



Reliability is a  
beautiful thing™

# **HOSHIZAKI®**

## **MODULAR CRESCENT CUBER**

### **MODELS**

**KMD-700MAH**  
**KMD-700MWH**  
**KMD-700MRH**  
**KMD-900MAH**  
**KMD-900MWH**  
**KMD-900MRH**

## **INSTRUCTION MANUAL**



ISSUED: APRIL 24, 2003

REVISED: JAN. 3, 2008

## **IMPORTANT**

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

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

Should the reader have any questions or concerns which have not been satisfactorily addressed, please call or write 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  
Fax: (770) 487-3360

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

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

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

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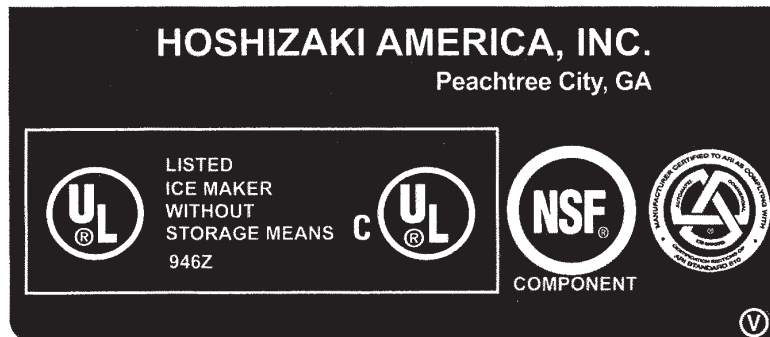
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# I. SPECIFICATIONS

## 1. NAMEPLATE RATING

[a] KMD-700MAH (Air-cooled)

| <b>HOSHIZAKI ICE MAKER</b>                  |                                    |                |              |
|---|------------------------------------|----------------|--------------|
| <b>MODEL NUMBER</b>                         | <b>KMD-700MAH</b>                  |                |              |
| <b>SERIAL NUMBER</b>                        |                                    |                |              |
| <b>AC SUPPLY VOLTAGE</b>                    | <b>208-230/60/1</b>                |                |              |
|   | <b>(3 WIRE W/NEUTRAL FOR 115V)</b> |                |              |
| <b>COMPRESSOR</b>                           | <b>208-230V</b>                    | <b>10.2RLA</b> | <b>56LRA</b> |
| <b>PUMP</b>                                 | <b>120V</b>                        | <b>0.5FLA</b>  | <b>10W</b>   |
| <b>FAN</b>                                  | <b>120V</b>                        | <b>0.85FLA</b> | <b>50W</b>   |
| <b>OTHER</b>                                | <b>115-120V</b>                    | <b>0.15A</b>   |              |
| <b>MAXIMUM FUSE SIZE</b>                    | <b>20 AMPS</b>                     |                |              |
| <b>MAX. HACR BREAKER (USA ONLY)</b>         | <b>20 AMPS</b>                     |                |              |
| <b>MAX. CIRC. BREAKER (CANADA ONLY)</b>     | <b>20 AMPS</b>                     |                |              |
| <b>MINIMUM CIRCUIT AMPACITY</b>             | <b>14.25 AMPS</b>                  |                |              |
| <b>DESIGN PRESSURE</b>                      | <b>HI-467PSI LO-230PSI</b>         |                |              |
| <b>REFRIGERANT 404A</b>                     | <b>2 lbs. 8.5 oz.</b>              |                |              |
| <b>MOTOR-COMPRESSOR THERMALLY PROTECTED</b> |                                    |                |              |
| <b>NOT INTENDED FOR OUTDOOR USE</b>         |                                    |                |              |



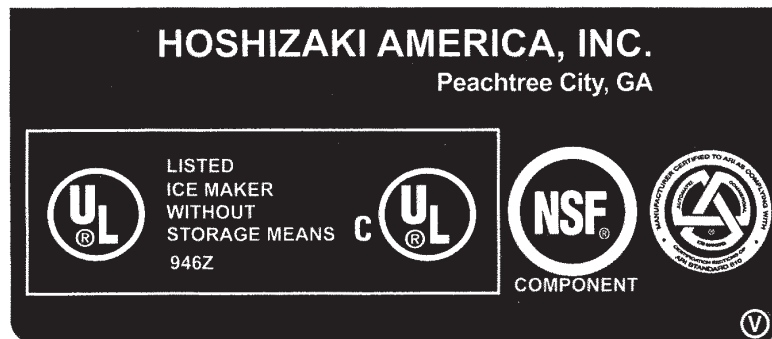
See the Nameplate for electrical and refrigeration specifications. This Nameplate is located on the upper right hand side of rear panel.

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

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

[b] KMD-700MWH (Water-cooled)

| <b>HOSHIZAKI ICE MAKER</b>                  |                                    |                  |              |
|---|------------------------------------|------------------|--------------|
| <b>MODEL NUMBER</b>                         | <b>KMD-700MWH</b>                  |                  |              |
| <b>SERIAL NUMBER</b>                        |                                    |                  |              |
| <b>AC SUPPLY VOLTAGE</b>                    | <b>208-230/60/1</b>                |                  |              |
|   | <b>(3 WIRE W/NEUTRAL FOR 115V)</b> |                  |              |
| <b>COMPRESSOR</b>                           | <b>208-230V</b>                    | <b>9.8RLA</b>    | <b>56LRA</b> |
| <b>PUMP</b>                                 | <b>120V</b>                        | <b>0.5FLA</b>    | <b>10W</b>   |
| <b>FAN</b>                                  | <b>---</b>                         | <b>---</b>       | <b>---</b>   |
| <b>OTHER</b>                                | <b>115-120V</b>                    | <b>0.15A</b>     |              |
| <b>MAXIMUM FUSE SIZE</b>                    | <b>20 AMPS</b>                     |                  |              |
| <b>MAX. HACR BREAKER (USA ONLY)</b>         | <b>20 AMPS</b>                     |                  |              |
| <b>MAX. CIRC. BREAKER (CANADA ONLY)</b>     | <b>20 AMPS</b>                     |                  |              |
| <b>MINIMUM CIRCUIT AMPACITY</b>             | <b>12.9 AMPS</b>                   |                  |              |
| <b>DESIGN PRESSURE</b>                      | <b>HI-427PSI</b>                   | <b>LO-230PSI</b> |              |
| <b>REFRIGERANT 404A</b>                     | <b>1 lb. 9.6 oz.</b>               |                  |              |
| <b>MOTOR-COMPRESSOR THERMALLY PROTECTED</b> |                                    |                  |              |
| <b>NOT INTENDED FOR OUTDOOR USE</b>         |                                    |                  |              |



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


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

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


[c] KMD-700MRH (Remote Air-cooled)


| <b>HOSHIZAKI ICE MAKER</b>                  |                                    |                |              |
|---|------------------------------------|----------------|--------------|
| <b>MODEL NUMBER</b>                         | <b>KMD-700MRH</b>                  |                |              |
| <b>SERIAL NUMBER</b>                        |                                    |                |              |
| <b>AC SUPPLY VOLTAGE</b>                    | <b>208-230/60/1</b>                |                |              |
|   | <b>(3 WIRE W/NEUTRAL FOR 115V)</b> |                |              |
| <b>COMPRESSOR</b>                           | <b>208-230V</b>                    | <b>10.0RLA</b> | <b>56LRA</b> |
| <b>PUMP</b>                                 | <b>120V</b>                        | <b>0.5FLA</b>  | <b>10W</b>   |
| <b>FAN</b>                                  | <b>REMOTE</b>                      | <b>3A MAX</b>  |              |
| <b>OTHER</b>                                | <b>115-120V</b>                    | <b>0.15A</b>   |              |
| <b>MAXIMUM FUSE SIZE</b>                    | <b>20 AMPS</b>                     |                |              |
| <b>MAX. HACR BREAKER (USA ONLY)</b>         | <b>20 AMPS</b>                     |                |              |
| <b>MAX. CIRC. BREAKER (CANADA ONLY)</b>     | <b>20 AMPS</b>                     |                |              |
| <b>MINIMUM CIRCUIT AMPACITY</b>             | <b>13.15 AMPS</b>                  |                |              |
| <b>DESIGN PRESSURE</b>                      | <b>HI-467PSI LO-230PSI</b>         |                |              |
| <b>REFRIGERANT 404A</b>                     |                                    |                |              |
| <b>MOTOR-COMPRESSOR THERMALLY PROTECTED</b> |                                    |                |              |
| <b>NOT INTENDED FOR OUTDOOR USE</b>         |                                    |                |              |

**HOSHIZAKI AMERICA, INC.**  
Peachtree City, GA





LISTED  
ICE MAKER  
WITHOUT  
STORAGE MEANS  
946Z





COMPONENT





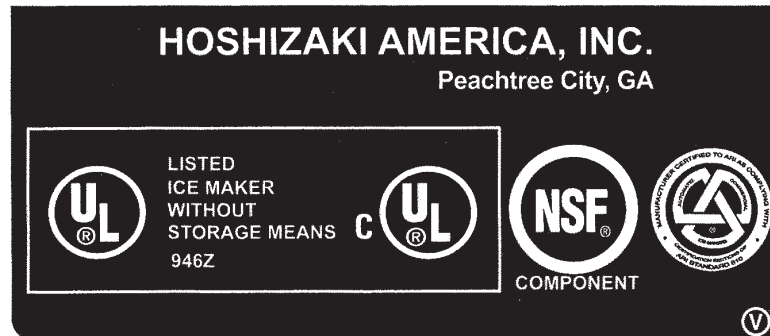
See the Nameplate for electrical and refrigeration specifications. This Nameplate is located on the upper right hand side of rear panel.

