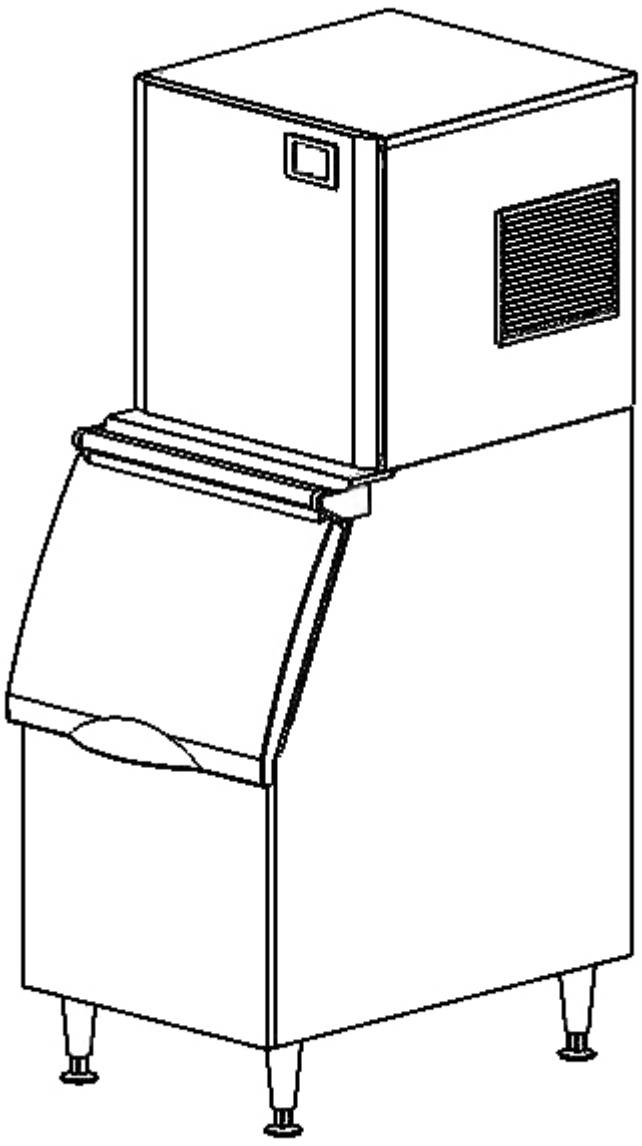
COTLIN®

L Series Ice Maker

Installation and maintenance instructions

L400 L500



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Note: Subsequent update versions of this manual will not be noticed.thank you.

Content

Please read these safety instructions in the manual carefully when you use and maintain the unit. It may cause injury to the body and damage to the ice machine if someone ignores these tips.

In this manual, you will see safety prompts in the following form:

Warning

Possible personal injury would happen when not following up on regulations of installation, operation or using altered equipment.

Note

The correct installation, usage and maintenance of the ice maker is very important to the output of the ice maker and reduce the failure rate. Please read and understand this manual. which contains valuable information on installation. usage and maintenance. If you encounter problems not covered in this manual, you may contact our company or our service provider at any time.

Please preserve this manual well

The manual is an integral part of the product, please keep it properly.

Important

The mentioned information about adjustment, maintenance and sanitation are not subject to the range of warranty clause.

