MOTAK

Self Contained Ice Machine
Instruction Manual

KT-UI-80S - 80 lbs, Full Cube

KT-UI-80SH - 80 lbs, Half Cube

KT-UI-120S - 120 lbs, Full Cube

KT-UI-120SH - 120 lbs, Half Cube

KT-UIF-150S -160 lbs, Full Cube

KT-UIH-150SH - 160 lbs, Half Cube

KT-UIF-200S - 210 lbs,Full Cube

KT-UIH-200SH - 210 lbs, Half Cube

KT-UIF-260S - 280 lbs, Full Cube

KT-UIH-260SH - 280 lbs, Half Cube

This manual contains important information regarding your unit. Please read this manual thoroughly prior to equipment set-up, operation, and maintenance. Failure to comply with regular maintenance guidelines outlined in this manual may void the warranty.

Technical Services: Tel: 1.877.368.2797 | Fax: 954.202.7337

MOTAK

Table of Contents

IMPORTANT SAFEGUARDS 3

WARNING AND SAFETY INSTRUCTION 4

OVERVIEW 5

INSTALLATION 6

STARTUP AND OPERATION 8

CONTROL PANEL 9

MAINTENANCE 10

TROUBLESHOOTING 13

WARRANTY 14

Note: please keep this manual in a place accessible to users at any time.

IMPORTANT SAFEGUARDS

- Please pay close attention to the safety notices in this section. Disregarding these notices may lead to serious injury and/or damage to the unit.
- Please pay attention to the following warning labels on the ice maker

The label indicates a hazardous voltage. There is a risk of electric shock.

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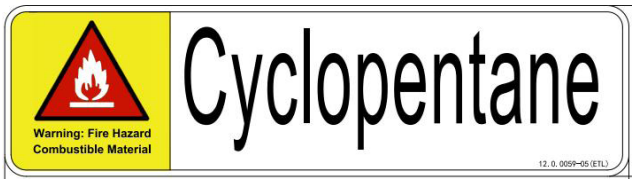
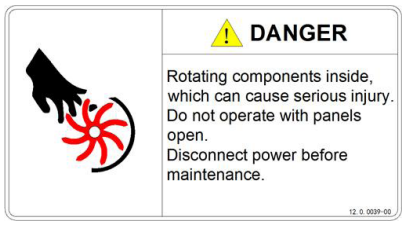


The label indicates a flammable foaming agent "Cyclopentane" used. There is a risk of fire.



The label indicates rotating components inside. There is a risk of serious mechanical injury.

Warning: The ice making water inlet of ice maker can only be connected with drinking water, and groundwater or other non drinking water sources can not be used.

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Warning Risk of Fire/Flammable Materials
The label indicates a flammable refrigerant "R290" used. There is a risk of fire.
(Note: Some models use R404A refrigerant, the safety grade of this refrigerant is A1, which belongs to the highest level, and there will be no special remarks later.)

INSTRUCTION OF SYMBOLS IN THIS MANUAL

⚠ **ALERT**: indicating the item requiring particular attention.

🚫 **WARNING**: special attention is required and operation is prohibited.

WARNING AND SAFETY INSTRUCTIONS

This product cannot be used in outdoor environment.

Children should be supervised to ensure that they do not play with the appliance. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

