



Ice Machine Models

- E-UCF120
- E-UCF240
- E-UCH240

Please read this manual completely before attempting to install or operate this equipment. Notify carrier of damage! Inspect all components immediately.

CONTENTS

- Safety Warnings 3
- Features, Size & Appearance 4
- Main Board, Unpacking & Installation 5
- Leveling & Water Supply / Purge 6
- Power Supply, Cleaning & Check 7
- Operation 8
- Ice Maker Working 9-10
- Operation, Inspection & Cleaning 11
- Ceaning & Disinfection 12
- Disinfection Process 13
- Rinsing Process 14
- Service & Maintenance 15
- Warnings 16
- Circuit Diagram 17
- Assembly System 18
- Refrigeration & Electric Control System 19
- Water Circulation System 20
- Installation of Water Supply 21

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.

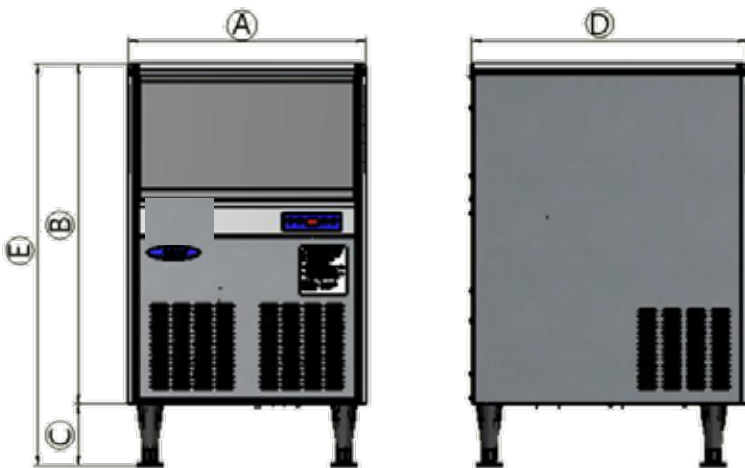
Please preserve this manual well

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

- This 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.

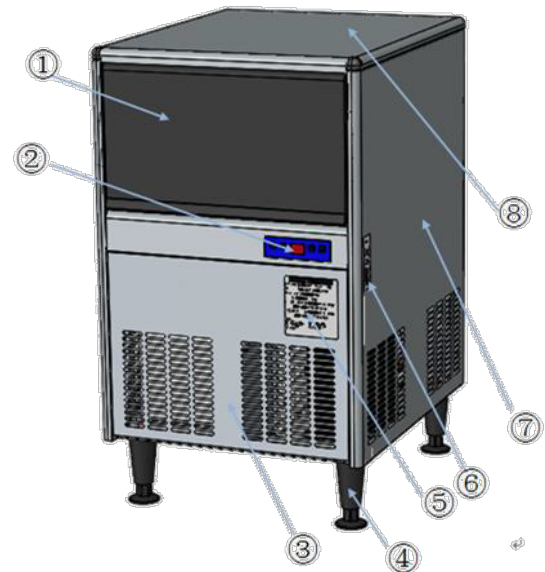
2. Size and Appearance



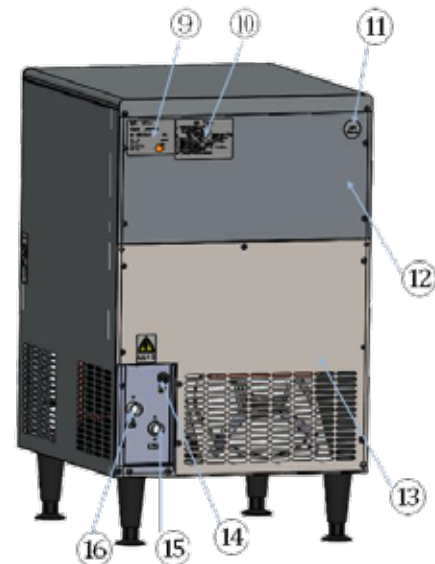
• Size List (Unit : cm)

