ICE MACHINES AVANTCO®

User Manual

12/2025

Air Cooled Undercounter Nugget Ice Machine

Models:

#194UN100A **#194UN200A** **#194UN300A**

Note:

Read this manual in its entirety prior to equipment setup, operation, and maintenance.

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Air Cooled Undercounter Nugget Ice Machine

Critical Information

Required Ventilation for Functionality: Maintain clearances of 12” (30 cm) at the front of the unit, 8” (20 cm) at the back of the unit, and 6” (15 cm) on each side of the unit for proper airflow. Improper ventilation will decrease ice production and reduce the unit's lifespan.

Use Treated Water: Only use drinking water in the inlet. To prevent contamination, never use groundwater or non-potable water sources. Using groundwater or non-potable water sources may lead to poor ice quality and frequent cleaning / maintenance.

Service by Professionals Only: Installation, repairs, and maintenance must be performed by qualified service personnel to ensure safe operation. Improper work will void your warranty and create safety hazards.

Level the Unit: The ice maker must be perfectly level for proper operation. An unleveled unit will significantly reduce ice production and may cause mechanical problems.

Contents

C ETL CM LISTED Intertek 5002544

ETL SANITATION LISTED Intertek 5002544

UL LISTED 5002544

NEMA 5-15P

UL-563, NSF/ANSI-12

Hazard Statements

WARNING – Prevent Electric Shock
Using the machine while connected to power can result in electric shock or serious injury.
Unplug the unit before cleaning, servicing, or in case of failure.
Use only the specified power supply with a leakage-protected grounded socket.
Do not clean, service, or handle electrical issues while the unit remains connected to power.
Electric shock or serious injury may occur from electrical contact during maintenance.

WARNING – Ensure Proper Grounding
Improper grounding can result in electrical shock or fire.
Do not ground the unit to gas pipes, water pipes, telephone lines, or lightning rods.
Avoid using inappropriate grounding methods or connections to utility lines.
Electrical shock or fire hazards may occur from improper grounding connections.

WARNING – Protect Electrical Components
Exposure of electrical components to moisture may result in short circuit or electric shock.
Do not pour water directly onto the machine or place the unit in humid or splash-prone areas.
Avoid exposing the unit to direct water contact or high-moisture environments.
Short circuit or electric shock may occur from moisture contact with electrical components.

WARNING – Maintain Electrical Safety
Continued use of a faulty cord can lead to electric shock or fire.
Ensure that damaged power cords are replaced by professionals.
Do not operate the unit with damaged, frayed, or compromised power cords.
Electric shock or fire may occur from continued use of damaged electrical components.

Mechanical Hazards

WARNING – Prevent Mechanical Injury
Improper contact with rotating parts can result in mechanical injury.
Do not insert objects into vents or ports, and avoid manual handling of the unit.
Avoid putting hands, tools, or objects into any openings or near moving components.
Mechanical injury may occur from contact with rotating or moving parts.

WARNING – Ensure Safe Installation
Failure to install the unit as directed may lead to tipping, equipment damage, or personal injury.
Install on stable ground and maintain proper clearances of 12” (30 cm) at the front of the unit, 8” (20 cm) at the back of the unit, and 6” (15 cm) on each side of the unit.
Avoid installation on unstable surfaces or without adequate clearance space.
Tipping, equipment damage, or personal injury may occur from improper installation.

WARNING – Flammable Materials
The internal insulation contains flammable foaming agent cyclopentane.
Ensure proper disposal and recycling to avoid fire or explosions.
Avoid improper disposal or damage to insulation materials during service.
Fire or explosions may occur from improper handling of flammable insulation materials.

Hazard Statements

WARNING – Flammable Refrigerant
Improper handling of R-290 refrigerant can lead to fire or explosion.
Maintain proper ventilation around the unit.
Do not puncture refrigerant tubing, do not use mechanical defrosting devices, and do not use electrical appliances in the ice bin.
Avoid damaging refrigerant lines, blocking ventilation, or introducing ignition sources near the unit.

