

## **XB215A Ice Maker**

### **Installation and Maintenance Manual**



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# Safety Tips

When operates and maintains an ice maker ,be sure to pay attention to the safety tips in the manual. Ignoring these tips may result in personal injury and ice maker damage.

In this manual, you will see the following forms of security tips :

## Warning

Possible personal injury would be happened when not following up 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.

## Important

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

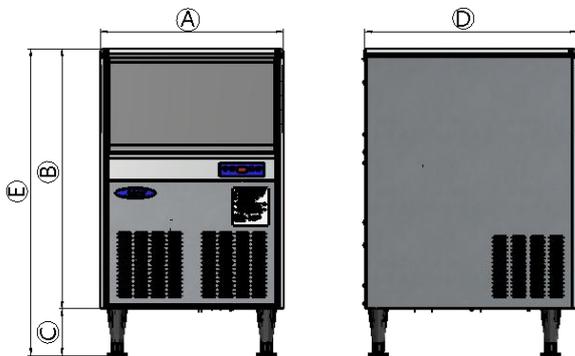
**Please preserve this manual well**

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

- XB series ice maker are with several patent control system, it could be simply operated, suitable for different water quality conditions;
- The key components are from international renowned brands, which ensures reliability in harsh environments;
- Parts which contacted with water using food-grade plastic and stainless steel for outer shell, which ensures food safety and excellent rust resistance.

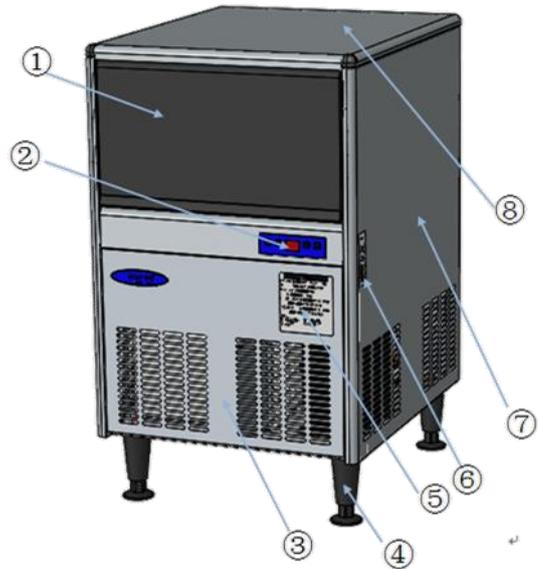
## 2. Size and Appearance



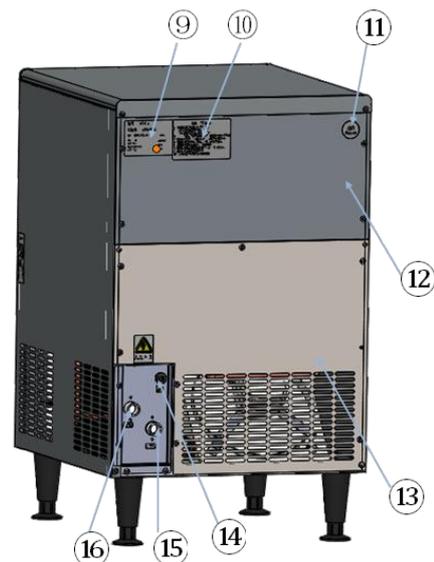
### • Size List ( Unit : cm )

|        | A  | B  | C  | D  | E  |
|--------|----|----|----|----|----|
| XB75A  | 43 | 75 | 15 | 61 | 90 |
| XB95A  | 43 | 75 | 15 | 61 | 90 |
| XB125A | 53 | 75 | 15 | 61 | 90 |
| XB175A | 68 | 75 | 15 | 65 | 90 |
| XB215A | 68 | 75 | 15 | 65 | 90 |
| XB255A | 68 | 75 | 15 | 65 | 90 |

### • Appearance



- ①.Door    ②. Control panel    ③.Front plate
- ④.Adjustable feet    ⑤.Nameplate
- ⑥.Warranty label    ⑦.Right side plate
- ⑧.Top cover plate



- ⑨.Spec.    ⑩.Notes    ⑪.QC label
- ⑫.Back upper plates
- ⑬.Back lower plate    ⑭. Power supply cable
- ⑮.Inlet valve    ⑯.Purge pipe connector