	A	B	C	D	E
E-UCF120	43	75.5	15	62.5	90.5
E-UCF240	68	75	15	67	90
E-UCH240	68	75	15	67	90

• Appearance

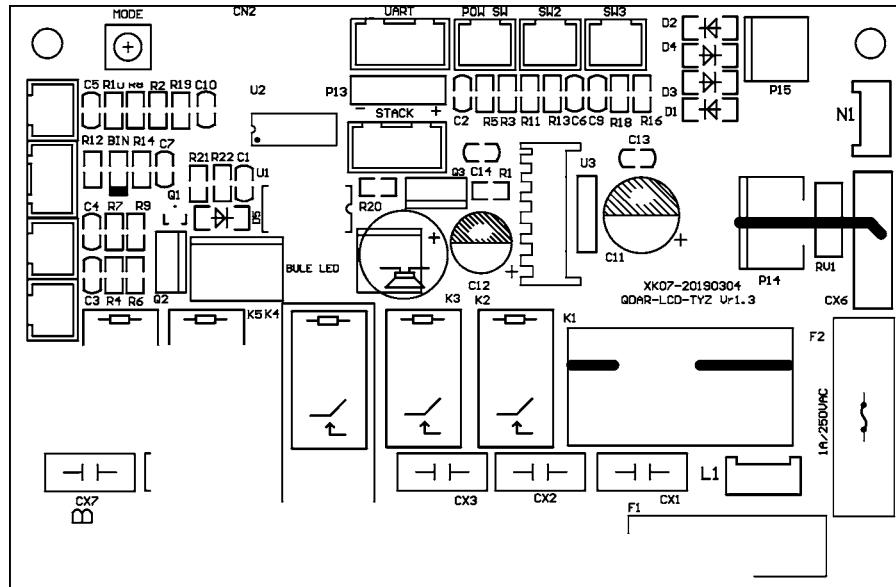


- ①.Door ②. Control panel ③.Front plate
- ④.Adjustable feet ⑤.Nameplate
- ⑥.Warranty label ⑦.Right side plate
- ⑧.Top cover plate



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

3. Main board



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.
- 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

- 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 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

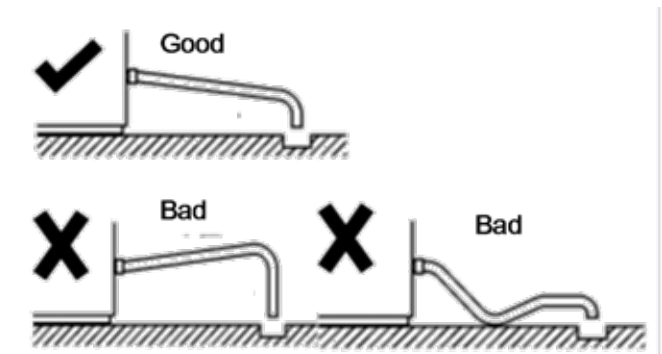
Ice makers must be connected to potable water pipe

- 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 "00" ;



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 Clean/Set Key:

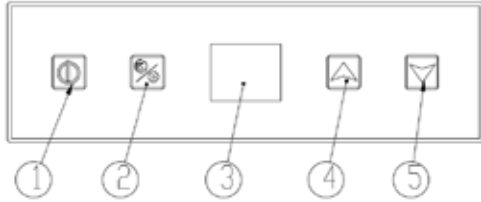
- When the machine is shut down, press the cleaning/setting key and enter the manual cleaning.
 - Press the Clean/set button to finish cleaning and enter the Shut downmode.

- make ice and press the Display button to display the condenser temperature when deicing.
- pressure balance, ice, deicing, ice full state by 3 seconds into the water time settings.

11.5 Timing

- The Countdown to ice-making begins 7 minutes after the start of ice-making. Ice making for the first time, according to the condenser temperature automatically increase time.
- Power-off is the boot state, the next power-on boot state.
- Power off in shutdown state, next boot for shutdown state.
- Ice thickness adjustment long press the add button for 5 seconds to enter, ice-making time adjustment even if effective.

11.6 Operation display panel



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

Display icon/fault code description

- E1: Condenser failure
- E2: Deicing time out;
- E3: High Temperature Alarm;
- E4: Falla del evaporador
- E6: High Voltage Alarm;

12. Ice maker working

- **Power On :**
 - Digital Tube Display version number 0.0.
 - Power-on delay: display 00
 - Manual cleaning: show cleaning time 00. The decimal point is always bright and the display value is minutes.

- **Ice-making:**
 - display ice-making time 00.
 - Positive timings slow flash decimal point, always show positive timings, unit minutes, less than 10 minutes show X.
 - Ice thickness adjustment shows the ice thickness time and blinks. Show intake time when the intake time is adjusted.
 - If the condenser probe fails, display 1 second E1 every 5 seconds. Display condenser temperature.

