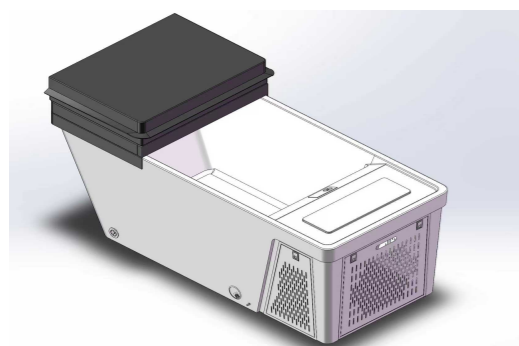




# ICE BATHTUB

## EMPV-79CLF02



### Introduction

In order to use our products safely and effectively, please read this instruction carefully. Improper installation, operation and maintenance will cause the damage to the products and charge you extra repairing fee.

- Thank you for you to choose our massage bathtub series;
- We provide a lifetime warranty after-sale service, please fill warranty registration form accurately;
- If you need any help, please contact local distributor or our company directly;
- Our company reserve the right to change all the models listed in this instruction without prior notice;
- This instruction applies to the listed products as below.
- Because of the difference of the market requirement and individual custom product, please refer to the corresponding content in this instruction according to the product and its functions you choose. In this way, you can install and operate the product correctly.

- In order to install the product correctly and safely by the installer, and you can use and maintain this product correctly and safely, please pay much attention to the warning sign as below

The warning symbol's meaning is as below:

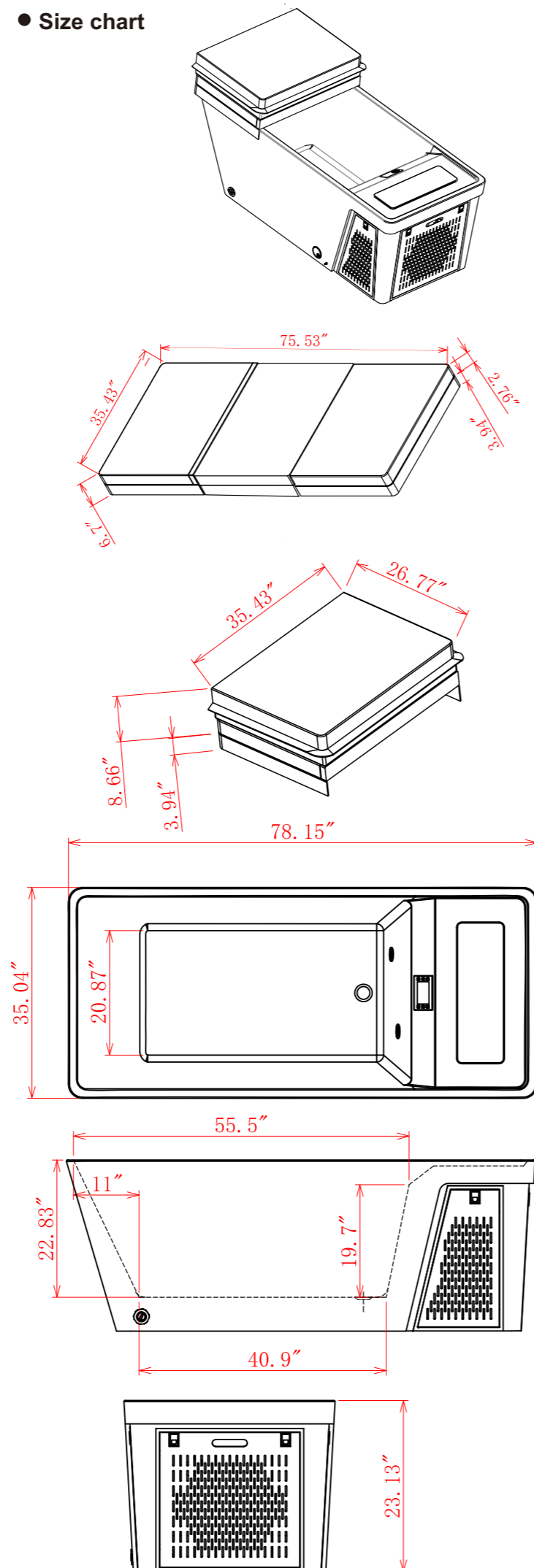
<p><b>Notice</b></p>	<p>This symbol indicates that errant handling after disregarding this symbol could result in personal injury or property loss.</p>
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- In order to install, use and maintain this product correctly and safely, please read and understand this instruction totally.
- This instruction is a valuable source of product information to help the end user use the product safely and correctly. Please take good care of it and keep it from getting lost or soiled.

