

# WESTON

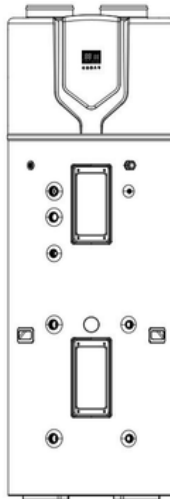
CLIMATE

## All-in-one Heating & Hot Water Heat Pump

Installation and owner's manual

**Model:** WESTON-JN-AO-R290-2.25KW-1F

2.25kW



Thank you very much for purchasing our product.  
Before using your unit, please read this manual carefully and keep it for future reference.



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**WARNING**

The heat pump unit is required reliable earthing connection before usage. Otherwise it might cause death or injury.



If you cannot confirm that your house power supply is earthed well, please do not install the unit before carefully check it. Please have a qualified person to check the reliable earthing connection and install the unit.

Examples of a qualified person include: Licensed plumbers, Authorized electric company personnel, and Authorized service personnel.

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## 1.Safety information

Please carefully read thoroughly all of the instructions before installing or operating the unit. Following safety symbols are very important, please carefully read and always obey all safety symbols.

|                                                                                                  |                                                                                                     |
|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
|  <b>CAUTION</b> | It maybe cause that people is injured if not obey the instructions.                                 |
|  <b>WARNING</b> | It maybe cause that people is seriously injured or killed if not obey the instructions.             |
|  <b>DANGER</b>  | It maybe cause that people is seriously injured or killed immediately if not obey the instructions. |



## WARNING

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- ☐ The unit must be earthed effectively and reliably.
- ☐ A residual current operated circuit-breaker (RCCB) must be installed adjacent to the power supply.
- ☐ Do not remove, cover or deface any permanent instructions, labels or the data labels from either the outside of the unit or inside of unit panels.
- ☐ Only the qualified person can perform the installation of this unit in accordance with local national regulations and this installation manual. Improper installation may result in water leakage, electric shock or fire.
- ☐ Only the qualified person can relocate, repair and maintain the unit. Improper installation and repairing may result in water leakage, electric shock or fire.
- ☐ Electric connection work should obey the instructions of local power company, local electric utility and this manual.
- ☐ Never use the wire and fuse with wrong rated current, otherwise unit may breakdown and cause fire furthermore.
- ☐ Do not insert fingers, rods or other objects into the air inlet or outlet. When the fan is rotating at high speed, it will cause injury.
- ☐ Never use a flammable spray such as hair spray, lacquer paint near the unit, because it may cause a fire.
- ☐ The heat pump unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the unit by a person responsible for their safety. Children should be supervised to ensure that they do not play with the unit.

Once the power supply cord is damaged, it must be replaced by service agent or the manufacturer or a similarly qualified person.



- ☐ Do not dispose this unit as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
- ☐ Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Please contact local government for information regarding the collection systems available.
- ☐ If electrical appliances are disposed of the landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.



## CAUTION

- ☐ The ground wire's pole of socket must be grounded well, make sure that power supply socket and plug are enough dry and connected well.
- ☐ To check the power supply socket and plug are qualified .
  - Step 1: Turn on the power supply.
  - Step 2: Keep the unit running for a half hour.
  - Step 3: Turn off the power supply and plug out.
  - Step 4: Check whether the socket and plug is hot or not.
- ☐ Before cleaning, be sure to stop the operation and turn the breaker off or pull out the power supply plug. Otherwise, an electric shock and injury may be caused.
- ☐ Produced hot water temperature can reach over 50°C. It can cause severe burns instantly or death form scalds. Children, disabled and elderly persons are at highest risk of being scalded. Feel water is necessary before bathing or showering. So, water temperature limiting valves are recommended.



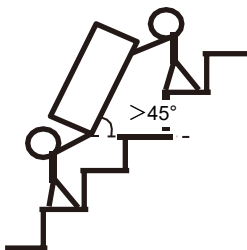
- ☐ Do not operate the unit with a wet hand; Otherwise, an electric shock may be caused. The installation height of power supply should be over 1.8m. If there is any water spattered, separate the power supply from water.
- ☐ It is normal if some water drops from the hole of PTR valve during operation. But if there is a great amount of water, call the service agent for instruction.
- ☐ After a long term use, check the unit base and fittings. If damaged, the unit may sink and result in injury.
- ☐ Arrange the drain pipe to ensure smooth draining. Improper drainage work may cause wetting of the building, furniture, etc.
- ☐ Do not touch the inner parts of the controller. Do not remove the front panel. Some parts inside are dangerous to touch, otherwise the unit malfunction may be caused.
- ☐ Do not turn off the power supply. System will stop or restart heating automatically during the standby mode. A continuous power supply for the unit is necessary, except service and maintenance.
- ☐ If the unit has not been used for a long period of time (2 weeks or more), hydrogen gas will be produced in the water piping system.

- 
- Hydrogen gas is extremely flammable. To reduce the risk of injury under these conditions, it is recommended that open the hot water tap for several minutes at the kitchen sink before using any electrical appliance connected to the hot water system. When hydrogen is present, there will probably be an unusual sound such as air escaping through the pipe as the water begins to flow. There should be no smoking or open flame near the tap at the time it is open.
- 

## 2.Preparations of installation

### 2.1 Transport

- In order to avoid scratch or deformation of the unit surface, please use guard boards to contacting surface. No contact of fingers and other things with the vanes.
- Do not incline the unit more than  $45^{\circ}$  to move. When install the unit, please keep the unit vertical.



Gradient limit should be more than  $45^{\circ}$

- Because the unit is very heavy, it needs two or more persons to carry the unit. And otherwise, it might cause injury and damage of the unit.

## 2.2 Packing list



| Item                                                                                                                                                                       | Quantity | Item                                                                                                                                                                          | Quantity |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Heat pump water heater                                                                                                                                                     | 1        | Reducing tee                                                                                                                                                                  | 1        |
| Installation & User manual                                                                                                                                                 | 1        | Reducing coupling<br>(Connect between<br>Automatic air exhaust valve<br>and Reducing tee)                                                                                     | 1        |
| Relief valve (0.7MPa)                                                                                                                                                      | 1        | Drain outlet pipe cap cover                                                                                                                                                   | 2        |
| T/P valve<br>(G3/4' connection, 0.8MPa)                                                                                                                                    | 1        | PE tube<br>(1.2m)                                                                                                                                                             | 1        |
| Automatic air exhaust valve<br>(G1/2' connection, 1MPa)                                                                                                                    | 1        | Quick insertion valve<br>(Exhaust air in water cycle)                                                                                                                         | 1        |
| Male-thread Straight tube<br>with outside<br>(Connect with Relief valve<br>of DHW tank)                                                                                    | 1        | Quick union<br>(Connect with The manual<br>exhaust outlet located above<br>tank)                                                                                              | 1        |
| Temperature Sensor<br>(Outdoor Ambient Temp.)<br>(If not connect, no error<br>code,but coil air inlet temp.<br>will be used during in<br>climate compensation<br>function) | 1        | Temperature Sensor<br>(Indoor Ambient Temp.)<br>(If not connect, no error<br>code in Circuit temp. control<br>mode, but it show error code<br>in Room temp. control<br>mode.) | 1        |
| Temperature Sensor<br>Extension Cord 5m<br>(Outdoor Ambient Temp.)                                                                                                         | 1        | Temperature Sensor<br>Extension Cord 5m<br>(Indoor Ambient Temp.)                                                                                                             | 1        |
| PG Connector                                                                                                                                                               | 1        |                                                                                                                                                                               |          |

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### 2.3 Installation site requirements

- ☐ Enough space for the unit installation and maintenance should be preserved.
- ☐ The surrounding of air inlet and outlet should be free from obstacles and strong wind.
- ☐ The base surface should be flat, surface should be inclined no more than 2° and able to bear the weight of the unit and suitable for installing the unit without increasing noise or vibration.
- ☐ The operation noise and air flow expelled shall not affect neighbors.
- ☐ No flammable gas is leaked nearby.
- ☐ It is convenient for piping and wiring.
- ☐ If it is installed in indoor space, it might cause indoor temperature decreased or noise. Please take preventive measures for this.
- ☐ If the unit has to be installed on a metal part of the building, make sure that the reliable electric insulation which should meet the relevant local electric standard.



## CAUTION

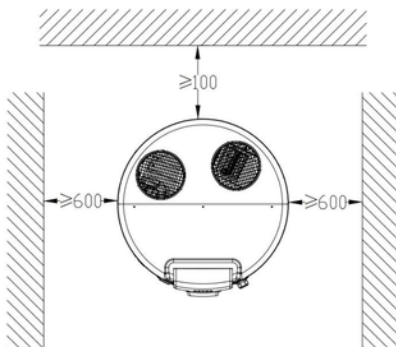
- ☐ The ambient temperature must also be considered when installing this unit, in heat pump mode the ambient temperature must be above -5°C and below 43°C. If the ambient temperature falls outside these upper and lower limits, the electrical elements will be activated to meet the hot water demand and the heat pump does not operate.
- ☐ The unit should be located in an area not subject to freezing temperatures. The unit located in unconditioned space (garages, basements, etc.) may require the water piping condensate piping, and drain piping to be insulated to shelter against freezing.
- ☐ When installing the unit in the following places, it may lead to the malfunction of the unit: (If it is inevitable, please consult with the unit supplier.)
  - The place contains mineral oils, for example, lubricant of cutting machines.
  - Seaside where the air contains salt.
  - Hot spring area where there are some corrosive gases like sulfide gas.
  - Factories where the high voltage power fluctuates seriously.
  - Inside a car or cabin.
  - The place with direct sunlight and other heat supplies. If it is not avoid, please install a covering or take other measurement.
  - Place where is contained by oil permeates like kitchen.
  - Strong electromagnetic wave surrounding.
  - The place filling with danger or flammable gases or materials.
  - The place filling with acid or alkali gases.



## WARNING

- ☐ The unit must be securely installed; otherwise some noise and shaking may be produced.
- ☐ Confirm that there is no any obstacle around the unit.
- ☐ If there is strong wind like seashore, please fix the unit in the place where is protected from the wind.

## 2.4 Maintenance space requirements

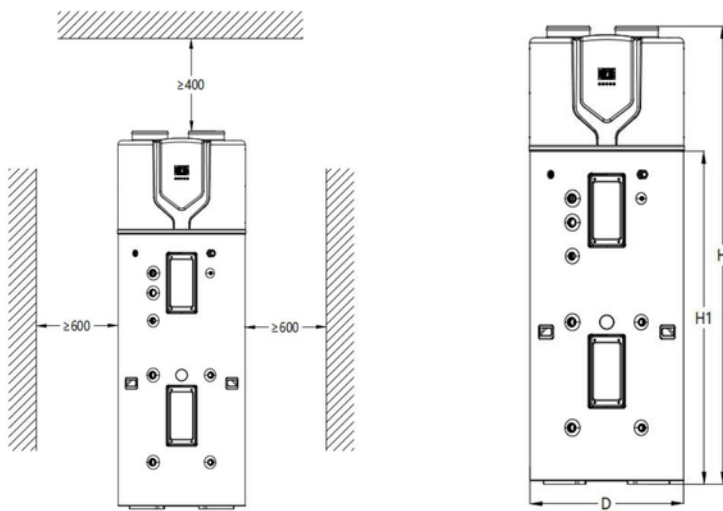


If the unit is installed in an enclosed space:

The heat pump unit must be placed in a space which is more than 15m,<sup>3</sup> and must have unrestricted air flow.