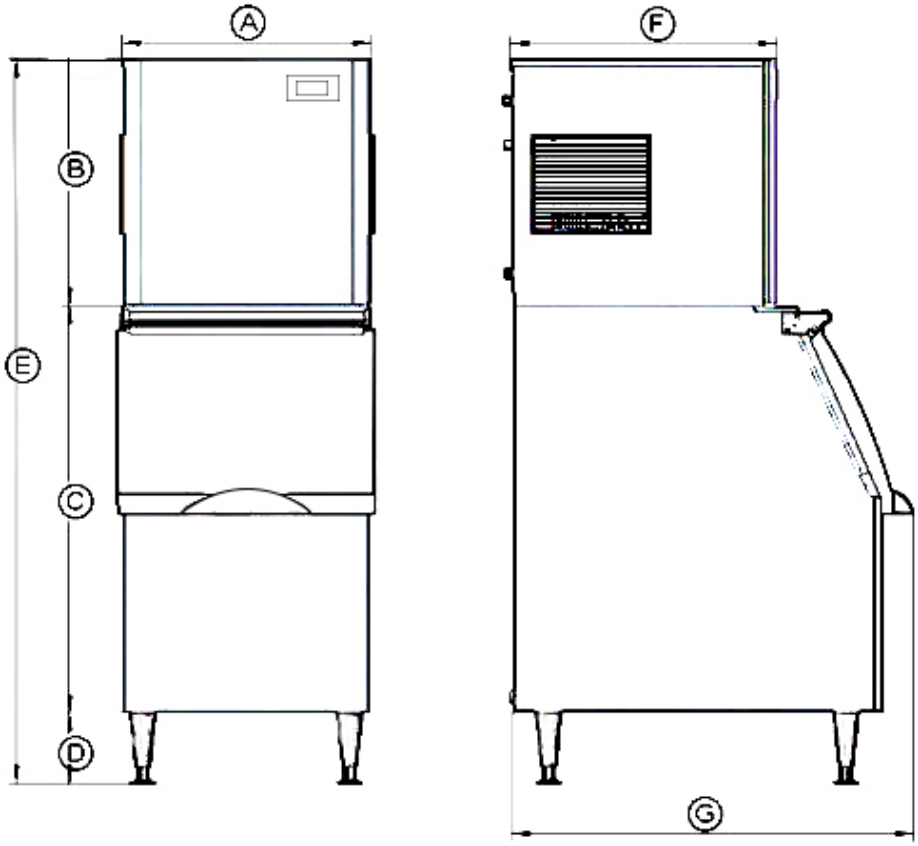
Be sure to read carefully the warnings, notices and important matters described in this manual, because these warnings, notices and important matters provide the installer/user with important information needed for proper installation, continuous and safe use and maintenance of the product.

Please keep this manual for reference when necessary.

1. Features

- L series ice maker, with a number of patent control systems, simple operation, accurate control, suitable for different water quality conditions;
- Key components are made from internationally renowned brands to ensure reliable operation in harsh environments;
- Food-grade plastic is used for the parts in contact with water, and stainless steel is used for the outer shell to ensure food safety and excellent anti-rust performance.

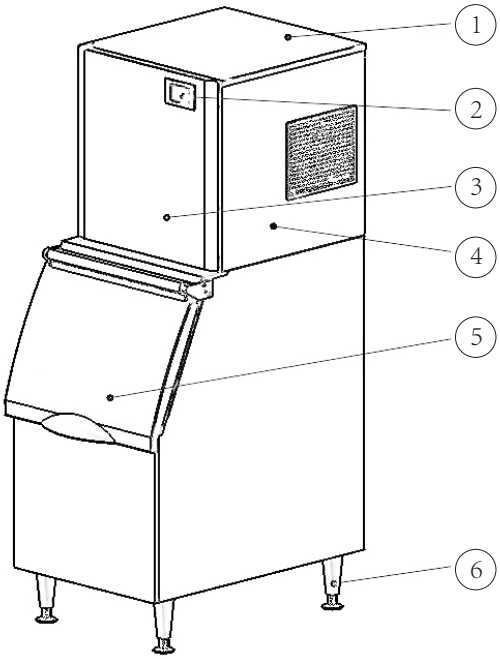
2. Apperance & Size

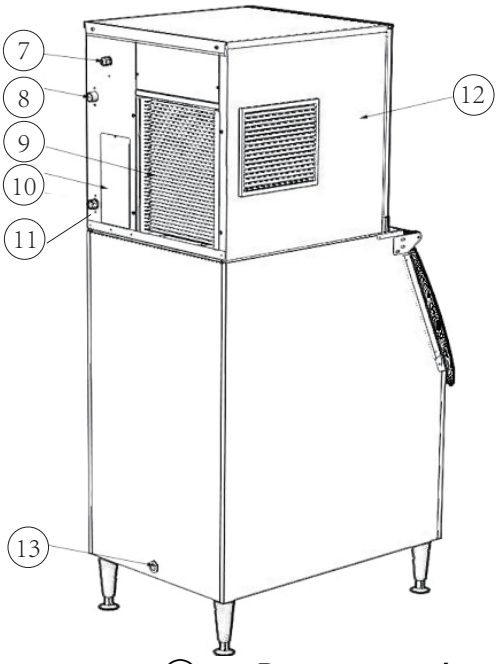


- **Size list（Unit：Inch）**

Model	A	B	C	D	E	F	G
L400	22.2	22.0	36.2	6.3	64.6	23.6	35.8
L500	22.2	26.7	36.2	6.3	69.3	23.6	35.8

