

Hoshizaki America, Inc.

Self-Contained Crescent Cuber

Models

KM-255BAH

KM-255BWH



“A Superior Degree
of Reliability”

www.hoshizaki.com

INSTRUCTION MANUAL



Issued: 10-4-2006

IMPORTANT

Only qualified service technicians should attempt to install, service or maintain this icemaker. No installation, service or maintenance should be undertaken until the technician has thoroughly read this Instruction Manual. Likewise, the owner/manager should not proceed to operate the icemaker until the installer has instructed them on its proper operation.

HOSHIZAKI provides this manual primarily to assist qualified service technicians in the installation, maintenance and service of the icemaker.

Should the reader have any questions or concerns which have not been satisfactorily addressed, please call, write or send an e-mail message to the HOSHIZAKI Technical Support Department for assistance.

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NOTE: To expedite assistance, all correspondence/communication **MUST** include the following information:

- Model Number
- Serial Number
- Complete and detailed explanation of the problem

- Please review this manual. It should be read carefully before the icemaker is installed and operated. Only qualified service technicians should install, service and maintain the icemaker. This manual should be made available to the technician prior to installation, maintenance or service.
- Keep this manual with the icemaker for later reference.

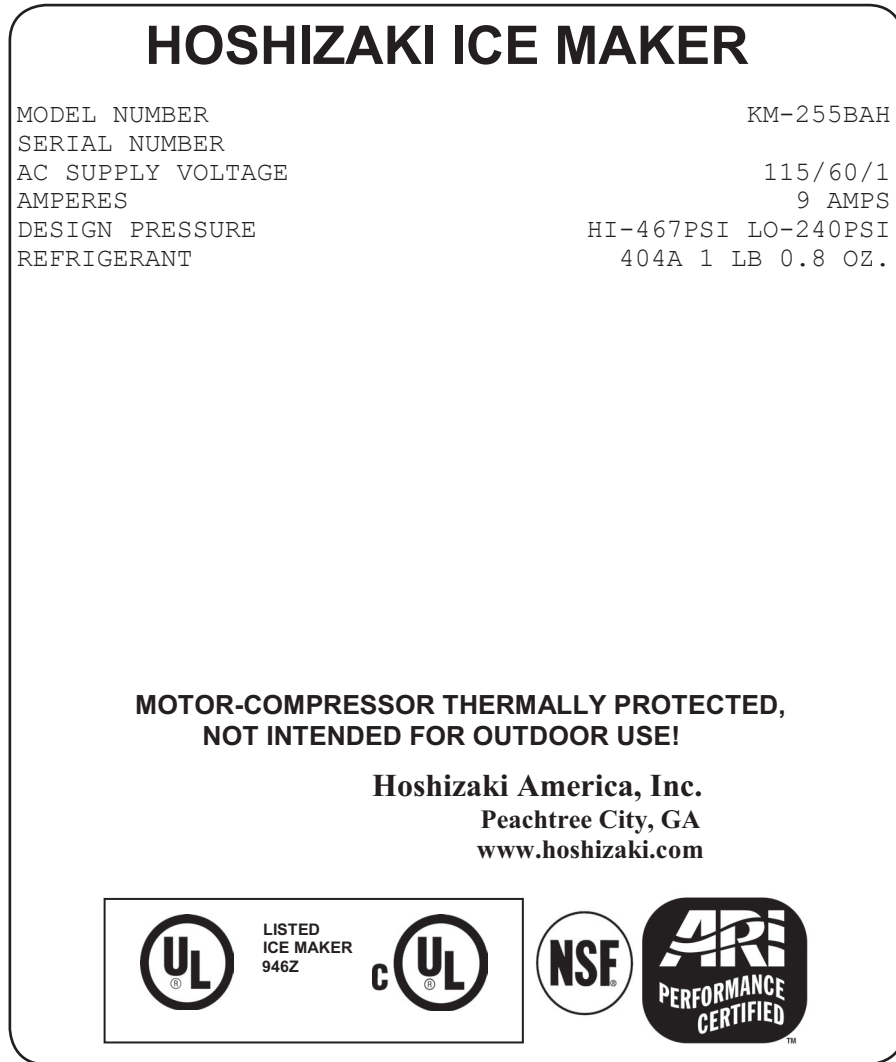
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I. Specifications

A. Nameplate Rating

1. KM-255BAH (air-cooled)



See the nameplate for electrical and refrigeration specifications. This nameplate is located on the upper left hand side of the rear panel.

