# HOSHIZAKI

# Instruction Manual

## Modular Cubelet
## Serenity Series

## Models
FS-1001MLJ-C with SRC-10J
FS-1022MLJ-C with SRC-10J
FS-1500MLJ-C with SRC-14J

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.

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

Phone: 1-800-233-1940; (770) 487-2331
Fax: 1-800-843-1056; (770) 487-3360

E-mail: techsupport@hoshizaki.com

**HOSHIZAKI AMERICA, INC.**
618 Highway 74 South
Peachtree City, GA 30269
Attn: Hoshizaki Technical Support Department

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

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

## *IMPORTANT*

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

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## Important Safety Information

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

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

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

***IMPORTANT*** **Indicates important information about the use, installation, 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.
- To reduce the risk of electric shock, do not touch the icemaker power switch or plug with damp hands. Make sure the icemaker power switch is in the "OFF" position before plugging in or unplugging the icemaker.
- **Before Servicing: FS:** Move the icemaker's power switch to the "OFF" position. Unplug the icemaker from the electrical outlet. **SRC:** Turn off the power supply to the remote condensing unit. Place the disconnect (if applicable) in the off position. Lockout/Tagout to prevent the power supply from being turned back on inadvertently.
- Do not make any alterations to the icemaker or condensing unit. Alterations could result in electric shock, injury, fire, or damage to the appliance.

**FS**

- The icemaker 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 ICEMAKER MUST BE GROUNDED.** The icemaker is equipped with a NEMA 5-15 three-prong grounding plug to reduce the risk of potential shock hazards. It must be plugged into a properly grounded, independent 3-prong wall outlet. If the outlet is a 2-prong outlet, it is your personal responsibility to have a qualified electrician replace it with a properly grounded, independent 3-prong wall outlet. Do not remove the ground prong from the power cord and do not use an adapter plug. Failure to properly ground the icemaker could result in death or serious injury.

## ⚠ WARNING, continued

**FS continued**

- Do not use an extension cord.
- Do not use an icemaker 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 icemaker, be sure to pull the plug, not the cord, and do not jerk the cord.
- Do not place fingers or any other objects into the ice discharge opening.

**SRC**

- Electrical connection must be hard-wired to the remote condensing unit and 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 remote condensing unit 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 REMOTE CONDENSING UNIT MUST BE GROUNDED.** Failure to properly ground the remote condensing unit could result in death or serious injury.

## *NOTICE*

- Follow the instructions in this manual 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 icemaker 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 icemaker on during extended periods of non-use, extended absences, or in sub-freezing temperatures. To properly prepare the icemaker for these occasions, follow the instructions in "IV. Preparing the Appliance for Periods of Non-Use."
- Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.
- Do not place objects on top of the appliance.
- The 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

| *IMPORTANT* |
| --- |
| Icemaker and remote condensing unit power supplies are separate. |

The rating label (FS) and nameplate (FS and SRC) provide electrical and refrigerant data. The rating label can be seen by removing the front panel of the FS. The nameplate is located on the rear panel of the FS and on the side panel of the SRC. For certification marks, see the nameplate.
We reserve the right to make changes in specifications and design without prior notice.

### 1. FS

| **Model Number** | **FS-1001MLJ-C** | **FS-1022MLJ-C** | **FS-1500MLJ-C** |
| --- | --- | --- | --- |
| AC Supply Voltage | 115-120/60/1 | 115-120/60/1 | 115/60/1 |
| Amperes | 3.0A | 3.0A | 5.6A |
| Design Pressure | HI-427PSI LO-230PSI | HI-427PSI LO-230PSI | HI-467PSI LO-230PSI |
| Total Refrigerant Charge | 404A<br>Total Refrigerant Charge with Hoshizaki Remote Condensing Unit SRC-10J: 8 LB. 6 OZ. | 404A<br>Total Refrigerant Charge with Hoshizaki Remote Condensing Unit SRC-10J: 8 LB. 6 OZ. | 404A<br>Total Refrigerant Charge with Hoshizaki Remote Condensing Unit SRC-14J: 11 LB. 0 OZ. |

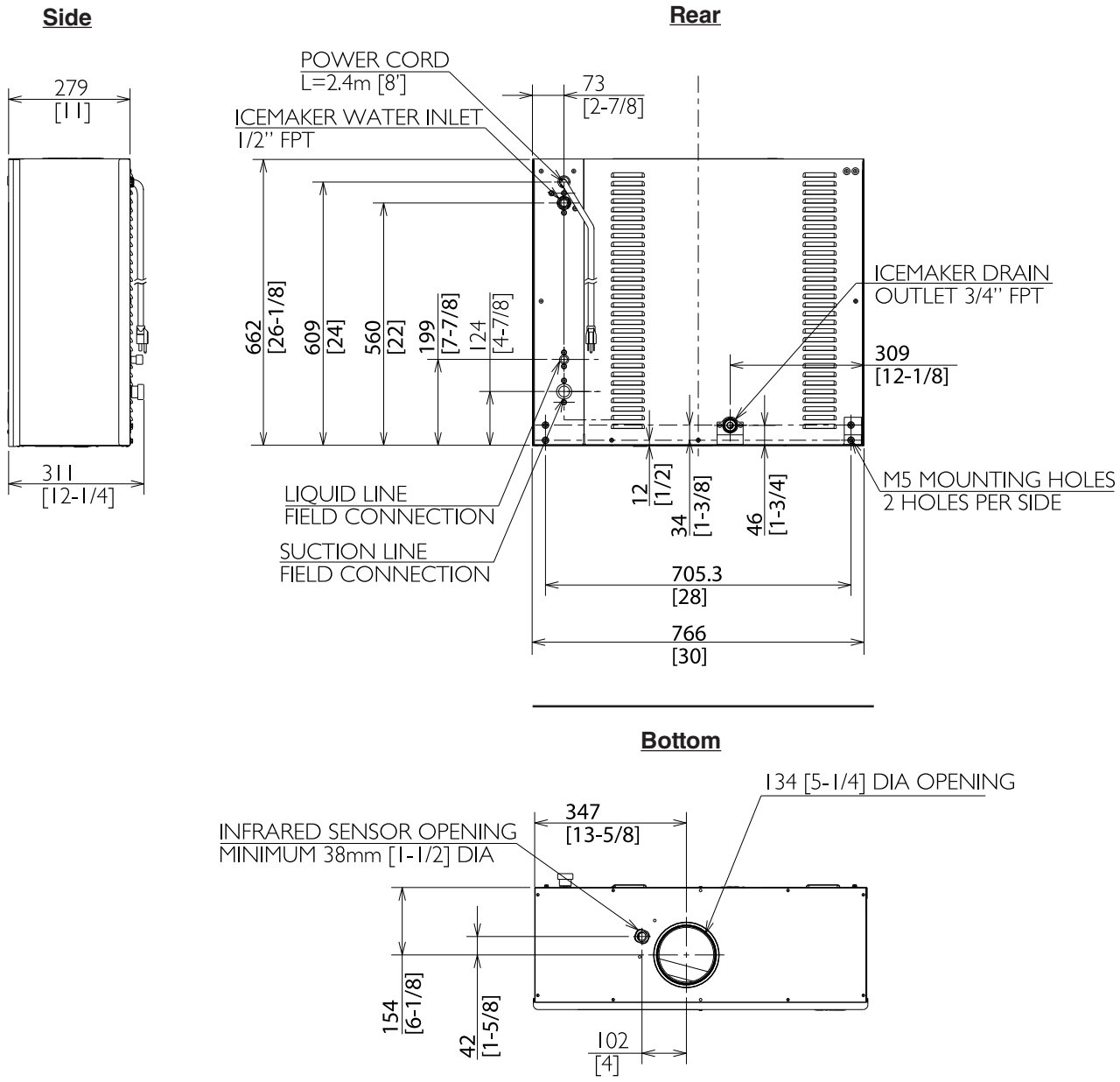
### 2. SRC

| **Model Number** | **SRC-10J** | **SRC-14J** |
| --- | --- | --- |
| AC Supply Voltage | 208-230/60/1 | 208-230/60/1 (3 Wire with Neutral for 115V) |
| Compressor | 208-230V 9.3RLA 46LRA | 208-230V 6.9RLA 56LRA |
| Fan Motor | 115V 1.3FLA 65W (EACH) | 115V 1.45FLA 65W (EACH) |
| Other | 120V 0.2A | 120V 0.2A |
| Maximum Fuse Size | 20 AMPS | 20 AMPS |
| Max. HACR Breaker (USA Only) | 20 AMPS | 20 AMPS |
| Max. Circuit Breaker (Canada Only) | 20 AMPS | 20 AMPS |
| Minimum Circuit Ampacity | 20 AMPS | 20 AMPS |
| Design Pressure | HI-467PSI LO-230PSI | HI-467PSI LO-230PSI |
| Refrigerant | 404A<br>Total Refrigerant Charge with Hoshizaki Icemaker FS-1001MLJ-C or FS-1022MLJ-C: 17 LB. 3.31 OZ. | 404A<br>Total Refrigerant Charge with Hoshizaki Icemaker FS-1500MLJ-C: 11 LB. 0 OZ. |

## B. Dimensions/Connections

### 1. FS-1001MLJ-C

Units: mm [in.]