# Critical Parameter

## 3. Critical Parameter

|        | Power (V) | Frequency (HZ) | Current (A) | Power (W) | Refrigerant (oz) | Ice production (lbs) | Storage (lbs) | Power consumption n (**) |
|--------|-----------|----------------|-------------|-----------|------------------|----------------------|---------------|--------------------------|
| XB215A | 110       | 60             | 5.5         | 480       | R290/4.58        | 150                  | 100           | 6.93                     |

The test environment, the ambient temperature is 32 °C, the water temperature is 21 °C.  
\*\*Unit : kw·h/100p (45kg)。

## 4. Unpack

- 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

### Warning

**The ice maker is to be installed in accordance with the Safety Standard for Refrigeration Systems, ASHRAE 15 the ice maker shall not be installed in corridors or hallways of public buildings.**

- The ice maker is not suitable for outdoor usage, the installation location should not be closed to heat source or be exposed under direct sunlight.
- The normal working ambient temperature should be ranged between 10°C ~ 38°C, 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 solid, flat ground.
- Ice makers should be placed near drinkable water supply. It is recommended that 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 Adjustment

### Note

**Do not put hard object under legs for leveling ice maker. Make sure the four legs touching the ground steadily to prevent vibration during operation.**

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

## 7. Water supply/Purge

### 7.1 Water supply

### Warning

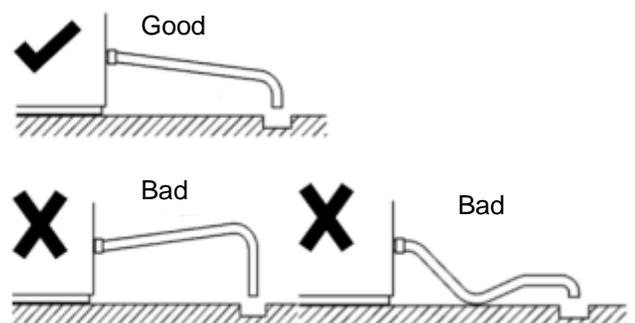
**Ice makers must be connected to potable water pipe**

- With local potable water quality, determining if a water treatment system is needed to prevent sediment formation, filtering out impurities and removing bleach smell .

- Please install water supply pipe according to below instruction :
  - Don't connect ice maker to hot water pipe ;
  - Water supply pressure range is 1bar ~ 5bar. Using water pressure regulator for water supply pressure over rang.
  - Individual water faucet must be installed for ice maker.

### 7.2 Purge

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



## 8. Power supply

### 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.

- The voltage, frequency and capacity of the power supply shall be consistent with the nameplate of the machine.
- $\pm 10\%$  fluctuation of rated power voltage is allowed.
- Separate circuit breakers must be installed for the ice maker.

## 9. Clean after Installation

### Warning

Corrosive detergents such as banana oil, oxalic acid or hydrochloric acid are strictly prohibited.

- 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, check against the following information before operation.

- Is 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 remain between 5°C and 32°C?
- Are the ice maker and refrigerator cleaned ?

## 11. Operation

- Plug in and then switch on, the ice maker enter standby state, and display "PP" ;



### 11.1 Turn on/off

- Turn On : Press ON/OFF button , The ice maker starts to work.
- Shutdown : Press ON/OFF for more than 3 seconds , the ice maker will enter standby state ;

### 11.2 Adjustment of ice thickness

- In ice making process, press INCREASE button to increase ice thickness, press DECREASE to decrease ice thickness.

### 11.3 Manual deicing

- In the ice making process, press ON/OFF button 3 times continuously to start deicing process.

### 11.4 Automatic Cleaning

- In standby state (display PP) , press CLEAN button to start automatic cleaning process, press CLEAN to stop the process.
  - Press the CLEAN button, control system of the ice machine open water pump and drain valve, purge water for 30s;
  - Then close water pump and drain valve , then open water inlet valve to fill up the water;

- After tank is full of water, close inlet valve, then pump starts to work for 12min to clean the water system;
- After clean process, the water pump and drain valve will open for 30s to purge water ;
- After that, the water pump and drainage valve will be closed, and the water inlet valve will be opened to fill the water tank; When the water is full, the inlet valve is closed, and the pump starts to work 2.5min for rinsing. Purge water for 30s after rinse; (repeat the process 4 times)
- After the above cycle is completed, the automatic cleaning process is completed, the ice maker enters standby state, displays PP.

