

coldture

# Coldture Pro Plunge Xtreme User Manual

LS-40H/S3N2-BP



# Important Information



**Please read this instruction carefully before using the appliance and retain it for future reference.**



**During transporting the water chiller, please ensure that it is not tilted more than 45 degrees (in any direction).**



**Do not restrict or block up the air inlet or exhaust air outlet of the unit.**



**Never use cleaning agents containing sand, soda, acid or chloride because these could damage surfaces.**



**Before opening the device, ensure that all circuits are isolated from the power supply.**



**Any work on the water chiller may only be performed by authorised and qualified after-sales service technicians.**

# Safety Instructions

## **Observe the following informations and instructions:**

The electrical installation and the installation of the heating circuit can be only carried out by qualified installers or technicians;

Observe all local regulations and standards for water supply and electrical installations;

Operate this appliance only if it is fully installed and all safety equipment is fitted;

The appliance is used in environments with temperatures ranging from -18°C to 40°C. When the ambient temperature is below -18 °C please drain the internal water;

The appliance must be installed on a horizontal, level, solid and permanent substrate;

To make sure sufficient air flow and maintenance space, minimum clearance around the appliance should be kept as below:

Maintain an open space of 1 meter (at least 30cm) for the air inlet and 1 meters for the air outlet without obstacles.



### **Risk of injury:**

Where children or person with limited physical, sensory or mental capabilities are to be allowed to control this appliance, ensure that this will only happen under the supervision or after appropriate instructions by a person who is responsible for their safety.

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

# Display Illustrations




( 1 )  heating mode;

( 2 )  cooling mode;

(3)  silent mode;  intelligent mode;  strong mode;

(4)  defrosting in progress;

( 5 )  Wi-Fi successfully connected and permanently lit, flashing when not connected or during connection;

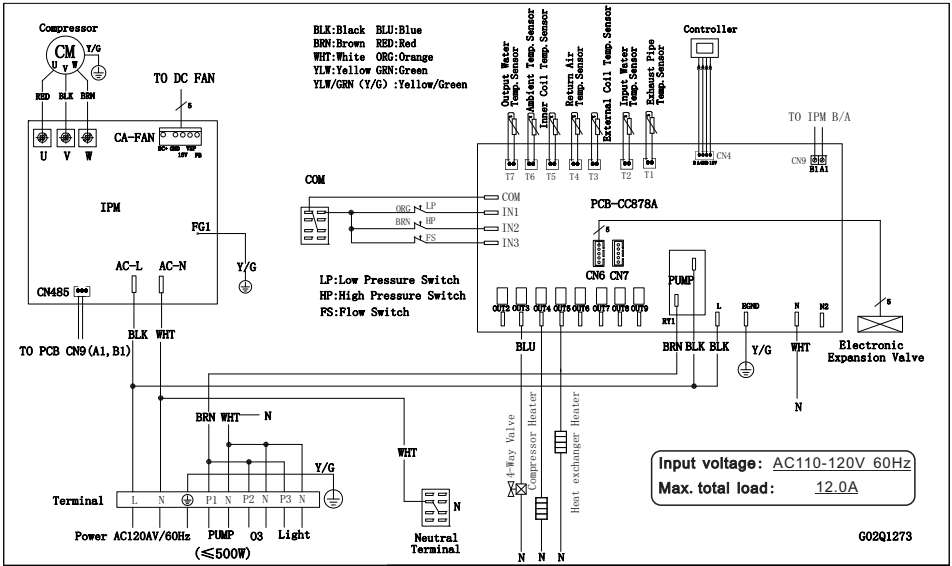
( 6 )  Lock screen;

(7)  blinking when reporting a fault;

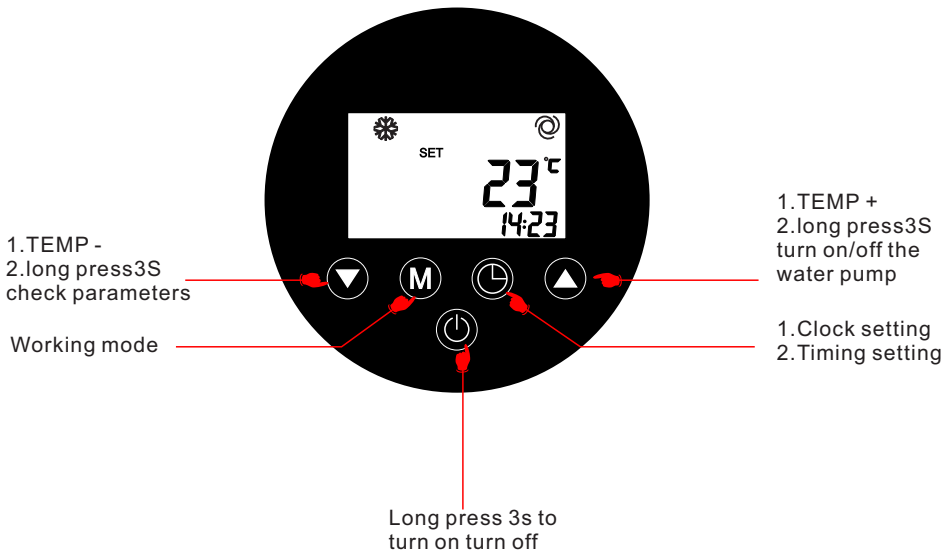
(8)  water pump on;

# Pre-use Operations

1.Please connect power strictly according to the power data plate.

