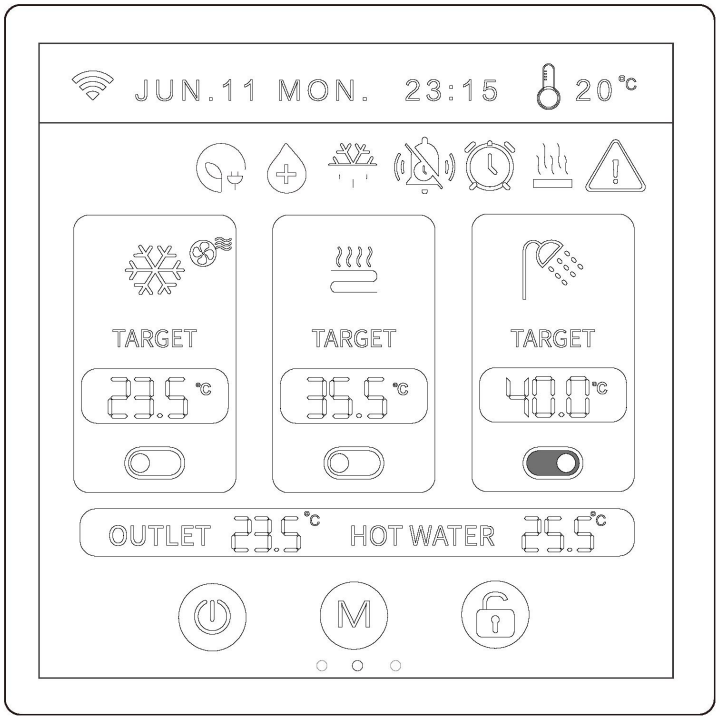
Operation Manual

Wire Controller



IMPORTANT NOTE:

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

CONTENTS

1. GENERAL SAFETY PRECAUTIONS

1.1. About The Documentation

The original documentation is written in English. All other languages are translations.The precautions described in this document cover very important topics, follow them carefully.All activities described in the installation manual must be performed by an authorized installer.

⚠ WARNING

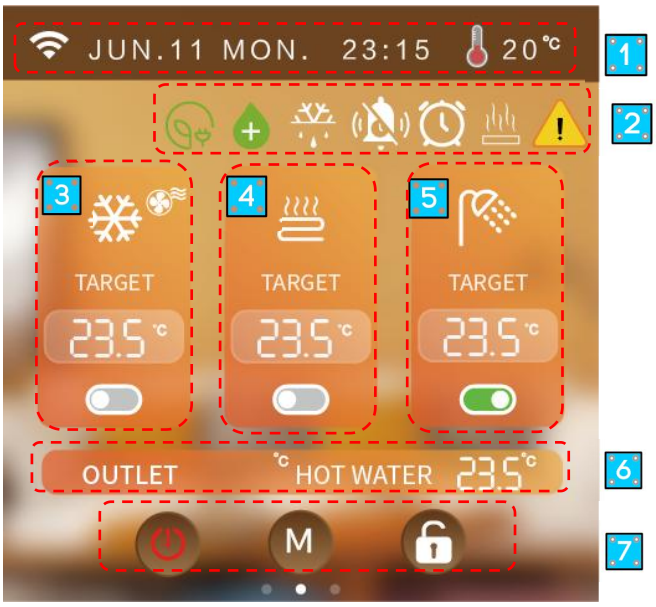
- **WARNING:**Indicates a situation that could result in death or serious injury.
- **CAUTION:**Indicates a situation that could result in minor or moderate injury.
- **DANGER:**Indicates a situation that results in death or serious injury.
- **DANGER: RISK OF ELECTROCUTION:**Indicates a situation that could result in electrocution.
- **DANGER: RISK OF BURNING:**Indicates a situation that could result in burning because of extreme hot or cold temperatures.
- **NOTE:**Indicates a situation that could result in equipment or property damage.
- **INFORMATION:**Indicates useful tips or additional information.

1.2. For The User

- If you are not sure how to operate the unit, contact your installer.
- The 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 must be supervised to ensure that they do not play with the product.
- Unit are marked with the following symbol:
  This means that electrical and electronic products cannot be mixed with unsorted household waste. **Do NOT** try to dismantle the system yourself: the dismantling of the system, treatment of the refrigerant, of oil and of other parts must be done by an authorized installer and must comply with applicable legislation. Units must be treated at a specialized treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. For more information, contact your installer or local authority.
- Placed in a location away from radiation.

2. Power On Interface

2.1. The Appearance of The Wired Controller



① Signal, Time, Ambient Temperature

② Icons show the meaning：Free electricity, Sterilization, Defrost, Timing mute, Timing function, Heating function, Fault

③ Zone A cooling/heating mode, Terminal installation icon, Cooling/heating target temperature, Zone A switch.

④ Zone B floor heating mode, Floor heating target temperature, Zone B switch.

⑤ Hot water mode, Hot water target temperature,Hot water switch.

⑥ Total outlet water temperature, Hot water temperature.

⑦ Total ON/OFF, Mode, Unlock/lock screen.

2.2. Status Icons

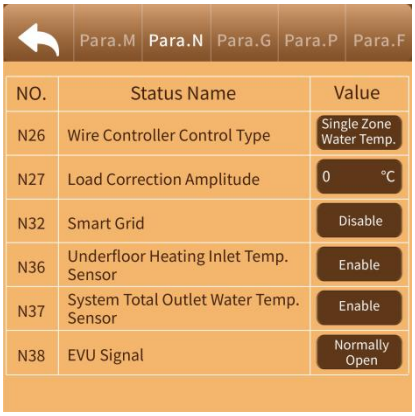
Icons	Status	Description	Icons	Status	Description
	Network status	Display according to signal strength		Defrosting	Unit currently operating defrost function
	Heating mode	Dynamically indicates power on		Anti-frost	Unit is currently operating with anti-freeze function
	Cooling mode	Dynamically indicates power on		Holiday	Unit currently running in holiday mode
AUTO	Automatic mode	Dynamically indicates power on		Quiet	The unit is currently running in silent mode

Icons	Status	Description	Icons	Status	Description
	Hot water mode	Dynamically indicates power on		Energy saving	The unit is currently running in energy saving mode
	Underfloor heating	Dynamically indicates power on		Capacity test	Unit currently running capacity test
	Fault	Unit is faulty		Fluoride collection	Unit currently running fluoride collection function
	Preheating	Blinking indicates preheating		antibacterial	Unit currently running sterilization function
	Network status	Blinking display distribution network		Free electricity	
	Timer Silence	The wire controller turns on the timed mute		Valley electricity	
	Timer function	The wire controller turns on the timed function		Peak electricity	
	External heat source	External heat source output		Water tank electric heater	Water tank electric heater output
	Solar signal	Solar signal input		Auxiliary electric heater	Auxiliary electric heater output

3. WIRE CONTROLLER OPERATION GUIDANCE

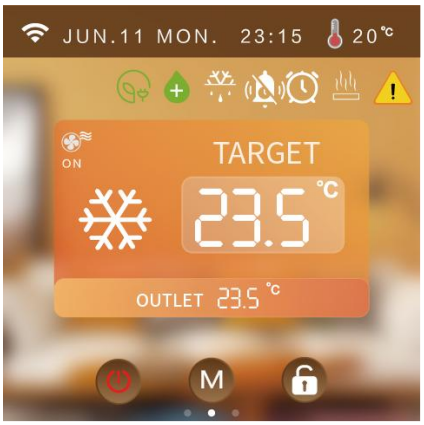
3.1. Single/Double Zone

In the OFF state, Slide left on the main page - click "General" - click "Parameter" - enter password " 168" - click "N Parameters" -Scroll to page 3 and click on N26 to select single and double zone mode.



3.2. No Hot Water in Single Zone

In the main interface, click " " to switch on and off the machine, click " " to switch heating / cooling mode.



3.3. Single Zone + Hot Water

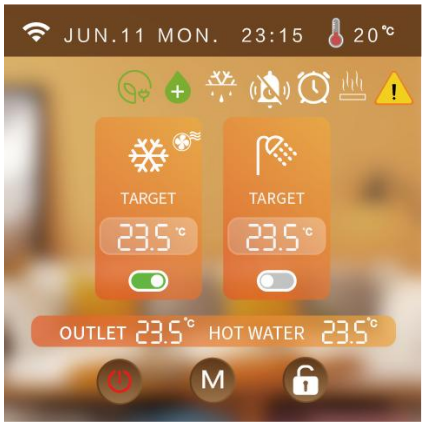
a) When the unit is in the off state (A zone and hot water are in the off state), short press the " " total on/off button, and all the A zone and hot water functions will be turned on.

b) When the A-zone is in the off state, click the " " A-zone switch button, and the A-zone will be turned on.

c) Hot water in the off state, click " " hot water switch button, hot water on.

d) With hot water function, the target temperature of hot water is displayed.

(**Note:** " " stands for on, " " stands for off)



3.4. No Hot Water in Double Zone

a) When the unit is in the off state (both zone A and zone B are in the off state), short press the " " total on/off button, zone A and zone B will all be turned on.

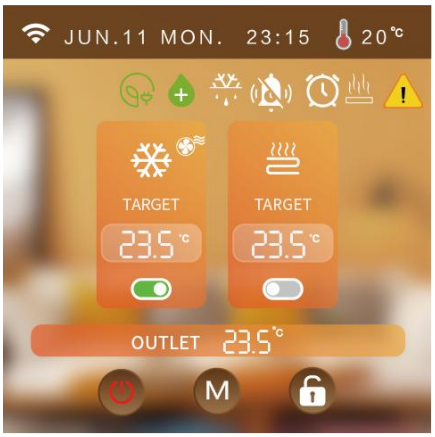
b) When the A zone is in the off state, click

the " " A zone switch button, and the A zone will be turned on.

c) Zone B is in the off state, click the " " B zone switch button, B zone power on.

d) Zone A is in cooling mode, Zone B (floor heating) can not be turned on.

f) No hot water function, does not display the target temperature of hot water.



3.5. Double Zone + Hot Water

a) When the unit is in the off state (both zone A and zone B are in the off state), short press the " " total on/off button, zone A and zone B will all be turned on.