WARNING – Use Professional Service
Unqualified servicing may lead to fire, explosion, or equipment failure.
All servicing and repairs must be performed by trained personnel.
Avoid DIY repairs or using unqualified service providers.
Fire, explosion, or equipment failure may occur from unqualified service work.

WARNING – Avoid Storing Flammables
Internal flammable environments increase the risk of fire or explosion.
Do not store volatile or flammable substances inside the machine.
Avoid placing any combustible materials, chemicals, or flammable items in the unit.
Fire or explosion may occur from storing flammable substances in the unit.

WARNING – Use Drinking Water Only
Using non-potable or groundwater may contaminate the ice and pose health risks.
Only drinking water must be used in the water inlet.
Avoid using tap water, well water, or any non-potable water sources.
Ice contamination and health risks may occur from using non-potable water sources.

WARNING – Avoid Hot Water
Introducing hot water can damage internal systems or cause malfunctions.
Do not run hot water through the machine.
Avoid connecting hot water lines or introducing heated water to the system.
Internal system damage or malfunctions may occur from hot water introduction.

WARNING – Require Supervision
Misuse could lead to injury or equipment damage.
The unit is not intended for use by children or individuals with physical or mental disabilities unless properly supervised.
Avoid unsupervised use by individuals who may not understand proper operation.
Injury or equipment damage may occur from unsupervised use by vulnerable individuals.

WARNING – Prevent Unauthorized Access
Unexpected operation may lead to injury.
Prevent unauthorized or unsupervised access, especially by children.
Do not leave the unit accessible to untrained individuals or children.
Injury may occur from unexpected or improper operation by unauthorized users.

Hazard Statements

WARNING – Use Professional Installation
Improper setup or service may result in malfunction or harm.
The unit must be installed, repaired, and maintained by qualified professionals.
Avoid DIY installation or using unqualified personnel for setup and service.
Malfunction or harm may occur from improper installation or service work.

WARNING – Use Proper Parts
Using incompatible parts may result in malfunction or contamination.
Use only the enclosed water pipe assembly and do not reuse parts from other machines.
Avoid substituting non-approved parts or components from other equipment.
Malfunction or contamination may occur from using incompatible or non-approved parts.

WARNING – Maintain Proper Conditions
Inadequate environmental conditions may cause performance failure or safety hazards.
The ice machine must be used in a properly ventilated, indoor environment.
Avoid outdoor use or operation in poorly ventilated areas.

WARNING – Protect Compressor
Operating the machine prematurely can cause compressor damage.
Keep the ice machine upright for at least 24 hours before startup after delivery.
Avoid operating the unit immediately after transport or if it has been tilted.
Compressor damage may occur from premature operation after transport.

WARNING – Use Ice Bin Properly
Misuse of the bin can lead to contamination or health risks.
Do not refrigerate or freeze food in the ice bin, and keep the ice shovel clean.
Avoid using the ice bin for food storage or allowing contamination of ice-contact surfaces.
Contamination or health risks may occur from improper ice bin usage.

WARNING – Prevent Contamination
Neglecting cleaning can lead to bacterial contamination of the water and ice supply.
Clean residual ice before maintenance.
Do not perform maintenance without first removing and cleaning all ice residue.
Bacterial contamination of water and ice supply may occur from inadequate cleaning.

WARNING – Handle Insulation Safely
Failure to handle insulation properly may result in pollution or fire hazards.
Internal insulation must be handled and discarded according to appropriate environmental protocols.
Avoid improper disposal or damage to insulation materials during service or disposal.
Pollution or fire hazards may occur from improper insulation handling or disposal.

