



# EVO MAX 100 MANUAL



## Installation & Operation

**Read this manual carefully before  
installing or operating this unit**

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## 1. Preface

This manual includes all the necessary information in regard to installation, debugging, discharging and maintenance of your unit. Ensure the contents of this manual are read carefully before the unit is opened or maintained.

Read these operation and installation instructions carefully. Positioning, installation and commissioning must be carried out by trained personnel working in accordance with these instructions.

If the heat pump is to be installed at a later time, keep it free from damage, rust and abrasion by using the following methods:

- All access points such as water connections must be sealed correctly
- The unit must be free from sun exposure, and kept in temperatures of under 45°
- Ensure a dust build up does not occur on the unit to avoid dirt reaching the evaporator

It is vital that all instructions are adhered to at all times to keep the warranty. The unit can only be installed or repaired by a qualified installer and authorised dealer. Maintenance and operation should be carried out according to the recommended frequency. Only genuine standard spare parts must be used.

The Evo Max unit is the best solution for commercial hot water that offers a higher C.O.P than traditional boilers. Using cutting edge technology, green refrigerants, high efficiency heat exchanger and a circulating heating method, the EVO Max can help end users SAVE MORE THAN 66% on their annual hot water operating costs - WHILE DELIVERING UP TO 80°C HOT WATER! In reverse, cooling is also available when it is needed. The Evo Max can be used to provide hot water for sanitary uses like kitchens, showers etc.

The Evo Max extracts heat from ambient air and transfers it to water. By circulating the water, the energy is used to warm the house efficiently. Compared with oil boilers, gas boilers, and electrical heaters, the heat pump is the best solution by providing high efficiency, safety, and environmental protection.

ECO FRIENDLY



SAFE TO USE AND LONG UNIT LIFE



HIGHLY EFFICIENT AND MONEY SAVING



EASY OPERATION



## 2. Safety Precautions

To prevent the users and others from being harmed while using this unit, to avoid damage to the unit and for to prevent improper use ensure that the following information is understood.

The piping connection and wiring should be installed according to local legislation and to a professional standard.

Mark	Meaning
 <b>WARNING</b>	A wrong operation may lead to death or heavy injury on people.
 <b>ATTENTION</b>	A wrong operation may lead to harm on people or loss of material.

Icon	Meaning
	Prohibition. What is prohibited will be nearby this icon
	Compulsory implement. The listed action need to be taken.
	<b>ATTENTION</b> (include <b>WARNING</b> ) Please pay attention to what is indicated.

Installation	Meaning
 Professional installer is required.	The heat pump must be installed by qualified personals, to avoid improper installation which can lead to water leakage, electrical shock or fire.
 Earthing is required	Please make sure that the unit and power connection have good earthing, otherwise may cause electrical shock.

Operation	Meaning
 <b>PROHIBITION</b>	DO NOT put fingers or others into the fans and evaporator of the unit, otherwise harm may be occurred.
 Shut off the power	When there is something wrong or strange smell, the power supply need to be shut off to stop the unit. Continue to run may cause electrical short or fire.

Move and repair	Meaning
 <b>Entrust</b>	When the heat pump need to be moved or installed again, please entrust dealer or qualified person to carry it out. Improper installation will lead to water leakage, electrical shock, injury or fire.
 <b>Entrust</b>	When the heat pump need to be repaired, please entrust dealer or qualified person to carry it out. Improper movement or repair on the unit will lead to water leakage, electrical shock, injury or fire.
 <b>Prohibit</b>	It is prohibited to repair the unit by the user himself, otherwise electrical shock or fire may be occur.

Installation	Meaning
 Installation Place	The unit CANNOT be installed near the flammable gas. Once there is any leakage of the gas, fire can be occur.
 Fix the unit	Make sure that the basement of the heat pump is strong enough, to avoid any decline or fall down of the unit
 Need circuit breaker	Make sure that there is circuit breaker for the unit, lack of circuit breaker can lead to electrical shock or fire.

Operation	Meaning
 Check the installation basement	Please check the installation basement in a period (one month), to avoid any decline or damage on the basement, which may hurt people or damage the unit
 Switch off the power	Please switch off the power for clean or maintenance.
 Prohibition	It is prohibited to use copper or iron as fuse. The right fuse must be fixed by electrician for the heat pump.
 Prohibition	It is prohibited to spray the flammable gas to the heat pump, as it may cause fire.

### 3. Specifications

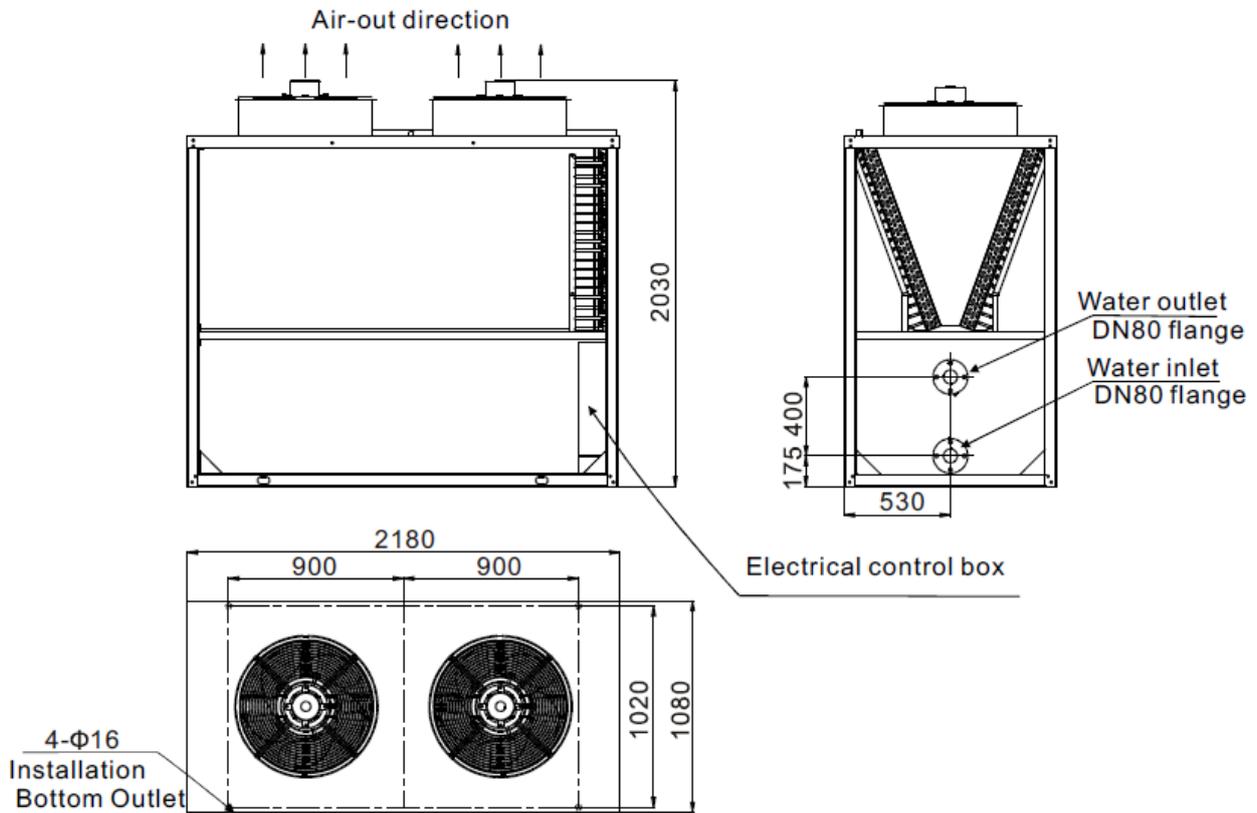
#### 3.1 Specification Data

<b>EVO MAX</b>		<b>EVO MAX 100</b>
Hot Water Condition A20°C/15°C, W15°C to 65°C	Heating Capacity kW	100
	Power Input kW	30
	C.O.P. WW	3.33
	Hot Water L/h	1720
*Hot Water Condition A35°C/-°C, W15°C to 75°C A35°C/-°C, W15°C to 70°C	Heating Capacity kW	127
	Power Input kW	35.3
	C.O.P. WW	3.6
Max. Power Input	kW	41.2
Max. Running Current	A	76.6
Power Supply	V/Ph/Hz	380~400V/3N~/50Hz
Compressor Type	/	Copeland Scroll
Compressor Quantity	/	4
Fan Quantity	/	2
Fan Motor Input	W	2000x2
Circulation Pump		/
Water Flow Volume	m3/h	10
Water Pressure Drop	kPa	15
Suggested Water Temp Differential	°C	5~15
Water Connection	inch	DN80 Flange
Noise	dB(A)	75
Air Discharge Type	/	Vertical
Refrigerant	/	R134a
Operation Range	°C	-7°C~45°C
Condenser	/	Patented tube in shell heat exchanger
Suggested Water Temp Range	°C	55~65
Max. Water Temp	°C	70
Net Weight	kg	1016
Gross Weight	kg	1066
Net Dimensions (L/W/H)	mm	2180/1080/2000
Shipping Dimensions (L/W/H)	mm	2360/1180/2160

Testing condition: Ambient temperature DB/WB 20C/15°C;  
 Outlet water 65°C, inlet water (return) 55°C;



## 3.2 Unit Dimensions

**Evo Max 100**

## 4 Unit Function Description

### **HEATING CAPACITY**

The unit absorbs energy from outside and releases heat according to the heat exchanger, if the outside environment temperature is low, the heating capacity will be reduced.

