ONE FAMILY ONE
iGARDEN

wired controller and iGARDEN APP



Content

1 Wiring & Installation

2 Interface

3 Basic operation

4 Main Menu

5 Advanced settings

6 iGarden APP



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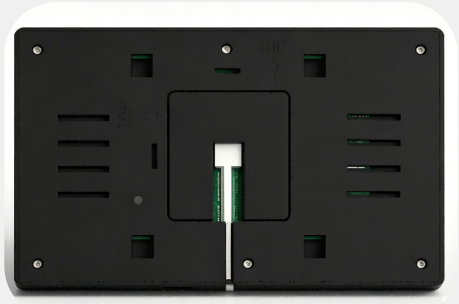
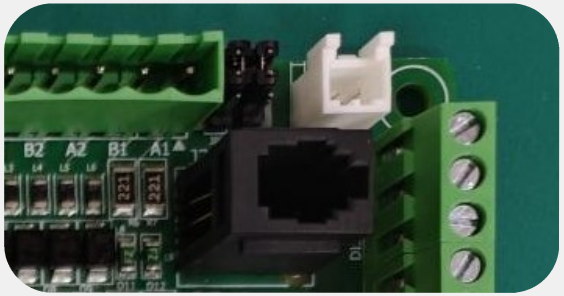
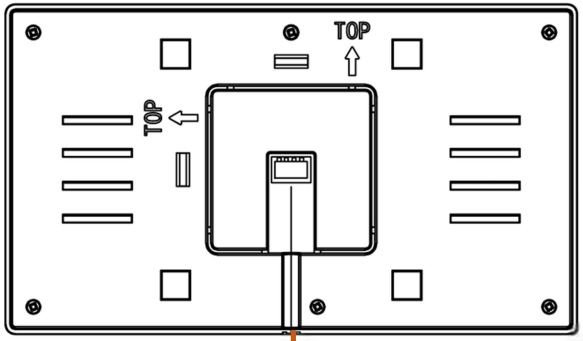
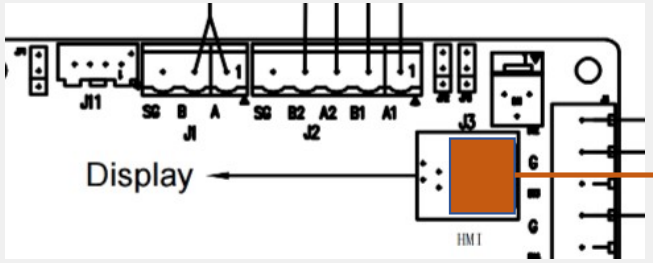
Wiring & Installation

Wiring



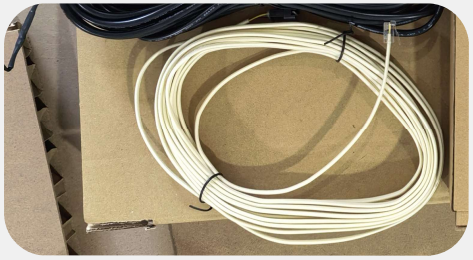






Expansion PCB

communication cable(10m)

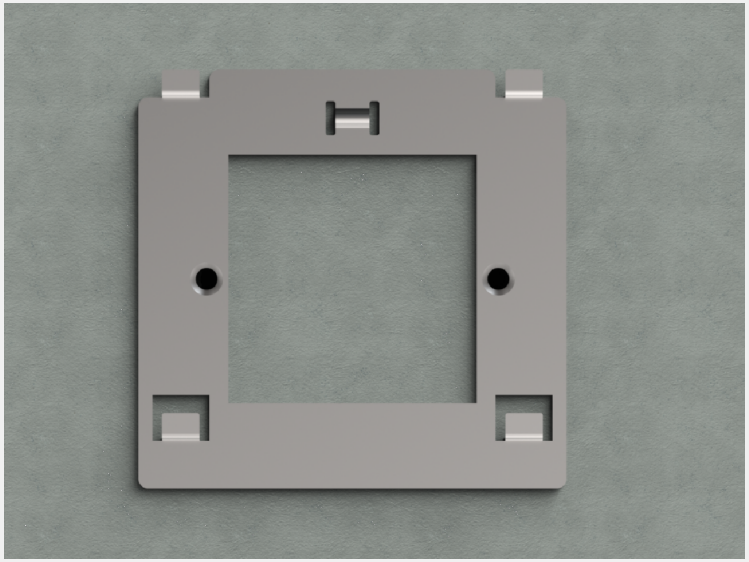


Input voltage	12V
Wire size	0.95mm
Wire length	10m

Installation

1. Drilling into the wall

Press the wall panel firmly against the wall surface. Drill holes along the positioning center points and insert M4-compatible expansion anchors.



2. Wall Panel Installation

Screw two M4 screws into the wall holes along the wall to secure the mounting bracket.



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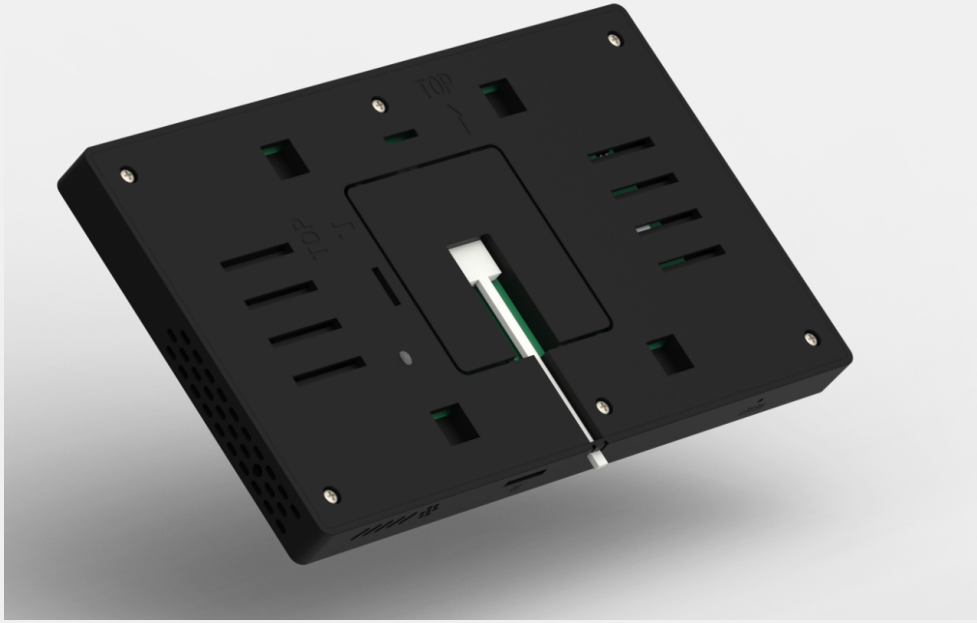
Installation

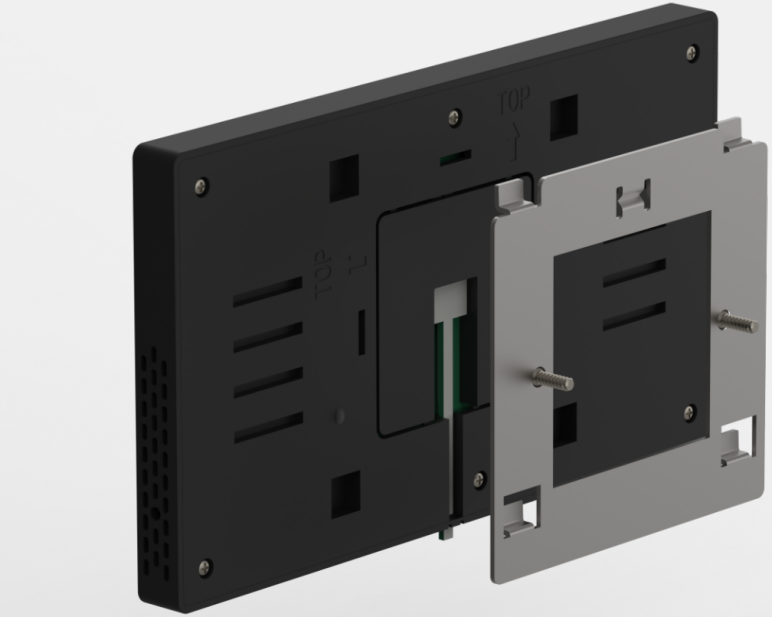
3. Secure the cable

Cut the notch in the plastic housing and thread the cable through.



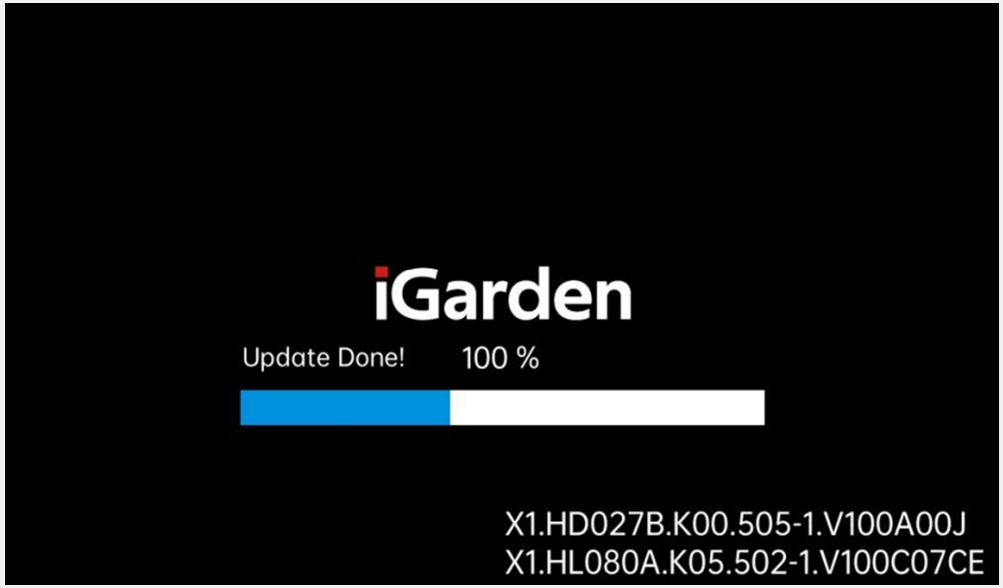
4. Installing the display

Note: Installation can be adjusted based on the actual usage direction.



Interface

Main Interface



Power on interface



Main interface

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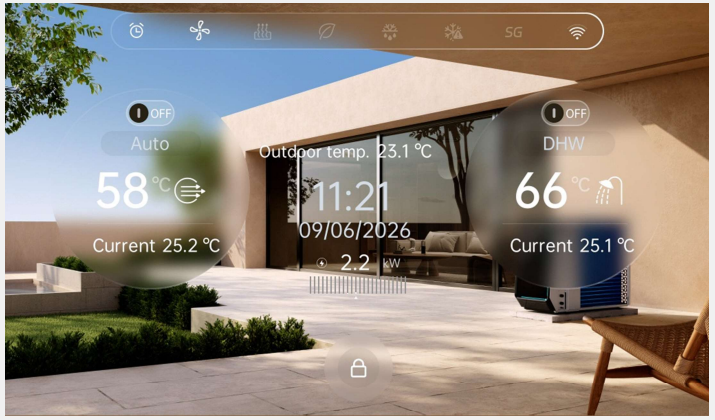
Main Interface

Background switches over time



Morning



Noon



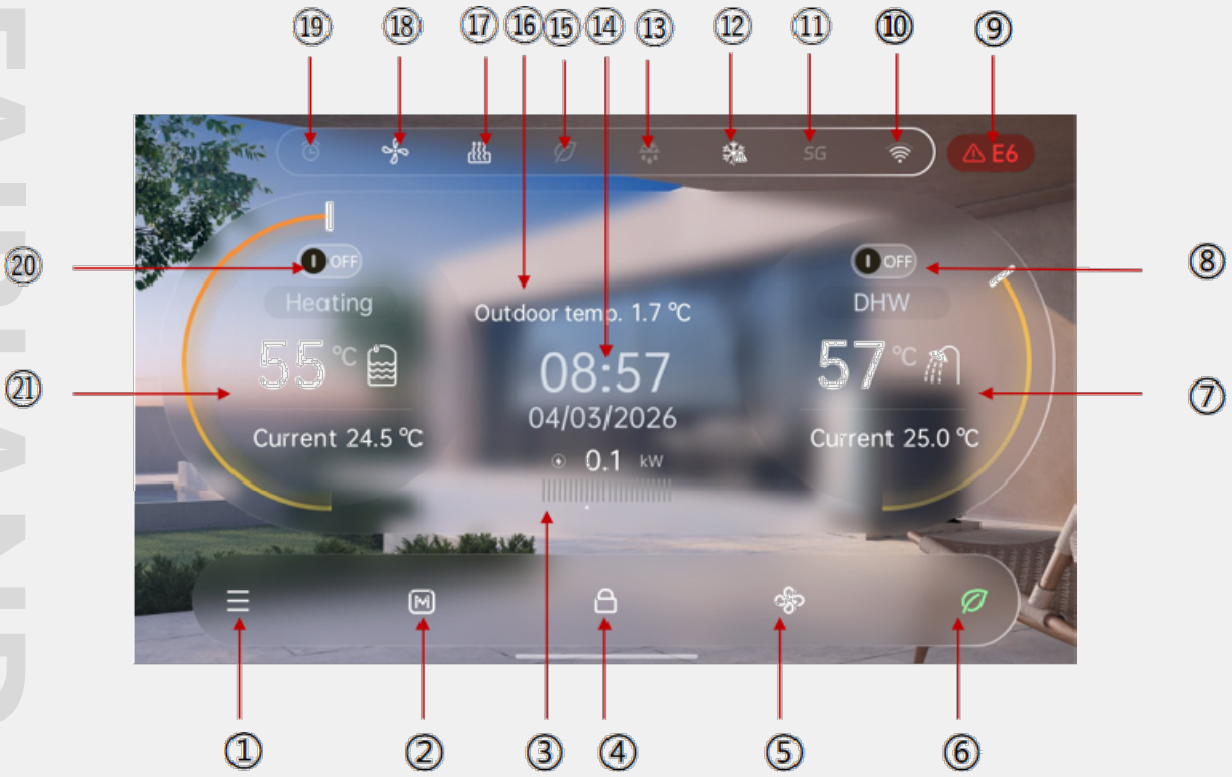
Afternoon



Night

Main Interface

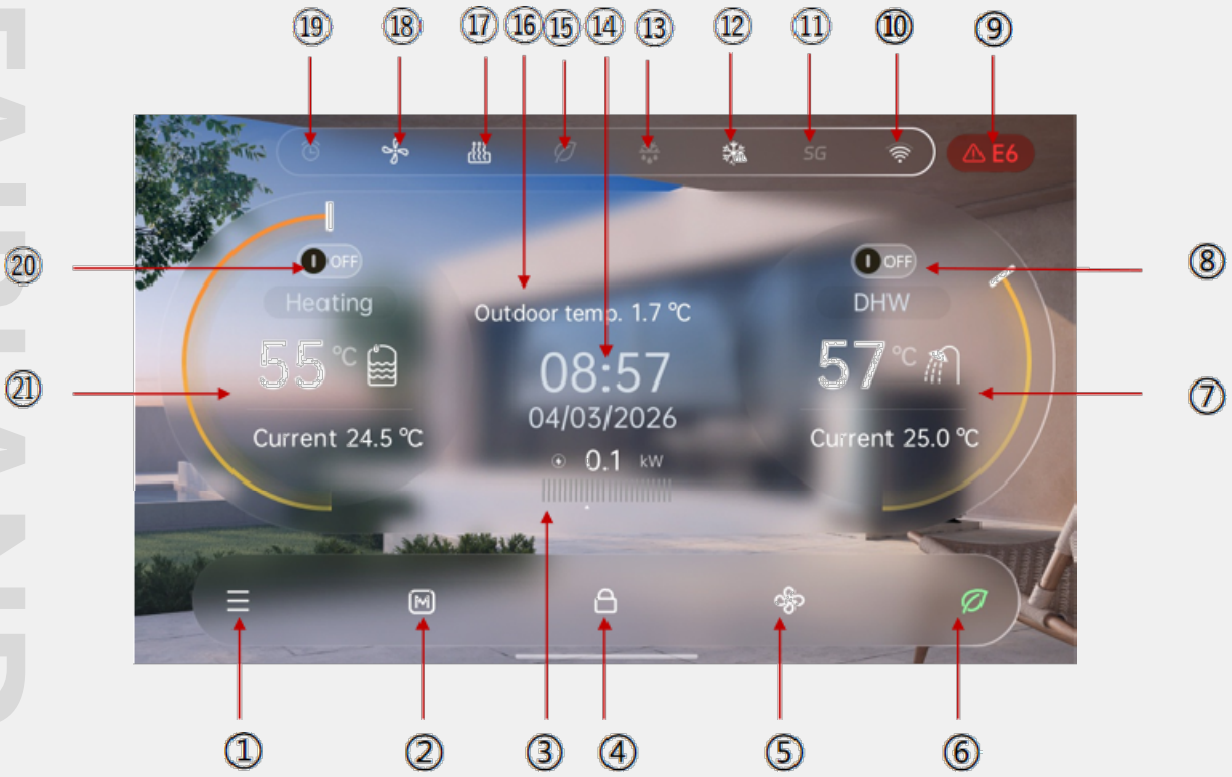
Button



No.	Meaning	Description
①	Menu	After clicking this button, the unit will enter the function menu interface, where you can configure various custom modes.
②	Mode setting	After clicking this button, you can configure the unit mode settings. There are three modes available: Heating, Cooling, and Auto.
③	Power consumption	The number indicates real-time power consumption, while the bar chart shows hourly power consumption for the current day. If power consumption is not enabled, the main screen will not show.
④	Screen lock	After locking, the display cannot be operated; Press the button again to unlock the screen.
⑤	Operating strategy	After clicking this button, you can select the unit's operating strategy. There are three strategies available: Turbo, Standard, Silent and Auto.

Main Interface

Button



No.	Meaning	Description
⑥	100% Green enable button	After clicking this button, the unit will operate in conjunction with the solar inverter device. Note: This function requires the installation of iGarden's Inverter to be enabled.
⑦	DHW setting	Upper shows the target DHW temperature. You can slide the ring to set the target temperature or click the target temperature to set it. Lower shows the actual temperature of the hot water tank.
⑧	DHW switch	You can turn the DHW function on or off.
⑨	Fault icon	When a fault occurs, this icon will appear. Clicking it will take you to the fault log interface for viewing.
⑩	WiFi icon	It indicates the current network settings status. Clicking this icon to access the network settings interface.

Main Interface

Button



No.	Meaning	Description
⑪	SG Ready icon	When the SG Ready function is enabled, this icon will be illuminated, otherwise, it will be dim.
⑫	Anti-freeze icon	This icon appears when the unit enters anti-freeze mode.
⑬	Defrosting icon	When the Defrosting is enabled, this icon will be illuminated, click can enable the forced defrost.
⑭	System time	Shows the date and time. The network time will sync automatically after connecting to Wi-Fi
⑮	100% Green icon	When the 100% Green function is enabled, this icon will be illuminated. Click the icon to access the green power settings
⑯	Ambient temp.	It shows the current ambient temperature.

Main Interface

Button



No.	Meaning	Description
⑰	Electric heater	When the Electric heater is enabled, this icon will be illuminated, otherwise, it will be dim. Click the icon to access the forced opening settings
⑱	Operating strategy icon	It shows the current Operating strategy
⑲	Timer on/off icon	When the Timer function is enabled, this icon will be illuminated. Click this icon to access the timer settings interface.
⑳	Heating/Cooling On/Off	You can turn the cooling/heating on or off.
㉑	Cooling/Heating Temperature Setting	It will show the current cooling/heating target temperature. Slide the ring to set the target temperature. You can also set the target temperature by tapping it; after tapping, the device will enter the target temperature setting interface. Current Temperature: shows the current temperature.

