

T18XUTW-7-WIFI(TY)

INSTALLATION MANUAL

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THERMOSTAT INSTALLATION

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Here's what you will see on the home screen:



System mode

Shows your current setting:
(heat/cool/auto/off/aux)

Humidity

Shows the indoor humidity
in your home.

Indoor temperature

Shows the indoor temperature
in your home. Click to slide up
or down to adjust preferred
temperature.

Menu

Allows you to control your system,
schedule a vacation, and more.

Voice control

Allows you to enable / disable
microphone.

Status

Ventilator/dehumidifies / humidifies

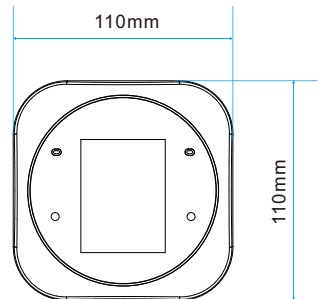
Quick changes

Touch this button to easily Check the
time, set the current mode, adjust the
brightness/sound, switch between home
and away.

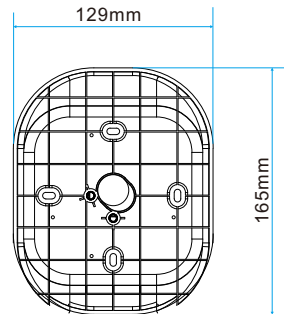
Alerts and reminders

The alarm sign will appear if the
temperature the designed limit.

Thermostat appearance



Thermostat



Back plate

T18XUTW-7-WIFI(TY)

- * Power supply: 24VAC(18-30VAC)60Hz
- * Ambient temperature : 32°F~122°F(0°C~50°C)
- * Temperature setting range: 41°F~95°F(5°C~35°C)
- * Temperature setting accuracy: 1°F(0.1°C), 1%RH
- * Temperature display range: 41°F~99°F(5°C~37.5°C)
- * Humidity range: 20%~90%RH
- * Operating temperature range: ±1°F(0.5°C), ±1%RH
- * Transport temperature range: 14°F~140°F(-10°C~60°C)
- * Output: Relay Load I_{max} 24V/(1A)
- * Wifi Communication protocol : TCP/IP, MQTT
- * Wifi Frequency : 2.412GHz-2.4848GHz
- * RF antenna emission frequency: 915MHz(not the standard)
- * IP rating: IP 21
- * Color: black
- * Thermostat size: L110mm*W110mm *H28.6mm
- * Backplate size: L165mm*W129mm *H10mm

T18XUTW-7-WIFI(TY) Intelligent voice control thermostat

Power supply: 24VAC (18-30VAC) power supply through RC or RH, C terminal (no C line can be transferred through four-wire to five-wire module)
Support stages: 1H/0C, 0H/1C, 1H/1C, 2H/1C, 2H/2C, 3H/2C, 4H/2C

Terminal 1: RT+, RT-, S, G, Y1, Y2, O/B

RT+: External sensor + terminal input

RT-: External sensor - terminal input

S: Control terminal input (with G and Y collinear input)

G: Fan output

Y1: One stage cooling or heat pump heating output

Y2: Two stage cooling or heat pump heating output

O/B: Four-way directional valve output

Terminal 2: C, RC, RH, W1, W2

C: 24VAC power supply common input

RC: 24VAC cooling or single power input

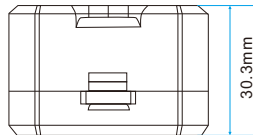
RH: 24VAC heating power input

W1: One stage heating output

W2: Two stage heating output

T510-45(Electric Control Module)

- * Power supply: 24VAC(18-30VAC) 60Hz
- * Ambient temperature : 32°F~122°F(0°C~50°C)
- * Shipping temperature: 14°F~140°F(-10°C~60°C)
- * Output: Relay Load I_{max} 24V/(1A)
- * IP rating: IP 21
- * Color: white
- * Size: 67.1*47.5*30.3mm

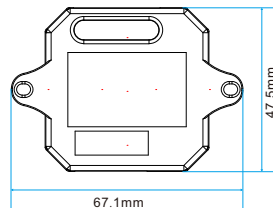


Five-core lead length 500mm (18#AWG) input: R,C,G,Y,G

- R: Air conditioning equipment 24VAC power input
C: Air conditioning equipment 24VAC power supply public input
G: Air conditioner fan input
Y: Air conditioning equipment refrigeration compressor input
W: Air conditioning equipment heating input

Terminal output: R,C,S,W

- R: Converter 24VAC power output
C: Converter 24VAC power supply common output
S: Converter control terminal (with G and Y collinear control)
W: Converter heating terminal



THERMOSTAT INSTALLATION

Two ways to install thermostat

1

A diagram showing the internal circuit board and a circular back plate. Two screws are shown being inserted into the back plate. The text 'Tighten the screws and snap into the display part.' is to the right.

2

A diagram showing a rectangular mounting box, a circular back plate, the internal circuit board, and a circular mounting plate. The text '1. Fasten the mounting back plate and mounting plate to the mounting box and tighten the screws' is below.

A diagram showing the final assembly where the circular display part is snapped into the back plate, which is mounted on the box. The text '2. After fastening and installing the back plate and the mounting plate, snap into the display part' is below.

A diagram showing the final installed thermostat. The text '3. The installation is complete' is below.

STEP1

Power off your Heating , Ventilation , and Air Conditioning(HVAC) system by using the master switch or circuit breaker box. **This is important for your safety.**

STEP2

Confirm your system is off by turning on your heat(during winter)or your AC(during summer).Wait a few minutes-you should not feel air coming from your vents.

STEP3

Remove your old thermostat cover from the wall.

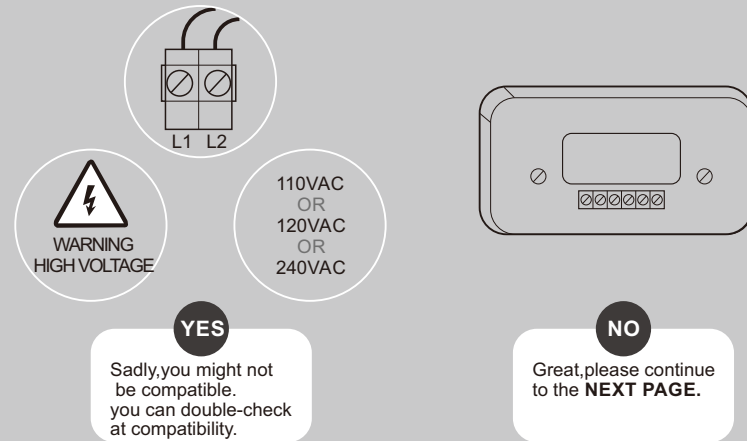


TIPS:

- 1.Look for your master switch or circuit breaker box in the basement,attic,utility close,or behind a wall panel near the thermostat.
- 2.If you have a boiler,check to see that the main flame is extinguished.
- 3.Many thermostat simply pop off or unclip from the base,while others may have screws that you will need to remove.

