Ice & Water Dispenser

Installation, Operation and Maintenance Manual

12.1.0085-00 A

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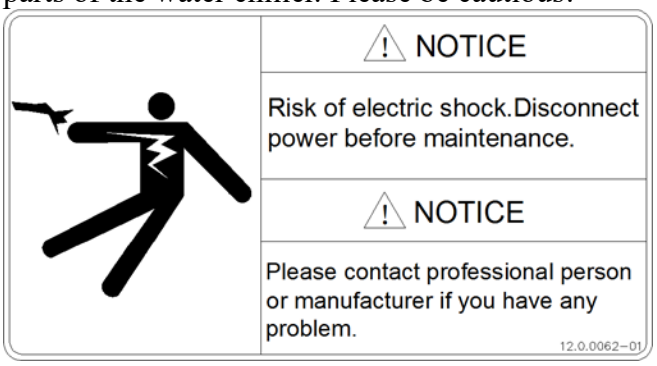
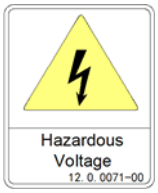
⚠Notes: Always keep this manual in a place accessible to the user at any time.

Illustrations

The following risk warnings are given on various parts of the water chiller. Please be cautious!



Warning of dangerous voltage that leads to risks of electric shocks



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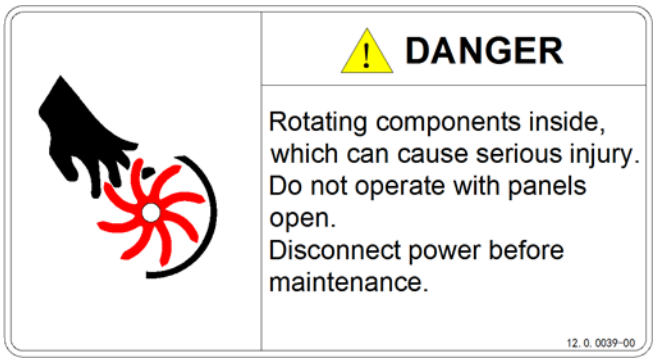
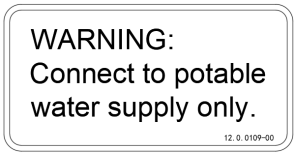


Warning of rotating parts that lead to mechanical injury

Warning that flammable foaming agent cyclopentane is employed for the insulation material inside the machine, and caution should be taken for risks of fire.

R290

Warning that the machine is filled with flammable refrigerant R290, and caution should be taken for risks of fire.



Warning that the inlet of the cold water for ice making to the ice maker can only be connected to drinking water, instead of groundwater or other non-potable water sources.

Illustrations in this manual

⚠Warning mark, indicating that special caution should be taken

🚫Warning mark, indicating special caution should be taken that the operation is prohibited

Warnings and safety instructions

This product cannot be used outdoors.

This water chiller is not intended for use by children or those with physical weakness, mental retardance, or mental disorder.

