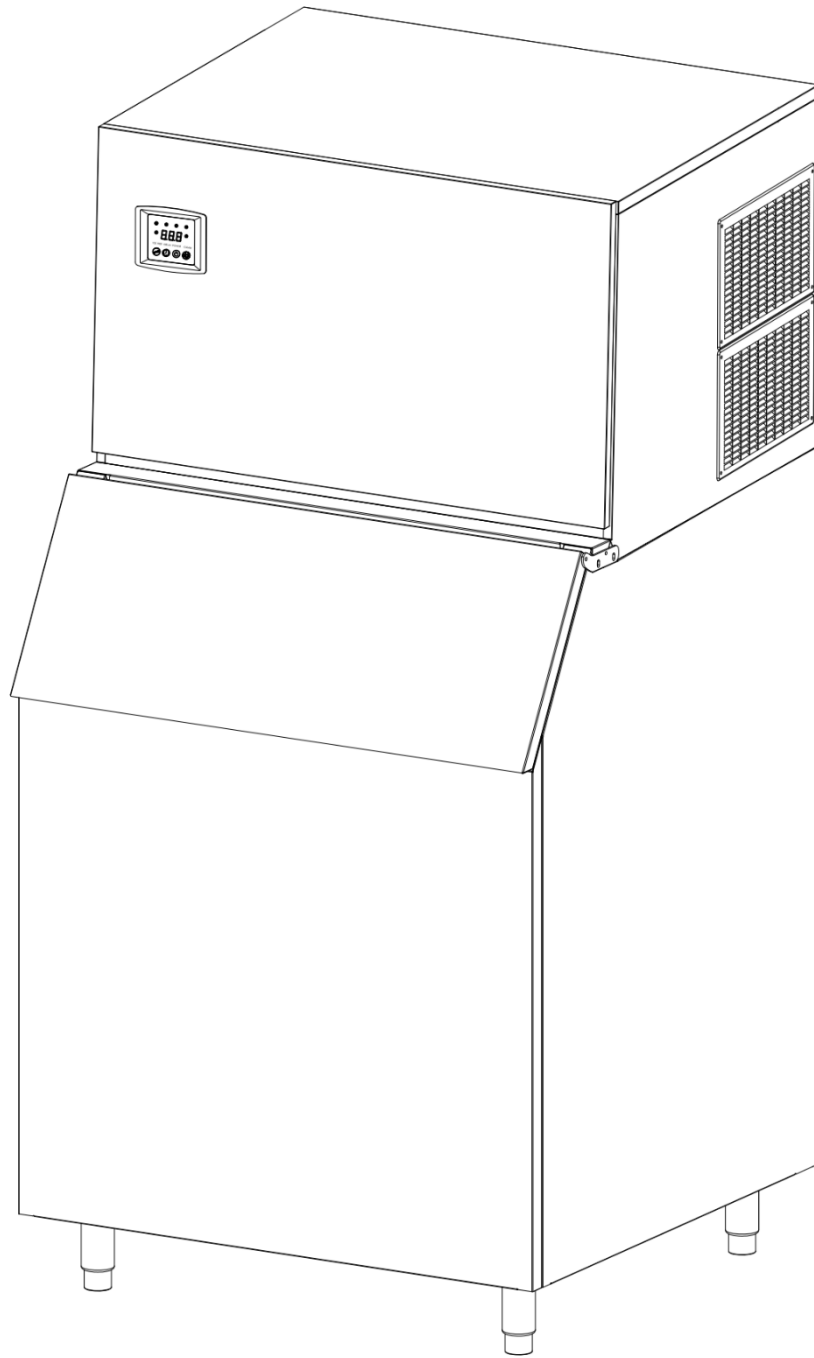


NORIOTA

INSTALLATION AND INSTRUCTION MANUAL



**ICE360, ICE370, ICE500, ICE600, ICE1000 SERIES
NI360, NI370, NI500, NI600, NI1000 SERIES**

COMMERCIAL MODULAR ICE MACHINES

QUICK START AND KEY OPERATING REMINDERS

Before operating this equipment, review the following key points to help ensure proper ice production, sanitation, reliability, and long equipment life.



NOTICE!

This guide highlights important safety and operating reminders only. It does not replace the full Installation and Instruction Manual. Read and follow the full manual before installing, operating, cleaning, or servicing this unit.


Important Safety Reminders


- Commercial foodservice use only. Do not spray, hose down, pressure wash, or steam clean the unit.
- Do not block the rear air intake, side air discharge areas, condenser air filter, or required clearances.
- Do not store items on top of the ice machine or inside the ice storage bin.
- Ice is a food-contact product. Use only clean ice scoops and sanitary handling practices.
- If the power cord, plug, wire leads, water line, drain line, controls, water curtain, or refrigeration tubing become damaged, discontinue use and contact **qualified service personnel**.

Before First Use

- Remove all packaging materials, tape, protective film, and shipping materials.
- Install ice machine only on a compatible ice storage bin and secure it using the rear mounting brackets.
- Confirm the ice machine and ice storage bin are level, stable, and properly supported.
- Confirm ice machine and ice storage bin drains are separately connected and slope downward.
- Flush water supply line before connection and confirm it is leak-free.
- Install the included sediment filter correctly.
- Confirm the water curtain moves freely and is not blocked.
- Allow ice machine to remain upright and unplugged for at least 24 hours if tilted, laid on its back, rear, side, or upside down, or transported non-upright. If kept upright continuously, wait at least 10 minutes before startup.

Startup and Ice Production

1. Turn on the water supply.
2. Connect the ice machine to the electrical supply matching the rating label.
3. Press **POWER**  to begin ice production.
4. First harvest may take longer than normal. Discard the first two batches of ice.

After a power outage or power interruption, the ice machine returns to standby mode and must be restarted using the **POWER**  button. Ice production capacity depends heavily on ambient temperature, water temperature, airflow, water quality, and installation conditions.

Ice Handling and Daily Operation

- Keep the door closed whenever possible.
- Store the ice scoop on the scoop holder when not in use. Do not use bare hands to remove ice.
- Remove ice regularly to maintain freshness and proper bin-full operation.
- Keep rear air intake, side air discharge areas, and condenser area clean and unobstructed.
- Clean, descale, and sanitize the unit regularly, especially in hard-water environments.

Normal Operating Characteristics

- Water filling, flowing, splashing, or draining
- Ice cracking or dropping during harvest
- Indicator lights, display messages, or fault codes during operation
- Warm air discharge from the sides
- Automatic shutdown when the storage bin becomes full and restart after enough ice is removed or melts from the storage bin

Need Help

For product support, manuals, or service assistance:



Website
www.noriota.ca



Phone
1-877-NORIOTA



Email
support@noriota.ca

Please have your model and serial number available when contacting support.

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INTRODUCTION

This manual provides installation, operation, cleaning, and maintenance instructions for NORIOTA commercial modular ice machines and compatible ice storage bins. These units are designed for professional use in commercial kitchens, restaurants, bars, cafés, hotels, convenience stores, break rooms, offices, commissaries, catering operations, institutional facilities, and similar foodservice environments. Proper installation, operation, water quality management, gravity drainage, airflow, condenser air filter cleaning, cleaning, sanitizing, and maintenance are essential for safe operation, consistent ice production, sanitary ice storage, energy efficiency, and long equipment life.

This manual applies to NORIOTA commercial modular ice machine models ICE360, ICE360H, ICE370, ICE370H, ICE500, ICE500H, ICE600, ICE600H, ICE1000, ICE1000H, NI360F, NI360H, NI370F, NI370H, NI500F, NI500H, NI600F, NI600H, NI1000F, NI1000H. Compatible NORIOTA ice storage bins referenced in this manual include ICEBIN310, ICEBIN470, ICEBIN580, NIB310, NIB470, and NIB580. Always refer to the unit rating label for exact technical information including electrical requirements, refrigerant type, refrigerant charge, model identification, and serial number.

NORIOTA commercial modular ice machines use an air-cooled refrigeration system, vertical evaporator, water distribution system, automatic freeze and harvest cycles, digital control display, and separate ice storage bin to produce and store slab-style full dice or half dice ice cubes. During ice production, water flows over the evaporator, freezes into a slab of connected cubes, releases during the harvest cycle, and falls into the storage bin below. Performance depends on ambient temperature, incoming water temperature, water quality, water pressure, airflow, condenser air filter condition, drainage, leveling, cleaning, ice size setting, maintenance, operator technique, and installation conditions.

Pay particular attention to electrical supply, potable water connection, gravity drainage, condenser airflow, condenser air filter cleaning, installation clearances, leveling, cleaning and sanitizing procedures, ice handling practices, flammable refrigerant safety, and operator training.

Important Information for Owners and Operators

Read this manual completely before installing or operating the equipment.

- Installation, electrical connection, water supply connection, drain connection, and servicing must comply with applicable local codes and regulations.
- This equipment is intended for commercial foodservice use only. It is not intended for household, residential, or other non-commercial use.
- This equipment is intended for indoor use in controlled commercial locations only.
- Improper installation, use, cleaning, sanitizing, or maintenance may result in injury, electrical shock, fire or explosion hazard, refrigerant exposure, water leakage, unsanitary ice, reduced ice production, poor ice quality, equipment damage, property damage, or unsafe operation.
- Do not operate if the power cord, plug, controls, refrigeration tubing, water lines, drain line, door, water curtain, condenser, fan, or electrical components appear damaged or are not functioning properly.
- Ice production depends on ambient temperature, incoming water temperature, water quality, water pressure, airflow, drainage, cleaning condition, and operating environment. Actual ice production may vary depending on installation and operating conditions.
- Maintain required installation clearances around the unit. Additional clearance may improve airflow, service access, and long-term performance consistency.
- Keep this manual readily accessible for operators and service personnel.

Following these guidelines helps ensure safe operation, sanitary ice production, consistent performance, and long equipment life. Failure to follow these instructions may result in unsafe conditions, equipment damage, water leakage, reduced ice production, poor ice quality, unsanitary ice, or excessive scale buildup.

Intended Use

NORIOTA commercial modular ice machines are designed to automatically produce ice for commercial foodservice and beverage applications when installed on a compatible ice storage bin. These units are intended for indoor commercial use in restaurants, bars, cafés, hotels, catering operations, institutional kitchens, convenience stores, offices, break rooms, hospitality environments, and similar commercial applications where sanitary ice production is required.

These units are designed to produce slab-style full dice or half dice ice cubes using a vertical evaporator system, automatic freeze and harvest cycles, and a compatible separate ice storage bin. Ice produced by the unit is

INTRODUCTION

intended for beverage service, food display, food holding, ingredient preparation, and other commercial foodservice applications requiring clean, food-safe ice.

This equipment is intended for operation by trained commercial personnel familiar with safe food handling practices, basic cleaning procedures, and routine commercial equipment operation.

This unit is not intended for:

- household or residential use
- outdoor installation
- marine or mobile applications
- laboratory or medical storage applications
- long-term frozen storage
- storage of food, beverages, chemicals, or other materials inside the ice storage bin
- use without a compatible ice storage bin or approved ice storage system
- use in environments with excessive airborne grease, corrosive chemicals, flammable vapors, or uncontrolled environmental conditions

The ice storage bin is designed for temporary storage of produced ice only and is not a freezer. Ice will gradually melt during normal operation, especially during periods of low usage, high ambient temperatures, high humidity, or frequent door opening.

Use of the unit outside its intended operation may result in reduced performance, excessive maintenance requirements, unsanitary ice conditions, water leakage, equipment damage, or unsafe operation.

Manual Scope and Updates

This manual provides installation, operation, cleaning, maintenance, and troubleshooting guidance for NORIOTA commercial modular ice machines and compatible NORIOTA ice storage bins. It does not provide sealed refrigeration-system repair, refrigerant recovery, electrical diagnostics, compressor replacement, refrigerant charging, or advanced service procedures.

NORIOTA reserves the right to update specifications, design features, components, materials, software, control systems, or instructions without notice as part of ongoing product improvement.

Always refer to the unit rating label for the most current electrical, refrigerant, and technical information for the specific unit being serviced or installed.

Compatible Ice Storage Bins

NORIOTA commercial modular ice machines must be installed on a compatible NORIOTA ice storage bin or approved ice storage system with adequate structural support, proper drainage, and correct installation clearances.

Use only compatible ice storage bins designed for the width and production capacity of the ice machine. Improper bin selection, unsupported installation, inadequate drainage, or improper alignment may result in unstable installation, poor ice transfer, reduced performance, water leakage, excessive ice melt, unsanitary conditions, or equipment damage.

All compatible NORIOTA ice storage bins require:

- separate gravity drain connection
- level installation
- adequate floor support for the fully loaded ice machine and bin
- proper airflow and installation clearances
- secure mounting and alignment with the ice machine head

The ice storage bin is designed for temporary sanitary storage of produced ice only and is not intended for long-term frozen storage.

INTRODUCTION

Compatible Ice Storage Bin Reference Chart

Ice Machine Model	Compatible Ice Storage Bin	Bin Width	Bin Storage Capacity
ICE360 / ICE360H	ICEBIN310	55.9 cm (22")	140.6 kg (310 lb)
ICE370 / ICE370H	ICEBIN470	76.2 cm (30")	213.2 kg (470 lb)
ICE370 / ICE370H	ICEBIN580	76.2 cm (30")	263.1 kg (580 lb)
ICE500 / ICE500H	ICEBIN470	76.2 cm (30")	213.2 kg (470 lb)
ICE500 / ICE500H	ICEBIN580	76.2 cm (30")	263.1 kg (580 lb)
ICE600 / ICE600H	ICEBIN470	76.2 cm (30")	213.2 kg (470 lb)
ICE600 / ICE600H	ICEBIN580	76.2 cm (30")	263.1 kg (580 lb)
ICE1000 / ICE1000H	ICEBIN470	76.2 cm (30")	213.2 kg (470 lb)
ICE1000 / ICE1000H	ICEBIN580	76.2 cm (30")	263.1 kg (580 lb)
NI360F / NI360H	NIB310	55.9 cm (22")	140.6 kg (310 lb)
NI370F / NI370H	NIB470	76.2 cm (30")	213.2 kg (470 lb)
NI370F / NI370H	NIB580	76.2 cm (30")	263.1 kg (580 lb)
NI500F / NI500H	NIB470	76.2 cm (30")	213.2 kg (470 lb)
NI500F / NI500H	NIB580	76.2 cm (30")	263.1 kg (580 lb)
NI600F / NI600H	NIB470	76.2 cm (30")	213.2 kg (470 lb)
NI600F / NI600H	NIB580	76.2 cm (30")	263.1 kg (580 lb)
NI1000F / NI1000H	NIB470	76.2 cm (30")	213.2 kg (470 lb)
NI1000F / NI1000H	NIB580	76.2 cm (30")	263.1 kg (580 lb)

Technical Information

Specification	ICE360 / ICE360H NI360F / NI360H	ICE370 / ICE370H NI370F / NI370H	ICE500 / ICE500H NI500F / NI500H	ICE600 / ICE600H NI600F / NI600H	ICE1000 / ICE1000H NI1000F / NI1000H
Electrical Supply	115 VAC 60 Hz				208-230 V 60 Hz
Rated Current (Ice Making / Harvest)	6.4 A / 6.8 A		10.3 A / 9.7 A	9.6 A / 10.5 A	7.0 A / 9.7 A
Refrigerant	R290, 130 g (4.59 oz)		R290, 220 g (7.76 oz)	R290, 250 g (8.82 oz)	R290, 280 g (9.88 oz)
Ambient Operating Range	10 °C to 38 °C 50 °F to 100 °F				
Water Temperature Operating Range	4 °C to 32 °C 40 °F to 90 °F				
Water Pressure Operating Range	0.1 MPa to 0.55 MPa 15 to 80 PSI				
Minimum Room Size	N/A	N/A	10.5 m ² (113 ft ²)	12 m ² (129 ft ²)	13.4 m ² (144 ft ²)
Ice Type	Full Dice or Half Dice Cube				
Ice Cube Size (Full Dice)	2.2 × 2.2 × 2.2 cm (7/8" × 7/8" × 7/8")				
Ice Cube Size (Half Dice)	1.3 × 2.2 × 2.2 cm (1/2" × 7/8" × 7/8")				
Ice Production Capacity*	163 kg/day (360 lb/day)	163 kg/day (360 lb/day)	225 kg/day (495 lb/day)	288 kg/day (635 lb/day)	451 kg/day (995 lb/day)

*Ice production capacity tested under ambient temperature 21 °C (70 °F) and inlet water temperature 10 °C (50 °F). Actual production will vary based on installation environment, water temperature, and operating conditions.

RECEIVING AND INSPECTING THE EQUIPMENT

Carefully inspect the equipment immediately upon delivery and before installation. Do not discard packaging materials until inspection is complete and the ice machine, ice storage bin, or combo shipment has been confirmed to be in acceptable condition. If shipping damage, concealed damage, missing components, water leakage, refrigeration tubing damage, electrical damage, bin damage, drain fitting damage, or other abnormal conditions are identified, report the issue promptly to the carrier, dealer, or NORIOTA support.

Important Handling Notes

- Keep the ice machine head and ice storage bin upright during transportation, handling, movement, and installation at all times. Do not lay the equipment on its side, back, or upside down.
- Do not tip, drop, strike, or subject the unit to excessive impact during unloading or movement.
- Use appropriate equipment and sufficient assistance when unloading, lifting, or moving the ice machine head or ice storage bin.
- Do not lift, pull, or move the ice machine head by the power cord, plug, control panel, water connections, drain connections, refrigeration tubing, condenser air filter, or airflow openings.
- Do not lift, pull, or move the ice storage bin by the bin door, gasket, drain connection, scoop holder, or internal liner.

Receiving Inspection

When the shipment arrives:

- Inspect exterior packaging, pallet, straps, wrap, and visible shipping materials before acceptance.
- Check for signs of impact, punctures, crushing, tipped handling, torn packaging, water exposure, broken foam, loose contents, damaged pallet, missing straps, or other evidence of mishandling in transit.
- If visible damage is found, photograph the packaging, pallet, shipping label, and damaged areas before unpacking whenever practical.
- If a delivery receipt, bill of lading, courier device, or delivery document is provided, note the damage in as much detail as possible before signing, if applicable.

Concealed Damage Inspection

Perform concealed damage inspection as soon as possible after delivery and unpacking. Freight carriers and delivery providers may limit the time allowed to report concealed shipping damage.

After unpacking:

- Inspect all panels, internal components, refrigeration lines, fittings, drain connections, electrical areas, bin door, bin gasket, bin liner, mounting surfaces, scoop holder, and included hardware carefully.
- Verify the unit sits level and stable without cabinet distortion and the door opens and closes normally.
- Verify there are no unusual odors, residue, loose components, broken fittings, or signs of refrigerant leakage and the condenser airflow openings are not crushed, blocked, or damaged.

If concealed damage is identified:

- Retain all packaging materials.
- Document the condition with photographs.
- Contact the carrier and equipment supplier promptly.
- Do not attempt refrigeration system repair or operate a damaged unit.

Reporting Damage

- **Visible damage:** Note the damage in as much detail as possible on the delivery receipt, bill of lading, courier device, or delivery document before signing whenever practical. Photograph exterior packaging, shipping label, pallet, and damaged areas before unpacking or discarding packaging materials. Report visible damage promptly after receipt.
- **Concealed damage:** Report concealed damage promptly after unpacking and inspection. Retain packaging materials and photograph the damaged unit, packaging, and any abnormal conditions.

Serial Number Information

The model number and serial number are located on the unit rating label. Always have the model number and serial number available when contacting NORIOTA, the seller, or an authorized service provider for parts, service, warranty support, technical assistance, or freight-related documentation.

SAFETY INFORMATION

Commercial modular ice machines operate with electrically powered refrigeration components, moving airflow, water circulation systems, drainage systems, ice harvest cycles, sharp metal components, water connections, digital controls, electrical components, and flammable refrigerant. Improper installation, operation, cleaning, descaling, sanitizing, maintenance, handling, or servicing may result in electrical shock, fire or explosion hazard, refrigerant exposure, water leakage, unsanitary ice, reduced ice production, equipment damage, property damage, or unsafe operating conditions. Read and follow all safety instructions in this manual before installing, operating, cleaning, descaling, sanitizing, moving, or servicing this equipment.

This section identifies important safety information throughout the manual. Additional warnings and cautions are provided in other sections where specific hazards exist.



This is the Safety Alert Symbol. This symbol alerts you to potential hazards that can injure or kill you and others. All safety messages will follow the Safety Alert Symbol and either the words “**DANGER**”, “**WARNING**” or “**CAUTION**”.



DANGER!

This symbol indicates a hazardous situation which will result in death or serious injury.



WARNING!

This symbol indicates a hazardous situation or unsafe practice which, if not avoided, could result in death or serious injury.



CAUTION!

This symbol indicates a potential hazard or unsafe condition that may result in injury, equipment damage, or property damage.



NOTICE!

This symbol indicates important information related to proper use, installation, or maintenance of the equipment that does not involve a personal injury hazard.

All safety messages identify the hazard, explain how to reduce the risk, and describe the possible consequences if instructions are not followed.



WARNING!

Electrical Shock Hazard

- Plug only into a properly grounded electrical outlet matching the voltage shown on the rating label.
- Do not immerse the unit, power cord, or plug in water or any other liquid.
- Do not spray, hose down, pressure clean, or steam clean the unit, control panel, power cord, plug, or electrical areas.
- Do not operate the unit with a damaged cord, damaged plug, damaged controls, damaged wiring, water intrusion, or signs of electrical malfunction.
- Disconnect power before cleaning, inspection, movement, maintenance, or service.



WARNING!