Initial Setup

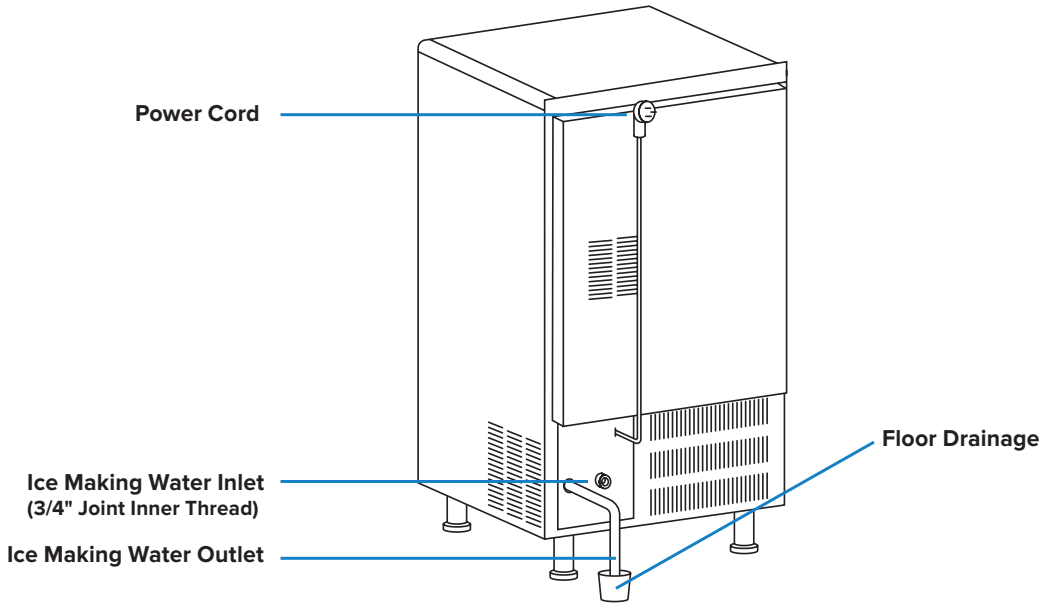
Inspect the Packaging: Examine the unit's packaging for any signs of damage that may have occurred during shipping.

Unboxing: Open the packaging with care.

- Use scissors or a box cutter to cut open the box.
- Ensure you do not damage the unit or its components.
- If any damage is noticed, contact customer service immediately.

Placement:

- **Place on Stable Surface:** Place unit on a stable, level surface to prevent tipping.
- **Maintain Clearances:** Maintain clearances of 12" (30 cm) at the front of the unit, 8" (20 cm) at the back of the unit, and 6" (15 cm) on each side of the unit for proper airflow.
- **Maintain Upright Position:** Maintain upright position for 24 hours before initial startup to prevent compressor damage.
- **Water Connection:** Do not reuse any existing water connections, as old water lines may contain buildup / contaminants.
- **Use Professional Installation:** Unit must be installed, repaired, and maintained by qualified professionals to ensure safety.
- **Verify Power Requirements:** Use only specified power supply and GFCI outlet to ensure electrical safety.
- **Indoor Only:** This ice machine is designed to be used in a climate-controlled indoor environment. Outdoor operation will void the warranty.



Installation

Inital Setup Requirements

Component Verification

- **Check Included Items:** Verify the package contains nugget ice maker unit, water pipe assembly, ice shovel, and user manual.

Professional Installation Requirements

- **Use Certified Technician:** A certified and insured technician or plumber is required for installation to ensure safe and proper setup.

Connection Instructions

Electrical Connection

- **Connect to Proper Outlet:** Use properly grounded, 120V AC, GFCI outlet.
- **Avoid Extension Cords:** Do not connect the unit to power using extension cords or adapters to prevent electrical hazards and maintain proper power supply.

Water Connection

- **Use Provided Assembly:** Connect water inlet using only the provided water pipe assembly to ensure proper fit and food safety.
- **Ensure Water Quality:** Use potable drinking water only for safe ice production and quality standards.
- **Water Temperature:** Avoid hot water supply. The maximum inlet temperature is 95°F / 35°C to prevent equipment damage.
- **Secure Properly:** Tighten inlet pipe with correct torque without overtightening to prevent damage (hand-tight plus 1/4 turn).

Drainage Connection

- **Attach Drain Hose:** Connect drain hose from designated outlet using appropriate fittings for proper drainage function.
- **Ensure Proper Slope:** Maintain minimum 1 degree slope (approximately 1 cm drop every 1 meter) for gravity drainage to ensure water flow.
- **Prevent Obstructions:** Confirm no kinks or obstructions in outlet pipe to maintain proper drainage and prevent backups.