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

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

[d] KMD-900MAH (Air-cooled)

| <b>HOSHIZAKI ICE MAKER</b>                  |   |
|---|---|
| <b>MODEL NUMBER</b>                         | <b>KMD-900MAH</b>   |
| <b>SERIAL NUMBER</b>                        |   |
| <b>AC SUPPLY VOLTAGE</b>                    | <b>208-230/60/1</b><br><b>(3 WIRE W/NEUTRAL FOR 115V)</b> |
| <b>COMPRESSOR</b>                           | <b>208-230V 11.2RLA 61LRA</b>                             |
| <b>PUMP</b>                                 | <b>120V 0.5FLA 10W</b>                                    |
| <b>FAN</b>                                  | <b>120V 0.85FLA 50W</b>                                   |
| <b>OTHER</b>                                | <b>115-120V 0.15A</b>                                     |
| <b>MAXIMUM FUSE SIZE</b>                    | <b>25 AMPS</b>  |
| <b>MAX. HACR BREAKER (USA ONLY)</b>         | <b>25 AMPS</b>  |
| <b>MAX. CIRC. BREAKER (CANADA ONLY)</b>     | <b>25 AMPS</b>  |
| <b>MINIMUM CIRCUIT AMPACITY</b>             | <b>15.5 AMPS</b>  |
| <b>DESIGN PRESSURE</b>                      | <b>HI-467PSI LO-230PSI</b>                                |
| <b>REFRIGERANT 404A</b>                     | <b>3 lbs. 8.3 oz.</b>                                     |
| <b>MOTOR-COMPRESSOR THERMALLY PROTECTED</b> |   |
| <b>NOT INTENDED FOR OUTDOOR USE</b>         |   |



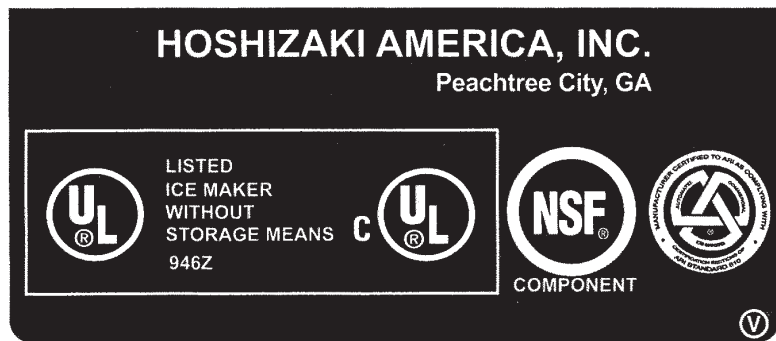
See the Nameplate for electrical and refrigeration specifications. This Nameplate is located on the upper right hand side of rear panel.

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

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[e] KMD-900MWH (Water-cooled)

| <b>HOSHIZAKI ICE MAKER</b>                  |   |                  |              |
|---|---|------------------|--------------|
| <b>MODEL NUMBER</b>                         | <b>KMD-900MWH</b>   |                  |              |
| <b>SERIAL NUMBER</b>                        |   |                  |              |
| <b>AC SUPPLY VOLTAGE</b>                    | <b>208-230/60/1</b><br><b>(3 WIRE W/NEUTRAL FOR 115V)</b> |                  |              |
| <b>COMPRESSOR</b>                           | <b>208-230V</b>   | <b>11.2RLA</b>   | <b>61LRA</b> |
| <b>PUMP</b>                                 | <b>120V</b>   | <b>0.5FLA</b>    | <b>10W</b>   |
| <b>FAN</b>                                  | <b>---</b>  | <b>---</b>       | <b>---</b>   |
| <b>OTHER</b>                                | <b>115-120V</b>   | <b>0.15A</b>     |              |
| <b>MAXIMUM FUSE SIZE</b>                    | <b>25 AMPS</b>  |                  |              |
| <b>MAX. HACR BREAKER (USA ONLY)</b>         | <b>25 AMPS</b>  |                  |              |
| <b>MAX. CIRC. BREAKER (CANADA ONLY)</b>     | <b>25 AMPS</b>  |                  |              |
| <b>MINIMUM CIRCUIT AMPACITY</b>             | <b>14.65 AMPS</b>   |                  |              |
| <b>DESIGN PRESSURE</b>                      | <b>HI-427PSI</b>  | <b>LO-230PSI</b> |              |
| <b>REFRIGERANT 404A</b>                     | <b>2 lbs.</b>   |                  |              |
| <b>MOTOR-COMPRESSOR THERMALLY PROTECTED</b> |   |                  |              |
| <b>NOT INTENDED FOR OUTDOOR USE</b>         |   |                  |              |



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

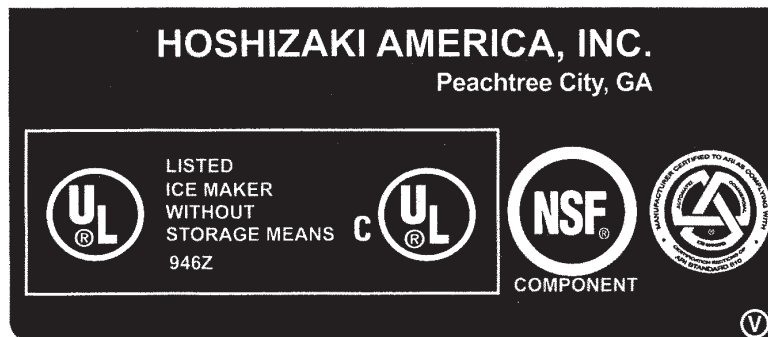
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We reserve the right to make changes in specifications and design without prior notice.



[f] KMD-900MRH (Remote Air-cooled)

| <b>HOSHIZAKI ICE MAKER</b>                  |                                    |                |              |
|---|------------------------------------|----------------|--------------|
| <b>MODEL NUMBER</b>                         | <b>KMD-900MRH</b>                  |                |              |
| <b>SERIAL NUMBER</b>                        |                                    |                |              |
| <b>AC SUPPLY VOLTAGE</b>                    | <b>208-230/60/1</b>                |                |              |
|   | <b>(3 WIRE W/NEUTRAL FOR 115V)</b> |                |              |
| <b>COMPRESSOR</b>                           | <b>208-230V</b>                    | <b>11.2RLA</b> | <b>61LRA</b> |
| <b>PUMP</b>                                 | <b>120V</b>                        | <b>0.5FLA</b>  | <b>10W</b>   |
| <b>FAN</b>                                  | <b>REMOTE</b>                      | <b>3A MAX</b>  |              |
| <b>OTHER</b>                                | <b>115-120V</b>                    | <b>0.15A</b>   |              |
| <b>MAXIMUM FUSE SIZE</b>                    | <b>25 AMPS</b>                     |                |              |
| <b>MAX. HACR BREAKER (USA ONLY)</b>         | <b>25 AMPS</b>                     |                |              |
| <b>MAX. CIRC. BREAKER (CANADA ONLY)</b>     | <b>25 AMPS</b>                     |                |              |
| <b>MINIMUM CIRCUIT AMPACITY</b>             | <b>14.65 AMPS</b>                  |                |              |
| <b>DESIGN PRESSURE</b>                      | <b>HI-467PSI LO-230PSI</b>         |                |              |
| <b>REFRIGERANT 404A</b>                     |                                    |                |              |
| <b>MOTOR-COMPRESSOR THERMALLY PROTECTED</b> |                                    |                |              |
| <b>NOT INTENDED FOR OUTDOOR USE</b>         |                                    |                |              |