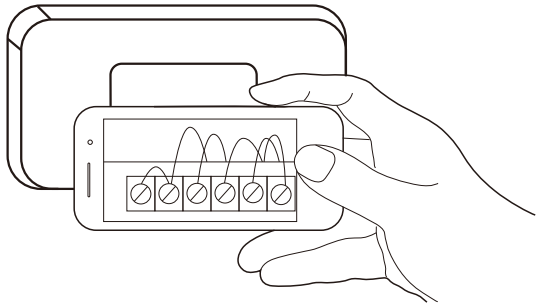
☒ CHECKPOINT:COMPATIBILITY

Does your old thermostat's backplate have any of these indicators?



STEP4

Take a picture of the wires connected to the terminals of your old thermostat. you may need to reference this photo later on.

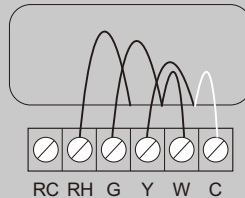


☑ CHECKPOINT: C WIRE

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

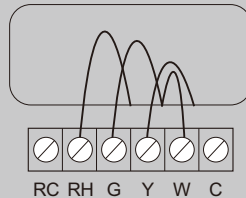
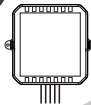
YES

Great, please continue to the **NEXT PAGE**.



NO

Go to install with a ECM.

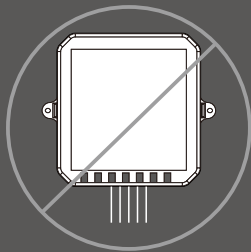


TIPS:

The wiring on your old thermostat may look different, just check to see if there's a C wire.

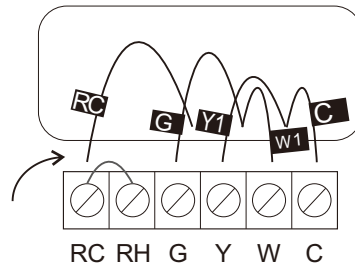
Install your thermostat with a C wire

If you have a C wire, it will power your thermostat. you won't need the Electric Control Module included in the box.



STEP5

Carefully disconnect and label the wires from your old thermostat one at a time, using the labels provided.

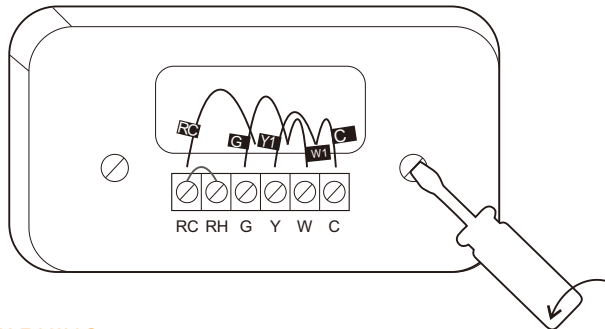


TIPS:

If you have a jumper between RC, RH, OR R, leave it alone. Only label the wires that run from your wall into a terminal block.

STEP6

Unscrew the mounting plate of your old thermostat to remove it from the wall.



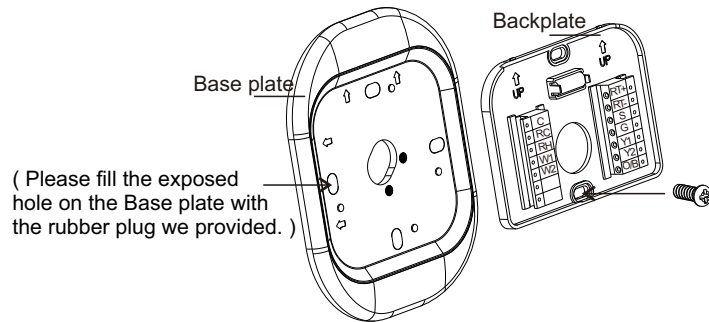
⚠ WARNING:
Be careful, as some thermostat may contain mercury.
Recycle your old thermostat safely with your local hazardous waste facility.

STEP7

Decide if you want to use the Base plate with your thermostat.

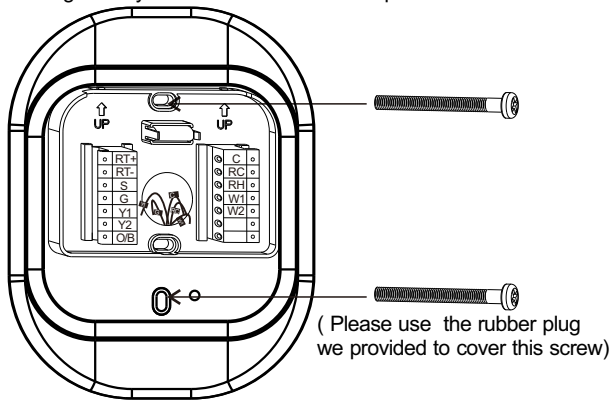
The Base plate is useful if you want to hide marks or holes left on the wall by your old thermostat.

If using the Base plate, align the mounting holes on the Base plate and backplate and press them into place together.



STEP8

Pull the wires through the hole in the middle of the backplate and then attach the backplate to the wall using the drywall anchors and screws provided.



TIPS:

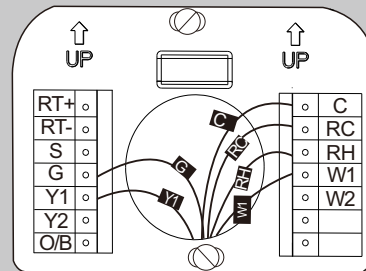
Use a 3/16" drill a hole for the drywall anchors.

✓ CHECKPOINT: INSERT YOUR R WIRE(S)

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

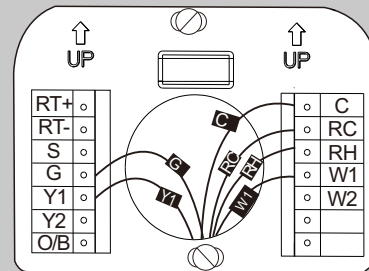
YES

Insert your wires:
R or RC → RC
RH → RH



NO

Insert your single wire:
R, RC, or RH → RC

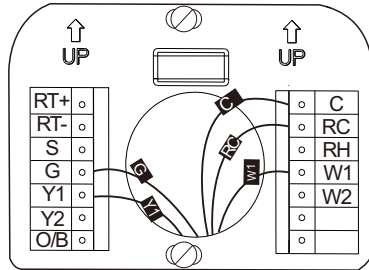


STEP9

Insert your remaining wires into the side (not the front) of their corresponding terminal blocks.

STEP10

Tug on the wire gently to ensure they are securely connected.

