



HOSHIZAKI

Instruction Manual

Modular Crescent Cuber

Models

KM-520MAJ-E

KM-660MAJ-E



hoshizakiamerica.com

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⚠ 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. 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.

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.
- 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 (EARTHED).** Failure to properly ground (earth) the appliance could result in death or serious injury.
- To reduce the risk of electric shock, do not touch the control switch, mode switch, or plug with damp hands.
- This appliance is equipped with a three-prong fused grounding (earthed) plug to reduce the risk of potential shock hazards. Corded models must be plugged into a properly grounded (earthed), 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 (earthed), independent 3-prong wall outlet. Do not remove the ground (earth) 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.

⚠ WARNING, continued

- 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.
- Factory fitted power cords are coloured in accordance with the following code:
Green and Yellow = Ground (Earth)
Blue = Neutral
Brown = Line
- The GREEN/YELLOW 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.
- Do not make any alterations to the appliance. Alterations could result in electric shock, serious injury, fire, or damage.
- 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.
- 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

- 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."
- Do not place objects on top of the appliance.
- The dispenser unit/ice storage bin is for ice use only. Do not store anything else in the dispenser unit/ice storage bin.

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. KM-520MAJ-E and KM-660MAJ-E

Single Phase		
Model Number	KM-520MAJ-E	KM-660MAJ-E
AC Supply Voltage	230V	230V
Frequency	50 Hz	50 Hz
AMPERAGE	8.4A	8.4A
REFRIGERANT	404A .500 KG	404A .760 KG
	(GWP=3922, CO2=1.96t)	(GWP=3922, CO2=2.98t)
INSULATING BLOWING GAS	HFC-FREE	HFC-FREE
WEIGHT	79 KG	79 KG
CONDITIONS	CLASS T	CLASS T
MAXIMUM OPERATING PRESSURE	2.88MPA	2.88MPA
LEAK TIGHTNESS TESTED		

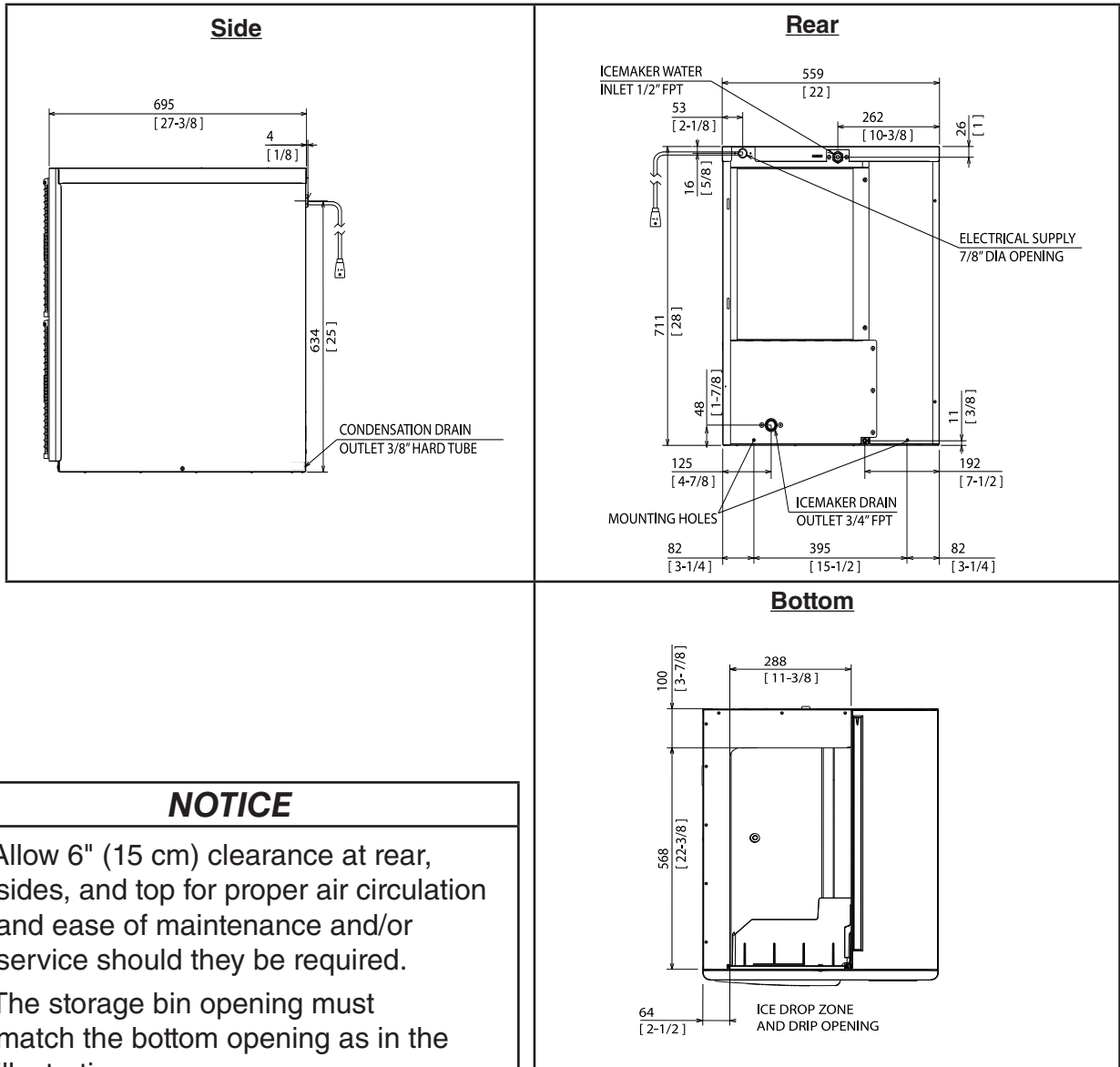
This product includes a hermetically sealed refrigeration system that contains fluorinated greenhouse gases:

	R-404A (kg)	GWP	CO2 (t)
KM-520MAJ-E	0.500	3922	1.961
KM-660MAJ-E			

B. Dimensions/Connections

1. Air-Cooled Models (MAJ-E)

Unit: mm [inches]



II. Installation and Operating Instructions

WARNING

- The icemaker must be installed in accordance with applicable national, state, and local codes and regulations.
- Failure to install, operate, and maintain the icemaker 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 dispenser unit/ice storage bin.