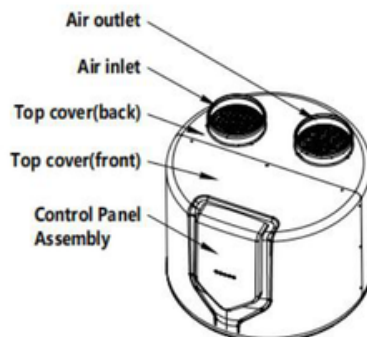
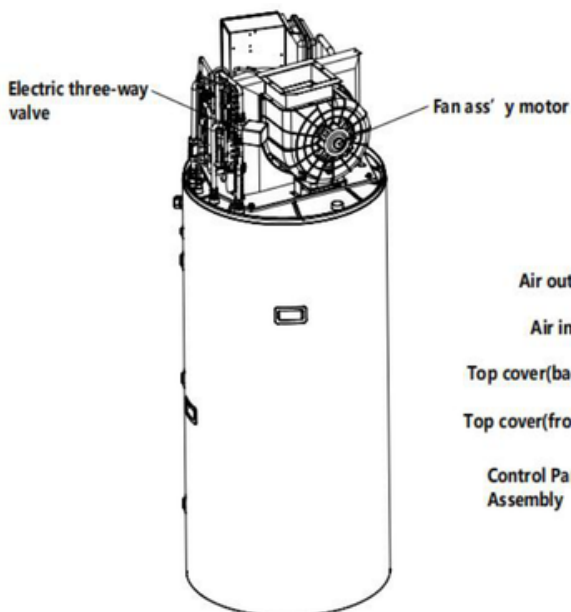
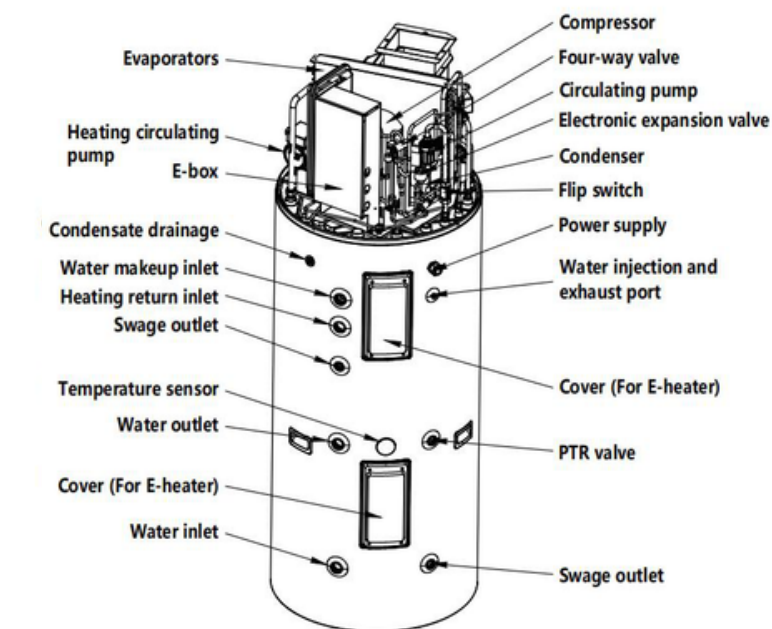
**For example**, the space of the installed unit is one room with 2.5m height ceiling and with 3m length by 2m width.

## 2.5 Unit dimension



|                               |          |
|-------------------------------|----------|
| Model                         | 65L+180L |
| Diameter $\varnothing$ D (mm) | 640      |
| High H (mm)                   | 1910     |

## 2.6 Part names:



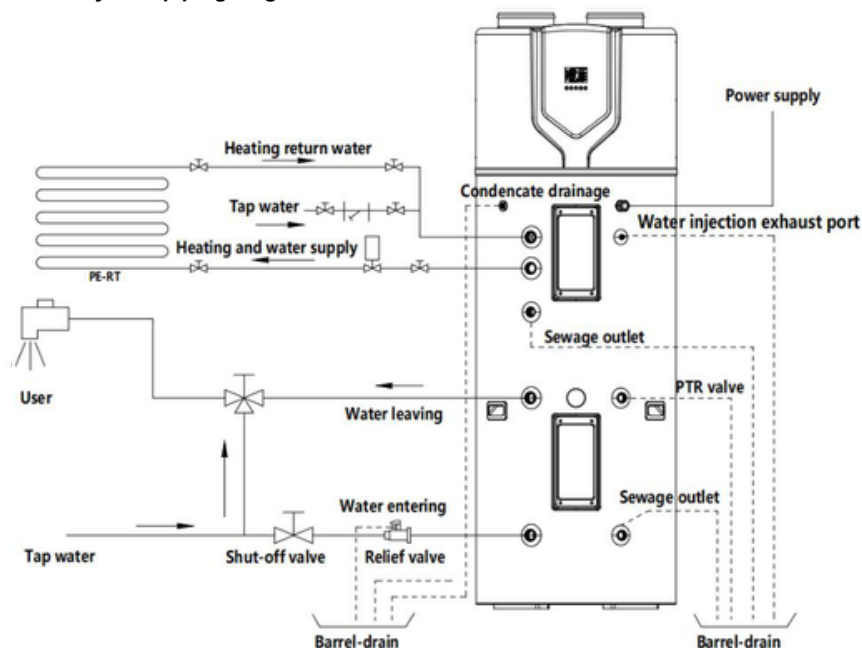
## 2.7 Specification

| Heating Hot Water Heat Pump                                                                                                                                                                                                                                                                                                                                                                                               |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Model name                                                                                                                                                                                                                                                                                                                                                                                                                | WESTON-JN-AO-R290-2.25KW-1F |
| Power supply                                                                                                                                                                                                                                                                                                                                                                                                              | 220-240V/~50Hz              |
| Capacity <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                     | 1.5kW                       |
| Power input <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                  | 0.4kW                       |
| COP <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                          | 3.75                        |
| Capacity <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                     | 2.25kW                      |
| Powerinput <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                   | 0.51kW                      |
| COP <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                          | 4.40                        |
| Max. power input                                                                                                                                                                                                                                                                                                                                                                                                          | 11.58kW                     |
| Max.current                                                                                                                                                                                                                                                                                                                                                                                                               | 50.5A                       |
| Refrigerant type/Charge ELE.power                                                                                                                                                                                                                                                                                                                                                                                         | R290/150g                   |
| input (hot water/heating)                                                                                                                                                                                                                                                                                                                                                                                                 | 3kW/8kW                     |
| Max.outlet water temp.                                                                                                                                                                                                                                                                                                                                                                                                    | 75°C                        |
| Max.operating pressure (high/low side)                                                                                                                                                                                                                                                                                                                                                                                    | 2.8/1.0MPa                  |
| Rated water pressure                                                                                                                                                                                                                                                                                                                                                                                                      | 0.7MPa                      |
| Storage tank volume                                                                                                                                                                                                                                                                                                                                                                                                       | 180L+65L                    |
| Water piping connections                                                                                                                                                                                                                                                                                                                                                                                                  | G1'                         |
| Rated water flow                                                                                                                                                                                                                                                                                                                                                                                                          | 2.5m³/h                     |
| Hot water pressure relief valve                                                                                                                                                                                                                                                                                                                                                                                           | 0.7Mpa                      |
| Pressure relief valve for heating                                                                                                                                                                                                                                                                                                                                                                                         | 0.3Mpa                      |
| Sound power level                                                                                                                                                                                                                                                                                                                                                                                                         | 49dB(A)                     |
| Net dimensions (L×W×H)                                                                                                                                                                                                                                                                                                                                                                                                    | Φ640×1910mm -               |
| Running temp. range                                                                                                                                                                                                                                                                                                                                                                                                       | 7~45°C                      |
| Net weight                                                                                                                                                                                                                                                                                                                                                                                                                | 97kg                        |
| Unit protection class (with air inlet duct)                                                                                                                                                                                                                                                                                                                                                                               | IPX1                        |
| <b>Capacity and power input based on the following conditions:</b><br>1. Ambient temperature 20°C, heat source temperature 7°C/6°C, water temperature from 10°C to 53°C.<br>2. Ambient temperature 20°C, heat source temperature 7°C/6°C, inlet water temperature 30°C,outlet water temperature 35°C.<br>Hermetically sealed system,leak tested.<br>Contains fluorinated greenhouse gasses covered by the kyoto protocol. |                             |

### 3. Installations

The circulating air flow of every unit should be more than 350m<sup>3</sup>/h. Please make sure that there is enough installation space.

#### 3.1 Water system piping diagram



Notes:

- 1) The PTR valve is only available for some models.
- 2) The temperature limiting valve is required on the hot water usage terminal.
- 3) The relief valve as accessory must be connected. Drainage pipe connected with the relief valve should be connected with atmosphere.
- 4) The outlet of the heating outlet pipe should be connected to the three-way pipe provided by the accessory, and the exhaust valve should be installed according to the requirements in the diagram. The buffer water tank and water heating system pipeline should be replenished with water from the tap water supply pipe, and the operation can only be started after the exhaust valve is exhausted.
- 5) After all the pipes installed turn on the cold water inlet and hot water outlet to fill the tank. When there is water normally following out from water outlet, the tank is full. Turn off all valves and check all pipes. If any leakage, please repair.



## CAUTION

- Water piping system as the above figure. When install the unit at a place where outside temperature below freezing point, the insulation must be provided for all hydraulic components.
- The handle of PTR valve should be pulled out once per half a year to confirm that there is no jam of the valve. At the same time, please take care of hot water from the valve and burning.

- 
- The outlet drain pipe should be insulated well in order to prevent water which is kept inside the pipe from freezing in cold conditions.



When filling the buffer tank for the first time, install and open the valve on the water injection port. Please note that in the process of filling water will be heard in the gas discharge sound, when the gas smoothly discharged, and then turn on the heat pump (domestic hot water tank needs to be filled with water first), the sound of water flow can be heard after the internal heating circulating pump is turned on, water filling exhaust process lasts 3-5 minutes, can be completed water filling!



## WARNING

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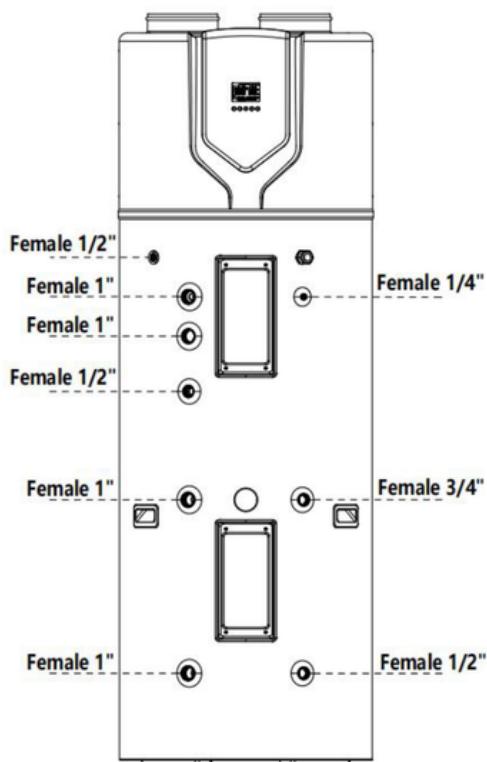
It will cause explosion and injury, if do not comply with the following instruction:

- Do not dismantle the PTR valve.
- Do not block off the outlet drain pipe.

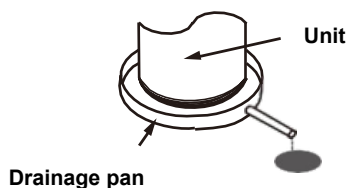
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The specifications of water inlet and outlet pipes as following:

- Internal thread (G1').
- Pipes must be heat-insulated well.
- Installation of the pipe of PTR valve's thread is RC3/4' (external thread). When finish the installation, it must be confirmed that the outlet drain pipe of the PTR valve is exposed in the air.
- The relief valve is necessary. It can prevent the supplied water from flowing backwards.
- Connection dimensions as shown in the figure below.