Flammable Refrigerant, Fire, and Explosion Hazard



- This unit contains R290 (propane) refrigerant, which is flammable.
- Do not puncture, cut, modify, kink, or damage refrigeration tubing or sealed system components.
- Do not use mechanical devices or sharp tools to remove ice or frost.
- Keep open flames, sparks, cigarettes, vapes, hot work, and other ignition sources away from unit.
- Do not store or use gasoline, aerosol cans, or other flammable vapors or liquids near this or any other electrical appliance.
- Refrigeration system service must be performed only by qualified service personnel trained to work with flammable refrigerants.
- Do not operate if refrigeration tubing is damaged or a refrigerant leak is suspected. Ventilate the area and contact qualified service personnel.
- Failure to follow these instructions may result in fire, explosion, or serious injury.

SAFETY INFORMATION



NOTICE!

- This equipment is intended for commercial foodservice use only. It is not intended for household, residential, or other non-commercial use.
- Installation, electrical connection, water supply connection, drain connection, and service must be performed by qualified personnel in accordance with this manual and all applicable local codes and regulations.
- Use of non-approved parts, improper installation, improper drainage, blocked airflow, unauthorized service, or operation outside the conditions described in this manual may result in unsafe conditions and may affect warranty coverage.

General Safety Instructions

- Read this manual completely before installing, operating, cleaning, descaling, sanitizing, moving, or servicing the equipment.
- Do not operate the ice machine if it has been damaged, dropped, improperly handled, exposed to excessive moisture, or shows signs of unsafe operation.
- Do not operate the ice machine with damaged refrigeration tubing, wiring, controls, water connections, drain connections, airflow openings, or if missing components.
- Keep all ventilation openings, condenser airflow areas, and service clearances unobstructed at all times.
- Do not block the rear air intake, side air discharge areas, condenser air filter, or required airflow clearances. Restricted airflow may reduce ice production, increase operating temperatures, and shorten component life.
- Connect only to a potable water supply within the operating conditions specified in this manual.
- Maintain proper gravity drainage at all times. Improper drainage may result in water leakage, unsanitary conditions, or equipment damage.
- Do not spray, hose down, pressure clean, or steam clean the equipment.
- Do not store gasoline, aerosol cans, or flammable vapors or liquids near the equipment.
- Do not store food, bottles, chemicals, packaging, tools, or non-ice items in the ice storage bin.
- Do not place or operate electrical appliances, accessories, heaters, tools, or non-approved devices inside the ice storage bin or ice-contact areas.
- Clean and sanitize the unit regularly following the procedures in this manual.
- Clean the condenser air filter regularly. A dirty air filter may restrict airflow, reduce ice production, increase operating temperatures, and shorten component life.
- Discard ice after startup, cleaning, shutdown, or any condition affecting sanitation.
- Keep the bin door closed during normal operation except when removing ice. Frequent or extended door opening may increase ice melting and affect storage conditions.
- Do not attempt refrigeration system repair, refrigerant handling, electrical diagnostics, control programming, or sealed-system service unless properly qualified.
- This equipment is not intended for use by children or untrained persons. Children should be supervised and must not play with, clean, or maintain the equipment.
- Do not stand, sit, climb, or place external loads on the ice machine or ice storage bin.
- Keep this manual accessible to operators and service personnel for future reference.

Electrical Safety



WARNING!

Improper electrical connection, damaged cords, lack of grounding, water intrusion, wet electrical components, damaged controls, incorrect power cord installation, or unauthorized electrical service may result in electrical shock, fire, equipment damage, serious injury, or death.

- Electrical supply must match the voltage, frequency, phase, and electrical requirements shown on the rating label.
- ICE1000 and NI1000 models are supplied with wire leads and a ground screw for qualified electrical connection. Electrical connection or power cord installation must be performed only by **qualified personnel** in accordance with the rating label and applicable electrical codes.
- Do not cut, remove, modify, or bypass the grounding prong on the power cord.
- If grounding, outlet condition, circuit capacity, or electrical-code compliance is uncertain, have the outlet and circuit inspected by a qualified electrician before use.
- Disconnect power before cleaning, sanitizing, inspection, maintenance, movement, or service.

SAFETY INFORMATION

- Do not use extension cords, adapters, power strips, damaged outlets, or ungrounded electrical connections.
- Do not connect or disconnect the power plug with wet hands.
- When unplugging the unit, grasp the plug firmly and pull straight out from the outlet. Do not unplug the unit by pulling on the power cord.
- If the power cord is damaged, it must be replaced only by qualified service personnel using an approved replacement cord or assembly.
- Ensure the unit is not resting on, pinching, bending sharply, or damaging the power cord during installation, movement, or operation.
- Keep electrical components and wiring areas dry during operation, cleaning, and maintenance.
- Allow several minutes after unplugging the unit or after a power interruption before reconnecting power to help protect the refrigeration system from short cycling.
- Electrical service, wiring repair, internal diagnostics, control replacement, electrical connection, and power cord replacement must be performed only by qualified service personnel.

Flammable Refrigerant Safety



WARNING!

Punctured refrigeration tubing, refrigerant leakage, ignition sources, unauthorized or improper refrigeration service, or use of non-approved refrigeration components may result in fire, explosion, equipment damage, serious injury, or death.

- This equipment contains R290 (propane) refrigerant, which is flammable.
- Do not use mechanical devices, sharp tools, or heat sources to remove ice or frost from refrigeration components.
- Do not store or use gasoline, aerosol cans, or other flammable vapors or liquids near the equipment.
- Do not install or operate the equipment next to continuously operating ignition sources, open flames, operating gas appliances, electric heaters, or areas where flammable vapors may be present.
- Install the ice machine only in a room that meets the minimum floor area requirement for the specific model, where applicable. Refer to the Technical Information section and rating label.
- If refrigerant leakage is suspected, avoid flames, sparks, and ignition sources, ventilate the area, and contact qualified service personnel immediately.

Service and Repair Restrictions

R290 is a flammable refrigerant that requires specialized handling procedures and qualified service personnel familiar with flammable refrigeration systems.

- Do not puncture, cut, braze, heat, modify, or damage refrigerant tubing or refrigeration components.
- Do not use open flames, ignition sources, or unapproved leak-detection methods near the refrigeration system.

Only qualified service personnel trained for flammable refrigerant systems should perform refrigerant recovery, leak detection, brazing or sealed-system repair, compressor replacement, refrigerant charging or evacuation, refrigeration-system disassembly or modification.

If refrigerant tubing becomes damaged or a refrigerant leak is suspected:

- Avoid flames, sparks, and ignition sources.
- Do not plug in, unplug, switch on, or switch off electrical devices near the suspected leak.
- Ventilate the area.
- Contact qualified service personnel immediately.

Water Supply, Drain, and Leak Prevention Safety



CAUTION!

Improper water supply connection, drain installation, water shutoff, blocked drainage, leaking fittings, or operation outside the specified water conditions may result in water leakage, unsanitary ice, slip hazard, equipment damage, property damage, or unsafe operating conditions.

- Connect only to a potable water supply.
- Water pressure and inlet water temperature must remain within specified limits.
- This equipment is designed for gravity drain operation.
- The ice machine and ice storage bin require separate drain lines.
- Ensure each drain line slopes downward continuously and is not kinked, pinched, restricted, frozen, blocked, or submerged.
- Do not route the drain lines upward or create low spots, restrictions, or configurations that prevent proper gravity drainage.

SAFETY INFORMATION

- Maintain an air gap at the drain termination where required by local plumbing code.
- Check all water supply and drain connections for leaks after installation, after moving the unit, after cleaning, and during routine maintenance.
- Do not operate the unit if water leakage, drain backup, standing water, cracked fittings, damaged tubing, or loose connections are observed.
- Keep the water supply open during operation. Do not shut off the water supply while the unit is operating.
- Follow the cleaning procedure exactly. Some cleaning procedures require the unit to remain connected to the water supply during the cleaning cycle.
- Shut off the water supply and disconnect power before service, extended shutdown, or if a leak is observed.
- Clean up spilled water immediately to reduce slip hazards.

Mechanical, Moving Part, and Surface Safety



CAUTION!

Contact with moving components, sharp metal surfaces, cold refrigeration surfaces, warm internal components, or falling ice may result in cuts, pinch injury, impact injury, burns, cold-contact injury, or unsafe operating conditions.

- Keep hands, tools, loose clothing, jewelry, and foreign objects away from moving parts during operation.
- Do not reach into the evaporator area, water curtain area, ice drop area, or bin opening during ice harvest operation.
- Fans, pumps, valves, and mechanical components may start automatically during normal operation.
- Do not remove panels, guards, covers, or service access components while the unit is operating.
- Condenser fins and sheet metal edges are sharp. Use caution during cleaning or inspection.
- Certain internal components may become warm during normal operation. Allow components to cool before cleaning, inspection, or maintenance.
- Certain internal refrigeration components and evaporator surfaces may become cold during operation. Avoid direct contact during or immediately after operation.
- Do not use sharp tools, scrapers, knives, or mechanical devices to remove ice or frost from internal components or ice storage bin.
- If ice is stuck on the evaporator, water curtain area, or ice drop area, turn the ice machine off and allow ice to release or melt naturally. Do not force ice from the evaporator.

Equipment Handling and Misuse



CAUTION!

Improper handling, unstable placement, unauthorized modification, missing components, misuse, or operation outside this manual may result in personal injury, water leakage, equipment damage, unsafe operation, or affected warranty coverage.

- Install the ice machine only on a compatible NORIOTA ice storage bin or approved ice storage system capable of supporting the combined weight of the equipment and stored ice.
- The ice machine head and ice storage bin are heavy and may tip or become unstable if not handled or installed correctly.
- Use appropriate equipment and sufficient personnel when unloading, moving, or positioning the unit.
- Do not lift, pull, push, or move the equipment by the bin door, control panel, panels, power cord, water connections, drain connections, water curtain, or internal components.
- Keep the ice machine head and ice storage bin upright during handling and movement. Do not lay the equipment on its side, back, or upside down.
- Do not modify the unit, plug, grounding system, refrigeration system, water system, drain system, controls, panels, guards, or safety devices.
- Do not remove panels, guards, covers, or safety devices except as instructed for operator-level cleaning or maintenance.
- Do not store food, bottles, chemicals, packaging, tools, or non-ice items in the ice storage bin.

Ice Handling and Food Safety



CAUTION!

Ice is a food-contact product. Improper ice handling, contaminated scoops, foreign objects in the ice bin, or unsanitary storage conditions may result in unsafe ice, contamination, illness risk, or equipment damage.

- Use only clean utensils or an approved ice scoop to remove ice.
- Do not use bare hands to remove ice from the bin.
- Store the ice scoop in a clean, sanitary location when not in use.

SAFETY INFORMATION

- Do not store bottles, cans, food, chemicals, tools, packaging, or non-ice items in the ice storage bin.
- Keep the ice storage bin door closed when ice is not being removed.
- Discard first two batches of ice or more as needed after installation, cleaning, sanitizing, extended shutdown, service, or suspected contamination.
- Clean and sanitize the ice storage bin as instructed in this manual.

Cleaning and Sanitation Safety



WARNING!

Failure to disconnect power, follow proper cleaning and sanitizing procedures, or use approved cleaning methods may result in electrical shock, unsanitary ice, chemical exposure, equipment damage, water leakage, or unsafe operating conditions.

- Disconnect power before manual cleaning, inspection, maintenance, or service unless a specific cleaning or sanitizing procedure in this manual instructs that power must remain connected for a controlled cleaning cycle.
- Allow moving components and refrigeration surfaces to stabilize before cleaning or inspection.
- Do not immerse unit, power cord, plug, wire leads, or electrical components in water or any other liquid.
- Do not spray, hose down, pressure clean, or steam clean the ice machine, ice storage bin, control panel, condenser area, power cord, plug, wire leads, or electrical components.
- Prevent water, cleaning chemicals, scale remover, sanitizer, grease, or debris from entering electrical areas, controls, wiring, fan areas, or airflow openings.
- Use only cleaning and sanitizing products suitable for commercial ice machine use.
- Use only nickel-safe ice machine cleaner suitable for nickel-plated evaporator systems.
- Do not use steel wool, metal scrapers, abrasive pads, highly corrosive cleaners, or chemicals not intended for commercial ice machines or stainless steel surfaces.
- Do not mix cleaning chemicals, sanitizers, chlorine products, or acids.
- Rinse and dry surfaces thoroughly after cleaning and sanitizing procedures whenever required.
- Do not leave cleaning solution, sanitizer, or chemical residue inside the water system or ice storage bin after cleaning. Complete all required rinse and drain steps before returning the unit to service.
- Always discard the first two batches of ice after installation, cleaning, sanitizing, recommissioning, extended shutdown, or any condition that may affect ice sanitation.
- If the equipment has been exposed to excessive water intrusion, discontinue use and contact qualified service personnel before reconnecting power.

Service and Repair Safety



WARNING!

Improper service, unauthorized modification, incorrect replacement parts, or unauthorized refrigeration system work may result in electrical shock, fire or explosion hazard, refrigerant leakage, equipment damage, unsafe operation, serious injury, or affected warranty coverage.

- Internal electrical service and refrigeration system service must be performed by qualified service personnel only.
- Do not attempt to repair, modify, bypass, or alter refrigeration components, controls, wiring, fan components, sensors, compressor components, sealed-system components, or safety devices.
- Disconnect power before inspection, maintenance, service, or replacement of components.
- Use only approved replacement parts suitable for the specific model being serviced.
- Do not operate the equipment with damaged wiring, damaged refrigeration tubing, loose electrical connections, damaged controls, damaged airflow openings, missing panels, damaged water curtain, water leakage, or abnormal operation.
- If abnormal odor, refrigerant leakage, smoke, sparking, repeated breaker tripping, fan failure, compressor overheating, electrical malfunction, or water intrusion occurs, discontinue use and contact qualified service personnel immediately.
- Do not modify the plug, wire leads, grounding system, electrical supply configuration, refrigeration system, controls, airflow system, or drain system.
- Refrigerant handling, recovery, sealed-system repair, charging, and diagnostics must be performed only by personnel trained to work with flammable R290 refrigerant systems.
- After service, cleaning, inspection, or maintenance, confirm all covers, guards, fasteners, panels, drain connections, and components are properly reinstalled before operation. Do not operate the equipment with panels, guards, covers, or required components removed.

Unit Disposal



CAUTION!

Improper disposal, handling, abandonment, or removal from service may result in electrical hazard, refrigerant hazard, cuts, entrapment hazard, environmental concerns, equipment damage, or regulatory non-compliance.

- Disconnect the equipment from the electrical supply before disposal, transport, storage, or removal from service.
- Do not leave discarded equipment accessible to children or unauthorized persons.
- Remove or secure the ice storage bin door if the equipment is being stored, discarded, or left unattended before disposal. Remove the bin door before final disposal whenever required by local regulations.
- Use caution when handling sheet metal panels, bin door components, condenser areas, refrigeration components, bin legs, and internal metal components during removal or disposal.
- Dispose of the unit in accordance with all applicable local, provincial, state, and federal regulations.

Refrigerant Disposal



WARNING!

Improper handling, venting, recovery, or disposal of flammable refrigerant may result in fire, explosion, environmental hazard, serious injury, or death.

- This ice machine contains a sealed refrigeration system using R290 refrigerant (propane).
- Do not puncture, cut, heat, or damage refrigeration tubing or sealed-system components during removal from service or disposal.
- Refrigerant recovery and sealed-system handling must be performed only by qualified service personnel trained to work with flammable refrigerants.
- Refrigerant, compressor oil, refrigeration components, and related materials must be recovered, recycled, or disposed of in accordance with applicable local, provincial, state, and federal regulations.
- Deliver discarded equipment to an authorized recycling, recovery, or collection facility in accordance with applicable regulations.

INSTALLATION

Proper installation is essential for safe operation, refrigeration performance, drainage, sanitation, ice production consistency, leak prevention, and long equipment life. Improper installation, unstable placement, blocked airflow, incorrect electrical supply, improper water or drain connection, incompatible ice storage bin use, or failure to maintain required clearances may result in electrical shock, fire or refrigerant hazard, water leakage, unsanitary ice, reduced ice production, equipment damage, property damage, or unsafe operation.

Installation, electrical connection, water supply connection, ice machine drain connection, ice storage bin drain connection, inspection, and service must be performed in accordance with this manual and all applicable local codes and regulations. Read this section before connecting power, turning on the water supply, or placing the equipment into service.

Installation Responsibility and Code Compliance



Improper electrical connection, incorrect voltage supply, lack of grounding, improper water or drain installation, damaged wiring, unstable placement, blocked airflow, or failure to follow applicable codes may result in serious injury, death, fire hazard, electrical shock, water leakage, equipment damage, or unsafe operating conditions.

- Installation, electrical connection, water supply connection, drain connection, and service must be performed in accordance with this manual and all applicable local codes and regulations.
- Electrical installation must comply with applicable electrical codes and authority requirements.
 - In Canada, electrical installation must comply with CSA C22.1, Canadian Electrical Code, and applicable local authority requirements.
 - In the United States, electrical installation must comply with ANSI/NFPA 70, National Electrical Code, and applicable local authority requirements.
- Water supply and drain installation must comply with applicable plumbing, sanitation, drainage, and backflow-prevention requirements.
- Refrigeration system service should comply with applicable refrigeration safety regulations including ANSI/ASHRAE 15, Safety Standard for Refrigeration Systems, where applicable.

Pre-Installation Checklist

Before installing or operating the unit, review and confirm the following:

Site and Placement Preparation

- Ambient room temperature remains within the operating range specified in this manual.
- Installation room meets the minimum floor area requirement for the specific model, where applicable.
- Rear air intake, side air discharge areas, condenser airflow areas, and required clearances will remain unobstructed during operation.
- Installation location allows access for cleaning, inspection, service, airflow, condenser air filter removal, water connections, and drain connections.
- Ice storage bin is compatible with the ice machine model being installed.
- Installation surface can support the combined weight of the ice machine, ice storage bin, water, and stored ice.
- Equipment is not installed adjacent to ovens, grills, fryers, steam equipment, or other major heat-producing equipment whenever possible.
- Ice machine drain and ice storage bin drain routing have been planned to prevent standing water, drain restrictions, or water overflow.
- Protect finished flooring before moving the equipment into final position.

Electrical Preparation

- Electrical supply matches the voltage and frequency shown on the unit rating label.
- Electrical circuit capacity is appropriate for the unit and complies with applicable electrical codes.
- Outlet, grounding, wiring method, and electrical supply have been inspected by a qualified electrician if required.
- Extension cords, adapters, power strips, and multi-outlet devices will not be used.
- Power cord can be routed safely without pinching, sharp bends, abrasion, or contact with hot surfaces.
- For NI1000 / ICE1000 models, qualified electrical connection or power cord installation has been planned according to the rating label and applicable electrical codes.

Water Supply and Drain Preparation

- Water pressure and inlet water temperature are within the operating range specified in this manual.
- Water shutoff valve is accessible after installation.

INSTALLATION

- Drain line routing will maintain continuous downward slope without kinks, loops, restrictions, or submerged drain termination.
- Drain system complies with applicable plumbing, sanitation, and backflow-prevention requirements.
- All required water supply fittings, tubing, drain tubing, and installation accessories are available.

Unit Inspection Before Installation

- All packaging materials, protective film, tape, and shipping restraints have been removed.
- Power cord or wire leads, water and drain connections, bin door, bin gasket, condenser air filter, and airflow openings are undamaged.
- Ice storage bin legs are properly installed and capable of leveling the bin.
- Ice machine and ice storage bin mounting surfaces are clean, stable, and free from packaging materials or foreign objects.
- Water curtain moves freely and is not blocked by packaging materials, tape, or foreign objects.
- User manual and required documentation are available to operators and installers.

Before Initial Startup

- Ice machine has remained upright during transport and positioning. If the ice machine has been tilted, laid on its back, side, or upside down, or transported non-upright, allow it to stand upright for at least 24 hours before connecting power.
- Ice storage bin is level and stable in final operating position.
- Ice machine is properly aligned and secured on the compatible ice storage bin.
- Water supply has been turned on before startup.
- Installation area is clean and free from combustible materials and installation debris.
- Operators have reviewed the installation, operation, cleaning, and safety instructions in this manual.

Compressor Settling Time



If the ice machine was tilted excessively, laid on its side, back, or upside down, or transported in a non-upright position, allow the ice machine to remain upright and disconnected from power for at least 24 hours before operating. If the ice machine remained upright during transport and positioning, allow a minimum of 10 minutes before connecting power or starting operation.

Unpacking and Packaging Removal



Failure to remove packaging materials, shipping restraints, or protective coverings may result in blocked airflow, abnormal operation, water leakage, unsanitary ice, equipment damage, or unsafe operating conditions.

Carefully remove all packaging materials, tape, protective film, shipping supports, and accessories before installation or operation. Failure to remove packaging materials, shipping restraints, or protective coverings may restrict airflow, interfere with operation, damage components, or create unsafe operating conditions.

- Inspect the ice machine, ice storage bin, and packaging for visible or concealed shipping damage before installation.
- Remove all exterior and interior packaging materials, protective film, tape, foam, cardboard, plastic ties, and shipping restraints before connecting power or water.
- Remove all accessories, documentation, bin legs, ice scoop, scoop holder, gasket material, mounting hardware, and packaged components from the ice machine or ice storage bin before operation.
- Do not remove the rating label, serial number label, warning labels, permanent instruction labels, or certification labels from the equipment.
- Inspect the evaporator area, water curtain area, ice drop area, drain area, condenser air filter, airflow openings, ice storage bin interior, bin liner, bin drain, and bin door area for loose packaging materials or debris before startup.
- Clean the ice storage bin interior and accessible food-contact surfaces before first use following the cleaning instructions in this manual.
- Do not use sharp tools, knives, abrasive pads, flammable liquids, or aggressive chemicals to remove packaging materials or adhesive residue.
- If adhesive residue remains after film or tape removal, use a soft cloth and a cleaner suitable for stainless steel surfaces.
- Confirm all panels, bin door, drain lines, water lines, and mounting hardware are properly installed.

Location and Placement Requirements



Improper installation location, unstable placement, blocked airflow, excessive heat exposure, outdoor installation, or operation outside recommended environmental conditions may result in reduced ice production, water leakage, excessive melting, refrigeration system stress, equipment damage, or unsafe operating conditions.


