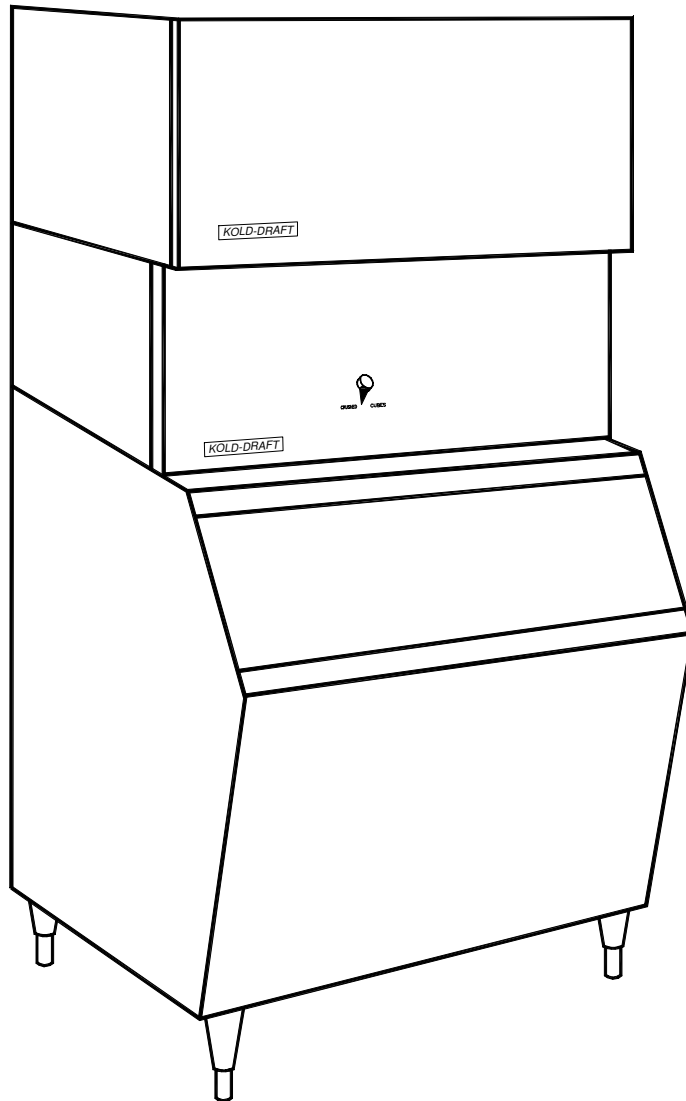




INSTALLATION AND OPERATION INSTRUCTIONS T271 / T274 ICE CRUSHERS



A Tradition of Excellence In ICE Equipment

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INSTALLATION AND OPERATION INSTRUCTIONS FOR KOLD-DRAFT T271/T274 ICE CRUSHERS WITH GB56X/GB106X CUBERS

CHECK FOR FREIGHT DAMAGE BEFORE PROCEEDING: Even though damage to the carton may not have been evident, check for hidden damage and contact freight carrier immediately if necessary to file a claim.

THIS EQUIPMENT MUST BE INSTALLED IN COMPLIANCE WITH THE APPLICABLE FEDERAL, STATE / PROVINCE AND / OR LOCAL PLUMBING, ELECTRICAL AND HEALTH / SANITATION CODES AND REQUIREMENTS.