### **3 MINUTE PROTECTION**

After the unit stops, if you restart the unit or turn on the manual switch then the unit will not run again for 3 minutes. This feature is to protect the compressor.

### **HIGH PRESSURE PROTECTION**

If the outside environmental temperature is too high, the unit will cease running to protect the compressor.

### **DEFROSTING**

Under heating mode, the unit will automatically defrost to make sure the unit maintains heating efficiency (which will last between 2-10 minutes).

### **WORKING CONDITIONS**

The unit uses sophisticated electronic devices, for this reason, do not use untreated water such as lake water, river water and groundwater.

### **POWER OFF**

If the power supply turns off, the unit will cease running. While in use, if the unit is disturbed by lightning or power grid fluctuations please cut off the manual power switch, then power on by pressing the on/off button.

### **LEAKAGE CURRENT PROTECTION**

There is a leakage current action protection which comes with the power supply wire.

### **ELECTRIC HEATING PROTECTION**

If the water temperature reaches 94°C, the electric heating fuse will melt off which cannot be restored.

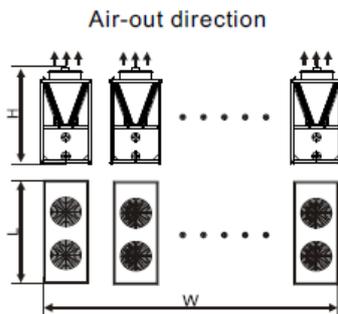


## 5 Installation

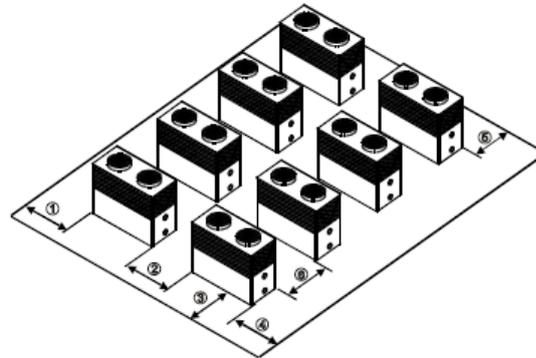
### 5.1 Installation Space

#### Dimensions

Outline Dimensional Drawing - Parallel Units



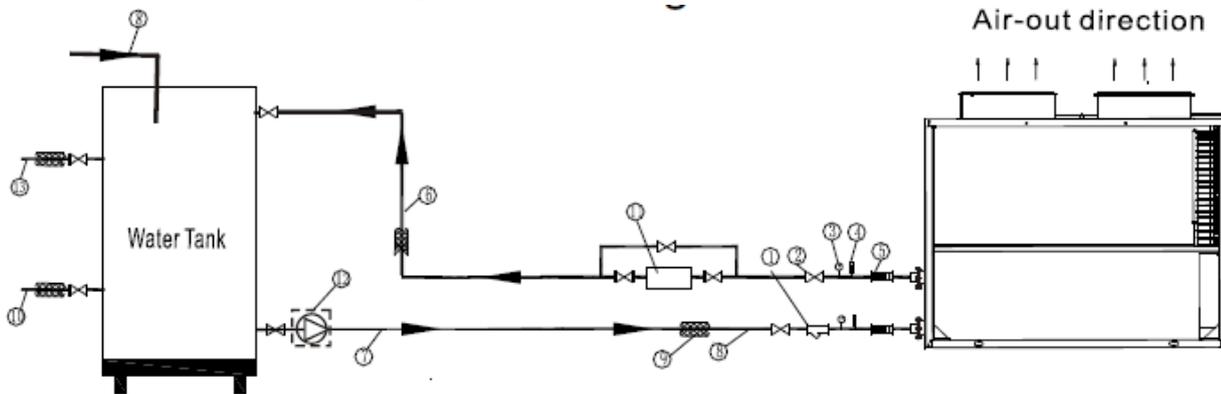
#### Schematic Diagram of Unit Installation Position



Parallel Mode	L(mm)	L(mm)	L(mm)
<b>Double-connected unit</b>	2180	3160	2030
<b>Tripartite-connected</b>	2180	5240	2030
<b>Quadruple-connected</b>	2180	7320	2030
<b>Quintuplicate-connected unit</b>	2180	9400	2030

<b>1</b>	Maintenance space above 1800mm
<b>2</b>	Unit spacing above 1500mm
<b>3</b>	Maintenance space above 1500mm
<b>4</b>	Maintenance space above 1500mm
<b>5</b>	Maintenance space above 1800mm
<b>6</b>	Maintenance space above 1000mm

### 5.2 Installation Schematic Diagram



<b>1</b>	Y-type filter	<b>2</b>	Shut-off valve
<b>3</b>	Thermometer (0-100°C)	<b>4</b>	Pressure gauge (0-1.0MPa)
<b>5</b>	Connecting hose	<b>6</b>	Hot Water Circulating Pipe
<b>7</b>	Hot Water Circulating Pipe	<b>8</b>	Water supply pipes
<b>9</b>	Thermal insulation	<b>10</b>	Hot Water Supply Pipe
<b>11</b>	Electric auxiliary heater	<b>12</b>	Hot Water Return Pipe
<b>13</b>	Water pump		

### 5.3 Installation Notes

- The unit can be installed in any outdoor area which can carry heavy machinery, such as a terrace, rooftop, the ground etc.
- The location must have adequate ventilation and be free from strong winds.
- The installation location must be free from heat radiation and fire hazards.
- Ensure there are no obstacles near the air inlet and outlet of the heat pump.
- There must be a water channel around the heat pump to drain condensing water.
- Ensure that there is enough space around the unit for maintenance.
- The heat pump can be installed onto the concrete basement using expansion screws, or onto a steel frame with rubber feet which can be placed on the ground or rooftop. Ensure the unit is placed horizontally.
- Install a snow shed in areas where it snows.

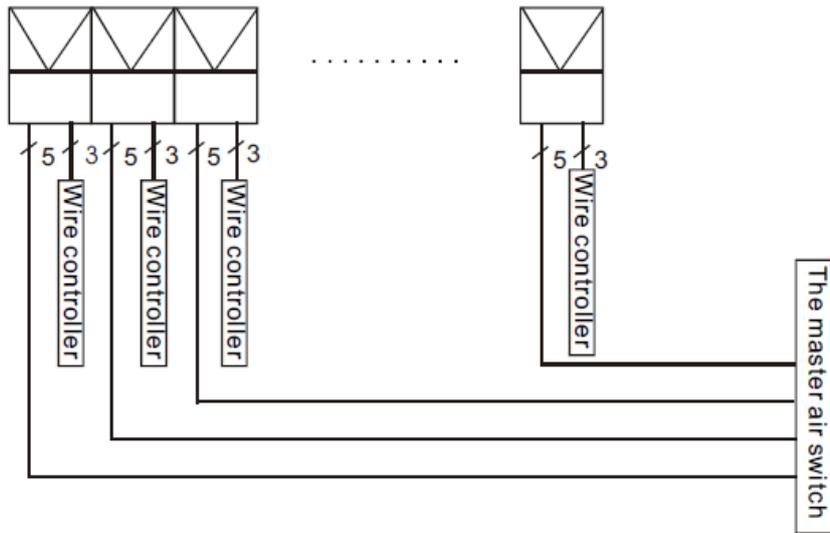
### 5.4 Water Loop Connection

- Try to reduce the resistance to the water from the piping.
- The piping must be clear and free from dirt and blockage. A water leakage test must be carried out to ensure that there is no water leaking before the installation can be made.
- The pipe must be tested by pressure separately. DO NOT test it together with the unit.
- There must be an expansion tank on the top point of the water loop, and the water level inside the tank must be at least 0.5 meters higher than the top point of the water loop.
- The flow switch is installed inside of the heat pump, check to ensure that the wiring and action of the switch is normal and controlled by the controller.
- The connection between the heat pump and the construction is best to be of a flexible type to avoid vibration transfer. The support to the water pipe must be separate, but not rely on the heat pump unit.
- Try to avoid any air from being trapped inside the water pipe, there must be an air vent on the top point of the water loop.
- There must be a thermometer and pressure meter at the water inlet and outlet for easy inspection during running.
- There must be drainage on the low points of the water system, and there is already drainage on the chassis of the heat pump. There water in the system must be drained out during winter if the heat pump is not to be used.

### 5.5 Electrical Wiring

- Open the panel and open the power line hole
- Thread the power line through the hole and connect it to the power line terminal. The three-core control line of the remote controller shall be plugged with the three-core signal line on the main board according to the wiring diagram.
- For an external water pump, thread the power line of the water pump through the hole and connect it to the water pump terminals.
- If an additional auxiliary heater is needed to be controlled by the heat pump controller, the relay (or power) of the aux-heater must be connected to the relevant output of the controller.