INSTALLATION

- This unit is intended for indoor commercial use only.
- Install the unit in a clean, dry, well-ventilated location protected from rain, direct weather exposure, water spray, standing water, excessive humidity, freezing conditions, and outdoor environments.
- Do not store, install, or operate the unit in a location with continuously operating ignition sources, open flames, operating gas equipment, electric heaters, or areas where flammable vapors may be present. This unit contains R290 refrigerant, which may not contain an odor that reliably indicates a leak.
- Install the ice storage bin on a stable, level surface capable of supporting the combined weight of the ice machine, ice storage bin, water, and stored ice during operation.
- Ambient room temperature must remain within the operating range specified in this manual.

Requirement	Specification
Ambient operating range	10 °C to 38 °C (50 °F to 100 °F)

- Do not install the unit adjacent to ovens, grills, fryers, steam equipment, dishwashers, or other major heat-producing equipment whenever possible.
- Do not install the unit in direct sunlight or in locations exposed to excessive radiant heat.
- Ensure the installation location provides adequate ventilation and required airflow clearances for proper condenser cooling and service access.
- Keep the rear air intake, side air discharge areas, condenser air filter, and condenser airflow openings unobstructed at all times.
- Allow sufficient access for cleaning, inspection, condenser air filter removal, drain, water, and electrical connections, and service.
- Installation location should allow access for cleaning, inspection, condenser air filter removal, and service when needed.
- Ensure the power plug, water shutoff valve, and drain connections remain accessible after installation.
- Do not install the equipment in locations where water leakage or drain overflow could create slip hazards or property damage.

Clearance and Ventilation Requirements



NOTICE! Blocked airflow, restricted ventilation, or excessive ambient temperatures may result in reduced ice production, excessive ice melting, longer run times, refrigeration system stress, compressor damage, or shortened equipment life.

Proper airflow is essential for normal refrigeration system operation, ice production capacity, energy efficiency, and long equipment life. Restricted airflow may reduce ice production, increase operating temperatures and energy usage, shorten component life, or result in abnormal operation.

Minimum Clearance Requirements

- **Rear:** 150 mm (6 in) minimum
- **Sides:** 150 mm (6 in) minimum
- **Top:** 25 mm (1 in) minimum
- **Front:** allow sufficient access for cleaning, inspection, operation, and service

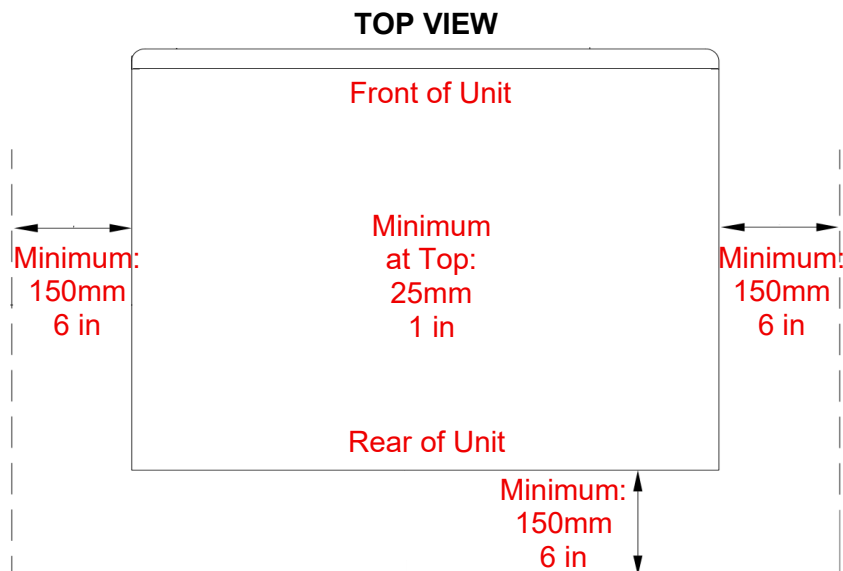


Figure A – Minimum Clearance Requirement Diagram

INSTALLATION

The ice machine is designed with rear air intake and side air discharge. The required rear and side clearances must remain open and unobstructed during operation. Additional clearance may improve airflow, service access, production consistency, and long-term performance.

- Do not block, cover, or restrict the rear air intake, side air discharge areas, condenser air filter, or condenser airflow openings.
- Do not store boxes, packaging, towels, liners, filters, or other materials against airflow openings or condenser areas.
- Do not install the equipment in tightly enclosed spaces with inadequate ventilation.
- Keep the surrounding installation area clean and free from dust, grease, lint, flour, and airborne debris that may restrict condenser airflow.
- Higher ambient temperatures, poor ventilation, and restricted airflow may increase cleaning frequency requirements and reduce overall performance.
- An air filter is supplied for installation on the condenser air intake area. Use of the air filter is strongly recommended in environments with airborne grease, flour, dust, lint, or other contaminants.
 - The air filter helps reduce debris accumulation on the condenser but requires regular cleaning and maintenance.
 - A dirty or restricted air filter may reduce airflow, increase operating temperatures, reduce ice production, increase energy usage, and shorten component life.
 - Use of the air filter may slightly reduce maximum ice production capacity compared to operation without the filter installed.
 - Keep the air filter properly installed and clean during normal operation.
- Allow sufficient space for inspection, cleaning, condenser air filter removal, and service when necessary.

Installing the Ice Machine on an Ice Storage Bin

Improper bin installation, unstable placement, incompatible equipment, incorrect mounting, improper leveling, or failure to secure the ice machine properly may result in water leakage, vibration, abnormal operation, excessive noise, reduced ice production, unsafe operation, or equipment damage.

Install the ice machine only on a compatible NORIOTA ice storage bin or approved ice storage system capable of supporting the combined weight of the ice machine, stored ice, and water during operation. Refer to the compatibility chart in this manual before installation. Before mounting the ice machine:

- Verify the installation location meets all clearance, ventilation, drainage, electrical, and structural support requirements.
- Confirm the ice storage bin is compatible with the ice machine model being installed.
- Confirm all required bin legs are installed and the bin is level, stable, and fully supported.
- Confirm the rear connecting brackets are present on the upper rear edge of the ice storage bin.
- Ensure top of the ice storage bin is clean and free from packaging materials, tape, hardware, or debris.
- Inspect the ice machine bottom surface, bin top, bin gasket area, and mounting surfaces for shipping damage, loose components, or foreign material.

Installation Procedure:

1. Position the compatible ice storage bin in the final installation location.
2. Install the bin legs if not already installed.
3. Level the ice storage bin front-to-back and side-to-side by rotating the adjustable bin feet.
4. Confirm the bin is on a firm, level surface, all legs are fully supporting the bin, and bin does not rock.
5. Confirm the bin drain connection and drain routing will remain accessible after ice machine is installed.
6. With appropriate lifting equipment and sufficient personnel, lift the ice machine straight up and position it above the ice storage bin.
7. Ensure the power cord or electrical wiring is routed safely and will not become pinched, crushed, stretched, or damaged when lowering or positioning the ice machine on the bin.
8. Carefully lower the ice machine onto the bin. Do not drop, drag, or force the ice machine into position.

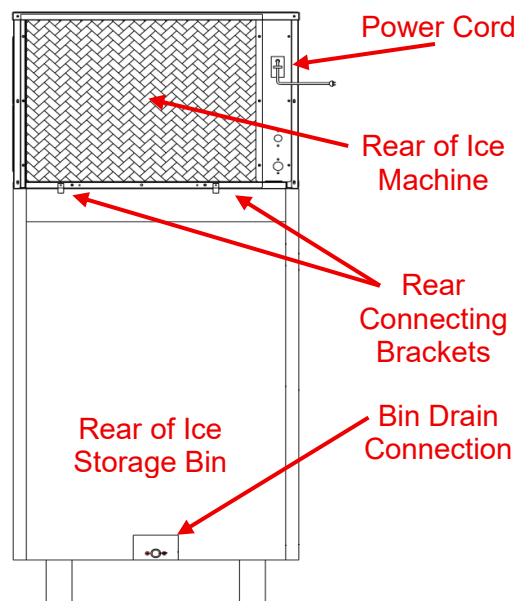


Figure B - Ice Machine Mounted on Compatible Ice Storage Bin

INSTALLATION

9. Align the sides and rear of the ice machine with the sides and rear of the ice storage bin.
10. Confirm the ice drop opening aligns correctly with the bin opening.
11. Confirm the ice machine sits fully supported on the bin top and does not rock or overhang improperly.
12. Turn the two connecting brackets attached to the upper rear edge of the ice storage bin upward 180°.
13. Use the supplied screws to secure the connecting brackets to the ice machine.
14. Confirm the ice machine is securely mounted and cannot shift, rock, or move during operation.
15. Verify the water curtain moves freely and is not blocked by the bin, mounting hardware, packaging material, or misalignment.
16. Confirm the bin door opens and closes normally.
17. Confirm all panels, covers, and removable components are properly installed before startup.
18. Complete water supply, drain, and electrical connections only after the ice machine is properly positioned and secured on the bin.



NOTICE!

Proper leveling is critical. If ice storage bin is not level or ice machine is not properly seated on the bin, water may not flow properly across the evaporator, ice production may be reduced, drainage may be affected, and operation may become noisy.

After installation:

- Verify the complete ice machine and bin assembly remains level and stable.
- Verify the ice machine and bin mating surfaces are seated properly with no visible gaps or misalignment.
- Verify the ice machine drain and ice storage bin drain each maintain continuous downward slope.
- Verify airflow openings and required clearances remain unobstructed.
- Inspect all mounting areas, drain connections, and surrounding surfaces for signs of stress, instability, leakage, or improper alignment before startup.

Electrical Supply Requirements



WARNING!

Improper electrical supply, incorrect voltage, inadequate grounding, damaged wiring, overloaded circuits, incorrect power cord installation, or failure to follow electrical requirements may result in electrical shock, fire hazard, equipment damage, serious injury, unsafe operation, or death.

- Verify the electrical supply matches the voltage, frequency, and electrical requirements shown on the rating label before connecting power.
 - The rating label on the unit overrides general electrical information in this manual.
- This equipment requires a properly grounded electrical supply.
- Electrical installation must comply with all applicable electrical codes and authority requirements.
 - In the United States, electrical installation must comply with ANSI/NFPA 70, National Electrical Code, and applicable local authority requirements.
 - In Canada, electrical installation must comply with CSA C22.1, Canadian Electrical Code, and applicable local authority requirements.
- A dedicated electrical circuit serving only the ice machine is recommended.
- Use an outlet that cannot be turned off by a wall switch, pull chain, timer, or power-control device.
- Do not use extension cords, adapters, power strips, multi-outlet devices, damaged outlets, or ungrounded electrical connections.
- Do not connect the ice machine to an incorrect voltage supply or improperly sized electrical circuit.
- The electrical circuit, fuse, or circuit breaker must be properly sized for the ice machine model according to the rating label and applicable electrical codes.
- If grounding, outlet condition, circuit capacity, wiring method, or electrical-code compliance is uncertain, have the electrical supply inspected by a qualified electrician before operation.
- Ensure the power cord, wire leads, or electrical wiring are routed safely and are not pinched, crushed, sharply bent, stretched, exposed to sharp edges, exposed to vibration damage, or damaged during installation or operation.
- Do not connect or disconnect the power plug with wet hands.
- Allow several minutes after disconnecting power or after a power interruption before restarting to help protect the refrigeration system from short cycling.
- Use of GFI/GFCI protection may be required by local code. Where required, GFI/GFCI protection must be selected and installed by a qualified electrician. Some GFI/GFCI devices may nuisance trip with commercial refrigeration equipment. Do not bypass required electrical protection devices.
- Internal electrical service, wiring repair, controller replacement, refrigeration system service, component replacement, electrical connection, and power cord replacement must be performed only by qualified service personnel.

INSTALLATION

115 V Models

ICE360, ICE360H, ICE370, ICE370H, ICE500, ICE500H, ICE600, ICE600H, NI360F, NI360H, NI370F, NI370H, NI500F, NI500H, NI600F, and NI600H are 115 VAC / 60 Hz models. Always refer to the rating label on the unit.

- Plug cord-connected 115 V models only into a properly grounded 3-prong electrical outlet matching the rating label.
- Do not remove, modify, or bypass the grounding prong.
- The power plug must remain accessible after installation so the ice machine can be disconnected from power when required.
- When unplugging the ice machine, grasp the plug firmly and pull straight out from the outlet. Do not unplug the ice machine by pulling on the power cord.
- If the power cord or plug is damaged, discontinue use and contact qualified service personnel.

208-230 V Models

ICE1000, ICE1000H, NI1000F, and NI1000H are 208-230 VAC / 60 Hz models.

These models are supplied with wire leads and a ground screw. A power supply cord is not included. Electrical connection or power cord installation must be performed only by qualified personnel in accordance with the rating label, this manual, and applicable electrical codes.

Power Supply Cord Installation for 208-230 V Models:

1. Disconnect power before beginning electrical connection.
2. Remove the two screws securing the access cover and remove the access cover.
3. Locate the two power leads inside the electrical access area.
4. Feed a properly rated power supply cord through the access cover opening.
5. Connect the power supply cord conductors to the two power leads.
6. Connect the ground conductor securely to the grounding screw.
7. Ensure all electrical connectors are properly insulated.
8. Reinstall the access cover.
9. Install the strain relief bracket supplied with the unit and secure the power supply cord below the bracket.
10. Confirm the power supply cord is not exposed to wear, corrosion, excessive pressure, vibration, sharp edges, heat, moisture, or other adverse conditions.
11. Connect the opposite end of the power supply cord only to an electrical supply that complies with the rating label and applicable electrical codes.
12. Do not operate the ice machine until the electrical connection, grounding, strain relief, access cover, and cord routing have been inspected and confirmed by qualified personnel.

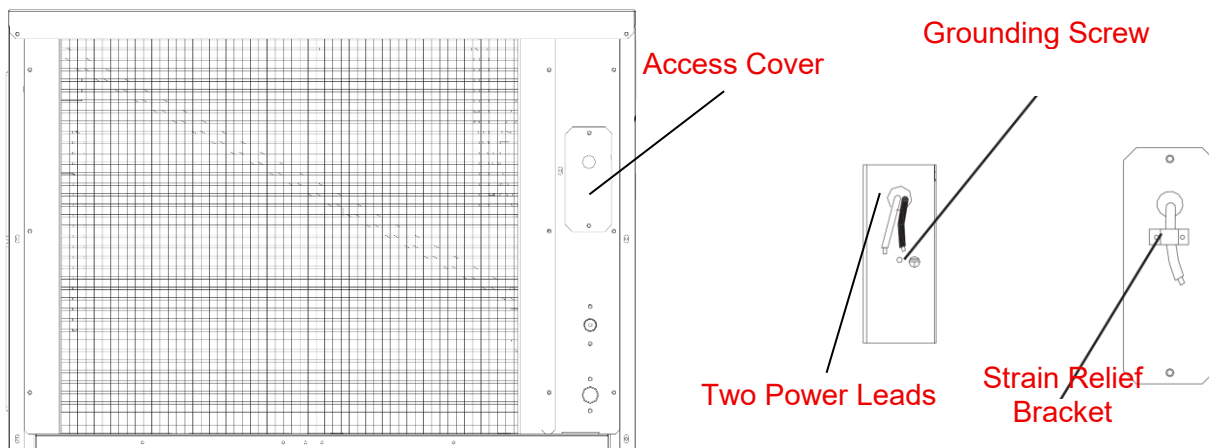


Figure C - Power Supply Cord Connection for 208-230 V Models

Water Supply Requirements



CAUTION!

Improper water supply installation, damaged tubing, leaking fittings, excessive water pressure, restricted flow, or operation outside recommended water conditions may result in water leakage, reduced ice production, poor ice quality, excessive scale buildup, equipment damage, or unsafe operating conditions.

- Connect only to a potable cold-water supply.
- Water supply installation must comply with applicable plumbing, sanitation, drainage, and backflow-prevention requirements.
- Water pressure and inlet water temperature must remain within operating range specified in this manual.
- The water supply should include an accessible shutoff valve near the installation location.
- This ice machine is designed for connection to a standard 1/4 in OD water supply tube.

INSTALLATION

- Flush the water line before connecting it to the unit to remove debris that could clog internal water components.
- Inspect all tubing, fittings, valves, and water connections for damage before installation.
- Ensure all water connections are secure before turning on the water supply.
- Turn on the water supply and inspect all fittings and tubing carefully for leaks before operating the unit.
- Reinspect all water connections after final positioning and during initial operation.
- Do not kink, sharply bend, crush, stretch, or damage water supply tubing during installation or operation.
- Keep the water supply turned on during operation. Do not shut off the water supply while the unit is operating.
- Shut off the water supply before extended shutdown, service, relocation, or if leakage is observed.
- Water supply conditions outside the recommended operating range may reduce ice production, affect ice quality, increase scale buildup, or affect normal operation.

Operating Water Conditions

Requirement	Specification
Water Supply	Potable cold water
Water Pressure	0.1 MPa to 0.55 MPa (15 to 80 PSI)*
Water Temperature	4 °C to 32 °C (40 °F to 90 °F)
Water Connection	1/4 in OD water tubing

*NOTE: Incoming water pressure above 0.55 MPa (80 PSI) requires installation of a suitable water pressure regulator before the unit and filtration system.

Water Pressure and Flow

Proper water pressure and flow are required for normal fill, freeze, harvest, and cleaning operation. Water supply pressure must remain within the operating range specified above.

- Low water pressure or restricted flow may cause slow fill times, reduced ice production, incomplete or irregular cube formation, longer freeze cycles, or lack-of-water fault notifications.
- Excessive water pressure above 0.55 MPa (80 PSI) may cause internal leakage, valve stress, fitting leaks, abnormal water flow, or premature wear of water-system components
- Flush the water line before connection and inspect tubing, fittings, shutoff valves, and the included sediment filter for restrictions.

If water pressure is outside specification, unstable, or unknown, consult a **qualified installer** or **plumber** before operating the unit.

Water Treatment Cautions

Softened water may result in white, soft, or mushy ice cubes that stick together. Deionized water is not recommended because it may negatively affect ice formation and normal system operation.

Reverse osmosis systems may reduce water pressure below the minimum pressure required for proper ice machine operation. If an RO system is used, confirm that water pressure and flow remain within the specified operating range at the ice machine inlet.

Included Sediment Filter and Water Filtration



NOTICE!

The included sediment filter is a sediment filter only. It is not an anti-scale filter and does not control water hardness, dissolved mineral content, or scale formation. For best ice machine performance, a commercial ice-machine-rated filtration system with scale inhibition is strongly recommended, especially in areas with hard water, high mineral content, taste or odor issues, or variable water quality.

This unit includes an external PP sediment filter for installation in the incoming water line. The sediment filter helps reduce incoming dirt, rust, and particulate matter before water enters the unit.

Included Sediment Filter Specifications

Filter type	PP sediment filter
Housing material	PP (polypropylene)
Rated flow rate	64 L/min (17 gal/min)
Water temperature range	4.5 °C to 37.7 °C (40 °F to 100 °F)
Water pressure range	0.1 MPa to 0.55 MPa (15 to 80 PSI)

Sediment Filter Installation

- The sediment filter should be used only with potable cold water.
- The sediment filter should be installed by a professional.
- Install the sediment filter in the incoming water supply line before the water connects to the unit.
- Use the included quick-connect fittings and water tubing components supplied with the unit.
- Confirm the water flow direction matches the In / Out markings shown on the filter label.
- Flush the water supply line before installing the filter.
- After installing the filter, turn on the water supply slowly and check all fittings for leaks.
- Confirm tubing is fully seated in each quick-connect fitting.
- Do not kink, pinch, sharply bend, or strain the tubing.
- Do not install the filter where it may be exposed to freezing, heat, grease, impact, or physical damage.
- Position the filter where it can be accessed for inspection and replacement.
- If the water pressure is higher than 0.55 MPa (80 PSI), install a pressure-reducing valve before the filter and ice machine.

Filter Replacement

The included sediment filter should be replaced every 6 months under normal conditions. Replacement frequency may vary depending on water quality, sediment level, usage, and local conditions. Replace the filter sooner if:

- Water flow appears reduced
- Ice production slows
- Sediment or discoloration is visible
- The filter appears clogged, restricted, damaged, or leaking
- The unit has been out of service for an extended period

Do not operate the unit with a clogged, damaged, leaking, frozen, or improperly installed filter.

Scale Awareness

Mineral scale is a normal result of ice production in hard water or high-mineral water conditions. As water freezes, minerals remain in the water system and can build up on internal surfaces over time. The included sediment filter helps reduce incoming particles and debris, but it does not remove dissolved minerals or prevent scale formation. Even when filtration is used, periodic descaling is required.

Signs that scale may be accumulating include:

- Inconsistent ice thickness
- Reduced ice production
- Longer freeze cycles
- Incomplete or irregular cube formation
- White mineral deposits visible inside the water system
- Increased cleaning frequency required to maintain performance

Run the **Cleaning Cycle** at recommended intervals and more often if local water conditions require it. Failure to remove scale may reduce performance, increase energy usage, affect ice quality, and shorten component life.

Drain Requirements



Improper drain installation, restricted drainage, incorrect drain routing, shared drain piping, or failure to maintain proper drain slope may result in water leakage, drain backup, unsanitary conditions, ice melting problems, property damage, reduced performance, or unsafe operating conditions.

The ice machine and ice storage bin require **separate gravity drain lines**. Do not connect the ice machine drain into the ice storage bin drain line. Do not connect the bin drain into the ice machine drain line. Separate drain routing helps reduce the risk of backup, contamination, poor drainage, and ice melt problems.

This equipment is designed for gravity drain operation only. The supplied drain hose is approximately 1.5 m (5 ft) long. Proper drainage is essential for normal operation, cleaning cycles, harvest-cycle water discharge, melted ice removal, and long-term sanitation.

