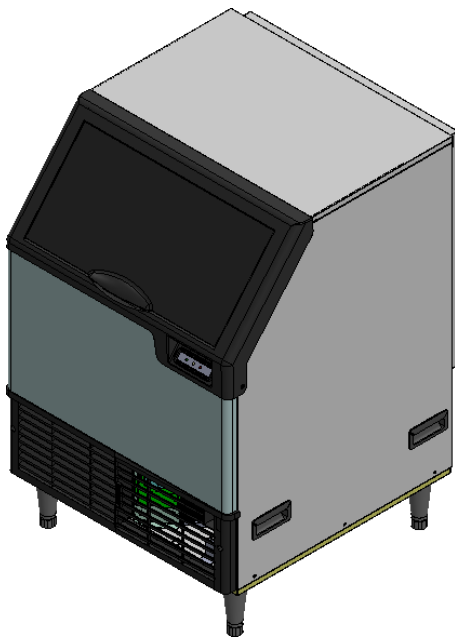




ICE MAKER



User's Manual

Read this manual carefully before using the product.
Keep the manual in a safe place after reading it, for future reference.

IU-0345-AN

- This machine is intended for use only in countries with the appropriate electrical voltage.
- This product is designed for indoor use only. Make sure to install it indoors.
- The machine's appearance, design, color, or components may change without notice as part of ongoing product development.
- To maintain proper hygiene, clean and sanitize the machine daily.

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1. Overview

The functions and specifications stated in this manual and on the website may be changed at anytime without prior notice.

Danger means that Failure to follow this safety statement will result in severe personal injury or death.

Warning means that failure to follow this safety statement could result in serious personal injury or death.

Caution means that failure to follow this safety statement may result in minor or moderate personal injury, property, or equipment damage.

! DANGER

This unit contains R600a (Isobutane) which is a flammable hydrocarbon. It is safe for regular use. Do not use sharp objects to expedite defrosting. Do not damage the refrigerant circuit.

! WARNING

Service must be done by factory authorized service personnel. Any parts shall be replaced with like components. Failure to comply could increase the risk of possible ignition due to incorrect parts or improper service.

CALIFORNIA PROPOSITION 65

This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

www.P65warnings.CA.gov

! CAUTION

Proper installation of the ice maker is of the utmost importance. The product should be installed by a qualified technician or installer.

Before installing the product, read the user's installation manual in full. The manual contains detailed instructions to be observed during installation. If you read this manual carefully, you will be able to install the product safely, without any problems or difficulty. If you have any questions about its installation.

Review the warranty card included in this manual and, if service is required, refer to the warranty card.

Important Information : When designing or manufacturing the ice maker, safety matters and functions are accorded the utmost importance. This ice maker is designed according to the UL Safety standard. The company does not bear any responsibility or liability for products that are subsequently modified or installed with parts not supplied or approved, or not used in the correct way. The company may modify or improve the design at anytime.

The specifications and design may be changed without prior notice.

The new hose-sets supplied with the appliance are to be used and that old hose-sets should not be reused.

2. Unpacking

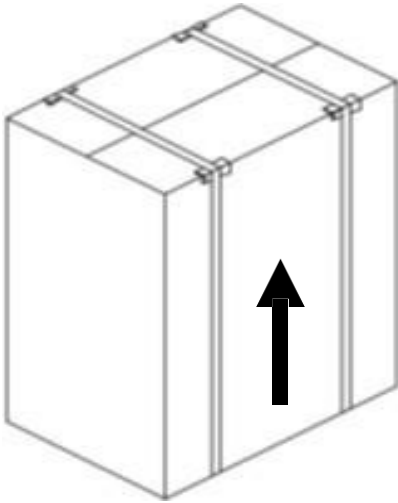


Photo. 1

After removing the packing material, check the appearance of the ice maker for possible defects or irregularity.

If the product shows any irregularity in its appearance, contact your local distributor.

All the packing material (straps, box, Styrofoam, and wood, etc) should be disposed of.

For safety, the product should be installed and used with caution and in accordance with the User's Manual.

Incorrect installation or careless use of the product may damage or injure the environment, humans, animals, and/or materials and property. The manufacturer does not bear any responsibility for the aforesaid damage or injury.

This ice maker performs best at an ambient temperature of 50~100°F and water temperature of 50~90°F.

The ice maker should be installed in a controlled indoor environment, but it should NOT be installed near a heat source such as a heater, stove, or dish washer.

Outside air

The ice maker takes in ambient air through the left portion of the grill and expels hot air through the right portion of the same grill. If any material is placed in front of the grill, the air flow will be restricted, resulting in reduced performance and, in the worst case, malfunction. The ice maker should be operated within an ambient temperature range of 50°F to 100°F.

Water supply

The ice maker requires a continuous supply of potable water at a pressure of 20-80psi

Water quality

There is no such thing as “perfectly pure” water. All kinds of water, including tap water, contains impurities. Rainwater absorbs impurities from the atmosphere and/or when it passes through soil. Some impurities consist of solid particles called suspended solids and are filtered through micro filters. Any remaining impurities, which cannot be filtered because they are chemically combined with water molecules, are called dissolved solids.

