

1. When the temperature is too high, HI will be displayed in the temperature area to express the room temperature over the display range. When the temperature is too low, LO will be displayed in the temperature area to express the room temperature below the display range.
2. There is preservative on the LCD when out of the factory, users can remove it or not.
3. If you need to remove the preservative, just pull it from the corner and no need to open the thermostat.
4. Don't force to install. When it is hard to connect the pin, move the display panel slightly. After the pin aimed at the port, press the thermostat hard.
5. It is precision electronic products. Don't knock or fall it.
6. Don't let the water, mud into the thermostat.

12.SPECIFICATIONS

Specifications

the display range of temperature.....44°F to 90°F ( 7°C to 32°C)  
the control range of temperature.....44°F to 90°F ( 7°C to 32°C)  
Load rating.....1 amp per terminal, 1.5 amp maximum all terminals combined  
Display accuracy .....± 0.5°C  
Power source.....18 to 30 VAC, NEC Class II, 50/60 Hz for hardwire (common wire)  
Operating ambient.....41°F to +95°F(5°C to +35°C)  
Operating humidity.....90% non-condensing maximum  
Dimensions of thermostat.....118mm \* 88mm \* 30mm

MechDoc is a registered brand of Dongguan Magic Intelligent Technology Co., Ltd.  
We are committed to providing each customer with the highest standard of products and customer service.



QD-HVAC10(W)  
Programmable Thermostat

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**1.Preface**

Dear client,  
Thanks for choosing QD-HVAC10(W) thermostat series. It's our best wish to bring you convenience for your daily life. Before using, please read the User's Manual carefully. It will help you to use it correctly.

2.Production Function Overview

2.1 Application

| Description                                |     |
|--------------------------------------------|-----|
| 1 stage Heat and 1 stage Cool              | Yes |
| Gas or Oil Heat                            | Yes |
| Electric Furnace                           | Yes |
| Heat Pump( NO Aux. or Emergency Heat)      | Yes |
| Heat Only Systems                          | Yes |
| Heat Only Systems - Floor or Wall Furnaces | Yes |
| Cool Only Systems                          | Yes |
| Millivolt                                  | Yes |

2.2 Feature

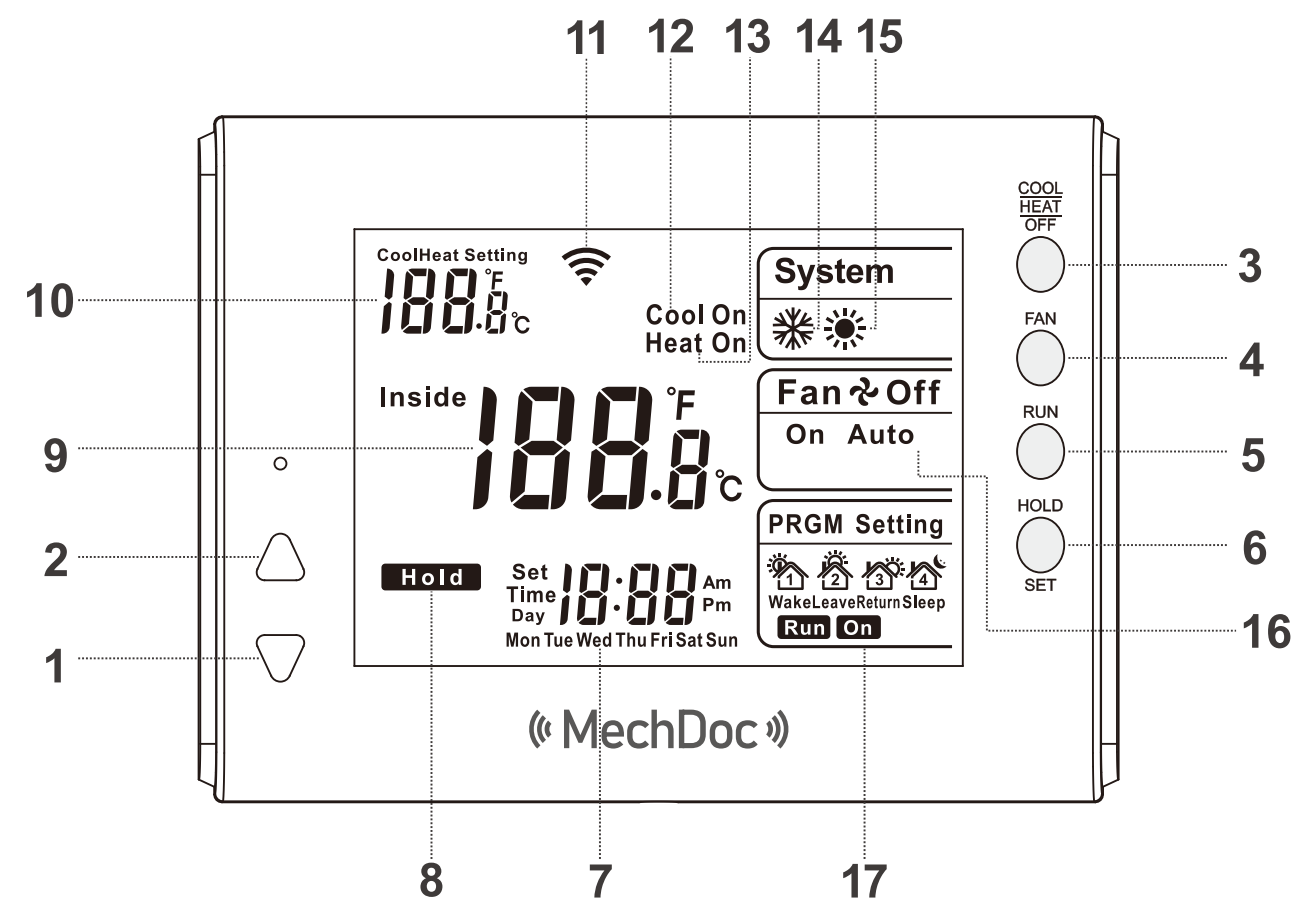
- Be able to operate your air conditioner whenever and wherever you are with your mobile phone.
- Mobile phone control and suitable for Android & IOS system.
- Programmable thermostat
- Everyday Programmable
- Easy to program
- Easy to install
- 6.8 square inch display
- 24V Hardwire
- Operate on 1 stage Heat and 1 stage cool
- Heat Pump without Aux or Emergency Heat
- Separate heating and cooling swing(cycle rate) adjustments
- 5 minutes compressor delay protection (selectable on or off)
- Gas, Electric or Oil
- Optional temperature display of Fahrenheit or Celsius scale.
- Display temperature calibration



**A trained, experienced technician must install this product.**

Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.