- Drain installation must comply with applicable plumbing, sanitation, drainage, and backflow-prevention requirements.
- The drain system should be roughed in and ready before final installation whenever practical.
- Provide one drain line for the ice machine drain outlet and one separate drain line for the ice storage bin drain outlet.
- Each drain line must flow continuously downward to the building drain.

INSTALLATION

- Do not kink, crush, sharply bend, stretch, restrict, or damage drain tubing.
- Do not route either drain line upward or create loops, traps, low spots, or standing-water sections that may restrict gravity drainage.
- Never allow a drain hose to hang or loop higher than the floor of the ice storage bin.
- Do not tee, join, or combine the ice machine drain and ice storage bin drain together before the drain termination.
- Each drain line may terminate separately at the same properly sized floor drain, trapped standpipe, or indirect waste receptor where permitted by local code.
- Maintain an air gap at each drain termination where required by local plumbing code.
- Do not connect drain hoses directly to a closed drain system without an approved air gap or code-compliant indirect waste connection.
- Ensure the building drain is large enough to handle drainage from both ice machine and ice storage bin.
- A floor drain or properly trapped standpipe may be used where permitted by local code.
- If gravity drainage is not available, consult a **qualified installer** or **plumber** regarding approved drain solutions.
- Do not operate the equipment if drainage is restricted, leaking, backed up, frozen, disconnected, or improperly sloped.

Drain Line Requirements

Requirement	Specification
Ice machine drain line	Separate gravity drain line
Ice storage bin drain line	Separate gravity drain line
Drain connection	19 mm (3/4 in) ID
Supplied drain hose length	Approximately 1.5 m (5 ft)
Minimum downward slope for drain line	6 mm per 300 mm (1/4 in per ft)
Drain termination	Floor drain, trapped standpipe, or approved indirect waste receptor where permitted by code

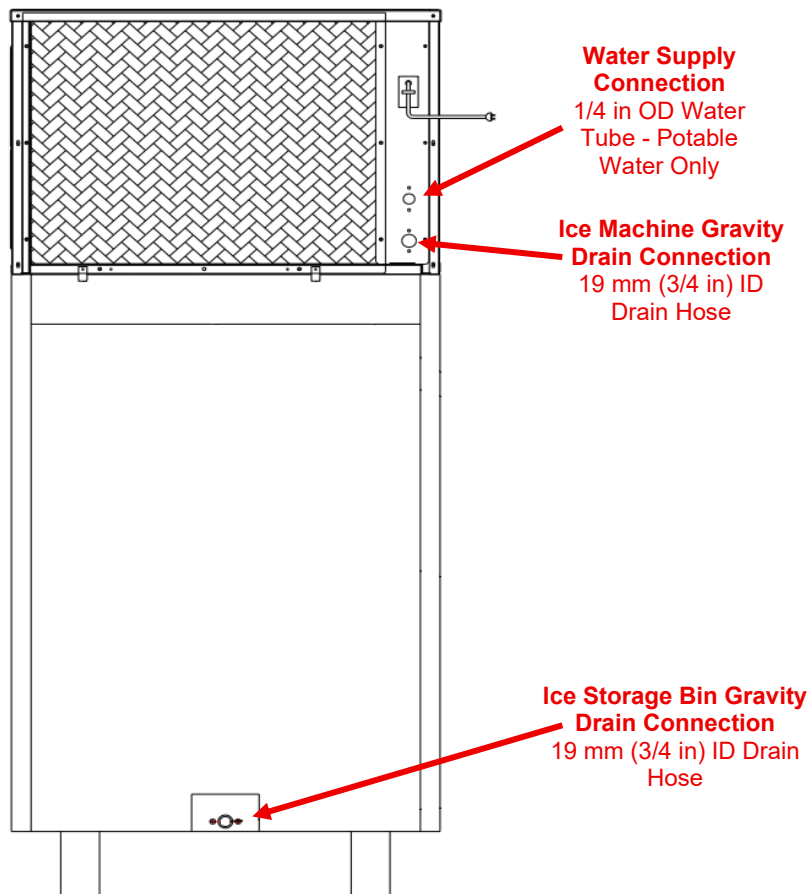


Figure D - Water Supply and Separate Gravity Drain Connections

Drain Connection and Leak Check

1. Confirm the ice machine is properly mounted and secured on the compatible ice storage bin.
2. Connect the ice machine drain line securely to the ice machine drain outlet.
3. Connect a separate ice storage bin drain line securely to the bin drain outlet.
4. Route each drain line separately to the building drain.
5. Confirm each drain line maintains continuous downward slope with no upward sections, loops, traps, kinks, restrictions, or submerged drain termination.
6. Confirm each drain termination has an approved air gap where required by local code.
7. Slowly pour approximately 3.8 L (1 gal) of water into the ice storage bin to verify bin drainage and inspect the bin drain connection for leaks.
8. Confirm the ice machine drain line is secure and properly routed before startup and cleaning operation.
9. Tighten leaking fittings or drain connections before placing the equipment into service.
10. Reinspect drain connections after final positioning and during initial operation.

Important Drainage Information

The ice storage bin is not a freezer. Ice stored in the bin will naturally melt over time, especially during normal door opening, high ambient conditions, high humidity, or periods of low ice usage. A properly functioning bin drain is required to remove melted ice water during normal operation.

The ice machine drain is also required for water discharge during ice-making, purge, cleaning, descaling, rinsing, and maintenance procedures. Restricted drainage, improper drain slope, blocked tubing, shared drain piping, or poor installation practices may result in standing water, water overflow, unsanitary conditions, increased ice melting, equipment damage, or property damage.

Common Causes of Low Ice Production

Low ice production is most often caused by installation or maintenance conditions, not equipment failure. Before requesting service, check for:

- Rear air intake, side air discharge, or condenser airflow blocked
- Dirty or blocked condenser air filter
- Unit installed near fryers, ovens, dishwashers, steam equipment, direct sunlight, or other heat sources
- Dirty condenser
- Warm incoming water or high ambient temperature
- Restricted water filter or poor water pressure
- Ice machine drain or ice storage bin drain restricted, poorly sloped, backed up, or improperly routed
- Mineral scale buildup or overdue cleaning

Correct these conditions before evaluating ice production capacity or requesting service.

Final Installation Checks

Before placing the unit into service, complete the following final installation checks.

- All packaging materials, tape, protective film, shipping restraints, and loose materials have been removed from the ice machine and ice storage bin.
- Permanent labels, warning labels, rating label, and serial number label remain in place and readable.
- Ice storage bin is installed on a stable, level surface and all bin legs are securely attached, properly seated, and fully supporting the bin.
- Ice machine is properly aligned, fully supported, and securely mounted on compatible ice storage bin.
- Rear connecting brackets are installed and secured to the ice machine.
- Installation location ambient temperature is within the specified operating range.
- Required rear, side, and top clearances have been confirmed.
- Rear air intake, side air discharge areas, condenser air filter, and condenser airflow openings are completely unobstructed.
- Condenser air filter is installed correctly, clean, and unobstructed.
- Electrical supply matches the voltage, frequency, phase, and electrical requirements shown on the rating label.
- For 115 V models, power cord and plug are undamaged, accessible, and connected to a properly grounded 3-prong electrical outlet.
- For 208-230 V models, electrical connection or power cord installation has been completed by qualified personnel according to the rating label, this manual, and applicable electrical codes.
- Power cord, wire leads, or electrical wiring are not pinched, crushed, sharply bent, strained, exposed to sharp edges, or damaged.
- Water supply is connected to a potable cold-water source.

INSTALLATION

- Water line has been flushed before connection.
- Water pressure and inlet water temperature are within the specified operating range.
- A suitable water pressure regulator is installed if incoming water pressure exceeds 0.55 MPa (80 PSI).
- Included sediment filter is installed in the correct flow direction and checked for leaks.
- Water supply valve is open before startup.
- All water supply connections have been checked for leaks.
- Ice machine drain line is connected separately and slopes continuously downward.
- Ice storage bin drain line is connected separately and slopes continuously downward.
- Both drain lines are free from kinks, restrictions, submerged terminations, upward routing, loops, traps, or standing-water sections.
- Ice storage bin drain has been tested by pouring approximately 3.8 L (1 gal) of water into ice storage bin.
- All drain connections have been checked for leaks and tightened as required.
- Ice storage bin and accessible food-contact areas have been cleaned before first use.
- Bin door opens, closes, and seals properly.
- Water curtain moves freely and returns to its normal position without obstruction.
- Operators have reviewed the safety, operation, cleaning, and maintenance instructions in this manual.

Do not place the unit into service until all installation checks are complete. Before normal ice use, complete all required cleaning, sanitizing, startup, and initial ice discard procedures described in the **Operation** and **Cleaning** and **Maintenance** sections of this manual.

Installation and Warranty Conditions

Improper installation, incorrect electrical supply, improper water connection, improper ice machine or ice storage bin drain connection, blocked airflow, incompatible bin use, unstable placement, operation outside specified conditions, inadequate cleaning, unauthorized modification, non-approved parts, or service by unqualified personnel may affect warranty coverage.

OPERATION

Proper operation is essential for safe use, normal ice production, ice quality, sanitation, refrigeration system performance, drainage, and long equipment life. Improper operation, blocked airflow, restricted drainage, poor water conditions, incompatible bin use, inadequate cleaning, unsafe ice handling, or failure to follow operating instructions may result in unsanitary ice, reduced ice production, abnormal operation, equipment damage, water leakage, or unsafe operating conditions.

Read and understand all operating instructions before using the equipment. Operators should become familiar with the controls, normal operating sounds, freeze and harvest cycles, airflow requirements, cleaning procedures, drainage requirements, and safe ice-handling practices before placing the unit into regular service.

Before First Use



CAUTION!

Do not consume ice produced during initial startup, after cleaning, after sanitizing, after filter replacement, after water-system service, or after extended shutdown until required cleaning, rinsing, flushing, and ice-discard steps have been completed.

- Confirm the ice machine is properly installed, level, securely mounted on a compatible ice storage bin, and connected according to the installation instructions in this manual.
- Confirm the water supply is turned on and all water, ice machine drain, and ice storage bin drain connections have been checked for leaks.
- Confirm the ice machine drain line and ice storage bin drain line are separately connected, properly sloped, and draining correctly.
- Confirm the rear air intake, side air discharge areas, condenser air filter, and condenser airflow areas are unobstructed.
- Confirm the condenser air filter is properly installed.
- Clean the ice storage bin and accessible food-contact surfaces before first use.
- Confirm all packaging materials, tape, protective film, and loose materials are removed from the unit.
- Confirm the bin door closes properly and the water curtain moves freely.
- If the ice machine was tilted, laid on its side, back, or upside down, or transported non-upright, allow it to remain upright and disconnected from power for at least 24 hours before operation.

After startup:

- Discard the first two batches of ice before placing the unit into regular service.
- Additional ice may need to be discarded after cleaning, sanitizing, extended shutdown, or service procedures.

Understanding the Ice Machine

Understanding the location and function of the major ice machine components helps support proper operation, cleaning, inspection, troubleshooting, and preventive maintenance. The following illustrations identify the primary operator-accessible components, airflow areas, water-system components, drainage connections, ice-making components, control areas, and service-access locations referenced throughout this manual.

OPERATION

Major Components and Their Functions

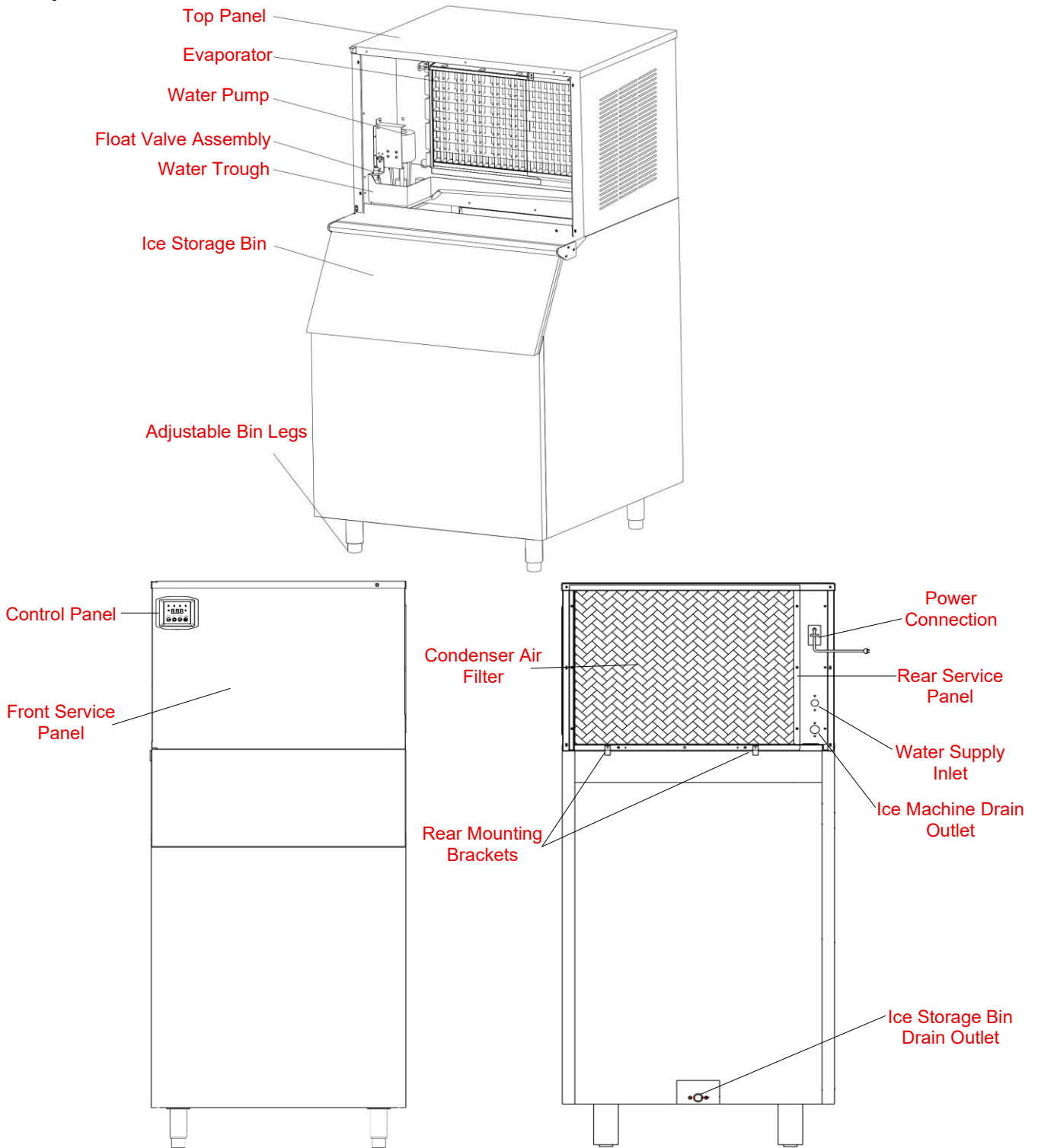


Figure E - Main Ice Machine Components

Component	Function
Top Panel	Covers and protects internal refrigeration, electrical, and water-system components.
Evaporator	Cold vertical refrigeration surface where water freezes into a slab of connected ice cubes during the freeze cycle.
Water Pump	Circulates water from the water trough across the evaporator during ice production.
Float Valve Assembly	Helps maintain proper water level in the water trough during operation.
Water Trough	Stores circulating water used during the ice-making process.
Water Curtain <i>(not pictured)</i>	Movable curtain located in front of the evaporator. During harvest, the released ice slab contacts the curtain and falls into the bin. When the bin becomes full, stored ice holds the curtain open and signals the control system to stop ice production.
Control Panel	Contains the control display, operating buttons, status indicators, and diagnostic

OPERATION

Component	Function
	information used during operation and maintenance.
Power Connection	Electrical supply connection point for the ice machine.
Front Service Panel	Removable access panel used for cleaning, inspection, and service access.
Rear Service Panel	Provides access to rear service areas, airflow components, and utility connections.
Water Supply Inlet	Connection point for incoming potable cold-water supply.
Ice Machine Drain Outlet	Drain connection for water discharged during purge, harvest, cleaning, descaling, and normal ice-making operation.
Rear Mounting Brackets	Secure the ice machine to the compatible ice storage bin after installation.
Ice Storage Bin	Insulated storage compartment used for temporary storage of produced ice.
Ice Storage Bin Drain Outlet	Drain connection used to remove melted ice water from the storage bin.
Adjustable Bin Legs	Adjustable support legs used to level and stabilize the ice storage bin during installation.
Condenser Air Filter	Removable air filter that helps reduce dust, grease, lint, and debris accumulation on the condenser. Regular cleaning is required to maintain airflow and ice production performance.

How the Ice Machine Works

NORIOTA commercial modular ice machines use an air-cooled refrigeration system, vertical evaporator, recirculating water system, automatic freeze and harvest cycles, water curtain, and compatible ice storage bin to produce full dice or half dice ice cubes. Understanding the basic operating sequence helps operators recognize normal machine behavior and identify abnormal conditions before they become larger problems.

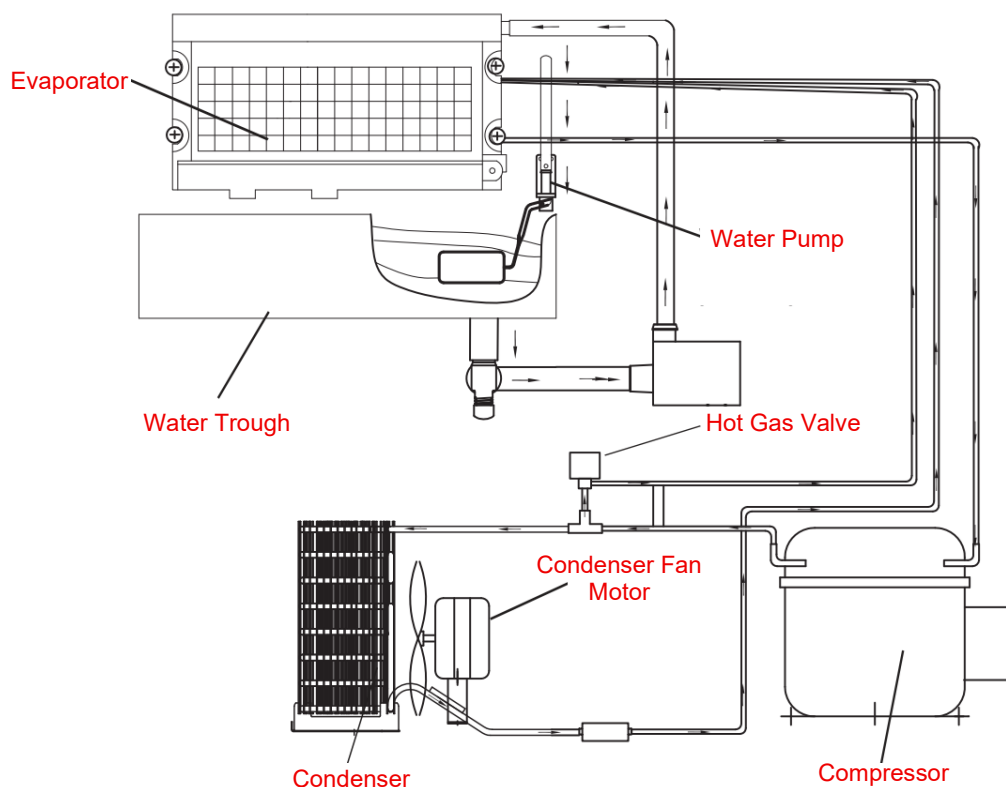


Figure F - Refrigeration and Water System Components

During operation, water circulates across the evaporator surface. The refrigeration system removes heat from the water, causing ice to form gradually on the evaporator grid. When the programmed ice thickness is reached, the unit automatically changes from freeze cycle to harvest cycle.

Freeze Cycle

During the freeze cycle:

- The compressor, condenser fan motor, and water pump operate.
- The water pump continuously circulates water from the water trough across the evaporator surface.
- Ice forms gradually on the evaporator grid.

OPERATION

- Water that does not freeze immediately returns to water trough and recirculates.
- Ice thickness gradually increases until the programmed harvest condition is reached.

Freeze cycle duration varies depending on ambient temperature, incoming water temperature, water quality, airflow, condenser cleanliness, drain performance, installation conditions, and ice thickness setting. Longer freeze cycles are normal during high ambient temperatures, warm incoming water, restricted airflow, or heavy ice demand.

Harvest Cycle

During the harvest cycle:

- The hot gas valve changes refrigeration flow to help release the ice slab from evaporator.
- The ice slab releases from the evaporator, contacts the water curtain, and falls into the ice storage bin.
- The slab separates into individual cubes before entering the ice storage bin.
- Water flow and drain activity may change temporarily.
- Clicking, cracking, shifting, or dropping sounds are normal.
- If the bin is not full, the next freeze cycle starts automatically after harvest.

Repeated incomplete harvests, delayed ice release, or irregular cube formation may indicate scale buildup, restricted airflow, dirty condenser surfaces, dirty condenser air filter, poor water conditions, improper leveling, or cleaning requirements.

Water Use and Mineral Concentration

During ice production, water continuously recirculates through the internal water system. Minerals and impurities do not freeze at the same rate as ice, so they gradually concentrate in the remaining water. The unit periodically purges water to help reduce mineral buildup and support ice quality.

Proper filtration, cleaning, descaling, drainage, and water conditions are important for normal ice production and long equipment life.

Bin-Full Operation

When the ice storage bin becomes full, stored ice holds the water curtain open and the control system stops ice production. After ice is removed or melts below the bin-full level, the water curtain returns to its normal position and ice production resumes automatically.

Automatic stopping and restarting during normal bin-full operation is expected and does not indicate a malfunction.

Operating Condition Effects

Ice production capacity, freeze timing, harvest timing, ice quality, and energy use depend on installation and operating conditions.