Since this nameplate is located on the rear panel of the icemaker, it cannot be read when the back of the icemaker is against a wall or against another piece of kitchen equipment. Therefore, the necessary electrical and refrigeration information is also on the rating label, which can be easily seen by removing only the front panel of the icemaker.

We reserve the right to make changes in specifications and design without prior notice.

2. KM-255BWH (water-cooled)

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See the nameplate for electrical and refrigeration specifications. This nameplate is located on the upper left hand side of the rear panel.

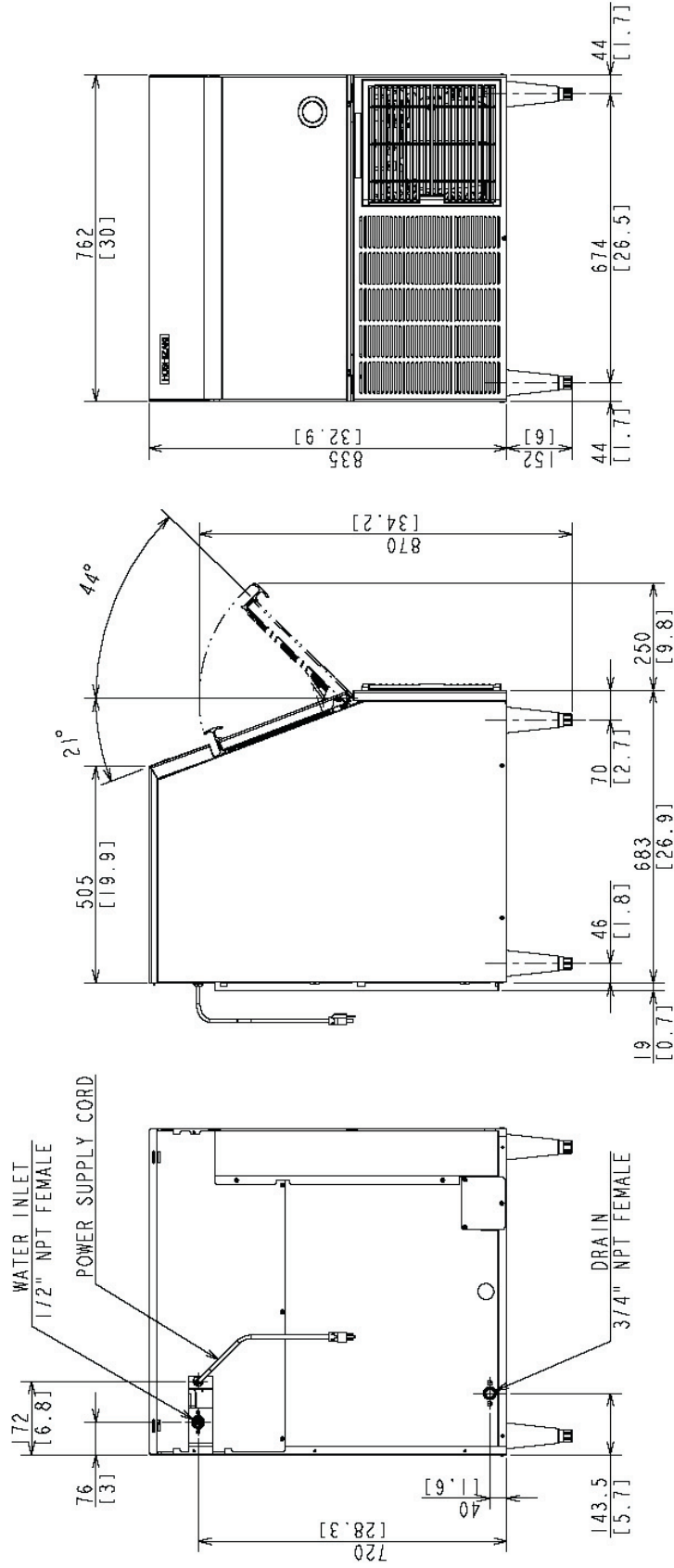
Since this nameplate is located on the rear panel of the icemaker, it cannot be read when the back of the icemaker is against a wall or against another piece of kitchen equipment. Therefore, the necessary electrical and refrigeration information is also on the rating label, which can be easily seen by removing only the front panel of the icemaker.

We reserve the right to make changes in specifications and design without prior notice.