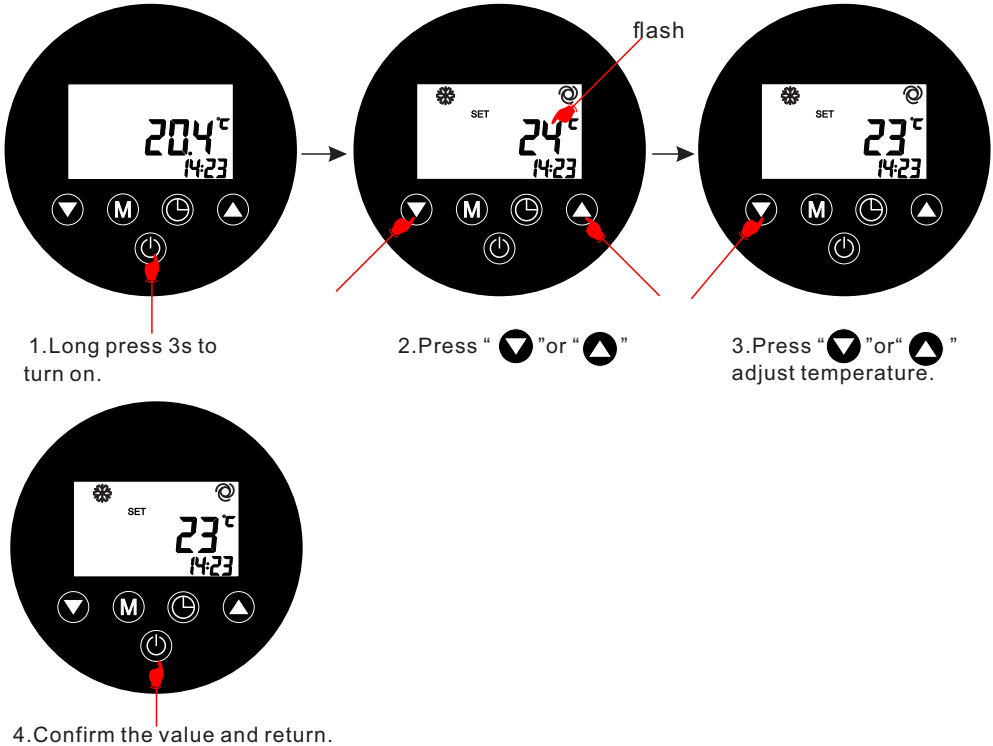


2.After connecting the load and checking it in detail, turn on the power and use it normally.