Basic operation

Basic operation

Screen unlock

Click to lock the screen



Long-press the lock icon to unlock



Basic operation

Mode setting

Click the mode you want to set

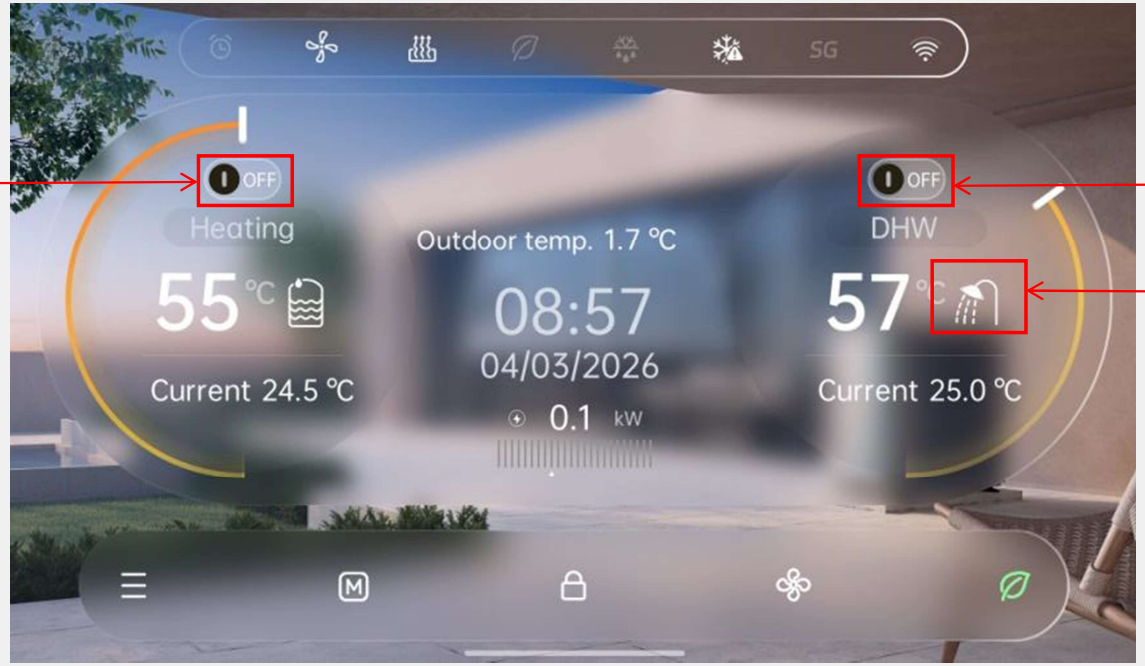
Click to enter the air conditioning mode settings



Basic operation

Unit ON/OFF

Click to turn on/off heating/cooling mode



Click to turn on/off DHW mode

When running in DHW mode, this icon will be dynamic

Basic operation

Adjust Temperature

Slide the ring to set the target temperature

You can also set the target temperature by tapping it



Slide the ring to set the target DHW temperature

You can also set the target temperature by tapping it

After tapping, the device will enter the target temperature setting interface



Enter the setting temperature directly, then click the checkmark to save the adjusted temperature value

Basic operation

Power Mode Settings

The icon shows the current Operating strategy



Click to enter power mode settings

Note:
In Turbo mode, the unit has a higher output capacity but consumes more electricity than standard mode;
In silent mode, the unit is quieter and consumes less electricity than standard mode.

Basic operation

100% Green



Click to activate 100% Green function

Basic operation

Timer on/off

When the Timer function is enabled, this icon will be illuminated.



Click to quick access the timer settings interface



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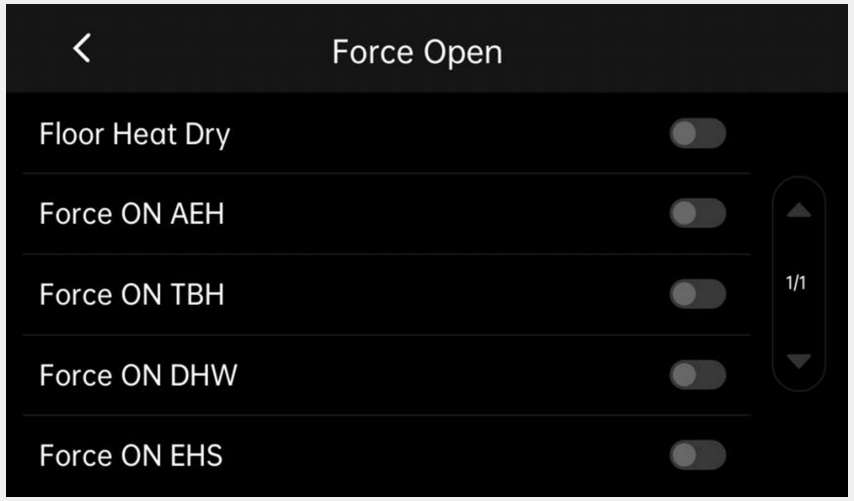
Basic operation

Electric heater

When the Electric heater is enabled, this icon will be illuminated, otherwise, it will be dim.



Click the icon to access the forced opening settings



Basic operation

Green electricity status

When the 100% Green is enabled, this icon will be illuminated, otherwise, it will be dim.



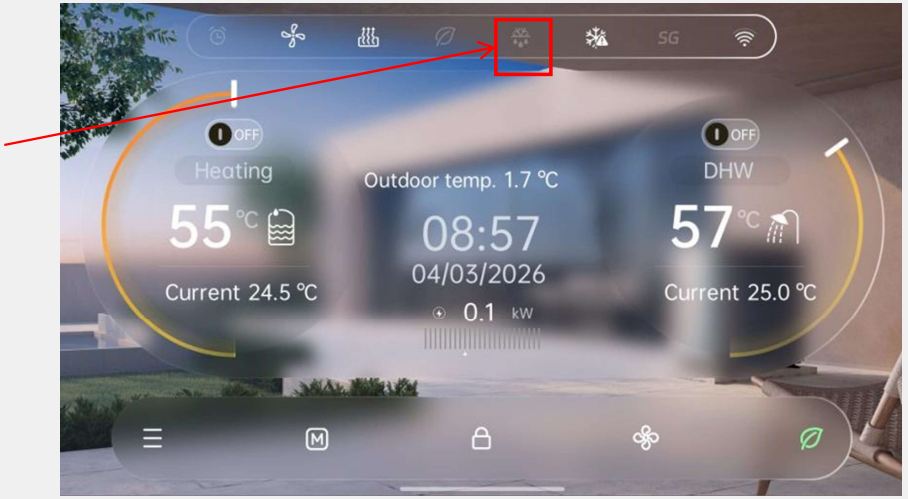
Click the icon to access the Green electricity status settings



Basic operation

Defrosting icon

When the Defrosting is enabled, this icon will be illuminated.



Click to enter manual defrost interface.



Main Menu

Main Menu



Click to enter main menu

Main Menu

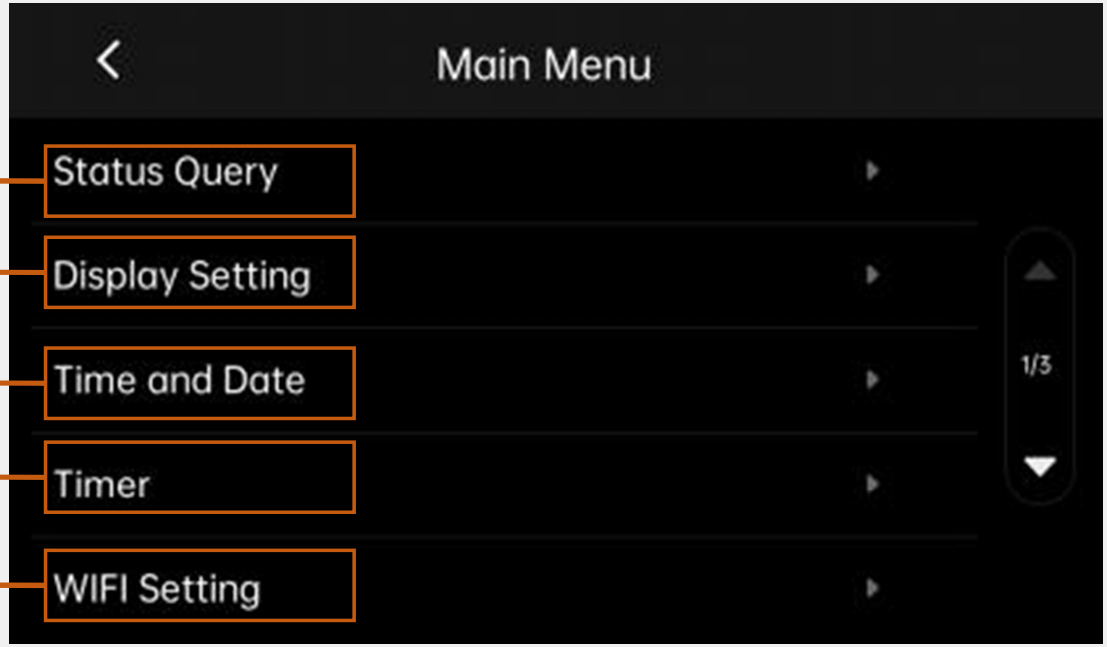
Used to check unit status parameters such as temperature, switch status, etc.

Settings related to the controller, such as brightness, language, etc.

Used to adjust the system time

Used to activate timer functions, such as power on/off timer, silent timer

Used for the controller to connect to WiFi



Main Menu

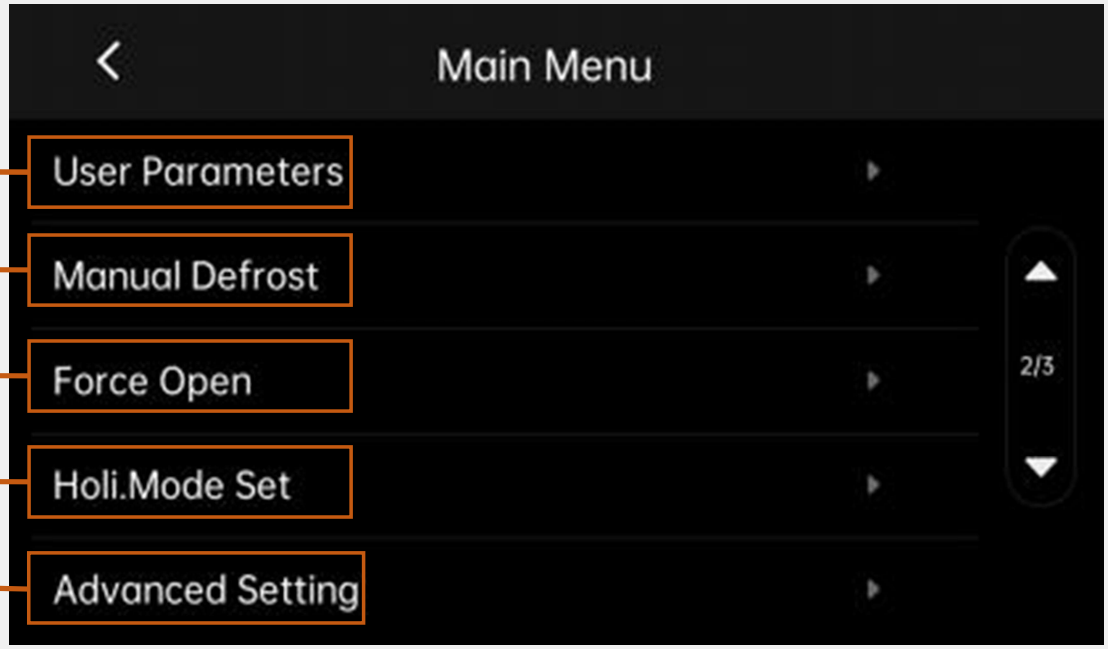
View and modify user-defined settings

Used to activate manual defrosting

Rapid heating switch, e.g. instantly activating electric heating for the water tank

Settings related to holiday mode

Used for advanced parameter configuration; Generally not recommended for modification



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Main Menu

Used for viewing energy consumption data

Used to query unit fault information, including current and historical

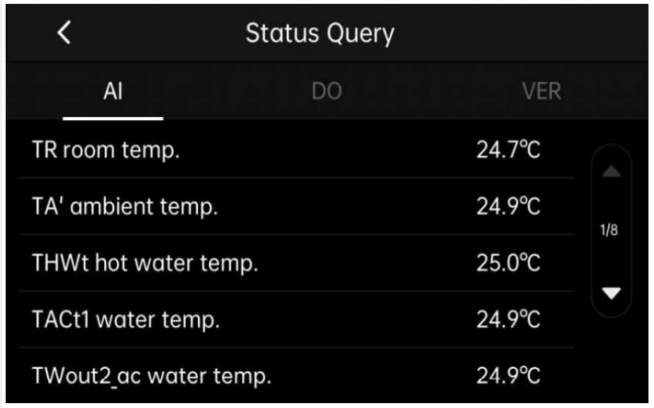
Settings related to two ZONE application



Main Menu

Status Query

Used to check unit status parameters such as temperature, switch status, etc.



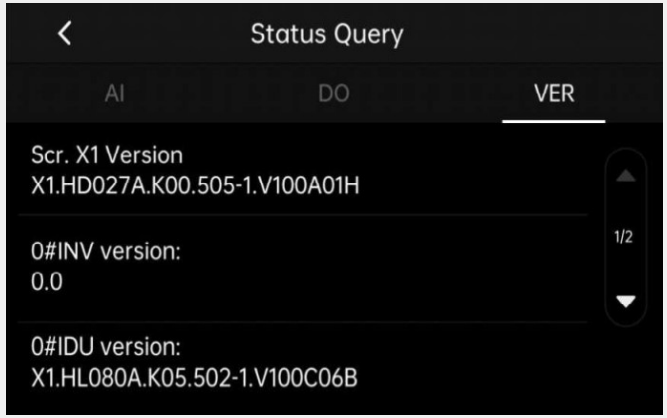
Input parameters

This interface can be accessed to view the unit's current information (such as temperature, active electrical components, etc.).



Output parameters

On the output interface, you can view the output status of each load component



Software version

This interface can be accessed to view the software version of display, ODU, IDU PCB

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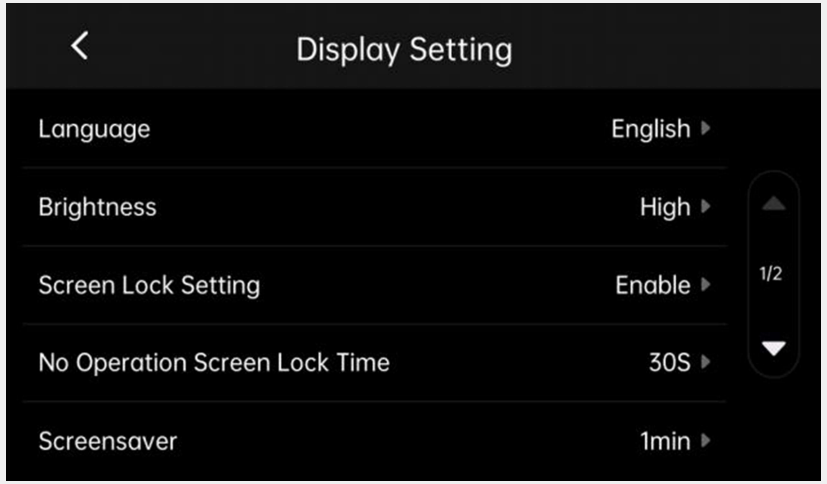
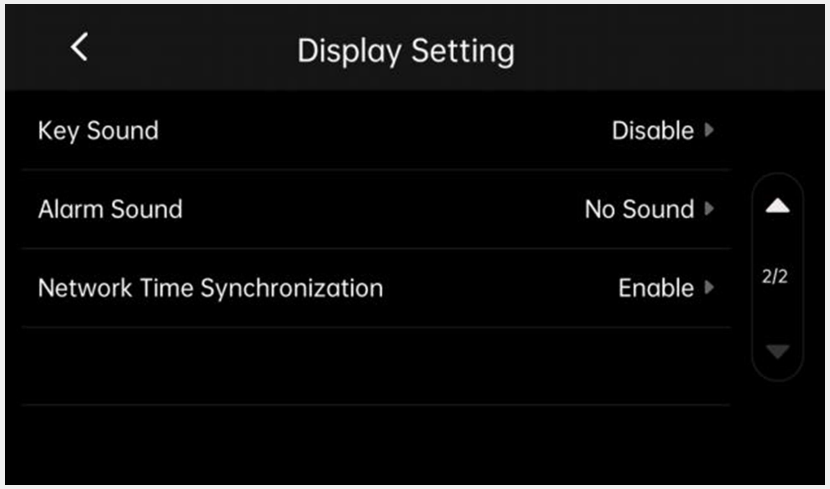
Main Menu

Display Setting

Settings related to the controller, such as brightness, language, etc.

Display settings allow you to configure everyday preferences such as language, screen brightness, screen lock setting, and keypad sounds, etc.



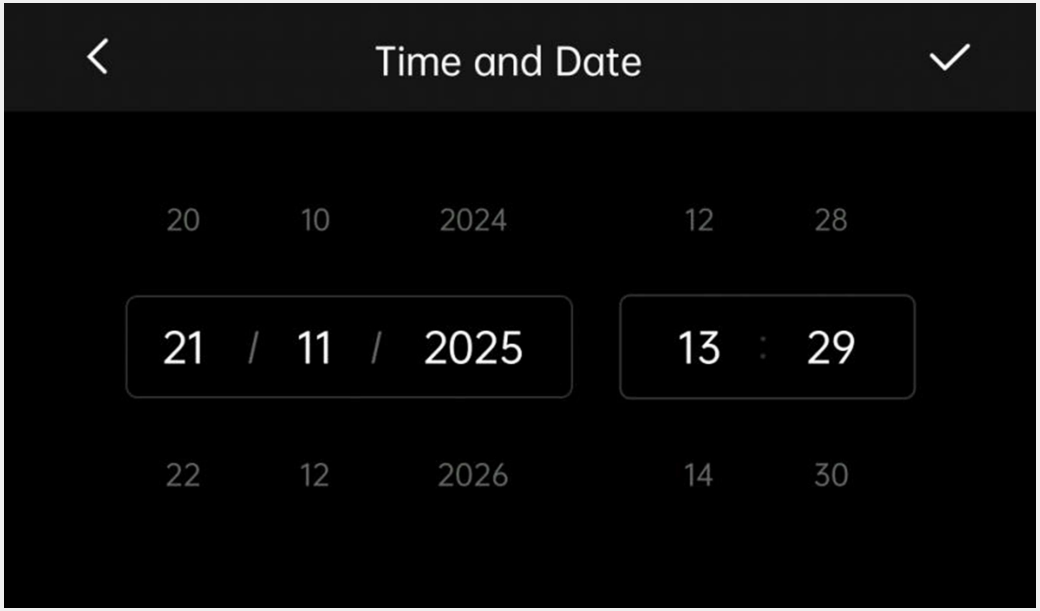


Main Menu

Time and Date

Used to adjust the system time

- The date and time shown at the top of the main interface will synchronize with the network.
- If they do not match the actual date and time, you will need to manually adjust and calibrate them.



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Main Menu

Timer

Used to activate timer functions, such as power on/off timer, silent timer

The Timer Settings interface offers 4 functions:

- Timer On/Off
- Disinfection Timer
- Silent Timer
- DHW Pump Timer



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Main Menu

Timer

Timer ON/OFF

Click to enter the Timer On/Off menu, where you'll find three options

Note:

① Daily and weekly timers cannot be enabled simultaneously.

② Timer on/off procedures are identical to normal power on/off operations.

③ Timer groups will be invalid if:

- Start and end times are identical(e.g. 8：00-8：00)
- The time period overlaps with other timers （e.g. 21：00 - 2：00 & 18：00 - 22：00）
- Temperature exceeds the mode's permissible range



Note: You can also switch between Zone A, Zone B, and the DHW system to set different schedules for each zone

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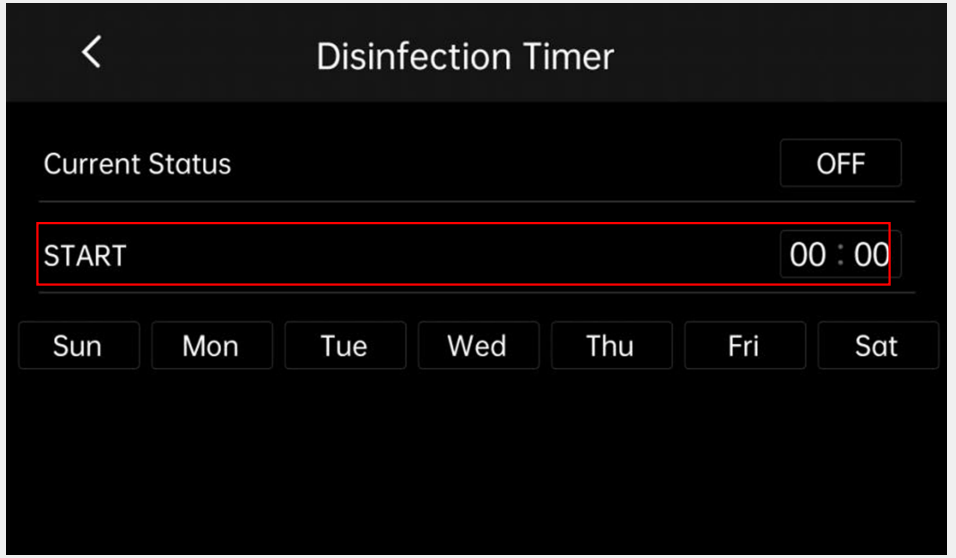
Main Menu

Timer

Disinfection Timer

Before using the disinfection function, ensure that the parameter under "User Parameters" > [STERILIZATION] is set to Enabled.