B. Dimensions/Connections

1. KM-255BAH

Unit: mm. [inches]



2. KM-255BWH

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II. Installation And Operating Instructions

A. Checks Before Installation

IMPORTANT

1. Remove shipping carton, tape(s) and packing. If packing material is left in the icemaker, it will not work properly.
2. Ensure all components, fasteners and thumbscrews are securely in place.

- 1) Remove the top and front panels to prevent damage when installing the icemaker. (See "B. How to Remove Panels")
- 2) Remove the package containing the accessories.
- 3) Remove the protective plastic film from the panels. If the icemaker is exposed to the sun or to heat, remove the film after the icemaker cools.
- 4) Check that the refrigerant lines do not rub or touch lines or other surfaces, and that the fan blade turns freely.
- 5) Check that the compressor is snug on all mounting pads.
- 6) See the nameplate on the rear panel, and check that your voltage supplied corresponds with the voltage specified on the nameplate.

B. How to Remove Panels

See Fig. 1

- Front Panel: Remove the screw. Lift up and towards you.
- Top Panel: Open the door. Remove the screws. Lift up at the front slightly, push rearward, and lift off.

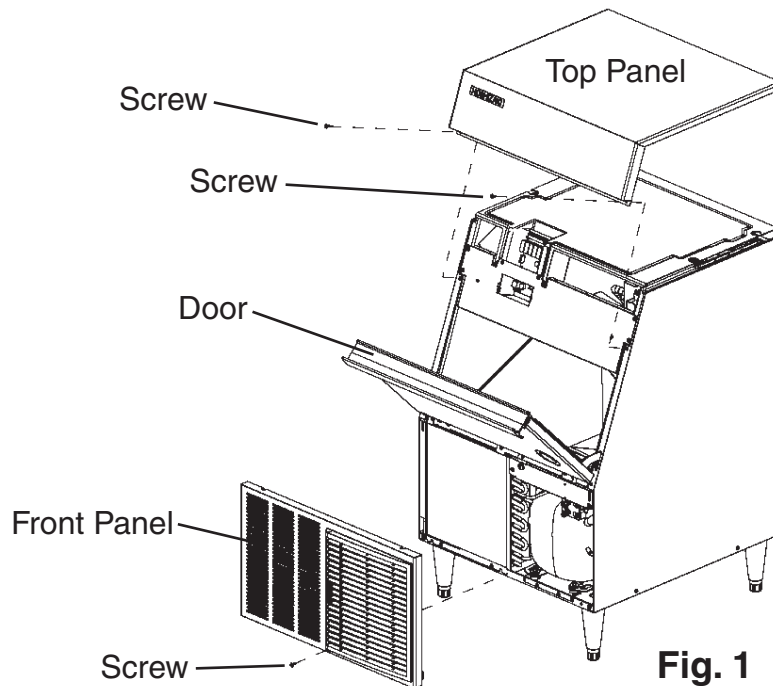


Fig. 1

C. Location

WARNING

This icemaker is not intended for outdoor use. Normal operating ambient temperature should be within +45°F to +100°F (+7°C to +38°C); Normal operating water temperature should be within +45°F to +90°F (+7°C to +32°C). Operation of the icemaker, for extended periods, outside of these normal temperature ranges may affect production capacity.

For best operating results:

- Icemaker should not be located next to ovens, grills or other high heat producing equipment.
- Level the icemaker from side-to-side and front-to-rear by adjusting the legs. Location should provide a firm and level foundation for the equipment.
- Allow 6" (15 cm) clearance at the rear and top for ease of maintenance and/or service should they be required.

D. Electrical Connection

CAUTION

The GREEN ground wire in the factory-installed power cord is connected to a screw on the bracket where the cord enters the machine. If it becomes necessary to remove or replace the power cord, be sure to connect the power cord's ground wire to this screw upon reattachment.

- This icemaker must have a separate power supply or receptacle of proper capacity. See the nameplate.
- Usually an electrical permit and services of a licensed electrician are required.