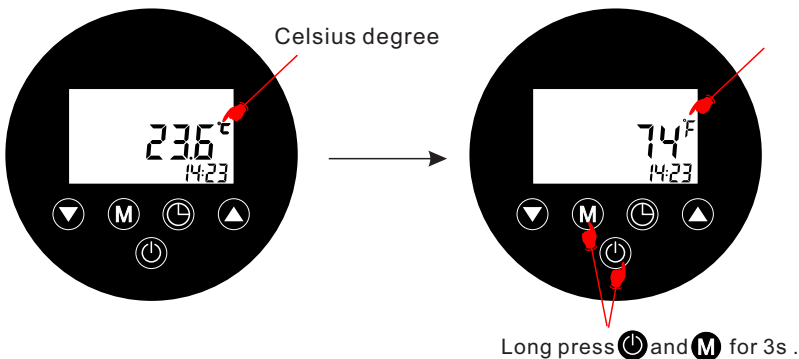
# Settings

## Temperature Setting

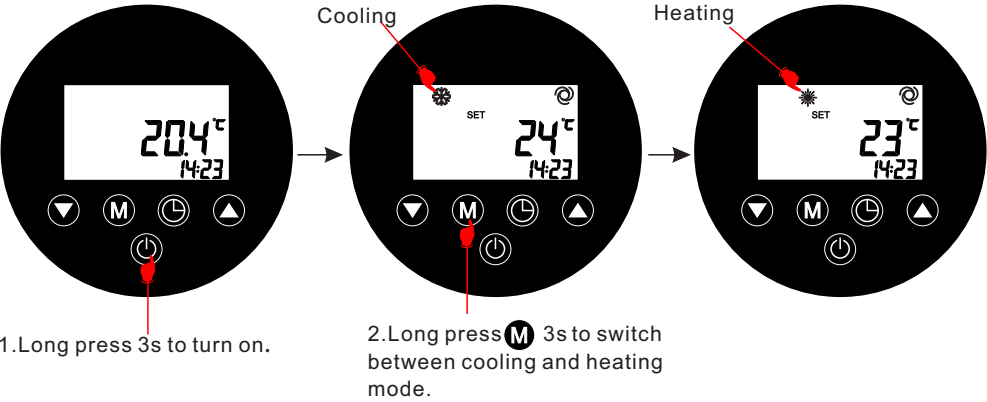


## Temperature Unit

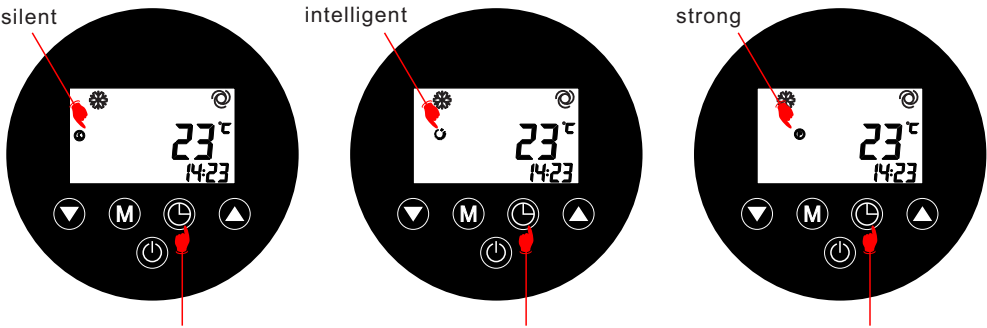
When the system is power on, long press "  " and "  " on the main interface for 3 seconds to switch the temperature unit (°C or °F), The system will automatically stre the value after changing.



Working Mode



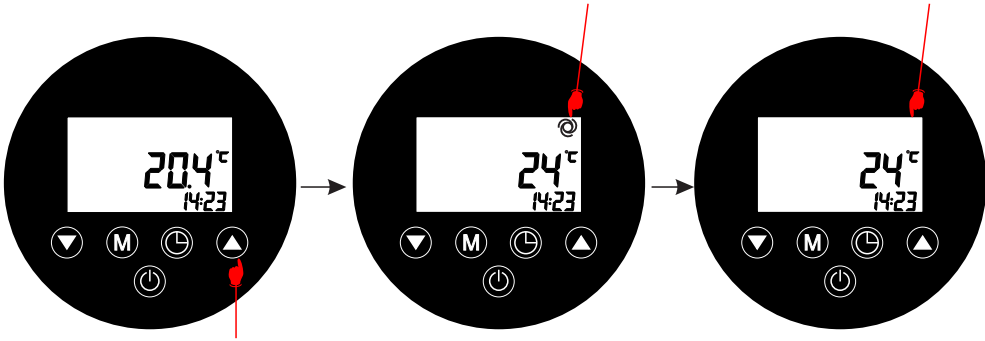
At the startup interface, press  to switch modes: silent, .intelligent, and strong



### Cycle Pump

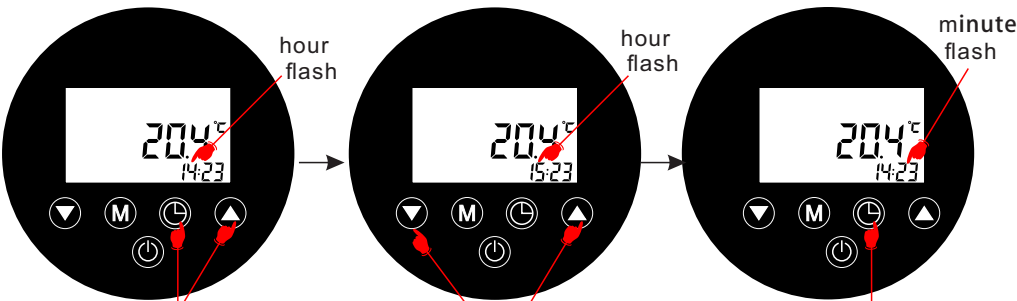
Press and hold "▲" for 3 seconds to manually turn on/off the water pump when shutting down, reaching the temperature set, or shutting down due to malfunction.

Cycle pump will turn off automatically after running for 30 minutes.



1.Long press 3s to turn on pump. 2.Long press 3s again to turn off pump.