A. Location

NOTICE

- The icemaker 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 icemaker, for extended periods, outside of these normal temperature ranges may affect icemaker performance.
- The icemaker will not work at sub-freezing temperatures. To prevent damage to the water supply line, drain the icemaker if the air temperature is going to go below 32°F (0°C). See "IV. Preparing the Appliance for Periods of Non-Use."

- The icemaker should not be located next to ovens, grills, or other high heat producing equipment.
- Allow 6" (15 cm) clearance at rear, sides, and top for proper air circulation and ease of maintenance and/or service should they be required.
- The location should provide a firm and level foundation for the equipment.

B. 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 icemaker, 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 icemaker. See "II.C. How to Remove Panels."
- Remove the package containing the accessories.
- 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.
- Check that the refrigerant lines do not rub or touch lines or other surfaces, and that the fan blade (if applicable) turns freely.
- Check that the compressor is snug on all mounting pads.
- The icemaker can be installed on a dispenser unit or ice storage bin. The ice storage bins listed below are recommended.

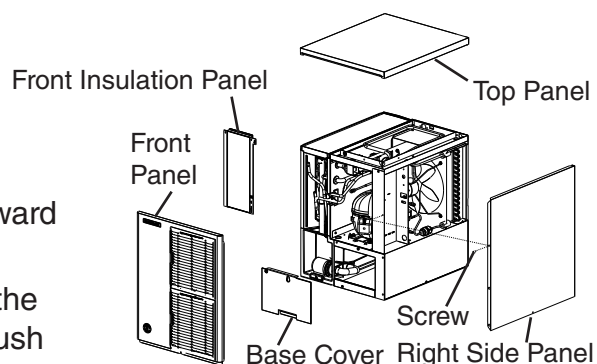
Model Number	Bin Width	Recommended Hoshizaki Ice Storage Bin
KM-520MAJ-E KM-660MAJ-E	22" or Wider	B-300 Series

For further options, contact your local Hoshizaki distributor.

C. How to Remove Panels

See Fig. 1

- Front Panel: Remove the screw. Lift up and towards you.
- Top Panel: Lift up at front slightly, push rearward and lift off.
- Right Side Panel: Remove the screw. Slide the right front corner to the right slightly, then push rearward and lift off.
- Front Insulation Panel: Lift up slightly and pull towards you.
- Base Cover: Lift up slightly and pull towards you.



Model Shown: KM-520MAJ-E

Fig. 1

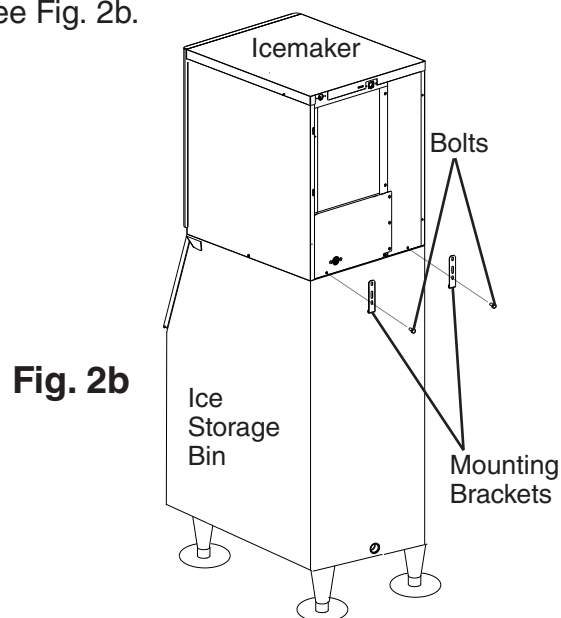
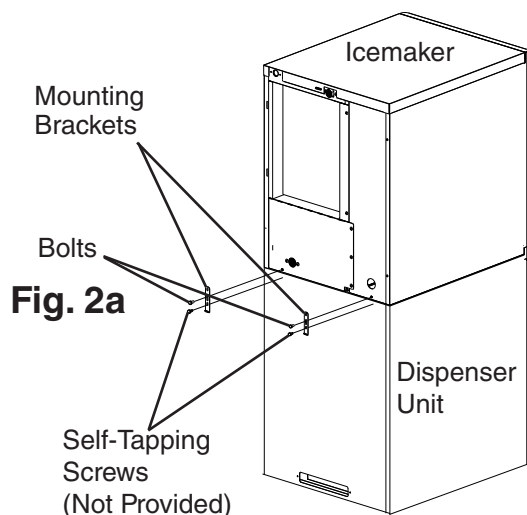
D. Setup

1. Dispenser Unit/Ice Storage Bin and Icemaker Setup

⚠ WARNING

- The installer must ensure the dispenser unit/ice storage bin is compatible with the icemaker, and the dispenser unit/ice storage bin and icemaker are properly attached and secured.
- Do not allow top kits to interfere with the bin control lens sensing area or the icemaker will not operate properly.

- 1) If mounting the icemaker on top of a dispenser unit, follow the dispenser unit's setup procedure. If mounting the icemaker on top of an ice storage bin, unpack the ice storage bin and attach the 4 adjustable legs provided (bin accessory) to the bottom of the ice storage bin.
 - 2) Position the dispenser unit/ice storage bin in its permanent location.
 - 3) If required, install an adapter kit or top kit. Contact your local Hoshizaki distributor for recommendations.
 - 4) Level the dispenser unit/ice storage bin in both the left-to-right and front-to-rear directions. If using an ice storage bin, adjust the ice storage bin legs to level.
 - 5) Place the icemaker on top of the dispenser unit/ice storage bin.
- 6a) **Dispenser Unit:** Follow the dispenser unit, adapter kit, or top kit instructions for securing the icemaker. If no instructions are available, secure the icemaker using the mounting brackets provided. Rotate the mounting brackets so that they fit flush to the dispenser unit. See Fig. 2a. Secure the mounting brackets to the icemaker with the bolts provided. Secure the mounting brackets to the dispenser unit with self-tapping screws (not provided). **NOTICE! Use care to avoid damage to dispenser unit components when attaching the mounting brackets. For dispenser unit bin control setting see "II.H.1. Bin Control Setting."**
- 6b) **Ice Storage Bin:** Follow the ice storage bin, adapter kit, or top kit instructions for securing the icemaker. If no instructions are available, secure the icemaker using the 2 mounting brackets and the bolts provided. See Fig. 2b.