The mineral content of the ice produced by this product is reduced compared to the content in the water before conversion into ice. Water containing a low level of impurities is rapidly frozen. The reason for this is that the impurities elevate the temperature of water. Through such an action, most of the impurities condensed in the water-tank of the ice maker form what’s known as scale. This icemaker reduces the mineral level by circulating water during the harvest cycle (the excessive quantity is removed through an outlet tube).

Each cycle requires about 0.64 quarter (0.6ℓ) of water. For each quarter, about 0.5 quarter is used in rinsing the water tank and the remainder is removed through the outlet pipe.

In this process, some impurities unavoidably remain and may accumulate on the internal parts of the ice maker, forming abnormal ice pieces. If a large quantity of mineral scale accumulates, the lifespan of the ice maker may be reduced.

For best operation of the ice maker, impurities and minerals should be removed by washing with ice machine cleaner periodically. The method of cleaning the ice maker is described on page 12.

In general, it is best to use filtered water. Water filtration may remove not only bad odor but also scale.

Water softener is not recommended because it exchanges minerals. If the hardness of the water is very high, using a water softener may lead to opaque pieces of ice.

If you have any questions about the purity of your water, contact a water treatment expert in your area.

This product was thoroughly cleaned at the factory. However, it is advised that you check the cleanliness of the machine before use and maintain its cleanliness during use.

3. Installation Instructions

Space requirements

When installing the ice maker, check that the electric power, and piping position are correct. Refer to the installation specifications and drawings shown on pages 7 and 8. Figures 1, 2 and 3 show the entire dimensions of the product.

This product comes standard with a gravity drain connection that requires a drain line to be run from the drain fitting at the back of the product to appropriate water drain. Refer to the specifications shown on pages 7 and 8.

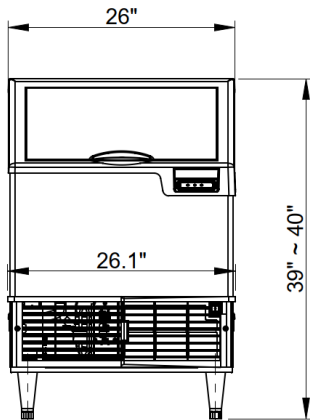


Fig. 1 Front View

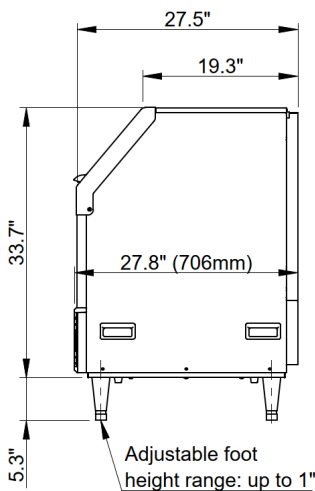


Fig. 2 Side View

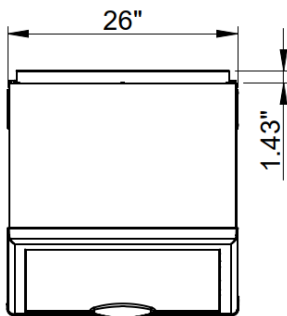


Fig. 3 Top View

Important Information: The bottom of the ice maker should be leveled

Important Information: When moving the product with a hand truck or dolly, place the dolly at the side of the product and shut or fix the door tightly to avoid possible opening during movement.

! CAUTION

The finished bottom should be protected with suitable material to avoid possible damage when moving the product.

Requirements for power supply

120VAC, 60Hz, 15-amp circuit breaker and electric power are required. Additionally, the provided 3-prong power cord should be inserted into a suitable 3-prong, grounded outlet.

Important Information: A Ground Fault Circuit Interrupter (GFCI) is not recommended because the operation of the product may be stopped.

Important Information: The provisions of the National Electric Code as well as any local laws and instructions should be observed when installing the product.

! WARNING

Do not use extension codes or 2-prong adapters. The product should be properly grounded. Do not cut the grounding terminal off the 3-prong plug.

Plumbing Requirements

Connect to potable water line supply only.

Install a shutoff valve between the potable water supply and the product so that the user can operate the valve. Do not install the shutoff valve at the back of the product.

Do not use a self-piercing valve. If the water has a high mineral content, a water filter will be required.

The water pressure should be maintained at a level between 20psi and 80psi. The power supply, water line and drain line should satisfy all the provisions under local laws and regulations. For instruction on how to run the water line, refer to the installation specifications and drawings on pages 7 and 8.

DETACHABLE HOSE-SETS shall be used. The new hose-sets supplied with the appliance are to be used and that old hose-sets should not be reused.

Important Information: This product is designed for use in a “built in” application, but it may be required to move the icemaker forward for service. Therefore, do not install anything in front, above or below the product which may act as an obstacle when moving the product.