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

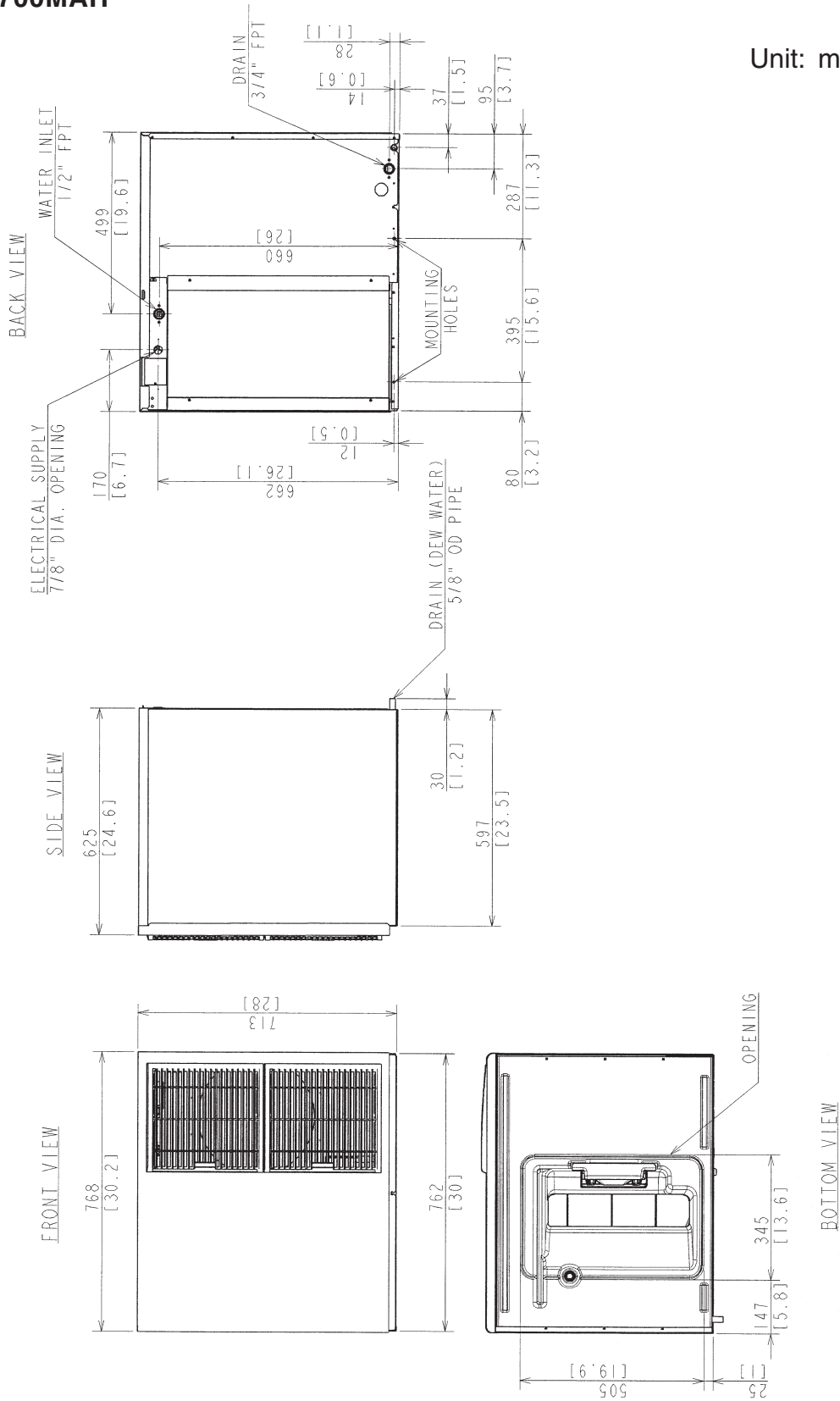
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We reserve the right to make changes in specifications and design without prior notice.

## 2. DIMENSIONS/CONNECTIONS

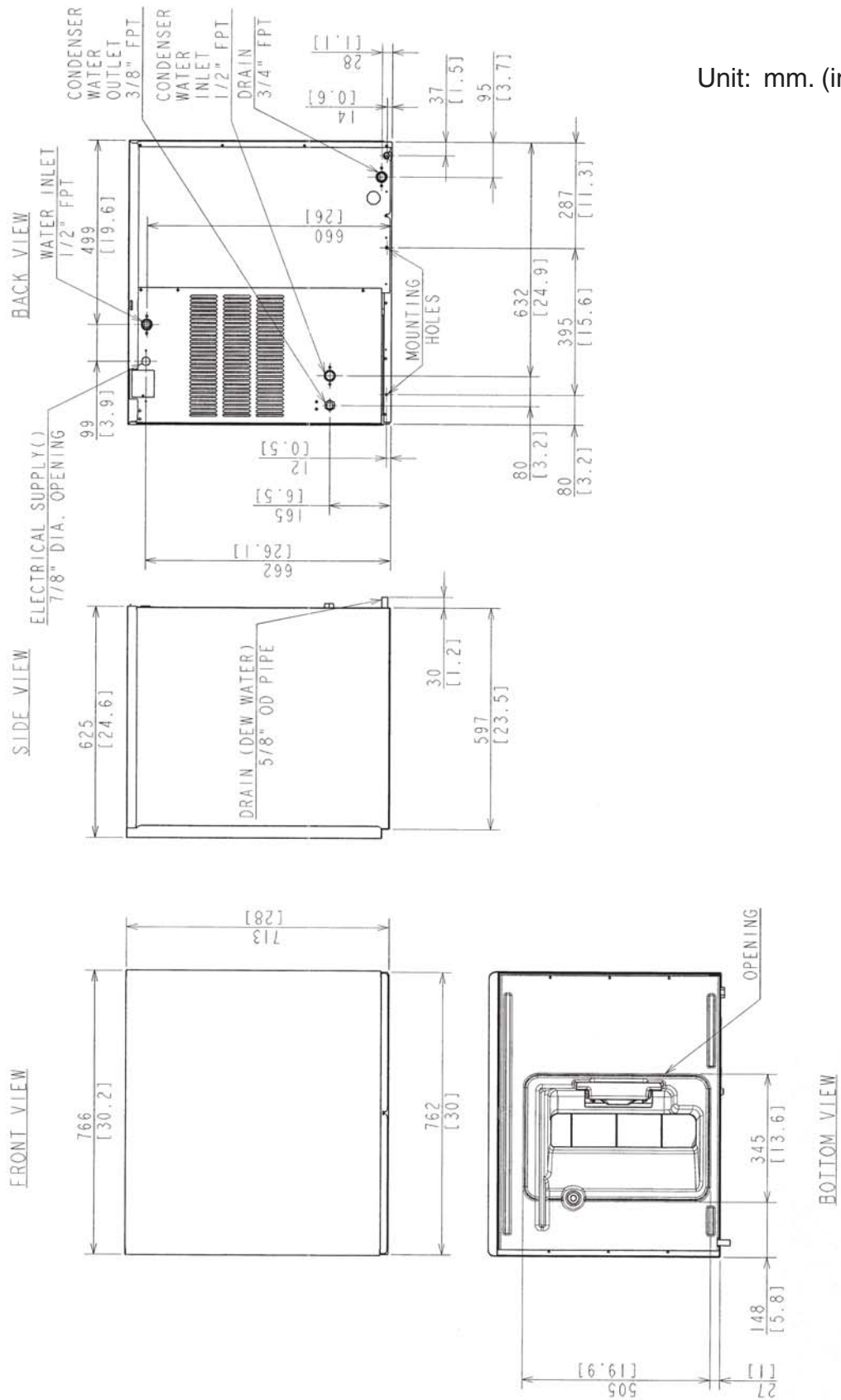
### [a] KMD-700MAH

Unit: mm. (inches)