### Clock Setting



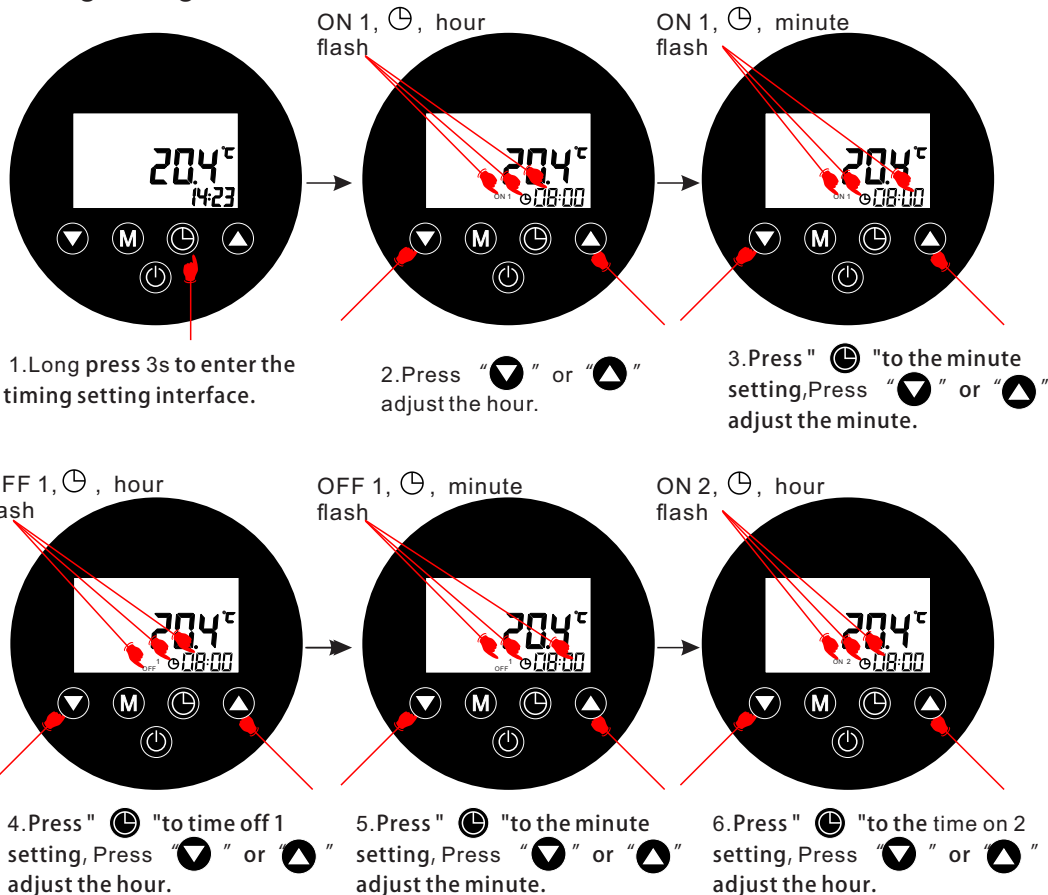
1.Long press 3s .

2.Press "▼" or "▲"  
adjust the hour.

3.Press "▼" or "▲"  
adjust the minute.  
press "⌚" confirm the  
value and return.

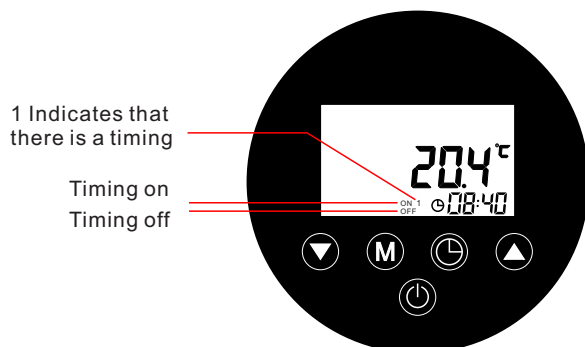


## Timing Setting



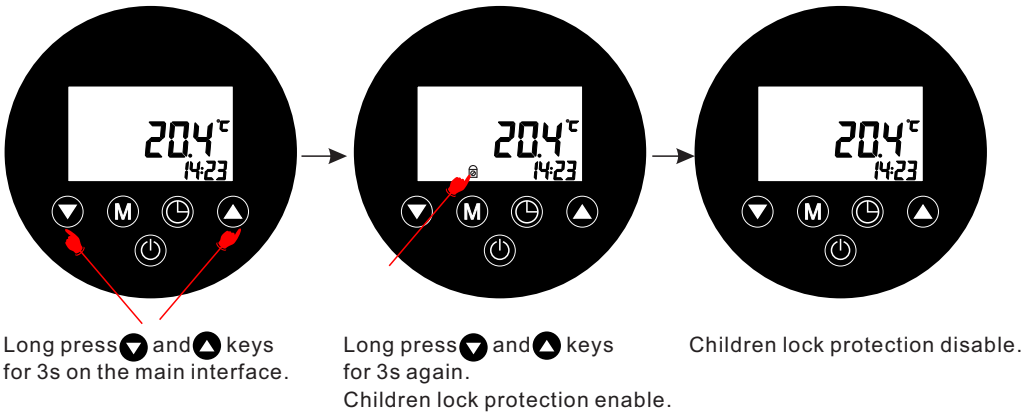
The timing of the second and third segments is also switched through the 🕒 .

The ▼ and ▲ adjust the hours and minutes, and press ⏻ to exit.



Cancel timing setting:  
When the set startup time and shutdown time are the same, the timing setting for the current time period is cancel.