When leveling the bottom of the ice maker, place shims equivalent to the thickness of the bottom under the product to keep the ice maker and bottom horizontal. The lateral side should have at least 1/6” of space for projection of the screw head.

Important Information: Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

Important Information: Piping should be carried out in accordance with all the provisions laid out under local laws and regulations.

Important Information: An ice maker has one inch air gap built into the machine which eliminates the requirement for a backflow preventer.

! WARNING

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

! WARNING

Do not use electrical appliances inside the food/ice storage compartments unless they are of the type recommended by the manufacturer.

4. Drain Line Installation

The drain line should drop 1/4" for every foot.

A standpipe fitted with a trap at the lower part may be used as a drainpipe.

Important Information: Installation of an incorrect drain line may cause the ice in the ice bin to melt rapidly.

- 1) Position the ice maker at the front of the opening of the installation location.
- 2) Install the water inlet pipe (1/4" diameter copper pipe) and connect to the water supply valve.
- 3) Run the drain line from the ice maker to the drainpipe. If the horizontal distance is 5' (1.5m) or longer, the drain line should be secured to the wall to the rear of the product.
- 4) Insert the provided plug into the outlet.
- 5) Connect the water inlet line to the water-supply valve of the product.
- 6) Cut the drain tube to the required length.
- 7) Connect to the drain with a 3/4" FPT (NPT) fitting.
- 8) Turn on the water supply and check for any leaks.
- 9) Level the ice maker by adjusting the leveling legs.

WARNING

After installation is complete, please check the drainage condition as follows:

- 1) Open the top cover.
- 2) Pour about 3 liters of water into the water reservoir through the funnel
- 3) If the water reservoir overflows, there is a problem with the drainage system.
- 4) In this case, please adjust the leveling legs, drain hole, or reinstall the product.

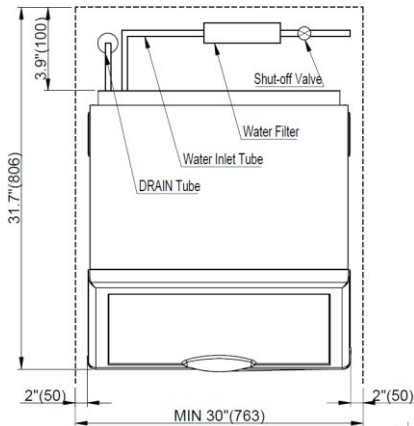


Fig. 4 Top View

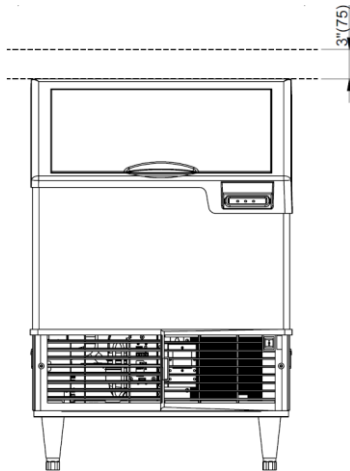


Fig. 5 Front View

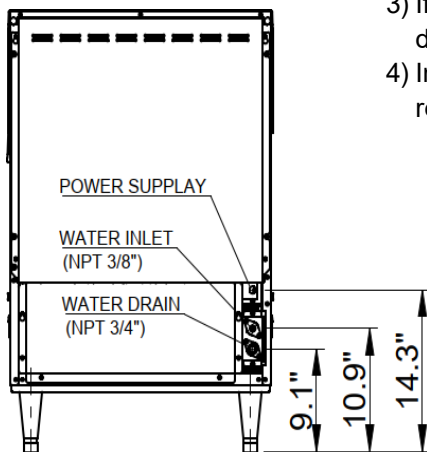


Fig. 6 Rear View

5. Installation of the Product

Important Information: Turn on the water supply and check for any leaks at the connection.

The user does not need to fill the container with water. The first batch of ice should be discarded. Ice production requires 1-2 hours.

Leveling legs

Turn the legs clockwise to raise the product, or counterclockwise to lower it.

Installation Checklist

If you have any questions or problems regarding installation, address your queries to the distributor or dealer. You may also seek information on the company's website.

- Does the ice maker work properly?
If the ice maker does not work, check whether the plug has been inserted properly.
- Did you remove all the packing materials and tape from the inside of the ice maker?
- Did you observe the instructions on installation?
- Did you level the unit?
- Is the front of the grill adequately ventilated?