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.
- This 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 (EARTHED).** This appliance is equipped with a three-prong fused grounding (earthed) plug to reduce the risk of potential shock hazards. Corded models must be plugged into a properly grounded (earthed), 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 (earthed), independent 3-prong wall outlet. Do not remove the ground (earth) prong from the plug and do not use an adapter plug. Failure to properly ground (earth) the appliance could result in death or serious injury.
- To reduce the risk of electric shock, do not touch the control switch, mode 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 extension cord.
- 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/YELLOW 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.

- Usually an electrical permit and services of a licensed electrician are required.
- The maximum allowable voltage variation is ± 10 percent of the nameplate rating.
- Factory fitted power cords are coloured in accordance with the following code:

Green and Yellow = Ground (Earth)

Light Blue = Neutral

Brown = Line

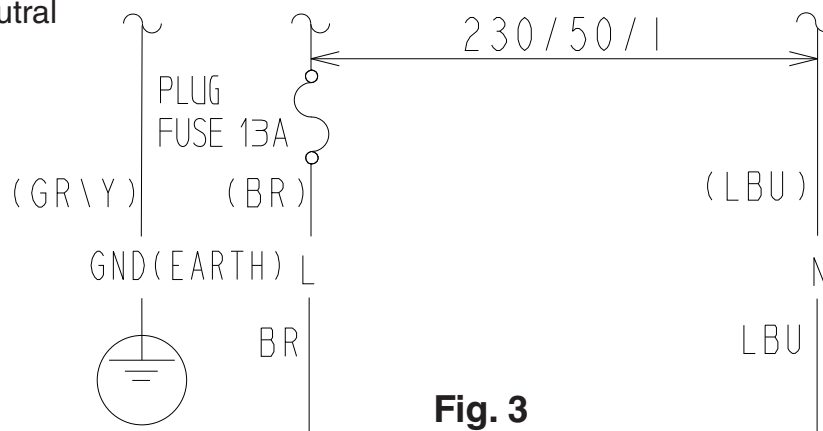


Fig. 3

F. Water Supply and Drain Connections

See Fig. 4

WARNING

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

NOTICE

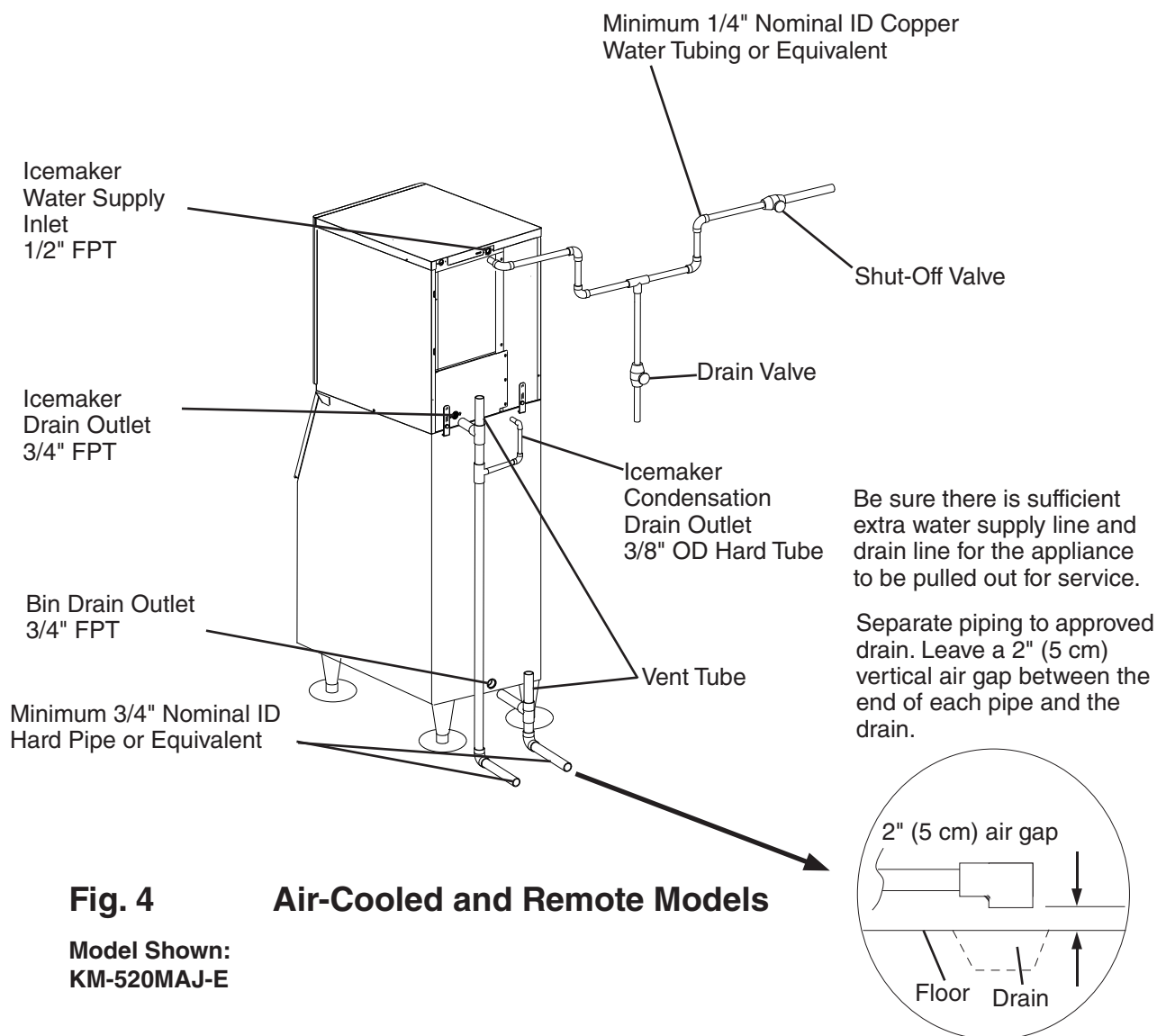
- Normal operating water temperature should be within 45°F to 90°F (7°C to 32°C). Operation of the appliance, for extended periods, outside of this normal temperature range may affect appliance performance.
- Water supply pressure must be a minimum of 10 PSIG (.7 BAR) and a maximum of 113 PSIG (7.8 BAR). If the pressure exceeds 113 PSIG (7.8 BAR), the use of a pressure reducing valve is required.
- To prevent damage to the appliance, do not operate the appliance when the water supply is off, or if the pressure is below 10 PSIG (.7 BAR). Do not run the appliance until the proper water pressure is reached.
- 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.

