



# HOSHIZAKI

## Instruction Manual

Cubelet Icemaker/Dispenser

Models

DCM-271BAH(-OS)



**⚠ WARNING**

Only qualified service technicians should install and service the appliance. To obtain the name and phone number of your local Hoshizaki Certified Service Representative, visit [www.hoshizaki.com](http://www.hoshizaki.com). No installation or service should be undertaken until the technician has thoroughly read this Instruction Manual. Likewise, the owner/manager should not proceed to operate the appliance until the installer has instructed them on its proper operation. Failure to install, operate, and maintain the appliance in accordance with this manual will adversely affect safety, performance, component life, and warranty coverage and may result in costly water damage. Proper installation is the responsibility of the installer. Product failure or property damage due to improper installation is not covered under warranty.

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

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

Phone: 1-800-233-1940; (770) 487-2331

Fax: 1-800-843-1056; (770) 487-3360

E-mail: [techsupport@hoshizaki.com](mailto:techsupport@hoshizaki.com)

**HOSHIZAKI AMERICA, INC.**

618 Highway 74 South

Peachtree City, GA 30269

Attn: Hoshizaki Technical Support Department

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

- Model Number \_\_\_\_\_
- Serial Number \_\_\_\_\_
- Complete and detailed explanation of the problem.

## **IMPORTANT**

This manual should be read carefully before the appliance is installed and operated. Read the warnings and guidelines contained in this manual carefully as they provide essential information for the continued safe use and maintenance of the appliance. Retain this manual for any further reference that may be necessary.

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## Important Safety Information

Throughout this manual, notices appear to bring your attention to situations which could result in death, serious injury, damage to the appliance, or damage to property.

**⚠ WARNING** Indicates a hazardous situation which could result in death or serious injury.

**NOTICE** Indicates a situation which could result in damage to the appliance or property.

**IMPORTANT** Indicates important information about the installation, use, and care of the appliance.

### **⚠ WARNING**

The appliance should be destined only to the use for which it has been expressly conceived. Any other use should be considered improper and therefore dangerous. The manufacturer cannot be held responsible for injury or damage resulting from improper, incorrect, and unreasonable use. Failure to install, operate, and maintain the appliance in accordance with this manual will adversely affect safety, performance, component life, and warranty coverage and may result in costly water damage.

**To reduce the risk of death, electric shock, serious injury, or fire, follow basic precautions including the following:**

- Only qualified service technicians should install and service the appliance.
- The appliance must be installed in accordance with applicable national, state, and local codes and regulations.
- The appliance requires an independent power supply of proper capacity. See the nameplate for electrical specifications. Failure to use an independent power supply of proper capacity can result in a tripped breaker, blown fuse, damage to existing wiring, or component failure. This could lead to heat generation or fire.
- **THE APPLIANCE MUST BE GROUNDED:** This appliance is equipped with a NEMA 5-15 three-prong grounding plug  to reduce the risk of potential shock hazards. Corded models must be plugged into a properly grounded, independent 3-prong wall outlet. If the outlet is a 2-prong outlet, it is your personal responsibility to have a qualified electrician replace it with a properly grounded, independent 3-prong wall outlet. Do not remove the ground prong from the plug and do not use an adapter plug. Failure to follow these instructions may result in death, electric shock, or fire.
- Do not use an extension cord.
- To reduce the risk of electric shock, do not touch the control switch or plug with damp hands. Make sure the control switch is in the "OFF" position before plugging in or unplugging the appliance.
- Do not use an appliance with a damaged power cord. The power cord should not be altered, jerked, bundled, weighed down, pinched, or tangled. Such actions could result in electric shock or fire. To unplug the appliance, be sure to pull the plug, not the cord, and do not jerk the cord.
- Do not make any alterations to the appliance. Alterations could result in electric shock, injury, fire, or damage to the appliance.

**⚠ WARNING, continued**

- The 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.
- Young children should be properly supervised around the appliance.
- Do not climb, stand, or hang on the appliance or allow children or animals to do so. Serious injury could occur or the appliance could be damaged.
- Do not use combustible spray or place volatile or flammable substances near the appliance. They might catch fire.
- Keep the area around the appliance clean. Dirt, dust, or insects in the appliance could cause harm to individuals or damage to the appliance.

**NOTICE**

- Protect the counter top or floor (used on a stand) when moving the appliance to prevent damage to the floor.
- Follow the water supply, drain connection, and maintenance instructions carefully to reduce the risk of costly water damage.
- In areas where water damage is a concern, install in a contained area with a floor drain.
- Install the appliance in a location that stays above freezing. Normal operating ambient temperature must be within 45°F to 100°F (7°C to 38°C).
- Do not leave the appliance on during extended periods of non-use, extended absences, or in sub-freezing temperatures. To properly prepare the appliance for these occasions, follow the instructions in "IV. Preparing the Appliance for Periods of Non-Use."
- Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.
- Do not place objects on top of the appliance.
- The ice storage bin is for ice use only. Do not store anything else in the ice storage bin.

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## I. Specifications

### A. Electrical and Refrigerant Data

The rating label and nameplate provide electrical and refrigerant data. The rating label can be seen by removing the front panel. The nameplate is located on the rear panel. For certification marks, see the nameplate.