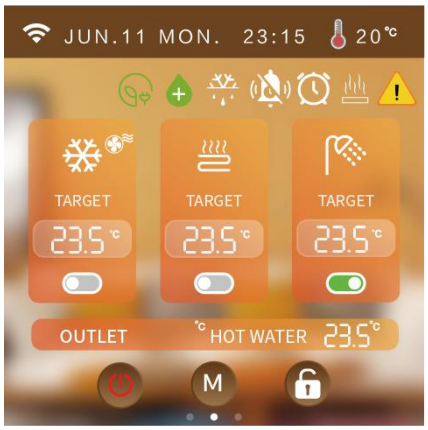
b) When the A zone is in the off state, click the " " A zone switch button, and the A zone will be turned on.

c) Zone B is in the off state, click the " " B zone switch button, B zone on

d) Zone A is in cooling mode, Zone B (floor heating) can not be turned on.

e) Mode icon dynamically displayed on behalf of the compressor on, static means the compressor off.

f) No hot water function, the target temperature of hot water is not displayed.



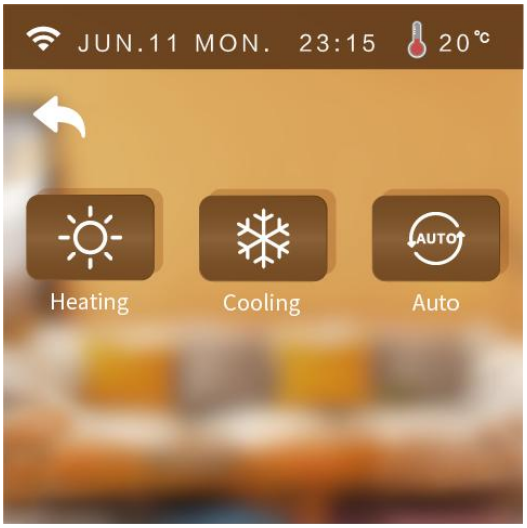
3.6. Lock/Unlock Function

At the main interface, press “” to lock/unlock.

3.7. Setting Mode

At the main interface, short press "" mode key to jump to the corresponding interface according to the current mode supported by the unit.

For example, when the unit supports cooling and heating modes, short press the "" mode key to enter the mode setting: cooling, heating, automatic.

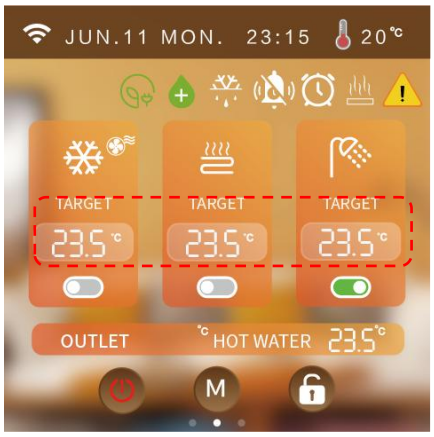


Note: Enter the password "168" in

"Parameter" and set the heating & cooling type by modifying N02.

3.8. Setting Target Temperature

According to the main page display mode status setting, click on the target temperature to set the desired target temperature.



3.9. Screen Saver / Screen Off

1) Turn on the screen saver

In all interfaces, for 60s without touching the screen, the screen brightness will automatically drop to 20% brightness, for 6min without touching the screen, the wire controller automatically jump to the screensaver interface, for 8min without touching the screen, the wire controller into a hibernation state.

Hibernation state, click on the screen wire controller bright screen display is still screensaver interface (only bright screen does not perform other actions).

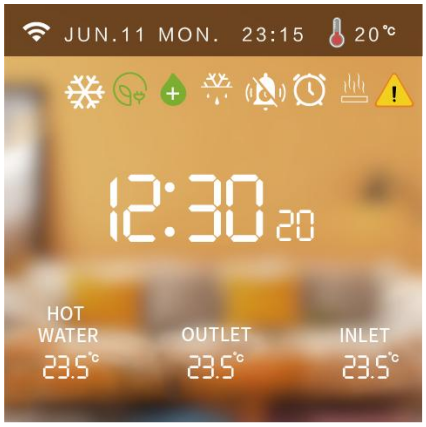
The brightness of the controller 20% state: click on the screen controller brightness increased to 100% (Only bright screen does not perform other actions, and does not switch the interface.)

2) Turn off the screen saver function

In all interfaces, for 60s without touching the screen, the screen brightness will automatically drop to 20% brightness, for 6min without touching the screen, the wire controller into the hibernation state.

hibernation state, click on the screen controller bright screen display back to the main interface (Only bright screen does not perform other actions).

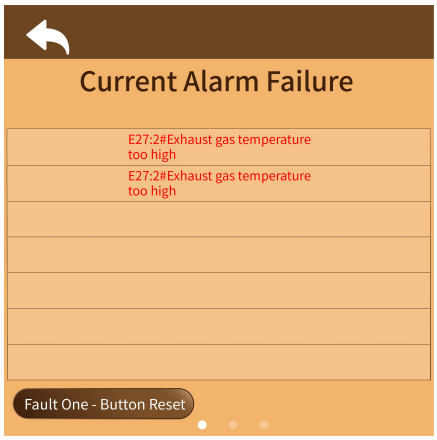
The brightness of the controller is 20%: click on the screen to increase the brightness of the controller to 100% (Only bright screen does not perform other actions, and does not switch the interface).



3.10. Fault Display

When the unit has a fault, the main interface fault icon flashes, click " ⚠ " to check the fault content of the current unit.

Click " Fault one-button reset" to reset the fault.



3.11. Check Parameter Status

At the main interface, swipe from left to right to view the current operating status.

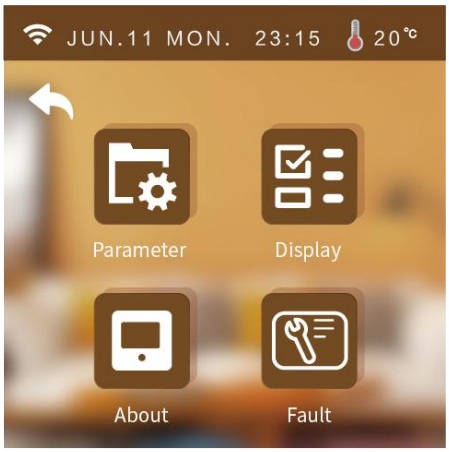
(When the temperature sensor fails, "-.-" will be displayed on the screen.)

3.12. Parameter Setting Interface

At the main interface, swipe from right to left to view the settings interface.

3.13. Setting Interface

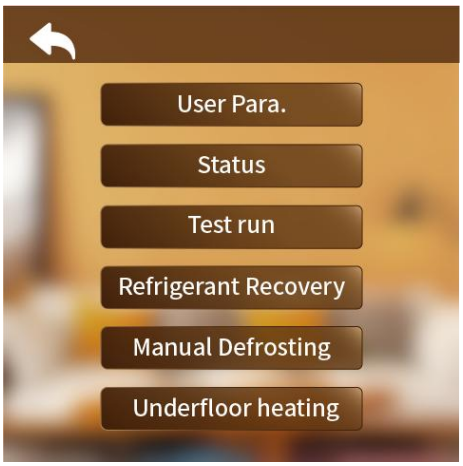
At the setting interface, press “” to enter the system parameter interface.



1) Customer Management Interface

a) At the system parameter interface, press “” and input the password “400866” to enter the restore default setting interface.

b) At the system parameter interface, press “” and input the password “168” to enter the customer management interface.



- **User parameter**

  Press “User Para” to set the user parameter.

- **Status**

  Press "Status" to view the system status of the unit.

- **Test run**

  Press "Test run" for test run of unit function.

- **Manual Defrosting**

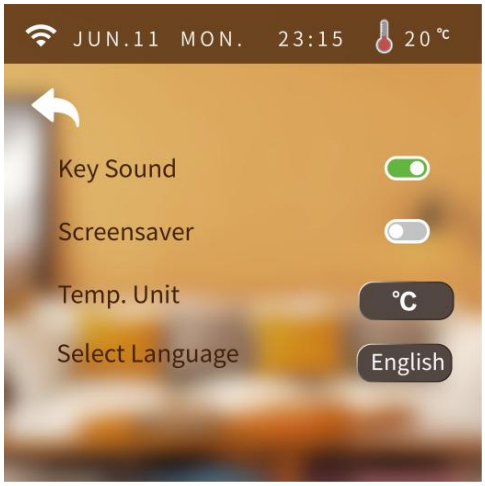
a) Enter the Customer Parameters interface; (see "Customer Parameters Interface" for details.)
b) Click on "Manual Defrosting".
c) Select the module to be defrosted by yourself.
(The content of the displayed modules is determined by the "Number of modules" parameter, e.g. if the number of modules is 2, the current number of defrosting modules can be set to 2.)

- **Underfloor Heating**

  Press "Underfloor Heating" to set the floor heating preheat function.

2) Display Interface

At the system parameter interface, press “” to enter the display interface.



- **Key sound**

  a) When sound is on: the buzzer sounds when the screen is tapped.
  b) When sound is off: the buzzer does not sound when the screen is tapped.

- **Screen Protection**

  Details can be found in page 6.

- **Unit of Temp.**

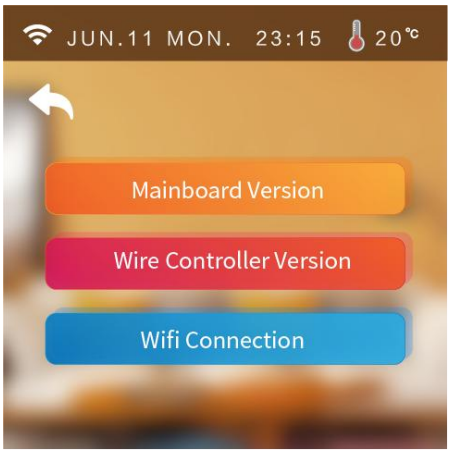
  Each time the temperature unit is switched, the wire controller enters the read parameter interface and re-reads all the advanced parameters, returning to the setting interface after 20s.

- **Switch Language**

  Press "Switch Language" to switch the language.

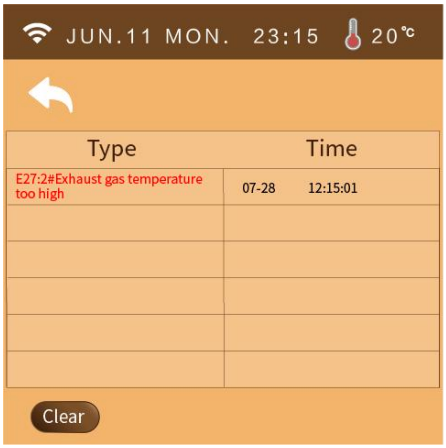
3) Information Interface

At the system parameter interface, press “” to enter the information interface.