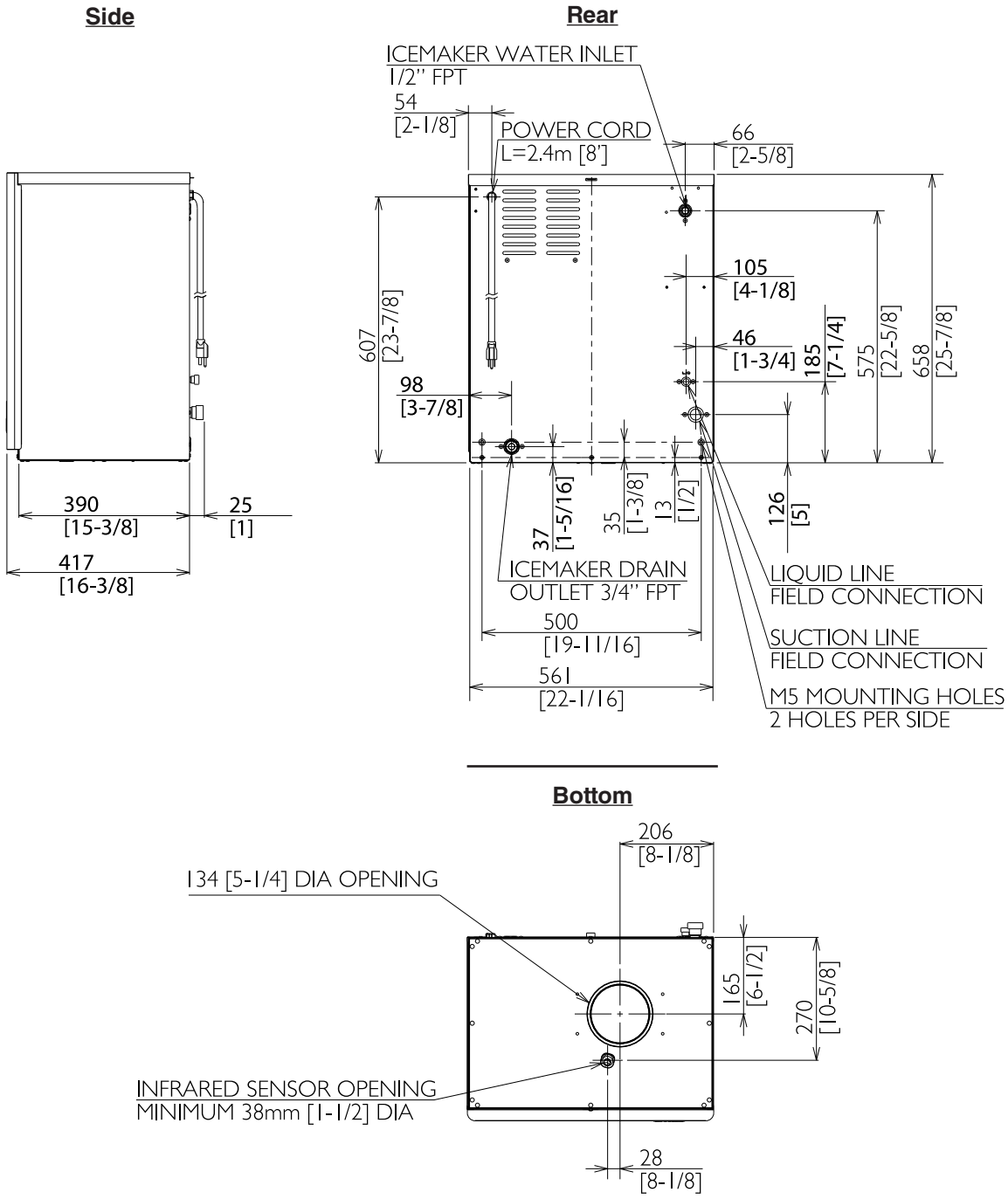



**Model Shown: FS-1001MLJ-C**

| ***NOTICE*** |
|---|
| • Allow 6" (15 cm) clearance at rear and sides for proper air circulation and ease of maintenance and/or service should they be required. Allow 24" (61 cm) clearance at top to allow for removal of the auger.<br>• The storage bin opening must match the bottom opening as in the illustration. |

## 2. FS-1022MLJ-C

Units: mm [in.]



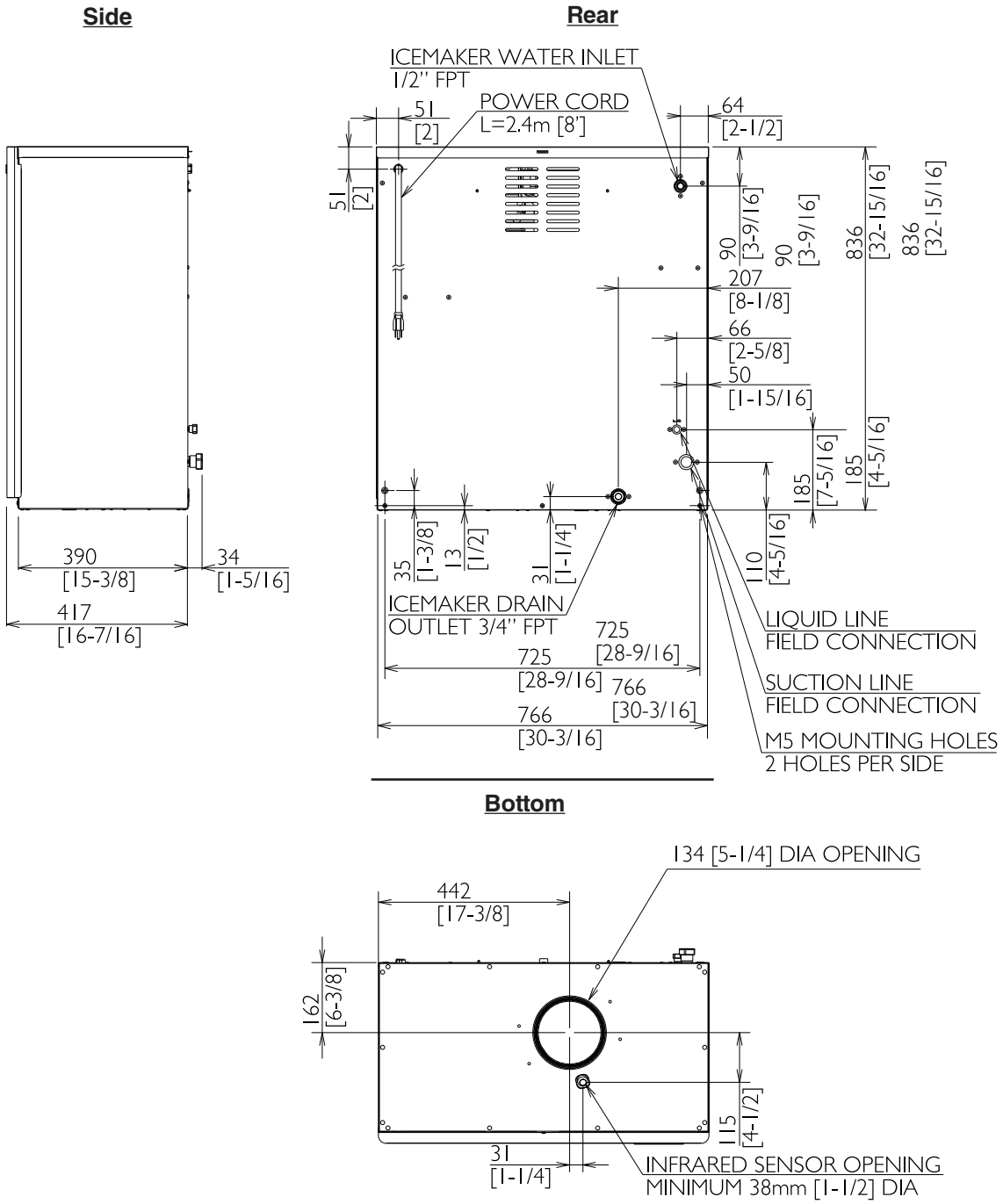

**Model Shown: FS-1022MLJ-C**

### *NOTICE*

- Allow 6" (15 cm) clearance at rear and sides for proper air circulation and ease of maintenance and/or service should they be required. Allow 24" (61 cm) clearance at top to allow for removal of the auger.
- The storage bin opening must match the bottom opening as in the illustration.

### 3. FS-1500MLJ-C

Units: mm [in.]



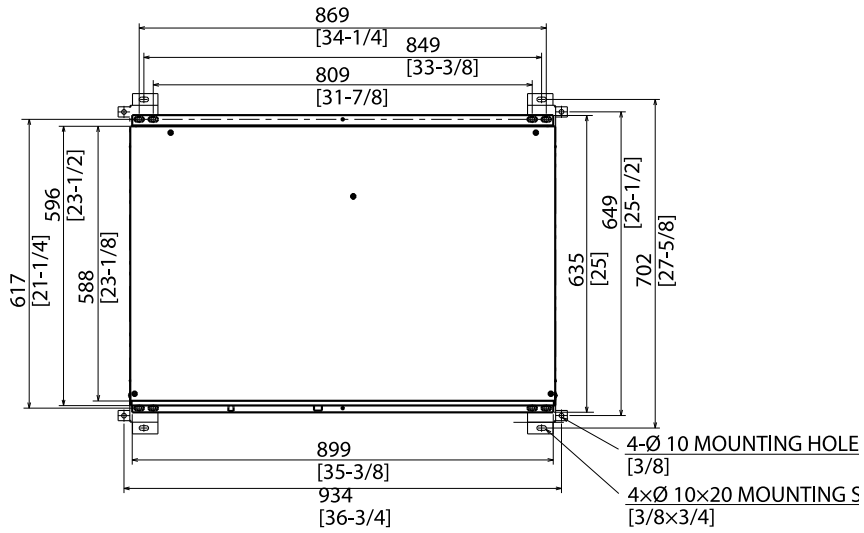

**Model Shown: FS-1500MLJ-C**

| ***NOTICE*** |
|---|
| • Allow 6" (15 cm) clearance at rear and sides for proper air circulation and ease of maintenance and/or service should they be required. Allow 24" (61 cm) clearance at top to allow for removal of the auger.<br>• The storage bin opening must match the bottom opening as in the illustration. |

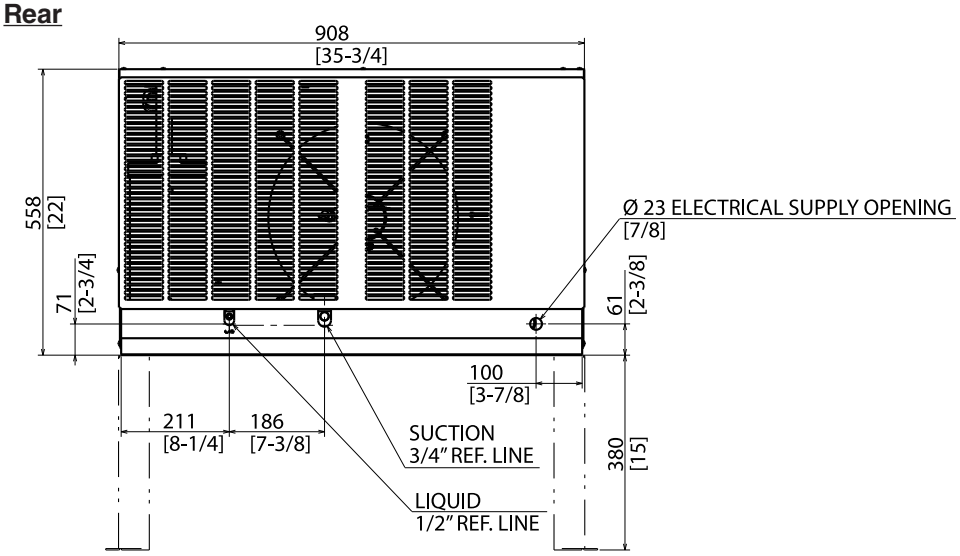
## 4. SRC-10J

Unit: mm [in.]

**Top**




**Rear**




Note: Legs are included with condensing unit.
Leg height is 380 mm (14-15/16 in.).