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

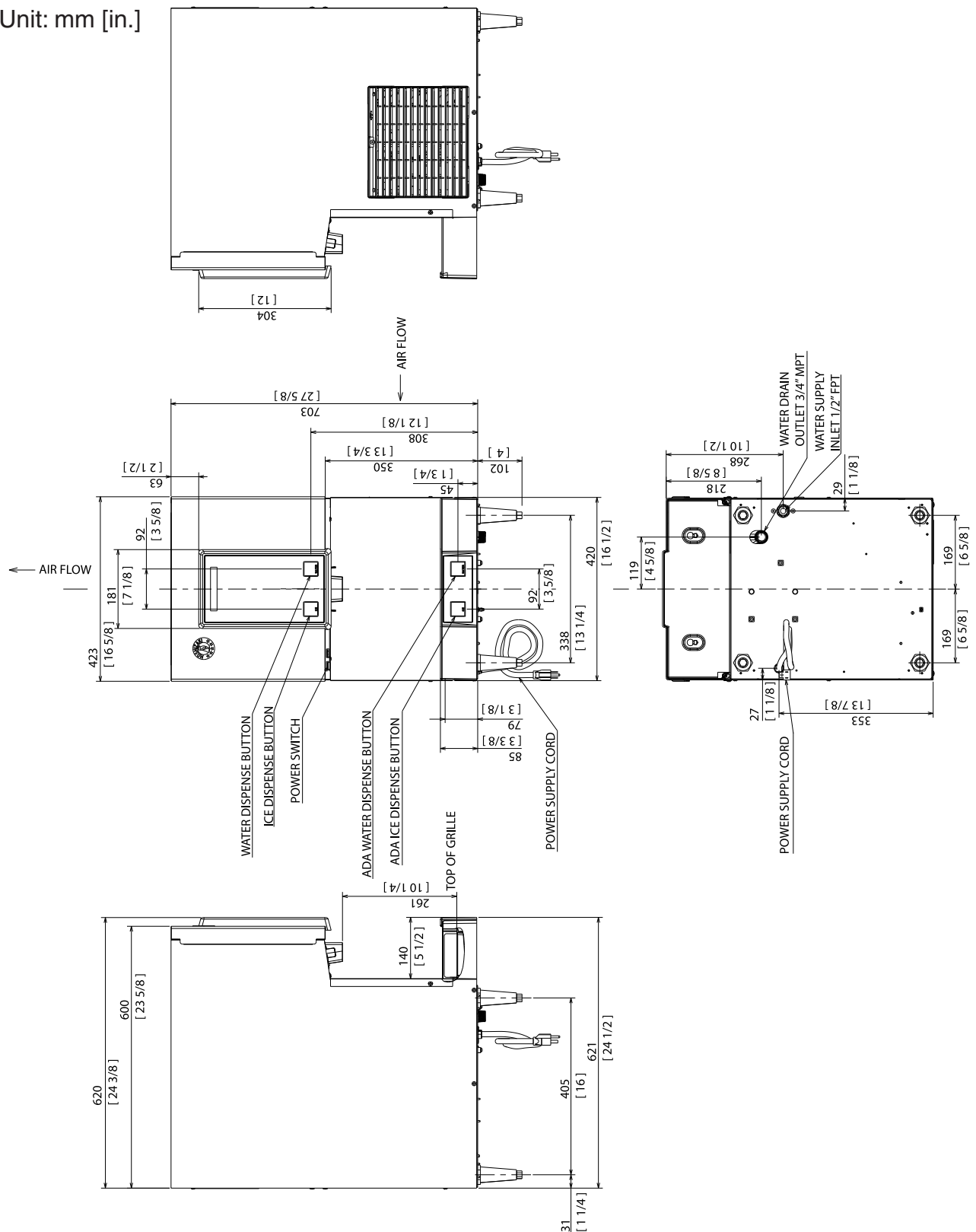
#### 1. DCM-271BAH(-OS)

| Single Phase      |                     |
|-------------------|---------------------|
| Model Number      | DCM-271BAH(-OS)     |
| AC SUPPLY VOLTAGE | 115/60/1            |
| AMPERES           | 8.5 AMPS            |
| DESIGN PRESSURE   | HI-467PSI LO-230PSI |
| REFRIGERANT       | 404A 14.8 OZ.       |

## B. Dimensions/Connections

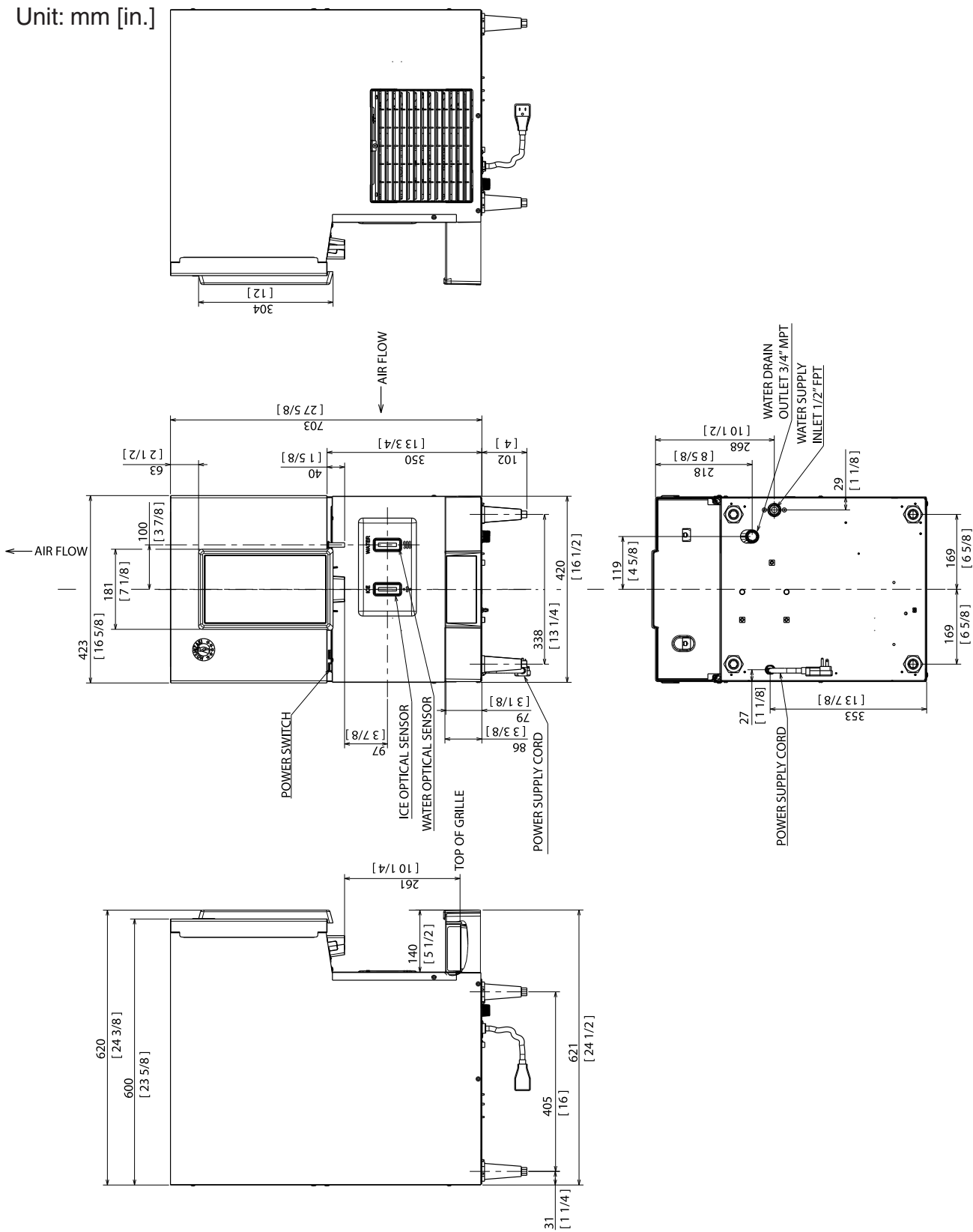
### 1. DCM-271BAH

Unit: mm [in.]



2. DCM-271BAH-OS

Unit: mm [in.]



## II. Installation and Operating Instructions

### WARNING

- The appliance must be installed in accordance with applicable national, state, and local codes and regulations.
- Failure to install, operate, and maintain the appliance in accordance with this manual will adversely affect safety, performance, component life, and warranty coverage and may result in costly water damage.
- **CHOKING HAZARD:** Ensure all components, fasteners, and thumbscrews are securely in place after installation. Make sure that none have fallen into the ice storage bin.

