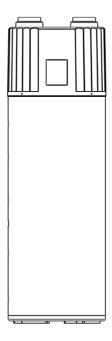
All in one type heat pump water heater Installation and user's manual



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



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

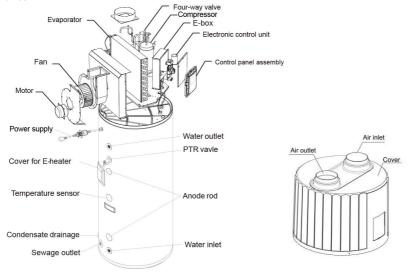


If you cannot confirm that your house power supply is earthed well, please do not install the unit before carefully check it.

Please have a qualified person to check the reliable earthing connection and install the unit.

 $\label{prop:company} Examples of a qualified person include: Licensed plumbers, Authorized electric company personnel, and Authorized service personnel.$

Part names:



Pages
02
03
06
11
12
13
15
17
18

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.

CAUTION	It maybe cause that people is injured if not obey the instructions.
WARNING	It maybe cause that people is seriously injured or killed if not obey the instructions.
DANGER	It maybe cause that people is seriously injured or killed immediately if not obey the instructions.



WARNING

- The unit must be earthed effectively and reliably.
- A residual current operated circuit-breaker R(CCB)must be installed adjacent to the power supply.
- Donotremove, 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
- notinsertfingers,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.

A CAUTIONS



Very hot water.
Burns or injury may occur.

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.
- Donotturn 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° to move. When install the unit, please keep the unit vertical.



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
Heat pump water heater	1
Installation &user manual	1
Relief valve(0.8MPa)	1

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 airflow 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 air temperature must also be considered when installing this unit, in heat pump mode the ambient air temperature must be above 7-Cand 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 and the heat pump does not operate.

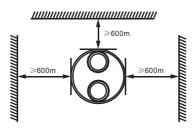
- The unit should be located in an area not subject to freezing temperatures. The unit located in unconditioned space (garages, basements, etc.) may require the water piping condensate piping, and drain piping to be insulated to shelter against freezing.
- When installing the unit in the following places, 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 unit.
 - · 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.
 - Placewhere 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.

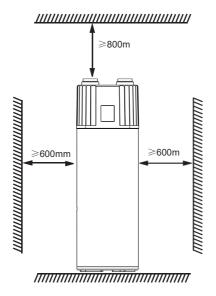


WARNING

- 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

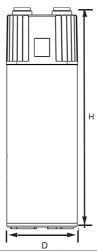




If the unit is installed in an enclosed space:

The heat pump unit must be placed in a space which is more than 15m³, 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.

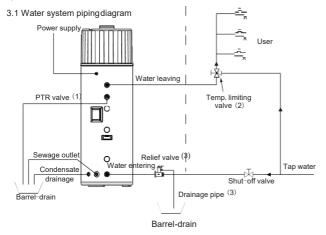
2.5 Unit dimension



	NE-F20HWR2-200L	NE-F25HWR2-250L	NE-F25HWR2-300L
Diameter D(mm)	570	640	640
High H(mm)	1800	1802	2020

3. Installations

The circulating air flow of every unit should be more than $450 \, \text{m}^3\text{/h}$. Please make sure that there is enough installation space.



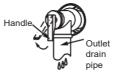
Notes:

- 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 assess must be connected.Drainage pipe connected with the relief valve should be connected with atmosphere.



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





WARNING

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.

The specifications of water inlet and outlet pipes as following:

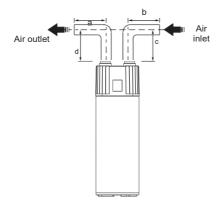
- Internal thread D(N15).
- Pipes must be heat-insulated well.
- Installation of the pipe of PTR valve's thread is RC3/4" (external thread). When finish the installation, it must be confirmed that the outlet drain pipe of the PTR valve is exposed in the air.
- The relief valve is necessary. It can prevent the supplied water from flowing backwards.