Model	Power Cable	Three-core Signal Line
Evo Max 100	3 x 2.5mm <sup>2</sup> + 2x4mm <sup>2</sup>	3 x 0.5mm <sup>2</sup>

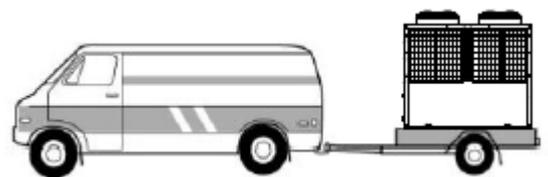
Notes:

The unit uses the three-phase power supply, and the cable specification in the table above refers to the cable specification of each phase.

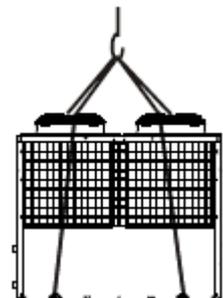
Both the neutral line and the ground line use the 4mm<sup>2</sup> cables, and both the three-core signal line and the defrosting coordination line use the 0.5mm<sup>2</sup> wires.

5.6 Transit

When the heat pump is to be transported, please keep the unit standing upright. The unit cannot be laid down, otherwise inner parts of the device may become damaged.



If the unit needs to be hung up during installation (for the Evo Max 100 unit, four sling wires longer than 8m are to be used. Use the special lifting hole (hook) on the unit base), an 8 metre cable will be needed to do so. There must be padding of some kind between the cable and the unit to prevent damage to the heat pump cabinet.



**DO NOT TOUCH THE RADIATING FINS BEHIND THE MACHINE WITH HANDS OR OBJECTS!**

## 5.7 Prior to Trial Operation

Check the piping system. Check whether the expansion water tank is filled with sufficient water and whether the water supply for supplement is normal. Check whether the entire piping system is full of water and whether the air is completely exhausted. Check whether all valves in the system are opened. Ensure that the pipelines are well insulated.

Check the power distribution system. Ensure all power supplies have normal voltage. The screws of each power distribution must be locked and check that the power is distributed to the circuit according to the distribution wiring diagram. Check that the ground-line is well connected.

Check the water chilling unit. Check that all the fastening screws and screws on the mechanical parts of the unit are firm. Check that there are no fault indications on the operation lights on the outdoor control main board. Connect the pressure gauge to the fluoridated inlet to detect the system pressure during operation.

## 5.8 Trial Operation

Turn on the machine by pressing the 'ON' button on the remote controller – begin to immediately check whether the water pump is operating normally. If it is normal, observe the water flow switch and the water pressure gauge of the water system: when the water flow switch is in the ON state, the water pressure gauge shall show the water pressure of about 0.2MPa.

After the water pump has operated for some time, the compressor will start. Judge whether there is any abnormal sounds in the unit during operation. If an abnormal sound occurs, immediately cut off the power and check the unit. If there is no abnormal sound, continue the operation and then note whether the pressure of the refrigerating system is normal.

Check whether the input power and the current of the unit are consistent with the performance data list in the manual, in case of non-compliance, stop the unit and check.

Adjust the water supply valve in each room, so that the temperature of each room matches the user's requirements.

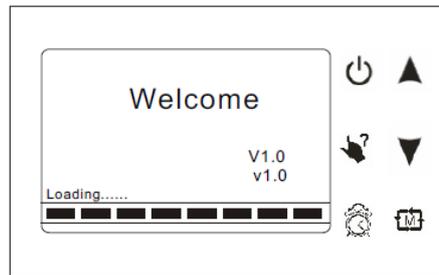
Observe whether the outlet water temperature is normal.

Parameters of the remote controller have been set in the factory, the user cannot adjust this themselves.



## 6. Controlling and Operation

### 6.1 Controller Display



Button	Name	Function
	ON/OFF	Press this button to start up/shut off the unit, cancel current operation or back to upper interface.
	HELP	Press this button to check button function or system state.
	MODE	Press this button to confirm current operation.
	CLOCK	Press the button to set the clock, the timer on or timer off
	Up	Press this key to select the upward option or increase the parameter value.
	Down	Press this key to select the downward option or decrease the parameter value.

## 6.2 How to Use the Controller

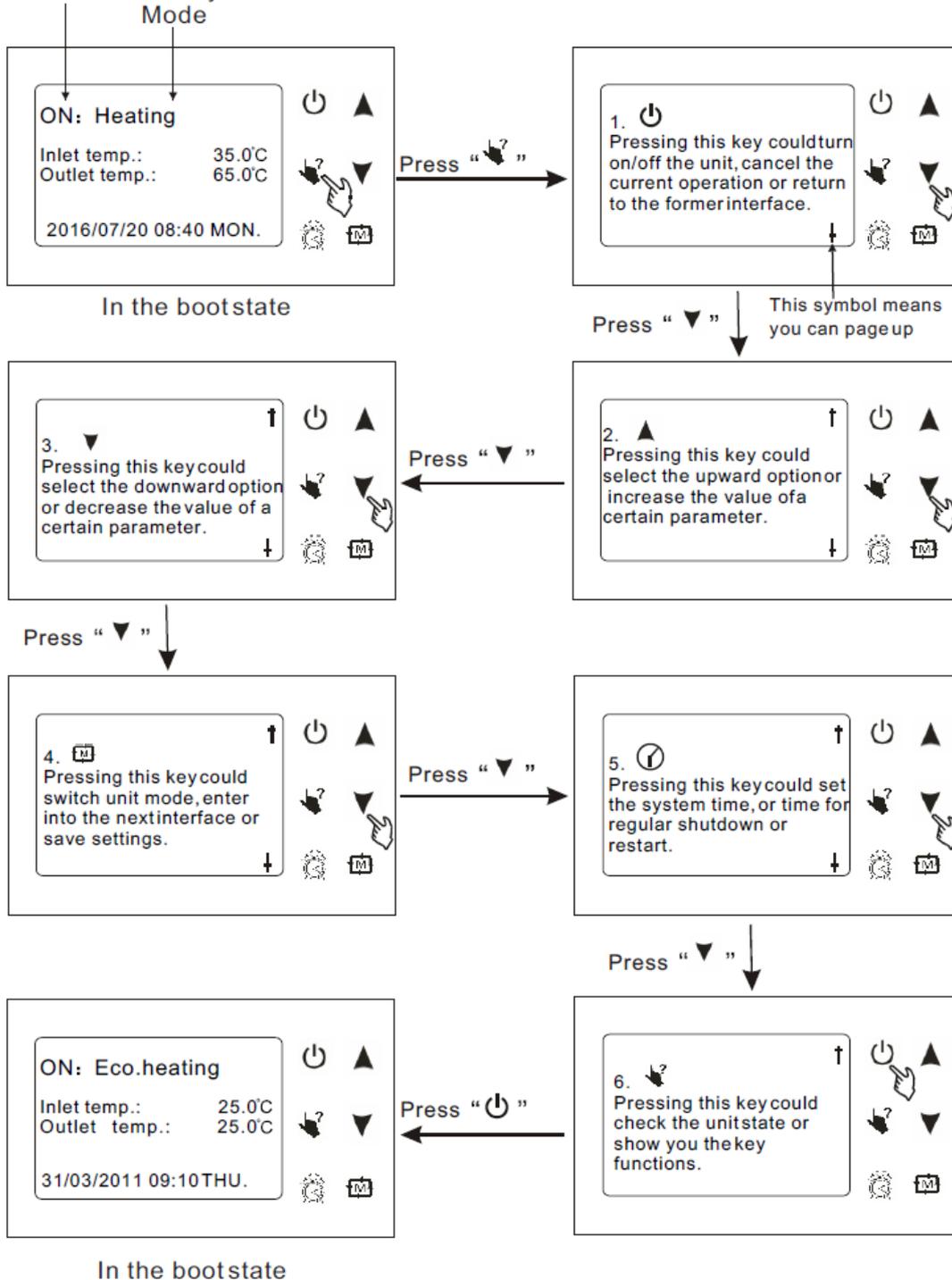
### 6.2.1 Using the 'Finger Point' Button

You can use “” at any interface, it will show relevant button function of current interface. You can press “” to exit the "help" interface.

For example:

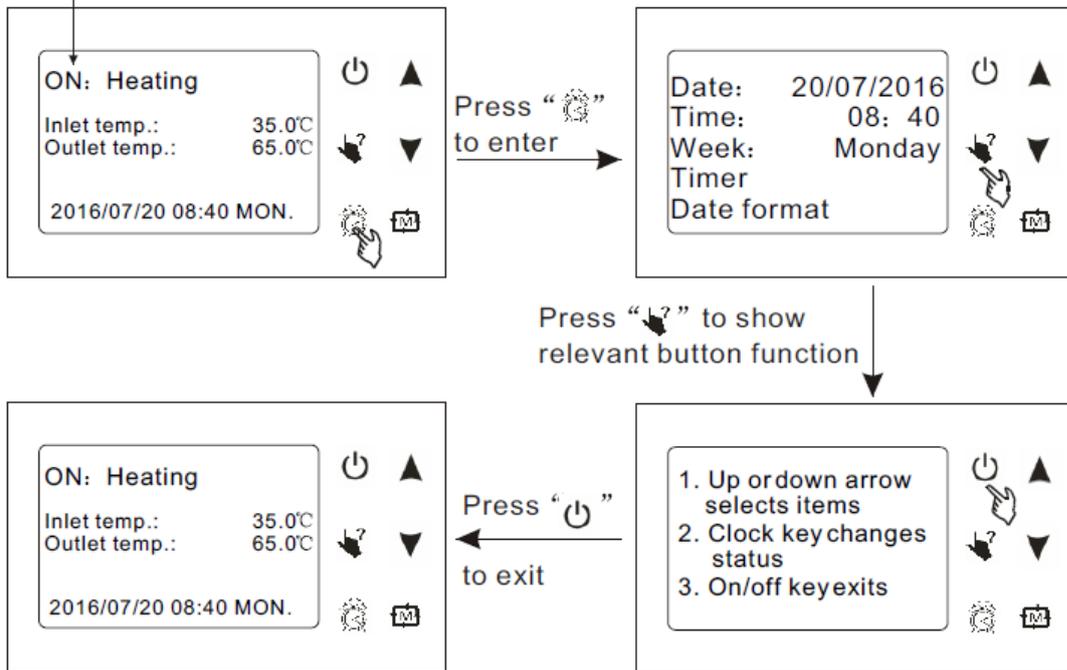
Press “” at main interface, system will show all button function; Press “” at clock interface, system will show “”、“”、“” and “” button function.