## Children Lock Protection Setting



## Wifi Setting

### Download the App


Method 1: Search "Smart Life" in Apple App Store or Google App Store.

Method 2: Scan the QR code below, download and install "Smart Life" APP.

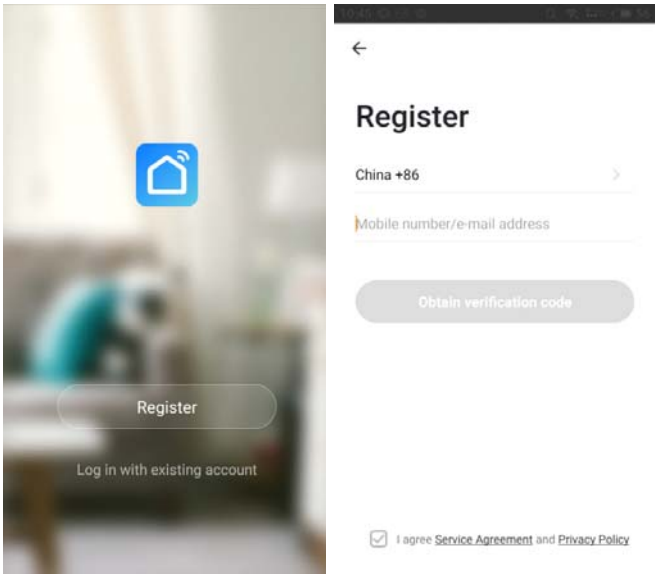


# Wifi Setting

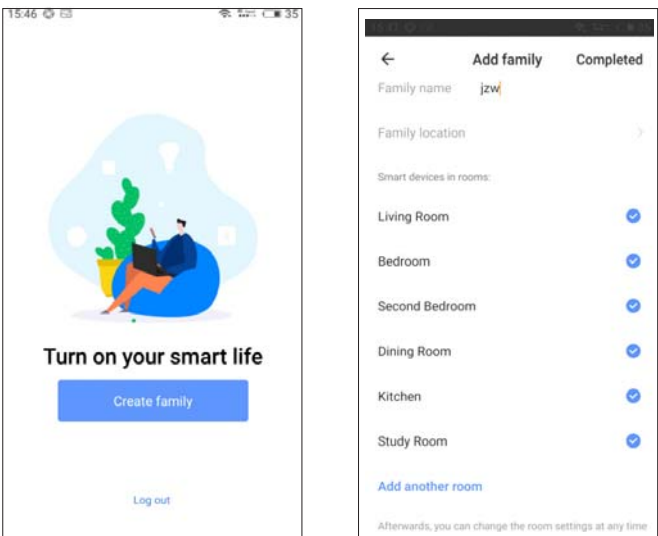
## User registration

Click the icon "  " to start the software.

To use the "Smart Life" software for the first time, you need to register users: create a new account → enter a mobile phone number/email → enter a verification code, set a password → confirm



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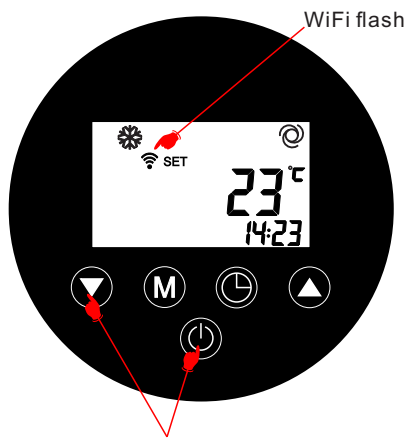
## Two options to activate WiFi

### Option 1: Quick flash mode



Push "mode" and "up arrow"  
At the same time for 5 seconds.

### Option 2: Slow flash mode



Push "power button" and "down arrow"  
at the same time for 5 seconds.