3.Diagram and Description



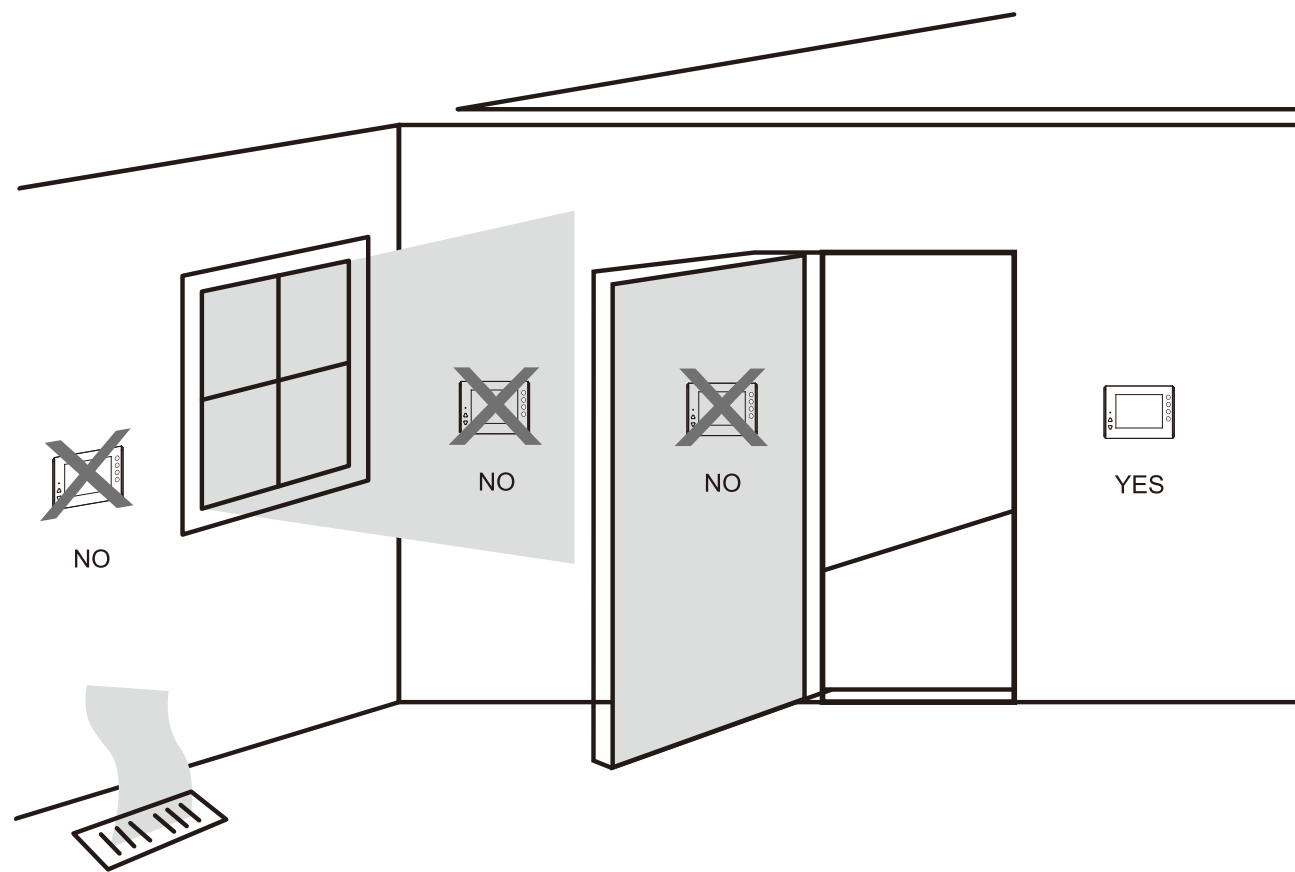
Description

| Item | Description                                                                                                                                                                                               |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Down key: in the cooling/heating mode, it is for lowering the setting temperature. When setting the program and changing the system parameter, it is for adjusting the parameter.                         |
| 2    | Up key: in the cooling/heating mode, it is for raising the setting temperature. When setting the program and changing the system parameter, it is for adjusting the parameter.                            |
| 3    | Mode key: First press for cool mode, and second is for heat mode. Press again will turn off the thermostat.                                                                                               |
| 4    | Fan mode: in the cooling/heating mode, switch the fan between on and auto.                                                                                                                                |
| 5    | Run key: Press only once,the thermostat operates according to the time programming.After setting the program and changing the system parameter, press the run key to save and exit the setting interface. |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6  | Hold/Set key: Press the HOLD only once,the LCD display "hold",and the thermostat keeps the current mode and setting temperature.in the cool/heat mode, press it to keep the setting temperature, and the setting temperature will not change in the setting process. In the cool/heat mode, press and hold the key for 3 seconds to enter the setting interface. When power off, hold the key for 5 seconds to enter the parameter changing interface. |
| 7  | Clock/Week: Display the current system time and week.                                                                                                                                                                                                                                                                                                                                                                                                  |
| 8  | Hold symbol: when the symbol displayed, the setting temperature will be kept and won't follow the setting program.                                                                                                                                                                                                                                                                                                                                     |
| 9  | Room temperature: display the current room temperature.                                                                                                                                                                                                                                                                                                                                                                                                |
| 10 | Setting temperature: display the setting temperature in the cool/heat mode.                                                                                                                                                                                                                                                                                                                                                                            |
| 11 | WIFI symbol: Symbol flashes, means to configure the network.<br>Symbol always on, means connected the network.                                                                                                                                                                                                                                                                                                                                         |
| 12 | Cool symbol: The cooling relay start to work when the symbol displayed. The symbol flashing means the cooling relay is in the set-up delay process.                                                                                                                                                                                                                                                                                                    |
| 13 | Heat symbol: The heating relay start to work when the symbol displayed. The symbol flashing means the cool relay is in the set-up delay process.                                                                                                                                                                                                                                                                                                       |
| 14 | System cool: The symbol displayed means it is in the cooling mode.                                                                                                                                                                                                                                                                                                                                                                                     |
| 15 | System heat: The symbol displayed means it is in the heating mode.                                                                                                                                                                                                                                                                                                                                                                                     |
| 16 | Fan: display the current mode of the fan.                                                                                                                                                                                                                                                                                                                                                                                                              |
| 17 | Program setting: it shows the system is in the setting process                                                                                                                                                                                                                                                                                                                                                                                         |

## 4.Wall locations

The thermostat should be installed approximate 4 to 5 feet above the floor. Select an area with average temperature and good air circulation.



