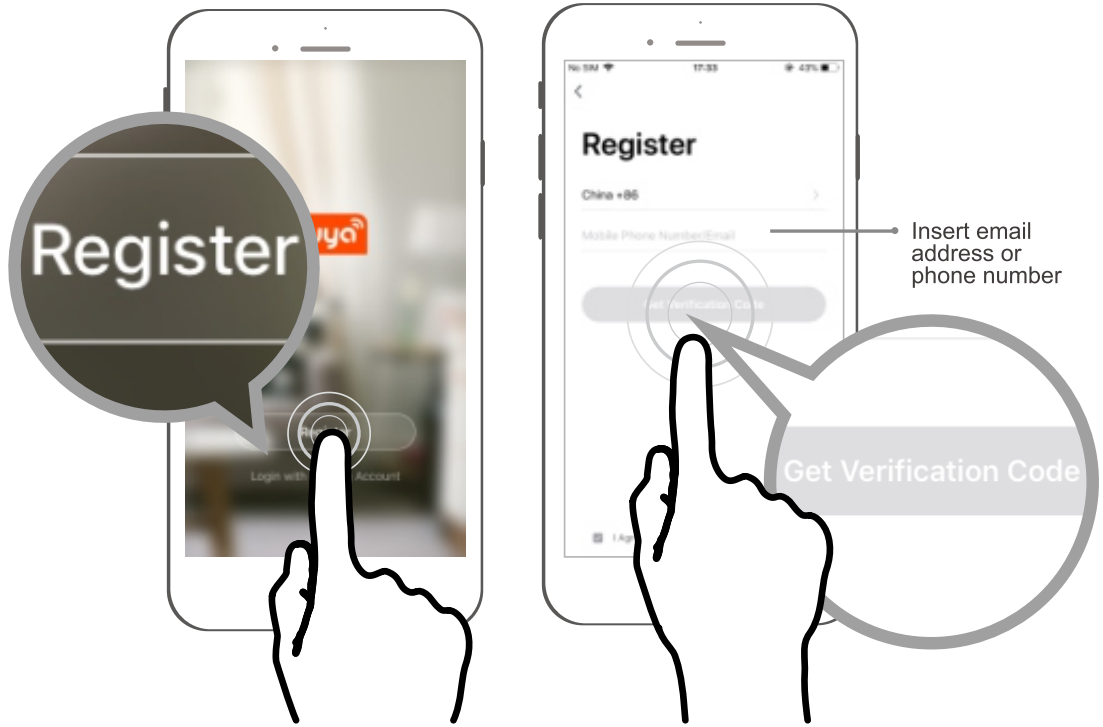
Wake up		Outdoor		Back home		Outdoor		Back home		Sleep	
6:00	20°C	8:00	16°C	11:00	20°C	14:00	16°C	18:00	20°C	22:00	16°C