### A. Checks Before Installation

- Visually inspect the exterior of the shipping container and immediately report any damage to the carrier. Upon opening the container, any concealed damage should also be immediately reported to the carrier.
- Remove the shipping carton, tape, and packing material. If any are left in the appliance, it will not work properly.
- See the nameplate on the rear panel, and check that your voltage supplied corresponds with the voltage specified on the nameplate.
- Remove the panels to prevent damage when installing the appliance. See "II.C. How to Remove Panels."
- Remove the package containing the accessories.
- Remove the protective plastic film from the panels. If the appliance is exposed to the sun or to heat, remove the film after the appliance cools.
- Check that the refrigerant lines do not rub or touch lines or other surfaces, and that the fan blade (if applicable) turns freely.
- This appliance can be installed on a countertop or on an optional stand. If using an optional stand, see the table below. For further options, contact your local Hoshizaki distributor.

| Model Number    | SD Stand |
|-----------------|----------|
| DCM-271BAH(-OS) | SD-271   |

## B. Location

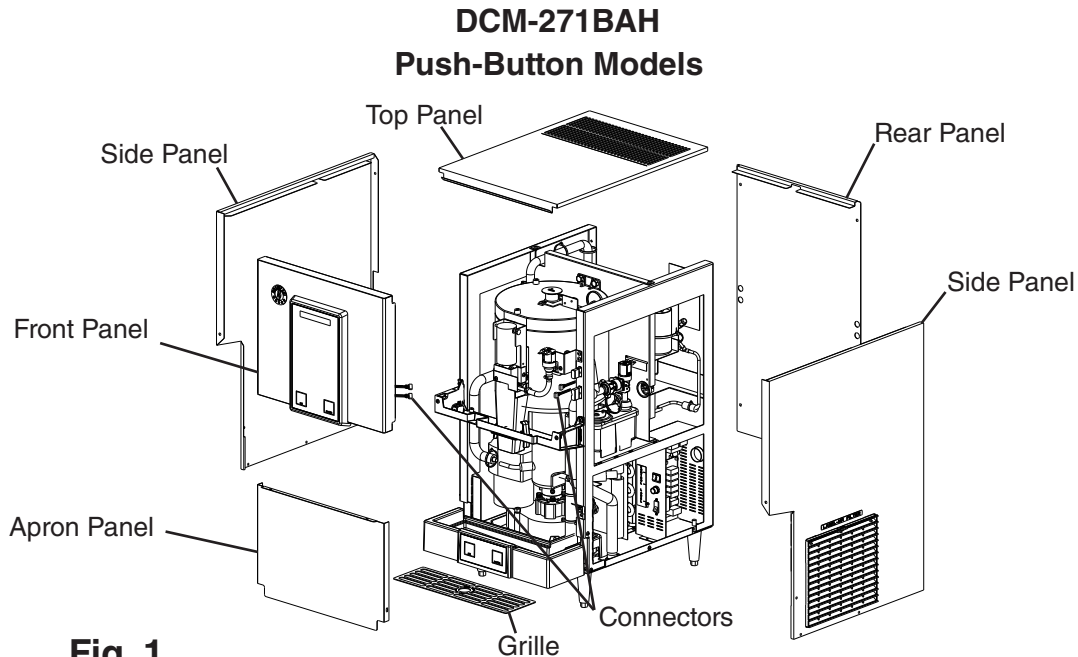
### ***NOTICE***

- The appliance is not intended for outdoor use. Normal operating ambient temperature must be within 45°F to 100°F (7°C to 38°C); Normal operating water temperature must be within 45°F to 90°F (7°C to 32°C). Operation of the appliance, for extended periods, outside of these normal temperature ranges may affect appliance performance.
  - The appliance will not work at sub-freezing temperatures. To prevent damage to the water supply line, drain the appliance if the air temperature is going to go below 32°F (0°C). See "IV. Preparing the Appliance for Periods of Non-Use."
  - Opti-Serve Model (-OS): Sunlight, direct and indirect, can have an effect on the operation of the dispense sensors. If a problem is noticed, the appliance should be moved out of direct sunlight and/or farther away from any outside windows.
- The appliance should not be located next to ovens, grills, or other high heat producing equipment.
  - Allow 6" (15 cm) clearance at rear and sides for proper air circulation and ease of maintenance and/or service should they be required. Allow 24" (61 cm) clearance at top to allow for removal of the auger.
  - The location should provide a firm and level foundation for the appliance.

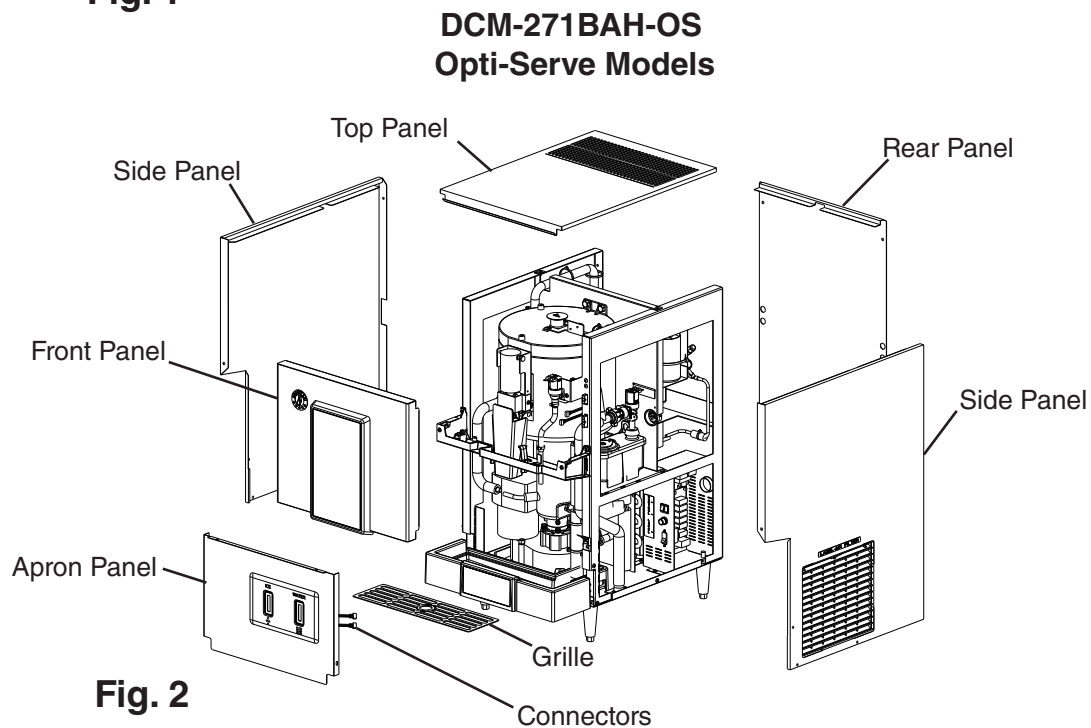
## C. How to Remove Panels

### See Fig. 1 or Fig. 2

- Front Panel: Remove the screw. Lift up and towards you. Disconnect the connector on push-button models.
- Top Panel: Lift up at front slightly, push rearward and lift off.
- Apron Panel: Remove the screws and pull towards you. Disconnect the connectors on optical-sensor models.
- Side Panel: Remove the screws and pull towards you.
- Ice Storage Bin Cover: Remove the thumbscrews and pull towards you.