### 11.5 Timing on/off

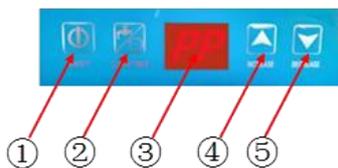
- Start ice making time setting: in standby state, press CLEAN for at least 3s, then it will show countdown hours before start ice making. Adjust the countdown hours by INCREASE or DECREASE button.
- Setting of stop ice making time: in the ice making state, press CLEAN key for at least 3s to show countdown hours of stop ice making. Adjust the time by INCREASE or DECREASE button.

# Ice Maker Operation

## 11.6 Water conservation setting

- Under the condition of good water quality, the function can be achieved by reducing the number of times of purge water).
  - In standby state, press DECREASE button for more than 3s, the display flickers to show current purge times, then press INCREASE or DECREASE button to adjust purge times
  - 0: no purge ;  
1 : purge water once per ice-making cycle ;  
2 : purge water once every two ice-making cycles ;  
3 : purge water once every three ice-making cycles ;  
. . .  
10 : drain water once every ten ice-making cycles ;

## 11.7 Operation display panel



1. Control panel power switch button
2. Automatic clean
3. Display screen
4. Ice thickness increase button
5. Ice thickness decrease button

## Display icon/fault code description

- PP** Standby status, pp bits will flicker.
- 15** Lower right corner round dot flickers to show ice making time(minutes)
- 09** Middle round dot flickers to show ice deicing time(minutes)
- 20** Lower right corner round dot solid on to show cleaning time(minutes)
- FU** Ice is full in the tank, pls fetch all and automatically start after 3 ,minutes
- E5** Fault condition

E1 : Condensation temperature probe damaged

E2 : The deicing is overtime ;

E3 : Condenser temperature is too high ;

E4 : Ice full sensor broken ;

E5 : Lack water;

E6 : High exhaust pressure ;

E7 : Ice making is overtime.

## 12. Ice maker working

### process

- Power On :
  - If the ice maker was in standby state when it stopped last time. After power on, the ice maker will enter standby state, and the display screen showed PP.
  - If the ice-making machine was in the ice-making state when it stopped last time, the machine will enter ice-making state directly after the power is switched on.
- Start : Press ON/OFF to start ice making process. The ice maker checks

whether the high voltage protection switch and the ice full switch are closed. If the switch is not closed, the ice maker keeps in stop state and displays failure codes E6 or E4.

- Ice melting process: Open hot gas valve for ice defrosting, start compressor after 10s, and open the water inlet valve at the same time; Water inlet valve is closed after 30s or water full of tank; Then pump starts ; Open the purge valve after 10s; The hot gas valve, water pump and drainage valve closed after 20s.
- Pre-cooling process: the condensing fan start, the water inlet valve open till water level to water level probe.
- Ice making process: after pre-cooling (40s), the pump works, and the machine starts ice making cycle; In the cycle, the water inlet valve is opened after 90s when the water level falls below water level probe, close water inlet valve after the water level touches water level probe again. If the water inlet valve opens for 5 minutes and still fails to reach the set water level, it will enter the shutdown protection state and the failure code E5 will be displayed. Enters energy accumulation process when the water level continues drop below the deicing probe.
- Energy accumulation process: Fan stops working according to previous

condensation temperature. The process can accelerate the speed of deicing.

- Deicing process: after the energy accumulation process, the hot gas valve opens, starts the deicing process. The ice tray begins to heat up, melting the bottom of the ice cube and falling off into ice bin rely on it is gravity. 10s after deicing, water inlet valve opens until water level get to water level probe, then close the water inlet valve; After water baffle opened by ice cube and then come back within 30s, the deicing process will end; If the baffle is not closed within 30s, the ice maker will enter ice-full state.
- After deicing, enter the next ice-making cycle: repeat "pre-cooling process" to "deicing process".
- Stop with full ice: if the baffle cannot be reset within 30 seconds, the machine will stop automatically, the display screen shows "FU". When the ice is taken away, the baffle will be reset and ice maker will start to make ice after 3 minutes.

# Check before operation

## 13. Operation Inspection

### Note

The ice-making machine has been tested in factory before shipment. Generally, new machines do not require any commissioning. To ensure that the ice maker can work properly, an operational check is required in the following cases

- Initial start-up
- Restart after a long shutdown
- After cleaning and sanitizing
  - Make sure the water faucet is open.
  - Power supply is ready.
  - Check all water pipes and joints to ensure no leakage.
  - Ice bridge thickness check. The thickness of the ice bridge should be set at 3mm. If you need to adjust it, press INCREASE button to increase the ice thickness or press DECREASE button to decrease the ice thickness.