4) History Fault

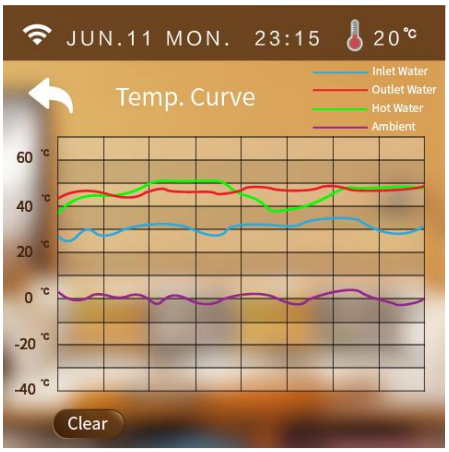
At the system parameter interface, press “ ” and then input “168” to enter the history fault interface.



3.14. Curve

At the setting interface, press “ ”to enter the curve interface.

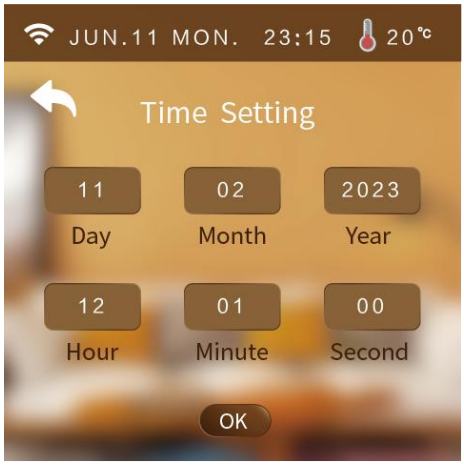
- Every 20min to collect temp. data, every 1h to save the data. If less than 1h, the data within this period will not be saved.
- The temp. curve is with power-down memory function.



3.15. Time Setting

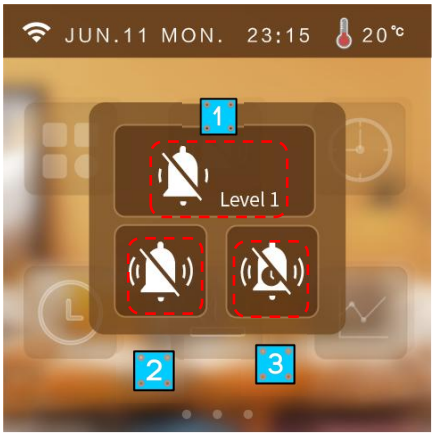
At the setting interface, press “ ” to enter the time setting interface.

While the unit is℃, the time setting page is as follows:



3.16. Manual Mute

In the settings screen, press "  " enter the mute function .



1) Mute Level

:Indicates that the unit is currently in the first level of silence.

:Indicates that the unit is currently in secondary silence.

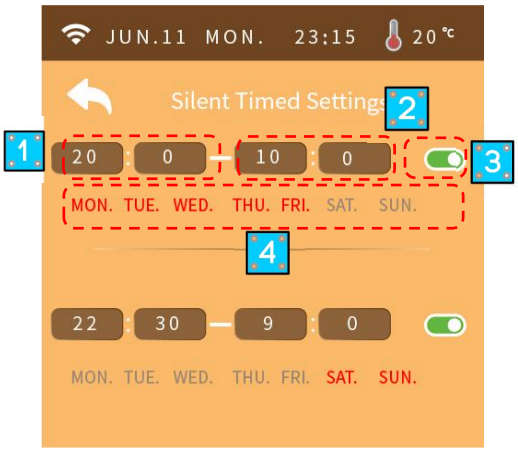
2) Mute Mode


:Indicates that the unit is not currently muted.


:Indicates that the unit is currently muted.

3) Timer Mute

Press “  ” to enter the timer mute setting interface.



① Mute setting start time

② Mute setting end time

③ While the mute setting is valid, the background is green;

④ While the mute setting is invalid, the background is gray.

⑤ Press MON~SUN to choose which day to be valid for the timer. The day will become red after pressing.

Note: If timed on time is equal to timed off time, the segment cannot take effect.

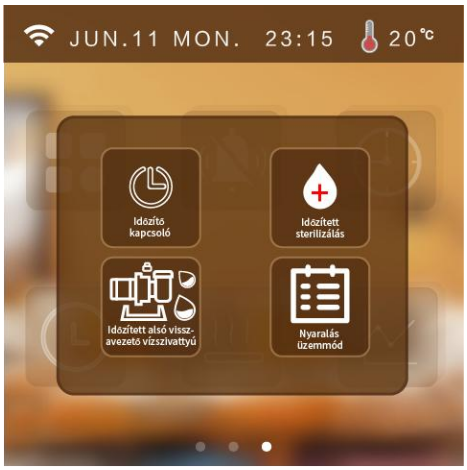
If timing is not on or the timing on week is not selected, the segment of timing cannot take effect.

If the timings are set to cross, the opening time or end time will be executed according to the earliest time.

3.17. Timed Function

1) Timed ON/OFF Setting

At the setting interface, click "  " and then click "Timer Switch" to enter the Timer ON/OFF setting interface.



" " indicates that the timer switch function is on," " indicates that the timer switch function is not on," " indicates that the unit does not have a timer on/off function.

Note: If timed on time is equal to timed off time, the segment cannot take effect.

If timing is not on or the timing on week is not selected, the segment of timing cannot take effect.

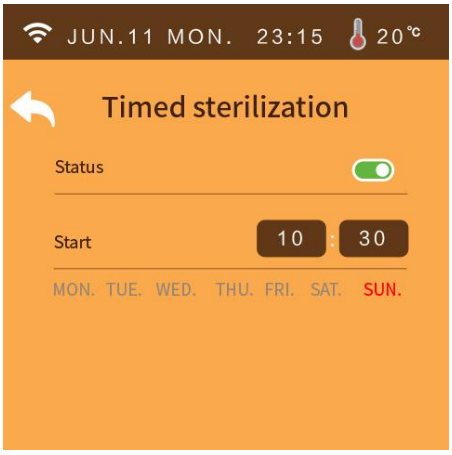
If the timings are set to cross, the opening time or end time will be executed according to the earliest time.

2) Timed Sterilization Function

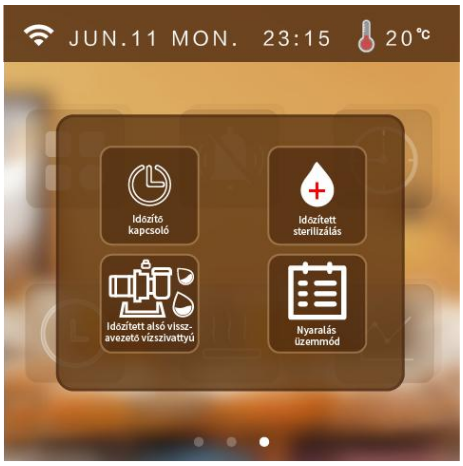
At the setting interface, press " " in the settings screen, then press"Timed Sterilization" Enter the timed sterilization function.

Click on the button to turn on the sterilization function (stands for sterilization on, stands for sterilization off.)

For example, the sterilization function is on and the timer function is also in effect, which turns on at 10.30am on Sunday morning.



Operating conditions: Turn on sterilization parameters(G01).



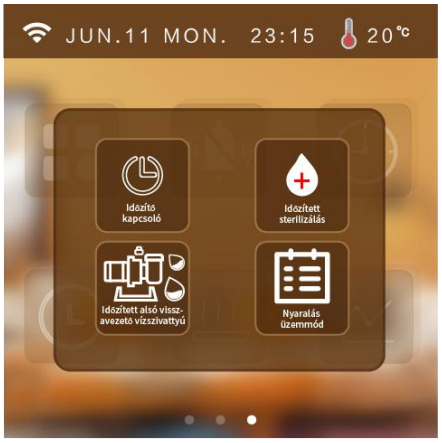
" " indicates that the timer sterilization function is on, " " indicates that the timer sterilization function is off, " " indicates that the unit does not have the timer sterilization function.

Note: Timing is on for the day of the week, otherwise the timing will not work.

3) Timed Turn-on Lower Return Pump

At the setting interface, press " " in the settings screen, then press"Timed on return pump" enter the timed turn-on of the lower return pump.

Operating conditions: Turn on the lower return pump parameters(N21 and P08) .

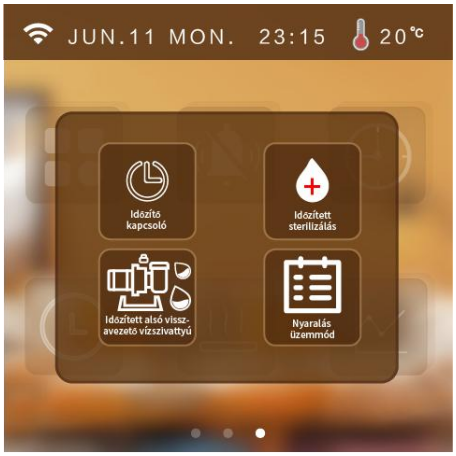


" " "indicates that the timed pump-down function is enabled, " " "indicates that the timed pump-down function is not enabled, " " " indicates that the unit does not have a timed pump-down function.

4) Holiday Mode

At the setting interface, press " " in the settings screen, then press " " select holiday mode.

Operating conditions: The heating mode of the unit is enabled, otherwise it cannot enter the holiday mode.



" "indicates that the timed holiday function is enabled, " "indicates that the timed holiday function is not enabled, " " indicates that the unit does not have the timed holiday function.

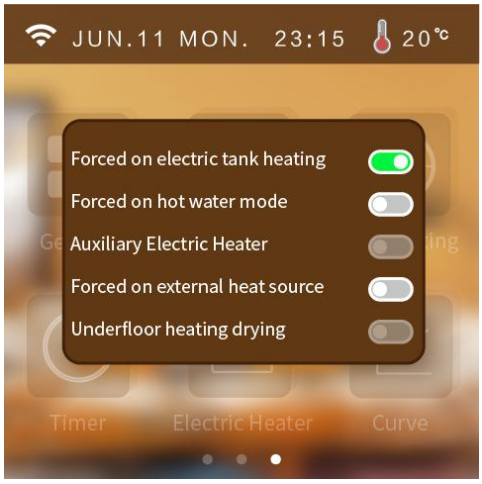
Note: When holiday leave home mode and holiday at home mode are turned on at the same time, holiday leave mode is the highest authority. Holiday enter when executing the holiday mode when executing the target temperature, exit holiday mode to execute the normal setting target temperature, enter the holiday mode when not allowed to operate the line controller, operation of the line controller will pop-up window whether to exit the holiday mode.