### Preparation before installation

- Make sure the place you install the bathtub is strong enough to bear the total weight of bathtub, maximum water volume and the user.
- Waterproofing process must be made in the place of bathtub installed, or down stair will get damaged if water leaks.

### ● Size chart



- The installed place must equip with water supply, power supply and drainage:
- This product uses universal home power. parameters please refer to Page 2 (form one).

<p><b>Notice</b></p>	<p>*External circuitry need to equip with high sensitive and fast type leakage protection switch. (Induced current rating below 15MA, trip time should less than 0.1 second, rated current is above 30A.)</p> <p>* The product should be installed the grounding and electric leakage switch by a qualified licensed electrician.</p> <p>The safe distance between power supply and water supply should be not less than 30cm.</p>
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### Precautions for installation

<p><b>Notice</b></p>	<ul style="list-style-type: none"> <li>● Please check whether all parts are complete. If you have any question, please give feedback to our company in time.</li> <li>● After opening the box, please immediately dispose of unneeded packaging. Or it may cause the personal injury by the wooden frames, nails, cardboard or sealing straps which are placed carelessly.</li> <li>● In addition, please do not let the children to play with the packing material. Or it will cause personal injury.</li> <li>● Parts containing live parts, except parts supplied with safety extra-low voltage not exceeding 12 V, must be inaccessible to a person in the bath</li> <li>● Earthed appliances must be permanently connected to fixed wiring</li> <li>● Parts incorporating electrical components, except remote control devices, must be located or fixed so that they cannot fall into the bath</li> <li>● Please do not use other power, except specified power Or it may cause fire or electric shock.</li> <li>● Electrical leakage protection switch should be installed outside the bathroom. Or it may cause fire or electric shock.</li> <li>● Do not use the broken power supply, power plug or the loose socket. Or it may cause fire or electric shock.</li> <li>● Do not modify the power supply cord, use it with an extension cord or combine it with other equipment using multiple plugs. Doing so could lead to shocks, overheating or fire.</li> <li>● Please make sure the power plug is waterproof protection with silicon. Or it may cause fire or electric shock by water infiltration.</li> </ul>
	<ul style="list-style-type: none"> <li>● Before the installation finish, please use cardboard to protect the bathtub or it may lead the damage of the bathtub.</li> <li>● Do not put the fire on the bathtub, such as a lighted cigarette, or it may lead the damage of the bathtub.</li> <li>● Do not stand on bathtub while working. Doing so could cause one to slip and fall or could otherwise damage the product.</li> <li>● Install securely, in accordance with the Installation Manual. Improper installation can lead to water leaks that damage or ruin household property.</li> <li>● After finish the installation, the product should go into trial operation fully to check the installation is proper or not.</li> </ul>

### Installation instruction

#### ● Inspection before installation

Although all our bathtub are water tested before they leave our factory, there may be some loose of the hose connections due to the transport. We need water test the product before installation. The steps are as follow:

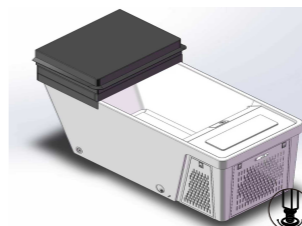
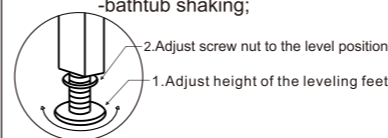
- Place the tub on a flat surface in an area where it may be drained after testing. And adjust the feet to make the bathtub level;
- Check if there is any loose of all the connection system;
- Close the door, fill the tub with water to the overflow and allow standing for 10 minutes to inspect the tub for leaks;
- Insert the plug, start all the function for few minutes inspect the tub

completely any defect must be reported to your dealer/distributor prior to installation in order to have it covered under warranty.

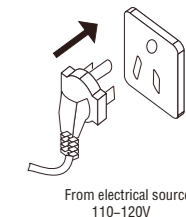
#### ● Adjust the leveling feet

According to different sizes bathtubs, we design about several leveling feet to adjust the bathtub. Please use a wrench or level ruler to level the bathtub.

- Note: If the bathtub is not level, it may lead :
- noise increased;
  - remaining water in the hoses or the drainage;
  - bathtub shaking;



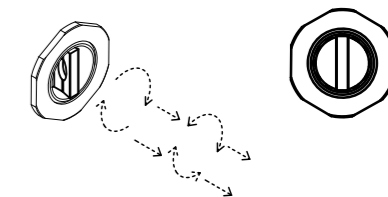
- How to connect the electricity?
- The bathtub is supplied with a plug which can be inserted into a 110/120V 15 amp circuit outlet.
- Note: This product uses universal home power. External circuitry is equipped with high sensitive and fast type leakage protection switch. (Induced current rating below 15MA; trip time should be less than 0.1 second; rated current is above 30A.)