- The installation, repair, or maintenance of this ice maker must be carried out by professional and qualified personnel. Unqualified personnel performing such work may result in electric shocks, fire, or personal injury.
- After the ice maker is delivered, please keep the machine upright and leave it to stand for more than 24 hours to allow full settlement of the lubricating oil in the compressor before starting, otherwise the compressor might be damaged.
- In case that the power cord of this ice maker is damaged, to avoid electric shock, fire, or personal injury, it must be replaced by the manufacturer or professional, qualified personnel.
- This ice maker must use the water pipe components from the accessory box of the machine. To ensure food hygiene and safety, do not use water pipe components removed from old machines.
- During handling, try to keep the box upright. The maximum tilt should not exceed 45 degrees. Do not place it upside down or lay it down horizontally.
- This ice maker should not be placed in places that are damp or susceptible to water splashes.
- The grounding of this ice maker should not be connected to gas pipes, water pipes, telephone lines, or lightning rods.
- The ice maker contains rotating parts in it. Do not insert slender objects into the vents or exhaust outlets, as this may cause mechanical injury.
- Volatile or flammable substances should not be stored inside the ice maker, as storing such substances may cause an explosion or fire.
- Do not store any unrelated objects, or even freeze or refrigerate any food in the ice bin of this ice maker.
- This ice maker must be placed on a countertop that can adequately support its weight. An unstable countertop may cause the equipment to tip over, resulting in injury.
- Sufficient ventilation space should be provided around the ice maker to ensure smooth airflow.
- Only the power supply specified on the machine nameplate should be employed for the ice maker.
- The ice maker should not be connected to hot water.
- The ice maker must be grounded reliably and provided with a socket with Earth-leakage protection.
- Before manual cleaning, maintenance, or servicing, the power supply to the ice maker must be cut off.
- Before cleaning, maintenance, or servicing, any remaining ice in the ice bin should be removed to prevent ice contamination during these processes.
- Never directly splash water on the surface of the ice maker for washing purpose, as this may cause short circuits, electric leakage, or other faults.
- The insulation material of this ice maker employs a flammable foaming agent, and hence its discarding should be handled by qualified personnel and institutions for disposal and recycling.
- The ice maker should be managed appropriately to prevent access by children.
- In case of a malfunction, the power supply should be cut off, and a professional should be contacted for repair.

This product is filled with either R404a or R290 refrigerants.

R290

For machines filled with the flammable refrigerant R290, please pay special attention:

Danger - Flammable refrigerants are used, and hence fire or explosion risks are involved. Sufficient ventilation space must be maintained around the ice maker to ensure smooth airflow.

Danger - Flammable refrigerants are used, and hence fire or explosion risks are involved. Do not defrost the machine with mechanical devices or other means.

Danger - Flammable refrigerants are used, and hence fire or explosion risks are involved. Only trained service personnel should perform the repairs, and refrigerant lines must not be punctured.

Danger - Flammable refrigerants are used, and hence fire or explosion risks are involved. Do not use any electrical appliances in the ice bin of the ice maker.

Caution - Flammable refrigerants are used, and hence fire or explosion risks are involved. Refer to the service manual/user guide before attempting any repairs, and always follow all safety precautions.

Caution - Flammable refrigerants are used, and hence fire or explosion risks are involved. Disposal must be performed properly according to regulations.

Caution - Flammable refrigerants are used, and hence fire or explosion may arise from leakage of a leak in the refrigerant pipeline. Please follow strictly the operating instructions.

Overview

This water chiller is a fully automatic ice maker. After connecting the drinking water source and power supply and completing correct installation, turn on the water chiller, and you can start ice making normally. When the ice bin is full of icy water, the machine shuts down automatically. This water chiller is generally intended for the following and similar scenarios:

- Kitchen areas in shops, offices, or other workplaces;
- Fresh-keeping areas of supermarkets and seafood;
- Storage areas of laboratories and pharmaceutical industry;
- Preservation and cooling during long-distance transportation;
- The catering industry and similar non-retail settings;
- This water chiller is generally not intended for home use.