LINK APP

Download and register

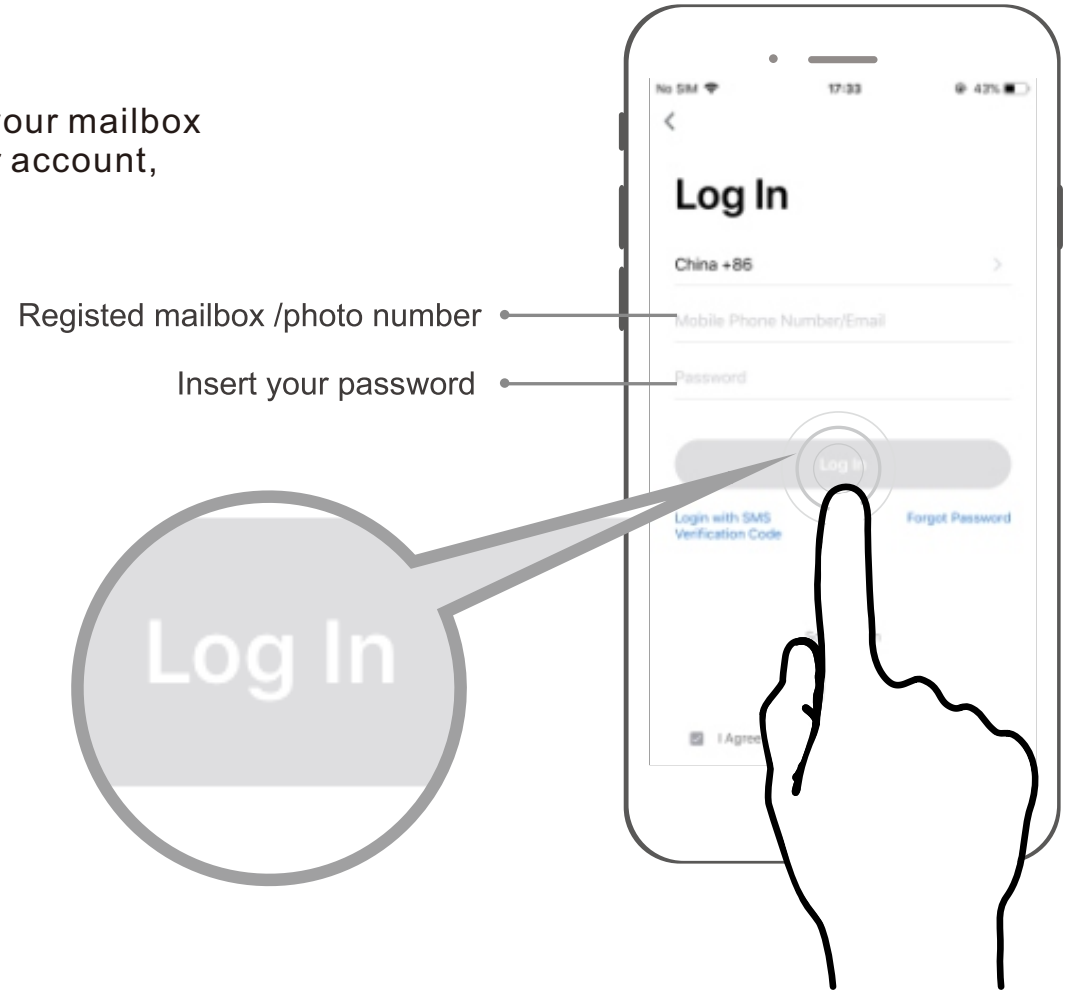
❶ Click App store(click Android application market)

❷ Search TuyaSmart and download .



Login

When you finish the register,log in your mailbox and click on the link to activate your account, then can login TuyaSmart APP.



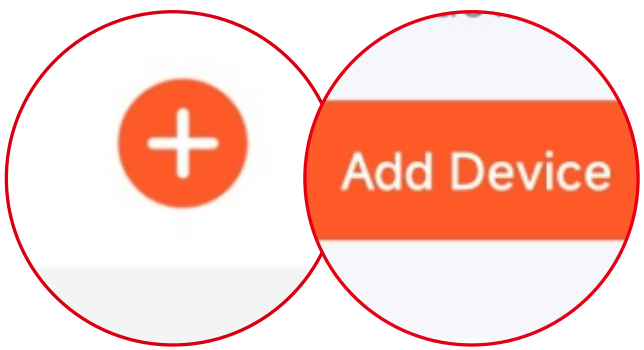
Add thermostats

Tips: Please turn on the location and Bluetooth of your phone at first.

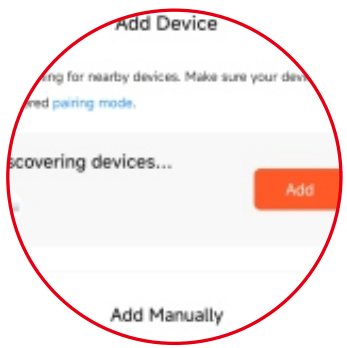
For master thermostat: Please ensure WIFI icon keep fast flash.