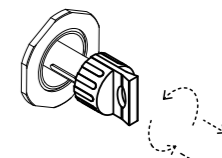
<p><b>Notice</b></p>	<p>The product should be installed alongside ground and electric leakage switches by a licensed electrician.</p>
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### Water pipe

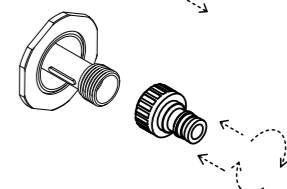
1: Turn the lid clockwise, press the lid down and pull out until it cannot pull out:



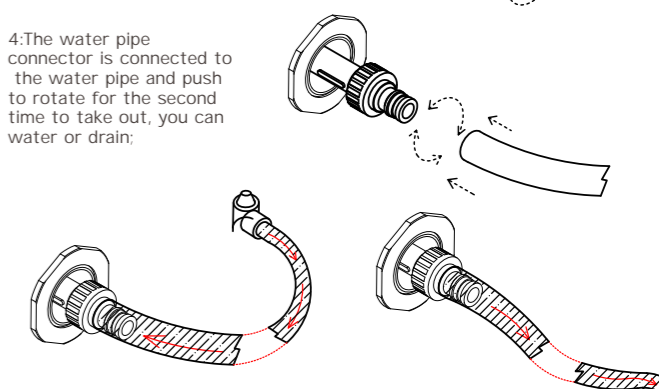
2: Turn counterclockwise to screw out the lid:



3: Screw on the water pipe connector, turn clockwise to tighten:



4: The water pipe connector is connected to the water pipe and push to rotate for the second time to take out, you can water or drain:



The other end of the water pipe is connected to the Angle valve, and the Angle valve is opened to water

The other end of the pipe into the drain that is, drain

### Precautions for use

<p><b>Notice</b></p>	<ul style="list-style-type: none"> <li>● Use this unit only for its intended use as described in this manual. Do not use attachments not recommended by the manufacturer.</li> <li>● Children shall not play with the appliance.</li> <li>● Cleaning and user maintenance shall not be made by children without supervision.</li> <li>● Do not permit children to use this unit unless an adult closely supervises them at all times. Supervision is also required when an elderly or handicapped individual uses whirlpool bath.</li> <li>● Person with a medical history of heart disease, low or high blood pressure, circulatory system problems or diabetes should consult a physician before using a whirlpool.</li> <li>● The use of drugs or alcoholic beverages before or during whirlpool use may lead to unconsciousness with the possibility of drowning.</li> <li>● Persons using medication should consult a physician before using a whirlpool since medication may induce drowsiness while other medication may affect heart rate, blood pressure and circulation.</li> </ul>
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# ICE BATH CHILLER USER MANUAL

## CAUTION

- Operators must be 18 years or older.
- Avoid using the chiller with wet hands.
- Do not insert objects into the chiller's vents or openings.
- Keep the power cord away from heavy objects, and do not run it under carpets.
- Exercise caution around children, the elderly, and those with mobility issues.
- Always keep the chiller upright on a stable, level surface; do not invert.
- Install the chiller in well-ventilated areas (at least 100cm of clear space around vents for airflow), avoiding closets or cabinets and keeping vents clear of obstructions.
- Do not disassemble or modify the chiller.
- Avoid using in very humid or dusty conditions.
- For electrical issues, contact authorized service personnel.
- Keep pets and children away during operation.
- Report any sign of damage, leaking, strange noises, smells, or performance issues immediately.
- Disconnect power before maintenance or cleaning.
- Avoid placing the chiller in direct sunlight or near heat sources.
- Ensure the filter is installed when the chiller is working.
- Regularly clean the water filter and dust net for optimal efficiency.
- If the ambient temperature drops to 0°C (32°F), disconnect the pipes and open the drainer to FULLY drain all water from the chiller to prevent freezing damage.
- Before turning on the chiller, please make sure there is enough water in the bathtub & water pipes are connected properly. Otherwise, the idling of the water pump will generate noise and affect its service life.