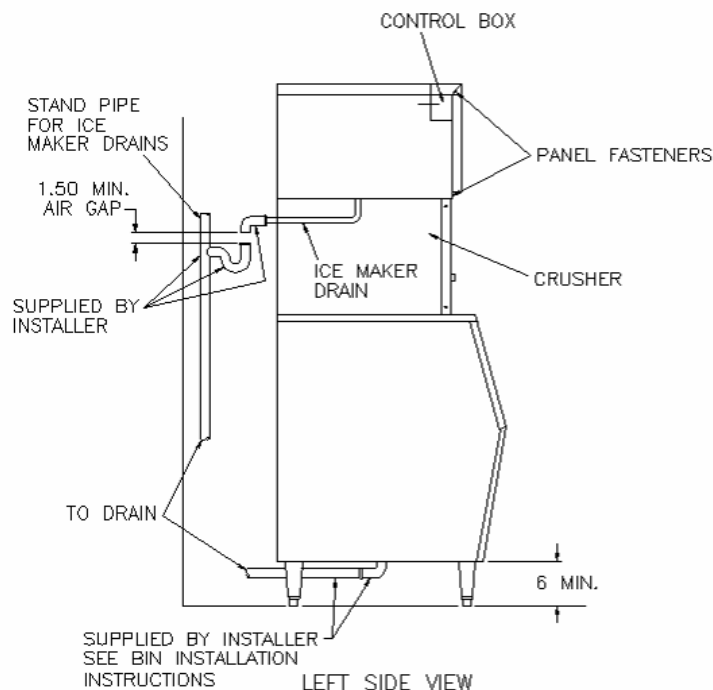
CAUTION:

- { RISK OF PERSONAL INJURY, PROPERTY DAMAGE, EQUIPMENT FAILURE OR FIRE.
- { Refer all maintenance to qualified personnel.
- { Never operate this equipment with covers, panels or other parts removed or not properly secured.
- { Warn all users to clean up spillage immediately, keep storage bin doors closed, and report any apparent leakage or unusual sounds to maintenance personnel.
- { Proper installation must include **Kold-Draft®** GB Series Ice Cuber mounted above the Crusher.

Installation

NOTE: Refer to ice cuber instructions before proceeding.

1. Position the ice storage bin maintaining at least the minimum clearances specified in the cuber instructions.



T271/T274 Crusher Installation Instructions

CAUTION:

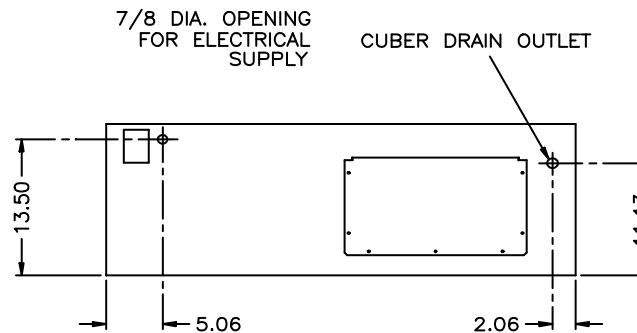
- { RISK OF PERSONAL INJURY OR EQUIPMENT DAMAGE.
- { Use a suitable lifting means and be careful of sharp edges.

2. Level the bin with adjusters on legs, or by shimming if the bin is to be sealed to the floor. If gaps due to shims are greater than 1/8 inch, install a cove molding around the bin bottom. Seal the bin or molding to the floor with NSF Certified RTV sealant. (Dow-Corning RTV 732 or equal).

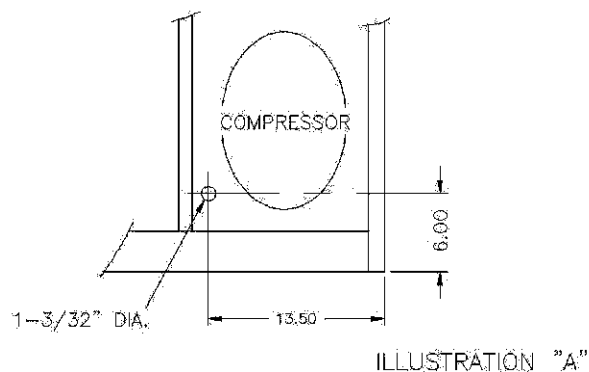
3. Install gasketing on top of bin if required. Gasket material must be positioned so that it extends to the outside edge of the perimeter of the crusher chassis when the crusher is in place.