Conditions that may reduce production or affect operation include:

- High ambient temperatures
- Warm incoming water
- Restricted airflow or blocked ventilation
- Dirty condenser surfaces or dirty condenser air filter
- Hard water or mineral scale buildup
- Drain restrictions
- Poor water quality
- Installation near heat-producing equipment

Maintaining airflow, cleaning condenser and air filter, using appropriate filtration, maintaining proper drainage, and following recommended cleaning schedule help support normal ice production and long equipment life.

Control Panel Overview



NOTICE!

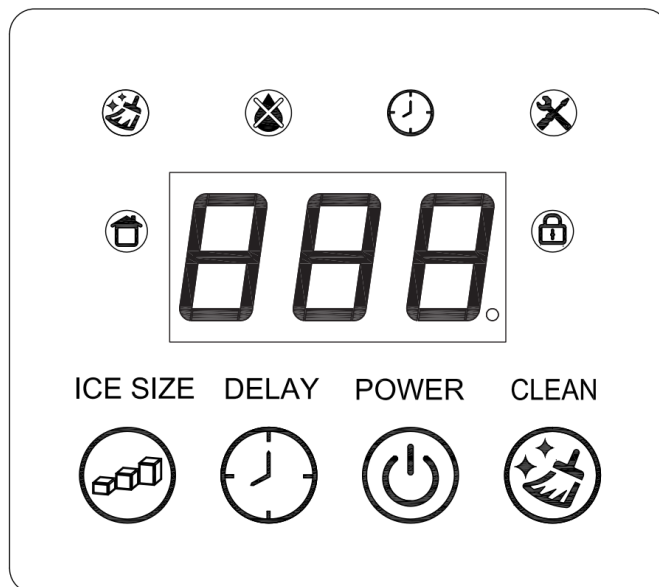
Controller indicator lights may change, flash, or pause during normal startup, freeze, harvest, cleaning, bin-full, and restart operation. Do not assume flashing indicators always indicate a fault. Refer to the **Troubleshooting** section if repeated fault indicators occur or ice production does not resume normally.

The control panel allows the operator to start and stop ice production, monitor operating status, activate cleaning and delay functions, and observe operating status, maintenance reminders, and fault conditions. Operators should become familiar with normal indicator behavior and controller operation before placing the unit into regular service.













OPERATION

Normal indicator activity, flashing lights, compressor cycling, freeze timing variation, water purge activity, harvest sounds, automatic bin-full stopping and restarting, and automatic operational changes may occur during normal operation depending on operating conditions and machine status.









Controller Diagram



Control Panel Buttons and Indicators


Button / Function / Indicator	How to Use	Normal Result / Notes
POWER - Turn ON 	Press the POWER button.	The unit turns on and begins automatic ice production if operating conditions are satisfied. Display will show “ FIL ” on initial power up, “ ICE ” during ice making, “ HAE ” during ice harvest, and “ FUL ” when ice bin is full.
POWER - Turn OFF 	Press and hold the POWER button for approximately 3 seconds.	The unit turns off and enters standby mode and will display “ OFF ”.
ICE SIZE 	Press and hold the ICE SIZE button for approximately 3 seconds to enter ice size adjustment. Press ICE SIZE again to change the setting.	Ice size can be adjusted from 1 to 9. Setting 1 produces the thinnest ice and setting 9 produces the thickest ice. Setting 5 is the factory default. The selected setting is saved automatically after 5 seconds.
CLEAN 	With the unit in standby mode, press and hold the CLEAN button for approximately 3 seconds.	Starts the automatic cleaning cycle and will display “ CLE ”. The cleaning cycle runs for approximately 30 minutes, then exits and returns the unit to standby mode. The CLEAN  indicator illuminates during cleaning cycle.
DELAY 	With the unit in standby mode, press and hold the DELAY button for approximately 3 seconds to enter the delay ice making adjustment. Press DELAY again to change the delay time.	Enables delayed ice production. Delay can be set from 2 to 12 hours in 2-hour increments. After 10 seconds, the selected delay time is saved. The display shows remaining countdown time in hours and the delay indicator  illuminates. Press POWER  again to cancel the countdown and start ice production.
Control Panel Lock  POWER + CLEAN  	Press and hold the POWER and CLEAN buttons together for approximately 3 seconds.	Locks or unlocks the control panel. The lock indicator  illuminates when control panel is locked.

OPERATION

<p>Showroom Mode</p>  <p>DELAY + CLEAN</p>  	<p>With the unit in standby mode, press and hold the DELAY and CLEAN buttons together for more than 6 seconds.</p>	<p>Toggles Showroom Mode ON/OFF. Showroom Mode is intended for display or demonstration use only. The display, controller, and evaporator fan operate, but the ice machine does not produce ice and alarms are disabled except the door-open alarm. The showroom indicator  illuminates when showroom mode is ON.</p>
<p>Sabbath Mode</p> <p>ICE SIZE + CLEAN</p>  	<p>Press and hold the ICE SIZE and CLEAN buttons together for more than 6 seconds.</p>	<p>Toggles Sabbath Mode ON/OFF. In Sabbath Mode, the display, lights, and audible sounds are disabled.</p>
<p>Fault indicator</p> 	<p>The controller has detected a fault condition.</p>	<p>The control panel may display an error code and the alarm may sound. Check the displayed error code and follow the guidance in Troubleshooting section of this manual.</p>
<p>Lack of Water indicator</p> 	<p>The controller has detected insufficient water supply or a water-fill problem.</p>	<p>The control panel may display an error code and the alarm may sound. Check the displayed error code and follow the guidance in Troubleshooting section of this manual.</p>

NOTE: After approximately 6 months of operation without running the cleaning cycle, the control panel may flash “CLE” as a cleaning reminder. Run the cleaning and descaling procedure in the **Cleaning and Maintenance** section to clear the reminder.

Starting Ice Production

 <p>CAUTION!</p>	<p>Do not start the unit until installation is complete, the unit is level, the water supply is open, the drain has been tested, airflow openings are unobstructed, and all final installation checks have been completed. Improper startup may result in water leakage, abnormal operation, reduced ice production, or equipment damage.</p>
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Proper startup helps support normal ice production, stable freeze and harvest operation, sanitation, and long equipment life.

Before Startup

Before turning the unit ON:

- Confirm the unit is level, stable, and properly supported.
- Confirm the water supply is connected and the shutoff valve is fully open.
- Confirm the ice machine drain line and ice storage bin drain line are separately connected and draining freely.
- Confirm the rear air intake, side air discharge areas, condenser air filter, and condenser airflow areas are unobstructed.
- Confirm the condenser air filter is installed correctly and unobstructed.
- Confirm the ice storage bin is clean and free from packaging materials, tools, tape, or foreign objects.
- Confirm all panels, connections, and removable components are properly installed.
- Confirm the ice machine has remained upright and disconnected from power for at least 24 hours before startup if it was tilted, laid on its side, back, or upside down, or transported non-upright.

Starting the Unit

1. Connect the unit to the correct grounded electrical supply.
2. Press the **POWER**  button once.
3. The control panel will initialize and the unit will automatically begin the startup sequence.
4. The water system will begin circulating water across the evaporator surface during the freeze cycle.
5. The refrigeration system will begin removing heat from the circulating water and ice formation will begin gradually on the evaporator grid.
6. After the programmed ice thickness is reached, the unit will automatically enter the harvest cycle and release ice into the storage bin.
7. The unit will continue automatic freeze and harvest cycling during normal operation until the storage bin reaches the full condition.

What to Expect During Startup

During startup and normal operation:

OPERATION

- During normal operation, the ice machine will automatically pause when the ice storage bin is full and resume after enough ice is removed or melts. See **Bin Full Operation**.
- Compressor, fan motor, water-flow, clicking, cracking, shifting, and ice-dropping sounds are normal.
- Water flow and drain activity may vary during freeze and harvest operation.
- Freeze cycle duration varies depending on ambient temperature, incoming water temperature, water quality, airflow conditions, condenser cleanliness, and operating conditions.
- Longer freeze cycles are normal during high ambient temperatures, warm incoming water conditions, or after extended shutdown periods.
- The first harvest cycle after startup may take longer than normal operation.

First Ice After Startup

Discard the first two batches of ice after initial installation, cleaning or sanitizing, extended shutdown, water system service, refrigeration or maintenance work, or any condition that may affect sanitation or water quality. Do not consume or use startup ice that has not been discarded.

Abnormal Startup Conditions

Stop operation and disconnect power if any of the following occur:

- Water leakage
- Restricted or backed-up drainage
- Refrigerant odor or suspected refrigerant leak
- Repeated fault alarms
- Loud abnormal mechanical noise
- Smoke, sparking, overheating, or burning odor
- No water circulation during freeze operation
- Repeated incomplete harvest cycles
- Continuous overflow or abnormal water flow

Correct installation or operating problems before returning the unit to service.

Initial Startup Expectations and Stabilization Period

During initial startup and the first several operating cycles:

- Freeze and harvest timing may vary while the unit stabilizes.
- Initial production capacity may be lower temporarily.
- Water-flow, drain, fan, compressor, clicking, cracking, and ice-dropping sounds are normal.
- Slight variation in cube appearance, bridge thickness, or clarity during initial operation may be normal.
- Small amounts of condensation or moisture near the bin opening may occur depending on ambient conditions.

Ice production capacity, freeze timing, and harvest timing are affected by ambient temperature, incoming water temperature, airflow, water quality, condenser cleanliness, condenser air filter condition, and installation conditions.

Do not evaluate ice production capacity during the first few cycles. Startup production may vary while the unit stabilizes and the water system clears air from the lines. For best results, allow the unit to operate through several complete cycles under normal conditions before making ice thickness adjustments or evaluating production performance.

If abnormal noise, water leakage, repeated fault indicators, poor drainage, restricted airflow, or abnormal operating conditions are observed, stop operation and correct the condition before continued use.

Ice Thickness Adjustment




Ice thickness is controlled through the control panel. The factory default ice size setting is **5**. The ice size setting range is **1 to 9**:

Setting	Thickness
1	Thinnest ice setting
5	Factory default setting
9	Thickest ice setting

Use ice thickness adjustment only to correct cube formation. Do not use the setting for personal preference or compensate for installation problems, dirty condenser surfaces, dirty condenser air filter, poor water quality,

restricted drainage, improper leveling, or overdue cleaning.

To Adjust Ice Thickness:

1. Confirm the unit is operating normally.
2. Press and hold the **ICE SIZE**  button for approximately 3 seconds.
3. The current ice size setting will appear on the control panel.
4. Press **ICE SIZE**  again to change the setting.
5. Continue pressing **ICE SIZE**  until the desired setting is displayed.
6. Wait approximately 5 seconds without pressing any buttons.
7. The selected setting will save automatically.

Small adjustments are recommended. After adjustment, allow the unit to complete several full freeze and harvest cycles before evaluating the result. Do not adjust ice thickness repeatedly within a short period. Over-adjustment may result in poor cube formation, reduced production, incomplete harvest, or unnecessary service calls.

If cubes are consistently too thin, too thick, incomplete, irregular, cloudy, or difficult to harvest, check the following before changing the ice size setting again:




- Water supply pressure and flow
- Incoming water temperature
- Ice machine drain and ice storage bin drain slope and drainage condition
- Condenser airflow
- Condenser air filter condition
- Condenser cleanliness
- Scale buildup or overdue cleaning
- Unit leveling
- Ambient room temperature

If proper installation, cleaning, water supply, drainage, airflow, and leveling have been confirmed and cube formation remains abnormal, contact qualified service personnel.

Delay Ice Making

The Delay Ice Making function allows startup of ice production to be delayed for a selected period of time. This function may be useful when immediate ice production is not required or when reducing operating noise during certain periods is preferred. The delay timer is available only when the unit is in standby mode.

To Enable Delay Ice Making:

1. Place the unit in standby mode.
2. Press and hold the **DELAY**  button for approximately 3 seconds.
3. Press **DELAY**  again to select the desired delay time.
4. Delay time can be set from 2 to 12 hours in 2-hour increments.
5. After approximately 10 seconds without button input, the selected delay time will save automatically.
6. The **delay indicator**  will illuminate during the countdown period.
7. The display will show the remaining countdown time in hours.
8. When the countdown is complete, the unit will automatically begin normal ice production if operating conditions are satisfied and the bin is not full.

To Cancel Delay Ice Making:

- Press **POWER**  to cancel the countdown and immediately start ice production.

Important Delay Function Information




- Delay Ice Making does not disconnect electrical power from the unit.
- Delay Ice Making should not be used as a substitute for extended shutdown, cleaning, sanitizing, or maintenance procedures.
- During extended shutdown periods, follow the shutdown and cleaning procedures in this manual.
- Ice already stored in the bin may continue melting normally during the delay period depending on ambient conditions and usage.
- Frequent use of delay operation in high ambient conditions may increase ice melt inside the storage bin.
- If the storage bin is already full, the unit may remain in bin-full standby condition after the delay period ends until additional ice storage capacity becomes available.

Screen Lock

The Screen Lock function helps prevent unintended button presses or accidental setting changes during normal operation. It may also be useful in locations where customers, guests, or untrained personnel could access the control panel.

- Control panel buttons are disabled.
- The lock indicator illuminates on the control panel.
- Ice production and normal machine operation continue normally.


To Enable or Disable Screen Lock:

1. Press and hold the **POWER**  and **CLEAN**  buttons together for approximately 3 seconds.
2. The **lock indicator**  will illuminate when Screen Lock is enabled.
3. Repeat the same procedure to unlock the control panel.



Important Screen Lock Information

- Screen Lock prevents accidental control changes but does not disconnect electrical power from unit.
- The unit continues normal ice production while locked.
- Fault indicators and alarm conditions may still display during Screen Lock operation.
- Unlock the control panel before attempting to change settings, start a cleaning cycle, or adjust operation.


Cleaning Cycle

The **CLEAN**  button starts the automatic cleaning cycle used during the cleaning and descaling procedure. The cleaning cycle is available only when the unit is in standby mode. Always refer to the full **Cleaning and Descaling Procedure** in this manual when running the cleaning cycle.

To Start the Cleaning Cycle:

1. Place the unit in standby mode.
2. Press and hold the **CLEAN**  button for approximately 3 seconds.
3. The control panel will display “CLE”.
4. The **clean indicator**  will illuminate.
5. The cleaning cycle will run for approximately 30 minutes.
6. When the cleaning cycle is complete, the unit will exit the cleaning cycle and return to standby mode.

Important Cleaning Cycle Information:



- The cleaning cycle does not replace the full cleaning, descaling, rinsing, draining, sanitizing, and ice-discard procedure.
- Use the **CLEAN**  button only as instructed in the **Cleaning and Maintenance** section.
- Do not add cleaner, sanitizer, or chemicals unless the cleaning procedure instructs you to do so.
- Do not use ice produced during cleaning, descaling, rinsing, sanitizing, or immediately after cleaning until the required ice-discard steps are complete.

Showroom Mode

Showroom Mode is intended for product display only. It is not used for normal ice production. When Showroom Mode is enabled:

- The showroom indicator illuminates.
- The lights, controller, and evaporator fan may operate.
- The compressor, water pump, and normal ice-making functions do not operate.
- The unit will not produce ice.
- Alarms are disabled except the door-open alarm.

To Enable or Disable Showroom Mode:

1. Place the unit in standby mode.
2. Press and hold the **DELAY**  and **CLEAN**  buttons together for more than 6 seconds.
3. The **showroom indicator**  will illuminate when showroom mode is ON.
4. Repeat the same procedure to turn Showroom Mode off.

Important Showroom Mode Information:



- Do not use Showroom Mode for normal operation.
- If the unit appears to operate but does not make ice, confirm Showroom Mode is not enabled.
- Turn Showroom Mode off before placing the unit into service.

Sabbath Mode

Sabbath Mode disables controller display, interior lights, and audible sounds during operation. When Sabbath Mode is enabled:

- The display and indicator lights are turned off.
- Audible sounds are disabled.
- Interior light will not illuminate when bin door is opened.
- Normal ice production operation continues unless otherwise stopped.


To Enable or Disable Sabbath Mode:

1. Press and hold the **ICE SIZE**  and **CLEAN**  buttons together for more than 6 seconds.
2. The display and all indicator lights will turn off when Sabbath Mode is ON.
3. Repeat the same procedure to turn Sabbath Mode OFF.

Important Sabbath Mode Information:

- Sabbath Mode does not disconnect electrical power from the unit.
- The unit will continue automatic ice production and normal operation while the display remains off.
- To confirm operation during Sabbath Mode, observe ice production and normal machine operation rather than relying on display indicators.

Fault Alarms and Error Codes

The control system continuously monitors operating conditions during ice production. If an abnormal condition is detected, the **fault indicator**  illuminates, an alarm may sound, and an error code may appear on the control panel display. Some fault conditions allow limited operation, while others stop ice production automatically to help protect the ice machine.

If a fault code appears:

- Record the displayed code before disconnecting power.
- Check basic operating conditions, including airflow, water supply, drainage, electrical supply, condenser air filter condition, and condenser cleanliness.
- Confirm the water supply valve is open and the sediment filter is not restricted.
- Refer to the fault code chart below for basic operator guidance.
- Refer to the **Troubleshooting Guide** for more detailed corrective actions.
- Disconnect power and contact qualified service personnel if the fault continues, repeats frequently, or the unit does not return to normal operation.

Do not continue operating the ice machine if abnormal noise, suspected refrigerant leakage, water leakage, smoke, overheating, repeated shutdown, electrical odor, sparking, or unsafe operating conditions are observed.

Error Code Table

Error Code	Meaning	Immediate Operator Action
E1	Evaporator temperature sensor fault	Record the code. Disconnect power and contact qualified service personnel.
E2	Condenser temperature sensor fault	Record the code. Disconnect power and contact qualified service personnel.
E3	Bin level sensor fault	Record the code. Check for ice buildup, blocked water curtain movement, or abnormal bin-full condition. Restart once. If the code returns, contact qualified service personnel.
E4	Ice harvest failure	Record the code. Check for blocked water curtain movement, excessive ice thickness, scale buildup, restricted airflow, dirty condenser, or dirty condenser air filter. Clean or descale if required. If the code returns, contact qualified service personnel.
E5	Lack of water	Record the code. Confirm the water supply is open, water pressure is within range, tubing is not kinked, and the sediment filter is not restricted. Restart after correcting the condition.
PUE	Drain failure	Record the code. Confirm the ice machine drain and ice storage bin drain are not blocked, kinked, frozen, poorly sloped, submerged, or routed upward. Restart after correcting the condition.
HIG	High ambient temperature	Record the code. Confirm ambient temperature is within range, airflow is unobstructed, condenser air filter is clean, and condenser is clean. Restart after conditions improve.

NOTE: E1 and E2 may allow limited operation with the “RUN” flashing on the display. Other fault codes may stop ice production automatically. If any fault repeats after operator-level checks, discontinue use and contact qualified service personnel.

Bin Full Operation



NOTICE!

The water curtain must move freely for normal bin-full operation. Do not force, block, bend, remove, tape, or hold the water curtain open. Obstruction of the water curtain may cause false bin-full indications, prevent normal ice production, or interfere with proper ice harvest.

The ice machine automatically stops ice production when the ice storage bin reaches the bin-full condition. This is normal operation and does not indicate a malfunction. During bin-full operation:

- Stored ice holds the water curtain open.
- The control system detects the bin-full condition.
- Ice production stops automatically.
- The compressor, water system, and ice-making cycle stop.
- The ice machine remains powered and monitors the bin-full condition.


After ice is removed from the ice storage bin or enough stored ice melts below the bin-full level, the water curtain returns to its normal position and the ice machine automatically resumes normal ice production.

Important Bin Full Information


- Frequent bin door opening, warm ambient conditions, high humidity, or low ice usage may increase condensation, ice clumping, and ice melting inside the ice storage bin.
- Do not block, hold, tape, bend, or interfere with the water curtain. Improper water curtain movement may affect normal bin-full operation.
- Do not stack ice above the normal storage level or force ice against the water curtain area.
- If the unit does not resume ice production normally after ice is removed, inspect for ice blockage, restricted water curtain movement, dirty condenser surfaces, blocked airflow, dirty condenser air filter, drain problems, or fault indicators.

Power Interruption and Restart Behavior

The unit will stop ice production during electrical power interruption, power outage, unplugging, circuit interruption, or electrical service conditions. After power is restored:

- The control panel should illuminate and function normally.
- The unit will automatically return to standby mode.
- Press the **POWER**  button to restart ice production.
- Freeze timing and harvest timing may vary temporarily during restart.
- The first harvest cycle after restart may take longer than normal.

Important Power Interruption Information

- Allow several minutes before reconnecting power after unplugging the unit to help protect the refrigeration system from short cycling.
- Repeated rapid power cycling may damage refrigeration components or affect normal operation.
- After prolonged power interruption, inspect the storage bin and discard melted or potentially contaminated ice as necessary.
- If fault indicators, abnormal noise, restricted drainage, or abnormal operation occur after power restoration, stop operation and inspect the unit before continued use.
- If the ice machine does not resume normal operation after power is restored and the **POWER**  button has been pressed, contact qualified service personnel.

Ice Removal and Ice Handling



CAUTION!

Ice is a food-contact product and must be handled using proper sanitary procedures. Improper handling, contaminated utensils, poor cleaning practices, or storing foreign objects inside the ice storage bin may result in contaminated ice or unsafe operating conditions.

To Remove Ice:

1. Open the bin door carefully.
2. Use only a clean ice scoop or other approved food-safe utensil to remove ice.
3. Close the bin door after removing ice.

Important Ice Handling Information

OPERATION

- Use the provided ice scoop or another clean food-grade scoop when removing ice from the storage bin.
- Do not use bare hands to remove ice from the storage bin.
- Do not store bottles, cans, food, chemicals, tools, packaging, or non-ice items inside the storage bin.
- Keep the bin door closed when ice is not being removed.
- Ice stored in the bin will naturally melt over time during normal operation.
- Discard the first two batches of ice after cleaning, sanitizing, filter replacement, water-system service, or extended shutdown.
- Discard any ice that appears contaminated, unusual in appearance, or produced during abnormal operating conditions.
- If the unit has not been used for an extended period, clean and sanitize before returning it to service.