## 14. Regular cleaning

- 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

### Note

- Do not flush this ice maker with water sprayer. Do not use any alcohol containing liquid to clean or disinfect the ice maker, or it may cause cracks in the plastic parts ;
- Do not remove the top plate and back plate, and demolition should be provide with the corresponding knowledge of the maintenance personnel ;
- Do not put the plastic parts into the water with the temperature exceeding 40°C or the dishwashing machine to clean, so as to avoid damaging the parts.

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 neutral cleaner;
- Put it back after the filter is completely dry.

## 15. Condenser cleaning

### Warning

To clean the condenser, disconnect the ice maker power supply, The edge of the condenser is sharp.

## Important

**Condenser dirty will block the flow of air, cause the ice maker operating temperature too high, reduce ice production, shorten the service life of parts.**

- It is recommended to clean the condenser 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.

## 16. Cleaning & disinfection

### Warning

- **Wearing protection appliances such as rubber gloves, masks and protective glasses before cleaning and sanitizing'**
- **The removal and installation of the cleaned parts must be done without power supply connection.**

### Note

- **Do not mix disinfectant with cleaning agent.**
- **Do not clean evaporator surfaces with sharp objects.**
- **It is recommended to implement this process at least once in 3 months.**

To be sure the ice maker can run stably and efficiently, the user is responsible for the operation according to the requirements of cleaning and disinfection (cleaning and disinfection operation is not covered by the warranty).If the ice maker needs clean and disinfect in short of period, please check if the water supply is appropriate, if the environment is clean, or if an inappropriate water filter is used.

### 16.1 Cleaning process

1. Open door and check if any ice formed on evaporator.  
If ice formed on evaporator (in ice making process), please press ON/OFF button 3 times continuously to start deicing process.  
Waiting till ice melt or fall off from evaporator.  
Press ON/OFF button for more than 3s to stop ice make working.
2. Use ice scoop to take all ice cube from ice bin.
3. Press the CLEAN button, the ice maker will first drain 30s, then open the water inlet valve and fill it with water. After

# Cleaning and Disinfection

- 60s, add 2 packs of cleaning agent (KAY DELIMER, 56.7g/ pack) to the ice maker sink, wait for the end of the cleaning program (refer to 11.3 for automatic cleaning), Turn off power switch of the ice maker unplug the from outlet.
4. Remove water tank, water pipe and water baffle, and take out ice scoop (refer to parts removal/installation process 16.4 ).
  5. Put 4 packages of cleaning agent (KAY DELIMER, 56.7g/ package) into 8 liter warm water (45 ~ 50°C)
  6. Soak the parts in the mixed solution for more than 5 minutes (it is recommended to soak for more than 10 minutes in case of heavy scale). After soaking, wear rubber gloves and carefully clean all parts with a soft nylon brush, sponge or soft cloth.
  7. At the same time, dipping soft nylon brush or soft cloth into mixed solution , cleaning other parts where will contact water or ice like ice bin, door, evaporator, (to the position where not easy to touch, small plastic or wooden rod wrapped with wet soft cloth is helpful).
  8. Take out the soaked parts and rinse with clean water.

## 16.2 Disinfection process

9. Put 2 packets of disinfectant (KAY5, 28.4g/packet) into 8 liter warm water (45 ~ 50°C).
10. Soak the cleaned parts in the prepared disinfectant solution.
11. Concurrently, put the solution into watering can, and spray the solution evenly and completely on the surfaces of the parts where contact with water or ice cubes, such as the inside surface of ice bin, door and evaporator.
12. After 20 minutes, take out the soaked parts and rinse them with water.
13. Install the removed parts back to the original place (refer to parts removal/installation process 16.4 ).
14. Mix 1 liter water and 1/2 package of disinfectant (KAY5, 28.4/ packet) as disinfectant solution.
15. Plug in ice maker, close the door of ice maker, turn on the switch and then press the CLEAN button, ice maker will drain for 30s in advance then water inlet valve opens to let water into water tank. After 60s, add the prepared disinfectant solution into water tank of ice maker, wait for the end of the cleaning process (see 11.3 for automatic cleaning), then turn off power switch, and then unplug the ice maker.