Both are OK when system show ON or OFF



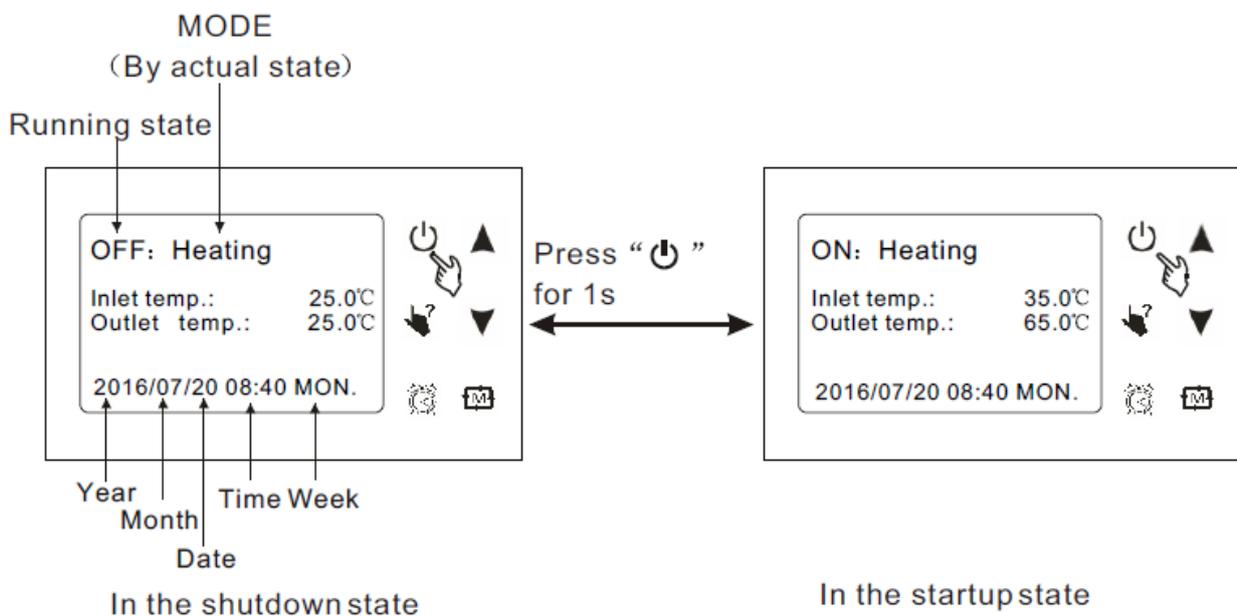
Press “” at clock interface, the screen shows as follow:

Both are OK when system shows ON or OFF



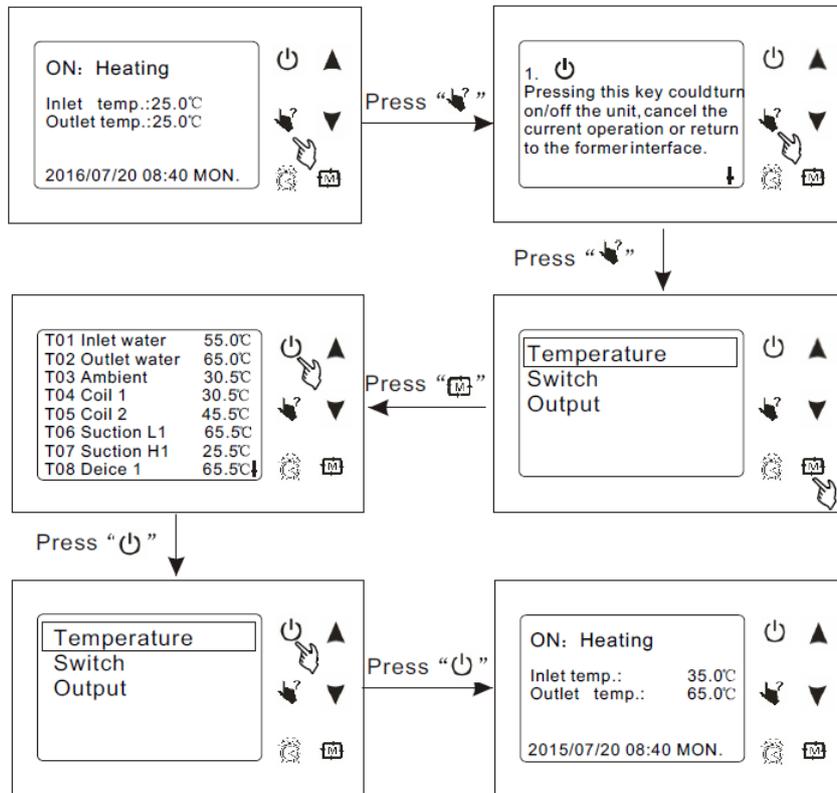
### 6.2.2 Starting Up and Shutting Down

Press “” in the shutdown state for 1s to start up the system;  
 Press “” in the startup state for 1s to shut down the system.  
 For example:



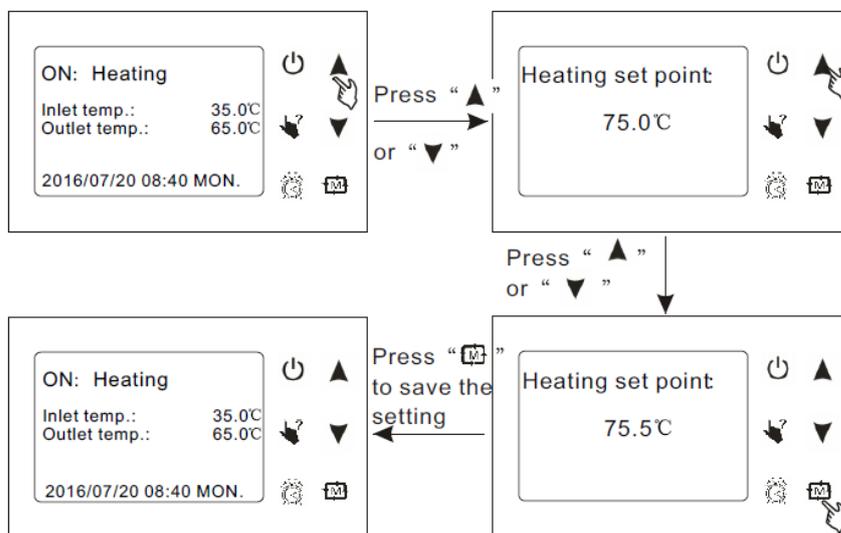
### 6.2.3 System State Operation

At any interface, you can enter system working state by pressing “↵” twice, press “▲” (pageup) or “▼” (pagedown) to select the needing parameter, press “M” to enter, and press “⏻” to exit.  
For example:



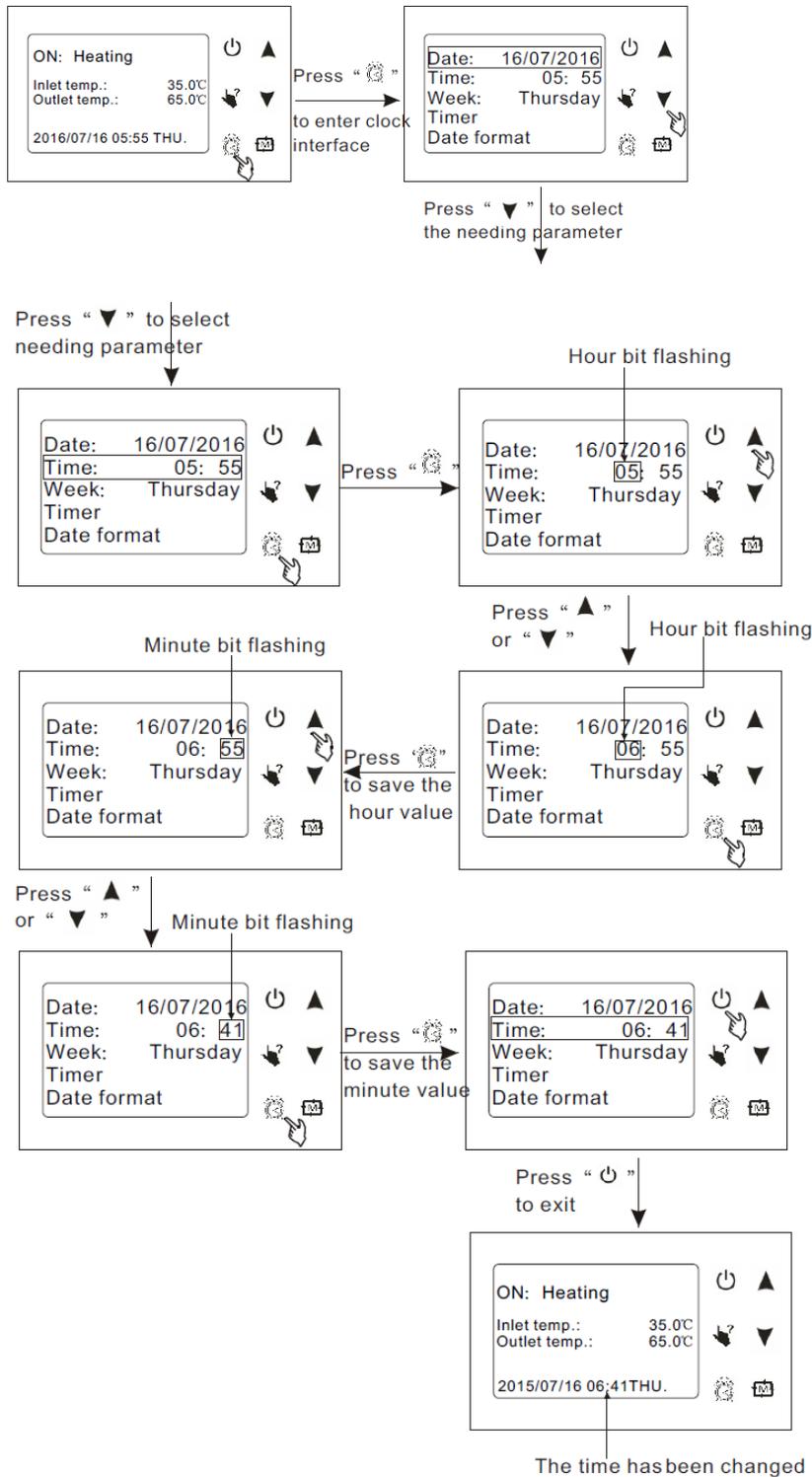
### 6.2.4 Parameter Operations

At main interface, press “▲” or “▼” to enter parameter setting interface, press “▲” (increasing) or “▼” (decreasing) can change parameter value, press “M” to save the setting and exit. Press “⏻” can not save the setting but exit. (You can refer to parameter table to set relevant temperature.)  
For example:

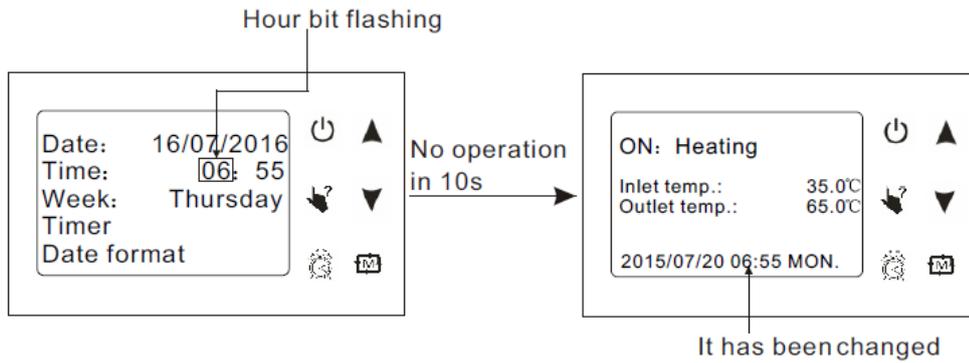


### 6.2.5 Clock Operation

At main interface, press “” to enter clock setting interface, select the needing parameter and press “”, at this time, parameter value flashing, press “” (increasing) or “” (Decreasing) can change parameter value, then press “” to save, press “” can cancel the setting or back to the main interface. (“timer setting” refer to timer operation)  
For example:



Tips: The setting of date and week is the same with clock;  
If there is no operation in 10s, system will remember parameter setting automatic and back to the main interface.,  
As follow :



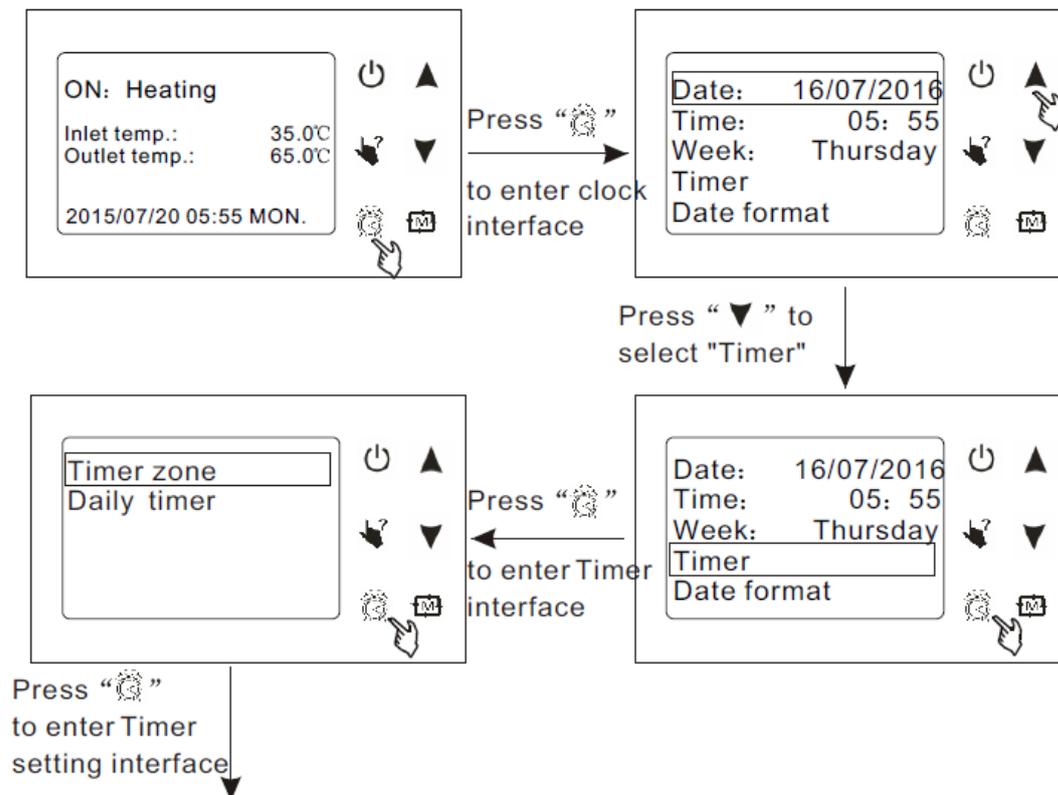
### 6.2.6 Timer Operation

You can set four timer on and timer off according to you needing.

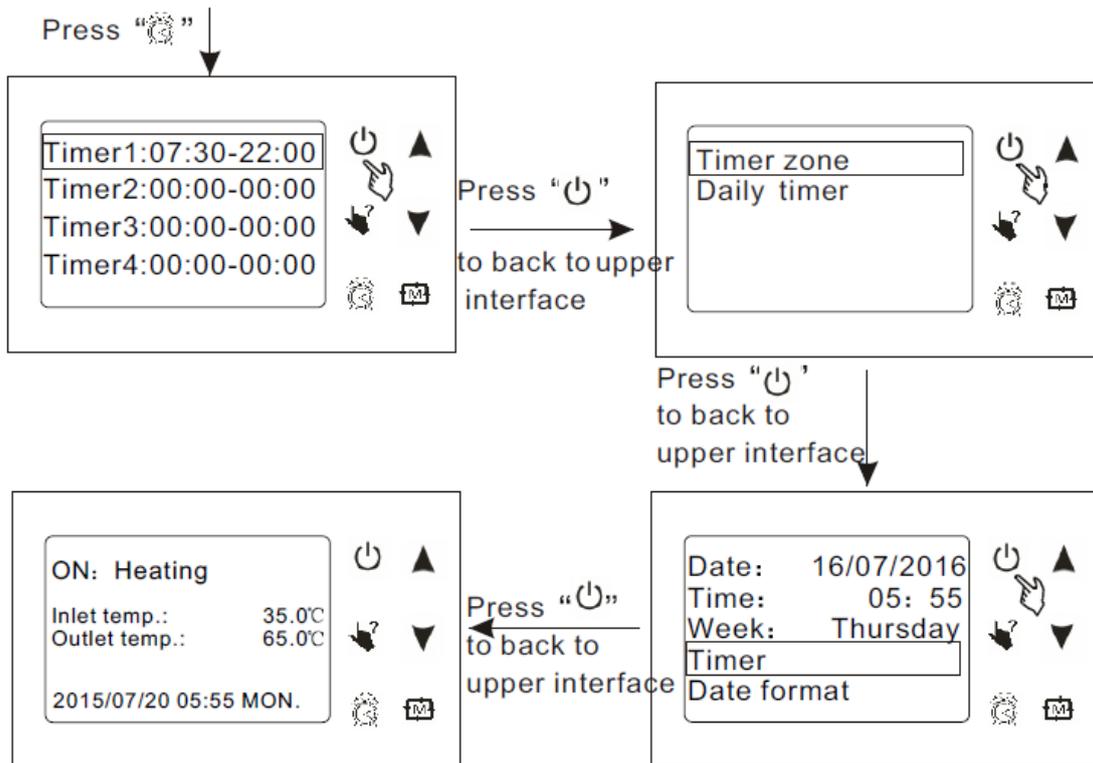
At main interface, press “🕒” to enter timer setting, press “▼” to select “Timer”, then press “🕒” to enter timer setting interface, (timer setting: you can set four timer on and timer off, and the time you set can from Monday to Sunday.), the operation is the same with clock setting.