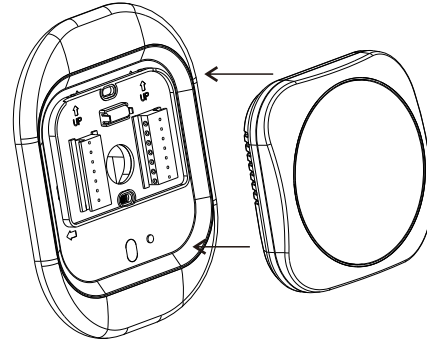


TIPS:

1. Press the terminal block levers to insert the wires more easily.
2. When a wire has been connected correctly, the level on the block will lower.

STEP11

Gently press your thermostat into the backplate until it “clicks” into place.



TIPS:

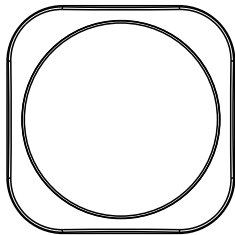
If the thermostat “rocks” or is not flush with the wall, be sure the excess wires are pushed all the way into the wall.

STEP12

Turn the power to your HVAC system back on using the master switch or at the circuit breaker box.

Congratulations, you did it!

Say hi to your new thermostat! To complete your setup and registrations, follow the instructions on your thermostat screen.



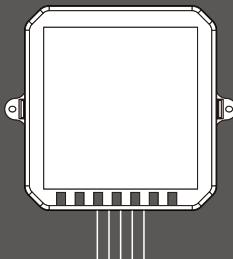
Optional Accessory

*Optional electric control module (T510-45)

*Optional sensor (Terminal RT+, RT-)

Install your thermostat without a C wire

If you don't have a C wire, you will need to use the Electric Control Module included to reliably power your thermostat.

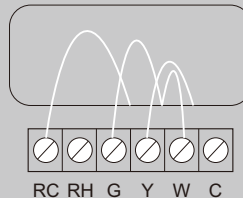


☒ CHECKPOINT: 3 OR 4 WIRES

The Electric Control Module requires your system to have either of the following: 4 wires W1, Y1, G, and R (or RC or RH)
Do you have these wires?

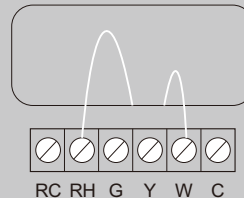
YES

Great, please continue to the **NEXT PAGE**.
The Electric Control Module will work with your system!



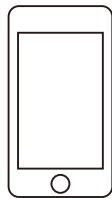
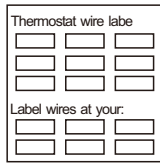
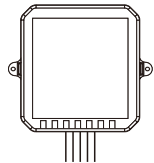
NO

Please check compatibility or contact us!



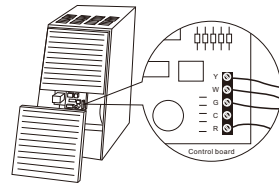
STEP5

Take your Electric Control Module, wire labels, tools, your smart-phone, and go to your HVAC system.



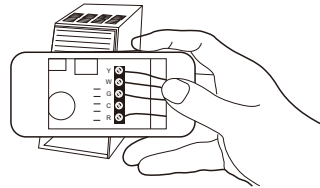
STEP6

Open your HAVC system's cover to reveal at control board.



STEP7

Take a picture of the wires connected to your control board.
You may need to reference this photo later on.



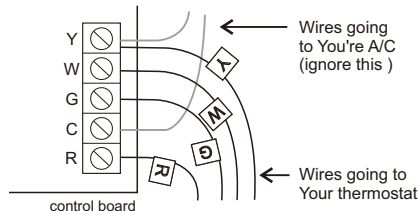
WARNING:

HVAC system contain high voltage wires. Use caution when working with the control board. If you'd rather leave it up to a professional.

STEP8

Label only the R,Y,or Y1,G,and W or W1 wires with the matching labels provided.

If you have more than one wire going into these terminals, only label those going to your thermostat.

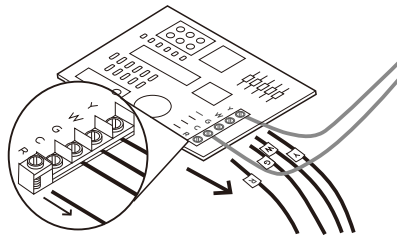
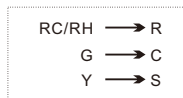


STEP9

Disconnect the wires labeled R,Y,G,and W from the control board.

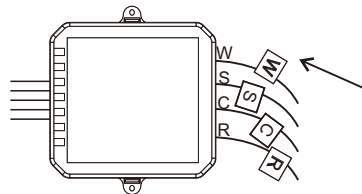
* Important *

Attention please, at this time, you need to change the wire number. As follow:



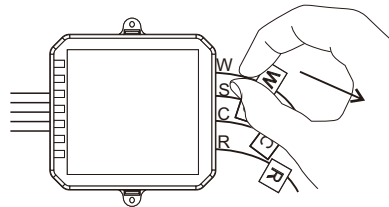
STEP10

Connect the wires you disconnected from the control board into their matching green terminal blocks on the Electric Control Module .



STEP11

Tug on the wires gently to ensure they are securely connected.

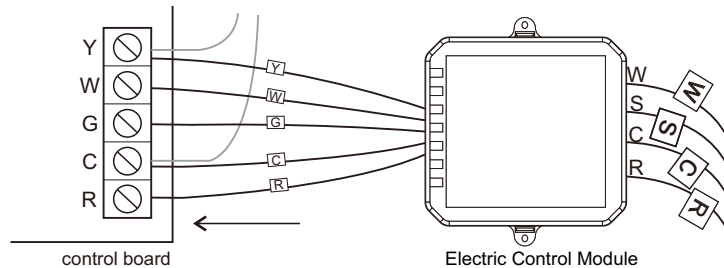


TIPS:

1. Insert the wires more easily.
2. When a wire has been connected correctly, tight screw to ensure the wiring.

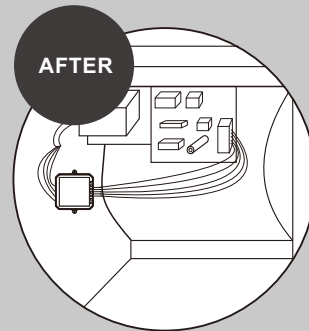
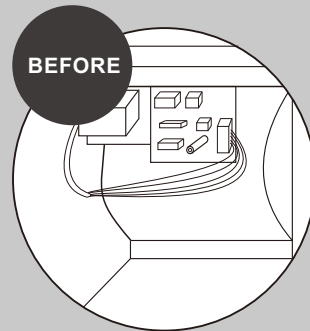
STEP12

Connect the five wires coming out of your Electric Control Module to their corresponding terminals on the control board .