4. **CAREFULLY** lift the crusher out of the carton and place onto the gasketed bin. (**NOTE:** *The selector knob must be removed before the front cover can be removed.*) Remove the front cover and note the alignment of the mounting holes in the chassis if mounting means are provided on the bin. Follow the bin installation instructions for securing the crusher to the bin.

5. Electrical and drain locations are shown below. All dimensions are in inches.

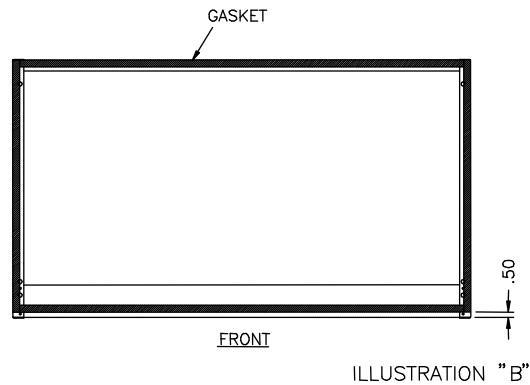


6. If a knockout is not provided, punch an 1-3/32 inch dia. hole in the ice maker condensing unit pan for the crusher control wiring. (See Illustration "A")

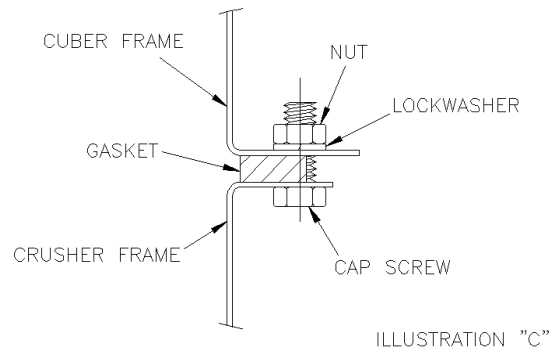


T271/T274 Crusher Installation Instructions

7. Install gasketing on top of crusher. (See Illustration "B").



8. Remove the cuber cabinet panels, lift and position cuber on top of gasketed crusher and align mounting holes. Install cap screws, lock washers and nuts. **CAUTION:** Support cuber until all fasteners are secured. (See Illustration "C")



CAUTION:

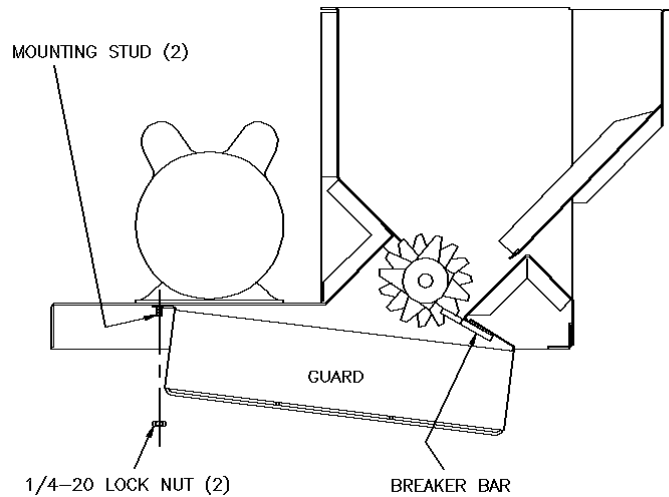
{ Risk of property damage, equipment failure or fire. Comply with all installation specifications for safe operation.

NOTE – If the ice cuber is supplied with stainless steel deflectors instead of plastic ice chute, the deflectors should be removed and replaced with the plastic ice chute and stainless steel front deflector provided with the crusher.

T271/T274 Crusher Installation Instructions

CRUSHER BOTTOM GUARD INSTALLATION INSTRUCTIONS

NOTE – IF POSSIBLE, INSTALL THE GUARD BEFORE THE CRUSHER IS MOUNTED ON A BIN.