Cleaning

General Cleaning Guidelines

- **Inspect Regularly:** Perform regular inspection and cleaning as needed or every 6 months to maintain optimal performance.
- **Ensure Safety First:** Always unplug equipment before cleaning to prevent electrical hazards during maintenance.

Cabinet Interior Cleaning

- **Use Mild Solutions:** Clean interior with solvent of warm water and mild soap for safe sanitization.
- **Avoid Harmful Materials:** Do not use steel wool, caustic soap, abrasive cleaners, or bleach that may damage interior finish.

Ice Bin Cleaning Process

- **Empty and Clean Thoroughly:** Remove all ice from bin and wipe interior surfaces with warm water and mild food-safe detergent to maintain hygiene standards.
- **Complete Sanitization:** Rinse thoroughly and dry completely to prevent moisture buildup and bacterial growth.
- **Use Safe Materials:** Clean with soft cloth, warm water, and mild food-safe detergent for proper sanitization.
- **Monitor Warning Signs:** Watch for foul odor, visible mold, or residue indicating immediate cleaning need.
- **Prevent Health Hazards:** Understand that neglect may result in ice contamination and serious health risks.

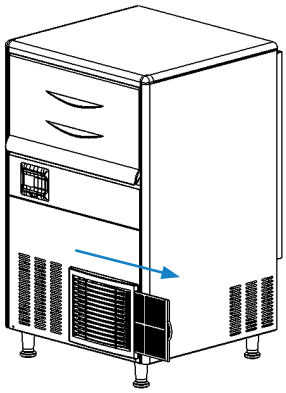
Exterior Surface Maintenance

- **Clean External Surfaces:** Power off unit and gently clean exterior surfaces while avoiding vent openings to maintain cleanliness.
- **Apply Appropriate Products:** Use soft, damp cloth with non-abrasive cleaner to prevent surface damage.
- **Maintain Proper Ventilation:** Prevent equipment contamination and impaired ventilation through regular exterior cleaning.

Ice Chute Maintenance

- **Clear Blockages:** Check ice chute and bin for residual ice buildup and remove leftover ice to prevent operational problems.
- **Use Proper Tools:** Utilize ice shovel provided with unit for safe ice removal without component damage.
- **Recognize Problems:** Watch for blocked or slow-dispensing ice, indicating immediate clearing requirement.
- **Prevent Performance Issues:** Understand that neglect may cause ice jams and inefficient operation.

Air Filter Care



- **Inspect Filter Regularly:** Check filter on routine basis to ensure proper water filtration and system protection.
- **Air Filter Cleaning:** Clean the filter using a fine brush and a vacuum. If using water, allow filter to completely dry before reinserting.

Ice Bin Internal Cleaning

- **Rinse Directly:** Clean inside of ice bin by rinsing directly with water pipe for thorough sanitization and debris removal.
- **Full Ice Switch:** Wipe lens of transmitter and receiver of full ice switch once a month to ensure accurate ice level detection and prevent false readings.