✓ CHECKPOINT: Electric Control Module

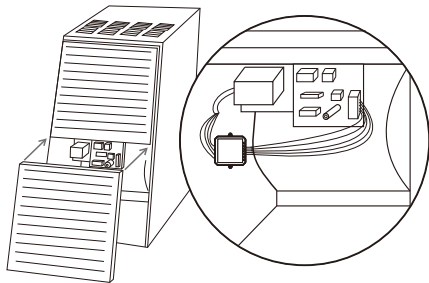
Check that you have installed the Electric Control Module correctly. It should be installed between your thermostat wiring and your control board.



STEP13

Mount the Electric Control Module inside your HAVC system, taking care not to strain the wires.

Close the HVAC cover panel securely return to your thermostat.



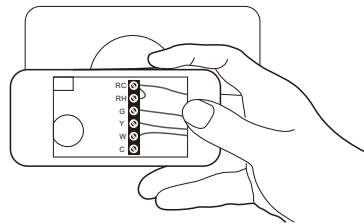
TIPS:

Make sure your HVAC panel is fully closed .Some systems will not turn on if the cover panel has not been closed properly.

STEP14

Back at your thermostat:

Carefully disconnect and label the wires from your old thermostat one at a time, using the labels provided. If you have a jumper between RC,RH,or R leave it alone. Only label the wires that run from your wall into a terminal block.



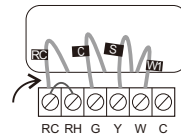
* Take a photo before disconnect the wires from your old thermostat ,

You may need to reference this photo later on.

* Important *

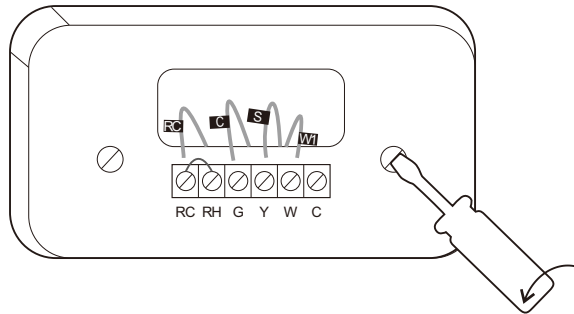
Attention please, at this time, you need to change the wire number. As follow:

R/RC/RH	→	RC
G	→	C
Y	→	S
W	→	W1



STEP15

Unscrew the mounting plate of your old thermostat to remove it from the wall.



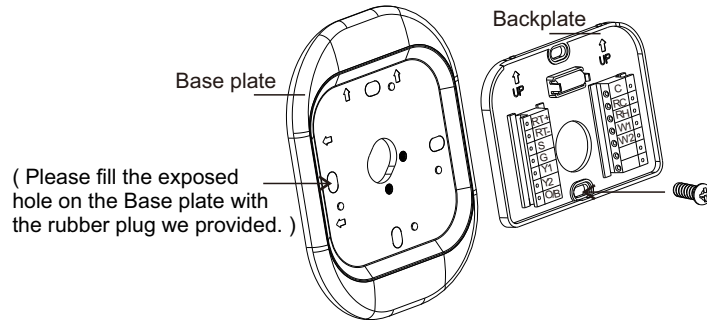
⚠ WARNING:

Be careful, as some thermostat may contain mercury.
Recycle your old thermostat safely with your local hazardous waste facility.

STEP16

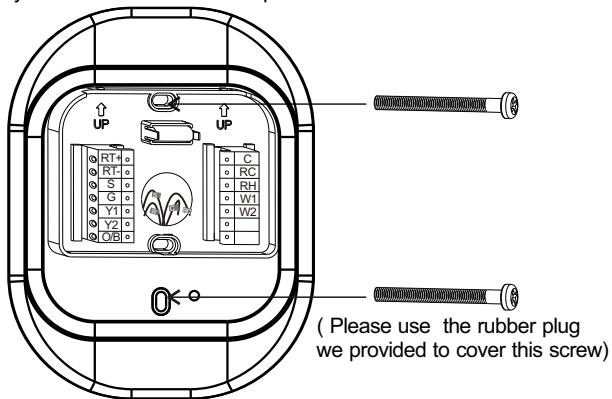
Decide if you want to use the Base plate with your thermostat.
The Base plate is useful if you want to hide marks or holes left on the wall by your old thermostat.

If using the Base plate, align the mounting holes on the Base plate and backplate and press them into place together.



STEP17

Pull the wires through the hole in the middle of the backplate and then attach it to the wall using the drywall anchors and screws provided.

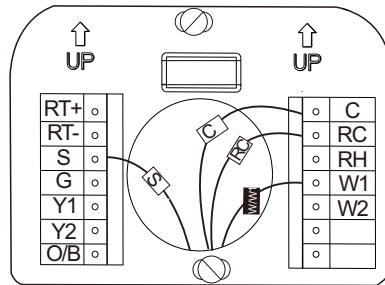


TIPS:

Use a 3/16" drill a hole for the drywall anchors.

STEP18

First, connect these 4 wires as show: RC,C,S,W1. Then connect any remaining wires to their corresponding terminal.

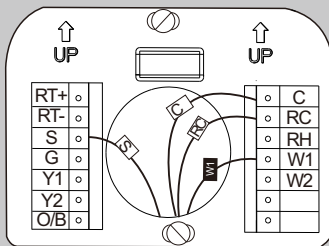


TIPS:

Press the terminal block levers to insert the wires more easily.

✓ CHECKPOINT: DON'T SKIP AHEAD

Did you connect the correct wires to the RC,C,S,W1 terminals, as shown below?



YES

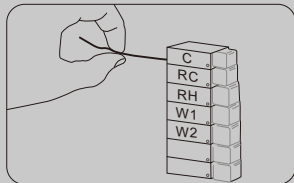
Please continue to the
NEXT PAGE.

NO

Please ensure that your
wiring is as shown above

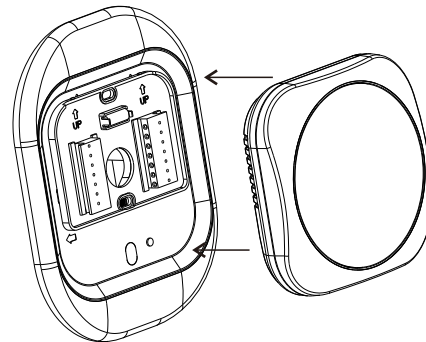
STEP19

Tug on the wire gently to ensure they are securely connected.



STEP20

Gently press your thermostat into the backplate until it “clicks” into place.