E. Water Supply and Drain Connections

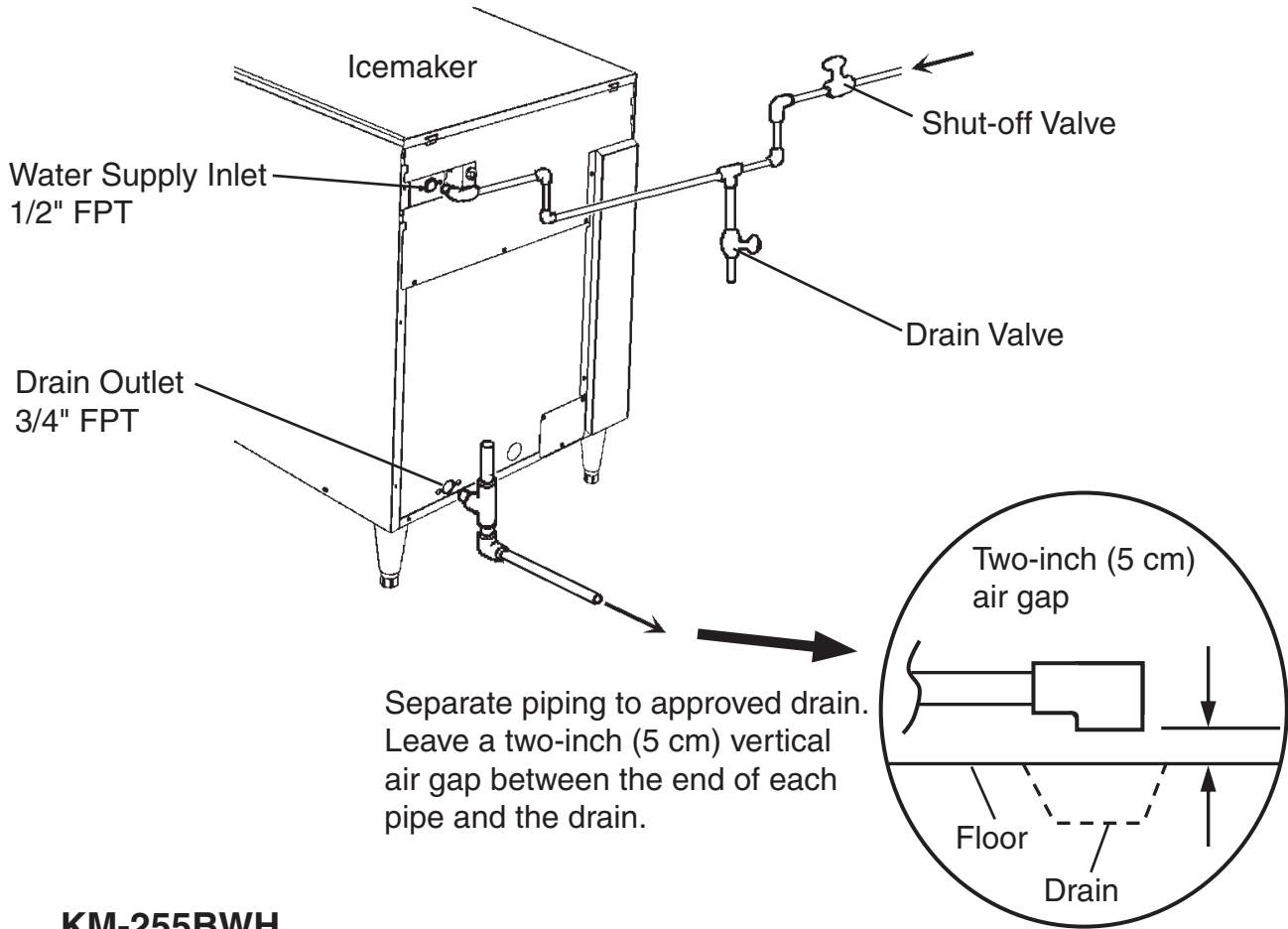
See Fig. 2

CAUTION

To prevent damage to equipment, do not operate this icemaker when the water supply is OFF, or if the pressure is below 10 PSIG (0.7 bar). Do not run the icemaker until the proper water pressure is reached.

- Water supply inlet is 1/2" female pipe thread (FPT).
Note: On water-cooled model, two water supply inlets are provided. One is the water supply inlet for icemaking, and the other (1/2" FPT) is for the water-cooled condenser.
- A water supply line shut-off valve and drain valve should be installed. A minimum of 3/8" OD copper tubing is recommended for the water supply lines.
- Water supply pressure should be a minimum of 10 PSIG (0.7 bar) and a maximum of 113 PSIG (7.5 bar). If the pressure exceeds 113 PSIG (7.5 bar), the use of a pressure reducing valve is required.
- Drain outlet for icemaker dump is 3/4" FPT.
Note: Water-cooled model also has a 1/2" FPT condenser drain outlet. Icemaker dump and condenser drain lines must be run separately.
- Drain lines must have 1/4" fall per foot (2 cm per 1 m) on horizontal runs to get good flow. A vented tee connection is also required for proper flow.
- Drain lines should not be piped directly to the sewer system. An air gap of a minimum of 2 vertical inches (5 cm) should be between the end of the drain pipes from the icemaker and water-cooled condenser (if applicable) and the floor drain.
- This icemaker should be installed in accordance with applicable national, state and local regulations.
- A plumbing permit and services of a licensed plumber may be required in some areas.
- Water-Cooled Model Only: A back flow preventer may be required in the cooling water circuit in some areas.