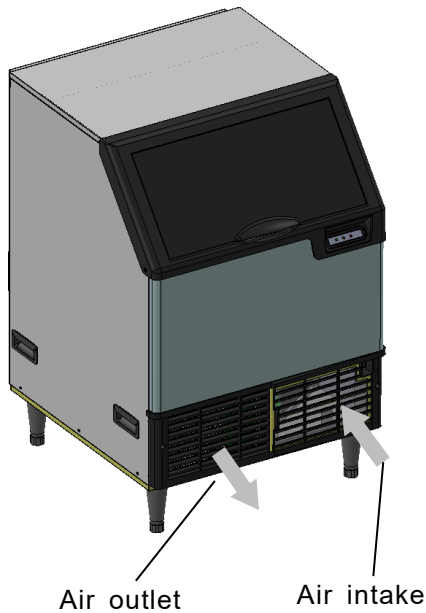
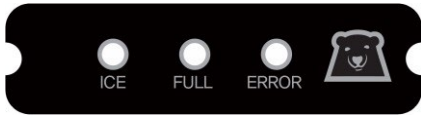


Fig. 7 Ventilation panel

WARNING

Used refrigerators and freezers should be safely stored or disposed of. Ensure that the product's door has been removed or permanently closed.

6. Guide to Operating the Ice Maker



Display Window

Display

ICE lamp

- Turns on when the operation switch is set to the "ICE" mode.
- Blinks when the wash process is performed.

FULL lamp

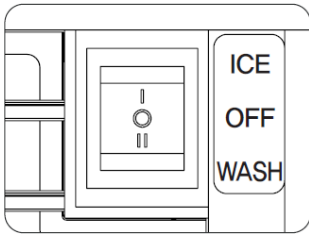
- Turns on when the ice tank is full.

ERROR lamp

- Turns on if a problem is detected. For more information, see the "Error Type" section.

Cleaning Signal

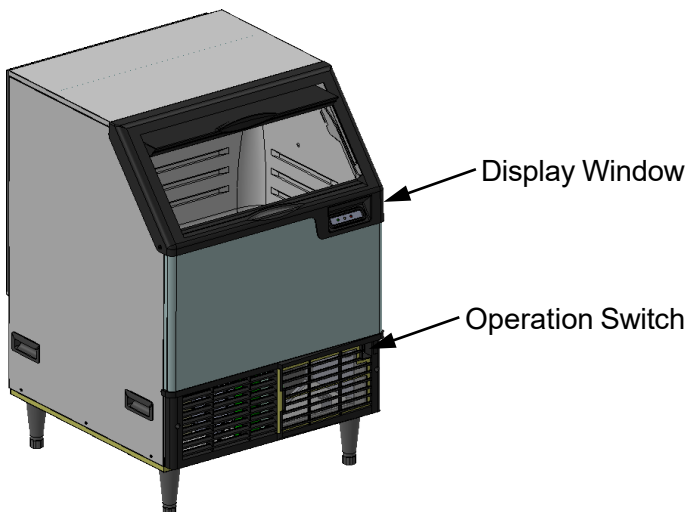
- After 6 cumulative months of ice making, the machine signals that it is time to run a cleaning cycle. On the display, the ICE, FULL, and ERROR lamps each blink twice in sequence. The blinking continues until the cleaning function is performed. Refer to the "Cleaning" section of this manual for more details.

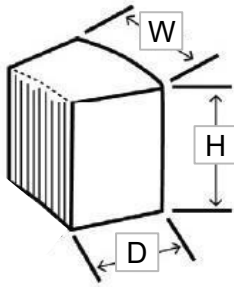


Operation Switch

Initial operation

- ① Open the water supply valve connected to the ice maker.
- ② Insert the plug of the ice maker into the electric outlet.
- ③ Open the door and turn the switch at the lower end of the product to the "ICE" position."
- ④ Discard the first batch of ice.
- ⑤ Good-quality ice is produced 1-2 hours later.





approximate size in inches, image not to scale

Fig. 12 Ice Nugget

Using the ice maker

Use of the ice maker is very simple. Simply turn the switch at the lower end of the product to the “ICE” position. The product automatically starts ice production, which continues until the ice container has been filled with ice. Remove the ice using indoor ice scoop found on the inside left wall of the icemaker.

When cleaning, the switch must be set to “WASH”. The cleaning process takes about 10 minutes and performs the following operations.

- ① After water is supplied to the first water tank, the AUGER operates for 5 minutes.
At this time, if you want to add the cleaning solution, put it in the ice outlet.
- ② After the above process is complete, drain and re-water.
- ③ After that, operate the AUGER for 1 minute.
- ④ Repeat steps ② and ③ twice more, drain and stop the product.

Important Information: Do not put anything other than ice in the ice bin. Wine or beer bottles are unsanitary and a detached label may block the drainpipe.

Ice container

The product continues making ice until the level of ice reaches the temperature sensing tube (right side). It then ceases operation.

Operation time

The machine continues to operate until the ice bin is full, which takes about 10 hours.

Full bin time may vary depending on the ambient and water temperatures.

How it makes ice

Water is supplied to the inside of the drum, and as the AUGER rotates, the water freezes and is ejected upward. Impurities in the water are periodically discharged by the drain valve to create clean ice.