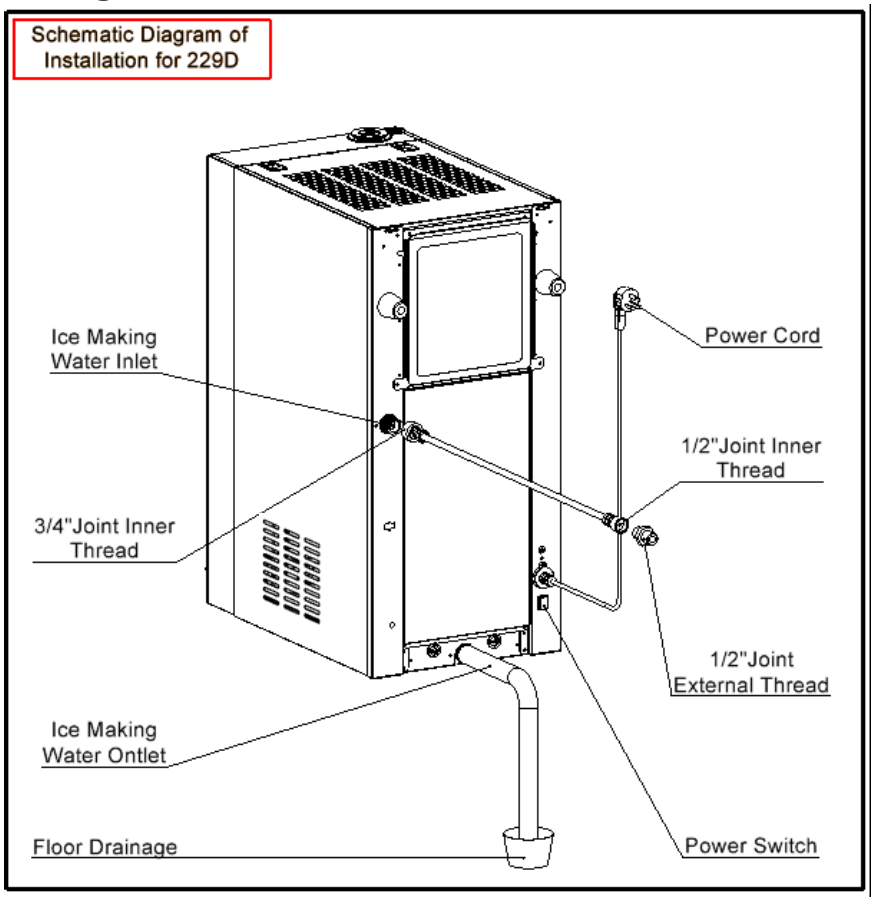
Installation

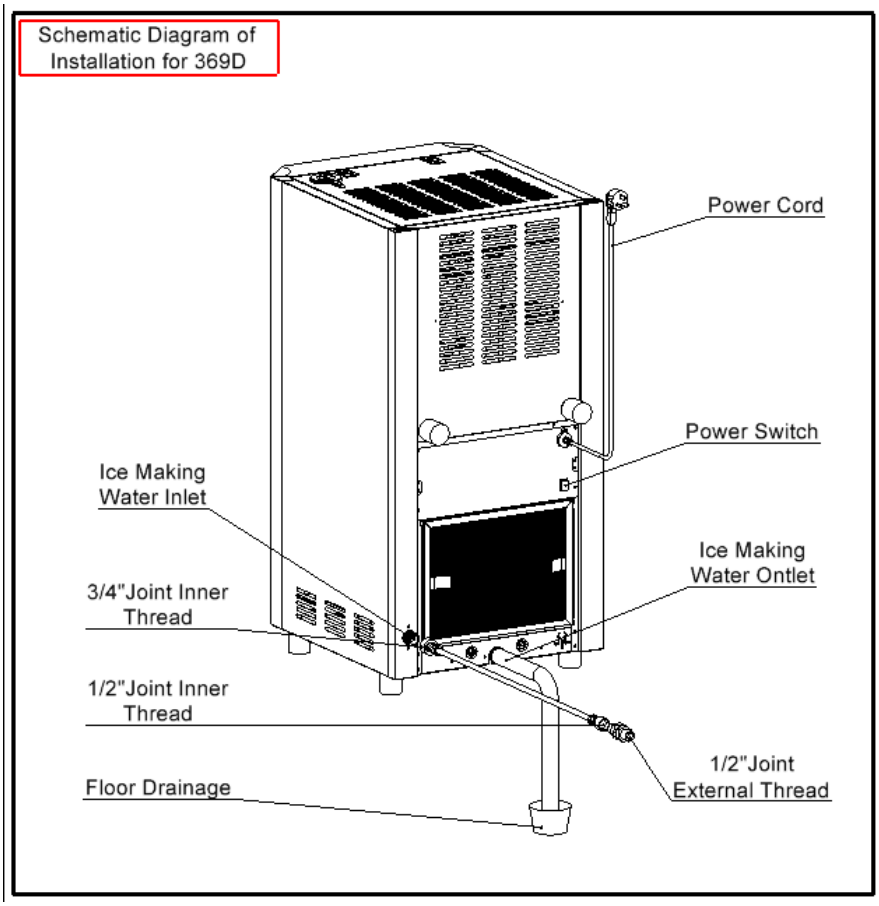
Requirements on installation location

The installation location of this water chiller should meet the following:

- Indoors, at an altitude no greater than 2,000 meters;
- Ambient temperature: ranging from 5 - 40°C;
- Power supply: Rated voltage as indicated on the machine nameplate ±6%;
- Water source: Connected to a drinking water source only; the water pressure is no less than 0.13 MPa and no more than 0.55 MPa; and the water temperature falls in 5 - 35°C;
- The water chiller should be kept away from any heat sources, and is strictly prohibited from use in high or low temperatures. Direct sunlight should be avoided for it affects the heat dissipation and lifespan of the machine;
- Sufficient ventilation space should be provided around the ice maker to ensure smooth airflow. The clearance should be at least 30 cm in the front, 4 cm at the back, and 30 cm at the top;
- The water chiller must be placed on a countertop that can adequately support its weight;
- The water chiller must be grounded reliably and provided with a socket with Earth-leakage protection.
- A suitable floor drain must be installed in the vicinity of the installation location of the water chiller.

Typical installation diagram





Installation steps

1. Check if the water chiller is in good conditions and if the accessories are complete; and verify the machine model and check the machine nameplate.
2. Use a sponge soaked in warm water and baking soda to clean the ice bin and the interior of the machine, and then rinse it with clean water and dry it.
3. Place the water chiller in the area of use and ensure the machine is laid down level.
4. Air-cooled water chillers need good ventilation to ensure excellent performance. Therefore, at least 30 cm of ventilation space must be maintained above the machine.
5. The bottom of the water chiller is equipped with adjustable legs for easy leveling and countertop cleaning.
6. The water chiller needs to be connected to drinking water (this machine does not come with a filter).
7. Connect the machine to the water supply pipeline with the supplied 1/2" inlet water pipe. It is recommended to install a water valve (not a standard accessory of this product) on the water supply pipeline.
8. Connect the supplied drain pipe to the drainage connection. For easier drainage, it is recommended that the drainage pipe is provided with a drop of over 3 cm per meter. Make sure that the drain pipe is not blocked as well. It is recommended to have the drainage pipe lead to an open drain.
9. No point in the drainage pipeline should ever be higher than the drainage outlet of the machine or the previous point.
10. Confirm the power supply requirements specified on the machine nameplate, and ensure the power supply meets the requirements.
11. A circuit breaker or switch should be installed on the power supply line of the machine, and an Earth-leakage protection device must be installed and properly grounded.
12. Turn off the switch on the power supply line, and connect the machine to the power supply.

Start-up and operation

13. Pre-startup confirmation
    - Accessories or items inside the water chiller have been removed;
    - The water chiller has been leveled;
    - The water pipes have been connected, and the water valve opened;
    - The plug has been connected to the power supply, and the power switch is off;
    - Confirm that the ambient temperature, water temperature, and pressure of water supplied to the water chiller are within the required ranges.
14. Start-up and operation: Turn on the power switch of the power supply line. After powering on, press and hold the "TURN ON/OFF" button on the LCD for 3 seconds, and the machine will enter ice-making mode.
15. Normal operation confirmation
    - ✓ Check if ice can be got properly after 10 minutes of starting the machine;
    - ✓ For air-cooled water chillers, check if the fan operates normally;
    - ✓ Check if there is no abnormal noise from the water chiller;
    - ✓ Check if there is no abnormal vibration from the water chiller.