Use scenarios

a) Holiday at home mode: you can set the indoor temperature and water temperature for each time period (for example: the temperature is colder in the early morning you can set a period of time to set the target temperature higher, the temperature is more suitable at noon you can set a period of time to set the target temperature lower, the temperature drops in the evening set a period of time to set the target temperature higher).

b) Holiday leave mode: when no one lives at home, you can keep the room a minimum temperature operation.

3.18. Heating Function



1) Force Start Water Tank Electric Heater

At the setting interface, press “ ” to enter the electric heater interface.Select ON/OFF.

Operating conditions:

a) The unit is turned on the hot water function and the current operation contains hot water mode.

b) If the hot water temperature of the unit > the target temperature of hot water, the hot water temperature of the unit < the target temperature of hot water - the hot water will be poor.

c) Unit hot water temperature < hot water target temperature - 1°

d) The electric tank heating function is enabled.

e) If one of the conditions a-d is not met, the electric heater cannot be forced on.

2) Force Start Hot Water Mode

At the setting interface, press “ ” to enter the hot water mode interface.Select ON/OFF.

Operating conditions:

The unit turns on the hot water function, otherwise it cannot be turned on to forced hot water mode.

3) Auxiliary Electric Heater

At the setting interface, press “ ” to enter the electric heater interface. Select ON/OFF.

Operating conditions:

The unit turns on the auxiliary electric heater function(parameter M39), otherwise it cannot be turned on to forced auxiliary electric heater mode.

4) Force Start External Heat Source

At the setting interface, press “ ” to enter the external heat source interface.Select ON/OFF.

Operating conditions:

The unit turns on the external heat source(parameter M40 and N37), otherwise it cannot be turned on to forced external heat source mode.

5) Underfloor Heating Drying

At the setting interface, press “ ” to enter the underfloor heating drying interface.Select ON/OFF.

Operating conditions:

The unit underfloor heating inlet temperature sensor on, otherwise the underfloor heating drying function cannot be switched on.

3.19. Preheat Function

a) When the machine enters the warm-up mode, the main page " " flashes

b) Quick warm-up

In the main interface, click " " will pop-up window, select "Fast" to enter the fast warm-up function, fast warm-up time is 10min, click the blank position to return to the main interface.

c) Exit the warm-up function.

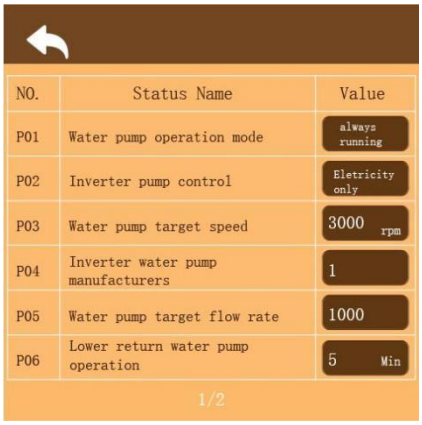
In the main interface, click "" will pop-up window, select "Cancel" to directly exit the warm-up function; click on the blank position to return to the main interface.

3.20. Water Pump

Operation Mode

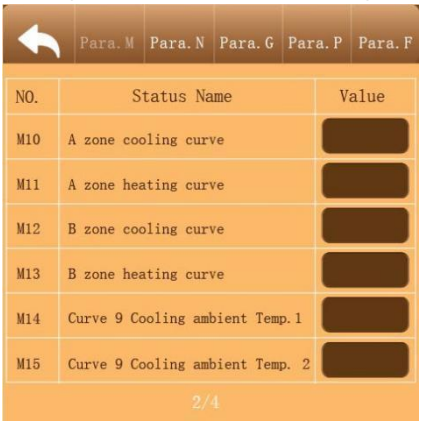
At the system parameter interface, press "" and input the password “168” to enter the customer management interface.

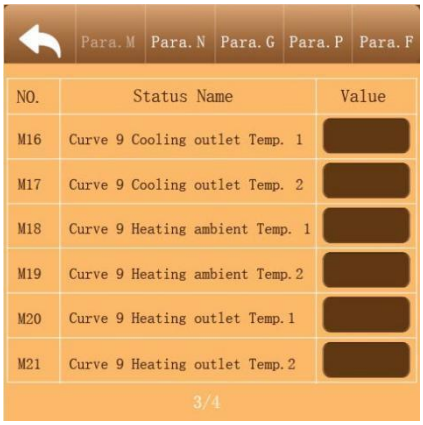
Click P01 parameter to modify the pump operation mode.You can choose Always running / intermittent operation / stop temp. Reached.



3.21. Climate Curve

At the system parameter interface, press “” and input the password “168” to enter the customer management interface. Setting parameters M10-M21.





1. Cooling climate curve

a) Users can choose to enable any one curve according to the following table.

b) Users can set the curve parameters by themselves, set the parameters as follows: Curve 9 Cooling Ambient Temp.1, Curve 9 Cooling Ambient Temp.2,Curve 9 Cooling Outlet Temp.1,Curve 9 Cooling Outlet Temp.2.(The target temperature value is calculated according to the linear relationship y=kx+b.)

Ambient Temp	-10≤TA<15	15≤TA<22	22≤TA<30	30≤TA
Low Temp.1	16	11	8	5
Low Temp.2	17	12	9	6
Low Temp.3	18	13	10	7
Low Temp.4	19	14	11	8

Low Temp.5	20	15	12	9
Low Temp.6	21	16	13	10
Low Temp.7	22	17	14	11
Low Temp.8	23	18	15	12
High Temp.1	20	18	17	16
High Temp.2	21	19	18	17
High Temp.3	22	20	19	17
High Temp.4	23	21	19	18
High Temp.5	24	21	20	18
High Temp.6	24	22	20	19
High Temp.7	25	22	21	19
High Temp.8	25	23	21	20

2. Heating climate curve

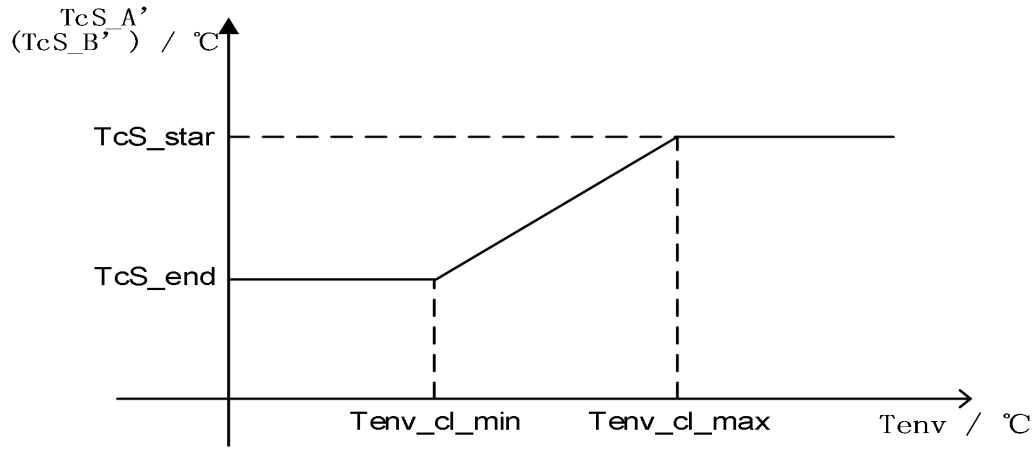
a) Users can choose to enable any one curve according to the following table.

b) Users can set the curve parameters by themselves, set the parameters as follows: Curve 9 Heating Ambient Temp.1, Curve 9 Heating Ambient Temp.2,Curve 9 Heating Outlet Temp.1,Curve 9 Heating Outlet Temp.2.(The target temperature value is calculated according to the linear relationship y=kx+b.)

Ambient Temp.	≤ -20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4
Low Temp.1	38	38	38	38	38	37	37	37	37	37	37	36	36	36	36	36	36
Low Temp.2	37	37	37	37	37	36	36	36	36	36	36	35	35	35	35	35	35
Low Temp.3	36	36	36	35	35	35	35	35	35	34	34	34	34	34	34	33	33
Low Temp.4	35	35	35	34	34	34	34	34	34	33	33	33	33	33	33	32	32
Low Temp.5	34	34	34	33	33	33	33	33	33	32	32	32	32	32	32	31	31
Low Temp.6	32	32	32	32	31	31	31	31	31	31	31	31	30	30	30	30	30
Low Temp.7	31	31	31	31	30	30	30	30	30	30	30	30	29	29	29	29	29
Low Temp.8	29	29	29	29	28	28	28	28	28	28	28	28	27	27	27	27	27
High Temp.1	55	55	55	55	54	54	54	54	54	54	54	54	53	53	53	53	53
High Temp.2	53	53	53	53	52	52	52	52	52	52	52	52	51	51	51	51	51
High Temp.3	52	52	52	52	51	51	51	51	51	51	51	51	50	50	50	50	50
High Temp.4	50	50	50	50	49	49	49	49	49	49	49	49	48	48	48	48	48
High Temp.5	48	48	48	48	47	47	47	47	47	47	47	47	46	46	46	46	46
High Temp.6	45	45	45	45	44	44	44	44	44	44	44	44	43	43	43	43	43
High Temp.7	43	43	43	43	42	42	42	42	42	42	42	42	41	41	41	41	41
High Temp.8	40	40	40	40	39	39	39	39	39	39	39	39	38	38	38	38	38
Ambient Temp.	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13