- A plumbing permit and services of a licensed plumber may be required in some areas.
- The icemaker drain line and dispenser unit/ice storage bin drain line must be run separately. The condensation drain line can be connected to the icemaker drain line or can be run separately.
- 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 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 condensation drain, dispenser unit/ice storage bin, and water-cooled condenser (if applicable) and the floor drain.

1. Icemaker

Icemaker Water Supply Inlet	Minimum Icemaker Water Supply Line Size	Icemaker Drain Outlet	Minimum Icemaker Drain Line Size	Condensation Drain Outlet
1/2" Female Pipe Thread (FPT)	1/4" Nominal ID Copper Water Tubing or Equivalent	3/4" Female Pipe Thread (FPT)	3/4" Nominal ID Hard Pipe or Equivalent	3/8" OD Hard Tube

- An icemaker 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.



G. Final Checklist

1. Pre-Startup

- 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, sides, and top of the icemaker?
- 4) Have the shipping carton, tape, and packing material been removed from the icemaker?
Is the cube guide in the correct position?
- 5) Have all electrical and water connections been made? Do electrical and water connections meet applicable national, state, and local code and regulation requirements?
- 6) Has the power supply voltage been checked or tested against the nameplate rating?
Has a proper ground (earth) been installed to the icemaker?
- 7) 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 (.7 BAR) and a maximum of 113 PSIG (7.8 BAR)?
- 8) 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 been checked to make sure it turns freely?

2. Post-Startup

WARNING
• CHOKING HAZARD: Ensure all components, fasteners, and thumbscrews are securely in place after installation. Make sure that none have fallen into the dispenser unit/ice storage bin. • Confirm that all internal and external connections are free of leaks.

- 1) Has the bin control been set to the proper setting for the application?
- 2) Has the bin control operation been confirmed?
- 3) Are all components, fasteners, and thumbscrews securely in place?
- 4) 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?
- 5) Has the end user been given the contact information of an authorized service agent?
- 6) Has the warranty registration been completed and submitted to the factory?

H. Startup

1. Bin Control Setting

An ultrasonic sensor is used as the bin control to control the level of ice in the dispenser unit/ice storage bin. The bin control setting must be set to match the application to avoid possible icemaker movement, water leakage, or ice overflow.

⚠ WARNING

- Improper adjustment may adversely affect safety, performance, component life, and warranty coverage.
- On dispenser unit applications, do not increase ice level above the recommended setting listed below. Higher ice levels could result in icemaker movement, water leakage, or ice overflow.

NOTICE

Do not allow top kits or top kit risers (if applicable) to interfere with the bin control lens sensing area or the icemaker will not operate properly.

- 1) Make sure that the icemaker is unplugged from the electrical outlet. Remove the front, top, and right side panels to allow access to the control board. Also remove the base cover. See Fig. 5. Note: If front access to the control box is required, remove the control box mounting screws, then slide the control box forward and rotate the control box for access. See Fig. 6.

Fig. 5

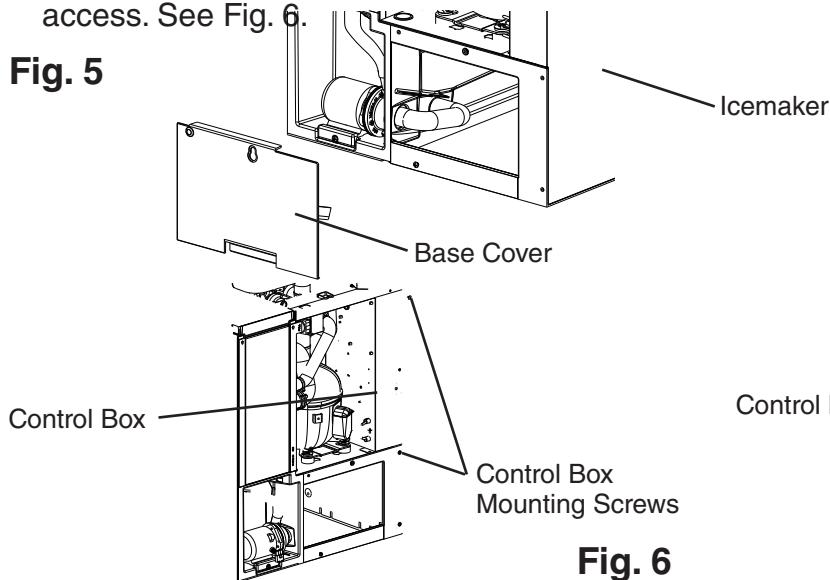
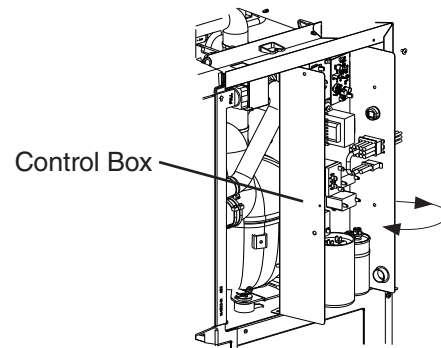


Fig. 6



- 2) Confirm the correct control board bin control setting required for your application and adjust as detailed below.