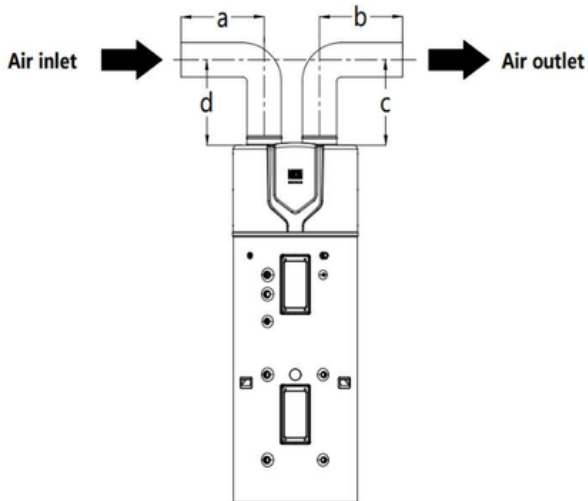


- ☐ After water system piping work, turn on the cold water inlet valve and hot water outlet valve and start effusing the tank. When water flow smoothly out from tap of water outlet, it means the tank is full. Please turn off all valves and check pipeline to make sure there is without any leakage.
- ☐ If the inlet water pressure is less than 0.15MPa, a pump should be installed at the water inlet pipe.
- ☐ For the safety usage of water tank at the condition of water supply pressure higher than 0.65MPa, a reducing valve should be installed at the water inlet pipe.
- ☐ Condensate may be leaked from the unit if condensate drainage pipe is blocked or it operates in high humidity environment, a drainage pan is recommended as shown as the following figure:

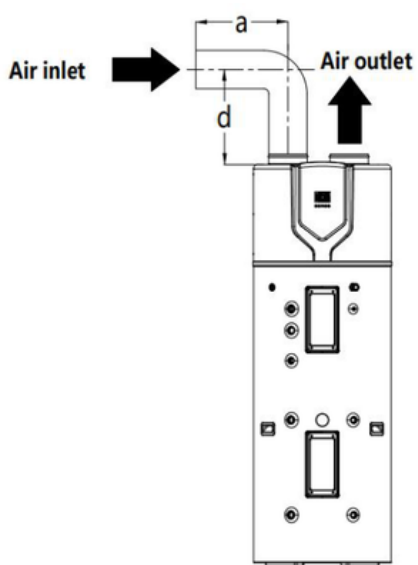


### 3.2 Connection of duct

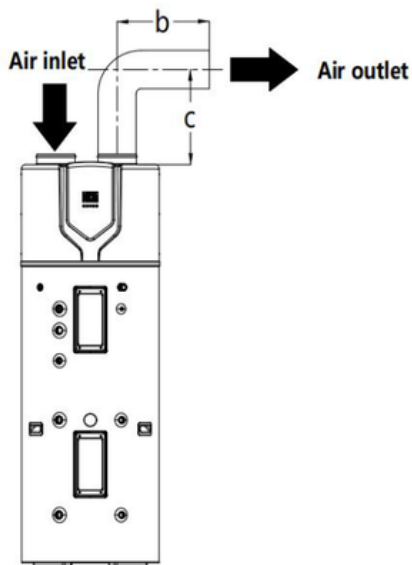
- When the ducts of both air inlet and outlet,  $a+b+c+d \leq 8\text{m}$ .



- When the duct only air inlet,  $b+c \leq 8\text{m}$ . (fig1)
- When the duct only air outlet,  $a+d \leq 8\text{m}$ . (fig2)



(fig1)



(fig2)

- The duct specifications:

|               |          |            |
|---------------|----------|------------|
| Duct type     |          | Round duct |
| Dimensions    |          | Φ180mm     |
| Pressure drop | Straight | ≤2Pa/m     |
|               | Bent     | ≤2Pa/m     |
| Bent quantity |          | ≤3         |

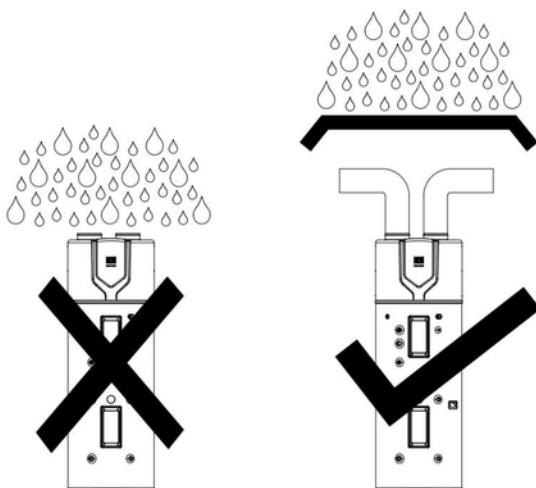
## NOTES

- When the air duct is connected, the unit capacity will be decreased because of the decreased air flow by the resistance of the duct.
- If the duct is connected, the duct total length should be not more than 8m, or the maximum static pressure should be within 15Pa. By the way, the quantity of bending should be not more than 3.
- When the unit with duct operates, condensate water will be generated around the out surface of the duct. So please wrap the thermal insulated layer around the duct.
- The unit should be installed in the indoor space, and it is not allow installing the unit at the rainy place.



## WARNING

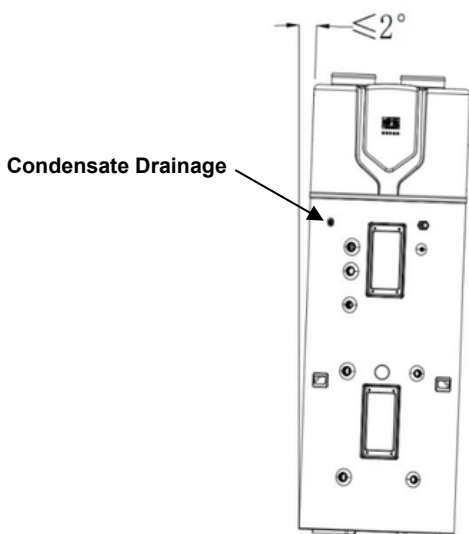
- Please avoid the water entering to the internal of the unit because the water will cause the component inside the unit damage or physical danger.
- If the unit is connected with duct which is reaching to outdoor, it is necessary to supply a reliable water-resistant measure on the unit to prevent water dropping from outside to internal of the unit.



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### 3.3 Condensate water drainage

To smoothly drain the condensate water, please install the unit at a horizontal floor. Recommending the inclination angle of the unit to the ground should be no more than  $2^{\circ}$ .



### 3.4 Electric connection



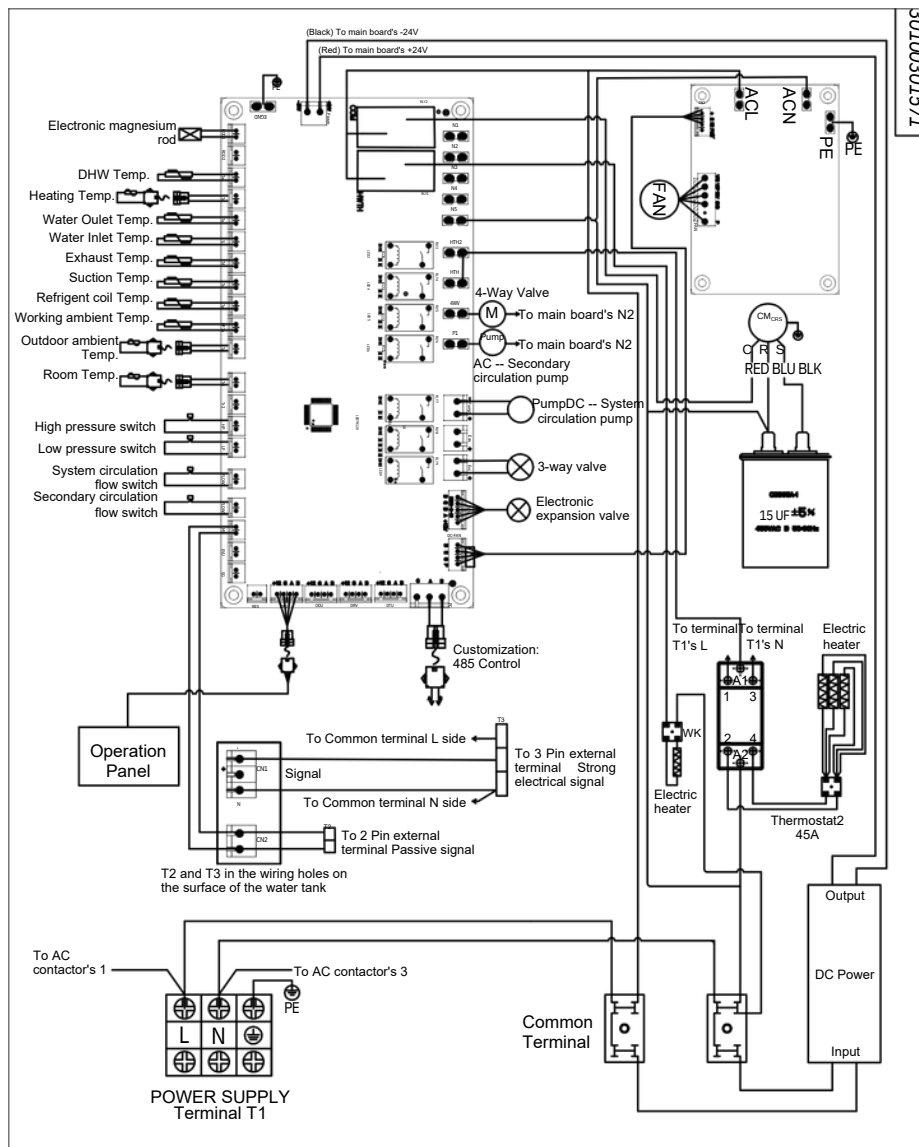
## CAUTION

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- ☐ The power supply should be an independent circuit with rated voltage.
- ☐ Power supply circuit should be earthed effectively. The wiring must be performed by professional technicians in according with nation wiring regulations and the unit circuit diagram.
- ☐ An all-pole disconnection device which has at least 3mm separation distance in all poles and a residual current device (RCD) with the rating of above 10mA shall be incorporated in the fixed wiring according to the national rules.
- ☐ Set the electric leakage protector according to the relevant electric technical standards of the state.
- ☐ The power supply cord and signal cord shall be laid out neatly and properly without mutual interference or contacting the connection pipes.
- ☐ After wires connection, check it again and make sure the correctness before power on.

### 3.4.1 Electric wiring diagram

30100301571



3.4.2 Specifications of power supply

|                                   |                    |
|-----------------------------------|--------------------|
| Power supply                      | 220-240V~,1Ph,50Hz |
| Min.diameter of power supply cord | 6mm2               |
| Earthcord                         | 6mm2               |
| Manual switch capacity/Fuse       | 63A/63A            |
| Leakage current circuit breaker   | 30mA,≤0.1Sec       |

- Please choose the power supply cord according to the above table, and it should comply with local electric standard.
- The power supply cord model, recommended power supply cord is H05RN-F/H05RR-F.



WARNING

The unit must be installed with a Leakage current circuit breaker near the power supply and must be effectively earthed.

3.4.3 Remote control connection



|               |                                                                      |
|---------------|----------------------------------------------------------------------|
| 2pin Terminal | Passive linkage                                                      |
| 3pin Terminal | Strong electric interlocking signal(L S N)<br>Note:Double wires is N |

---

### 3.5 Installation checking

#### 3.5.1 Location checking

- ☐ The flooring beneath the water heater must be able to support the weight of the unit when filled with water.
- ☐ Located indoors (such as a basement or garage) and in a vertical position. Sheltered from the freezing temperatures.
- ☐ Provisions made to shelter the area from water damage. Metal drain pan installed and piped to an adequate drain.
- ☐ Sufficient space to service the water heater.
- ☐ Sufficient air for the heat pump to function, the water heater must be located in a space which is more than 15m<sup>3</sup>, and must have unrestricted air flow.



## NOTES

For optimal efficiency and service ability, the following clearances should be maintained: 800mm on the air inlet side , 800mm on the air outlet side, 100mm in the back, and 600mm in the front.