Cleaning Procedure

CAUTION

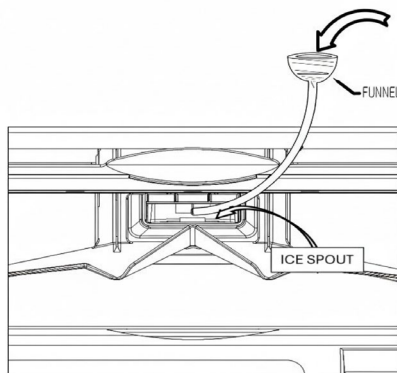
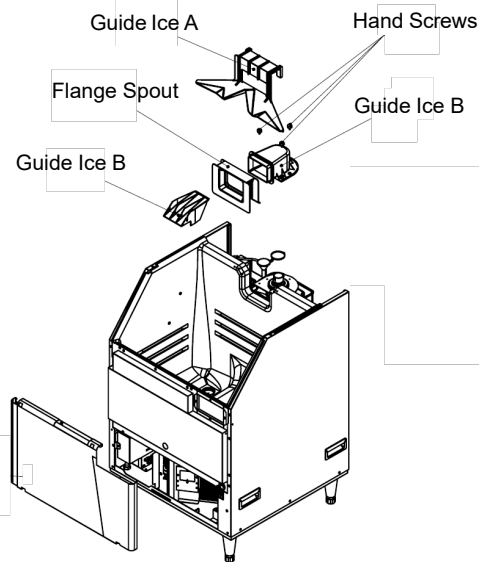
Recommended sanitizing agents and their concentrations must comply with 40 CFR 180.940 or be registered with the U.S. EPA Antimicrobials Division as a food contact sanitizer.

Remove all ice from the storage bin before cleaning the ice maker. Prepare by mixing 0.25 L of Cleaning Agent (Nickel Safe Cleaner) and 5 L of water.

1. Unscrew the two screws on the top cover and open it.
2. Unscrew the four screws on the back panel and open it.
3. Disassemble the Guide Ice A, the Flange Spout and the Guide Ice B
4. Unscrew the three screws on the Spout and full it.
5. Put all components in 3 liters of cleaning agent-water mixture and clean with soft nylon brush.
If there is a thick build up of lime, soak them in the mixture for 15~20 minutes.
Shake the parts from time-to-time and use warm water for better results. After cleaning, rinse all parts with clean water
6. Assemble the All cleaned components.

Note. If you want to sanitize, you should use diluted sodium hypochlorite with water instead of the cleaning agent.
For more details, please see the Sanitizing Procedure.

7. Toggle the lower front mode switch to "WASH".
8. After 30 seconds, open the door and pour approximately 1 liter of cleaning solution into the ice spout.
9. Then, the ice maker automatically cleans, drains and supplies water repeatedly, which takes about 10 minutes.
10. Use a brush or cloth to clean the inside of the reservoir with the remaining cleaning solution.
11. After 10 minutes have elapsed, rinse the inside of the reservoir with clean water and pour water into the ice spout.
12. Toggle the mode switch to "WASH" once again.
13. After about 10 minutes, the cleaning processes will be finished.



Sanitizing Procedure - Following Cleaning Procedure

Remove all ice from the storage bin before cleaning the ice maker. Prepare by mixing 0.25 L of Sanitizing agent (5.25 % Sodium Hypochlorite) and 5 L of water.

1. Unscrew the two screws on the top cover and open it.
2. Unscrew the four screws on the back panel and open it.
3. Disassemble the Guide Ice A, the Flange Spout and the Guide Ice B. (Please refer to Cleaning Procedure)
4. Unscrew the three screws on the Spout and fill it.
5. Put all components in 3 liters of cleaning agent-water mixture and clean with soft nylon brush. If the lime has built up thickly, soak them in the mixture for 15~20 minutes. Shake the parts from time-to-time and use warm water for better results.
6. Assemble the cleaned components.
7. Toggle the lower front mode switch to "WASH".
8. After 30 seconds, open the door and pour approximately 1 liter of sanitizing solution into the ice spout. (Please refer to Cleaning Procedure)
9. Then, the ice maker automatically cleans, drains and supplies water repeatedly, which takes about 10 minutes.
10. Use a brush or cloth to clean the inside of the reservoir with the remaining cleaning solution.
11. After 10 minutes have elapsed, rinse the inside of the reservoir with clean water and pour water into the ice spout.
12. Toggle the mode switch to "WASH" once again.
13. After about 10 minutes, the cleaning processes will be finished.

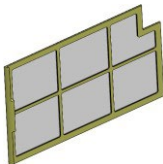
Note. After cleaning and sanitizing, please throw away the first batch of ice and use the ice from the next cycle.

CAUTION

Recommended sanitizing agents and their concentrations must comply with 40 CFR 180.940 or be registered with the U.S. EPA Antimicrobials Division as a food contact sanitizer.

Cleaning outside

If the surface of the door and lever become stained, scrub them at once. If the door and/or gasket have spots on the surface, remove the spots using soap and warm water. Use non-abrasive cloths or pads. In the case of the stainless-steel exterior, use a soft and non-abrasive stainless steel washing agent and use a soft lint free cloth.