**Fig. 1**



**Fig. 2**

## D. Setup

- 1) Position the appliance in the selected permanent location. If applicable, attach optional 4" legs or attach to an optional stand. If attaching to a stand, refer to the instructions included with the stand.
- 2) Level the appliance in both the left-to-right and front-to-rear directions. If using optional 4" legs or an optional stand, adjust the legs to make the appliance level.
- 3) If mounting flat to a counter, seal the perimeter where the appliance contacts the counter with approved caulk compound in a smooth and easily cleanable manner.
- 4) Replace the panels in their correct positions.

## E. Electrical Connection

### WARNING

- Electrical connection must meet national, state, and local electrical code requirements. Failure to meet these code requirements could result in death, electric shock, serious injury, fire, or damage.
- The appliance requires an independent power supply of proper capacity. See the nameplate for electrical specifications. Failure to use an independent power supply of proper capacity can result in a tripped breaker, blown fuse, damage to existing wiring, or component failure. This could lead to heat generation or fire.
- **THE APPLIANCE MUST BE GROUNDED:** The appliance is equipped with a NEMA 5-15 three-prong grounding plug  to reduce the risk of potential shock hazards. It must be plugged into a properly grounded, independent 3-prong wall outlet. If the outlet is a 2-prong outlet, it is your personal responsibility to have a qualified electrician replace it with a properly grounded, independent 3-prong wall outlet. Do not remove the ground prong from the power cord and do not use an adapter plug. Failure to properly ground the appliance could result in death or serious injury.
- Do not use an extension cord.
- To reduce the risk of electric shock, do not touch the control switch or plug with damp hands. Make sure the control switch is in the "OFF" position before plugging in or unplugging the appliance.
- Do not use an appliance with a damaged power cord. The power cord should not be altered, jerked, bundled, weighed down, pinched, or tangled. Such actions could result in electric shock or fire. To unplug the appliance, be sure to pull the plug, not the cord, and do not jerk the cord.
- The GREEN ground wire in the factory-installed power cord is connected to the appliance. 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.

- Usually an electrical permit and services of a licensed electrician are required.
- The maximum allowable voltage variation is  $\pm 10$  percent of the nameplate rating.

## F. Water Supply and Drain Connections

See Fig. 3

### ⚠ WARNING

Water supply and drain connections must be installed in accordance with applicable national, state, and local regulations.

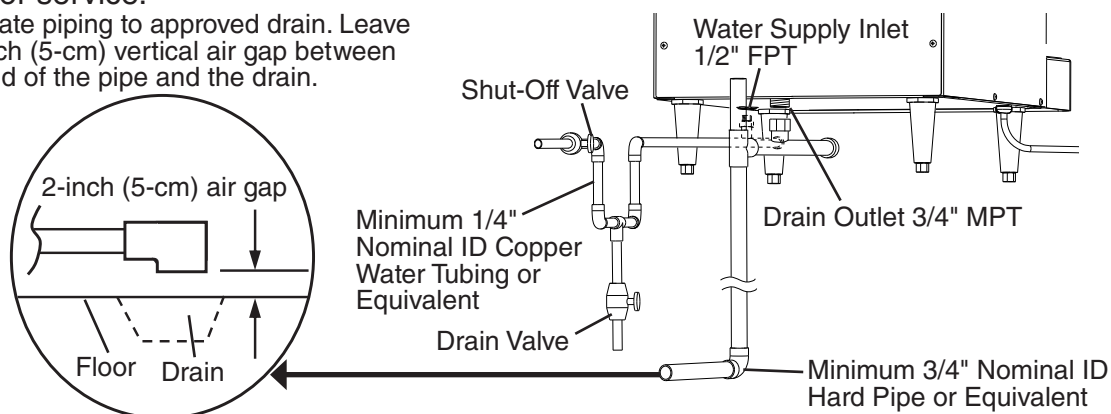
### NOTICE

- Normal operating water temperature must be within 45°F to 90°F (7°C to 32°C). Operation of the appliance, for extended periods, outside of this normal temperature range may affect appliance performance.
- Water supply pressure must be a minimum of 10 PSIG and a maximum of 113 PSIG. If the pressure exceeds 113 PSIG, the use of a pressure reducing valve is required.
- External filters, strainers, or softeners may be required depending on water quality. Contact your local Hoshizaki Certified Service Representative or local Hoshizaki distributor for recommendations.
- In areas where water damage is a concern, install in a contained area with a floor drain.

| Water Supply Inlet            | Minimum Water Supply Line Size                    | Drain Outlet                | Minimum Drain Line Size                 |
|-------------------------------|---------------------------------------------------|-----------------------------|-----------------------------------------|
| 1/2" Female Pipe Thread (FPT) | 1/4" Nominal ID Copper Water Tubing or Equivalent | 3/4" Male Pipe Thread (MPT) | 3/4" Nominal ID Hard Pipe or Equivalent |

- A plumbing permit and services of a licensed plumber may be required in some areas.
- Drain lines must have 1/4" fall per foot (2 cm per 1 m) on horizontal runs to get a good flow. A vented tee connection is also required for proper flow.
- Drain line should not be piped directly to the sewer system. An air gap of a minimum of 2 vertical inches (5 cm) must be between the end of the drain pipe from the appliance and the floor drain.
- A water supply line shut-off valve and drain valve must be installed.
- Be sure there is sufficient extra water supply line and drain line for the appliance to be pulled out for service.

Separate piping to approved drain. Leave a 2-inch (5-cm) vertical air gap between the end of the pipe and the drain.



**Fig. 3**

## G. Final Checklist

### WARNING

**CHOKING HAZARD:** Ensure all components, fasteners, and thumbscrews are securely in place after installation. Make sure that none have fallen into the ice storage bin.