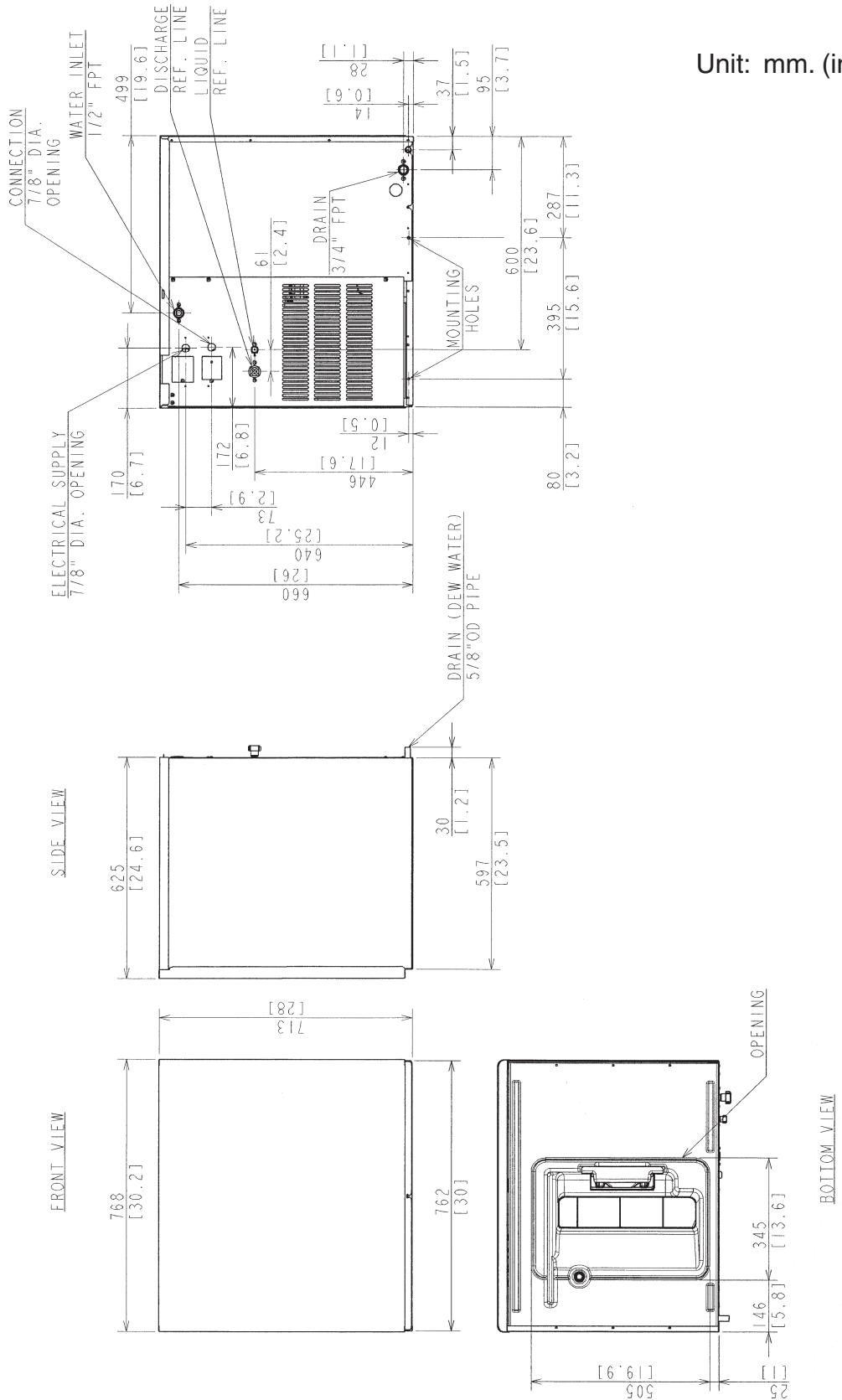
[b] KMD-700MWH, KMD-900MWH

Unit: mm. (inches)

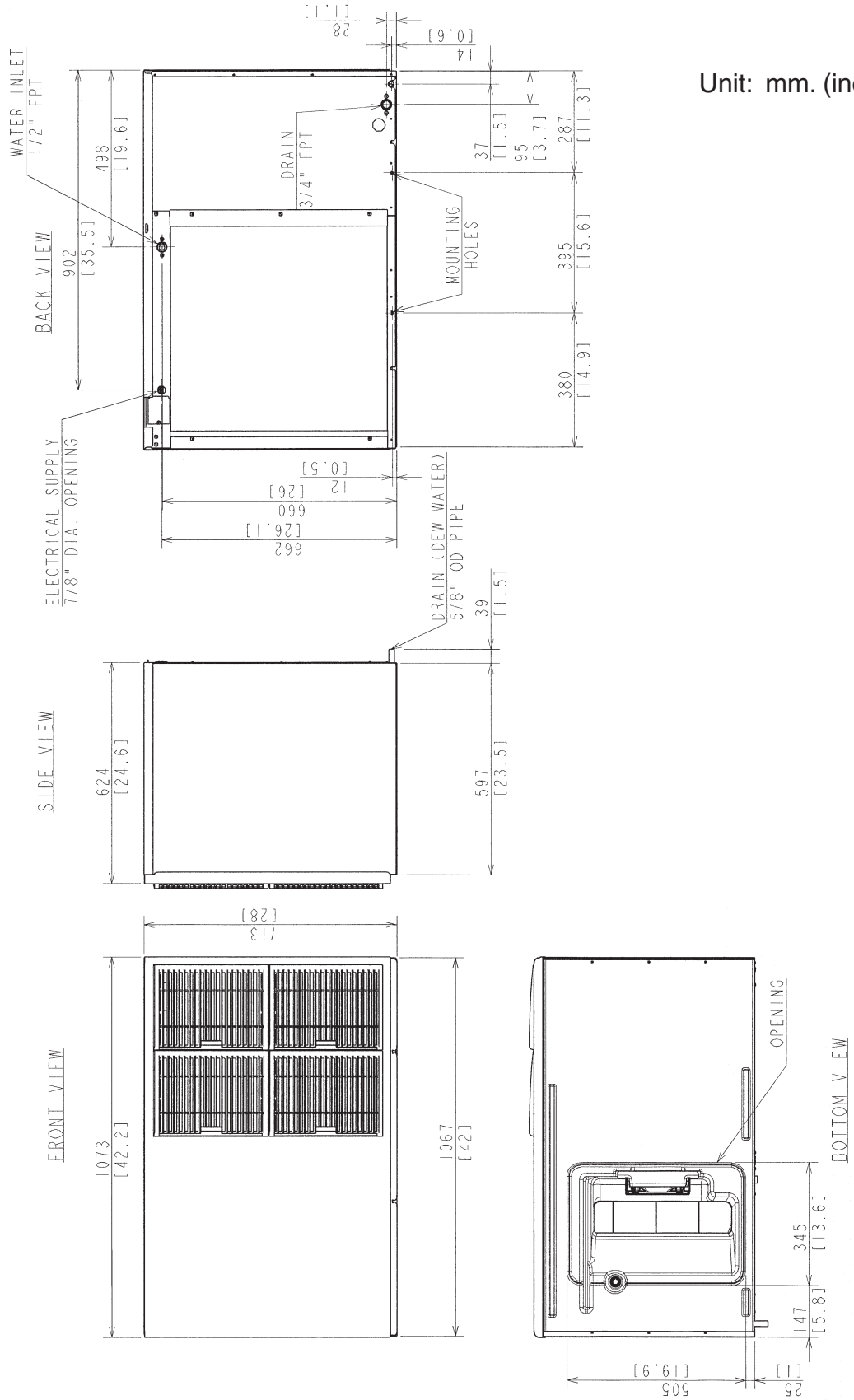


[c] KMD-700MRH, KMD-900MRH

Unit: mm. (inches)



[d] KMD-900MAH



Unit: mm. (inches)

## II. INSTALLATION AND OPERATING INSTRUCTIONS

### 1. CHECKS BEFORE INSTALLATION

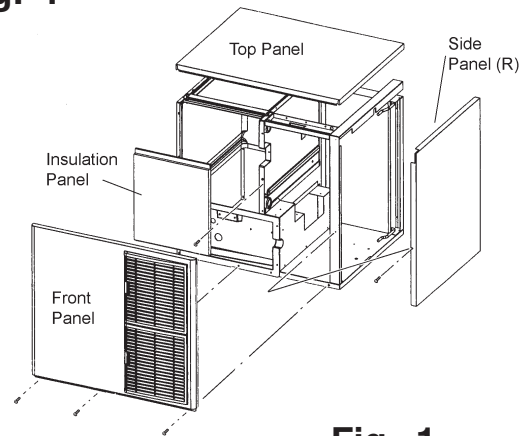
#### IMPORTANT

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

- 1) Remove the panels to prevent damage when installing the icemaker. (See “2. HOW TO REMOVE PANELS.”)
- 2) Remove the package containing the accessories.
- 3) Remove the protective plastic film from the panels. If the icemaker is exposed to the sun or to heat, remove the film after the icemaker cools.
- 4) Check that the refrigerant lines do not rub or touch lines or other surfaces, and that the fan blade turns freely.
- 5) Check that the Compressor is snug on all mounting pads.
- 6) See the Nameplate on the Rear Panel, and check that your voltage supplied corresponds with the voltage specified on the Nameplate.
- 7) This icemaker can be installed on a dispenser unit or a storage bin. The recommended storage bin for all machines except the KMD-900MAH is Hoshizaki Ice Storage Bin, Model B-500 series. The recommended storage bin for the KMD-900MAH is Hoshizaki Ice Storage Bin, Model B-700 series.
- 8) On remote air-cooled models, a remote condenser unit is needed. The recommended remote condenser unit is HOSHIZAKI CONDENSER UNIT, Model URC-12F.

## 2. HOW TO REMOVE PANELS - See Fig. 1

- a) Front Panel.....Remove the screw (s).  
Lift up and toward you.
- b) Top Panel..... Lift up at front slightly, push rearward, and lift off.
- c) Side Panel (R)..... Remove the screw.  
Slide forward slightly ,  
and lift off.
- d) Insulation Panel.....Remove thumbscrew, lift up slightly, and pull toward you.