- **Appearance**





①. Top cover plate

②. Pannel

③. Front plate

④. Right side plate

⑤. Door

⑥. Adjustable feet

⑦. Power supply cable

⑧. Inlet value

⑨. Condernser

⑩. Back plate

⑪. Purge pipe connector

⑫. Left side plate

⑬. Purge pipe connector

3. Critical Parameter

Model	Power (V)	Frequency (HZ)	Current (A)	Power (W)	Refrigerant	Liquid (g/oz)	High side Design pressure (psig)	Low side Design pressure (psig)
L400	115	60	8.2	880	R290	140/5.0	260	145
L500	115	60	9.8	1030	R290	150/5.3	260	145

4. Unpacking

- Before unpacking, check the anti-tilt sign is in good condition, the outer packing of the machine is in good condition, and the machine model is consistent with what you have purchased;
- Take out accessories and affiliated documents, check for its consistency with packing list;
- Remove its protective film
- If there is any discrepancy or damage, please contact our company/distributor directly

5. Installation Location

- The ice maker is not suitable for outdoor usage, the installation location should not be closed to the heat source or be exposed to direct sunlight;
- The normal working ambient temperature should be ranged between 10°C ~ 38°C, and the water temperature should be between 5°C ~ 32°C, if the ice making machine operates beyond the above normal temperature range for a long time, its ice-making capacity may be affected.
- Ice makers should be installed on a solid, flat ground;
- Ice makers should be placed near a drinkable water supply. It is recommended that the distance between ice makers be less than one meter.
- Do not block the ventilation window of the ice maker. There should be enough air convection space around the ice maker.
- The ice maker can not work at sub-zero temperatures, to prevent supply line failures, empty the ice maker when the temperature is below zero(see “preparation for long-term storage of ice maker)

6. Leveling and Adjustment

- Screwing home four adjustable parts of the legs first, and then screwing the legs into the ice maker bottom plate;
- Moving the ice maker to the installation place, and adjusting the legs to ensure the ice maker is leveling.

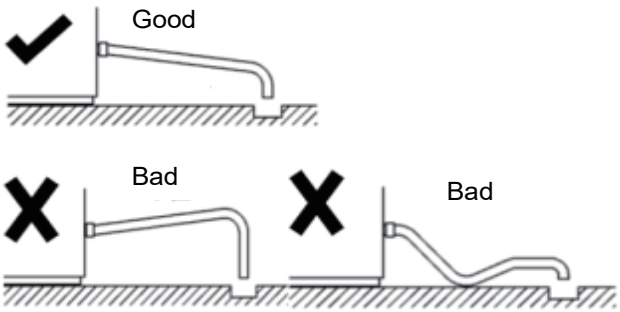
7. Water Supply/Purge

7.1 Water Supply

- With local potable water quality, determining if a water treatment system is needed to prevent sediment formation, filter out impurities and remove bleach smell;
- Please install the water supply pipe according to the below instruction:
  - Do not connect the ice maker to the hot water pipe;
  - The water supply pressure range is 1 bar ~ 5 bar. Using a water pressure regulator for water supply pressure over rang;
  - Individual water faucet must be installed for the ice maker.

7.2 Purge

- When installing the drain hose, follow these guidelines to be sure all purged water flowing into the gully drain:
- The main gully drain capacity shall be enough for all drain water;
  - The drain hose should be wrapped with insulation material to prevent condensation;
  - The drain hose of the water-cool condenser and the drain hose of the ice bin should be placed separately;
  - Bout 2.5 centimeters drop is needed for each one meter additional drain hose and must not be bent.



Warning

- **The power supply must be reliably grounded and the wiring used must comply with the laws and regulations of the country and region where the ice maker is used.**
- **Ice makers must be connected to the potable water pipes.**
- **Do not put the hard objects under the legs for leveling the ice maker. Make sure the four legs touch the ground steadily to prevent vibration during operation.**

8. Power Supply

The voltage, frequency and capacity of the power supply shall be consistent with the nameplate of the machine;

- ±10% fluctuation of rated power voltage is allowed;
- Separate circuit breakers must be installed for the ice maker.