 **Electricity** is very dangerous; in order to prevent accidents or death, please pay attention to safety.

- During and after transportation, the chiller must stay upright on a stable surface at all times.
- After transportation and before use, the chiller must be left for 24 hours for the refrigeration gas to settle.
- Make sure the chiller is plugged into an AC socket or extension cable that is suitable for use.
- Ensure the chiller is kept dry at all times; do not immerse, splash or spray the unit with water. If the unit does get wet, unplug it immediately and do not use it. Never leave the chiller powered on when staying in the water; always ensure the unit is powered off during your cold water therapy session.
- If the chiller stops working or does not work when switched on, unplug it immediately and do not use it.
- We accept no responsibility for misuse or failure to use this equipment safely as instructed.  
Working Temperature: 1 -45 (34 -113 )  
Storage Temperature (no water inside the chiller): -20 -55 (-131 )  
Storage Relative Humidity: 20%-85%

## Quick Start Guide

### Fill the Tub:

- Before running or testing the chiller, fill the tub with fresh water until the water is above both the water inlet and outlet ports.

### Test the Chiller:

- Plug the chiller in. Before turning it on, press the test button. This is used to test whether the circuit breaker's leakage protection is working properly.  
After pressing the test button, the circuit breaker will simulate leakage in the reset button.
- the circuit, the device will trip, and the light will go out. After it trips, press

## Let's Get Chilly!

### To Plug in , follow these steps:

First open the ventilation window, find the location of the plug, cut the fixed tie, find the black cover with the " wire in" mark on the bathtub, pass your finger through the small hole of the black rubber ring to open the cover, pull the plug out of the large black hole A, pull out the wire of the appropriate length, plug it into the socket, confirm that it is powered on, and then cover the black cover. The cover needs to be rotated to the position C to fix it, and then install the small black rubber ring.



Wire in



Black hole A



Position C



NOTICE: Always consult the device's accompanying installation manual for exact specifications and ensure the area is dry throughout the installation process.

## Filter House Air Exhaust Operation Guide-E18

Turn the chiller on using the power button located on the display. Water will now start circulating between the chiller and tub. After a few minutes, check if the filter house is full of water. If there is air inside, vent the housing by pressing the red button on top. If there are any leaks, use the white wrench to tighten the filter housing.



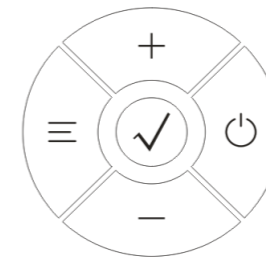
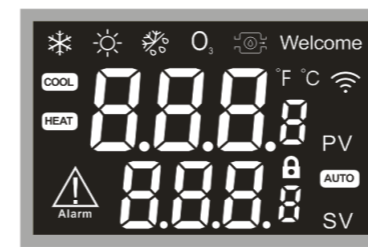
## mobile Connection Steps

### Terms and Conditions

Dear Customer: Thank you for choosing our product! For our convenience, please read the instruction manual carefully

and follow the steps in the instruction manual.

### Wi-Fi Status identification description



The Wi-Fi status mark is the Wi-Fi icon in the upper right corner of the display panel, which is used to indicate the Wi-Fi connection status. Please pay attention to the status of the icon when configuring the network to complete the network configuration quickly. The icon

### status is as follows:

Icon Status	Wi-Fi Status
Go out	Wi-Fi is initializing or the Wi-Fi module is faulty
Flash Mob (2Hz)	Wi-Fi is in distribution network status
Slow Flash (0.5Hz)	Wi-Fi is in distribution network status
Always On	Connected to cloud platform

Note: At present, Tuya can only support 2.4G WiFi signal. Therefore, before connecting the phone to the chiller, please confirm that the WiFi used by your phone is in the 2.4G

frequency band. It will not be able to connect to the chiller, if it is in the 5G frequency band

### Wi-Fi reset

#### Steps to reset:

- After the controller is powered on, wait for Wi-Fi to complete initialization (that is, Wi-Fi chip triggering).
- In the unlocked state, press and hold the (≡) key and (-) key for 6 seconds;
- Within 15 seconds, if the Wi-Fi chip enters the flashing state, the Wi-Fi reset is successful; otherwise, the reset fails and you need to perform a button reset again or perform a power-off restart.

The Wi-Fi reset function is required in the following situations  
1) Due to the unstable Wi-Fi environment, it may happen that the device is not added successfully but the Wi-Fi network configuration has been completed. At this time, it is necessary to reset the Wi-Fi and add the network configuration again;  
2) After device transfer (change of device owner), the device will be automatically deleted after Wi-Fi reset.

### Download APP

Use your mobile phone to scan the QR code to download the APP, complete registration and log in. Also allow access to this app for the best experience.

