



## Water Heater Instructions

model

TK48/200-JD1(U1)



This manual is a general manual The company reserves the right to interpret the manual •

The product appearance shall be subject to the

actual product • Please keep it properly together with the

invoice after reading • In case of product technology or software upgrades, no further notice will be given • This product

is only suitable for sale and use in mainland China

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## 1. Product Introduction

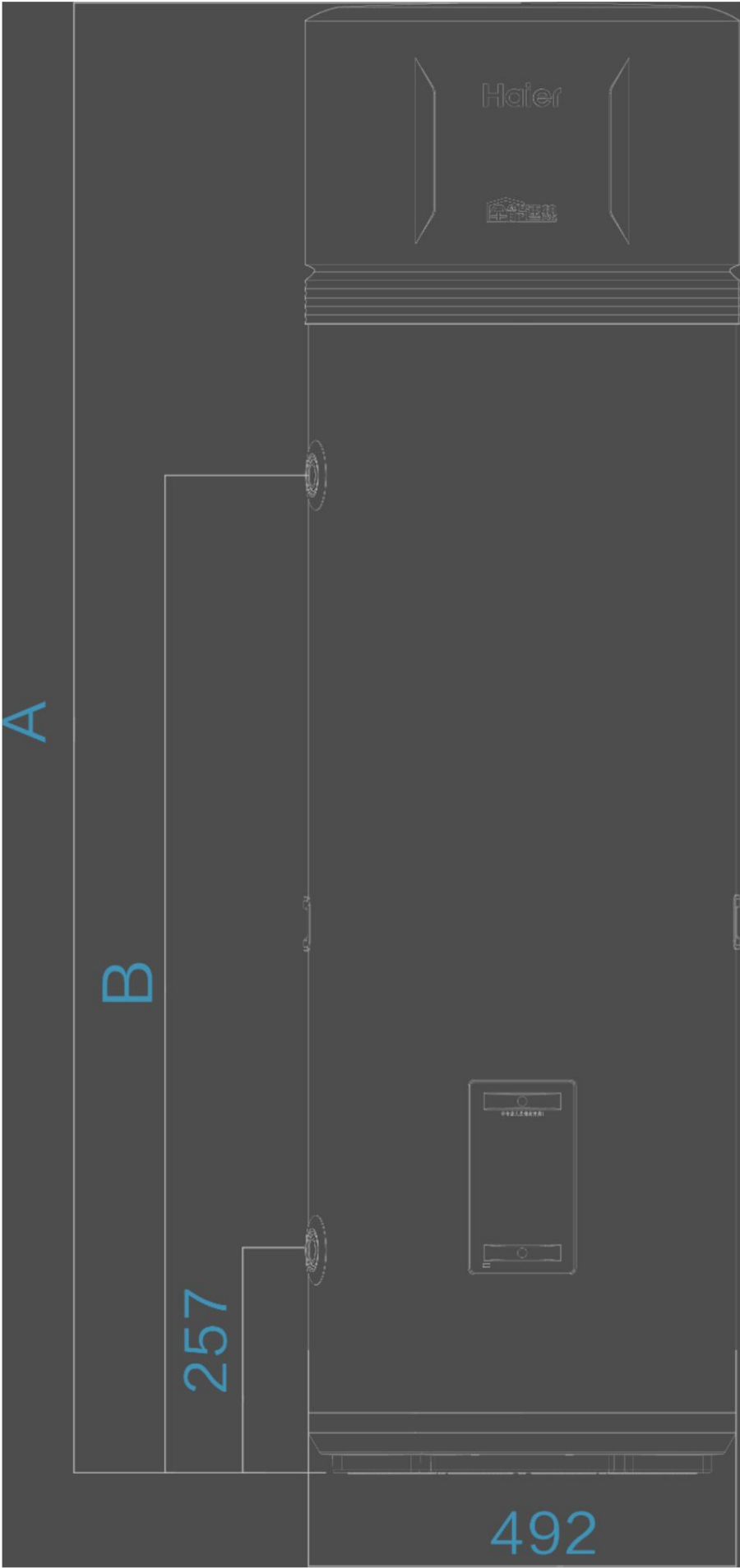
### 1.1. Product Components

#### 1.1.1. Name of each component Water tank



The illustration is for reference only, the actual product shall

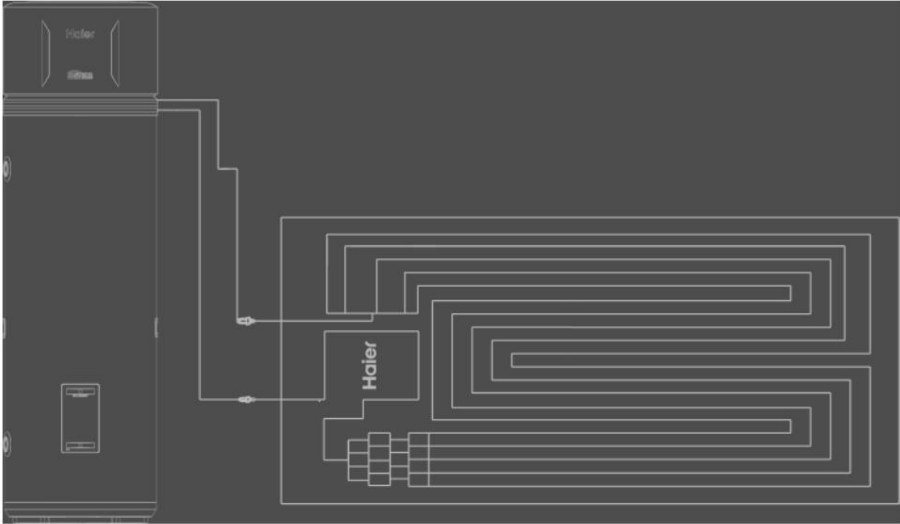
prevail. 1.1.2. Product installation dimensions



A(mm)	B(mm)
2050	1520

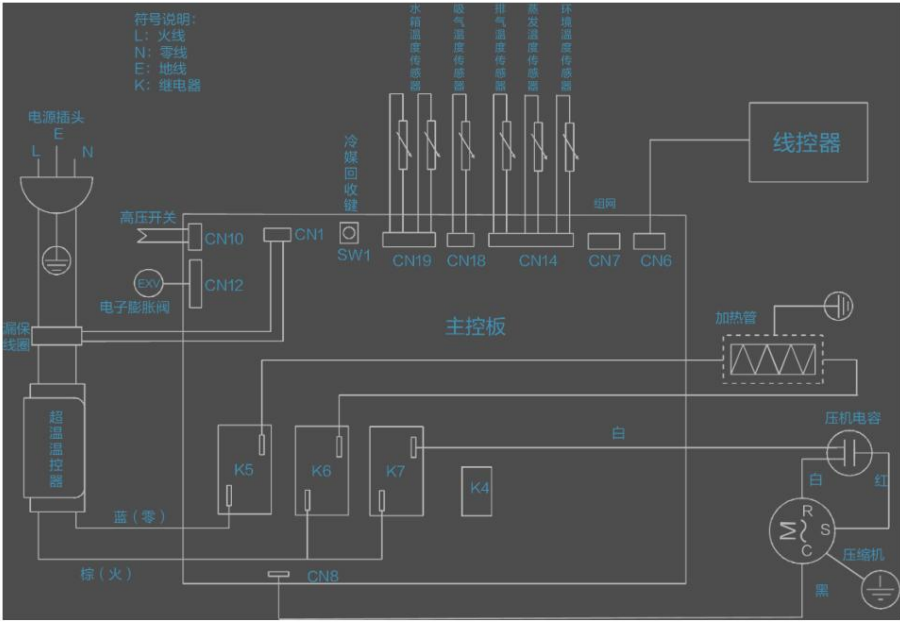
The size deviation range is ±10%

1.1.3. System schematic diagram



1.1.4. Water heater wiring diagram

The wiring diagram is as follows:



Subject to change without prior notice.

1.2. Technical data

Technical data

Product Model		TK48/200-JD1(U1)
power supply		220V~50Hz
Performance parameters	Rated capacity	200L
	Liner material	Hot rolled pickled steel plate

	Liner thickness	2.0mm
	Lighting area	1.56m²
	Heating capacity	2230W
	Rated water pressure	0.85MPa
	Waterproof grade	IPX4
	Hot water production capacity	48L/h
	Heat pump rated current	2.5A
	Heating power consumption	530W
	Electric auxiliary heating rated current	9.1A
	Electric auxiliary heating rated power	2000W
	Maximum input power	3000W
	Maximum input current	13.6A
	refrigerant	R22/650g
Dimensions (mm)	Water tank	492*520*2050
	Heat collector evaporator	1950*800*25
Mass(kg)	Water tank	80
	Heat collector evaporator	8
Noise(dB(A))		40

Note:

Our company pays attention to technological updates and parameters are subject to change without prior notice.

The above performance parameters are tested under the following conditions: ambient temperature 18ÿ-26ÿ, solar radiation 800±100W/m², wind speed ÿ4m/s, relative humidity 60±10%, water inlet temperature 15ÿ, and water outlet temperature 55ÿ.

In accordance with Q/0211HDR 008-2021 "Direct Expansion Solar Heat Pump Water Heaters for Household and Similar Purposes" standard.

## 2. Wi-Fi connection2.1 .

### APP download and login2.1.1.

#### APP download and loginA.

##### Download instructions:

Haier Internet of Things requires the use of Haier's independently developed client. Please scan the QR code on the cover or search for "Haier Smart Home" APP in the application market to download it.

##### B. Registration Instructions:

After installing the APP, you need to become a registered user to use the APP. After entering the APP, click "My" to enter the login interface, click "Register Account" and complete the registration according to the system instructions.

Note: You can only register using your mobile phone number.

##### C. Machine binding instructions:

After logging in with a registered account, you need to connect the Wi-Fi module of the machine to the user's router through the APP to control the machine; the device enters configuration mode, open the Haier Smart Home APP, and enter the "Smart Home", press "+" to enter the add device, there are three ways to add:

(1) Nearby devices: automatically scan and add nearby devices;

(2) Scan the barcode to add. Scan the barcode on the water heater to add.