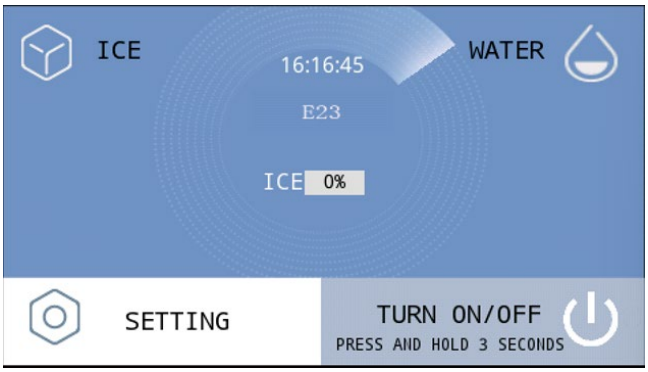
Operating instructions for the water chiller

- **Start-up:** After proper installation, open the water and power supplies, turn on the power switch at the back of the machine, and, after the display screen lights up, press and hold the "TURN ON/OFF" button on the LCD for 3 seconds, and the machine will enter normal working mode. The machine operates automatically throughout the entire process and does not require constant supervision. For the first startup, please confirm that the machine operates normally.

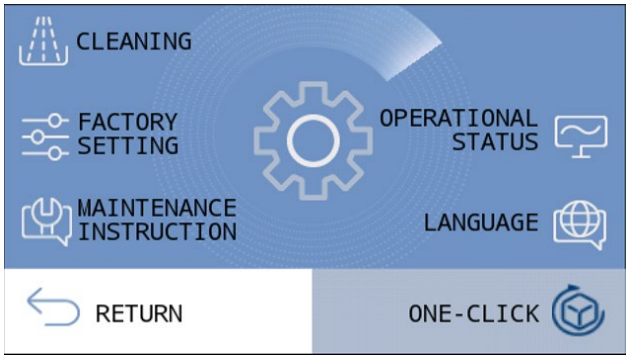
⚠ **Notes: If there is a thunderstorm or the machine will not be used for an extended period, please cut off the power and water supplies!**

- **Preparation:** After the display screen lights up, press and hold the "TURN ON/OFF" button on the LCD screen for 3 seconds. The machine will run for 3 minutes, and then the reducer, compressor, and fan will start in sequence.
- **Ice making:** Continuous water flow is stored on the inner wall of the evaporator, where it freezes. The ice so made is then cut by the ice drill driven by the reducer and brought out of the evaporator by the spiral ice blade.
- **Water shortage restart:** When the water supply is insufficient to meet the needs of normal ice-making, the LCD displays E05.
- **Shutdown:** While the machine is running, press and hold the "TURN ON/OFF" button on the LCD for 3 seconds. The compressor will then stop immediately, and the LCD will continue to work for 3 minutes. After that, the reducer and fan will stop, completing the shutdown process.
- **Automatic shutdown when ice bin is full:** During operation, when ice accumulates in the ice bin to a certain height and reaches the set level for a full bin, and such state has been detected and lasted for a period (60 seconds), the machine will believe the ice bin is full and automatically stop working.
- **Resuming ice making when ice bin is full:** When ice is taken from the bin and the accumulation height decreases as a result, the machine will detect that the level is below the set value after 2 minutes, and re-enter the normal ice-making mode.

Instructions for water chiller control panel



↑ LCD main screen (ice retrieval screen)



↑ LCD settings screen

1. Press and hold the TURN ON/OFF button for three seconds to activate the ice-making mode from the standby mode.
   a) Preparation cycle: 3 minutes.
   b) Ice making cycle: The main screen displays ice making process.
   c) Full ice bin cycle: The main screen shows a full bin when the ice storage reaches 100%.
2. LCD main screen displays: water chiller status, ice storage percentage, operation time, and ice retrieval operation button.
3. LCD settings screen displays: cleaning settings, ice production time settings, voice display options, and maintenance instructions.
4. Switch: While the machine is powered, press and hold the "TURN ON/OFF" button for 3 seconds to toggle the produce between shutdown and running.
5. If the water chiller is to be left unused for an extended period after use, it should be powered on and run for 2 - 4 hours every 2 months.