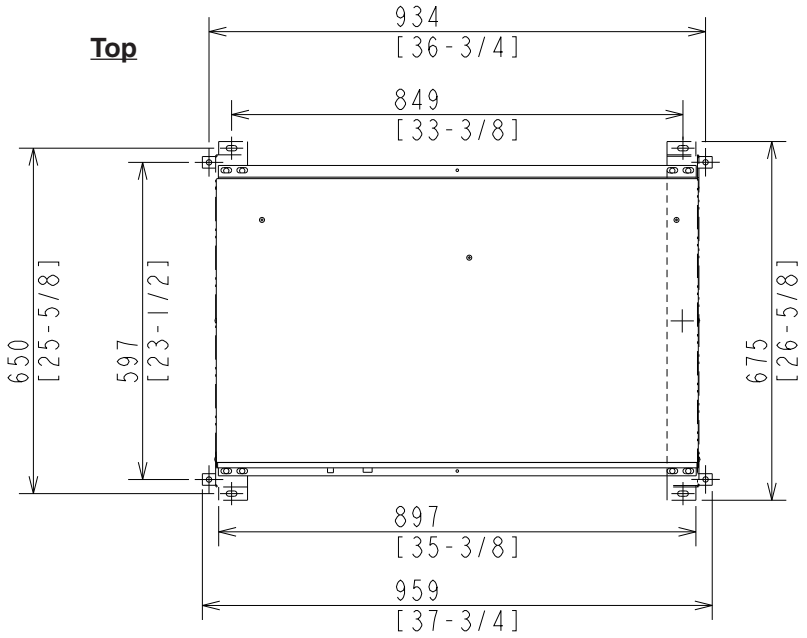
| ***NOTICE*** |
|---|
| Allow 24" (61 cm) clearance at front and rear for proper air circulation and ease of maintenance and/or service should they be required. |

| **SRC-10J Heat of Rejection** |
|---|
| AT 90°F (32°C)<br>WT 70°F (21°C) |
| 10,500 BTU/hr |

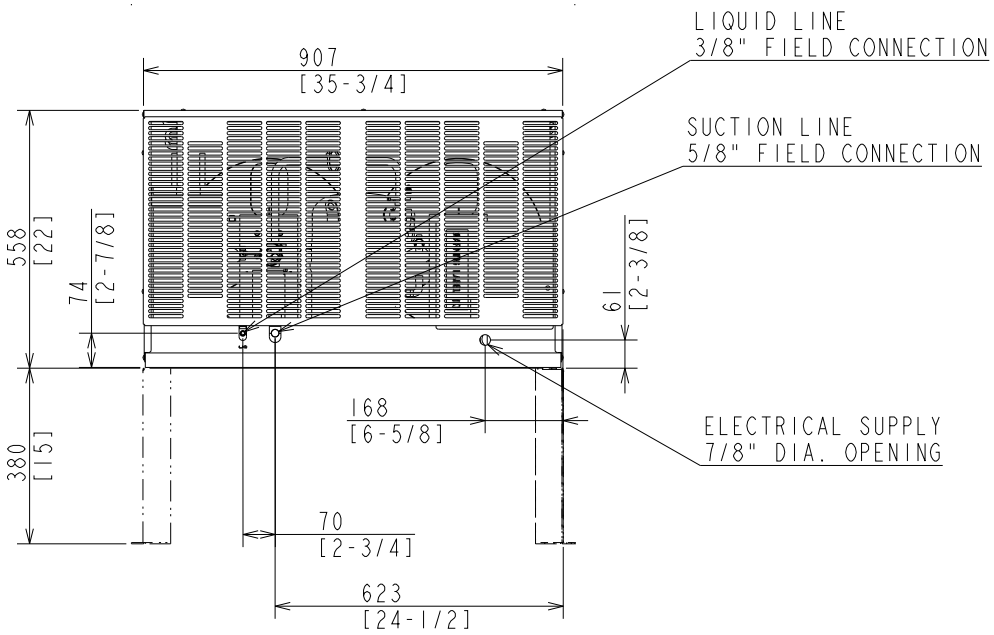
**5. SRC-14J**

Unit: mm [in.]

**Top**




**Rear**




Note: Legs are included with condensing unit.
Leg height is 380 mm (14-15/16 in.).

| ***NOTICE*** |
|---|
| Allow 24" (61 cm) clearance at front and rear for proper air circulation and ease of maintenance and/or service should they be required. |

| **SRC-14J Heat of Rejection** |
|---|
| AT 90°F (32°C)<br>WT 70°F (21°C) |
| 15,300 BTU/hr |

## II. Installation and Operating Instructions

**⚠ WARNING**

- The icemaker and remote condensing unit must be installed in accordance with applicable national, state, and local codes and regulations.
- Failure to install, operate, and maintain the icemaker and remote condensing unit 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

### 1. Icemaker

***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."

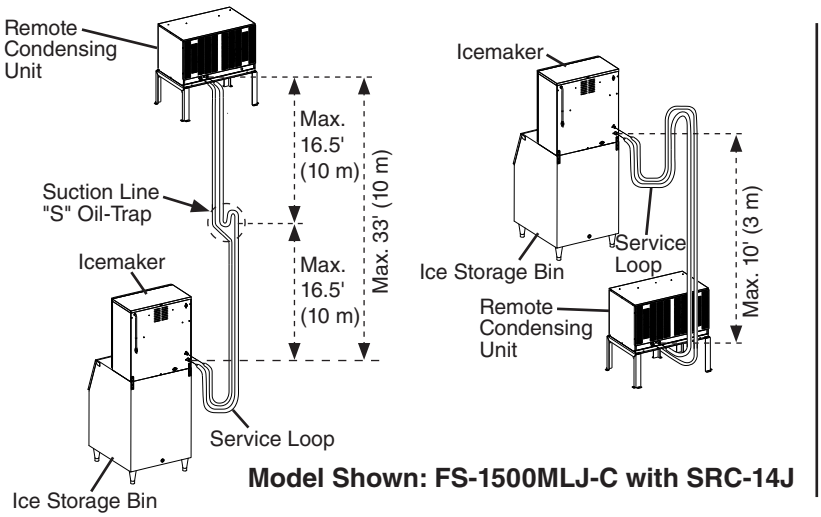
- The icemaker should not be located next to ovens, grills, or other high heat producing equipment.
- Allow 6" (15 cm) clearance at rear and sides for proper air circulation and ease of maintenance and/or service should they be required. Allow 24" (61 cm) clearance at top to allow for removal of the auger.
- The location must provide a firm and level foundation for the appliance.

## 2. Remote Condensing Unit

| NOTICE |
|---|
| • The remote condensing unit is intended for outdoor use. Normal operating ambient temperature must be within -4°F to 122°F (-20°C to 50°C). Operation of the remote condensing unit, for extended periods, outside of this normal temperature range may affect icemaker performance.<br>• The maximum line set length is 55' (17 m). No refrigerant charge adjustment is necessary.<br>• The maximum vertical distance between the remote condensing unit and icemaker is 33' (10 m) above or 10' (3 m) below the icemaker. These distances are measured fitting to fitting. See Fig. 1.<br>• If the vertical distance between the remote condensing unit and the icemaker is greater than 20' (6 m) (not to exceed 33' (10 m)), an "S" oil-trap (5/8" OD copper tubing) must be installed in the suction line. The "S" oil-trap must be located halfway between the icemaker and remote condensing unit. This ensures sufficient oil return to the compressor. |

The remote 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. 2.




**Model Shown: FS-1500MLJ-C with SRC-14J**

**Fig. 1**

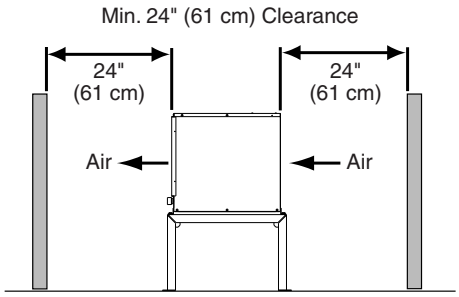



**Fig. 2**

## B. Checks Before Installation

- Visually inspect the exterior of the shipping containers and immediately report any damage to the carrier. Upon opening the containers, 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 or remote condensing unit, they will not work properly.

### 1. Icemaker

- See the nameplate on the rear panel. 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.
- The icemaker can be installed on a dispenser unit or ice storage bin as listed below:

| Hoshizaki Icemaker | Dispenser Unit or Ice Storage Bin Width |
|---|---|
| FS-1001MLJ-C<br>FS-1500MLJ-C | 30" wide or wider |
| FS-1022MLJ-C | 22" wide or wider |

For further options, contact your local Hoshizaki distributor.

- ***NOTICE!*** **The icemaker must be connected to the appropriate Hoshizaki Remote Condensing Unit listed below. Connection to another remote condensing unit will void the warranty.**

| Hoshizaki Icemaker | Hoshizaki Remote Condensing Unit |
|---|---|
| FS-1001MLJ-C<br>FS-1022MLJ-C | SRC-10J |
| FS-1500MLJ-C | SRC-14J |

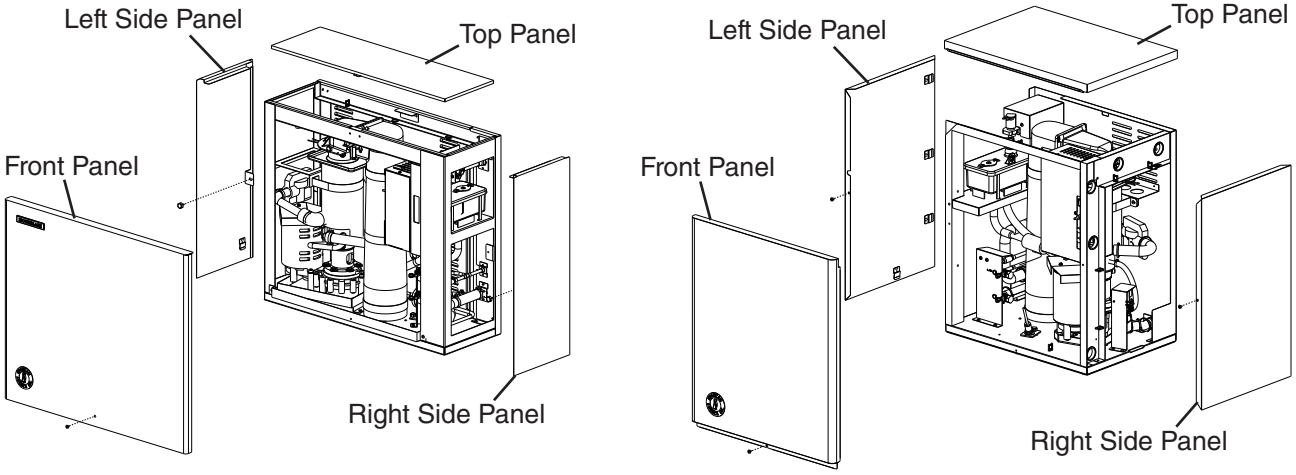
### 2. Remote Condensing Unit

- See the nameplate on the remote condensing unit. Check that your voltage supplied corresponds with the voltage specified on the nameplate.
- Remove the panels to prevent damage when installing the remote condensing unit. See "II.C. How to Remove Panels."
- Remove the package containing the accessories.
- Check that the refrigerant lines do not rub or touch lines or other surfaces, and that the fan blade(s) turn freely.
- 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 up at front slightly, push rearward and lift off.
- Left Side Panel and Right Side Panel: Remove the thumbscrew (FS-1001MLJ-C) or screw (FS-1022MLJ-C and FS-1500MLJ-C). Slide forward slightly and lift off.




