

# Hoshizaki America, Inc.

## Modular Crescent Cuber Serenity Series

Model  
KMS-I400MLH

Including  
Condensing Unit Model SRK-I4H/3



“A Superior Degree  
of Reliability”

[www.hoshizaki.com](http://www.hoshizaki.com)

## INSTRUCTION MANUAL



Issued: 1-28-2008  
Revised: 3-27-2009

## **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. Failure to install, operate, and maintain the equipment in accordance with this manual may adversely affect safety, performance, and warranty coverage.

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.

HOSHIZAKI AMERICA, INC.  
618 Highway 74 South  
Peachtree City, GA 30269

Attn: HOSHIZAKI Technical Support Department

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

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Web Site: [www.hoshizaki.com](http://www.hoshizaki.com)

**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 icemaker is installed and operated. Only qualified service technicians should install, service, and maintain the icemaker. Read the warnings contained in this booklet carefully as they give important information regarding safety. Please retain this booklet for any further reference that may be necessary.

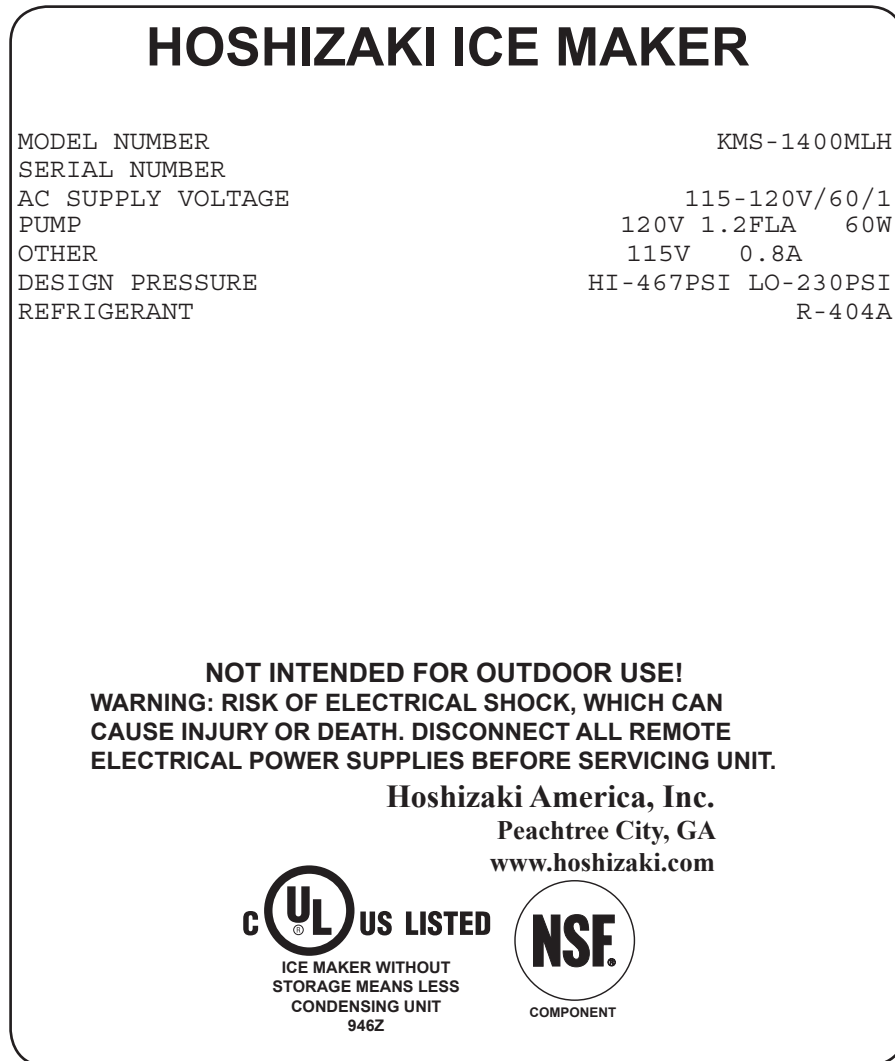
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## I. Specifications

### A. Nameplate Rating

#### 1. KMS-1400MLH



See the nameplate for electrical and refrigeration specifications. This nameplate is located on the rear panel.

### IMPORTANT

**This icemaker is designed for connection to HOSHIZAKI CONDENSING UNIT, Model SRK-14H or SRK-14H3 only! CONNECTION TO ANOTHER CONDENSING UNIT WILL VOID WARRANTY.**

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

## 2. Condensing Unit Model SRK-14H

### HOSHIZAKI CONDENSER UNIT

|                                  |  |
|----------------------------------|--|
| MODEL NUMBER                     | SRK-14H  |
| SERIAL NUMBER                    |  |
| AC SUPPLY VOLTAGE                | 208-230/60/1 (3 WIRE WITH<br>NEUTRAL FOR 115V) |
| COMPRESSOR                       | 230V 10.3RLA 54.0LRA                           |
| FAN                              | 115V 2.6FLA (total) 126W                       |
| OTHER                            | 115V 0.4A                                      |
| MAXIMUM FUSE SIZE                | 20 AMPS  |
| MAX. HACR BREAKER (USA ONLY)     | 20 AMPS  |
| MAX. CIRC. BREAKER (CANADA ONLY) | 20 AMPS  |
| MINIMUM CIRCUIT AMPACITY         | 20 AMPS  |
| DESIGN PRESSURE                  | HI-467PSI LO-230PSI                            |
| REFRIGERANT                      | R-404A 16LBS. 5oz.                             |

**FOR OUTDOOR USE**  
**MOTOR-COMPRESSOR THERMALLY PROTECTED**  
**WARNING: RISK OF ELECTRICAL SHOCK, WHICH CAN**  
**CAUSE INJURY OR DEATH. DISCONNECT ALL REMOTE**  
**ELECTRICAL POWER SUPPLIES BEFORE SERVICING UNIT.**

**Hoshizaki America, Inc.**  
Peachtree City, GA  
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See the nameplate for electrical and refrigeration specifications. This nameplate is located on the side panel.