- The installation, repair or maintenance of this ice machine must be carried out by professional and qualified personnel, or electric shock, fire, personal injury may cause from incorrect operation.
- After the ice machine is delivered, please keep the machine still, upright for more than 24 hours, to have the lubricant be fully precipitated before startup, otherwise the compressor may be damaged.
- When the power cord of the ice maker is damaged, in order to avoid electric shock, fire or personal injury, it must be replaced by the manufacturer or professional and qualified personnel.
- The water pipe assembly in the accessory box of the ice maker must be used. In order to ensure food safety, the water pipe assembly removed from the old machine should not be used.
- When handling, keep the cabinet upright, with the inclination not exceeding 45 degrees. Do not invert the machine or lay it horizontally.
- This ice machine should not be placed in wet or easily splashed area.
- The grounding of this ice machine cannot be connected to gas pipe, water pipe, telephone line or lightning rods, etc.
- There are rotating components in this ice machine. Do not insert slim objects into ventilation or exhaust ports, or serious mechanical injury may occur.
- Do not store volatile or flammable substances in this ice machine, or it may result in explosion or fire.
- Do not store any sundries, or freeze any food in the storage bin. Keep the ice scoop clean.
- The ice machine must be placed on the floor sufficient to supports its weight. Insufficient base may cause the equipment fall over and cause injury.
- There should be sufficient ventilation space around the ice machine. Keep good ventilation.
- Only the power supply specified on the machine nameplate can be used with this ice machine.
- This ice machine cannot be connected to hot water.
- Socket for this ice maker must be reliably grounded and with leakage protection.
- The ice machine must be disconnected from power before manual cleaning, repairing and maintenance.
- Before cleaning, repairing and maintenance, the remaining ice in the ice bin should be removed from the ice machine to avoid contamination to ice.
- Do not splash water directly onto the surface of the ice machine during the cleaning process; otherwise it may cause short circuit, leakage or other faults.
- Flammable foaming agent is used during the foaming process. The ice maker should be disposed of and recycled by qualified personnel and institutions.
- The ice machine should be property managed to ensure that children will not play with the machine.
- When the ice machine malfunctions, turn off the power and contact professional personnel for repairing.
- In appliances having a REFRIGERANT CHARGE exceeding 150 g of FLAMMABLE REFRIGERANT in any REFRIGERANT CIRCUIT, the refrigerant tubing shall be protected from potential damage during normal use relocation, repositioning and user maintenance.
- Be aware that refrigerants may not contain an odor.
- Water pipe connections and fixtures directly connected to a drinkable water supply shall be sized, installed, and maintained in accordance with federal, state, and local codes.
- Please accord to local regulations regarding disposal of the appliance for its flammable refrigerant and blowing gas. Before you scrap the appliance, please take off the doors to prevent children trapped.

- 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.
- The appliance is to be installed in accordance with the Safety Standard for Refrigeration Systems, ANSASHRAE 15. The appliance shall not be installed in public corridors or lobbies.

WARNING: RISK OF FIRE/FLAMMABLE MATERIALS
For machines filled with the flammable refrigerant R290, please pay special attention:

⚠ **WARNING:** Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.

⚠ **WARNING:** Do not damage the refrigeration circuit.

⚠ **WARNING:** Only use electrical appliances in the food storage compartment that are recommended by the manufacturer.

⚠ **WARNING:** Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.

⚠ **WARNING:** Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

⚠ **WARNING:** When the appliance is put in place, ensure that the power cord is not trapped or damaged.

⚠ **WARNING:** Do not place a portable power strip or multiple outlets at the back of the appliance.

⚠ **WARNING:** The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater.)

⚠ **WARNING:** In order to reduce flammability hazards the installation of this appliance must only be carried out by a suitably qualified person.

⚠ **WARNING:** Be aware that refrigerants may not contain an odor.

⚠ **WARNING:** Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

OVERVIEW

The ice machine is fully automatic. With proper installation and connection to drinkable water and power source, the ice making will start. When the ice cubes fill up the storage bin, the machine will automatically stop.