Air Filter

! CAUTION

When performing maintenance work or cleaning, turn off the switch or circuit breaker of the ice maker.

Cleaning the ice bin

The ice bin should also be cleaned regularly.

1 ounce of home bleaching agent and 2 gallons of warm water at 95°F-115°F (35-45°C) are mixed for use as a cleaning solution. Moisten clean cloths with the cleaning solution and scrub the inside of the ice bin with the cloth. Pour a small quantity of the solution into the drain pipe, then dry the interior.

Cleaning condenser Filter

Clean the air filter on the condenser intake side about 2-3 times a year. Remove the air filter on the front bottom panel of the product, rinse it with water to remove dust and foreign matter, and then reassemble.

Important Information: To avoid possible bending of the condenser fins, clean the condenser in the direction of the fins (up and down).

! CAUTION

If the condenser is not cleaned, the temperature may rise or the machine may experience technical problems or sustain damage.

7. Maintenance Schedule

-The following maintenance schedule is guideline

-Maintenance and repair should be done more frequently according to water quality, equipment usage environment and local hygiene regulations.

Maintenance Schedule		
Frequency	Area	Task
Daily	Scoop	Clean the scoop using a neutral cleaner. Rinse thoroughly after cleaning.
Monthly	External water filter	Make sure that the pressure is adequate and make changes if needed.
	Outside of the ice maker	Wipe down with clean, soft cloth. Use a damp cloth containing a neutral cleaner to wipe off oil or dirt build up. Clean any chlorine staining (rustcolored spots) using a non-abrasive cleanser.
	Storage Bin, Inner door, Ice outlet(Spout)	Wipe clean with clean cloth and warm water.
Every 6 Months	Icemaker and Storage Bin	Clean and disinfect according to the disinfection instructions given in the instruction manual.
	Evaporator Condensate Drain Pan and Gear Motor Drain Pan	Wipe down with clean cloth and warm water.
	Ice maker and reservoir	Always check that it is kept clean.
	Ice exit fixing seal bolt	Check for leaks around the seal bolt. Tighten if necessary and replace O-rings. Always replace the O-ring when loosening the seal bolt and tighten it again. If there is no O-ring, apply Loctite 243 or equivalent fixing agent so that it does not leak.
Yearly	Water supply valve and Drain valve	Close the shutoff valve to shut off the water supply line and drain the water.
	Water hose	Check the water hose and clean it if necessary.
	Condenser (air-cooled)	Inspect for cleaning. If necessary, clean with a brush or vacuum cleaner If the dust adhesion is severe, spray the pin cleaning agent, clean the dust, spray it with clean water, rinse and dry with air gun.
	Ice maker	Inspect for oil marks, loose components, tightening parts and wires.
	Upper bearing (Ice exit head)	Check that 0.02" round bar or pin gauge (or clearance gauge) is inserted into auger and bearing clearance, and replace all upper and lower bearings (ice exit head and lower housing)
	Mechanical seal	Check for leaks in the bottom housing, and if there is a leak, disassemble the auger to replace the mechanical seal. (Water with a lot of calcium will shorten the life of replacement parts.)
After 3 Years, then Yearly	Upper and lower bearings, Housing O-ring, Mechanical seals, Evaporator cylinder, Auger	Please check. If the auger and bearing clearance exceeds the factory recommended value (0.02" or less), replace both the upper and lower bearings. If the contact surface of the mechanical seal is worn, cracked, or scratched, replace it.

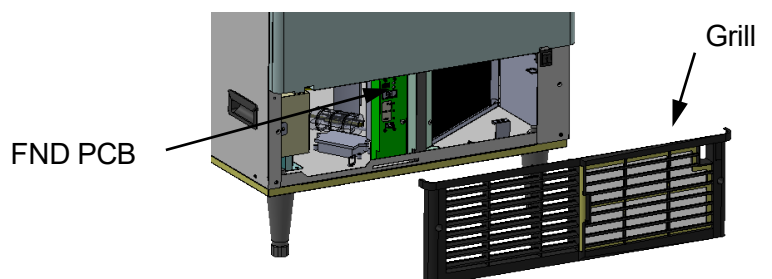
8. Specifications

Items		Specification	Remarks
Model		IU-0345-AN	
Ice shape		Nugget	
Maximum capacity		350 lb (159 kg)	
Storage capacity		99 lb (45 kg)	
Dimensions (W x D x H) ※ Foot included		26.1" x 27.8" x 39" (663mm x 706mm x 990mm)	6" Foot Leveling Rage : 0 ~ 0.1"(0 ~ 25mm)
Power supply		AC 115 V / 60 Hz, 1PH	
Current consumption		7 A ± 15%	
Weight	Before packing	216 lb (68 kg)	
	After packing	238 lb (108 kg)	
Compressor		3/4 HP	
Condensation method		Air-cooled	
Refrigerant		R-290, 3.49 oz	
Geared motor	Power supply	115 V / 60 Hz, 1PH	
	Rated output	80 W	
Installation environment standard	Ambient temperature	50 ~ 100 °F (10 ~ 38 °C)	
	Supplied water temperature	50 ~ 90 °F (10 ~ 32 °C)	
	Water pressure	0.98 ~ 0.49 Mpa (1 ~ 5 kgf/cm ²)	14.2 ~ 71.1 psi

※ Maximum production is based on ambient temperature 70°F (20°C) and water temperature 50°F (10°C.) However, deviation may occur depending on the conditions of the installation environment, and the deviation may increase at high temperature conditions such as the summer season.