- ☐ The unit cannot be placed into any type of closet or small enclosure.
- ☐ The site location must be free from any corrosive elements in the atmosphere such as sulfur, fluorine and chlorine. These elements are found in aerosol sprays, detergents, bleaches, cleaning solvents, air fresheners, paint and varnish removes, refrigerants and many other commercial and household products. In addition excessive dust and lint may affect the operation of the unit and require more frequent cleaning.
- ☐ The ambient air temperature must be above -5°C and below 43°C. If the ambient air temperature falls outside these upper and lower limits the electrical elements will be activated to meet the hot water demand.

#### 3.5.2 Checking of the water system piping

- ☐ PTR valve (Temperature and pressure relief valve) properly installed with a discharge pipe run to an adequate drain and sheltered from freezing.
- ☐ All piping properly installed and free of leaks.
- ☐ Unit completely filled with water.
- ☐ Water temperature limit valve or mixer tap (Recommended) installed per manufacturer's instructions.

#### 3.5.3 Checking of condensate drain pipe

- ☐ Must be located with access to an adequate drain or condensate pump.
- ☐ Condensate drain lines installed and piped to an adequate drain or condensate pump.

#### 3.5.4 Checking of the electrical connections

- ☐ The water heater requires 220-240VAC for proper operation.
- ☐ Wiring size and connections comply with all local applicable codes and the requirements of this manual.
- ☐ Water heater and electrical supply are properly grounded.
- ☐ Proper overload fuse or circuit breaker protection installed.

#### 3.5.5 Post installation review

- ☐ Understand how to use the controller to set the various parameters and functions.

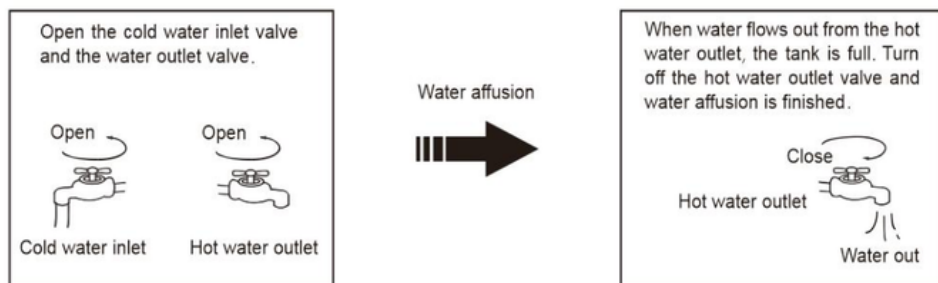
- ❑ Understand the importance of routine inspection/maintenance of the condensate drain pan and lines. This is to help prevent any possible drain line blockage resulting in the condensate drain pan overflowing.
- ❑ **IMPORTANCE:** Water coming from the plastic shroud is an indicator that both condensation drain lines may be blocked. Immediate action is required.
- ❑ To maintain optimal operation check, remove and clean the air filter.

## 4. Trial-running

### 4.1 Water affusion before operation

If the unit is used for the first time or used again after emptying the water tank, please make sure that the tank is full of water before turning on the power.

Method: please refer to the figure.

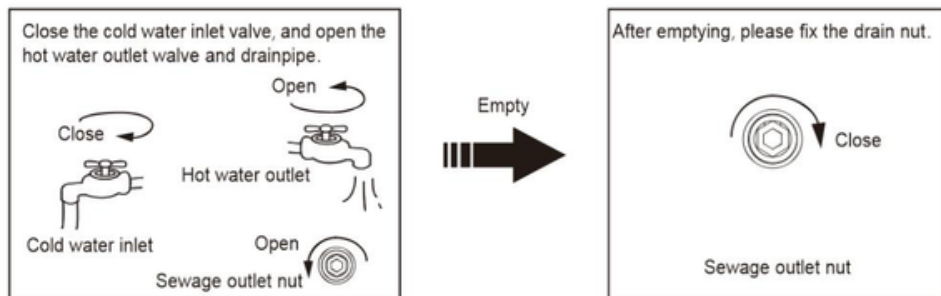


## CAUTION

- ❑ Operation without water in water tank may result in the damage of the boost E-heater (electric heater). Due to such damage, manufacturer will not be responsible for any damages caused by this issue.
- ❑ After powered on, the display lights up. Users can operate the unit through the buttons under the display.

## 4.2 Water emptying before cleaning

If the unit needs cleaning, moving, etc, the water tank should be emptied. Method: please refer to the figure.



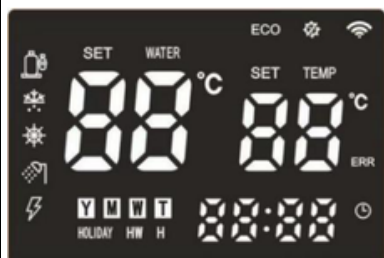
## 4.3 Trial-running

Checking list before commissioning:

- ☐ Correct installation of the system.
- ☐ Correct connection of the water/air and wiring.
- ☐ Condensate draining smoothly well insulation work for all hydraulic part.
- ☐ Correct power supply.
- ☐ No air in the water pipeline and all valves opened.
- ☐ Effective electric leakage protector installation.
- ☐ Sufficient inlet water pressure (Between 0.15MPa and 0.65Mpa).

## 5. Operation

### 5.1 Controller panel explanation

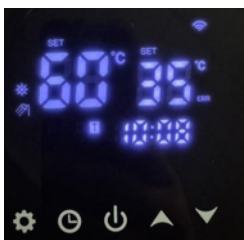
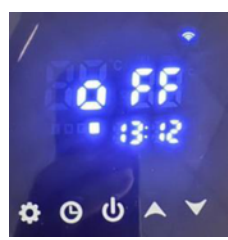


| No. | Icon                                                                                | Icon Name                                                                                                                                                          | Function                                 |                                                                                     |                                 |
|-----|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------|
| 1   |    | On/Off                                                                                                                                                             | Click to turn on/off the heat pump unit. |                                                                                     |                                 |
| 2   |    | Setting button                                                                                                                                                     | Click to enter Function Menu.            |                                                                                     |                                 |
| 3   |    | Timer button                                                                                                                                                       | Click to enter Timer Function Menu.      |                                                                                     |                                 |
| 4   |    | Increase/up button                                                                                                                                                 | Click to Increase/up                     |                                                                                     |                                 |
| 5   |    | Decrease/down button                                                                                                                                               | Click to Decrease/down                   |                                                                                     |                                 |
| No. | Icon                                                                                | Function                                                                                                                                                           | No.                                      | Icon                                                                                | Function                        |
| 1   |    | Compressor icon                                                                                                                                                    | 11                                       |    | Year Month Week Time            |
| 2   |    | Defrost mode icon                                                                                                                                                  | 12                                       |    | DHW timer function              |
| 3   |    | Heating mode icon                                                                                                                                                  | 13                                       |    | Heating timer function          |
| 4   |   | DHW mode icon                                                                                                                                                      | 14                                       |   | Weekday timer function          |
| 5   |  | DHW+Heating mode icon                                                                                                                                              | 15                                       |  | Disinfect timer function        |
| 6   |  | Electric icon                                                                                                                                                      | 16                                       |  | Holiday Function                |
| 7   |  | DHW setting temperature And DHW current temp.                                                                                                                      | 17                                       |  | Current time and Setting timer. |
| 8   |  | Heating setting temp. and Heating current temp. Especially “TEMP” will light up when heat pump under Room control mode but not light up in the Water control mode. | 18                                       |  | Timer icon                      |
| 9   |  | WIFI icon                                                                                                                                                          |                                          |                                                                                     |                                 |
| 10  |  | Error icon                                                                                                                                                         |                                          |                                                                                     |                                 |

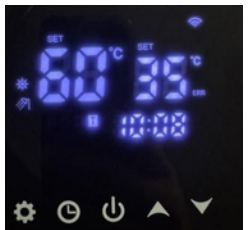
### 5.2 Lock/Unlock

|                                                                                   |                                                                                                                                     |                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <br>Press for 3 seconds when beep sound to unlock. | The screen will lock after 5 minutes of inactivity. Once locked, the interface becomes unresponsive, clicking any button causes the main screen to flicker but no settings can be adjusted even id during data adjusting. |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 5.3 Turn on/off

|                                                                                   |                                                                                                           |                                                                                   |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  | <br>Press to turn on/off |  |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|

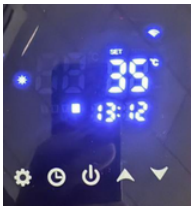
### 5.4 Working mode selection

|   | <br>Press to select the working mode |                                                                                     |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| DHW+Heating mode                                                                    | DHW mode                                                                                                               | Heating mode                                                                        |
|  |                                     |  |

## 5.5 Set target temperature



In main interface press  to enter target temperature setting.

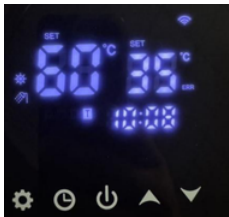
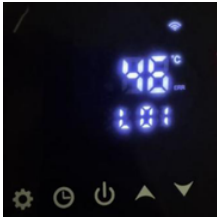
|                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p><b>DHW mode</b></p> <p>Press  and DHW icon flash for 3 seconds and will keep on long lighting.<br/>(If currently in DHW mode, press  directly to set the target temperature.)</p> | <p><b>Heatingmode</b></p> <p>Press  and Heating icon flash for 3 seconds and will keep on long lighting and press  to set the target temperature.</p> | <p><b>DHW+Heating mode</b></p> <p>Press  and DHW &amp; Heating Icons flash for 3 seconds and will keep on long lighting.<br/>Press  to set the DHW target temperature first and then press  to confirm the DHW target temperature.<br/>Press  to set Heating target temperature again.</p> |

## 5.6 Version information

|                                                                                                                                                                                                                                              |                                                                                                                                                                            |                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                            | <p>Press  3 seconds to check Unit Status information .</p>                              |                                                                                                                                                    |
| <p> + </p> <p>Press and hold for 3 seconds to view the Version No.</p> | <br> | <p>No compressor icon = Wire controller Version No.;</p> <p>With Compressor icon = Mainboard Version No.;</p> <p>Press  to switch Version No.</p> |

## 5.7 Function menu

### 5.7.1. Unit Status information

|  | <p>Press  for 3 seconds to check Unit Status information.</p> |  |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| No.                                                                              | Describe                                                                                                                                       | Current Operating Data                                                            |
| L1                                                                               | DHW tank temperature                                                                                                                           | °C                                                                                |
| L2                                                                               | Buffer tank temperature                                                                                                                        | °C                                                                                |
| L3                                                                               | Room 1 Temperature                                                                                                                             | °C                                                                                |
| L4                                                                               | Reserve                                                                                                                                        | °C                                                                                |
| L5                                                                               | Ambient Temperature                                                                                                                            | °C                                                                                |
| L6                                                                               | Working Ambient Temperature                                                                                                                    | °C                                                                                |
| L7                                                                               | Outer Coil Temperature                                                                                                                         | °C                                                                                |
| L8                                                                               | Inlet water temperature                                                                                                                        | °C                                                                                |
| L9                                                                               | Outlet water temperature                                                                                                                       | °C                                                                                |
| L10                                                                              | Exhaust temperature                                                                                                                            | °C                                                                                |
| L11                                                                              | Return gas temperature                                                                                                                         | °C                                                                                |
| L12                                                                              | EEV opening                                                                                                                                    | P                                                                                 |
| L13                                                                              | Current fan speed                                                                                                                              | RPM                                                                               |
| L14                                                                              | DHW effect target temperature                                                                                                                  | °C                                                                                |
| L15                                                                              | Heating effect target water temperature                                                                                                        | °C                                                                                |
| L16                                                                              | Heating effect target room temperature                                                                                                         | °C                                                                                |

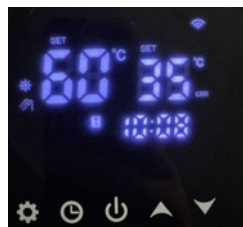
## 5.7.2. User parameters

|  |                                                                                                                                                                         |  |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | Press  for 3 seconds to enter the interface of checking Unit Status information first. |  |
|  | And then press  again to check User parameters.                                        |  |