After setting the start time, select the day or days of the week when it should take effect



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Main Menu

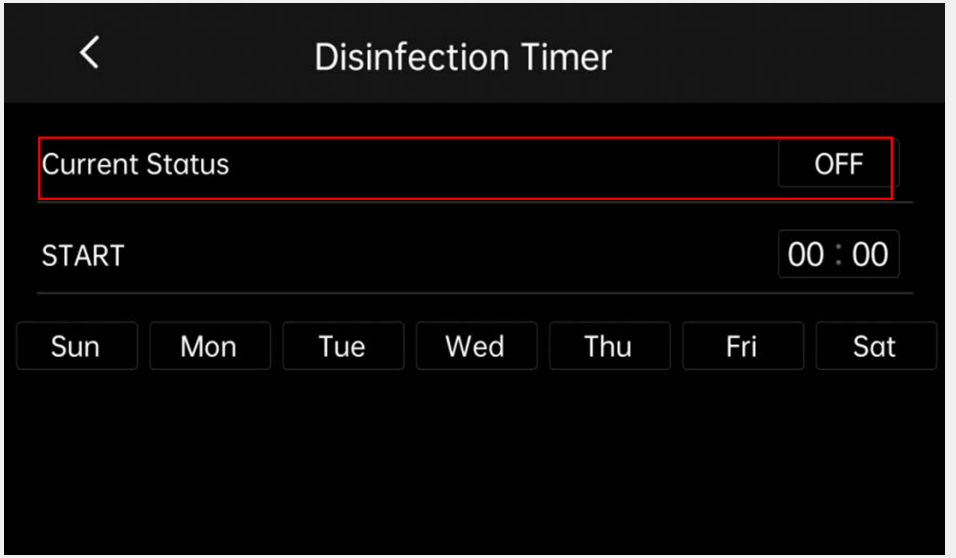
Timer

Manual Disinfection

Manual control takes precedence over timed control

Click to enter or exit disinfection mode

If the current status is "Off," manually click to activate the disinfection function. Vice versa



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Main Menu

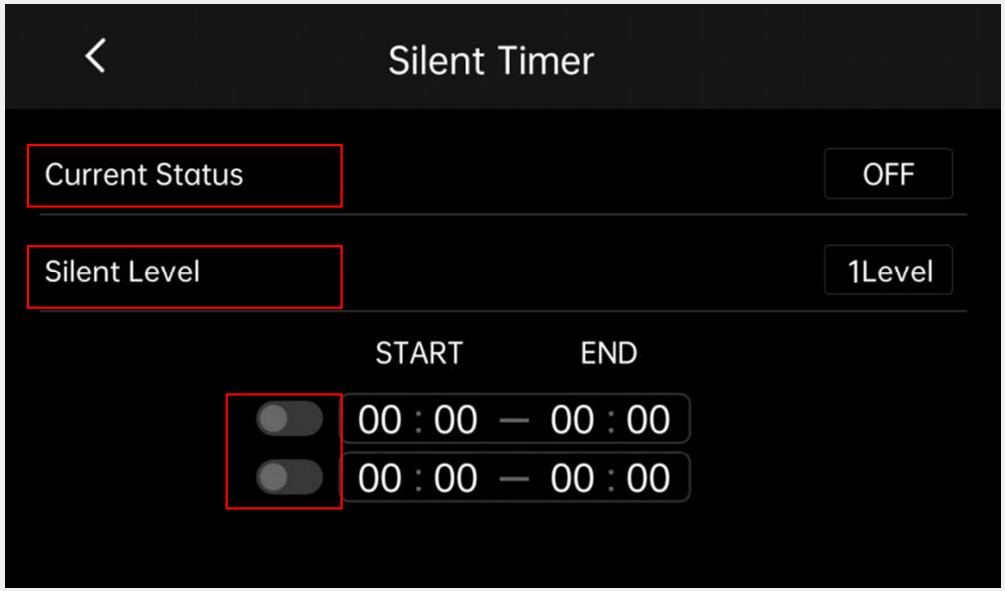
Silent timer

Manual control takes precedence over timed control

Click to enter or exit silent mode

Silent mode offers two levels: Level 1 and Level 2. In Level 2 mode, the max speed of the fan and compressor is lower than in Level 1.

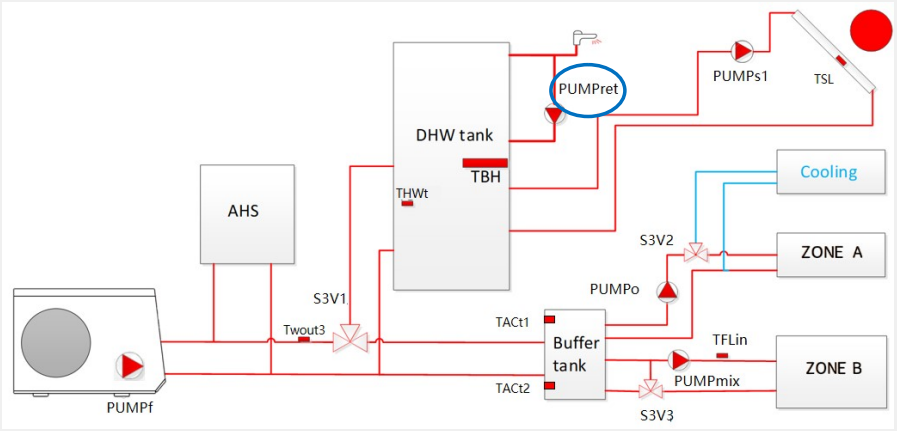
There are 2 sets of scheduled times available. Use the toggle switch to set to enable or disable the specific schedule.

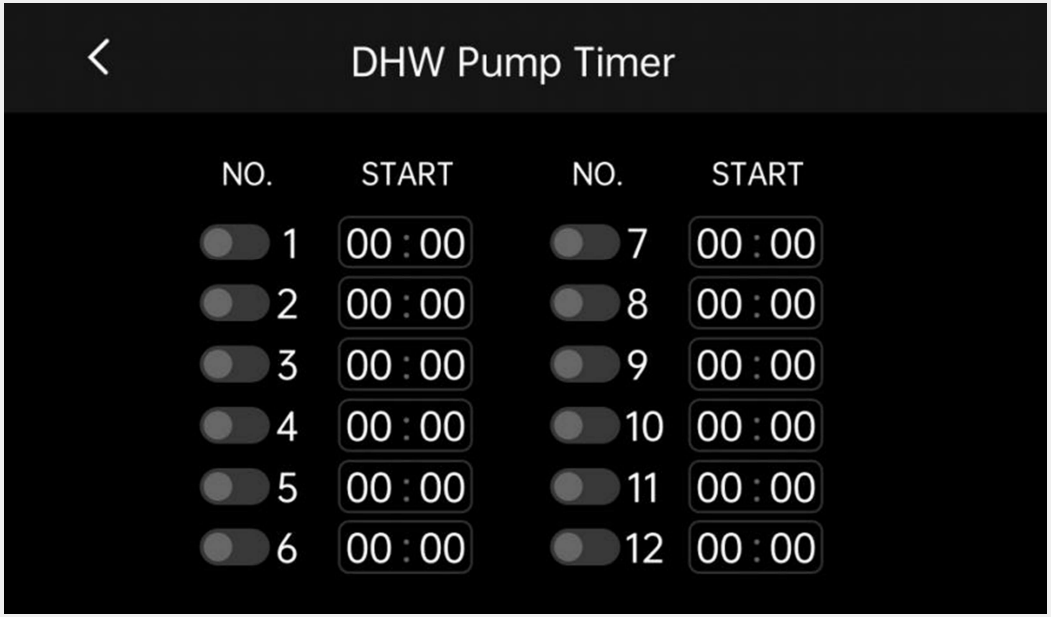


Main Menu

DHW Pump Timer（PUMPret）

The DHW Pump Timer function returns water to the water network, enabling nearly instant hot water upon turning on the faucet without waiting for cold water to drain out.



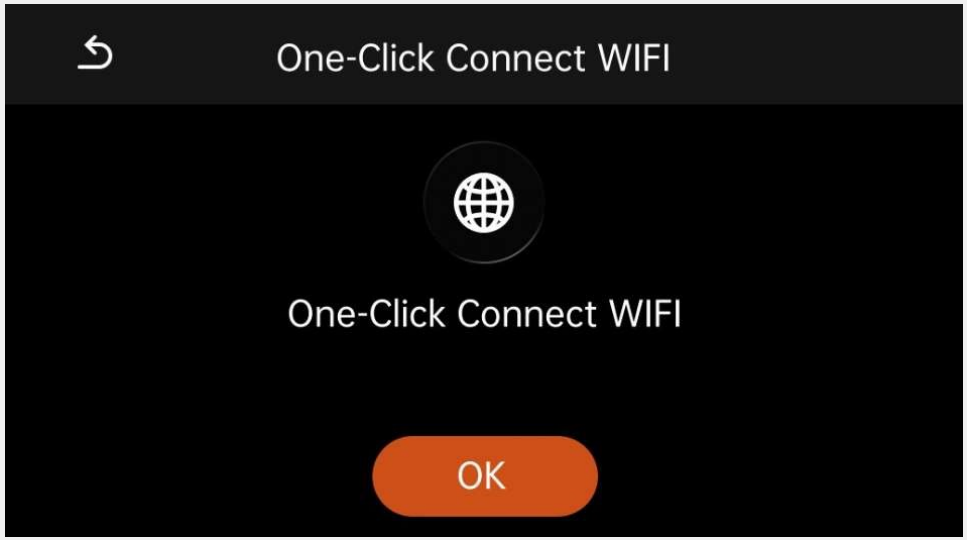


Main Menu

WIFI Setting

Used for the controller to connect to WiFi .

Explain in detail later.



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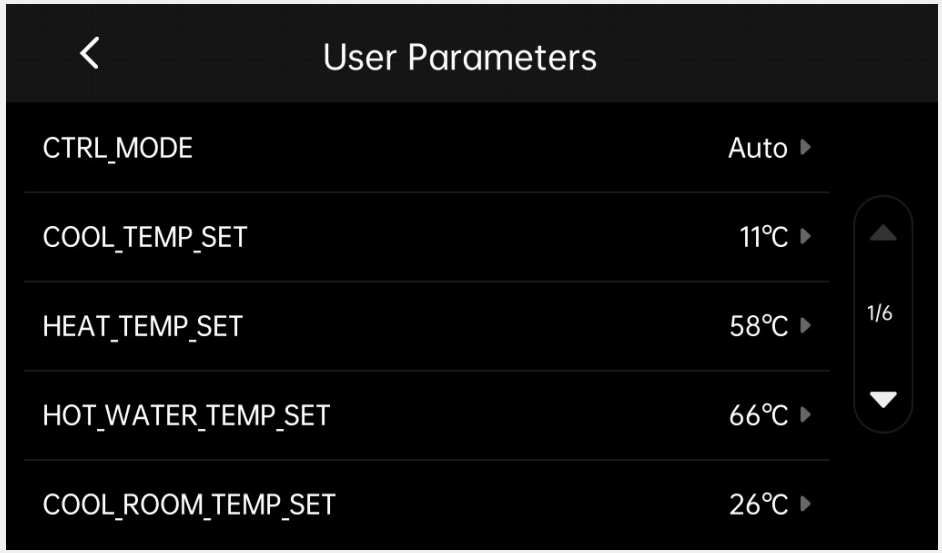
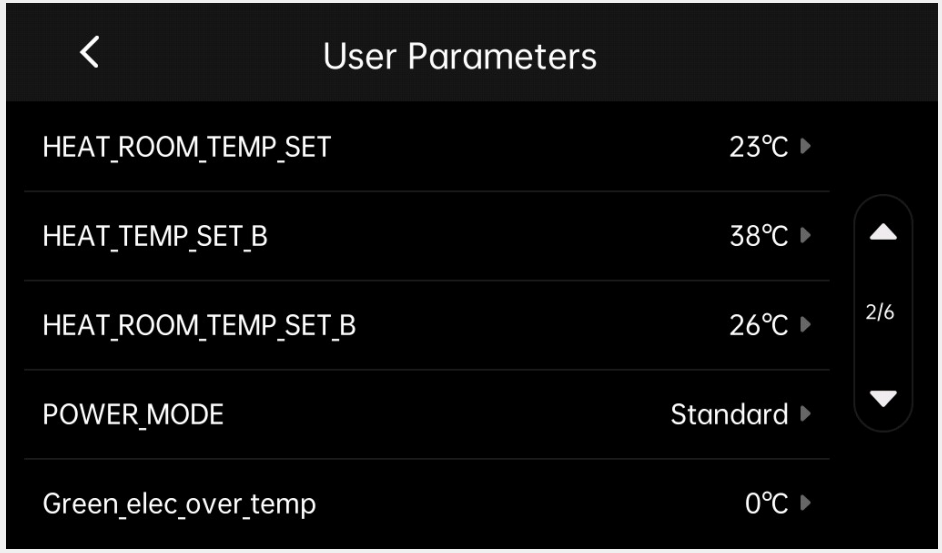
Main Menu

User Parameters

View and modify user-defined settings

① Basic operation setting, like control mode, setting temp etc.

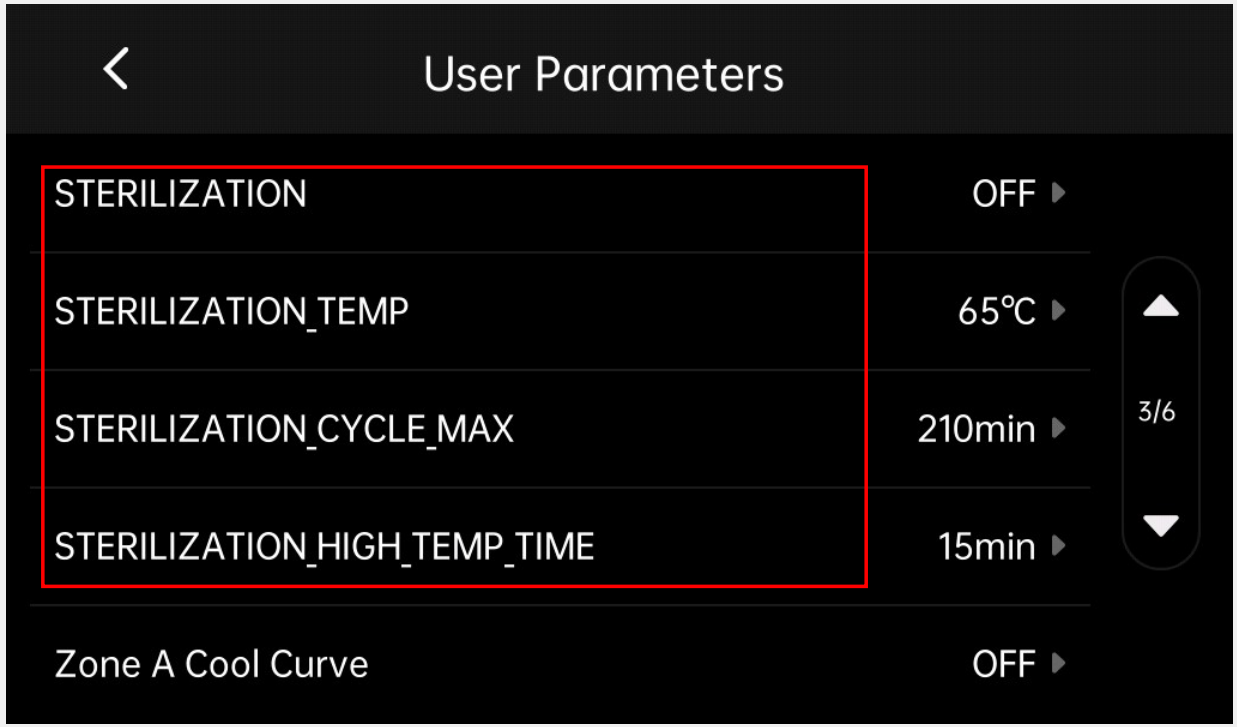




Main Menu

User Parameters

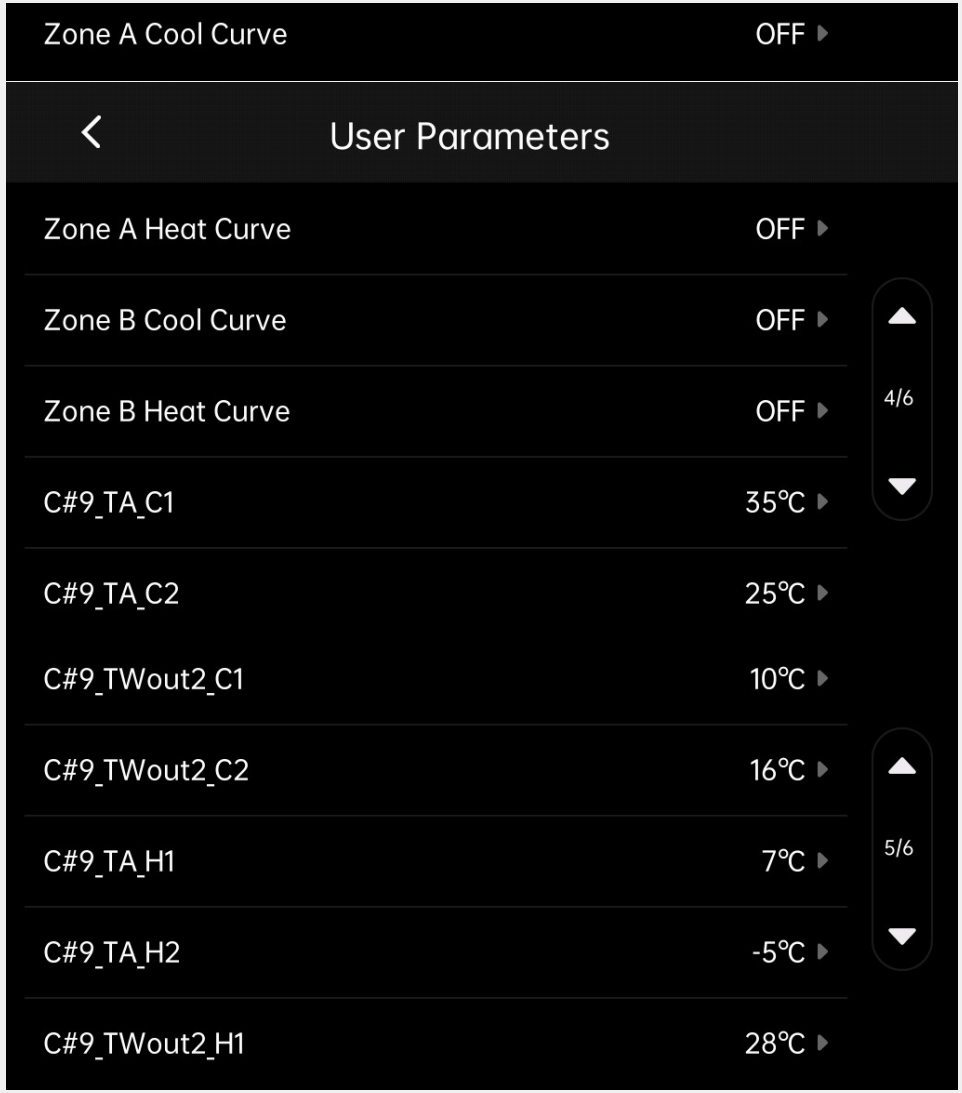
② Disinfection setting



Main Menu

User Parameters

③ Cooling/heating curve setting

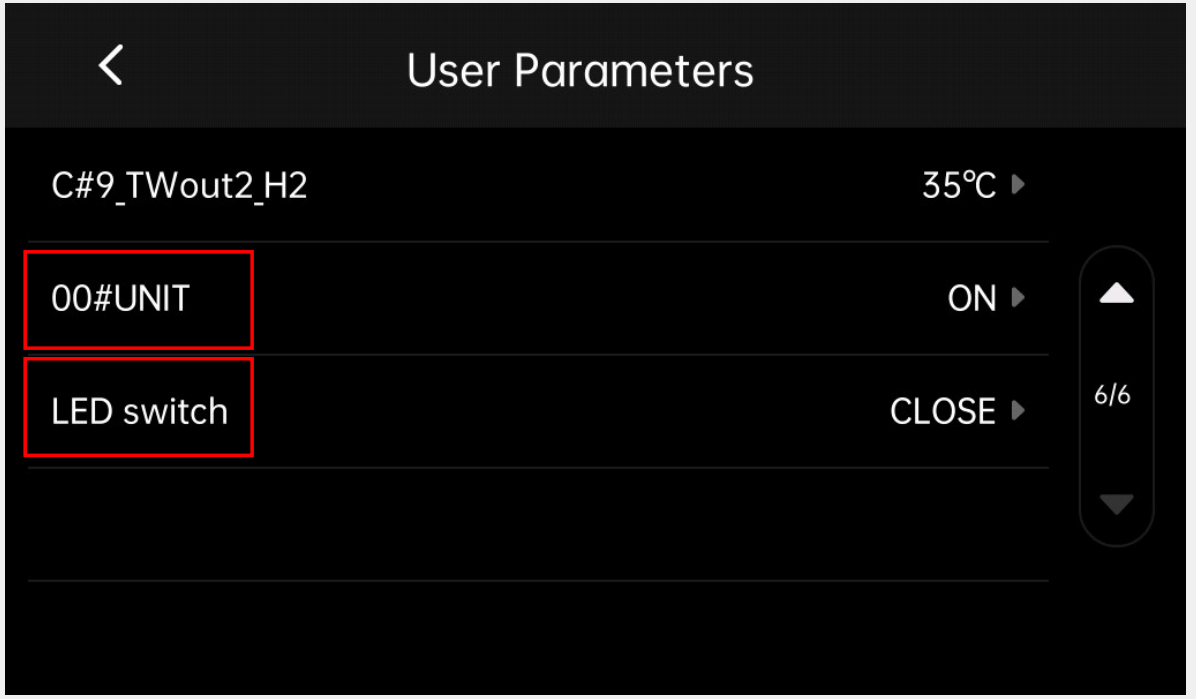


Main Menu

User Parameters

④ Set as master unit in cascade application

⑤ LED ON/OFF



Main Menu

Manual Defrost

Why we need manual defrost?