9. Error type

Condition	Error Code displayed on FND	Causes	Action / Release
Evaporator temperature error	Er01	When the Evaporator temperature is 36°F(2°C) or more after 30 minutes passed during the ice making	Check refrigerant leakage. Check sensor and attachment abnormality. Resupply power after resolving cooling problem.
	Er03	When the Evaporator temperature is 32°F(0°C) or more after 10 minutes passed during the ice making	
Ice full sensor error	Er05	When the ice full temperature sensor in the storage bin is disconnected or shorted	Check sensor and attachment abnormality. Start operation after sensor part repair.
Evaporator temperature sensor error	Er06	When the evaporator temperature sensor at the evaporator outlet is disconnected or shorted	
Air temperature sensor error	Er07	When the air temperature sensor in front of the condenser is disconnected or shorted	
Condenser temperature sensor error	Er08	When the condenser temperature sensor at the condenser outlet is disconnected or shorted	
Condenser temperature error	Er13	When the condenser temperature is at or above 149°F(65°C) for more than 10 seconds	Check condenser blocked or dirty. Check poor ventilation around the unit. Check faulty condenser fan. Check room temperature too high.
	Er14	When "Er13" occurs 3 times within 1hr	
Water supply error	Er15	When water level is not detected by the water level sensor due to no water supply for 2 minutes.	Water supply pressure check. Water level sensor check. Start operation after action.
Water drain error	Er16	When the lower limit water level sensor is not detected within 2 minutes as the drain valve operates	Replacement of water level sensor. Check drain valve operation. Check for clogged drain. Start operation after action.
Evaporator overcooling error	Er21	When the Evaporator temperature drops below -4°F(-20°C) during the ice making	Check refrigerant levels. Check sensors. Replace Faulty components if necessary.
Ice making auger motor error	Er22	When the auger motor stop during ice making	Check for evaporator freezing. Check the auger motor wire connection.



10. Troubleshooting guide

PROBLEM	POSSIBLE CAUSE	ACTION
Ice maker not operating	Ice maker is unplugged	Plug ice maker in.
	Breaker tripped	Reset breaker - if it happens again, call an authorized service contractor.
	Switch in wrong position	Turn the operation switch to "ICE".
	Storage bin full	Operating normally - production ceases when bin is full.
	Room temp below 50°F(10°C)	Raise room temp.
	Drain blocked	Clean drain tube.
Ice cubes are too large	Cube size temp set too low	Call for service.
Quality of ice Inconsistent	Not enough water	Check filter may be restricted water flow. Check water valve, inlet screen may be restricted.
Sound level has increased when making ice	scale has formed in drum	Clean with approved ice maker cleaner.
Makes ice but bin does not fill	Storage bin drain may be partially restricted	Clean out and check drain.
Ice cubes are partially formed	Possible scale in evaporator	Clean with approved ice maker cleaner.
Unit operates but no ice is produced	Ice stuck in evaporator	Check water supply – filter may be restricting water flow. Check water valve, inlet screen may be restricted.
	Water temperature too high	Water valve may be leaking - call for service.
	Inadequate air flow	Damaged cooling fan – call for service. Condenser blocked – clean condenser.
	Compressor not operating	Call for service
	Not enough refrigerant	Call for service

11. R-600a, R-290 Handling

Requirement for service and installation of appliances using flammable refrigerants

! DANGER

- Never apply a torch to a charged R-600a / R-290 refrigeration system. R-600a / R-290 is considered non-toxic but is flammable when mixed with air.
- Under no circumstances shall the potential sources of ignition be used in searching for or detection of refrigerant leaks. Do not pierce or burn.
- The appliance shall be stored in a room without continuously operating ignition sources

! WARNING

- Only skilled and well-trained service technicians permitted to service R-600a / R-290 equipped products.
- Replace components only with parts specified by the manufacturer. Other parts can result in the ignition of refrigerant in the atmosphere from a leak.
- Prior to beginning work on systems containing FLAMMABLE REFRIGERANTS, safety checks are necessary to ensure that the risk of ignition is minimized.
- Work shall be undertaken under a controlled procedure to minimize the risk of a flammable gas or vapor being present while the work is being performed.
- If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available on hand. A dry chemical or CO2 fire extinguisher should be adjacent to the charging area.
- Gloves and Eye Protection must be used.
- Use only a refrigerant grade R-600a / R-290 from a properly labeled container.
- Do not remove or alter any R-600a / R-290 labeling on the product.
- During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc.
- If the evaporator is cold prior to service, it must be thawed prior to service.
- When using a vacuum pump, start pump before opening refrigeration system. Vacuum pump and recovery equipment should be at least 10 feet from the work area.