If not, in switch on mode, long press“ ^ ”and “ O ”button over 5 seconds to switch WIFI icon to fast flash.

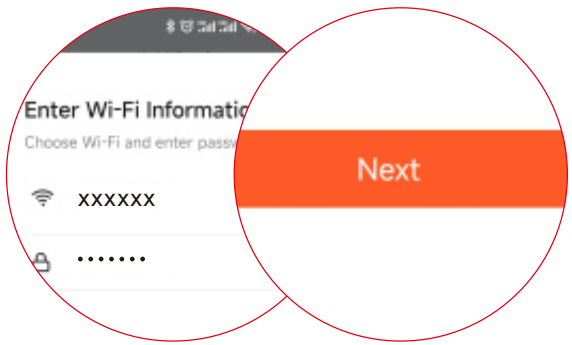
1. Enter the “HOME” interface of the app, Click the “+” in the upper right corner, then click “ Add Device ”.
   Or click “ Add Device ” directly.



2. Click “ Add ”.



3 Enter your wifi account and password
Click “ Next ”.



4 Wait a few second, Click “ Done ”.

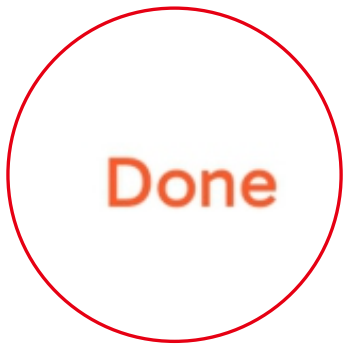
5 Click“⊕Add subdevice”.

6 Click “LED already blink”.

❼ Search device, please wait a moment

Tips:Make sure detection device match with your actual installed unit.

❽ Click “Done”, it means the device added successfully.



APP display

Click to view history

Click for setting implicit parameters

Click for programming

Press“ ^ ”“ v ”adjust temperature

Slide to power on /power off

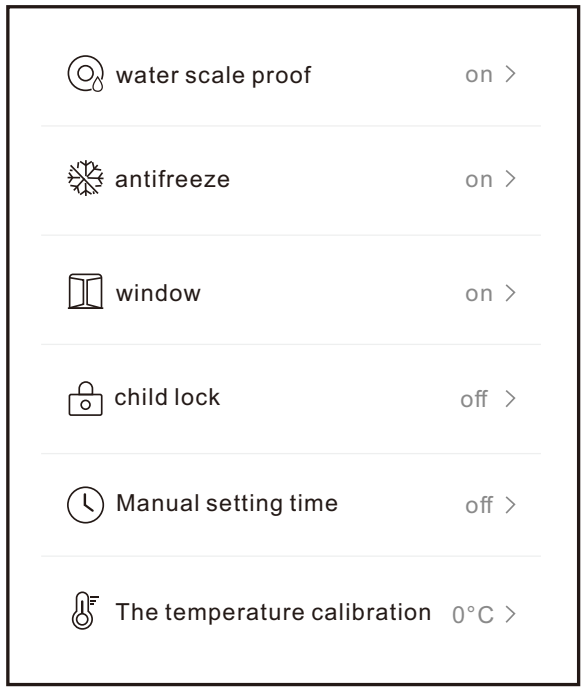
Temporary leaving

Temporary leaving mode:
If you need to stay out temporarily, click the button to activate energy-saving mode and icon“ ” turn to green. If heating mode temperature remain at 16℃. After you arrive home,click the button again to recover the previous temperature setting.

