

Hoshizaki America, Inc.

Self-Contained Cuber

Models

AM-50BAE

AM-50BAE-DS

AM-50BAE-AD

AM-50BAE-ADDS



“A Superior Degree
of Reliability”

www.hoshizaki.com

INSTRUCTION MANUAL



Issued: 3-10-2006
Revised: 8-10-2012

⚠ WARNING

Only qualified service technicians should install and service the icemaker. 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 icemaker until the installer has instructed them on its proper operation. Failure to install, operate, and maintain the icemaker in accordance with this manual will adversely affect safety, performance, component life, and warranty coverage and may result in costly water damage. 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 icemaker.

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

Web Site: www.hoshizaki.com

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

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

IMPORTANT

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

CONTENTS

Important Safety Information	4
I. Specifications.....	6
A. Construction.....	6
B. Electrical Data	7
C. Dimensions/Connections	8
1. AM-50BAE.....	8
2. AM-50BAE-DS.....	9
3. AM-50BAE-AD.....	10
4. AM-50BAE-ADDS.....	11
II. Installation Instructions	12
A. Checks Before Installation.....	12
B. Location.....	12
1. General	12
2. Built-In Installation Site	13
C. Door	14
1. AM-50BAE, AM-50BAE-AD.....	14
a) Door Reversal.....	14
2. AM-50BAE-DS, AM-50BAE-ADDS	16
a) Overlay Panel Fabrication and Attachment.....	16
D. Setup.....	24
E. Electrical Connection	24
F. Water Supply and Drain Connections	25
G. Final Checklist	26
III. Operating Instructions.....	27
A. Important Notes About Usage.....	27
B. Startup	28
IV. Maintenance	30
A. Maintenance Schedule.....	30
B. Cleaning and Sanitizing Instructions.....	31
C. Storage Bin Drain.....	35
D. Condenser.....	36
E. Optional Drain Pump HS-5061.....	36
V. Preparing the Icemaker for Periods of Non-Use	38
VI. Disposal.....	39

Important Safety Information

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

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

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

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

⚠ WARNING

This icemaker 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 icemaker 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 this icemaker.
- This icemaker must be installed in accordance with applicable national, state, and local codes and regulations.
- This 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.
- **THIS ICEMAKER MUST BE GROUNDED:** This 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.
- Do not use an extension cord.
- To reduce the risk of electric shock, make sure the control switch is in the "OFF" position before plugging in or unplugging the icemaker.
- To reduce the risk of electric shock, do not touch the control switch or plug with damp hands.
- 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 make any alterations to the icemaker. Alterations could result in electric shock, injury, fire, or damage to the icemaker.

⚠ WARNING, continued

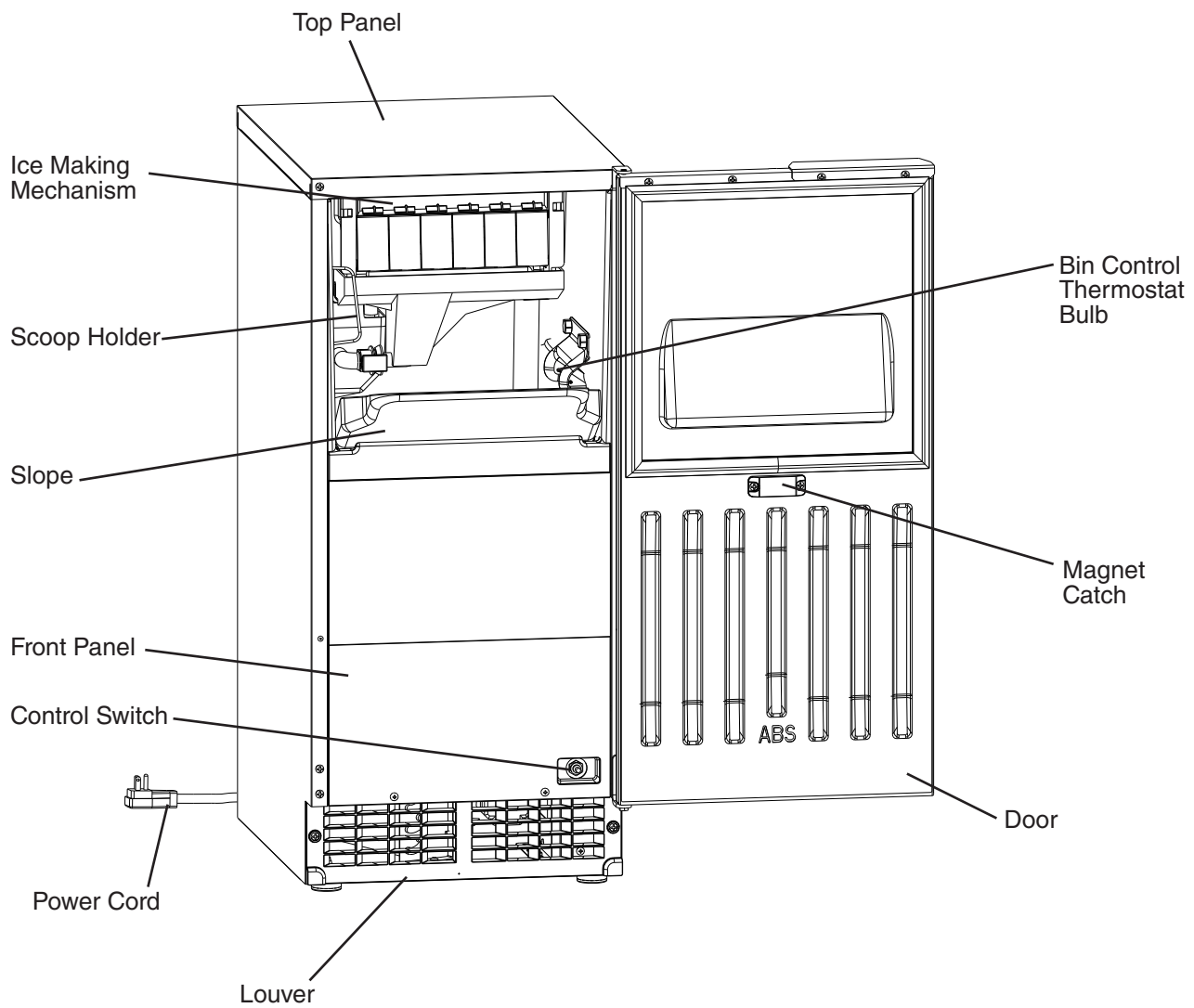
- This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be properly supervised around this appliance.
- Do not climb, stand, or hang on the icemaker or icemaker door or allow children or animals to do so. Serious injury could occur or the icemaker could be damaged.
- Be careful not to pinch fingers when opening and closing the door. Be careful when opening and closing the door when children are in the area.
- Do not use combustible spray or place volatile or flammable substances near the icemaker. They might catch fire.
- Keep the area around the icemaker clean. Dirt, dust, or insects in the icemaker could cause harm to individuals or damage to the icemaker.

NOTICE

- Protect the floor when moving the icemaker to prevent damage to the floor.
- Follow the water supply, drain connection, and maintenance instructions carefully to reduce the risk of costly water damage.
- In areas where water damage is a concern, install in a contained area with a floor drain.
- Install the 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).
- If using the optional drain pump (HS-5061), test its operation every time the icemaker is cleaned and sanitized. See "IV.E. Optional Drain Pump HS-5061" for details. If the optional drain pump is not operating properly, water could back up and overflow, leading to costly water damage.
- To help ensure that the storage bin drain remains clear, follow the instructions in "IV.C. Storage Bin Drain" once every 3 months or as often as necessary for conditions. If the storage bin drain becomes clogged, water could build up in the bin and overflow, leading to costly water damage.
- If water collects in the bin and will not drain, turn off the icemaker and close the water supply line shut-off valve. Call for service.
- 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 "V. Preparing the Icemaker 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 icemaker.
- The storage bin is for ice use only. Do not store anything else in the storage bin.

I. Specifications

A. Construction



B. Electrical Data

HOSHIZAKI ICE MAKER

MODEL NUMBER	AM-50BAE
SERIAL NUMBER	
AC SUPPLY VOLTAGE	115-120/60/1
AMPERES	3.4 AMPS
DESIGN PRESSURE	HI-240PSI LO-120PSI
REFRIGERANT	134a 4.2 OZ.

**MOTOR-COMPRESSOR THERMALLY PROTECTED
APPROVED FOR OUTDOOR USE**

Hoshizaki America, Inc.
Peachtree City, GA
www.hoshizaki.com

**For certification marks, see the nameplate
inside the storage bin.**

Note: Only the "MODEL NUMBER" is replaced for AM-50BAE-DS, AM-50BAE-AD, and AM-50BAE-ADDS.

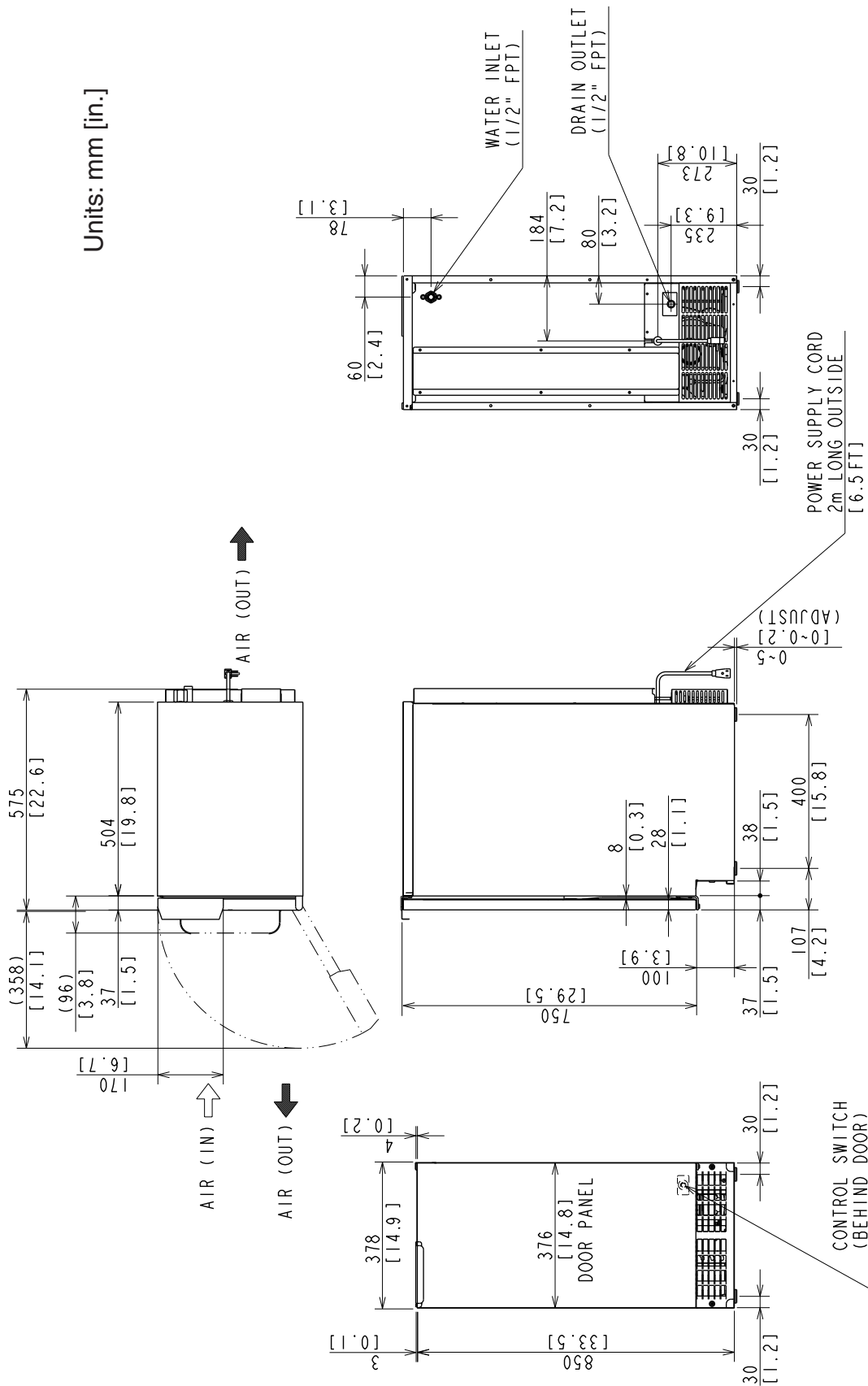
See the nameplate for electrical and refrigeration specifications. The nameplate is located inside the storage bin.