- 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, are ducing 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:

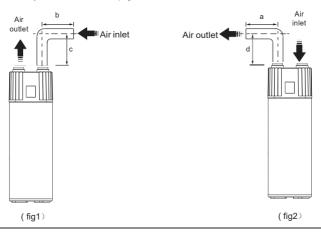


3.2 Connection of duct

When the ducts of both air inlet and outlet.a+ b+ c+ d≤10m.



- When the duct only air inlet,b+ c≤10m.(fig1)
- When the duct only air outlet,a+ d≤10m.(fig2)



The duct specifications:

Duct type		Round duct	Rectangle duct
Dimensions		Ф177mm	177mmx77mm
D	Straight	≤2Pa/m	≤2Pa/m
Pressure drop	Bent	≤2Pa/m	≤2Pa/m
Bent quantity		≤3	≤3

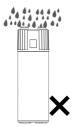
NOTES

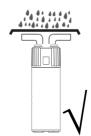
- When the air duct is connected, the unit capacity will be decreased because of the decreased air flow by the resistance of theduct.
- If the duct is connected, the duct total length should be not more than 10m, or the maximums static pressure should be within 25Pa. By the way, the quantity of bending 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

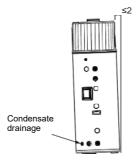
- Please avoid the water entering to the internal of the unit because the water will cause the component inside the unit damage or physical danger.
- If the unit is connected with duct which is reaching to outdoor, it is necessary to supply a reliable water-resistant measure on the unit to prevent water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





3.3 Condensate water drainage

To smoothly drain the condensate water, please install the unit at a horizontal floor. At the same time, please ensure the drainage joint is at the lowest level. Recommending the inclination angle of the unit to the ground should be no more than 2°

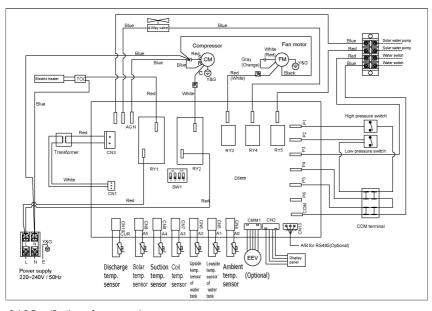




CAUTION

- 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



3.4.2 Specifications of powersupply

Power supply	220-240V~, 1Ph,50Hz
Min.diameter of power supply cord	2.5mm2
Earth cord	2.5mm2
Manual switch capacity Fuse	40A 3/0A
Creepage 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 creepage breaker near the power supply and must be effectively earthed.

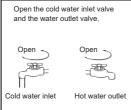
3.5 Installat	ion checking
3.5.1 Lo	cation checking
00 00	The flooring beneath the water heater must be able to support the weight of the unit when filled with water. Located indoors (such as a basement or garage) and in a vertical position. Sheltered from the freezing temperatures. Provisions made to 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^3 , and must have unrestricted air flow.
A	NOTES
	l efficiency and service ability,the following clearances should be maintained:800mm on the air inlet side , the air outlet side,600mm 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 ambientair temperature must be above -7°C and below 43°C. If the ambientair temperature falls outside these upper and lower limits the electrical elements will be activated to meet the hot water demand.
3.5.2 Ch	ecking of the water system piping
	PTR valve (Temperature and pressure relief valve) properly installed with a discharge piper unto 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 Ch	ecking 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 Ch	necking 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.
	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

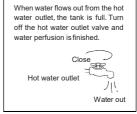
4.1 Water perfusion beforeoperation

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.







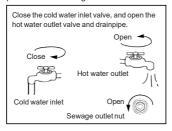


CAUTION

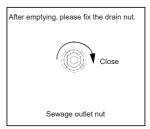
- Operation without water in water tank may result in the damage of the boost E-heater (electric heater). Due to such damage, manufacturer will not be responsible for any damages caused by this issue.
- After powered on, the display lights up. Users can operate the unit through the buttons under the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

4.2 Water emptying beforecleaning

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 commisioning:

- 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. Unit parameters

Model:NE-F	20HWR2-200L	25HWR2-250L	25HWR2-300L	
*Test Condition:Ambient Temperature: (DB/WB) 20°C / 15°C; Water Temperature from 15°C to 55°C				
Rated Heating Capacity (kW)	1.80	2.42	2.42	
Rated input power (kW)	0.47	0.62	0.62	
COP	3.83	3.88	3.88	
Hot Water Volume (L/h)	39.00	52.00	52.00	
Operation Range (℃)		-7~45		
Rated Outlet Water Temp. (°C)		55		
Max.Outlet Water Temp. (℃)	70			
Max. Power Input (kW)	2.69	2.93	2.93	
Max. Running Current (A)	12.20	13.40	13.40	
Power Supply (V/Ph/Hz)		220-240V~/50Hz		
Electric Heating (kw)	2	2	2	
Water Connection	G1/2"(female)	G3/4"(female)	G3/4"(female)	
Noise (dB(A))	≤52	≤53	≤53	
Refrigerant	R134a			
Water Tank Volume (L)	200	250	300	
Water Proof Level	IPX1	IPX1	IPX1	
Net weight (kg)	98	117	132	
Net Dimensions(L/W/H) (mm)	Ф570×1800	Ф640×1802	Ф640×2020	

6. Operation

6.1 Controller panel explanation



6.2 Explanation of icons

Sign	Name	Sign	Name
ERROR	ERROR sign		BATH sign
ON	STANDBY TIMING key	ૠ	CYCLIC VENTILATION sign
•	LOCK sign		ELECTRIC HEATER sign
*	DEFROSTING sign	**	HEATING sign

6.3 Explanation of buttons

After the unit is powered on, the display screen will display all the icons for 3 seconds, and it will be display the regular interface automatically.

Icons	Name	
SET	SETTING	
TIMER	TIME	
MODE	ELECTRIC HEATER	

Icons	Name	
U ₁ on off	ON/OFF	
+	UP	
	DOWN	

6.4 Operation guidance table

NO.	Item	Operation Method
1	Unlock	Touch both the UP key and the DOWN key for 5s to unlock.when unlocking, the LOCK sign is off.when locking, the LOCK sign is on.
2	ON/OFF	Long press the ON/OFF key for 3 seconds, the unit will turn off if the panel is on and turn on if the panel is off.
3	Check Operation Parameters	The main interface displays the outlet water temperature by default, touch SETTING key, then touch the UP key and DOWN key to check each parameter. Short press the ON/OFF key or no operation in 10s, exit the query state.
4	Manual Defrost	Touch the SETTING key and STANDBY TIMING key for 5s to enter forced manual defrost mode.
5	Temperature Adjustment	Touch the UP key and DOWN key to adjust the temperature.
6	Time Adjustment	Touch the TIME key, hour flashes, touch the UP key and DOWN key to change the hour, touch the TIME key again, minute flashes, touch the UP key and DOWN key to change the minute. Touch the TIME key again to save the change and exit the clock setting.
7	Timing Adjustment	Touch the TIME key 5s, hour of Period 1 start flashes, touch the UP key and DOWN key to modify hours. Touch the TIME key again, minute flashes, touch the UP key and DOWN key to modify minutes. Continue to touch the TIME key to enter the time setting of Period 1 end, the operation is the same . Period 2 and period 3 are set in the same way . If the start and end time settings of the time period are the same, the time period is deemed to be canceled . In the setting state, press the "SETTING" key to cancel the timer.
8	Manual Turn On Electric Heater	In the state of power on or off, press the ELECTRIC HEATER key to enter or exit manual electric heating. When manual electric heater is on, the electric heater symbol lamp will be on.
9	Ventilation Mode	Long press the ELECTRIC HEATER key to enter and exit the ventilation mode.
10	Restore Defaults	In the shutdown state, long press the ELECTRIC HEATER key and SETTING key to restore factory setting parameters.
11	WiFi Connection	Mode 1: When power is on, press and hold the TIME key and UP key at the same time for 5 seconds to enter enter the distribution network, the " icon at the upper right corner will flash rapidly, about 3 times in 1 second, the icon will not be displayed after successful pairing. Mode 2: Press and hold "ON/OFF" + "DOWN" +"TIME" key at the same time for 5 seconds, the " icon flashes when entering AP pairing mode, the phone can start pairing. If the pairing is not successful or has not been paired, after 3 minutes, the icon will not be displayed and exit the pairing state. At this time, the " icon stops flashing, the WIFI module is no longer paired, if you want to be paired again, you need to reconfigure it according to the method of pairing.

