



Owner/Operator Use and Care Guide

“1” Series Ice Cube Machine

THE HOTTEST MACHINES ON ICE™

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The products, technical information, and instructions contained in this manual are subject to change without notice. These instructions are not intended to cover all details or variations of the equipment, nor to provide for every possible contingency in the installation, operation or maintenance of this equipment. This manual assumes that the person(s) working on the equipment have been trained and are skilled in working with electrical, plumbing, pneumatic, and mechanical equipment. It is assumed that appropriate safety precautions are taken and that all local safety and construction requirements are being met, in addition to the information contained in this manual.

This Product is warranted only as provided in Cornelius' Commercial Warranty applicable to this Product and is subject to all of the restrictions and limitations contained in the Commercial Warranty.

Cornelius will not be responsible for any repair, replacement or other service required by or loss or damage resulting from any of the following occurrences, including but not limited to, (1) other than normal and proper use and normal service conditions with respect to the Product, (2) improper voltage, (3) inadequate wiring, (4) abuse, (5) accident, (6) alteration, (7) misuse, (8) neglect, (9) unauthorized repair or the failure to utilize suitably qualified and trained persons to perform service and/or repair of the Product, (10) improper cleaning, (11) failure to follow installation, operating, cleaning or maintenance instructions, (12) use of "non-authorized" parts (i.e., parts that are not 100% compatible with the Product) which use voids the entire warranty, (13) Product parts in contact with water or the product dispensed which are adversely impacted by changes in liquid scale or chemical composition.

Contact Information:

To inquire about current revisions of this and other documentation or for assistance with any Cornelius product contact:

www.cornelius.com
800-238-3600

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This document contains the original instructions for the unit described.

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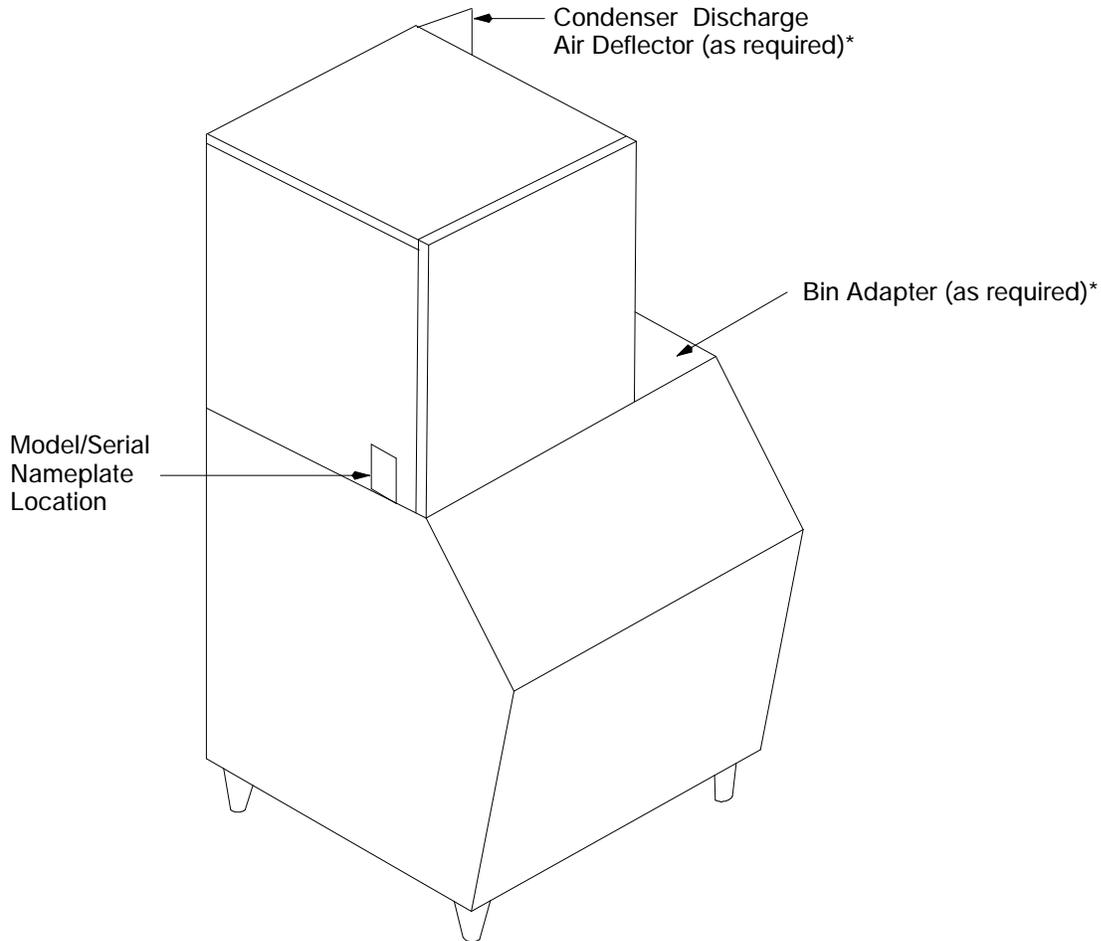
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MODEL & SERIAL LOCATION