# Cleaning and Disinfection

## 16.3 Rinsing process

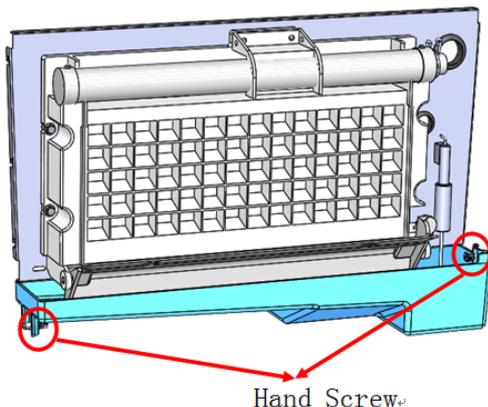
9. Wipe the inside and outside surfaces of ice maker with a clean wet cloth/sponge to clean residue of disinfectant.
10. Rinse the ice bin surface, evaporator and water tank with clean water
11. Drain all the water after washing.
12. Press ON/OFF more than 3s to start the ice maker.
13. Discard the first three plates of ice to ensure that the disinfectant is completely discharged from the system.
14. Turn off the power and put the ice maker back in place to complete the cleaning and disinfection process

## 16.4 Parts removal/installation

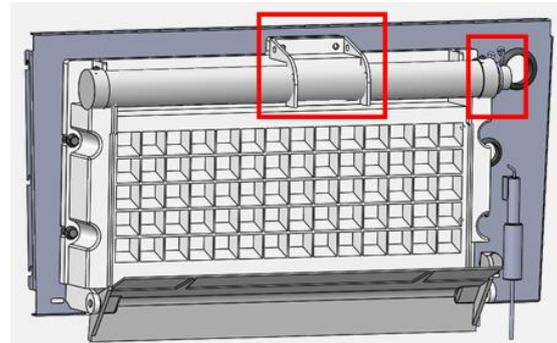
### process

- **Remove and install the sink**

Screw off the left and right hand screw.(as shown). Pull the tank forward about 20mm. Move the tank downward about 100mm. Take out the tank.



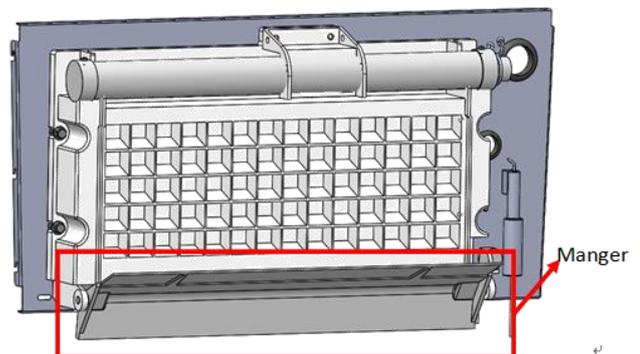
- **Disassembly and assembly of water distributor:**



- a . Remove the "water distributor fixing bracket" and clamp (as shown in the picture)
- b . Remove two screws, take away the plastic covers, and then take out the inside plastic tube (as shown in the picture)

- **Disassemble and install the baffle :**

Hold the middle of the baffle and lever it on the point shown in picture ? with a flat screwdriver till one side of the baffle comes out of the pin hole.



## 17. 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 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 these 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.

## 18. Maintenance

### Warning

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

### Warning

**DANGER – RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. TO BE REPAIRED ONLY BY TRAINED SERVICE PERSONNEL. 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.**

## 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.**

Before applying for repair, please consider the following aspects in order to quickly identify and improve the efficiency of machine recovery.

a). Whether the water supply is normally, including faucets open, inlet valve not blocked, and water pressure is in 1bar~5bar.

b). Whether the power supply is normal, including voltage is in  $\pm 10\%$  of rated voltage, power switch is connected, the fuse is not burnt out and whether the plug is fixed well.

c). Whether the ambient temperature is too high or too low (the operating temperature range of the ice maker is  $10^{\circ}\text{C} \sim 38^{\circ}\text{C}$ ), whether the water temperature is too high or too low (the water temperature range is  $5^{\circ}\text{C} \sim 32^{\circ}\text{C}$ ).

d). Whether the ice bin is full of ice and can work after ice take away.

**Write down the number of the machine and call the toll-free phone number labeled with the service label or your service provider.**