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

### **3. Condensing Unit Model SRK-14H3**

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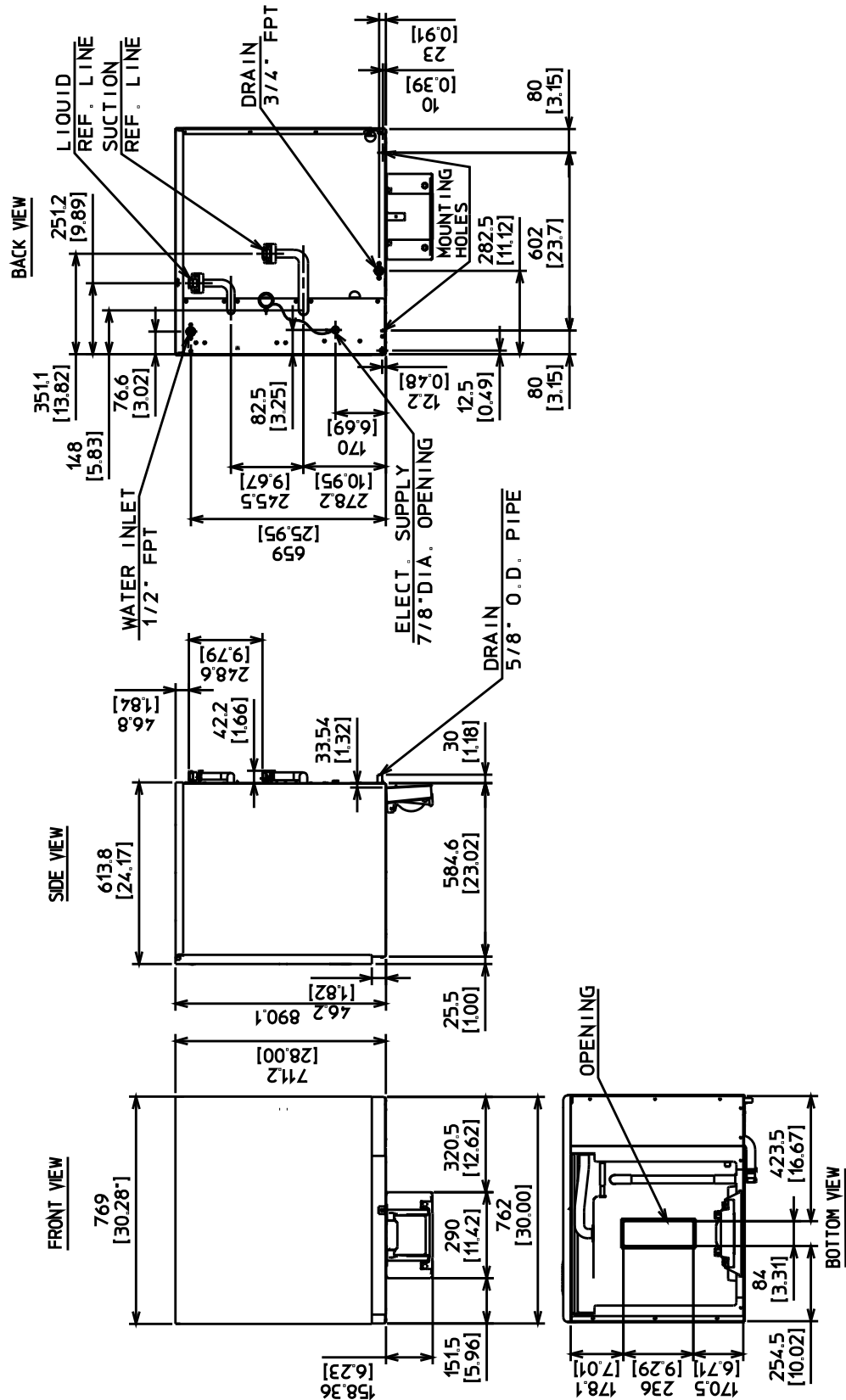
See the nameplate for electrical and refrigeration specifications. This nameplate is located on the side panel.

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

B. Dimensions/Connections

1. KMS-1400MLH

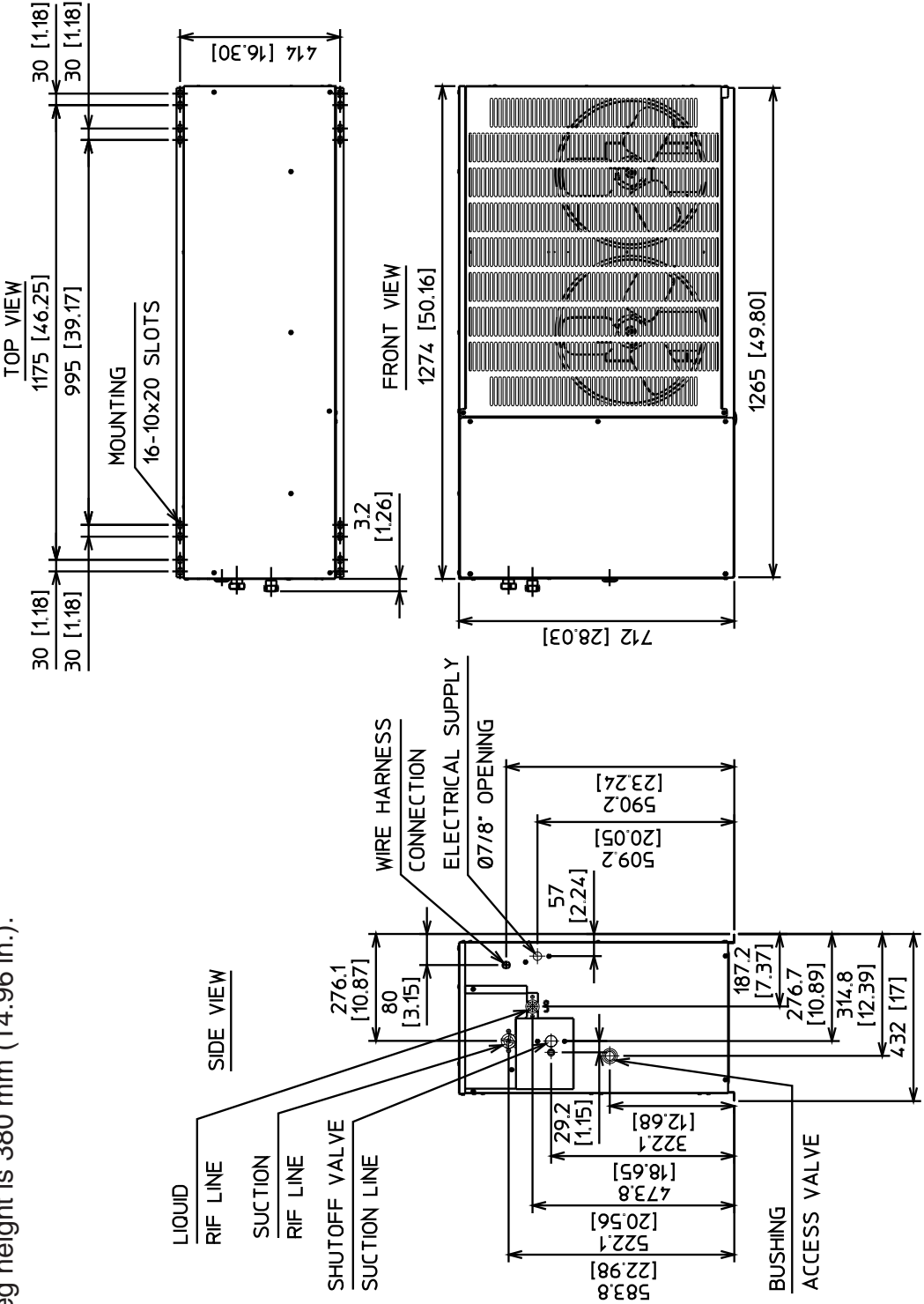
Unit: mm [inches]



2. Condensing Unit Model SRK-14H/3

Unit: mm [inches]

Note: Legs are included with condensing unit.  
Leg height is 380 mm (14.96 in.).



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## II. Installation and Operating Instructions

### IMPORTANT

1. Install in accordance with all applicable national, state, and local regulations.
2. Remove the shipping carton, tape, and packing material. If any are left in the units, they will not work properly.
3. Ensure all components, fasteners, and thumbscrews are securely in place after installation.

### A. Location

#### 1. Ice maker

### CAUTION

1. 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 icemaker performance.
2. This 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 "III.C. Preparing the Ice maker for Long Storage."

For best operating results:

- Ice maker should not be located next to ovens, grills, or other high heat producing equipment.
- No clearance is required for proper operation.
- Avoid choosing a site where dripping is not allowed.
- Location should provide a firm and level foundation for the equipment.

## 2. Condensing Unit

### IMPORTANT

This condensing unit is intended for outdoor use. Normal operating ambient temperature should be within -20°F to +122°F (-29°C to 50°C). Operation of the unit, for extended periods, outside of these normal temperature ranges may affect icemaker performance.

The icemaker must be coupled with the appropriate condensing unit as listed below.

| Icemaker    | Hoshizaki Condensing Unit |
|-------------|---------------------------|
| KMS-1400MLH | SRK-14H/3                 |

The condensing unit must be positioned in a permanent site under the following guidelines:

- A firm and flat site.
- A dry and well ventilated area with 24" (61 cm) clearance in both front and rear for proper air circulation and ease of maintenance and/or service should they be required. See Fig. 1.
- The maximum line length is 55 feet.