KM-255BAH



KM-255BWH

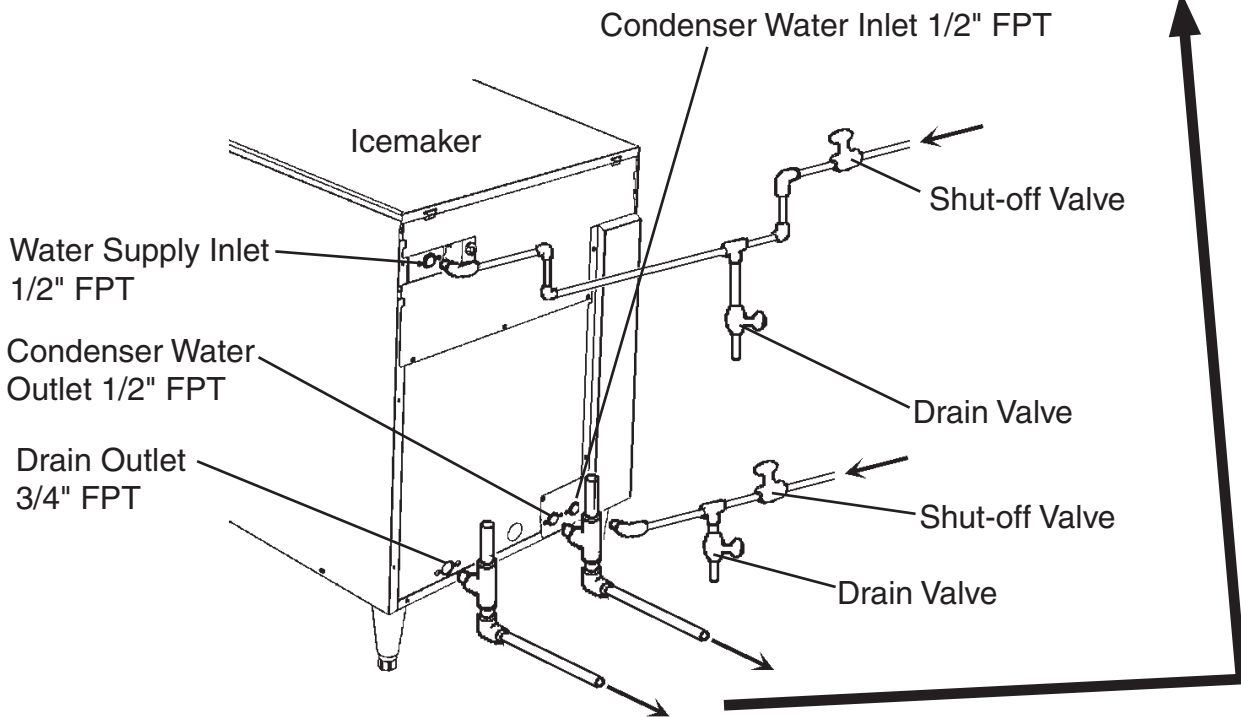


Fig. 2

F. Final Checklist

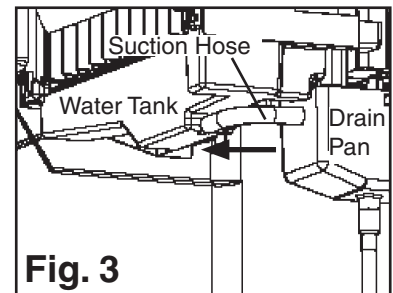
- 1) Is the icemaker level?
- 2) Is the icemaker in a site where the ambient temperature is within +45°F to +100°F (+7°C to +38°C) and the water temperature within +45°F to +90°F (+7°C to +32°C) all year around?
- 3) Is there at least 6" (15 cm) clearance at the rear and top of the icemaker for ease of maintenance or service?
- 4) Have shipping carton, and all tape(s) and packing been removed from the icemaker? Is the cube guide in its correct position?
- 5) Are all components, fasteners and thumbscrews securely in place?
- 6) Have all electrical and piping connections been made?
- 7) Has the power supply voltage been checked or tested against the nameplate rating? And has a proper ground been installed in the icemaker?
- 8) Are the water supply line shut-off valve and drain valve installed? Has the water pressure been checked to ensure a minimum of 10 PSIG (0.7 bar) and a maximum of 113 PSIG (7.5 bar)?
Note: The icemaker may stop running when the water supply is OFF, or if the pressure is below 10 PSIG (0.7 bar). When the proper water pressure is reached, the icemaker automatically starts running again.
- 9) Have the compressor hold-down bolts and refrigerant lines been checked against vibration and possible failure?
- 10) Has the bin control operation been verified?
- 11) Has the end user been given the instruction manual, and instructed on how to operate the icemaker and the importance of the recommended periodic maintenance?
- 12) Has the end user been given the name and telephone number of an authorized service agent?
- 13) Has the warranty card been filled out and forwarded to the factory for warranty registration?

G. Startup

CAUTION

1. All parts are factory-adjusted. Improper adjustments may result in failure.
2. If the unit is turned off, wait for at least 3 minutes before restarting the icemaker to prevent damage to the compressor.

- 1) Open the water supply line shut-off valve.
- 2) Remove the front panel.
- 3) Move the control switch on the control box to the "ICE" position.
- 4) Let the icemaker run for 10 minutes, then move the control switch to the "OFF" position.
- 5) Open the door.
- 6) Disconnect the suction hose to drain the water. See Fig. 3.
- 7) Reconnect the suction hose back in its correct position after all of the water has drained.
- 8) Clean the storage bin.