"I" Series Cuber



*Bin adapters and condenser discharge air deflector may be required depending on your location or the size of the storage bin.

Record the model number and the serial number of your ice equipment. These numbers are required when requesting information from your local dealer/distributor/service company.

Model Number -

Date Installed -

Serial Number -

Purchased From -

WARRANTY

Warranty Coverage

The following warranty outline is provided for your convenience. For full details, read the warranty bond at the back of this manual.

Exclusions from the Warranty Coverage

The following items are **not** included in the ice machine warranty coverage.

1. Normal maintenance, adjustments and cleaning as outlined in this manual.
2. Repairs due to unauthorized modifications to the ice machine or use of non-standard parts without prior written approval.
3. Damage caused by improper installation of the ice machine, electrical supply, water supply or drainage; floods, storms, or other acts of God.
4. Premium labor rates due to holidays, overtime, etc.; travel time; flat rate service call charges; mileage and miscellaneous tools and material charges not listed on the payment schedule. Additional labor charges resulting from inaccessibility to the ice machine are also excluded.
5. Parts or assemblies subjected to misuse, abuse, neglect or accidents.
6. Damage or problems caused by installation, cleaning and/or maintenance procedures inconsistent with the technical instructions provided in the Installation Manual and this *Owner/Operator Use and Care Guide*.

OWNER'S RECOMMENDED MAINTENANCE

SEMI-ANNUAL MAINTENANCE	
1.	GENERAL ICE MACHINE INSPECTION
2.	CLEANING THE EXTERIOR
3.	CLEANING THE CONDENSER - AIR-COOLED WATER-COOLED
4.	INTERIOR CLEANING - CLEANING PROCEDURES SANITIZING PROCEDURES

1. General Ice Machine Inspection

- Check all water fittings and tubes for leaks. Also, make sure the refrigeration tubing is not rubbing or vibrating against other tubing panels, etc.
- Do not stack anything (boxes, etc.) on or around the ice machine.
- Do not cover the ice machine while it is operating. There must be adequate air flow through and around the ice machine to ensure long component life and adequate ice production.

2. Cleaning the Exterior

1. Clean the area around the ice machine as often as necessary to maintain cleanliness and efficient operation.
2. Sponge dust and dirt off the outside of the ice machine with mild soap and water. Wipe dry with a soft clean cloth.



Warning

Stainless steel panels should be cleaned with mild soap or a commercial stainless steel cleaner. Do not use cleaners containing bleaching agents; they usually contain chlorine which stains stainless steel. Heavy stains should be removed with stainless steel wool. Never use plain steel wool or abrasive pads because they will scratch the panel and cause rusting.

3. CLEANING THE CONDENSER



Caution

Disconnect electric power to the ice machine at the electric service switch box before cleaning condenser!

Air-Cooled Condenser

A dirty condenser restricts airflow which results in excessively high operating temperatures. High operating temperatures reduce ice production and shorten component life. Clean the condenser at least every six months.



Caution

Condenser fins are sharp. Use care when cleaning them.

1. Clean the outside of the condenser with a soft brush or vacuum with a brush attachment. Brush or wash condenser from top to bottom, not from side to side. Be careful not to bend the fins. Shine a flashlight through the condenser to check for dirt between the fins.
2. If further cleaning is required, blow compressed air through the condenser from the inside. Take care not to bend the fan blades. Shine a flashlight through the condenser to check that all the dirt is removed.