Ice Scoop Storage

Store the ice scoop on the scoop holder located on the interior side wall of the ice storage bin.

- Place the scoop back on the holder after each use.
- Do not leave the scoop loose in the ice for extended periods.
- Do not place the scoop on dirty surfaces, counters, packaging, or equipment tops.
- Clean and sanitize the scoop regularly according to site sanitation procedures.
- If the scoop becomes dirty, dropped, or contaminated, clean and sanitize it before returning it to the holder or using it to remove ice.

Preventing Ice Contamination


Discard ice immediately if contamination is suspected. Do not use ice if:

- Foreign material, debris, or unusual residue is present
- Unusual odor or taste is observed
- Water contamination is suspected
- Cleaning chemicals or sanitizer residue may be present
- The unit has not been cleaned after extended shutdown or service

If the unit is used infrequently, empty the ice storage bin periodically and allow the unit to produce fresh ice.

Normal Sounds and Operating Characteristics

Commercial ice machines produce a variety of sounds, temperature changes, water movement, and automatic operating behaviors during normal operation. Many sounds and operating conditions that may seem unusual are expected during normal freeze, harvest, drainage, filling, and refrigeration operation. The following conditions are generally considered normal:

- Water flowing, splashing, or circulating inside the unit.
- Swooshing or flowing sound when water valve opens to fill the water trough for each cycle
- Ice dropping into the storage bin during harvest, which may produce a louder sound when bin is empty
- Clicking sounds from relays, valves, or controller operation
- Compressor startup and shutdown sounds as well as pulsating or humming during operation
- Fan motor airflow noise
- Refrigerant flow sounds, including hissing, rattling, or bubbling sounds or gurgling at end of cycle
- Hard surfaces such as walls, floors, counters, and cabinetry may make normal operating sounds seem louder.
- Warm air discharge from the side air discharge areas.
- Temporary pauses between freeze, harvest, restart, and bin-full operation.
- Ice production stopping automatically when the storage bin is full.
- Ice production restarting automatically after enough ice is removed or melts.
- Unit returning to standby mode after electrical power interruption or power outage, requiring pressing **POWER**  button to resume ice production.
- Newly produced ice may appear wet, and ice surfaces may develop light frost when placed in liquid.
- Ice gradually melting in the storage bin during normal operation.
- Water draining from the storage bin as stored ice melts.
- Variation in freeze time, harvest time, ice appearance, or production rate depending on ambient temperature, water temperature, airflow, water quality, and cleaning condition.
- The first harvest after startup may take longer than later cycles.

The unit uses automatic freeze, harvest, and bin-full controls rather than fixed-cycle operation. Operating conditions may fluctuate as the unit responds to water temperature, ambient temperature, ice demand, airflow, drain condition, and selected ice thickness setting.

Shutdown Procedure




NOTICE!

Do not shut off the water supply or disconnect power during normal ice production unless shutdown is required. If the unit is stopped during harvest, allow the ice to release completely before restarting whenever practical.

Follow these procedures when stopping ice production for overnight shutdown, cleaning, maintenance, extended inactivity, or service preparation.

Normal Shutdown Procedure

1. Press and hold the **POWER**  for approximately 3 seconds to place the ice machine in standby mode.
2. Confirm ice production stops and the control panel displays “**OFF**”.
3. Leave unit connected to power unless cleaning, service, relocation, or extended shutdown is required.
4. Leave the storage bin door slightly open if the unit will remain off for an extended period to help reduce odor and moisture buildup.

The unit remains energized while connected to power. To fully disconnect electrical power, unplug the power cord from the electrical outlet.

Short-Term Shutdown


For short periods without ice production:

- The unit may remain operating normally.
- The unit may also be placed in standby mode if ice production is not required.
- Do not shut off the water supply while the unit is operating.

Ice stored in the bin gradually melts during normal storage conditions. Meltwater drains automatically through the drain system.

Shutdown for Cleaning or Service

Before cleaning, maintenance, inspection, or service:

1. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
2. Disconnect the power cord from the electrical outlet.
3. Shut off the water supply if required by the cleaning or service procedure.
4. Drain water from system only as instructed in the cleaning, draining, or extended shutdown procedure.

Allow moving components, electrical components, and refrigeration components to stop completely before beginning cleaning or service procedures. Refer to the **Cleaning and Maintenance** section for full cleaning, draining, sanitizing, and restart procedures.

Extended Shutdown and Storage





WARNING!

Always disconnect power at the source before inspection, cleaning, draining, maintenance, service, or removal from service. Failure to disconnect power may result in electrical shock, serious injury, or death.

Proper shutdown, draining, cleaning, and drying are important before extended non-use, storage, relocation, transport, freezing conditions, or seasonal shutdown. Water left inside the ice machine, water trough, water lines, drain lines, or ice storage bin may result in odor, scale buildup, biological growth, freezing damage, water leakage, component damage, or unsafe operating conditions.

Extended Shutdown Procedure

1. Perform a complete cleaning and sanitizing procedure before extended shutdown whenever practical as instructed in the **Cleaning and Maintenance** section.
2. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
3. Shut off the water supply.
4. Disconnect the water supply line from the water inlet connection.
5. With the ice machine still connected to power, press and hold the **CLEAN**  button for approximately 6 seconds to start draining mode.
6. Allow the internal draining process to run until the control panel displays “**FIL**” to indicate the drain process is complete.
7. Disconnect the ice machine from the electrical supply.
8. Remove all ice from the storage bin.
9. Clean, sanitize, and dry the ice storage bin and accessible food-contact surfaces as instructed in the **Cleaning and Maintenance** section.
10. Leave the ice storage bin door slightly open to allow ventilation and help reduce odor, mold, and mildew.
11. Leave the water supply line disconnected and the ice machine disconnected from power until the

OPERATION

equipment is ready to be recommissioned.

12. If the unit will be moved, transported, or stored after draining, disconnect and drain the external drain tubing whenever practical. Allow drain tubing and water lines to dry before storage to help reduce trapped water, leakage, odor, mold, or freezing damage.
13. Store the unit upright in a clean, dry, well-ventilated location ideally protected from freezing temperatures, weather exposure, pests, and physical damage.

Important Extended Shutdown Information

- Do not leave water inside the ice machine, water trough, water lines, drain lines, or ice storage bin during freezing conditions or long-term storage.
- After extended shutdown, perform cleaning and sanitizing procedures before returning the unit to service.
- Discard the first two batches of ice after recommissioning.
- If the ice machine was tilted, laid on its side, back, or upside down, or transported non-upright, allow it to remain upright and disconnected from power for at least 24 hours before startup.

Freeze Protection and Cold Weather Storage



NOTICE!

Do not winterize this unit with antifreeze of any type. Antifreeze may damage internal ice-making surfaces, create a potential health hazard, and affect warranty coverage.

Do not allow water to remain inside the ice machine, water trough, water lines, drain lines, or ice storage bin during freezing conditions. Freezing temperatures may damage water lines, pumps, valves, drain components, and other internal water-system components. If the unit will be exposed to freezing temperatures, placed in unheated storage, transported during cold weather, or shut down seasonally:

- Follow the **Extended Shutdown** Procedure in this manual, including the complete draining procedure.
- Ensure the water supply line is disconnected and fully dried before storage.
- Ensure internal water-contact areas, water lines, ice machine drain line, ice storage bin drain line, and external drain tubing are drained and dried before storage.
- Do not use antifreeze of any type inside the unit.
- Store the unit upright in a clean, dry, well-ventilated location protected from freezing temperatures whenever possible.

Before returning the equipment to service after cold-weather storage, inspect the ice machine and ice storage bin carefully, reconnect the water supply and separate drain lines, check for leaks, clean and sanitize the equipment, and discard the first two batches of ice. Damage caused by freezing conditions, improper draining, or improper storage is not considered a manufacturing defect.

Restarting After Extended Shutdown

After extended shutdown, storage, transport, seasonal closure, cleaning, or freeze protection, the equipment must be inspected, cleaned, sanitized, and recommissioned before returning to normal operation.


Before Restarting:

- Confirm the ice machine and ice storage bin remain upright, stable, and undamaged.
- Confirm the ice machine is properly seated and secured on the compatible ice storage bin.
- Confirm the water supply connection, ice machine drain line, and ice storage bin drain line are properly installed and tightened.
- Confirm water supply tubing, ice machine drain tubing, and ice storage bin drain tubing are not kinked, restricted, damaged, frozen, leaking, or routed upward.
- Confirm rear air intake, side air discharge areas, condenser air filter, and airflow openings are clean and unobstructed.
- Confirm the condenser air filter is installed correctly and clean.
- Confirm the power cord, plug, wire leads, or electrical connection are undamaged.
- Confirm the ice storage bin and accessible food-contact surfaces have been cleaned and sanitized.
- Confirm the ice machine drain and ice storage bin drain are functioning normally.
- Confirm the water curtain moves freely and returns to its normal position.
- Confirm all panels, guards, covers, and removable components are properly installed.

Restart Procedure:

1. Inspect the ice machine and ice storage bin for dirt, debris, moisture, damage, insects, rodents, nesting material, or other foreign material.
2. Clean and sanitize the equipment after long-term storage by following the **Cleaning and Maintenance** section.
3. Place the ice machine and ice storage bin in the final operating position.

OPERATION

4. If the ice machine was tilted, laid on its side, back, or upside down, or transported non-upright, allow it to remain upright and disconnected from power for at least 24 hours before startup.
5. Connect the ice machine drain line and ice storage bin drain line separately and confirm proper gravity drainage.
6. Connect the water supply tubing.
7. Open the water supply valve and inspect all fittings and tubing for leaks.
8. Confirm the electrical supply is properly connected according to the rating label, this manual, and applicable electrical codes.
9. Press the **POWER**  button to begin normal ice production.
10. Allow the water trough to fill and confirm normal water circulation.
11. Inspect the water supply connection, ice machine drain line, and ice storage bin drain line for leaks during initial operation.
12. Allow the ice machine to complete several normal freeze and harvest cycles.
13. Discard the first two batches of ice before normal use.

Important Restart Information

- Initial freeze timing and harvest timing may vary temporarily during restart.
- Newly produced ice may appear wet during initial operation.
- If abnormal noise, restricted drainage, water leakage, fault indicators, poor airflow, or abnormal operation is observed, stop operation and correct the condition before continued use.
- If the ice machine does not return to normal operation after recommissioning, contact qualified service personnel.

CLEANING AND MAINTENANCE

Proper cleaning, descaling, sanitizing, inspection, and preventive maintenance are essential for ice quality, sanitation, refrigeration-system performance, production capacity, energy efficiency, and long equipment life. Failure to maintain the equipment properly may result in mineral scale buildup, unsanitary ice conditions, restricted airflow, water leakage, poor ice production, abnormal operation, corrosion, equipment damage, or unsafe operating conditions.

This equipment requires regular cleaning of food-contact surfaces, periodic descaling of the ice-making water system, routine condenser and condenser air filter cleaning, and inspection of water supply, drain, airflow, and operating conditions. Cleaning frequency varies depending on ambient conditions, water quality, usage level, airborne grease or dust, airflow conditions, and installation environment.

Cleaning and Maintenance Safety




WARNING!

Failure to disconnect power when required, shut off water supply when required, follow proper cleaning procedures, or use appropriate cleaning chemicals may result in electrical shock, refrigerant hazard, contamination, water leakage, equipment damage, serious injury, or unsafe operating conditions.



CAUTION!

Improper cleaning methods, mineral scale buildup, blocked airflow, drain restrictions, water intrusion into electrical areas, or use of non-approved chemicals may reduce ice production, contaminate ice, damage components, or create unsafe operating conditions.

- Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode before cleaning, inspection, maintenance, movement, or service.
- Disconnect the unit from electrical power before manual cleaning, inspection, panel removal, maintenance, or service unless a specific cleaning procedure requires power for a cleaning cycle.
- Shut off the water supply before manual cleaning, inspection, maintenance, movement, service, or extended shutdown unless a specific cleaning procedure requires the water supply to remain open.
- Always grasp the plug firmly when disconnecting power. Do not pull on the power cord.
- Do not clean the unit while ice production is active or while moving components remain in operation.
- Do not immerse the ice machine, ice storage bin, power cord, plug, wire leads, or electrical components in water or any other liquid.
- Do not spray, hose down, pressure clean, or steam clean the unit.
- Do not allow water, cleaning chemicals, scale remover, sanitizer, food residue, or debris to enter electrical areas, controls, airflow openings, fan areas, or refrigeration components.
- Use caution when cleaning around evaporator surfaces, water curtain area, drain openings, sheet-metal edges, and condenser fins.
- Condenser fins may be sharp and are easily damaged. Avoid direct contact and do not use sharp tools.
- Keep the area around the unit clean and dry during maintenance procedures to reduce slip hazards.
- Dry all cleaned surfaces completely before reconnecting power or returning the unit to service.
- Do not store bottles, cans, food, tools, packaging, or any non-ice items in the ice storage bin. Foreign objects may contaminate ice, damage surfaces, or block the drain.
- If the unit has been exposed to flooding, excessive water intrusion, refrigerant-line damage, or electrical damage, discontinue use and contact qualified service personnel before reconnecting power.
- Internal electrical service, sealed refrigeration-system service, controller service, pump replacement, wiring repair, and refrigeration repairs must be performed by qualified service personnel only.

Cleaning, Descaling, and Sanitizing Overview



WARNING!

Disconnect power before removing panels, cleaning electrical areas, or performing maintenance beyond normal operator cleaning procedures.



CAUTION!

Ice machine cleaner contains acid. Wear appropriate hand and eye protection when handling cleaning chemicals. Do not mix ice machine cleaner with sanitizer or other chemicals.

Ice machine maintenance includes three related but different tasks: cleaning, descaling, and sanitizing. Cleaning removes visible soil, residue, slime, and debris from the ice storage bin, scoop, drain areas, exterior surfaces, and accessible components. Descaling removes mineral deposits that build up inside the water system, water trough, evaporator, and water distribution tube as water freezes. Sanitizing reduces bacteria, mold, yeast, and

CLEANING AND MAINTENANCE

other microorganisms on food-contact and ice-contact surfaces after cleaning has removed soil and scale.

These tasks are not interchangeable. Descaling does not sanitize the unit, and sanitizing does not remove mineral scale. Descale the ice-making water system when mineral deposits are visible, ice formation becomes irregular, harvest performance declines, production slows, the CLEAN reminder appears, or hard-water conditions require it. Sanitize the ice storage bin, water trough, water curtain area, and accessible ice-contact surfaces after descaling, after extended shutdown, after service, when contamination is suspected, or whenever site sanitation procedures require it. Clean exterior surfaces, the ice scoop, ice storage bin, drain areas, condenser air filter, condenser surfaces, and water distribution tube on a regular schedule based on use, environment, and water quality.

Do not use or consume any ice produced during cleaning, descaling, or sanitizing procedures, or the first two batches after returning the equipment to service.

Descaling the Water System




CAUTION!



Use only commercial ice machine cleaner suitable for nickel-safe evaporator systems. Improper cleaning chemicals may damage internal ice-making surfaces or components.

Mineral scale forms inside the water system during normal ice production. Regular descaling helps remove mineral deposits from the water trough, evaporator, water distribution tube, and related ice-making surfaces. Descaling frequency depends on water hardness, filtration effectiveness, usage, and operating conditions. In hard-water conditions, including water hardness around 15 to 20 grains per gallon, descaling may be required as often as every 3 months.

Before Descaling

1. If the ice machine is making ice, allow the current cycle to finish or initiate harvest.
2. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
3. Remove all ice from the ice storage bin.
4. Keep the ice machine connected to the water supply.
5. Confirm the ice machine drain and ice storage bin drain are connected and draining properly.
6. Confirm the ice storage bin is empty so water discharged during cleaning or rinsing can drain normally.



Descaling Procedure

1. Open the front service panel by removing the screws and swinging it open.
2. Pour 237 mL (8 oz) of nickel-safe ice machine cleaner into the water trough.
 - i. Use only ice machine cleaner specifically labeled for nickel-safe ice machine use.
 - ii. Use 237 mL (8 oz) of nickel-safe ice machine cleaner unless the cleaner manufacturer's instructions require a lower concentration for this application.
3. Press and hold the **CLEAN**  button for approximately 3 seconds.
4. Confirm the control panel displays "CLE" and the **clean indicator**  illuminates.
5. Allow the automatic cleaning cycle to run for approximately 30 minutes.
6. When the cleaning cycle is complete, the unit will return to standby mode and display "OFF".

Heavy Scale Note: If heavy mineral scale remains after the descaling cycle, repeat the descaling procedure once using fresh nickel-safe ice machine cleaner before beginning the rinse procedure. Do not add cleaner during rinse cycles. If heavy scale remains after a second descaling cycle, discontinue operation and contact qualified service personnel.


Rinse Procedure

Rinsing is required to remove cleaner residue from the ice-making water system.

1. Do not add ice machine cleaner during rinse cycles.
2. Press and hold the **CLEAN**  button for approximately 3 seconds.
3. Confirm the control panel displays "CLE" and the **clean indicator**  illuminates.
4. Allow the clean-water rinse cycle to run for approximately 30 minutes.
5. When the cycle is complete, the unit will return to standby mode and display "OFF".
6. Repeat the rinse cycle two more times, for a total of three clean-water rinse cycles.

After Descaling and Rinsing

1. Confirm the ice machine drain and ice storage bin drain are connected and draining properly.
2. Confirm front service panel is properly reinstalled.

3. Return the unit to ice-making operation by pressing the **POWER**  button.
4. Discard the first two batches of ice after descaling.

Do not leave cleaner residue inside the water system or ice storage bin.

Sanitizing the Ice Machine and Bin



CAUTION!

Improper chemical handling, mixing incompatible chemicals, excessive sanitizer concentration, or failure to follow chemical manufacturer instructions may result in toxic fumes, contamination, equipment damage, chemical injury, or unsafe operating conditions.



CAUTION!


Never mix sanitizer or sanitizing solution with ice machine cleaner, descaling chemicals, acids, chlorine products, or other cleaning chemicals.

Sanitizing helps reduce bacteria, slime, mold, yeast, and other contamination that may develop inside the ice storage bin, water-contact surfaces, and ice-making system during normal operation. Sanitizing does not remove mineral scale and is not a substitute for descaling.

Sanitize the equipment after descaling procedures, after extended shutdown or storage, after service or repair affecting food-contact areas, if contamination is suspected, whenever sanitation conditions require additional cleaning, and as part of regular preventive maintenance.

Use only sanitizer products suitable for commercial ice machine food-contact surfaces. Follow the sanitizer manufacturer instructions for mixing concentration, handling precautions, and required contact time. Avoid direct contact with eyes, skin, and clothing.

Before Sanitizing

1. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
2. Remove all ice from the ice storage bin.
3. Confirm the descaling and rinse procedure has been completed if mineral scale was present.
4. Keep the unit connected to the water supply.
5. Confirm the ice machine drain and ice storage bin drain are connected and draining properly.

Sanitizing Procedure



1. Prepare sanitizer solution according to the sanitizer manufacturer instructions.
 - A sanitizing solution using 30 mL (1 oz) household bleach mixed with 7.5 L (2 gal) warm water at 35 °C to 46 °C (95 °F to 115 °F) may be used, provided all safety precautions and instructions are followed.
 - Use the sanitizing solution only as instructed, and rinse thoroughly after sanitizing if required by the sanitizer manufacturer. Do not mix bleach sanitizer with ice machine cleaner, descaling chemicals, acids, or any other cleaner.
2. Apply sanitizer solution using a clean cloth, sponge, or spray bottle to:
 - Ice storage bin interior
 - Water curtain
 - Water trough
 - Accessible food-contact surfaces
 - Removable cleaned components
3. Allow sanitizer to remain on surfaces for the sanitizer manufacturer recommended contact time, or at least 3 minutes.
4. Wipe heavily soiled areas as necessary using a clean soft cloth or sponge.
5. Rinse only if required by the sanitizer manufacturer instructions.
6. Confirm sanitizer solution drains normally from the ice storage bin.

Sanitizing the Water Circulation System

NOTE: Drain inspection and cleaning are recommended during sanitizing procedures while the ice storage bin is empty and internal water-contact areas are already accessible. Use the same sanitizer solution prepared for sanitizing the ice storage bin and accessible food-contact surfaces.


1. Confirm the unit is in standby mode.
2. Confirm all descaling cleaner has been drained and all required rinse cycles have been completed if sanitizing following descaling.
3. Shut off the water supply.

CLEANING AND MAINTENANCE

4. Remove the front service panel as required to access the water trough.
5. Fill the water trough with enough prepared sanitizer solution to reach the normal operating water level in the water trough. Do not overfill.
6. Press and hold the **CLEAN**  button for approximately 3 seconds.
7. Confirm the control panel displays “CLE” and the **clean indicator**  illuminates.
8. Allow the cleaning cycle to circulate the sanitizer solution through the water system for approximately 30 minutes.
9. When the cycle is complete, the unit will return to standby mode and display “OFF”.
10. Turn the water supply back on after the sanitizer circulation cycle is complete.
11. Perform a clean-water rinse cycle if required by the sanitizer manufacturer instructions.
12. Discard the first two batches of ice before normal use.

Important: Do not add sanitizer until all descaling cleaner has been drained and the required rinse cycles are complete. Never mix sanitizer with ice machine cleaner, descaling chemicals, acids, or other cleaning chemicals.

Returning the Unit to Service

1. Confirm the ice machine drain and ice storage bin drain are connected and draining properly.
2. Confirm front service panel is properly reinstalled.
3. Confirm the water supply is turned on.
4. Press the **POWER**  button to resume ice production.
5. Allow the water trough to fill and confirm normal water circulation.
6. Inspect the water supply connection, ice machine drain line, and ice storage bin drain line for leaks during initial operation.
7. Discard the first two batches of ice after sanitizing before normal use.