**Do not install** thermostat at following places:

- Close to hot or cold air ducts
- With direct sunlight
- With an outside wall behind the thermostat
- The areas that do not require conditioning
- Where there are dead spots or drafts (in corners or behind doors)
- Where there might be concealed chimneys or pipes

### Installation Tip

Pick an installation location that is easy for the user to access. The temperature of the location should be representative of the building.

## 5.SUBBASE INSTALLATION



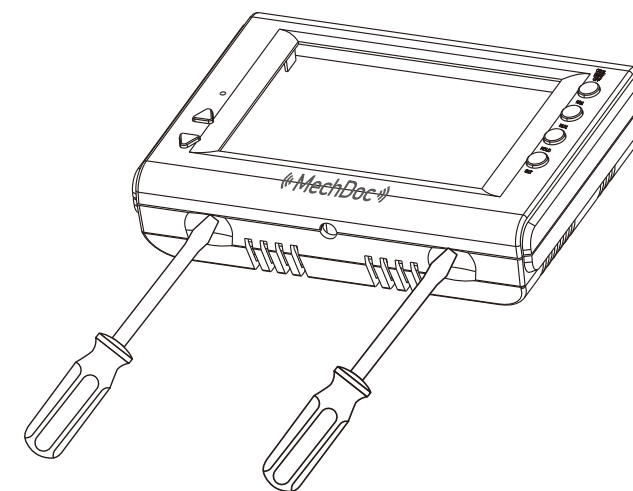
### Caution: Electrical Hazard

Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.

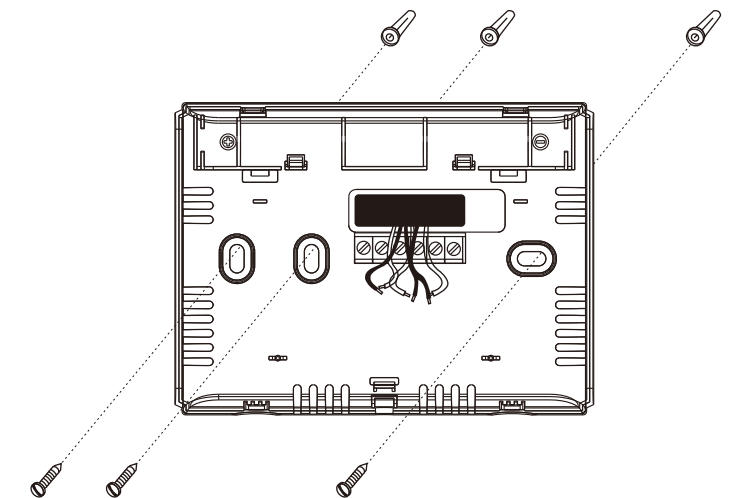


### Caution: Equipment damage hazard

Do not operate the cooling system if the outdoor temperature is below 50° F (10° C) to prevent possible compressor damage.



Insert the awl into the slot and pry up the front part of the panel to open it.



For horizontal mount put one screw left and one screw right.

## 6.WIRING



### Caution: Electrical Hazard

Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.



### Warning :

All components of the control system and the thermostat installation must conform to Class II circuits per the NEC Code.

## Wiring

- 1.If you are replacing a thermostat. Take notice of the terminal connections on the cases, the wiring connections may not be color coded. For example, the green wire may not be connected to the G terminal.
- 2.Loosen the terminal block screws. Insert wires then retighten terminal block screws.
- 3.Place nonflammable insulation into wall opening to prevent drafts.



### Caution:

Do not over tighten terminal block screws, as this can damage terminal block, and keep the thermostat fitting on the sub-base correctly or it will cause system operation issues.

**Max Torque = 6in-lbs**

## Terminal Designation

- C Common wire from secondary side of cooling system transformer
- O Heat pump changeover valve energizes in cooling
- B Heat pump changeover valve energizes in heating
- W Heat relay

- RH Transformer power for heating
- RC Transformer power for cooling
- G Fan relay
- Y Compressor relay

## Wiring Tips:

### RH & RC terminals

For single transformer systems, leave the jumper wire in place between RH and RC. Remove jumper wire for two transformer systems.

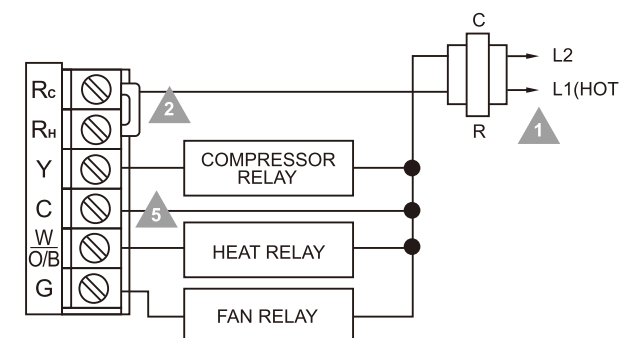
### Wire specifications

Use shielded or nor-shielded 18 - 22 gauge thermostat wire.

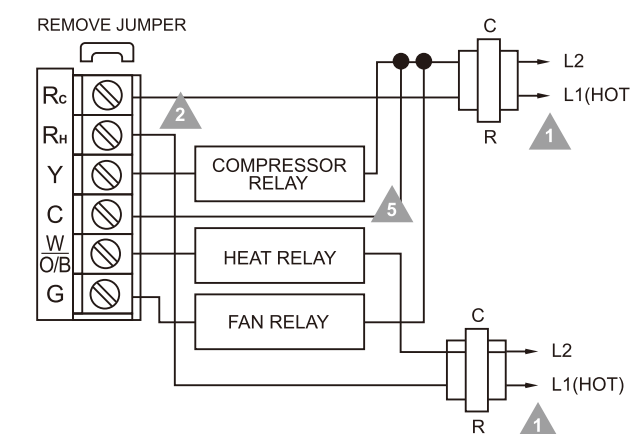
## 7.WIRING DIAGRAMS

- 1 Power supply
- 2 Factory-installed jumper. Remove only when installing on 2-transformer systems
- 3 In heat pump mode, please check the reversing vlave to see whether it is in **O** or **B** position, and enter the system to set reversing valve to the position you need.
- 4 The system is in the electronic mode in default setting. If the system is gas or oil supported, enter the setting interface to set it in the gas mode.