**FS-1001MLJ-C Icemaker**

**FS-1022MLJ-C or FS-1500MLJ-C Icemaker**
**Model Shown: FS-1022MLJ-C**

**Fig. 3**

### 2. Remote Condensing Unit

- Top Panel: Remove the screws and lift off.
- Louver Panel: Remove the screws and lift off.
- Left Side Panel and Right Side Panel: Remove the screws and lift off.
- Control Box Cover: Remove the screws and lift off.

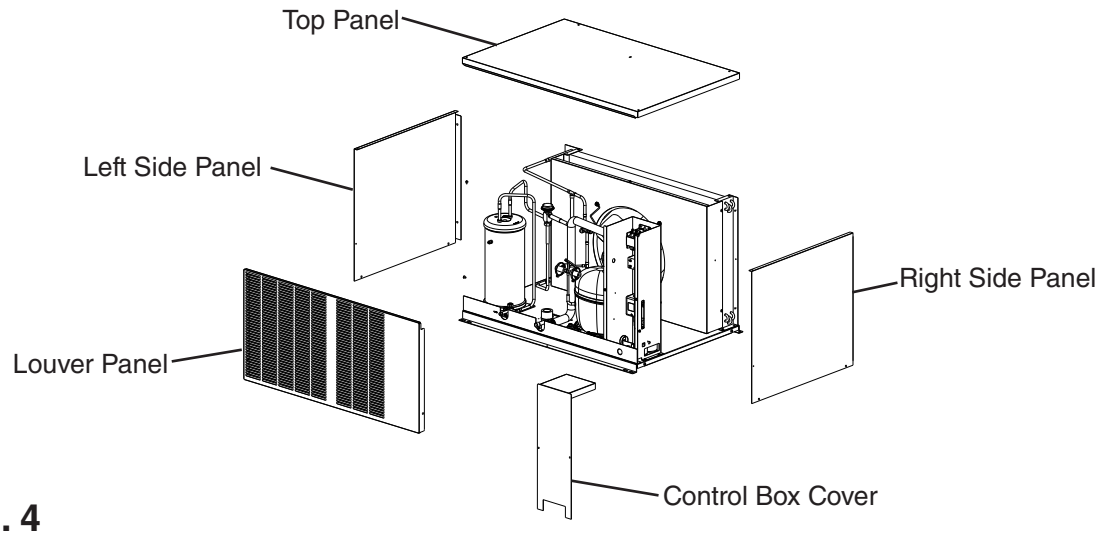



**Fig. 4**

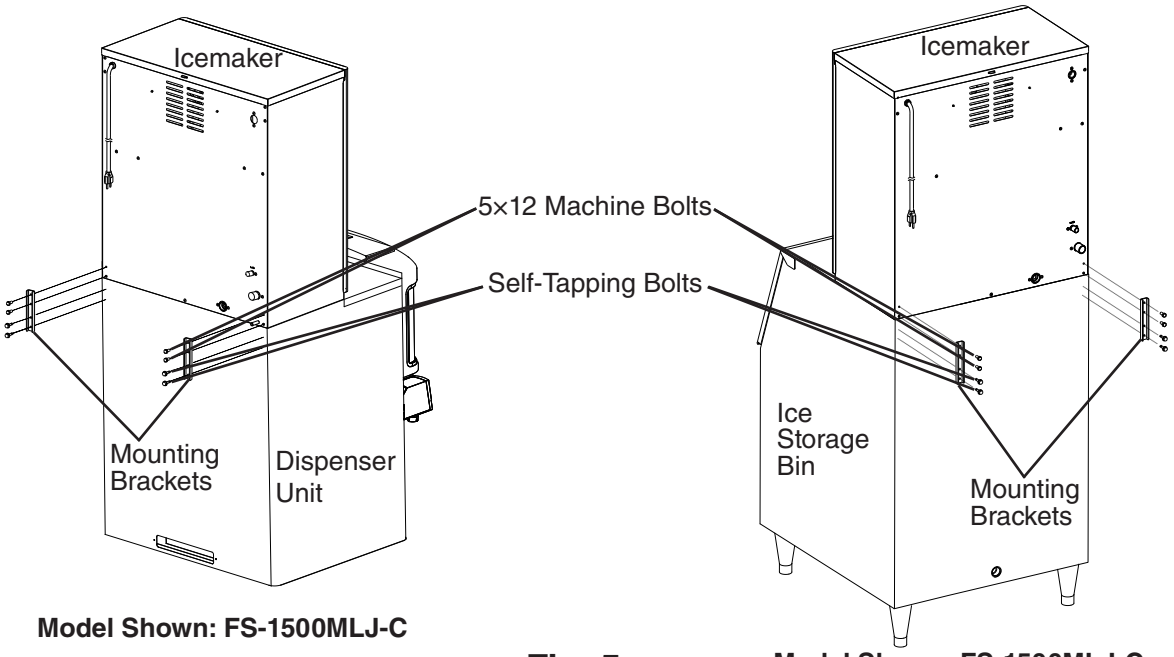
**Remote Condensing Unit**
**Model Shown: SRC-10J**

## D. Installation of the Icemaker

### 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. |

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.
6) Follow the dispenser unit/ice storage bin, adapter kit, or top kit instructions for securing the icemaker. If no instructions are available, secure the icemaker using the mounting brackets provided. Secure the mounting brackets to the icemaker with the 5×12 machine bolts provided. See Fig. 5. Secure the mounting brackets to the dispenser unit with the self-tapping bolts provided. ***NOTICE!*** **Use care to avoid damage to dispenser unit/ice storage bin components when attaching the mounting brackets.**




**Model Shown: FS-1500MLJ-C**

**Fig. 5**

**Model Shown: FS-1500MLJ-C**

## 2. Icemaker Electrical Connection

| *IMPORTANT* |
| --- |
| Icemaker and remote condensing unit power supplies are separate. |

| ⚠ 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.<br>• The icemaker 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.<br>• **THE ICEMAKER MUST BE GROUNDED.** The icemaker is equipped with a NEMA 5-15 three-prong grounding plug to reduce the risk of potential shock hazards. It must be plugged into a properly grounded, independent 3-prong wall outlet. If the outlet is a 2-prong outlet, it is your personal responsibility to have a qualified electrician replace it with a properly grounded, independent 3-prong wall outlet. Do not remove the ground prong from the power cord and do not use an adapter plug. Failure to properly ground the icemaker could result in death or serious injury.<br>• Do not use an extension cord.<br>• To reduce the risk of electric shock, do not touch the icemaker power switch or plug with damp hands. Make sure the icemaker power switch is in the "OFF" position before plugging in or unplugging the icemaker.<br>• Do not use an icemaker 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 icemaker, be sure to pull the plug, not the cord, and do not jerk the cord.<br>• The GREEN ground wire in the factory-installed power cord is connected to the icemaker. 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.

### 3. Water Supply and Drain Connections
**See Fig. 6**

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

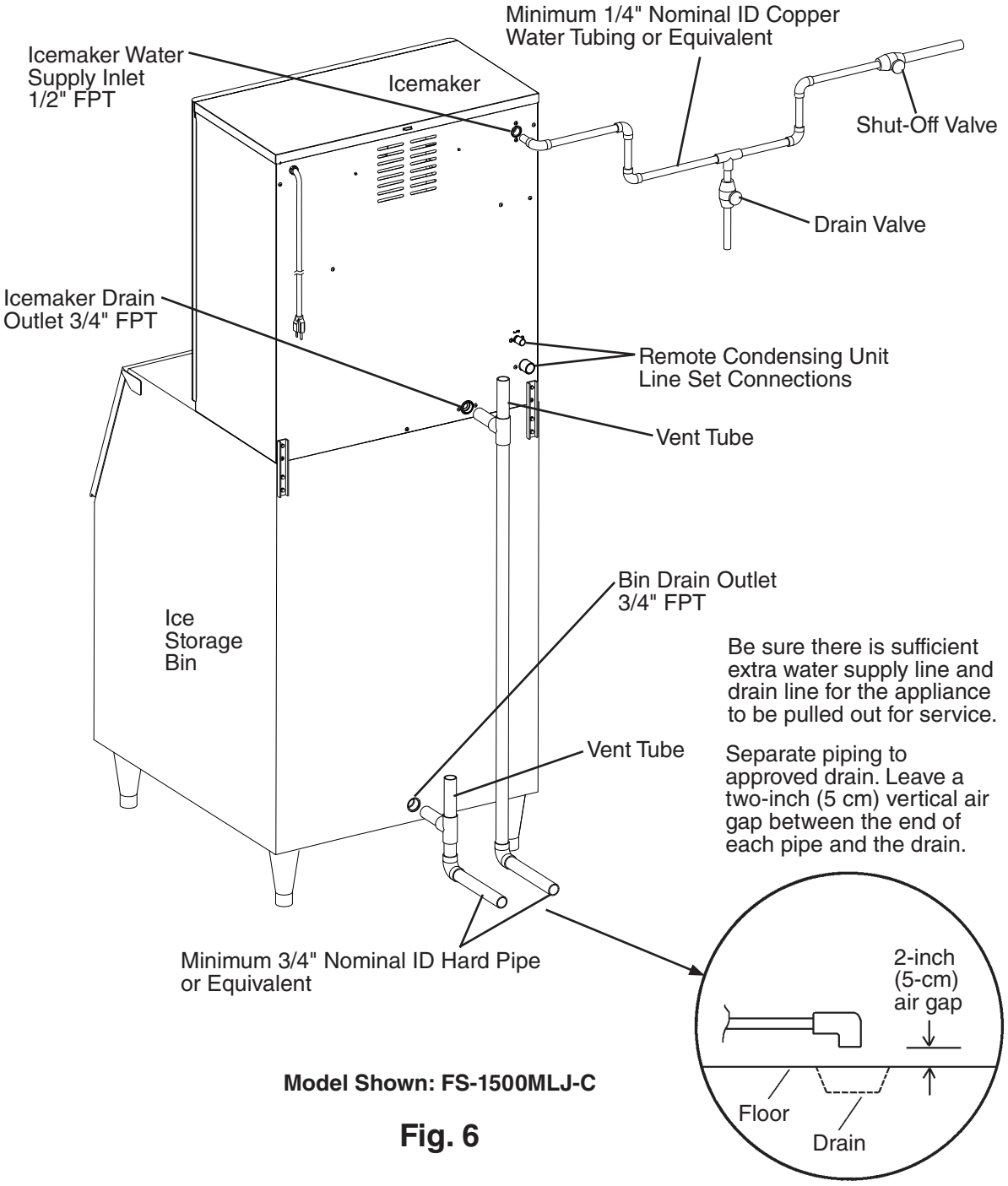
| *NOTICE* |
| --- |
| • Normal operating water temperature should be within 45°F to 90°F (7°C to 32°C). Operation of the appliance, for extended periods, outside of this normal temperature range may affect performance.<br>• To prevent damage to the appliance, do not operate the appliance when the water supply is off, or if the pressure is below 10 PSIG. Do not run the appliance until the proper water pressure is reached. |

- A plumbing permit and services of a licensed plumber may be required in some areas.
- 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.
- Water supply pressure must be a minimum of 10 PSIG and a maximum of 113 PSIG. If the pressure exceeds 113 PSIG, the use of a pressure reducing valve is required.
- The icemaker drain line and dispenser unit/ice storage bin drain line must 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 pipe from the icemaker and dispenser unit/ice storage bin and the floor drain.