- **Ice melting process:**
 - The time is shown as deicing time 0.0 and the value is 0.1 minutes.
 - Ice thickness adjustment shows the ice thickness time and blinks.
 - Show intake time when the intake time is adjusted.
 - If the condenser probe fails, display 1 second E 1 every 5 seconds.

- **Iceman:**
 - Show Fu.
 - Ice full lift FU flicker.
 - Ice thickness adjustment shows the ice thickness time and blinks.
 - Show intake time when the intake time is adjusted

- **OF :**
Ice-making time setting, water intake time setting, temperature display status, no operation after 5 seconds automatically exit.
- **Motherboard indicator :**
Shut down, pressure balance, full of ice, fault status is always bright. Slow Flash for ice making. Deicing flash mob.
- **Manual cleaning and rinsing:**
Open the water inlet valve, and detect the water level switch, such as to reach the upper position or has been in the upper position, the end of the water intake.
Turn on the pump, lasting 15 minutes, after cleaning, the pump continues to operate, open the drain valve to discharge the cleaning agent or disinfectant, lasting 30 seconds. After draining, open the intake valve until the water level switch reaches the upper position. Then enter the automatic rinsing process.
- **Rinse procedure:**
01: Check whether the water level switch is in the upper position. If not, open the water inlet valve until the water level switch reaches the upper position.
02: The pump is on for 180 seconds.
03: Pump and drain valve open for 30 seconds.
04: The pump and discharge valve are closed and the inlet valve is opened until the water level switch reaches the upper position.
05: Repeat back to 1 program and execute 3 actions.

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
- 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 blocked, the ice production will decrease.

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.

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

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.

16.3 Rinsing process

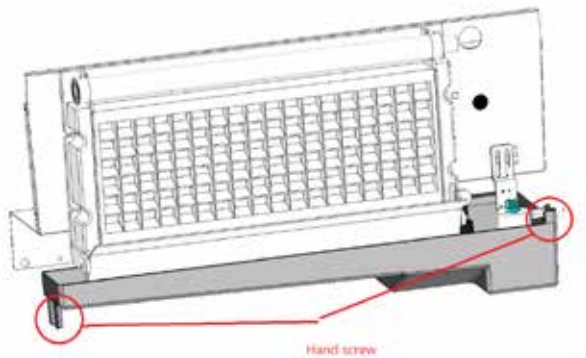
9. Wipe the inside and outside surfaces of ice maker with a clean wet cloth/sponge to clean residue of disinfectant.
10. Rinse the ice bin surface, evaporator and water tank with clean water
11. Drain all the water after washing.
12. Press ON/OFF more than 3s to start the ice maker.
13. Discard the first 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**

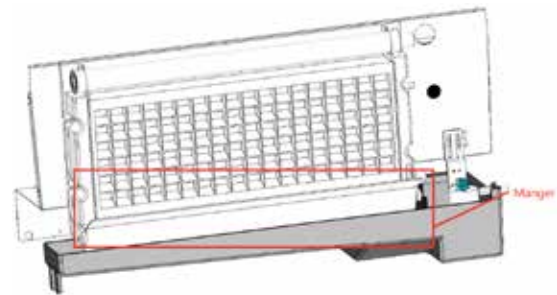
a. Remove the "water distributor fixing bracket" and clamp (as shown in the picture)

b. Remove four screws, take away the



- **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; FOLLOWHANDLING INSTRUCTIONS CAREFULLY. FLAMMABLE REFRIGERANT USED.