(3) Manually add, select hot water bathroom, correctly select the water heater category, search for the model, and manually add the device.

##### D. After-sales guidance:

To ensure the effectiveness of the Wi-Fi function, the installation and use requirements of the water heater are as follows:

##### 1. Installation precautions

(1) Install the remote control as far away from L-shaped corners and other electrical appliances as possible to avoid Wi-Fi signal obstruction;

(2) The wired controller cannot have a metal frame, otherwise the Wi-Fi signal cannot be transmitted.

##### 2. Network environment requirements

The network signal in the place where the user installs the water heater must be strong enough. If the after-sales service personnel have tried to improve the network environment and still cannot use it, please purchase a Wi-Fi repeater by yourself and try to install it close to the water heater to enhance the signal strength.

##### 3. Control interface description

This machine uses an APP to control the Wi-Fi function. The APP will be upgraded regularly. The specific control interface shall be subject to the actual APP on the mobile phone.

Note: This device contains a radio transmitter module with type approval code CMIIT ID: 2017DP3299 or 2019DP4984 or 2020DP0140 or 2017DP5587 or 2020DP10320.

## 2.2. Intelligent control equipment

### 2.2.1. Intelligent control equipment

Realize remote control, operation monitoring and other functions through Wi-Fi network and enjoy convenient and high-quality services.

Standard model, you need to bring your own equipment: smartphone, wireless router (need to connect to the Internet).

This product only supports 2.4GHz routers. Mobile phones and devices can only be bound under the same router. After binding, the mobile phone can switch networks to control the device.

3. Instructions for use

3.1. Safety precautions 3.1.1.

Explanation of signs

Safety precautions (please read before use)

If the machine has an abnormal smell such as burning, stop using it and turn off the power, and contact after-sales personnel for inspection to avoid malfunction or fire. It is strictly forbidden to disassemble or repair it without the authorization of the company.

If you need service, please call the national unified service hotline. Heat pump water heaters are Class I electrical appliances, please pay attention to electrical safety when using them!

Any content with the "prohibition" mark is an absolutely prohibited behavior, otherwise it may cause damage to the machine or endanger the personal safety of the user. If the operation is wrong, it may cause personal injury to the user.



All contents with the "Warning" mark are related to product safety and the personal safety of users, and operations must strictly follow the warning contents.

Incorrect operation may cause damage to items and property.

The grounding must be reliable! The grounding wire should be connected to the building's dedicated grounding device. Do not connect the grounding wire to unreliable places such as gas pipes and water pipes. Unreliable grounding can cause electric shock and fire.

Keep the water heater away from flammable items; do not install the water heater in places where flammable gas is likely to leak, so as to avoid fire or explosion caused by gas leakage. Do not use it in environments with flammable, explosive or corrosive gases.

When installing the indoor unit, avoid placing it too close to the curtains.

Do not allow paint, pesticides, gel water and other flammable substances to approach or spray on the surface of the machine. Otherwise, it may cause cracking, electric shock or fire.

Do not place objects on the evaporator.

The indoor unit of the water heater must be reliably grounded, otherwise it will affect the water heater's anti-interference performance and personal safety.

The yellow-green two-color wire is a dedicated grounding wire and must not be used for other purposes; it cannot be fixed with self-tapping screws. Otherwise, there is a risk of electric shock.

Use a fuse of the specified capacity and never use steel or copper wire instead of a fuse.

In thunderstorm weather, the power switch must be turned off.

Do not install the water heater where the water cannot be drained.

This machine is equipped with a safety valve. For safe use, the installation position cannot be changed without permission and its outlet is strictly prohibited.

Once an abnormality occurs in the grounding system outside the appliance, stop using the heat pump water heater immediately, disconnect all connections with the power supply circuit, and contact the manufacturer's maintenance personnel for processing! The water outlet temperature of the water heater is



generally higher than the temperature displayed on the display. When you just open the hot water valve, please do not spray hot water directly on your body to avoid being scalded by hot water.

If the water heater, plug, socket, wire controller, etc. are accidentally wetted by water, please contact professionals for handling.

Children must be bathed under the guidance of an adult.

When the water heater is used in areas where the ambient temperature is below 0°C, it is recommended to install the water tank indoors.

The installation and maintenance of the power supply must be handled by professionals. You must use an independent power supply with reliable grounding, 220V~50Hz and an air switch. Please disconnect the power supply of the water heater when it is not used for a long time.

When installing or repairing the water heater, the power cord and the connection line must not be replaced without authorization. It is strictly forbidden to lengthen or shorten the length of the two lines and change the ends. If adjustment is required, you need to contact the local Haier repair center or service center to re-equip a dedicated wire of sufficient length. Excessively long connection lines should be rounded and arranged, and it is strictly forbidden to make small circles or bends.

Installation in the following places may cause the water heater to malfunction. If it is unavoidable, please consult your local Haier service outlet: places where the air contains oil (such as engine oil); saline-alkali areas by the sea; places containing sulfide gases (such as sulfide hot springs); places with high-frequency facilities such as welding machines, medical equipment, etc., where there is large electromagnetic interference; environments with strong corrosive gases; factories with serious power supply voltage fluctuations and other special environmental conditions.

A dedicated power supply line must be provided, and the wiring must be done by qualified electrician personnel in accordance with the wiring rules specified in national standards.

The electrical connection of the water heater must be a dedicated branch circuit, and its wire capacity should be greater than 1.5 times the maximum current of the water heater. For water heaters with a maximum operating current greater than 16A, a leakage current of sufficient capacity should be used.

The circuit breaker should be connected to the power supply through a fuse or an air switch. The air switch should have both short-circuit protection and overload protection functions (Note: do not use a fuse alone to protect this branch).

The selection of the installation site needs to meet the following requirements: select a support surface that can support the weight of the machine and can smoothly drain condensed water; leave enough space for installation and maintenance; the operating noise and exhaust air of the water heater should not affect users and neighbors; ensure that the water pipes of the water heater used in areas with temperatures below 0°C will not freeze; select a location where the water heater body can be effectively fixed.

If the water heater is installed on the metal material of the building, electrical insulation with the metal must be done well and comply with relevant technical standards for electrical equipment.

It is not recommended to install it in a completely open outdoor environment. If installed outdoors, please take rain and sun protection measures to avoid rain and direct sunlight.

3.2. Installation Instructions

3.2.1. Installation Preparations

Preparation before installation

1. Basic requirements

The power supply must use the rated voltage and the dedicated circuit for the water heater. The water heater power supply line must be equipped with a leakage protection switch and an air switch with sufficient capacity. The air switch should have both magnetic tripping and

Thermal tripping function to ensure short circuit and overload protection. Wiring must be done by qualified electrician personnel in accordance with the wiring rules specified in national standards.


The normal operating range of the water heater is 90%~110% of the rated voltage of 220V. Voltage that is too high or too low will affect the heating effect and lifespan, and may also cause excessive noise.

The minimum clearance between the water heater and combustible surfaces is 1.5m.

This machine has a power cord and a plug. A disconnect device must be added to the fixed circuit, and it must be a full-pole disconnection, and the contact disconnection distance must be at least 3mm. Do not connect the power cord without a plug to the plug and use it directly.



The power socket should be located in a place where the water heater power cord can be easily plugged in and must be equipped with a ground wire to ensure that the water heater is grounded through the power socket. In a three-wire socket, the ground wire and the neutral wire must be strictly separated. , it is wrong to connect the neutral wire and the ground wire together.

 Power supply: L should be connected to the live wire, N should be connected to the neutral wire, and PE should be connected to the ground wire. The position should not be wrong, the connection should be reliable, and there should be no internal short circuit. If the connection is wrong, it may cause a fire. The power cord connection method is Y connection. If the power cord is damaged, it must be replaced by the manufacturer, its service agency or a person with similar qualifications to avoid danger.

2. Grounding requirements

The user's power line should be equipped with an effectively grounded grounding wire. If there are serious safety hazards in the user's power usage environment, the installer should refuse to install and explain the reasons to the user. The installation can only be allowed after the user has eliminated the safety hazards.

The resistance between the grounding terminal and the accessible metal casing should be less than 0.1Ω, and the grounding resistance of the grounding device should be less than 4Ω.

Test run: When checking the circuit with power on, first check whether there is leakage in the evaporator, water tank, and outdoor unit casing. When checking, prevent any part of the human body from touching the circuit to prevent electric shock accidents.

After the test run, use a megohmmeter to measure the insulation resistance between the live wire + neutral wire and the ground wire without power supply. It should be greater than 2MΩ.

3. Parameter requirements

The fuse model and rating shall be subject to the value marked on the corresponding controller or fuse sleeve.

The external static pressure of the water heater at the test location is 0 MPa.

The auxiliary electric heater is installed in the water tank. The rated power can be found in the parameter table in the electronic manual.

Parameters of the power cord connection line: 3×1.5mm² or above (different products may vary, please refer to the purchased model), the power connection line must use chloroprene rubber wire (YZW) or polyvinyl chloride soft sheath wire. 3.2.2. The selection of the installation site must be installed by the installer of the company's after-sales department or its designated installer.

The solar collector should be installed in a place that can ensure reasonable sunlight distribution and without obstacles that affect direct sunlight.

The water tank should be installed on a support surface that can support the weight of the machine and allow condensed water to be drained smoothly.

The operating noise and exhaust air of the water heater should not affect users and neighbors.

Sufficient space should be left for installation and maintenance.

There should be no strong electromagnetic field interference nearby to avoid affecting the control performance.

There should be no sulfur gas or mineral oil at the installation location to prevent corrosion of the machine body and accessories.

Ensure that the water pipes of water heaters used in areas with temperatures below 0℃ will not freeze.

The installation position should be selected so that the water heater body can be effectively fixed.

Avoid installing in places such as factories where power supply voltage fluctuations are severe.

