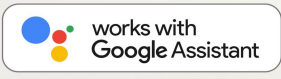
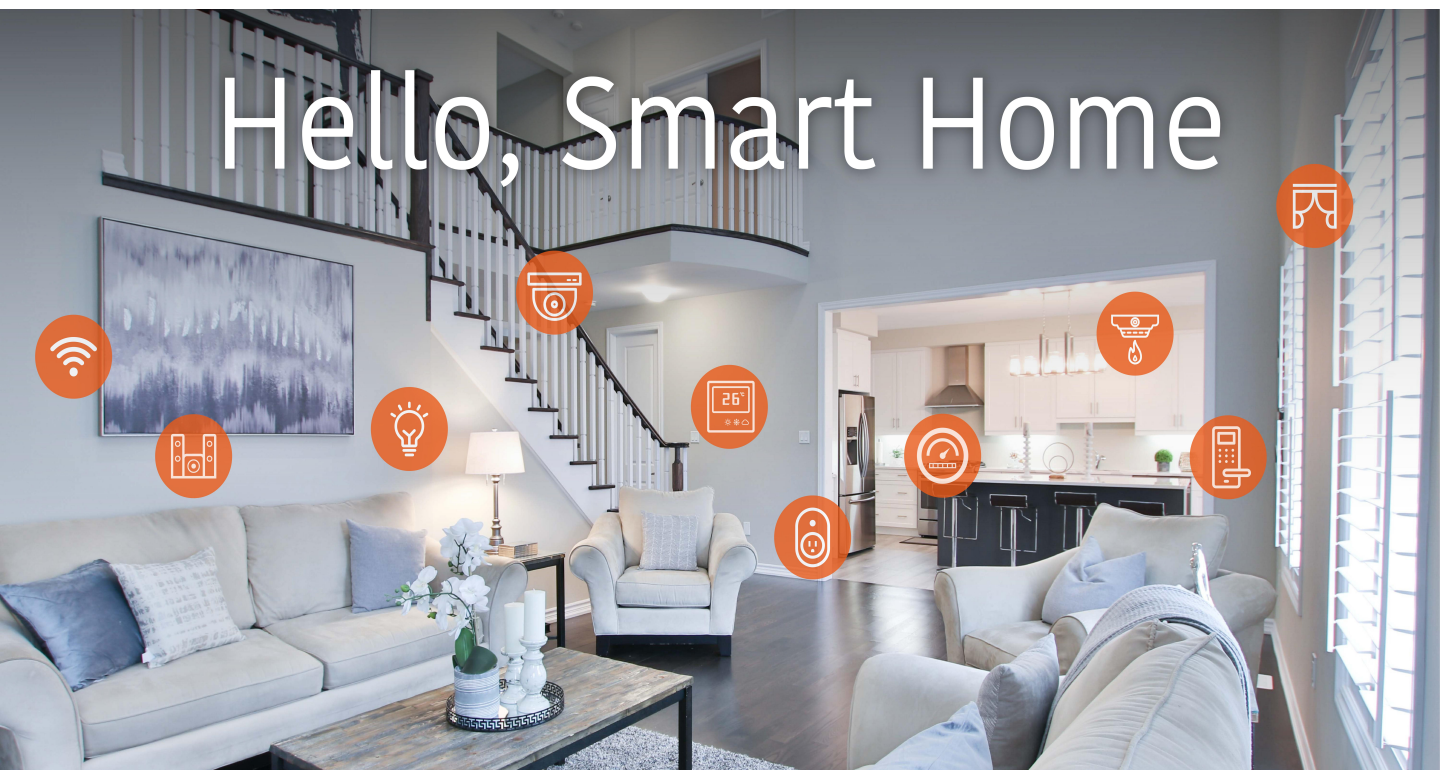


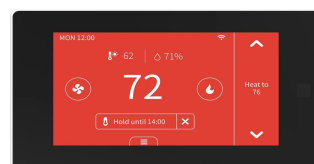
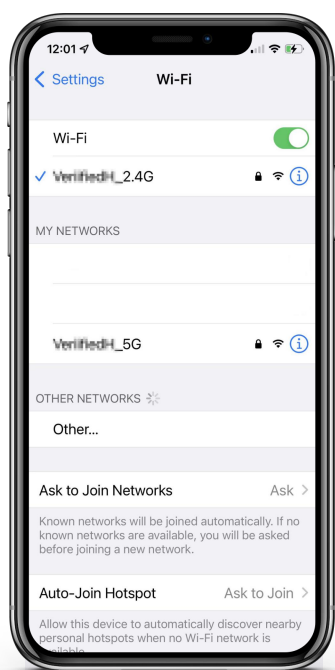


Hello, Smart Home





Set Up Router



Please keep network available

2.4GHz

5GHz



The router supports the 2.4GHz WiFi (doesn't support the 5GHz), and is connected to the WiFi network. Please set the parameters of the router before connecting the WiFi network, and record the SSID and password of your WiFi.



Model: ST508

Smart Thermostat

Quick Start Guide

Safety Handling

WARNING: Failure to follow these safety notices could result in fire, electric shock, other injuries, or damage to the Thermostat and other property. Read all the safety notices below before using the Thermostat.

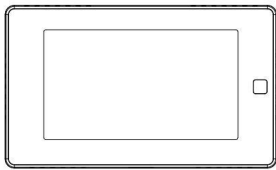
- Avoid high humidity or extreme temperatures.
- Avoid long exposure to direct sunlight or strong ultraviolet light.
- Do not drop or expose the unit to intense vibration.
- Do not disassemble or try to repair the unit on your own.
- Do not expose the unit or its accessories to flammable liquids, gases or other explosives.

1 Welcome

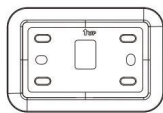
The Wi-Fi Touchscreen thermostat makes it easier and smarter to control your household temperature. With the help of zone sensors, you can balance hot or cold spots throughout the home to achieve best comfort. You can schedule your thermostat working hours so it will work based on your plan.

This guide will provide you with an overview of the product and will help you understand how to use it.

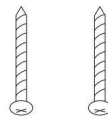
2 In the box



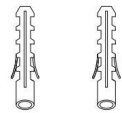
Touchscreen Thermostat



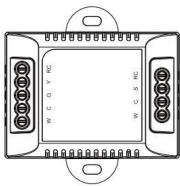
Wall Plate



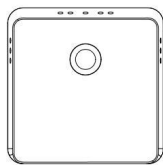
2*Screws



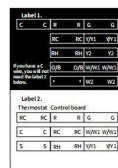
2*Drywall plugs



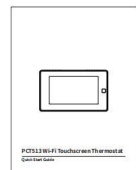
Power module
(optional)



Remote Zone Sensor
(optional)



Wire Tags



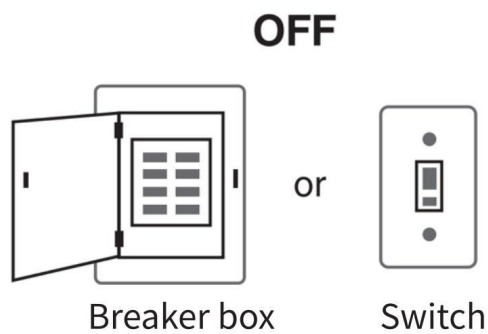
User guide

3 Installation Guide

3-1 Removing your old thermostat

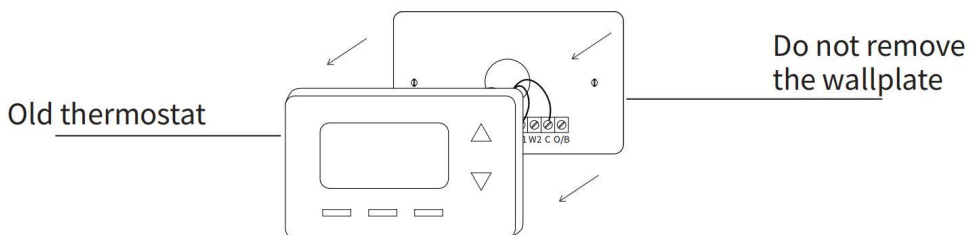
Step 1. Switch off your HVAC system

Before you start, please switch off your HVAC system to protect you and avoid blowing a fuse. Wait a few minutes, try to adjust the temperature in your old thermostat to double check if the system is off.



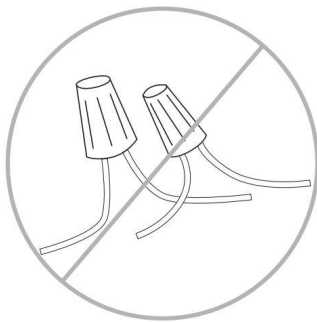
Step 2. Remove the old thermostat

Remove the old thermostat from the wall, keep the wallplate with wires.

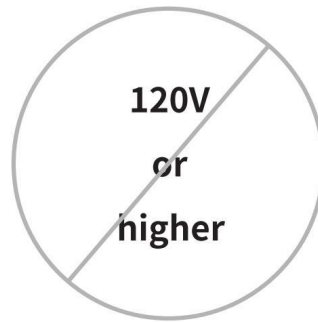


Step 3. Compatibility Check

If you find a thick wire with wire nuts on the backplate of the old thermostat, or if the voltage of your old system is 120v or higher, it will not be compatible with Model : ST508. If none of the above, then please proceed to the next step.

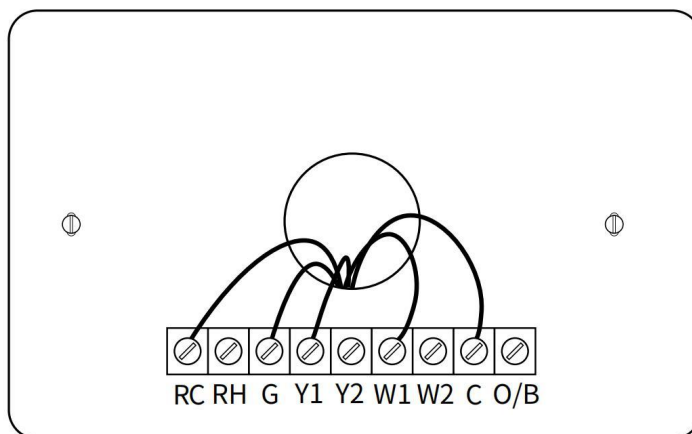


OR



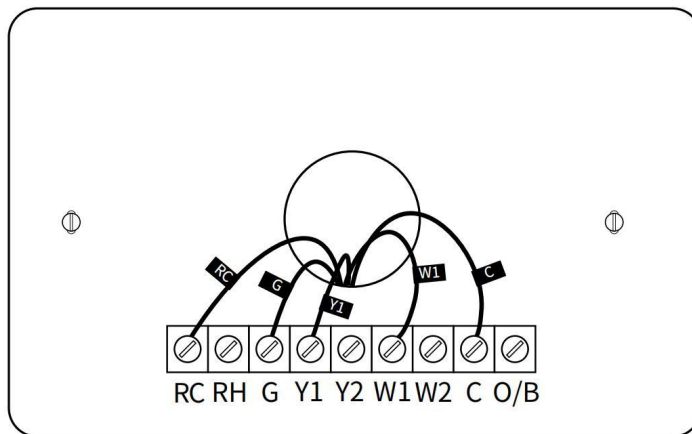
Step 4. Take a photo

Take a picture of the wires connected to the terminal of your old thermostat. You may need to reference this photo later.

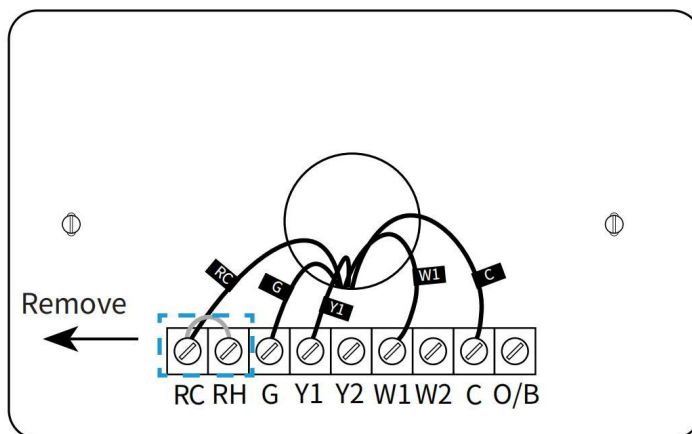


Step 5. Label the Wires with Tags

Label each wire on the wallplate with the tags (**label 1**) provided. Then carefully disconnect the wires.