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

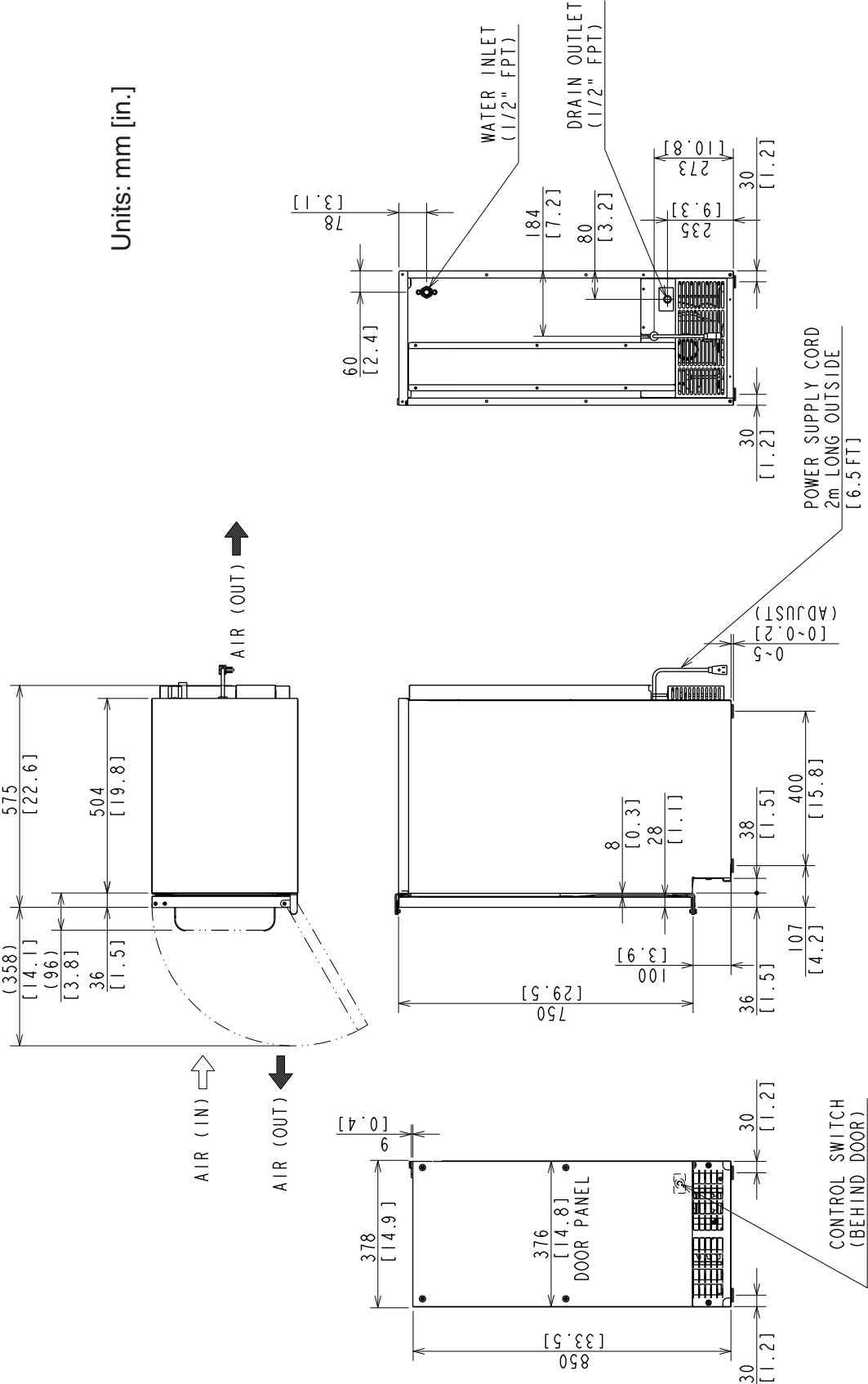
C. Dimensions/Connections

1. AM-50BAE

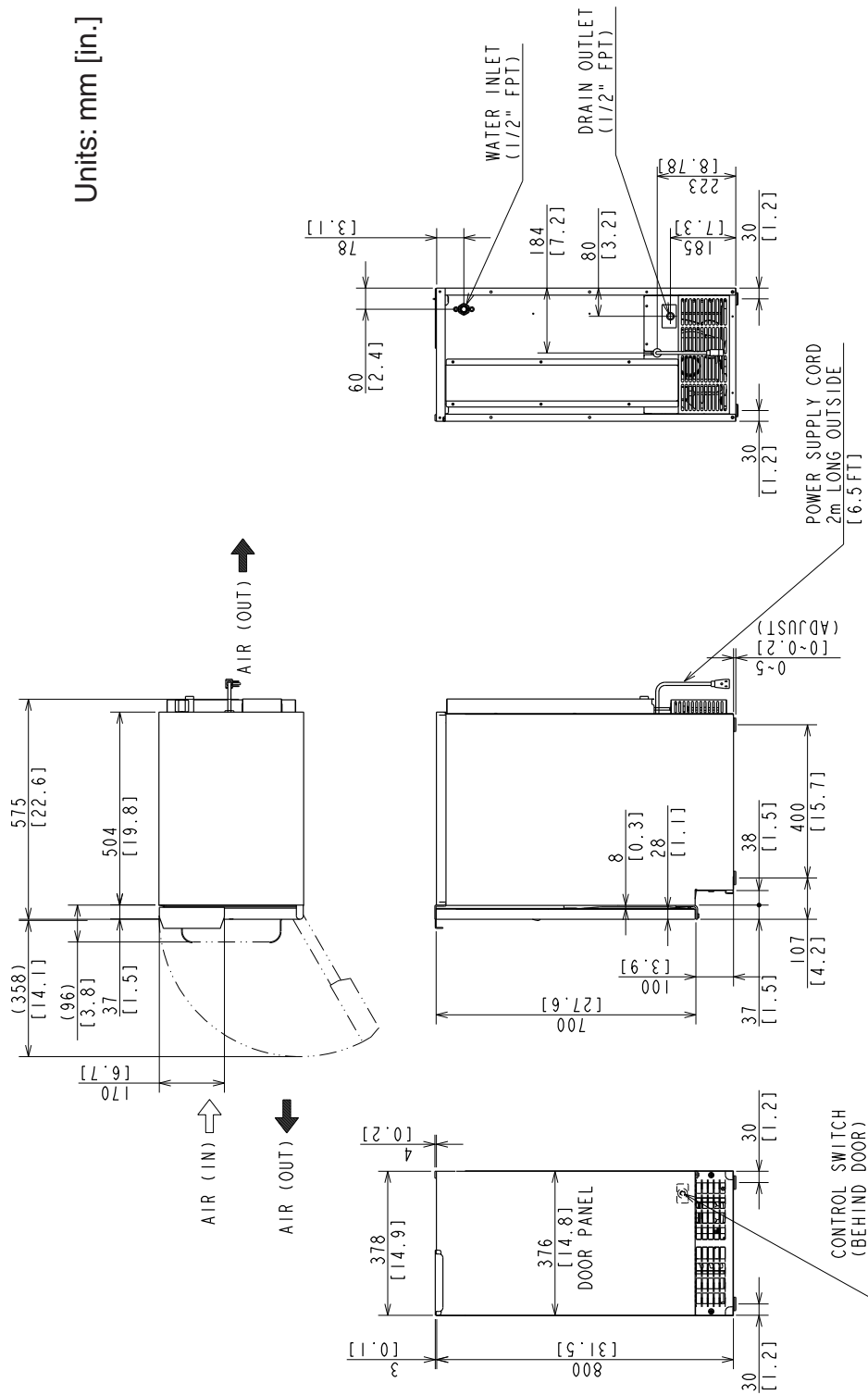
Units: mm [in.]



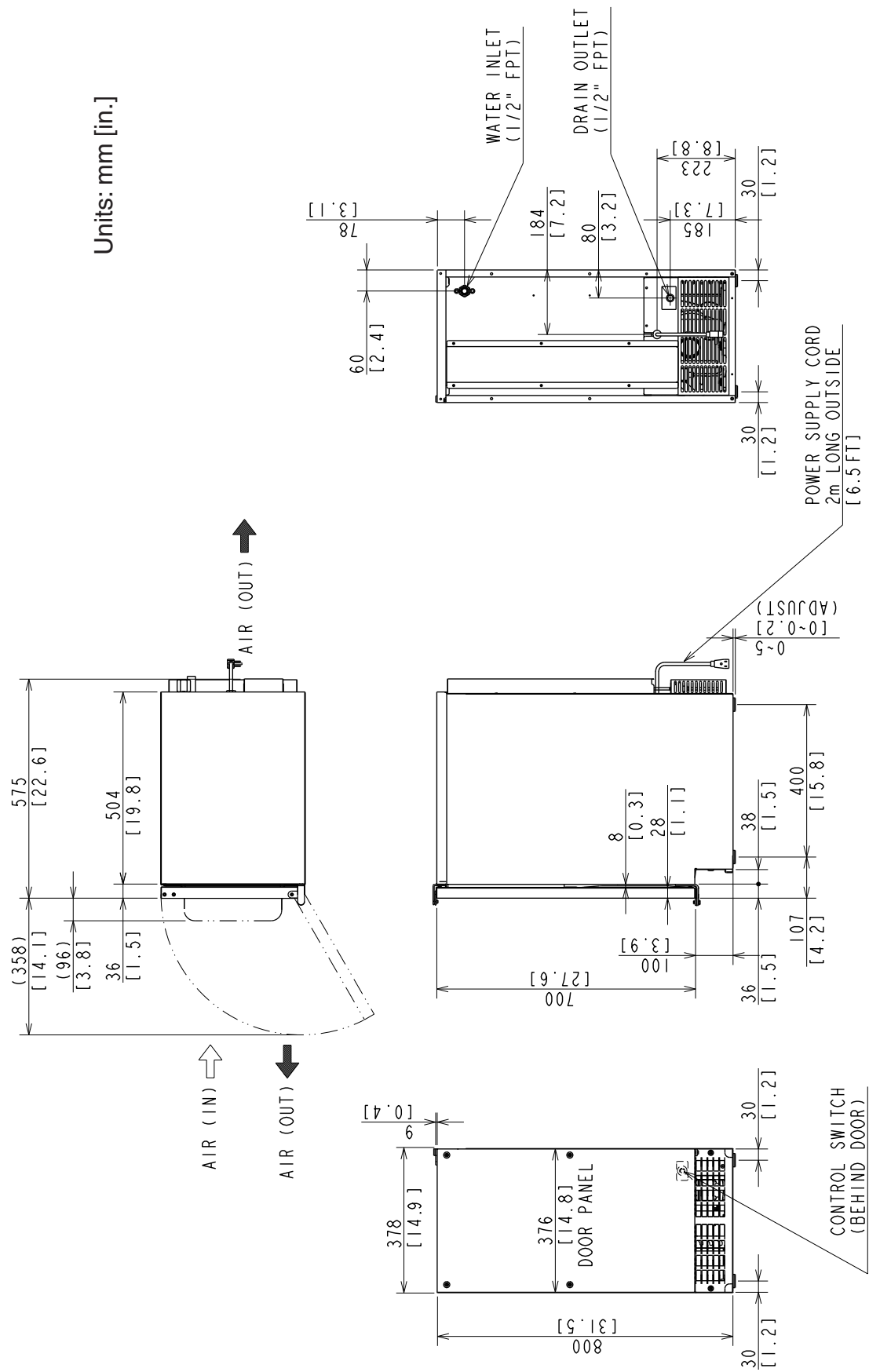
2. AM-50BAE-DS



3. AM-50BAE-AD



4. AM-50BAE-ADDS



II. Installation Instructions

WARNING

- This icemaker must be installed in accordance with applicable national, state, and local codes and regulations.
- **CHOKING HAZARD:** Ensure all components, fasteners, and thumbscrews are securely in place after installation. Make sure that none have fallen into the storage bin.