Application	Bin Control Setting	Reference
Standard Ice Storage Bins (Factory Default)	1	See Fig. 7
Hoshizaki DB and DM Dispensers	2	
Coca-Cola Freestyle® Dispensers	3	
Non-Hoshizaki Dispensers	Measurement Required	See Fig. 8

For Standard Ice Storage Bins, Hoshizaki DB and DM Dispenser Units, and Coca-Cola Freestyle® Dispenser Units

Application	Bin Control Ice Level Settings	
	Bin Control Setting	Shutdown Distance from Bin Control Lens (Restart is 4 in. (102 mm) below shutdown distance)
Standard Ice Storage Bins	1 (Factory Default)	254 mm (10") Do not adjust dispensers to this setting.
Hoshizaki DB and DM Dispensers	2	305 mm (12")
Coca-Cola Freestyle® Dispensers	3	406 mm (16")
Optional Setting	4	508 mm (20")
	5	610 mm (24")

⚠ WARNING

Confirm that the final ice level location does not allow for icemaker movement, water leakage, or ice overflow.

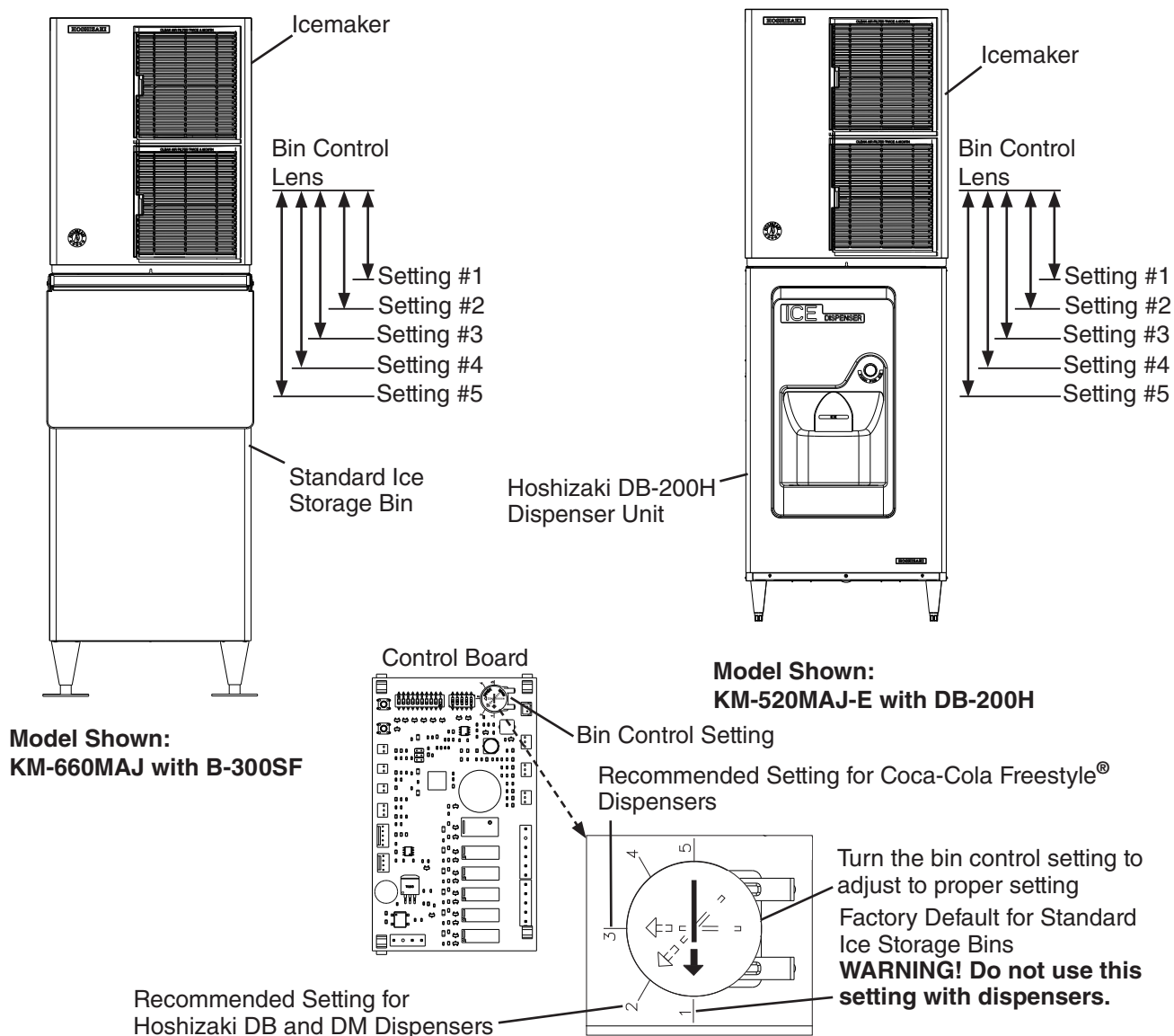


Fig. 7

For Non-Hoshizaki Dispenser Units

Bin Control Ice Level Settings	
Bin Control Setting	Shutdown Distance From Bin Control Lens (Restart is 4 in. (102 mm) below shutdown distance)
1 (Factory Default)	Do not adjust dispensers to this setting. 254 mm (10")
2	305 mm (12")
3	406 mm (16")
4	508 mm (20")
5	610 mm (24")

⚠ WARNING

Confirm that the final ice level location does not allow for icemaker movement, water leakage, or ice overflow.

NOTICE

The ice level must be lower than the top of the dispenser unit. Also, be sure the top kit or top kit riser (if applicable) are clear from the bin control lens sensing area.