R-600a / R-290 SPECIFICATION

R-600a / R-290 is considered non-toxic but is flammable when mixed with air.

R-600a / R-290 is heavier than air, do not allow any leakage/migration to low areas such as basements and stairs. Work in confined spaces shall be avoided. Be aware that refrigerants may not contain an odor and color.



A3

Warning: Risk of fire / Flammable material

This warning sign indicates the presence of flammable materials.

It alerts users to the risk of fire or explosion.

Avoid open flames, sparks, and smoking near this area or equipment.

LEAK DETECTION

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres.

Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.

Electronic leak detection or soap solution can be used to check for nitrogen/ helium leaks.

If a leak is suspected, all naked flames shall be removed/extinguished.

If a leakage of refrigerant is found which requires brazing, all the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.

The high side of the refrigeration system (compressor discharge to outlet of drier) must be leak tested with the compressor running.

The low side of the refrigeration system (evaporator, compressor and suction line) must be leak tested with the compressor off (equalized pressure).

NO IGNITION SOURCES

All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space.

Prior to work taking place, the area around the equipment shall be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

VENTILATED AREAR

A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

CHECKS TO THE REFRIGERATING EQUIPMENT

Where electrical components are being replaced, they shall be fit for the purpose and to the correct specification. At all times, the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance.

WARNING

- Only skilled and well-trained service technicians permitted to service R-600a / R-290 equipped products.

CHECKS TO ELECTRICAL DEVICES

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures.

If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.

Initial safety checks shall include:

- that capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking.
- that no live electrical components and wiring are exposed while charging, recovering or purging the system.
- that there is continuity of earth bonding.

REFRIGERANT CHARGING

No air is ever to be allowed inside the refrigeration system (R-600a / R-290 refrigerant or dry nitrogen only).

Ensure that contamination of different refrigerants does not occur when using charging equipment.

Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.

Cylinders shall be kept in an appropriate position according to the instructions.

Ensure that the REFRIGERATING SYSTEM is earthed prior to charging the system with refrigerant.

Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas.

The system shall be leak-tested on completion of charging but prior to commissioning.

A follow up leak test shall be carried out prior to leaving the site.

REFRIGERANT RECOVERY

R-600a / R-290 has been exempted from recovery/reclaiming requirements by the US EPA.

Recovery/Reclaiming equipment must be approved for use with R-600a / R-290.

When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed.

Do not mix refrigerants in recovery units and especially not in cylinders. Do not overfill cylinders (no more than 80 % volume liquid charge).

WARNING

- Only skilled and well-trained service technicians permitted to service R-600a / R-290 equipped products.

SYSTEM REPAIR

Be aware that malfunction of the equipment can be caused by refrigerant loss and a refrigerant leak is possible.

Discharge capacitors in a way that won't cause any spark.

When brazing is required, safely remove the refrigerant following local and national regulations. Take care that the drained refrigerant will not cause any danger. Take special care that drained refrigerant will not float back into the building.

Carry out a leak test before charging with refrigerant.

DECOMMISSIONING / DISPOSAL

If the unit is being removed from service for disposal, check and obey all federal, state, and local regulations regarding the disposal and recycling of refrigeration appliances, and follow these steps completely:

- Remove all consumable contents from the unit. Unplug the electrical cord from its socket.
- Remove the door(s)/drawer(s).
- The REFRIGERANT CHARGE is to be removed before decommissioning.
- Ensure sufficient ventilation at the equipment location.
- Discharge capacitors in a way that will not cause any spark.
- Put a label on the equipment that the refrigerant is removed.
- Cut out the compressor and drain the oil.

COMPRESSOR REPAIR

! DANGER

- Failure to follow electrical safety measures may result in serious injury, fire or death.
- Never handle the unit in wet conditions as this can pose a severe danger of electric shock.
- Burns from hot or cold surfaces can cause serious injury.

! WARNING

- Only skilled and well-trained service technicians permitted to service R-600a / R-290 equipped products.

Service Information

To request service, you should know the model and serial number of the ice maker. You can find the model and serial number printed on the label on the front of the product after opening the door. To receive the warranty service, you should know the date of installation and the distributor it was purchased from. Record this information for future reference.

Model number:

Serial number:

Date of installation:

A/S center of FOLLETT and telephone number:

Distributor of FOLLETT and telephone number:

Before requesting the service

Before requesting service, refer to the troubleshooting guide on pages 17. Check whether the fuse has been cut or tripped by inspecting the home fuse and circuit breaker. Check whether the power has been disconnected.

Operation of the product may cease in the event of a power failure.

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