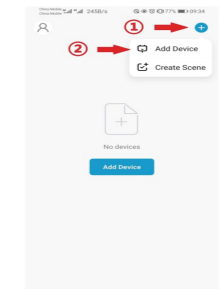


### Mobile phone connects to Wi-Fi

Make sure that the mobile phone and the device to be connected are in the same Wi-Fi environment. Select the 2.4GHz Wi-Fi network on the mobile phone and enter the password to connect the mobile phone to Wi-Fi.

## Add Device

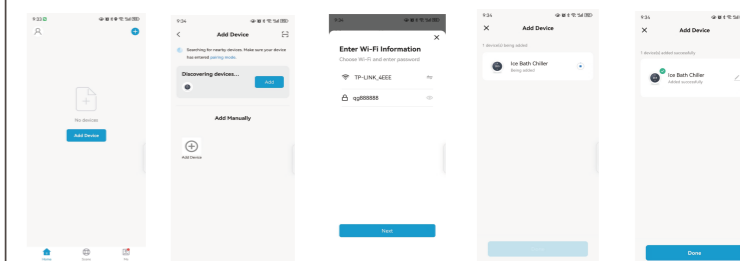
- Turn on the mobile phone Wi-Fi and Bluetooth, and enable location access. Please make sure that the mobile phone Wi-Fi and Bluetooth are both turned on to obtain the best network configuration test;
- Open the "Huilian smart" APP on the mobile phone, and select "Home" in the bottom navigation bar;
- Click the "+" button in the upper right corner of the home page, or click the "Add Device" button in the center of the home page to enter the device adding interface;



in the device adding interface, please try to add the device in one of the following ways:

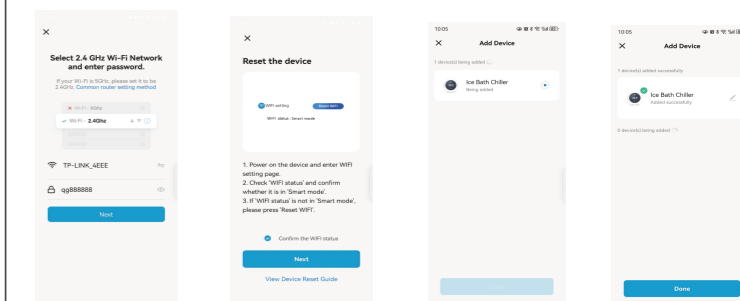
### A. Automatic device discovery

The phone will automatically discover available devices nearby. After discovering the device, follow the instructions in the figure below to complete the subsequent network configuration operations.



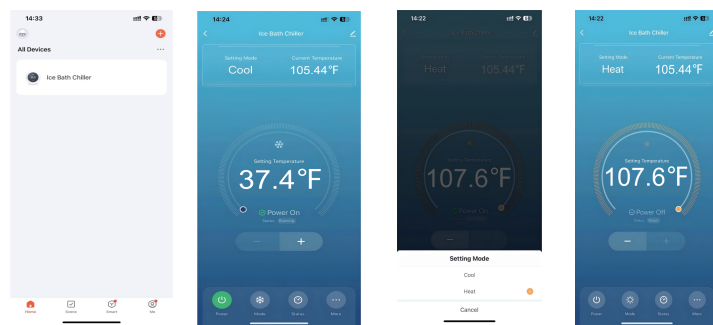
### B. Scan Code to Configure Network

Click the "Scan" icon in the upper right corner of the device adding interface, put the device network QR code into the box to automatically scan, and follow the steps below to complete the device adding operation.  
\*Note 1: If you have checked and confirmed that the Wi-Fi status of the device is correct, under the step of "Reset the device", please directly check "Confirm the Wi-Fi status" And click the "Next" button to directly configure the network without the need to reset the device.



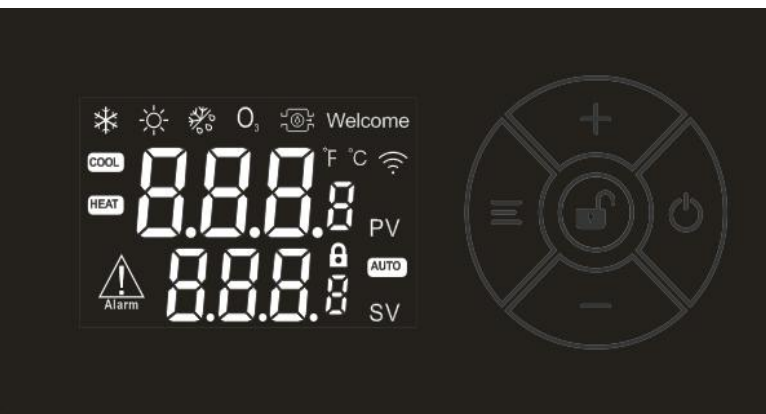
## Add Device

Please scan the "Tuya Smart" code to download the software first, connect to my device and follow the following picture to operate. Click Ice Bath Chiller to enter the machine operation boot page, click Power to switch on and off, click Mode to switch refrigeration/heating, return to the main page, click Scene and then click Create Scene, and then click Schedule to select the time to start refrigeration/heating.