Other special protection shutdowns

- The water chiller will shut down for protection if the ambient temperature detected is too high.
- The water chiller will shut down for protection if an anomaly is detected in the water inlet path.

When a malfunction occurs, a fault code will be displayed, whose explanation is as follows:

Code	Annotation	Machine actions
E02	Reducer overload	Defensive shutdown
E04	High temperature fault	Defensive shutdown
E05	Water shortage fault	Defensive shutdown
E07	Open circuit fault of condenser sensor	No shutdown
E08	Short circuit fault of condenser sensor	No shutdown
E09	Open circuit fault of evaporator sensor	Defensive shutdown
E10	Short circuit fault of evaporator sensor	Defensive shutdown
E11	Refrigeration system fault	No shutdown
E16	Low evaporation temperature	Defensive shutdown
E19	Reducer current is 0	Defensive shutdown
E21	Ice-making overtime fault	Defensive shutdown
E22	Full ice bin fault	Defensive shutdown
E23	Communication fault	Defensive shutdown

Maintenance and service

⚠ Notes: Maintenance and service must be performed by qualified professionals.

⃠ Warning: Before maintenance and manual cleaning, always be sure to cut off the water and power supplies and unplug the machine. Live-line working is prohibited.

Appearance cleaning

- Regularly clean the area around the water chiller to keep it clean, and do not block the vent.
- The enclosure can be cleaned with neutral detergent, followed by wiping with a soft cloth. If necessary, a commercial stainless steel cleaner and polisher can be used.

⚠ Notes: Without proper maintenance, stainless steel can also rust.

Water inlet filter

- The filter cartridge should be checked regularly.

Interior cleaning of ice bin

The interior of the ice bin can be rinsed with a hose directly.

⚠ Notes: Do not use water with excessive pressure, or water may invade the electrical parts.

Ice full switch

- It's recommended to wipe the mirror surface of the ice full switch every 1 to 3 months.

⚠ Notes: The edges of the air-cooling condenser fins are sharp. Please be careful when cleaning!

Display panel

- The LCD panel and buttons should be wiped once a week using a sponge or towel soaked in warm water and baking soda.

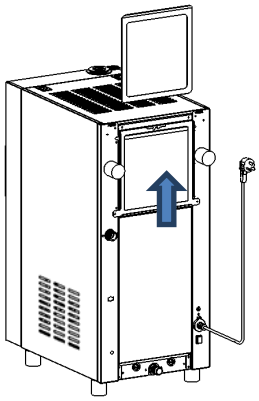
⚠ Notes: The sponge or towel must be wrung out. Do not rinse directly with water!

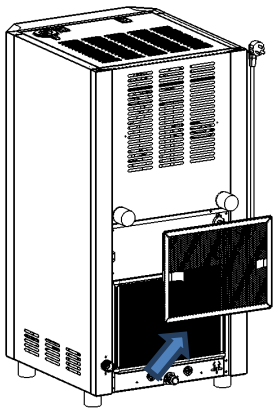
Water system

- To ensure food hygiene, the water system of the chiller should be cleaned regularly.

Condenser

- For air-cooled water chillers, the condenser should be cleaned every three weeks. To do this, use a soft brush or a vacuum cleaner with a brush and do the cleaning along the direction of the fins to avoid damaging the fins and affecting the cooling effect.
- The stainless steel strainer should be cleaned once every two weeks.
- Diagram of stainless steel strainer removal: Remove the strainer by pulling it upwards from the filter bracket at the back of the machine.





Winterization

- Cut off the water and power supplies, and drain the residual water from the water tank and inlet pipe of the water chiller.

⚠ The maintenance and service of the water chiller are not covered under the manufacturer's warranty!