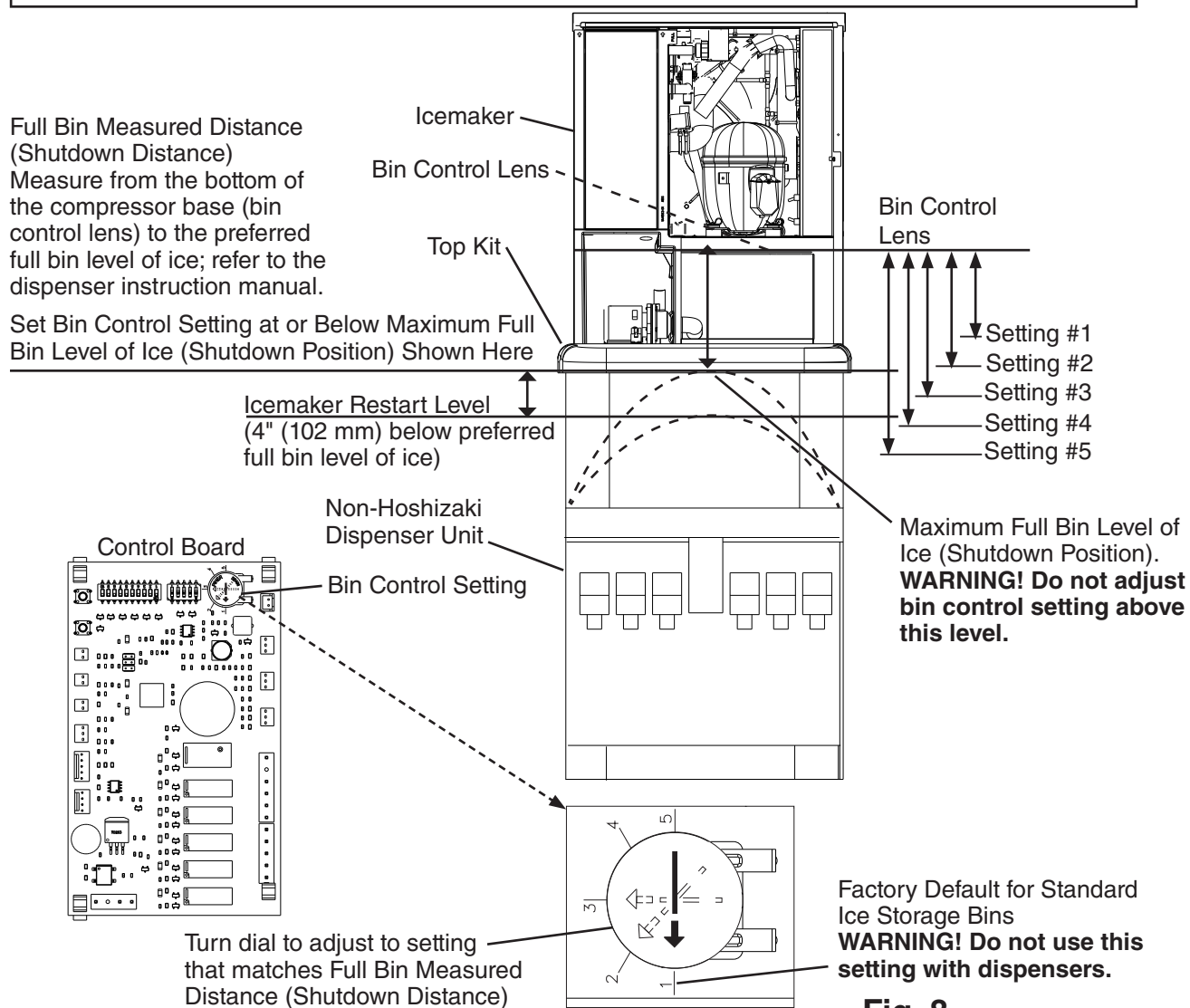


Fig. 8

2. Appliance Startup and Bin Control Check

⚠ WARNING

- All parts are factory-adjusted. Improper adjustments may adversely affect safety, performance, component life, and warranty coverage.
- Make sure the appliance has been installed as outlined in this manual and that the water supply is on.

NOTICE

- If the icemaker is turned off, wait for at least 3 minutes before restarting the icemaker to prevent damage to the compressor.
- To prevent damage to the water pump seal, do not leave the control switch in the "PUMP" position for extended periods when the water tank is empty.
- At startup, confirm that all internal and external connections are free of leaks.
- Do not allow top kits or top kit risers (if applicable) to interfere with the bin control lens sensing area or the icemaker will not operate properly.

- 1) If not already removed, remove the front, top, and right side panels and base cover. Make sure the bin control setting has been adjusted as outlined in "II.H.1. Bin Control Setting."
- 2) Open the water supply line shut-off valve(s).
- 3) Confirm the control switch is in the "OFF" position, then plug the icemaker into the electrical outlet. Move the mode switch on the control box to the "ICE" position, then move the control switch to the "ON" position, and allow the icemaker to operate.
- 4) Confirm the control board "BIN CLS" LED is off (bin empty). See Fig. 9.

Ice Level in Bin	Control Board "BIN CLS" LED
Empty	OFF
Full	ON

- 5) If the control board "BIN CLS" is on (indicating a full bin), correct any interference from the top kit or top kit riser (if applicable).