If the water heater is installed on the metal material of the building, electrical insulation with the metal must be done well and comply with relevant technical standards for electrical equipment.

Choose a place without oil gas or oil smoke for installation.

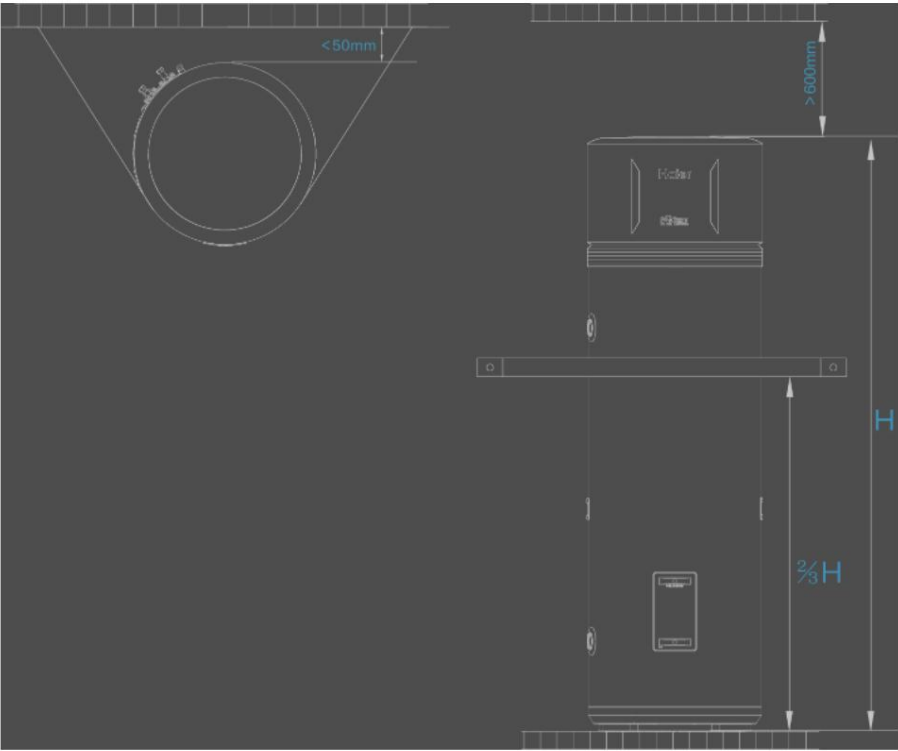
It is not suitable to be installed near the sea or in places where the air contains a lot of salt.

It is not recommended to install the water tank in a completely open outdoor environment. If installed outdoors, please take rain and sun protection measures to avoid rain and direct sunlight.

3.2.3. Packing List

Part Name	Water tank	Cold water safety valve 0.85 MPa	3/4" Fiber Washer	Safety valve drain pipe	Water tank drain pipe	manual	Pair of wire 1 /2" - 3/4" outer thread	Small Bags	Wall guard ring	Connecting pipe	Non-stick tape	Collector panel mounting parts	Expansion bolts M8x 85mm	Expansion bolts M8x 150mm	Fastening bolts M8x 25mm	Water tank fixing strap	Plastic buckle
Quantity	1 set 1 piece 4 pieces	1 piece 1 piece 1 piece 1 book	1 piece 1 book	1 piece 1 piece 1 set 1 roll	1 piece 1 piece 1 set 1 roll	1 pieces 2 pieces	4 pieces 4 pieces	1 pieces 1 piece 1									

3.2.4. Installation and fixing



Note: The appearance of the water heater is for reference only.

- Place the water tank on a flat surface with sufficient load-bearing capacity (more than 4 times the weight of the full water tank) and the inclination should not exceed 5°.
- The installation location of the water tank should be selected in a place that is easy to use, maintain and has a sewer. In the event of a water tank or water pipe leak, it will not cause damage to nearby or lower facilities.
- Use the tank fixing strap to secure the water tank at 2/3 of its height.

3.2.5. Pipeline installation

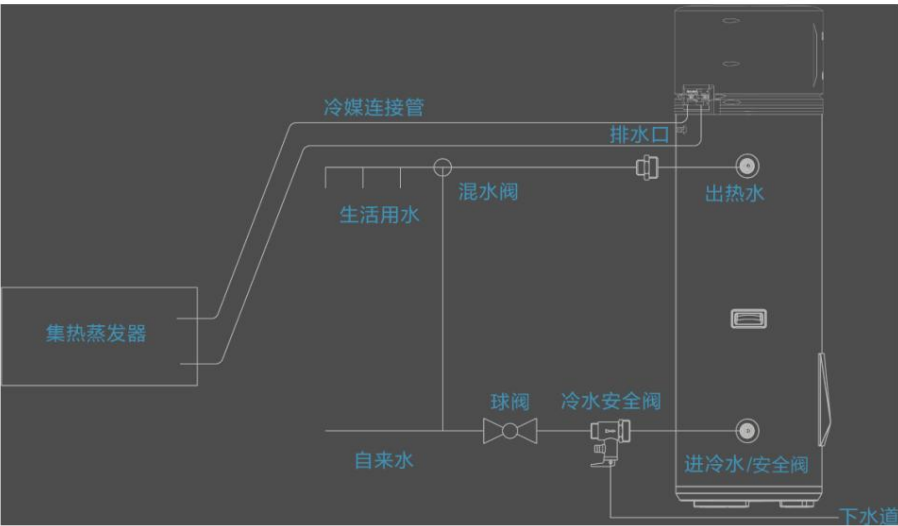
Determine the installation location according to the water tank dimensions and user requirements. Use tap water pipes (PP-R pipes are recommended for users) to install each pipeline. When sealing the pipeline, pay attention to adding raw tape to prevent water leakage.

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The water inlet and outlet of this water tank are both G3/4" internal thread interfaces.

Determine the location of the water supply, connect the water outlet pipe and the tap water pipe to the water supply point, and be careful not to connect the inlet and outlet pipes in reverse. To facilitate the installation and removal of the water tank, it is recommended to connect the inlet and outlet pipes of the water tank at appropriate locations.

The following figure is only a schematic diagram of pipeline installation, which can be installed according to the actual situation of the user.



Pipeline installation diagram (the diagram is for reference only, the actual object shall prevail) Ensure that

the inlet temperature of tap water (minimum operating temperature) is greater than 0°.

The tap water inlet pressure should be no less than 0.05MPa and the maximum pressure should not exceed 0.6MPa. The maximum working pressure of the heat pump water heater should not exceed 0.85MPa.

0.6MPa, it is recommended that you contact after-sales to purchase a pressure reducing valve to ensure the reliable operation of the heat pump water heater.

Before filling the water tank for the first time, make sure that the cold water inlet, hot water outlet and at least one tap (preferably the farthest one) are open. Stop filling the water after the tap has been draining water for 10 seconds.

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The safety valve should be installed in the specified position and should not be modified without permission. Refer to the direction of the arrow on the safety valve (the arrow points to the direction of water flow), install the safety valve with a rated pressure of 0.85MPa and a G1/2 interface on the water inlet pipe, and connect the safety valve to the built-in drainage hose. The end of the drainage pipe is connected to the sewer outlet and kept connected to the atmosphere. Do not block it and install it in a frost-free environment in a continuous downward tilt. (Safety valve specification is 0.85MPa)

Installation of condensate drain pipe: Connect one end of the drain pipe to the water heater drain outlet and the other end to the sewer outlet. The drain pipe can be shortened or lengthened according to user needs. The drain pipe should be connected to the atmosphere, do not block it, and should be installed in a frost-free environment in a continuous downward manner.

Water pipes and valves outdoors should be insulated and antifreeze treated.

Install the cold water safety valve on the cold water inlet of the water tank. When installing, make sure that the direction of the arrow on the safety valve is pointing toward the water tank, and then connect the inlet of the safety valve to the reserved cold water inlet.

Connect the cold water safety valve pressure relief hole to the drain pipe and the other end to the sewer outlet.

The drain pipe can be shortened or lengthened according to actual conditions to ensure that it slopes continuously downward and is installed in a frost-free environment.

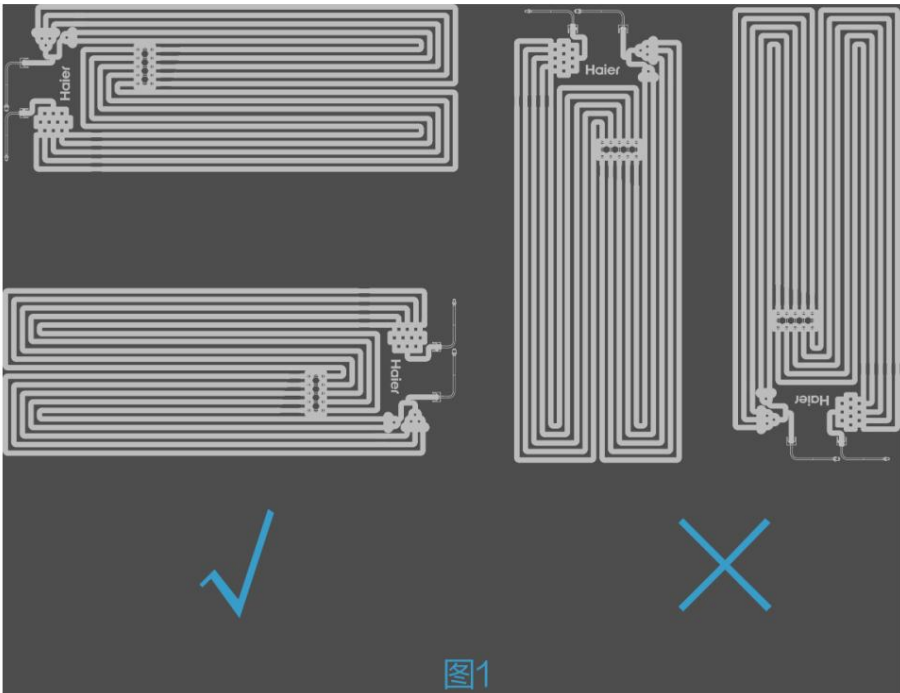
The drain pipe outlet cannot be higher than the pressure relief hole of the safety valve, and the drain pipe should be inserted into a place that is easy to drain, such as a floor drain.