For example:

#### A. Timer setting

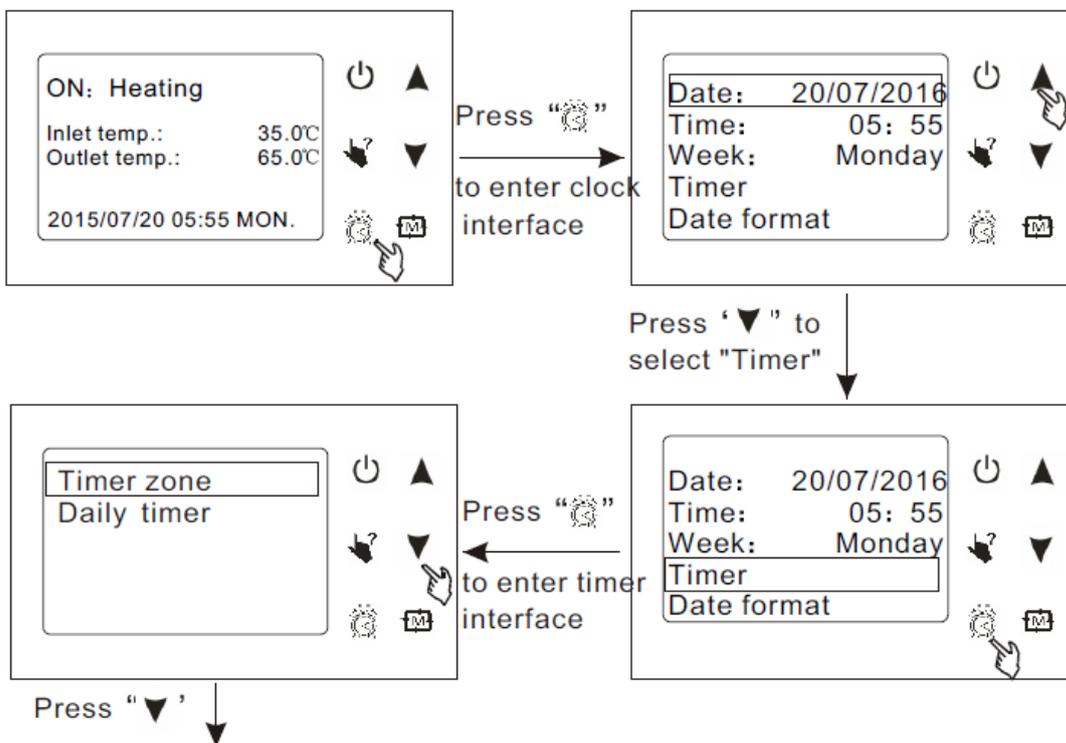


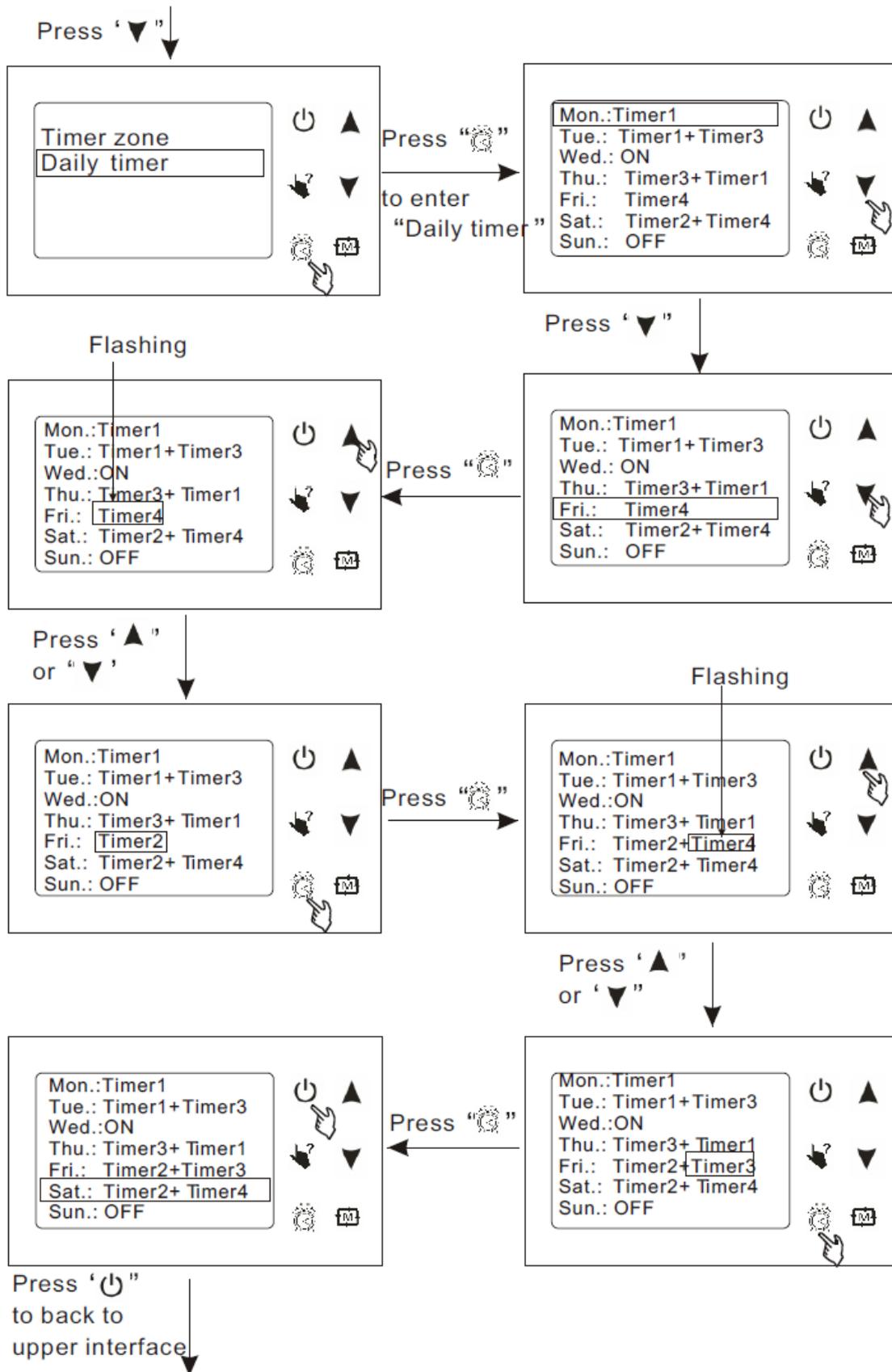


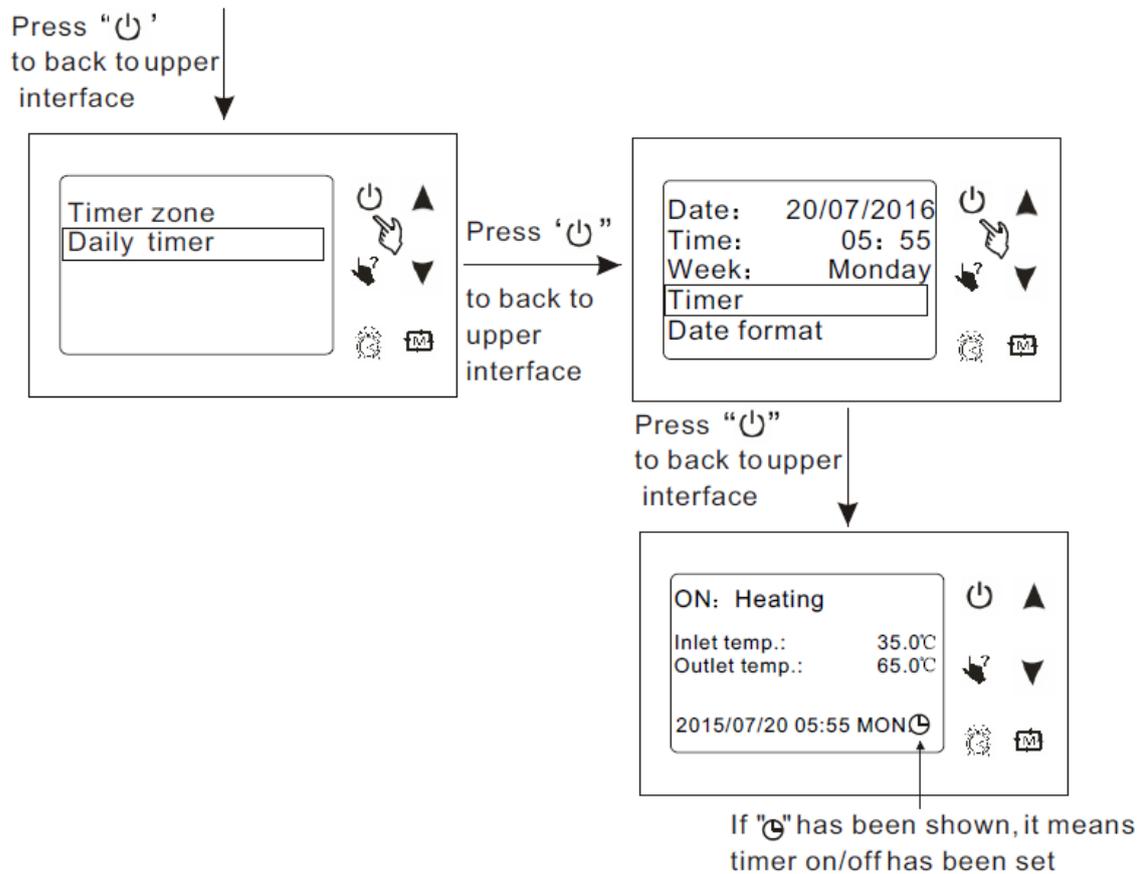


- Tips: 1) The operation of Timer2, Timer3, Timer4 is the same with Timer1;  
 2) Timer1:07:30-22:00 means system starts up at 7:30, and shutdown at 22:00 automatically;  
 3) If there is no operation in 10s, system will memory parameter setting automatically.