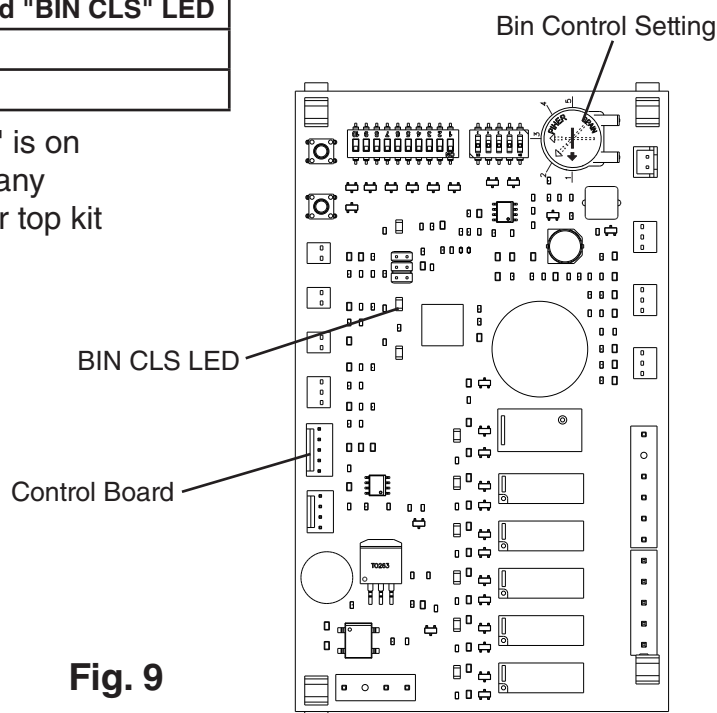


Fig. 9

- 6) 1 min. fill cycle begins. Place an object 5" to 7" (127 to 178 mm) away from the bin control lens. See Fig. 10. 15 sec. later, the icemaker shuts down. Remove the object from the bin control lens. 30 sec. later, the icemaker restarts.
For bin control shutdown times per cycle, see the table below.

Cycle at Bin Control Activation	Shutdown
1 min. Fill Cycle	15 sec. after activation.
Harvest Cycle	If engaged 15 sec. or longer, at the end of harvest cycle.
Freeze Cycle	15 sec. after activation if activated at least 15 sec. before the 5-min. short cycle protection timer terminates. Otherwise, at the end of the next harvest cycle.

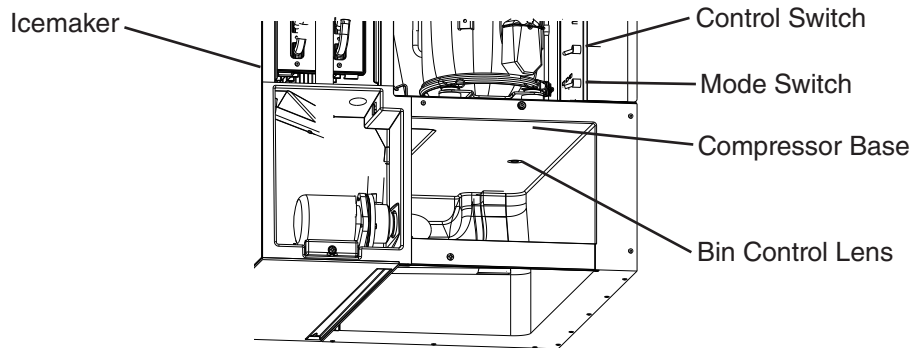


Fig. 10

- 7) Once the icemaker restarts, move the control switch to the "OFF" position, then unplug the icemaker from the electrical outlet.
- 8) If the control box was rotated, replace the control box in its correct position and secure with the 2 control box mounting screws.
- 9) Replace the base cover, right side, and top panels in their correct positions.
- 10) Plug the icemaker back into the electrical outlet. Move the control switch to the "ON" position, then replace the front panel, and allow the icemaker to operate for 10 min.
- 11) After 10 min., remove the front panel, then move the control switch to the "OFF" position.
- 12) Remove the base cover and disconnect the rear pump tubing connection to drain the water tank. See Fig. 11.
- 13) After the water tank has drained, reconnect the pump tubing.
- 14) Clean the dispenser unit/ice storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.
- 15) Replace the base cover in its correct position. Move the control switch to the "ON" position to start the automatic icemaking process.
- 16) Replace the front panel in its correct position.
- 17) Return to "II.G.2. Post-Startup" and complete final checklist.

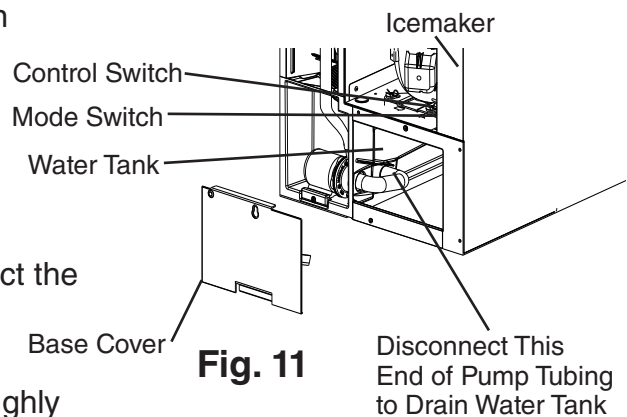


Fig. 11

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.
- To reduce the risk of electric shock, do not touch the control switch, mode switch, or plug with damp hands.
- Before servicing, move the control switch to the "OFF" position and 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 dispenser unit/ice storage bin.

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
Daily	Scoop	Clean the ice scoop using a neutral cleaner. Rinse thoroughly after cleaning.
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.
	Icemaker 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.
	Underside of Icemaker and Top Kits; Bin Door and Snout	Wipe down with a clean cloth and warm water.
Yearly	Icemaker and Dispenser Unit/Ice Storage Bin	Clean and sanitize per the cleaning and sanitizing instructions provided in this manual. See "III.B. Cleaning and Sanitizing Instructions."
	Water Supply Inlet	Close the icemaker water supply line shut-off valve and drain the water system. Clean the water supply inlet screen.
	Condenser	Inspect. Clean if necessary by using a brush or vacuum cleaner. More frequent cleaning may be required depending on location.
	Water Hoses	Inspect the water hoses and clean/replace if necessary.

B. Cleaning and Sanitizing Instructions

The icemaker must be cleaned and sanitized at least once a year. More frequent cleaning and sanitizing may be required in some water 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 bottles of cleaning and sanitizing solution.
- Always wear liquid-proof gloves and goggles to prevent the cleaning and sanitizing solutions from coming into contact with skin or eyes.
- Do not leave the appliance unattended when panels are off.

NOTICE

To prevent damage to the water pump seal, do not leave the control switch in the "PUMP" position for extended periods when the water tank is empty.