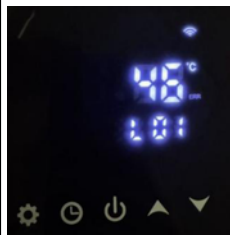
If need to revise the parameter value, press  and the value flash. Press  to revise and press  to confirm.

| No.  | Describe                                              | Default |
|------|-------------------------------------------------------|---------|
| U001 | 0 Water control, 1-Room Control                       | 0       |
| U002 | DHW target temperature(Range 20-70°C)                 | 55      |
| U003 | Heating target water temperature(Range 20-75°C)       | 35      |
| U004 | Heating target room temperature(Range 16-31°C)        | 21      |
| U005 | DHW restart temperature(Range 1-10°C)                 | 5       |
| U006 | Heating stops bases on water $\Delta T$ (Range 0-2°C) | 2       |
| U007 | Reserve                                               |         |
| U008 | Heating restart temperature(Range 1-5°C)              | 2       |
| U009 | Reserve                                               |         |
| U010 | Heating stops bases on Room $\Delta T$ (Range 1-3°C)  | 1       |
| U011 | Electric stops temperature(Range 1-5°C)               | 2       |
| U012 | Room temperature compensation function(0-30minutes)   | 0       |
| U013 | Heating curve function(0 disable, 1 enable)           | 0       |
| U014 | Ambient Temp. 1(Range -30~-21)                        | -25     |
| U015 | Ambient Temp. 2(Range -20~-11)                        | -15     |
| U016 | Ambient Temp. 3(Range -10~0)                          | -2      |
| U017 | Ambient Temp. 4(Range 1~6)                            | 5       |
| U018 | Ambient Temp. 5(Range 7~15)                           | 15      |
| U019 | Curve1 Water Temp Vs Ambient Temp. 1(Range 20~75)     | 45      |
| U020 | Curve1 Water Temp Vs Ambient Temp. 2(Range 20~75)     | 42      |
| U021 | Curve1 Water Temp Vs Ambient Temp. 3(Range 20~75)     | 38      |
| U022 | Curve1 Water Temp Vs Ambient Temp. 4(Range 20~75)     | 35      |
| U023 | Curve1 Water Temp Vs Ambient Temp. 5(Range 20~75)     | 30      |
| U024 | Sounds shut off(0 on, 1 off)                          | 1       |
| U025 | LED shut off(0 always on, 1-10 minute)                | 0       |

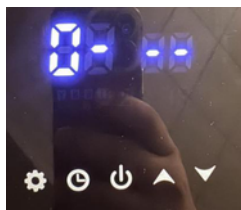
### 5.7.3. Project parameters



Press  for 3 seconds to enter the interface of checking Unit Status information first.



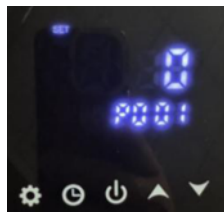
Press  seconds to enter the interface for password input.

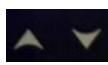


Press  to change password (6666).

Press  to change password location.

Press  to confirm password.

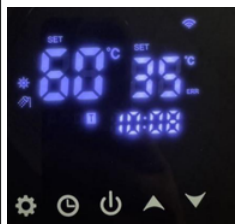
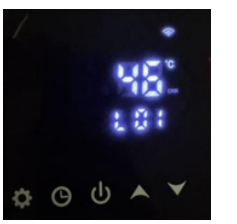


If need to revise the parameter value, press  and the value flash. Press  to revise and press  to confirm.

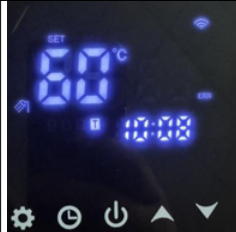
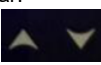
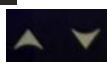
| No.  | Describe                                                                                | Default |
|------|-----------------------------------------------------------------------------------------|---------|
| P001 | Passive function(0 disable,1enable)                                                     | 0       |
| P002 | SG ready function(0 disable,1enable)                                                    | 0       |
| P003 | Target temperature rise to storage during EVU<br>(0 disable,1enable)                    | 0       |
| P004 | Reserve                                                                                 |         |
| P005 | Curing function(0 disable,1enable)                                                      | 0       |
| P006 | Floor Curing Temperature Setting Stage 1(Range 25-35°C)                                 | 30      |
| P007 | Floor Curing Operation Duration Stage 1(Range 1-10days)                                 | 2       |
| P008 | Floor Curing Temperature Setting Stage 2(Range 35-40°C)                                 | 38      |
| P009 | Floor Curing Operation Duration Stage 2(Range 1-10days)                                 | 5       |
| P010 | Floor Curing Temperature Setting Stage 3(Range 40-45°C)                                 | 42      |
| P011 | Floor Curing Operation Duration Stage 3(Range 1-10days)                                 | 10      |
| P012 | Room temperature compensation function(0 disable,1-30<br>minutes compensation one time) | 0       |
| P013 | Shifting Priority(0 disable,1enable)                                                    | 1       |

|      |                                                                                                                                               |     |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----|
| P014 | Allowable Temp Drift in Heating(Range 3-10°C)                                                                                                 | 5   |
| P015 | Shifting Priority Starting Temp(Range -10-10°C)                                                                                               | 10  |
| P016 | DHW Backup Heater for Shifting Priority(0disable,1enable)                                                                                     | 0   |
| P017 | Sanitary Water Min. Working Hours(Range 20-180°C)                                                                                             | 50  |
| P018 | Heating Max. Working Hours(Range 20-180°C)                                                                                                    | 30  |
| P019 | Emergency Operation base on HWTBH(0disable,1enable)                                                                                           | 1   |
| P020 | Backup Heating Source f or Sanitary Hot Water<br>(0disable,1enable)                                                                           | 1   |
| P021 | Priority for Backup Heating Sources (HWTBH)<br>(0disable,1enable)                                                                             | 1   |
| P022 | Water Temperature Rise Reading Interval(Range 1-<br>120minutes)                                                                               | 25  |
| P023 | Emergency Operation base on HTBH(0disable,1enable)                                                                                            | 1   |
| P024 | Release Integral for Backup heating (Range 10-<br>60°C*minutes)                                                                               | 45  |
| P025 | Control mode of circulation pump(0 always off,1-9 minutes<br>off and run 9-1minutes,10 always run,when heating get the<br>target temperature) | 6   |
| P026 | Reserve                                                                                                                                       |     |
| P027 | Reserve                                                                                                                                       | 1   |
| P028 | Secondary circulation pump run over temperature<br>(Range 15-25°C)                                                                            | 20  |
| P029 | Secondary circulation pump stops under temperature<br>(Range 15-25°C)                                                                         | 18  |
| P030 | Disinfect over temp setting:(Range60-75°C)                                                                                                    | 60  |
| P031 | Disinfect during time setting(Range 10-60minutes)                                                                                             | 30  |
| P032 | Disinfect max time setting(Range 40-240minutes)                                                                                               | 120 |

#### 5.7.4. Reset default parameters

|                                                                                                                                                         |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                        | <p>Press  for 3 seconds</p> <p>to enter the interface of checking Unit Status information first.</p> |                                                                                                                                                                                                                                                                                                                                                                          |
| <p>Press  for 3 seconds to enter the interface for password input.</p> |                                                                                                      | <p>Press  to change Password (2234)</p> <p>Press  to change password location.</p> <p>Press  to confirm password.</p> <p>Until the buzzer sounds a long beep, finish all default parameters reset.</p> |

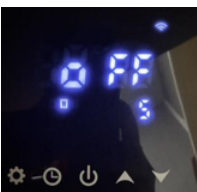
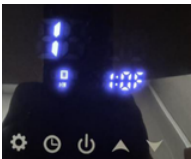
#### 5.8 Time Setting

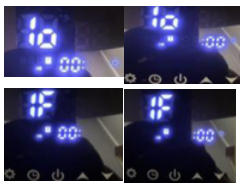
|                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                         | <p>Press  for 3 seconds to set year.</p> <p>Press  to change year.</p> |                                                                                                                                                                                     |
| <p>Press  to set month first and press  to change month. (After month setting, same operation for day setting.)</p> |                                                                                                                                                          | <p>After confirm the month and day, press  again to set time.</p> <p>Press  to change time.</p> |

|                                                                                  |                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Press  to set year/month/day/time again if need.</p> <p>Press  to confirm to back to main interface.</p> |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 5.9 Set Timer function

### 5.8.1. DHW timer function

|                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                              | <p>Press  some times until to show the "W" icon.<br/>Only display "W" can enter timer function setting.</p>                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                          |
| <p>Long press  to set 1st period DHW timer's Monday.</p>                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                          | <p>Press  to enter the setting, and press  to set Monday ON/OFF.</p> <p>If don't need to modify Monday default settings, press  to enter Tuesday setting.</p>          |
|                                                                                                                                                                                                                                                                                                                                             | <p>Press  to enter the setting, and press  to set Tuesday ON/OFF.</p> <p>If don't need to modify Tuesday default settings, press  to enter Wednesday setting.</p> |                                                                                                                                                                                                                                                                                                                                         |
| <p>Press  to enter the setting, and press  to set Wednesday ON/OFF.</p> <p>If don't need to modify Wednesday default settings, press  to enter Thursday setting.</p> |                                                                                                                                                                                                                                                                                                                                        | <p>Press  to enter the setting, and press  to set Thursday ON/OFF.</p> <p>If don't need to modify Thursday default settings, press  to enter Friday setting.</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                     | <p>Press  to enter the setting, and press  to set Friday ON/OFF.</p> <p>If don't need to modify Friday default settings, press  to enter Saturday setting.</p> |                                                                                                                                                                                                                                                                                                                                                           |
| <p>Press  to enter the setting, and press  to set Saturday ON/OFF.</p> <p>If don't need to modify Saturday default settings, press  to enter Sunday setting.</p> |                                                                                                                                                                                                                                                                                                                                 | <p>Press  to enter the setting, and press  to set Sunday ON/OFF.</p> <p>If don't need to modify Monday-Sunday default settings, press  to set ON/OFF for 1<sup>st</sup> DHW timer.</p> |
|                                                                                                                                                                                                                                                                                                                                    | <p>1 ON = 1<sup>st</sup> DHW timer ON<br/>1 OF = 1<sup>st</sup> DHW timer OFF</p> <p>If don't need to modify 1<sup>st</sup> DHW timer ON/OFF default settings, press  to set 1<sup>st</sup> DHW timer start/stop time period.</p>                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                    | <p>1o = 1<sup>st</sup> period timer ON Hour setting<br/>1o = 1<sup>st</sup> period timer ON Minute setting<br/>1F = 1<sup>st</sup> period timer OFF Hour setting<br/>1F = 1<sup>st</sup> period timer OFF Minute setting</p>                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                   | <p>DHW has 4 periods timers. While setting the 1<sup>st</sup> timer, press  at switch to 2<sup>nd</sup> periods through 4<sup>th</sup> periods timer for setting. The setting method are same as 1st period timer.</p>                                                                                                         |                                                                                                                                                                                                                                                                                                                                                         |
| <p>Press  to exit the timer settings.</p>                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                           |