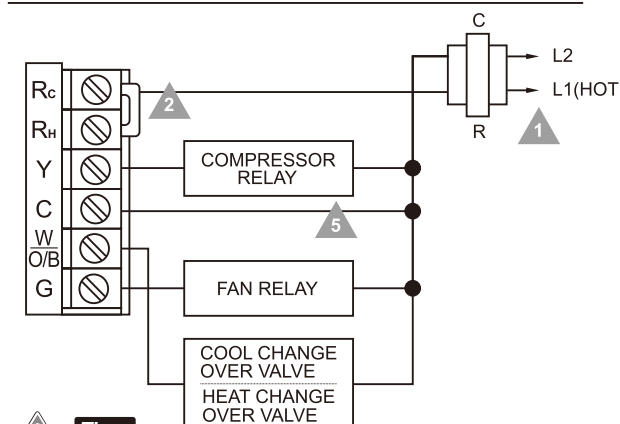
### Typical 1H/1C system: 1 transformer



### Typical 1H/1C system: 2 transformer



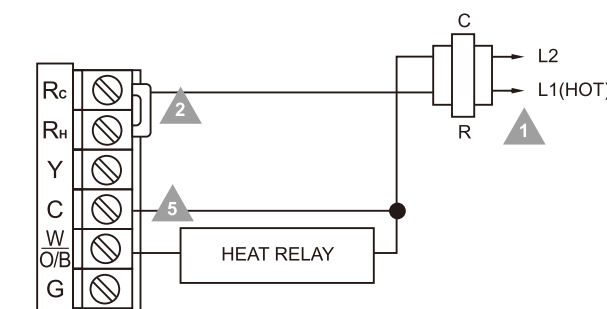
### Typical 1H/1C heat pump system 4



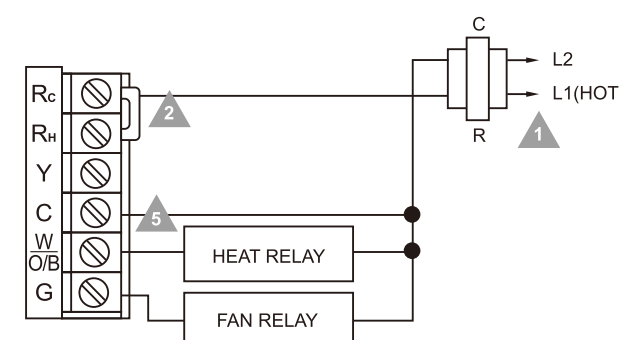
### Tips:

- 1.Please set on the heat pump system first.
- 2.Please set the valve as heating/cooling system.

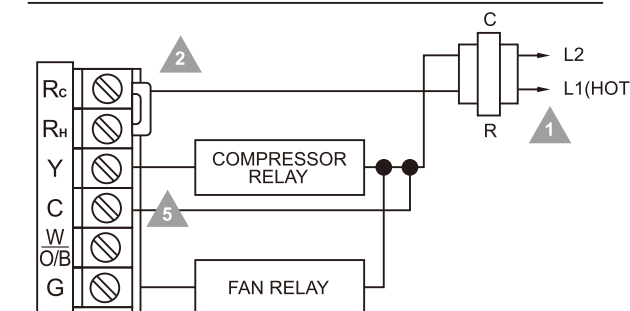
### Typical heat-only system



### Typical heat-only system with fan



### Typical cool-only system



## 8.1 Operation

(1) COOL/HEAT/OFF: press the “ COOL/HEAT/OFF ” key once to turn on the system. The mode is cool and “ ❄ ” is displayed. Meanwhile the room temperature, setting temperature, clock will be also displayed. Change to the heat mode by the second pressing and “ 🔥 ” is displayed. Press again to turn off the system and “ off ” is displayed.

(2) Setting temperature: when power on, press “ △ ” or “ ▽ ” to set the temperature. Press “ ▽ ” to lower the setting temperature, and press “ △ ” to raise the setting temperature.

(3) Fan mode: When power on, press it to choose the fan on, and press again to change the fan to auto mode.

(4) Run key: When power on, press the key to run the program what has been set. Meanwhile “Run On” is displayed. In the programming mode or changing the system parameter, press “RUN” to exit and save the changed parameter.

(5) Hold key: When power on, press the “Hold” key to keep the setting temperature. It won't run the program and display “Hold”. For example: now the setting temperature is 60°F ,after pressing the “HOLD” the system will lock the setting temperature to be 60°F .

## 8.2 Programming setting

When power on(in cool/heat mode),hold “ SET ” for 3 seconds to enter the programming mode:

(1) First is to set the system clock. When the clock area is flashing, press “ △ ” or “ ▽ ” to change the clock. And if you hold “ △ ” or “ ▽ ”, the adjustment will be faster.

(2) Press “ SET ” again to set the week. When the week flashing, press “ △ ” or “ ▽ ” to change the week.

(3) Press “ SET ” again to set the Wake time for Monday . When the clock area is flashing, press “ △ ” or “ ▽ ” to adjust the time.

(4) Press “ SET ” again to set the Wake temperature for Monday. When the clock area is flashing, press “ △ ” or “ ▽ ” to adjust the temperature.

(5) Repeat pressing the “ SET ”, then you can set the time and temperature of Leave, Return, Sleep, from Monday to Sunday by turn.

(6) After finished the setting, press the “ RUN ” to cancel the setting interface and save the parameter. (if there's no any operation within 30 seconds when setting, the system will exit the setting interface and abandon the changed parameter.)

### EXAMPLE:

#### Heating/Cooling Schedule Plan(Factory default program setting)

|      |                                                                                            | Everyday   |             |
|------|--------------------------------------------------------------------------------------------|------------|-------------|
| Mode | Period                                                                                     | Start Time | Temperature |
| Heat | Wake    | 6:00 AM    | 21℃         |
|      | Leave   | 8:00 AM    | 17℃         |
|      | Return  | 6:00 PM    | 21℃         |
|      | Sleep   | 10:00 PM   | 17℃         |
| Cool | Wake    | 6:00 AM    | 24℃         |
|      | Leave   | 8:00 AM    | 28℃         |
|      | Return  | 6:00 PM    | 24℃         |
|      | Sleep   | 10:00 PM   | 26℃         |

## 8.3 System parameter setting

When power off, hold “ SET ” key for 5 seconds to enter the parameter changing interface.