9. Sanitation After Installation

- After the ice maker is installed, clean the shell, liner and ice scoop with a clean wet cloth or sponge;

10. Check After Installation

After the ice maker is installed, clean the shell, liner and ice scoop with a clean wet cloth or sponge.

- Is the ice maker placed levelly?
- Have you removed all the transportation seals?
- Are all the water and electricity connected well?
- Is the supply voltage consistent with the rated voltage on the nameplate?
- Is the ice maker properly grounded?
- Are there adequate air Spaces around the ice maker?
- Is the ambient temperature of the ice maker between 10°C and 38°C?
- Does the water inlet temperature remains between 5°C and 32°C?
- Are the ice maker and refrigerator cleaned?

11. Operation

11.1 Turn On/Off

On： Connect the water supply and drainage, plug in the power plug, the screen starts to light up;

Off： The ice making work, press the [switch] key once, the ice making machine stops the ice making (standby state), the screen shows "OFF", and then pull out the power plug.

11.2 Making Ice

a. The ice maker automatically enters the ice making preparation work after electrification, the preparation process includes water pump start, hot valve open, compressor start, fan start, etc. Under normal circumstances, the ice-making machine begins to make ice automatically after the preparation work is finished, and no more operation is required. The ice-making machine stops making ice until the ice is full; the ice-making machine begins to make ice when the ice is taken away;

> **▲ Attention**
>
> **The ice machine has been tested and debugged in the factory before shipment. In general, new machines can make ice without any debugging.**

11.3 Adjustment of Ice Thickness

B. In the ice-making state, press "[booking/adding]" or "[light/decreasing]" to see the "temperature display" number on the screen start flashing, press "[booking/adding]" can increase 1 minute, press twice increase 2 minutes, and so on, increase in one unit by 1 minute, press "light/decrease]" once can reduce 1 minute, decline in turn; after adjustment, stop operation," temperature display" number no longer flicker, ice thickness setting is completed (note: ice thickness adjustment before and after, the ice machine is always in ice making).

11.4 Forced Deicing

Press the "mode" key to force deicing in the ice-making state;

11.5 Manual Cleaning

Press the "[cleaning/setting]" key in the standby state, enter the manual cleaning state, cleaning icon flicker, inlet valve open, screen display start timing, about 15 minutes later, cleaning stop, and start drainage, 30 s after drainage finished, enter automatic rinsing stage, first wash 3 minutes later, then drain 30 s, rinsing process recirculates 5 times, the whole cleaning process is finished, screen display "OFF", into standby state;

Remarks: If you need to clean quickly, you can press "[Clean/Set]" again for 15 minutes. After 30 s, you can finish the drain and enter the rinse stage. If you don't need to cycle many times, you can press [Switch] to stop the rinse and enter the standby state;

11.6 Booking Ice

Standby state (display display "OFF"), first press "[booking/adding]" enter time setting, press "[booking/adding]" again can increase 10 minutes, press twice increase 20 minutes, and so on, increase in 10 minutes as a unit, press "[light/decreasing]" once can reduce 10 minutes, decline in turn; after setting up, press "[switch]" key, the screen shows the countdown of the set time, countdown is 0, the ice machine began to make ice.

11.7 Setup Function

Standby state (screen display OFF), long press "[clean/set]" key until screen "OFF" disappear jump into parameter setting state, control addition and subtraction operation by "[reservation/addition]","[light/subtract]", set state light point "[clean/set]" switch next setting, parameter switch one round, cycle again from the first parameter.**"Setting up functions" is recommended for operation under the guidance of a professional and no private adjustment is recommended (see page 14 for details);**

12. Ice-Making Workflow

12.1 Power on (power on): after power on the display full light, and then into the power on balance state. Hot valve open, water valve, fan control. After 30 seconds press open, after 5 seconds heat valve closed, and start ice.

12.2 During the ice making process. The compressor continues to open, the heat valve and drain valve are closed, fan controlled, the pump opened after 30 seconds, the water valve is controlled within 5 minutes of the beginning, and more than 5 minutes forced closure. If the time is more than 23 minutes or the water temperature is less than 3℃, the ice-making time is delayed.