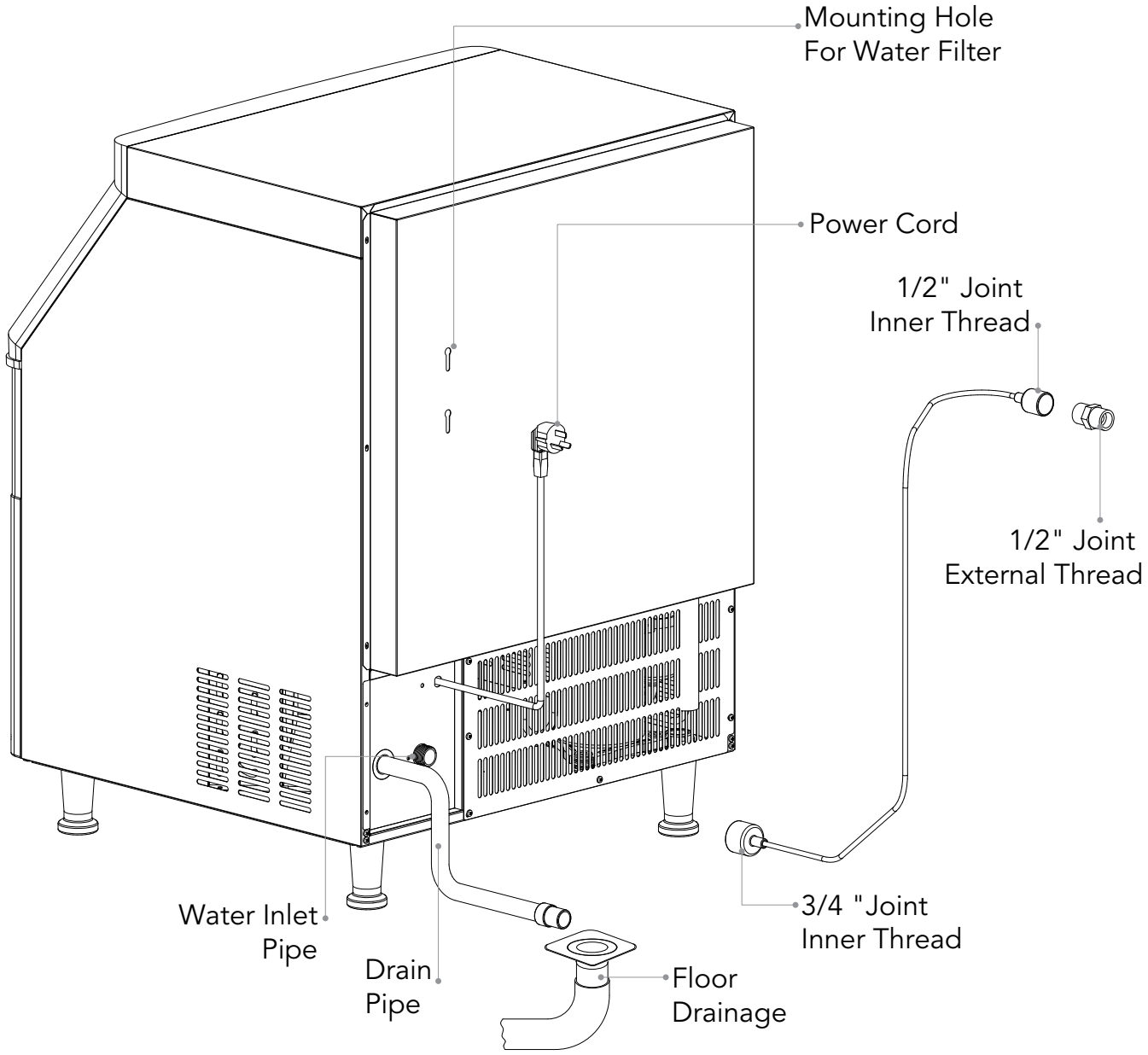
The ice machine is generally used in the following and similar occasions:

- The kitchen area of a store, office or other workplaces;
- Farm, hotel, car hotel and restaurant
- The catering industry and similar non-retail settings;
- This ice machine is not intended for home use.

SPECIFICATIONS

UNIT	80 LBS	120 LBS	160 LBS	210 LBS	280 LBS
UNIT DIMENSIONS (IN)	17.70" x 19.70" x 35.40"	23.20" x 19.70" x 35.40"	27.00" x 26.00" x 38.20"	27.00" x 26.00" x 38.20"	27.00" x 26.00" x 38.20"
PRODUCT WEIGHT (LBS)	79	99	121	128	132
DAILY ICE PRODUCTION	Up to 80 lbs.	Up to 120 lbs.	Up to 160 lbs.	Up to 210 lbs.	Up to 280 lbs.
HP	0.25	0.25	0.35	0.4	0.6
AMPERAGE	3.5	3.5	4.5	5.8	8.6
VOLTAGE	115	115	115	115	115
WATTAGE	350	400	450	526	726
CORD LENGTH (IN)	70	70	70	70	70
PLUG TYPE	NEMA 5-15P	NEMA 5-15P	NEMA 5-15P	NEMA 5-15P	NEMA 5-15P
REFRIGERANT TYPE	R290	R290	R290	R290	R290
REFRIGERANT OUNCE	2.82	3.7	3.7	4.23	3.88