IMPORTANT:

Any bent condenser fins must be straightened with a fin comb. Contact your local service agent to do this service.

Water-Cooled Condenser (and regulating valve)

The water-cooled condenser and water regulating valve may require cleaning due to scale build-up.

Low ice production, high water consumption, and high operating temperatures and pressures all may be symptoms of restrictions in the condenser water circuit.

IMPORTANT:

The cleaning procedures require special pumps and cleaning solutions and, therefore, should be performed by qualified maintenance or service personnel.

4. Cleaning the Interior

Approved ice machine cleaners by brand names:

- Lime-A-Way
- Calgon Nickel Safe (green color only)

NOTE:

All ice machine cleaners labeled safe for nickel ARE NOT the brand CALGON NICKEL SAFE.



Caution

Ice machine cleaners are acidic-based chemicals. Before beginning any cleaning of the cuber, the ice in the storage bin or dispenser must be removed.



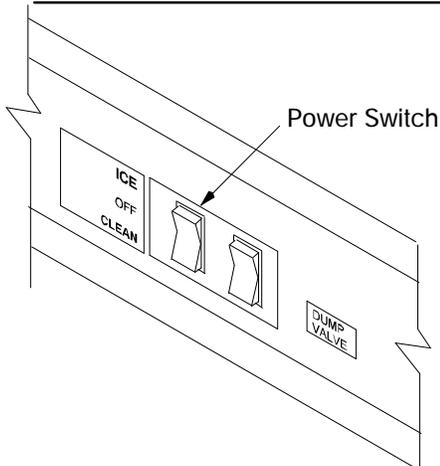
Warning

When using any chemical, rubber gloves and eye protection should be worn.

Prep Clean

Use full-strength ice machine cleaner on a coarse surface material (such as terry cloth) and wipe down the inside wall of the evaporator area, the water pan, the water curtain and evaporator plastic extrusions. If the water distributor tube has heavy scale build-up, remove and soak it in full-strength ice machine cleaner (or exchange the tube and clean the scaled tube at a later date).

Cleaning the Water System & Evaporator



1. Set the switch to CLEAN and allow the ice on the evaporator to release and melt away.
2. Remove all ice from the storage bin.
3. Remove the water curtains, pour 1/2 oz. of ice machine cleaner down the rear key-slot openings. The cleaner will drain into the water pan.
4. Return the water curtains to their proper operating position.
5. Add 3 oz. for a single evaporator, or 5 oz. for a dual evaporator of "Calgon Nickel-Safe" or "Lime-A-Way" ice machine cleaner directly into the water pan. Set switch to CLEAN, circulate for a maximum of 15 minutes
6. Depress and hold the dump switch to allow the cleaner to drain away.
7. Fill the water pan with clean fresh water, circulate for approximately 3 minutes. Depress the DUMP switch and allow the water to drain away. Repeat this procedure 3 times.
8. After third rinse cycle, place product power switch in ice position. Allow product to produce one slab of ice - DISCARD THE ICE.
9. When clean cycle is complete, return cuber to normal operating mode.

Note:

Please Take Note of the Following:

- Ice machines should only be cleaned when needed, not by a timed schedule of every 60 days, etc.
- Should your ice machine require cleaning more than twice a year, consult your distributor or dealer about proper water treatment.

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SANITIZING PROCEDURES

Note: **To be performed only after cleaning the ice machine:**

1. *Add 1/4 ounce (7.08 g) sodium hypochlorite solution (common liquid laundry bleach) to the water pan and allow the pump to circulate the solution for 5 minutes. You may also use a commercial sanitizer such as Calgon Ice Machine Sanitizer following the directions on the product label.
2. Turn the product power switch off. Depress and hold the dump switch to drain the water pan.
3. To sanitize the bin and other surface areas, use 1 ounce of liquid bleach per gallon of water and wipe all areas with the solution. Or use a commercial sanitizer.
4. Place the product power switch in the ice position. Discard the first batch of ice produced.
5. Cleaning and sanitizing are now complete. Product may be returned to normal service.

*Make certain the water curtains are correctly positioned before operating the water pump.

BEFORE CALLING FOR SERVICE

If a problem arises during the operation of your ice machine, follow the checklist below before calling for service.