Ozone Instructions: First, press and hold the unlock button while simultaneously holding the + and - buttons to turn off the ozone. The next time you start the ice bath, the ozone will resume. It will cycle from 15 minutes on to 15 minutes off. Safety Instructions: When the temperature reaches the set point, the compressor will stop working. You can turn off the power and then enter the bath.

## Panel and Operation instructions



### 1. Icon and button function description

No.	Icon	Function
1	PV zone and SV zone	Display the current liquid temperature and set temperature
2	Cooling run icon	Light up when cooling begins
3	Heating run icon	Light when heating begins
4	Defrosting run icon	Light up when defrosting is on
5	Ozone disinfection icon	Blinking: Ozone is about to turn on or ozone is in pause Steady on: Ozone disinfection is on Extinguished: Ozone disinfection function is not used
6	Pump icon	Light up when the pump is turned on
7	Cooling mode icon	Lights up when 【Mode Select】 is set to "cool"
8	Heating mode icon	Lights up when 【Mode Select】 is set to "heat"
9	Auto mode icon	Reserve
10	Alarm icon	Light up in case of failure
11	WiFi icon	Extinguish: Wi-Fi is being initialized or Wi-Fi module fails; Quick flashing (2Hz): Wi-Fi is in the distribution network state; Slow flashing (0.5Hz): The network is configured but not connected to the router or cloud platform; Steady on: The cloud platform has been connected
12	Screen lock icon	Light up when the screen locks
13	(+) key	Used to modify the set temperature and parameters, turn the page
14	(-) key	Used to modify the set temperature and parameters, turn the page
15	Lock key	Used to confirm and save parameters in parameter Settings; When the fault alarm, press this button to silence the sound; Hold down the lock key for 3 seconds to lock or unlock the screen;
16	Mode key	For switching modes
17	Power key	Used to turn on or off the unit
18	(Menu) + (Lock)	Press (Menu) and (Lock) at the same time to enter the temperature query screen
19	(+) + (-)	Press (+) and (-) at the same time to manually turn ozone on or off

### SF435501A.Manufacturer Instruction Manual

20	(Menu) + (+) 6S	Press (Menu) and (+) for 6 seconds at the same time to enter the manufacturer parameter setting screen
21	(+) + (Lock) 3S	Press (+) and (Lock) for 3 seconds at the same time to quickly change the set temperature unit
22	(Menu) + (-) 6S	Press (Menu) and (-) for 6 seconds at the same time to reset wifi. (Please refer to the document <SF435501A.Equipment Distribution Network Instruction Manual > for detailed operation)

### 2. Lock and unlock

In main screen, Press (Lock) for 3 seconds to lock or unlock the screen. When the icon (Lock) is lit, the screen is locked; otherwise, the screen is not locked. After unlocking, if no button is pressed within 30 seconds, the screen will automatically lock. In the lock screen state, the key operation is invalid except for muffling.

### 3. View Temperature

After the power-on countdown is complete, press (Menu) and (Lock) at the same time to enter the temperature query screen. The corresponding temperature value is displayed in the PV area of the digital tube, and the temperature code number is displayed in the SV area. Press (+) or (-) to turn the page. Press (Menu) and (Lock) at the same time again to exit or no key press for 30 seconds automatically exit.

【Note1】: The temperature code number "C1" indicates the outlet temperature, "C2" indicates the return water temperature, "C3" indicates the fin temperature, "C4" indicates the environment temperature.

【Note2】: When parameter [Fin probe] is set to "Forbid", the fin temperature is not displayed. When parameter [Environment probe] is set to "Forbid", the environment temperature is not displayed.

### 4. Modify the set temperature

After the power-on countdown is complete, press (-) or (+) key in the non-locked or non-fault state, SV area flashing display set temperature, at this time can press (-) or (+) key to modify the set temperature. No key press for 10 seconds automatically exit.

	Range	Factory value	unit	Remarks
Cold T.set	3.0~42.0℃	3.0℃	℃	Valid when [Temp unit] is set to Fahrenheit
	37.4~107.6°F	37.4°F	°F	
Heat T.set	3~42℃	42.0℃	℃	Valid when [Temp unit] is set to Fahrenheit
	37.4~107.6°F	107.6°F	°F	

【Note】 In cooling mode, the set temperature displayed on the main interface is the "Cold T.set", and in heating mode, it is the "Heat T.set".