6.5 Operation parameter table

NO.	State Name	Name	Display Range	Reservations
Α	Water tank inlet temp.	°C	-9~99℃	Error code P1
В	Water tank outlet temp.	°C	-9~99℃	Error code P2
С	Coil temp.	°C	-9~99℃	Error code P3
D	Suction temp.	°C	-9~99℃	Error code P4
Е	Ambient temp.	°C	-9~99℃	Error code P5
F	EEV opening	°C	10~48	N*10
Н	Solar water tank temp.	°C	0~125(C7)°C	Error code P6
- 1	Exhaust temp.	°C	0~125(C7)°C	Error code P7

7. Troubleshooting

7.1 Non-error tips

- Q: Why compressor cannot start immediately after setting?
- A: Unit will wait for 3 minutes to balance the pressure of the refrigerant system before starting compressor again. It is a self protection logic of the unit.
- Q: Why sometimes the temperature shown on the display decreased while unit is running?
- A: When the temperature of layer water inside the tank is much higher than the bottom part,upper hot water will be mixed by the bottom cold water which is continually flow from the inlet tap water so that will decrease the water temperature of upper part.
- Q: Why sometimes the temperature shown on the display decreased but the unit still keeps off?
- A: To avoid the unit turning on/offfrequently, the unit will activate heat pump only when the water temperature in the bottom of the tank is lower than the setting temperature.
- Q: Why sometimes the unit shows 'PA' on the display?
- A: The heat pump available running ambient temperature is from -7°C to 43°C. If the ambient temperature range is out of this range, the unit will show the PA to let user notice it.
- Q: Why sometimes there is some water flowed from drainage pipe of PTR valve? W(hen the unit with PTR valve)
- A: Because the water tank is pressure-bearable one, when water is heated inside the tank, water will expand, so the pressure inside the tank will increase. If the pressure goes up more than 1.0MPa, PTR valve will activate to relief the pressure and hot water drop will be discharged correspondingly. If water drop is continually discharged from PTR valve drainage pipe, it is abnormal, please contact qualified stuff to repair.

7.2 Something about self-protection of unit

- When the self-protection happens, the unit will be stopped and start self-check, and restart when the protection resolved
- In the following circumstance, self-protection may happen:

Air inlet or outlet is blocked;

The coil is covered with too much dust;

Incorrect power supply (Exceeding the range of 220-240V).

7.3 Error phenomenon

Error phenomenon	Possible reason	Solution
Cold water tapped	Bad connection between power supply plug and socket.	Plug in again.
out and display screen	Setting water temperature is too low.	Set the water temperature higher.
extinguished	Temperature sensor or PCB is broken.	Contact service center.

	No hot water tapped out	Public water supply is ceased.	Wait for water supply recover.
		Cold water inlet pressure is too low. (less than 0.15MPa)	Waitforinletwaterpressure increase.
		Cold water inlet valve is closed.	Open the water inlet valve.
	Water leakage	Hydraulicpipelinejointsarenot sealed well.	Check and reseal all joints.

7.4 Error code and trouble shooting table

Code	Description	Corrective action	
	Lower water temperature sensor	Maybe:the connection is not well.	
P01		Maybe:the sensor is broken.	
	error	Maybe:the PCB is broken.	
	Upper water temperature sensor error	Maybe:the connection is not well.	
P02		Maybe:the sensor is broken.	
		Maybe:the PCB is broken.	
	Coil temperature sensor error	Maybe:the connection is not well.	
P03		Maybe:the sensor is broken.	
		Maybe:the PCB is broken.	
	Suction temperature sensor error	Maybe:the connection is not well.	
P04		Maybe:the sensor is broken.	
		Maybe:the PCB is broken.	
	Outdoor ambient	Maybe:the connection is not well.	
P05	Outdoor ambient temperature sensor error	Maybe:the sensor is broken.	
		Maybe:the PCB is broken.	
P06	Anti-freezing protection	This protection is normal. The unit which is under standby state will trigger this protection when the water tank sensor detects the water temperature is lower than 5°C.	
	Discharge temperature sensor error	Maybe:the connection is not well.	
P07		Maybe:the sensor is broken.	
		Maybe:the PCB is broken.	
	High pressure protection	Maybe:the high pressure switch connection is not well	
		Maybe:the pressure switch is broken.	
E01		Maybe:the refrigerant system is block.	
		Maybe:the refrigerant is too much.	
		Maybe:the PCB is broken.	
	Low pressure protection	Maybe:the low pressure switch connection is not well.	
		Maybe:the pressure switch is broken.	
E02		Maybe:the refrigerant system is block.	
<u>=</u> 02		Maybe:leakage in the refrigerant system.	
		Maybe:the refrigerant is not enough.	
		Maybe:the PCB is broken.	