Room temperature area displays each symbol of the parameter, and system clock area displays each parameter of the parameter values. Repeat to press “ SET ” key to cycling display the each parameter. Press “ △ ” or “ ▽ ” to adjust each parameter. After finished changing, press “ RUN ”key to exit the setting interface and save the set parameter.(if there's no any operation within 30 seconds when setting, the system will exit the setting interface and abandon the changed parameter.)

| Step | Press Buttons | Display(Factory Defaults)   | Press△or ▽to select | Default parameters | Description                                                                                       |
|------|---------------|-----------------------------|---------------------|--------------------|---------------------------------------------------------------------------------------------------|
| 01   | SET5 seconds  | CC                          | FA or SL            | FA                 | Select fast cooling or slow cooling                                                               |
| 02   | SET           | HC                          | FA or SL            | FA                 | Select fast heating or slow heating                                                               |
| 03   | SET           | FC                          | F or C              | C                  | Select °F or °C Readout                                                                           |
| 04   | SET           | CP                          | 0 or 5              | 0                  | Compressor Lockout delay time<br>0 = none ; 5 = Minutes                                           |
| 05   | SET           | CA                          | -5° to +5°          | 0                  | room temperature error correction                                                                 |
| 06   | SET           | HP                          | 1 or 0              | 0                  | conventional heat pump selection<br>0: conventional mode<br>1: heat pump mode                     |
| 07   | SET           | Ob                          | O or b              | O                  | Select cool/heat change over valve<br>"b" = heat change over valve<br>"O" =cool change over valve |
| 08   | SET           | IC                          | 1 or 0              | 0                  | Intelligent Recovery Option<br>"1" = Active "0" =Deactivated                                      |
| 09   | SET           | 6E                          | E or 6              | E                  | "E"=Electric "6"=Gas                                                                              |
| 10   | RUN           | RETURNS TO NORMAL OPERATION |                     |                    |                                                                                                   |

## 01. Select cooling cycle rate

The **FA** setting is used to produce shorter cooling cycles. The **SL** setting produces a longer cooling cycle. Both settings produce very accurate temperature control and can be set to your personal preference.

## 02. Select heating cycle rate

The **FA** setting is used to produce shorter heating cycles. The **SL** setting produces a longer a longer heating cycle. Both setting produce very accurate temperature control and can be to your personal preference.

## 03. Select °F or °C readout

Changes the display readout to Centigrade or Fahrenheit as required. The default setting is “°F”.

## 04. Select compressor lockout delay

To protect the compressor from short cycling, you can select compressor off-time cycle between **0** or **5** minutes. When the thermostat compressor time delay occurs, the **Cool On** or **Heat On** display will flash during compressor lockout. The default setting is “5”.

## 05. Select temperature recalibration

This feature allows you to adjust the displayed room temperature up to 5° higher or lower. Your thermostat can be accurately calibrated to match your previous thermostat. The current or adjusted room temperature will be displayed on the display. The default setting is “0”.

## 06. Choose traditional mode or heat pump mode

Users can choose traditional mode or heat pump mode according to your own conditon. When heat pump mode set, the compressor will be enforced 5minutes delay to restart.

## 07. Choose the reversing valve of the heat pump

Users can choose the reversing valve working on the heat mode or the cool mode. In heat pump mode, please check the reversing vlave to see whether it is in O or B position, and enter the system to set reversing valve to the position you need.

## 08. Intelligent Recovery Option

The thermostat has an intelligent recovery function that brings your room temperature at exactly the pre-set time by turning on the Heating earlier. Select **1** to activate the intelligent recovery function, Select **0** to deactivate the intelligent recovery function. The default setting is “0”.

## 09. Heat fan control

This function is the control and choosing for the heat fan. If the user uses the Gas or Oil heating system, please choose "**Gas**"(system controls fan operation).If the user uses the Electric heating system, please choose "**Electric**"(thermostat controls fan operation).

## 8.4 Restore factory settings

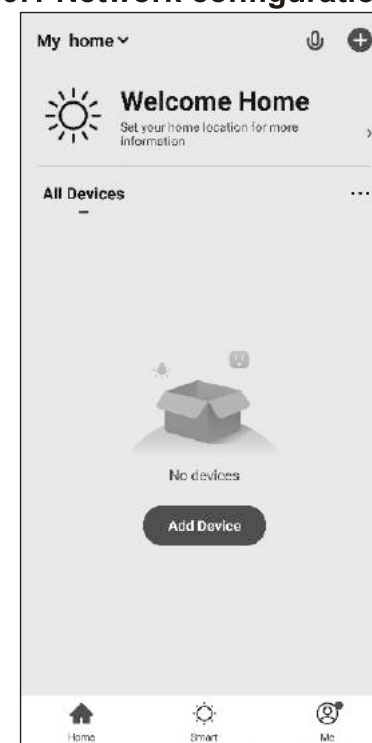
When power off, hold “FAN” key for 8 seconds. Symbol “dEF” displayed in the clock area shows restoring factory setting is successful, and press “RUN” key to exit.

## 9.How to connect WIFI

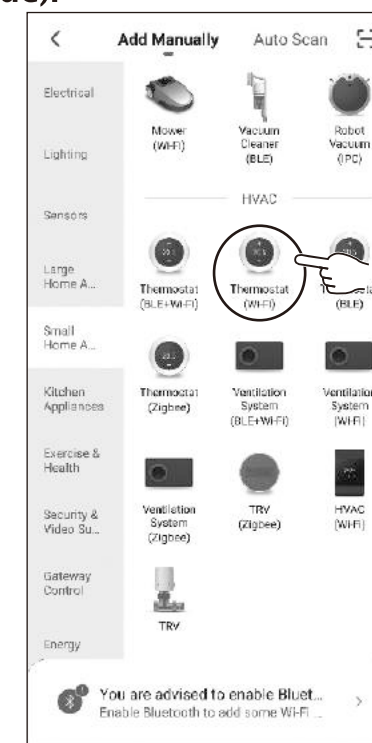
Connect your phone to the WIFI internet, and download Smart Life  from APP market. Then register according to the hint.

**Note:** If WiFi network failure, the thermostat still runs based on previous settings. You can use the buttons to change the settings or open bluetooth and use the app to do it when your mobile phone near the thermostat.

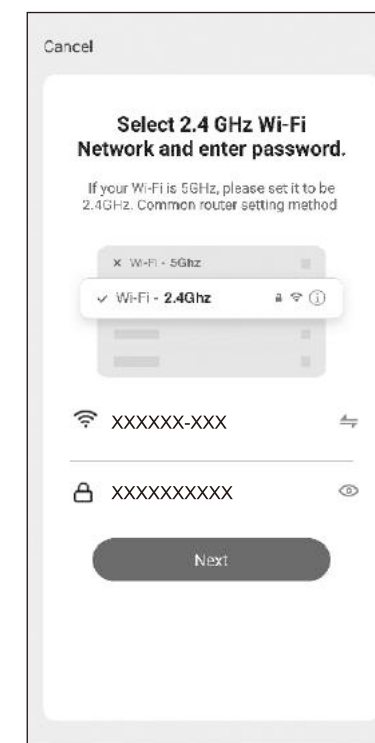
### 9.1 Network configuration(EZ mode).