Note: If the recommended guidelines of the installation are exceeded, the icemaker performance may be reduced.

### CAUTION

Failure to install the equipment within these guidelines may adversely affect performance, component life, and warranty coverage.

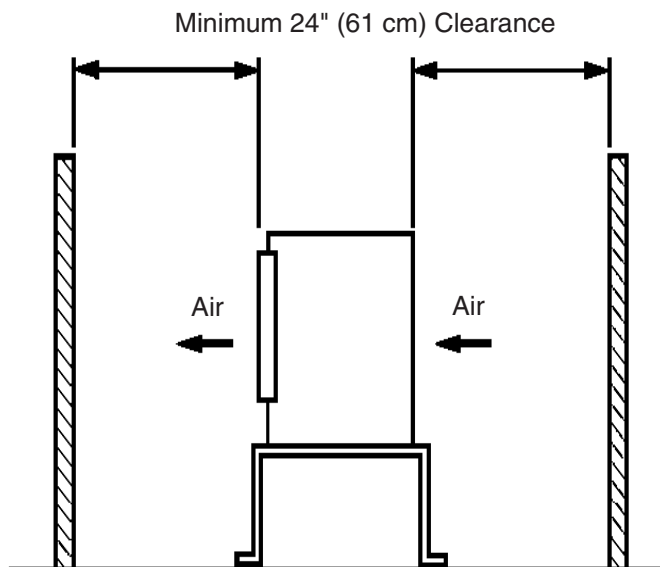


Fig. 1

## B. Checks Before Installation

### IMPORTANT

1. Install in accordance with all applicable national, state, and local regulations.
2. Remove the shipping carton, tape, and packing material. If any are left in the icemaker or condensing unit, it will not work properly.
3. Ensure all components, fasteners, and thumbscrews are securely in place after installation.

#### 1. Icemaker

- 1) Remove the panels to prevent damage when installing the icemaker. (See "II.C. 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.
- 5) This icemaker can be installed on dispenser units or storage bins 30" wide or wider. If using a storage bin, the recommended storage bin is HOSHIZAKI ICE STORAGE BIN, Model B-500 series. For more options, contact your local Hoshizaki distributor.
- 6) **This icemaker is designed for connection to HOSHIZAKI CONDENSING UNIT, Model SRK-14H or SRK-14H3 only!**  
**NOTE: CONNECTION TO ANOTHER CONDENSING UNIT WILL VOID WARRANTY.**

#### 2. Condensing Unit

- 1) See the nameplate on the condensing unit. Check that your voltage supplied corresponds with the voltage specified on the nameplate.

### WARNING

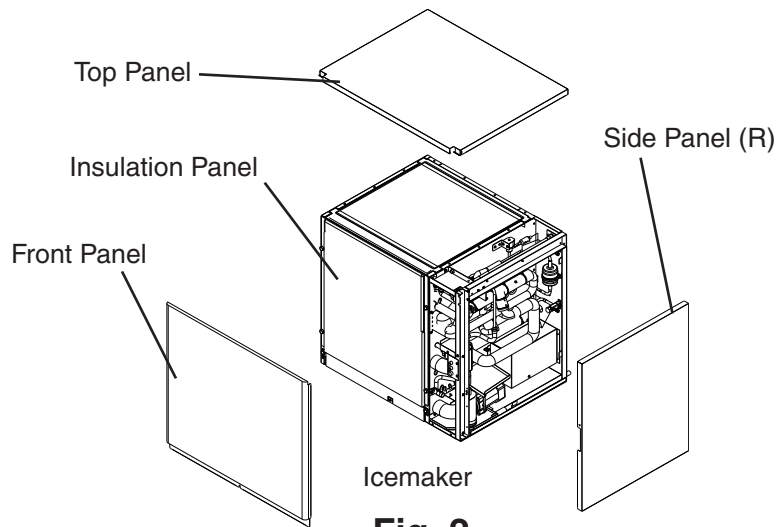
Electrical connections must be installed in accordance with applicable national, state, and local regulations.

- 2) Remove the panels to prevent damage when installing the condensing unit (See "II.C. How to Remove Panels.")
- 3) Remove the package containing the accessories from the condensing unit.
- 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.

## C. How to Remove Panels

### 1. Icemaker

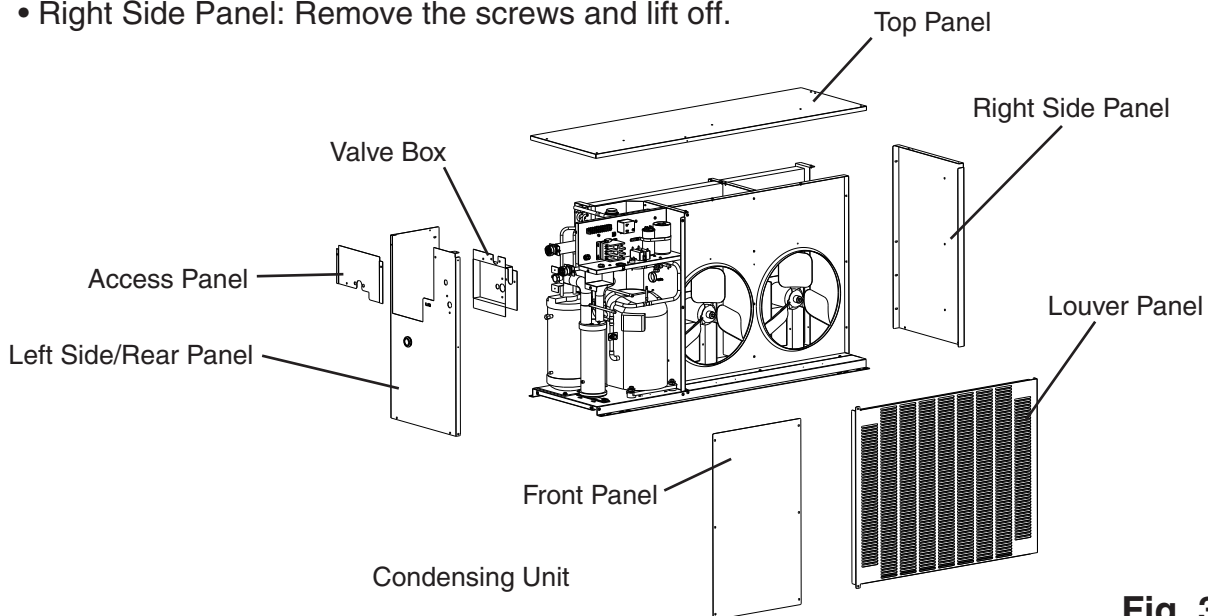
- Front Panel: Remove the screw. Lift up and towards you.
- Top Panel: Lift off.
- Side Panel (R): Remove the screw. Slide forward slightly and lift off.
- Insulation Panel: Remove the thumbscrews. Lift up slightly and pull towards you.



**Fig. 2**

### 2. Condensing Unit

- Top Panel: Remove the screws and lift off.
- Front Panel: Remove the screws and lift off.
- Left Side/Rear Panel: Remove the screws and lift off.
- Louver Panel: Remove the screws and lift off.
- Right Side Panel: Remove the screws and lift off.



**Fig. 3**

## D. Installation of the Icemaker

### CAUTION

1. Power supply and ground wire to the icemaker are supplied from the condensing unit. For details, see section "II.F. Electrical Connection."
2. Before operating the icemaker, the bin control must be installed correctly. Failure to properly install the bin control could result in ice backup and unit damage.