12.3 After the ice making is finished, enter the deicing state. The compressor continues to open, the heat valve is open, the water valve is controlled, water pump, fan, and drain valve are closed. The maximum time limit for deicing is 6 minutes. If the ice is not removed for 5 minutes, turn on the pump for 1 minute. If the ice is not removed, turn it into ice. Three times in a row for more than 6 minutes, go to the deicing timeout shutdown.

12.4 After the ice is removed, if the ice in the refrigerator is not full, then enter the ice state, a new cycle. If the refrigerator is filled with ice, it will stop. The water pump, compressor, heat valve, upper water valve, fan, and drain valve are all closed. If the ice is removed, in 180 seconds, the ice full indicator lights shine, and after 180 seconds of ice, turn to power, for a new cycle. If the ice is not taken away, it is always in full state.

13. Operational Inspections

▲Attention

The ice machine has been tested and debugged in the factory before shipment. In general, new machines do not require any debugging. In order to ensure that the ice-making machine is running normally, it is necessary to carry out the operation inspection

- Initial launch.
- Restart after a long downtime.
- Confirm the inlet tap is open.
- Confirm that the inlet valve has been opened.
- The ice machine is powered on.
- Check all water pipes and pipe joints to ensure no leakage.

14. Routine Cleaning

▲ Attention

- **It is strictly forbidden to wash this ice machine with a water sprayer. Do not use any alcohol-containing liquid to clean or disinfect the ice maker, otherwise, it may cause cracks in plastic parts;**
- **Remove the roof or back panel, the front panel and other recommendations to the relevant knowledge of personnel to remove;**
- **Do not put plastic parts into water or dishwasher with a temperature over 40℃ to clean, so as not to damage the parts.**

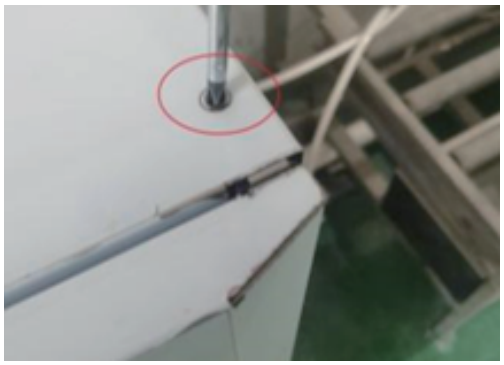
- Environmental cleaning: often clean the ice machine around to keep the environment clean, so that the equipment gets the efficient operation.
- Shell cleaning: clean the ice machine with a sponge dip neutral cleaning liquid and dry with a clean soft cloth. use stainless steel cleaner if necessary.
- Ventilation window cleaning: often wipe plastic ventilation window surface stains with dry rag to ensure smooth ventilation.

★important

Some parts cleaning if necessary or not recommended to remove the front panel, demolition please have the corresponding knowledge or under the guidance of professionals.

14.1 Remove Front Panel and Top Panel of Ice Maker

- Remove front panel of ice maker, there is a screw on the top cover plate of the ice maker and on the left and right of the front panel, please use a Phillips screwdriver to remove the screw;



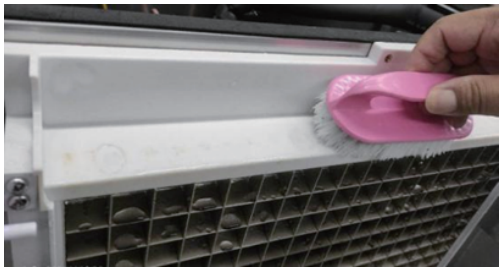
- First, move the front panel gently to your own direction until you see that the connecting line stops moving, pull the connecting line to completely remove the front panel;

- Demolish the top cover plate of ice machine Hold the top cover against the front panel, gently lift up, and then gently push back, that is, the top cover should be lowered;

14.2 Evaporator Cleaning

- Scrub the surface of the evaporator with a brush or sponge;

- Brush the plastic parts around the evaporator with nylon brush;



14.3 Cleaning of Sinks

- ress the [switch] key in standby mode, the screen displays “off”, unplug the power plug, remove two screws on the water pump hanging plate and two screws on the float cover with a screwdriver, remove the clamp , unplug the water supply pipe, and then remove the water pump and the connector at the float to clean the float.