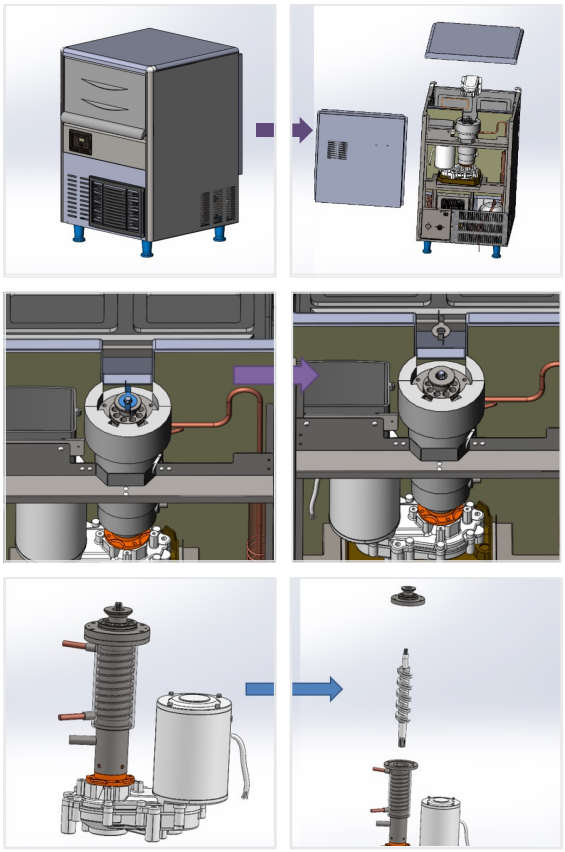
Condenser Coil Cleaning

- **Understand Dust Risks:** Recognize that a dusty condenser may lead to high energy consumption, reduced cooling effectiveness, and compressor damage.
- **Maintain Clean Surface:** Keep condenser surface free of dust, dirt, and lint for efficient operation.
- **Follow Monthly Schedule:** Clean condenser coil at least once per month for optimal performance.
- **Locate Condenser:** Find condenser coil at bottom behind panel for access during cleaning.

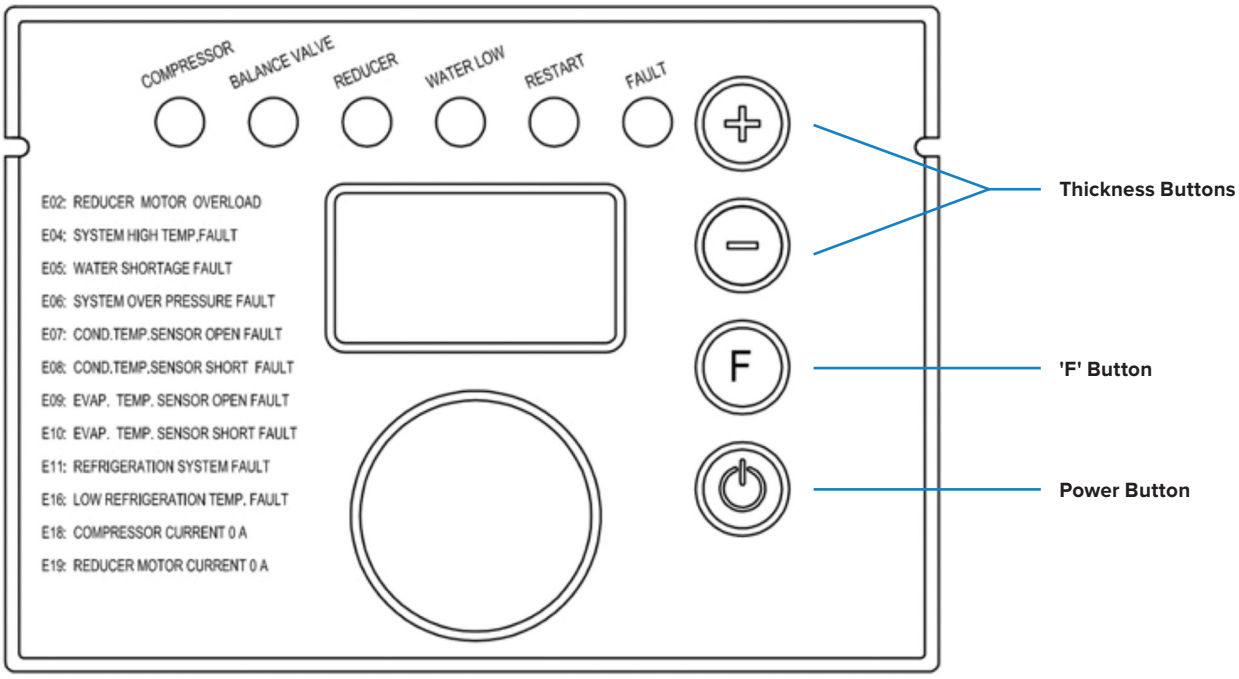
4-6 Month Manual Cleaning & Sanitizing

NOTE – Maintenance and care must be conducted by qualified professionals.