Note: If there are any jumper wires between **Rh, Rc, or R** terminals, do not label them. Thermostat does not need jumpers. Remove them and save along with your old thermostat.

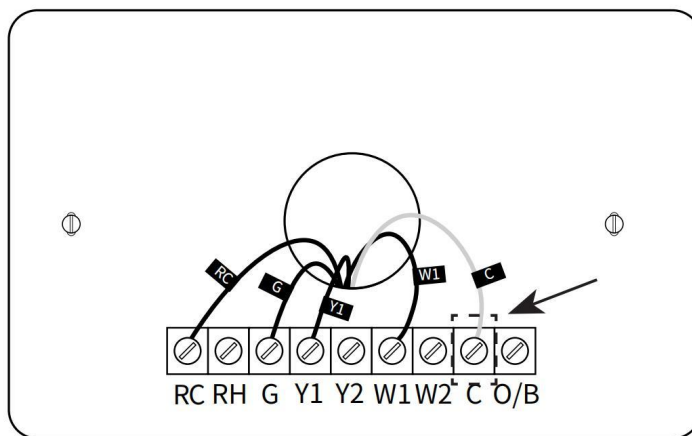


3-2 Connect wires

Do you have a C wire connected to your old thermostat?

YES → 3-2-1

NO → 3-2-2



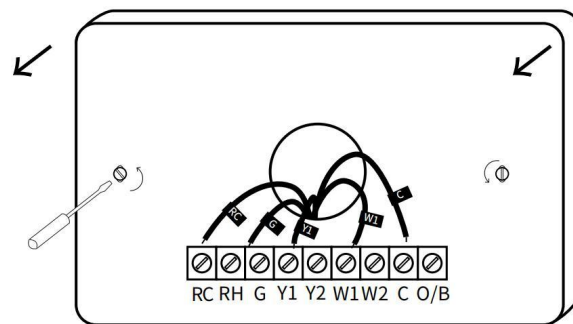
Terminal designation:

Terminals	What it means
RC	24VAC primary for cooling
RH	24VAC primary for heating
C	24VAC common
W1	1st stage Primary heating relay / Aux heat
W2	2nd stage Secondary heating relay / Aux heat
Y1	1st stage Primary compressor contactor
Y2	2nd stage Secondary compressor contactor
G	Fan relay
O/B	Changeover valve for heat pumps
S	Optional wiring module terminal to combine Y and G, while reserve an extra in-wall wire to power on the thermostat

3-2-1 Install the thermostat with a C-wire

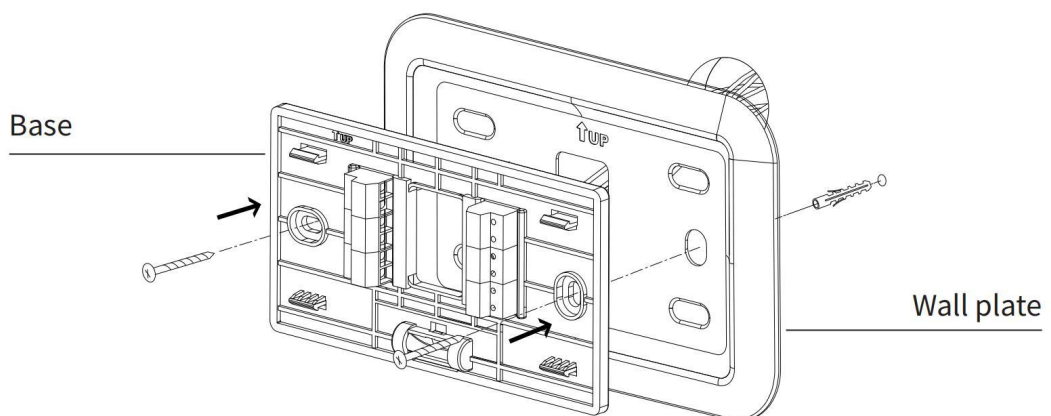
Step 1. Remove the wallplate

Unscrew the wallplate from the wall, gently pull it out to ensure the wires will not fall back into the hole.



Step 2. Attach the base of Thermostat to the wall

Bundle and insert the wires through the hole of wall plate and the base of PCT513, then attach the base to the wall with the screws.



Step 3. Connect the wires

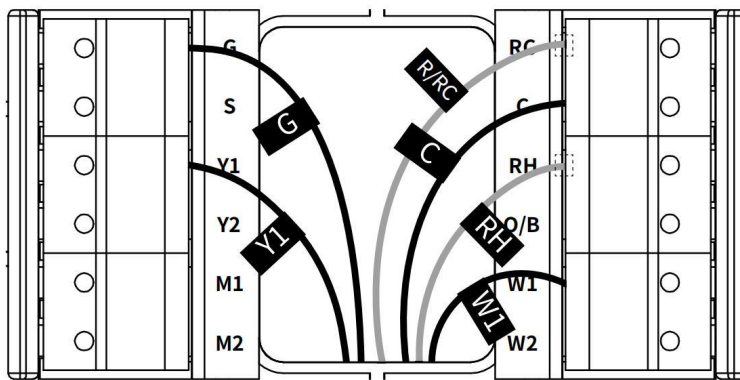
Connect wires to the corresponding terminal in the base. Take a picture of the wires when you finished. You may need to refer it for the wirings in the setup wizard later.

Do you have more than one R wire (R, RC, and RH)?

YES:

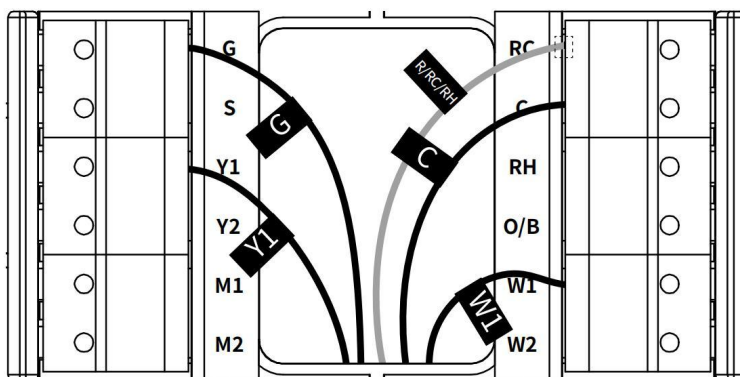
R or RC wire into the RC terminal

RH wire into the RH terminal



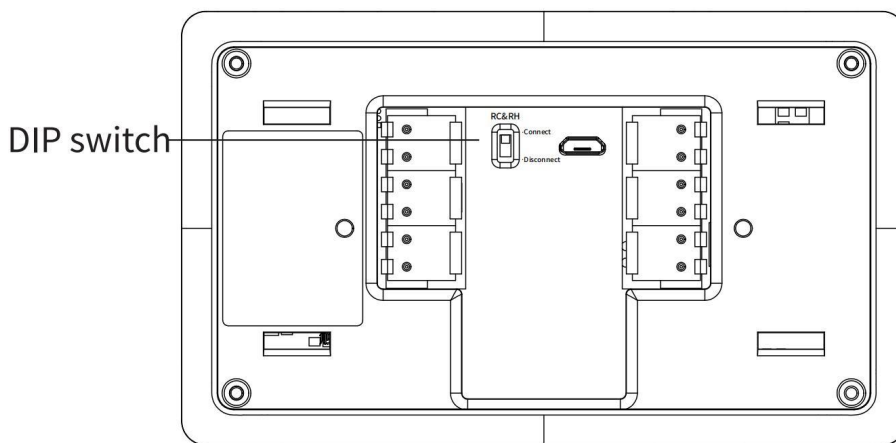
NO:

R, RC, or RH wire into the RC terminal



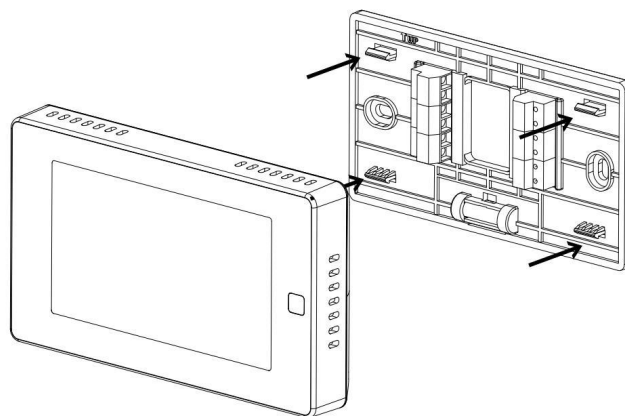
Step 4. DIP Switch

Adjust the DIP switch on the back of the thermostat to **'Disconnect'** if you have connected both the RC-wire and the RH-wire to the wallplate, otherwise, switch it to the **'Connect'** side.



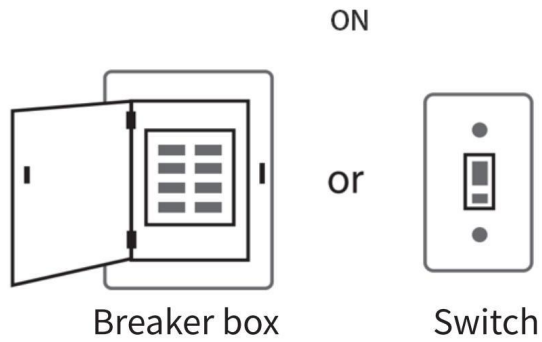
Step 5. Attach the Thermostat to the base

Gently press the Thermostat into the base until it clicks.

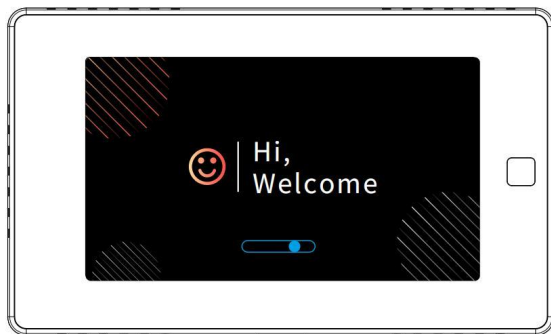


Step 6. Power on your system

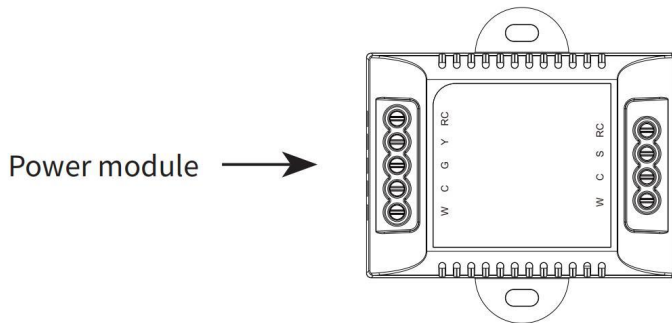
Congratulation! The installation is finished. Please power on your HVAC system.



When the power is successfully energized, the thermostat's screen will light up and go into wizard. You can complete the following configuration according to section 4.