Clean water pumps

- Scrub the sink with soft ground material such as a brush or sponge.

Important Tips

Please install all parts after clearing, install and cooperate correctly.

15. Cleaning and Disinfection

In order to make the operation of the ice making machine stable and efficient, the user has the responsibility to operate according to the requirements of cleaning and disinfection (the operation of cleaning and disinfection is not included in the warranty clause). If the ice maker needs frequent cleaning and disinfection, please check whether the water source is suitable, whether the use environment is clean or whether the inappropriate water filter device is used.

15.1 Cleaning and Disinfection

Warning

- **Wear protective equipment such as rubber gloves, masks and protective glasses before cleaning and disinfection operations.**
- **Removal and installation of cleaned parts must be carried out in case of power failure.**

Attention

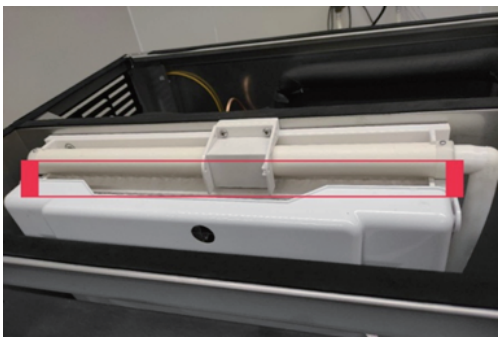
- Do not mix the disinfectant with the cleaning solution.
- Do not clean the evaporator surface with sharp object.
- It is recommended that this process be implemented at least once within 3 months.

1. Open the front panel of the ice maker to check if the ice maker evaporator is making ice. If ice is being made, a forced deicing program can be performed (see operation instruction "11.4 forced deicing "above) to stop the deicing machine, press the [switch] key in standby state, the screen shows" OFF";

2. Remove all ice cubes stored in the refrigerator with an ice shovel;

3. Click the "Clean / Set" button, the ice maker enters the cleaning phase, the inlet valve opens, and the screen display starts timing;

4. When the evaporator starts running water;



①Add 2 packs of cleaning agent (KAY DELIMER,56.7g/ pack) or mixed detergent to the ice maker sink;

②The water between the tank and the evaporator is cleaned by circulation for about 15 minutes. The cleaning stops and drains,

③After 30 s, the is completed;

④Entering the automatic rinsing stage, first cleaning for 3 minutes, then draining for 30s, after the rinsing process rec recirculation for 5 times, the whole cleaning process is over, and the screen shows "OFF" , in to stand by state, the whole process takes about 37 minutes.

5. Unplug the power.

6.Remove water pipe fixed support, water pipe, water retaining plate, take out water pump, floatball, ice shovel (removal mode refer to parts removal / installation process).

7. Mix with 8 liters of warm water (45~50℃) and 4 packs of cleaning agents (KAY DELIMER, 56.7g/ packs) to form a cleaning solution (the amount of cleaning fluid needs to be properly adjusted for the amount of cleaning parts).

8. Soak the parts in the cleaning solution for more than 5 minutes (it is recommended to soak for . Wear rubber gloves after soaking and clean parts carefully with soft nylon brush, sponge or soft cloth.

Scrub the ice shield and inner wall of the ice sheet

9. While soaking the parts, dip the cleaning liquid with a nylon brush or soft cloth to wipe the surface of the parts in contact with water and ice cubes, such as changing the inner surface of the ice plate, the inner surface of the front plate, the evaporator ice grid, ice blocking plate, ice storage bucket, etc. (the dead corner can be covered with a wet rag dipped in cleaning agent to wrap disposable chopsticks cleaning).