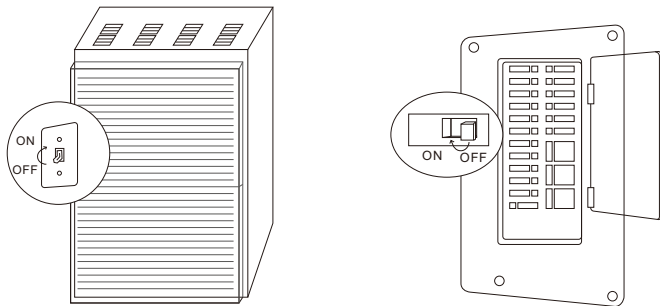


TIPS:

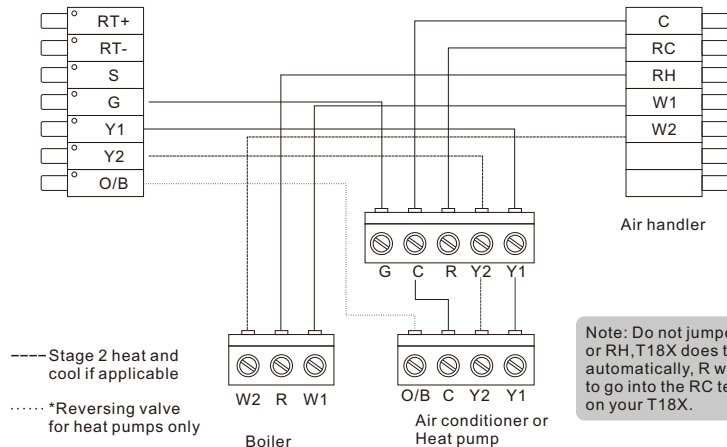
If the thermostat “rocks” or is not flush with the wall, be sure the excess wires are pushed all the way into the wall.

STEP21

Turn the power to your HVAC system back on using the master switch or at the circuit breaker box.

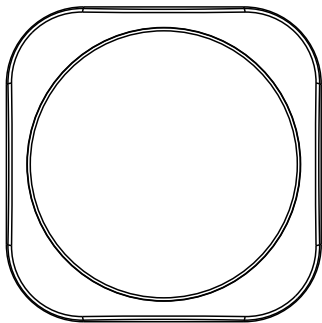


Boiler or radiant system with air handler and conventional cooling or heat pump.



Congratulations, you did it!

Say hi to your new thermostat! To complete your setup and registrations, follow the instructions on your thermostat screen.



Wiring must comply with applicable codes, ordinances and regulations.

1. Wire the NTK100 Outdoor Sensor to the RT+/RT- terminals on the thermostat.
For an example of general wiring of the NTC-100K, see Fig .2. Pigtail wiring can be used.
2. Mount the NTC-100K in its mounting clip.
3. Plug wiring hole using nonhardening caulk or putty.

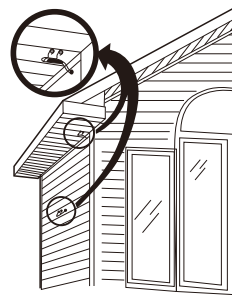
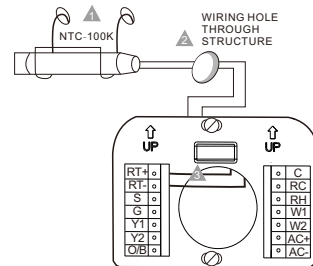


Fig.1. Typical locations for outdoor sensor.



- ▲ Use appropriate mounting means for the type of structure.
- ▲ Plug wiring hole with non-hardening caulk or putty.
- ▲ RT+/RT- terminal location varies with model.

Fig. 2. Wiring diagram for the NTC-100K Outdoor Sensor to the thermostat.

Optional accessory



NTC 100K Room Sensor With 3 Meter Wiring

*Used for outdoor temperature detection when there is water pump protection.



Electric Control Module (T510-45)

FCC Radiation Exposure Statement:



FCC ID:2AOIFT18XUTW

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Link APP



Download the app

“TuyaSmart” and “amazon alexa”
“Google Home”



- * Open the “Amazon Alexa” APP, create amazon account & password.
- * Open the “TuyaSmart” APP, create TuyaSmart account & password.
- * Open the “Google Home” APP, create Google Home account & password.

Items needed for Wi-Fi connection:

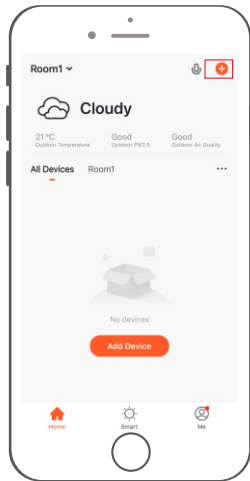
- The homeowners compatible iOS or Android
- Device with the TuyaSmart app installed and registered
- Your customer’s Wi-Fi network name and password
- Please turn on your Bluetooth, Location Information, WIFI on your cell phone.

How do I connect Alexa and WiFi ?

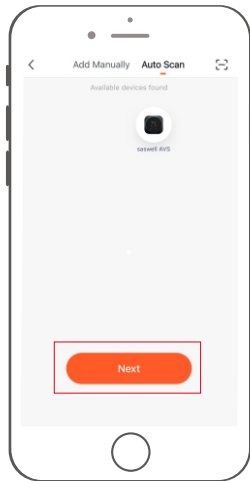
Please refer to the following steps at T18X that will help you.

T18X: “MEUN” > “USER SETTINGS” > “START CONNECT WIFI” > “OK”

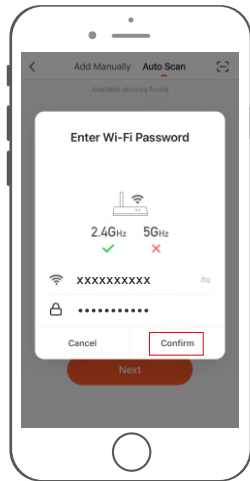




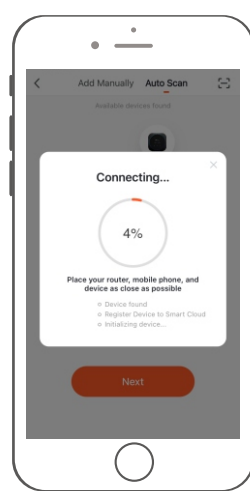
❶ Open TuyaSmart app,
click " + "



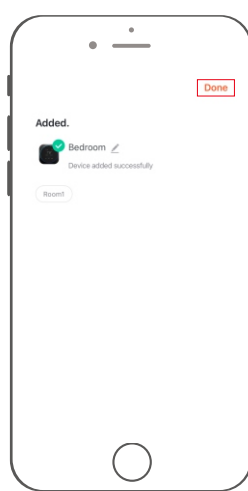
❷ Click " Next "



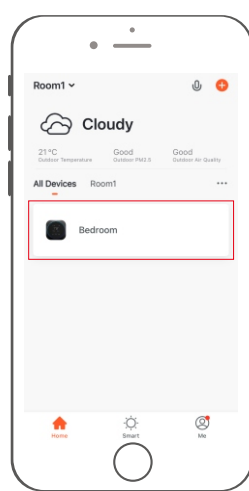
❸ Enter your wifi account &
password, click " Confirm "



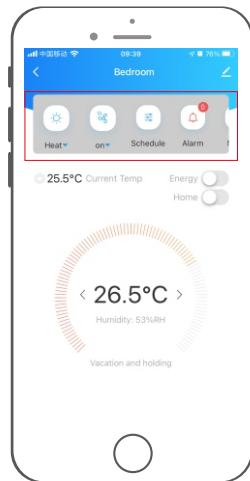
❹ Connecting.....