A. Checks Before Installation

- Visually inspect the exterior of the shipping container and immediately report any damage to the carrier. Upon opening the container, any concealed damage should also be immediately reported to the carrier.
- Remove the shipping carton, tape, and packing material. If any are left in the icemaker, it will not work properly.
- 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.
- See the nameplate inside the storage bin, and check that your voltage supplied corresponds with the voltage specified on the nameplate.

B. Location

1. General

This icemaker is approved for indoor or outdoor use.

NOTICE

- 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 95°F (7°C to 35°C). Operation of the icemaker, for extended periods, outside of these normal temperature ranges may affect icemaker performance.
- This icemaker will not work at sub-freezing temperatures. To prevent damage to the water supply line, drain the icemaker if the air temperature is going to go below 32°F (0°C). See "V. Preparing the Icemaker for Periods of Non-Use."

For best operating results:

- The icemaker should not be located next to ovens, grills, or other high heat producing equipment.
- The location must provide a firm foundation for the icemaker.
- This icemaker requires no side or top clearance. But allow enough space at rear for water supply and drain connections and at least 15" (38 cm) clearance at front.
- The icemaker must be at floor level on a finished floor even if under a cabinet. In areas where water damage is a concern, install in a contained area with a floor drain.

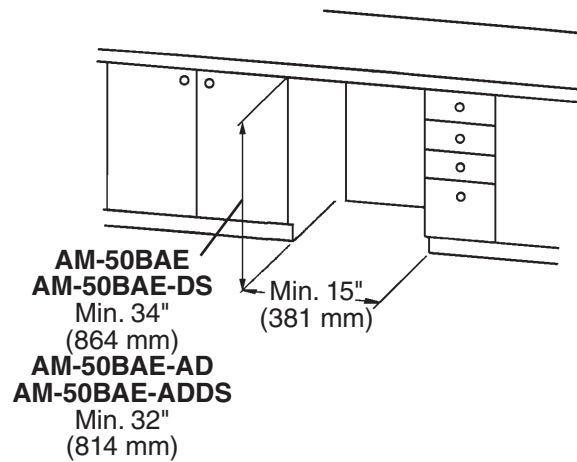
2. Built-In Installation Site

NOTICE

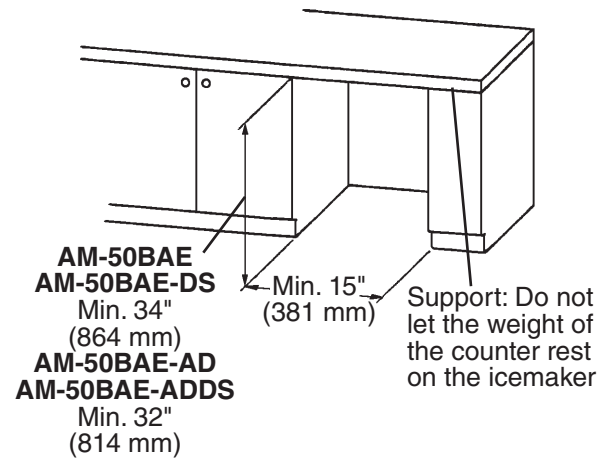
- Do not let the weight of the counter rest on the icemaker.
- Do not install the icemaker in a corner where the door will interfere with other equipment or where the icemaker cannot be pulled out for service.

Installation Space			
Model	Height	Width	Depth
AM-50BAE AM-50BAE-DS	34" (864 mm) minimum	15" (381 mm) minimum	24" (610 mm) minimum
AM-50BAE-AD AM-50BAE-ADDS	32" (814 mm) minimum		

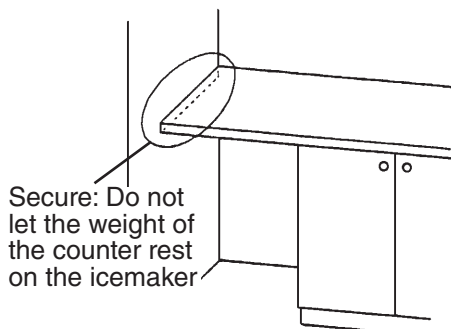
Between Two Cabinets



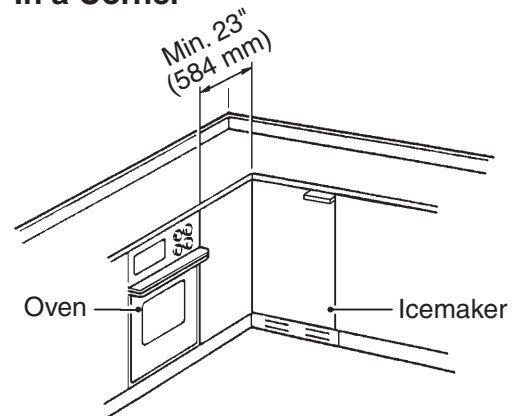
Between a Cabinet and the End of a Counter



Between a Cabinet and a Wall or Tall Cabinet



In a Corner



C. Door

1. AM-50BAE, AM-50BAE-AD

a) Door Reversal

If you would like to reverse the door swing, follow the steps below. Otherwise, skip to section "II.D. Setup."

- 1) While maintaining a hold on the door, remove the hinge stop pin from hinge (B). Pull out the bottom of the door slightly and gently remove the door from hinge (A). See Fig. 1.

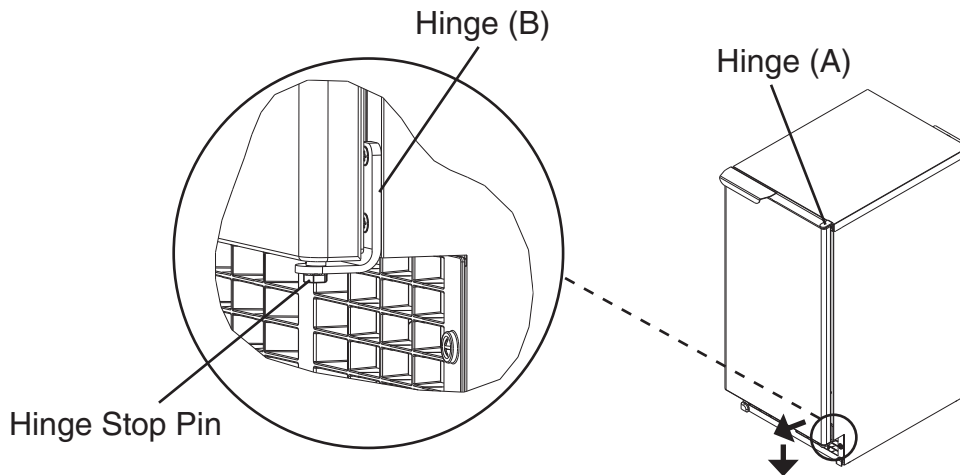


Fig. 1

- 2) Remove the 2 screws securing the top panel, then lift it off. See Fig. 2.

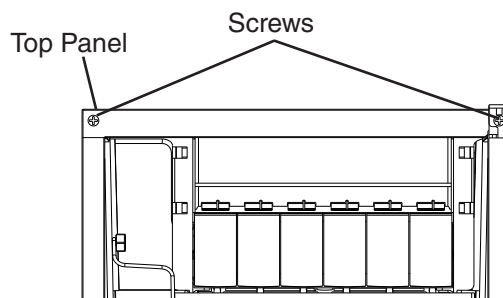


Fig. 2

- 3) Remove hinge (A) and the bracket from the right side of the unit and the top brace from the left side. Rotate hinge (A) to position the gasket notch to the inside, then fasten hinge (A) and the bracket to the left side and the top brace to the right side. See Fig. 3.

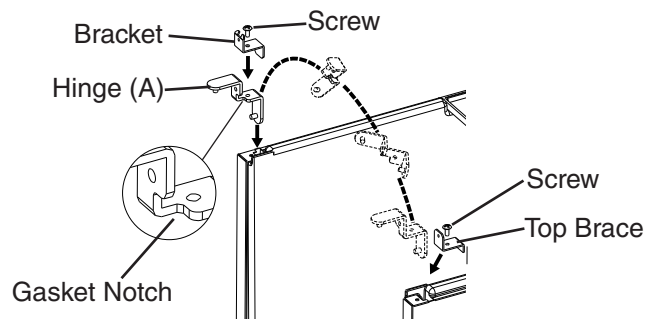


Fig. 3

- 4) Remove hinge (B) from the right side of the unit and the 2 filler screws from the left side. Attach the 2 filler screws to the right side and attach hinge (B) to the left side. See Fig. 4.
- 5) Rotate the top panel 180° from its previous position. This brings the notch that was previously in the right rear to the left front. See Fig. 5. Hook the rear part of the panel on the body, then secure the front with the 2 screws removed in step 2.

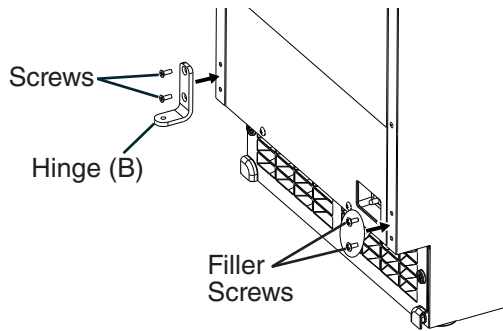


Fig. 4

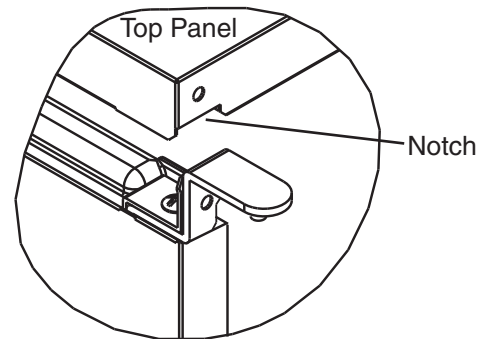


Fig. 5

- 6) Remove the 2 screws attaching the door handle and also remove the other 2 screws indicated in the illustration. Use 2 of the screws to attach the handle to the other side of the door and attach the other 2 screws in the remaining 2 holes. See Fig. 6.
- 7) Attach the door to hinge (A), then continue to maintain a hold on the door. Screw the hinge stop pin into hinge (B) until it is tight. See Fig. 7.

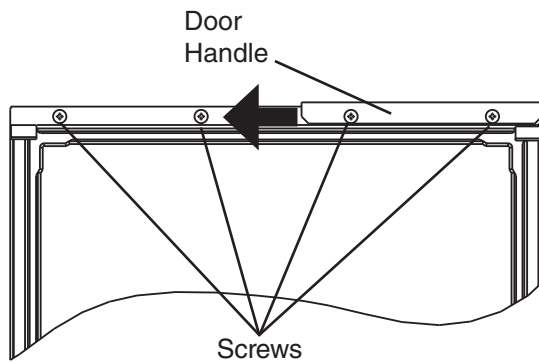


Fig. 6

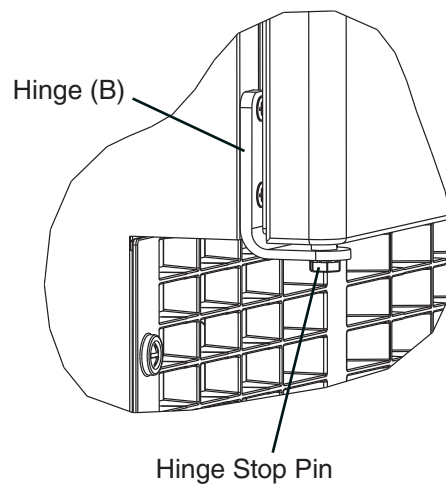


Fig. 7

2. AM-50BAE-DS, AM-50BAE-ADDS

a) Overlay Panel Fabrication and Attachment

IMPORTANT

The overlay panel must be crafted by a professional cabinet maker to ensure quality results.