## 1. Icemaker

| Icemaker Water Supply Inlet | Minimum Icemaker Water Supply Line Size | Icemaker Drain Outlet | Minimum Icemaker Drain Line Size |
|---|---|---|---|
| 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 |

- 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.




**Model Shown: FS-1500MLJ-C**

**Fig. 6**

## E. Installation of the Remote Condensing Unit

**⚠ WARNING**

Installation must be performed by properly trained and EPA-certified service personnel.

### 1. Remote Condensing Unit Setup

1) Secure the legs to the remote condensing unit with the 8 bolts and nuts provided. See Fig. 7.

2) The legs have 8 mounting holes. Secure the legs to the permanent site with 8 bolts (not included).

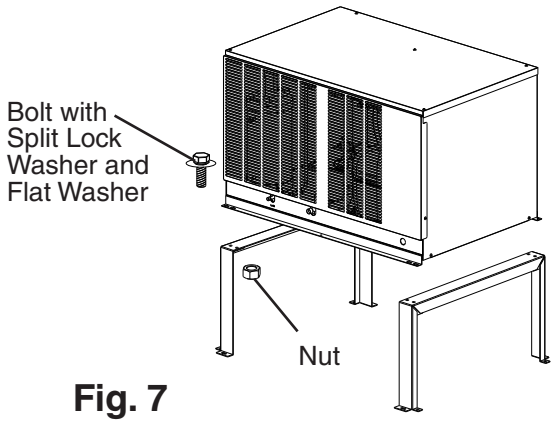



**Fig. 7**

**Model Shown: SRC-10J**

### 2. Line Set Size and Refrigerant Charge

***NOTICE***

- The icemaker, line set, and remote condensing unit must contain the same type of refrigerant. Mixing of refrigerants will result in improper operation and possible damage to the refrigeration system.
- The maximum line set length is 55' (17 m). No refrigerant charge adjustment is necessary.
- The maximum vertical distance between the remote condensing unit and icemaker is 33' (10 m) above or 10' (3 m) below the icemaker. These distances are measured fitting to fitting. See Fig. 8.
- If the vertical distance between the remote condensing unit and the icemaker is greater than 20' (6 m) (not to exceed 33' (10 m)), an "S" oil-trap (5/8" OD copper tubing) must be installed in the suction line. The "S" oil-trap must be located halfway between the icemaker and remote condensing unit. This ensures sufficient oil return to the compressor.

**Line Set Size and Refrigerant Charge**

| Hoshizaki Icemaker | Hoshizaki Remote Condensing Unit | Line Set Maximum 55' (17 m) | | | |
|---|---|---|---|---|---|
| | | Liquid Line | Suction Line | Factory Line Set Lengths | Charge Adjustment |
| FS-1001MLJ-C<br>FS-1022MLJ-C | SRC-10J | 1/4" OD | 5/8" OD | 20' (6 m), 35' (11 m), 55' (17 m) | Not Applicable: Factory Charge is Sufficient to Maximum Line Set Length of 55' (17 m) |
| FS-1500MLJ-C | SRC-14J | 3/8" OD | 5/8" OD | | |

### 3. Line Set Installation

**⚠ WARNING**

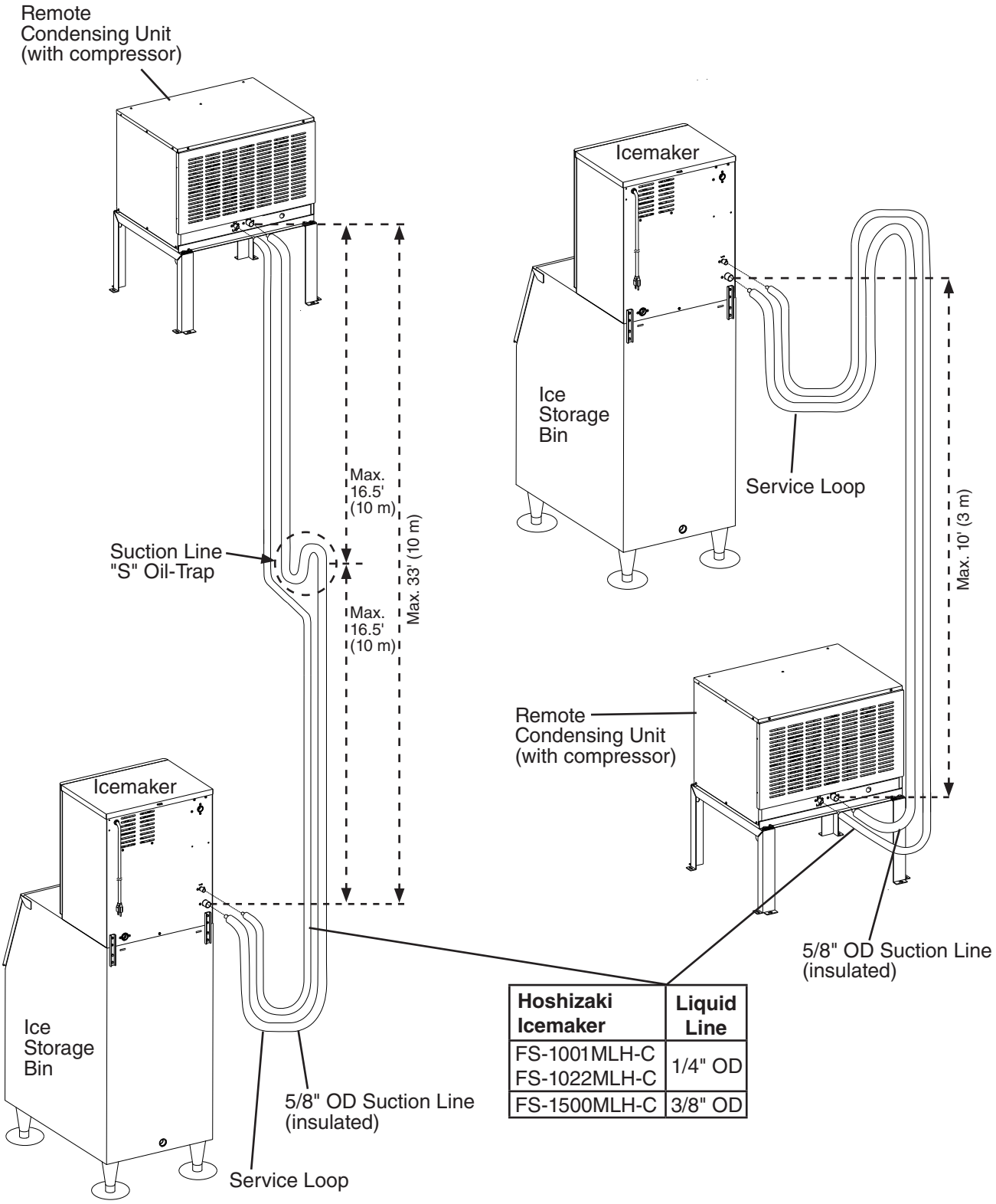
- R-404A itself is not flammable at atmospheric pressure and temperatures up to 176°F (80°C).
- R-404A itself is not explosive or poisonous. However, when exposed to high temperatures (open flames), R-404A can be decomposed to form hydrofluoric acid and carbonyl fluoride both of which are hazardous.
- Do not use silver alloy or copper alloy containing arsenic.
- Do not open any shut off valve until the line set installation is complete and leak tested.
- Ensure that there are no unnecessary traps and no kinks in the line set.
- Do not coil extra line set.
- Use an electronic leak detector or soap bubbles to check for leaks. Add a trace of refrigerant to the line set tubing through the shut off valve access ports (if using an electronic leak detector), and then raise the pressure using nitrogen gas (140 PSIG). Do not use R-404A as a mixture with pressurized air for leak testing.

1) Route the factory line set or appropriate size copper tubing. When field fabricating, insulate the copper tubes separately. Leave a service loop behind the icemaker to allow the icemaker to be pulled out for service. See Fig. 8. Note: The service loop is not considered an oil trap.
2) Remove any extra line set length.
3) ***NOTICE!*** **Before brazing, remove the Schrader valve cores from the liquid line and suction line shut off valve access ports. When brazing, protect the valves by using a wet cloth to prevent the valves from overheating.**
4) Braze the line set to the icemaker liquid line and suction line shut off valves first, then to the remote condensing unit liquid line and suction line shut off valves.
5) Allow the liquid line and suction line shut off valves to cool, then replace the Schrader valve cores.
6) Use an electronic leak detector or soap bubbles to check for leaks. Add a trace of refrigerant to the line set tubing through the shut off valve access ports (if using an electronic leak detector), and then raise the pressure using nitrogen gas (140 PSIG). **WARNING! Do not use R-404A as a mixture with pressurized air for leak testing**.
7) Attach the gauge manifold hoses to the liquid line and suction line shut off valve access ports and evacuate the line set tubing. Allow the vacuum pump to pull down to a 29.9" Hg vacuum. Evacuating period depends on pump capacity. Next, charge each line set tube with R-404A vapor to a pressure of 15 to 30 PSIG.
8) Close both gauge manifold valves.
9) Disconnect the gauge manifold hoses.
10) Replace the access port caps and tighten.
11) Open the icemaker liquid line and suction line shut off valves first, then open the remote condensing unit liquid line, suction line, and discharge line shut off valves.

12) Replace the valve caps and tighten.

13) Insulate all exposed tubing and fittings.

Hoshizaki Technical Support is available at 1-800-233-1940 for recommendations.




| Hoshizaki Icemaker | Liquid Line |
|---|---|
| FS-1001MLH-C<br>FS-1022MLH-C | 1/4" OD |
| FS-1500MLH-C | 3/8" OD |

**Model Shown: FS-1022MLJ-C with SRC-10J**

**Fig. 8**

### 4. Remote Condensing Unit Electrical Connection

| *IMPORTANT* |
| --- |
| Icemaker and remote condensing unit power supplies are separate. |

| ⚠ WARNING |
| --- |
| • Electrical connection must be hard-wired to the remote condensing unit and 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.<br>• The remote condensing unit 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.<br>• **THE REMOTE CONDENSING UNIT MUST BE GROUNDED.** Failure to properly ground the remote condensing unit could result in death or serious injury.<br>• Electrical connection must be made in accordance with the instructions on the "WARNING" tag, provided with the pig tail leads in the remote condensing unit control box. See Fig. 9. |

| *NOTICE* |
| --- |
| The remote condensing unit should have power for a minimum of 4 hours prior to startup to prevent compressor damage. |

- Usually an electrical permit and services of a licensed electrician are required.
- The maximum allowable voltage variation is ±10 percent of the nameplate rating.
- The white lead must be connected to the neutral conductor of the power source. ***NOTICE!*** **Miswiring may result in damage to the appliance.**
- The opening for the power supply connection is 7/8" DIA to fit a 1/2" trade size conduit.