**Fig. 1**

## 3. LOCATION

### WARNING

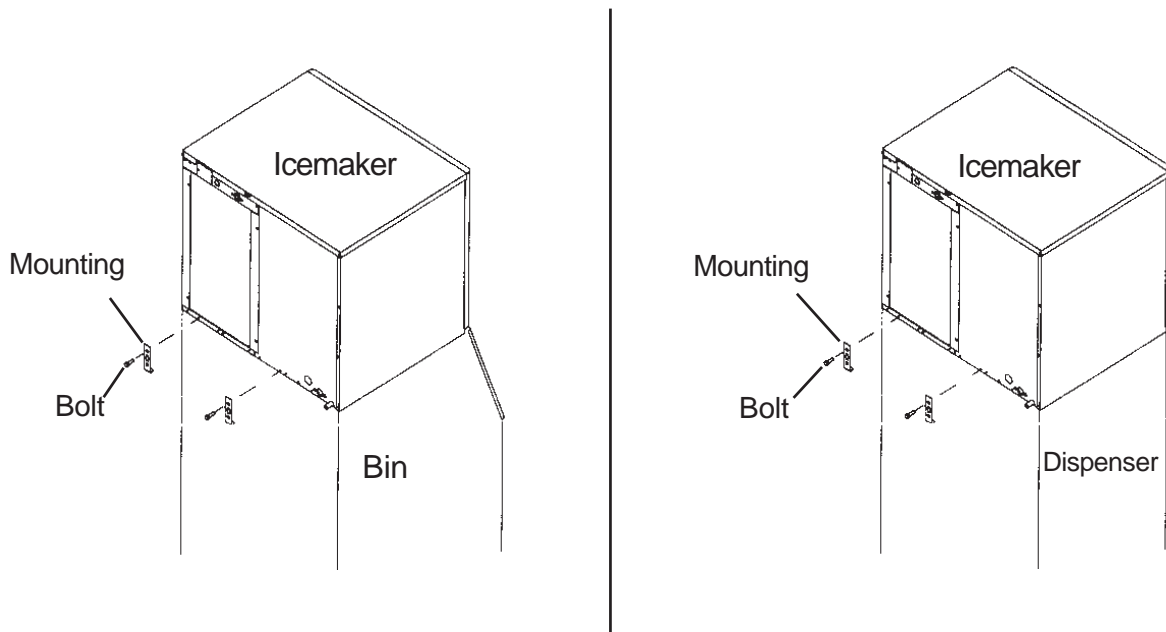
This icemaker is not intended for outdoor use. Normal operating ambient temperature should be within +45°F to +100°F; Normal operating water temperature should be within +45°F to +90°F. Operation of the icemaker, for extended periods, outside of these normal temperature ranges may affect production capacity.

For best operating results:

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

## 4. SET UP

- 1) If mounting unit on top of a storage bin, unpack the storage bin, and attach the four adjustable legs provided (bin accessory) to the bottom of the storage bin. If mounting unit on top of a dispenser, follow the dispenser set-up procedure.
- 2) Position the Storage Bin/Dispenser Unit in the selected permanent position.
- 3) Place the icemaker on the top of the Storage Bin/Dispenser Unit.
- 4) Secure the icemaker to the Storage Bin/Dispenser Unit, by using the two mounting brackets and the bolts provided. See Fig. 2.
- 5) Level the icemaker and storage bin/dispenser unit in both the left-to-right and front-to-rear directions. Adjust the storage bin/dispenser unit legs to make the icemaker level.
- 6) Replace the panels in their correct positions.



**Fig. 2**



## 5. ELECTRICAL CONNECTION

### WARNING

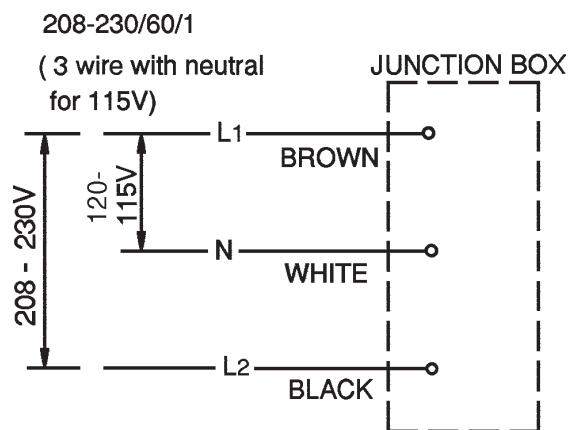
1. Electrical connection must be made in accordance with the instructions on a "WARNING" tag, provided with the pig tail leads in the Junction Box.
2. This icemaker requires a ground that meets the national and local electrical code requirements. To prevent possible electrical shock to individuals or extensive damage to the equipment, install a proper ground wire to the icemaker.

- The white lead must be connected to the neutral conductor of the power source. Miswiring results in severe damage to the icemaker. See Fig. 3.
- This icemaker must have a separate power supply or receptacle of proper capacity. See the Nameplate.
- The opening for the power supply connection is 7/8" DIA to fit a 1/2" trade size conduit.
- Usually an electrical permit and services of a licensed electrician are required.

### 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.3**

## 6. INSTALLATION OF REMOTE CONDENSER UNIT

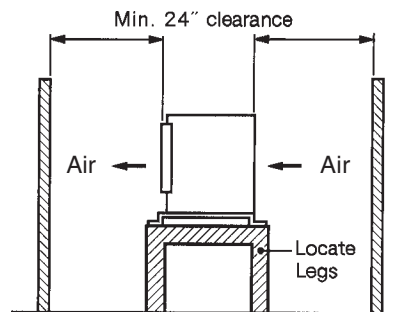
### [a] CHECKS BEFORE INSTALLATION

- 1) Unpack and remove shipping carton, tape(s) and packing.
- 2) Check that the refrigerant lines do not rub or touch lines or other surfaces, and that the fan blade moves freely.

### [b] LOCATION

The condenser 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" clearance on both front and rear for ease of maintenance and service should they be required.
- Normal condenser ambient temperature:  $-20^{\circ}\text{F}$  to  $+122^{\circ}\text{F}$ . Temperatures not within this operating range may affect the production capacity of the icemaker.
- The maximum line length for the standard refrigerant charge is 66 feet. Should an installation require a longer line length, please call 1-800-233-1940 for recommendations concerning the correct additional refrigerant charge to be added.



**Fig. 4**

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

## [c] SET UP

- 1) Secure the Legs to the condenser unit with eight M8 x 16 mm Hexagon Bolts and M8 Nuts as shown in the illustration. See Fig. 5.

Note: Locate the Legs symmetrically.

- 2) The Legs have eight mounting holes. Secure the Legs with eight bolts (not included).
- 3) Install enough length of two copper tubings provided with Aeroquip couplings between the icemaker and the condenser unit. The two copper tubings should be insulated separately. See Fig. 6.

- Precharged tubing kits, available as optional equipment from HOSHIZAKI AMERICA, are recommended .

- 4) Line sets fabricated in the field should be evacuated through the charging ports on the Aeroquip couplings and charged with R-404A refrigerant vapor to a pressure of 15 - 30 PSIG.

Note: Factory fabricated tubing kits are precharged and do not need to be evacuated.

- 5) Remove the plastic caps protecting the couplings. Attach the two refrigerant lines to the male couplings on the icemaker and the remote condenser unit. Each refrigerant line must be connected as follows:

Icemaker discharge refrigerant line - 1/2" OD tubing to "DIS" of condenser unit  
Icemaker liquid refrigerant line - 3/8" OD tubing to "LIQ" of condenser unit

Note: Care should be taken that the unit, line set and Condenser 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. Make the connections at the remote condenser first and then at the icemaker.

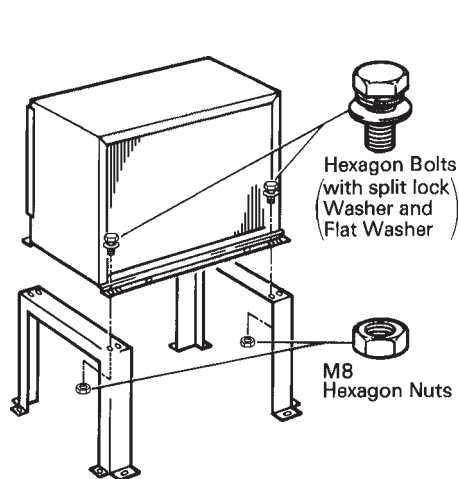


Fig. 5

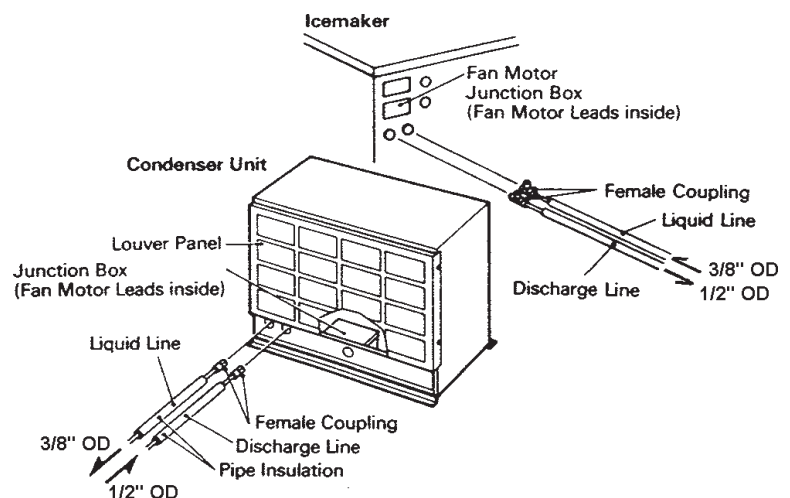


Fig. 6

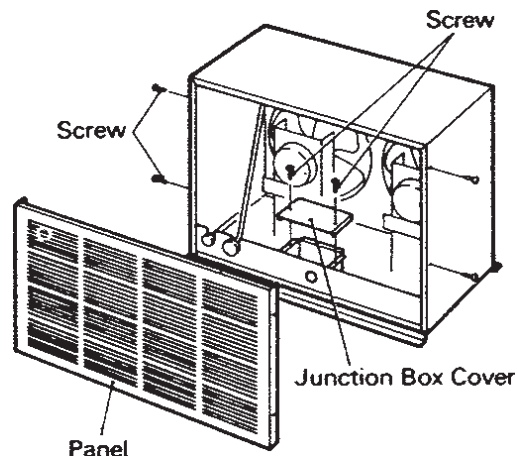
## [d] ELECTRICAL CONNECTION

### WARNING

This remote condenser unit requires a ground that meets the national and local electrical code requirements. To prevent possible electrical shock to individuals or extensive damage to equipment, install a proper ground wire to this condenser unit.