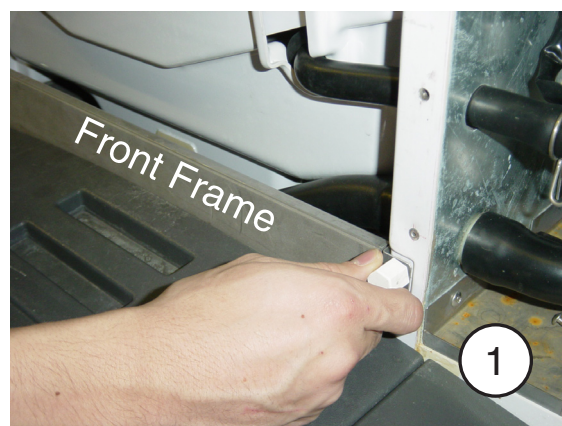
### 1. Setup

- 1) If mounting the unit on top of a dispenser unit, follow the dispenser unit's setup procedure. If mounting the unit on top of a storage bin, unpack the storage bin, and attach the 4 adjustable legs provided (bin accessory) to the bottom of the storage bin.
- 2) Position the dispenser unit/storage bin in the selected permanent location.
- 3) Place the icemaker on top of the dispenser unit/storage bin and secure.
- 4) Level the icemaker and dispenser unit/storage bin in both the left-to-right and front-to-rear directions.

### 2. Bin Control Installation

Follow the instructions below to remove the bin control from the shipping area and install the bin control.

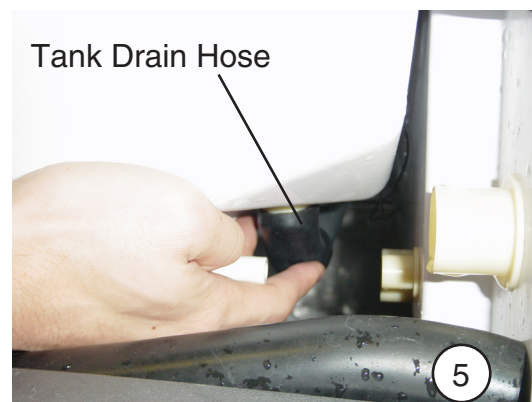
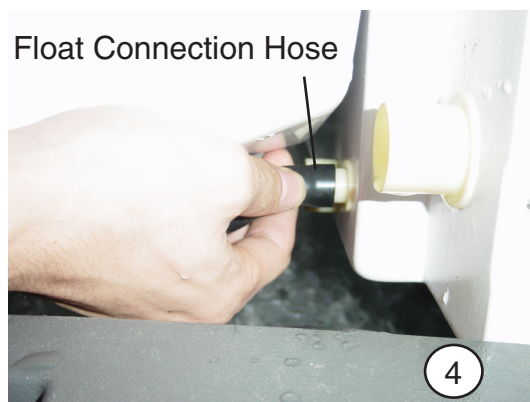
- 1) Remove the front frame: Remove the two thumbscrews and lift off.



- 2) Disconnect the pump suction hose from the plastic pipe.
- 3) Disconnect the drain pipe from the plastic pipe.



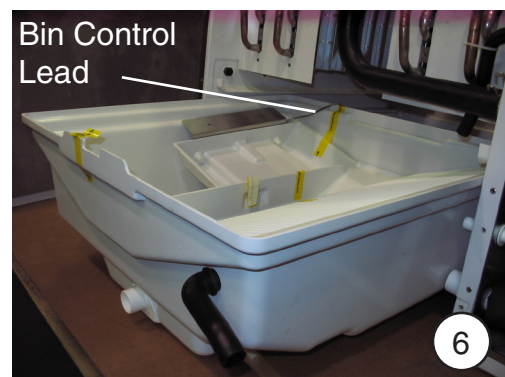
- 4) Disconnect the float connection hose from the plastic pipe.
- 5) Disconnect the tank drain hose from the tank. Although the tank can be removed at this point, do not remove it yet because the bin control is taped to the tank.



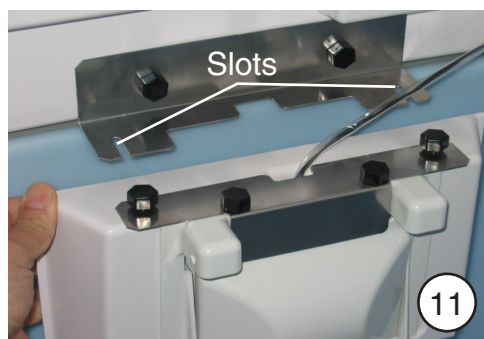
### CAUTION

The bin control lead is routed through the back of the icemaker. If care is not taken when removing the tank, the lead could be severed.

- 6) Pull out the tank only as far as shown in 6.
- 7) Remove the cube guide, then remove the bin control.
- 8) **Being careful not to pull the bin control lead**, remove the tank completely from the icemaker.
- 9) Remove the remaining pieces of tape from the tank and leave the tank out of the machine for now.



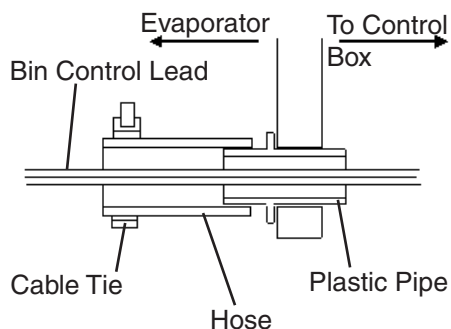
- 10) Slightly loosen the outer 2 thumbscrews.
- 11) Slide the thumbscrews into the slots on the bin control bracket. The bin control bracket is located on the back wall of the icemaker.



### CAUTION

If a gap is left between the bin control and the wall of the dispenser, ice may get between them and damage the bin control. Therefore, make sure there is no gap.

- 12) Make sure the bin control is flush with the dispenser unit/storage bin wall, then tighten the 2 thumbscrews.
- 13) Pull the bin control lead so that there is no slack in the ice drop area, then secure the hose that the lead runs through with a cable tie.



- 14) Replace the tank in the icemaker and reconnect the 4 hoses.
- 15) Replace the front frame and insulation in their correct positions and secure with the thumbscrews.
- 16) Replace the panels in their correct positions.

## E. Installation of the Condensing Unit

### CAUTION

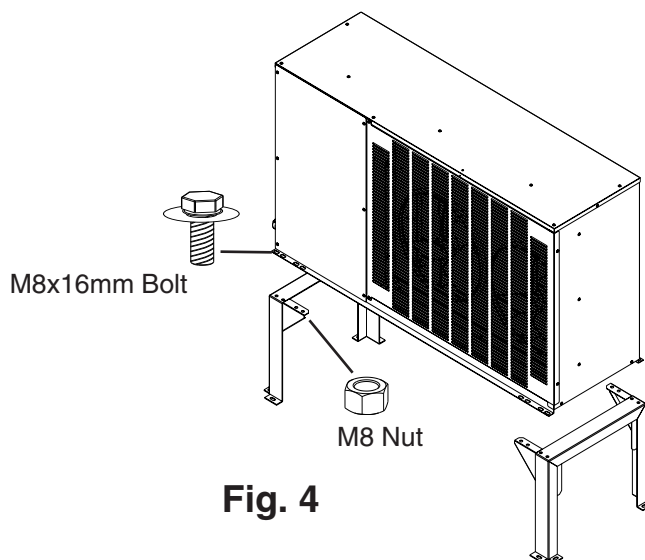
1. Failure to install the equipment within these guidelines may adversely affect performance, component life, and warranty coverage
2. Power supply and ground wire to the icemaker are supplied from the condensing unit. For details, see section "II.F. Electrical Connection."

### 1. Setup

- 1) Secure the condensing unit to the stand with sixteen M8×16 mm hexagon bolts and M8 nuts as shown in the illustration. See Fig. 4.
- 2) The legs have eight mounting holes. Secure the legs with eight bolts (not included).
- 3) See the nameplate on the condensing unit. Check that your voltage supplied corresponds with the voltage specified on the nameplate.