Manual defrost function is offered to meet the defrosting needs in extremely harsh conditions, which requires manual operation to make the unit enter defrosting according to user requirements.



Click on the main interface to quickly access the manual defrost page

Note: Only when the module is in the running state and conditions like water temperature and fin temperature are met, clicking "Manual Defrost" will successfully initiate defrosting.

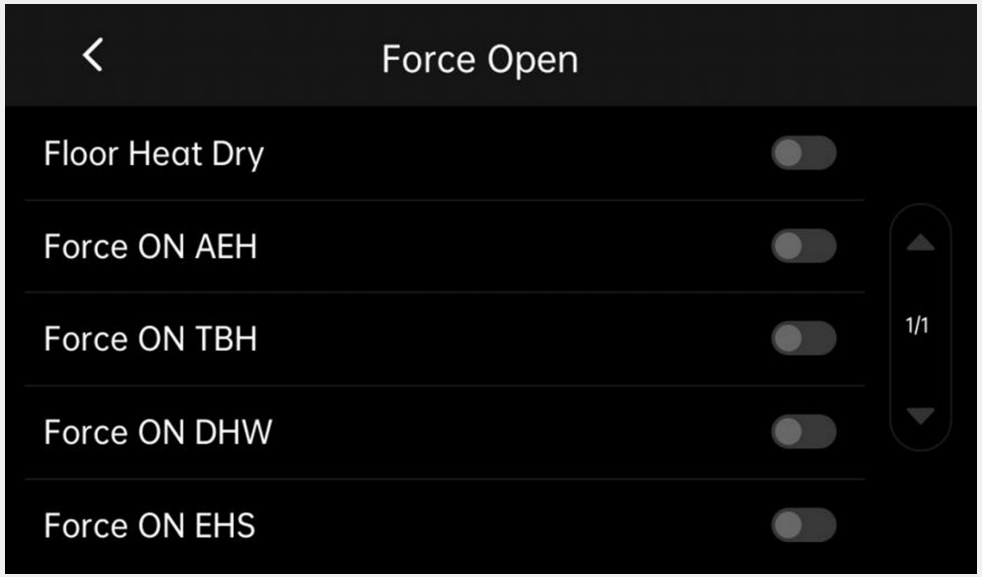
Main Menu

Force Open

Manual activate DHW or electrical heater etc.

e.g. Instantly activating electric heating for the water tank (Force TBH)

On the main interface, press  to enter the "Forced Open Function" page.



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Main Menu

Holi.Mode Set

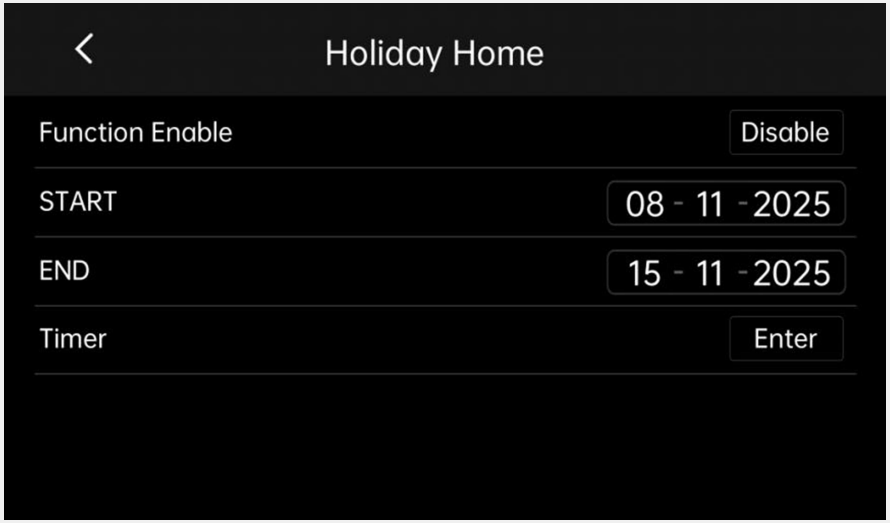
Settings related to holiday mode

Holiday Away Mode



Holiday Away Mode is commonly used during winter vacations to prevent water pipes from freezing.

Holiday Home Mode



Holiday At Home mode similarly to Scheduled mode.
When Holiday At Home mode is active, all scheduled settings will be invalidated.

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Main Menu

ECM

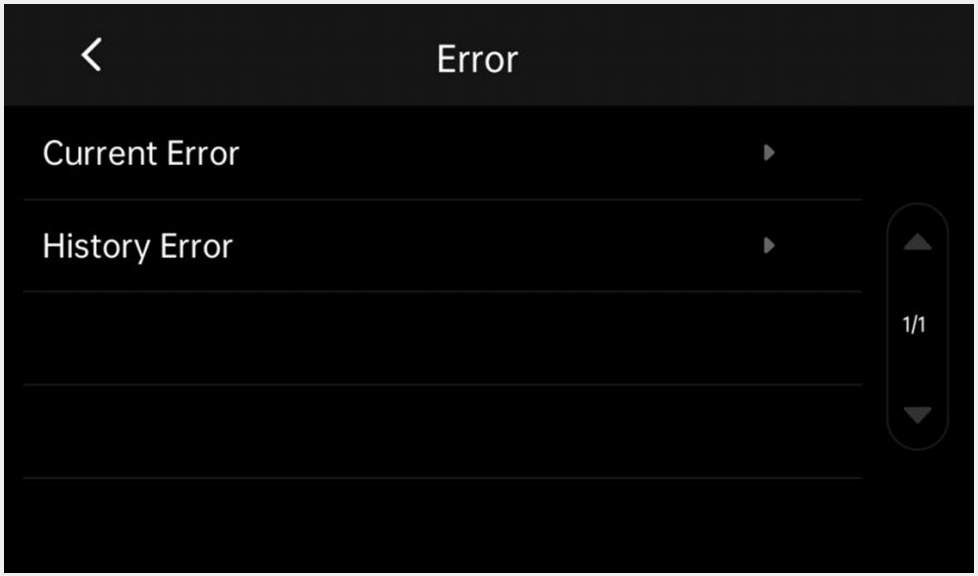
Used for viewing energy consumption data



Main Menu

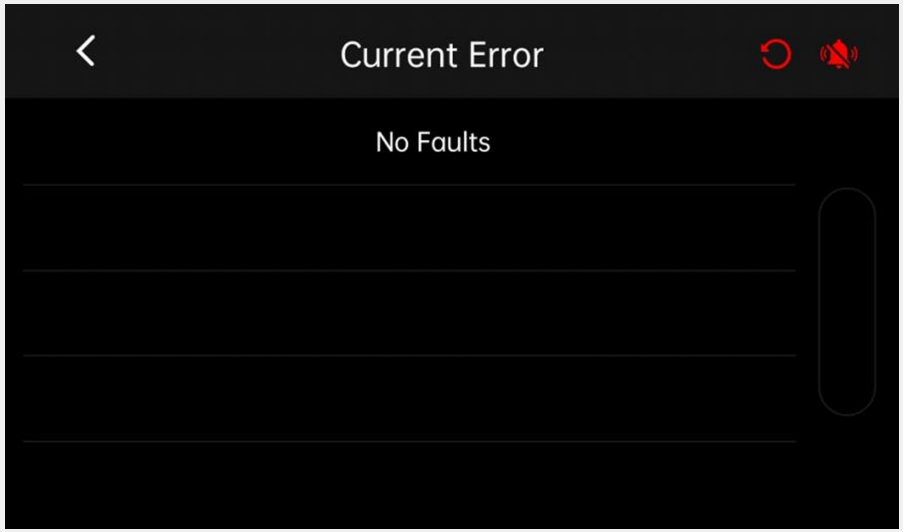
Error

Used to query unit fault information, including current and historical error

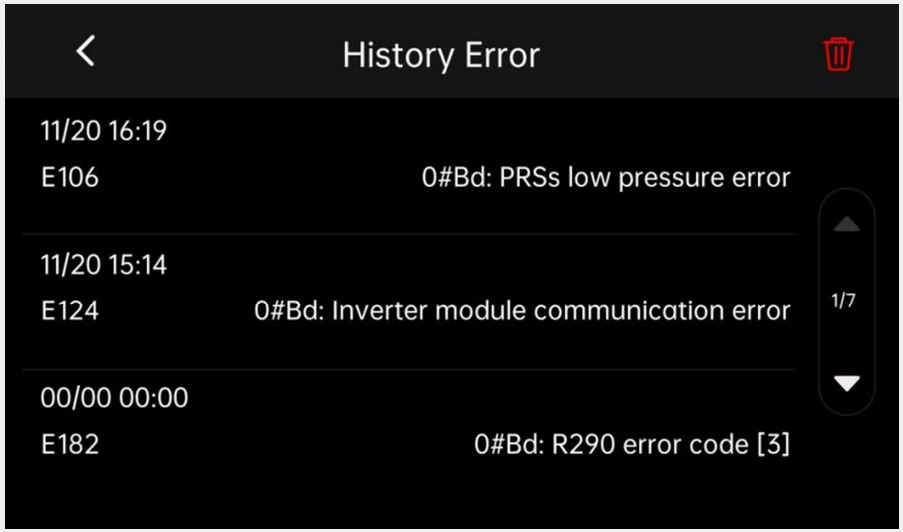


Main Menu

Error



In the current error section, if an error is present, the current error interface appears as shown below
Click the to reset button to clear all faults meeting the reset conditions



All faults that have occurred on the unit (including those that have been reset) can be queried in the historical error section.

Note: Please check in installer manual for more informations about troubleshooting

Advanced settings

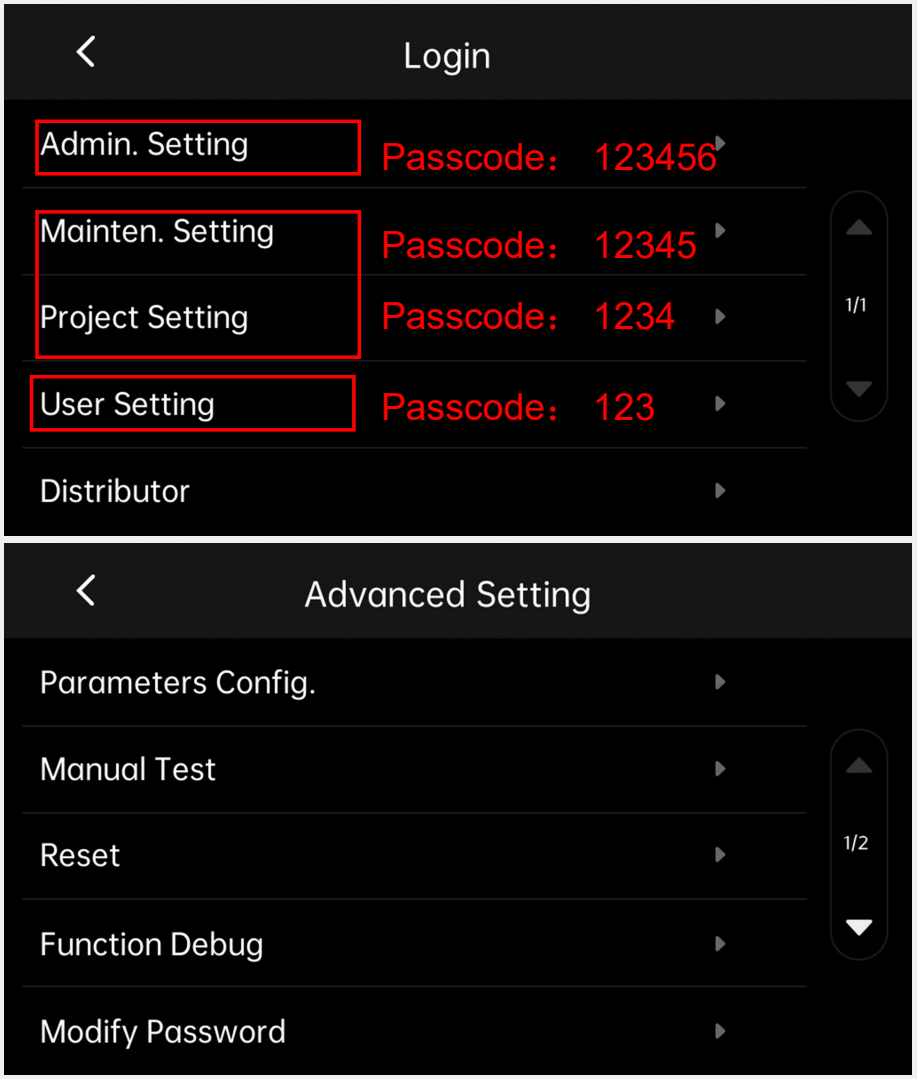
Advanced settings

Login

Setting used for manufactuer

Setting used for installer

Setting used for end user



Advanced settings

Parameters Config.

In parameters config. page, you can check and adjust the parameters of your role(For different roles, the parameters shown differently)

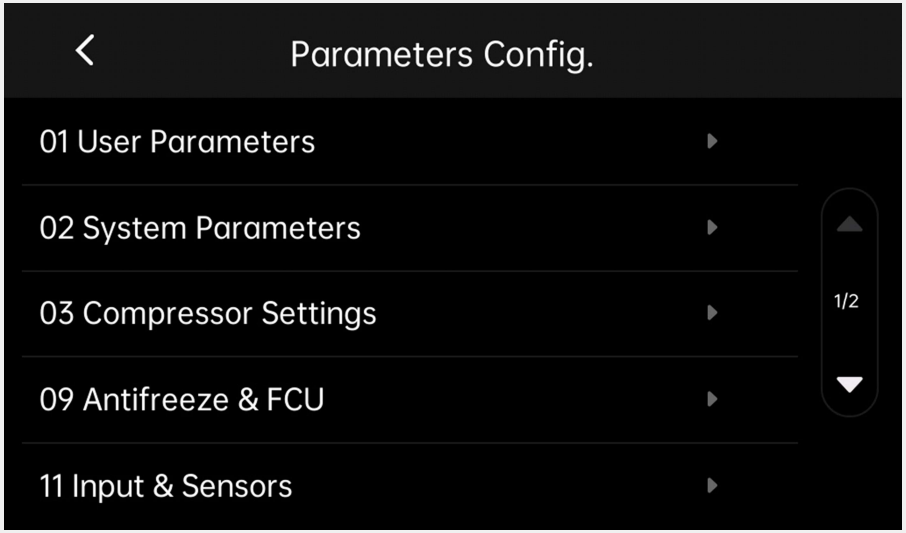
Common used:

01 User Parameters

02 System Parameters

11 Input & Sensor

13 Energy Control



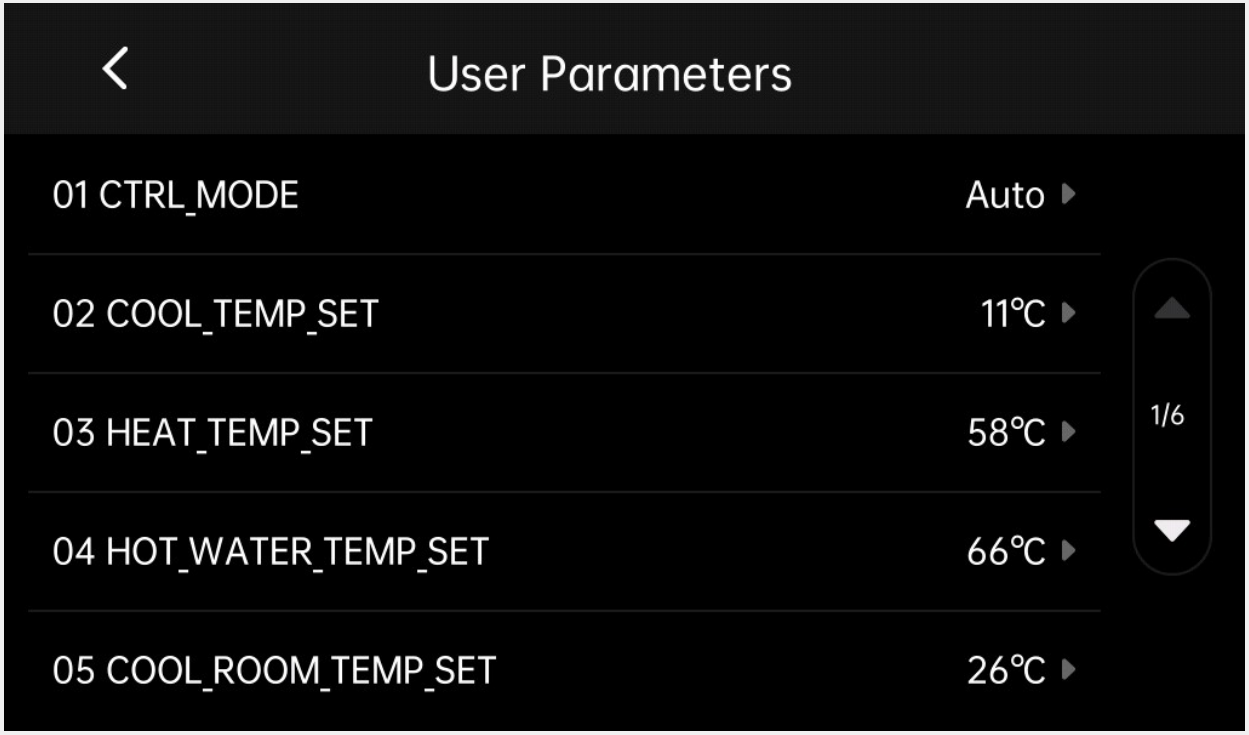


FAIRLAND

Advanced settings

Parameters Config.-01 User Parameters

Same as Main menu - User parameters



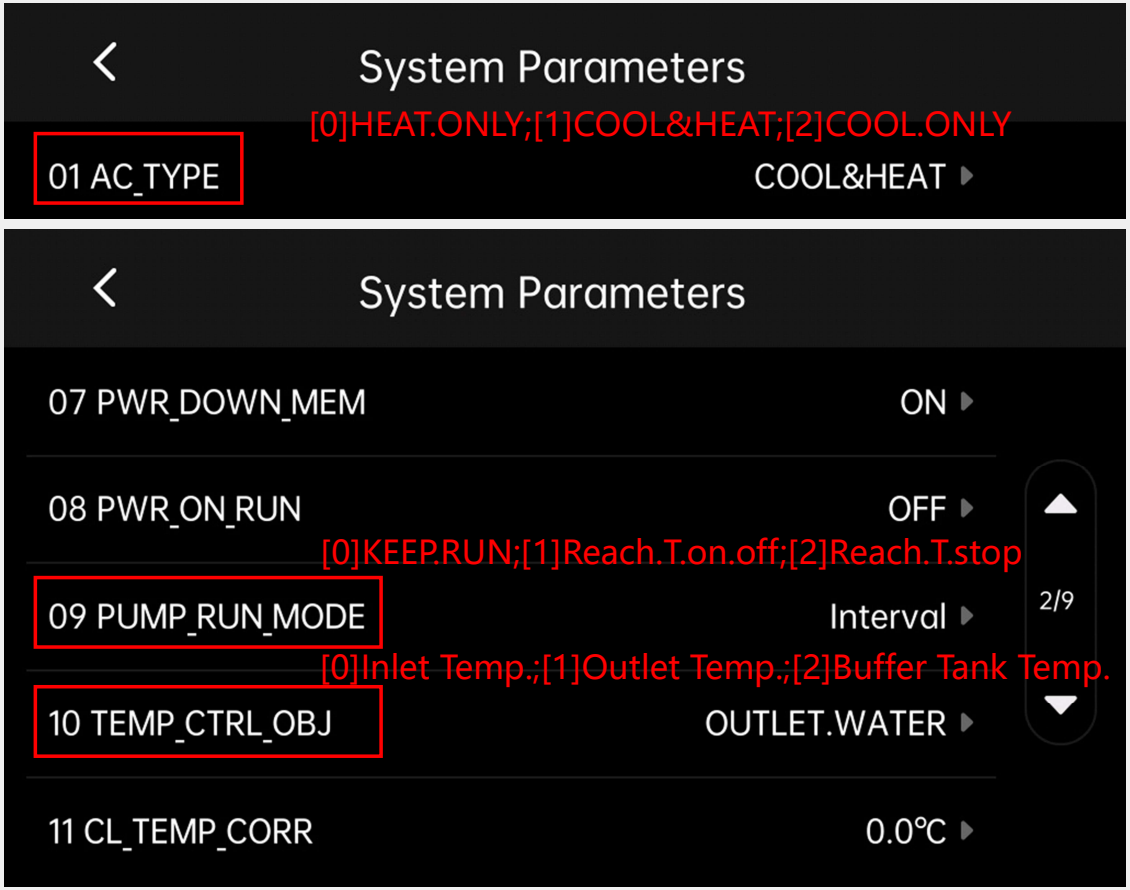
Advanced settings

Parameters Config.-02 System Parameters

This parameter can be modified to enable or disable heating or cooling mode for the heat pump.

This parameter is used to change the PUMPf running mode when heatpump standby.

This parameter sets the heat pump temperature control method.