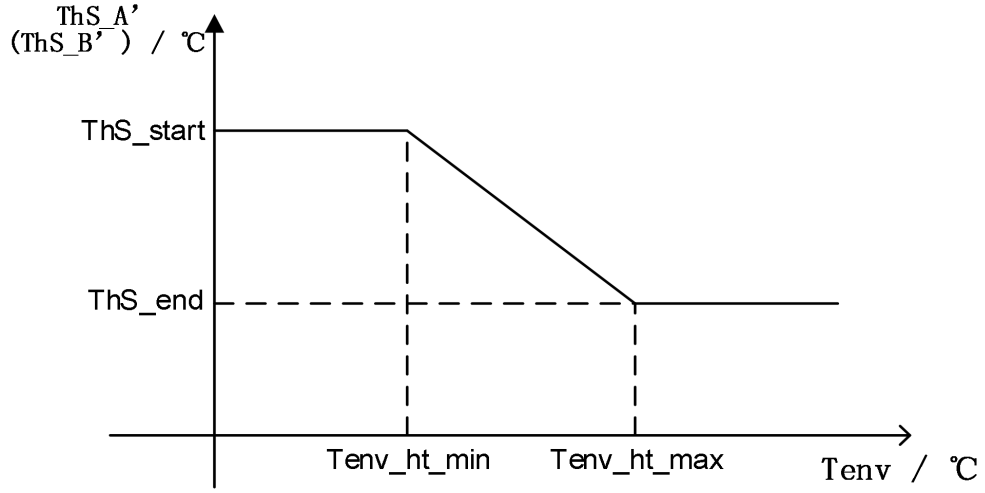
Low Temp.1	35	35	35	35	35	35	34	34	34	34	34	34	33	33	33	33	33
Low Temp.2	34	34	34	34	34	34	33	33	33	33	33	33	32	32	32	32	32
Low Temp.3	33	33	33	33	32	32	32	32	32	32	31	31	31	31	31	31	30
Low Temp.4	32	32	32	32	31	31	31	31	31	31	30	30	30	30	30	30	29
Low Temp.5	31	31	31	31	30	30	30	30	30	30	29	29	29	29	29	29	28
Low Temp.6	30	30	30	29	29	29	29	29	29	29	28	28	28	28	28	28	27
Low Temp.7	29	29	29	28	28	28	28	28	28	28	27	27	27	27	27	27	26
Low Temp.8	27	27	27	26	26	26	26	26	26	26	26	25	25	25	25	25	25
High Temp.1	53	53	53	53	53	52	52	52	52	52	52	52	52	51	51	51	51
High Temp.2	51	51	51	51	51	50	50	50	50	50	50	50	50	49	49	49	49
High Temp.3	50	50	50	50	50	49	49	49	49	49	49	49	49	48	48	48	48
High Temp.4	48	48	48	48	48	47	47	47	47	47	47	47	47	46	46	46	46
High Temp.5	46	46	46	46	46	45	45	45	45	45	45	45	45	44	44	44	44
High Temp.6	43	43	43	43	43	42	42	42	42	42	42	42	42	41	41	41	41
High Temp.7	41	41	41	41	41	40	40	40	40	40	40	40	40	39	39	39	39
High Temp.8	38	38	38	38	38	37	37	37	37	37	37	37	37	36	36	36	36
Ambient Temp.	14	15	16	17	18	19	⩾ 20										
Low Temp.1	33	32	32	32	32	32	32										
Low Temp.2	32	31	31	31	31	31	31										
Low Temp.3	30	30	30	30	30	29	29										
Low Temp.4	29	29	29	29	29	28	28										
Low Temp.5	28	28	28	28	28	27	27										
Low Temp.6	27	27	27	27	27	26	26										
Low Temp.7	26	26	26	26	26	25	25										
Low Temp.8	25	25	24	24	24	24	24										
High Temp.1	51	51	50	50	50	50	50										
High Temp.2	49	49	48	48	48	48	48										
High Temp.3	48	48	47	47	47	47	47										
High Temp.4	46	46	45	45	45	45	45										
High Temp.5	44	44	43	43	43	43	43										
High Temp.6	41	41	40	40	40	40	40										
High Temp.7	39	39	38	38	38	38	38										
High Temp.8	36	36	35	35	35	35	35										

Custom Curve——Cooling



Tenv_cl_max: MAX(【Custom Curve of Cooling Ambient Temp.1】, 【Custom Curve of Cooling Ambient Temp.2】)
Tenv_cl_min: MIN(【Custom Curve of Cooling Ambient Temp.1】, 【Custom Curve of Cooling Ambient Temp.2】)
TcS_end: MIN(【Custom Curve of Cooling Outlet Temp. 1】, 【Custom Curve of Cooling Outlet Temp. 2】)
TcS_start: MAX(【Custom Curve of Cooling Outlet Temp. 1】, 【Custom Curve of Cooling Outlet Temp. 2】)

Custom Curve——Heating



Ten
v_cl_max: MAX(【Custom Curve of Heating Ambient Temp. 1】,【Custom Curve of Heating Ambient Temp. 2】)
Tenv_cl_min: MIN(【Custom Curve of Heating Ambient Temp. 1】, 【Custom Curve of Heating Ambient Temp. 2】)
TcS_end: MIN(【Custom Curve of Heating Outlet Temp.1】, 【Custom Curve of Heating Outlet Temp.2】)
TcS_start: MAX(【Custom Curve of Heating Outlet Temp.1】, 【Custom Curve of Heating Outlet Temp.2】)

4. APPENDIX

4.1. Parameters

Note: Parameters can only be modified when the unit is powered off, otherwise the parameters cannot be modified successfully.

Code	Parameter	Unit	Range
N01	Power Mode	/	0 Standard/1 Powerful/2 Eco/3 Auto
N02	Heating & Cooling Type	/	0 Heating only/1 Heating & Cooling / 2 Cooling only
N04	Four-Way Valve Setting	/	0 Heating open valve/1 Cooling open valve
N05	Wire control switch type	/	0 Toggle switch/1 Pulse switch
N06	Unit Start/Stop Control	/	0 Union/1 Remote/2 Local/3 Wire Control/4 Net control
N07	Power Down Memory	/	0 Disable/1 Enable
N08	Incoming Power Self-Start	/	0 Disable/1 Enable
N11	Hot Water Function	/	0 Disable/1 Enable
N20	Tank Electric Heating	/	0 Disable/1 Enable
N21	Lower Return Pump	/	0 Disable/1 Enable
N22	Solar	/	0 Disable/1 Enable
N23	Linkage Switch Setting	/	0 Disable/1 Linkage Action is Valid/2 Linkage Closure is Valid/3 Power ON/OFF via Wire Controller/off/4 Control DHW Electric Heater via Wire Controller/5 Control External Heat Source via Wire Controller
N26	Wire Controller Control Type	/	
N32	Smart Grid	/	0 Disable/1 Enable
N36	Underfloor Heating Inlet Temp. Sensor	/	0 Disable/1 Enable
N37	System Total Outlet Water Temp. Sensor	/	0 Disable/1 Enable
N38	EVU PV Signal	/	0 Normally open/1 Normally closed
N39	SG Grid Signal	/	0 Normally open/1 Normally closed
N41	Solar Temp. Sensor	/	0 Disable/1 Enable
N48	Zone A cooling end	/	0 Radiator/ 1 Fan Coil/ 2 Underfloor Heating
N49	Zone A heating end	/	0 Radiator/ 1 Fan Coil/ 2 Underfloor Heating

M01	Cooling Setting Temp.	℃	15 ~ 35
M02	Heating Setting Temp.	℃	0 ~ 85
M03	Hot Water Setting Temp.	℃	0 ~ 80
M08	Heating Setting Temp.(B)	℃	40 ~ 60
M10	A Zone Cooling Curve	/	0 Disable/ 1 Low Temp. Curve 1/ 2 Low Temp. Curve 2/ 3 Low Temp. Curve 3/4 Low Temp. Curve 4/ 5 Low Temp. Curve 5/ 6 Low Temp. Curve 6/ 7 Low Temp. Curve 7/ 8 Low Temp. Curve 8/ 9 High Temp. Curve 1/ 10 High Temp. Curve 2/ 11 High Temp. Curve 3/ 12 High Temp. Curve 4/ 13 High Temp. Curve 5/ 14 High Temp. Curve 6/ 15 High Temp. Curve 7/ 16 High Temp. Curve 8/ Custom Curve
M11	A Zone Heating Curve	/	0 Disable/ 1 Low Temp. Curve 1/ 2 Low Temp. Curve 2/ 3 Low Temp. Curve 3/4 Low Temp. Curve 4/ 5 Low Temp. Curve 5/ 6 Low Temp. Curve 6/ 7 Low Temp. Curve 7/ 8 Low Temp. Curve 8/ 9 High Temp. Curve 1/ 10 High Temp. Curve 2/ 11 High Temp. Curve 3/ 12 High Temp. Curve 4/ 13 High Temp. Curve 5/ 14 High Temp. Curve 6/ 15 High Temp. Curve 7/ 16 High Temp. Curve 8/ Custom Curve
M12	B Zone Cooling Curve	/	0 Disable/ 1 Low Temp. Curve 1/ 2 Low Temp. Curve 2/ 3 Low Temp. Curve 3/4 Low Temp. Curve 4/ 5 Low Temp. Curve 5/ 6 Low Temp. Curve 6/ 7 Low Temp. Curve 7/ 8 Low Temp. Curve 8/ 9 High Temp. Curve 1/ 10 High Temp. Curve 2/ 11 High Temp. Curve 3/ 12 High Temp. Curve 4/ 13 High Temp. Curve 5/ 14 High Temp. Curve 6/ 15 High Temp. Curve 7/ 16 High Temp. Curve 8/ Custom Curve
M13	B Zone Heating Curve	/	0 Disable/ 1 Low Temp. Curve 1/ 2 Low Temp. Curve 2/ 3 Low Temp. Curve 3/4 Low Temp. Curve 4/ 5 Low Temp. Curve 5/ 6 Low Temp. Curve 6/ 7 Low Temp. Curve 7/ 8 Low Temp. Curve 8/ 9 High Temp. Curve 1/ 10 High Temp. Curve 2/ 11 High Temp. Curve 3/

			12 High Temp. Curve 4/ 13 High Temp. Curve 5/ 14 High Temp. Curve 6/ 15 High Temp. Curve 7/ 16 High Temp. Curve 8/ Custom Curve
M14	Custom Curve of Cooling Ambient Temp.1	℃	-5 ~ 46
M15	Custom Curve of Cooling Ambient Temp. 2	℃	-5 ~ 46
M16	Custom Curve of Cooling Outlet Temp. 1	℃	5 ~ 25
M17	Custom Curve of Cooling Outlet Temp. 2	℃	5 ~ 25
M18	Custom Curve of Heating Ambient Temp. 1	℃	-25 ~ 35
M19	Custom Curve of Heating Ambient Temp.2	℃	-25 ~ 35
M20	Custom Curve of Heating Outlet Temp.1	℃	25 ~ 65
M21	Custom Curve of Heating Outlet Temp.2	℃	25 ~ 65
M35	Min. Ambient Temp.of Automatic Cooling	℃	20 ~ 29
M36	Max. Ambient Temp.of Automatic Cooling	℃	10 ~ 17
M37	Holiday away Home Heating	℃	20 ~ 25
M38	Holiday away Home Hot Water	℃	20 ~ 25
M39	Auxiliary Electric Heater	/	0 Disable/1 Heating only/2 Hot water only/3 Heating & Hot water
M40	External Heat Source	/	0 Disable/1 Heating only/2 Hot water only/3 Heating & Hot water
M55	Underfloor Heating Preheating Temp.	℃	25 ~ 35