Warning

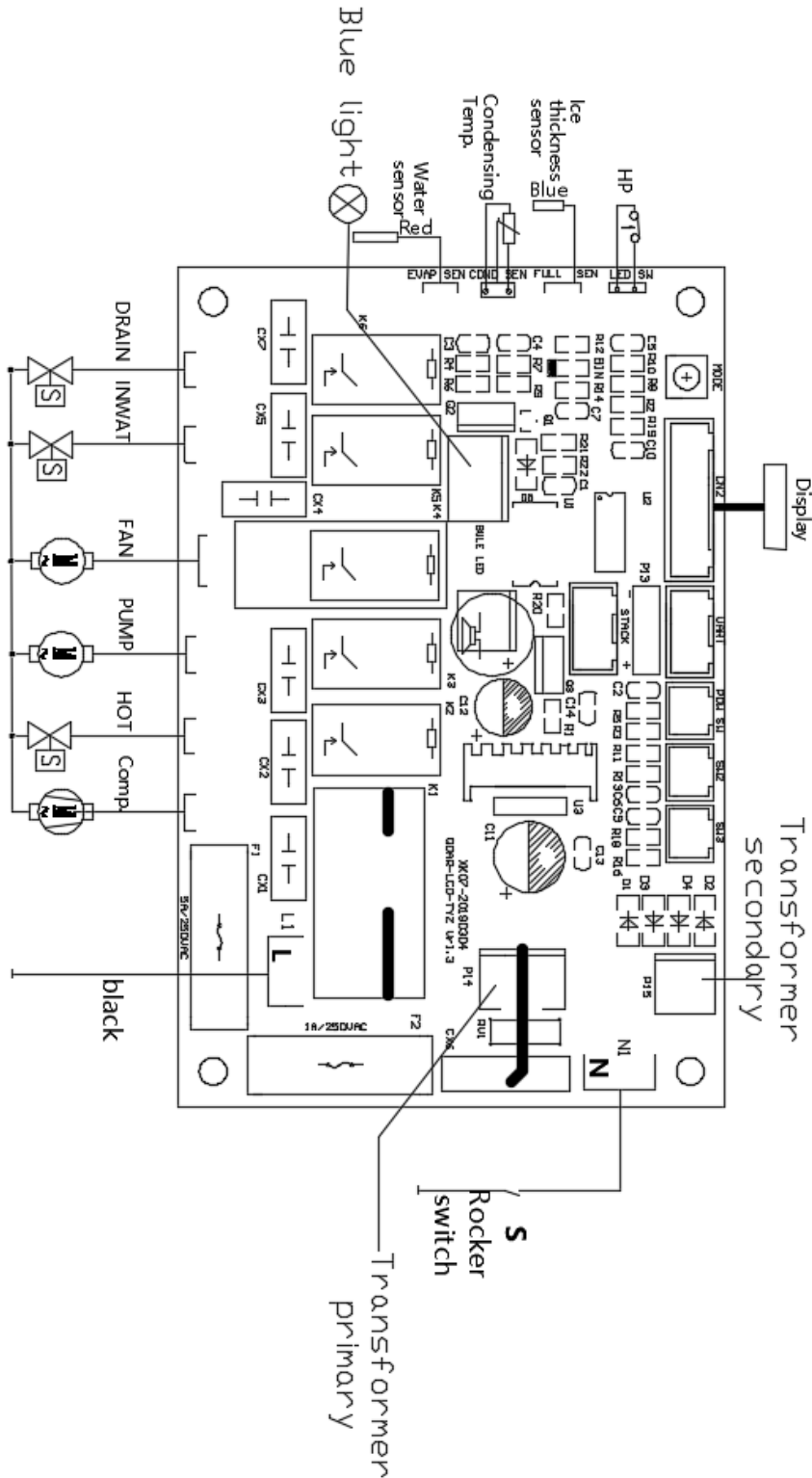
Component parts shall be replaced with like components and that servicing shall be done by factory authorized service personnel, so as to minimize the risk of possible ignition due to incorrect parts or improper service.

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

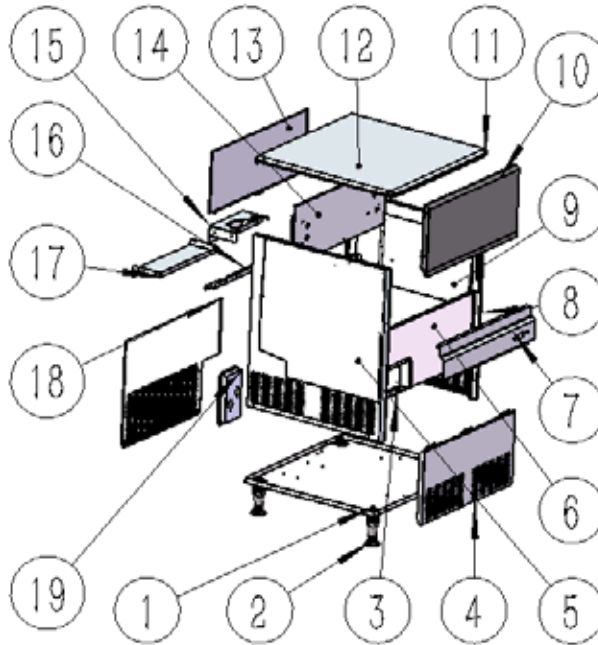
- a). Whether the water supply is normally, including faucets open, inlet valve not blocked, and water pressure is in 1bar~5bar.
- b). Whether the power supply is normal, including voltage is in $\pm 10\%$ of rated voltage, power switch is connected, the fuse is not burnt out and whether the plug is 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.