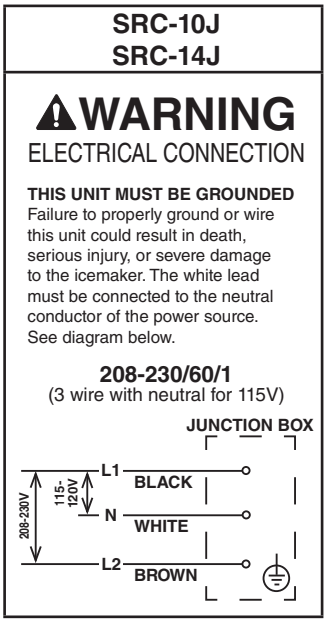



**Fig. 9**

## F. Final Checklist

**⚠ WARNING**

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

1) Is the icemaker level?
2) Is the icemaker in a site where the ambient temperature is within 45°F to 100°F (7°C to 38°C) and the water temperature within 45°F to 90°F (7°C to 32°C) all year around?
3) Is there at least 6" (15 cm) clearance at rear and sides of the icemaker for proper air circulation and ease of maintenance and service? Is there at least 24" (61 cm) clearance at the top of the icemaker to allow for removal of the auger?
4) Is the remote condensing unit in a site where the ambient temperature is within -4°F to 122°F (-20°C to 50°C) all year around?
5) Is there at least 24" (61 cm) clearance around the remote condensing unit for proper air circulation and ease of maintenance and service?
6) Have the shipping carton, tape, and packing material been removed from the icemaker and remote condensing unit?
7) Have all electrical and water connections been made? Do electrical and water connections meet all national, state, and local code and regulation requirements?
8) Has the icemaker power supply voltage been checked or tested against the nameplate rating? Is the icemaker power supply a properly grounded, independent 3-prong wall outlet?
9) Has the remote condensing unit power supply voltage been checked or tested against the nameplate rating? Has a proper ground been installed to the remote condensing unit?
10) Has the electrical power supply been on to the remote condensing unit for a minimum of 4 hours?
11) Are the water supply and drain lines sized as specified? 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?
12) 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? Have the fan blade(s) been checked to make sure they turn freely?
13) Is the line set free of leaks and kinks? If needed, has an "S" oil-trap been installed?
14) Are all components, fasteners, and thumbscrews securely in place?
15) 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?
16) Has the end user been given the name and telephone number of an authorized service agent?
17) Has the warranty card been filled out and forwarded to the factory for warranty registration?

## G. Startup

**⚠ WARNING**

All parts are factory-adjusted. Improper adjustments may adversely affect safety, performance, component life, and warranty coverage.

***NOTICE***

- At startup, confirm that all internal and external connections are free of leaks.
- The remote condensing unit must have power for a minimum of 4 hours prior to startup to prevent compressor damage.

1) Make sure the remote condensing unit has had power for a minimum of 4 hours.
2) Open the water supply line shut-off valve.
3) If removed, replace all panels except the front panel in their correct positions. If not already removed, remove the front panel.
4) Make sure the icemaker power switch is in the "OFF" position. Plug the icemaker into the electrical outlet. Move the control switch to the "ICE" position, then move the power switch to the "ON" position to start the automatic icemaking process.
5) Replace the front panel in its correct position.
6) Once the icemaker starts to produce ice, allow it to run for another 30 minutes.
7) Remove the front panel.
8) Move the power switch to the "OFF" position. Move the control switch to the "DRAIN" position, then move the power switch back to the "ON" position. Replace the front panel in its correct position. Allow the water system to drain for 5 minutes.
9) Remove the front panel.
10) Move the power switch to the "OFF" position, then unplug the icemaker from the electrical outlet.
11) Pour warm water into the dispenser unit/ice storage bin and melt any remaining ice. Clean the dispenser unit/ice storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.
12) Confirm bin control operation. See "II.H. Bin Control Check."

## H. Bin Control Check

An infrared sensor is used as the primary bin control to control the level of ice in the dispenser unit/ice storage bin. A mechanical bin control is used as a backup bin control.

| *IMPORTANT* |
| --- |
| • Make sure the icemaker has been installed as outlined in this manual and that the water supply is on.<br>• Confirm S1 dip switch 7 is in the "ON" position. This allows the control board to monitor the infrared sensor along with the mechanical backup bin control. |

### 1. Infrared Sensor Check

1) Remove the front panel.

2) Move the power switch to the "OFF" position, then unplug the icemaker from the electrical outlet.

3) Remove the control box cover.

4) Confirm that control board S1 dip switch 1, 2, 3 are in the proper position for your application. See "II.H.3. Infrared Sensor Shutdown Delay."

5) Plug in the icemaker. Make sure the control switch is in the "ICE" position, then move the power switch to the "ON" position.

6) The green LED on the infrared sensor turns on. This LED confirms 20VDC power to the sensor.

7) 30 seconds after the upper float switch closes, the control board "GM" LED turns on. See Fig. 10. After "GM" LED turns on, press the "SERVICE" button on the control board to bypass the 5-minute compressor delay. **WARNING! Risk of electric shock. Care should be taken not to touch live terminals.**

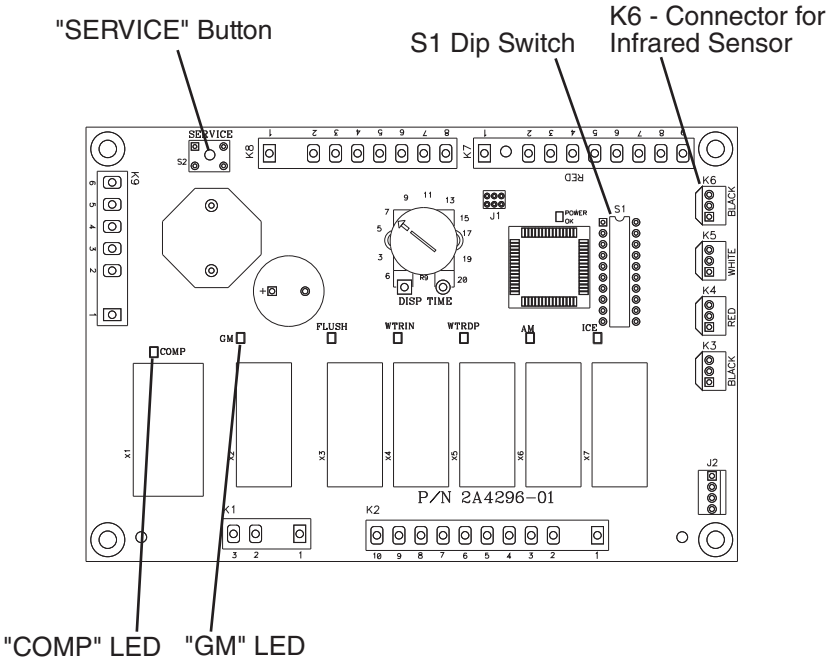
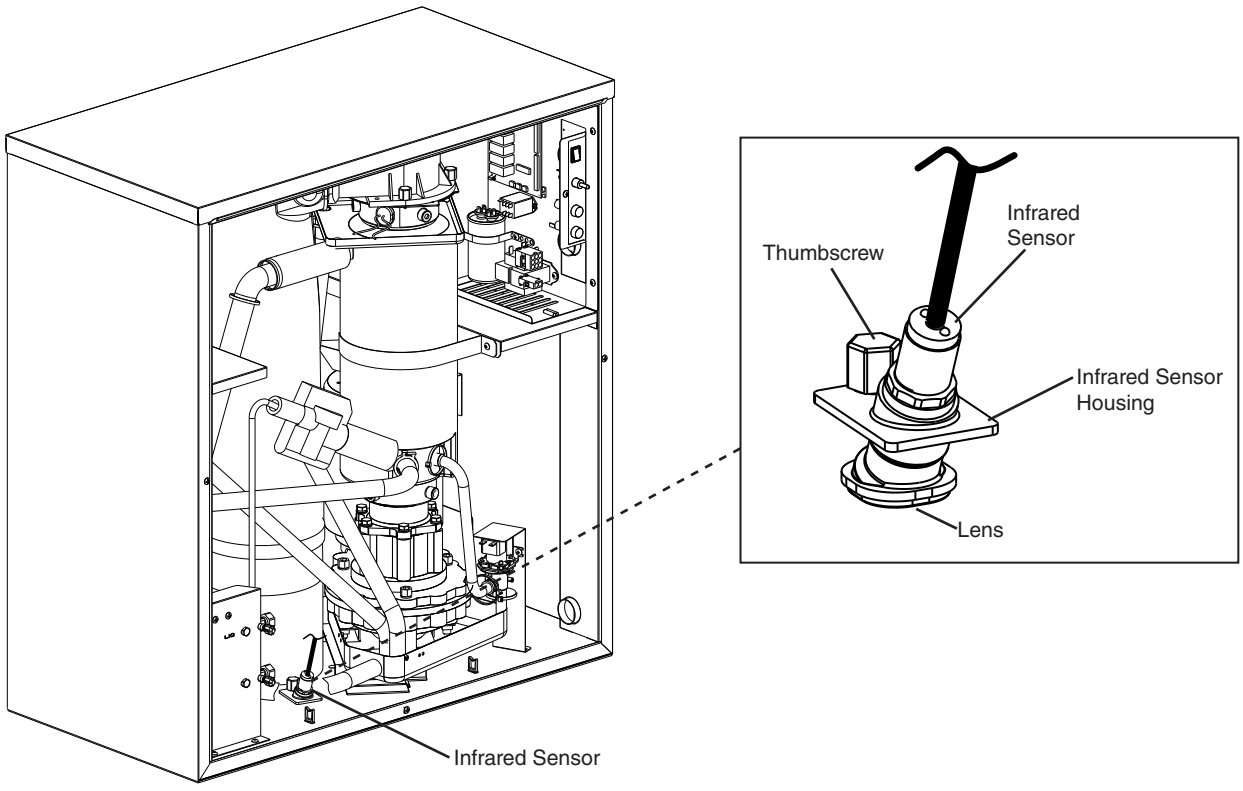



**Fig. 10**

8) "GM" LED and "COMP" LED are on. Use an object to cover the infrared sensor lens at the bottom of the icemaker. If the bottom of the icemaker is not accessible in your application, remove the thumbscrew securing the infrared sensor housing, remove the housing from the base, then cover the infrared sensor lens. See Fig. 11. The yellow LED on the infrared sensor turns on. The yellow LED flashes when ice is at the outer limit of its range and turns steady as ice nears. After the yellow LED turns on (flashing or steady), the infrared sensor shutdown delay timer starts (S1 dip switch 1, 2, 3; factory default is 100 sec.). "COMP" LED turns off after the shutdown delay timer terminates. 5 minutes later, "GM" LED turns off.