- 9) Move the control switch to the "ICE" position. This starts the automatic icemaking process.
- 11) Close the door.
- 12) Place the front panel in its correct position.



III. Cleaning and Maintenance Instructions

IMPORTANT

Ensure all components, fasteners and thumbscrews are securely in place after any maintenance or cleaning is done to the equipment.

A. Cleaning

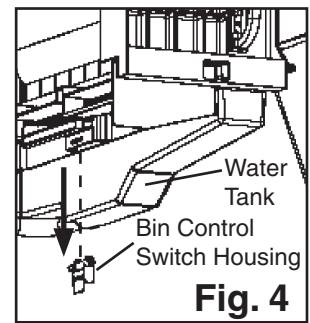
WARNING

1. Hoshizaki recommends cleaning this unit at least once a year. More frequent cleaning, however, may be required in some existing water conditions.
2. To prevent injury to individuals and damage to the icemaker, do not use ammonia type cleaners.
3. Always wear liquid-proof gloves to prevent the cleaning and sanitizing solutions from coming into contact with skin.
4. For safety and maximum effectiveness, use cleaning and sanitizing solutions immediately after dilution.

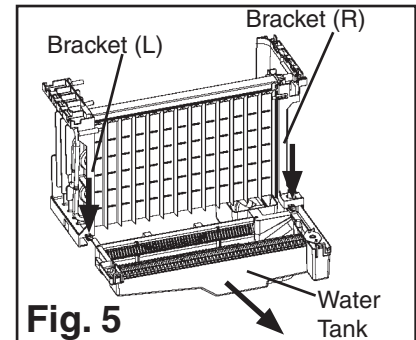
1. Cleaning Procedure

- 1) Dilute 5 fl. oz. (148 ml) of recommended cleaner Hoshizaki "Scale Away" or "LIME-A-WAY," (Economics Laboratory, Inc.) with 1 gallon (3.8 l) of warm water.
- 2) Remove the front panel.
- 3) Remove all ice from the evaporator and the storage bin.
Note: To remove cubes on the evaporator, move the control switch on the control box to the "OFF" position and move it back to the "ICE" position after 3 minutes. The defrost cycle starts and the cubes will be removed from the evaporator.
- 4) Move the control switch to the "OFF" position. Open the door.
- 5) Disconnect the suction hose to drain the water. See Fig. 3.
- 6) Reconnect the suction hose back in its correct position after all of the water has drained.
- 7) Pour the cleaning solution into the water tank.
- 8) Move the control switch to the "WASH" position.
- 9) Close the door.
- 10) After 30 minutes, move the control switch to the "OFF" position.
- 11) Disconnect the suction hose to drain the water. Reconnect the suction hose back in its correct position after all of the water has drained.
- 12) Move the control switch to the "ICE" position to fill the water tank with water.
- 13) After 3 minutes, move the control switch to the "WASH" position.
- 14) After 5 minutes, move the control switch to the "OFF" position.
- 15) Disconnect the suction hose to drain the water. Reconnect the suction hose back in its correct position after all of the water has drained.
- 16) Repeat steps 12 through 15 three more times to rinse thoroughly.