M56	Underfloor Heating Preheating Interval	Min	10 ~ 40
M57	Underfloor Heating Preheating Time	H	48 ~ 96
M58	Underfloor Heating Water Temp. Return Difference	℃	0 ~ 10
M59	Underfloor Heating Room Temp. Return Difference	℃	0 ~ 10
M60	Underfloor Heating Before Drying	DAY	4 ~ 15
M61	Underfloor Heating During Drying	DAY	3 ~ 7
M62	Underfloor Heating After Drying	DAY	4 ~ 15
M63	Underfloor Heating Drying Temp.	℃	30 ~ 55
F06	Variable Frequency Fan Speed Adjustment	/	0 Manual/1 Ambient Temp. Linear/2 Fin Temp. Linear
F07	Fan Manual Operation	rps	0～2000
P01	Water Pump Operation Mode	/	0 Keep Running/1 Stop When Temp. Reached/2Intermittent Operation
P02	Water Pump Control Type	/	1 Control Speed/2 Control Flow Rate/3 ON/OFF/4 Control Power
P03	Water Pump Target Speed	rpm	1000 ~ 4500
P04	Water Pump Manufacturers	/	0 ~ 4
P05	Water Pump Target Flow Rate	undefined	0 ~ 4500
P06	Lower Return Water Pump Operation	Min	5 ~ 120
P07	Lower Return Water Pump Sterilization	/	0 Disable/1 Enable
P08	Lower Return Water Pump Timed	/	0 Disable/1 Enable
G01	Timed Sterilization Function	/	0～1
G02	Sterilization Temp.	℃	0 Disable/1 Enable

G03	Sterilization Max. cycle	Min	60～70
G04	Sterilization high Temp. time	Min	90～300

4.2. Error code

Code	Description	Causes	Solutions
E01	Wire controller communication fault	1.The connection between wire controller and main board is poor. 2. Wire controller fault. 3. Main board fault. 4. Communication wire and strong electricity wire put together, resulting in power interference communication	1. Reconnect the wire controller cable. 2. Replace the wire controller. 3. Replace the main board. 4. Communication wire is placed separately from the strong electricity wire.
E03	0#Compressor high pressure	1. Check for refrigerant leaks 2. The throttle device is dirty and blocked, damaged 3. Compressor bearing damage, causing mechanical part friction, exhaust temperature rise 4. High pressure switch fault 5. Main board fault 6. Compressor fault	1.Refill refrigerant 2.Clean/replace throttle device 3.Replace compressor 4.Replace the high pressure switch 5.Replace the main board 6.Replace the compressor
E04	0#Compressor low pressure	1.Insufficient water flow 2.Low chilled water inlet water temperature 3.Refrigerant leakage or insufficient refrigerant charge 4.Scale in evaporator	1.Check the temperature difference between the inlet and outlet water and adjust the water flow 2.Check the installation 3.Leak detection or filling with sufficient refrigerant 4.Remove water scale
E06	0#Inverter communication fault	1. Power supply voltage fault 2. Inverter board fault 3. Main board fault	1. Replace the power cord 2. Replace the inverter board 3.Replace the main board
E06	0#Communication fault	1. Communication lines and strong wires placed together, resulting in communication power interference 2. Poor connection between the module machine and the main board. 3. Main board fault	1.Communication wire is placed separately from the strong electricity wire. 2.Reconnect the wires 3.Replace the main board.

Code	Description	Causes	Solutions
E10	Floor heating water inlet temperature fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E11	Total outlet water temperature fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E11	System total outlet water temperature fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E11	0#Plate exchanger outlet water Temp. fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E11	0# Total water outlet Temp. fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E12	Hot water tank temperature fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E12	Buffer tank upper temperature fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E12	Buffer tank lower temperature fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board

Code	Description	Causes	Solutions
E13	Indoor temperature fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E14	0# Ambient Temp. fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E16	0#Exhaust temperature fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E21	EEPROM data error	Data reading error	Shutdown and restart
E21	0#EEPROM data error		
E24	0#High plate return water temperature	1.Whether the wiring is loose/damaged 2.Heat exchanger is blocked 3.Temperature sensor fault 4.Main board fault	1.Rewiring/replacement of wires 2.Cleaning of heat exchangers 3.Replace the temperature sensor 4.Replace the main board
E24	0#Plate Inlet Water Temp. too High	1. Low water flow 2. Clogged water pipes 3. Water pipe damage 4. Sensor fault	1. Clear the blockage 2. Check whether the water flow of the pump meets the requirements 3. Replace the water pipe 4. Replace the sensor
E25	0#Cooling Evaporation is Too Low		
E25	0#Plate Exchanger Outlet Water Temp. Too Low		
E25	0#Plate Inlet Water Temp. too Low		
E26	0#Outlet and Inlet Water Temp. Difference Abnormal		
E26	0#Outlet and Inlet Water Temp. Difference is Too Large		

Code	Description	Causes	Solutions
E27	0#Exhaust temperature too high		
E31	0#J5 pressure sensor fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E32	0#J6 pressure sensor fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E44	0#Plate Exchanger Inlet Water Temp. Fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E55	0#Suction temperature fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E56	Solar Temp. sensor fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E58	0#Coil Temp. Fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E59	0#Suction temperature too low	1. Too much/too little refrigerant 2.Temperature sensor fault 3. Main board fault	1.Refill the refrigerant according to the nameplate 2.Replace the temperature sensor 3.Replace the main board
E60	0#Frequent emergency defrost	1. Ambient temperature sensor is damaged 2.Dirty and blocked heat exchanger 3. Lack of refrigerant	1.Replace the ambient temperature sensor 2.Clean the heat exchanger 3.Refill the refrigerant according to the nameplate

Code	Description	Causes	Solutions
E61	0#Abnormal Temp. difference between suction and exhaust	1.Inlet and outlet water temp. sensor fault. 2.The valve in water system is not open. 3.Waterway blockage, may appear in the heat exchanger or valve part. 4.Improper water pump selection 5.The water pump is broken . 6.Pipe size is too small. 7.Heat exchanger is fouling.	1. Need to replace the temp. sensor. 2.Clean or replace the blocked part. 3.Change the pump according to the water flow and water head. 4.Need to change the water pipe. 5.Reset the water flow switch manually. 6.Choose the suitable pipe size. 7.Clean the dirt of the heat exchanger surface.
E62	Fan coil communication fault 1-32	1. Connection cable fault 2. Power input fault 3. Main board fault	1. Check wiring and rewire 2. Replace the power cord 3. Replace the main board
E63	0#Communication abnormal	1. Communication lines and strong wires placed together, resulting in communication power interference 2. Poor connection between the module machine and the main board. 3. Main board fault	1.Communication wire is placed separately from the strong electricity wire. 2.Reconnect the wires 3.Replace the main board.
E63	0#Internal and external machine communication fault		
E64	0#Protocol version too low	Program error	Update procedure
E65	0#Abnormal model setting	1. Main board code error 2. The program did not restore the factory settings	1.Resetting the main board code 2.Re-download the program
E66	System maintenance data error	System maintenance data error	Recovery parameters in parameter setting
E67	Water Tank Electric Heater Overload	1.Voltage input error 2.Water tank damage	1.Check power supply wiring/reconnect power supply

Code	Description	Causes	Solutions
E67	0#Auxiliary electric heater overload		voltage 2.Repair of water tank
E68	0# Insufficient water flow	1.The water system is blocked 2.Water pump is not suitable 3. Water pipe is small 4.The water flow switch is stuck and cannot be reset.	1.Check if the pump is running properly/Clean or replace the blocked part 2.Change the pump according to the water flow and water head 3.Need to change the water pipe 4.Reset the water flow switch manually.
E69	0# Refrigerant gas side Temp. fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
E70	0#Refrigerant liquid side Temp. fault	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
F16	0#Compressor low pressure too low	1.Insufficient water flow 2.Low chilled water inlet water temperature 3.Refrigerant leakage or insufficient refrigerant charge 4.Scale in evaporator	1.Check the temperature difference between the inlet and outlet water and adjust the water flow 2.Check the installation 3.Leak detection or filling with sufficient refrigerant 4.Remove water scale

Code	Description	Causes	Solutions
F17	0#Compressor high pressure too high	1. Less refrigerant 2.The throttle device is dirty and blocked, damaged 3. Compressor bearing damage, causing mechanical part friction, exhaust temperature rise 4.High pressure switch fault 5.Main board fault 6.Compressor fault	1.Refill refrigerant 2.Clean/replace throttle device 3.Replace compressor 4.Replace the high pressure switch 5.Replace the main board 6.Replace the main board compressor
F61	0#Abnormal speed of fan 1	1.Loose connection cable 2.Unstable voltage 3. Main board fault 4. Fan fault	1.Reconnect the motherboard and fan wiring 2. Replace the stable voltage 3. Replace the Main board 4. Replace the fan
F61	0#Abnormal speed of fan 2		
F62	Fault of fan coil 01-32	1. Power input is not normal 2. Whether the fan coil is rotating 3. Whether the fan coil is blocked 4. The fan coil is damaged	1. Reconnect the power supply 2. Check whether the motor is stuck 3. Clean the fan coil 4. Replace the fan coil
F63	0#Ambient Temp. Restricts compressor Opening	1.Whether the wiring is loose/damaged 2.Temperature sensor fault 3.Main board fault	1.Rewiring/replacement of wires 2. Replace the temperature sensor 3. Replace the main board
F64	0#Inverter Fault	1.Loose connection cable 2.Unstable voltage 3. Main board fault 4. Driver board fault	1.Reconnect the wires 2. Replace the stable voltage 3. Replace the Main board 4. Replace the driver board fault

Code	Description	Causes	Solutions
F65	0#Inverter Model Setting in Progress	1. Loose connection cable 2. Pump fault 3. Inverter fault 4. Main board fault	1. Reconnect the wires 2. Replace the pump 3. Replace the inverter 4. Replace the main board
F66	0#Inverter pump fault	1.The water system is blocked. 2. Loose connection cable 3. Pump fault 4. Inverter fault 5. Main board fault	1. Clean or replace the blocked part 2. Reconnect the wires 3. Replace the pump 4. Replace the inverter 5. Replace the main board
F66	Inverter water pump fault		
F66	0#Inverter pump warning [80%]		