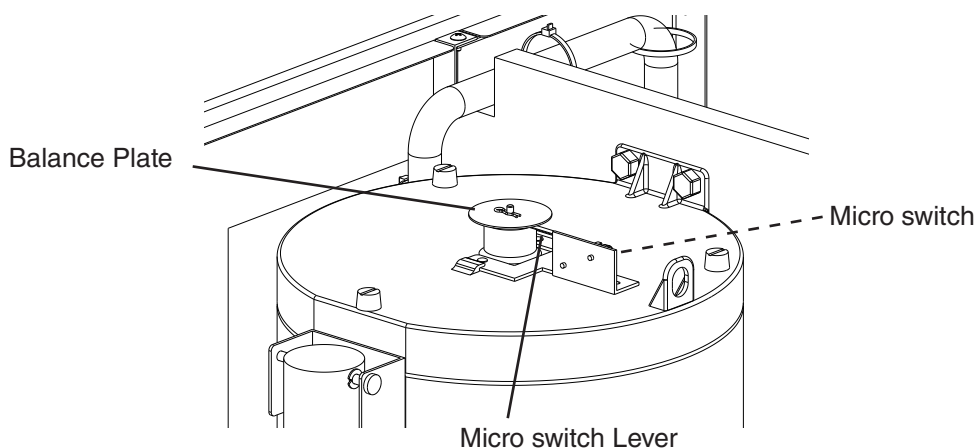
- 1) Is the icemaker level?
- 2) Is the icemaker in a site where the ambient temperature is within 45°F to 100°F (7°C to 38°C) and the water temperature within 45°F to 90°F (7°C to 32°C) all year around?
- 3) Is there at least 6" (15 cm) clearance at rear and sides and 24" (61 cm) at top for proper air circulation and ease of maintenance and service?
- 4) Have the shipping carton, tape, and packing material been removed from the icemaker?
- 5) If the icemaker is mounted flat to a counter, has the perimeter where the icemaker contacts the counter been sealed with approved caulk compound? If the icemaker is on a stand, has it been secured to the stand as outlined in the stand's instructions?
- 6) Have all electrical and water connections been made? Do electrical and water connections meet all national, state, and local code and regulation requirements?
- 7) Has the power supply voltage been checked or tested against the nameplate rating? Has a proper ground been installed to the appliance?
- 8) Are the water supply and drain lines sized as specified? Are the water supply line shut-off valve(s) and drain valve(s) installed? Has the water supply pressure been checked to ensure a minimum of 10 PSIG and a maximum of 113 PSIG?
- 9) Is the compressor snug on all mounting pads? Have the refrigerant lines been checked to make sure they do not rub or touch other lines or surfaces? Has the fan blade (if applicable) been checked to make sure it turns freely?
- 10) Are all components, fasteners, and thumbscrews securely in place?
- 11) Has the end user been given the instruction manual, and instructed on how to operate the appliance and the importance of the recommended periodic maintenance?
- 12) Has the end user been given the contact information of an authorized service agent?
- 13) Has the warranty card been filled out and forwarded to the factory for warranty registration?

## H. Startup

### **⚠ WARNING**

- All parts are factory-adjusted. Improper adjustments may adversely affect safety, performance, component life, and warranty coverage.
- If the icemaker is turned off, wait for at least 3 minutes before restarting the icemaker to prevent damage to the compressor.
- At startup, confirm that all internal and external connections are free of leaks.

- 1) Make sure the power switch is in the "OFF" position, and the appliance is unplugged from the electrical outlet.
- 2) Open the water supply line shut-off valve. See Fig. 3.
- 3) Remove the louver and air filter. Move the control switch to the "ICE" position. Replace the louver and air filter in their correct positions.
- 4) Plug the appliance into the electrical outlet. Move the power switch to the "ON" position to start the automatic icemaking process.
- 5) Once the appliance starts to produce ice, allow it to run for 30 minutes.
- 6) After 30 minutes, while the appliance is energized, remove the front panel. On the push-button model, disconnect the connector (5VDC). Next, remove the top panel.
- 7) Confirm bin control operation. Lift the balance plate located on the bin top until the micro switch lever lifts and micro switch opens. See Fig. 4. 90-second compressor shutdown timer starts. Once the 90-second compressor shutdown timer terminates, compressor de-energizes and the 60-second gear motor shutdown timer starts. Once the 60-second gear motor shutdown timer terminates, gear motor de-energizes. Release the balance plate back to its correct position.



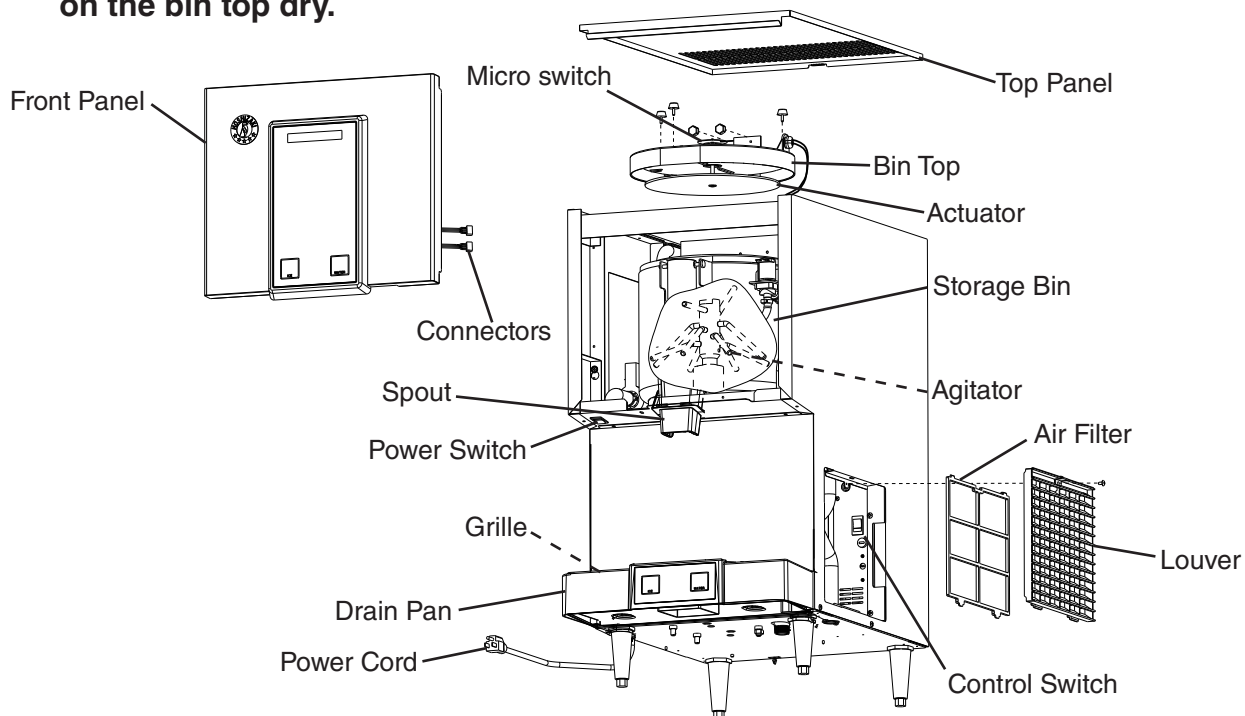
**Fig. 4**

- 8) Remove the louver and air filter. Move the control switch to the "OFF" position, pause momentarily, then move the control switch to the "DRAIN" position. Allow the water system to drain completely (you will see the water draining into the drain pan). Move the control switch to the "OFF" position.

Note: a) A momentary pause in the "OFF" position is necessary to de-energize the control board when moving the control switch between "DRAIN" and "ICE." Otherwise there is a delay of several minutes before the new selection takes effect.

b) If control switch is left in the "DRAIN" position for 10 minutes or more, a 2-beep alarm sounds every 5 seconds. If this occurs, move the control switch out of the "DRAIN" position to clear the alarm.

- 9) Dispense all of the ice from the ice storage bin. Also confirm that the water dispenser is operating correctly.
- 10) Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet.
- 11) Remove the bin top. Clean the ice storage bin liner and actuator using a neutral cleaner. Rinse thoroughly after cleaning. **NOTICE! Be sure to keep the micro switch mounted on the bin top dry.**



**Fig. 5**

- 12) Move the control switch to the "ICE" position.
- 13) Replace all removed parts and panels in their correct positions. On the push-button model, reconnect the connector (5VDC). **WARNING! CHOKING HAZARD: Ensure all components, fasteners, and thumbscrews are securely in place. Make sure that none have fallen into the ice storage bin.**
- 14) Plug the appliance into the electrical outlet. Move the power switch to the "ON" position to start the automatic icemaking process.