B. The operation of dailytimer







Tips: The Timer operations of Monday, Tuesday, Wednesday, Thursday, Saturday, Sunday is the same with Friday.

Monday: OFF : means Monday Timer hasn't been set, and the running state is the same with Sunday at 24:00, for example, if system is running at 24:00 on Sunday, then it will be running the whole day on Monday, and vice versa;

Wednesday: ON : means system will be running the whole day on Wednesday

Thursday: OFF : means system will be off the whole day on Thursday;

Saturday: Timer1+Timer2 : means the time to startup and to shut down is according to Timer1 and Timer2.

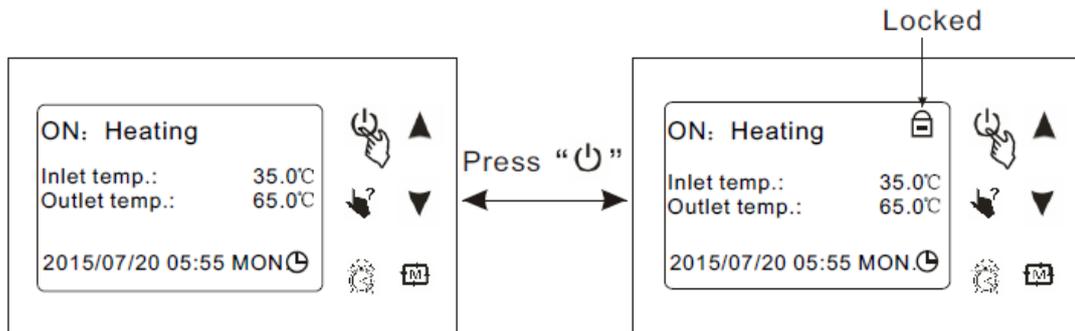
If there is no operation in 10s, system will memory the parameter setting automatically and back to main interface.

### 6.2.7 Keyboard Lock

To avoid mis-operations, please lock the controller after parameter setting.

At the main interface, pressing “⏻” for 5 seconds, the keyboard will be locked.

When the keyboard is locked, pressing “⏻” for 5 seconds, the keyboard will be unlocked.



**NOTES:**

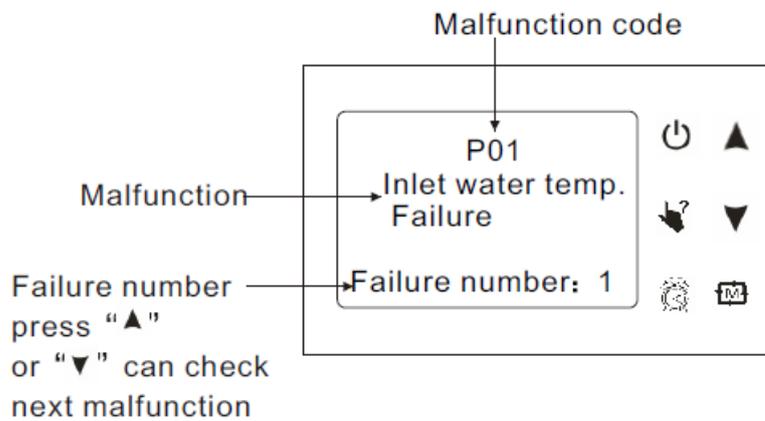
When the unit is in alarming state, the keylock can be removed automatically.

### 6.2.8 Malfunction Display

There will be malfunction code showing on the controller screen when relative malfunction occurs.

You can refer to the malfunction table to find out the failure cause and solution.

For example:



### Parameter table

Meaning	Default	Remarks
Set-point of heating target temp.	70°C	Ajustable

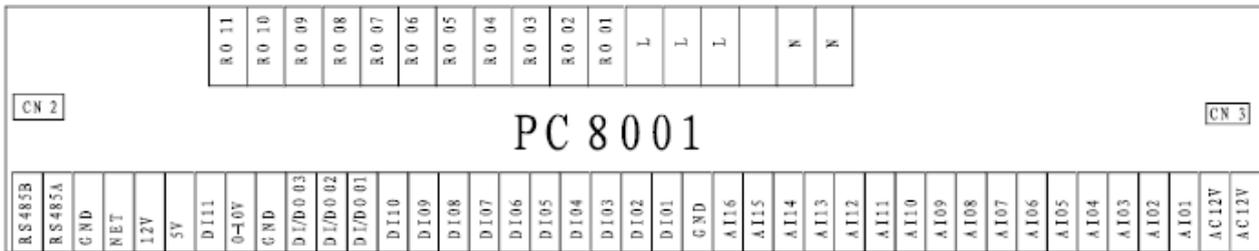
## 7. Maintenance and Inspection

### 7.1 Malfunction Table

Malfunction	Display	Reason	Resolution
Power On			
Normal Working			
Inlet temp. sensor failure	P01	The temp. sensor is short circuit or broken	Check or change the temp sensor
Outlet temp. sensor failure	P02	The temp. sensor is short circuit or broken	Check or change the temp sensor
Ambient temp. failure	P04	The temp. sensor is short circuit or broken	Check or change the temp sensor
System 1/2/3/4 Coil temp. failure	P15(system1), P25(system2), P35(system3), P45(system4)	The temp. sensor is short circuit or broken	Check or change the temp sensor
System 1/2/3/4 absorb temp. failure	P17(system1), P27(system2), P37(system3), P47(system4)	The temp. sensor is short circuit or broken	Check or change the temp sensor
System 1/2/3/4 anti-freeze temp. failure	P19(system1), P29(system2), P39(system3), P49(system4)	The temp. sensor is short circuit or broken	Check or change the temp sensor
Using side system 1/2/3/4 Anti-freeze temp. failure	P191(system1), P291(system2), P391(system3), P491(system4)	The temp. sensor is short circuit or broken	Check or change the temp sensor
System 1/2/3/4 coil inlet temp. failure	P151(system1), P251(system2), P351(system3), P451(system4)	The temp. sensor is short circuit or broken	Check or change the temp sensor
System 1/2/3/4 high pressure protection	E11(system1), E21(system2), P31(system3), E41(system4)	The high-pressure switch is broken	Check the pressure switch and cold circuit
System 1/2/3/4 low pressure protection	E12(system1), E22(system2), E32(system3), E42(system4)	The low-pressure switch is broken	Check the pressure switch and cold circuit
Water flow failure	E03	No water/little water in water system	Check the pipe waterflow and water pump
Electric-heater overheat protection	E04	Electrical-heat is overheat	Check or change electrical-heat
Water inlet and outlet temp. too big	E06	Water flow is not enough and low differential pressure	Check the pipe waterflow and whether water system is jammed or not
System 1/2/3/4 anti-freeze protection	E06	Water flow is not enough and low differential pressure	Check the pipe waterflow and whether water system is jammed or not
System 1/2/3/4 source side anti-freeze protection	E17(system1), E27(system2), E37(system3), E47(system4)	Water flow is not enough	Check the pipe waterflow and whether water system is jammed or not
System 1/2/3/4 using side anti-freeze protection	E171(system1), E271(system2), E371(system3), E471(system4)	Water flow is not enough	Check the pipe waterflow and whether water system is jammed or not
Anti—freeze protect level 1	E19	The ambient temp. is low	/
Anti—freeze protect level 2	E29	The ambient temp. is low	/
System protection	E05	The protection system is failure	Check each protection point of the system
Communication Failure	E08	Communication failure between wire controller and mainboard	Check the wire connection between remote wire controller and main board