### WARNING

Electrical connections must be made in accordance with national, state, and local regulations. See "II.F. Electrical Connection."



**Fig. 4**

### 2. Line Set

- Precharged tubing kits, available as optional equipment from HOSHIZAKI AMERICA, are recommended. Field fabricated line sets are allowed, see instructions below.
- The maximum line length is 55 feet.
- Vertical distance between the condensing unit and icemaker should not exceed 30 feet above or 10 feet below the icemaker.
- If the vertical distance between the condensing unit and the icemaker is greater than 18 feet, a p-trap (5/8" OD tubing) must be installed in the suction line. The p-trap must be within 18 vertical feet of both the condensing unit and the icemaker. This will ensure sufficient oil return to the compressor.

## Factory Line Set Installation

- 1) Route the factory line set (5/8" OD suction line and a 1/2" OD liquid line) from the condensing unit to the icemaker. Factory fabricated line sets are precharged and do not need to be evacuated.

Note: Care should be taken that the icemaker, line set, and remote condenser unit contain the same type of refrigerant prior to making connections. Mixing of refrigerants will result in improper operation and possible damage to the refrigeration system.

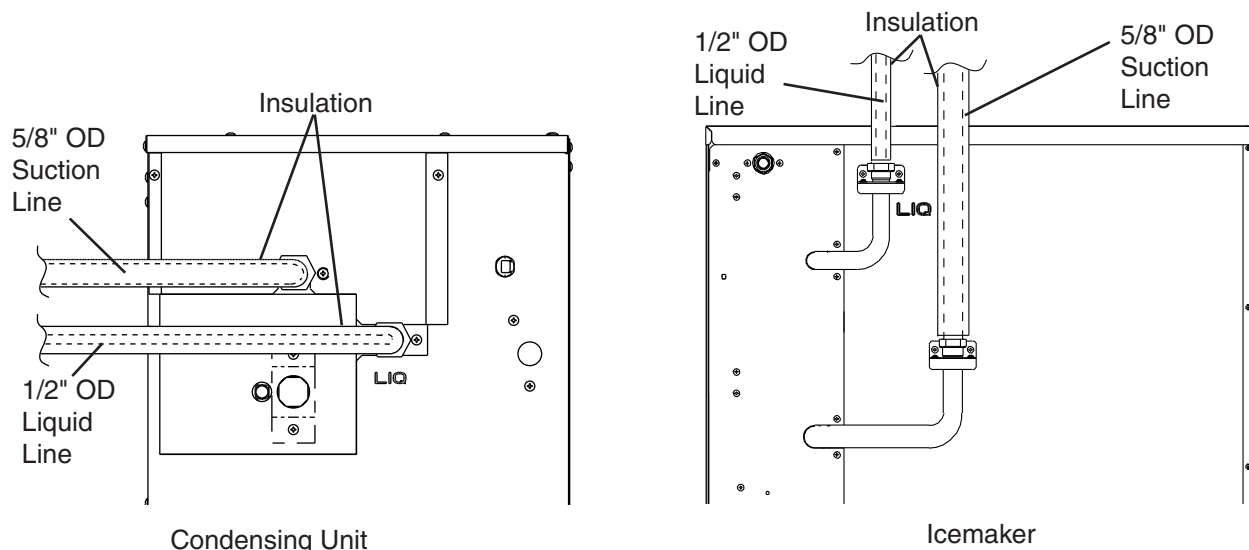
- 2) Attach the refrigerant lines to the appropriate male couplings on the icemaker first and then at the condensing unit. Apply two drops of POE oil to the male threads of the couplings before tightening.
- 3) Tighten the couplings 1/4 turn beyond fully seated. A backup wrench is recommended.

## Field Fabricated Line Set Installation

- 1) Route a 5/8" OD copper tube suction line and a 1/2" OD copper tube liquid line between the condensing unit and the icemaker.
- 2) Insulate the two copper tubes separately.
- 3) Install Parker quick connect couplings on each end.
- 4) Evacuate through the charging ports on the Parker quick connect couplings and charge with R-404A refrigerant vapor to a pressure of 15 to 30 PSIG.

Note: Care should be taken that the icemaker, line set, and remote condenser unit contain the same type of refrigerant prior to making connections. Mixing of refrigerants will result in improper operation and possible damage to the refrigeration system.

- 5) Attach the refrigerant lines to the appropriate male couplings on the icemaker first and then at the condensing unit. Apply two drops of POE oil to the male threads of the couplings before tightening.
- 6) Tighten the couplings 1/4 turn beyond fully seated. A backup wrench is recommended.



**Fig. 5**

## F. Electrical Connection

### WARNING

1. Electrical connections must be made in accordance with the instructions on the "WARNING" tag, provided with the pig tail leads in the condensing unit junction box.
2. Electrical connections must meet national, state, and local electrical code requirements. Failure to meet these code requirements could cause severe injury to individuals or extensive damage to equipment.
3. Be sure to install a proper ground to the condensing unit.
4. Power supply and ground wire to the icemaker are supplied from the condensing unit via the wire harness. Connect the icemaker and condensing unit using the wire harness supplied, or fabricate a wire harness using appropriate outdoor-rated 18 AWG wire. Use the wiring label or Fig. 8 as a reference when making connections.

- Electrical connections must be installed in accordance with applicable national, state, and local regulations.
- Usually an electrical permit and services of a licensed electrician are required
- The condensing unit requires an independent power supply. See the nameplate for proper voltage and breaker/fuse size.
- Power supply and ground wire to the icemaker are supplied from the condensing unit via the wire harness.
- The maximum allowable voltage variation is  $\pm 10$  percent of the nameplate rating.
- On single phase machines, the white lead must be connected to the neutral conductor of the power source. Miswiring results in severe damage to the icemaker. See Fig. 6.
- On three phase machines, the transformer's voltage tap switch must be positioned to match incoming voltage at startup. See Fig. 7.

### 1. Icemaker

Power supply and ground wire to the icemaker are supplied from the condensing unit via the wire harness. Connect the icemaker and condensing unit using the wire harness supplied, or fabricate a wire harness using appropriate outdoor-rated 18 AWG wire.

### WARNING

To reduce the risk of electric shock, do not connect the power supply until after all wire harness connections have been made.

- 1) Route the wire harness from the icemaker to the condensing unit.
- 2) Secure the wire harness to the condensing unit with the strain relief bushing provided (condensing unit accessory).

## 2. Condensing Unit

- 1) Connect the wire harness wires to the appropriate terminals on the condensing unit's terminal board using the wiring label or Fig. 8 as a reference. Be sure to connect the ground wire (included in the wire harness).
- 2) Supply power from the electrical panel to the condensing unit. (This differs from KM style installations.)
- 3) Connect the wire leads in the power supply junction box to the power supplied from the disconnect or electrical panel. Connect a ground wire to the ground screw.
- 4) Replace all removed parts and panels in their correct positions.
- 5) Turn on the power supply to the condensing unit.

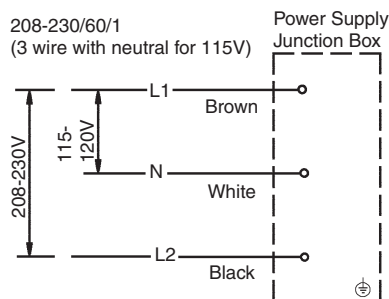
### WARNING

1. Be sure the ground circuit for both units has been properly installed.
2. The condensing unit should have power for a minimum of 4 hours prior to startup to prevent compressor damage.

### WARNING

#### ELECTRICAL CONNECTION

The white lead must be connected to the neutral conductor of the power source.  
Miswiring results in severe damage to the icemaker.  
(See Fig. below.)