### 5. Fault list

Ccode	Name	Test conditions and Action	cause	Remark	other
E01	Out probe break	Power on to test, Stop the unit	1. The temperature sensing probe is break or short	1. check whether the cable or terminal connection is break or short	
E02	Out probe short		2. replace the temperature sensing	2. replace the temperature sensing	
E03	In probe break	Power on to test, Stop the unit	1. The temperature sensing probe is break or short	1. check whether the cable or terminal connection is break or short	
E04	In probe short		2. replace the temperature sensing	2. replace the temperature sensing	
E05	Fin probe break	【Fin probe】 is use. Power on to test, Stop the unit	1. The temperature sensing probe is break or short	1. check whether the cable or terminal connection is break or short	
E06	Fin probe short		2. replace the temperature sensing	2. replace the temperature sensing	
E07	Envir probe break	【Envir probe】 is use. Power on to test, Stop the unit	1. The temperature sensing probe is break or short	1. check whether the cable or terminal connection is break or short	1. the alarm sound keeps ringing when the alarm occurs, click the (Lock) key to silence the sound.
E08	Envir probe short		2. replace the temperature sensing	2. replace the temperature sensing	
E09	T.Envir Low	The machine is running and 【Mode Select】 is cool, Stop the unit	The machine is running and 【Mode Select】 is cool, T.Envir ≤ 【T.Envir warn】	1. check the T.Envir	2. except for W.Flow AL, other alarm has 2 seconds of buffering time. Automatic reset after the fault is rectified.
E10	T.Envir Heat Low	The machine is running and 【Mode Select】 is heat, Stop the unit	The machine is running and 【Mode Select】 is heat, T.Envir ≤ 【T.Envir Heat warn】	1. check the T.Envir	
E11	W.Flow AL	1 min after the machine open and test after the W.pump starts for 【Flow detect fly】 time, Stop the unit	W.Flow AL	1. Check if the input is consistent with the switch setting. 2. check the switch access cable 3. it has flow alarm	
E12	T.Out Low	Test after Cool pump starts, Stop the compressor	When the machine is running, T.Out ≤ 【T.Low】	/	
E13	T.In Low	Test after Cool pump starts, Stop the compressor	When the machine is running, T.In ≤ 【T.Low】		

Code	Fault Phenomenon	Fault Detection Method	Flow Sensor Value / Alarm Setting	Fault Cause/Analysis
E14	Defrost error	Test after Cool pump starts, Stop the unit	Defrosting operation time 10min	The environment is too harsh for the machine to run, reset the alarm by power off.
E15	Frost deposit error	Test after Cool pump starts, Stop the unit	Accumulated three consecutive defrosting times 20min	The environment is too harsh for the machine to run, reset the alarm by power off.
E16	T.Fin high	【Mode Select】 is cool, Stop the unit	T.Fin 【T.Fin warn】	/
E17	W.Level AL	Power on to test, Stop the unit	W.Level AL	1. Check if the input is consistent with the switching. 2. Check the switch access cable 3. It has level alarm
E18	Low Flow	After the machine is turned on for 1 minute, turn on the detection switch, if the detection starts differently, it will alarm, stop the machine.	Flow Sensor Value (Water Flow Sensor's Value)	Check Filter Hose, Air Exhaust, Operation guide p.18
E19	Communication Fault with Rear Board	Only alarm prompt when power is on	/	Check if there is a problem with the wiring

### 6. Control

#### Ozone disinfection

##### Press open button

【Mode Select】 is cool:

Within 3 hours after the W.Pump is normal start, open it every 【Ozonization period】 min for 【Ozonization time】 min.

Give an example: 【Ozonization period】=30 min. 【Ozonization time】=30 min: it will start 4 times. When the 3 hours are up, it will open once.

【Mode Select】 is heat:

Within 2 hours after the W.Pump is normal start, open it every 【Ozonization period】 min for 【Ozonization time】 min.

Give an example: 【Ozonization period】=30 min. 【Ozonization time】=30 min: it will start 3 times. When the 2 hours are up, it will open once.

[note1]: 3 minutes after the W.Pump start, the ozone start.

##### Press O3 button (no alarm of stop the unit)

Within 3 hours of power-on, open it every 【Ozonization period】 min for 【Ozonization time】 min.

Give an example: 【Ozonization period】=30 min. 【Ozonization time】=30 min: it will start 4 times. When the 3 hours are up, it will open once.

[note2]: 2 seconds after the W.Pump start, the ozone start.