SCHEMATIC DIAGRAM OF INSTALLATION



INSTALLATION

Location for Installation

The ice machine should be installed in a proper location meeting the following conditions:

- Indoor, not more than 2,000 meters above sea level;
- Ambient temperature: 45 - 104°F (7.2 - 40°C)
- Inlet water temperature: 50 - 89.6°F (10 - 32°C)
- Power Supply the rated voltage indicated on the machine nameplate ±6%;
- Water source: drinkable water, with water pressure from **0.13MPa to 0.55MPa**; water temperature: 41-95°F (5-35°C);
- The ice machine should be kept away from heat sources, and should be strictly forbidden to use at extremely high temperature or low temperature environment, and should avoid direct.
- There should be sufficient ventilation space around the ice machine and keep good ventilation; the distance from the ice maker to the wall should be no less than 12" (30 cm) for the front, 6" (15 cm) for the sides, and 8" (20 cm) for the rear.
- The ice machine must be placed on a floor sufficient to support its weight;
- Socket for the ice maker must be reliably grounded and with leakage protection;
- Proper floor drainage must be provided near the installation location of the ice machine.

INSTALLATION STEPS

1. Check if the ice machine is in good condition and the accessories are complete; check the machine model and the machine nameplate.
2. Open the bin door and remove the packaging tape from the ice thickness sensor and the flap. They are used to avoid possible damage during transportation only.
3. Clean the ice storage bin and the food area inside with a sponge soaked in warm water and soda. Then wash and dry it with drinkable water.
4. Place the ice machine in the operation area; ensure that the machine is placed on a leveled floor. So as to ensure the water flows evenly on the evaporator.
5. The compressor chamber is located at the back. The compressor and condenser are installed in it. For air cooled unit, it requires good ventilation. Therefore, the front and rear of the ice maker must have ventilation space of more than 8"-12" (20-30 cm).
6. The bottom of the ice machine is equipped with adjustable legs for level adjustment and floor cleaning.
7. Connect the machine's inlet water filter and water pipe referring to the schematic diagram of installation; if the installation site is already equipped with a filtered water system, the water filter may not be installed.

*** See Maintenance Section (page 10) for recommendations on the use of water filters.**

8. Connect the machine to the water supply using the 3/4" inlet pipe supplied with the machine. It is recommended to install a water valve (not supplied with this machine) on the water supply line.
9. Connect the drain pipe to the drain connection. In order to meet a good draining, it is recommended that the drain pipe should have a difference of level more than 1.2" (3 cm) per meter; and confirm that the drain pipe is not blocked. It is recommended that the drain pipe be connected to an open drainage port.
10. Any joint in the drain pipe must not be higher than the machine drainage port; any joint in the drain pipe cannot be higher than the previous joint.
11. Confirm the power requirements stated in the machine nameplate; ensure that the power supply meets the requirements.
12. A circuit breaker or switch with leakage protector and reliably grounding is required.
13. Turn off the switch on the power line and connect the machine to the power source.

STARTUP AND OPERATION

1. Before you start up the machine, please check and confirm:
   * That the packaging tape inside the ice machine has been removed;
   * The accessories or items in the ice bin have been taken out;
   * The ice machine has been adjusted to a leveled state;
   * The water pipe has been connected and the water valve is open;
   * The plug has been connected to the power supply and the power switch is off.
   * The ambient temperature, water temperature, and pressure of the water supply meet the above requirements.
2. Start up: turn on the power switch. After power-on, the machine begins to make ice automatically.
3. For normal operation, please confirm:
   * There is water in the water trough and no overflow occurs;
   * The pump is working properly and water is flowing evenly on the evaporator;
   * The compressor is running normally, the temperature of the evaporator and the ice making water is gradually decreasing;
   * Check the fan is running normally, and there is stable air flow in the inlet and outlet of the ice machine;
   * The ice machine has no abnormal noise;
   * The ice machine has no abnormal vibration;
   * It takes about 10 to 20 minutes to make one batch ice, depending on the ambient temperature and the temperature of the water. The higher the temperature is, the longer the ice making will take; Ice cube can be properly defrosted from the machine.