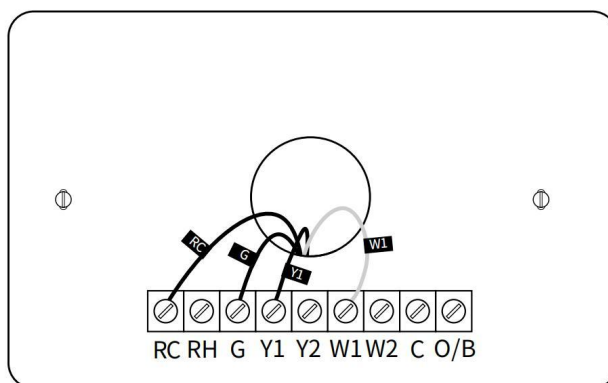
3-2-2 Install the thermostat **without a C-wire** (Optional)



Power module requires your system to have the following wires:

4 wires: W/W1, Y/Y1, G, and R (or Rc or Rh)

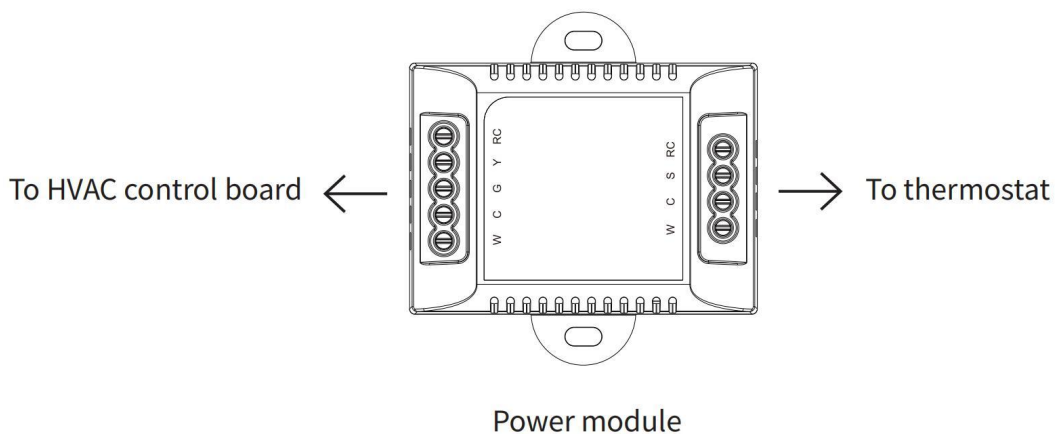
or 3 wires: Y/Y1, G, and R (or Rc or Rh)



If you do not have these wires, your system may not be compatible with the power module.

Description:

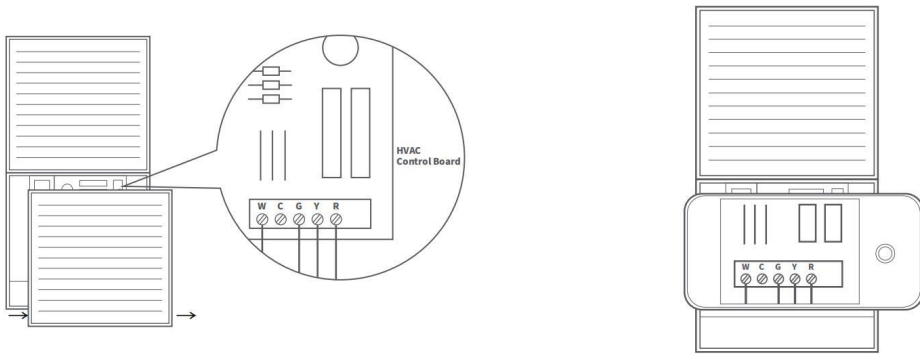
The C-wire is used to provide power to the thermostat. If your system does not have "C" wire, you can use the power module to power your thermostat using the exiting wires.



There are two sides with connections. One side (4 terminals) is for thermostat connections, the other side, pre-wired (5 terminals), is for the control board connections.

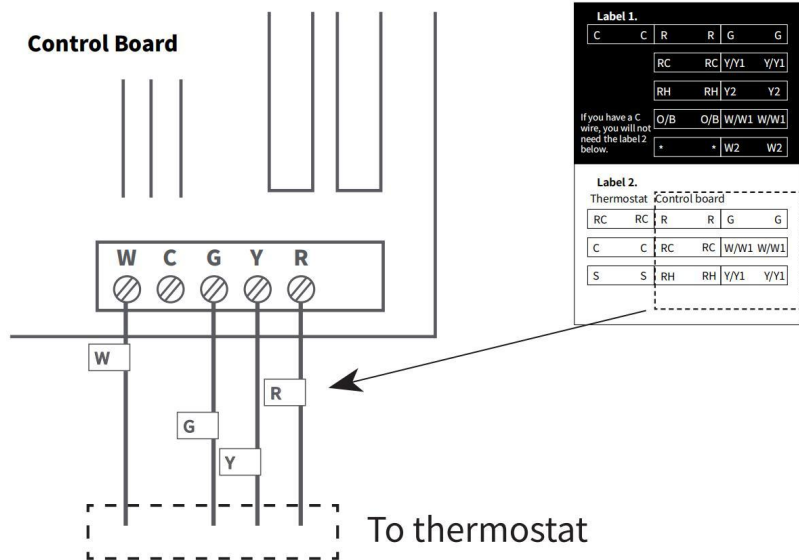
Step 1. Find the HVAC terminals

Find the control board of your HVAC system. Open your HVAC system's cover and take a picture of the wires connected to the terminals of your old thermostat. You may need to reference this photo later.



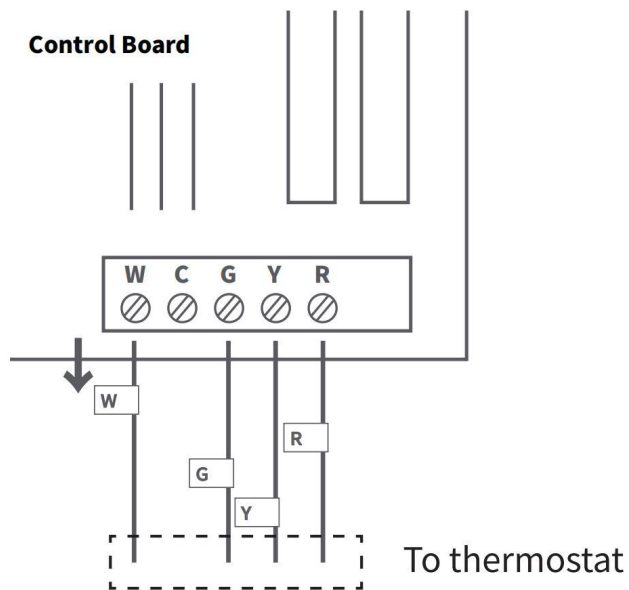
Step 2. Label the wires

Label only the wires from the control board to your old thermostat with the tags provided (**label 2 control board**).



Step 3. Disconnect the wires

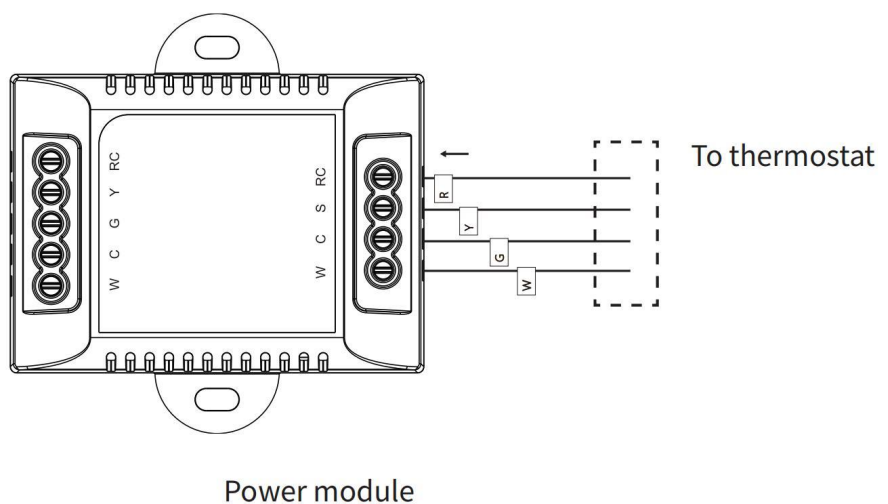
Disconnect the W/W1, G, Y/Y1, R wires from the control board.



Step 4. Connect the wiring module

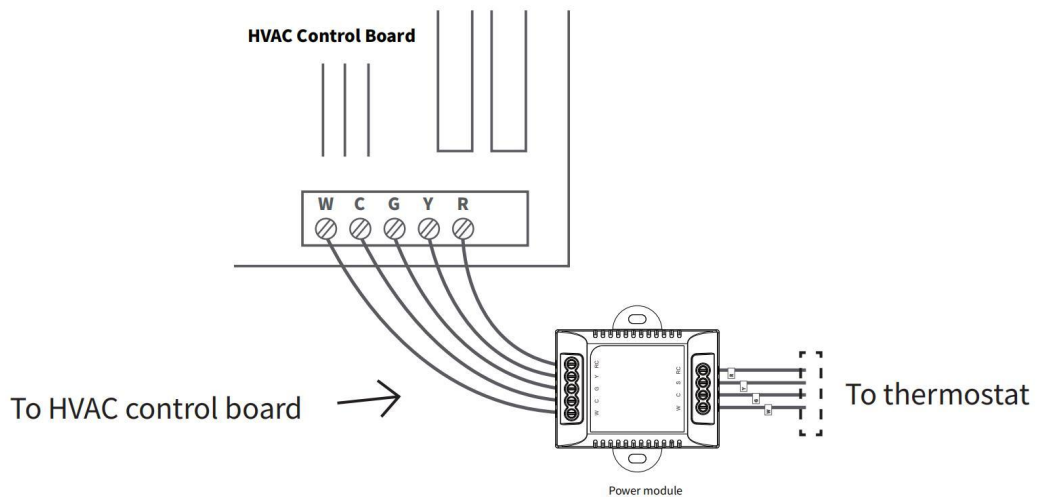
Reconnect them correspondingly to the 4 terminals side of the power module.

R→RC W/W1→W G→C Y/Y1→S



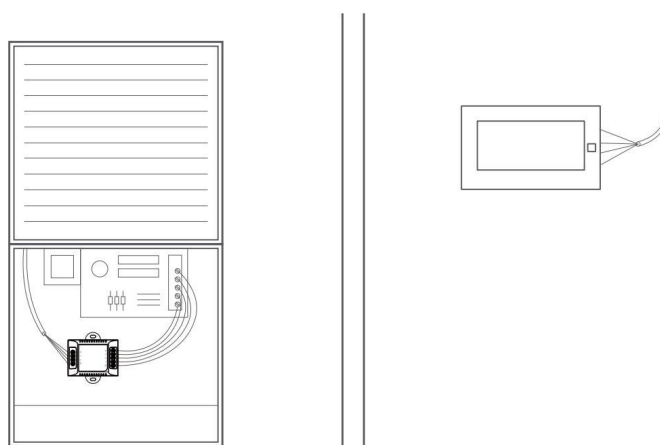
Step 5. Connect the wires

Generally, the control board will have W, C, G, Y, R terminal, connect the pre-wired side of the power module (5 terminals) to the corresponding terminals.



Step 6. Position the wiring module

The power module should be installed between your thermostat wiring and your control board. Install it at the right position then close the HVAC cover panel securely and return to your thermostat.



Step 7. Add new tags

Add new tags to the following tags to simplify your wiring:

R/RC/RH → RC

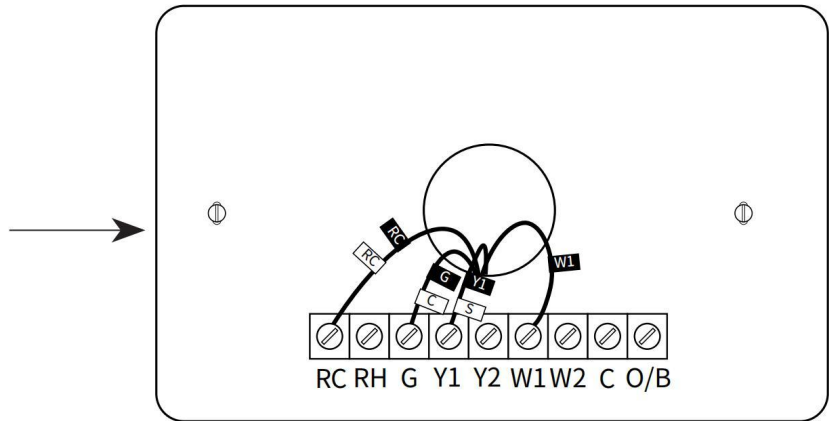
G → C

Y/Y1 → S

Label 1.					
C	C	R	R	G	G
	RC	RC	Y/Y1	Y/Y1	
	RH	RH	Y2	Y2	
	O/B	O/B	W/W1	W/W1	
	*	*	W2	W2	

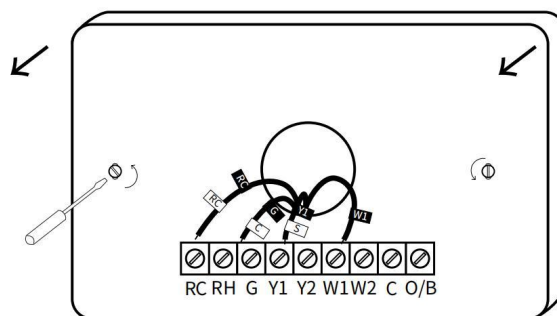
If you have a C wire, you will not need the label 2 below.