Use of safety valve: When the water heater is powered on for heating, a small amount of water will flow out of the pressure relief hole of the safety valve. This is because the water tank expands due to heat and is a normal phenomenon.

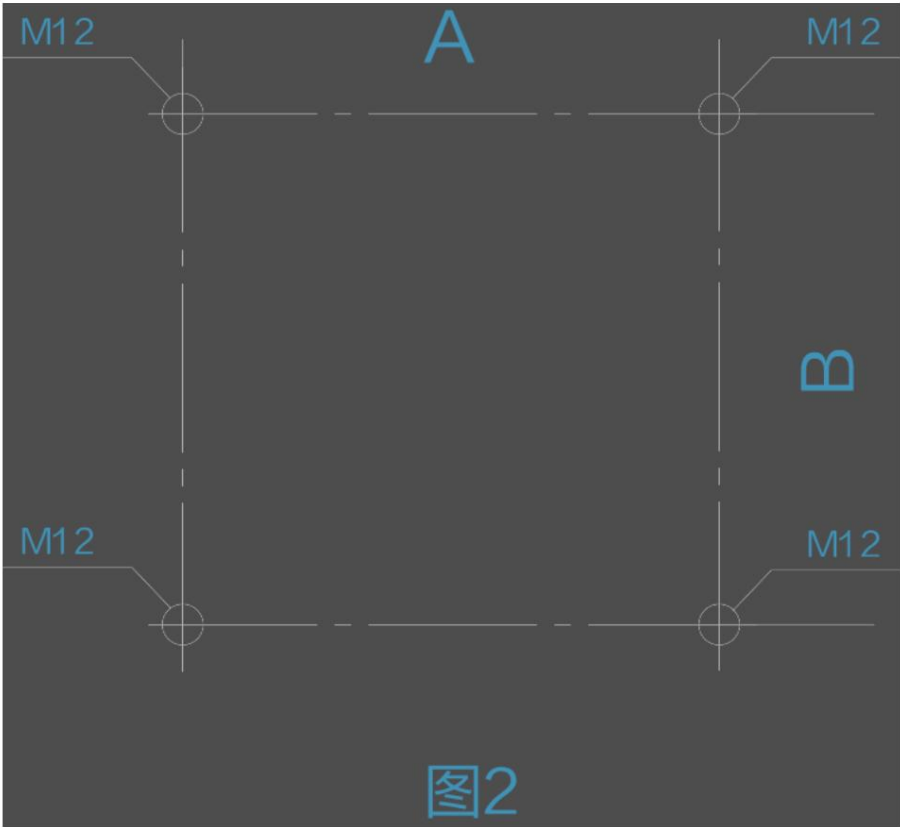
The pressure relief hole should remain connected to the atmosphere and should never be blocked.

This series of products uses a high-efficiency solar evaporator, which is fixed with a bracket. According to the on-site installation conditions, the evaporator can be installed and used in the horizontal direction or in the left or right direction. It is forbidden to install it vertically.

Installation is shown in Figure 1.

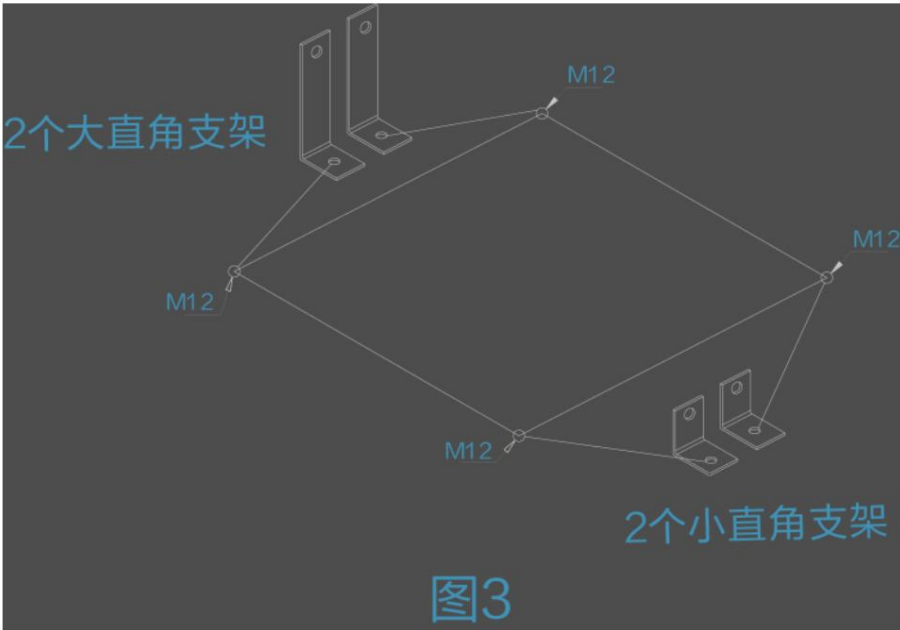


Use an impact drill to drill four mounting holes with a diameter of 12 mm in the ground according to the spacing of the four bracket mounting holes. The spacing of the bracket mounting holes is shown in Figure 2.

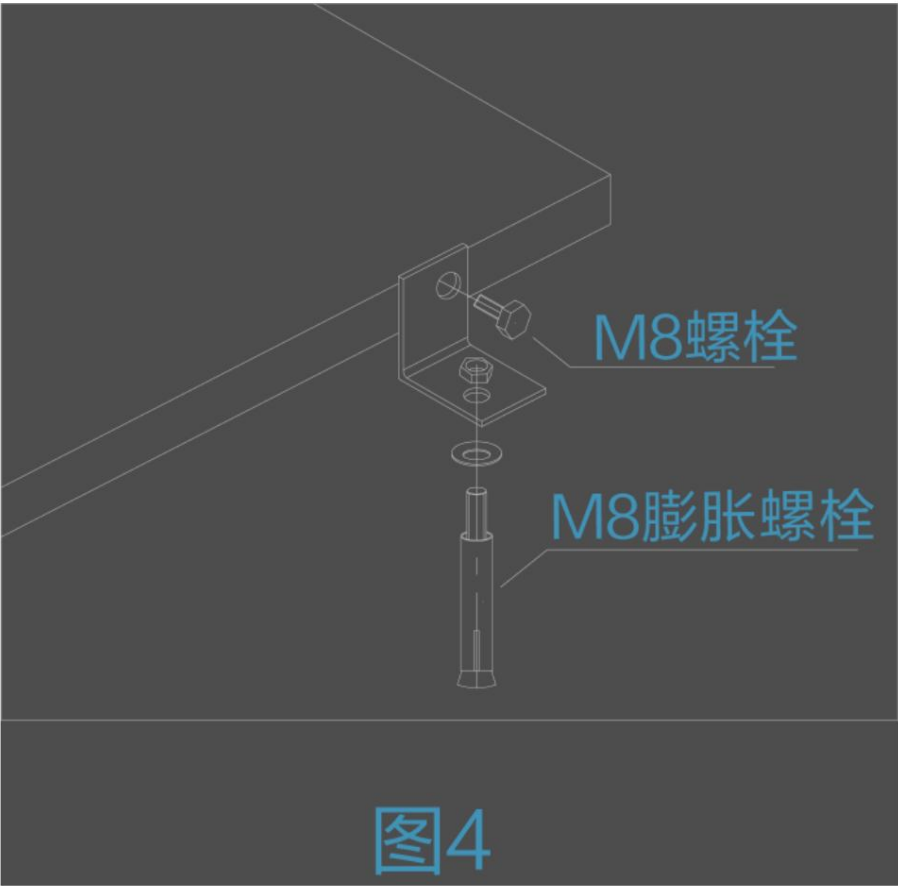


A(mm)	B(mm)
975	800

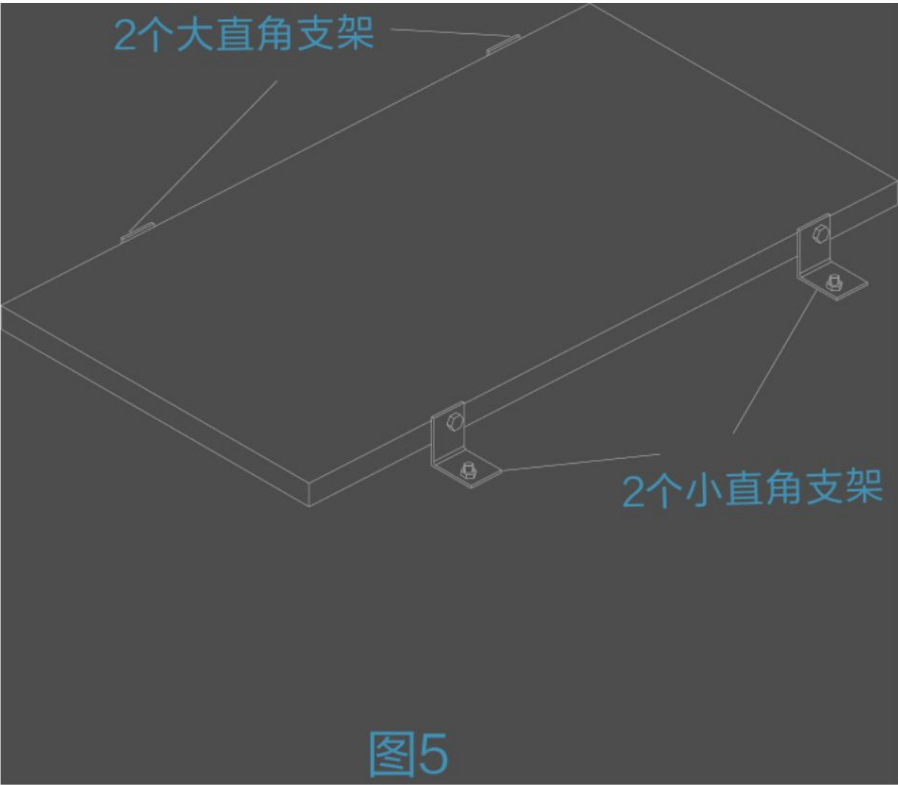
The evaporator bracket consists of 4 right-angle brackets, 2 small brackets are installed in the front and 2 large brackets are installed in the back, as shown in Figure 3.