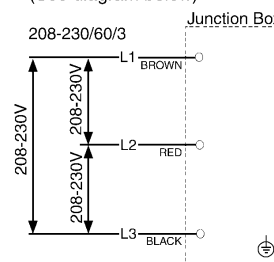


**Fig. 6**

### WARNING

**ELECTRICAL CONNECTION**  
This unit must be connected to a three phase power source.

Miswiring results in severe damage to the unit.  
(See diagram below)

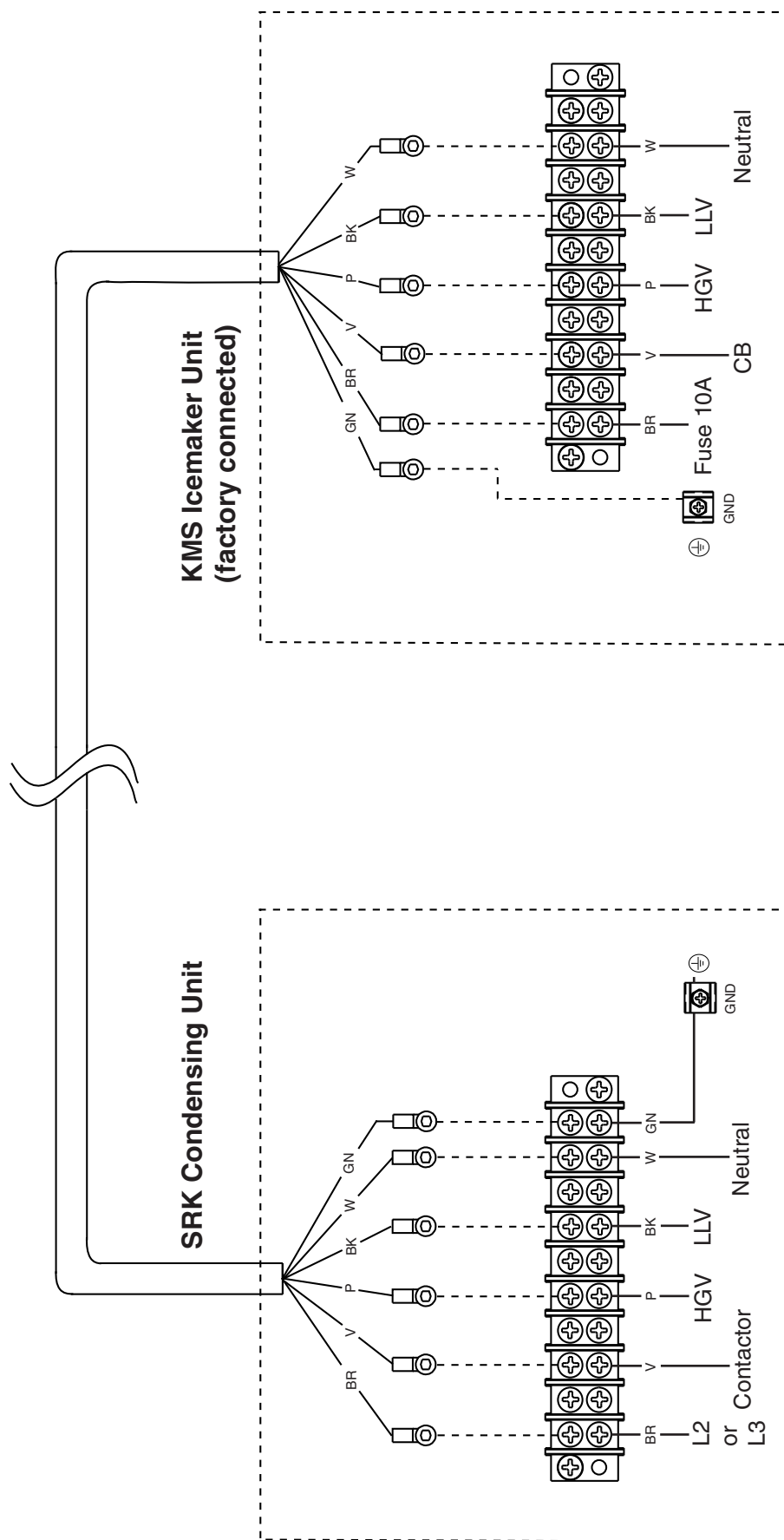


Voltage tap switch in the unit should be positioned to match incoming voltage at start-up.

**Fig. 7**

## Wire Harness Connections

Fig. 8



### Wire Color Code:

BK-black  
BR-brown  
GN-green  
P-pink  
V-violet  
W-white

### Legend:

GND-ground  
HG-hot gas valve  
CB-control board  
LV-liquid line valve  
L2-single phase power supply  
L3-three phase power supply

## G. Water Supply and Drain Connections

See Fig. 9

### IMPORTANT

To prevent damage to the equipment, do not operate the icemaker when the water supply is off, or if the pressure is below 10 PSIG. Do not run the icemaker until the proper water pressure is reached.

- The icemaker must 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 supply inlet is 1/2" female pipe thread (FPT).
- A water supply line shut-off valve and drain valve should be installed. A minimum of 1/2" OD copper tubing is recommended for the water supply lines.
- Water supply pressure should 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.
- The minimum recommended drain line is 3/4" OD hard pipe.
- Icemaker drain outlet is 3/4" FPT. Condensation drain outlet is a 5/8" OD stainless tube.
- The icemaker and condensate drain line(s) must be run separately from the dispenser unit/storage bin unit drain line.
- 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 required for proper flow.
- Drains 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, the condensation drain, the dispenser unit/storage bin and the floor drain. See Fig. 9.