NOTE

- The diagnostic codes listed above are the most common. If a diagnostic code not listed above is displayed, please
 contact residential technical assistance.
- If any of E01/E02/E04 continuously appear 3 times within 30 minutes, the unit will consider it as heat pump system error, and the unit will stop running. The unit will run until the power supply is reset.

8. Maintenance

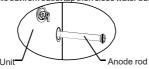
8.1 Maintenance

- Check the connection between power supply plug, socket and ground wiring regularly.
- In some cold area b(bw0℃), 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 watertap, 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 maintenancetable

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 hander of the PTR valve to ensure that water can be flowed out.
		If water does not flow freely when operating the hander, replace PTR valve with a new one.	

9. Wi-Fi Function

- 9.1 Software installation
- ① Method 1: Search "Smart life" in your APP store ,install " .Click "GET" to install.



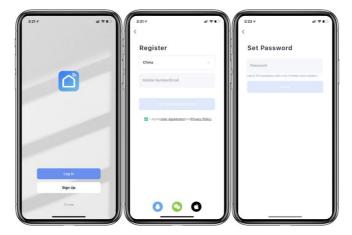
② Method 2: Scan the QR code below.



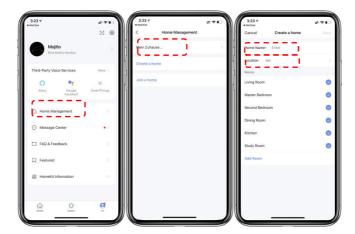
- 9.2 Software registration and configuration
- 9.2.1 Registration

①Users don't have account can click "Register" to create an account: Register Enter your phone number

Get Verification Code Enter Verification Code Set Password;

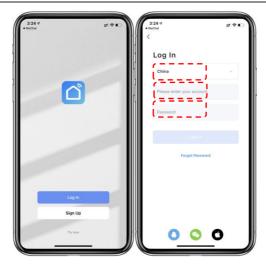


②After registration, you need to Create a Home: Create a Home Set Home Name Set Home Location Add Rooms.

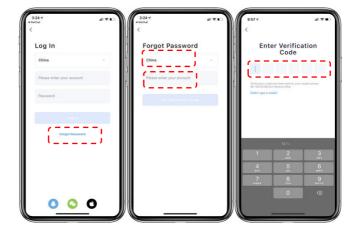


9.2.2 Account id+ password login

(i) Existing accounts can be logged in directly, in the following order.



②If you forget your password you can choose to login with your verification code and select "Forget Password": Enter your phone number Get verification code .



③After creating a home or logged in,enter the main interface of APP.



Note:

Click "+" or "Add Device" to add devices.

Click the device to check the status, and you can set the operating mode, ON/OFF, timer.

9.2.3 Wi-Fi module configuration steps

Method 1

Step 1:

EZ Mode: When power is on, press and hold the TIME key and UP key at the same time for 5 seconds to enter enter the distribution network, the " icon at the upper right corner will flash rapidly, about 3 times in 1 second, the icon will not be displayed after successful pairing.

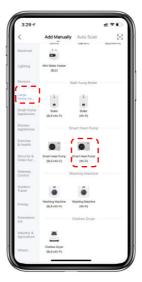
Step 2:

Turn on the phone's Wi-Fi function and connect to the Wi-Fi hot-spot. The Wi-Fi hot-spot must be able to connect to the Internet normally;



Step 3:

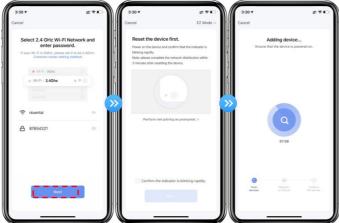
Open the "smart life" APP, log in into the main interface, click on the top right corner "+" or "add equipment" of the interface, enter the equipment type selection, the "Large Home Appliances", select "Smart Heat Pump" equipment and add equipment into the interface.