CHECKLIST

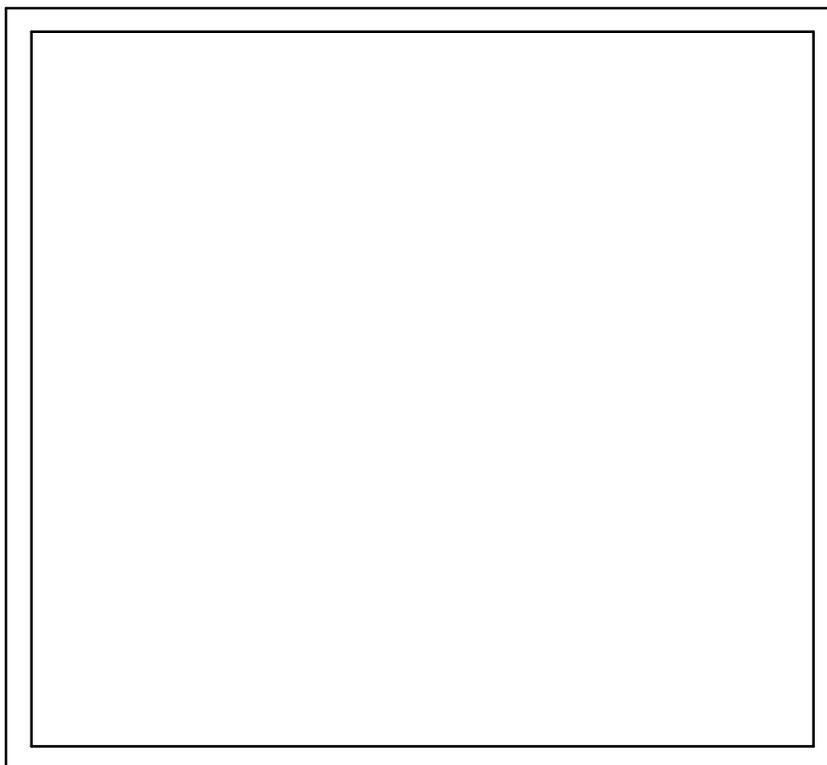
Problem	Probable Cause	Remedy
ICE MACHINE DOES NOT OPERATE	A. No electrical power to ice machine.	A. Replace fuse, reset circuit breaker, turn on main switch.
	B. Tripped high pressure cutout.	B. Reset high pressure cut-out.
	C. ICE/OFF/CLEAN switch set improperly.	C. Set switch at ICE.
	D. Water curtain stuck open.	D. Water curtain must swing freely.
ICE MACHINE STOPS AND CAN BE RESTARTED BY TURNING POWER SWITCH OFF THEN BACK ON AGAIN	A. Safety limit feature stopping ice machine.	A. Refer to safety limit feature.
ICE MACHINE DOES NOT RELEASE ICE OR IS SLOW TO HARVEST	A. Ice machine evaporator dirty.	A. Clean the evaporator, the water system and sanitize ice machine.
	B. Ice machine not level.	B. Level ice machine.
	C. Air-cooled models: low ambient.	C. Minimum ambient is 50°F .
	D. Water regulating valve leaking during harvest mode (water-cooled ice machines).	D. Refer to water-cooled condenser.
POOR QUALITY ICE. (ICE SOFT OR NOT CLEAR)	A. Quality of incoming water.	A. Contact qualified service company to test quality of water and make appropriate filter recommendations.
	B. Water filtration element needs to be changed.	B. Replace filter.
	C. Ice machine dirty.	C. Clean and sanitize ice machine, pages 5 & 6.
	D. Water dump valve not working.	D. Disassemble and clean the water dump valve.
	E. Water softener working improperly (if installed).	E. Repair water softener.

SAFETY LIMIT FEATURE

In addition to standard safety controls such as the high pressure cut-out, your ice machine features built-in safety limits that stop the ice machine if conditions exist that may result in a major component failure.

Before calling for service, restart the ice machine using the following procedures:

1. Turn power switch off and then back to ICE MAKING position. If the safety limit feature has stopped the ice machine, it will restart after a short delay. Proceed to Step 2, but if the ice machine does not restart, refer to “Ice Machine Does Not Operate” in the problem checklist.
2. Let the ice machine operate to determine if the condition recurs...
 - a. If the ice machine stops again, the condition recurred; call for service.
 - b. If the ice machine continues to run, the condition corrected itself; let the machine run.



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