Label 2.					
Thermostat			Control board		
RC	RC	R	R	G	G
C	C	RC	RC	W/W1	W/W1
S	S	RH	RH	Y/Y1	Y/Y1



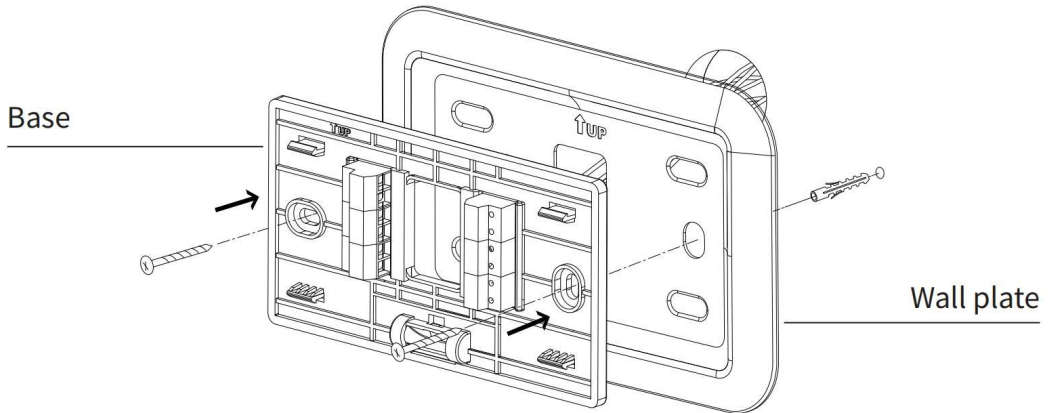
Step 8. Remove the wallplate

Unscrew the wallplate from the wall, gently pull it out and ensure the wires will not fall back into the hole.



Step 9. Attach the base of Thermostat to the wall

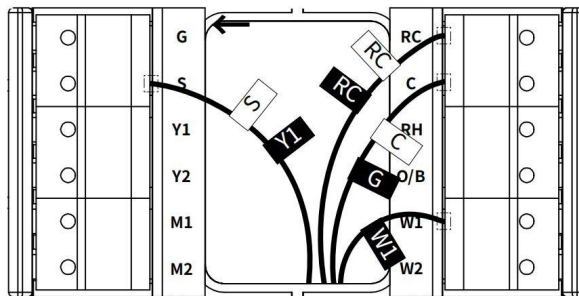
Bundle and insert the wires through the hole of wall plate and the base of ST508, then attach the base to the wall with the screws.



Step 10. Connect the wires

First, connect 3 wires as shown below:

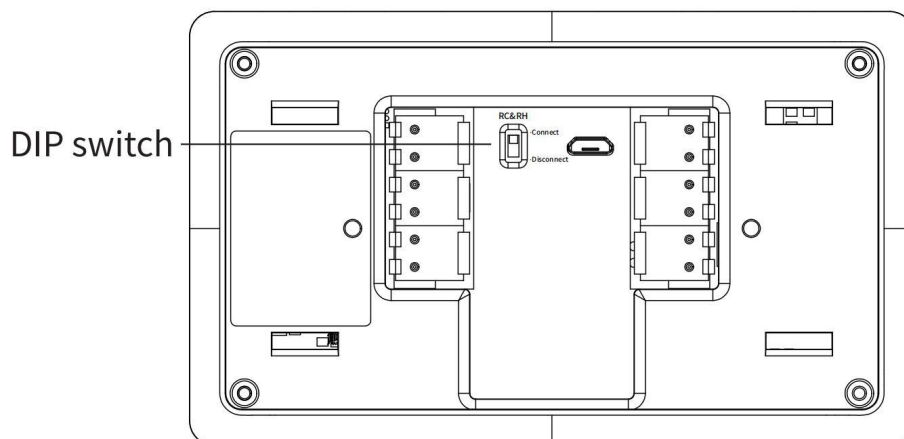
RC, C, S



Then connect other wires to the corresponding terminal in the base. Take a picture of the wires when you finished. You may need to refer it for the wirings in the setup wizard later.

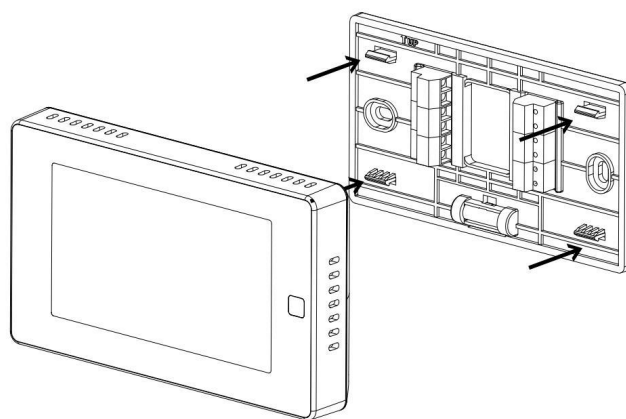
Step 11. DIP Switch

Adjust the DIP switch on the back of the thermostat to the '**Connect**' side.



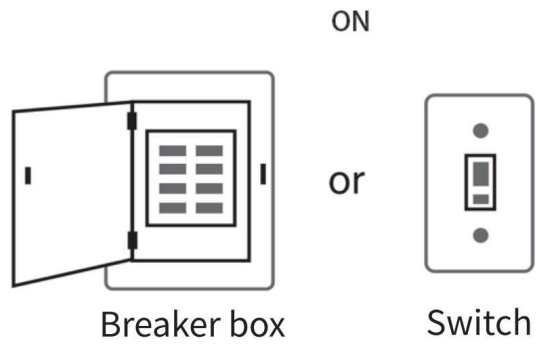
Step 12. Attach the Thermostat to the base

Gently press the Thermostat into the base until it clicks.



Step 13. Power on your system

Congratulation! The installation is finished. Please power on your HVAC system.



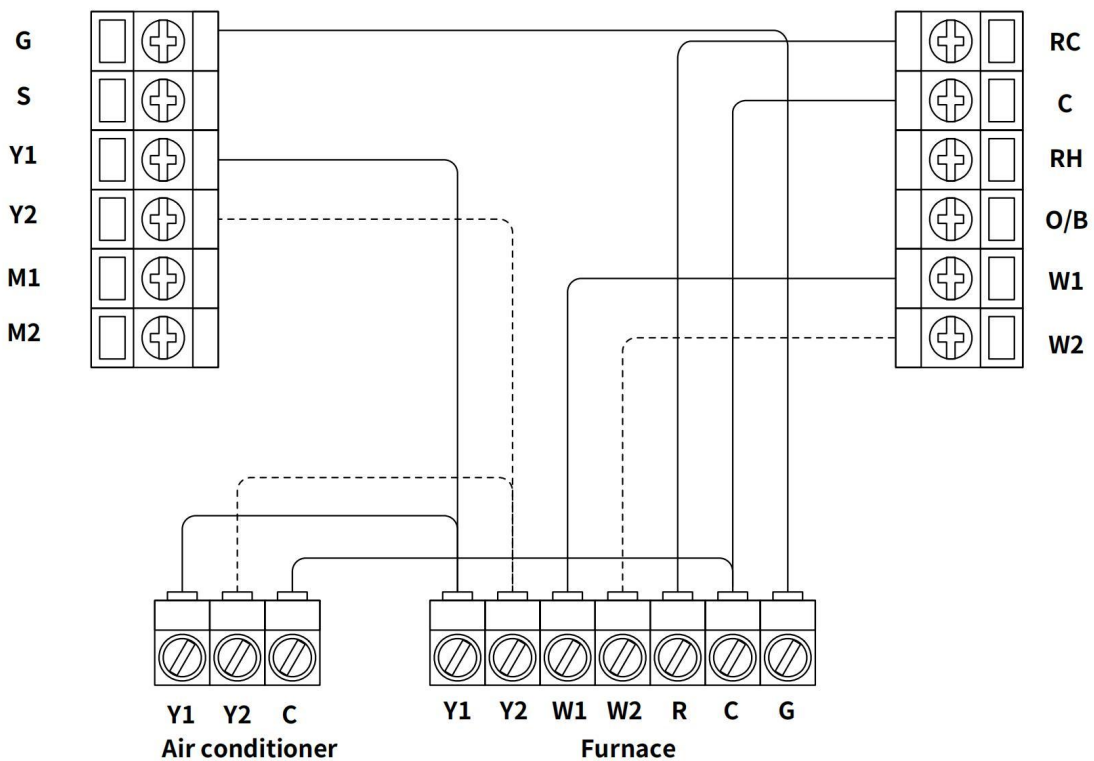
When the power is successfully energized, the thermostat's screen will light up and go into wizard. You can complete the following configuration according to section 4.



Wiring diagrams

Below are the wiring diagrams for common HVAC equipment.

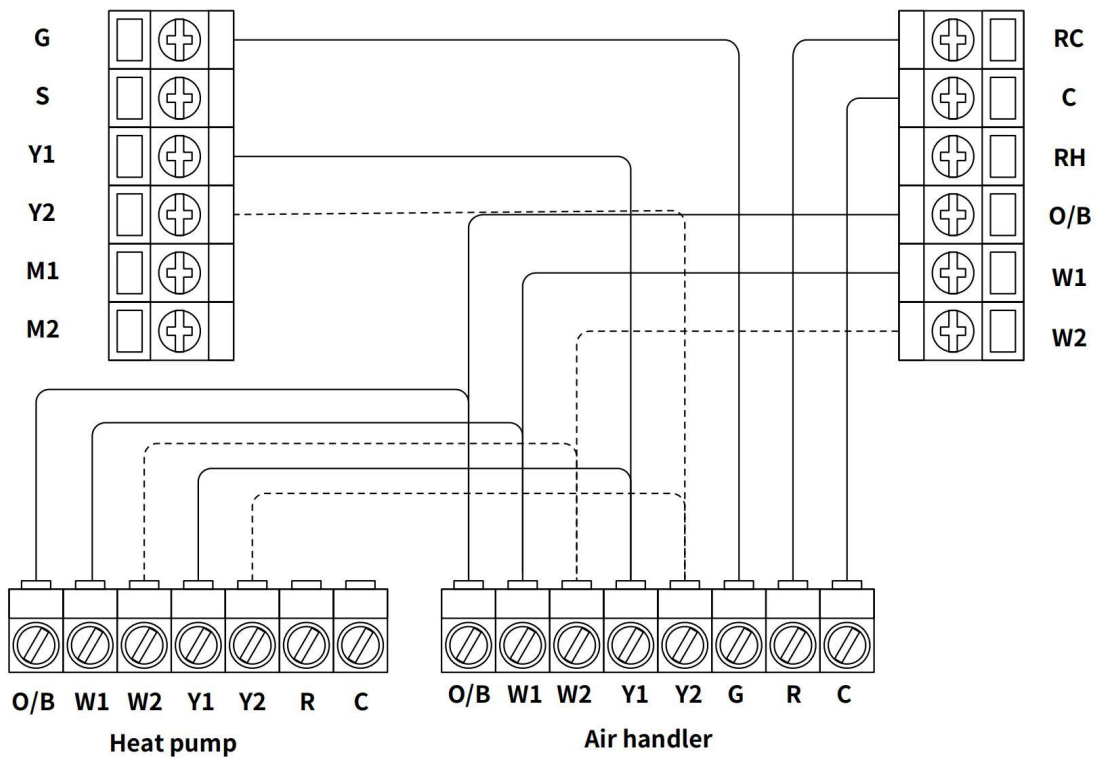
Conventional heating and cooling system



For dual heat and cooling system, if applicable.