## I. Alarm Safeties

Should an alarm occur, follow the instructions in the table below to address the alarm. If an alarm continues to occur, contact an authorized service agent.

| <b>⚠ WARNING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <ul style="list-style-type: none"> <li>• Only qualified service technicians should service the appliance.</li> <li>• To reduce the risk of electric shock, do not touch the icemaker power switch or control switch with damp hands.</li> <li>• <b>Before Servicing:</b> Move the icemaker's power switch to the "OFF" position. Turn off the power supply. Lockout/Tagout to prevent the power supply from being turned back on inadvertently.</li> </ul> |  |

| No. of Beeps<br>(every 5 sec.) | Type of Alarm                                                       | Reset Options                                                                                                                                                                     |
|--------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                              | <b>Low Water Safety</b><br>UFS open > 90 sec. after WV energized.   | Automatic reset once water supply is restored and UFS closes.                                                                                                                     |
| 2                              | <b>Control Switch</b><br>In "DRAIN" position longer than 10 min.    | Automatic reset once the control switch is moved to the "ICE" position.                                                                                                           |
| 3                              | <b>High-Pressure Switch</b><br>First and second activation in 1 hr. | Automatic reset once pressure drops below the high pressure threshold and HPS closes.                                                                                             |
| 4                              | <b>High-Pressure Switch</b><br>Third activation in 1 hr.            | Call for service. To avoid possible catastrophic failure, it is recommended to leave the icemaker off until this alarm is resolved.<br>Manual reset. Turn power off and on again. |
| 5                              | <b>Freeze Timer</b><br>WV off > 30 min. since last WV activation.   | Manual reset. Turn power off and on again.                                                                                                                                        |
| 6                              | <b>Low Voltage</b><br>92VAC±5% or less                              | "POWER OK" LED turns off if voltage protection operates.                                                                                                                          |
| 7                              | <b>High Voltage</b><br>147VAC±5% or more                            | The control voltage safeties automatically reset when voltage is corrected.                                                                                                       |
| 8                              | <b>Gear Motor</b><br>CCR contacts fail to close.                    | Manual reset. Turn power off and on again.                                                                                                                                        |

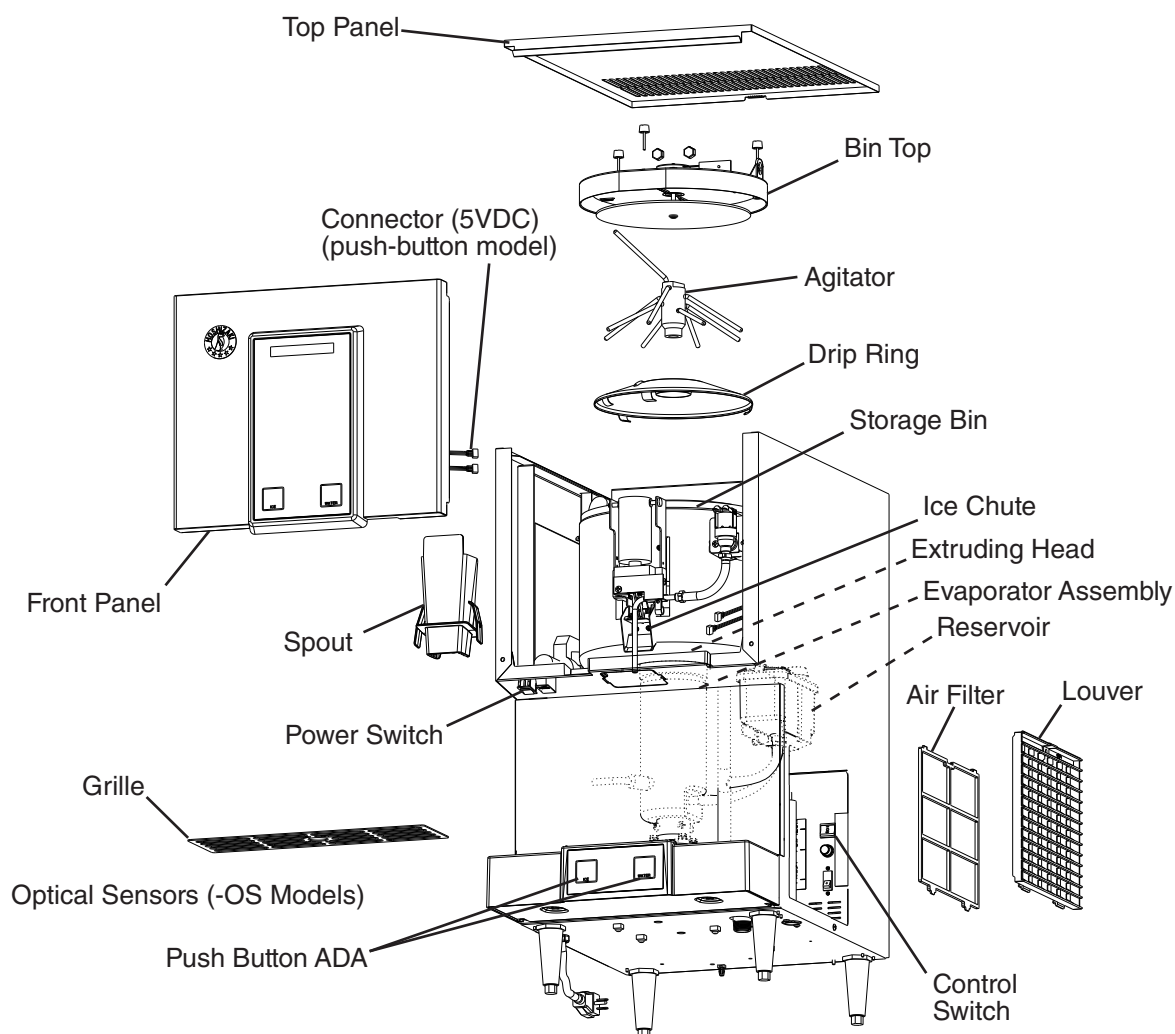
Legend: **CCR**—compressor control relay; **UFS**—upper float switch; **HPS**—high-pressure switch; **WV**—inlet water valve

### III. Maintenance

The appliance must be maintained in accordance with the instruction manual and labels provided. Consult with your local Hoshizaki Certified Service Representative about maintenance service.

#### **⚠ WARNING**

- Only qualified service technicians should service the appliance.
- Failure to install, operate, and maintain the equipment in accordance with this manual will adversely affect safety, performance, component life, and warranty coverage.
- To reduce the risk of electric shock, do not touch the power switch, control switch, or plug with damp hands.
- **Before Servicing:** Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet.
- **CHOKING HAZARD:** Ensure all components, fasteners, and thumbscrews are securely in place after any maintenance is done to the appliance. Make sure that none have fallen into the ice storage bin.