FRONT CUTAWAY VIEW OF CRUSHER MECHANISM

9. Place the crusher on a flat surface, Then stand the unit on its left side.
10. Position the bottom guard so that the right side flange is hung over the ice breaker bar.
11. Install the left side flange over the mounting studs and secure in place with the 1/4-20 lock nuts.

Note: Use care when positioning the ice crusher on the bin so that the guard is not damaged. Be sure to check for internal bin components such as deflectors, Dividers ETC., Which may interfere with the guard during installation.

CAUTION:

{ Adjust the bin thermostat to turn off the bin cuber before the ice level is above the guard screen. If ice is allowed to collect above the screen it will not clear when the ice below is removed.

{ This condition will cause ice to pile up in the chute of the crusher and ultimately, damage the cuber.

{ It should be understood that the use of the bottom guard will REDUCE the effective volume of the bin.

T271/T274 Crusher Installation Instructions

The crusher is designed to operate in conjunction with one or two **Kold-Draft®** cubers. Two motor control relay blocks are provided and a relay coil must be installed for each cuber used. Each relay coil must have a voltage rating matching the voltage of the ice cuber, regardless of the crusher motor voltage. The relay coils are installed through the opening in the control box. A third relay is provided for controlling one or two cubers with the same set of bin thermostats. This relay coil voltage rating is matched to the crusher motor voltage and is provided with the crusher.

10. A dual safety switch system is employed in the crusher design to break the circuit to the motor. If either the front panel of the crusher or the front panel of the bottom ice maker is removed, a switch will open the motor circuit. The crusher safety switch is mounted in the crusher control box. The ice maker safety switch must be mounted by the installer. (See illustration "D" and "D1")

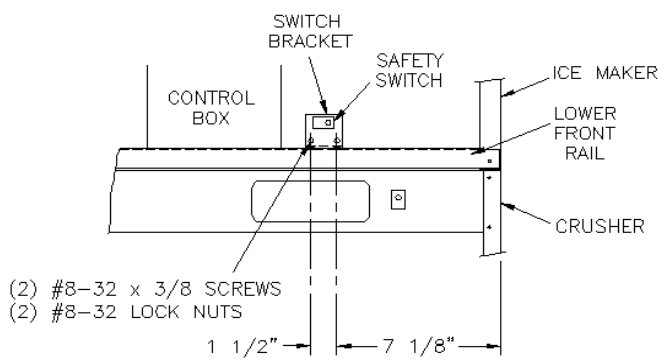


ILLUSTRATION "D"

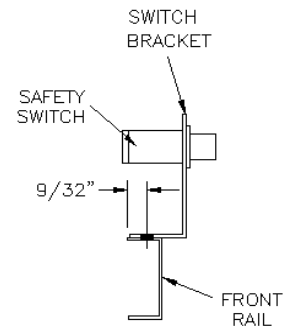


ILLUSTRATION "D1"

If not provided, locate and drill two 3/16 inch dia. holes in the ice maker lower front rail. Mount the safety switch support with the #8-32 screws and nuts provided.

CAUTION:

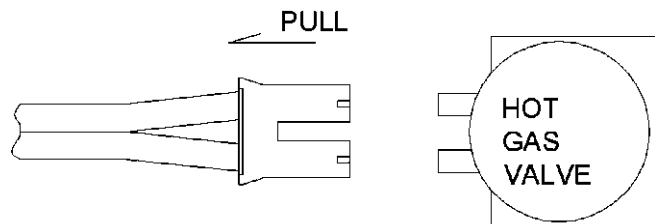
- The safety switches ***DO NOT*** de-energize all circuits in the crusher or circuits in the ice maker. Before cleaning or servicing this equipment disconnect ALL power supplies.

11. Install a grommet in the 1-3/32 inch dia. hole in the ice maker condensing unit pan. Push the crusher control wire assemblies through the grommet into the ice maker.