19. Circuit diagram

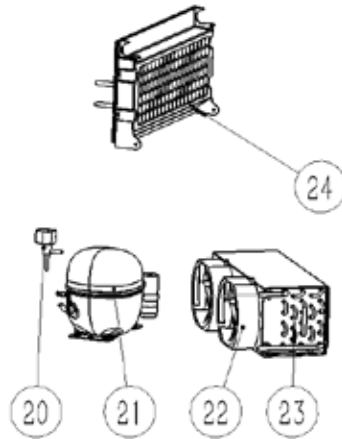


20. Assembly system



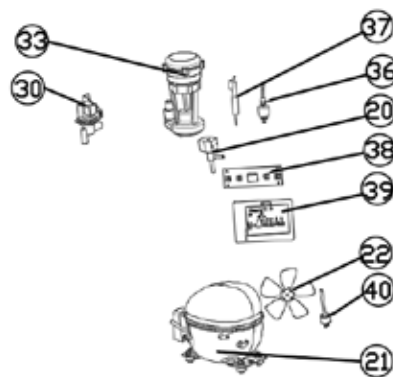
NO.	NAME	QTY
1	Baseboard	1
2	Plastic feet	4
3	Electrical box	1
4	The front panel	1
5	Left side plate	1
6	The guard plate	1
7	Median septum	1
8	Right side plate	1
9	Liner	1
10	Door	1
11	Top corner	2
12	Top cover plate	1
13	Rear above backplane	1
14	U-shaped frame	1
15	Water tank cover 1	1
16	Back thermal baffle	1
17	Water tank cover2	1
18	Rear below backplane	1
19	Power line mounting plate	1

21. Refrigeration system



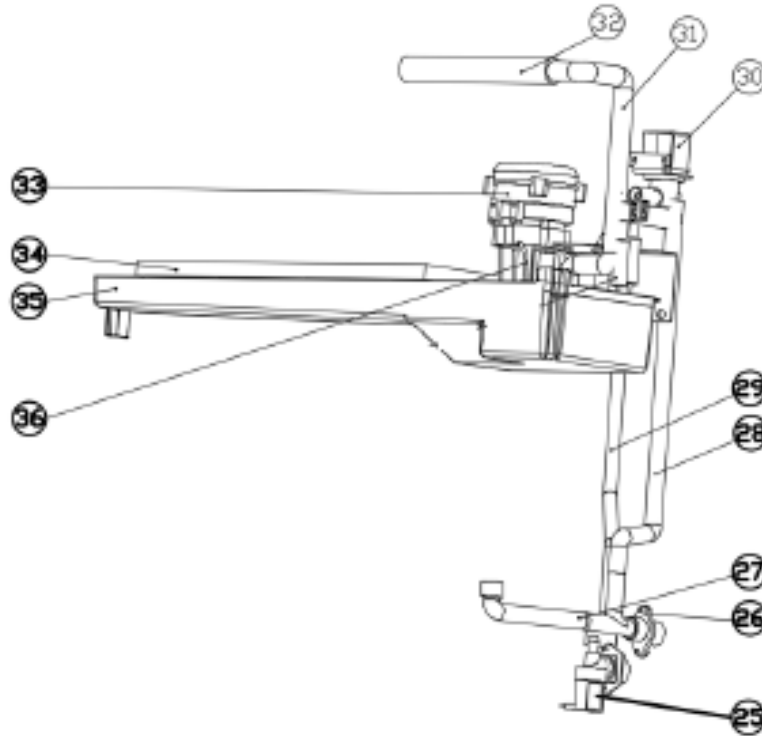
NO.	NAME	QTY
20	Solenoid valve FDF6A	1
21	Compressor	1
22	Fan	2
23	Condenser	1
24	Evaporator	1

22. Electric control system



NO.	NAME	QTY
38	Display screen	1
39	Circuit board	1
40	High-pressure switch	1

23. Water circulation system



NO.	NAME	QTY
25	Water inlet valve	1
26	Drain pipe joint	1
27	Downcomer1	1
28	Downcomer2	1
29	Water inlet pipe	1
30	Drain valve	1
31	Upper water pipe	1
32	Flow pipe	1
33	Water pump	1
34	Water baffle	1
35	Water tank	1
36	Electron float	1

24. Installation of Water Supply