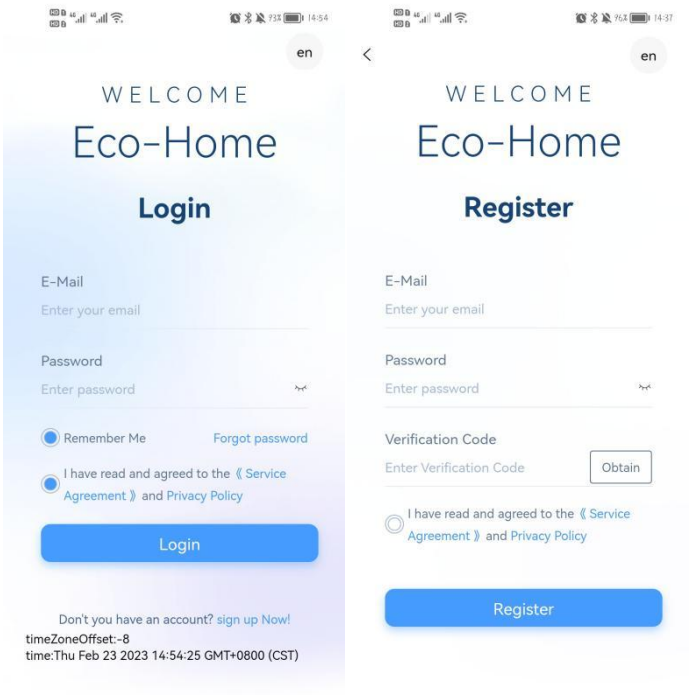
5. Wi-Fi FUNCTION

5.1. Software Installation

Download Eco-Home from Google Store or Apple Store.

5.2. Login / Registration

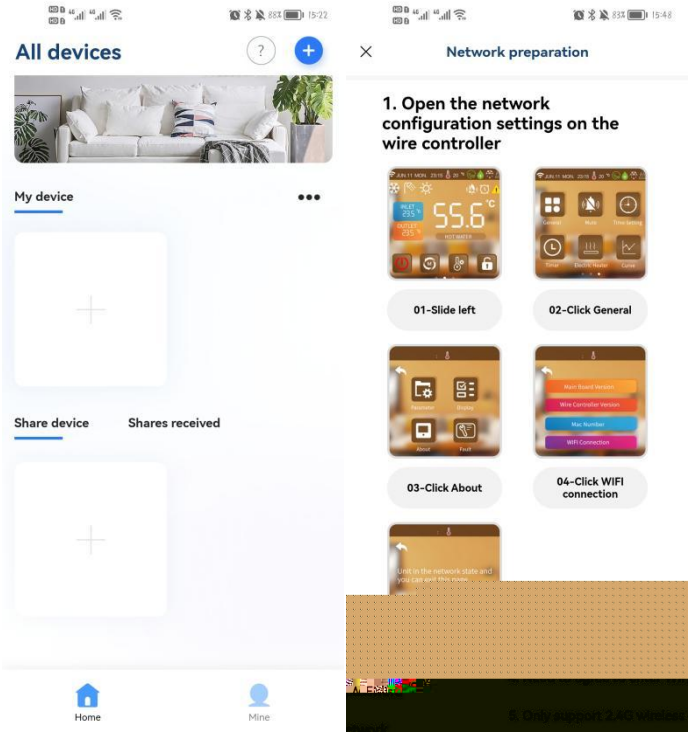
(1) Existing accounts can be logged in directly, in the following steps:
(2) If you forget your password you can choose to login in with your verification code and select "Forget Password": Enter your phone number and get the verification code.
(3) Users who don’t have an account can click “Sign Up Now!” to create an account.
(4) Set the password.
(5) Enter your Email， then you will get a verification code.



5.3. Add Device

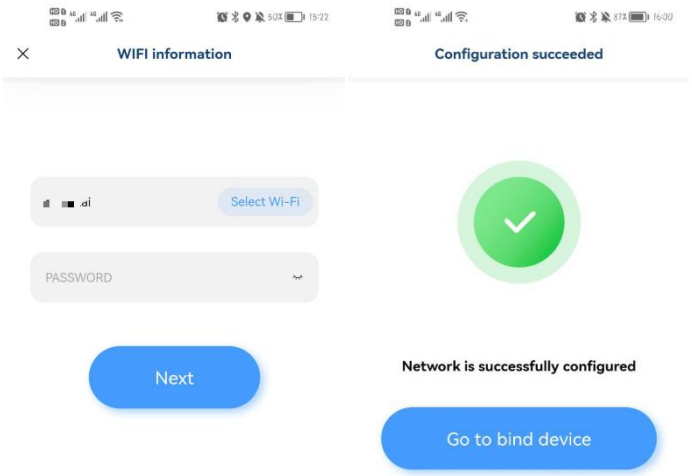
Step 1:

Turn on the phone's Bluetooth and Wi-Fi function, then connect to the Wi-Fi . The Wi-Fi must be able to connect to the Internet normally.



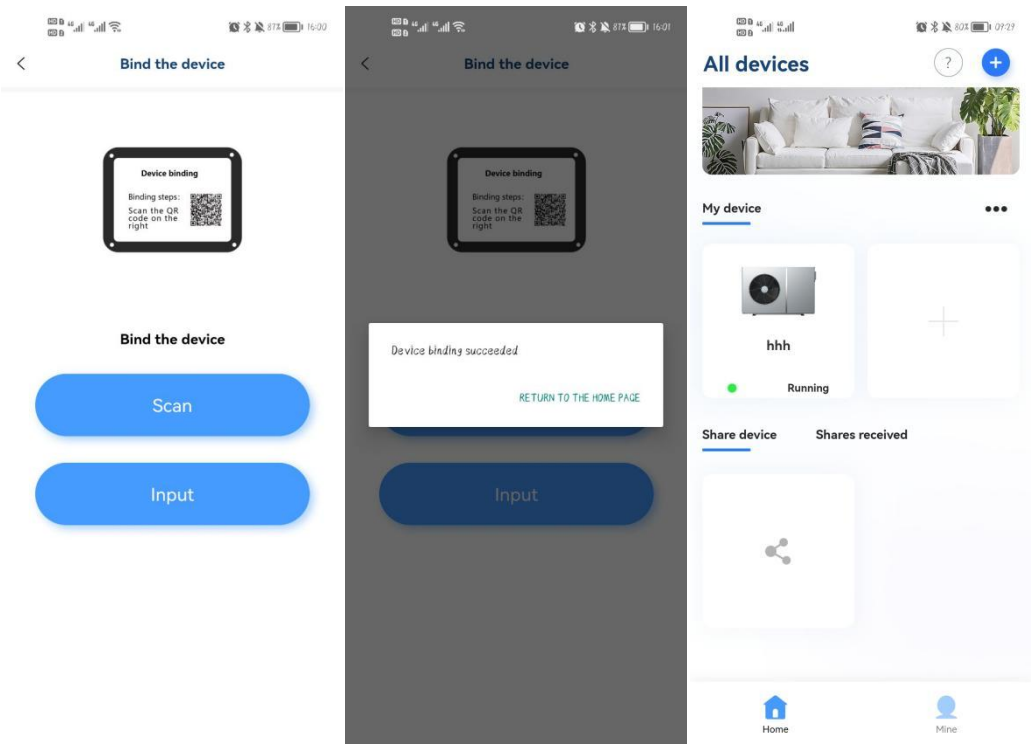
Step 2:

Choose Wi-Fi and enter the password.



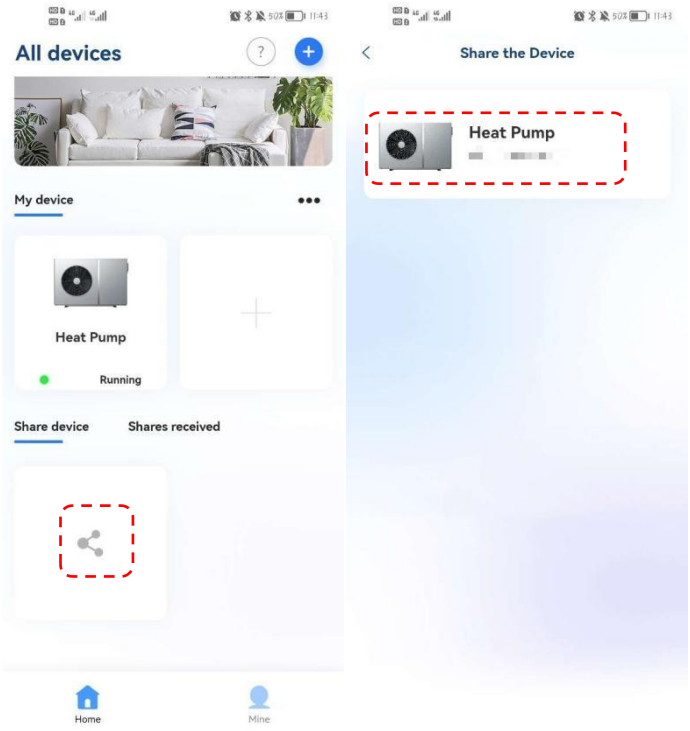
Step 3:

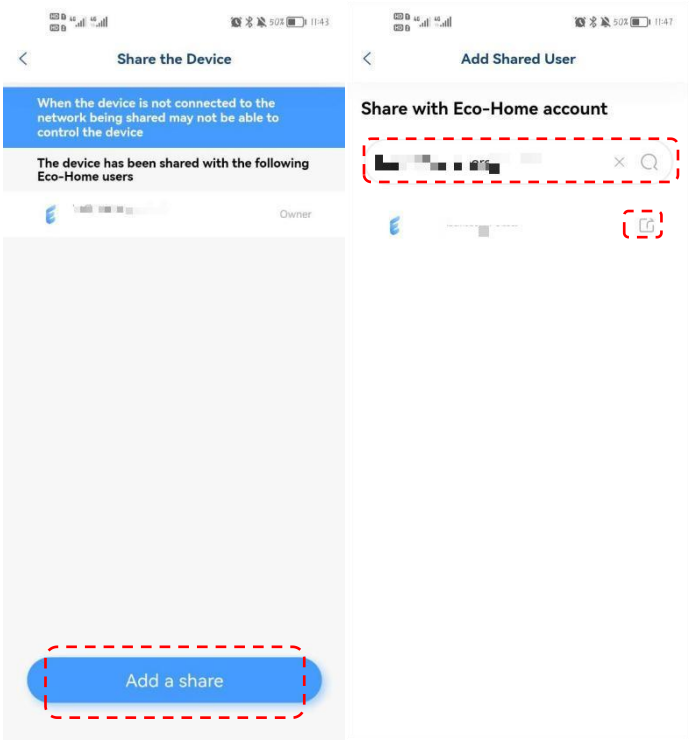
After successful networking, scan the wire controller QR code or enter the serial number to bind the unit.Return to the main page after successful binding.