OPERATION INSTRUCTION

Startup: after proper installation, connect the water source and turn on the power supply, the machine will start working. Please confirm that the machine is operating normally when you turn it on for the first time.

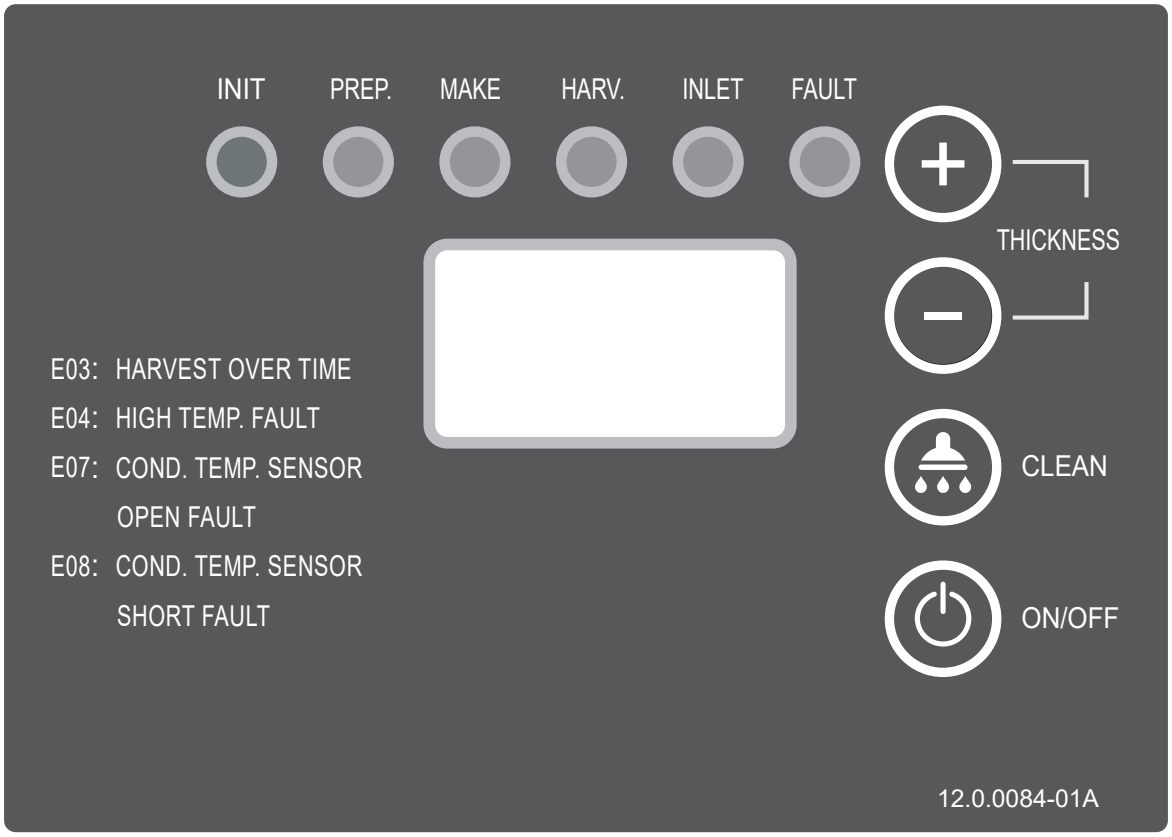
⚠ **Note: In case of thunderstorm or not in use for a long time, please disconnect the power and water source!**

- **Self-check:** with power on for the first time, the ice maker will do self-check and pump out remaining water.
- **Preparing:** after the ice machine is energized, the inlet valve opens and the inlet water will flow in until it reaches the set level; then the ice maker will do defrosting one time.
- **Ice making:** after pre-cooling for 30 seconds, the water pump starts, the water flows through the evaporator smoothly and evenly, the ice cubes are gradually formed in the ice cube tray.
- **Ice Harvest:** after the ice making process, the water pump is turned off, the defrosting valve is turned on, and after the hot gas enters into the evaporator for about 1-2 minutes, the ice cubes slides from the evaporator into the storage bin.