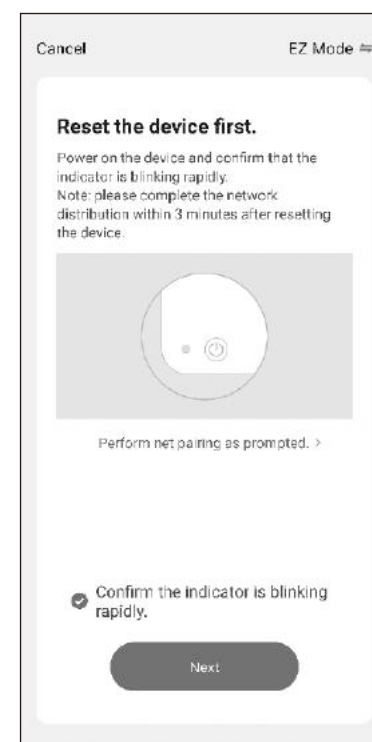
9.1.1 Click + at the upper right corner or add device.



9.1.2 Choose the thermostat on the list of home appliances.

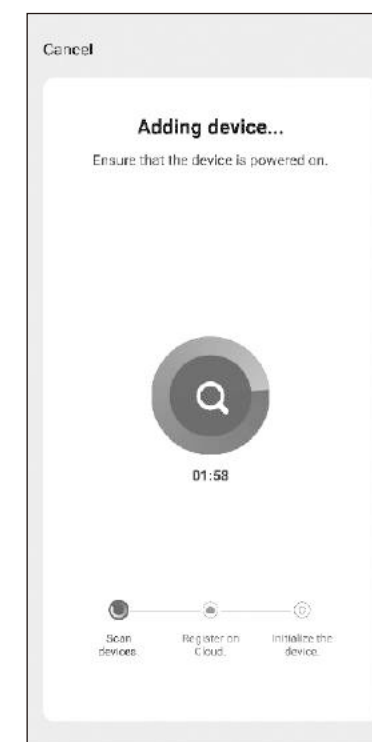


9.1.3 Choose WIFI and enter the correct password, then click the next step.

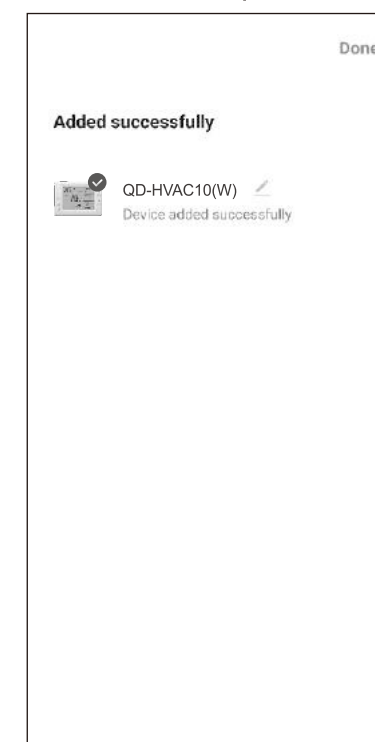


9.1.4 Long press the RUN key, hold it until the  symbol flashes at the upper right corner of the screen.

9.1.5 Click confirm and the next step.

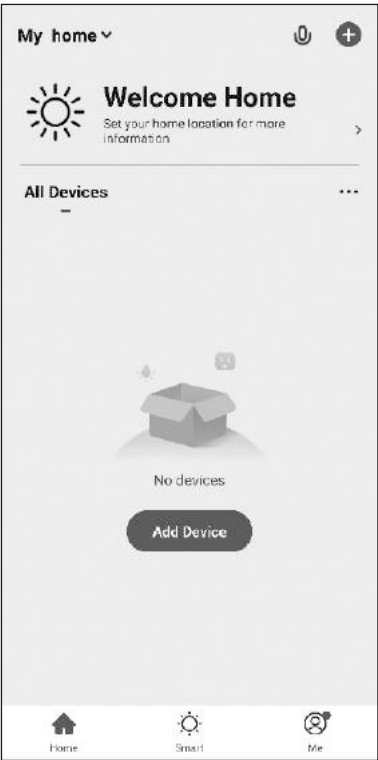


9.1.6 Enter EZ mode and wait.

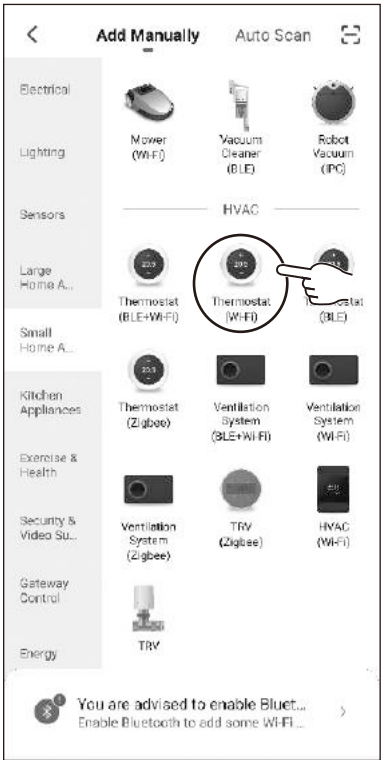


9.1.7 Indicate the successful connection, then click Done.

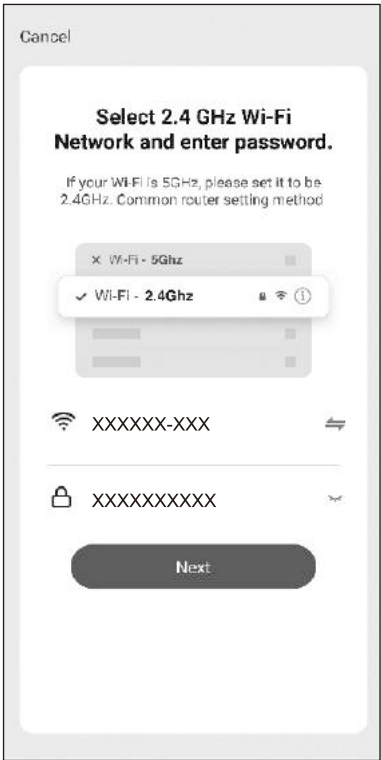
9.2 Network configuration(AP mode).