Advanced settings

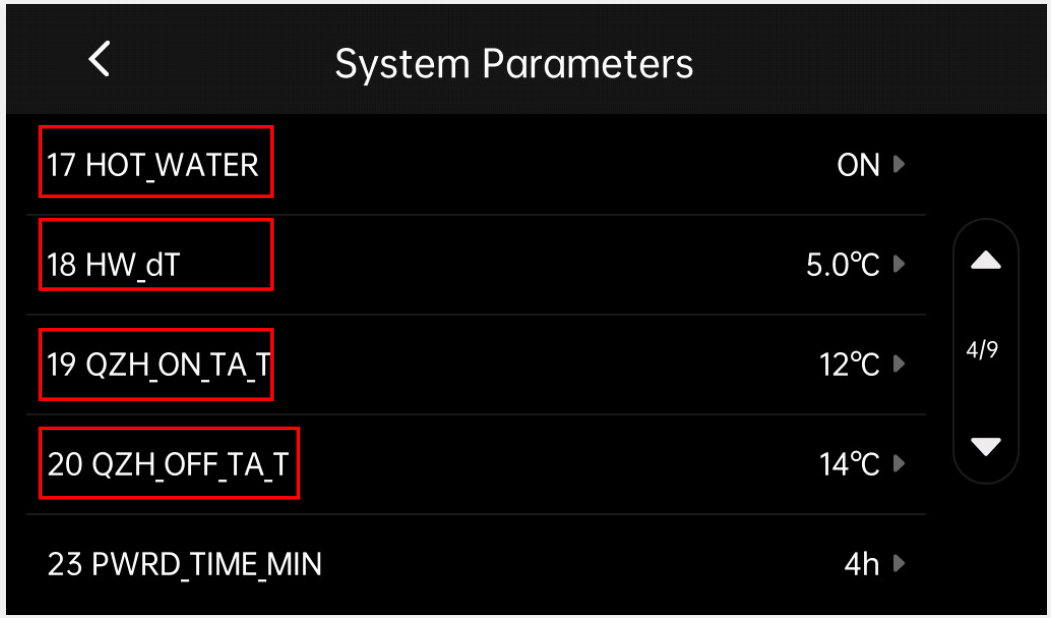
Parameters Config.-02 System Parameters

This parameter can be modified to enable or disable DHW mode for the heat pump.

Condition for start DHW mode

Ambient temperature condition for activating the crankcase heater.

Ambient temperature condition for deactivating the crankcase heater.



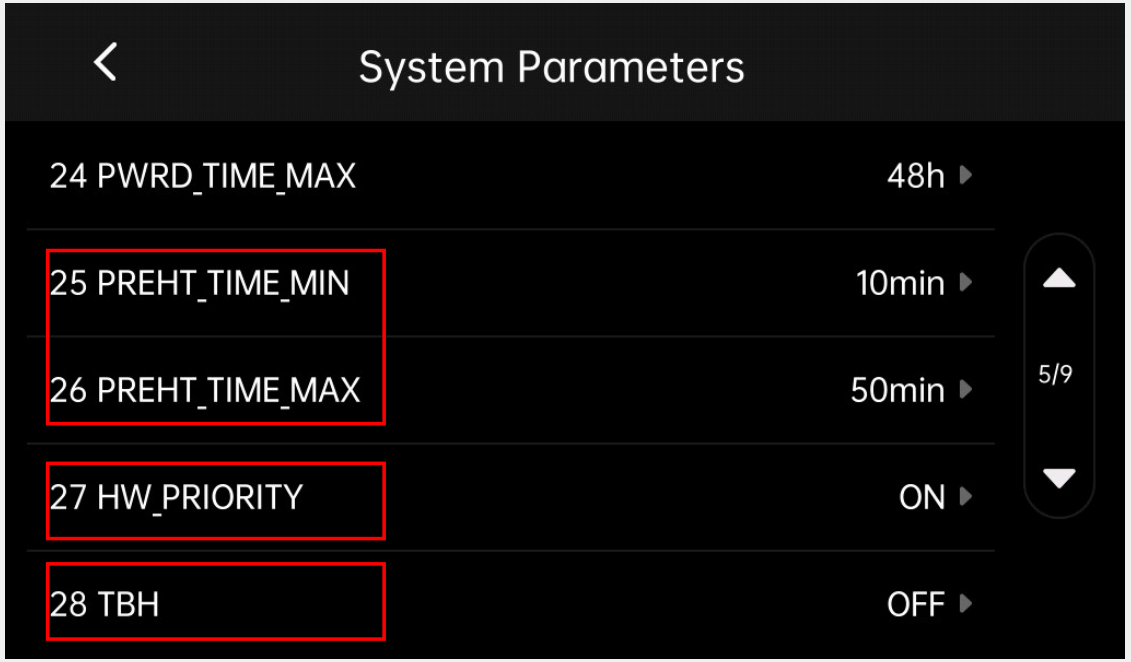
Advanced settings

Parameters Config.-02 System Parameters

When the heat pump has been off for a long time or is started for the first time, it will enter preheating mode if the ambient temperature is below QZH_ON_TA_T.

This parameter adjusts the priority of DHW mode

This parameter enables or disables the electric heater for the hot water tank.



Advanced settings

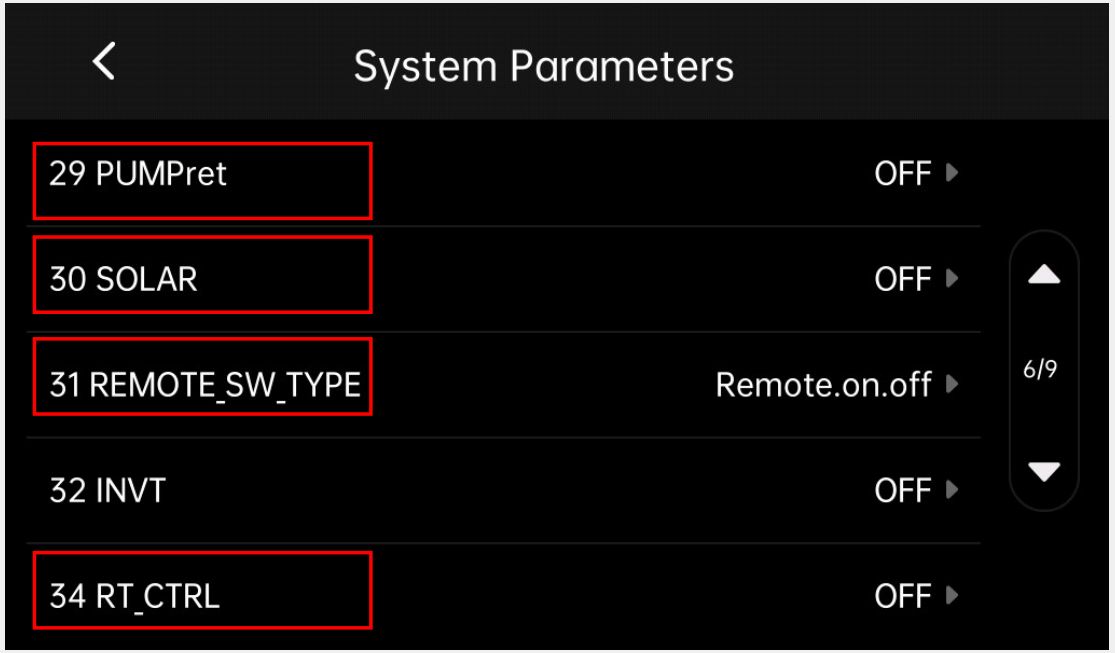
Parameters Config.-02 System Parameters

This parameter enables or disables the DHW water pump(Pumpret).

This parameter enables or disables the solar water heater.

This parameter is used to defind the function of R,C port

This parameter allows you to change the thermostat control type



Advanced settings

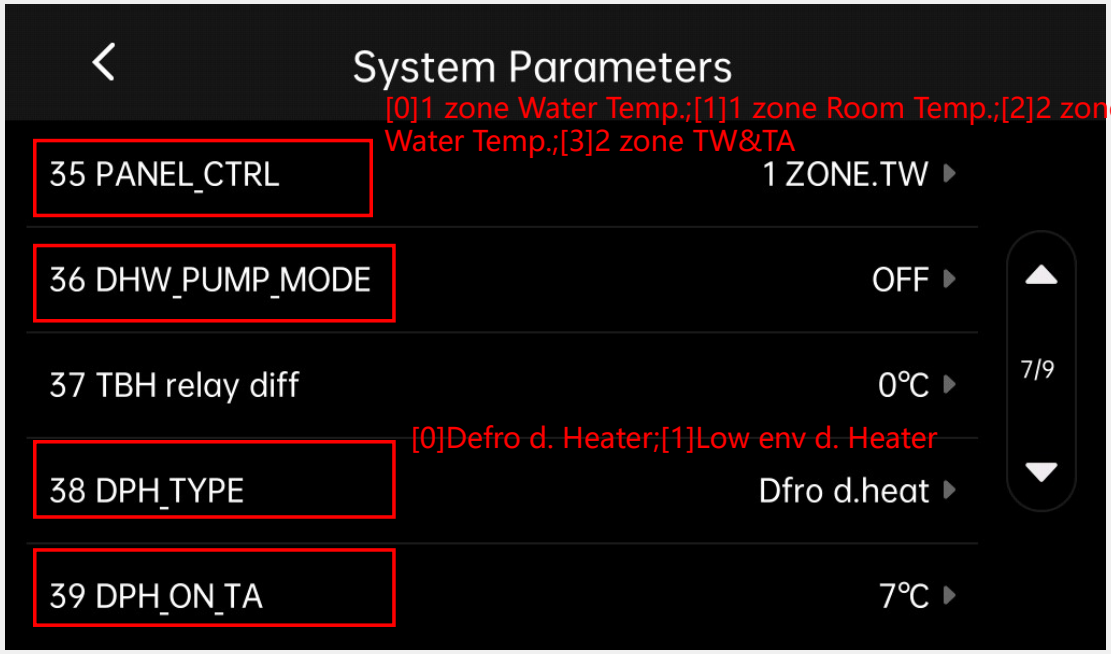
Parameters Config.-02 System Parameters

This parameter enables zone control or room temperature control for heatpump. The display has a built-in room temperature sensor.

This parameter adjusts the operating mode of the domestic hot water pump.

This parameter adjusts the operating type of the bottom heater

Ambient temperature condition for activating the bottom heater.

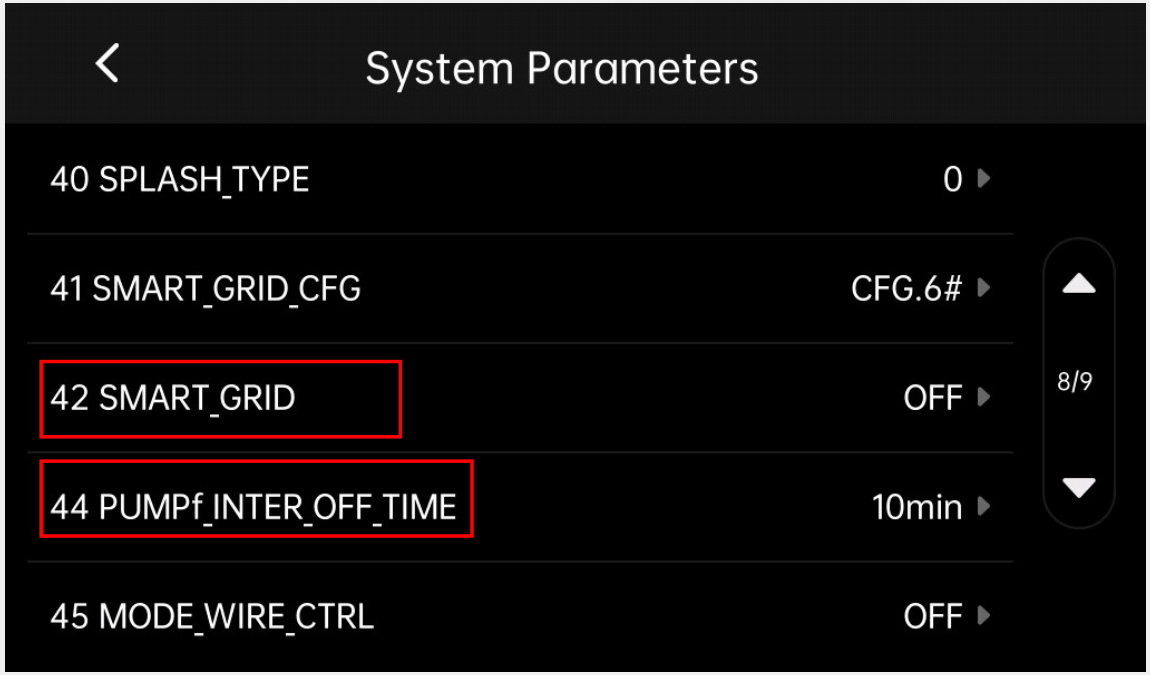


Advanced settings

Parameters Config.-02 System Parameters

This parameter can enable or disable the SG Ready function

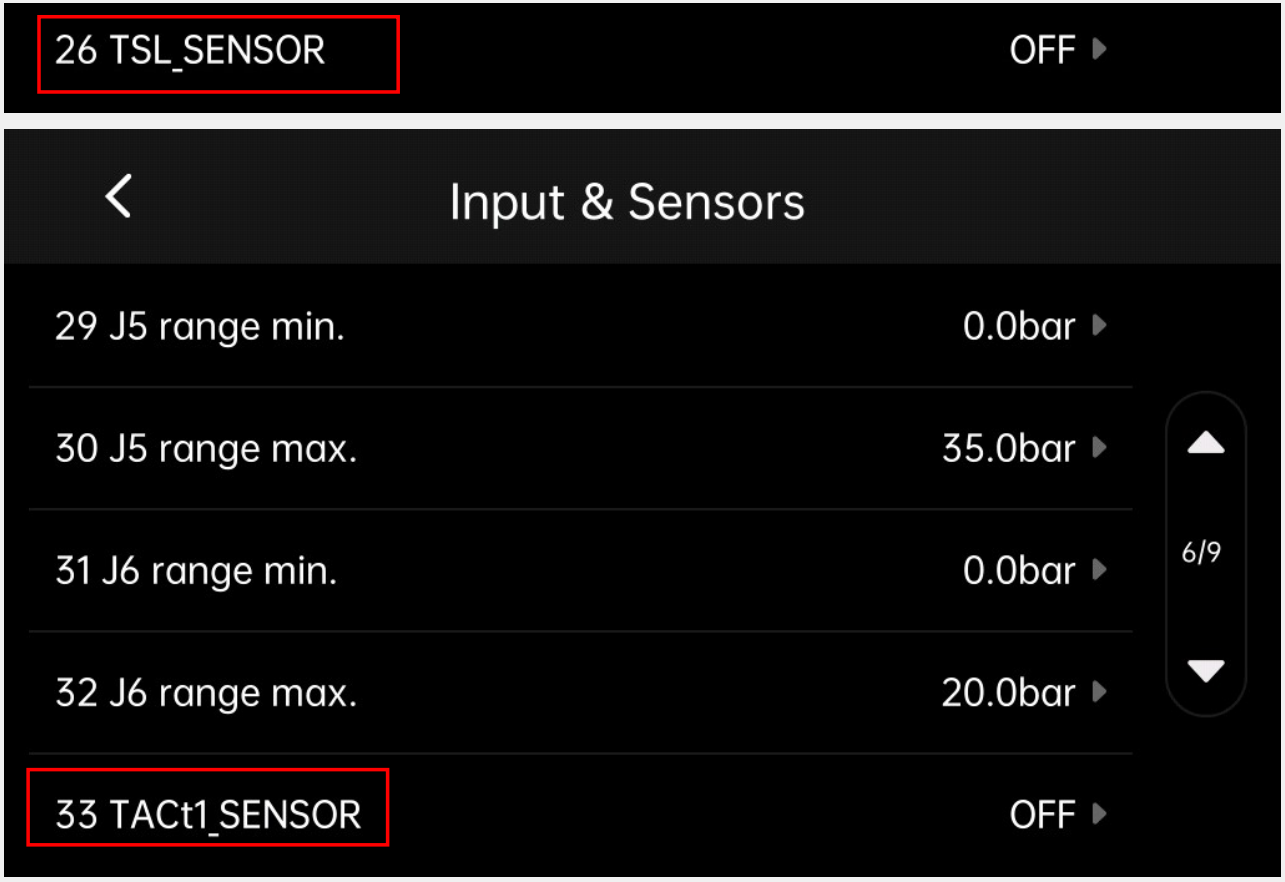
When [PUMP_RUN_MODE] is set to "Reach.T.on.off", it will follow this cycle during standby periods: Run for 5 minutes, then stop for [PUMPf_INTER_OFF_TIME]



Advanced settings

Parameters Config.-11 Input & Sensors

This parameter can enable or disable the solar temperature sensor.



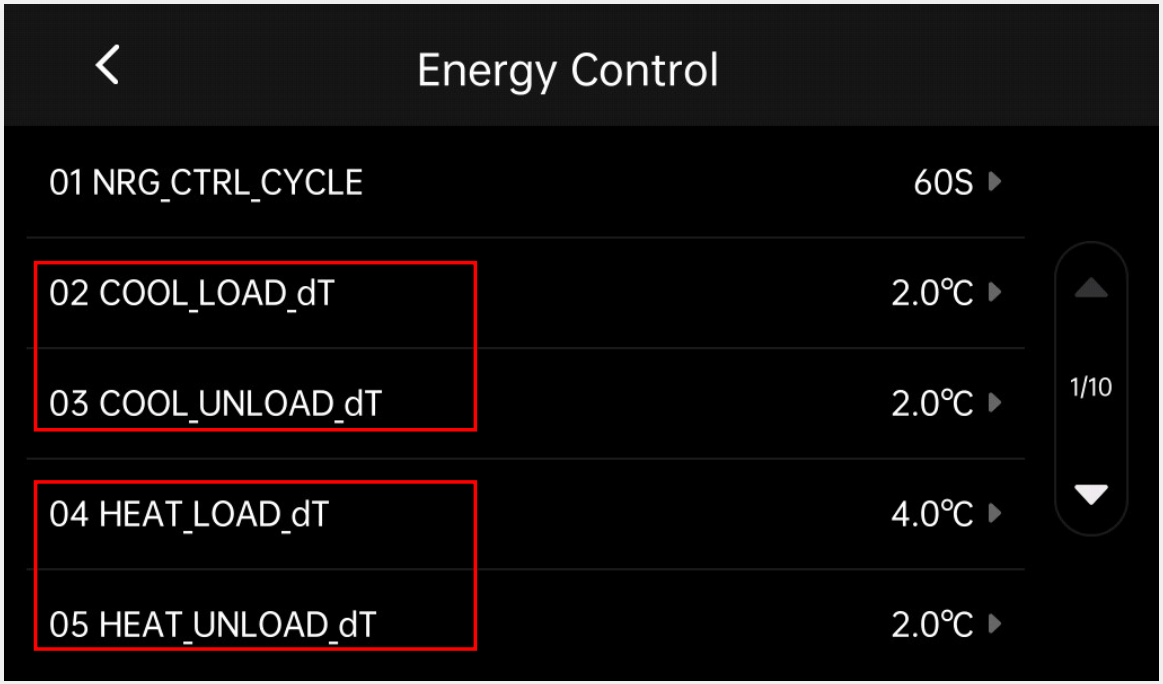
This parameter can enable or disable the buffer tank temperature sensor.

Advanced settings

Parameters Config.-13 Energy control

- When the controlled water temperature>target temperature + [COOL_LOAD_dT], the unit will start.
- When the controlled water temperature<target temperature -[COOL_UNLOAD_dT], the unit will stop.

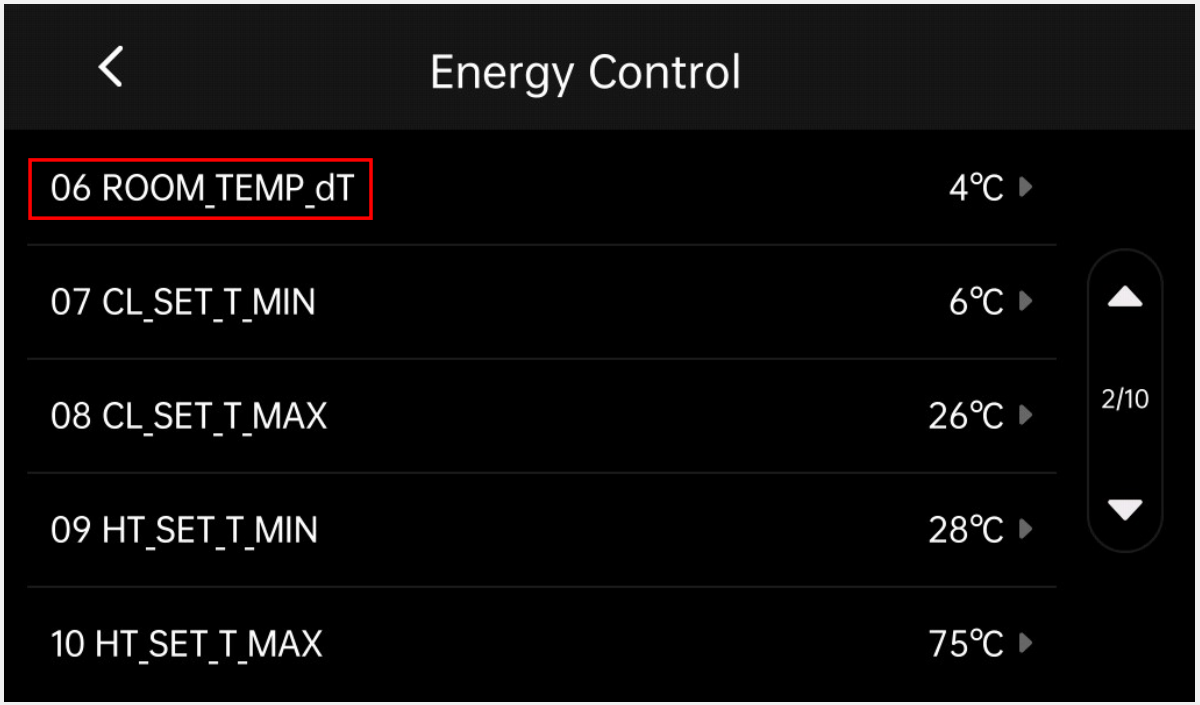
- When the controlled water temperature<target temperature - [HEAT_LOAD_dT], the unit will start.
- When the controlled water temperature>target temperature + [HEAT_UNLOAD_dT], the unit will stop.