During installation, use M8 expansion bolts to fix the right-angle bracket, and use M8 bolts and nuts to fix the evaporator to the right-angle bracket, as shown in Figure 4.



Fix the evaporator to the four right-angle brackets in sequence, as shown in Figure 5.



Note: The evaporator will produce condensed water during use. If it is installed on the outer wall of the balcony, it is recommended to add a drainage trough and a guide pipe at the bottom of the evaporator. The drainage trough and guide pipe are sold separately.

After the evaporator and water tank are installed and fixed respectively, and the water pipes are installed and leak-checked, start installing the refrigerant pipes.

1. Installation of refrigerant pipe

Before installation, ensure that the bell-mouth plug of the insulation connecting pipe is in good condition and that there is no abnormal deformation or damage to the bell-mouth and the pipe body.

If the water tank and evaporator are on both sides of the wall and need to be installed through the wall, first drill holes in the wall and put in the hole sleeves and hole covers.

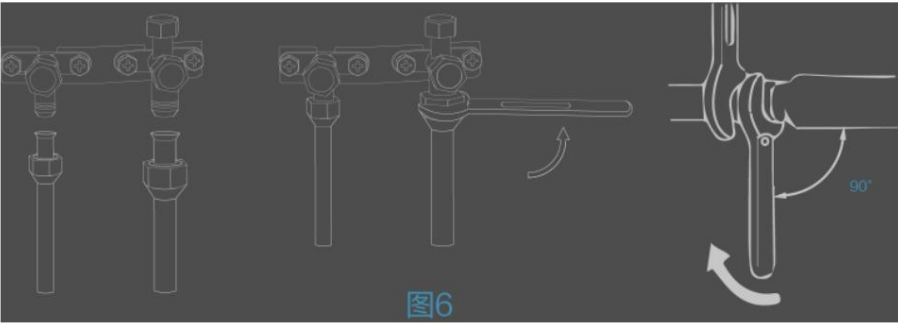
Put the insulation connecting pipe and the two outdoor sensor wires together, wrap them with non-stick tape, and pass them through the wall hole. Install the wall guard ring in the accessories at the wall hole.

The outdoor sensor wire must not directly contact the copper pipe and must be insulated by an insulation layer.

Before connecting, apply refrigeration oil to the bell mouth and the conical surface of the butt joint.

Connect the water tank first, then the evaporator.

When connecting, keep the bell mouth and the butt cone head coaxial, then tighten the nut by hand until the copper tube cannot swing, and then tighten the nut 0.5-1 turn with a wrench. The wrench tightening method is shown in Figure 6



Copper tube specifications	Tightening torque
6.35mm $\times$ 1/4"	$\bar{y}$ 14-18 $\bar{y}$ N·m
9.52mm $\times$ 3/8"	$\bar{y}$ 33-42 $\bar{y}$ N·m

2. Evacuation of refrigerant pipes

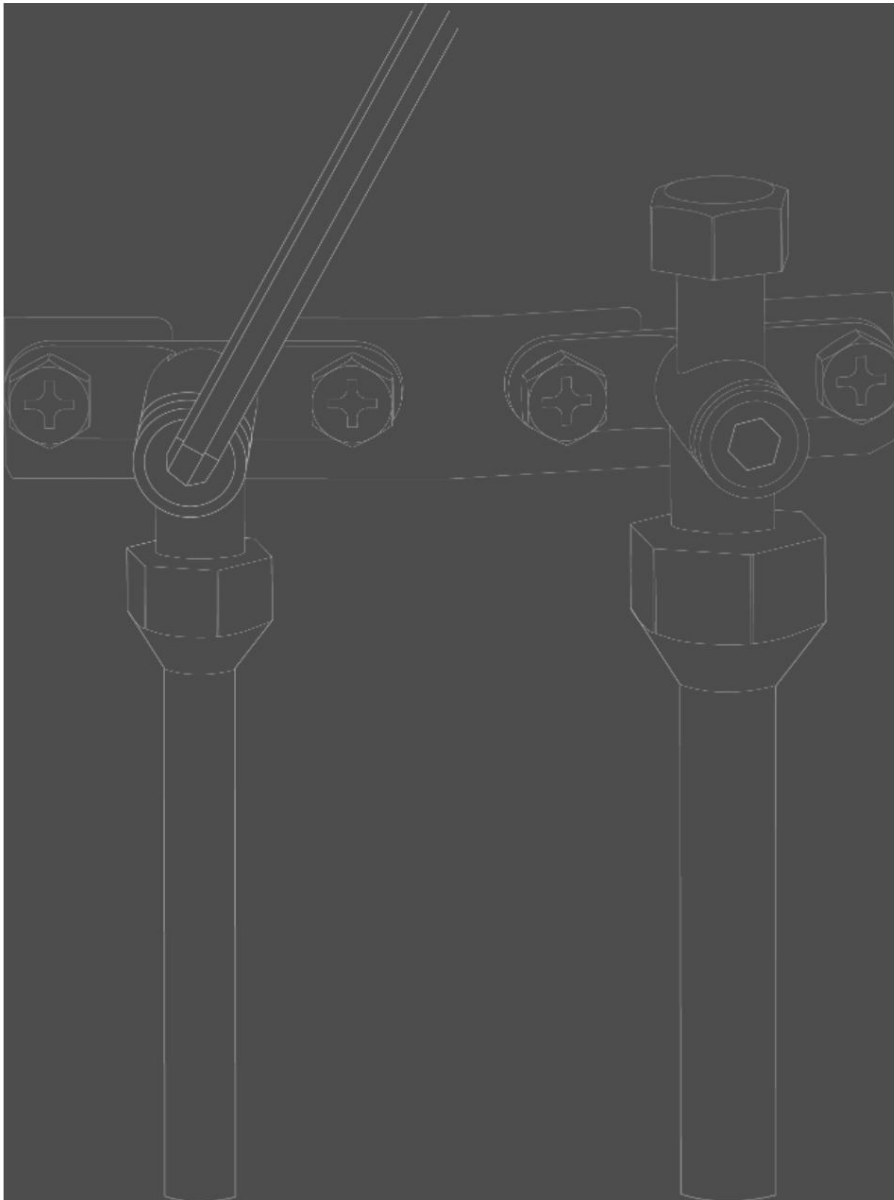
This machine must use a vacuum pump to evacuate the connecting pipe.

Connect the low-pressure hose of the maintenance multimeter to the needle valve of the three-way stop valve on the top of the water tank and tighten it.

Connect the middle hose of the multimeter to the vacuum pump and tighten it. Turn on the vacuum pump to evacuate. When the vacuum degree is close to -0.1MPa, close the low pressure handle of the maintenance meter and stop the vacuum pump. Maintain the pressure for 30 minutes and observe the low pressure.

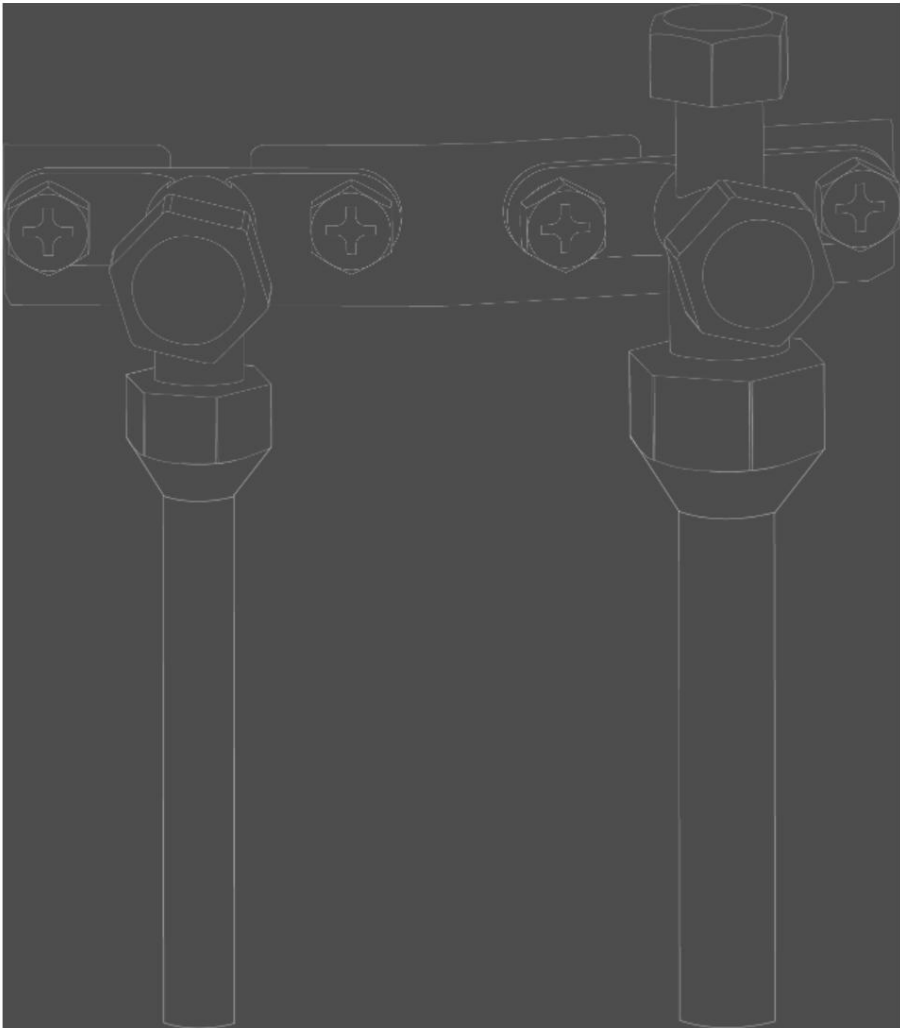
Check whether the pressure rises. If there is no rise, it proves that the pipeline is sealed intact.