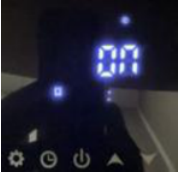
### 5.8.2. Heating timer function

|                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                           | <p>Press  some times until to show the "W" icon. Only display "W" can enter timer function setting.</p>                                                     |                                                                                                                                                             |
| <p>Long press  to enter the interface of 1<sup>st</sup> period DHW timer's Monday with "W" and "HW" first.</p>                                            |                                                                                                                                                             | <p>Long press  to enter the interface of 1<sup>st</sup> period Heating timer's Monday with "W" and "H".</p>                                                 |
|                                                                                                                                                           | <p>Press  to enter the setting, and press  to set Monday ON/OFF.</p>       |                                                                                                                                                             |
|                                                                                                                                                                                                                                            | <p>If don't need to modify Monday default settings, press  to enter Tuesday setting.</p>                                                                    |                                                                                                                                                                                                                                              |
| <p>Press  to enter the setting, and press  to set Tuesday ON/OFF.</p>    |                                                                                                                                                             | <p>Press  to enter the setting, and press  to set Wednesday ON/OFF.</p>    |
| <p>If don't need to modify Tuesday default settings, press  to enter Wednesday setting.</p>                                                              |                                                                                                                                                                                                                                              | <p>If don't need to modify Wednesday default settings, press  to enter Thursday setting.</p>                                                               |
|                                                                                                                                                         | <p>Press  to enter the setting, and press  to set Thursday ON/OFF.</p> |                                                                                                                                                           |
|                                                                                                                                                                                                                                            | <p>If don't need to modify Thursday default settings, press  to enter Friday setting.</p>                                                                 |                                                                                                                                                                                                                                              |
| <p>Press  to enter the setting, and press  to set Friday ON/OFF.</p> |                                                                                                                                                           | <p>Press  to enter the setting, and press  to set Saturday ON/OFF.</p> |
|                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                              | <p>If don't need to modify Saturday default settings, press  to enter Sunday setting.</p>                                                                 |

|                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                            | <p>Press  to enter the setting, and press  to set Sunday ON/OFF.</p> <p>If don't need to modify Monday-Sunday default settings, press  to set ON/OFF for 1<sup>st</sup> Heating timer.</p> |                                                                                                                                                                                                                                  |
| <p>1 ON = 1<sup>st</sup> Heating timer ON<br/>1 OF = 1<sup>st</sup> Heating timer OFF</p> <p>If don't need to modify 1<sup>st</sup> DHW timer ON/OFF default settings, press  to set 1<sup>st</sup> DHW timer start/stop time period.</p> |                                                                                                                                                                                                                                                                            | <p>1o = 1<sup>st</sup> period timer ON<br/>Hour setting<br/>1o = 1<sup>st</sup> period timer ON<br/>Minute setting<br/>1F=1<sup>st</sup>periodtimerOFF<br/>Hoursetting<br/>1F=1<sup>st</sup>periodtimerOFF<br/>Minutesetting</p> |
|                                                                                                                                                                                                                                                                                                                            | <p>Heating has 8 periods timers. While setting the 1<sup>st</sup> timer, press  to switch to 2<sup>nd</sup> period through 8<sup>th</sup> period timer for setting. The setting method are same as 1st period timer.</p>                                                                                                                                    |                                                                                                                                                                                                                                  |
| <p>Press  to exit the timer settings.</p>                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                  |

### 5.8.3. Disinfect timer function

|                                                                                                          |                                                                                                                                                       |                                                                                       |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                                          | Press  some times until to show the “W” icon. Only display “W” can enter timer function setting.                                                      |                                                                                       |
| Long press  to enter the interface of 1 <sup>st</sup> period DHW timer's Monday with “W” and “HW” first. |                                                                                                                                                       | /                                                                                     |
| Long press  twice to enter to Disinfect timer's Monday setting with “W” and “Disinfect icon”.            |                                                                                                                                                       |                                                                                       |
|                                                                                                          | Press  to enter the setting, and press  to set Monday ON/OFF.<br>If don't need to modify Monday default settings, press  to enter Tuesday setting.    |                                                                                       |
| Press  to enter the setting, and press  to set Tuesday ON/OFF.                                           |                                                                                                                                                       | Press  to enter the setting, and press  to set Wednesday ON/OFF.                      |
| If don't need to modify Tuesday default settings, press  to enter Wednesday setting.                     |                                                                                                                                                       | If don't need to modify Wednesday default settings, press  to enter Thursday setting. |
|                                                                                                          | Press  to enter the setting, and press  to set Thursday ON/OFF.<br>If don't need to modify Thursday default settings, press  to enter Friday setting. |                                                                                       |

|                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Press  to enter the setting, and press  to set Friday ON/OFF. |                                                                                                                                                                                 | Press  to enter the setting, and press  to set Saturday ON/OFF. |
| If don't need to modify Friday default settings, press  to enter Saturday setting.                                                             |                                                                                                                                                                                                                                                                  | If don't need to modify Saturday default settings, press  to enter Sunday setting.                                                               |
|                                                                                                                                                | Press  to enter the setting, and press  to set Sunday ON/OFF.                                  |                                                                                                                                                  |
|                                                                                                                                                                                                                                 | If don't need to modify Monday-Sunday default settings, press  to set ON/OFF for Disinfect timer.                                                                               | 1 ON =Disinfect timer ON<br>1 OF =Disinfect timer OFF                                                                                                                                                                             |
| If don't need to modify Disinfect timer ON/OFF default settings, press  to timer start/stop time period.                                       | Press  to enter start/stop time period setting interface and press  to set the operating time. | Press  to exit the Disinfect timer settings.                                                                                                     |

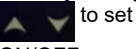
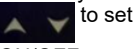
**Note: The disinfect timer is set to start at 02:00 AM every Tuesday by factory default.**

#### 5.8.4. Holiday timer function

|                                                                                                                                                                                             |                                                                                                                                                                                       |                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                                                                                                           | Press  some times until to show the "W" icon.<br>Only display "W" can enter timer function setting. |  |
| Long press  to enter the interface of 1 <sup>st</sup> period DHW timer's Monday with "W" and "HW" first. |                                                                                                    | /                                                                                  |
| Long press  thrice to enter the interface of Holiday timer start year with "Y" and "Holiday".            |                                                                                                    | /                                                                                  |

|                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Press  to enter the year setting, and press  to set the starting year.</p> |                                                                                                                                                                                                                                                                                                                               | <p>Press  to enter the month setting, and press  to set the starting month.</p>   |
| <p>If not need to set the year, press  to set holiday timer starting month.</p>                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                | <p>If not need to set the month, press  to set holiday timer starting day.</p>                                                                                    |
|                                                                                                                                                               | <p>Press  to enter the starting day setting, and press  to set starting day.</p> <p>If not need to set, please press  to set holiday timer ending year.</p> |                                                                                                                                                                   |
| <p>Press  to enter ending year setting, and press  to set ending year.</p>   |                                                                                                                                                                                                                                                                                                                               | <p>Press  to enter the ending month setting, and press  to set ending month.</p> |
| <p>If not need to set ending year, please press  to set holiday ending month.</p>                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                | <p>If not need to set ending month, please press  to set holiday ending day.</p>                                                                                  |
|                                                                                                                                                              | <p>Press  to exit the Holiday timer settings.</p>                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                    |

### 5.8.5. ECO timer function

|                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                 | <p>Press  some times until to show the "W" icon. Only display "W" can enter timer function setting.</p>                                                              |                                                                                                                                                                     |
| <p>Long press  to enter the interface of 1<sup>st</sup> period DHW timer's Monday with "W" and "HW" first.</p>                                                  |                                                                                                                                                                      | <p>Long press  quartic to enter the interface of 1<sup>st</sup> ECO timer's Monday with "W" and "ECO".</p>                                                          |
|                                                                                                                                                                 | <p>Press  to enter the Monday setting, and press  to set Monday ON/OFF.</p>         |                                                                                                                                                                     |
| <p>Press  to enter the Tuesday setting, and press  to set Tuesday ON/OFF.</p> | <p>If don't need to modify Monday default settings, press  to enter Tuesday setting.</p>                                                                             | <p>Press  to enter the Wednesday setting, and press  to set Wednesday ON/OFF.</p> |
| <p>If don't need to modify Monday default settings, press  to enter Wednesday setting.</p>                                                                    |                                                                                                                                                                     | <p>If don't need to modify Wednesday default settings, press  to enter Thursday setting.</p>                                                                      |
|                                                                                                                                                               | <p>Press  to enter the Thursday setting, and press  to set Thursday ON/OFF.</p> |                                                                                                                                                                   |
|                                                                                                                                                                                                                                                  | <p>If don't need to modify Thursday default settings, press  to enter Friday setting.</p>                                                                          |                                                                                                                                                                                                                                                      |

Press  to enter the Friday setting, and press  to set Friday ON/OFF.

If don't need to modify Friday default settings, press  to enter Saturday setting.



Press  to enter the Saturday setting, and press  to set Saturday ON/OFF.

If don't need to modify Saturday default settings, press  to enter Sunday setting.



Press  to enter the Sunday setting, and press  to set Sunday ON/OFF.

If don't need to modify Monday-Sunday default settings, press  to set ON/OFF for ECO 1<sup>st</sup> timer.



1 ON = 1<sup>st</sup> ECO timer ON  
1 OF = 1<sup>st</sup> ECO timer OFF



If don't need to modify 1<sup>st</sup> ECO timer ON/OFF default settings, press  to set 1<sup>st</sup> ECO timer start/stop time period.

1o = 1<sup>st</sup> period timer ON Hour setting  
1o = 1<sup>st</sup> period timer ON Minute setting  
1F = 1<sup>st</sup> period timer OFF Hour setting  
1F = 1<sup>st</sup> period timer OFF Minute setting

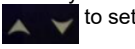
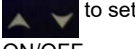


ECO has 2 periods timers. While setting the 1<sup>st</sup> timer, press  to switch to 2<sup>nd</sup> periods timer for setting. The setting method are same as 1<sup>st</sup> period timer.



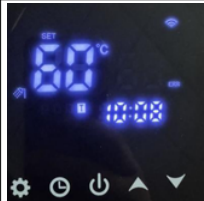
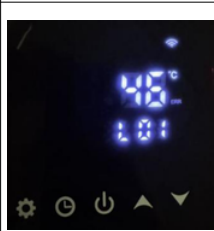
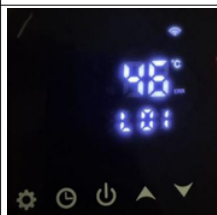
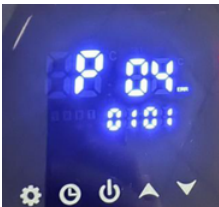
Press  to exit the ECO timer settings.

## 5.8.6. Mute timer function

|                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                 | <p>Press  some times until to show the "W" icon. Only display "W" can enter timer function setting.</p>                                                              |                                                                                                                                                                     |
| <p>Long press  to enter the interface of 1<sup>st</sup> period DHW timer's Monday with "W" and "HW" first.</p>                                                  |                                                                                                                                                                      | <p>Long press  quintic to enter the interface of 1<sup>st</sup> Mute timer's Monday with only "W" and without any other function indicated icon.</p>                |
|                                                                                                                                                                 | <p>Press  to enter the Monday setting, and press  to set Monday ON/OFF.</p>         |                                                                                                                                                                     |
|                                                                                                                                                                                                                                                  | <p>If don't need to modify Monday default settings, press  to enter Tuesday setting.</p>                                                                             |                                                                                                                                                                                                                                                      |
| <p>Press  to enter the Tuesday setting, and press  to set Tuesday ON/OFF.</p> |                                                                                                                                                                     | <p>Press  to enter the Wednesday setting, and press  to set Wednesday ON/OFF.</p> |
| <p>If don't need to modify Monday default settings, press  to enter Wednesday setting.</p>                                                                    |                                                                                                                                                                                                                                                       | <p>If don't need to modify Wednesday default settings, press  to enter Thursday setting.</p>                                                                      |
|                                                                                                                                                               | <p>Press  to enter the Thursday setting, and press  to set Thursday ON/OFF.</p> |                                                                                                                                                                   |
|                                                                                                                                                                                                                                                  | <p>If don't need to modify Thursday default settings, press  to enter Friday setting.</p>                                                                          |                                                                                                                                                                                                                                                      |

|                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Press  to enter the Friday setting, and press  to set Friday ON/OFF.</p> |                                                                                                                                                                                                                        | <p>Press  to enter the Saturday setting, and press  to set Saturday ON/OFF.</p> |
| <p>If don't need to modify Friday default settings, press  to enter Saturday setting.</p>                                                                   |                                                                                                                                                                                                                                                                                                         | <p>If don't need to modify Saturday default settings, press  to enter Sunday setting.</p>                                                                       |
|                                                                                                                                                             | <p>Press  to enter the Sunday setting, and press  to set Sunday ON/OFF.</p>                                                           |                                                                                                                                                                 |
|                                                                                                                                                                                                                                              | <p>If don't need to modify Monday-Sunday default settings, press  to set ON/OFF for Mute 1<sup>st</sup> timer.</p>                                                                                                     |                                                                                                                                                                                                                                                  |
| <p>1 ON = 1<sup>st</sup> Mute timer ON<br/>1 OF = 1<sup>st</sup> Mute timer OFF</p>                                                                                                                                                          |                                                                                                                                       | <p>1o = 1<sup>st</sup> period timer ON Hour setting<br/>1o = 1<sup>st</sup> period timer ON Minute setting<br/>1F = 1<sup>st</sup> period timer OFF Hour setting<br/>1F = 1<sup>st</sup> period timer OFF Minute setting</p>                     |
| <p>If don't need to modify 1<sup>st</sup> Mute timer ON/OFF default settings, press  to set 1<sup>st</sup> Mute timer start/stop time period.</p>           |                                                                                                                                       |                                                                                                                                                                                                                                                  |
|                                                                                                                                                           | <p>Mute function has 2 periods timers.<br/>While setting the 1<sup>st</sup> timer, press  to switch to 2<sup>nd</sup> periods timer for setting.<br/>The setting method are same as 1<sup>st</sup> period timer.</p> |                                                                                                                                                               |
| <p>Press  to exit the Mute timer settings.</p>                                                                                                            |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                  |