Advanced settings

Parameters Config.-13 Energy control

When room temperature control is active(by [PANEL_CTRL]), the heat pump will start if the room temperature falls below the setting temp. - ROOM_TEMP_dT.



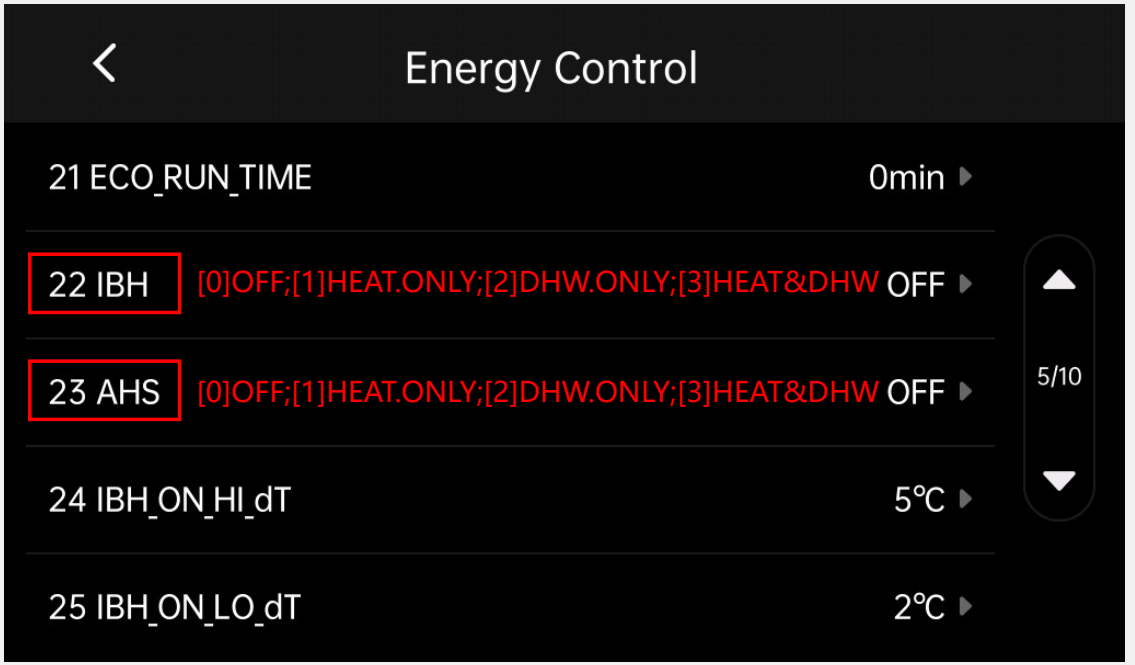
FAIRLAND

Advanced settings

Parameters Config.-13 Energy control

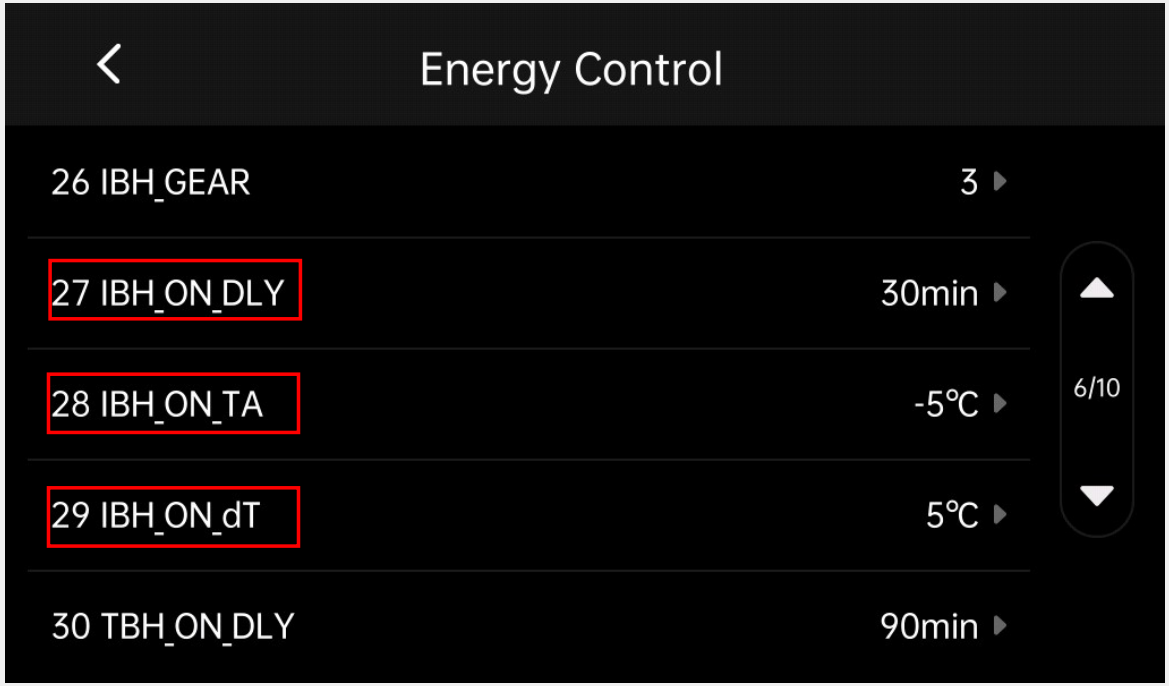
This parameter sets the operating mode for IBH. It is recommended to install the IBH first before selecting the corresponding setting.

This parameter sets the operating mode for AHS. It is recommended to install the AHS first before selecting the corresponding setting.



Advanced settings

Parameters Config.-13 Energy control



This parameter adjusts the time delay for compressor startup by the auxiliary electric heater.

This parameter sets the ambient temperature for activating the auxiliary electric heater.

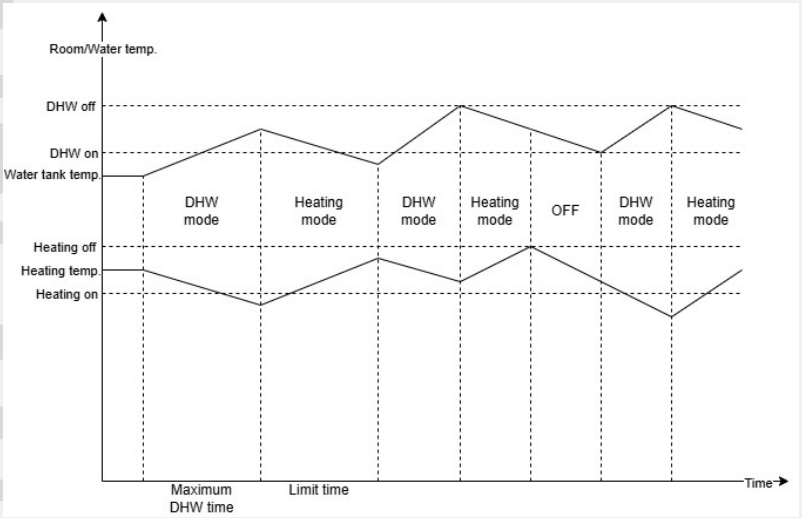
When the controlled water temperature<target temperature -[IBH_ON_dT], IBH will startup

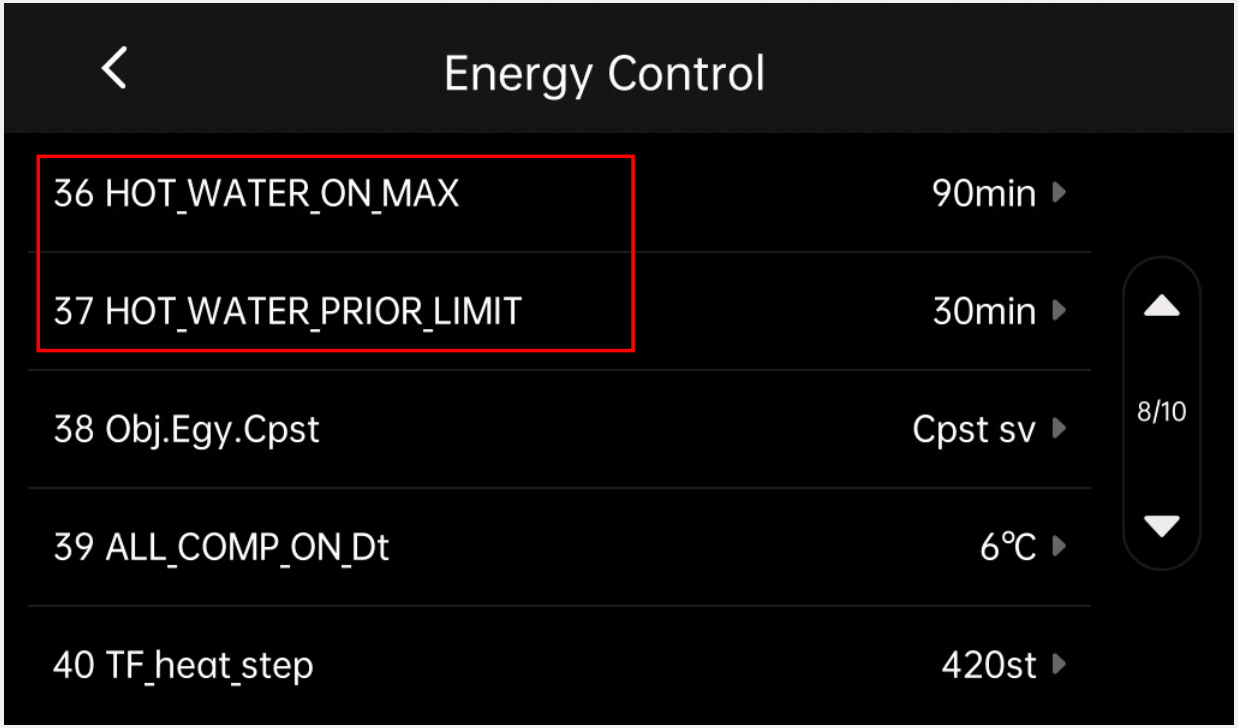
Note: The meanings of the remaining parameters related to TBH and AHS are similar.

Advanced settings

Parameters Config.-13 Energy control

DHW priority Control logic:

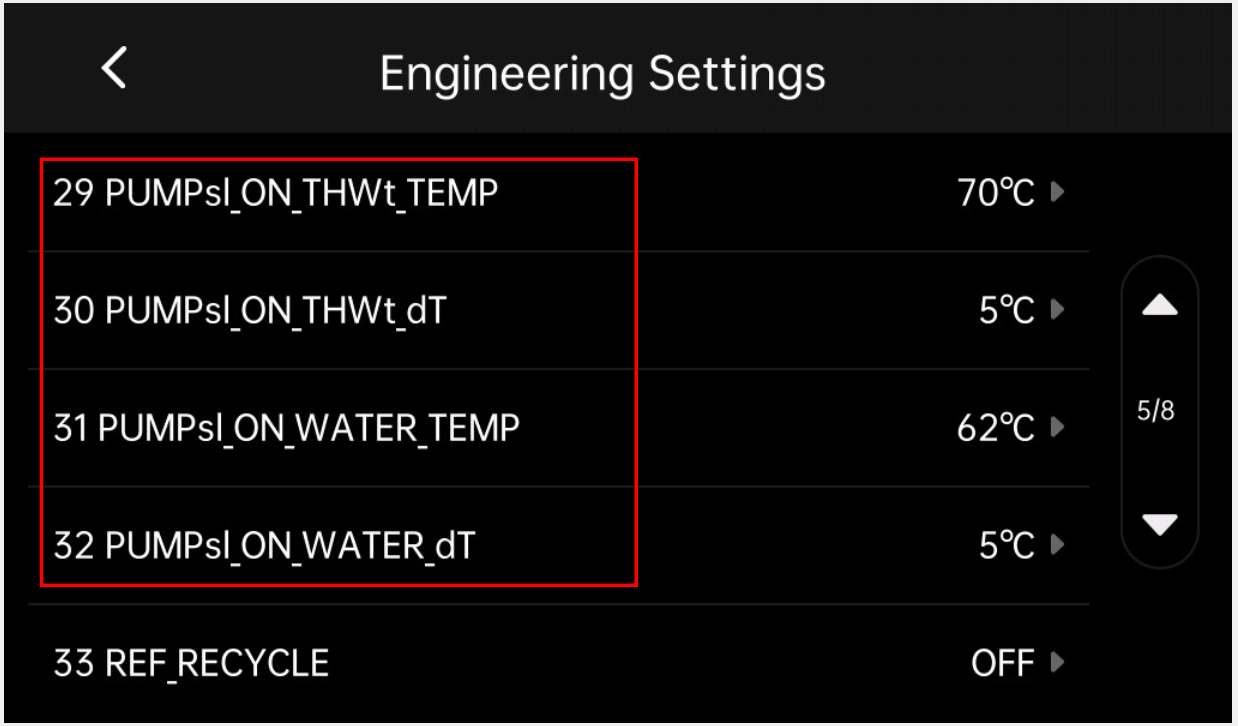




Advanced settings

Parameters Config.-14 Engineering setting

Please refer to PUMPsl control logic



Advanced settings

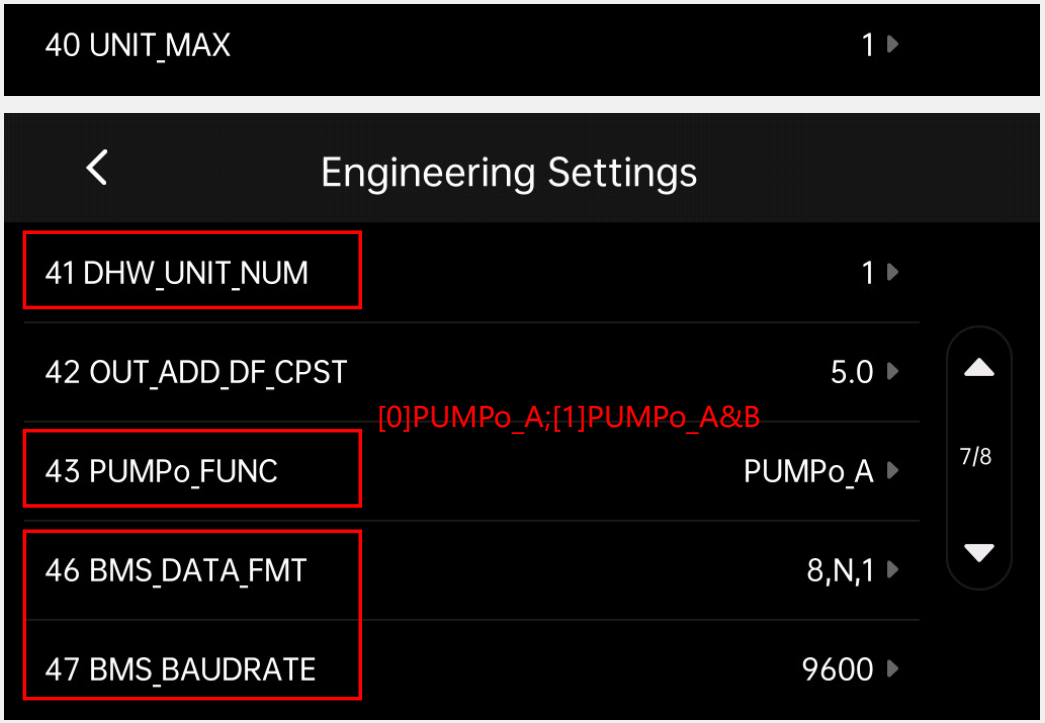
Parameters Config.-14 Engineering setting

This parameter is used to set the number of units for cascade control; please select according to the actual installed quantity.

Number of units responsible for domestic hot water heating among all cascade-controlled units.

This parameter configures the zone application for the external circulation pump. If Zone A is selected, the pump will start when there is a demand from zone A

These parameters can be adjusted according to different communication protocol rules.



Advanced settings

Manual test

Before manual test, please switch this to manual

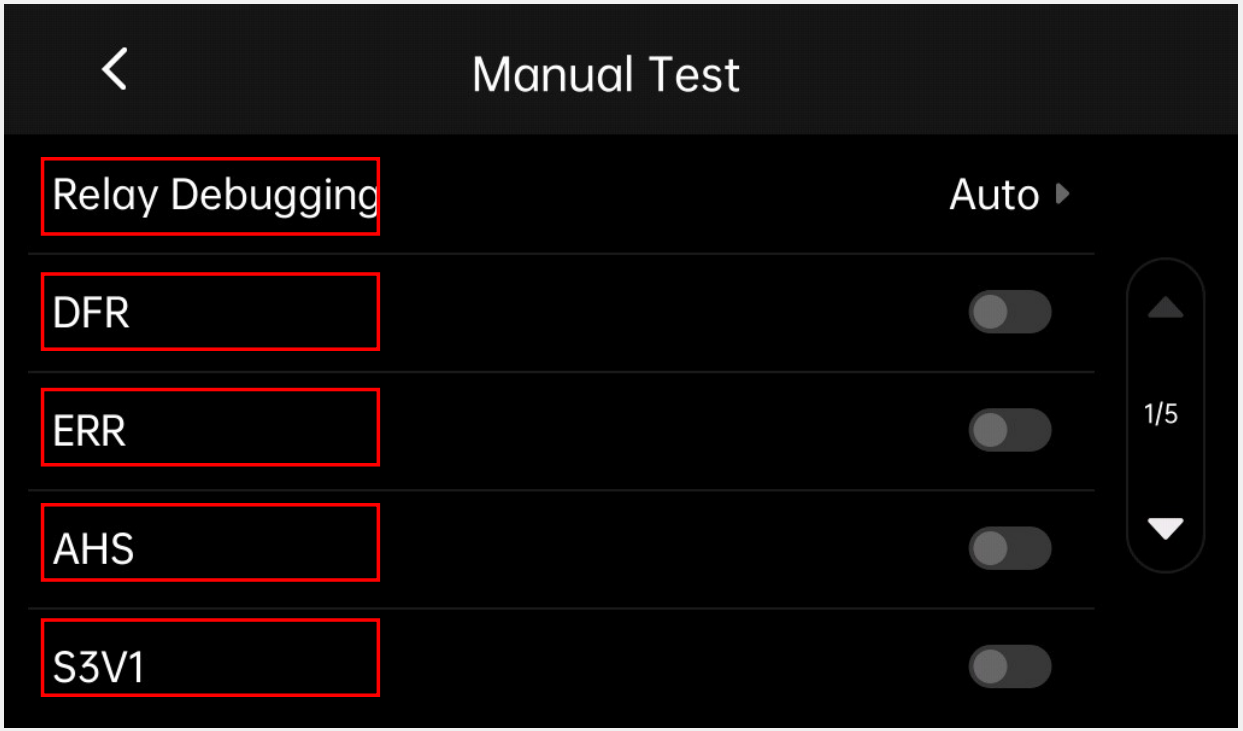
Manual switch output signal of DFR1,DFR2

Manual switch output signal of ERR1,ERR2

P_M N:Mixing water pump	DFR1 DFR2:Defrost signal
ERR1 ERR2:Error signal	

Manual switch on/off AHS

Manual switch on/off S3V1(DHW 3 way valve)