- **Automatic cleaning steps**

⚠**Notes:** Before automatic cleaning and sterilization, remove the ice from the bin to avoid contamination.
⚠**Notes:** Please manually clean and disinfect the ice bin, and rinse it thoroughly.
Cleaning process:

a) Power on the machine, switch it to standby mode, tap the "Clean" button or key, and perform Step C;
b) In ice-making mode, tap "Clean". When a prompt pops up to ask if you would like to shut down the machine, perform Step C;
c) After shutdown, a prompt pops up to ask if you would like one-tap ice removal;
d) Tap the "OK" button or key to perform the one-tap ice removal action, after which perform Step E. Tap Back and perform Step E;
e) The drain valve opens, and closes after a delay of 30 s;
f) The display screen prompts "Have you added the scale remover?" (0.6 L < the proportioned scale remover mixture ≤ 0.8 L);
g) Tap the "Confirm" button or key;
h) The cleaning pump runs for 15 minutes;
i) The drain valve opens, and closes after a delay of 30 s;
j) The inlet valve opens for 3 minutes;
k) Concurrently, the cleaning pump runs for 3 minutes;
l) The drain valve opens, and closes after a delay of 30 s;
m) Repeat steps j - i for 2 cycles;
n) The display screen prompts "Have you added the disinfectant?" (0.6 L < the proportioned disinfectant mixture ≤ 0.8 L);
o) Tap the "Confirm" button or key;
p) Repeat steps g - m;
q) Jump to the ice-making cycle.

Call for service

If the water chiller incurs an anomaly, please confirm the following before making a call:

1. Confirm if the water supply is normal.
- ✓ Check if the LCD displays any faults;
- ✓ Ensure the pressure of water entering the water chiller is no less than 0.13 MPa and no more than 0.55 MPa; and the water temperature falls in 5 - 35°C;
- ✓ Ensure the water valve is open;
- ✓ Ensure there are no leaks.

2. Check if the power is on.
- ✓ Check if the LCD is lit;
- ✓ Ensure the LCD does not indicate standby mode;
- ✓ If the LCD is not lit, check if the plug and socket of the power supply line are working properly, and the power switch at the back of the machine is on.

3. Check the nameplate and machine number
- ✓ Check the nameplate on the side of the water chiller, and record its model and number.

⚠**Notes: On-site service will result in a service fee if the faults are caused by the user instead of the product itself, e.g. no water, no electricity, environmental factors, etc.**

Common faults and possible causes

Faults and phenomena	Possible causes	Inspection and troubleshooting
The water chiller can't be started LCD is not lit	The power switch is not turned on The power switch at the back of the machine is not turned on Loose plug	Turn on the power switch Turn on the power switch at the back of the machine Check the plug and socket
Water chiller stops automatically after 3 minutes of start-up, and the LCD shows E04 high-temperature protection	The ambient temperature is too high The condenser is dirty or blocked The fan did not start normally	The normal working temperature range is 5 - 40°C Clean the condenser Check and correct the fan
The machine can't make ice properly	The ambient temperature is too low	The normal working temperature range is 5 - 40°C
Insufficient ice production	The condenser or strainer is dirty High ambient temperature Poor ventilation High water temperature	Clean the condenser and strainer The normal working temperature range is 5 - 40°C Check the ambience of the water chiller Check if the supplied water temperature falls in 5 - 35°C
Excessive noise	The water chiller is not well leveled or the footing is suspended	Place the water chiller stably

Warranty terms

The following situations are not covered by the warranty of the water chiller:

- Normal cleaning, maintenance, adjustment, and servicing;
- Unauthorized modifications to the water chiller or use of non-original parts;
- Damage caused by improper power supply, water supply, or drainage;
- Damage due to installation, cleaning, or maintenance of the water chiller not in accordance with the manual requirements;
- Damage caused by water scale arising from the water source;
- Act-of-man damage.

⚠Notes: Warranty service should be performed by agents or service organizations approved by us.

Note: In case of any technical changes, the actual product shall prevail, and no separate notice will be provided. We appreciate your understanding!