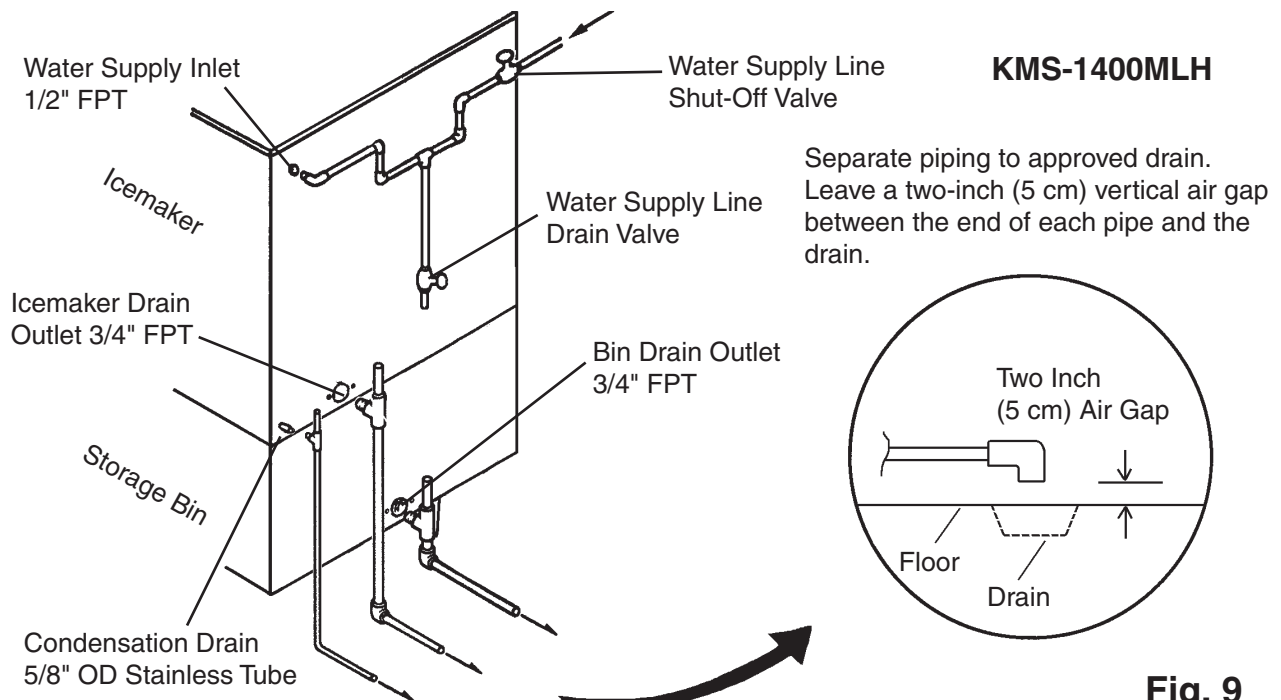


Fig. 9

## H. Final Checklist

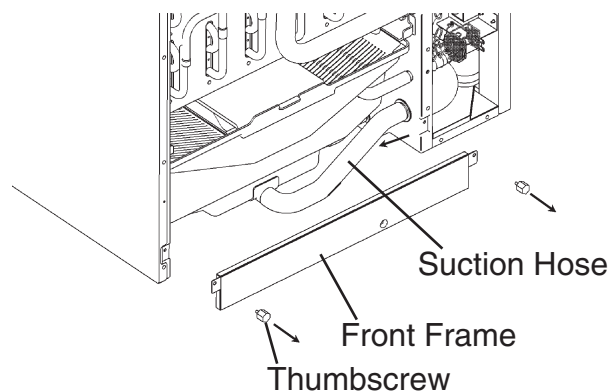
- 1) Is the icemaker level?
- 2) Are all components, fasteners, and thumbscrews securely in place?
- 3) Is there at least 24" (61 cm) minimum clearance around the condensing unit?
- 4) Have the shipping carton, tape, and packing material been removed from the icemaker and condensing unit? Are the cube guides and tank separator in their correct positions?
- 5) Is the icemaker in a site where the ambient temperature is within +45°F to +100°F (7°C to 38°C) all year around?
- 6) Have all electrical, water, and refrigerant connections been made? Are line sets tightened, secured, and free of kinks?
- 7) Does the electrical installation meet all national, state, and local codes and regulations?  
Has the power supply voltage been checked or tested against the nameplate rating?  
Has a proper ground been installed to the condensing unit and icemaker unit? On three phase model, has the transformer's voltage tap switch been positioned to match incoming voltage? For details, see section "II.F. Electrical Connection."
- 8) Has the electrical power supply been on to the condensing unit for a minimum of 4 hours?
- 9) Are the water supply line shut-off valve and drain valve installed? Has the water supply pressure been checked to ensure a minimum of 10 PSIG and a maximum of 113 PSIG?  
Note: The icemaker may stop running when the water supply is off, or if the pressure is below 10 PSIG.
- 10) Are the compressor hold-down bolts snug? Have the refrigerant lines been checked to make sure they do not rub or touch other lines or surfaces?
- 11) Has the bin control been installed and checked for correct operation? To confirm bin control operation, press the bin control's actuator paddle during the first 5 minutes of the freeze cycle. The icemaker should stop within 15 seconds.
- 12) Were all tank hoses and thumbscrews reconnected and secured after installing the bin control?  
Note: Confirm that there is no gap behind the bin control bracket.
- 13) 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?
- 14) Has the end user been given the name and telephone number of an authorized service agent?
- 15) Has the warranty card been filled out and forwarded to the factory for warranty registration?

## I. Startup

### IMPORTANT

1. Electrical power must be on at the condensing unit for a minimum of 4 hours prior to startup to prevent compressor damage.
2. All parts are factory-adjusted. Improper adjustments may result in failure.
3. If the unit is turned off, wait for at least three minutes before restarting the icemaker to prevent damage to the compressor.
4. Do not operate the unit in the "WASH" position without water in the water tank. This will cause damage to the water pump seal.

- 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) Replace the front panel in its correct position.
- 5) Allow the water tank to fill with water and the icemaker to operate for a total of 10 minutes.
- 6) Move the control switch to the "OFF" position, and drain the water tank by removing the front panel, front insulation panel, front frame, and suction hose. See Fig. 10.
- 7) Replace the removed parts in their correct positions.
- 8) Clean the dispenser unit/storage bin using a neutral cleaner. Rinse thoroughly after cleaning.
- 9) Move the control switch to the "ICE" position to start the automatic icemaking process.
- 10) Replace the front panel in its correct position.



**Fig. 10**

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### III. Cleaning and Maintenance

#### IMPORTANT

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

#### A. Cleaning and Sanitizing Instructions

HOSHIZAKI recommends cleaning this unit at least once a year. More frequent cleaning, however, may be required in some existing water conditions.

#### WARNING

1. To prevent injury to individuals and damage to the icemaker, do not use ammonia type cleaners.
2. Always wear liquid-proof gloves to prevent the cleaning and sanitizing solutions from coming into contact with skin.
3. Carefully follow any instructions provided with the bottles of cleaning and sanitizing solution.
4. Never run the icemaker when the water tank is empty.

#### 1. Cleaning Procedure

- 1) Dilute 22 fl. oz. (650 ml) of the recommended cleaner Hoshizaki "Scale Away" or "LIME-A-WAY" (Economics Laboratory, Inc.) with 4 gal. (15 l) of warm water.
- 2) Remove all ice from the evaporator and the dispenser unit/storage bin.  
Note: To remove cubes on the evaporator, turn off the power supply and turn it on after 3 minutes. The harvest cycle starts and the cubes will be removed from the evaporator.
- 3) Turn off the power supply. Remove the front panel.
- 4) Place the control switch in the "SERVICE" position. Then place the service switch in the "DRAIN" position.
- 5) Replace the front panel and turn on the power supply for 2 minutes.
- 6) Turn off the power supply.
- 7) Remove the front panel.
- 8) In bad or severe water conditions, clean the float switch as described below. Otherwise, continue to step 9.
  - a. Remove the right-side panel.
  - b. Disconnect the vent tube from the top of the float switch, then remove the float switch and rubber boot.
  - c. Twist the wire stem on top of the float switch housing to release the float assembly, then lower it out of the housing.
  - d. Wipe down the float switch housing, shaft, and float with cleaning solution. Clean the inside of the rubber boot and hose with cleaning solution. Rinse the parts thoroughly with clean water.

- e. Reassemble the float switch. Replace the rubber boot and the float switch in their correct positions. Reconnect the vent tube.
  - f. Replace the right-side panel in its correct position.
- 9) Remove the insulation panel by removing the thumbscrews, then pour the cleaning solution into the water tank.
  - 10) Move the service switch to the "WASH" position.
  - 11) Replace the insulation panel and the front panel in their correct positions.
  - 12) Turn on the power supply to start the washing process.
  - 13) Turn off the power supply after 30 minutes. Remove the front panel.
  - 14) Move the service switch to the "DRAIN" position.
  - 15) Replace the front panel and turn on the power supply for 2 minutes.
  - 16) Turn off the power supply and remove the front panel.
  - 17) Move the control switch to the "ICE" position.
  - 18) Replace the front panel in its correct position.
  - 19) Turn on the power supply to fill the water tank with water.
  - 20) Turn off the power supply after 3 minutes.
  - 21) Remove the front panel.
  - 22) Move the control switch to the "SERVICE" position, then move the service switch to the "WASH" position.
  - 23) Replace the front panel in its correct position.
  - 24) Turn on the power supply to rinse off the cleaning solution.
  - 25) Turn off the power supply after 5 minutes.
  - 26) Remove the front panel.
  - 27) Move the service switch to the "DRAIN" position.
  - 28) Replace the front panel and turn on the power supply for 2 minutes.
  - 29) Turn off the power supply. Remove the front panel.
  - 30) Repeat steps 17 through 29 three more times to rinse thoroughly.
- Note: If you do not sanitize the icemaker, go to step 13 in "2. Sanitizing Procedure."