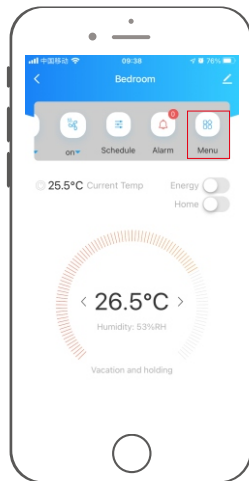
❺ Click " Done "



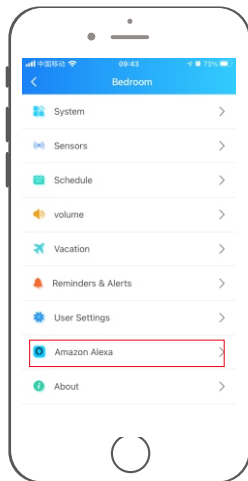
❻ Click your device



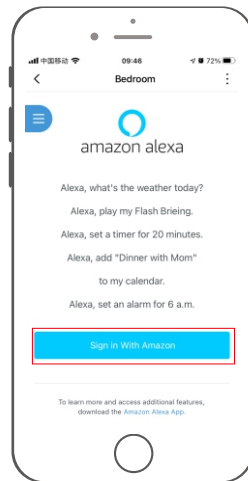
⑦ Slide to the right, you can see " Menu "



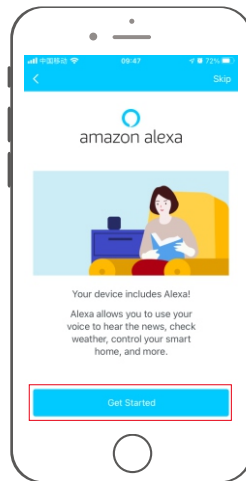
⑧ Click " Menu "



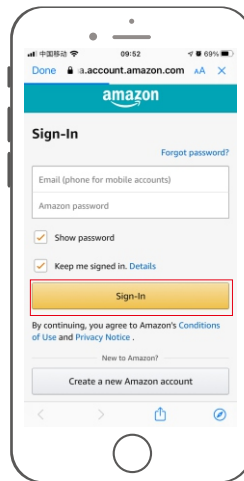
⑨ Click " Amazon Alexa "



⑩ Click " Sign in With Amazon "

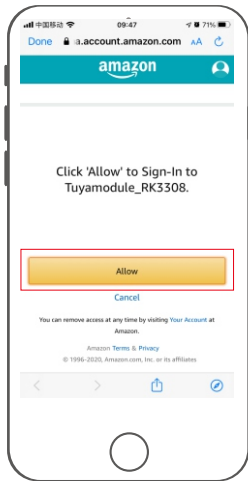


⑪ Click " Get Started "

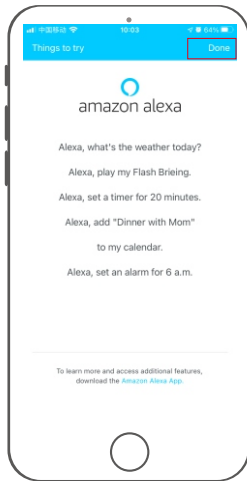


⑫ Enter your Alexa account & password, click " Sign-In "

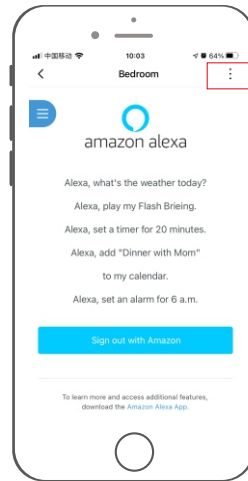
If you don't have a alexa account, click " Create a new Amazon account "



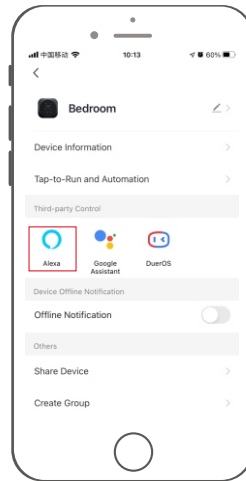
18 Click "Allow"



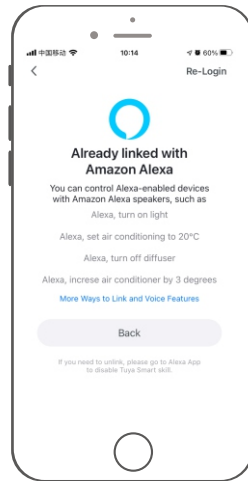
19 Click "Done"



20 Click "⋮"

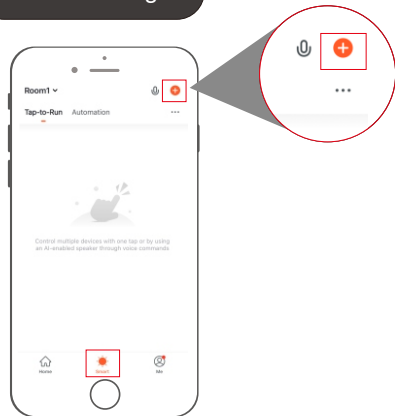


21 Click "Alexa"

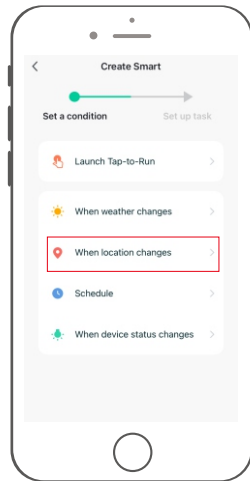


22 Link with "amazon Alexa" successfully

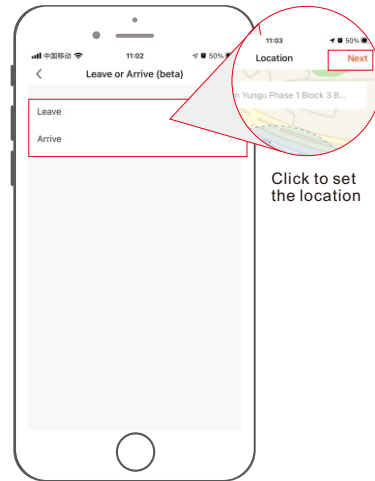
Geofencing



- ❶ Back to app, Click " Smart ", then click " + "