Remove the jumper between Rh, Rc, or R terminals, adjust the DIP switch on the back of the thermostat to '**Disconnect**' if you have connected both RC-wire and RH-wire to the wallplate, otherwise switch it to the '**Connect**' side.

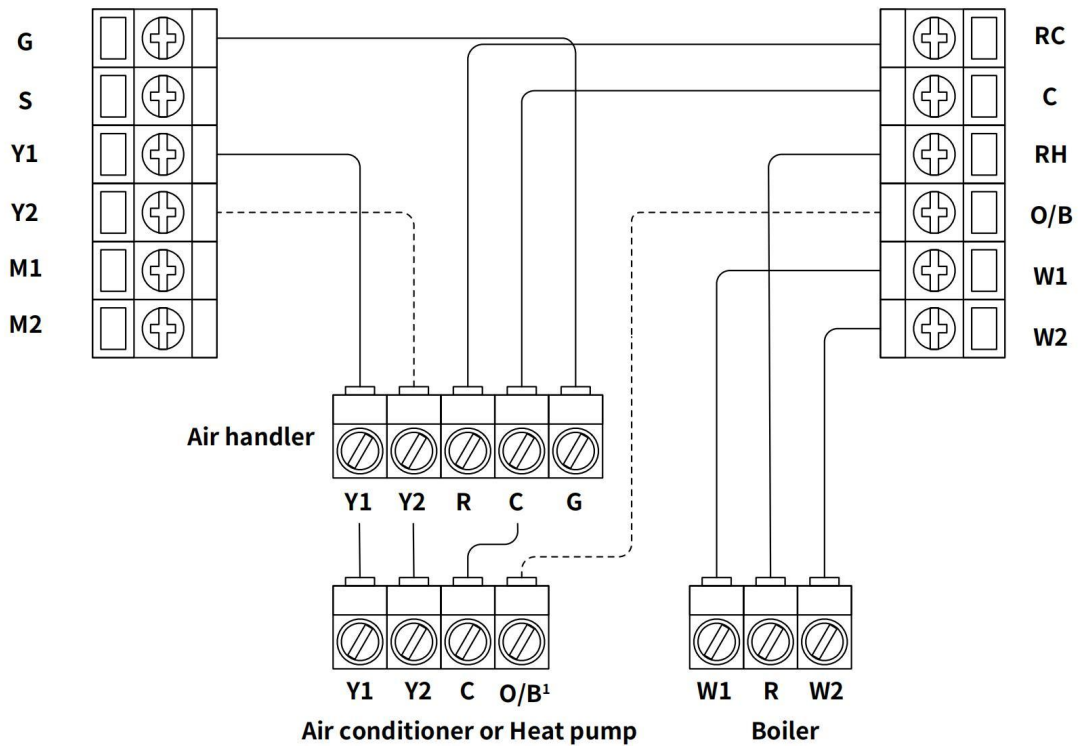
Heat pump (air or geothermal) with auxiliary heat



For dual heat and cooling system,
if applicable.

Remove the jumper between Rh, Rc, or R terminals, adjust the DIP switch on the back of the thermostat to '**Disconnect**' if you have connected both RC-wire and RH-wire to the wallplate, otherwise switch it to the '**Connect**' side.

Boiler or radiant system with air handler and conventional cooling or heat pump



For dual heat and cooling system, if applicable.

For heat pump only.

Remove the jumper between Rh, Rc, or R terminals, adjust the DIP switch on the back of the thermostat to **'Disconnect'** if you have connected both RC-wire and RH-wire to the wallplate, otherwise switch it to the **'Connect'** side.

Ready to work



FRI 12:00



42%



27.5



Cool to
26.0



Follow Schedule



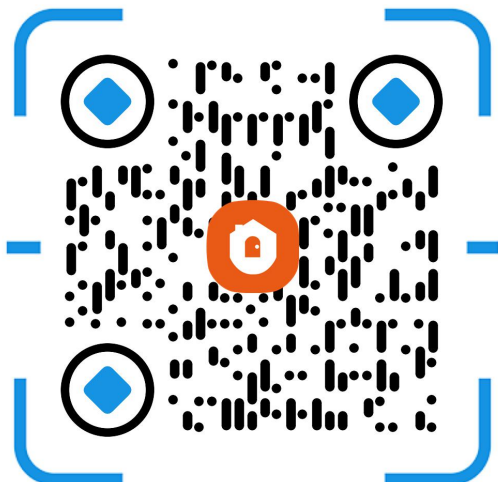
Back to your thermostat. Click the Wi-Fi icon to configure Wi-Fi.

Install Free App

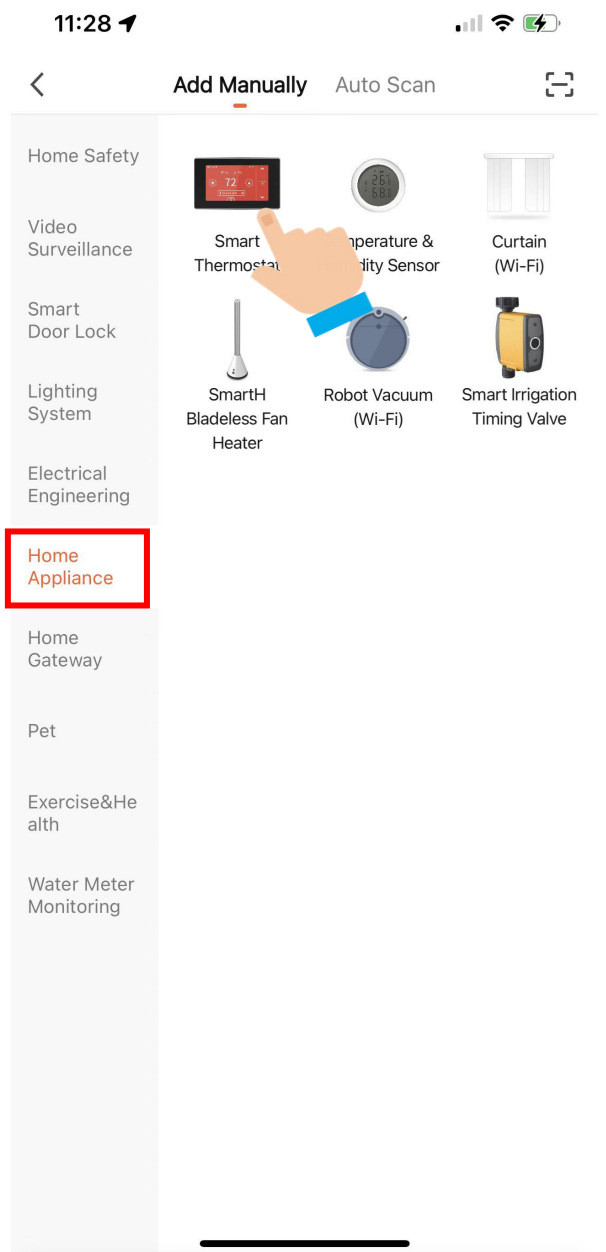
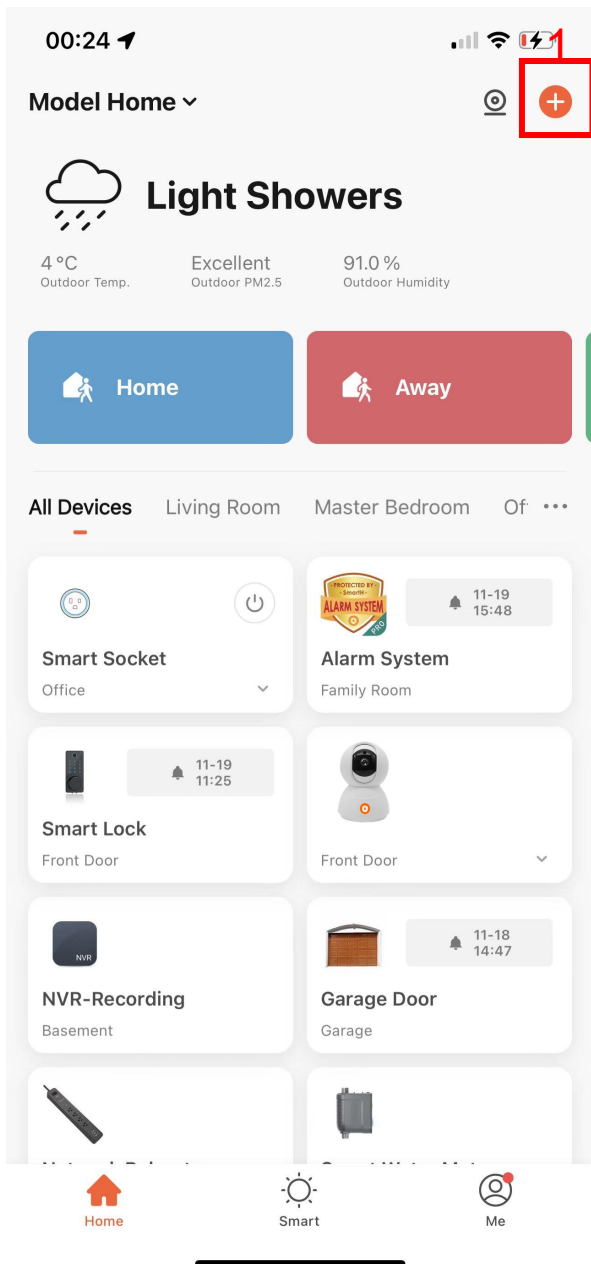
Download APP: scan the QR code below to download and install. Register and login: open the "MySmarth" APP to register and login according to the prompts.



Customer Support

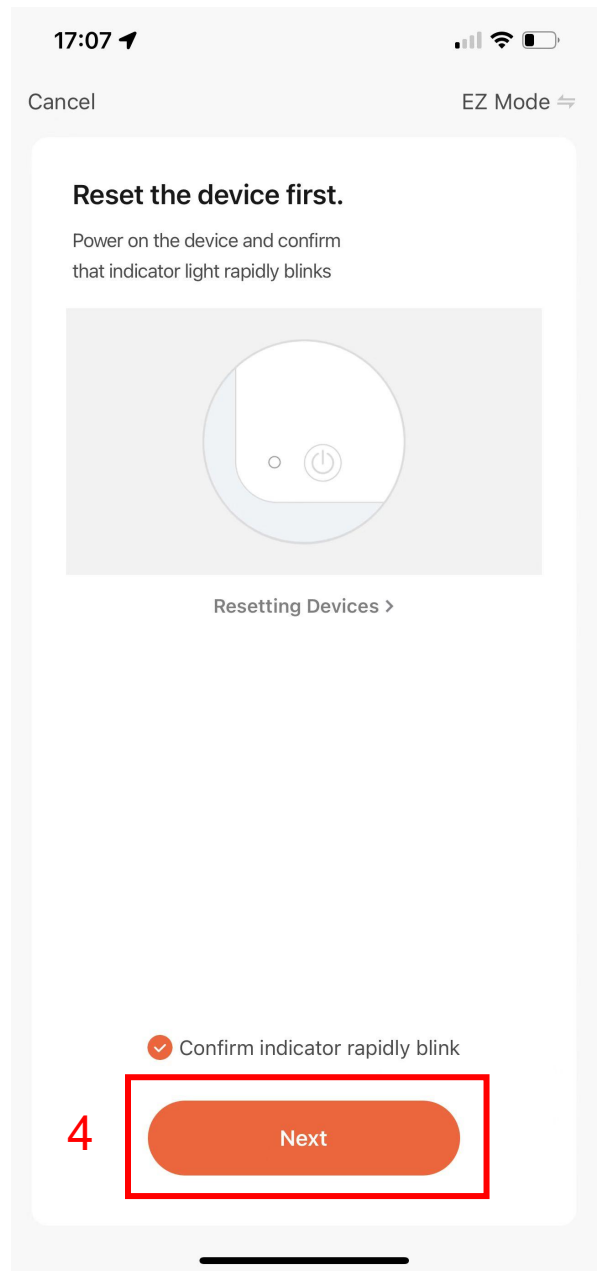
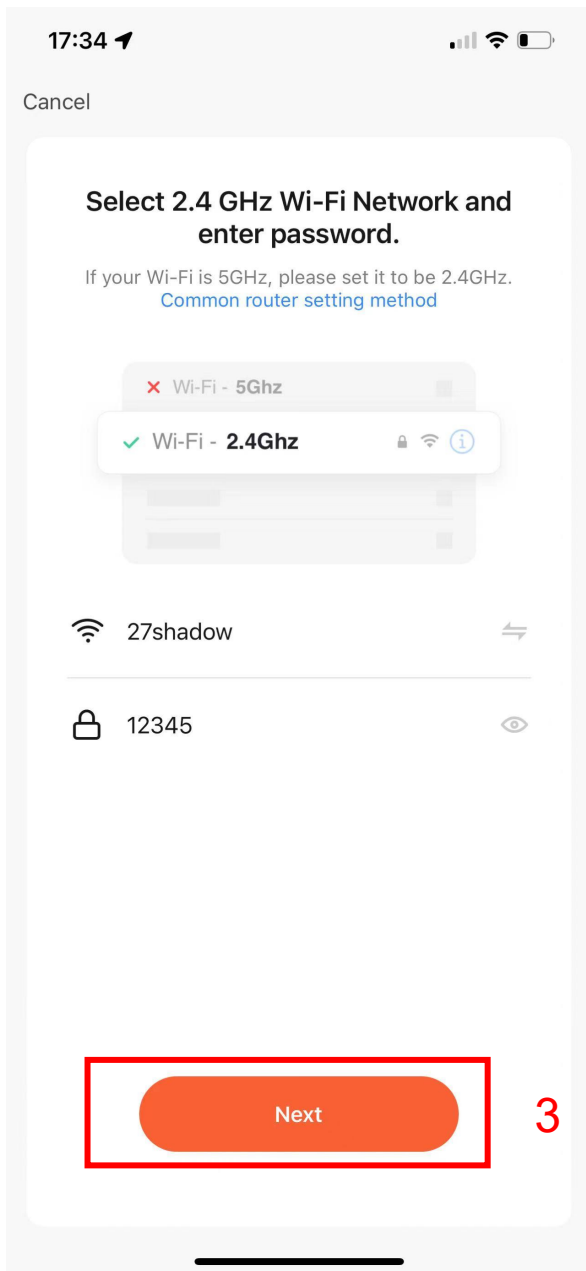