## 5.10 Error information

|                                                                                    |                                                                                                                                                      |                                                                                                                                                 |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p>If there is a malfunction, the main interface will display the ERROR icon.</p>                                                                    | <p>Press  for 3 seconds to check Unit Status information .</p> |
|   | <p>Press  for 3 seconds again to check Unit Error information .</p> |                                                                |
|   | <p>If there isn't any malfunction, the main interface will not display the ERROR icon.</p>                                                           | <p>Press  for 3 seconds to check Unit Status information</p>   |
|  | <p>Press  for 3 seconds to check Unit Error history.</p>           |                                                               |

| Code | Description                                                              | Fault analysis                                                                                                                                                         | Check method                                                                                                                                                                                                                                                                                                                                                   | Solution                                                                                                                                                                        |
|------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EEC  | Communication failure between main control board and the wire controller | 1. The communication line is not connected properly.<br>2. The communication port of controller is damaged.<br>3. The communication port of the main board is damaged. | Check the connection wires                                                                                                                                                                                                                                                                                                                                     | Replace the communication cable and connect it properly. If that doesn't work, replace new wire controller. If it still doesn't work, replace the main board.                   |
| E01  | DHW tank Temp. sensor failure                                            | The temperature sensor has temperature deviation or open circuit.                                                                                                      | Check the resistance of the temperature sensor or whether the temperature sensor is disconnected.                                                                                                                                                                                                                                                              | Replace new temperature sensor or reconnect the wire.                                                                                                                           |
| E02  | Heating tank Temp. sensor failure                                        |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| E03  | Return water Temp. sensor failure                                        |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| E04  | Outlet water Temp. sensor failure                                        |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| E05  | Exhaust Temp. sensor failure                                             |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| E06  | Return gas Temp. sensor failure                                          |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| E07  | Coil Temp. sensor failure                                                |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| E08  | Ambient Temp. sensor failure                                             |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| E09  | Return air Temp. sensor failure                                          |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| E10  | Room 1 Temp. sensor failure                                              |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
| P17  | Ambient temperature ultralow protection                                  | Beyond the unit operating temperature range                                                                                                                            | If the ambient temperature is not consistent with the current displayed value, please check if the sensor is damaged.                                                                                                                                                                                                                                          | If the Temp. sensor value is normal, no action is required. The unit will automatically switch to electric heater for heating.                                                  |
| P18  | Ambient temperature overheat protection                                  | Beyond the unit operating temperature range                                                                                                                            | If the ambient temperature is not consistent with the current displayed value, please check if the sensor is damaged.                                                                                                                                                                                                                                          | If the Temp. sensor value is normal, no action is required. The unit will automatically switch to electric                                                                      |
| P01  | High pressure switch protection                                          | 1. Water flow is too small;<br>2. High-pressure switch failure;<br>3. Refrigeration system is blocked;<br>4. EEV is locked.                                            | 1. Check whether there is water shortage or insufficient water pump flow;<br>2. Check whether the high-pressure switch is disconnected due to heat pump are turned off;<br>3. Check whether the refrigeration system is blocked;<br>4. Check whether the EEV makes a resetting sound when the heat pump is in shutdown mode and the power is turned on or off. | 1. Refill water or replace a water pump with a larger flow rate or add a booster pump;<br>2. Replace new high-pressure switch;<br>3. Replace new filter;<br>4. Replace new EEV. |

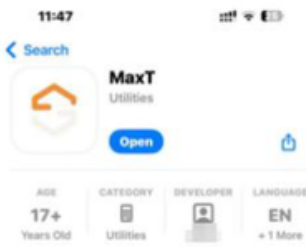
|     |                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                 |
|-----|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P02 | Low pressure switch protection                                              | 1. Lack of refrigerant;<br>2. Refrigeration system is blocked;<br>3. Exceeding the system working range;                                                                                           | 1. Check if the refrigerant system is leaking;<br>2. Check if the filter is clogged ;<br>3. Check if the ambient temperature or outlet water temperature exceeds the limit.                                                                                                                                                                                    | 1. Repair the leakage and refill the refrigerant.<br>2. Replace new filter;<br>3. If the system exceeds the operating limit, shut down the unit ;                               |
| P03 | Air exhaust temperature overheat protection                                 | 1.Lack of refrigerant;<br>2.Exhaust temperature sensor failure.                                                                                                                                    | 1. Check if the refrigerant system is leaking;<br>2. Check whether the exhaust temperature sensor is faulty.                                                                                                                                                                                                                                                   | 1. Repair the leakage and refill the refrigerant.<br>2. Replace new exhaust temperature sensor .                                                                                |
| P04 | Water flow switch protection                                                | 1. The system lacks water.<br>2. The water flow switch failure.                                                                                                                                    | 1. Check whether the water supply valve is closed or the water supply is cut off;<br>2. Check whether the water flow switch is blocked or interrupted                                                                                                                                                                                                          | 1. Turn on the valve;<br>2. Replace new one water flow switch;<br>3. Clean or replace new filter screen.                                                                        |
| P05 | Secondary water flow switch protection                                      | 3. The water system is blocked.<br>4. The temperature difference between inlet water and outlet water is too big.                                                                                  | 3. Check whether the Y-filter is clogged.                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                 |
| P07 | Overheated outlet water temperature protection                              | Self-recovery                                                                                                                                                                                      | Self-recovery                                                                                                                                                                                                                                                                                                                                                  | Self-recovery                                                                                                                                                                   |
| P08 | Over large temperature difference between inlet and outlet water protection | 1. The system lacks water.<br>2. The water flow switch failure.<br>3. The water system is blocked.<br>4. The temperature difference between inlet water and outlet water is too big.               | 1. Check whether the water supply valve is closed or the water supply is cut off;<br>2. Check whether the water flow switch is blocked or interrupted<br>3. Check whether the Y-filter is clogged.                                                                                                                                                             | 1. Turn on the valve;<br>2. Replace new one water flow switch;<br>3. Clean or replace new filter screen.                                                                        |
| P09 | DC fan 1 failure                                                            | 1. The connection cable between the fan board and the main board is damaged .<br>2. The fan board is damaged .<br>3. The fan wire is not plugged into the circuit board .<br>4. The fan is broken. | 1. Check if the connection cable between the fan board and the main board has come loose.<br>2. Check if the lights on the fan board are still on.                                                                                                                                                                                                             | 1. Replace the new connection wire.<br>2. Replace the fan board .<br>3. Insert the fan wire onto the circuit board. 4. Replace the new fan.                                     |
| P11 | Defrosting and anti-freezing protection                                     | When the outlet water temperature during defrosting drops below 5 degrees, the defrosting process will be forcibly stopped.                                                                        | Self-recovery                                                                                                                                                                                                                                                                                                                                                  | No need to handle                                                                                                                                                               |
| F01 | High pressure switch protection three times                                 | 1. Water flow is too small;<br>2. High-pressure switch failure;<br>3. Refrigeration system is blocked;<br>4. EEV is locked.                                                                        | 1. Check whether there is water shortage or insufficient water pump flow;<br>2. Check whether the high-pressure switch is disconnected due to heat pump are turned off;<br>3. Check whether the refrigeration system is blocked;<br>4. Check whether the EEV makes a resetting sound when the heat pump is in shutdown mode and the power is turned on or off. | 1. Refill water or replace a water pump with a larger flow rate or add a booster pump;<br>2. Replace new high-pressure switch;<br>3. Replace new filter;<br>4. Replace new EEV. |

|     |                                                                                         |                                                                                                                                                                                                 |                                                                                                                                                                                                    |                                                                                                                                                  |
|-----|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| F02 | Low pressure switch protection three times                                              | 1. Lack of refrigerant;<br>2. Refrigeration system is blocked;<br>3. Exceeding the system working range;                                                                                        | 1. Check if the refrigerant system is leaking;<br>2. Check if the filter is clogged;<br>3. Check if the ambient temperature or outlet water temperature exceeds the limit.                         | 1. Repair the leakage and refill the refrigerant.<br>2. Replace new filter;<br>3. If the system exceeds the operating limit, shut down the unit; |
| F03 | Air exhaust temperature overheat protection three times                                 | 1. Lack of refrigerant;<br>2. Exhaust temperature sensor failure.                                                                                                                               | 1. Check if the refrigerant system is leaking;<br>2. Check whether the exhaust temperature sensor is faulty.                                                                                       | 1. Repair the leakage and refill the refrigerant.<br>2. Replace new exhaust temperature sensor.                                                  |
| F04 | Water flow switch protection three times                                                | 1. The system lacks water.<br>2. The water flow switch failure.<br>3. The water system is blocked.<br>4. The temperature difference between inlet water and outlet water is too big.            | 1. Check whether the water supply valve is closed or the water supply is cut off;<br>2. Check whether the water flow switch is blocked or interrupted<br>3. Check whether the Y-filter is clogged. | 1. Turn on the valve;<br>2. Replace new one water flow switch;<br>3. Clean or replace new filter screen.                                         |
| F05 | Secondary water flow switch protection three times                                      |                                                                                                                                                                                                 |                                                                                                                                                                                                    |                                                                                                                                                  |
| F07 | Overheated outlet water temperature protection three times                              | T <sub>w</sub> and T <sub>c</sub> sensor may become loose, resulting in the inability to sense the correct water tank temperature.                                                              | Check the reason why the outlet water has reached the target temperature but neither the hot water nor the heating has not reached the desired temperature.                                        |                                                                                                                                                  |
| F08 | Over large temperature difference between inlet and outlet water protection three times | 1. The system lacks water.<br>2. The water flow switch failure.<br>3. The water system is blocked.<br>4. The temperature difference between inlet water and outlet water is too big.            | 1. Check whether the water supply valve is closed or the water supply is cut off;<br>2. Check whether the water flow switch is blocked or interrupted<br>3. Check whether the Y-filter is clogged. | 1. Turn on the valve;<br>2. Replace new one water flow switch;<br>3. Clean or replace new filter screen.                                         |
| F09 | DC fan 1 failure three times                                                            | 1. The connection cable between the fan board and the main board is damaged.<br>2. The fan board is damaged.<br>3. The fan wire is not plugged into the circuit board.<br>4. The fan is broken. | 1. Check if the connection cable between the fan board and the main board has come loose.<br>2. Check if the lights on the fan board are still on.                                                 | 1. Replace the new connection wire.<br>2. Replace the fan board.<br>3. Insert the fan wire onto the circuit board.<br>4. Replace the new fan.    |
| F11 | Defrosting and anti-freezing protection three times                                     | When the outlet water temperature during defrosting drops below 5 degrees, the defrosting process will be forcibly stopped.                                                                     | To prevent damage to the heat exchanger caused by defrosting when the outlet water temperature is below 5 degrees, please power off the unit and restart.                                          | First heat the water.                                                                                                                            |

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## 6. Device Networking

**6.1** First, please search and download the "MaxT" software in the Apple App Store or the Google Play Store.



**6.2** The HP installer registers on the IOT platform and provides the account and password.  
(Due to privacy regulations, allowing self-registration of accounts carries the risk of unauthorized individuals privately registering and binding devices. Therefore, self-registration is currently not supported. Users will need to receive their account credentials from a dealer and then change the password themselves.)