Important Sanitizing Information

- Do not mix sanitizer with ice machine cleaner or other chemicals.
- Do not use abrasive pads, steel wool, wire brushes, or highly corrosive chemicals.
- Do not leave excessive sanitizer residue inside the ice machine or ice storage bin.
- Ice produced during sanitizing or rinse procedures must be discarded.
- More frequent sanitizing may be required in high-use or high-temperature environments.

Condenser Air Filter Cleaning

A dirty or blocked condenser air filter restricts airflow, reduces ice production, increases operating temperature, increases energy usage, and may shorten component life. Clean the condenser air filter regularly, and more often in dusty, greasy, high-temperature, or high-use environments.

The condenser air filter is located at the rear of the ice machine, installed in the condenser air intake area. The filter helps reduce dust, lint, grease, flour, and airborne debris from reaching the condenser. Use of the air filter may slightly reduce maximum ice production capacity, but it helps protect the condenser in dirty environments and must be cleaned regularly.

 **WARNING!** Disconnect power before removing or cleaning the condenser air filter. Failure to disconnect power may result in electrical shock, injury, or equipment damage.

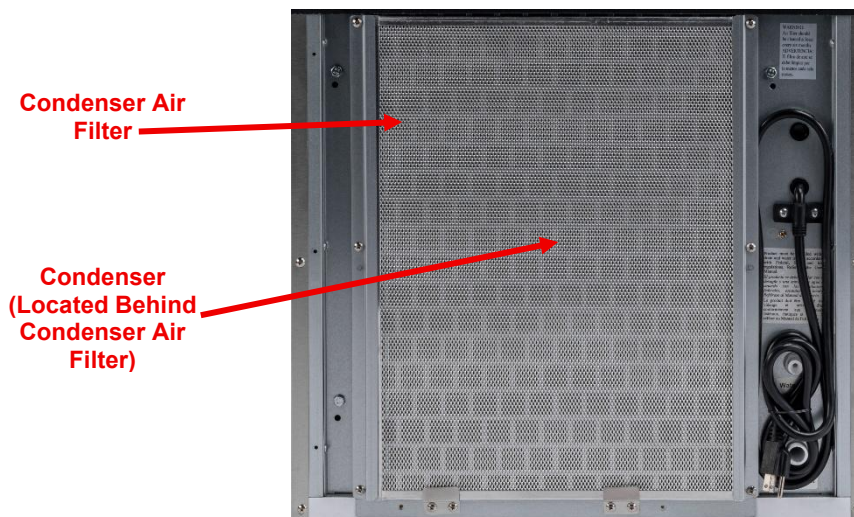



Figure G – Rear Condenser Air Filter and Condenser Location

Condenser Air Filter Cleaning Procedure

1. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
2. Disconnect the power cord from the electrical outlet.
3. Access the condenser air filter at the rear of the ice machine.
4. Carefully slide or lift the condenser air filter out of the rear filter slot.
5. Remove loose dust, lint, grease, flour, and debris from both sides of the filter using a vacuum cleaner with a soft brush attachment.
6. If needed, wash the filter with warm water and mild detergent.
7. Rinse thoroughly with clean water.
8. Allow the filter to dry completely before reinstalling.
9. Reinstall the condenser air filter securely in the rear condenser air intake area.
10. Confirm the filter is seated correctly and does not block or distort airflow.
11. Restore power to the ice machine.

Do not operate the unit with a clogged, wet, damaged, missing, or improperly installed condenser air filter.

Condenser Cleaning



WARNING!

Disconnect power before cleaning the condenser area. Failure to disconnect power may result in electrical shock, injury, or equipment damage.




CAUTION!

Condenser fins are sharp and can be damaged easily. Use caution when cleaning around the condenser. Do not use sharp tools, high-pressure compressed air, liquid cleaners, or excessive force.

The air-cooled condenser should be cleaned whenever dust, lint, grease, flour, or debris is visible. The condenser is located at the rear of the ice machine behind the rear condenser air intake area. The condenser air filter must be removed before condenser inspection or cleaning.

Condenser Cleaning Procedure

1. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
2. Disconnect the ice machine from the electrical supply.
3. Access the rear condenser air intake area.
4. Remove and clean the condenser air filter by following **Condenser Air Filter Cleaning Procedure**.
5. Locate the condenser behind the condenser air filter.
6. Using a vacuum cleaner with a soft brush attachment, gently remove dust, lint, grease, flour, and debris from the condenser surface and surrounding airflow area.
7. If lint or debris is attached to condenser fins, remove it carefully without bending or damaging the fins.
8. Inspect the condenser fins for damage, bending, heavy buildup, or blockage.
9. Reinstall the condenser air filter securely.
10. Confirm rear air intake and side air discharge areas are unobstructed.
11. Restore power to the ice machine.

After Cleaning

After condenser cleaning, verify:

- The condenser air filter is clean, dry, and properly installed.
- Rear air intake and side air discharge areas are unobstructed.
- Required rear, side, and top clearances remain intact.
- The ice machine restarts and operates normally.

If condenser fins are badly damaged, heavily clogged with grease, or cannot be cleaned with normal operator-level cleaning, contact qualified service personnel.

Drain System Inspection and Cleaning

Restricted drainage may cause water backup, slow drainage, leakage, odor, slime buildup, sanitation concerns, abnormal operation, or ice production problems. Inspect both the ice machine drain and ice storage bin drain regularly to maintain proper drainage and sanitation.


NOTE: Drain inspection and cleaning are best performed during cleaning and sanitizing, when the ice storage bin is empty and drain areas are already exposed for inspection.



WARNING!

Disconnect power before inspecting or cleaning drain components near electrical areas. Water near energized electrical components may create electrical shock hazards.

Drain Inspection Procedure

1. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
2. Inspect the ice machine drain line and ice storage bin drain line for kinks, pinched sections, standing water, leaks, loose fittings, slime buildup, or restricted flow.
3. Confirm each drain line maintains continuous downward slope.
4. Confirm neither drain line is routed upward, looped above the storage bin floor, kinked, submerged, frozen, blocked, or restricted.
5. Inspect each drain termination for blockage, poor air gap, restricted drainage, or standing water.
6. Pour clean water into the ice storage bin and confirm water drains freely through the bin drain and external drain line.
7. During the next cleaning or draining cycle, confirm water discharges normally through the ice machine drain line.

If drainage is slow, restricted, or backing up, clean the drain system before returning the unit to service.

Drain Cleaning Guidelines

- Flush the drain system with clean warm water as required.
- Remove the front service panel as required and clean the accessible water trough drain area. Remove visible slime, scale, debris, or residue without damaging tubing, wiring, drain components, or nearby parts.
- Remove visible slime, debris, or buildup from ice storage bin drain area and accessible drain hose areas.
- Clean surrounding drain areas regularly to reduce odor and contamination.
- Confirm the drain hose remains securely connected after cleaning.
- Confirm the drain termination remains open, unrestricted, and code-compliant.

Do not use excessive force, sharp tools, compressed air, or aggressive drain-cleaning chemicals inside the unit drain system.

After Drain Inspection or Cleaning

After inspection or cleaning, verify:

- Drain water flows freely without backup.
- No leakage is present at drain connections.
- The drain hose remains properly sloped.
- The drain hose is not kinked, pinched, submerged, or routed upward.
- The unit returns to normal operation without abnormal drainage behavior.

If drainage problems continue after normal cleaning and inspection procedures, contact qualified service personnel.

Exterior Cleaning


Regular exterior cleaning helps maintain appearance, sanitation, corrosion resistance, and long-term durability. Clean exterior surfaces whenever residue, fingerprints, dust, grease, water spots, or spills are visible.



WARNING!

Disconnect power before cleaning. Do not spray, hose down, pressure clean, or steam clean the ice machine, ice storage bin, control panel, power cord, plug, wire leads, airflow openings, or electrical areas.

Exterior Cleaning Procedure

1. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
2. Disconnect the ice machine from the electrical supply.
3. Prepare a mild detergent solution using approximately 30 mL (1 oz) mild dishwashing liquid mixed with 7.5 L (2 gal) warm water.
4. Wipe exterior surfaces using a soft cloth or sponge with warm water and mild detergent solution.
5. Clean around bin door, handle, control panel, rear air intake, side air discharge areas, condenser air filter area, and exterior panel seams carefully without allowing water into openings or electrical areas.
6. Wipe cleaned surfaces with a clean damp cloth to remove detergent residue.
7. Dry all surfaces thoroughly with a soft clean towel.

Stainless Steel Care

Regular stainless steel maintenance helps reduce the risk of surface staining, tea staining, cosmetic rusting, pitting, water spotting, and mineral residue buildup. Failure to properly maintain stainless surfaces may result in

cosmetic discoloration, staining, or corrosion that is not related to a manufacturing defect.

Clean stainless steel surfaces at least once per week, or more frequently in high-traffic, high-grease, high-humidity, coastal, or chemically aggressive environments.

- Use a soft cloth or non-abrasive sponge.
- Wipe in the direction of the stainless steel grain whenever possible.
- Use mild detergent and warm water for routine cleaning.
- Rinse thoroughly with clean water after cleaning.
- Dry completely with a soft clean cloth to prevent water spotting and mineral residue.
- Remove hard water deposits, food acids, salt deposits, sanitizer residue, and cleaning chemical residue promptly.

Do not use steel wool, wire brushes, abrasive pads, metal scrapers, harsh chemicals, or cleaners not suitable for stainless steel. Do not use chlorine-based cleaners on exterior stainless steel surfaces.

Chlorine and Chemical Exposure

Stainless steel exposed to chlorinated environments, including areas near spas, swimming pools, or facilities using chlorine-based sanitizers, may develop discoloration over time. This is a cosmetic condition caused by chemical exposure and does not indicate a material defect. If chlorine-based cleaners or sanitizer residue contact stainless surfaces:

1. Rinse immediately with clean water.
2. Wipe dry thoroughly with a soft clean cloth.

Extended exposure to chlorides may accelerate surface discoloration, tea staining, cosmetic rusting, or pitting.

Environmental Considerations

High humidity, salt air, chemical vapors, hard water deposits, food acids, inadequate cleaning, and poor ventilation can affect stainless appearance and corrosion resistance. Units installed in coastal regions, high-humidity environments, pool or spa facilities, or chemically aggressive environments may require more frequent cleaning and inspection.

Preventive Maintenance and Service Boundary

Operators may perform only the cleaning, descaling, sanitizing, condenser vacuuming, drain inspection, filter replacement, visual inspection, and basic checks described in this manual.

Internal electrical repair, controller service, pump service, fan service, valve service, sensor service, wiring repair, sealed refrigeration-system service, refrigerant handling, compressor service, hot gas valve service, and internal disassembly must be performed only by qualified service personnel.

Improper servicing, unauthorized repair, or modification may result in electrical shock, fire hazard, refrigerant hazard, water leakage, contamination, equipment damage, unsafe operation, or affected warranty coverage.

Water Distribution Tube Cleaning

The water distribution tube delivers water evenly across the evaporator during ice production. If the distribution holes become partially restricted by mineral scale or debris, water may not flow evenly across the evaporator and ice production may become abnormal.

This procedure is intended for advanced maintenance. It may be performed by trained personnel familiar with safe shutdown, panel removal, internal water-system components, and proper reassembly. If the operator is not comfortable removing panels or accessing internal components, contact qualified service personnel.

Indicators of restricted water distribution may include:

- Incomplete ice cubes
- Misshaped or irregular cubes
- Uneven cube thickness
- Reduced ice production
- Uneven water flow across the evaporator

Before inspecting or cleaning the water distribution tube, confirm:

- Water supply pressure is within the specified operating range.
- The water supply line is not kinked or restricted.
- The sediment filter is not excessively restricted or contaminated.
- The unit has first completed normal cleaning and descaling procedures.

CLEANING AND MAINTENANCE



CAUTION!


Disconnect power before removing panels or accessing internal components. Do not perform this procedure while the unit is operating. Do not operate the unit with panels removed.



NOTICE!

Do not enlarge spray holes, damage the distribution tube, disturb wiring, or force components during removal or reinstallation.

Cleaning Procedure

1. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
2. Disconnect the ice machine from the electrical supply and shut off the water supply.
3. Remove the screws securing the front service panel and carefully swing the panel open.
4. Remove the water curtain to access the evaporator area and water distribution tube.
5. Locate the water distribution tube above the evaporator area.
6. If the water distribution tube and spray holes are difficult to access through the open front service panel, carefully remove the top panel for better access.
7. To remove the top panel, remove the screws securing the panel, retain the screws for reinstallation, and carefully lift off the panel.
8. Set the top panel on a clean, protected surface where it will not be scratched, bent, dropped, or contaminated.
9. Note the original position of the water distribution tube and spray holes before moving the tube. The spray holes must be returned to the same operating position after cleaning.
10. Carefully rotate the water distribution tube toward you only far enough to make the spray holes accessible. Do not pull, twist, kink, or strain the connected tubing.
11. Clear individual spray holes using a toothpick or similar non-metallic tool.
12. Do not enlarge, deform, or damage the spray holes.
13. After cleaning, rotate the water distribution tube back to its original operating position. Confirm the spray holes face the correct direction for normal water distribution across the evaporator.
14. If the top panel was removed, reinstall it in its original position using the screws removed earlier. Do not pinch, trap, or damage wiring or panel edges during reinstallation and do not overtighten screws.
15. Carefully close the front service panel. Do not pinch, trap, or damage wiring, tubing, insulation, or panel edges during reinstallation.
16. Reinstall and tighten the front service panel screws securely. Do not overtighten screws.
17. Reconnect the water supply, restore power, and confirm normal operation.

CLEANING AND MAINTENANCE

Recommended Cleaning and Maintenance Schedule

Regular cleaning and preventive maintenance are required to maintain ice quality, production capacity, sanitation, drainage performance, airflow, energy efficiency, and long equipment life. Cleaning frequency depends on water quality, ambient conditions, installation environment, airborne grease or dust, and operating usage.

Mineral scale, airborne grease, restricted airflow, slime buildup, dirty condenser surfaces, clogged condenser air filters, and poor drainage are among the most common causes of reduced performance and preventable service problems in commercial ice machines.


The following schedule is a general guideline. More frequent cleaning and maintenance may be required in hard-water environments, high-temperature kitchens, greasy environments, high-volume operation, coastal regions, or areas with airborne dust, flour, lint, or debris.


Component / Area	Recommended Frequency	Operator Guidance
Ice scoop	Daily	Wash and sanitize regularly. Store in a clean sanitary location when not in use.
Ice storage bin interior	Daily to weekly	Wipe clean and inspect for residue, slime, odor, or contamination.
Exterior surfaces	Daily	Wipe with mild detergent and warm water. Dry with a soft cloth.
Water curtain area	Weekly	Confirm the water curtain moves freely and is not blocked by ice, residue, or debris.
Drain system inspection	Weekly	Confirm ice machine drain and ice storage bin drain flow freely with no backup, standing water, leaks, restrictions, or odor.
Condenser air filter inspection	Weekly to monthly	Check for dust, lint, grease, flour, debris, or restricted airflow.
Condenser air filter cleaning	Monthly minimum	Clean more often in dusty, greasy, flour-heavy, or high-temperature environments.
Condenser inspection	Monthly	Check rear air intake, side air discharge areas, condenser air filter, and condenser area for dust, lint, grease, or blocked airflow.
Condenser cleaning	Every 3 to 6 months minimum	Vacuum condenser gently with a soft brush attachment. More frequent cleaning may be required depending on environment.
Water distribution tube inspection	Monthly	Check for blockage, mineral buildup, or restricted water flow.
Water distribution tube cleaning	As required	Clean if mineral buildup, restricted flow, or irregular water distribution is observed.
Full cleaning and sanitizing procedure	Every 3 to 6 months minimum	Complete the full descaling, rinsing, sanitizing, and ice-discard procedure.
Descaling procedure	As required by water conditions	Remove mineral scale when deposits, slow production, or irregular ice formation appear.
CLEAN reminder indicator	Whenever flashing repeatedly	Perform cleaning and descaling procedure and inspect for scale buildup or restricted water flow.
Sediment filter inspection	Regularly	Check for reduced flow, discoloration, clogging, debris buildup, or leakage.
Sediment filter replacement	Approximately every 6 months or as required	Replace sooner if water flow slows, filter appears restricted, or water quality requires it.
Water supply and drain connections	Regularly	Check tubing, fittings, ice machine drain line, ice storage bin drain line, water trough drain area, and connections for leaks, damage, kinks, or loose fittings.
General operating inspection	During normal operation	Check for abnormal noise, leakage, restricted airflow, poor drainage, fault indicators, or abnormal operation.

TROUBLESHOOTING GUIDE

If the ice machine does not appear to be operating correctly, review the **Installation**, **Operation**, **Cleaning and Maintenance**, and **Shutdown** sections first. Many apparent problems are caused by restricted airflow, dirty condenser surfaces, dirty condenser air filter, mineral scale buildup, water supply problems, drain restrictions, environmental conditions, improper startup, power interruption behavior, or overdue cleaning and may often be corrected without service.


Use the guide below to identify common symptoms, likely causes, and recommended corrective actions. If the issue persists after completing the recommended operator-level checks, discontinue use and contact qualified service personnel.

 <b style="font-size: 1.2em;">WARNING!	<p>If the issue involves smoke, burning odor, refrigerant odor, overheating, damaged power cord or plug, repeated breaker tripping, sparking, electrical shock risk, water intrusion into electrical areas, refrigerant-line damage, or any other unsafe condition, if safe to do so, disconnect power, shut off the water supply if leakage is present, and do not resume operation until the problem is corrected..</p>
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 <b style="font-size: 1.2em;">WARNING!	<p>Disconnect power before inspection, cleaning, or maintenance. Do not attempt to bypass controls, remove panels, service sealed refrigeration components, or perform internal electrical repairs unless qualified to do so.</p>
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Before Calling for Service

Before troubleshooting specific issues, confirm the following:

- The unit is connected to a properly grounded outlet matching the rating label requirements.
- The outlet has power and the circuit breaker has not tripped.
- The power cord and plug are undamaged and fully connected.
- If power was interrupted, the control panel has returned to standby mode and the **POWER**  button has been pressed to restart ice production.
- The unit has been installed with all required airflow clearances maintained.
- The rear and side air intake and discharge areas and condenser area are clean and unobstructed.
- The condenser air filter is clean, dry, and properly installed.
- The ambient temperature and water supply conditions are within the specified operating range.
- The water supply is turned on and water pressure is within specification.
- The water supply line is not kinked, restricted, frozen, disconnected, or leaking.
- The drain hose maintains proper downward slope without restriction, standing water, or backup.
- The water curtain moves freely and is not blocked by ice or debris.
- The unit has been cleaned, descaled, and sanitized according to this manual.
- Mineral scale buildup, slime buildup, or restricted water flow are not present.
- The storage bin is not overfilled or obstructing normal operation.
- The unit has completed normal startup sequence and sufficient time has been allowed for ice production.
- The “CLE” clean reminder is not flashing repeatedly due to overdue cleaning.
- Indicator lights and controller operation appear normal.

Many apparent equipment problems are resolved by correcting one of the above conditions.

Symptom	Possible Cause	Operator Action
Electrical Safety		
Circuit breaker trips repeatedly	Overloaded circuit, incorrect electrical supply, damaged outlet, moisture intrusion, internal electrical fault, or use of extension cord, adapter, power strip, or shared circuit	Stop use. Remove extension cords, adapters, power strips, or outlet splitters. Confirm electrical supply matches the rating label. If breaker trips again, disconnect power and contact qualified service personnel.
Power cord, plug, wire leads, outlet, or electrical connection is hot, loose, damaged, or discoloured	Damaged electrical connection, overloaded circuit, poor outlet contact, incorrect receptacle, loose wiring, or electrical fault	Stop use immediately. Disconnect power if safe. Do not operate until the electrical supply, cord, plug, wire leads, or connection has been inspected and corrected by qualified personnel.
Sparking, arcing, electrical shock, electrical burning smell, or smoke	Electrical fault, damaged wiring, moisture intrusion, overheated component, or unsafe electrical condition	Stop use immediately. Disconnect power if safe and contact qualified service personnel.