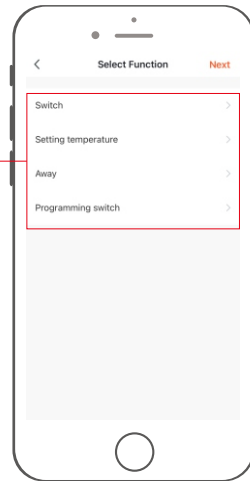


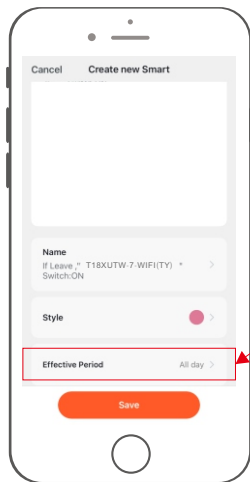
- ❷ Click " When location changes "



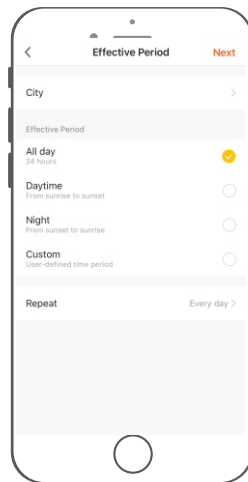
Click to set the location

Click to set the implied parameters

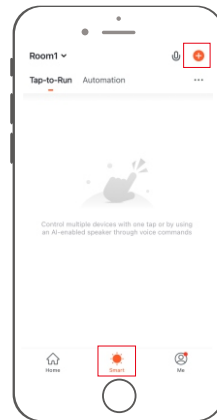




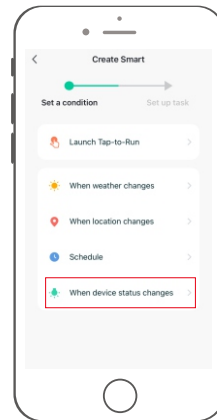
Click to set the period



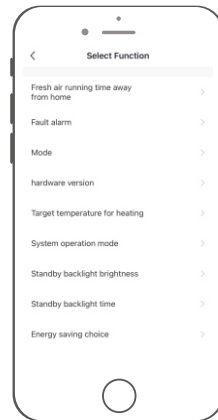
Association control other TUYA Smart products



① Back to app, Click " Smart ", then click "+"



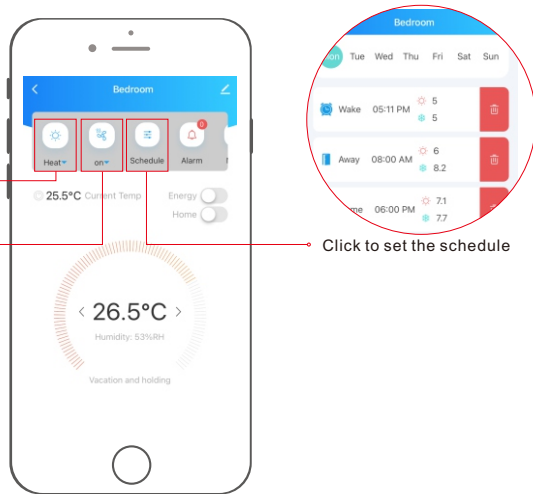
② Click " When device status changes "



You can set the parameters according to your own needs

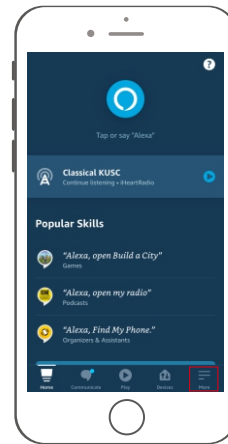
Click to set the mode
"Cool/Heat/Auto/aux/off"

Click to set the mode
"on/Auto"

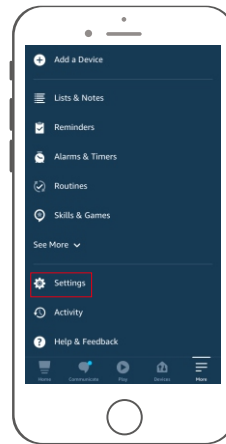


Click to set the schedule

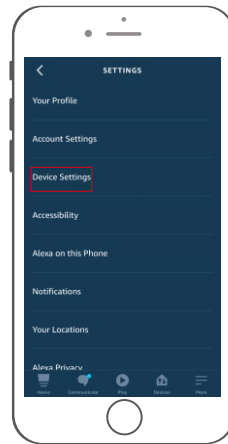
How to change Fahrenheit and Celsius



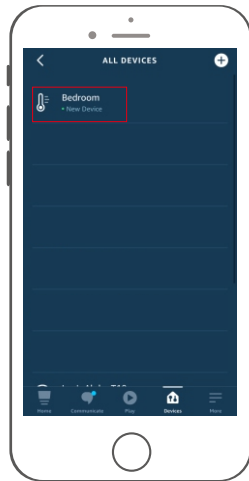
1 Open "Amazon Alexa" APP,
Click "More"



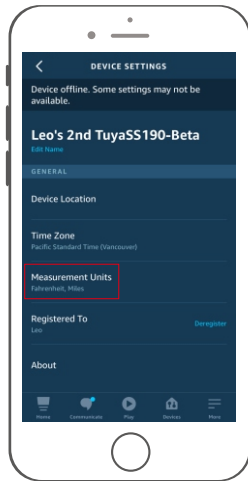
2 Click "Settings"



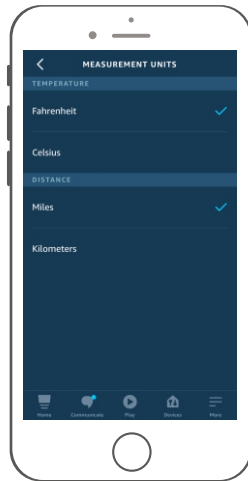
3 Click "Device Settings"



④ Click your device

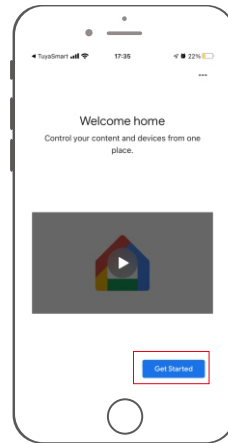


⑤ Click "Measurement Unit"

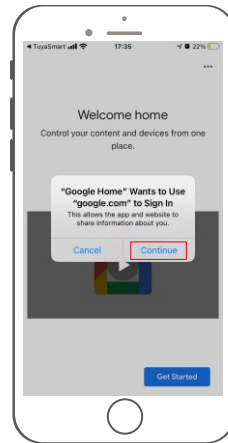


⑥ Select "Fahrenheit or Celsius"

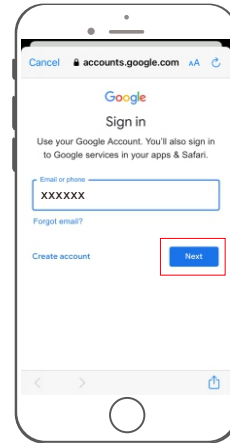
Link with Google Assistant



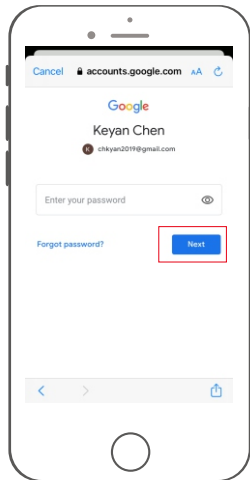
① Open the "Google Home" APP, click "Get Started"