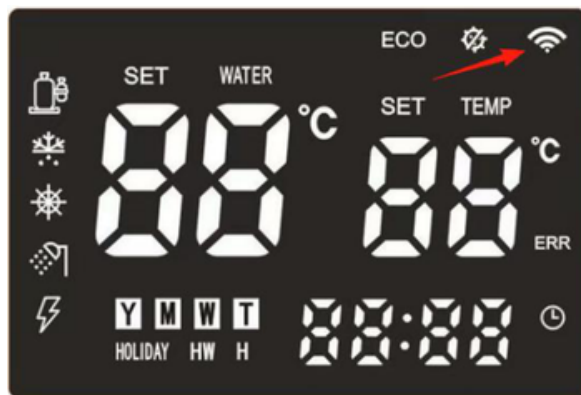
### Device Networking Configuration(WIFI version)

(1) Preparation: The mobile phone used for operation should first connect to their desired WIFI and turn on the phone's Bluetooth function.

(2) After powering on the wireless controller, wait for it to enter the main interface. If the WiFi icon in the upper-right corner remains off (indicating unpaired status), proceed with Bluetooth network configuration directly via the APP.



(3) If the WiFi icon keep on lighting, please long press and hold the " " and " " icons for 1 second. Wait until the WiFi icon blinks rapidly for several seconds and then turns off, indicating the WiFi connection has been terminated. Then proceed with Bluetooth pairing via the APP.



(4) Open the "MaxT" APP, go to 'More' and select 'Bluetooth provisioning' (as shown in Figure 1).

(5) Click the 'Add' button on the right side of the device detecting interface (as shown in Figure 2). Enter the WIFI account and password (as shown in Figure 3), and finally complete the network configuration (as shown in Figure 4).

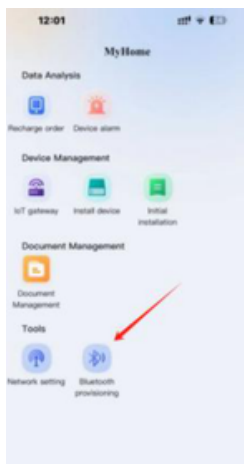


Figure 1

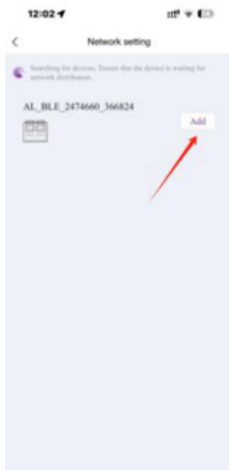


Figure 2



Figure 3



Figure 4

(6) After completion, the account will be automatically bound to the device.

## 7.App Operation

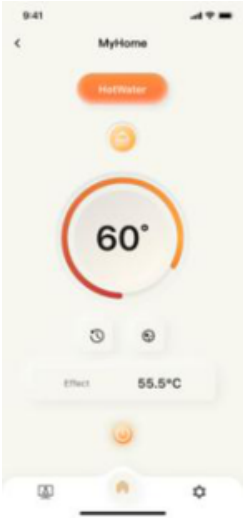
### 7.1 Power ON/OFF



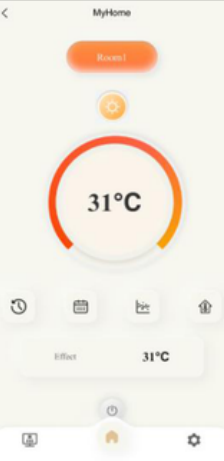
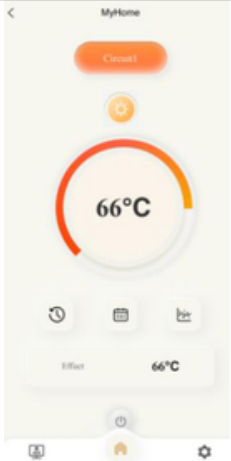
## 7.2 Mode Setting



## 7.3 DHW Temperature Setting

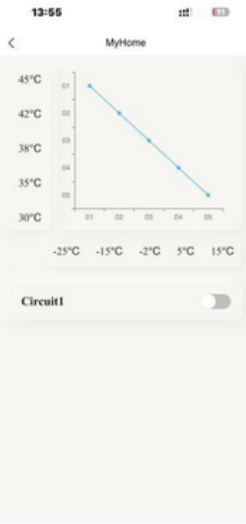
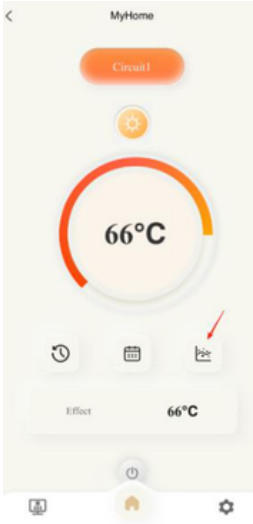


7.4 Circuit/Room Temp. Control & Temp. Setting



Circuit water temperature control setting

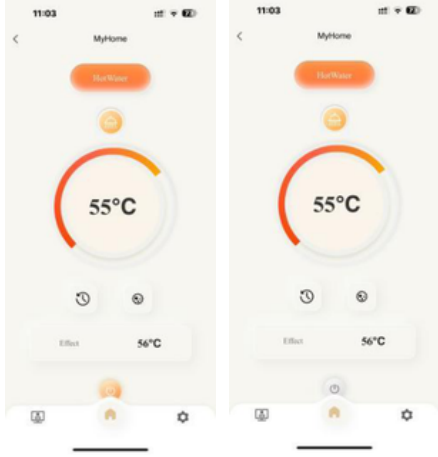
Room temperature control setting



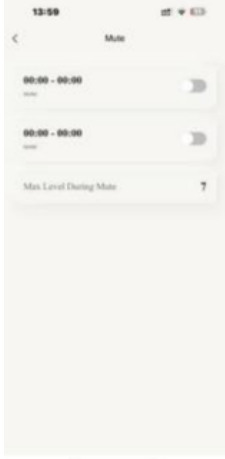
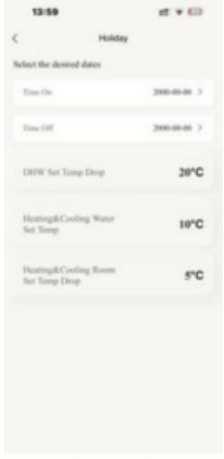
Curve icon  in Circuit/Room Temp. Setting interface

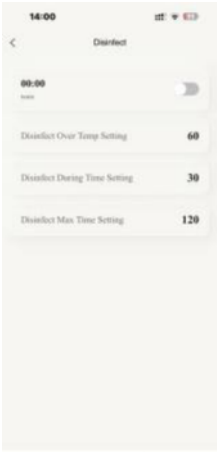
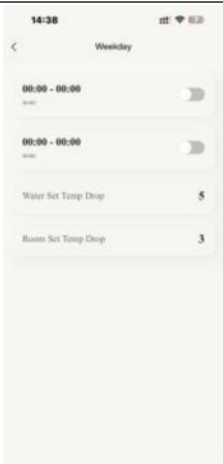
Press  to enter Climate curve automatic setting. And click data on the curve to change.

7.5 Electric heater quick heating mode

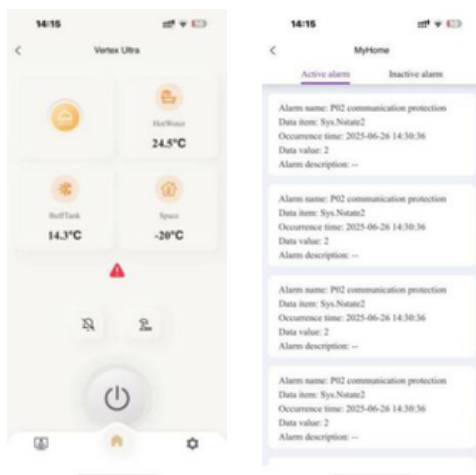
|                                                                                                                        |                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|                                        |                                          |
| <p>Turn on DHW electric heater quick heating mode. (No memory function, just remains effective for one time only.)</p> | <p>Turn on Heating electric heater quick heating mode. (No memory function, just remains effective for one time only.)</p> |

7.6 Timer setting

|                                                                                                                                                        |                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                      |                                                                               |
| <p>Press  to enter Mute function setting on the main interface.</p> | <p>Press  to enter Holiday function timer setting on the main interface.</p> |

|                                                                                                                                                                                     |                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                     |                                                                                                           |
| <p>Press  to enter disinfect function timer setting on the DHW setting interface</p>               | <p>Press  to enter DHW timer setting on the DHW setting interface (4 periods)</p>                        |
|                                                                                                   |                                                                                                         |
| <p>Press  to enter ECO(WeekDay) function setting on the Circuit/Room Temp. setting interface</p> | <p>Press  to enter Heating timer setting on the Circuit/Room Temp. setting interface (8 periods ).</p> |

## 7.7 Fault Query



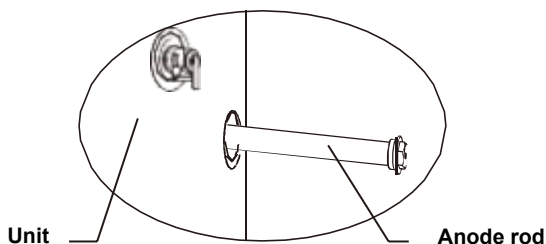
## 8. Maintenance

### 8.1 Maintenance

- ☐ Check the connection between power supply plug, socket and ground wiring regularly.
- ☐ In some cold area (blow 0°C), if the unit will be stopped for a long time, all the water should be released in case of freezing of inner tank and damage of boost electric heater.
- ☐ It is recommended to clean the inner tank and boost E-heater every half year to keep an efficient performance. Check the anode rod every half year and change it, if it has been used out. For more details, please contact the supplier or the after-sale service.
- ☐ It is recommended to set a lower temperature to decrease the heat release, prevent scale and save energy if the outlet water volume is sufficient.
- ☐ Clean the air filter every month in case of any inefficiency on the heating performance.
- ☐ Before shutting off the heat pump the system off for a long time, please:
  - Shut off the power supply;
  - Release all the water in the water tank and the pipeline. Close all the valves;
  - Check the inner components regularly.

## 8.2 How to change the anode rod

- ☐ Turn off the power supply, and turn off the water inlet valve.
- ☐ Open hot water tap, and decrease the pressure of the inner tank.
- ☐ Open the drainage valve, and drain out the water, until there are no water flow out.
- ☐ Take out the anode rod.
- ☐ Replace it with a new one, and make sure effective sealed.
- ☐ Open cold water inlet tap until water flows out from outlet tap then close water outlet tap.
- ☐ Power on and restart the unit.



## 8.3 Recommended regular maintenance table

| Item | Checking content                       | Check frequency                                                                            | Action                                                                      |
|------|----------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1    | Anode rod                              | Every 6 months                                                                             | Replace it if it has been used out.                                         |
| 2    | Inner tank                             | Every 6 months                                                                             | Clean the tank.                                                             |
| 3    | Boost E-heater                         | Every 6 months                                                                             | Clean E-heater.                                                             |
| 4    | PTR valve (If the unit with PTR valve) | Every 1 year                                                                               | Operate the handle of the PTR valve to ensure that water can be flowed out. |
|      |                                        | If water does not flow freely when operating the handle, replace PTR valve with a new one. |                                                                             |



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