(1) Parts

Ensure that all parts required for the overlay panel assembly are contained in the accessories bag.

Overlay Panel Parts			
No.	Description	Part Number	Qty.
1	Threaded Wood Insert	4A4004-01	6
2	T2 Screw 4x8 SS	7P32-0408	3
3	Pan Head Screw M4x25 SS	7C12-0425	4
4	Truss Head Screw M4x8 SS	7C32-0408	2
5	Canoe Clip	4A0629-02	2
6	Sheet Metal Bracket	4A3998-01	1



1



2



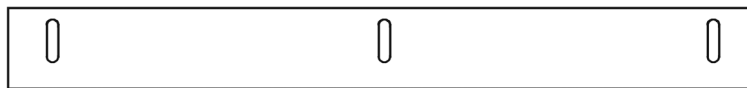
3



4



5

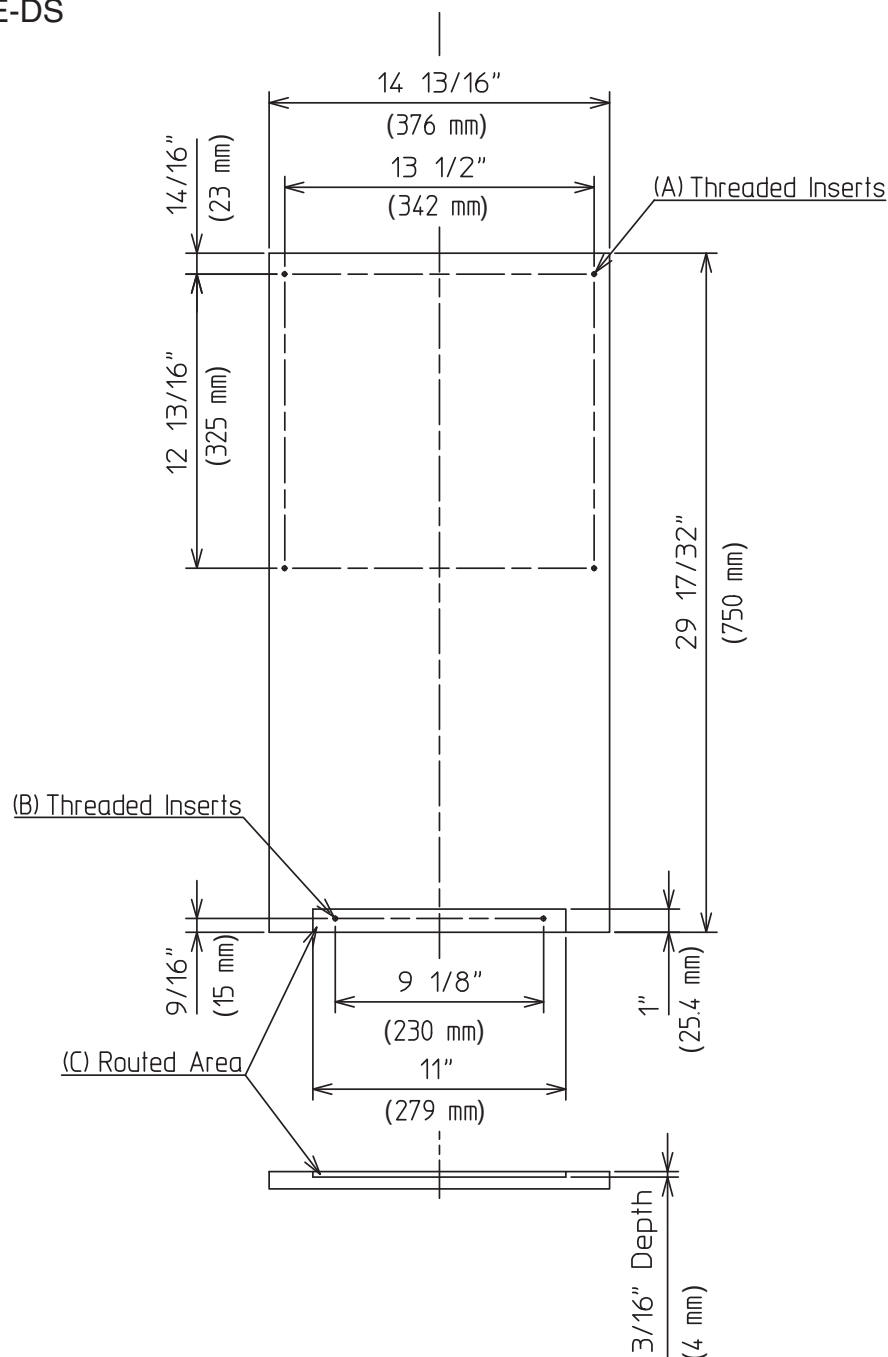


6

(2) Overlay Panel Specification

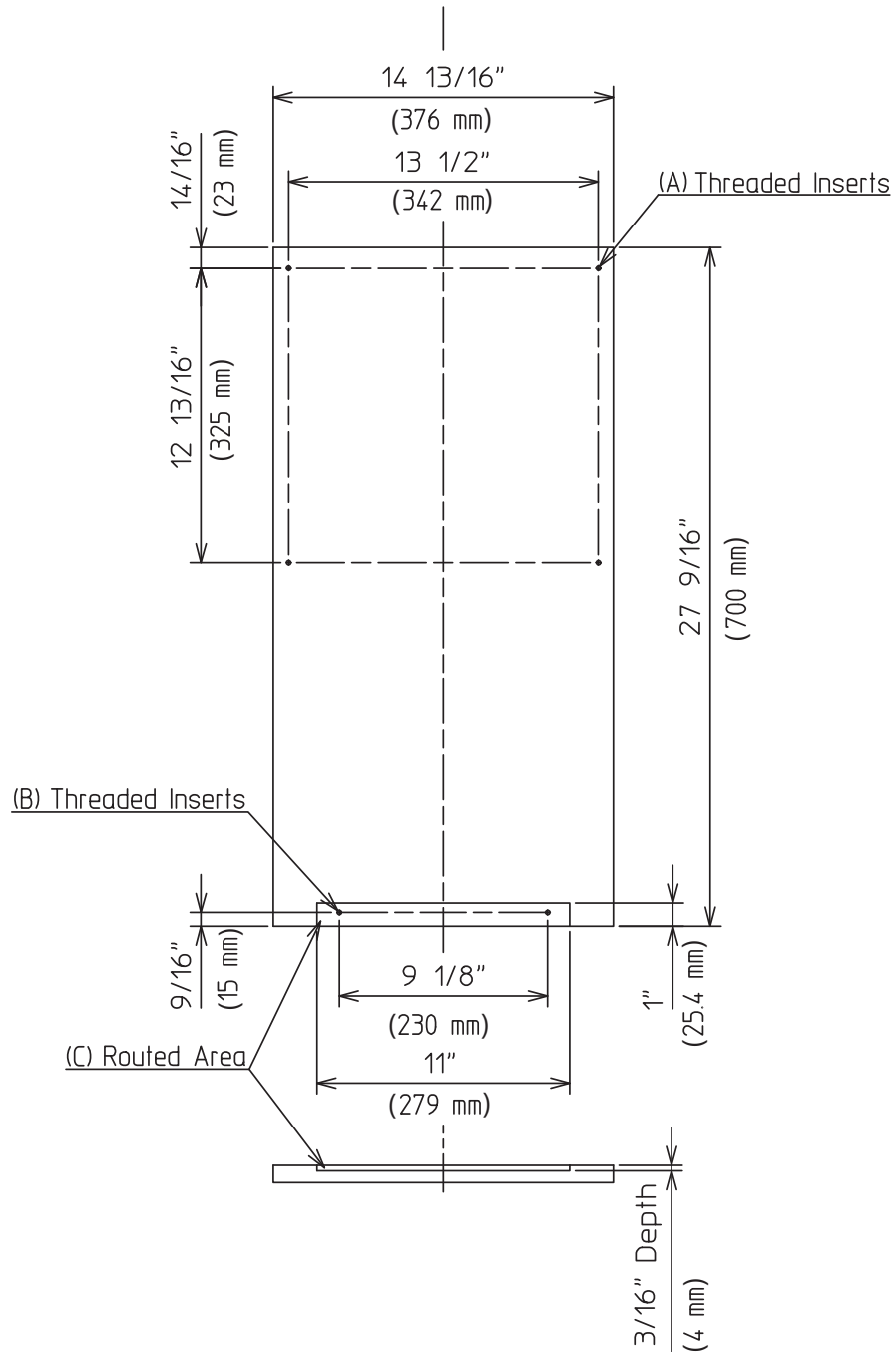
Use the specification that applies to your icemaker (AM-50BAE-**DS** or AM-50BAE-**ADDS**) and the directions that follow to prepare your overlay panel.

(a) AM-50BAE-DS



AM-50BAE-DS Overlay Panel Specification	
Overlay Panel Height	29 17/32" (750 mm)
Overlay Panel Width	14 13/16" (376 mm)
Overlay Panel Thickness	5/8" (16 mm) minimum; 3/4" (19 mm) maximum
Overlay Panel and Door Weight (total)	20 lb. (9 kg) maximum

(b) AM-50BAE-ADDS



AM-50BAE-ADDS Overlay Panel Specification

Overlay Panel Height	27 9/16" (700 mm)
Overlay Panel Width	14 13/16" (376 mm)
Overlay Panel Thickness	5/8" (16 mm) minimum; 3/4" (19 mm) maximum
Overlay Panel and Door Weight (total)	20 lb. (9 kg) maximum

(3) Fabrication of Overlay Panel

Fabricate the overlay panel as outlined in the applicable specification on the previous pages and the instructions below.

- 1) Rout a channel at the bottom of the overlay panel to the proper dimensions. See "(C) Routed Area" in the specification diagram and Fig. 8.
- 2) Drill six 1/4" diameter (hardwood may require slightly larger diameter) holes 3/8" (10 mm) deep in the locations designated. **NOTICE! Use care when drilling holes for mounting hardware. All drilled holes must be straight and drilled to the correct diameter and depth.** See "(A) Threaded Inserts" and "(B) Threaded Inserts" in the specification diagram and Fig. 9.

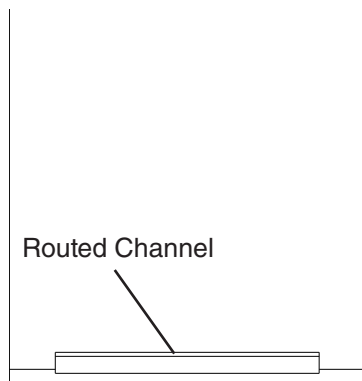


Fig. 8

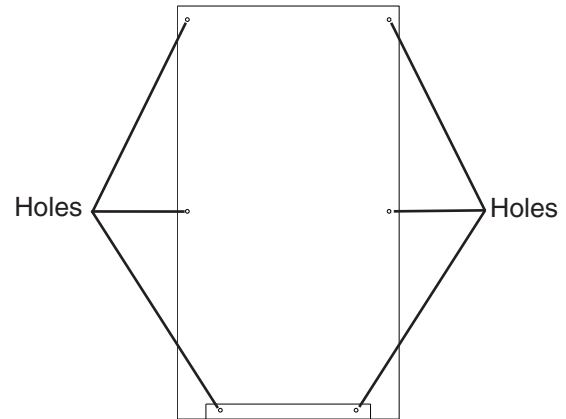


Fig. 9

- 3) Screw the 6 threaded wood inserts into the 1/4" holes drilled in the previous step. Make sure that the inserts are threaded straight and that the tops of the inserts are flush to the overlay panel surface. Otherwise, the overlay panel cannot be properly fastened to the door.
- 4) Mount the door handle hardware. Hoshizaki recommends that the door handle hardware be mounted on the edge opposite of the door hinge side (optional hinge reversal is covered in step 6). Countersunk screw heads are required to ensure that the hardware fasteners do not interfere with the overlay panel fitting flush with the door.
- 5) While maintaining a hold on the door, remove the hinge stop pin from hinge (B). Pull out the bottom of the door slightly and gently remove the door from hinge (A). See Fig. 10. If you are leaving the door right-hinged, skip to step 7. If you would like to reverse the door swing, proceed to step 6.