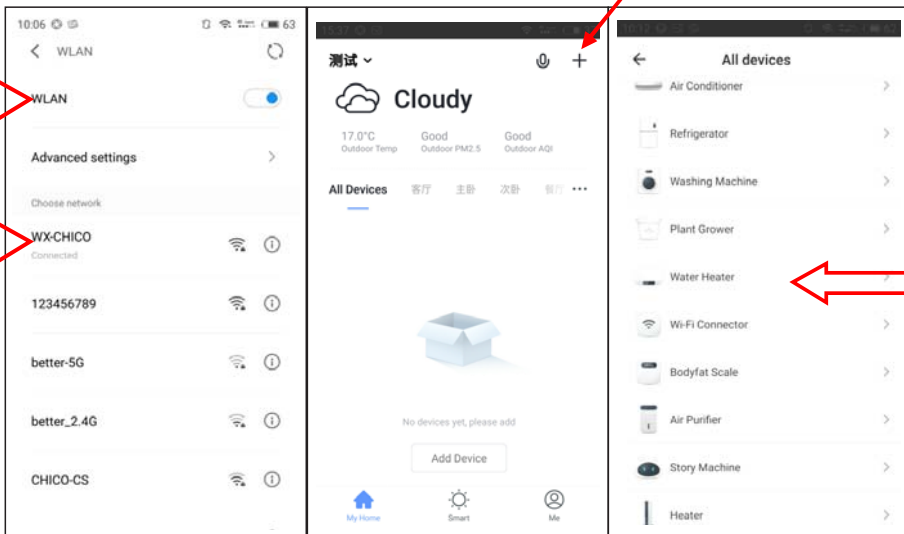
## User Registration

### SMART mode

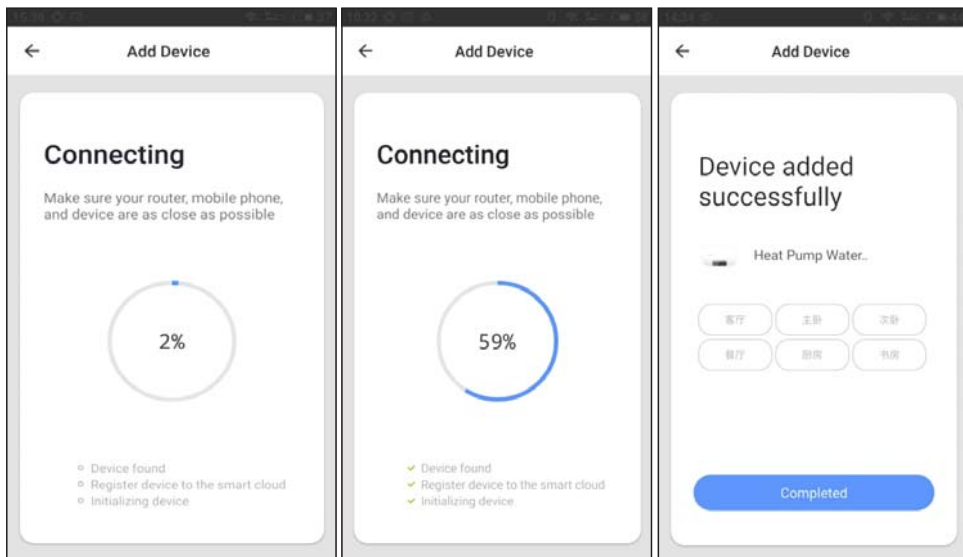
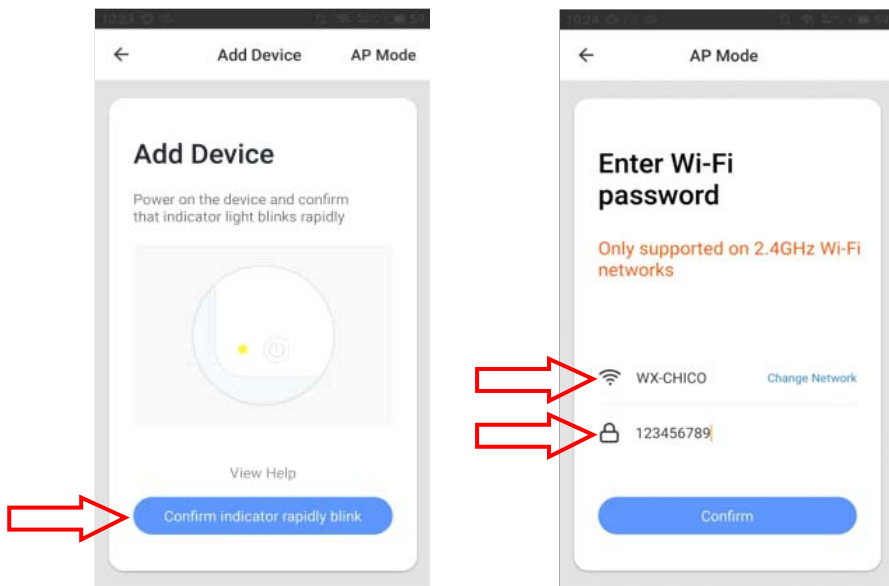
OPEN "WLAN"



Connect to the  
network



long press the WIFI reset button for 3 seconds, and then click "confirm that the indicator is flashing".



Operation

The device is bound successfully. Click "completed" to enter the operation page directly.



## System Antifreeze

During standby or shutdown protection:

When the ambient temperature is  $\leq 5^{\circ}\text{C}$ , it enters the first level of antifreeze protection, and the water pump starts for 30 seconds every 10 minutes and runs in a cycle; When the ambient temperature is  $\geq 8^{\circ}\text{C}$ , exit the first level antifreeze protection;

When the ambient temperature is  $\leq 5^{\circ}\text{C}$  and the outlet water temperature is  $\leq 3^{\circ}\text{C}$ , enter the second level antifreeze protection and automatically start heating;

When the ambient temperature is  $\geq 8^{\circ}\text{C}$  or the outlet water temperature is  $\geq 5^{\circ}\text{C}$ , exit the secondary antifreeze protection;

Cooling up to temperature shutdown can enter second level antifreeze, while heating up to temperature shutdown can only enter first level antifreeze;