Manually add Wi-Fi devices in EZ mode



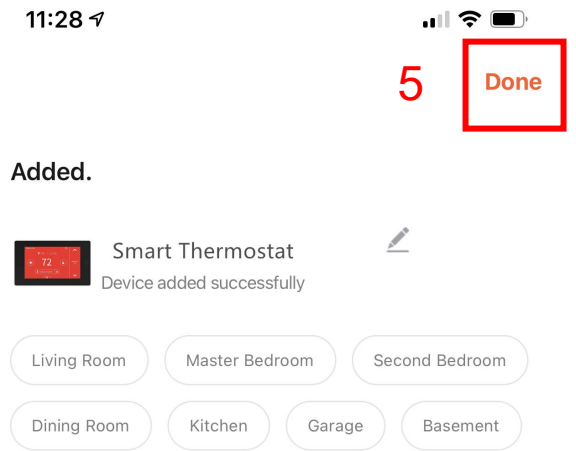
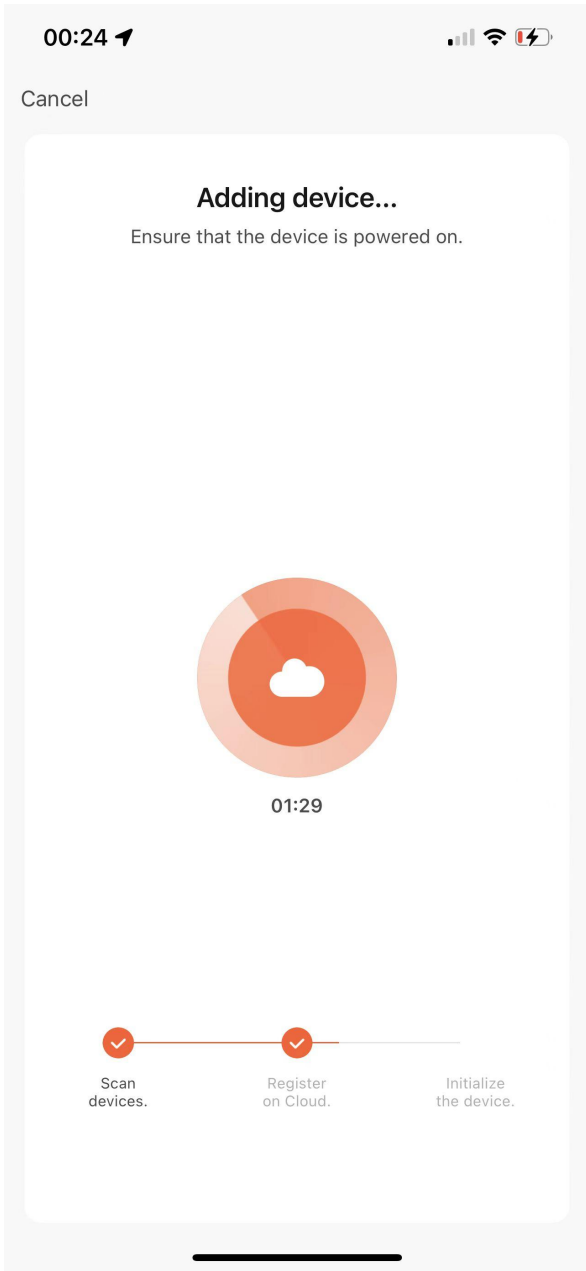
1. Open "MySmartH" APP, press the '+' in the upper right corner of the main screen;

2. Choose "HomeAppliance", click " Smart thermostat".

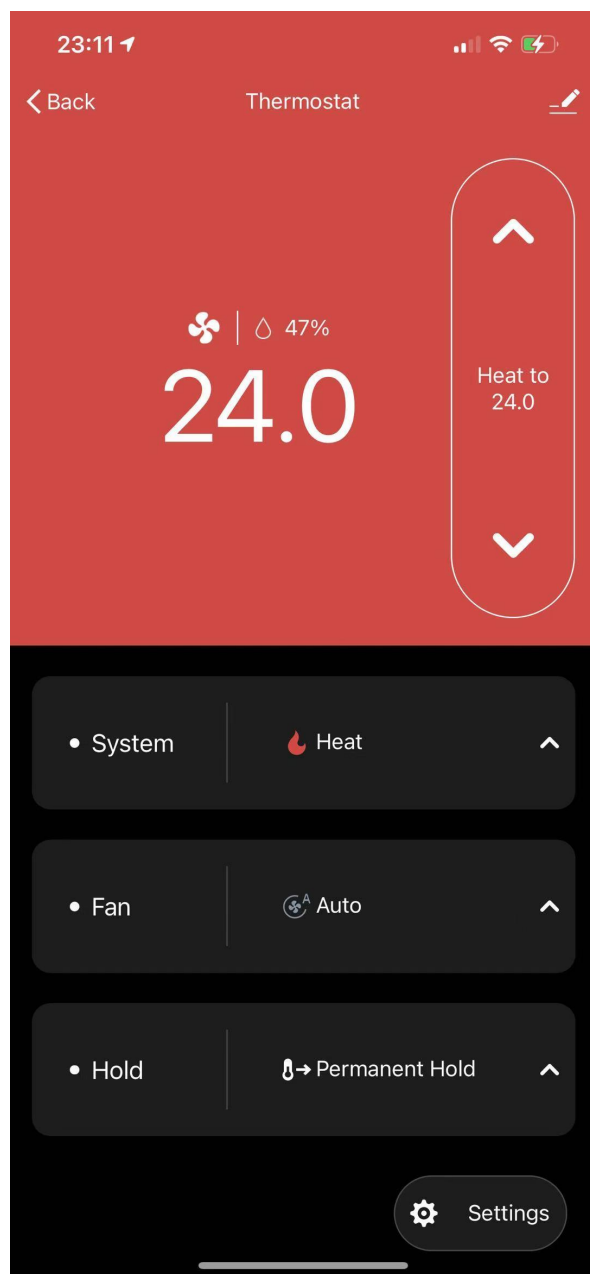
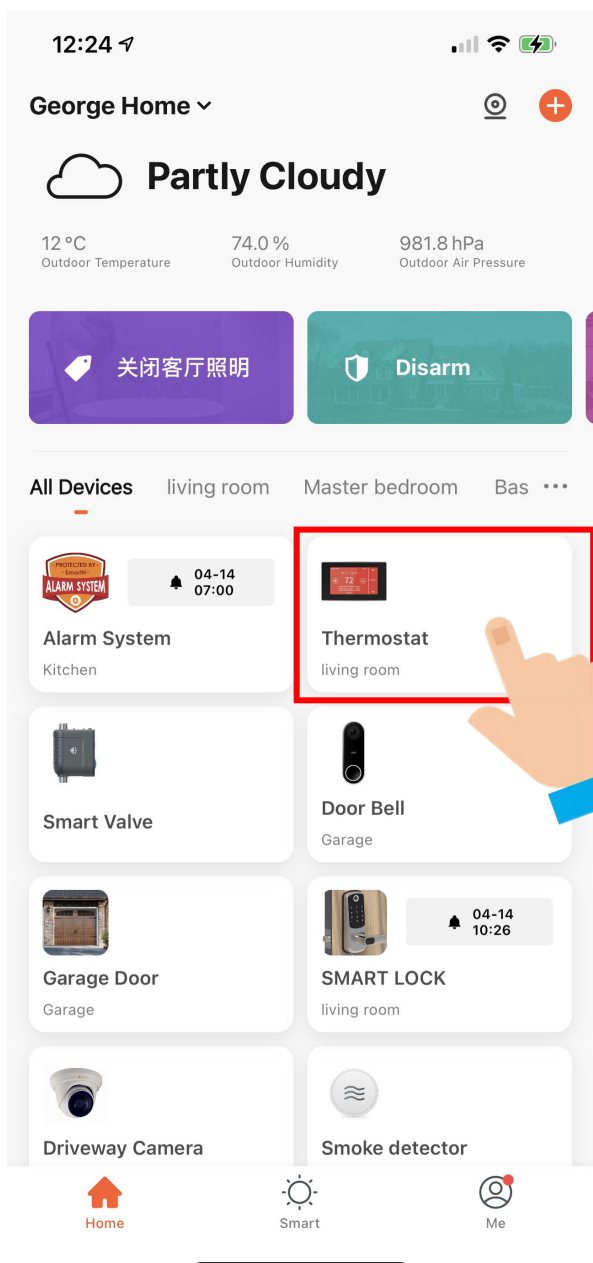


3. Choose WiFi and enter password and tap “Next”;

4. Confirm that the blue indicator light of the thermostat is flashing quickly and tap "Next";



5. Tap “Done”;



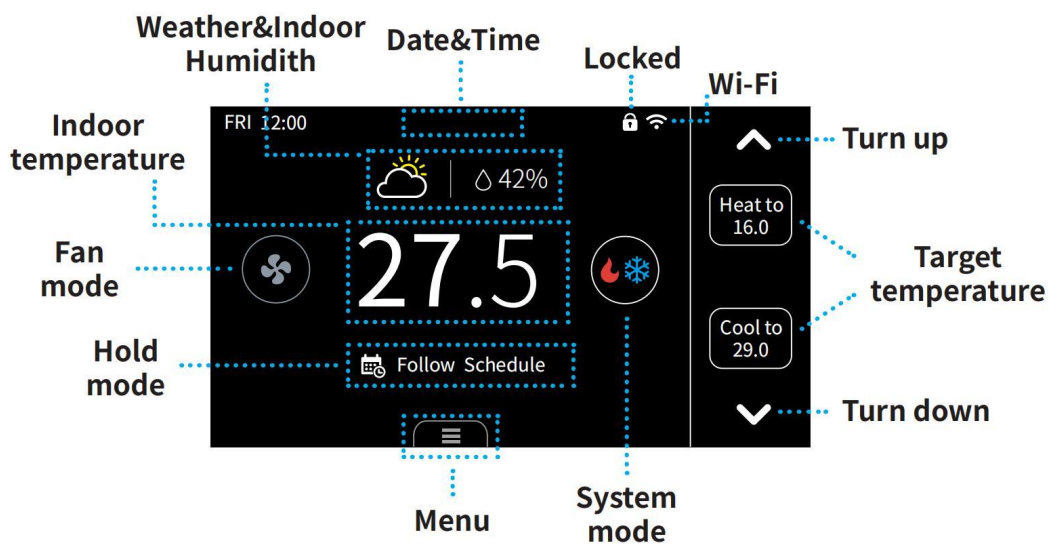
Now your Smart Thermostat is successfully added to MySmarth app.