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Advanced settings

Manual test

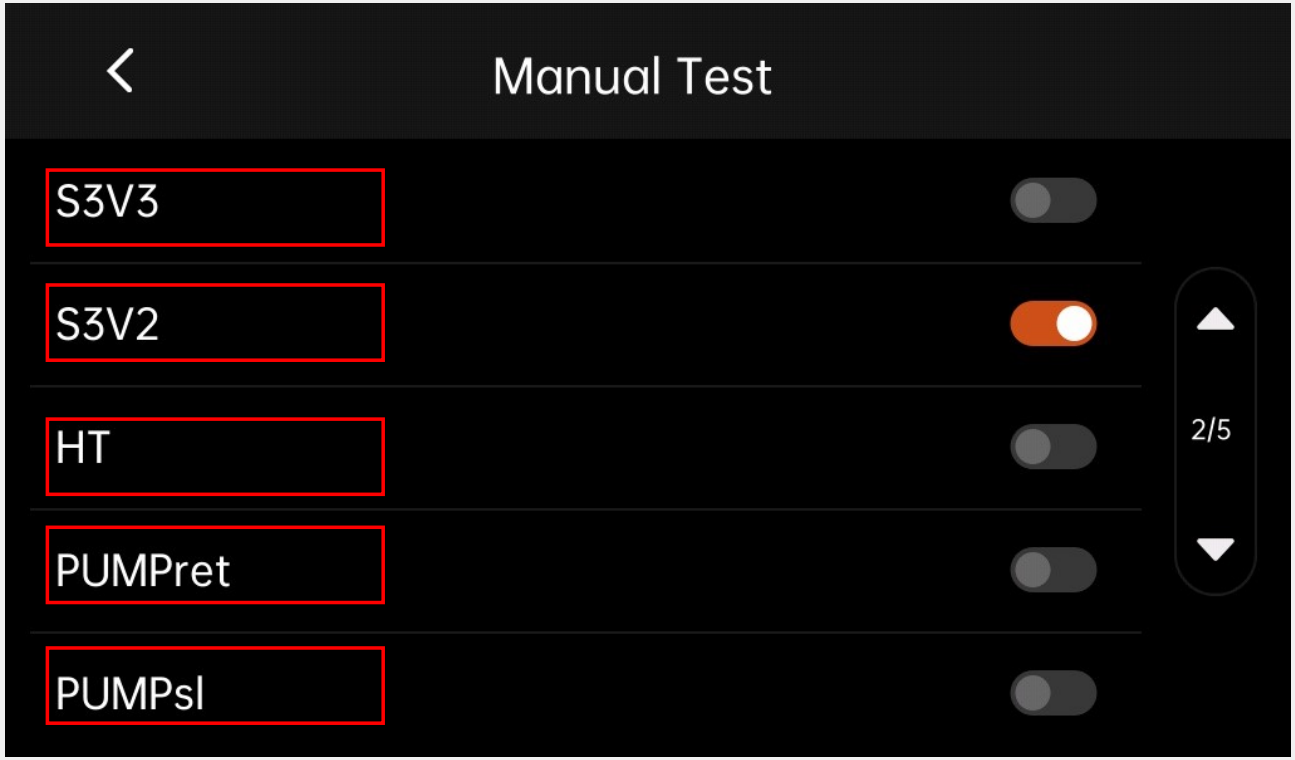
Manual switch on/off S3V3(Mixing 3 way valve)

Manual switch on/off S3V3(Cooling 3 way valv)

Manual switch on/off IBH

Manual switch on/off DHW water pump

Manual switch on/off solar water pump



FAIRLAND

Advanced settings

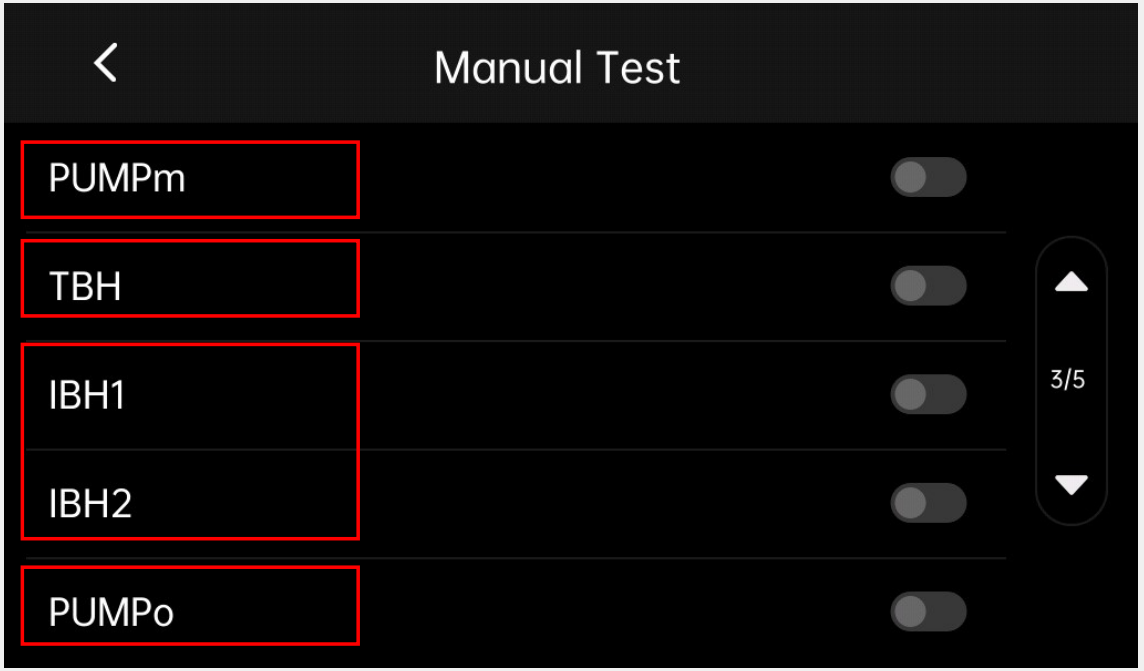
Manual test

Manual switch on/off mixing water pump

Manual switch on/off TBH(DHW tank heater)

Manual switch on/off IBH(electrical heater)

Manual switch on/off external water pump



FAIRLAND

Advanced settings

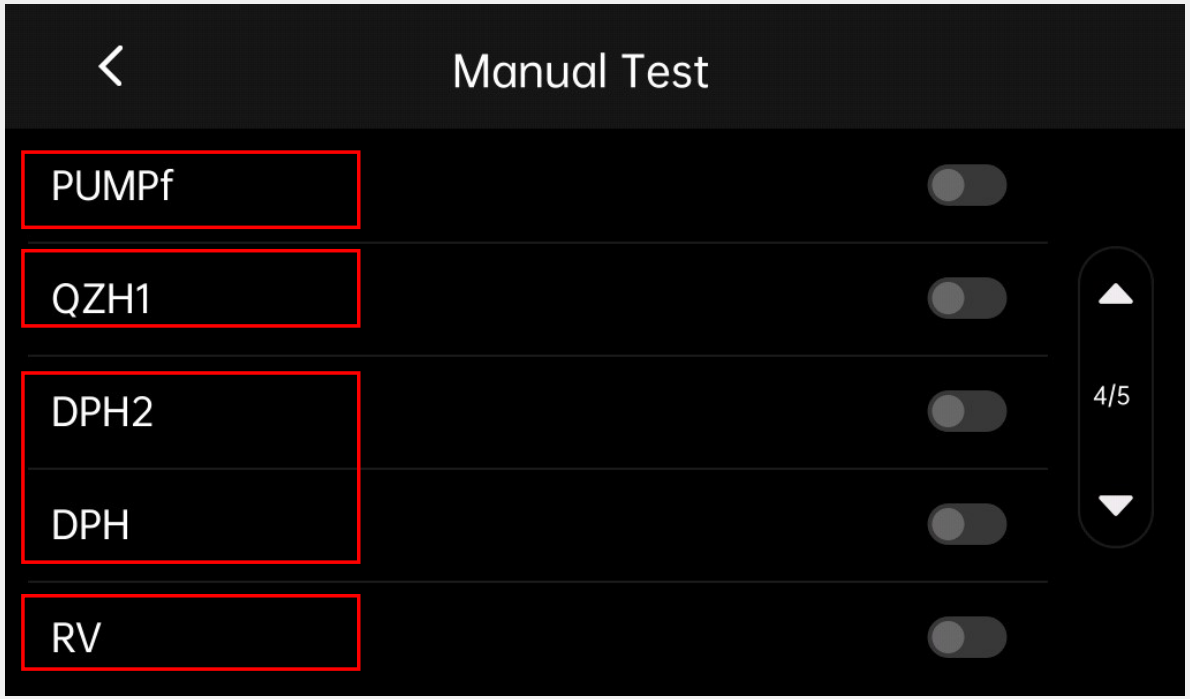
Manual test

Manual switch on/off internal water pump

Manual switch on/off crankcase heater

Manual switch on/off bottom heater

Manual switch on/off 4 way valve

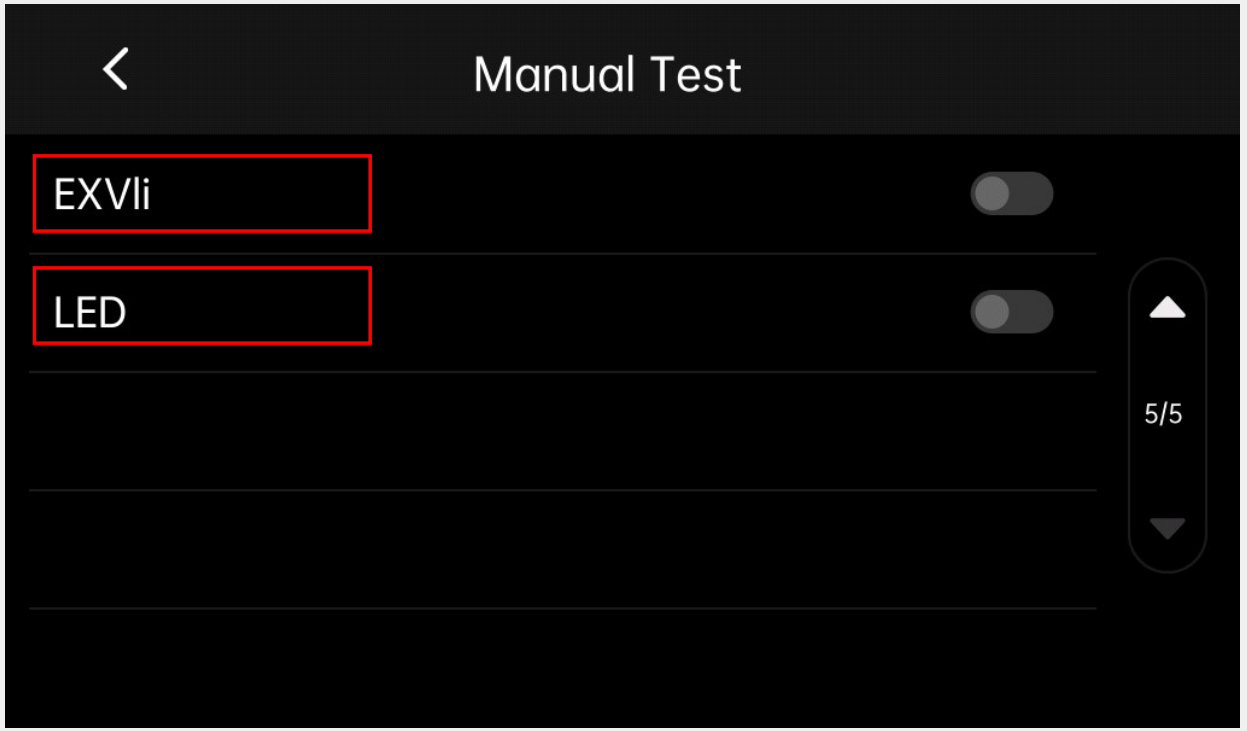


Advanced settings

Manual test

Manual switch on/off EXV

Manual switch on/off LED strip

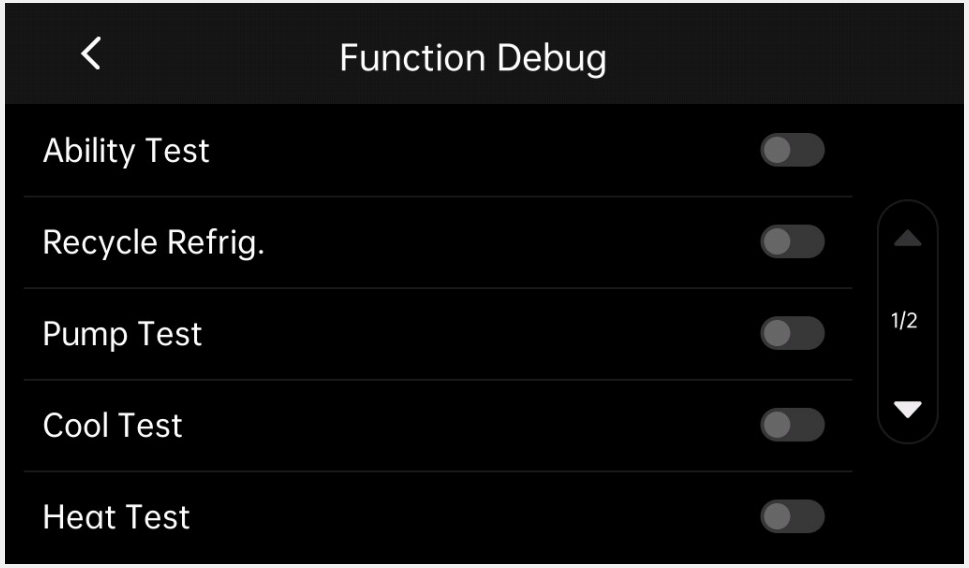


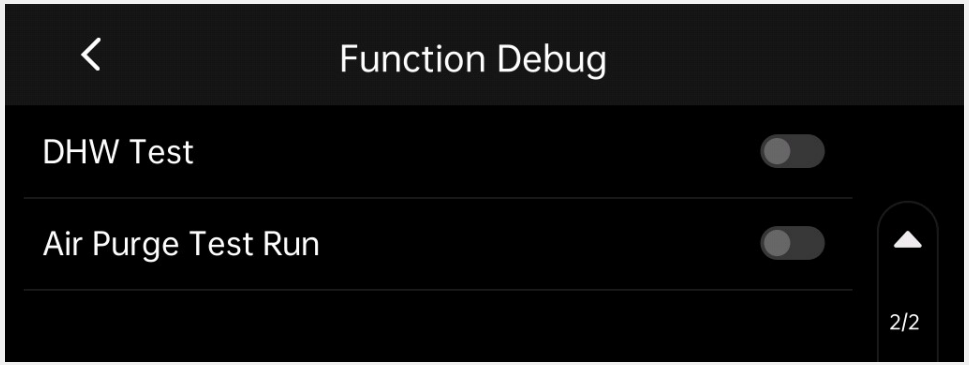
FAIRLAND

Advanced settings

Function Debug

Click to enter test running mode





Advanced settings

Reset

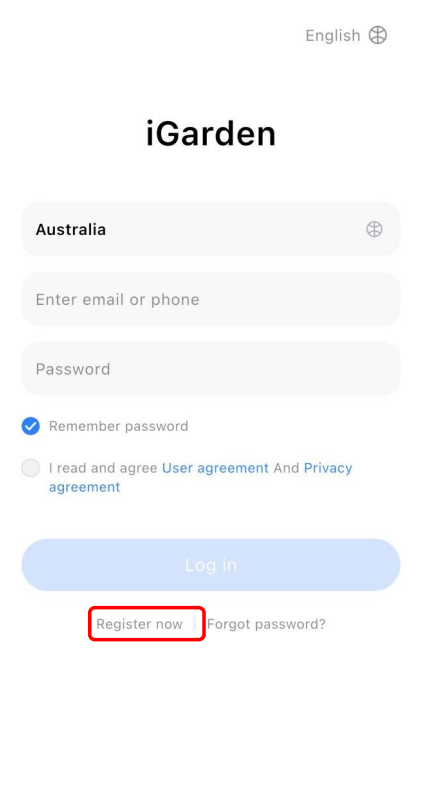
Click to initialize the parameters you want



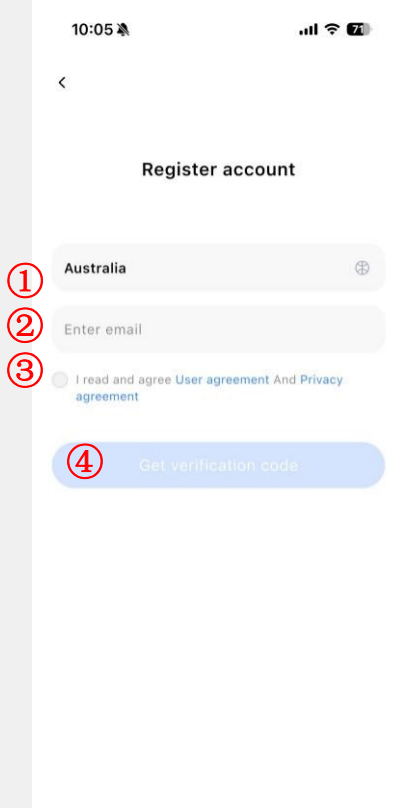
iGarden APP

iGarden APP

1. Registration and Login



a) Click “Register now” to create an account.



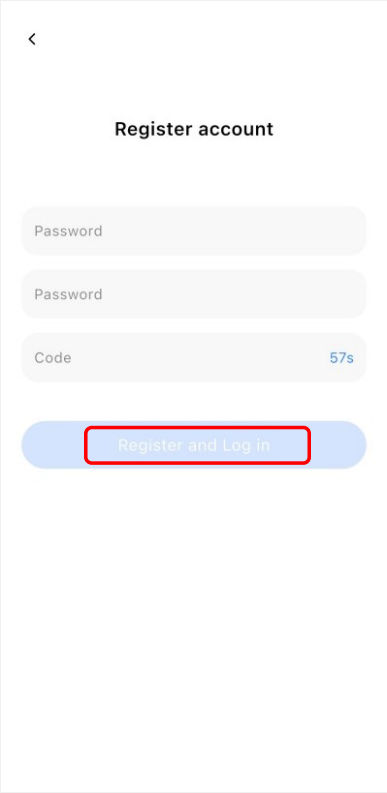
b) Follow the steps below to get the verification code.
Note: If you haven't received the verification code, please check in your spam folder

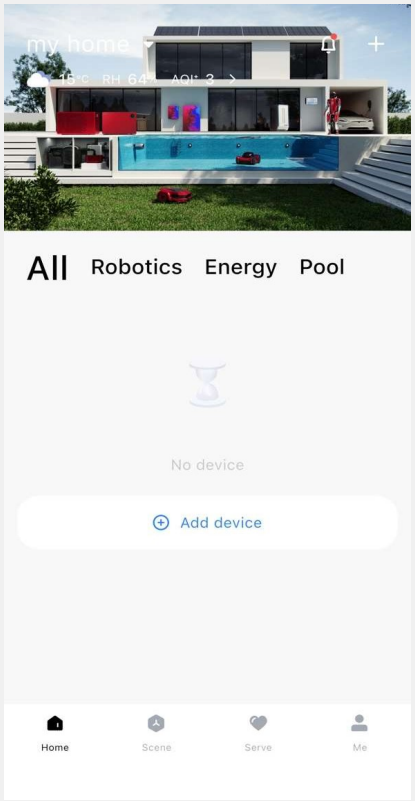
① Select your country
② Enter your e-mail address
③ Read and agree User agreement and Privacy agreement
④ Get the verification code

iGarden APP

1. Registration and Login

c) Enter your password and verification code to complete registration and login to the app.





iGarden APP

2.1 Connect via Bluetooth

Before connecting, ensure your **phone is connected to your home Wi-Fi network** and **Bluetooth is enabled**. The router is configured for **2.4GHz**.

a) Ensure Bluetooth is enabled on your mobile device.

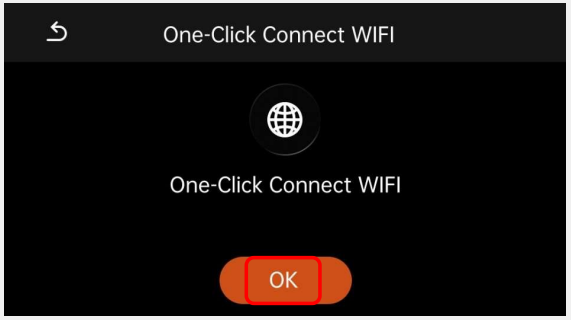
b) Activate Wi-Fi connection

① Unlock the HVAC heatpump screen and enter [Main Menu]



② Click [WIFI Settings] to access the configuration page, then click “OK” to select [One-Click Connect WIFI]. The screen will display “One-click Connecting”.

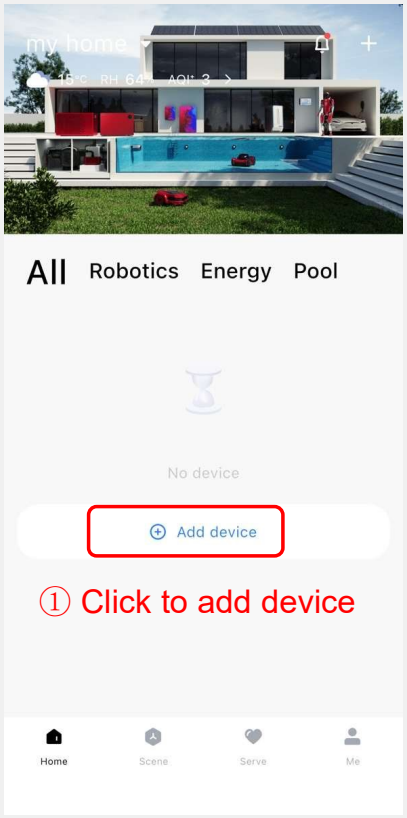




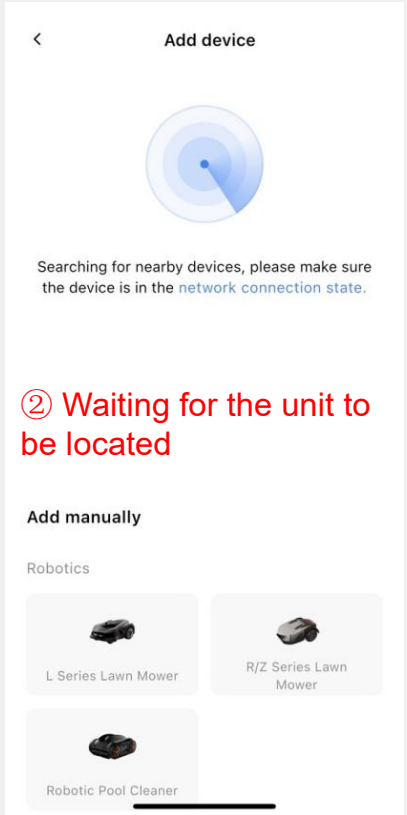
iGarden APP

2.1 Connect via Bluetooth

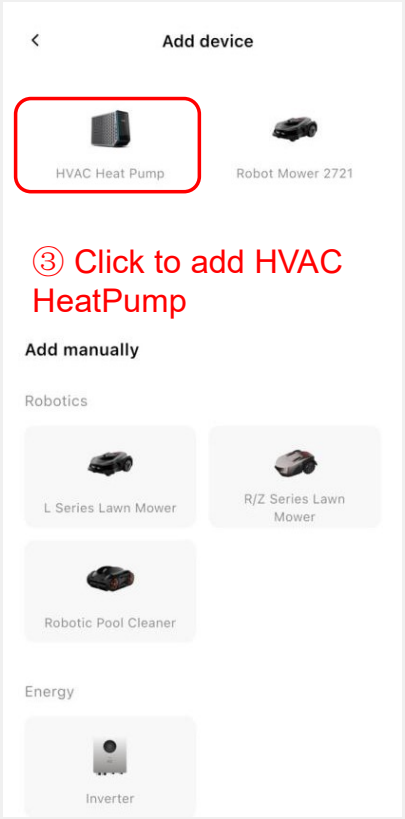
c) Open the app and follow the steps below to connect the device to the network.