1. First, remove the top plate and back plate of the nugget ice machine (each has four screws).
2. Remove the cover and trough of the nugget ice drain.
3. Remove the sink cover.
4. Twist to the left. Remove the ice flake.
5. Remove the through hole of the nugget ice extrusion nozzle and the spiral drill.
6. Clean the water tank and auger.
7. After cleaning, follow the steps to reassemble the removed components back into the machine.
8. After cleaning, allow the nugget ice machine to make ice in a cycle for four hours. Then clean the ice bin before use.



Operation



Control Panel

- **Power Button:** Controls power to unit. Use to turn machine on / off.
- **Thickness Buttons (+/-):** Adjust the thickness of the ice produced.
- **F Button:** For advanced functionality, used by technicians only.

Standard Operation

- **Begin Operation:** Press Power Button to start system and begin ice production cycle.
- **Monitor Operation Status:** Observe display indicators to ensure unit enters Ice Making mode for operation verification.
- **Track System Status:** Watch Full Ice Bin and Water Shortage indicators to monitor operational status and address issues.
- **Access Ice Production:** Use the ice scoop to remove ice from the ice bin as needed. Ensure the ice scoop is clean to maintain hygiene standards.
- **Maintain Ventilation:** Maintain clearances of 12” (30 cm) at the front of the unit, 8” (20 cm) at the back of the unit, and 6” (15 cm) on each side of the unit for proper airflow.

Long-Term Storage

- **Execute Normal Shutdown:** Press Power Button to turn off and stop all operational functions.
- **Disconnect for Extended Downtime:** Unplug power cord if extended downtime is expected to conserve energy.
- **Clean Residual Ice:** Remove any remaining ice from bin to prevent contamination during shutdown.
- **Deep Clean:** Follow the cleaning instructions to complete a deep clean of the unit before long-term storage.

Emergency Shutdown

- **Stop Operation Immediately:** Press Power Button to halt all system functions instantly.
- **Cut Power Supply:** Unplug power cord to completely disconnect electrical power.
- **Contact Service Personnel:** Reach out to authorized service personnel if malfunction is present to address to address technical issues if malfunction is present.

Maintenance

Monthly

Inspect for Wear

Purpose: To regularly check all components for signs of wear, tear, or damage, and replace as necessary.

1. Turn off and disconnect the machine from the power source.
2. Inspect the plug and cord for any indications of excessive wear, which may encompass discoloration, burn marks, cuts, and tears.
3. Check the integrity of electrical cords and plug points.
4. Examine taps, levers, and other manual components for ease of operation.
5. If any issues are detected, consult the “Troubleshooting” section, or contact a service provider for recommended actions or replacements.

Annual Maintenance

Professional Servicing

Purpose: To ensure that specialized features like electrical components and temperature controls are working correctly.

1. Schedule an annual service appointment with a certified technician who specializes in refrigeration.
2. The technician will perform a comprehensive inspection, checking electrical components.
3. Any worn-out or damaged parts will be replaced.
4. Obtain a detailed service report for your records, beneficial for both warranty claims and future troubleshooting.
5. If necessary, clean the fan blades and motor with a soft cloth to remove any buildup.