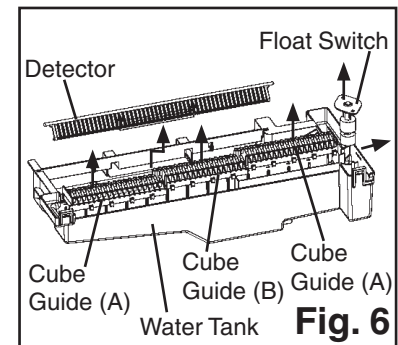
- 17) Remove the bin control switch housing at the back of the water tank. It is snapped in place. Pinch it and then pull down. See Fig. 4.



- 18) Disconnect the suction hose. Next, remove the water tank by pressing down on the snaps on Bracket (L) and Bracket (R) and pulling the tank towards you. See Fig. 5.



- 19) Remove the float switch from the water tank by pulling out on the right-side wall of the water tank slightly and sliding the float switch upward. Be careful to avoid breakage when handling the parts. See Fig. 6.



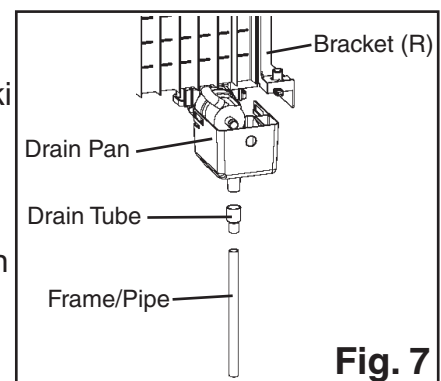
- 20) Remove the detector from the water tank. It is snapped in place. Slide it up and then out. See Fig. 6.
- 21) Pull Cube Guide (A) and Cube Guide (B) (qty. varies depending on model) upward to remove them from the water tank. They are snapped in place. See Fig. 6.

- 22) Remove the suction hose from the water tank.

- 23) Remove the drain pan from Bracket (R) by pulling it towards you. It is snapped in place. Remove the drain tube and the frame/pipe from the drain pan. See Fig. 7.

- 24) Dilute 5 fl. oz. (148 ml) of recommended cleaner Hoshizaki "Scale Away" or "LIME-A-WAY," (Economics Laboratory, Inc.) with 1 gallon (3.8 l) of warm water.

- 25) Wash the bin control switch housing, water tank, float switch, detector, Cube Guide (A), Cube Guide (B), suction hose, drain pan, drain tube, and frame/pipe by using a nylon scouring pad, brushes and the cleaning solution. In addition to the removed parts, also wash the bin liner, Bracket (L) and Bracket (R) with the solution.



- 26) Discard the cleaning solution and rinse the parts thoroughly with water.

2. Sanitizing Procedure - Following Cleaning Procedure

- 1) Dilute approximately 0.5 fl. oz. (15 ml or 1 tbs) of a 5.25% sodium hypochlorite solution (chlorine bleach) with 1 gallon (3.8 l) of warm water. Using a chlorine test strip or other method, confirm that you have a concentration of about 200 ppm.
- 2) Soak the removed parts from step 25 above in a clean container containing the sanitizing solution. After allowing the parts to soak for 10 minutes, wash them with the solution. Also wash the bin liner, Bracket (L) and Bracket (R) with the solution.
- 3) Discard the sanitizing solution and rinse the parts thoroughly with water.
- 4) Replace the removed parts in their correct positions in the reverse order of which they were removed. Put the float switch wiring tubing in the slot to the right of the water tank latch before putting the water tank in place.
- 5) Dilute approximately 0.5 fl. oz. (15 ml or 1 tbs) of a 5.25% sodium hypochlorite solution (chlorine bleach) with 1 gallon (3.8 l) of warm water. Using a chlorine test strip or other method, confirm that you have a concentration of about 200 ppm.
- 6) Pour the sanitizing solution into the water tank, and allow the sanitizer to sit for 10 minutes.
- 7) Move the control switch to the "WASH" position.
- 8) Close the door.
- 9) After 15 minutes, move the control switch to the "OFF" position.
- 10) Open the door.
- 11) Disconnect the suction hose to drain the water. Reconnect the suction hose back in its correct position after all of the water has drained.
- 12) Repeat steps 5 through 11 one time.
- 13) Repeat steps 12 through 15 in the Cleaning Procedure three times to rinse thoroughly.
- 14) Flush the storage bin with water.
- 15) Move the control switch to the "ICE" position, and start the automatic icemaking process.
- 16) Close the door.
- 17) Replace the front panel in its correct position.