- This condenser unit must be connected to the Fan Motor Junction Box on the icemaker.
- The opening for the power supply connection is 7/8" DIA to fit a 1/2" trade size conduit.
- Usually an electrical permit and services of a licensed electrician are required.

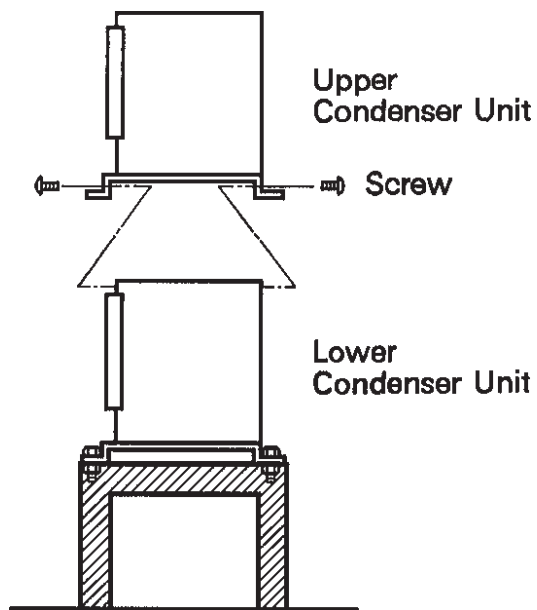
- 1) Remove the Panel.
- 2) Remove the Junction Box Cover.
- 3) Connect the Fan Motor leads in the Junction Box of the remote condenser unit to the Fan Motor leads in the Junction Box of the HOSHIZAKI remote air-cooled icemaker.
- 4) Install a ground wire to the remote condenser unit.
- 5) Replace the Junction Box Cover and the Panel in their correct positions.



**Fig. 7**

### [e] STACKING CONDENSER UNIT

- 1) Secure the lower condenser unit to the Legs with eight bolts (not included).
- 2) Attach the upper condenser unit on the top of the lower.
- 3) Secure the upper condenser unit with the four screws provided.
- 4) Install refrigerant lines, and make electrical connection for each Fan Motor as shown in Items [c] and [d].



**Fig. 8**

## 7. WATER SUPPLY AND DRAIN CONNECTIONS

- with Storage Bin See Fig. 9
- with Dispenser Unit See Fig. 10

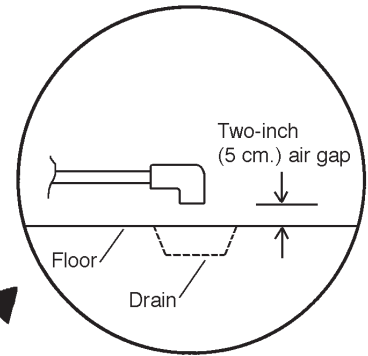
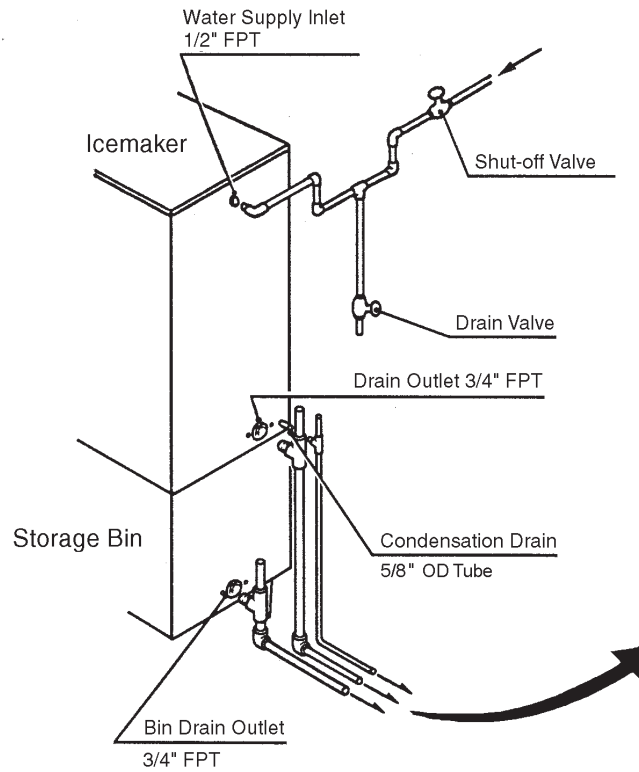
### IMPORTANT

To prevent damage to the pump assembly, do not operate the icemaker when the water supply is OFF, or if the pressure is below 14.5 PSIG. Do not run the icemaker until the proper water pressure is reached.

- Water supply inlet is 1/2" female pipe thread (FPT).  
  
Note: On water-cooled models, two water supply inlets are provided. One is for the icemaker, and the other is for the water-cooled condenser.
- A water supply line shut-off valve and drain valve should be installed. A minimum of 3/8" OD copper tubing is recommended for the water supply lines.
- Water supply pressure should be a minimum of 14.5 PSIG and a maximum of 145 PSIG. If the pressure exceeds 145 PSIG, the use of a pressure reducing valve is required.
- Drain outlet for icemaker water is 3/4" FPT. The drain for condensation is a 5/8" OD tube. The icemaker drain and the condensation drain piping connections must be made separately from the bin drain.
- The drains must have 1/4" fall per foot on horizontal runs to get a good flow.
- The drains should not be piped directly to the sewer system. An air gap of a minimum of 2 vertical inches should be between the end of the drain pipe from the icemaker or the ice bin and the floor drain.
- This icemaker should be installed in accordance with applicable national, state and local regulations.
- A plumbing permit and services of a licensed plumber may be required in some areas.
- In some areas, a back flow preventer may be required in the cooling water circuit.

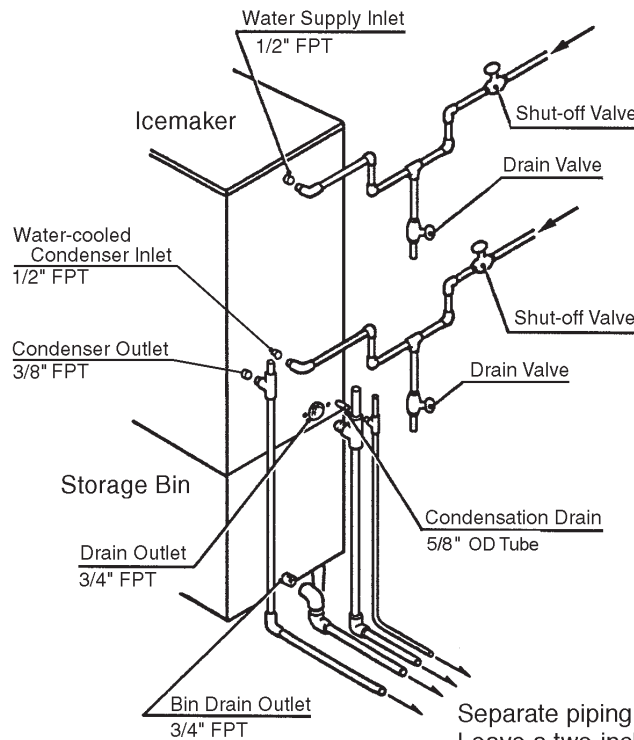
**KMD-700MAH  
KMD-700MRH  
KMD-900MAH  
KMD-900MRH**