If there is a malfunction in the outlet water temperature, the inlet water temperature will replace the outlet water temperature for antifreeze;

If there is a malfunction in the environment, outlet water, and inlet water temperature, enter the first level of antifreeze;

After entering the antifreeze mode, the wire controller displays fault code E04;

## Malfunction Table

Code	Error
Er 03	Water flow failure
Er 04	Winter antifreeze
Er 05	High pressure failure
Er 06	Low pressure failure
Er 09	Main board - wire control communication failure
Er 10	Communication failure of frequency conversion module
Er 12	High exhaust protection
Er 15	Inlet water temperature fault
Er 16	Outer coil temperature fault
Er 18	Exhaust temperature fault
Er 19	DC fan fault
Er 20	Abnormal protection of frequency conversion module
Er 21	Environmental temperature fault
Er 23	Cooling water outlet temperature low protection
Er 27	Water outlet temperature fault
Er 28	CT over current protection
Er 29	Return air temperature fault
Er 32	Protection against excessive temperature of heating water outlet
Er 33	Outdoor coil high temperature protection
Er 42	Inner coil temperature fault
Er 44	Protection against low ambient temperature in cooling mode
Er 45	Protection against low ambient temperature in heating mode



## Trouble Shooting

NO.	Fault	Analysis	Solution
E03	Water flow protection	<ol style="list-style-type: none"> <li>1. The connection between water flow switch and main board is poor.</li> <li>2. The water flow switch is installed wrong.</li> <li>3. Water flow switch failure.</li> <li>4. Main board failure.</li> <li>5. Low water flow               <ol style="list-style-type: none"> <li>5.1 The water system is blocked.</li> <li>5.2 Water pump is not suitable</li> <li>5.3 Water pipe is small</li> <li>5.4 The water flow switch is stuck and cannot be reset.</li> </ol> </li> <li>6. No water flow               <ol style="list-style-type: none"> <li>6.1 The valve is not open.</li> <li>6.2 The water pump is not working.</li> <li>6.3 Water pump failure.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Reconnect the water flow switch cable</li> <li>2. Install the water flow switch in the correct way.</li> <li>3. Need to replace the water flow switch</li> <li>4. Need to replace the motherboard</li> <li>5.1 Clean or replace the blocked part.</li> <li>5.2 Change the pump according to the water flow and water head.</li> <li>5.3 Need to change the water pipe.</li> <li>5.4 Reset the water flow switch manually.</li> <li>6.1 Open the valve.</li> <li>6.2 Turn on the pump.</li> <li>6.3 Need to replace the water pump.</li> </ol>
E04	<ol style="list-style-type: none"> <li>1. Low ambient temp. running.</li> <li>2. Low water temp.</li> </ol>	<ol style="list-style-type: none"> <li>1. When the ambient temp. is <math>\geq 8^{\circ}\text{C}</math>, exit the anti-freeze state.</li> <li>2. When the outlet water temp. is <math>\geq 15^{\circ}\text{C}</math>, exit the anti-freeze state.</li> </ol>	Anti-freeze protection
E05	High pressure protection	<ol style="list-style-type: none"> <li>1. Loose wiring or poor connection of high pressure switch</li> <li>2. There is something wrong with high pressure switch</li> <li>3. Main board is broken</li> <li>4. Poor condensing               <ol style="list-style-type: none"> <li>4.1 Water temperature is too high (over range operation).</li> <li>4.2 Low water flow                   <ol style="list-style-type: none"> <li>4.2.1 The valve in water system is not open.</li> <li>4.2.2 Waterway blockage, may appear in the heat exchanger or valve part.</li> <li>4.2.3 Improper water pump selection</li> <li>4.2.4 The water pump is broken .</li> </ol> </li> </ol> </li> <li>5. Refrigerant system blockage, may appear in the throttle part.</li> <li>6. Refrigerant system is mixed with air, maybe the vacuum is not enough.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reconnect the wire.</li> <li>2. Replace the high pressure switch.</li> <li>3. Replace the main board.</li> <li>4.1 Operate within the allowable range.</li> <li>4.2.1 Open the valve.</li> <li>4.2.2 Clean the blocked part or replace it .</li> <li>4.2.3 Change the pump according to the water flow and water head.</li> <li>4.2.4 Replace the water pump.</li> <li>5. Clean or replace the clogged part.</li> <li>6. Vacuumize and refill the refrigerant.</li> </ol>