- **Device sharing**

Click "share device", click the unit you want to share, click "Add a share", enter the shared account information, and confirm the share.

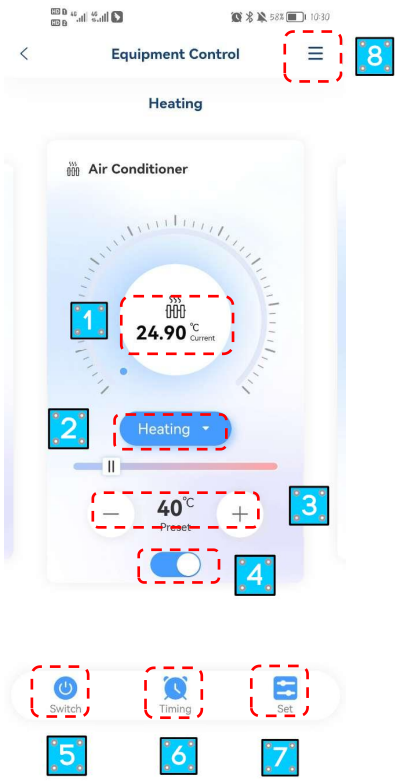




5.4. Software Function Operation

- After the device is bound successfully, enter the operation interface of “Eco-Home” (Device name, modifiable)
- In the main interface, click the unit to enter the operation interface.

(1) **Heating & Cooling**

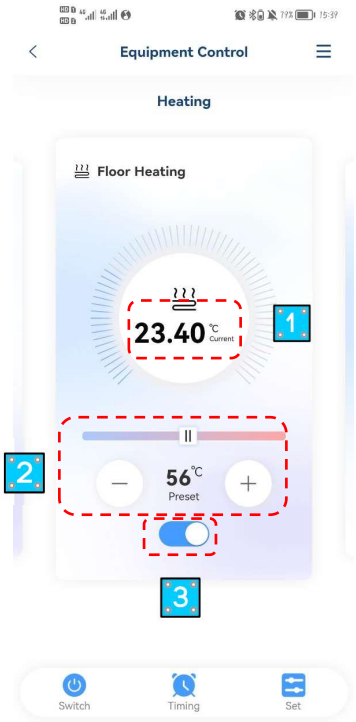


① Current Temperature
② Mode Settings
③ Target Temperature Setting
④ ON/OFF
⑤ Total ON/OFF
⑥ Timer ON/OFF
⑦ Set
⑧ More Settings

(2) **Hot Water**

① Current Temperature
② Target Temperature Setting
③ ON/OFF

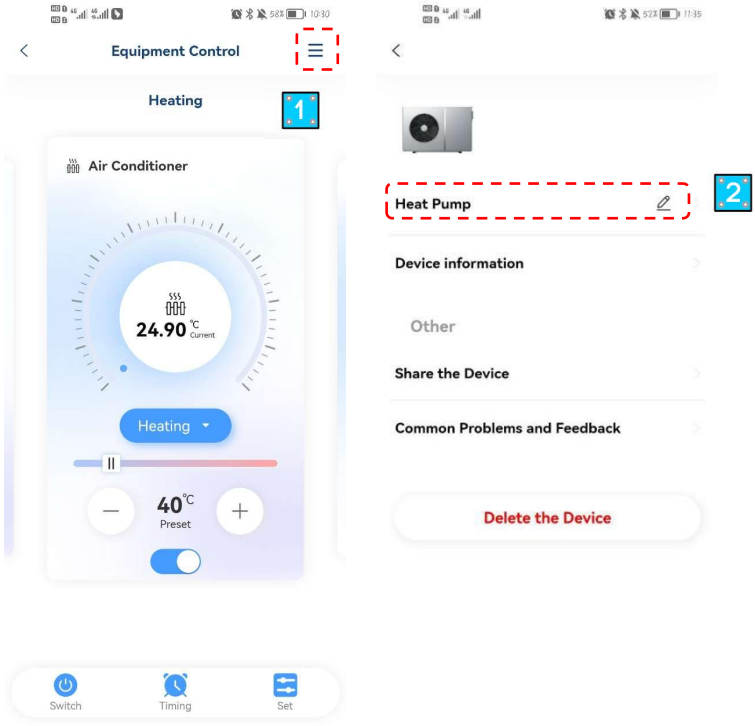
(3) Floor Heating



① Current Temperature
② Target Temperature Setting
③ ON/OFF

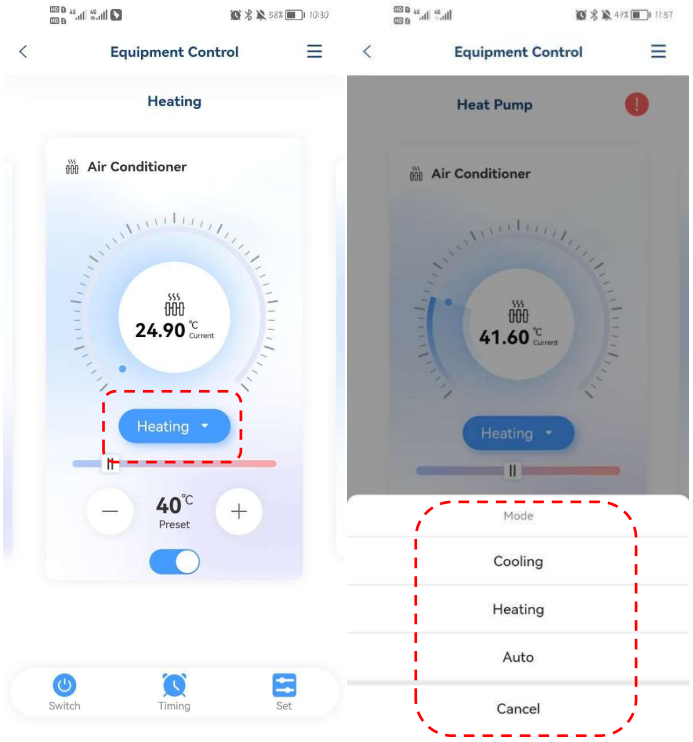
5.5. Modify Device Name / Delete Device

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



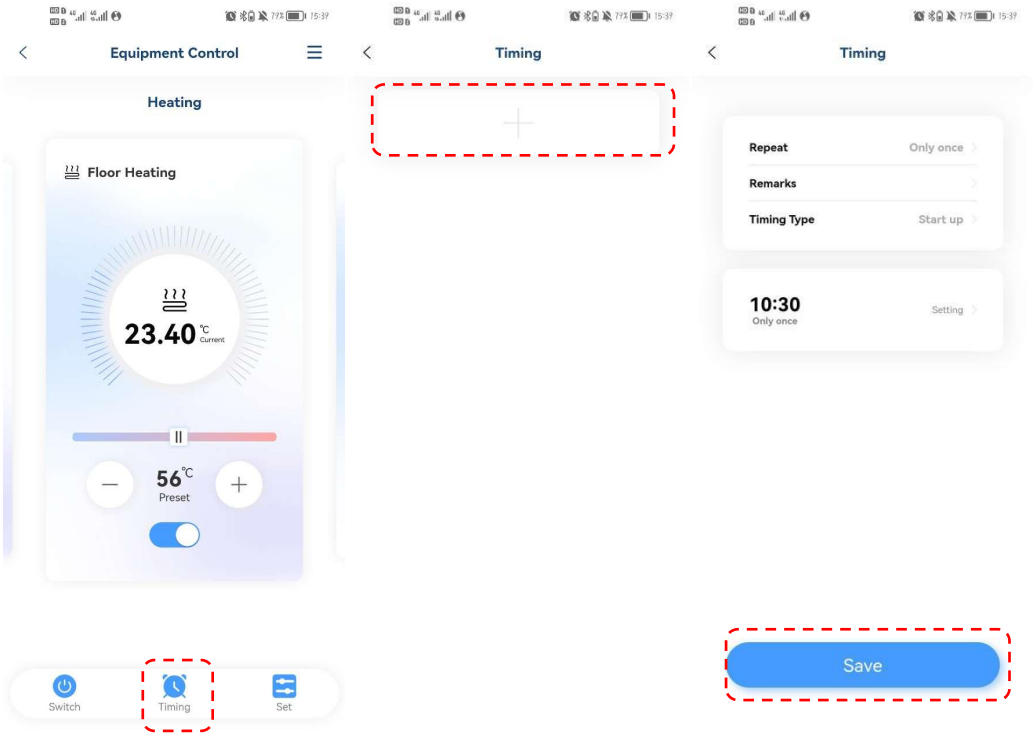
5.6. Mode settings

Click to select the mode you need to set.



5.7. Timing

Click "Timing", then click "+", set the timer and save it.



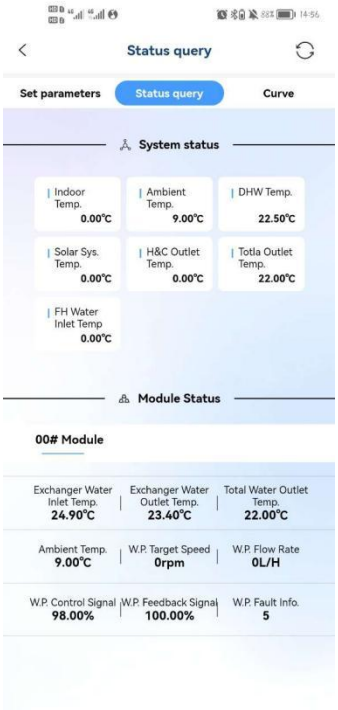
5.8. Set Parameters

(1) **Set Target Temp.**

Support to modify the content of the parameters is: Hot water target temperature, Cooling target temperature, Heating target temperature, Floor heating target temperature, and temperature units (in the modification of temperature units, the controller will re-read the main board and upload it to the APP one by one).

(2) Status Query

You can query the system status and module status.



(3) Temperature curve.

The current curve shows the temperature respectively: Exchanger water outlet Temperature, Exchanger water inlet Temperature, Ambient Temperature, DHW Temperature. Real-time curve updates.

5.9. Mine

Click "Mine" for user information, commom problems, about, and logout.