🚫 **WARNING: Do not put your hand into the ice storage bin during the ice-falling process to prevent the ice from hitting your hand!**

- **Shutdown:** The ice maker will stop working when you click the "on/off" button on the panel during running process.
- **Bin full stop:** in the running state, with the storage bin filled to a certain height, the ice sliding board cannot be rebounded or reset because of the block of the freshly produced ice cubes, the ice maker will stop in 40 seconds.
- **Repeat ice-making:** when the ice cubes on the ice sliding board are taken away, the ice maker will back to ice making process in a few seconds.

CONTROL PANEL



1. LED Display:
   * Self-check: Display "ini" code.
   * Preparing: Counting seconds positively.
   * Ice making: Counting seconds positively prior the water reaching 0 degree C.
   * Counting seconds down to 0 s after.
   * Ice Harvest: Counting seconds positively.
   * Clean: Display "CLE" during cleaning and sterilizing; Display "rin" during rinsing.
2. LED Lamps: Lights on during the related process.
3. Ice cube thickness adjustment: During the ice making process, if you are not satisfied with the ice thickness, press the Ice cube "–" button for 3 seconds, then click the button "+" or "-" on the panel to adjust the thickness of ice cube.

   ⚠ **Note: By clicking the "+" or "-" button one time, the ice making time is extended or shortened by 1.5 minutes.**

4. Cleaning: During the normal operation, hold the cleaning button for 3 seconds to enter the cleaning process. During the entire cleaning process, cleaning agents and disinfectants need to be put into the water trough. When the clean process is finished, the ice maker will go to ice making process.
5. Switch: When the device is powered, click the "Switch" button to switch OFF/ON the device.
6. Voice function (only for machines with voice function): The machine with voice announcement prompts will provide voice prompts for related operations.
7. Please open and close the storage bin door gently. Do not slam the door. After taken the ice cubes, please close the door.
8. If the ice maker is not in use for a long time, it should be powered on and run for 2 to 4 hours every 2 months.

Other special protection - Shutdown

- If the ice machine has not detected ice cube falling off in three cycles, it will shut down for safety protection. The ice maker needs to be checked.
- The ice machine detects that the ambient temperature is too high and will stop for safety protection.
- If the water-cooled ice machine detects an abnormality in water supply, it will stop for safety protection.

ERROR CODES:

CODE	ISSUE	MACHINE ACTION
E03	Overtime of ice making	Protective shutdown
E04	High temperature	Protective shutdown
E07	Condensation sensor open circuit	Not stop, Error LED light on every 5s
E08	Condensation sensor short circuit	Not stop, Error LED light on every 5s

MAINTENANCE

⚠ **Note: Maintenance must be done by a qualified professional personal.**

🚫 **WARNING: Before maintenance or manual clean, be sure to cut off the water source and power supply.**

Exterior Cleaning

- Frequently clean the environment around the ice machine to keep it clean. Do not block the vents.
- The outer enclosure should be cleaned with a mild detergent and then wiped clean. If necessary, use commercial stainless steel cleaners and polishes.

  ⚠ **Note: Stainless steel may rust without proper maintenance.**

⚠ **Limescale Filter**

Using a limescale filter (or scale inhibitor) for commercial ice makers is highly recommended and often necessary to prevent costly, water-related service calls, which account for roughly 70% of maintenance issues. These filters, typically using polyphosphates, prevent minerals like calcium and magnesium from creating scale buildup on evaporator plates, which acts as an insulator, forces the machine to work harder, and causes premature breakdown.

By adding a filter before the water line you will benefit of:

- Extended Equipment Life: By preventing scale and mineral buildup, these filters protect sensitive components in your machine, such as spray jets and, evaporators, from clogging and corrosion.
- Improved Ice Quality: Filters remove contaminants that cause cloudy ice and unpleasant tastes, or odors.
- Energy Efficiency: A clean machine, free of insulation-causing limescale, operates more efficiently, saving energy and reducing repair costs.
- Recommended Maintenance: Filters should generally be replaced at least every six months to ensure optimal performance. Please consult the recommendations from the filter manufacturer.