9) Remove the object covering the infrared sensor. If you removed the infrared sensor housing from the base, replace it in its correct position and secure it with the thumbscrew.

10) Move the power switch to the "OFF" position, then unplug the icemaker from the electrical outlet. Proceed to "II.H.2. Mechanical Backup Bin Control Check."




**Model Shown: FS-1500MLJ-C**

**Fig. 11**

**2. Mechanical Backup Bin Control Check**

1) Make sure the power switch is in the "OFF" position and that the icemaker is unplugged from the electrical outlet.

2) Remove the top panel.

3) Remove the strap connecting the spout to the chute assembly. See Fig. 12. Pull up the chute assembly slightly so that you can access the actuator located in the top of the chute.

4) Plug in the icemaker. Make sure the control switch is in the "ICE" position, then move the power switch to the "ON" position.

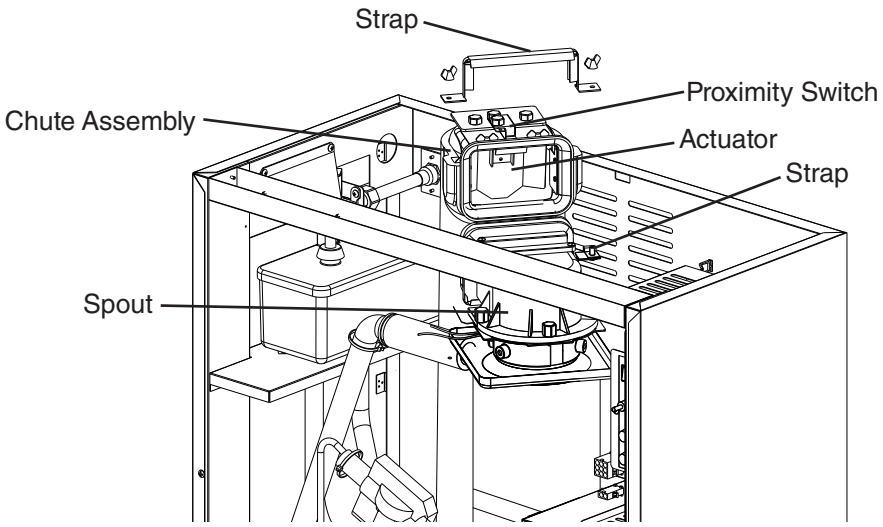



**Fig. 12**

**Model Shown: FS-1500MLJ-C**

5) 30 seconds after the upper float switch closes, the control board "GM" LED turns on. After "GM" LED turns on, press the "SERVICE" button on the control board to bypass the 5-minute compressor delay. **WARNING! Risk of electric shock. Care should be taken not to touch live terminals.**

6) "GM" LED and "COMP" LED are on. Press the actuator located in the top of the chute. "COMP" LED and "GM" LED turn off within 10 seconds and the control board sounds a 9 beep alarm. Release the actuator.

7) Turn the power switch off and then on again to reset the control board alarm.

8) Move the power switch to the "OFF" position, then unplug the icemaker from the electrical outlet.

9) Replace the chute assembly and strap in their correct positions.

10) Replace the control box cover and top panel in their correct positions.

11) Plug in the icemaker. Make sure the control switch is in the "ICE" position, then move the power switch to the "ON" position to start the automatic icemaking process.

12) Replace the front panel in its correct position.

**3. Infrared Sensor Shutdown Delay**

This is the delay between the infrared sensor detecting ice and the start of the shutdown sequence. The infrared sensor shutdown delay is factory-adjusted to 100 seconds and no adjustment is required for most dispenser unit/ice storage bin applications.

***a) Standard Ice Storage Bin***

When installed on a standard ice storage bin, any shutdown delay setting is acceptable.

***b) Dispenser Unit***

For typical dispenser unit applications, a 100-second shutdown delay is recommended. However, on some dispenser unit applications, the ice level at shutoff may need to be adjusted depending on the dispenser agitation or dispense method. Should a different shutdown delay be desired, adjust S1 dip switch 1, 2, 3 to obtain the shutdown delay needed. See the table below. For further details, contact Hoshizaki Technical Support at 1-800-233-1940.

Note: When the shutdown sequence begins, the pump-down solenoid valve de-energizes immediately to allow the low-side pressure to drop and open the control low-pressure switch in the remote condensing unit. 5 minutes later the gear motor de-energizes.

**⚠ WARNING**

Increasing the shutdown delay allows a higher level of ice in the dispenser unit/ ice storage bin before shutdown. This could lead to icemaker movement or ice overflow.

| S1 Dip Switch | | | Shutdown Delay |
|---|---|---|---|
| NO. 1 | NO. 2 | NO. 3 | |
| OFF | OFF | OFF | 0 seconds |
| **ON** | **OFF** | **OFF** | **100 seconds (1.6 minutes)** |
| OFF | ON | OFF | 1100 seconds (18.3 minutes) |
| OFF | OFF | ON | 1650 seconds (27.5 minutes) |
| ON | ON | OFF | 2200 seconds (36.7 minutes) |
| OFF | ON | ON | 0 seconds |
| ON | ON | ON | 0 seconds |

## I. Operation Notes

The appliance utilizes a pump-down solenoid valve in the icemaker and a control low-pressure switch in the remote condensing unit to control operation of the magnetic contactor in the remote condensing unit. This eliminates the need for an electrical connection between the icemaker and remote condensing unit.

Control Low-Pressure Switch Settings:

Cut-Out: 9 PSIG. Differential: 20 PSIG. Cut-In: 29 PSIG.

## 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 icemaker power switch or plug with damp hands. Make sure the icemaker power switch is in the "OFF" position before plugging in or unplugging the icemaker.
- **Before Servicing: FS:** Move the icemaker's power switch to the "OFF" position. Unplug the icemaker from the electrical outlet. **SRC:** Turn off the power supply to the remote condensing unit. Place the disconnect (if applicable) in the off position. Lockout/Tagout to prevent the power supply from being turned back on inadvertently.
- **CHOKING HAZARD:** Ensure all components, fasteners, and thumbscrews are securely in place after any maintenance is done to the unit. Make sure that none have fallen into the storage bin.

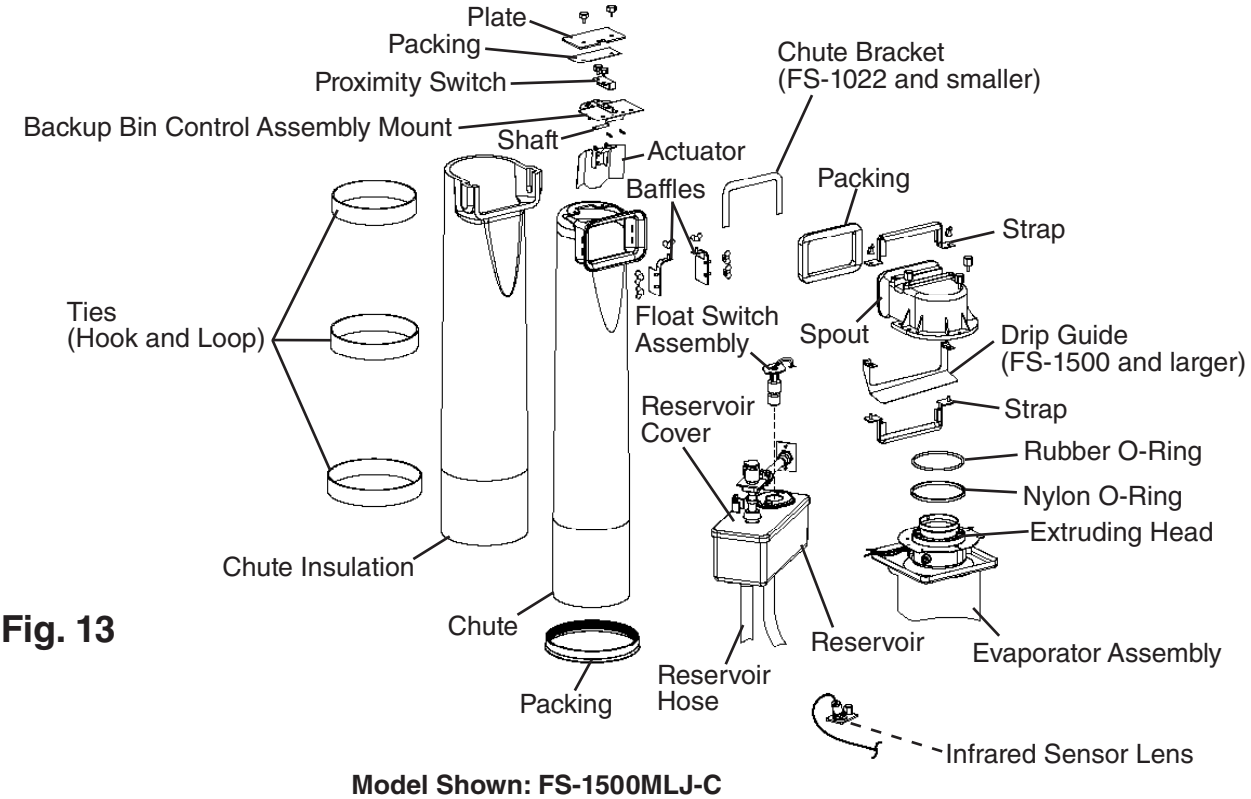



**Fig. 13**

**Model Shown: FS-1500MLJ-C**

## 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. |
| Monthly | External Water Filters | Check for proper pressure and change if necessary. |
| | Icemaker Exterior | Wipe down with 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 cleaner. |
| | Infrared Sensor Lens; Underside of Icemaker and Top Kits; Bin Door and Snout (if applicable) | Wipe down with clean cloth and warm water. |
| Every 6 Months | Icemaker and Dispenser Unit/Ice Storage Bin | Clean and sanitize per the cleaning and sanitizing instructions provided in this manual. |
| | Evaporator Condensate Drain Pan and Gear Motor Drain Pan | Wipe down with clean cloth and warm water. Slowly pour one cup of sanitizing solution (prepare as outlined in the sanitizing instructions in this manual) into the evaporator condensate drain pan. Be careful not to overflow the pan. The solution will flow down to the gear motor drain pan and out the drain line to sanitize these areas. Repeat with a cup of clean water to rinse. |
| | Icemaker and Dispenser Unit/Ice Storage Bin Drains | Check to make sure they are clear. |
| | Extruding Head Seal Bolts | Inspect for leakage around seal bolts. Tighten (see torque values below) or replace as necessary. Seal bolts must be replaced once removed because seal material is one-time use only. If new seal bolts do not have preapplied threadlocker, apply Loctite 243 or equivalent threadlocker to seal bolt threads.<br>• *Torque for FS-1022 and Smaller:* 11.1 ft-lb/15 N·m<br>• *Torque for FS-1500 and Larger:* 25.8 ft-lb/35 N·m<br>Tighten 2 times. Allow at least 5 sec. in between each tightening. |
| Yearly | Inlet Water Valve and Drain Valve | Close the water supply line shut-off valve and drain the water system. Clean the inlet water valve screen and clean and inspect the drain valve. |
| | Water Hoses | Inspect the water hoses and clean/replace if necessary. |
| | Condenser | Inspect. Clean if necessary by using a brush or vacuum cleaner. |
| | Icemaker | Inspect for oil spots, loose components, fasteners, and wires. |
| | Upper Bearing (extruding head) | Check for wear using .02" round stock or pin gauge. Replace both upper bearing and lower bearing if wear exceeds factory recommendations. See the Service Manual for details. |
| After 3 Years, then Yearly | Upper Bearing (extruding head); Lower Bearing and O-Ring (lower housing); Mechanical Seal; Evaporator Cylinder; Auger | Inspect. Replace both upper bearing and lower bearing if wear exceeds factory recommendations. Replace the mechanical seal if the seal's contact surfaces are worn, cracked, or scratched. |

## B. Cleaning and Sanitizing Instructions

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

**⚠ WARNING**

- To prevent injury to individuals and damage to the icemaker, 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.
- After cleaning and sanitizing, do not use ice made from the cleaning and sanitizing solutions. Be careful not to leave any solution on the parts or in the dispenser unit/ice storage bin.