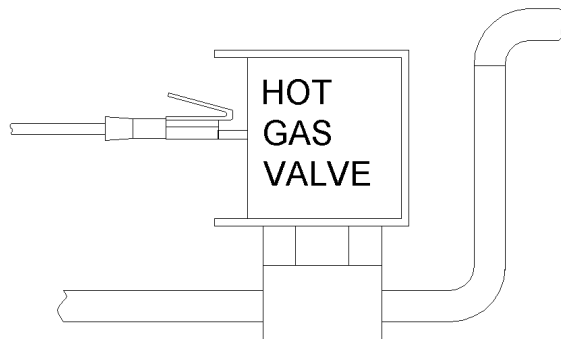
12. Connect the safety switch wires from the crusher to the "Common" and "Normally Open" terminals of the cuber safety switch. (See Wiring Diagram)

T271/T274 Crusher Installation Instructions

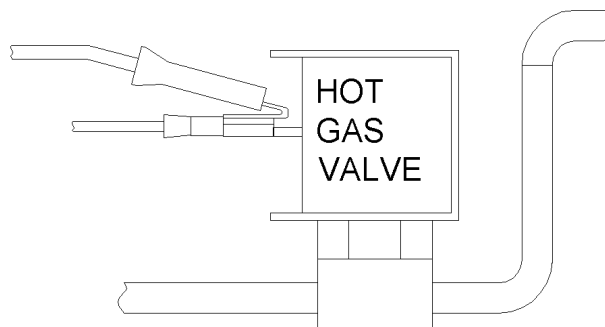
14. Remove the wire harness from the hot gas valve coil.



15. Install the brown and back wire onto the hot gas valve coil.



16. Install the original wire harness to the new wire piggyback terminals.



T271/T274 Crusher Installation Instructions

17. The bin level control sensors in the cuber must be altered and replaced by the two thermostatic switches in the crusher. (See Wiring Diagram).

- A. On the bin level control sensors, cut off the probe ends. Strip the OUTER sleeve back about 3”.
- B. Strip the red and black wires approx. 1/4”.
- C. Feed cable through the bin level control holes, located in the bottom plate of the ice machine, located behind the control box.
- D. Feed cable into ice crusher power panel through opening by the relays.
- E. Remove the existing wire from the 45 degree relay and discard.
- F. Cut the bin level control sensors cables to the length needed. Install the bottom ice machine probe wires to the bottom outer terminal pair of the relay. (See wiring diagram).
- G. Install the top ice machine probe wires to the top outer terminal pair of the relay. (See wiring diagram).

18. The crushed ice thermostat (left) cap tube is placed into the straight thermostat tube holder. Push the cap tube into the flared end until the cap tube is visible at the straight end. Install the tube holder into the hole in the motor platform directly behind the crusher motor.

19. The cube ice thermostat (right) cap tube is placed into the bent thermostat tube holder. Mount the tube holder as shown. (See Illustration "E") Tighten clamp screws. Adjust thermostats to shut off the cuber approximately 1 minute after ice contacts the tube holders.

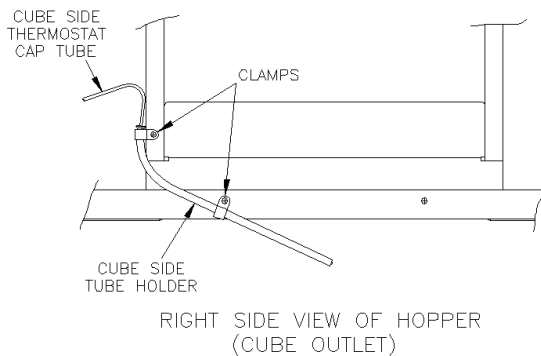


ILLUSTRATION "E"

CAUTION:

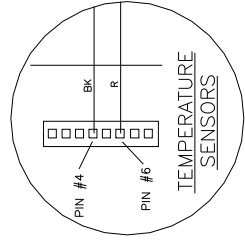
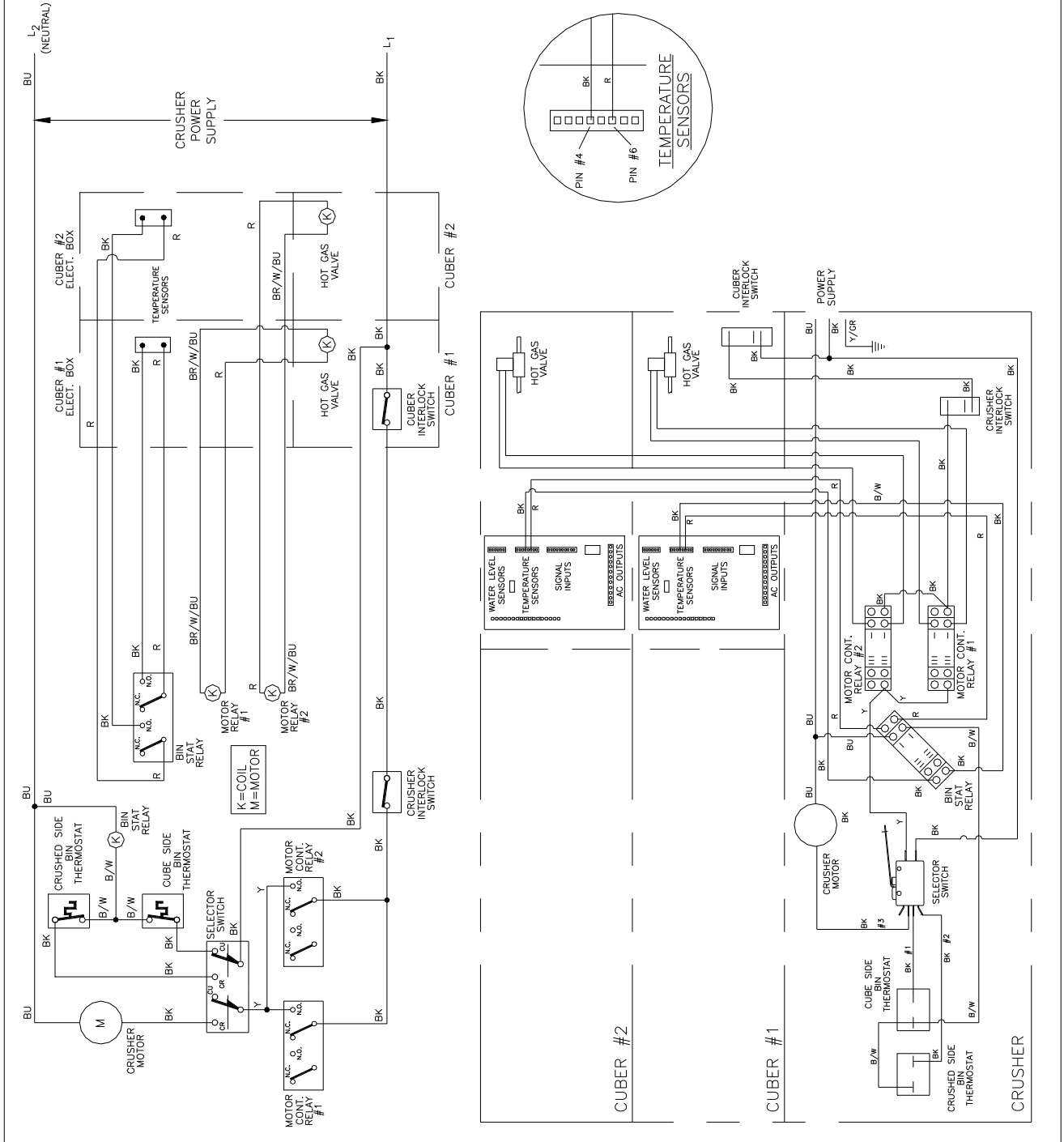
{ Keep the route bin thermostat cap tubes away from moving parts.