⚠ **Attention: Damages due to non-use of a filtration system, incorrect installation of the filter, or non-replacement of the filter at the filter manufacturer's recommended intervals, will not be covered by the warranty. Filters should be replaced at least every 6 months.**

⚠ NOTES FOR CLEANING:

- **Empty the bin of ice in advance.**
- **Clean and sterilize the bin and do a complete rinse cycle.**
- **Clean and sterilize the ice box, sliding board, water distribution pipe, water supply pipe, and then do a complete rinse.**
- **Check and confirm the water pressure lower than the maximum allowed pressure.**
  Do not flush the part above the water pump or the evaporator directly for water protection.
- The inside of the ice storage bin can be washed directly with water.
- **DO NOT** use a hard steel brush or a very rough surface cleaning equipment to avoid scratches or damage to the barrel wall.
- For best performance, we recommend cleaning your ice machine on regular basis with specialized ice machine cleaning and sanitizing solutions, that will maintain your machine germ-free and eliminate hard water and mineral buildup.
  * Follow cleaner's manufacturer instructions on the packaging for correct use and frequency.

LIGHT CLEANING PROCESS

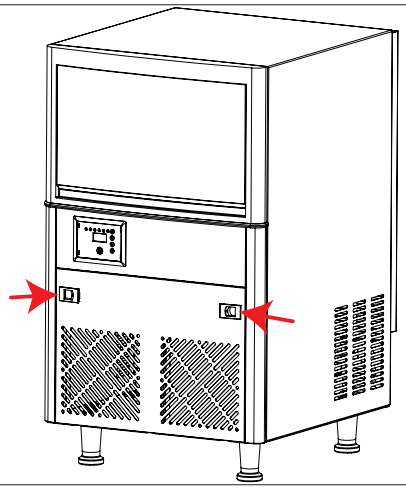
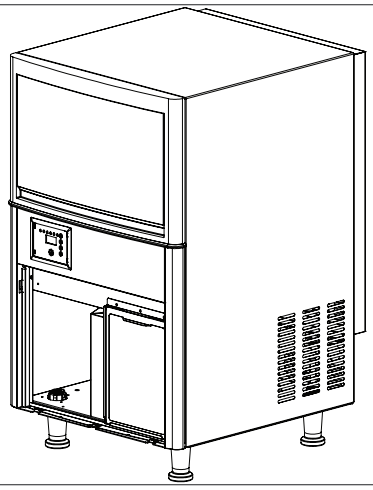
1. With clean, fresh water rinse the interior of ice machine (inner wall of the ice bin, ice baffle, screws, the waterproof rubber strips, the inner side of the door panel and other parts).
2. Use a clean soft sponge or soft cotton cloth clean with the fresh water to wipe down all interior surfaces and rinse out sponge/cloth.
3. Spray cleaning solution on all interior surfaces and parts of the unit.
4. Use the sponge/cloth to rub solution into all crevices and surfaces.
5. Rinse the interior unit with fresh water and rinse out the sponge/cloth, and repeat rinsing process again until all cleaning solution is gone.
6. Spray cleaning solution on the exterior surfaces (front and side panels, door), use the clean damp sponge to wipe down.
7. Rinse sponge and wipe away cleaning solution, repeating until solution is gone.
8. Dry exterior with dry soft cloth.

DEEP CLEANING USING THE AUTOMATIC CLEANING FUNCTION

1. Turn on the ice maker; push "clean" button for 3 seconds to activate the cleaning mode.
2. Wait until the process is finished, when the LED display flashes "Clean". Drain the water from the unit.
3. Put in the proper amount of cleaning solution, as recommended in the cleaning and sterilizing instructions from the cleaning solution manufacturer.
4. Push the "Clean" button again, the ice maker will process an auto-clean cycle for about 15 minutes.
5. Please spray-clean the evaporator in the meantime to ensure a complete cleaning.
6. The LED display will flash "Clean" when finished.
7. Drain the water from the water tank.
8. Then, put in the proper amount of sterilizing solution, according to the instructions for the solution manufacturer, and run another cleaning and sterilizing cycle.
9. Push the "clean" button again, the ice maker will run an auto-sterilizing cycle for about 15 minutes.
10. Spray the evaporator with the sterilizing solution in the meantime, to ensure thorough sterilizing.
11. When finished, the ice maker will run a rinsing cycle; the process will take about 25 minutes.
12. After the cleaning process is completed, the machine will automatically shut down.
13. After restarting, the machine enters the preparation phase and counts down to the last 20 seconds to drain the water from the water tank.
    * The Self-Contained ice machine requires manual drainage by removing the cap from the drain.
14. After that the ice maker will immediately resume ice making.
15. Discard the next 5 batches of ice, to remove any trace of the cleaning and disinfecting solution.