**Fig. 6**

**Model Shown: DCM-271BAH**

## A. Maintenance Schedule

The maintenance schedule below is a guideline. More frequent maintenance may be required depending on water quality, the appliance's environment, and local sanitation regulations.

| Maintenance Schedule       |                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                  | Area                                                                                                                  | Task                                                                                                                                                                                                                                                                                                                                                  |
| Bi-Weekly                  | Air Filters                                                                                                           | Inspect. Wash with warm water and neutral cleaner if dirty.                                                                                                                                                                                                                                                                                           |
| Monthly                    | External Water Filters                                                                                                | Check for proper pressure and change if necessary.                                                                                                                                                                                                                                                                                                    |
|                            | Appliance Exterior                                                                                                    | Wipe down with a clean, soft cloth. Use a damp cloth containing a neutral cleaner to wipe off oil or dirt build up. Clean any chlorine staining (rust colored spots) using a non-abrasive cleanser.                                                                                                                                                   |
| Every 6 Months             | Icemaker and Ice Storage Bin                                                                                          | Clean and sanitize per the cleaning and sanitizing instructions provided in this manual.                                                                                                                                                                                                                                                              |
|                            | Dispense Drain Pan and Gear Motor Drain Pan                                                                           | Wipe down with a clean cloth and warm water. Slowly pour one cup of sanitizing solution (prepare as outlined in the sanitizing instructions in this manual) into the dispense drain pan and gear motor drain pan. Be careful not to overflow the dispense or gear motor drain pan. Repeat with a cup of clean water to rinse.                         |
|                            | Extruding Head Seal Bolts                                                                                             | Inspect for leakage around seal bolts. Tighten (see torque value below) or replace as necessary. Seal bolts must be replaced once removed because seal material is one-time use only. If new seal bolts do not have preapplied threadlocker, apply Loctite 243 or equivalent threadlocker to seal bolt threads.<br>• <i>Torque:</i> 11.1 ft-lb/15 N·m |
| Yearly                     | Inlet Water Valve, Dispense Water Valve, and Drain Valve                                                              | Close the water supply line shut-off valve and drain the water system. Clean the inlet water valve and dispense water valve screens and clean and inspect the drain valve.                                                                                                                                                                            |
|                            | Water Hoses                                                                                                           | Inspect the water hoses and clean/replace if necessary.                                                                                                                                                                                                                                                                                               |
|                            | Condenser                                                                                                             | Inspect. Clean if necessary by using a brush or vacuum cleaner.                                                                                                                                                                                                                                                                                       |
|                            | Icemaker                                                                                                              | Inspect for oil spots, loose components, fasteners, and wires.                                                                                                                                                                                                                                                                                        |
|                            | Upper Bearing (extruding head)                                                                                        | Check for wear using .02" round stock or pin gauge. Replace both upper bearing and lower bearing if wear exceeds factory recommendations. See the Service Manual for details.                                                                                                                                                                         |
| After 3 Years, then Yearly | Upper Bearing (extruding head); Lower Bearing and O-Ring (lower housing); Mechanical Seal; Evaporator Cylinder; Auger | Inspect. Replace both upper bearing and lower bearing if wear exceeds factory recommendations. Replace the mechanical seal if the seal's contact surfaces are worn, cracked, or scratched. See the Service Manual for details.                                                                                                                        |

## B. Cleaning and Sanitizing Instructions

The appliance must be cleaned and sanitized at least twice a year. More frequent cleaning and sanitizing may be required in some conditions.

### WARNING

- To prevent injury to individuals and damage to the appliance, do not use ammonia type cleaners.
- Carefully follow any instructions provided with the cleaning and sanitizing solutions.
- Always wear liquid-proof gloves and goggles to prevent the cleaning and sanitizing solutions from coming into contact with skin or eyes.
- Do not use ice made from the cleaning and sanitizing solutions. After cleaning and sanitizing, be careful not to leave any solution in the appliance.
- Do not place fingers or any other objects into the ice discharge opening (extruding head).
- After cleaning and sanitizing, do not use ice made from the cleaning and sanitizing solutions. Be careful not to leave any solution on the parts or in the ice storage bin.

## 1. Water System

### a) *Cleaning Solution*

Dilute 9.6 fl. oz. (0.29 l) of Hoshizaki "Scale Away" with 1.6 gal. (6.0 l) of warm water. This is a minimum amount. Make more solution if necessary.

**IMPORTANT! For safety and maximum effectiveness, use the solution immediately after dilution.**

### b) *Cleaning Procedure*

- 1) Close the water supply line shut-off valve. See Fig. 3.
- 2) Dispense all of the ice from the ice storage bin.
- 3) Move the power switch to the "OFF" position, then remove the louver and air filter. See Fig. 6. Move the control switch to the "DRAIN" position, then move the power switch to the "ON" position. Allow the water system to drain completely (you will see the water draining into the drain pan). Move the control switch to the "OFF" position.  
Note: a) When the appliance has power, a momentary pause in the "OFF" position is necessary to de-energize the control board when moving the control switch between "ICE" and "DRAIN." Otherwise there is a delay of several minutes before the new selection takes effect.  
b) If the control switch is left in the "DRAIN" position for 10 minutes or more, a 2-beep alarm sounds every 5 seconds. Move the control switch out of the "DRAIN" position to clear the alarm.
- 4) Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet. Remove the front panel. On the push-button model, disconnect the connector. Next, remove the top panel.
- 5) Remove the bin top, then remove the agitator and drip ring.

- 6) Pour the cleaning solution over the extruding head until the evaporator assembly and the reservoir are full and the solution starts to overflow into the drain pan. Allow to soak for 10 minutes.

Note: If there is excessive scale on the extruding head, fill the evaporator assembly and reservoir as described above, then use a clamp on the reservoir hose between the reservoir and evaporator assembly to block flow. Pour additional cleaning solution over the extruding head until the evaporator assembly is completely full.

- 7) Remove the grille and spout.

- 8) Scrub the inside of the ice storage bin, inside of the bin top, the agitator, drip ring, ice chute area, spout, grille, and the inside of the drain pan using a nylon scouring pad, brushes, and cleaning solution. Rinse all parts thoroughly with clean water.

**NOTICE! Be sure to keep the micro switch mounted on the bin top dry.**

- 9) If you placed a clamp on the reservoir hose in step 6, remove it before operation.

- 10) Move the control switch to the "ICE" position. Replace the air filter, louver, drip ring, agitator, bin top, and panels in their correct positions.

- 11) Plug the appliance into the electrical outlet. Move the power switch to the "ON" position. Make ice using the solution until the appliance stops making ice.

- 12) Move the power switch to the "OFF" position, then remove the louver and air filter. Move the control switch to the "DRAIN" position, then move the power switch to the "ON" position. Allow the water system to drain completely.

- 13) Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet.

- 14) Remove the front panel, top panel, and bin top.

- 15) Pour clean, warm water into the ice storage bin and melt any remaining ice. Remove the agitator and drip ring. Rinse the inside of the ice storage bin, the agitator, and drip ring thoroughly with clean water.

- 16) Pour clean, warm water over the extruding head until the evaporator assembly and the reservoir are full and the water starts to overflow into the drain pan. Plug the appliance into the electrical outlet, then move the power switch to the "ON" position. Allow the water system to drain completely.