After confirming that there is no leakage in the pipeline, use an Allen key to open the two-way valve counterclockwise, and close the two-way valve when the low-pressure gauge pointer returns to above 0 MPa.



After removing the vacuum pump and the inspection meter, use the Allen key to fully open the two-way valve and the three-way valve in a counterclockwise direction. Tighten the protective caps of the two-way valve and the three-way valve, especially the needle valve protective cap of the three-way valve.

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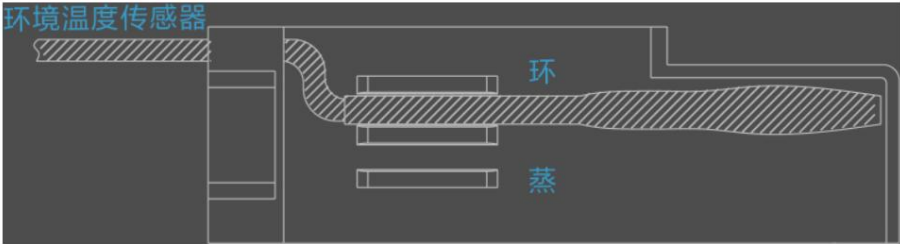
3. Refrigerant pipe leak test

Use a leak detector or soapy water to check for leaks at the four bell-mouth joints and the three-way valve needle valve.

After the air leakage inspection is passed, the two-way valve and the three-way valve are insulated with rubber-plastic pipes and fixed with wire ties.

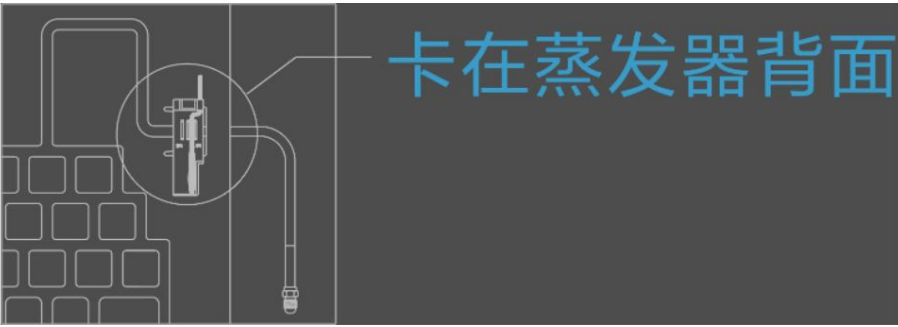
The solar heat pump has an outdoor ambient temperature sensor (with a black heat shrink tube at the end) coming out of the water tank. The sensor is connected to the outside of the insulation tube of the refrigerant pipe and installed outdoors.

Find the plastic clip from the accessories and install the sensor in the groove with the word "ring" engraved on the plastic clip, so that the head of the black heat shrink tube of the sensor is flush with the baffle in front of the plastic clip, as shown in the figure.



There is a notch at the entrance of the evaporator (connecting the thin copper tube). From the back of the evaporator, snap the plastic clip onto the notch, as shown in the figure.





Tips for installing flammable refrigerant connecting pipes (as shown in Figure 1)

The cone of the connecting pipe should be aligned with the cone of the corresponding valve joint.

Tighten the connecting pipe nut firmly and then tighten with a wrench.

After tightening, lock the connector with the protective kit.

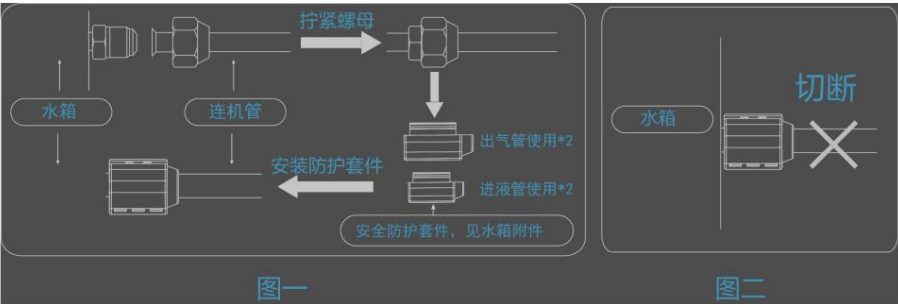
The indoor bell mouth is not allowed to be reused. If a secondary connection is required, the bell mouth must be reprocessed.

After the indoor side is connected, a protective kit must be installed and tightened to ensure that it cannot be disassembled. The connecting pipes need to be insulated and protected from mechanical damage.

When installing, repairing or moving the machine, please contact after-sales personnel. Non-professionals are prohibited from operating.

According to the standard GB4706.32, a non-reusable connector is used on the internal side of the flammable refrigerant. Its installation method is the same as that of a normal connector. However, once the connector is installed, it cannot be removed.

If a second connection is required, cut off the connector, replace it, and re-weld it. (As shown in Figure 2)



Refrigerant addition

When online, use a vacuum pump to evacuate the pipeline.

If leakage occurs during use, all refrigerant must be recovered, the leaking point must be repaired and the system must be vacuumed again, then refilled according to the value specified on the nameplate.

Do not inject any refrigerant other than that specified on the nameplate, otherwise it will cause abnormal system pressure and cause personal injury.

The refrigerant charge shall be in accordance with the nameplate charge and the additional charge required by lengthening the connecting pipe. Additional charge is not allowed.

When the connecting pipe is longer than 5m, refrigerant is added at 30g/m, and the maximum additional amount shall not exceed 200g.

3.2.6. Line installation

Wall-mounted installation method:

First, use a flat-blade screwdriver to separate the display board remote controller base from the remote control box through the slot at the bottom of the remote controller, and then remove the remote control box through the screw holes 1 and 2 at the base of the remote control box.

The base is fixed on the wall, and finally the wire control box is buckled onto the base of the wire control box according to the corresponding matching method.

Wall-mounted installation method:

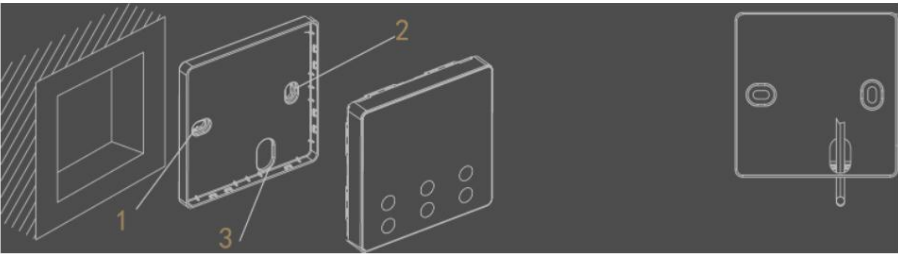
First, use the same method as above to separate the display panel wire controller base from the wire control box. Fix the wire control box base in the 86 box through screw holes 1 and 2. Then connect the control wire through threading hole 3.

Insert it into the buried wire conduit prepared in the 86 box in advance, and finally install the wire control box on the base of the wire control box according to the corresponding matching method.

Note:

1. The wall box needs to be embedded in the wall before the user decorates the room.

2. Wall box and remote control frame are sold separately.



3.3. Use function

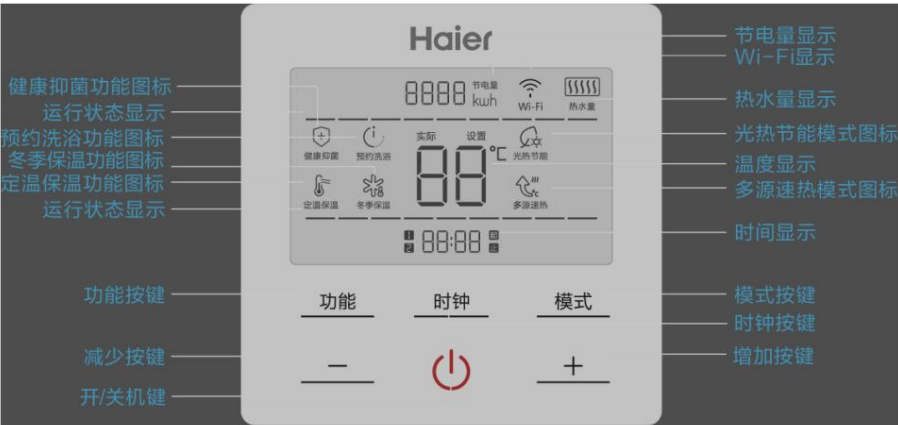
3.3.1. Test run

Please ask the installation service personnel to confirm the inspection items for the water heater trial operation according to the instruction manual and tick the following:


- Does the power supply voltage comply with the electrical regulations?
- Power supply part: the live wire should be connected to L; the neutral wire should be connected to N; the ground wire should be connected to the top.
- Is the ground wire connection secure?
- Are the electrical connections securely fastened?
- Is the control panel display normal?
- Is there any leakage at the refrigerant connection pipe joint?
- Do the materials of hot and cold water pipes (such as PP-R, etc.) meet the requirements for hot and cold water use?
- Is the water tank equipped with a safety valve?
- Is the drain pipe layout correct?
- After the water system is installed, is the water tank filled with water and is there water coming out of the hot water pipe outlet?
- After filling the water system, check the entire water pipeline to see if there are any leaks?
- After the water system is filled with water, does water flow out after the safety valve is manually released?
- After the water system is filled with water and leak tested, are all outdoor water pipes insulated?
- Are the water tank drain valve, drain pipe and safety valve connected to the sewer and can they drain smoothly?
- When the water tank is outdoors, has the water tank drainage pipe been insulated?
- Is there any abnormal noise?

3.3.2. Wired controller display

Display:



3.3.3. Button functions

【】 A. On/Off button

Press this button to turn the machine on and off; when the machine is turned off, only Beijing time and actual water temperature are displayed; when the machine is turned on, Beijing time, actual water temperature, and actual working icon are displayed.