Troubleshooting

Symptom	Probable Cause	Solution
Ice maker not making ice.	Water supply is not connected, or water valve is closed.	Connect water supply and open the water valve to restore water flow.
	Ambient temperature too high, or installation area not well-ventilated.	Maintain clearances of 12” (30 cm) at the front of the unit, 8” (20 cm) at the back of the unit, and 6” (15 cm) on each side of the unit for proper airflow. Install in a climate-controlled, indoor environment to improve operating conditions.
	Machine not level, causing improper operation.	Adjust the unit to be level using adjustment feet to ensure proper operation.
	Ice bin is full, and sensor is preventing more ice production.	Empty the ice bin to allow ice production to resume.
Machine not turning on.	Power cord is not plugged in, or there is no power at outlet.	Plug in the power cord properly and check power supply to restore power.
	Circuit breaker is tripped, or fuse is blown.	Reset the circuit breaker or replace the fuse as needed to restore electrical power.
	Internal electrical failure.	Contact professional service technician for diagnosis and repair.
Loud operating noise.	Unit is not placed on stable, level surface.	Place the unit on level, stable ground to reduce vibration.
	Loose or foreign items inside machine.	Turn off power, inspect, and remove any foreign objects to eliminate noise source.
Water leakage.	Inlet or drainpipe is loose or damaged.	Check and tighten all water connections or replace damaged pipes to stop leaks.
	Ice buildup blocking drainage.	Defrost unit and clear any ice blockage to restore drainage.
Ice has unusual color or odor.	Ice bin or water source is contaminated.	Clean ice bin and water path thoroughly and use potable water only to ensure ice quality.
	Machine not cleaned regularly.	Perform regular cleaning and maintenance per manual recommendations to maintain hygiene.
Ice is melting too quickly inside the bin.	High ambient room temperature.	Move unit to a cooler area or improve room ventilation to reduce melting.
	Bin lid / cover is not closed properly.	Ensure the ice bin cover is properly sealed to maintain insulation.

Troubleshooting

Symptom	Probable Cause	Solution
Unusual ice shape or small-sized ice.	Low water pressure.	Check water supply pressure and adjust if necessary to improve ice formation.
	Water filter clogged or dirty.	Replace or clean the water filter to restore water flow.
	Machine not level, causing improper operation.	Adjust the unit to be level using adjustment feet to ensure proper operation.
	Ice bin is full, and sensor is preventing more ice production.	Empty the ice bin to allow ice production to resume.
Ice production is slow.	Ambient or water temperature too high.	Plug in the power cord properly and check power supply to restore power.
	Condenser is dirty or blocked.	Clean condenser and remove any obstructions from airflow passages to restore efficiency.
Error code displayed on control panel.	Various system errors (e.g., sensor failure, overheat, refrigerant issue).	Refer to error code table in the manual and contact qualified service personnel if needed to address system errors.
Water leakage.	Inlet or drainpipe is loose or damaged.	Check and tighten all water connections or replace damaged pipes to stop leaks.
	Ice buildup blocking drainage.	Defrost unit and clear any ice blockage to restore drainage.
Water remains in machine after shutdown.	Drain pump or pipe blocked.	Check drain for clogs and clear any blockages to enable proper drainage.
Machine shuts down unexpectedly.	Voltage fluctuation or power surge.	Use a voltage stabilizer and verify power supply to provide stable power.
	Internal overheat protection triggered.	Allow unit to cool and investigate cooling system functionality to prevent overheating.
Condensation forming on exterior.	High humidity environment.	Ensure adequate ventilation and reduce room humidity levels to reduce condensation.
	Poor door / bin gasket sealing.	Inspect and replace any worn gaskets for proper insulation.

Error Codes

Code	Meaning	Machine Action
E1	COMPRESSOR OVERLOAD	Shutdown for protection.
E02	REDUCER OVERLOAD	Shutdown for protection.
E04	HIGH TEMP. FAULT	Shutdown for protection.
E05	WATER SHORTAGE FAULT	Shutdown for protection.
E06	HIGH PRESSURE FAULT	Shutdown for protection.
E07	COND. TEMP. OPEN CIRCUIT FAULT, displayed once every 5 seconds	No shutdown.
E08	COND. TEMP. SHORT CIRCUIT FAULT, displayed once every 5 seconds	No shutdown.
E09	EVP. TEMP. OPEN CIRCUIT FAULT	Shutdown for protection.
E10	EVP. TEMP. SHORT CIRCUIT FAULT	Shutdown for protection.
E11	REFRIGERATION SYSTEM FAULT	No shutdown.
E16	LOW REFRIGERATION TEMP. FAULT	Shutdown for protection.
E18	COMPRESSOR CURRENT 0A	Shutdown for protection.
E19	REDUCER CURRENT 0A	Shutdown for protection.