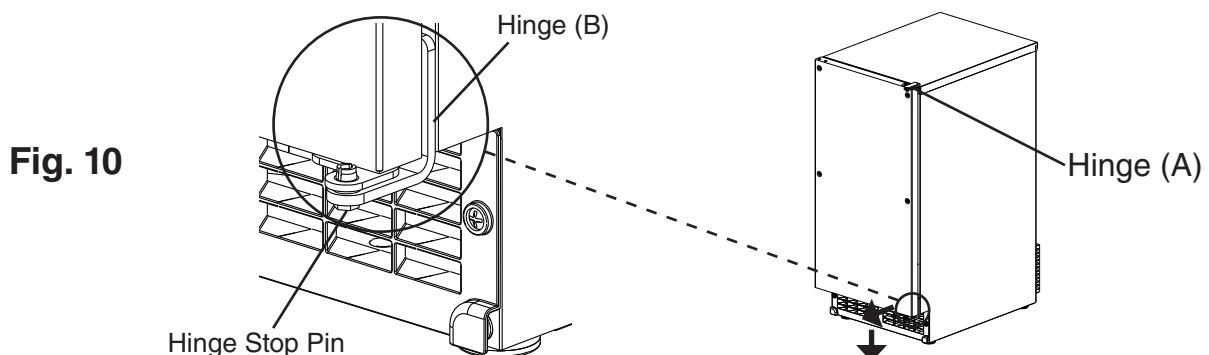


Fig. 10

6) If you would like to reverse the door swing, do the following:

- a) Contact your local distributor to purchase Hoshizaki Kit HS-0229. The kit contains "hinge (A)-left."
- b) Remove the 2 screws securing the top panel, then lift it off. See Fig. 11.
- c) Remove hinge (A)-right and the bracket from the right side of the unit. Set aside hinge (A)-right; it is not needed. Remove the top brace from the left side. Fasten hinge (A)-left and the bracket to the left side and the top brace to the right side. See Fig. 12.

Note: When on the proper side, the gasket notch for hinge (A) is to the inside.

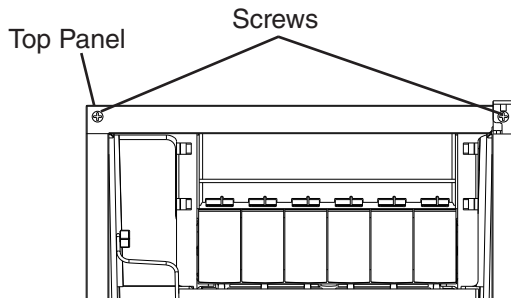


Fig. 11

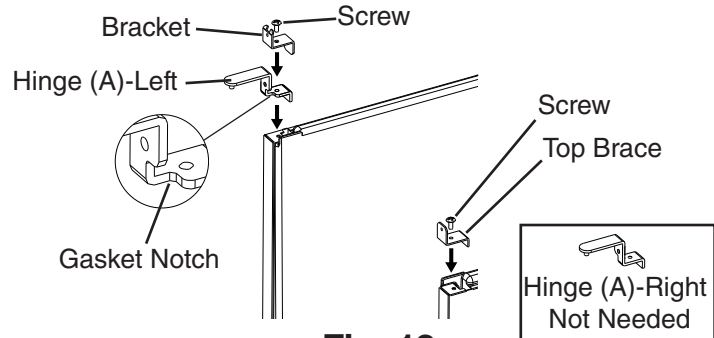


Fig. 12

- d) Remove hinge (B) from the right side of the unit and the 2 filler screws from the left side. Attach the 2 filler screws to the right side and attach hinge (B) to the left side. See Fig. 13.
- e) Rotate the top panel 180° from its previous position. This brings the notch that was previously in the right rear to the left front. See Fig. 14. Hook the rear part of the panel on the body, then secure the front with the 2 screws removed in step 6b.

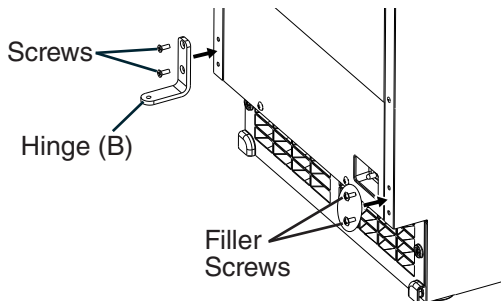


Fig. 13

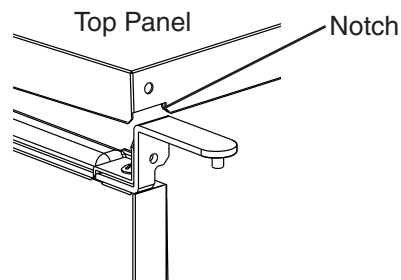


Fig. 14

- f) Remove hinge (C1) from the top right part of the door, flip it and reattach to the bottom left. Remove hinge (C2) from the bottom right part of the door, flip it and reattach to the top left. See Fig. 15. Proceed to step 7.

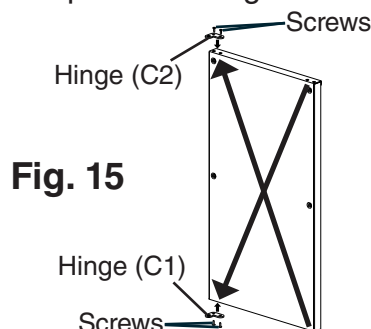


Fig. 15

- 7) Remove the bushings from hinge (C1) and hinge (C2) (the hinges attached to the door). See Fig. 16.
- 8) Remove the gasket from the door. See Fig. 17.

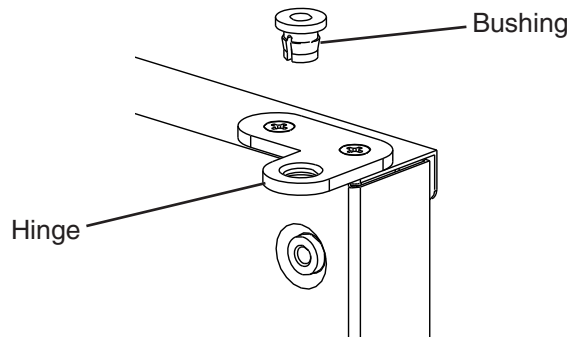


Fig. 16

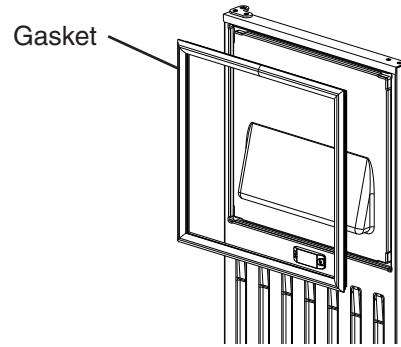


Fig. 17

- 9) Temporarily fasten the overlay panel to the door using 2 of the M4x25 pan head screws provided. **NOTICE! Ensure that the back surface of overlay panel is flat before attaching.** See Fig. 18.
- 10) Mark the centerpoint of the hinge (C1) and hinge (C2) holes that extend over the overlay panel. See Fig. 19.

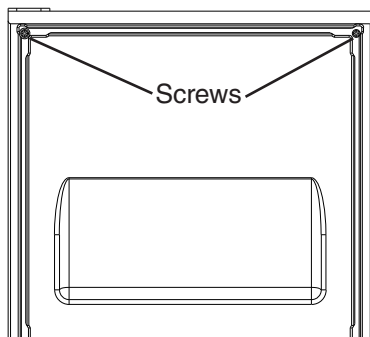


Fig. 18

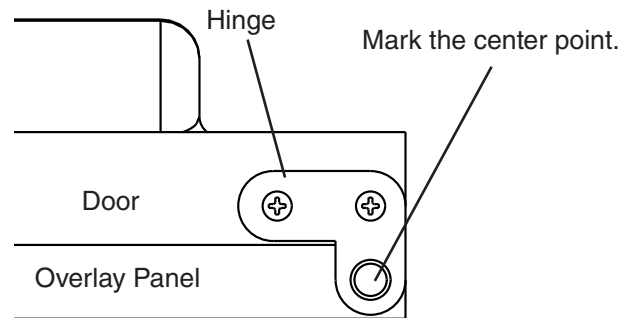


Fig. 19

- 11) Remove the overlay panel from the door.
- 12) Drill 3/8" diameter holes 1/4" (7 mm) deep where you marked on the overlay panel to accommodate the hinge (C1) and hinge (C2) bushings.

(4) Attachment of Overlay Panel to Door

- 1) Fasten the sheet metal bracket to the overlay panel using the two M4×8 truss head screws provided. **Snug the screws, but do not tighten.** See Fig. 20.
- 2) Temporarily fasten the overlay panel to the door using 2 of the M4×25 pan head screws provided. See Fig. 21.

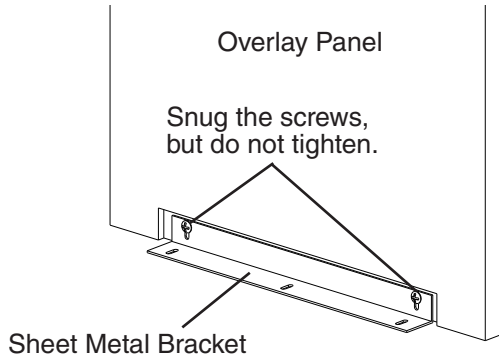


Fig. 20

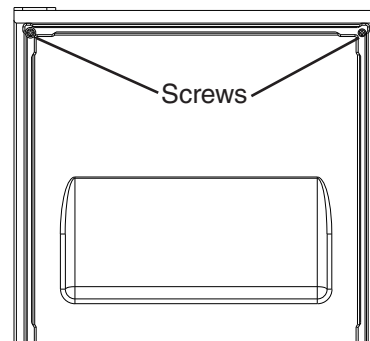


Fig. 21

- 3) Adjust the sheet metal bracket so that it is flush with the bottom of the door. See Fig. 22.
- 4) Remove the overlay panel from the door and tighten the two M4×8 truss head screws securing the sheet metal bracket to the overlay panel. See Fig. 23.

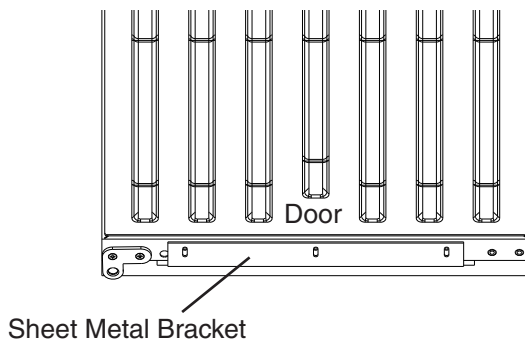


Fig. 22

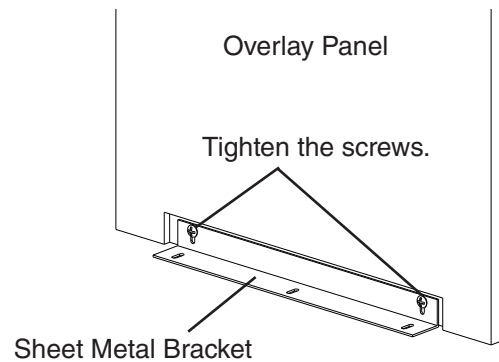


Fig. 23

- 5) Fasten the overlay panel to the door using the four M4×25 pan head screws provided. **Snug the screws, but do not tighten.** See Fig. 24.
- 6) Fasten the sheet metal bracket to the bottom of the door with the three T2 screws provided. Tighten the screws to the door. See Fig. 25.