9.2.1 Click + at the upper right corner or add device.



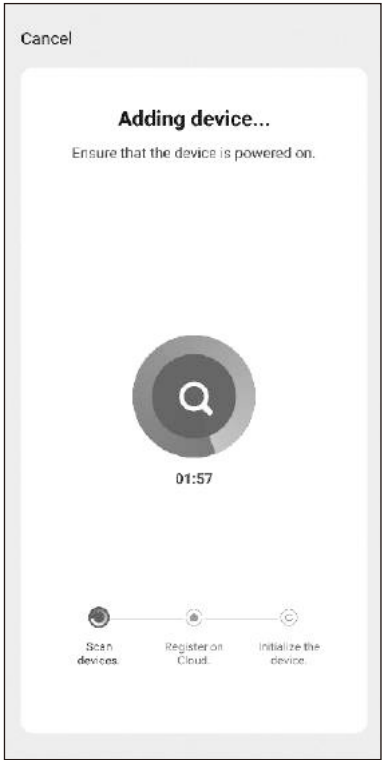
9.2.2 Choose the thermostat on the list of home appliances.



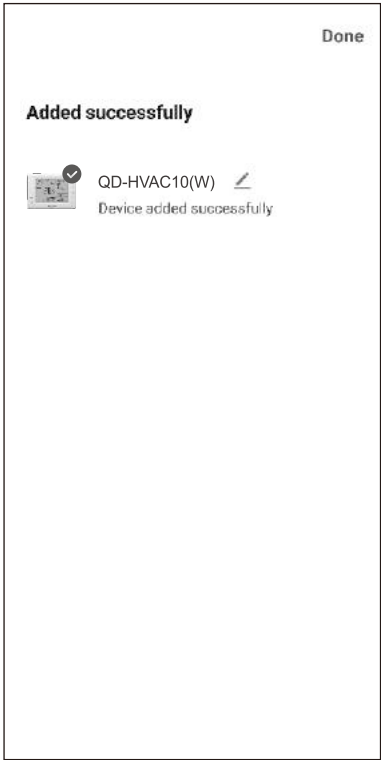
9.2.3 Choose WIFI and enter the correct password, then click the next step.



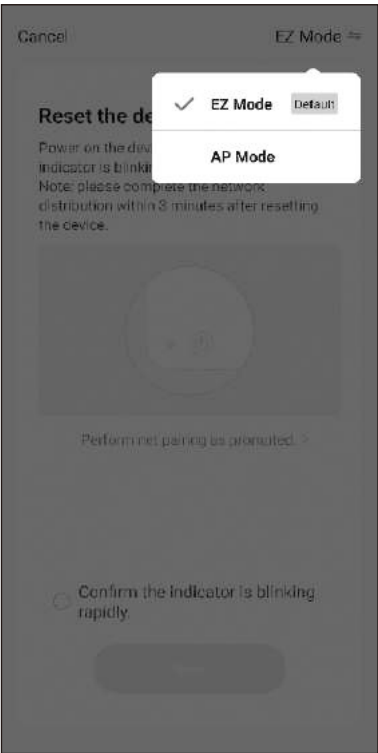
9.2.8 Find the corresponding SmartLife-XXXX or SL-XXXX and connect it.



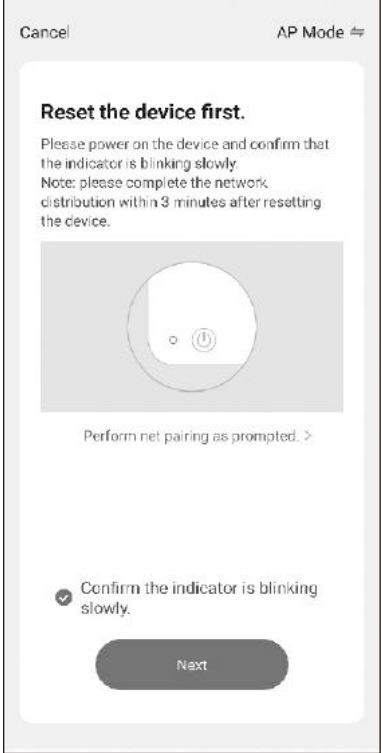
9.2.9 Return to the network configuration interface.



9.2.10 Success configuring the internet, click Done



9.2.4 Click EZ mode at the upper right corner to change to AP mode.



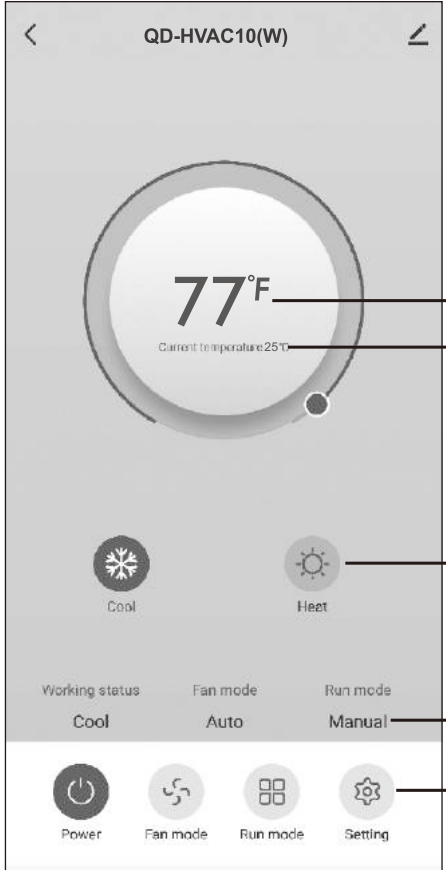
9.2.5 Long press the COOL/HEAT/OFF key, hold it until the Wi-Fi symbol flashes.

9.2.6 Click confirm and the next step.



9.2.7 According to the hint click and connect it.

9.3 Description of the control interface



SET TEMPERATURE  
CURRENT ROOM TEMPERATURE

MODE

WORKING CONDITION

POWER / FAN / MODE / SETTING

9.3.1 Slider the circle to adjust the target temperature:  
If in program mode, it will only temporary change the target temperature of current period, but won't change the setting value in the week program. The target temperature will change back to the week program setting value from next period.