Step 4:

After selecting "Smart Heat Pump", enter the interface of "Add Equipment", and confirm that the wire controller has selected the EZ mode. After the indicator light under flashes rapidly, click" Confirm indicator rapidly blink ".

Enter the Wi-Fi connection interface, enter the Wi-Fi password of the mobile phone (it must be the same as the Wi-Fi of the mobile phone), click "Next", and then directly enter the connected status of the device.



Step 5:

When "Scan devices", "Register on Cloud", "Initialize the device" are all completed, connect succeeds.



Method 2 Step 1

AP Mode: Press and hold "ON/OFF" + "DOWN" + "TIME" key at the same time for 5 seconds, the " icon flashes when entering AP pairing mode, the phone can start pairing.

Step 2&3

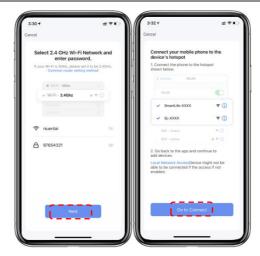
Same with EZ Mode above.

Step 4

After entering the add device interface, click "EZ Mode" in the upper right corner; Enter the AP mode to add the device interface, confirm that the AP mode has been selected, and click"Confirm indicator slowly blink".



The interface of Wi-Fi connection will pop up, enter the Wi-Fi password of the mobile phone (it must be the same as the Wi-Fi of the mobile phone), click "Next", "Connect your mobile phone to the device's hot spot" will pop up, and click "Go to Connect";



Enter the mobile phone Wi-Fi connection interface, find the "Smart Life_XXXX" connection, and the APP will automatically enter the device connection status.



Step 5: Same as EZ mode above.

Note: If the connection is failed, please enter the AP mode manually and reconnect according to the above steps.

9.2.4 Software function operation

- After the device is bound successfully, enter the operation interface of "Smart heat pump" (Device name, modifiable)
- In the main interface of "Smart Life", click "Smart heat pump" to enter the operation interface.



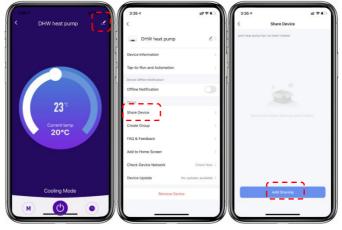
- After the device is bound successfully, enter the operation interface of "Smart heat pump" (Device name, modifiable)
- In the main interface of "Smart Life", click "Smart heat pump" to enter the operation interface.
- ①Back
- ②More: You can change device name, select device installation location, check networking status, add shared users, create device cluster, view device information, and more.
- 3Adjust the setting temp.
- Target temp.
- ⑤Current temp.
- ⑥Mode setting (Enabled for models have multiple modes)
- ⑦ON/OFF
- ®Time setting

Modify device name

Click in the following order to enter device details, and click "Device Name" to rename the device.



- Device sharing
- To share a bound device, the user should do so in the following order.
- After successful sharing, the list will be added to show the person shared If you want to delete the account you shared to, cross the selected account to the left,and delete it.
- The user interface is as follows.



• Enter the account of the shared, click "Done", and the share success list shows the newly added account of the Shared.



♦ The interface of the person to be shared is as follows. The received shared device is displayed. Click it to operate and control the device.



9.2.5 Device Removal

♦ By wire controller

Long press (1) + + for 3s to enter EZ mode, it returns to connection state and flashes rapidly again.

Long press 1 + $\boxed{}$ for 3s to enter AP mode, it returns to connection state and $\ref{3}$ flashes slowly again.

◆ By APP

Click "Z" on the top right corner of the main interface to enter the device details interface, and click "device removal" to enter EZ mode. The network can be reconfigured within 3 minutes, it will exit if no connection operation in 3 min. The specific operations are shown as follows.