Preparation

- 1) Remove the front panel, then move the control switch to the "OFF" position. Make sure the mode switch is in the "ICE" position. After 3 minutes, move the control switch to the "ON" position and replace the front panel.
- 2) Allow the appliance to run until the compressor energizes. Once the compressor energizes, allow the appliance to run for an additional 3 minutes, then remove the front panel. Move the control switch to the "OFF" position.
- 3) Remove all ice from the dispenser unit/ice storage bin. **WARNING! If on a dispenser unit, turn off the dispenser unit power supply after dispensing the ice.**

Cleaning

- 4) Move the mode switch to the "CLEAN" position, then move the control switch to the "ON" position (1 short beep occurs, then 3 seconds later 1 long beep occurs). Replace the front panel. The water tank drains and then fills.
- 5) When the control board starts beeping (2 beep sequence), remove the front panel. Move the control switch to the "OFF" position.
- 6) Remove the front insulation panel, then pour 10.4 fl. oz. (308 ml) of Hoshizaki "Scale Away" into the water tank. Replace the front insulation panel.
- 7) Move the control switch to the "ON" position (1 short beep occurs, then 3 seconds later 1 long beep occurs). Replace the front panel. To avoid excessive foaming in the water tank, there is a 1 minute delay before circulation begins. After approximately 30 minutes of circulation, the icemaker performs 3 rinse cycles.
- 8) When the control board starts beeping (5 beep sequence), remove the front panel. Move the control switch to the "OFF" position.
- 9) In bad or severe water conditions, unplug the icemaker from the electrical outlet, then remove, clean (cleaning solution = 5 oz. Hoshizaki "Scale Away" per gallon of warm water), rinse, and replace the cube guide, float switch, water supply tubes, spray tubes, and spray guides; plug the icemaker back into the electrical outlet when complete. Otherwise, continue to step 10.

Sanitizing

- 10) Confirm the mode switch is in the "CLEAN" position, then move the control switch to the "ON" position (1 short beep occurs, then 3 seconds later 1 long beep occurs).
Replace the front panel. The water tank drains and then fills.
- 11) When the control board starts beeping (2 beep sequence), remove the front panel.
Move the control switch to the "OFF" position.
- 12) Remove the front insulation panel, then pour 0.6 fl. oz. (18 ml) of an 8.25% sodium hypochlorite solution (chlorine bleach) into the water tank. Replace the front insulation panel.
IMPORTANT! Use regular bleach with no additives. Using a bleach with additives causes excessive foaming during sanitizing, reducing the effectiveness of sanitizing.
- 13) Move the control switch to the "ON" position (1 short beep occurs, then 3 seconds later 1 long beep occurs). Replace the front panel. To avoid excessive foaming in the water tank, there is a 1 minute delay before circulation begins. After approximately 30 minutes of circulation, the icemaker performs 3 rinse cycles.
- 14) When the control board starts beeping (5 beep sequence), remove the front panel.
Move the control switch to the "OFF" position.
- 15) Clean the dispenser unit/ice storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.
- 16) Move the mode switch to the "ICE" position, then move the control switch to the "ON" position. Note: If on a dispenser unit, turn on the dispenser unit power supply.
- 17) Replace all panels in their correct positions.

IV. Preparing the Appliance for Periods of Non-Use

NOTICE

- When storing the icemaker for an extended time or in sub-freezing temperatures, follow the instructions below to prevent damage.
- To prevent damage to the water pump seal, do not leave the control switch in the "PUMP" position for extended periods when the water tank is empty.

When the appliance is not used for two or three days under normal conditions, it is sufficient to move the control 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 water from the appliance water supply line:

- 1) Remove the front panel.
- 2) Move the control switch to the "OFF" position, then unplug the icemaker from the electrical outlet.
- 3) Close the icemaker water supply line shut-off valve, then open the icemaker water supply line drain valve.
- 4) Allow the line to drain by gravity.
- 5) Attach a compressed air or carbon dioxide supply to the icemaker water supply line drain valve.
- 6) Move the mode switch to the "ICE" position. Plug the icemaker back into the electrical outlet, then move the control switch to the "ON" position.
- 7) Replace the front panel in its correct position.
- 8) Blow the icemaker water supply line out using the compressed air or carbon dioxide supply.
- 9) Close the icemaker water supply line drain valve.

2. Drain the water tank:

- 1) Remove the front panel.
- 2) Move the control switch to the "OFF" position, then unplug the icemaker from the electrical outlet.
- 3) Remove the base cover, then disconnect one end of the pump tubing to drain the water tank. See Fig. 12. After the water tank has drained, reconnect the pump tubing.
- 4) Remove all ice from the dispenser unit/ice storage bin. Clean the dispenser unit/ice storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.
- 5) Replace the base cover and the front panel in their correct positions.

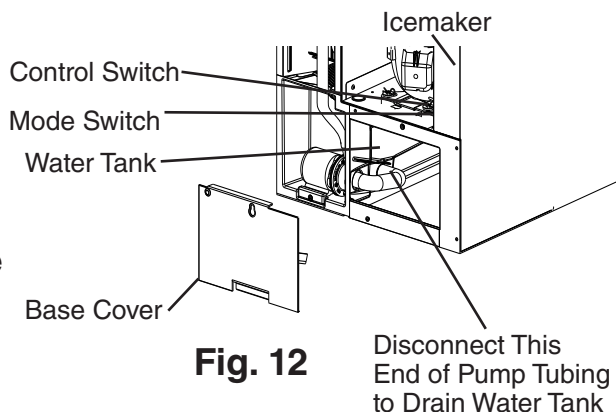


Fig. 12

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.

VI. Warranty

Hoshizaki warrants to the original owner/user that all Hoshizaki branded products shall be free of defects in material and/or workmanship for the duration of the “warranty period.” The warranty shall be effective for two years from the date of installation.

Hoshizaki’s liability under the terms of the warranty are limited and shall exclude routine servicing, cleaning, essential maintenance and/or repairs occasioned by misuse and installations not in accordance with Hoshizaki guidelines.

Warranty repairs should be completed by an approved Hoshizaki dealer or service agency using genuine Hoshizaki components.

To obtain full details of your warranty and approved service agency, please contact your dealer/supplier, or the nearest Hoshizaki Service office.

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