B. Maintenance

1. Exterior Panels

To prevent corrosion, wipe the exterior occasionally with a clean and soft cloth. Use a damp cloth containing a neutral cleaner to wipe off oil or dirt build up.

2. Storage Bin and Scoop

- Wash your hands before removing ice. Use the plastic scoop provided (Accessory).
- The storage bin is for ice use only. Do not store anything else in the bin.
- Keep the scoop clean. Clean it by using a neutral cleaner and rinse thoroughly.
- Clean the bin liner by using a neutral cleaner. Rinse thoroughly after cleaning.

3. Air Filter (air-cooled model only)

The plastic mesh air filter removes dirt and dust from the air, and keeps the condenser from getting clogged. As the filter gets clogged, the icemaker's performance will be reduced. Check the filter at least twice a month. When it is clogged, use warm water and a neutral cleaner to wash the filter.

4. Condenser (air-cooled model only)

Check the condenser once a year and clean if required by using a brush or vacuum cleaner. More frequent cleaning may be required depending on the location of the icemaker.

C. Preparing the Icemaker for Long Storage

IMPORTANT

When shutting off the icemaker for an extended time, drain out all water from the water lines and remove the ice from the storage bin. The storage bin should be cleaned and dried. Drain the icemaker and water-cooled condenser (if applicable) using air or carbon dioxide to prevent damage to the water supply lines at sub-freezing temperatures. Shut off the icemaker until the proper ambient temperature is resumed.

When the icemaker is not used for two or three days, it is sufficient to only move the control switch to the OFF position, unless the icemaker will be at sub-freezing temperatures.

To drain all water from the icemaker, follow the steps below.

- 1) Remove the front panel, top panel and insulation panel.
- 2) Move the control switch on the control box to the OFF position.
- 3) Wait 3 minutes, then move the control switch to the ICE position.
- 4) Allow the icemaker to complete the one minute fill cycle (LED 4 is on), then move the switch back to the OFF position.
- 5) Close the potable water supply line shut-off valve and open the potable water supply line drain valve.
- 6) Allow the line to drain by gravity.
- 7) Move the control switch to the ICE position.
- 8) Blow the potable water supply line out using compressed air or carbon dioxide. This will clear water from the freeze water valve.
- 9) Allow the machine to cycle from the one minute fill cycle to the initial harvest cycle (LEDs 1, 4 and 2 are on). Blow the potable water supply line out using compressed air or carbon dioxide. This will clear water from the harvest water valve.
- 10) Move the control switch to the OFF position.
- 11) Disconnect the suction hose to drain the water. See Fig. 1.
- 12) Disconnect the upper hose from the harvest water valve. Move the control switch to the WASH position and quickly blow out the hose line using compressed air or carbon dioxide. This will clear water from the wash valve.

- 13) Move the control switch to the OFF position.
- 14) Reconnect the suction hose and harvest water valve hose.
- 15) Close the potable water supply line drain valve.
- 16) Remove all ice from the storage bin and clean the bin.
- 17) Turn off the power supply at the breaker box.
- 18) If the icemaker is water cooled, proceed to the next section to drain the condenser. If the icemaker is air cooled, place the panels back in their correct positions. The procedure is complete.

To drain all water from the water-cooled condenser, follow the steps below.

- 1) Close the water-cooled condenser water supply line shut-off valve.
- 2) Open the drain valve for the water-cooled condenser water supply line.
- 3) Allow the line to drain by gravity.
- 4) Attach compressed air or carbon dioxide supply to the condenser water supply line drain valve.
- 5) Blow the water supply line out using compressed air or carbon dioxide until water stops coming out.
- 6) Disconnect the water inlet and outlet at the condenser.
- 7) Remove the screws securing the compressor base and the condenser. Carefully slide the refrigeration assembly forward.
- 8) Attach compressed air or carbon dioxide supply to the condenser and blow out the condenser.
- 9) Close the condenser water supply line drain valve.
- 10) Place all removed parts back in their correct positions, and then place the panels back in their correct positions.

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