Meet Your Thermostat

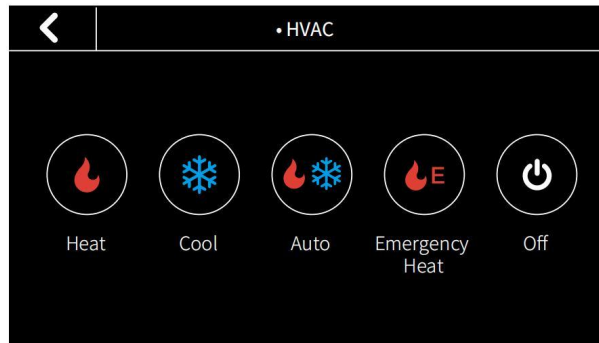
4.1 Device Overview






Main page



You can select the heating/cooling target temperature to adjust separately or press the up and down buttons to adjust it simultaneously.

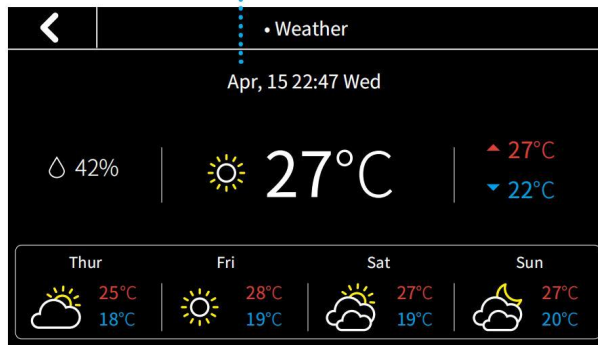
System mode



-  **Heat:** Heating only
-  **Cool:** Cooling only
-  **Auto:** Automatic control of heating and cooling based on ambient temperature
-  **Emergency Heat:** This only works when the device connects Heat pump and W wire
-  **Off:** Turn the system off

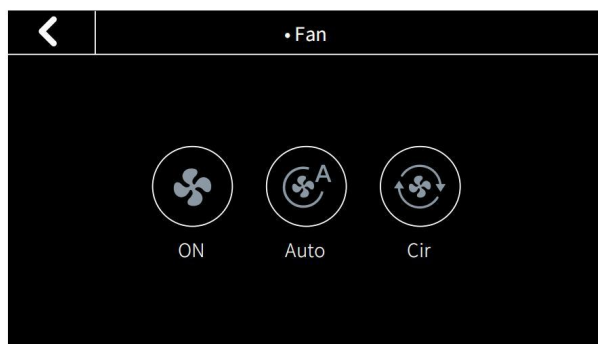
Weather



The latest update time



Click the weather icon to display the highest/lowest temperatures and weather conditions for the current days in your home location.

Fan mode

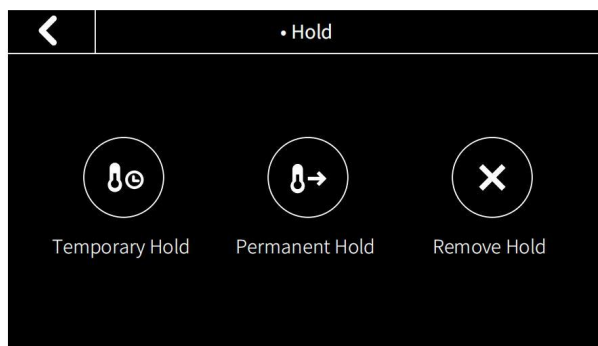



-  **On:** Runs continuously
-  **Auto:** Automatically adjust fan according to the system mode


-  **Cir:** Runs at intervals to circulate air


Hold mode

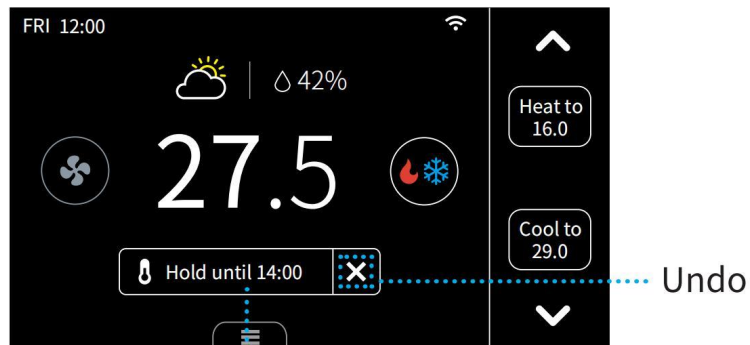
There are four hold modes you can select



-  **Follow Schedule:** Follow the settings of schedule to adjust the temperature. When you remove hold, the mode will turn to '**Follow Schedule**'

-  **Permanent Hold:** Always hold the current target temperature even meet the schedule. It will override the current schedule settings.

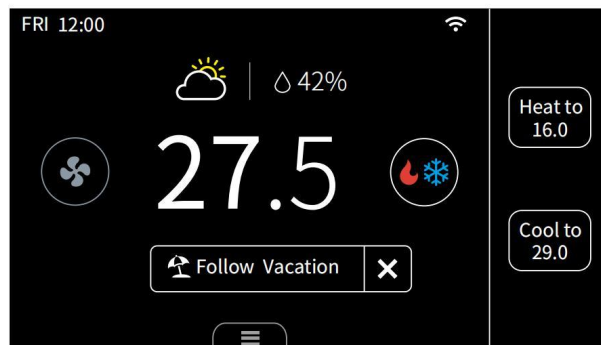
-  **Temporary Hold:** Keep the current target temperature until the next scheduled activity begins. You can select this mode manually or adjusting the target temperature under '**Follow Schedule**' mode, it will turn to '**Temporary Hold**'



Hold temperature until next schedule

Vacation mode

You can set the vacation mode in '**Menu**'->'**Vacation**'. Set the time of departure and return, as well as the highest and lowest temperatures during this period. The thermostat will automatically hold this temperature range.



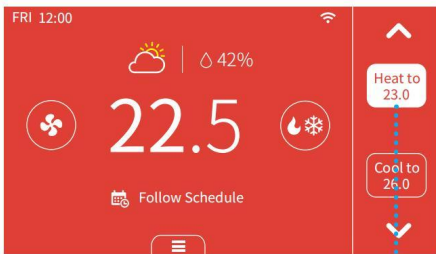
Note: When the thermostat is under this mode, you cannot manually change the target temperature. You can change the Hold/System mode manually, click "undo" or delete the vacation in menu to exit the vacation mode.

Display

Here are some changes on the screen and what that means:

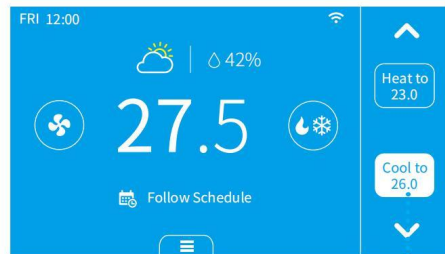
①

Red: Heating



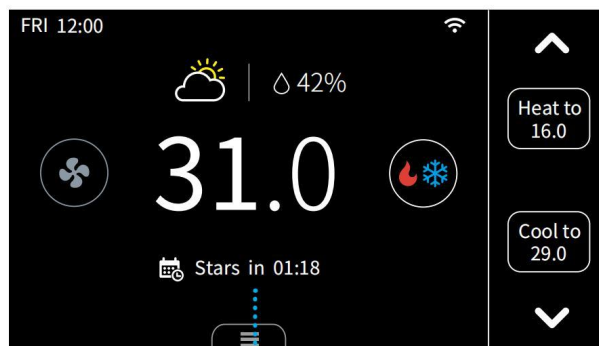
Select the heating target temperature

Blue: Cooling



Select the cooling target temperature

②



Time interval


When you turn on the compressor frequently, there will be a time countdown to protect the compressor. This will occur in the following case:

Heat pump: heating, cooling Conventional: cooling


You can set the time countdown in **'Menu' ->'Installation' ->'Advanced' ->'Compressor Protect Time'**

3



When the outdoor temperature is below the 'Compressor Min Outdoor Temp' you set, the icon on system mode will display  and the compressor will be turned off automatically.

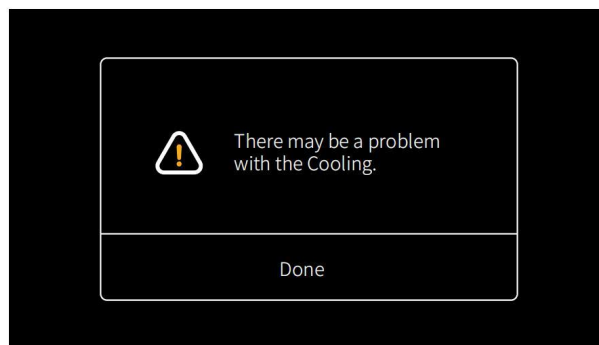


When the outdoor temperature is higher than the 'AUX Heat Max Outdoor Temp' you set, the icon on system mode will display  and the AUX Heat will be turned off automatically.



The thermostat is connected to the router, but the router is not connected to the network

4

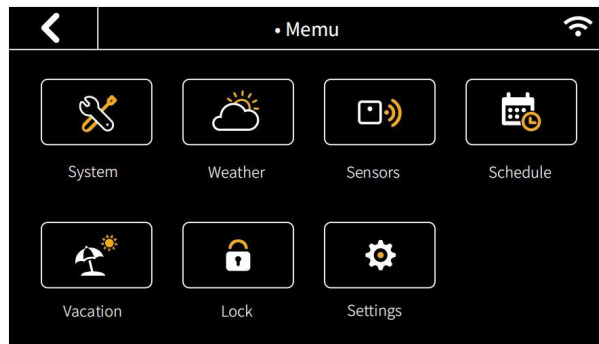


Unusual heating or cooling alert:

When the following occurs, this prompt appears on the thermostat

1. When your thermostat is cooling, the temperature in the room does not go down for a long time but instead temperature still raises.
2. When your thermostat is heating, the temperature in the room does not go up for a long time but instead the temperature still falls.

Menu



System

- HVAC: Switch system mode (Heat/Cool/Auto/Emergency Heat/Off)
- Fan: Switch fan mode (ON/Auto/Cir)

Weather

Weather conditions for the current days in your home location.

Sensors

Add multi sensors to balance the current temperature throughout the home.

Schedule

Set Schedule to change the temperature automatically.

Vacation











Set vacation to change the temperature automatically.

Lock

Multi-level keypad lockout to avoid others tampering with the settings. After locking, the corresponding functions are not available and the

corresponding settings icon will go dim. An icon of a small lock will appear on top of main page

Settings

-  Date &Time: Set time format. You can also set the time manually when the device is not configured with a network.
-  Fan Run Time: Set minimum fan run time in '**Cir**' mode
-  Wi-Fi: Configure and display Wi-Fi information
-  **A** Smart Warm-up: When smart warm-up is enabled, your thermostat automatically calculates when to turn on heating or cooling so your home will reach a scheduled temperature on time. This only works in '**Follow Schedule**' mode.
-  Device Name: Rename your device
-  Temp Unit: Celsius or Fahrenheit
-  **I** Temp Range: Set the adjustment range of heating and cooling
-  Screen: Adjust screen brightness on active/standby/sleep and standby time
-  Calibrate: Adjust the accuracy of temperature and humidity to match your environment
-  Installation:

Equipment: Reconfigure your wiring setting on thermostat

Advanced(Different wiring configurations will display different

settings):

1. Heat/Cool Dissipation Time

When the heating/cooling stops, the fan shuts off with a delay.

2. Compressor Protect Time

A time countdown to protect compressor to start frequently.