① Brush pipe mandrel

②Brush pump bottom

③ Around brush steam

④ Plastic parts

⑤ Brush evaporator

⑥ Brush sink

⑦Flush evaporator

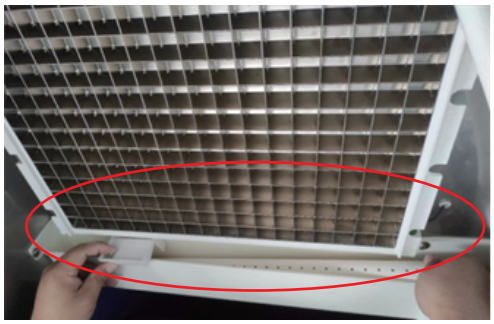
⑧ Flush hose and mandrel

10. Remove soaked parts and rinse with clean water (rinse 5 times).

15.2 Disinfection Process

1. Mix 8 liters of warm water (45~50℃) and 2 packs of disinfectants (KAY5,28.4/ packs) into disinfectant solution (the amount of disinfectant is adjusted according to the amount of cleaning parts needed).

2. Soak the cleaned parts in a mix of disinfectant.



While soaking the parts, spray the disinfectant evenly and completely on the surface of the parts in contact with the ice, such as the inner surface of the hanging ice board, the inner surface of the front panel, the ice grid of the evaporator, the ice baffle, the ice storage bucket on the outer surface of the sink, etc .(the dead corner can be cleaned with disposable chopsticks wrapped in a wet rag dipped in disinfectant).

After 20 minutes, remove the soaked parts and rinse them with clean water. Install the removed parts back into place (the installation method refers to the 15.3 parts removal/installation process) and strictly follow the requirements.

3. 1 liter of water and 1/2 package of disinfectant (KAY5,28.4/ package), combined with disinfectant.

4. Plug in the power plug, then press the [switch] key to make the ice maker in the standby state, the screen shows "OFF"; press the "[clean/set]" key, and the ice maker enters the cleaning stage, the inlet valve opens, the screen display starts to time when the evaporator starts flowing water, add the equipped disinfectant solution to the ice maker tank, at the same time, clean the water from the outside surface tank to the evaporator with disinfectant spray kettle, after about 15 minutes, the cleaning stops and begins to drain,

When 30 s is finished, after entering the automatic rinsing stage, after cleaning for 3 minutes, then draining for 30 s, the tap water rinsing process for 2 times, then using pure water rinsing cycle 3 times, the whole cleaning process is over, The screen shows "OFF", into standby state and unplug" after 37 minutes of cleaning.

Note: After cleaning and disinfection, start making ice, the first 5 plates of ice discarded, do not eat.

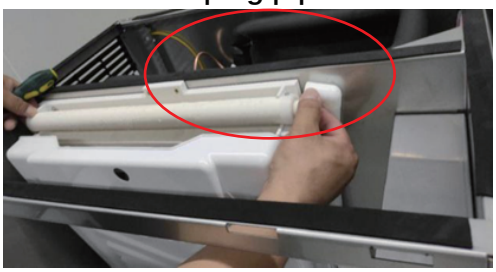
15.3 Parts Removal/Installation Process

- When removing the pipe, remove the "pipe fixing support" and "clamps "(as shown) :

Removing Water Pipe Fixed Support

Unplug the water pipe

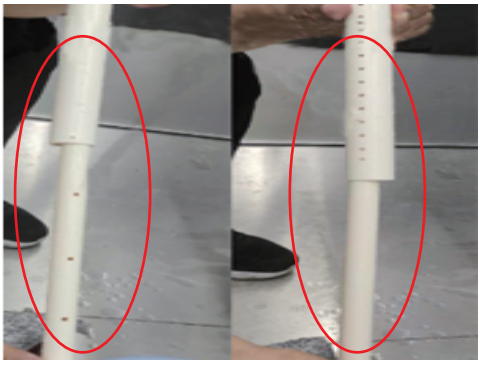
Unplug pipe



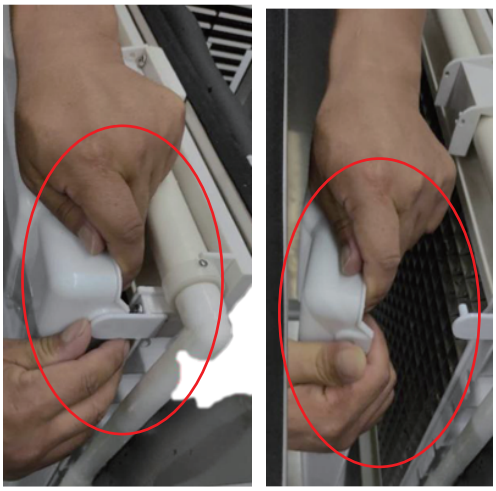
- Remove two screws

- Spin out the plastic cover and remove the plastic mandrel

Note: when the pipe is assembled, the hole position of the pipe should be opposite to that of the mandrel, and must not be in the same direction. The correct diagram is as follows:



- **Disassembly of water retaining plates：** Both hands hold the rotating shaft at the same end of the baffle, and pull the side of the baffle out of the pin hole by pulling it to the other end.