## **2. Sanitizing Procedure - Following Cleaning Procedure**

- 1) Dilute 2 fl. oz. (60 ml or 4 tbs) of a 5.25% sodium hypochlorite solution (chlorine bleach) with 4 gal. (15 l) of warm water.
- 2) Remove the insulation panel if it is in its normal position.
- 3) Pour the sanitizing solution into the water tank.
- 4) Move the service switch to the "WASH" position.
- 5) Replace the insulation panel and the front panel in their correct positions.
- 6) Turn on the power supply to start the sanitizing process.
- 7) Turn off the power supply after 15 minutes. Remove the front panel.
- 8) Move the service switch to the "DRAIN" position.
- 9) Replace the front panel and turn on the power supply for 2 minutes.
- 10) Turn off the power supply. Remove the front panel.
- 11) Repeat steps 17 through 29 in "1. Cleaning Procedure" two times to rinse thoroughly.
- 12) Repeat steps 1 through 11 above one more time.
- 13) Move the control switch to the "ICE" position.
- 14) Replace the front panel in its correct position.
- 15) Clean the dispenser unit/storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.
- 16) Turn on the power supply to start the automatic icemaking process.

## **B. Maintenance**

### **IMPORTANT**

This icemaker must be maintained individually, referring to the instruction manual and labels provided with the icemaker.

### **1. Stainless Steel Exterior**

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. Dispenser Unit/Storage Bin and Scoop**

- Wash your hands before removing ice. Use the plastic scoop provided (bin accessory).
- The dispenser unit/storage bin is for ice use only. Do not store anything else in the dispenser unit/storage bin.
- Clean the scoop and the dispenser unit/storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.

### **3. Condenser**

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 location.

## C. Preparing the Icemaker for Long Storage

### CAUTION

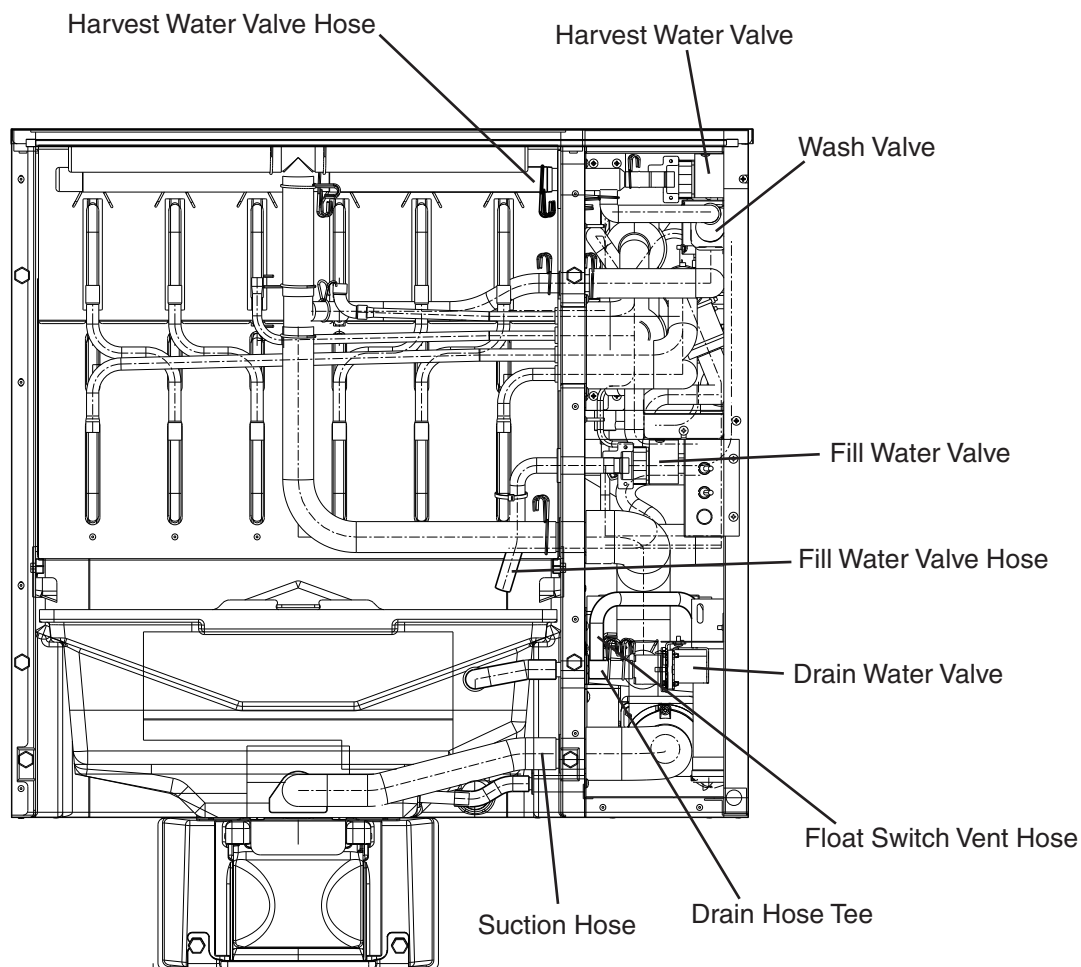
When shutting off the icemaker for an extended time, drain out all water from the water tank and remove the ice from the dispenser unit/storage bin. The dispenser unit/storage bin should be cleaned and dried. Drain the icemaker to prevent damage to the water supply line at sub-freezing temperatures, using air or carbon dioxide. 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.

#### 1. Remove the water from the potable water supply line: See Fig. 11.

- 1) Remove the front panel.
- 2) Move the control switch to the "OFF" position. Confirm that the service switch is in the "CIRC" position.
- 3) Remove the front insulation, front frame, right side panel, and control box cover.
- 4) Disconnect the thermistor from the K3 connector on the control board, and unplug the water pump connector at the water pump.
- 5) Wait 3 minutes, then move the control switch to the "ICE" position. Confirm that the bin control switch is closed and calling for ice. The green BC CLOSED LED on the control board should be on.
- 6) Once LED 1 and 2 on the control board energize (the order of the LEDs from the outer edge of the control board is 1,4,3,2), close the inlet water supply line shut-off valve and open the inlet water supply line drain valve. Allow the line to drain by gravity.
- 7) Disconnect the harvest water valve hose in the evaporator section and blow out the water line to the harvest water valve using compressed air or carbon dioxide. This will clear water from the harvest water valve.
- 8) Move the control switch to the "OFF" position.
- 9) Move the service switch to the "WASH" position and the control switch to the "SERVICE" position.
- 10) Using the same hose as with the harvest water valve, blow out the wash valve using compressed air or carbon dioxide.
- 11) Move the service switch to the "CIRC" position and the control switch to the "OFF" position.
- 12) Remove the 4 hoses connected to the water tank. Allow the tank and hoses to completely drain.
- 13) Move the control switch to the "ICE" position.
- 14) Using the fill water valve hose, blow the water line out using compressed air or carbon dioxide. This will clear water from the fill water valve.

- 15) Move the control switch to the "OFF" position.
- 16) Disconnect the float switch vent hose from the drain hose tee. Move the service switch to the "DRAIN" position and the control switch to the "SERVICE" position.
- 17) From the tee on the drain hose, blow the drain water valve out using compressed air or carbon dioxide.
- 18) Move the service switch to the "CIRC" position and the control switch to the "OFF" position.
- 19) Reconnect the thermistor to the K3 connector on the control board. Reconnect the water pump connector.
- 20) Close the inlet water supply line drain valve.
- 21) Remove all ice from the dispenser unit/storage bin and clean the dispenser unit/storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.
- 22) Turn off the power supply.
- 23) Replace all removed parts and panels in their correct positions.



**Fig. 11**

**HOSHIZAKI AMERICA, INC.**

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