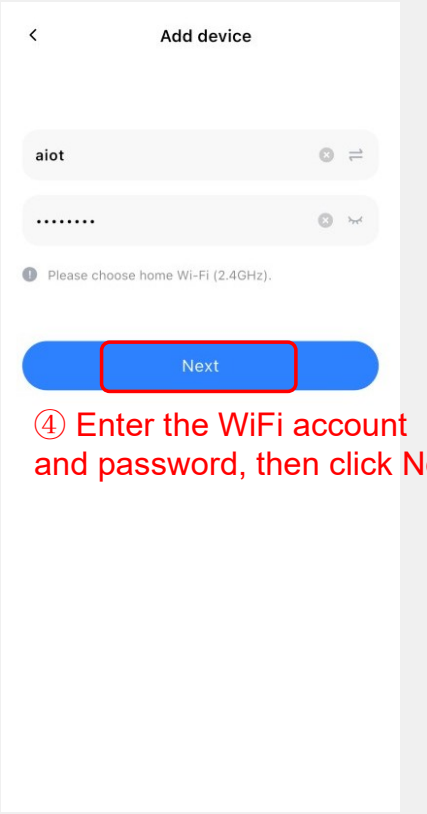
① Click to add device



② Waiting for the unit to be located



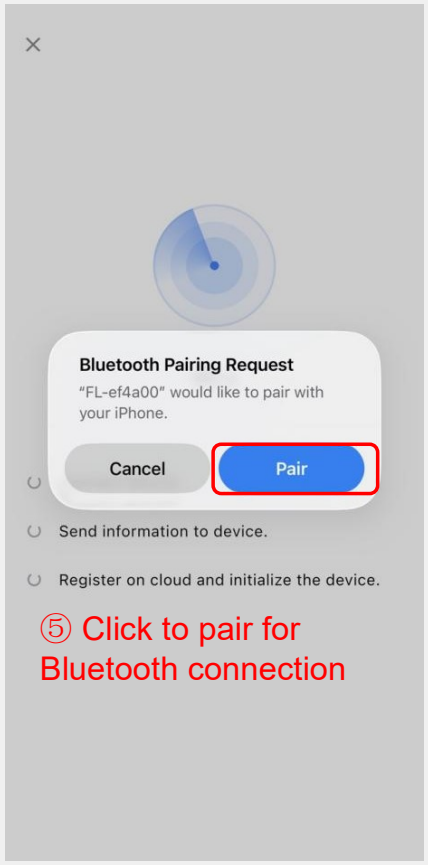
③ Click to add HVAC HeatPump



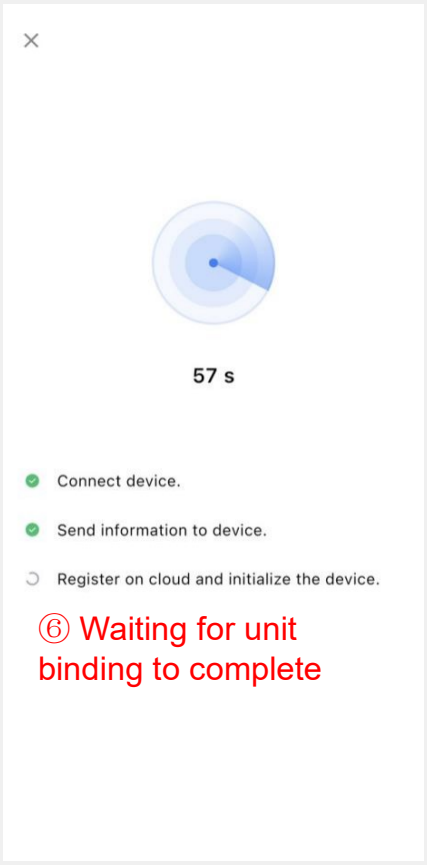
④ Enter the WiFi account and password, then click Next.

iGarden APP

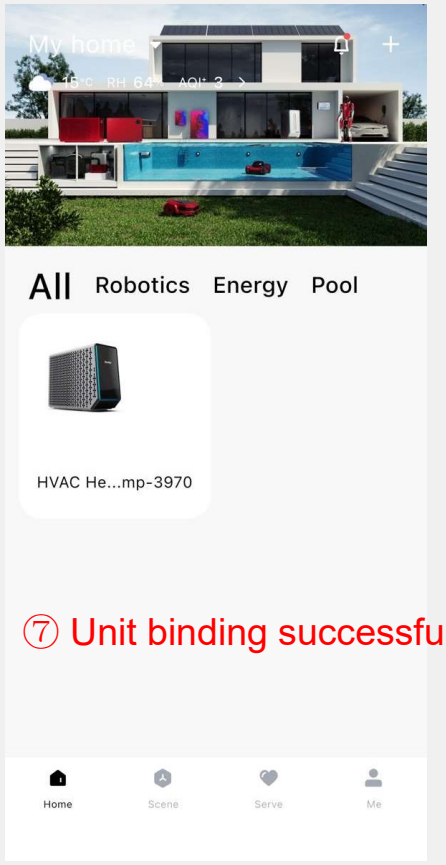
2.1 Connect via Bluetooth



⑤ Click to pair for Bluetooth connection



⑥ Waiting for unit binding to complete



⑦ Unit binding successful

iGarden APP

2.2 Connect via hotspot

Before connecting, ensure your **home Wi-Fi network** is configured for **2.4GHz**.

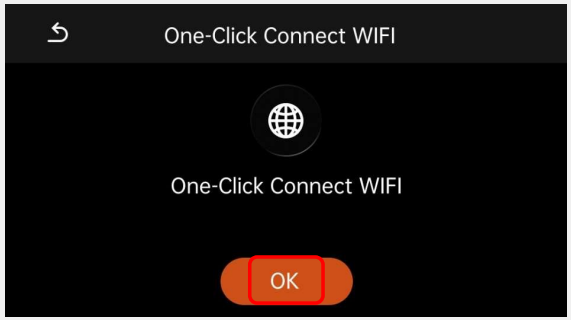
a) Activate Wi-Fi Connection

① Unlock the HVAC heatpump screen and enter [Main Menu]



② Click [WIFI Setting] to access the configuration page, then click “OK” to select [One-Click Connect WIFI]. The screen will display “One-click Connecting”.

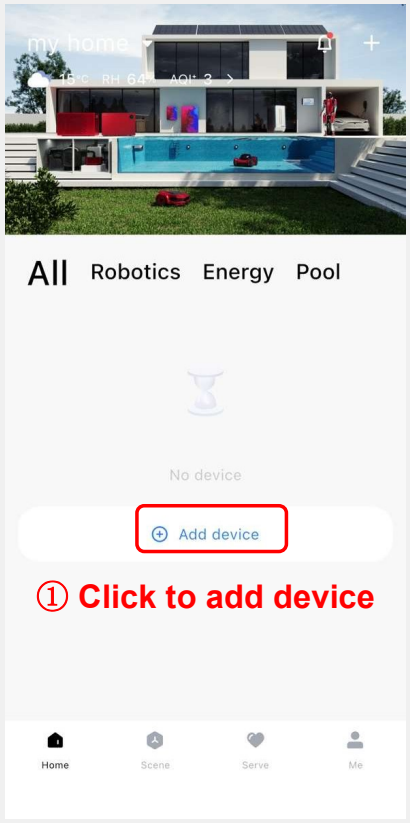




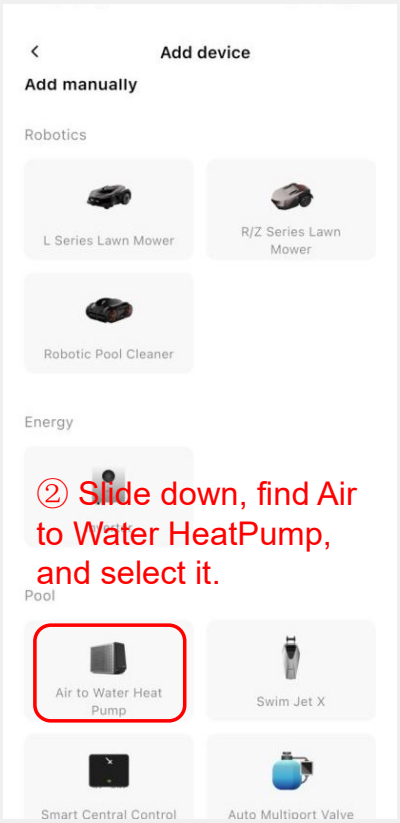
iGarden APP

2.2 Connect via hotspot

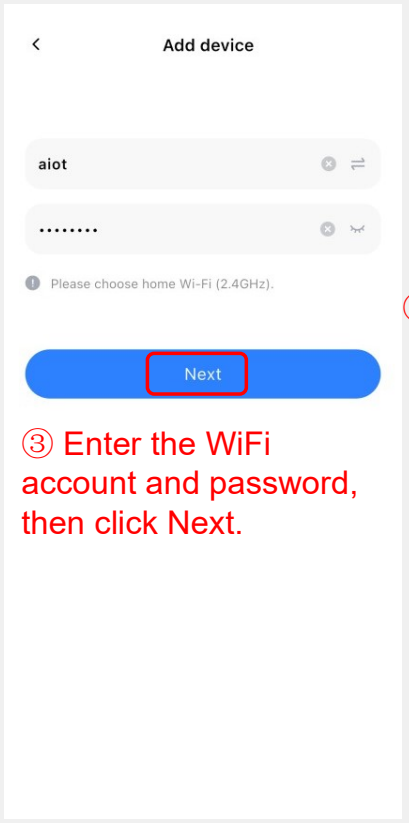
b) Open the app and follow the steps below to connect the device to the network.



① **Click to add device**



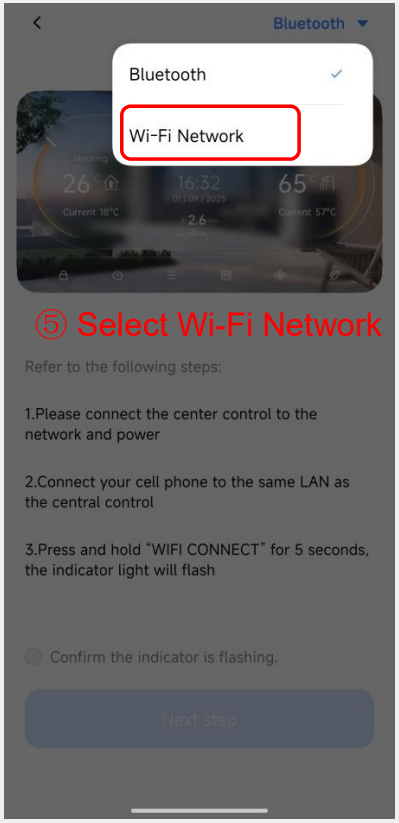
② Slide down, find Air to Water HeatPump, and select it.



③ Enter the WiFi account and password, then click Next.



④ Press the Bluetooth/WiFi switch button



⑤ Select Wi-Fi Network

iGarden APP

2.2 Connect via hotspot



⑥ Check the confirmation button and click to the next step.



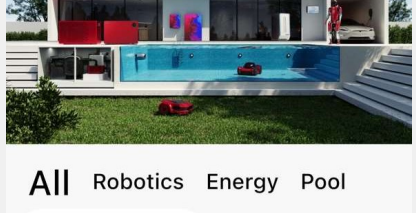
⑦ Connect to the device's hotspot



⑧ Click to the next step.



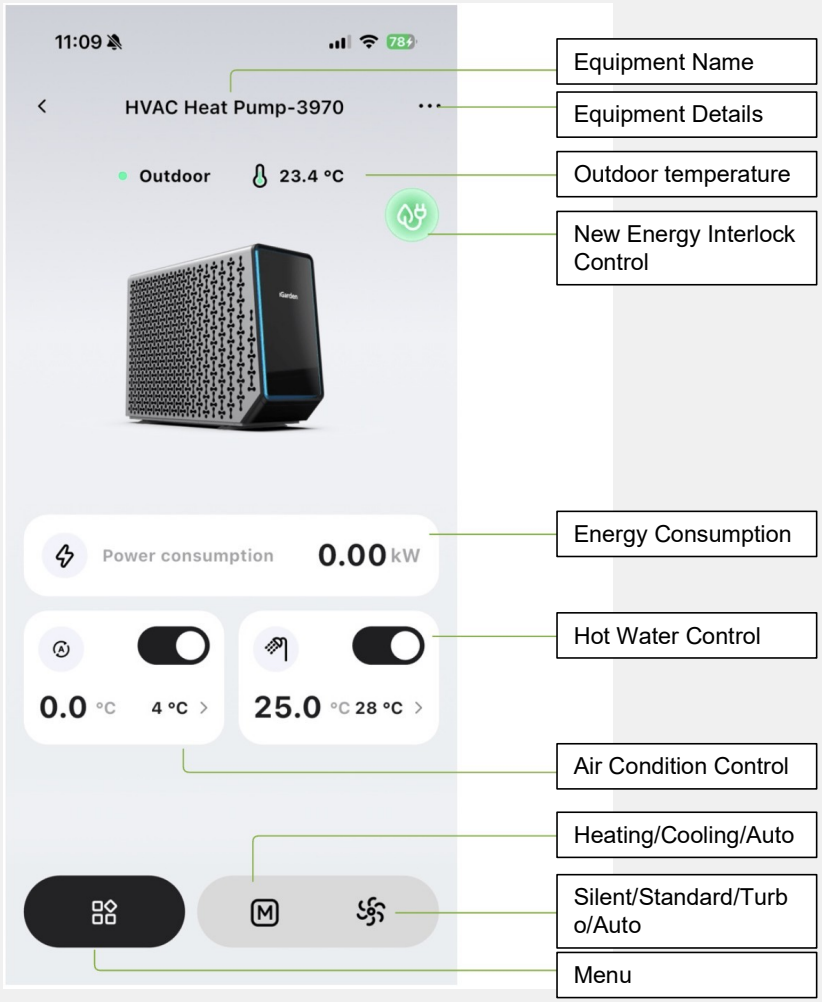
⑨ Waiting for unit binding to complete

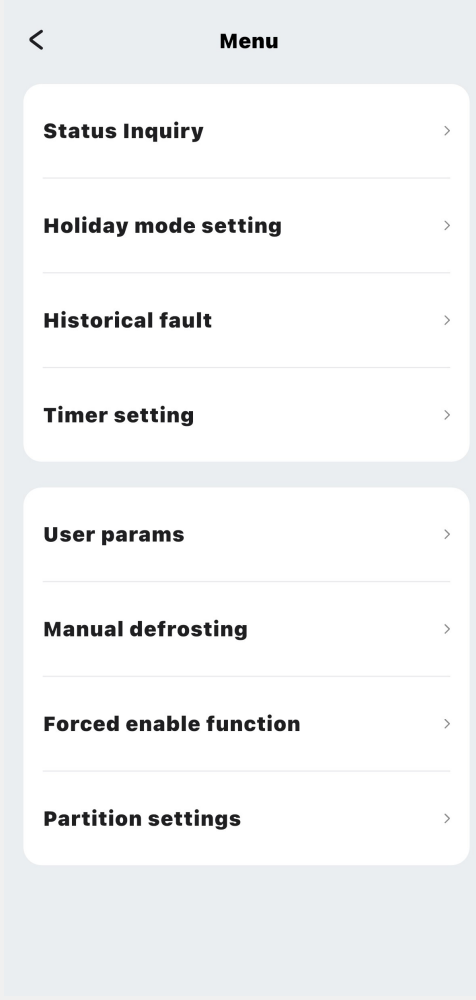


⑩ Unit binding is successful

iGarden APP

3 OperatingInstructions



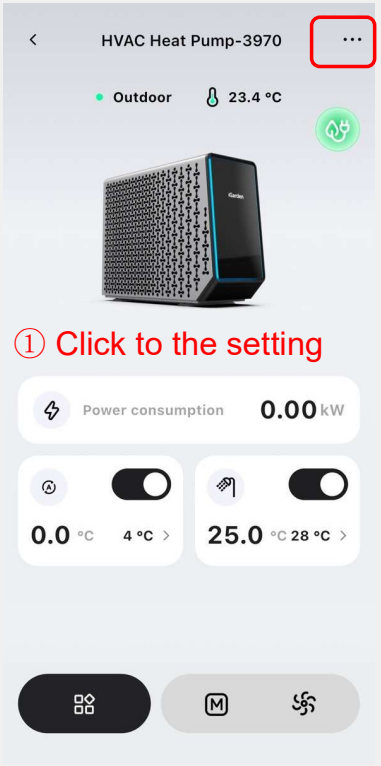


Functions in menu is the same as main menu in wired controller

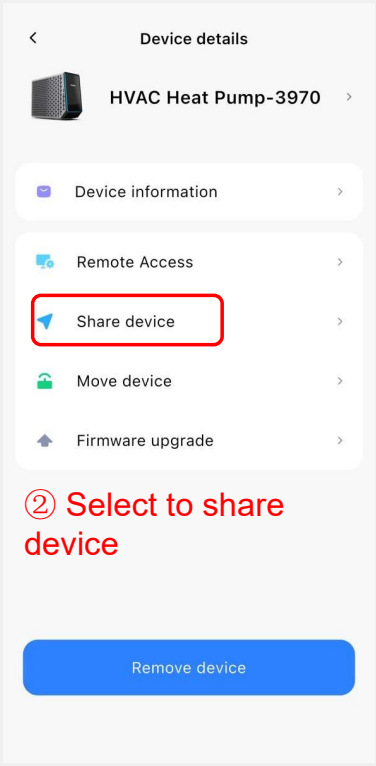
iGarden APP

4.Equipment Sharing

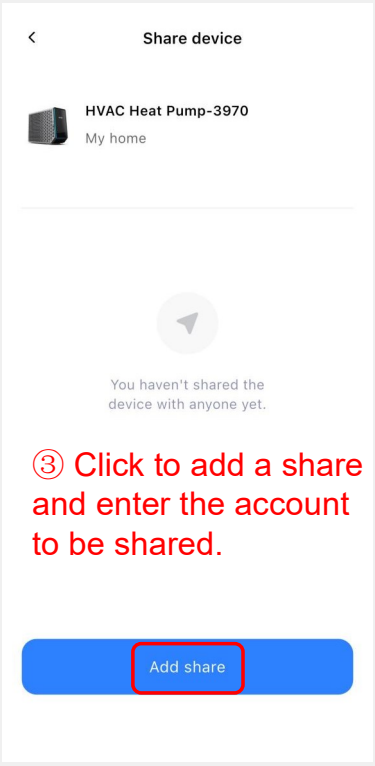
After connecting, if other family members wish to control this device, please have them register for the app first. The administrator can then follow these steps to share the unit for other(the images below are for reference only):



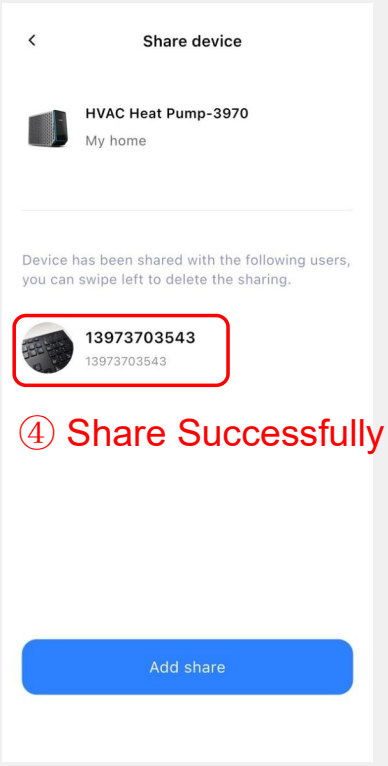
① Click to the setting



② Select to share device



③ Click to add a share and enter the account to be shared.



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Thanks