Configuration setting

Click to exit setting

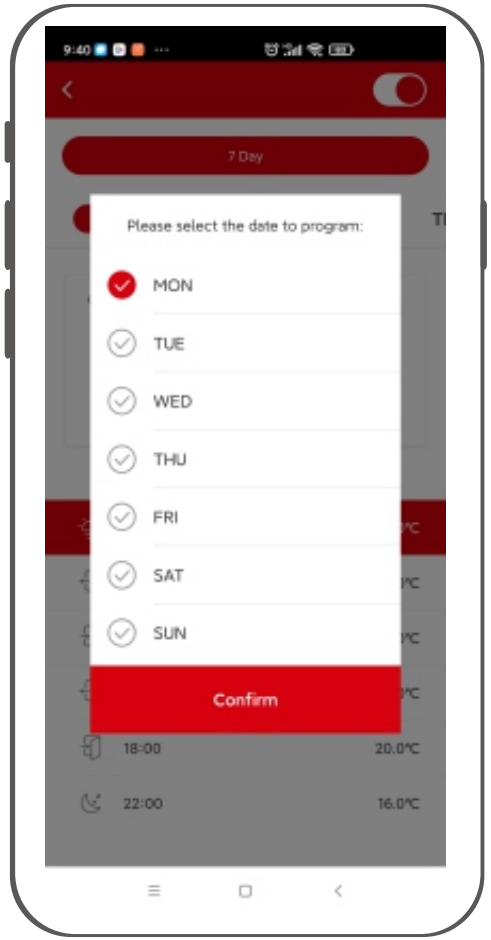
Slide up and
down to select
the implicit parameters



Click to set the parameters

Program-setting

Slide the button " " to close programming.



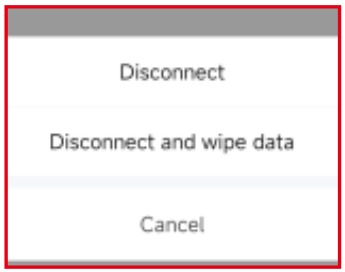
❶ Click“ program ” for programming

❷ Click“ 7 Day” for choosing the date to program

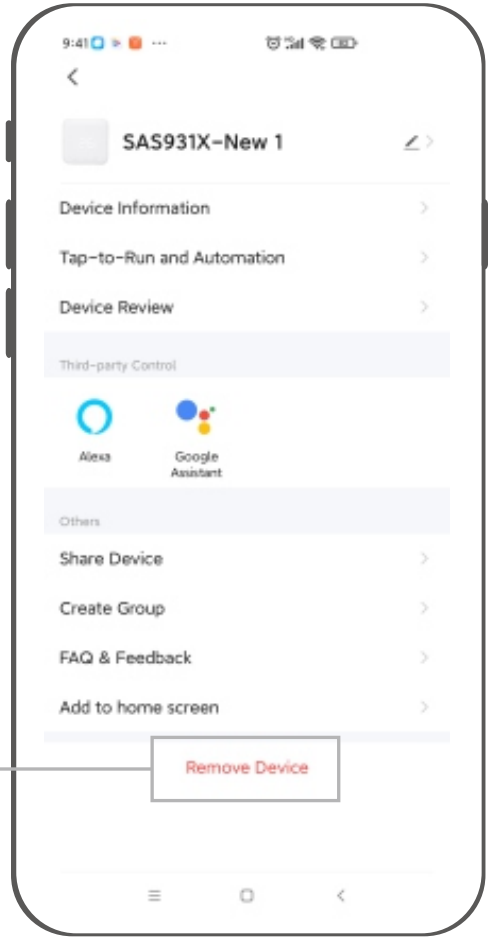
❸ Select the date, click“ confirm ”

Remove device

Click to enter parameter setting



Click to remove device



Voice command:

After waking up the speaker, you can say:

Amazon Alexa	Google Assistant
* Alexa, open <device name>.	* Ok, google, turn on <device name>.
* Alexa, close <device name>.	* Ok, google, turn off <device name>.
* Alexa, set the <device name> to 16 degrees.	* Ok, google, set the <device name> to 25 degrees.
* Alexa, what is the temperature of <device name>?	* Ok, google, what temperature is the <device name> set to?

Tips:

* You can name <device name> yourself.
* The temperature unit of thermostat and speaker must be the same.