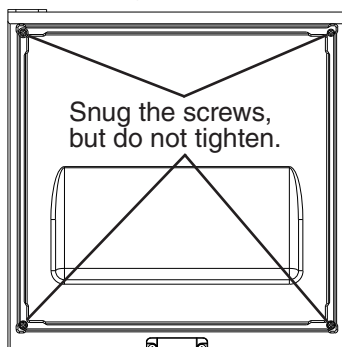


Fig. 24

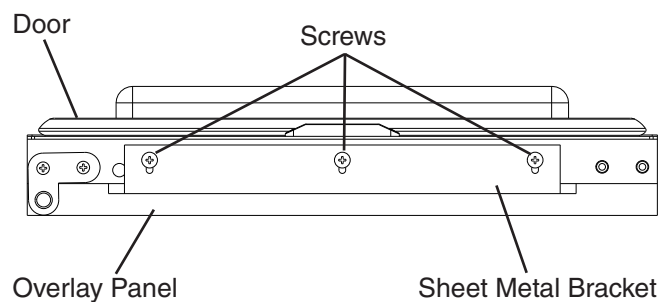


Fig. 25

7) Tighten the four M4×25 pan head screws installed in step 5. See Fig. 26.

8) Replace the door gasket in its proper orientation. Reinsert the bushings into hinge (C1) and hinge (C2) (the hinges attached to the door). See Fig. 27.

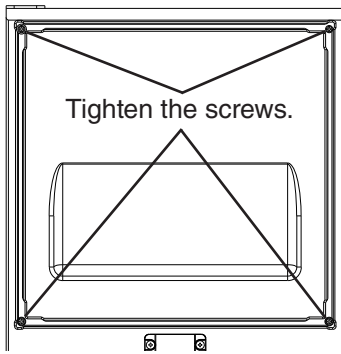


Fig. 26

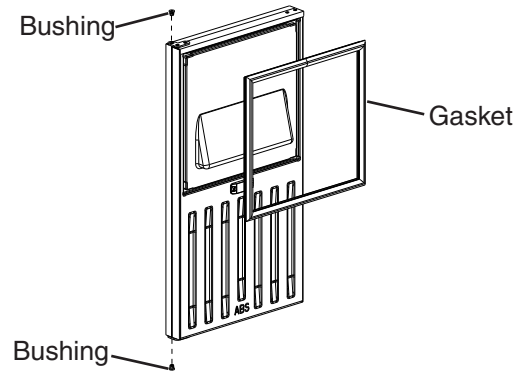


Fig. 27

9) Attach the door to hinge (A), then continue to maintain a hold on the door. Screw the hinge stop pin into hinge (B) until it is tight. See Fig. 28.

10) Insert the 2 canoe clips included in the accessory bag into the holes on top of the door. See Fig. 29.

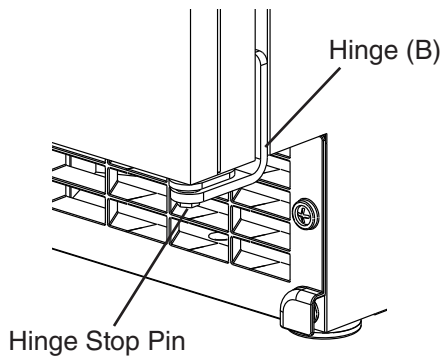


Fig. 28

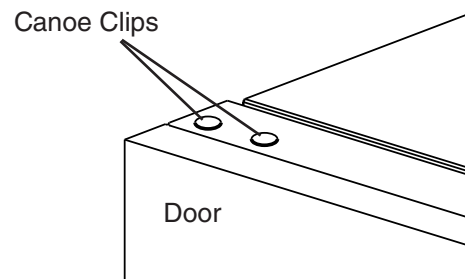


Fig. 29

D. Setup

- 1) Position the icemaker in the selected permanent location.
- 2) Level the icemaker from side-to-side and front-to-rear by adjusting the feet.

E. Electrical Connection

WARNING

- Electrical connection must meet national, state, and local electrical code requirements. Failure to meet these code requirements could result in death, electric shock, serious injury, fire, or severe damage to equipment.
 - This 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.
 - **THIS ICEMAKER MUST BE GROUNDED:** This 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 follow these instructions may result in death, electric shock, or fire.
 - Do not use an extension cord.
 - To reduce the risk of electric shock, make sure the control switch is in the "OFF" position before plugging in or unplugging the icemaker.
 - To reduce the risk of electric shock, do not touch the control switch or plug with damp hands.
 - 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.
 - The GREEN ground wire in the factory-installed power cord is connected to a screw on the rear panel where the power cord enters the icemaker. If it becomes necessary to remove or replace the power cord, be sure to connect the power cord's ground wire to this screw upon reattachment.
- Usually an electrical permit and services of a licensed electrician are required.
 - The maximum allowable voltage variation is ± 10 percent of the nameplate rating.
 - For optional drain pump (HS-5061) installation, refer to the instructions included with the pump.

F. Water Supply and Drain Connections

⚠ WARNING

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

NOTICE

- Normal operating water temperature must be within 45°F to 95°F (7°C to 35°C). Operation of the icemaker, for extended periods, outside of this normal temperature range may affect icemaker performance.
 - To prevent damage to the icemaker, do not operate the icemaker when the water supply is off, or if the pressure is below 10 PSIG. Do not run the icemaker until the proper water pressure is reached.
 - Connect to potable water supply only. Do not connect to a hot-water supply.
 - In areas where water damage is a concern, install in a contained area with a floor drain.
 - Water line installation to the icemaker is not warranted by Hoshizaki.
 - Water-hammer issues must be resolved by a qualified plumber before installing the icemaker. Water hammer can cause icemaker damage that may lead to water leakage or flooding.
 - If using the optional drain pump (HS-5061), test its operation every time the icemaker is cleaned and sanitized. See "IV.E. Optional Drain Pump HS-5061" for details. If the optional drain pump is not operating properly, water could back up and overflow, leading to costly water damage.
- 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 for recommendations.
 - Water supply inlet is 1/2" female pipe thread (FPT).

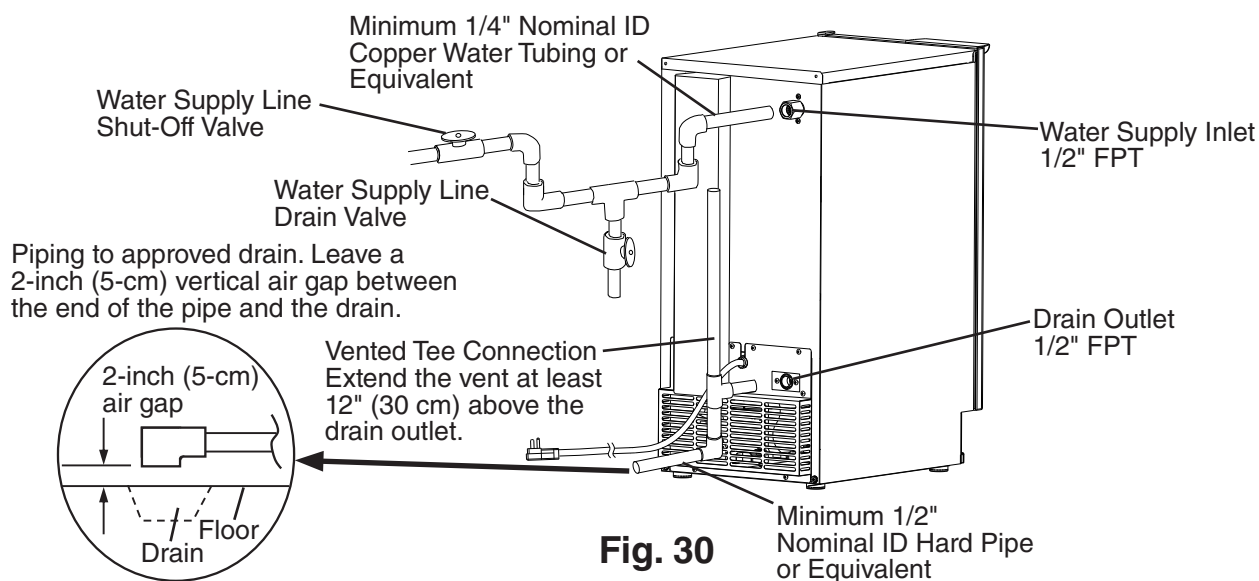


Fig. 30

- A water supply line shut-off valve and drain valve must be installed. A minimum of 1/4" nominal ID copper water tubing or equivalent is required for the water supply line. Be sure there is sufficient extra water supply line for the unit to be pulled out for service.
- 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.
- Drain outlet is 1/2" FPT. A minimum of 1/2" nominal ID hard pipe or equivalent is required for the drain line. Installing a smaller diameter drain line will reduce water flow and may lead to water leakage or flooding. Be sure there is sufficient extra drain line for the unit to be pulled out for service.
- Drain line should not be piped directly to the sewer system. An air gap of a minimum of 2 vertical inches (5 cm) must be between the end of the drain pipe from the icemaker and the floor drain.
- For gravity drain installation, drain must have 1/4" fall per foot (2 cm per 1 m) on horizontal runs to get good flow. A vented tee connection is also required for proper flow. Extend the vent at least 12" (30 cm) above the drain outlet.
- For optional drain pump (HS-5061) installation, refer to the instructions included with the pump.

G. Final Checklist

WARNING

CHOKING HAZARD: Ensure all components, fasteners, and thumbscrews are securely in place after installation. Make sure that none have fallen into the 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 95°F (7°C to 35°C) all year around?
- 3) Have the shipping carton, tape, and packing material been removed from the icemaker? Has the protective plastic film been removed from the panels?
- 4) Have all electrical and water connections been made? Do electrical and water connections meet all national, state, and local code and regulation requirements?
- 5) Has the power supply voltage been checked or tested against the nameplate rating? Is the power supply a properly grounded, independent 3-prong wall outlet?
- 6) 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?
- 7) Are all components, fasteners, and thumbscrews securely in place?
- 8) Has the end user been given this instruction manual, and instructed on how to operate the icemaker and the importance of the recommended periodic maintenance?
- 9) Has the end user been given the name and telephone number of an authorized service agent?
- 10) Has the warranty tag been filled out and forwarded to the factory for warranty registration?

III. Operating Instructions

A. Important Notes About Usage

WARNING
• Only qualified service technicians should install and service the icemaker. • Failure to install, operate, and maintain the icemaker in accordance with this manual will adversely affect safety, performance, component life, and warranty coverage. • To reduce the risk of electric shock, make sure the control switch is in the "OFF" position before plugging in or unplugging the icemaker. • To reduce the risk of electric shock, do not touch the control switch or plug with damp hands. • This icemaker must be maintained in accordance with the instruction manual and labels provided with the icemaker. Consult with your local Hoshizaki Certified Service Representative about maintenance service. • This icemaker must be cleaned and sanitized at least once a year. More frequent cleaning and sanitizing may be required in some water conditions. • Wash your hands before removing ice. Use the plastic scoop provided. • This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. • Children should be properly supervised around this appliance. • Do not climb, stand, or hang on the icemaker or icemaker door or allow children or animals to do so. Serious injury could occur or the icemaker could be damaged. • Be careful not to pinch fingers when opening and closing the door. Be careful when opening and closing the door when children are in the area. • Do not use combustible spray or place volatile or flammable substances near the icemaker. They might catch fire. • Keep the area around the icemaker clean. Dirt, dust, or insects in the icemaker could cause harm to individuals or damage to the icemaker.