16. Regular Cleaning

> **Note**
> If water is left in the machine in an environment below 0°C, it may cause serious damage to the machine parts. This fault is not covered by warranty.

- Clean environment: clean the area around the ice maker regularly to keep the environment clean to support ice maker running efficiently.

- Shell cleaning: Use sponge or soft cloth with neutral cleaning agent to clean, and wipe it up with a clean soft cloth. Stainless steel cleaner can be used when necessary.

- Air filter clean: filter can arrest dirt or dust in the air enter condenser. It can postpone condenser from blocking. If the filter is blocked, the ice production will decrease. We recommended to clean the air filter once or twice a month:
  - Remove the air filter;
  - Please clean the air filter with a vacuum cleaner or a soft brush. If the air filter is severely clogged, clean it with warm water and a neutralcleaner;
  - Put it back after the filter iscompletely dry

17. Condenser Cleaning

- It is recommended to clean thecondenser every six months by following steps:

  - Use a soft brush or vacuum cleaner to clean the outside of the condenser, the act direction should be from top to bottom (it will break condenser fins act from one side to another）;
  - Use commercial coil (air conditioning) cleaner. Follow the instructions and precautions for coil cleaning agent when using. The damaged fins should be straightened with a fin comb.

18.Removal From Service / Winterization

Note

If water is left in the machine in an environment below 0°C, it may cause serious damage to the machine parts. This fault is not covered by a warranty.

Special protection measures are required if the ice maker is out of service for a long period of time or exposed to an environment of 0°C or less. Follow the steps below.

- Disconnect the power to the ice maker.
- Disconnect the water supply to the ice maker.
- Empty the sink.
- Remove water inlet hose and drain it from the water inlet.
- Ensure that there is no water residue in the inlet, drain and distribution pipes.

Warning

Component parts shall be replaced with like components and that servicing shall be done by factory authorized service personnel, so as to minimize the risk of possible ignition due to incorrect parts or improper service.

19.Maintenance

Warning

DANGER – RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. TO BE REPAIRED ONLY BY TRAINED SERVICE PERSONNEL. DO NOT PUNCTURE REFRIGERANT TUBING.

Warning

DANGER – RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. DO NOT USE MECHANICAL DEVICES TO DEFROST THE REFRIGERATOR. DO NOT PUNCTURE REFRIGERANT TUBING.

Warning

CAUTION – RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. CONSULT REPAIR MANUAL/OWNER'S GUIDE BEFORE ATTEMPTING TO SERVICE THIS PRODUCT. ALL SAFETY PRECAUTIONS MUST BE FOLLOWED.

Warning

CAUTION – RISK OF FIRE OR EXPLOSION. DISPOSE OF PROPERLY IN ACCORDANCE WITH FEDERAL OR LOCAL REGULATIONS. FLAMMABLE REFRIGERANT USED.

Warning

CAUTION – RISK OF FIRE OR EXPLOSION DUE TO PUNCTURE OF REFRIGERANT TUBING; FOLLOW HANDLING INSTRUCTIONS CAREFULLY. FLAMMABLE REFRIGERANT USED.

Before reporting for repairs, please consider the following aspects in order to quickly determine and improve the efficiency of machine recovery.

a) . Whether the water supply is normal, including whether the faucet is open, whether the inlet valve is blocked, and whether the water pressure is too low or too high.

b) . Whether the power supply is normal, including whether the voltage is too low, whether the switch is turned on, whether the fuse is burned out, and whether the plug is pulled out.

c) . Whether the ambient temperature is too high or too low (the working environment temperature range of the ice maker is 10°C ~ 38°C), and whether the water temperature is too high or too low (the water temperature range is 5°C ~ 32°C).

d). Whether the storage refrigerator is full and whether it can work after cleaning. Write down the machine number and computer board number, and call the toll-free number on the service label.