**with Storage Bin**



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

**KMD-700MWH  
KMD-900MWH**

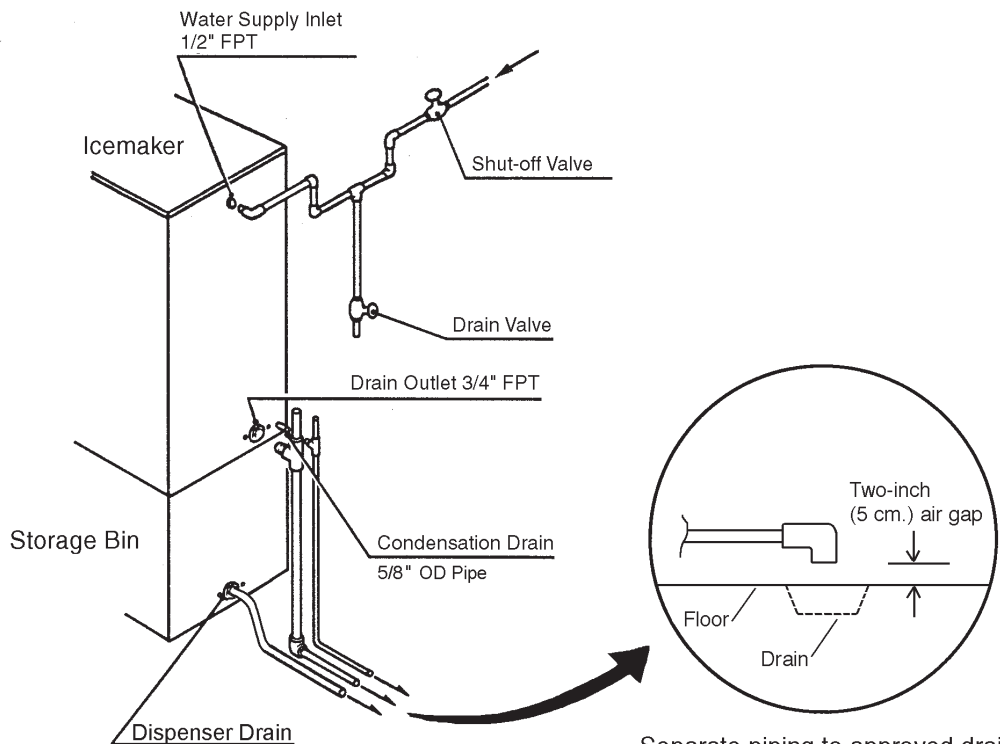


Separate piping to approved drain. Leave a two-inch (5 cm.) vertical air gap between the end of each pipe and the drain.

**Fig. 9**

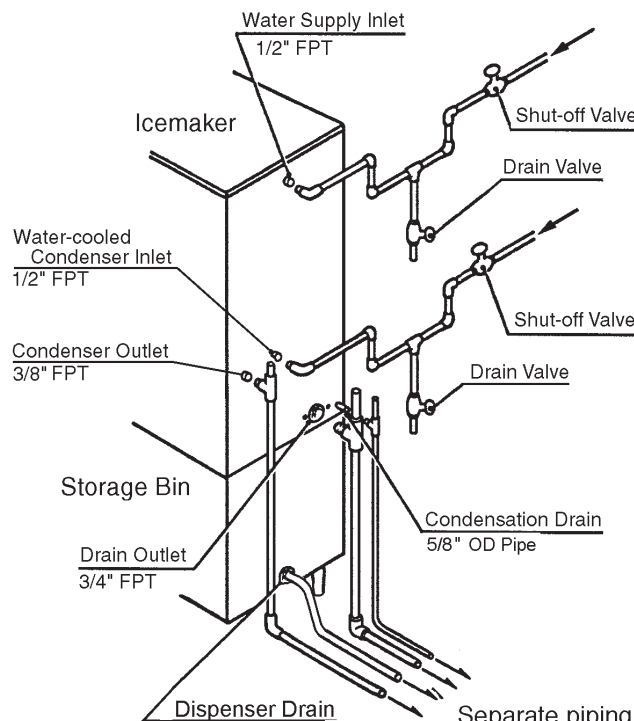
**KMD-700MAH  
KMD-700MRH  
KMD-900MAH  
KMD-900MRH**

**with Dispenser Unit**



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

**KMD-700MWH  
KMD-900MWH**



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

**Fig. 10**



## 8. FINAL CHECK LIST

- 1) Is the icemaker level?
- 2) Is the icemaker in a site where the ambient temperature is within +45°F to +100°F all year around?
- 3) Is there at least 6" clearance around the icemaker for maintenance or service?
- 4) Have all shipping carton, tape(s) and packing been removed from the icemaker? Is the cube guide in its correct position?
- 5) Are all components, fasteners and thumbscrews securely in place?
- 6) Have all electrical and piping connections been made?
- 7) Has the power supply voltage been checked or tested against the nameplate rating? And has a proper ground been installed in the icemaker?
- 8) Are the Water Supply Line Shut-off Valve and Drain Valve installed? Has the water supply pressure been checked to ensure a minimum of 14.5 PSIG and a maximum of 145 PSIG?  
  
Note: The icemaker may stop running when the water supply is OFF, or if the pressure is below 14.5 PSIG. When the proper water pressure is reached, the icemaker automatically starts running again.
- 9) Have the compressor hold-down bolts and refrigerant lines been checked against vibration and possible failure?
- 10) Has the bin control operation been verified?
- 11) Has the end user been given the instruction manual, and instructed on how to operate the icemaker and the importance of the recommended periodic maintenance?
- 12) Has the end user been given the name and telephone number of an authorized service agent?
- 13) Has the warranty card been filled out and forwarded to the factory for warranty registration?

## 9. START UP

### IMPORTANT

1. All parts are factory-adjusted. Improper adjustments may result in failure.
2. If the unit is turned off, wait for at least 3 minutes before restarting the icemaker to prevent damage to the Compressor.
3. 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 toggle “ON-OFF” Control Switch, on the Control Box, to the “ICE” position.
4. Turn on the power supply and start the Icemaker.
5. Let the Icemaker run for 5 minutes to fill up the water tank.
6. Move the Control Switch to the “WASH” position for 5 minutes.
7. Move the Control Switch to the “OFF” position.
8. Remove the Insulation Panel by removing thumbscrew, lifting up the panel slightly and pulling it toward you. Remove Cube Guide B by removing thumbscrew. Remove Cube Guide A. Remove Overflow Cap, Overflow Pipe, and Water Shield. See Fig. 11.
9. Remove the Drain Plug.
10. Clean the storage bin after all the water has drained.
11. Replace Drain Plug, Water Shield, Overflow Pipe, Overflow Cap, Cube Guide A, Cube Guide B, and Insulation Panel in their correct positions.
12. Turn on the power supply and move the Control Switch to the “ICE” position, starting the automatic icemaking process.
13. Place the Front Panel back in its correct position.

TOP VIEW

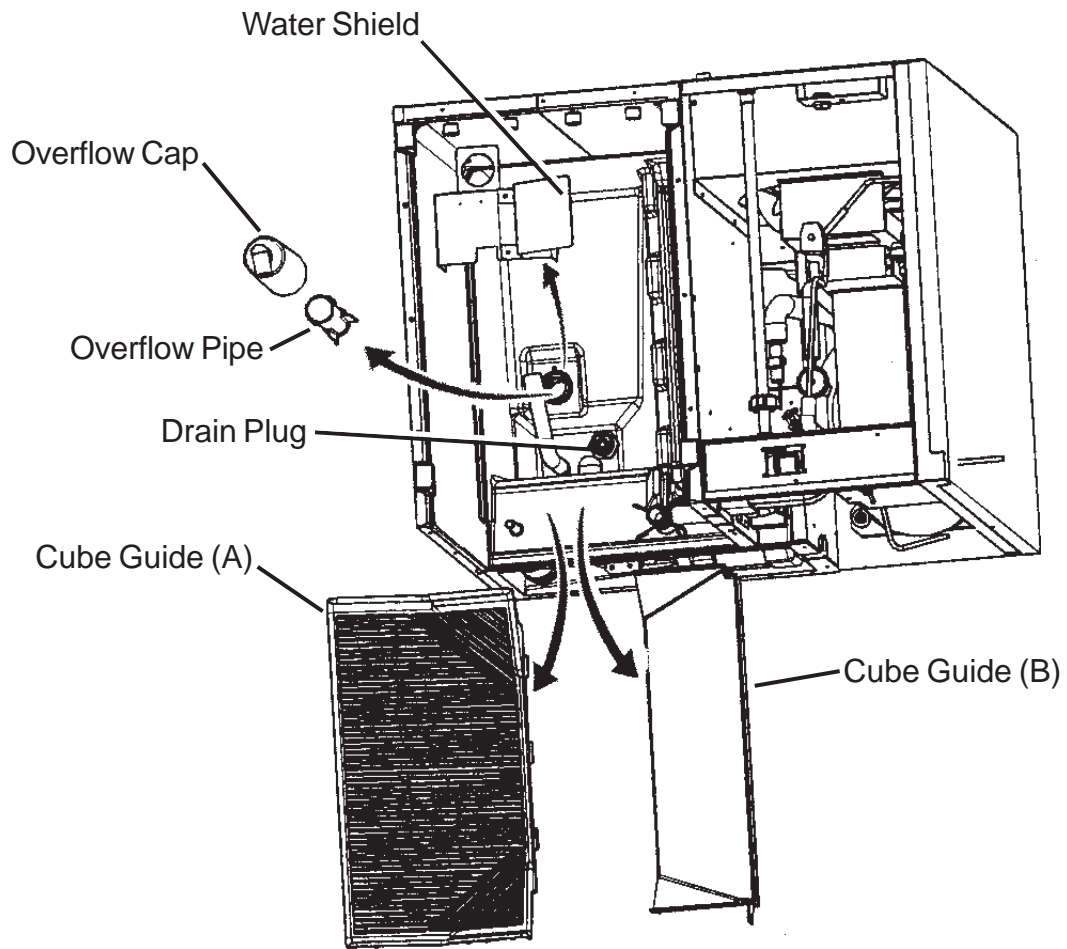


Fig. 11

## 10. PREPARING THE ICEMAKER FOR LONG STORAGE

### IMPORTANT

When shutting off the icemaker for an extended time, drain out all water from the water line and remove the ice from the Storage Bin. The Storage Bin should be cleaned and dried. Drain the icemaker to prevent damage to the water supply line at sub-freezing temperatures, using a foot or hand pump. 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] On water-cooled models only, first remove the water from the water-cooled condenser:

- 1) Remove the Front Panel.
- 2) Move the Control Switch, on the Control Box, to the “OFF” position.
- 3) Wait 3 minutes.
- 4) Move the Control Switch to the “ICE” position.
- 5) Allow 5 minutes for the icemaker to fill with water and the Water Pump to start operating.
- 6) Close the Water-cooled Condenser Water Supply Line Shut-off Valve. See Fig. 9.
- 7) Open the Drain Valve for the water-cooled condenser water supply line.
- 8) Allow the line to drain by gravity.
- 9) Attach compressed air or carbon dioxide supply to the Condenser Water Line Drain Valve.
- 10) Blow the water-cooled condenser out using compressed air or carbon dioxide until water stops coming out.