【时钟】 B.

When the device is powered off, press this button to enter the Beijing time setting.

When the machine is powered on and the bathing appointment function is off, press this button to set the start and end time of the light and heat energy saving function; when the bathing appointment function is on, press this button to set the bathing appointment time.

【+】、【-】 C.

When the temperature or time is set, press the [+]/[-] key once to increase/decrease the set value by 1. Long press to increase/decrease continuously.

【 模式 】

When the machine is powered on, press the [Mode] button to turn the multi-source rapid heating mode on and off, and switch between the light-heating energy-saving mode and the multi-source rapid heating mode.

【 功能 】

When the machine is on, press the [Function] button continuously to cycle through the following options: scheduled bathing y winter insulation y constant temperature insulation y healthy antibacterial y unselect all.

F. Key combination

Restore factory settings: Turn off the power, press the [Mode] and [-] keys at the same time for 5 seconds, the display will show full screen for 2 seconds, the buzzer will sound twice, and all parameters will be restored to factory settings.

Quick heating mode setting: Turn off the power, press the [Mode] and [+] keys at the same time for 5 seconds, the temperature display area shows 01 or 02, and the multi-source quick heating icon lights up. At this time, press the [+] and [-] keys to select 01 or

02, 01 means that the multi-source quick heating is executed once and automatically exits, and 02 means that the multi-source quick heating is executed continuously.

88:88

Time display: Beijing time, start/end time of solar heat energy saving, and scheduled bathing time. Temperature display: actual water temperature

88℃

and target temperature setting. The target temperature will flash when setting the temperature. Power saving display: power saving. Fault code will be displayed when heat pump fails.

8888 kWh

Hot water volume display: five wavy lines represent 10%, 30%, 50%, 80%, and 100% hot water volume from left to right.

Wi-Fi

Wi-Fi display, flashing when Wi-Fi is configured, and always on after successful configuration. Operation status display, dynamically displayed from

the middle to both sides when heating, and all lit when not heating. Light and heat energy-saving mode icon, this icon is lit when the power is turned on, and it is off when the

多源速热

power is turned off. Multi-source fast heating mode icon, multi-source fast heating mode is turned on, this icon is lit.

预约洗浴

Appointment bathing function icon, appointment bathing function is turned on, this icon is lit. Constant temperature insulation

健康抑菌

function icon, constant temperature insulation function is turned on, this icon is lit. Healthy antibacterial function icon, healthy

节能保温

antibacterial function is turned on, this icon is lit. Winter insulation function icon, winter insulation function is turned on, this

节能保温

icon is lit.

1. Solar thermal energy saving mode

节能保温

Photothermal energy saving mode: The photothermal energy saving function is turned on, and the light and heat energy saving and scheduled bathing functions are executed at the same time. You can make a scheduled bath once a day, and heat to the target temperature before the scheduled bathing setting time; if the heating is not completed when the scheduled bathing setting time arrives, it will continue to heat to the target temperature and stop heating. When the scheduled bathing time and light and heat energy saving time overlap, the set temperature is the higher of the scheduled bathing and light and heat energy saving target temperatures during the light and heat energy saving start and end time. Scheduled bathing target temperature setting: In non-multi-source fast heating mode, turn on the scheduled bathing function, the icon lights up, press or, the temperature flashes, and flashes. At this time, the scheduled bathing target temperature can be set. The setting range is: 35y-75y, the default is 55y. Scheduled bathing time setting: When the icon lights up, press the button, the hour flashes, and press or to set the hour. After the setting is completed, press the button within 6 seconds, the minute flashes, and press or to set the minute; the scheduled bathing time setting range is: 00: 00-23:59, the default is 22: 00.

2. Multi-source rapid heating mode

多源速热

When the machine is turned on, press the button to turn on or off the multi-source fast heating mode. In the multi-source fast heating mode, the light will turn on, and the compressor and the electric heating tube will be started at the same time for heating. This mode can achieve fast heating.

多源速热

Multi-source rapid heating target temperature setting: In multi-source rapid heating mode, press or, the temperature will flash and display. At this time, you can set the multi-source rapid heating target temperature. The setting range is: 35y-75y, and the default is 55y.

3. Bathing reservation function

预约洗浴

In the power-on state, click the button to adjust to the scheduled bathing function. The icon lights up, and the light and heat energy saving and scheduled bathing functions are executed at the same time. You can make a scheduled bath once a day, and heat to the target temperature before the scheduled bathing setting time; if the heating is not completed when the scheduled bathing setting time arrives, it will continue to heat to the target temperature and stop heating. When the scheduled bathing time and light and heat energy saving time overlap, the set temperature is the higher of the scheduled bathing and light and heat energy saving target temperatures during the light and heat energy saving start and end time. Scheduled bathing target temperature setting: In non-multi-source fast heating mode, turn on the scheduled bathing function, the icon lights up, press or, the temperature flashes, and flashes. At this time, the scheduled bathing target temperature can be set. The setting range is: 35y-75y, the default is 55y. Scheduled bathing time setting: When the icon lights up, press the button, the hour flashes, and press or to set the hour. After the setting is completed, press the button within 6 seconds, the minute flashes, and press or to set the minute; the scheduled bathing time setting range is: 00: 00-23:59, the default is 22: 00.

When the scheduled bathing time is set between 19:00-23:59, the test is performed at 18:00. If the actual temperature is more than 10y lower than the target temperature, the electric heating is started to assist heating to the target temperature. When the temperature drops, the condition for the compressor to heat again is: the actual temperature y50y. The condition for the electric heating to start again is: if the target temperature is greater than 60y, it will drop by 10y and heat again; if the target temperature is y60y, it will drop by 5y and heat again, and so on until the appointment ends.

4. Winter insulation function

节能保温

Turn on the winter heat preservation function. At 18:00 every day, if the actual temperature is less than the set temperature, the electric heating tube will be immediately started to heat to the target temperature, and then keep warm according to the set hysteresis until 23:59. Winter heat preservation target temperature setting: In non-multi-source fast heating mode, turn on the winter heat preservation function, the icon lights up, press or, the icon flashes and the temperature flashes. At this time, the winter heat preservation target temperature can be set. The setting range is: 35y-75y, and the default is 55y.

5. Constant temperature insulation function

功能保温

In the power-on state, click the button to adjust to the fixed temperature insulation function. The icon lights up and the water tank temperature will be fixed at the set temperature. During the start and end time of the solar thermal energy saving, the set temperature is the higher of the fixed temperature insulation and the target temperature of the solar thermal energy saving; outside the start and end time of the solar thermal energy saving, the set temperature is the target temperature of the fixed temperature insulation. Fixed temperature insulation target temperature setting: In non-multi-source rapid heating mode, turn on the fixed temperature insulation function. The icon lights up, press or, the temperature flashes, and the flashing display shows that the fixed temperature insulation target temperature can be set at this time. The setting range is: 35y-75y, the default is 40y. When the set temperature is y55y, the compressor heating will be started again when the actual temperature drops by 5y.

When the set temperature is greater than 55°C, the actual temperature drops to 50°C, and the compressor is started again for heating. When the actual temperature is y55°C, the compressor is stopped and the electric heating tube is started for heating.

6. Healthy antibacterial function

健康抑菌

When the machine is powered on, press the button to adjust to the healthy antibacterial function. The icon lights up, the compressor and electric heating tube are started, heated to 80°C, and the healthy antibacterial function is automatically exited. During the healthy antibacterial function, if any other key is pressed, a fault occurs, the machine is shut down, or the power is off, the healthy antibacterial function is automatically exited.

预约洗浴

Setting time setting: In power-off state, press the button and the hour will flash. Press or to set the hour. After setting, press the button within 6 seconds and the minute will flash. Press or to set the minute. Beijing time setting range: 00: 00-23: 59, default 00: 00.

Note: The refrigerant of this model is R22, and the maximum heating temperature of the compressor is 55y. When the target temperature is set higher than 55y, the compressor stops heating when the actual temperature is y55y, and starts electric heating for heating.

When the target temperature is reached, the heating stops.

3.3.4. Control function leakage

protection

The control system of this machine has leakage protection function.

Automatic defrost function

When the temperature is low, the evaporator will frost and the machine will automatically defrost according to the operating conditions.

Protection against failure to meet operating conditions

If the ambient temperature or water tank temperature exceeds the operating temperature range of the heat pump (the operating ambient temperature of this heat pump water heater is -9~44), the electric-assisted model heat pump will switch to electric heating.

Antifreeze function

When the ambient temperature is too low, the antifreeze function will automatically turn on (the unit needs to be powered on at this time), the water heater will start heating, and it will stop when the water temperature in the water tank rises to 15°C.

Refrigerant recovery

Use this function to return the refrigerant to the water tank during maintenance or relocation.

Frost protection function

The system has a frost protection function. When the frost is severe, the compressor will automatically shut down and automatically restart after a maximum shutdown time of 8 minutes.

Automatic start function of electric heating tube

If the compressor runs too long due to weather reasons, the electric heating tube will automatically start heating to the set temperature and then stop.

3 minutes protection

If you restart the unit immediately after shutdown, it is normal that the unit must wait for 3 minutes before starting.