ICE CRUSHER
WIRING DIAGRAMS
T271/T274 SERIES

ICE CRUSHER	
MODEL	ELECTRICAL RATING
T271	100-120V/50-60HZ.
T274	200-240V/50-60HZ.

ICE MAKER VOLTAGE	WIRE COLOR
115 V.-60 HZ.	WHITE
220-240 V.-60 HZ.	BLUE
208-230 V.-60 HZ.	BROWN

COLOR CODE	
BK	BLACK
B/W	BLACK/WHITE
BU	BLUE
BR/W/BU	BROWN/WHITE/BLUE
R	RED
Y	YELLOW
Y/GR	YELLOW/GREEN



T271/T274 Crusher Installation Specifications

INSTALLATION SPECIFICATIONS

The T-274 are wired at the factory for 200-240 volt 50/60 hz. operation.
The T-271 are wired for 100-120 volt 50/60 hz. operation.

Refer to equipment name plate data for current value and maximum fuse size. This unit must be provided with a separate, properly protected circuit with no other loads. A fused disconnect installed adjacent to the crusher is recommended (must be supplied by installer), and may be required by local codes.

Crushers are intended for indoor use only with permanent connection to a field electrical supply. All models are intended to be installed only in conjunction with **Kold-Draft**[®] cubers on **Kold-Draft**[®] bins.

CRUSHER OPERATION

With the crusher knob in the "CRUSHED" position, ice falling from the cuber will be directed by the selector plate through the crusher mechanism and deposited into the left side of the bin.

The crusher motor is powered through a relay which is energized by the hot gas valve circuit of the ice maker. The selector knob must be in the "CRUSHED" position to close a switch and complete the circuit to the motor. Additionally, the front panel safety switches must be depressed (covers on) for motor operation.

With the crusher knob in the "CUBE" position, ice falling from the cuber will bypass the crusher mechanism and be dumped into the right side of the bin. The crusher motor will not be energized.

Crusher Cleaning Installation

CLEANING

Always clean the ice maker first, following the ice maker cleaning instructions.

Remove all ice from the dispenser before starting the cleaning procedure.

Clean and sanitize storage bin LAST.

CAUTION:

- { Risk of personal injury, equipment damage or contamination of the ice bin.
- { Do not use ammonia solutions or strong detergents in cleaning the crusher.
- { Never use appliance polishes, finish preservatives or cleaners in areas that could contact ice.
- { Disconnect power before cleaning or servicing unit.

1. Remove ice maker panels, ice chute, drain pan, crusher front panel and belt guard.
2. Wash interior with a solution of 2 tablespoons of baking soda per quart of clean water (140 deg. F. max.). The crusher ice hopper can be accessed from the front and left side of the ice cuber. Use a long handled brush to clean inside the hopper, as crusher teeth can cause injury.
3. The bottom area of the crusher ice hopper can be accessed from inside the ice bin. Use a long handled brush.
4. Wipe down internal cabinet walls with a cloth soaked in cleaning solution.
5. Rinse with clean tap water.
6. Sanitize all ice contact surfaces with a solution of 1 teaspoon 5-1/4% sodium hypochlorite (chlorine bleach) per quart of clean tap water (minimum 100 PPM free chlorine). A spray bottle will facilitate this process.
7. Pour the remaining solution into the crusher chute, slowly, while rotating the cutter wheel by hand turning the pulley.
8. After adjusting and lubricating crusher (See following section), replace all enclosure panels and connect the electrical supply.
9. Exterior surfaces may be cleaned by standard methods suitable to the stainless steel finish.

ADJUSTMENT AND LUBRICATION

1. Oil the crusher motor (if ports are provided) and grease the shaft bearings. (Do not over-lubricate)
2. Check the belt and pulleys for excessive wear. Adjust the belt tension to deflect 5/32 inch with two pounds applied to the center of the span.
3. Tighten any loose set screws, machine screws, nuts and electrical connections.