[2] Remove the water from the potable water supply line:

- 1) Remove the Front Panel. (Except water-cooled models)
- 2) Move the Control Switch, on the Control Box, to the “OFF” position.
- 3) Wait 3 minutes.
- 4) Close the Potable Water Supply Line Shut-off Valve and open the Potable Water Supply Line Drain Valve. See Fig. 9.
- 5) Allow the line to drain by gravity.
- 6) Attach compressed air or carbon dioxide supply to the Potable Water Line Drain Valve.
- 7) Move the Control Switch to the “ICE” position.
- 8) Quickly blow the potable water line out using compressed air or carbon dioxide.

[3] Drain the Potable Water Tank:

- 1) Turn off the power supply.
- 2) Move the Control Switch, on the Control Box, to the “OFF” position.
- 3) Remove the Insulation Panel by removing thumbscrew, lifting up the panel slightly and pulling it toward you. Remove Cube Guide B by removing thumbscrew. Remove Cube Guide A. Remove Overflow Cap, Overflow Pipe, and Water Shield. See Fig. 11.
- 4) Remove the Drain Plug.
- 5) Remove all ice from the Storage Bin, and clean the Storage Bin.
- 6) Replace Drain Plug, Water Shield, Overflow Pipe, Overflow Cap, Cube Guide A, Cube Guide B, and Insulation Panel in their correct positions.
- 7) Replace the Front Panel in its correct position.
- 8) Close the Water Supply Line Shut-off Valve.

### III. CLEANING AND MAINTENANCE INSTRUCTIONS

#### IMPORTANT

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

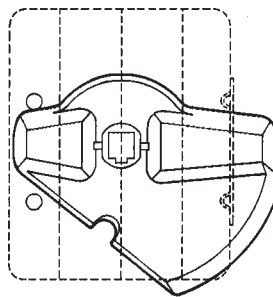
#### 1. CLEANING INSTRUCTIONS

#### WARNING

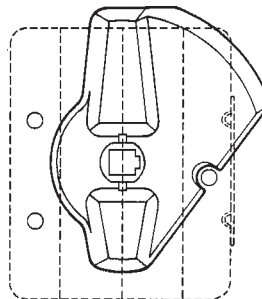
1. HOSHIZAKI recommends cleaning this unit at least once a year. More frequent cleaning, however, may be required in some existing water conditions.
2. To prevent injury to individuals and damage to the icemaker, do not use ammonia type cleaners.
3. Always wear liquid-proof gloves for safe handling of the cleaning and sanitizing solution. This will prevent irritation in case the solution comes into contact with the skin.

#### IMPORTANT

1. The Cleaning Valve is used to provide access to the inside of the Evaporator during the cleaning and sanitizing operation. It should be closed for all icemaking operation. The Compressor will not operate unless this valve is completely closed.
2. To open the Cleaning Valve, the Valve Handle should be parallel to the valve body. To close the valve, the Valve Handle should be at a right angle to the valve body.



CLOSED POSITION



OPEN POSITION

## **[a] CLEANING PROCEDURE**

- 1) Dilute approximately 13.5 fl. oz. of recommended cleaner Hoshizaki “Scale Away” or “LIME-A-WAY,” (Economics Laboratory, Inc.) with 2.5 gallons of water.
- 2) Remove all ice from the Evaporator and the Storage Bin.  
Note: To remove cubes on the Evaporator, turn off the power supply and turn it back on after 3 minutes. The defrost cycle starts and the cubes will be removed from the Evaporator.
- 3) Turn off the power supply.
- 4) Remove the Front Panel. Then remove the Insulation Panel by removing thumbscrew, lifting up the panel slightly and pulling it toward you. Remove Cube Guide B by removing thumbscrew. Remove Cube Guide A. Remove Overflow Cap, Overflow Pipe, and Water Shield.
- 5) Remove the Drain Plug located inside the Water Tank. Drain the Water Tank. Replace the Drain Plug in its correct position.
- 6) Pour the cleaning solution into the Water Tank.
- 7) Fully open the Cleaning Valve on the left side wall of the machine compartment.
- 8) Move the Control Switch, on the Control Box, to the “WASH” position
- 9) Replace Water Shield, Overflow Pipe, Overflow Cap, Cube Guide A, Cube Guide B, and Insulation Panel in their correct positions. Replace the Front Panel in its correct position.
- 10) Turn on the power supply, and start the washing process.
- 11) Turn off the power supply after 30 minutes.
- 12) Remove the Front Panel.
- 13) Remove the Insulation Panel by removing thumbscrew, lifting up the panel slightly and pulling it toward you. Remove Cube Guide B by removing thumbscrew. Remove Cube Guide A. Remove Overflow Cap, Overflow Pipe, and Water Shield.
- 14) Remove the Drain Plug located inside the Water Tank. Drain the Water Tank. Replace the Drain Plug in its correct position.
- 15) Replace Water Shield, Overflow Pipe, Overflow Cap, Cube Guide A, Cube Guide B, and Insulation Panel in their correct positions.

- 16) Move the Control Switch to the "ICE" position.
- 17) Close the Cleaning Valve.
- 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, and fully open the Cleaning Valve.
- 22) Move the Control 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) Remove the Insulation Panel by removing thumbscrew, lifting up the panel slightly and pulling it toward you. Remove Cube Guide B by removing thumbscrew. Remove Cube Guide A. Remove Overflow Cap, Overflow Pipe, and Water Shield.
- 28) Remove the Drain Plug located inside the Water Tank. Drain the Water Tank. Replace the Drain Plug in its correct position.
- 29) Replace Water Shield, Overflow Pipe, Overflow Cap, Cube Guide A, Cube Guide B, and Insulation Panel in their correct positions.
- 30) Repeat the above steps 16) through 29) three more times to rinse thoroughly.

Note: If you do not sanitize the icemaker, go to step 10) in "[b] SANITIZING PROCEDURE."



## **[b] SANITIZING PROCEDURE - Following Cleaning Procedure**

- 1) Dilute a 5.25% Sodium Hypochlorite solution with water (Add approximately 1.25 fl. oz. to 2.5 gal. of water).
- 2) Remove the Insulation Panel by removing thumbscrew, lifting up the panel slightly and pulling it toward you.
- 3) Pour the sanitizing solution into the Water Tank.
- 4) Replace the Insulation Panel and the Front Panel in their correct positions.  
  
Note: Make sure that the Control Switch is in the "WASH" position and the Cleaning Valve is open.
- 5) Turn on the power supply, and start the sanitizing process.
- 6) Turn off the power supply after 15 minutes.
- 7) Remove the Front Panel.
- 8) Remove the Insulation Panel by removing thumbscrew, lifting up the panel slightly and pulling it toward you. Remove Cube Guide B by removing thumbscrew. Remove Cube Guide A. Remove Overflow Cap, Overflow Pipe, and Water Shield.
- 9) Remove the Drain Plug located inside the Water Tank. Drain the Water Tank. Replace the Drain Plug in its correct position.
- 10) Replace Water Shield, Overflow Pipe, Overflow Cap, Cube Guide A, Cube Guide B, and Insulation Panel in their correct positions.
- 11) Repeat the above steps 16) through 29) in "[a] CLEANING PROCEDURE" two times to rinse thoroughly.
- 12) Close the Cleaning Valve.
- 13) Move the Control Switch to the "ICE" position.
- 14) Replace the Front Panel in its correct position.
- 15) Clean the Storage Bin/Dispenser Unit with water.
- 16) Turn on the power supply, and start the automatic icemaking process.

## 2. 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, soft cloth. Use a damp cloth containing a neutral cleaner to wipe off oil or dirt build up.

#### 2) Storage Bin and Scoop

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

#### 3) Air Filter (Air-cooled models only)

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

#### 4) Condenser (Except Water-cooled models)

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

# **HOSHIZAKI**

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