9.3.2 Room temperature:  
Indicate the current room temperature.

9.3.3 Working mode:  
Click mode symbol to switch the corresponding working modes.

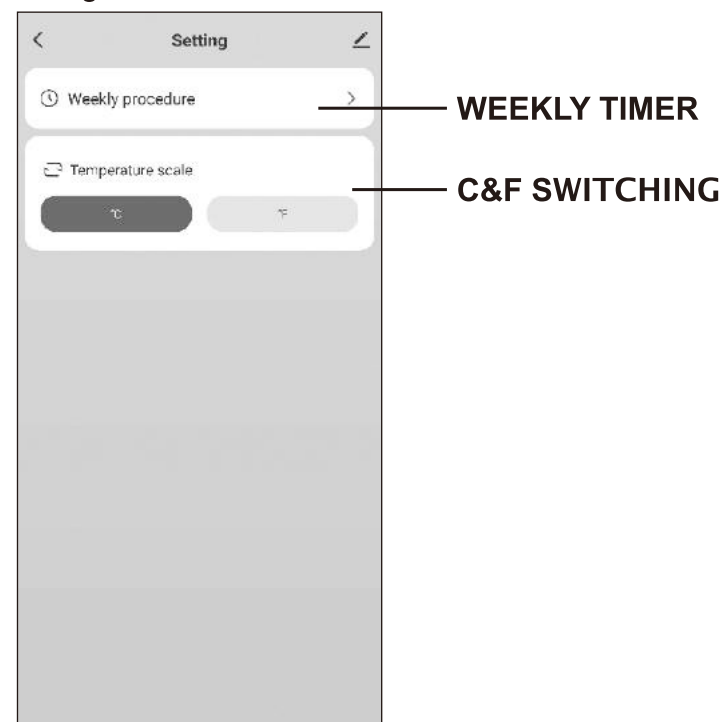
9.3.4 Working condition:  
Indicate all the operation.

9.3.5 Power:  
To turn on or turn off the power.

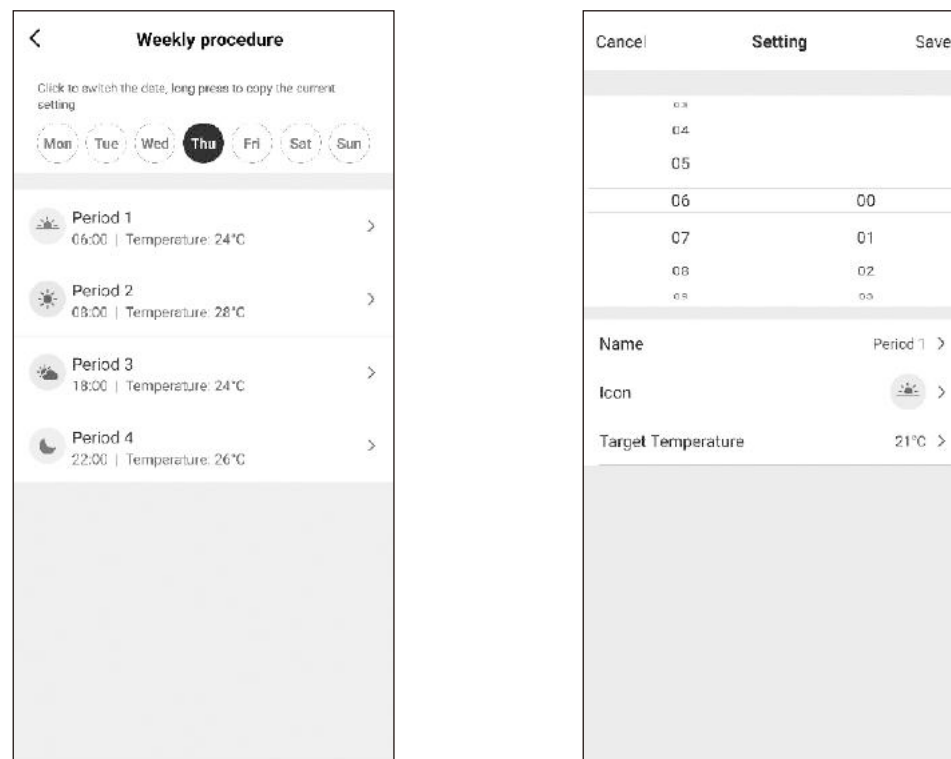
Fan mode:  
To choose the fan mode is Auto or ON.

Run mode:  
To choose the working mode is Manual or Program. Manual corresponds with Hold mode on the thermostat, and Program corresponds with Run mode.

**Setting:** Click setting to enter the interface.

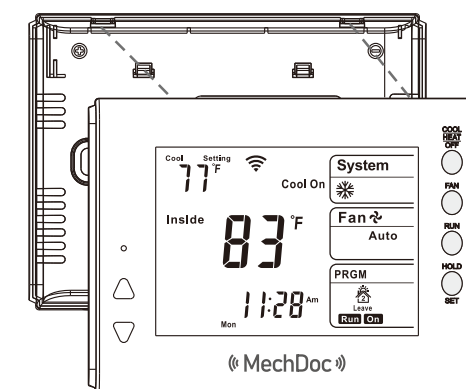


**C & F switching:** Click the temperature unit symbol.  
**Weekly timer:** Click Weekly procedure to enter the setting.

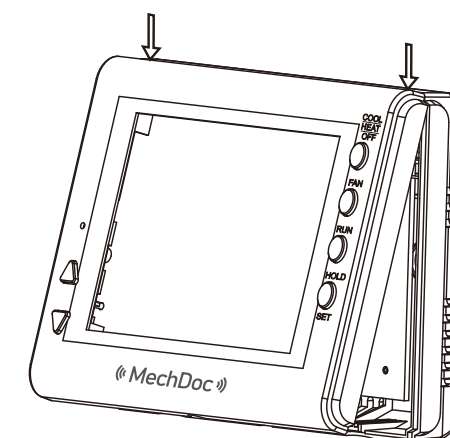


Weekly timer contains seven days a week, and four time periods. Included start time and temperature, click any one of them to enter the setting interface to set time, name, symbol, target temperature.

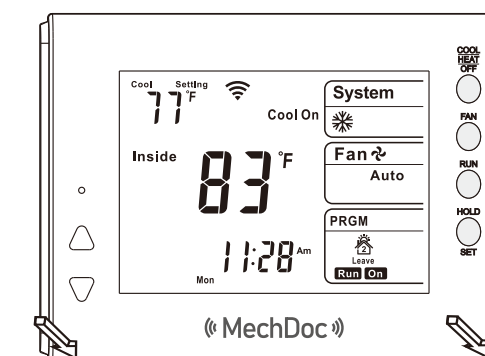
## Mount Thermostat



Step 1: Aim at the inner snaps in the higher part of the thermostat.



Step 2: Hang the two hooks of the front part at 30°right to the snaps.



Step 3: Press the lower part of the front display panel to complete the installation.



In Step 3, if the user think it is hard to connect the pin, please move the display panel slightly. Then it will be work.

#### FCC Caution.

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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.

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.