Note: If you do not sanitize the icemaker, move the power switch to the "OFF" position after the water system drains. Unplug the appliance from the electrical outlet, then replace the drip ring, grille, and spout in their correct positions. Go to step 10 in "III.B.1.e) Sanitizing Procedure - Final."

- 17) Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet.

### **c) Sanitizing Solution**

Dilute 0.82 fl. oz. (25 ml) of a 5.25% sodium hypochlorite solution (chlorine bleach) with 1.6 gal. (6.0 l) of warm water. This is a minimum amount. Make more solution if necessary. **IMPORTANT! For safety and maximum effectiveness, use the solution immediately after dilution.**

### **d) Sanitizing Procedure - Initial**

- 1) Make sure the power switch is in the "OFF" position, the appliance is unplugged, and the water supply line shut-off valve is closed.
- 2) Pour the sanitizing solution over the extruding head until the evaporator assembly and the reservoir are full and the solution starts to overflow into the drain pan. Allow to soak for 10 minutes.
- 3) Scrub the inside of the ice storage bin, inside of the bin top, the agitator, drip ring, ice chute area, spout, grille, and the inside of the drain pan using a nylon scouring pad, brushes, and sanitizing solution. Rinse all parts thoroughly with clean water.  
**NOTICE! Be sure to keep the switch mounted on the bin top dry.**
- 4) Move the control switch to the "ICE" position. Replace the air filter, louver, drip ring, agitator, bin top, grille, spout, and panels in their correct positions.
- 5) Plug the appliance into the electrical outlet. Move the power switch to the "ON" position. Make ice using the solution until the appliance stops making ice.
- 6) Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet.
- 7) Remove the front panel, top panel, and bin top.
- 8) Pour clean, warm water into the ice storage bin and melt any remaining ice.
- 9) Remove the louver and air filter. Plug the appliance into the electrical outlet. Move the control switch to the "DRAIN" position, then move the power switch to the "ON" position. Allow the water system to drain completely.
- 10) Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet.

### **e) Sanitizing Procedure - Final**

- 1) Make sure the power switch is in the "OFF" position, the appliance is unplugged, and the water supply line shut-off valve is closed.
- 2) Remove the agitator. Pour the sanitizing solution over the extruding head until the evaporator assembly and the reservoir are full and the solution starts to overflow into the drain pan. Allow to soak for 10 minutes.
- 3) Move the control switch to the "ICE" position. Replace the air filter, louver, agitator, bin top, and panels in their correct positions.
- 4) Plug the appliance into the electrical outlet. Move the power switch to the "ON" position. Make ice using the solution until the appliance stops making ice.
- 5) Move the power switch to the "OFF" position, then remove the louver and air filter. Move the control switch to the "DRAIN" position, then move the power switch to the "ON" position. Allow the water system to drain completely.

- 6) Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet.
- 7) Remove the front panel, top panel, and bin top.
- 8) Pour clean, warm water into the ice storage bin and melt any remaining ice. Remove the agitator. Pour clean, warm water over the extruding head until the evaporator assembly and the reservoir are full and the water starts to overflow into the drain pan. Plug the appliance into the electrical outlet, then move the power switch to the "ON" position. Allow the water system to drain completely.
- 9) Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet.
- 10) Move the control switch to the "ICE" position. Replace the air filter, louver, agitator, bin top, and panels in their correct positions.
- 11) Open the water supply line shut-off valve to supply water to the reservoir. Plug the appliance into the electrical outlet. Move the power switch to the "ON" position to start the automatic icemaking process. Allow the appliance to run for 30 minutes.
- 12) Move the power switch to the "OFF" position, then remove the louver and air filter. Move the control switch to the "DRAIN" position, then move the power switch to the "ON" position. Allow the water system to drain completely.
- 13) Dispense all of the ice from the ice storage bin.
- 14) Move the power switch to the "OFF" position, then unplug the appliance from the electrical outlet.
- 15) Remove the front panel, top panel, and bin top. Remove the agitator and drip ring.
- 16) Wipe down the inside of the ice storage bin, inside of the bin top, the agitator, and drip ring with a clean cloth.
- 17) Move the control switch to the "ICE" position. Replace the air filter, louver, drip ring, agitator, bin top, and panels in their correct positions. On the push-button model, reconnect the connector. **WARNING! CHOKING HAZARD: Ensure all components, fasteners, and thumbscrews are securely in place. Make sure that none have fallen into the ice storage bin.**
- 18) Plug the appliance into the electrical outlet, then move the power switch to the "ON" position to start the automatic icemaking process.

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## IV. Preparing the Appliance for Periods of Non-Use

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| <b>NOTICE</b> |
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| When storing the appliance for an extended time or in sub-freezing temperatures, follow the instructions below to prevent damage. |
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When the appliance is not used for two or three days under normal conditions, it is sufficient to move the power switch to the "OFF" position. When storing the appliance for an extended time or in sub-freezing temperatures, follow the instructions below.

### 1. Remove the ice from the ice storage bin, drain the water system, and remove the water from the icemaker water supply line:

- 1) Close the water supply line shut-off valve and open the water supply line drain valve.
- 2) Dispense all of the ice from the storage bin.
- 3) Move the power switch to the "OFF" position, then remove the louver and air filter. See Fig. 6. Move the control switch to the "DRAIN" position, then move the power switch to the "ON" position. Allow the water system to drain completely (you will see the water draining into the drain pan).

Note: a) When the appliance has power, a momentary pause in the "OFF" position is necessary to de-energize the control board when moving the control switch between "ICE" and "DRAIN." Otherwise there is a delay of several minutes before the new selection takes effect.

b) If the control switch is left in the "DRAIN" position for 10 minutes or more, a 2-beep alarm sounds every 5 seconds. Move the control switch out of the "DRAIN" position to clear the alarm.

- 4) Attach a compressed air or carbon dioxide supply to the water supply line drain valve.
- 5) While engaging the water dispense switch, blow out the water dispense valve using the compressed air or carbon dioxide supply. After blowing out the water dispense valve, leave the compressed air or carbon dioxide supply flowing. Move the control switch to the "ICE" position to open the inlet water valve and briefly blow out the valve. After blowing out the inlet water valve, move the power switch to the "OFF" position.
- 6) Close the water supply line drain valve.
- 7) Unplug the appliance from the electrical outlet.
- 8) Remove the front panel. On the push-button model, disconnect the connector. Remove the top panel and bin top. Clean the storage bin liner and the inside of the bin top using a neutral cleaner. Rinse thoroughly after cleaning. **NOTICE! Be sure to keep the switch mounted on the bin top dry.** Dry the storage bin liner and the inside of the bin top using a clean cloth.
- 9) Replace the air filter, louver, bin top, and panels in their correct positions. On the push-button model, reconnect the connector. **WARNING! CHOKING HAZARD: Ensure all components, fasteners, and thumbscrews are securely in place. Make sure that none have fallen into the storage bin.**

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## **V. Disposal**

The appliance contains refrigerant and must be disposed of in accordance with applicable national, state, and local codes and regulations. Refrigerant must be recovered by properly certified service personnel.

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