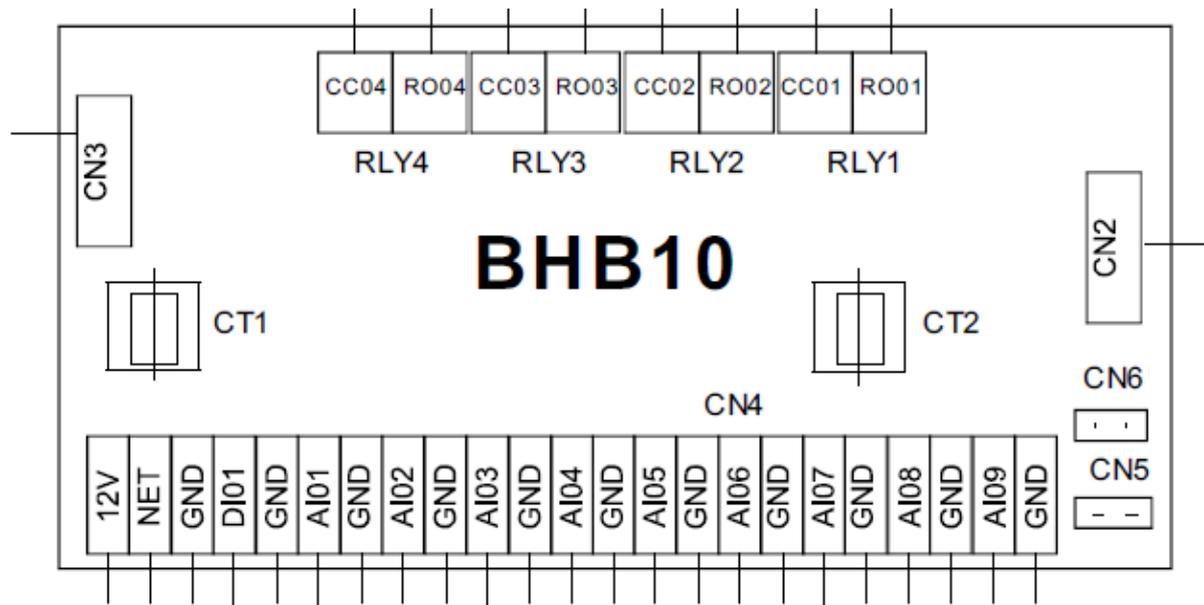
## 8. Appendix

### 8.1 Connection of PCB Illustration



#### Connections explanation:

NO.	Symbol	Meaning	NO.	Symbol	Meaning
1	L	Live line	27	DI11	System protection signal
2	N	Null line	28	AI 01	Water input temperature input
3	RO 01	Compressor 1 output(220VAC)	29	AI 02	Water output temperature output
4	RO 02	Compressor 2 output(220VAC)	30	AI 03	System 1 fan coil temperature input
5	RO 03	Compressor 3 output(220VAC)	31	AI 04	System 2 fan coil temperature input
6	RO 04	Compressor 4 output(220VAC)	32	AI 05	System 3 fan coil temperature input
7	RO 05	High speed /souce pump output(220VAC)	33	AI 06	System 4 fan coil temperature input
8	RO 06	Low speed output (220VAC)	34	AI 07	Ambient temperature input
9	RO 07	Water pump output(220VAC)	35	AI 08	System 1 antifreeze temperature input
10	RO 08	4-way valve output(220VAC)	36	AI 09	System 2 antifreeze temperature input
11	RO 09	Electric heater output(250VAC)	37	AI 10	System 3 antifreeze temperature input
12	RO 10	Spray valve output(220VAC)	38	AI 11	System 4 antifreeze temperature input
13	RO 11	Alarm system output(220VAC)	39	AI 12	System 1 suction temperature input
14	DI/DO 1	Emergency switch output	40	AI 13	System 2 suction temperature input
15	DI/DO 2	Mode indicator output	41	AI 14	System 3 suction temperature input
16	DI/DO 3	Emergency switch input	42	AI 15	System 4 suction temperature input
17	DI 01	System 1 high pressure protection input	43	AI 16	No use
18	DI 02	System 2 high pressure protection input	44	GND	Connecting to the remote controller
19	DI 03	System 3 high pressure protection input	45	NET	
20	DI 04	System 4 high pressure protection input	46	12V	
21	DI 05	System 1 low pressure protection input	47	RS485A	485 connection
22	DI 06	System 2 low pressure protection input	48	RS485B	
23	DI 07	System 3 low pressure protection input	49	AC12V	12V power input
24	DI 08	System 4 low pressure protection input	50	AC12V	
25	DI 09	Water flow switch protection input	51	CN2	System 1 electric expansion valve output
26	DI 10	Electric heater overload protection input	52	CN3	System 2 electric expansion valve output



Connections explanation:

No.	Symbol	Meaning
1	RO01	System1 mangtic valve outlet (220-230VAC)
2	RO02	System2 mangtic valve outlet (220-230VAC)
3	RO03	System1 alert outlet (220-230VAC)
4	RO04	System2 alert outlet (220-230VAC)
5	CC01	System1 mangtic valve inlet (220-230VAC)
6	CC02	System2 mangtic valve inlet (220-230VAC)
7	CC03	System1 alert inlet (220-230VAC)
8	CC04	System2 alert inlet (220-230VAC)
9	NET GND 12V	Wire controller
10	DI01 GND	Mode/communication
11	AI01 GND	System 1 anti-freeze temp.(input)
12	AI02 GND	System 2 anti-freeze temp.(input)
13	AI03 GND	System 1 economizer inlet temp.failure(input)
14	AI04 GND	System 1 economizer outlet temp.failure(input)
15	AI05 GND	System 2 economizer inlet temp.failure(input)
16	AI06 GND	System 2 economizer outlet temp.failure(input)
17	AI07 GND	System 1 exhaust temp.(input)
18	AI08 GND	System 2 exhaust temp.(input)
19	AI09 GND	Ambient temp.(input)

## 8.2 Cautions and Warnings

The unit can only be repaired by qualified personnel or an authorised dealer.

This appliance 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 appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

Please make sure that the unit and power connection have good earthing, otherwise there is a risk of electrical shock.

If the supply cord is damaged, it must be replaced by the manufacturer, our service agent or a similarly qualified person in order to avoid a hazard.

Directive 2002/96/EC (WEEE):

The symbol depicting a crossed-out waste bin that is underneath the appliance indicates that this product at the end of its useful life, must be handled separately from domestic waste, and must be taken to a recycling centre for electric and electronic devices or handed back to the dealer when purchasing an equivalent appliance.

Directive 2002/95/EC (RoHs): This product is compliant with directive 2002/95/EC (RoHs) concerning restrictions for the use of harmful substances in electric and electronic devices.

The unit CANNOT be installed near flammable gas. If there is any leakage of the gas a fire can occur.

Make sure that there is circuit breaker for the unit, lack of circuit breaker can lead to electrical shock or fire.

The heat pump located inside the unit is equipped with an over-load protection system. It does not allow for the unit to start for at least 3 minutes from a previous stoppage.

The unit can only be repaired by the qualified personnel of an installer center or an authorized dealer.

Installation must be performed in accordance with the NEC/CEC by authorized person only (for North America market)

USE SUPPLY WIRES SUITABLE FOR 75°C.

Caution: Single wall heat exchanger, not suitable for potable water connection.



## 8.3 Cable Specification

### 8.3.1 Single Phase Unit

Nameplate max. current	Phase Line	Earth Line	MCB	Creepage Protector	Signal Line
No More than 10A	2 x 1.5mm	1.5mm	20A	30mA less than 0.1 sec	n x 0.5mm <sup>2</sup>
10~16A	2 x 2.5mm	2.5mm	32A	30mA less than 0.1 sec	
16~25A	2 x 4mm	4mm	40A	30mA less than 0.1 sec	
25~32A	2 x 6mm	6mm	40A	30mA less than 0.1 sec	
32~40A	2 x 10mm	10mm	63A	30mA less than 0.1 sec	
40~63A	2 x 16mm	16mm	80A	30mA less than 0.1 sec	
63~75A	2 x 25mm	25mm	100A	30mA less than 0.1 sec	
75~101A	2 x 25mm	25mm	125A	30mA less than 0.1 sec	
101~123A	2 x 35mm	35mm	160A	30mA less than 0.1 sec	
123~148A	2 x 50mm	50mm	225A	30mA less than 0.1 sec	
148~186A	2 x 70mm	70mm	250A	30mA less than 0.1 sec	
186~224A	2 x 95mm	95mm	280A	30mA less than 0.1 sec	

### 8.3.2 Three Phase Unit

Nameplate max. current	Phase Line	Earth Line	MCB	Creepage Protector	Signal Line
No More than 10A	3 x 1.5mm	1.5mm	20A	30mA less than 0.1 sec	n x 0.5mm <sup>2</sup>
10~16A	3 x 2.5mm	2.5mm	32A	30mA less than 0.1 sec	
16~25A	3 x 4mm	4mm	40A	30mA less than 0.1 sec	
25~32A	3 x 6mm	6mm	40A	30mA less than 0.1 sec	
32~40A	3 x 10mm	10mm	63A	30mA less than 0.1 sec	
40~63A	3 x 16mm	16mm	80A	30mA less than 0.1 sec	
63~75A	3 x 25mm	25mm	100A	30mA less than 0.1 sec	
75~101A	3 x 25mm	25mm	125A	30mA less than 0.1 sec	
101~123A	3 x 35mm	35mm	160A	30mA less than 0.1 sec	
123~148A	3 x 50mm	50mm	225A	30mA less than 0.1 sec	
148~186A	3 x 70mm	70mm	250A	30mA less than 0.1 sec	
186~224A	3 x 95mm	95mm	280A	30mA less than 0.1 sec	

If the unit is to be installed outdoors, please use a cable which is UV resistant.

updated 23.10.20