WATER PIPE

- In order to ensure food safety, the water pipe of the ice machine should be cleaned regularly.

To access Condenser Filter:	
	
1. On the front cover, push the tabs in and pull towards you.	2. Pinch the tongue on the filter screen and pull to remove filter.

CONDENSER CLEANING

- For the air-cooled ice maker, the condenser should be cleaned every two (2) to three (3) weeks.
- Use a soft brush or a vacuum cleaner with a brush to brush it up and down along the fin direction, to avoid damage to the fins and further affecting the cooling effect.

⚠ **Note: Be careful when doing the condenser cleaning as the edges of the fins are sharp.**

Wintering

- Turn off the water and power supply, drain the residual water from the water trough, inlet pipe and drain pipe.

⚠ **The maintenance of the ice machine is not covered by the manufacturer's warranty!**

Service Call

If the ice machine works abnormally, please confirm below before making a service call:

1. Check the water supply
   * whether there is water in the water trough;
   * whether the water pressure for the ice machine is 0.13MPa to 0.55MPa; the water temperature is 41-95°F (5-35°C);
   * whether the water valve is open;
   * whether there is no water leakage;
2. Check the power
   * whether the indicator on the display panel is ON;
   * whether the panel display does not display the OFF standby state;
   * If the LED on the display panel is not ON, check whether the plug and socket are normal, and whether the power supply switch is ON.
3. Check nameplate and series number
   * Check the nameplate located on the side or back of the ice machine and record the model and series number of the ice machine.
   * Note: If the machine fails due to the user's faults, such as no supply of water, electricity or environmental factors, rather than the fault of the ice maker, the door-to-door service will be charged.

Note: this Manual is subject to any technical change without further notice. Please refer to the nameplate on the product for exact information.

TROUBLESHOOTING

FAULT	POTENTIAL CAUSE	TROUBLESHOOTING
Not working	Power not turned on	Turn on the power switch
Power is OFF	Plug is loose	Check plug and socket
Shutdown every 3 minutes after startup; the display shows E04 high temperature. The display shows E06 high pressure protection	The ambient temperature is too high	Normal working temperature range of 41-104°F (5-40 °C)
	Condenser is dirty and blocked	Clean the condenser
	Fan does not start	Check and correct the fan
Ice defrost abnormal	Ambient temperature too low	Normal working temperature range of 41-104°F (5-40 °C)
	Defrost valve does not start normally	Check and correct the defrosting valve
	Ice thickness too thin or too thick	Check and correct ice thickness setting
Poor transparency of Ice cubes; ice cubes too thin or incomplete	Ice thickness too thin	Check and correct ice thickness setting
	Water pressure too low	Check that the water supply pressure is 0.13MPa to 0.55MPa
	Water temperature too high	Water temperature of 41-95°F (5-35°C)
	Inlet water valve does not work	Check and correct the inlet water valve
	Inlet water valve is dirty and blocked	Check whether water leaks and correct
	Water leaking	Check and correct the inlet water filter*
	Inlet water filter* has not been replaced for a long time	
Too slow in ice making	The condenser or air filter is dirty	Clean the condenser and filter screen
	High ambient temperature	Normal working temperature range of 41-104°F (5-40 °C)
	Poor ventilation	Check the environment around the ice machine
	Water temperature is too high	Check the water supply temperature of 41-95°F (5-35°C)
Too much noise	The ice machine is not placed in a leveled foundation or the ice maker is not leveled.	Level the ice machine

*See Limescale Filter recommendation, page 10.