### 1. Cleaning Solution

Dilute 9.6 fl. oz. (0.29 l) of Hoshizaki "Scale Away" with 1.6 gal. (6.0 l) of warm water.
***IMPORTANT!*** **For safety and maximum effectiveness, use the solution immediately after dilution.**

### 2. Cleaning Procedure

1) Close the water supply line shut-off valve.
2) Remove the front panel, then move the power switch to the "OFF" position. Move the control switch to the "DRAIN" position, then move the power switch back to the "ON" position. Replace the front panel in its correct position.
3) Allow the water system to drain for 5 minutes.
4) Remove the front panel. Move the power switch to the "OFF" position, then unplug the unit from the electrical outlet. Remove the top panel.
5) Remove all of the ice from the dispenser unit/ice storage bin.
6) Remove the strap connecting the spout to the chute assembly, then remove the spout. See Fig. 13.
7) Pour the cleaning solution over the extruding head until the evaporator assembly and the reservoir are full and the solution starts to overflow into the drain pan.
   Note: If there is excess scale on the extruding head, fill the evaporator assembly and reservoir as described above, then use a clamp on the reservoir hose between the reservoir and evaporator assembly to block flow. Pour additional cleaning solution over the extruding head until the evaporator assembly is completely full.
8) Replace the spout and strap in their correct positions.
9) Allow the icemaker to sit for about 10 minutes before operation. If you placed a clamp on the reservoir hose in step 7, remove it before operation.

10) In bad or severe water conditions, clean the float switch assembly as described below. Otherwise, continue to step 11.
    a. Remove the float switch assembly from the reservoir cover.
    b. Wipe down the float switch assembly with the cleaning solution.
    c. Rinse the float switch assembly thoroughly with clean water.
    d. Replace the float switch assembly in its correct position.

11) Wipe down the infrared sensor lens, (located on the bottom of the icemaker) with the cleaning solution. Next, rinse the cleaning solution off of the infrared sensor lens with a clean, damp cloth.
    Note: If the bottom of the icemaker is not accessible in your application, remove the thumbscrew securing the infrared sensor housing, then remove the housing from the base. After cleaning and rinsing the lens, replace the housing in its correct position and secure it with the thumbscrew.

12) Replace the top panel in its correct position. Move the control switch to the "ICE" position, then plug in the icemaker. Move the power switch to the "ON" position, then replace the front panel in its correct position. Make ice using the solution until the icemaker stops making ice.

13) Remove the front panel, then move the power switch to the "OFF" position. Move the control switch to the "DRAIN" position, then move the power switch back to the "ON" position. Replace the front panel in its correct position.

14) Allow the water system to drain for 5 minutes.

15) Remove the front panel. Move the control switch to the "ICE" position, then replace the front panel in its correct position.

16) Open the water supply line shut-off valve to supply water to the reservoir.

17) After the gear motor starts, remove the front panel. Move the power switch to the "OFF" position. Move the control switch to the "DRAIN" position, then move the power switch back to the "ON" position. Replace the front panel in its correct position.

18) Allow the water system to drain for 5 minutes.
    Note: If you do not sanitize the unit, go to step 14 in "III.B.5. Sanitizing Procedure - Final."

19) Remove the front panel. Move the power switch to the "OFF" position, then unplug the unit from the electrical outlet. Close the water supply line shut-off valve.

**3. Sanitizing Solution**

Dilute 2.5 fl. oz. (74 ml or 5 tbs) of a 5.25% sodium hypochlorite solution (chlorine bleach) with 5 gal. (19 l) of warm water. ***IMPORTANT!*** **For safety and maximum effectiveness, use the solution immediately after dilution.**

**4. Sanitizing Procedure - Initial**

1) Make sure the power switch is in the "OFF" position, the unit is unplugged from the electrical outlet, and the water supply line shut-off valve is closed. Remove the panels.

2) Remove the strap connecting the spout to the chute assembly, then remove the spout. Remove the rubber O-ring and nylon O-ring at the top of the cylinder and also remove the packing and chute bracket (FS-1022 and smaller) or drip guide (FS-1500 and larger) between the spout and chute.

3) Pour the sanitizing solution over the extruding head until the evaporator assembly and the reservoir are full and the solution starts to overflow into the drain pan.

4) Remove the proximity switch from the chute assembly, then remove the chute assembly from the icemaker.

5) Remove the packing at the bottom of the ice chute. Remove the 3 ties and the chute insulation.

6) Remove the 2 baffles.

7) Remove the plate and the packing from the top of the ice chute, then remove the backup bin control assembly by sliding it slightly towards the chute opening and lifting it off.

8) Disassemble the backup bin control assembly by removing the 2 snap pins, shaft, and actuator.

9) Soak the spout, O-ring, packings, chute bracket (FS-1022 and smaller), drip guide (FS-1500 and larger), chute, baffles, plate, and backup bin control assembly in the sanitizing solution for 10 minutes then wipe them down.

10) Rinse the parts thoroughly with clean water. ***NOTICE!*** **If the solution is left on these parts, they will rust.**

11) Replace all parts in their correct positions. ***IMPORTANT!*** **When installing the baffles, make sure that the bent surface (the one without the studs) faces the actuator so that the bent surface can guide the ice to the center of the actuator.**

12) Replace all panels except the front panel in their correct positions. Move the control switch to the "ICE" position, then plug in the icemaker. Move the power switch to the "ON" position, then replace the front panel in its correct position. Make ice using the solution until the icemaker stops making ice.

13) Remove the front panel, then move the power switch to the "OFF" position. Move the control switch to the "DRAIN" position, then move the power switch back to the "ON" position. Replace the front panel in its correct position.

14) Allow the water system to drain for 5 minutes.

15) Remove the front panel. Move the power switch to the "OFF" position, then unplug the unit from the electrical outlet.

**5. Sanitizing Procedure - Final**

1) Mix a new batch of the sanitizing solution.

2) Make sure the power switch is in the "OFF" position, the unit is unplugged from the electrical outlet, and the water supply line shut-off valve is closed. Remove the top panel.

3) Remove the strap connecting the spout to the chute assembly, then remove the spout.

4) Pour the sanitizing solution over the extruding head until the evaporator assembly and the reservoir are full and the solution starts to overflow into the drain pan.

5) Replace the spout and strap in their correct positions.

6) Allow the icemaker to sit for about 10 minutes before operation.

7) Replace the top panel in its correct position. Move the control switch to the "ICE" position, then plug in the icemaker. Move the power switch to the "ON" position, then replace the front panel in its correct position. Make ice using the solution until the icemaker stops making ice.

8) Remove the front panel, then move the power switch to the "OFF" position. Move the control switch to the "DRAIN" position, then move the power switch back to the "ON" position. Replace the front panel in its correct position.

9) Allow the water system to drain for 5 minutes.

10) Remove the front panel. Move the control switch to the "ICE" position, then replace the front panel in its correct position.

11) Open the water supply line shut-off valve to supply water to the reservoir.

12) After the gear motor starts, remove the front panel. Move the power switch to the "OFF" position. Move the control switch to the "DRAIN" position, then move the power switch back to the "ON" position. Replace the front panel in its correct position.

13) Allow the water system to drain for 5 minutes.

14) Remove the front panel. Move the control switch to the "ICE" position, then replace the front panel in its correct position.

15) Allow the icemaker to run for about 30 minutes, then remove the front panel. Move the power switch to the "OFF" position, then unplug the unit from the electrical outlet.

16) Pour warm water into the dispenser unit/ice storage bin and melt any remaining ice. Clean the dispenser unit/ice storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.

17) Plug in the icemaker. Make sure the control switch is in the "ICE" position, then move the power switch to the "ON" position to start the automatic icemaking process.

## 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. |

When the icemaker is not used for two or three days under normal conditions, it is sufficient to only move the power switch to the "OFF" position. When storing the icemaker for extended time or in sub-freezing temperatures, follow the instructions below.

**1. Remove the water from the icemaker water supply line:**

1) Remove the front panel.
2) Move the power switch to the "OFF" position.
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 control switch to the "ICE" position, then move the power switch to the "ON" position.
7) Blow the icemaker water line out using the compressed air or carbon dioxide supply.
8) Close the icemaker water supply line drain valve.

**2. Drain the evaporator:**

1) Move the power switch to the "OFF" position. Move the control switch to the "DRAIN" position, then move the power switch back to the "ON" position. Replace the front panel in its correct position.
2) Allow the water system to drain for 5 minutes.
3) Remove the front panel, then move the power switch to the "OFF" position.
4) Remove the evaporator drain line hose from the evaporator and attach a compressed air or carbon dioxide supply to the hose.
5) Move the power switch to the "ON" position. Blow out the evaporator drain line using the compressed air or carbon dioxide supply until water stops coming out.
6) Move the power switch to the "OFF" position, then reconnect the evaporator drain line hose.
7) Move the control switch to the "ICE" position. Replace the front panel in its correct position, then unplug the unit from the electrical outlet.
8) 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.

**3. Turn off the power supply to the remote condensing unit:**

1) Turn off the power supply to the remote condensing unit.
2) When restarting, follow the instructions in "II.G. Startup." The remote condensing unit should have power for a minimum of 4 hours prior to startup to prevent compressor damage.

## V. Disposal

The icemaker and remote condensing unit contain refrigerant and must be disposed of in accordance with applicable national, state, and local codes and regulations. Refrigerant must be recovered by properly certified service personnel.

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