TROUBLESHOOTING GUIDE

Symptom	Possible Cause	Operator Action
Ice machine has no power	Power disconnected, outlet has no power, breaker tripped, damaged cord or plug, incorrect electrical supply, or 208-230 V electrical connection issue	Confirm power source, breaker, and connection. For 208-230 V models, only qualified personnel should inspect wiring or power cord installation. Do not use if electrical components are damaged.
Startup and Controls		
Ice machine does not start ice production	Ice machine in standby, POWER not pressed, bin-full condition active, delay function active, showroom mode active, no water supply, no power, or fault condition	Press POWER. Confirm bin is not full, water curtain moves freely, water supply is open, delay timer is not active, showroom mode is off, and no fault code is displayed.
Control panel illuminates after power restoration but ice machine does not make ice	Normal standby behavior after power interruption	Press POWER to restart ice production. If ice production does not begin, check water supply, airflow, drain condition, and fault codes.
Ice machine was recently unplugged and does not restart normally	Restarted too quickly after power interruption or compressor short-cycle protection timing needed	Allow several minutes before reconnecting power or restarting. Avoid repeated rapid power cycling.
Display shows FIL for extended period	Water fill condition cannot complete, water supply closed, low pressure, restricted filter, kinked water line, or inlet restriction	Confirm water supply valve is open, water pressure is within range, tubing is not kinked, and sediment filter is not restricted. If condition continues, contact qualified service personnel.
Display shows FUL but bin is not full	Water curtain held open, ice buildup near curtain, debris, misalignment, damaged curtain, or bin level sensor issue	Remove ice near the water curtain and confirm the curtain moves freely and returns to normal position. Do not force, bend, tape, or hold curtain. If FUL remains, contact qualified service personnel.
Display shows CLE repeatedly	Clean reminder active after extended operation without cleaning	Perform the full descaling, rinsing, sanitizing, and ice-discard procedure. Inspect for scale buildup and restricted water flow.
Control panel is locked	Screen Lock enabled	Press and hold POWER and CLEAN together for approximately 3 seconds to unlock.
Ice machine appears to run but does not make ice	Showroom Mode enabled, water supply issue, fault condition, or refrigeration/service issue	Confirm Showroom Mode is off. Check water supply, display status, airflow, drain condition, and fault codes. If no operator-correctable issue is found, contact qualified service personnel.
Display and lights are off but ice machine may still be powered	Sabbath Mode enabled or electrical supply issue	Press and hold ICE SIZE and CLEAN together for more than 6 seconds to exit Sabbath Mode. If display remains off, confirm electrical supply.
Water Supply		
Water does not enter ice machine	Water supply shut off, kinked supply line, restricted sediment filter, low water pressure, disconnected line, frozen line, or inlet restriction	Confirm water supply valve is open, supply line is not kinked or frozen, sediment filter is not restricted, and water pressure is within specification.
Slow fill or low water level	Low water pressure, partially closed shutoff valve, restricted sediment filter, kinked line, incorrect filter direction, inlet restriction, or RO system pressure drop	Check shutoff valve, filter direction, water pressure, supply line routing, and filter condition. Replace restricted filter if needed.
Water supply connection leaks	Loose fitting, damaged tubing, improper connection, tubing not fully seated, or supply pressure above specification	Shut off water supply. Tighten or reconnect fittings. Confirm tubing is fully seated and undamaged. Install pressure regulator if water pressure exceeds 0.55 MPa (80 PSI).
E5 lack-of-water code	Water supply shut off, low pressure, restricted sediment filter, kinked line, blocked inlet, disconnected line, frozen line, or water interruption	Open water supply, confirm pressure, inspect tubing and filter, correct condition, and restart. If E5 returns, contact qualified service personnel.

TROUBLESHOOTING GUIDE

Symptom	Possible Cause	Operator Action
Drainage		
Water backs up into bin or drains slowly	Bin drain restricted, drain line kinked, drain routed upward, insufficient slope, blocked drain, submerged drain termination, frozen drain, or poor air gap where required	Confirm ice storage bin drain slopes continuously downward, is not kinked, frozen, submerged, blocked, or routed upward. Clear accessible blockage and retest drainage.
Ice machine drain does not discharge properly	Ice machine drain restricted, poor slope, blocked line, frozen line, submerged termination, or drain routed upward	Inspect ice machine drain routing, slope, termination, and visible restrictions. Correct operator-accessible problems. Contact qualified service personnel if drainage does not recover.
Drain failure or PUE code	Ice machine drain restriction, drain backup, improper drain slope, blocked drain line, frozen drain line, or drain fault	Confirm ice machine drain and ice storage bin drain are separately connected, continuously sloped downward, unrestricted, not frozen, not submerged, and not routed upward. Restart after correction. If PUE returns, contact qualified service personnel.
Standing water, odor, or slime near drain	Slow drain, slime buildup, poor slope, dirty drain area, restricted termination, or drain contamination	Flush accessible drain areas with clean warm water. Clean visible slime and debris. Confirm both drain lines flow freely.
Water leaks from equipment	Water supply leak, loose fitting, drain leak, blocked drain, overflowing bin, internal water leakage, or damaged tubing	Shut off water supply if leakage continues. Check accessible supply and drain connections. Do not operate if leak source is internal or cannot be corrected.
Floor becomes wet	Drain overflow, leak, condensation, ice melt, water carried out during ice removal, or drain restriction	Clean water immediately to prevent slip hazard. Check water supply and both drain lines. Correct leakage or restricted drainage before continued operation.
Ice Production		
Low daily ice production	High ambient temperature, warm inlet water, restricted airflow, dirty condenser air filter, dirty condenser, scale buildup, poor water flow, drain issue, restricted filter, or nearby heat source	Clean rear condenser air filter and condenser, verify rear and side clearances, confirm water supply and drain, descale water system, replace restricted filter, and reduce nearby heat sources where practical.
Ice machine runs but produces little ice	Dirty condenser, blocked rear air filter, restricted rear air intake or side discharge, high ambient temperature, warm water, low water flow, scale buildup, water distribution restriction, or refrigeration fault	Complete operator checks for airflow, water supply, filter, condenser, drain, and descaling. Contact service if production does not improve.
Production slows over time	Scale buildup, dirty condenser, dirty air filter, restricted sediment filter, blocked water distribution tube, poor water quality, or reduced airflow	Descal water system, inspect sediment filter, clean condenser air filter and condenser, inspect water distribution tube if needed, and verify airflow.
Ice Quality		
Cubes are incomplete, hollow, thin, or white at bottom	Low water level, low pressure, restricted filter, scale buildup, blocked water distribution tube, poor water quality, inlet restriction, or improper leveling	Check water pressure, filter, supply line, cleaning condition, water distribution tube, and leveling. Descal before adjusting ice thickness.
Cubes are too thick	Ice size setting too high, low ambient temperature, cold inlet water, delayed harvest, or scale affecting harvest	Reduce ice thickness setting gradually. Allow several cycles before evaluating. Descal if harvest is slow.
Cubes are too thin	Ice size setting too low, high ambient temperature, warm inlet water, insufficient water flow, restricted airflow, dirty condenser, or dirty air filter	Increase ice thickness setting gradually only after checking water supply, condenser cleanliness, air filter cleanliness, and airflow.
Cubes are cloudy, soft, mushy, or poor quality	Poor incoming water quality, softened water, high mineral content, inadequate filtration, scale buildup, cleaner residue, sanitizer residue, or incomplete rinsing	Inspect water treatment, descale and rinse thoroughly, sanitize if needed, replace or upgrade filtration, and discard ice until odor, taste, or residue is gone.
Ice has unusual odor or taste	Dirty bin, stagnant ice, dirty scoop, cleaning chemical residue, sanitizer residue, poor water quality, old ice, or drain contamination	Discard ice. Clean and sanitize bin, scoop, water-contact areas, and drain areas. Rinse water system and replace filter if needed.

TROUBLESHOOTING GUIDE

Symptom	Possible Cause	Operator Action
Harvest and Bin Full		
Ice does not release or harvest is slow	Scale buildup, ice too thick, dirty evaporator, poor water distribution, unit or bin not level, low ambient temperature, blocked water curtain, or refrigeration issue	Descale, verify level, confirm water curtain moves freely, check ice thickness setting, and allow several cycles. Contact service if harvest remains slow.
Repeated harvest failure or E4 code	Ice stuck on evaporator, scale buildup, excessive ice thickness, water curtain obstruction, poor leveling, poor water flow, restricted airflow, dirty condenser, or component fault	Confirm water curtain moves freely. Descale, clean condenser air filter and condenser, verify level, and adjust ice thickness only gradually. If E4 returns, contact qualified service personnel.
Bin-full indication stays active when bin is not full	Water curtain blocked, held open, dirty, frozen, damaged, misaligned, or sensor issue	Check curtain area for ice, debris, scale, or obstruction. Do not force or bend curtain. If indication remains, contact qualified service personnel.
Ice packs tightly near water curtain	Stored ice left too long, wet ice refreezing, bin overfilled, low ice usage, or ice forced against curtain	Remove enough ice so water curtain moves freely. Break up stored ice carefully without damaging curtain or bin surfaces.
Water Distribution		
Water does not flow evenly across evaporator	Blocked water distribution tube, scale buildup, low water pressure, restricted filter, kinked supply line, improper leveling, or poor water flow	Confirm water pressure, filter, supply line, and leveling. Descale first. If problem remains, inspect and clean water distribution tube.
Ice pattern incomplete across evaporator	Uneven water distribution, blocked tube holes, low water level, unit not level, scale buildup, or restricted supply	Check leveling, water supply, sediment filter, scale condition, and water distribution tube.
Excessive splashing during operation	Water distribution tube out of position, air in water system after cleaning, scale buildup, drain restriction, or component misalignment	Allow several cycles after cleaning. If persistent, inspect water distribution tube position, drain condition, scale buildup, and component placement.
Cleaning and Sanitation		
Scale appears frequently	Hard water, high mineral content, inadequate filtration, no scale inhibition, long cleaning interval, or high usage	Increase descaling frequency. Use properly selected commercial ice-machine-rated filtration with scale inhibition if local water requires it.
White mineral deposits visible	Hard water scale, insufficient descaling, poor filtration, or long cleaning interval	Descale water system. Inspect water quality and filtration.
Slime, odor, or residue in bin	Infrequent cleaning, old ice, poor sanitation, contaminated scoop, warm environment, or drain contamination	Discard ice. Clean and sanitize bin, scoop, water curtain area, drain areas, and accessible food-contact surfaces.
Cleaning chemical odor remains after cleaning	Insufficient rinsing or cleaner residue in water system	Repeat clean-water rinse cycle and discard ice until odor or taste is gone.
Sanitizer odor remains after sanitizing	Excess sanitizer concentration, insufficient final rinse where required, or sanitizer residue	Follow sanitizer manufacturer instructions. Rinse if required and discard ice until odor or taste is gone.
Condenser and Airflow		
HIG high-temperature code	High room temperature, restricted rear air intake, restricted side discharge, dirty condenser air filter, dirty condenser, poor clearance, or nearby heat source	Clean condenser air filter and condenser. Clear rear air intake and side discharge areas. Confirm clearances and ambient temperature. Restart after conditions improve.
Compressor runs longer than usual	Dirty condenser, blocked air filter, restricted airflow, high ambient temperature, warm water, scale buildup, or heavy ice demand	Clean condenser air filter and condenser, verify airflow, descale water system, and confirm operating environment.
Condenser air filter is dirty	Dust, lint, grease, flour, or airborne debris buildup	Remove rear condenser air filter, clean both sides, dry completely if washed, and reinstall securely before operation.
Condenser is dirty	Dust, lint, grease, flour, or airborne debris buildup	Disconnect power. Remove rear air filter and vacuum condenser gently with soft brush attachment. Do not use sharp tools, liquid cleaners, high-pressure air, or excessive force.

TROUBLESHOOTING GUIDE

Symptom	Possible Cause	Operator Action
Noise and Vibration		
Rattling noise	Water line vibration, equipment not level, loose panel, loose filter, object on top, or loose external connection	Remove objects from top, confirm level, check panels, filter, and visible water line routing. Contact service if noise persists.
Grinding, scraping, banging, severe vibration, or fan impact noise	Fan obstruction, damaged component, loose internal part, shipping damage, or unsafe mechanical condition	Stop use, disconnect power, and contact qualified service personnel.
Installation and Environment		
Ice machine stops suddenly during operation	Power interruption, bin-full condition, high temperature, blocked airflow, low voltage, dirty condenser, dirty air filter, water fault, drain fault, or protective shutdown	Check display/fault code, power, water supply, airflow, condenser air filter, condenser cleanliness, ambient temperature, and drains. Restart only after correcting conditions.
Ice machine was tilted, moved, or transported non-upright	Compressor oil migration risk or internal water disturbance	Keep upright and disconnected from power for at least 24 hours before startup.
Equipment exposed to freezing conditions	Water frozen inside lines, valves, pump, water trough, drain lines, or internal water system	Do not operate until inspected and safely thawed. Drain completely before storage in freezing conditions. Contact service if damage is suspected.
Sanitation and Ice Handling		
Foreign material in ice	Debris in bin, dirty scoop, packaging, contaminated water, dirty bin, or poor sanitation	Discard ice. Clean and sanitize bin and scoop. Inspect water source, filter, bin, and drain areas.
Scoop is dirty or stored in ice	Improper scoop storage or poor handling practices	Clean and sanitize scoop. Store scoop in a clean sanitary location when not in use.
Non-ice items found in bin	Bottles, cans, food, tools, packaging, or other items stored in ice bin	Remove items, discard affected ice, clean and sanitize bin. Do not store anything except ice in the bin.
Stored ice melts faster than expected	Frequent door opening, warm ambient conditions, high humidity, low ice use, bin not a freezer, poor drainage, or heat exposure	Keep bin door closed, remove old ice regularly, confirm bin drain works, and verify equipment is away from heat sources.


When to Stop and Call for Service

Stop using the ice machine, disconnect power if it is safe to do so, shut off the water supply if leakage is present, and contact qualified service personnel if any of the following occur:


- Ice machine does not produce ice after normal startup, water supply, airflow, drain, cleaning, and operating checks have been completed.
- Circuit breaker trips repeatedly or the ice machine repeatedly loses power during operation.
- Power cord, plug, receptacle, wire leads, electrical connection, controls, indicator lights, bin door, water curtain, water line, drain line, housing, or panels become damaged.
- Electrical odor, smoke, sparks, arcing, overheating, or electrical shock risk is observed.
- Ice machine overheats, shuts down unexpectedly, or repeatedly shows high-temperature fault indications or protective shutdown conditions.
- Fan, compressor, pump, water valve, hot gas valve, purge valve, controller, or refrigeration operation is abnormal after normal operator checks.
- Repeated fault indicators occur after airflow, water supply, drain, cleaning, descaling, and installation conditions have been checked.
- Water leakage, drain backup, overflow, or standing water continues after normal operator corrections.
- Ice harvest failure continues after cleaning, descaling, level verification, water curtain inspection, and ice thickness adjustment checks.
- Ice machine repeatedly shows lack-of-water indication after confirming water supply, pressure, sediment filter condition, and supply line routing.
- Ice production remains low after condenser air filter cleaning, condenser cleaning, descaling, water supply checks, and airflow checks.
- Ice develops persistent unusual odor, taste, discoloration, debris, or contamination concerns after cleaning, sanitizing, flushing, and filter checks.
- Water curtain, bin door, hinges, gasket, controls, water-system components, drain components, or internal components become loose, damaged, obstructed, or unsafe.
- Equipment has been dropped, impacted, tipped, exposed to flooding, exposed to freezing conditions, or liquid has entered electrical or internal areas.
- Refrigerant tubing appears damaged, oily residue is observed near refrigeration tubing, or refrigerant leakage is suspected.
- Abnormal noise, vibration, overheating, water flow problems, drainage problems, or airflow problems continue after cleaning and normal operating corrections.
- Ice machine continues to operate abnormally after recommended operator-level troubleshooting is completed.
- Internal electrical service, controller replacement, pump replacement, fan service, valve replacement, sensor replacement, purge valve service, hot gas valve service, sealed refrigeration-system service, refrigerant handling, compressor service, wiring repair, or internal disassembly is required.

Do not attempt to repair internal electrical, refrigeration, water-system, control, wiring, or sealed-system components unless qualified. Unauthorized repair or modification may result in injury, electrical shock, refrigerant hazard, fire hazard, water leakage, contamination, equipment damage, or affected warranty coverage.

Fault Indicator Codes

When the controller detects certain abnormal operating conditions, the **fault indicator**  may illuminate, and an error code may appear on the control panel display. The unit may continue operating, pause temporarily, or stop certain functions depending on the condition detected.

When contacting service, report the displayed error code exactly as shown on the control panel. If a fault indication occurs:

1. Press and hold the **POWER**  button for approximately 3 seconds to place the unit in standby mode.
2. Inspect the condition shown in the chart below.
3. Correct any operator-level issue such as blocked airflow, dirty condenser air filter, dirty condenser, closed water supply, kinked water line, restricted sediment filter, restricted drain, scale buildup, or blocked water curtain.
4. Restart the unit after the condition has been corrected.
5. If the same fault indication returns, discontinue use and contact qualified service personnel.

Do not attempt to disassemble, bypass, repair, or service internal electrical, refrigeration, controller, sensor, valve, pump, fan, wiring, purge valve, hot gas valve, or sealed-system components unless qualified to do so.

Display Code	Fault Condition	Likely Causes	Operator-Safe Checks
E1	Evaporator temperature sensor failure	Sensor fault, damaged sensor wiring, controller input fault	Record code. Disconnect power and contact qualified service personnel.
E2	Condenser temperature sensor failure	Sensor fault, damaged sensor wiring, controller input fault	Record code. Disconnect power and contact qualified service personnel.
E3	Bin level sensor failure	Bin level sensor fault, abnormal bin-full condition, blocked water curtain, ice buildup near curtain	Record code. Check bin ice level and confirm water curtain moves freely. Restart once. If code returns, contact qualified service personnel.
E4	Ice harvest failure	Ice stuck on evaporator, excessive ice thickness, scale buildup, dirty evaporator, poor water flow, blocked water curtain, unit not level, restricted airflow	Confirm water curtain moves freely. Check for excessive ice thickness, blocked rear air intake, blocked side air discharge, dirty condenser air filter, dirty condenser, poor leveling, or visible scale. Clean or descale if required. Restart once. If code returns, contact qualified service personnel.
E5	Lack of water	Water supply closed, low water pressure, kinked supply tubing, restricted sediment filter, inlet restriction, water supply interruption	Confirm water supply valve is open, pressure is within range, tubing is not kinked, and sediment filter is not restricted. Correct condition and restart. If code returns, contact qualified service personnel.
PUE	Drain failure	Ice machine drain restricted, bin drain restricted, poor drain slope, kinked drain hose, blocked drain, frozen drain, submerged drain termination, upward drain routing	Confirm ice machine drain and ice storage bin drain are separately connected, continuously sloped downward, unrestricted, not frozen, not submerged, and not routed upward. Correct condition and restart. If code returns, contact qualified service personnel.
HIG	High ambient temperature	High room temperature, poor ventilation, blocked rear air intake, blocked side air discharge, dirty condenser air filter, dirty condenser, nearby heat source	Confirm ambient temperature is within range. Clear rear air intake and side air discharge areas, clean condenser air filter, clean condenser if accessible, and move heat sources away if practical. Restart after conditions improve. If code returns, contact qualified service personnel.

NOTE: E1 and E2 may allow limited operation with the RUN indicator flashing. Other fault codes may stop ice production automatically. If any fault repeats after operator-level checks, discontinue use and contact qualified service personnel. This chart is for operator-safe troubleshooting only and does not authorize internal electrical, refrigeration, sensor, controller, or sealed-system service.

WARRANTY, SERVICE, AND SPARE PARTS

Warranty

For full warranty terms, conditions, limitations, and exclusions, please visit:

<https://noriota.ca/pages/warranty-policy>

To register your product online, visit:

<https://noriota.ca/pages/warranty-registration>

Please have your model number and serial number available when registering your product or requesting warranty support.

Scan to register your product online:



Spare Parts

Replacement parts diagrams and component identification resources are available at:

www.noriota.ca

Search by model number and verify the model and serial number before ordering parts. Use only approved replacement parts intended for this model. Parts diagrams are for identification only and do not replace qualified service procedures.

Rating Label Information

The rating label is located on the unit in a visible service-access location. The exact location may vary by model. The rating label contains important technical and identification information for the unit, including:

- Model number
- Serial number
- Electrical rating
- Voltage
- Frequency
- Power consumption
- Refrigerant information
- Certification information, including applicable safety and sanitation standards

Always verify that the electrical supply matches the requirements shown on the rating label before operation.

Do not remove, cover, deface, paint over, or damage the rating label. The rating label must remain legible for the life of the equipment.

COMMISSIONING RECORD

Record the information below at the time of installation. This record helps confirm proper installation conditions, supports future service, and may assist in warranty evaluation. Retain this page for your records.

UNIT AND PURCHASE INFORMATION

Model Number: _____

Serial Number: _____

Date of Purchase: _____

Purchased From (Dealer / Supplier): _____

Dealer Contact (if available): _____

INSTALLATION DETAILS

Installation Date: _____

Installation Location (Site / Address): _____

Installed By (Company / Technician Name): _____

Installer Contact (if available): _____

<p>ELECTRICAL AND WATER SUPPLY VERIFICATION</p> <p>Electrical Supply Voltage: _____ <input type="checkbox"/> Verified matches rating label specification</p> <p>Frequency: _____ <input type="checkbox"/> Verified matches rating label specification</p> <p>Grounded Electrical Connection Verified: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Water Pressure Within Specification: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Incoming Water Temperature: _____</p> <p>Included Sediment Filter Installed and Connected Correctly: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p>Anti-Scale Filter Installed (Not Included): <input type="checkbox"/> Yes <input type="checkbox"/> No Filter Model / Specification: _____</p>	<p>INSTALLATION AND UNIT SETUP</p> <p>Ice Machine and Bin Level and Stable: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Ice Machine Secured to Bin: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Separate Drain Lines Installed Correctly: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Required Airflow Clearances Maintained: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Rear Air Intake / Side Discharge Unobstructed: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Condenser Air Filter Installed Correctly: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Water Supply and Drain Connections Leak-Free: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Water Curtain Moves Freely: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Ambient Air Temperature at Installation: _____</p>
<p>INITIAL STARTUP AND OPERATION CHECK</p> <p>POWER Ⓜ Button Operates Correctly: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Control Panel Display Operates Correctly: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Water Fill Operation Functions Correctly: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Ice Production Cycle Starts Normally: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Harvest Cycle Functions Correctly: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Automatic Bin-Full Operation Verified: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Abnormal Noise, Vibration, Leakage, Odor, or Fault Indicators Present: <input type="checkbox"/> Yes <input type="checkbox"/> No - if yes, discontinue use and investigate before operation</p>	<p>CLEANING AND FINAL COMMISSIONING</p> <p>Initial Cleaning and Sanitizing Completed: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>First Two Ice Batches Discarded: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Customer or Operator Received Basic Operating Instructions: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>User Manual Provided to Operator: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Final Operational Check Completed: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Warranty Registration Completed: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

NOTES / OBSERVATIONS

INSTALLER CONFIRMATION

Installer Name: _____

Signature: _____

Date: _____

6 Loring Drive, Bolton, Ontario L7E 1H5 | 1-877-667-4682 (1-877-NORIOTA)
support@noriota.ca
www.noriota.ca

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