E06	Low pressure protection	<ol style="list-style-type: none"> <li>1. Loose wiring or poor connection off low pressure switch.</li> <li>2. There is something wrong with low pressure switch.</li> <li>3. Main board is broken.</li> <li>4. Refrigerant leak.</li> <li>5. Expansion valve incorrect function.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reconnect the wire.</li> <li>2. Replace the high pressure switch.</li> <li>3. Replace the main board.</li> <li>4. Vacuumize and refill the refrigerant.</li> <li>5. Correct function of expansion valve.</li> </ol>
E09/ E10	Communication fault	<ol style="list-style-type: none"> <li>1. The connection between wire controller and main board is poor.</li> <li>2. Wire controller fault.</li> <li>3. Main board fault.</li> <li>4. Communication wire and strong electricity wire put together, resulting in power interference communication</li> </ol>	<ol style="list-style-type: none"> <li>1. Reconnect the wire controller cable.</li> <li>2. Replace the wire controller.</li> <li>3. Replace the main board.</li> <li>4. Communication wire is placed separately from the strong electricity wire.</li> </ol>
E12	Exhaust protection	<ol style="list-style-type: none"> <li>1. Temp. sensor fault.</li> <li>2. Water flow switch fault</li> <li>3. Leakage happen, and refrigerant is not enough .</li> <li>4. Low water flow <ol style="list-style-type: none"> <li>4.1 The water system is blocked.</li> <li>4.2 Water pump is not suitable</li> <li>4.3 Water pipe is small</li> <li>4.4 The water flow switch is stuck and cannot be reset.</li> </ol> </li> <li>5. No water flow <ol style="list-style-type: none"> <li>5.1 The valve is not open.</li> <li>5.2 The water pump is not working.</li> <li>5.3 Water pump is broken .</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Need to replace the temp. sensor.</li> <li>2. Need to replace the water flow switch.</li> <li>3. Repair the leakage, and refill the refrigerant according to the nameplate.</li> <li>4.1 Clean or replace the blocked part.</li> <li>4.2 Change the pump according to the water flow and water head.</li> <li>4.3 Need to change the water pipe.</li> <li>4.4 Reset the water flow switch manually.</li> <li>5.1 Open the valve.</li> <li>5.2 Turn on the pump.</li> <li>5.3 Need to replace the water pump.</li> </ol>
E15	Inlet water temp. sensor fault	<ol style="list-style-type: none"> <li>1. The connection between the temp. sensor and the main board is poor.</li> <li>2. Temp. sensor fault.</li> <li>3. The sensor resistance on the main board fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reconnect the temp. sensor cable.</li> <li>2. Replace the temp. sensor.</li> <li>3. Replace the main board.</li> </ol>
E16	External coil temp. sensor fault	<ol style="list-style-type: none"> <li>1. The connection between the temp. sensor and the main board is poor.</li> <li>2. Temp. sensor fault.</li> <li>3. The sensor resistance on the main board fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reconnect the temp. sensor cable.</li> <li>2. Replace the temp. sensor.</li> <li>3. Replace the main board.</li> </ol>

E18	Exhaust pipe temp.sensor fault	<ol style="list-style-type: none"> <li>1. The connection between the temp. sensor and the main board is poor.</li> <li>2. Temp. sensor fault.</li> <li>3.The sensor resistance on the main board fault.</li> </ol>	<ol style="list-style-type: none"> <li>1.Reconnect the temp.sensor cable.</li> <li>2.Replace the temp.sensor.</li> <li>3.Replace the main board.</li> </ol>
E19	DC Fan failure	<ol style="list-style-type: none"> <li>1. The connection between the DC Fan and the main board is poor.</li> <li>2. DC Fan fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check DC fan motor 1 and its wire connection to PCB.</li> <li>2.Replace the DC Fan.</li> </ol>
E21	Ambient temp. sensor fault	<ol style="list-style-type: none"> <li>1. The connection between the temp. sensor and the main board is poor.</li> <li>2. Temp. sensor fault.</li> <li>3.The sensor resistance on the main board fault.</li> </ol>	<ol style="list-style-type: none"> <li>1.Reconnect the temp.sensor cable.</li> <li>2.Replace the temp.sensor.</li> <li>3.Replace the main board.</li> </ol>
E27	Outlet water temp.sensor fault	<ol style="list-style-type: none"> <li>1. The connection between the temp. sensor and the main board is poor.</li> <li>2. Temp. sensor fault.</li> <li>3.The sensor resistance on the main board fault.</li> </ol>	<ol style="list-style-type: none"> <li>1.Reconnect the temp.sensor cable.</li> <li>2.Replace the temp.sensor.</li> <li>3.Replace the main board.</li> </ol>
E29	Suction sensor fault	<ol style="list-style-type: none"> <li>1. The connection between the temp. sensor and the main board is poor.</li> <li>2. Temp. sensor fault.</li> <li>3.The sensor resistance on the main board fault.</li> </ol>	<ol style="list-style-type: none"> <li>1.Reconnect the temp.sensor cable.</li> <li>2.Replace the temp.sensor.</li> <li>3.Replace the main board.</li> </ol>
E42	Innerl coil sensor fault	<ol style="list-style-type: none"> <li>1. The connection between the temp. sensor and the main board is poor.</li> <li>2. Temp. sensor fault.</li> <li>3.The sensor resistance on the main board fault.</li> </ol>	<ol style="list-style-type: none"> <li>1.Reconnect the temp.sensor cable.</li> <li>2.Replace the temp.sensor.</li> <li>3.Replace the main board.</li> </ol>