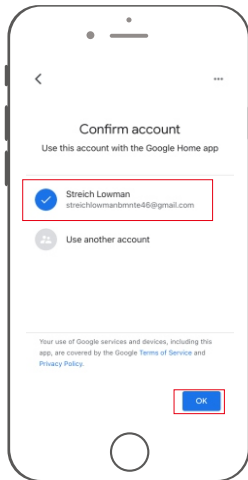
② click "Continue"



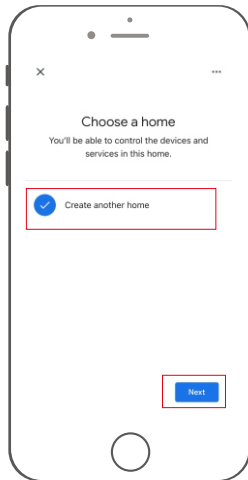
③ Enter Google Home account, click "Next"



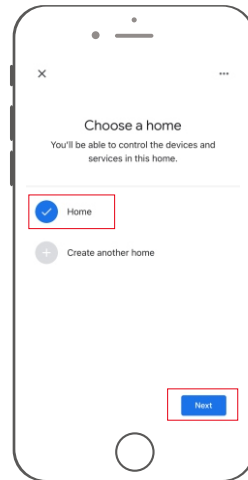
④ Enter Google Home password.
click" Next"



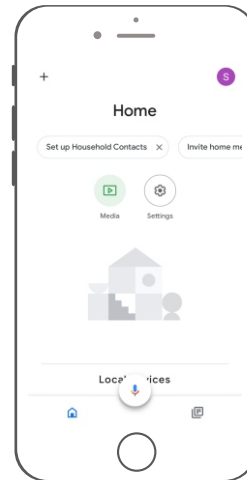
⑤ Select your account.
click" OK"



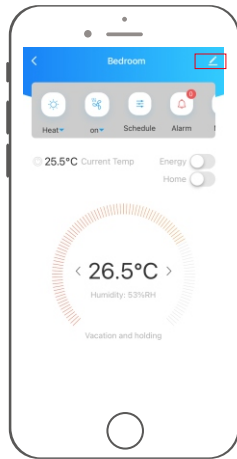
⑥ Select "Create another home"
click" Next"



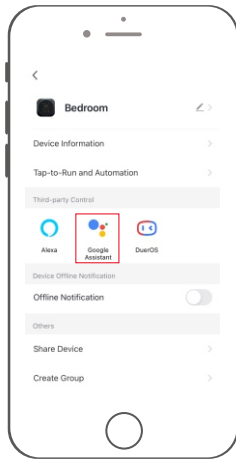
⑦ Select "Home", click" Next"



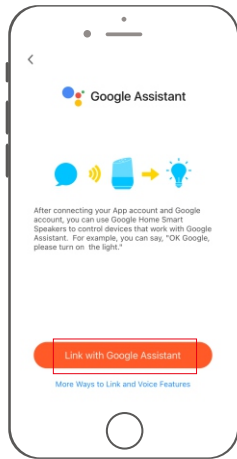
⑧ Successful



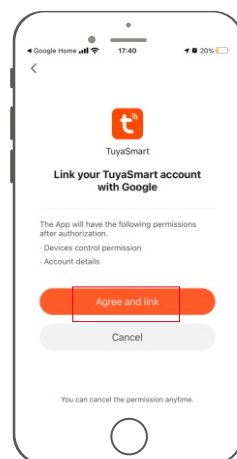
⑨ Open TuyaSmart app, click "link"



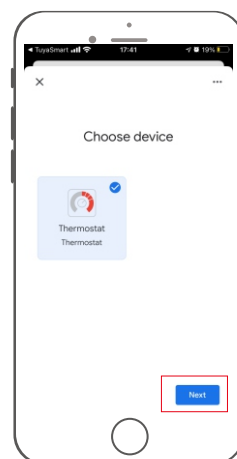
⑩ Click "Google Assistant"



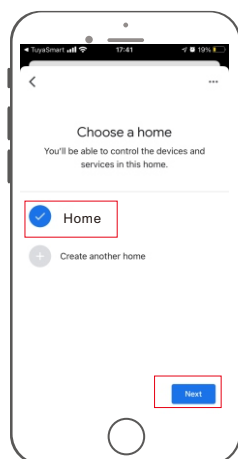
⑪ Click "link with Google Assistant"



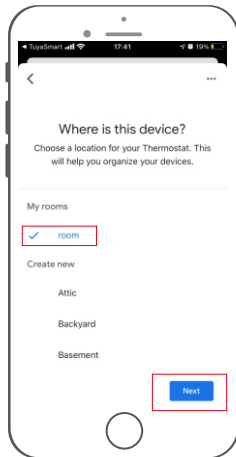
⑫ Wait for 10s, Click "Agree and link"



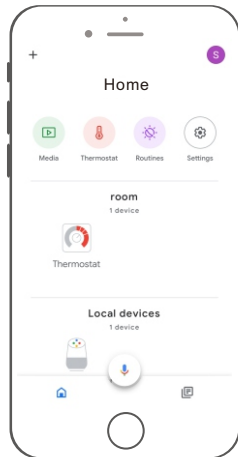
⑬ Choose your device, Click "Next"



⑭ Choose your home, Click "Next"



- 15 Choose your room,
Click "Next"



- 16 Link with "Google Home" successfully,
you can control your device with voice

Voice commands:

***Set the bedroom(Device name) to Cool/heat/auto/aux/off mode**

*** You can say "change/switch/turn/make bedroom to cool mode"**

***You can say such as follow:**

"Alexa,change bedroom to Cool mode."

"Alexa,switch bedroom to Heat mode."

"Alexa,set bedroom to Auto."

"Alexa,set bedroom to Aux."

"Alexa,set bedroom to Off."

"Alexa,what is the temperature in the bedroom."

"Alexa,set the bedroom to 72 degrees."

"Alexa,raise the bedroom by 1 degree."

"Alexa,increase the bedroom by 1 degree ."

"Alexa,drop the bedroom by 1 degree."

"Alexa,resume my bedroom schedule."

"Ok google, bedroom on 75."

"Ok google, bedroom turns on heating mode."

"Ok google, bedroom turns on cooling mode."

"Ok google, bedroom turns on Auto mode."

"Ok google, the bedroom rises by 2 degrees."

"Ok google, lower the bedroom by 2 degrees."

*** Tips: bedroom is the device name. You can name it by yourself.**

*** The temperature unit of thermostat and speaker must be the same.**