NOTICE

- Protect the floor when moving the icemaker to prevent damage to the floor.
- If using the optional drain pump (HS-5061), test its operation every time the icemaker is cleaned and sanitized. See "IV.E. Optional Drain Pump HS-5061" for details. If the optional drain pump is not operating properly, water could back up and overflow, leading to costly water damage.
- To help ensure that the storage bin drain remains clear, follow the instructions in "IV.C. Storage Bin Drain" once every 3 months or as often as necessary for conditions. If the storage bin drain becomes clogged, water could build up in the bin and overflow, leading to costly water damage.
- If water collects in the bin and will not drain, turn off the icemaker and close the water supply line shut-off valve. Call for service.
- 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 "V. Preparing the Icemaker 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 icemaker.
- The storage bin is for ice use only. Do not store anything else in the storage bin.

B. Startup

⚠ WARNING

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

NOTICE

- If the icemaker is turned off, wait for at least 3 minutes before restarting the icemaker to prevent damage to the compressor.
- At startup, confirm that all internal and external connections are free of leaks.

- 1) Open the water supply line shut-off valve.
- 2) Make sure the control switch is in the "OFF" position. Plug the unit into the electrical outlet. **WARNING! To reduce the risk of electric shock, do not touch the control switch or plug with damp hands.** If you have to slide the unit back for a built-in installation, make sure you do not damage or pinch the water supply line, drain line, or power cord.
- 3) If required by sanitation code in your area, seal the perimeter where the machine touches the floor with approved caulk compound in a smooth and easily cleanable manner.

- 4) Move the control switch to the "ICE" position and allow the icemaker to operate for 2 minutes. This allows the water tank to fill.
- 5) Move the control switch to the "OFF" position.
- 6) Inside the storage bin, disconnect the suction tube by squeezing the tabs and pulling the tube clear. See Fig. 31. Allow the water tank to drain.
- 7) Reconnect the suction tube as illustrated. See Fig. 32. Make sure the tabs lock into place; a loose fitting may cause a water leak.

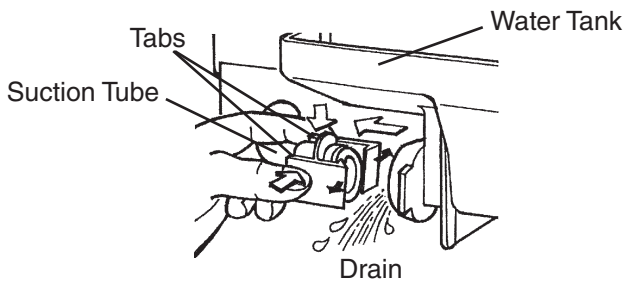


Fig. 31

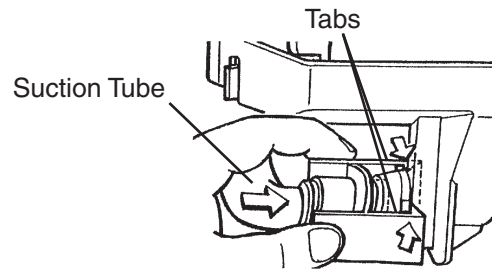


Fig. 32

- 8) Clean the storage bin liner, door liner, and door gasket using a neutral cleaner. Rinse thoroughly after cleaning.
- 9) Move the control switch to the "ICE" position to start the automatic icemaking process.
- 10) To confirm bin control operation, hold ice in contact with the bin control thermostat bulb. **NOTICE! If the icemaker does not stop within 10 seconds, the bin control thermostat must be adjusted. Installation at higher altitude locations are more likely to require adjustment.** See Fig. 33.

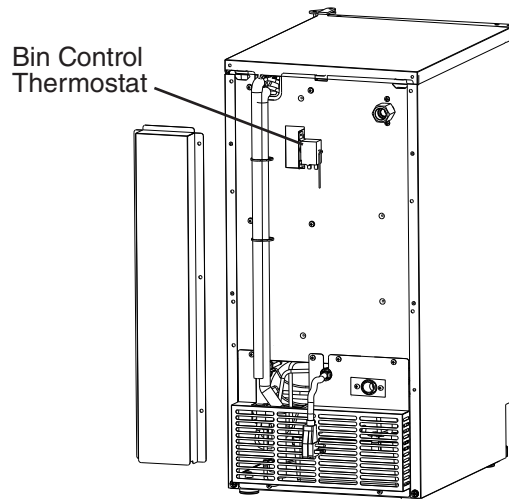


Fig. 33

IV. Maintenance

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

WARNING

- Only qualified service technicians should service this icemaker.
- Failure to install, operate, and maintain the icemaker in accordance with this manual will adversely affect safety, performance, component life, and warranty coverage.
- Move the control switch to the "OFF" position and unplug the icemaker from the electrical outlet before servicing.
- To reduce the risk of electric shock, do not touch the control switch or plug with damp hands.
- **CHOKING HAZARD:** Ensure all components, fasteners, and thumbscrews are securely in place after any maintenance is performed. Make sure that none have fallen into the storage bin.
- After service, make sure that there are no wires pinched between the panels and icemaker. Make sure you do not damage or pinch the water supply line, drain line, or power cord.

A. Maintenance Schedule

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

Maintenance Schedule		
Frequency	Area	Task
Weekly	Scoop	Clean the 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 like Zud or Bon Ami.
Every 3 Months	Storage Bin Drain	Maintain as outlined in "IV.C. Storage Bin Drain."
Yearly	Icemaker and Storage Bin	Clean and sanitize per the cleaning and sanitizing instructions provided in this manual. See "IV.B. Cleaning and Sanitizing Instructions."
	Optional Drain Pump (HS-5061)	Test as outlined in "IV.E. Optional Drain Pump HS-5061."
	Water Supply Inlet	Close the icemaker water supply line shut-off valve and drain the water system. Clean the water supply inlet screen.
	Condenser	Inspect. Clean if necessary. See "IV.D. Condenser."
	Water Hoses	Inspect the water hoses and clean/replace if necessary.

B. Cleaning and Sanitizing Instructions

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

⚠ WARNING

- To prevent injury to individuals and damage to the 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, be careful not to leave any solution in the icemaker.

1. Cleaning Solution

Dilute 5 fl. oz. (148 ml or 10 tbs) of Hoshizaki "Scale Away" with 1 gallon (3.8 l) of warm water. This is a minimum amount. Make more solution if necessary. **IMPORTANT! For safety and maximum effectiveness, use the solution immediately after dilution.**

2. Cleaning Procedure

- 1) Remove all ice from the evaporator and the storage bin.
Note: To remove cubes on the evaporator, move the control switch to the "OFF" position and then move it back to the "ICE" position after 3 minutes. The harvest cycle starts and the cubes will be removed from the evaporator.
- 2) Move the control switch to the "OFF" position.
- 3) Inside the storage bin, disconnect the suction tube by squeezing the tabs and pulling the tube clear. See Fig. 34. Allow the water tank to drain.
- 4) Reconnect the suction tube as illustrated. See Fig. 35. Make sure the tabs lock into place; a loose fitting may cause a water leak.
- 5) Slowly pour the cleaning solution into the water tank.

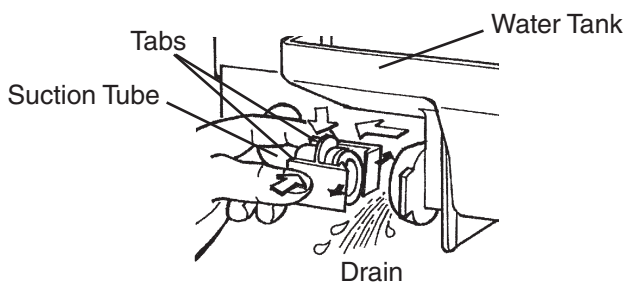


Fig. 34

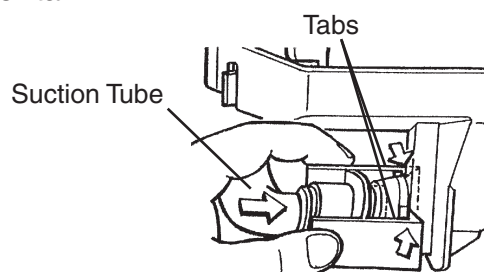


Fig. 35

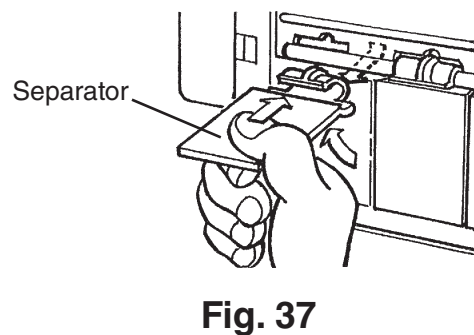
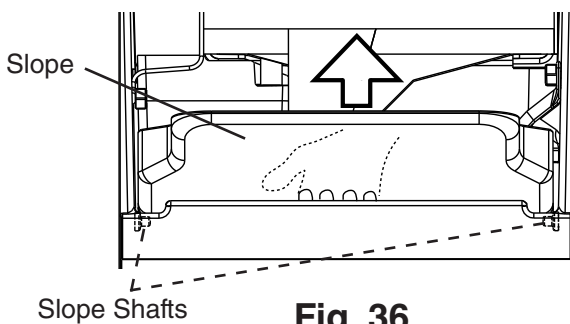
- 6) Move the control switch to the "WASH" position.
- 7) Allow the cleaning solution to circulate for 30 minutes, then move the control switch to the "OFF" position.
- 8) Disconnect the suction tube. Allow the water tank to drain, then reconnect the suction tube.
- 9) Move the control switch to the "ICE" position and allow the icemaker to operate for 2 minutes. This allows the water tank to fill with water.
- 10) Move the control switch to the "WASH" position.
- 11) Allow the water to circulate for 5 minutes, then move the control switch to the "OFF" position.
- 12) Disconnect the suction tube. Allow the water tank to drain, then reconnect the suction tube.
- 13) Repeat steps 9 through 12 three more times to rinse thoroughly.

3. Sanitizing Solution

Dilute 0.5 fl. oz. (14.8 ml or 1 tbs) of a 5.25% sodium hypochlorite solution (chlorine bleach) with 1 gallon (3.8 l) of warm water. This is a minimum amount. Make more solution if necessary. Using a chlorine test strip or other method, confirm that you have a concentration of about 200 ppm. **IMPORTANT! For safety and maximum effectiveness, use the solution immediately after dilution.**

4. Sanitizing Procedure

- 1) Make sure the control switch is in the "OFF" position and the storage bin is empty.
- 2) Remove the slope from the storage bin by carefully bending it in the center and releasing it from the 2 slope shafts. See Fig. 36.
- 3) Remove each separator by lifting it to the horizontal position and pushing it hard inward. See Fig. 37.



- 4) Disconnect the suction tube. Allow the water tank to drain.
- 5) Spread out the tabs to unlock the water tank, then slide it out. See Fig. 38.
- 6) Lift off the ice chute from the front frame pipe and then from the rear frame pipe. See Fig. 39.

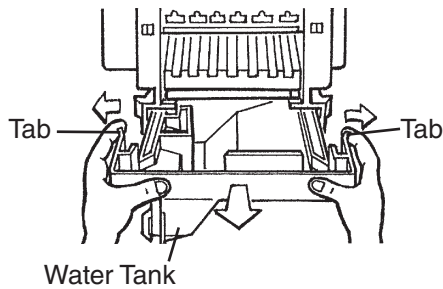


Fig. 38

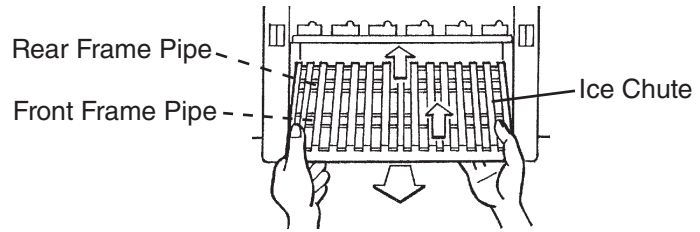


Fig. 39

- 7) Disconnect the discharge tube from the spray assembly, then slide out the spray assembly. See Fig. 40.
- 8) Remove the two caps. See Fig. 41.