4. After-sales service

4.1. User Notice

4.1.1. User Notice

Name and content of harmful substances in the product						
Part Name	Hazardous substances					
	Lead (Pb)	Mercury (Hg)	Cadmium	Hazardous Chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Housing and its components	•	•	•	•	•	•
Liner and its components	•	•	•	•	•	•
Heating tube and its assembly Isocore	•	•	•	•	•	•
Insulation Materials	•	•	•	•	•	•
Compressor and its accessories Item	•	•	•	•	•	•
refrigerant	•	•	•	•	•	•
Motor	x	•	•	•	•	•
Heat Exchanger	x	•	•	•	•	•
Pipe fittings	x	•	•	•	•	•
Water Pump	•	•	•	•	•	•
Valves	x	•	•	•	•	•
Screws, bolts, etc. fastener	•	•	•	•	•	•
Terminal Blocks	•	•	•	•	•	•
Electrical Devices	x	•	•	•	•	•
Pressure switch	x	•	•	•	•	•
Sound insulation materials	•	•	•	•	•	•
Foam	•	•	•	•	•	•
Plastic parts	•	•	•	•	•	•
Rubber parts	•	•	•	•	•	•
Power cord and connections Wire	x	•	•	•	•	•
Packaging printing	•	•	•	•	•	•
Control panel and display Device	x	•	x	•	•	•
Thermostat	•	•	x	•	•	•
<p>This form is prepared in accordance with the provisions of SJ/T 11364</p> <p>• Indicates that the content of the substance in all homogeneous materials of the component is below the limit specified in GB/T 26572. x: Indicates that the harmful substance is present in at least</p> <p>The content of a certain homogeneous material in the component exceeds the limit requirement specified in GB/T26572.</p> <p>*The components in the detailed list are a summary of the main components included in different models of products. Whether this product contains the component is subject to the actual configuration of the product.</p> <p>*Other components and homogeneous materials contained in this product that are not listed in the detailed table do not contain any hazardous substances.</p> <p>*All components and homogeneous materials containing hazardous substances in the detailed list comply with the strict requirements of EU RoHS on the restriction of the use of hazardous substances. Please feel free to use them.</p> <p>Tips: To protect the environment, after this product or its components are scrapped, you as a consumer are responsible for separating them from household waste and sending them to a qualified recycling station.</p> <p>The recycling station will classify, disassemble, recycle and reuse the product in accordance with relevant national regulations. For detailed information on the recycling of this product, please consult</p> <p>Consult local government, waste disposal agencies, etc.</p>						

4.2. Troubleshooting

4.2.1. Troubleshooting

Fault category	Action conditions	Fault Codes	Release
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Leakage alarm	If the line fails, the system automatically cuts off the power source	E1	Automatic recovery after fault elimination
Over temperature alarm	The water tank temperature sensor is greater than the limit value	E2	
The temperature sensor in the tank fails when the sensor is short-circuited or open-circuited.		E3	
Ambient temperature sensor failure When the sensor is short or open circuit		E4	
Evaporation temperature sensor failure When the sensor is short or open circuit		E5	
Suction air temperature sensor failure When the sensor is short or open circuit		Ed	
Exhaust temperature sensor failure When the sensor is short or open circuit		E6	
The collector board temperature sensor fails when the sensor is short-circuited or open-circuited.		Eb	
Communication failure	Communication failure	E7	Restart the power or switch the machine on and off to release
Pressure switch protection	Exhaust pressure switch action	E8	
Ambient temperature protection	The ambient temperature exceeds the heat pump operating temperature scope	E9	Automatic recovery after fault elimination
Memory chip failure	EEPROM Failure	YES	
Wi-Fi communication failure	Wi-Fi troubles	F0	Restart the power or switch the machine on and off to release
Press protection	Compressor operating ambient temperature protection	F2	Restart the power or switch the machine on and off to release
	Exhaust temperature protection	F3	
	Evaporator temperature protection	F5	
	Compressor overcurrent protection	F6	
	Refrigerant shortage protection	F7	
	Press shutdown protection	FE	

#### 4.3. Cleaning and maintenance

##### 4.3.1. Water tank cleaning and maintenance

- Turn off the machine and turn off the power switch.
- Do not touch with wet hands.
- Do not clean with hot water or solvents.

##### Safety valve maintenance

The safety valve handle should be turned at least once a month. If water flows out, it indicates that the safety valve is working properly. If no water flows out, please contact after-sales service.

##### Inner tank drainage

Cut off the power supply, close the water inlet valve, open the safety valve to discharge the pressure, and when there is no turbulent water flow, close all the water outlet valves, remove the safety valve and connect the drain pipe to the water inlet (the other end of the drain pipe is placed on the At the sewer outlet), open any water outlet valve to drain the sewage. When clear water comes out of the drain pipe, it means that the sewage in the tank has been drained. Put all the parts back in place.

Note: During the drainage process, it is recommended to connect the water inlet pipe to the water outlet of the water tank, and then open the water inlet valve to flush the dirt at the bottom of the inner tank.

##### Tank emptying

When moving the water heater or not using it for a long time, please empty the water tank according to the above method of draining the inner tank.

##### Anode rod replacement

The protective anode configured in the water tank can greatly extend the product life. At the same time, it is necessary to regularly check the consumption of the anode rod according to the difference in water quality so as to replace it in time. For specific update operations, please consult

After-sales service personnel.

##### Heat exchanger cleaning

Depending on the operating environment and dust accumulation on the heat exchanger, special maintenance personnel can be asked to use special tools to remove dust and clean the heat exchanger.

##### 4.3.2. Common phenomena

##### Safety valve water leakage phenomenon

During the heating process of the water heater, a small amount of water will flow out from the pressure relief hole due to the expansion of the water in the water tank due to heat. This is a normal phenomenon, which is used to reduce the water pressure in the water tank.

The tap water pressure is too high or the safety valve is faulty. Please contact a professional maintenance person.

##### Water heater does not start

(1) After the water heater stops running, it will take 3 minutes to restart because the system has a self-protection function.

(2) When the ambient temperature or water tank temperature exceeds the operating temperature range of the heat pump, the machine without electric auxiliary heating will not start, and the electric heating tube of the machine with electric auxiliary heating will start.

(3) The water heater is not powered.

Slow water temperature rise

- (1) Low ambient temperature. If the ambient temperature is low, the heat absorption capacity of the air-to-energy heat pump water heater will decrease and the water temperature will rise more slowly, which is a normal phenomenon.
- (2) If the user uses hot water continuously during the heating process of the water heater, the water temperature will rise slowly. If the user does not use hot water and the heating time exceeds 12 hours and the set temperature has not been reached, please call the service center in time.
- (3) When a machine with a self-cleaning function is executing the self-cleaning function, the water temperature will rise slowly for a short period of time.

4.4. Warranty Description4.4.1 .

Warranty Description

For products that have exceeded the warranty period, after-sales service personnel will provide paid services at your doorstep. The paid fees (over-warranty charges) include maintenance labor costs and parts costs. All user charges are subject to unified charging standards, and the service personnel will issue invoices, otherwise the payment may be refused. Please save the barcode on the machine. The maintenance personnel must scan the barcode as a maintenance voucher every time they provide door-to-door service to ensure the establishment of an accurate maintenance file. Dear Haier users:

Thank you for choosing and using Haier heat pump water heater.

Haier products are of high quality and excellent performance. For your convenience, please read the instructions carefully and follow the steps in the instructions. Keep the instructions properly after reading. Haier's "star service" will accompany you from beginning to end. No matter what problems you have during use, please contact us by the phone number and address in the instructions. We are always ready to serve you.

The future is NOW!

Thank you again for choosing to use Haier products. Due to product improvements, the Haier heat pump water heater you get may not be completely consistent with the illustrations in the manual. We apologize for this. Dear users: Thank you for using Haier products.

Our company will provide

you with quality services in accordance with the relevant provisions of the Consumer Protection Law of the People's Republic of China:

You can enjoy the following services provided by our company with the original valid purchase invoice of this machine provided by a regular shopping mall:

- (1) The whole machine is under warranty for 6 years. During the warranty period, any performance failure will be repaired free of charge.
- (2) If the inner tank leaks, replace the water tank spare parts within the warranty period. The replaced water tank spare parts will enjoy the remaining duration of the original warranty period. The warranty period will be calculated based on the purchase date of the invoice. If the warranty period is exceeded, the national three guarantees regulations will be implemented.

(3) Household water heaters cannot be used for commercial purposes. Otherwise, the warranty period for the whole machine and major accessories is 3 months, unless otherwise stipulated in the purchase and sales contract.

The following situations are not within the scope of free warranty service, and our company can provide you with paid product services:

- (1) If the product exceeds the warranty period stipulated by our company, it can still be used after being repaired;
- (2) Damage due to improper transportation or storage by the user, or failure to operate in accordance with the instructions;
- (3) Products that have been dismantled without our company's permission or repaired by a non-warranty service center;
- (4) Products that cannot produce a valid purchase invoice from a regular shopping mall or have had their invoice altered;

If a product that has exceeded the national service life has a performance failure, our company will no longer provide related repair services. Please refer to the relevant national regulations or policies on the scrapping of used household appliances to update the product.

Replacement, the old machine should be scrapped and no longer sold on the market. Dear user: Thank

you for choosing and using

our products. We promise: When your product needs installation or maintenance services, we will provide:

"1+5" service package:

1: Good service once.

5: Five value-added services:

- (1) Safety electrical measurement service: Provide you with safety electrical measurement and reminder and explanation services;
- (2) Explanation and guidance service: Explain the usage and maintenance of the product to you and guide users to use the service correctly;
- (3) One-stop inspection service: provide good service for this product and provide inspection service for other products of the company at home;
- (4) Worry-free service throughout the entire process: We provide you with design, delivery, installation, cleaning, extended warranty, trade-in and other services;
- (5) On-site cleaning service: The service site will be cleaned up after the service is completed.

To show our sincerity and consideration, we kindly remind you:

During the product installation service, due to different installation environments and individual needs of users, if additional materials are required during the installation process or there are special service items that require payment of materials and other fees, you can check and supervise through the "Haier Smart Home" APP-"Smart Home Service"- "Charge Standard". If the charge is not in accordance with the standard or the service specifications are not implemented in place, please call the service supervision phone 4006 999 999, or contact us through

Supervise and evaluate through "Haier Smart Home" APP - "Smart Home Service" - "Online Customer Service".

If your product has service needs, welcome to experience Haier Smart Home Self-service Zone (appointment service, one-click installation, one-click repair):

Search and install the "Haier Smart Home" app on your mobile phone. You can choose installation, maintenance and other services through the "Smart Home Service" section.

If you need to purchase more products, please go to the "Haier Smart Home" APP-"Mall" to purchase. (More convenient, faster and more cost-effective)

Looking forward to your participation!