### 7. Control logic of the control board

#### W.Pump

After the machine starting, the W.Pump turn on for 30 seconds, then turn off 30 seconds. This action lasts 【Venting Time-1】 times. Then keep start.

#### Heat mode

① T.In ≤ 【Heat T.set】 - 【Temp.diff】 , delay 30 seconds Four-way valve start, fan start, after 5 seconds compressor start.

② T.In ≥ 【Heat T.set】 , close compressor and fan, delay 30 seconds Four-way valve close.

#### Cool mode

① T.In ≥ 【Cold T.set】 + 【Temp.diff】 , fan start, after 5 seconds compressor start.

② T.In ≤ 【Cold T.set】 , close compressor and fan.

note: Compressor to prevent frequent start time is 60 sec.

#### Defrosting logic 1

When 【Mode Select】 is cool, the machine has no defrosting function.

【Fin probe】 is use:

① Enter Defrosting:

The machine is running and 【Mode Select】 is heat, T.Fin ≤ 【T.Fin in defrost】 and lasts 180 seconds, close compressor and fan, delay 30 seconds Four-way valve close, after 30 seconds compressor start.

note: Accumulated three times into the defrosting logic and the first run time ≤ 20 min, the machine will display error 【Frost deposit error】.

② Quit Defrosting:

a. T.Fin ≥ 【T.Fin out defrost】 and defrosting time ≥ 60 seconds

b. defrosting time ≥ 10 min; (the machine will display error 【Defrost error】)

when any of the above condition are met, close compressor, and according to the T.Out to run the heat logic

a. continue heating: delay 5 seconds fan start, delay 25 seconds Four-way valve start, delay 30 seconds compressor start.

b. quit heating: run the heat mode logic.

note: if during defrosting, the machine has Fin probe error, the machine will use Defrosting logic 2, the first run time is accumulated compressor running time from the end of the last defrosting. Manual shutdown the machine or has error, the first run time will be clear.

if the first run time ≥ 【Defrost period】 and not enter 【Defrosting logic 1】 , and T.Fin < 【T.Fin out defrost】 it will enter 【Defrosting logic 2】

① Defrosting logic 2

When 【Mode Select】 is cool, the machine has no defrosting function.

【Fin probe】 is Forbid:

① Enter Defrosting:

the first run time ≥ 【Defrost period】 , close compressor and fan, delay 30 seconds Four-way valve close, after 30 seconds compressor start.

② Quit Defrosting:

a. continue 【Defrost time】 ,

b. T.Fin ≥ 【T.Fin out defrost】 and defrosting time ≥ 60 seconds

when any of the above condition are met, close compressor, and according to the T.Out to run the heat logic

a. continue heating: delay 5 seconds fan start, delay 25 seconds Four-way valve start, delay 30 seconds compressor start.

b. quit heating: run the heat mode logic.

#### Supply valve

When the compressor start and T.In ≥ 【Supply Limit】 + 【Supply Diff】 , the supply valve start, when T.In < 【Supply Limit】 , the supply valve close.

2 seconds after the compressor is close, the supply valve close.

### 8. Temperature Test Data

Test Type	Am bient Temperature (°F)	Time	Water Temperature (°F)
Heating Test	70	11:23	89.6
Heating Test	70	13:30	93.7
Heating Test	70	14:39	105.4
Heating Test	70	15:39	107.6
Cooling Test (Scenario 1)	70	11:54	68.2
Cooling Test (Scenario 1)	70	14:29	43.5
Cooling Test (Scenario 1)	70	15:26	37.4
Cooling Test (Scenario 2)	92	10:47	86
Cooling Test (Scenario 2)	92	14:59	41.5
Cooling Test (Scenario 2)	92	15:57	37.4

### 9. Features of the Chiller

#### Main Technical Data Sheet

Product Name	IceBathChiller	Temperature	3~42 adjustable
Model No.	QG-10-RB	Ozone	Ozone Generator/UV
Power supply	120V/60Hz	Circulating Pump	Built-in Self-priming System
Cooling Capacity	2730W	Filter	Installed External
Heating Capacity	3650W	Remote Control	IOS&Android APP, WF
Rated power	940W	Moving Wheels	Yes
Noise	<65dB	Carry Handle	Yes
Rated current	8A	Quick Connector	Yes
Maximum pressure	3.85MPa	Net Weight	36KG
Water temperature control accuracy	±0.5°C	Product Size	54x40x55cm
Usage Environment	0-45	Certification	ETL, CE, IPX4
Refrigerant	R32	Water Volume & Cooling Time (23~165 )	200L 2.7H; 400L 5.8H



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