3. Compressor Min Outdoor Temp

When the outdoor temperature is below this temperature, the compressor will not be used.

4. Compressor/(Aux) Heat min on time during heating/cooling cycles

5. Compressor/(Aux) Heat Stage 2 Temperature Delta

When the difference between the indoor temperature and the target temperature reaches this value, the second stage is automatically turned on.



6. Compressor/(Aux) Heat Stage 1 Max Runtime

If the first stage fails to reach the target temperature after this time, the second stage will be automatically turned on.

7. Aux Heat Max Outdoor Temp

Auxiliary heat is turned on only when the outdoor temperature is below this value.


Equipment Test: Test whether the corresponding function of the equipment can run normally as required

-  Filter: Filter change reminder
-  Reset:

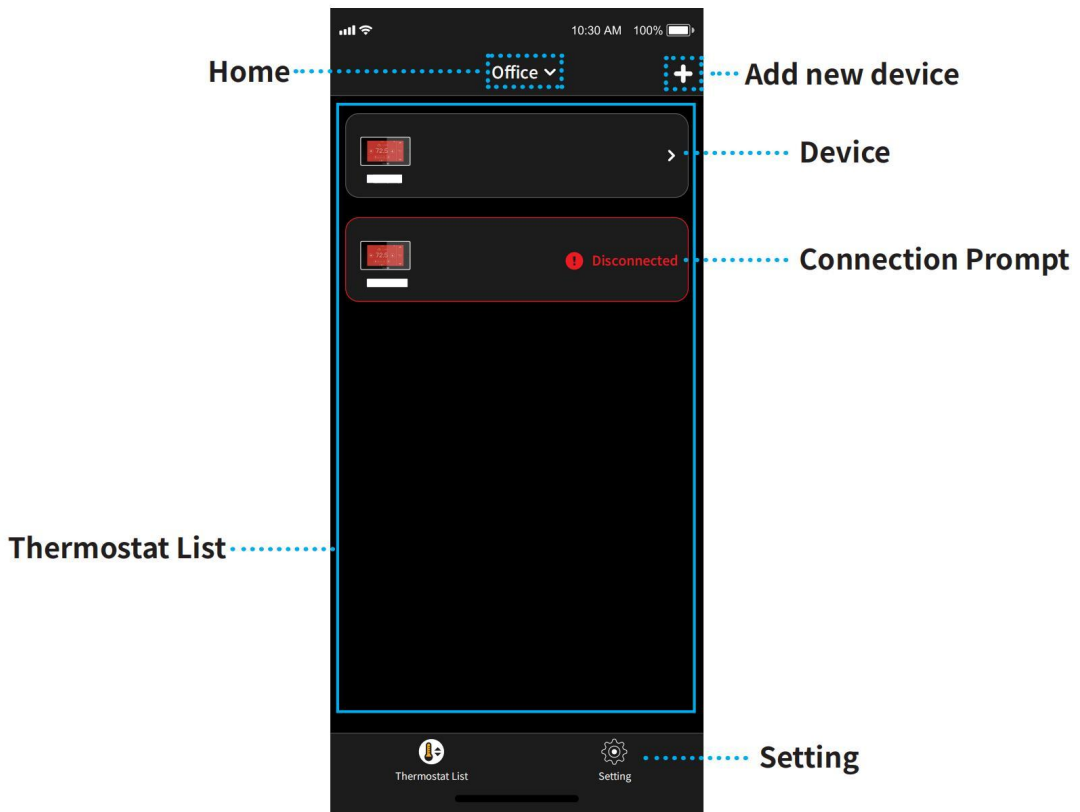
Reset setting

Reset schedule (Reset system schedule and clear vacation)

Reset all (reset the thermostat to default factory setting)

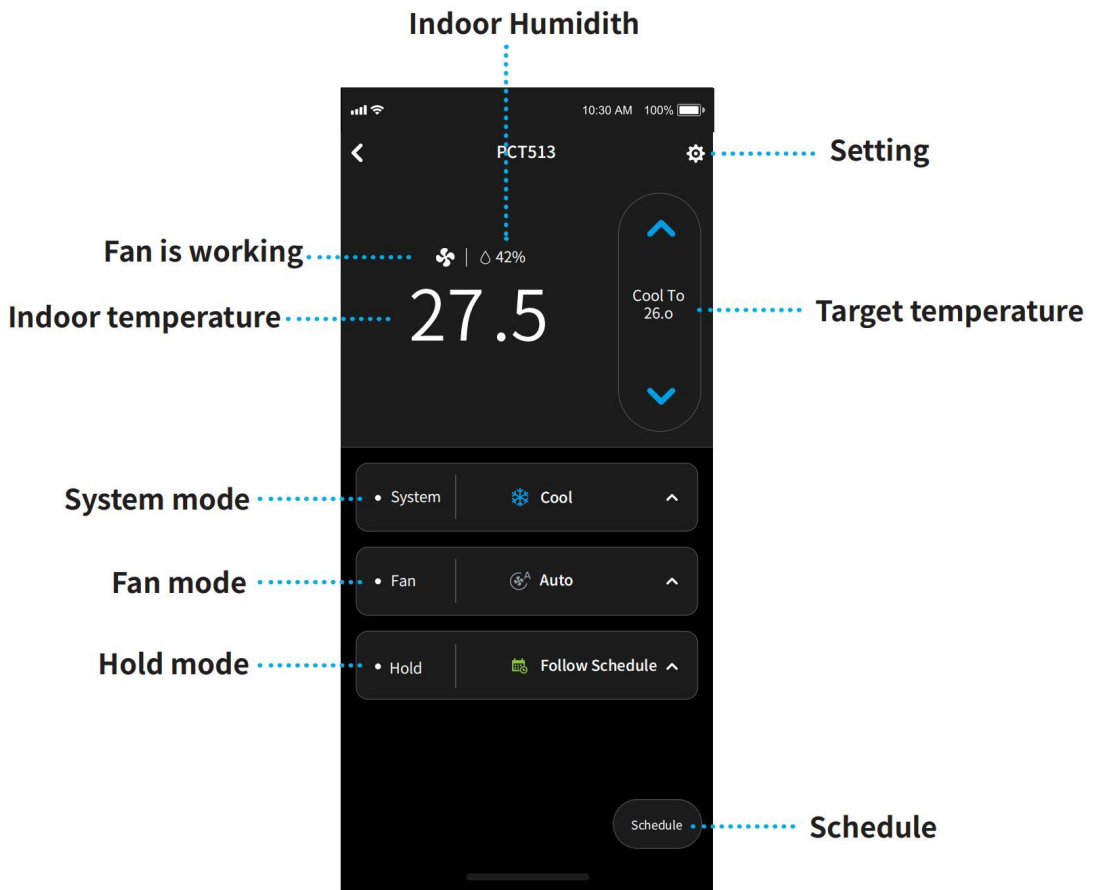
-  About: Show device information

4.2 App Overview:



- **Home:** You can change the thermostat list in different home location.
- **Thermostat List:** You can check the added device and drop it down to refresh the list.
- **Device:** Tap one to enter control page or swipe left to remove the device.
- **Connection Prompt:** The prompt show up when the App can't connect to the thermostat. You can troubleshoot the problem according to the FAQ.
- **Setting:** You can edit the setting of App, such as family address, password, theme, geofence.

Control page

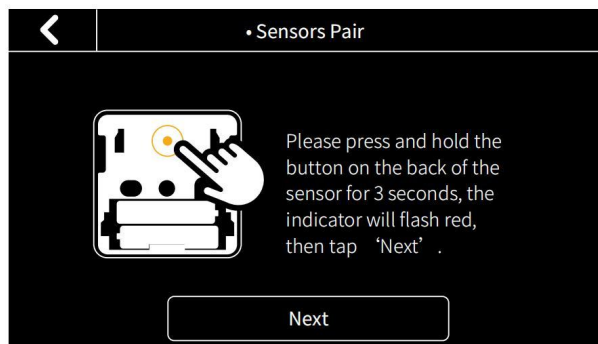


- **System mode:** Displays the current system mode. Tap it to switch the mode.
- **Fan mode:** Displays the current fan mode. Tap it to switch the mode.
- **Hold mode:** Displays the current hold mode. Tap it to switch the mode.
- **Schedule:** Set a schedule for the week so that you can get the right temperature at the certain time.
- **Target temperature:** Turn up/down the target temperature.
- **Setting:** You can edit the setting of device, such as device name, vacation, fan run time, sensors, temperature unit.

5 FAQ

1. How to pair the thermostat with Remote Zone Sensors ?

1. Click the '+' button at the top right of the interface in 'Menu' -> 'Sensors' on the thermostat and tap 'Next'.



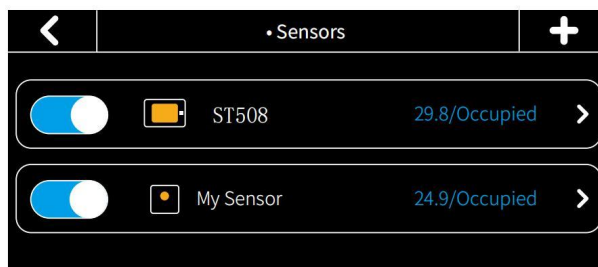
2. Remove the rear cover of the sensor.

3. Press and hold the button on the back of the sensor for 3 seconds until the indicator on the front of the sensor flash red.

4. Wait for sensors to pair automatically. When the pairing is successful, the sensor flashes green light for 3 times.

Now you can set the participation period of the sensor. During this period, the thermostat will calculate the average temperature of all the sensors in the occupied state as a reference and use it as the indoor temperature on the main screen.

Tip: When you change the setting of sensor, the indoor temperature on the main screen need update in 2 minutes. If there is no one in the room where the sensor is located, that sensor will not participate in that calculation.



2. Will the thermostat switch schedules automatically based on my geographic location?

Yes, you can set the action by geofence.

1. Open your App. Go to "**Setting**" -> "**Geofence**" to enable geofence.
2. Set action when you enter or leave the geofence then save it.
3. You can also change the radius of the geofence in "**Setting**" -> "**Family Management**" -> "**Edit**" -> "**Distance**" on the App.

Technical specifications

Thermostat:

Compatibility

Compatible systems

- Conventional: 2-stage heating and 2-stage cooling HVAC systems
 - Heat Pump: 2-stage heating, 2-stage cooling, 2-aux heating
 - Supports natural gas, electric, hot water, steam or gravity, gas fireplaces (24 Volts), oil heat sources
 - Supports heat pump, dual fuel
-

HVAC Control Functions

System Mode

- Heat, Cool, Auto, Off, Emergency Heat (Heat Pump only)
-

Fan Mode

- On, Auto, Circle(adjustable)
-

Advanced

- Setting temperature locally or remotely
 - Auto-changeover between heat and cool mode (System Auto)
 - Compressor protection time is available for select
 - Failure protection by cutting off all circuit relays
 - Smart warmup
 - Low temperature protection
-

Wireless Connectivity

Wi-Fi	• 802.11 b/g/n @ 2.4GHz
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Radio	• 915MHZ
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Physical Specifications

LCD Screen	• 4.3-inch color touch screen
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PIR Sensor	• Sensing Distance 3m, Angle 70°
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Electrical Rating	• 24 VAC, 1A Carry; 5A Surge 50/60 Hz
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Max. Load Current	• 1A
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Operating Environment	• 0~ 50° C, 32 ~122° F • Humidity range: 5%~95%
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Storage Temperature	• -30 ~ 60° C , -22° F ~ 140° F
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Wiring	• 18 AWG, Requires both R and C wires from the HVAC System
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Dimensions	• 131(L) × 78 (W) × 29.2(H) mm
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Mounting Type	• Wall Mounting
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Remote Zone Sensor:

Battery	• DC 3V (2*AAA batteries)
Radio	• 915MHZ
LED	• 2-color LED (Red, Green)
PIR	• Detect occupancy • Sensing Distance 5m, Angle 120°
Operating Environment	• 0~ 50° C, 32 ~122° F (Indoor only) • Humidity range: 5%~95%
Dimension	• 62(L) × 62 (W) × 15.5(H) mm
Mounting Type	• Tabletop stand or Wall mounting