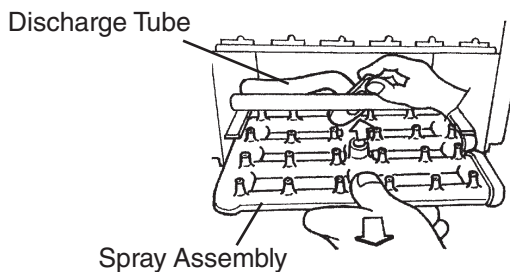


Fig. 40

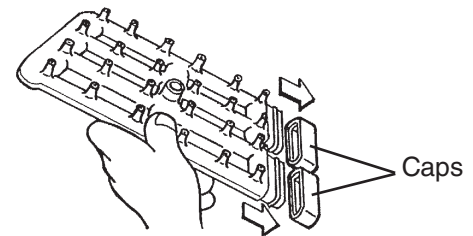


Fig. 41

- 9) Soak all of the removed parts and the scoop in the sanitizing solution for 10 minutes. If the spray assembly nozzles are clogged, clean them with a wire or a suitable brush.
- 10) Rinse the parts thoroughly with clean water.
- 11) Refit the 2 caps in their correct positions. Make sure the reducing pipe is in place in the center. See Fig. 42.
- 12) Slide in the spray assembly along the rails on the left and right brackets. See Fig. 43. Connect the discharge tube securely to the spray assembly; a loose fitting may cause a water leak.

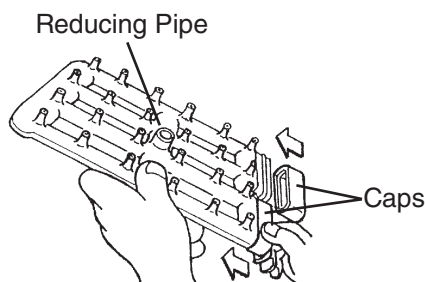


Fig. 42

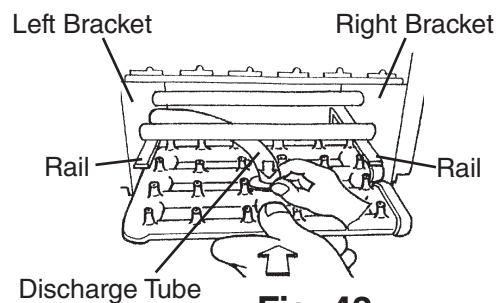


Fig. 43

13) Position and lock the ice chute onto the front and rear frame pipes by pushing the ice chute down until it clicks onto both frame pipes. See Fig. 44.

14) Slide in the water tank along the rails at the bottom of the left and right brackets until it locks into place. See Fig. 45.

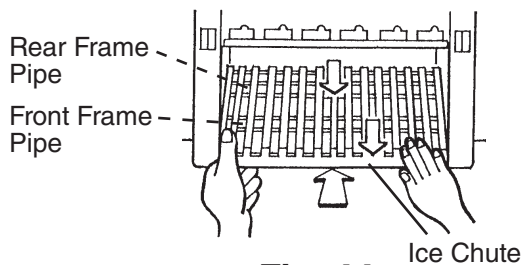


Fig. 44

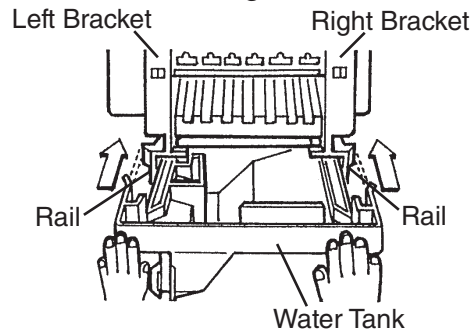


Fig. 45

15) Reconnect the suction tube.

16) Hook each separator onto the rail, then pull it hard towards you until it locks into place. See Fig. 46.

17) Replace the slope in its correct position. See Fig. 47.

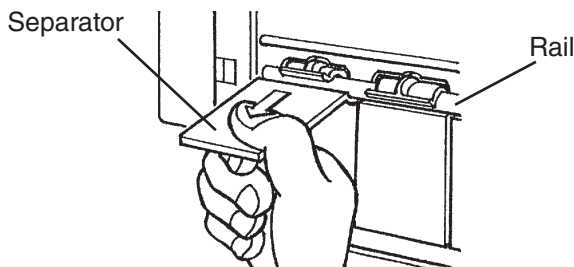


Fig. 46

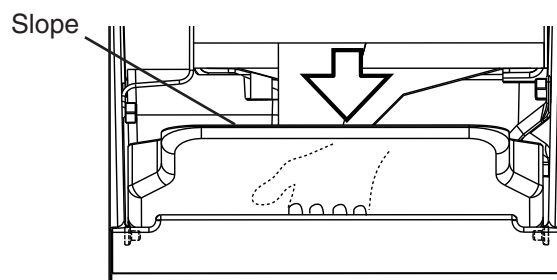


Fig. 47

18) Discard the sanitizing solution.

19) Mix a new batch of the sanitizing solution and slowly pour it into the water tank.

20) Move the control switch to the "WASH" position.

21) After circulating the sanitizing solution for 15 minutes, move the control switch to the "OFF" position.

22) Disconnect the suction tube. Allow the water tank to drain, then reconnect the suction tube.

23) Repeat steps 19 through 22 one time.

24) Move the control switch to the "ICE" position and allow the icemaker to operate for 2 minutes. This allows the water tank to fill with water.

25) Move the control switch to the "WASH" position.

26) Allow the water to circulate for 5 minutes, then move the control switch to the "OFF" position.

27) Disconnect the suction tube. Allow the water tank to drain, then reconnect the suction tube.

28) Repeat steps 24 through 27 two more times to rinse thoroughly.

- 29) Clean the storage bin liner, door liner, and door gasket with a neutral cleaner. Rinse thoroughly after cleaning.
- 30) Move the control switch to the "ICE" position to start the automatic icemaking process.

C. Storage Bin Drain

In some conditions, slime may build up inside the storage bin drain and prevent water from draining properly. To prevent this buildup, perform the following procedure once every 3 months or as often as necessary for conditions.

<i>NOTICE</i>

If the storage bin drain becomes clogged, water could build up in the bin and overflow, leading to costly water damage.

- 1) Move the control switch to the "OFF" position. **WARNING! To reduce the risk of electric shock, do not touch the control switch with damp hands.**
- 2) Remove all ice from the storage bin.
- 3) Mix a batch of sanitizing solution by diluting 1.25 fl. oz. (37 ml or 2.5 tbs) of a 5.25% sodium hypochlorite solution (chlorine bleach) with 2.5 gallons (9.5 l) of warm water. Using a chlorine test strip or other method, confirm that you have a concentration of about 200 ppm.
- 4) Slowly pour the sanitizing solution into the storage bin.
- 5) After all of the solution has drained, clean the storage bin liner with a neutral cleaner. Rinse thoroughly with clean water.
- 6) Move the control switch to the "ICE" position to start the automatic icemaking process.

D. Condenser

Check the condenser once a year, and clean if required by following the steps below. More frequent cleaning may be required depending on location.

⚠ WARNING

- Move the control switch to the "OFF" position and unplug the icemaker from the electrical outlet before cleaning the condenser.
- To reduce the risk of electric shock, do not touch the control switch or plug with damp hands.
- Condenser fins are sharp. Use care when cleaning.

- 1) Move the control switch to the "OFF" position and unplug the icemaker from the electrical outlet.
- 2) Remove the 2 screws securing the front panel, then remove the panel. See Fig. 48.
- 3) Remove the 2 screws securing the louver, then remove the louver.
- 4) Use a brush attachment on a vacuum cleaner to gently clean the condenser fins. Do not use too much force, otherwise the fins could be damaged.
- 5) Replace the louver and front panel in their correct positions. Ensure that the screws are securely in place.
- 6) Plug the icemaker back in. Move the control switch to the "ICE" position to start the automatic icemaking process.

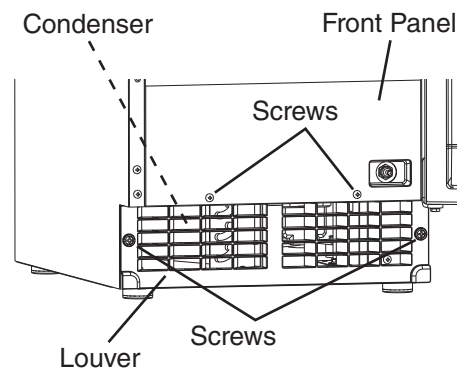


Fig. 48

E. Optional Drain Pump HS-5061

If the optional drain pump (HS-5061) is installed, test its operation at least once a year as outlined below. Note that the pump has power even when the control switch is in the "OFF" position.

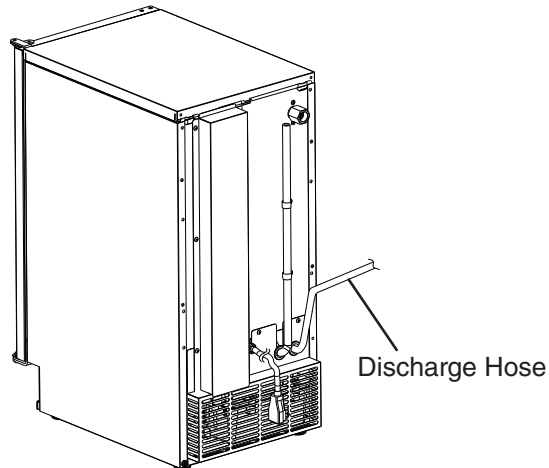
NOTICE

If the optional drain pump is not operating properly, it will adversely affect performance, component life, and warranty coverage and may result in costly water damage.

- 1) Move the control switch to the "OFF" position, then unplug the icemaker from the electrical outlet. **WARNING! To reduce the risk of electric shock, do not touch the control switch or plug with damp hands.**
- 2) Remove all ice from the storage bin.
- 3) Plug the icemaker back in.
- 4) Slowly pour 24 to 30 oz. (710 to 890 ml) of water over the storage bin drain hole in the storage bin.

- 5) If water pumps out properly and the drain pump then de-energizes, proceed to step 6. If water does not pump out properly and/or the drain pump does not de-energize, the appliance must be serviced by a qualified service technician before proceeding.
- 6) Move the control switch to the "ICE" position.
- 7) Pour another 24 to 30 oz. (710 to 890 ml) of water into the icemaker's ice storage bin, then completely restrict the discharge hose while the drain pump is operating. See Fig. 49. Pour more water into the icemaker's ice storage bin until the icemaker turns off. The drain pump will continue to operate. Check for leaks.
- 8) Remove the discharge hose restriction and allow the water to be pumped out normally. Power to the icemaker will be restored when the water in the drain pump returns to a normal level.
- 9) If the icemaker fails to turn off with the discharge hose restricted or the pump fails to pump out the water, the appliance must be serviced by a qualified service technician.

Fig. 49



V. Preparing the Icemaker for Periods of Non-Use

During extended periods of non-use, extended absences, or in sub-freezing temperatures, follow the instructions below. When the icemaker is not used for two or three days under normal conditions, it is sufficient to move the control switch to the "OFF" position.

⚠ WARNING

Only qualified service technicians should service this icemaker.
--

NOTICE

During extended periods of non-use, extended absences, or in sub-freezing temperatures, follow the instructions below to reduce the risk of costly water damage.
--

- 1) Close the water supply line shut-off valve, then open the water supply line drain valve. See Fig. 30.
- 2) Allow the line to drain by gravity.
- 3) Attach a compressed air or carbon dioxide supply to the water supply line drain.
- 4) Move the control switch to the "ICE" position.
- 5) Blow the water supply line out using the compressed air or carbon dioxide supply.
- 6) Close the water supply line drain valve.
- 7) Move the control switch to the "OFF" position.
- 8) Unplug the icemaker.
- 9) Remove all ice from the storage bin. Clean the storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.

VI. Disposal

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

HOSHIZAKI AMERICA, INC.

618 Hwy. 74 S., Peachtree City, GA 30269 USA	TEL (770) 487-2331	FAX (770) 487-3360	www.hoshizaki.com	1A2540-010
--	--------------------	--------------------	--	------------