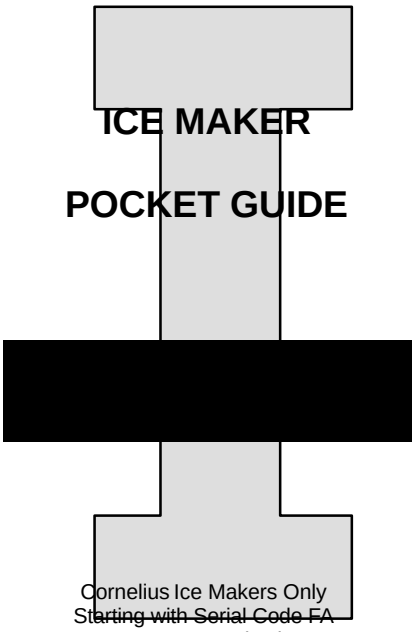
ICE MAKER

POCKET GUIDE



Cornelius Ice Makers Only
Starting with Serial Code FA
June 1990 Production

IMI CORNELIUS
One Cornelius Place
Anoka, MN 55303
1–800–238–3600

TD 184

TD 184

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INTRODUCTION

This guide is published as an aid to the Service Technician. It is not intended to replace the service manual. In it you will find useful information not found in the service manual. This information will help you more quickly identify specific problems, however not all problems or situations may be listed. We appreciate your comments or suggestions, or if you have a specific problem not addressed in this guide or service manual.

Please feel free to contact our service department at:

IMI CORNELIUS

One Cornelius Place

Anoka, MN 55303

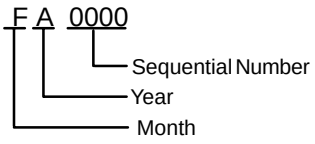
1–800–554–3526

The warranty on Cornelius icemakers begins on the date of installation, as reported on the warranty registration card to the original owner/user. If no warranty card is received by the factory, the date of shipment from the factory will determine the start of the warranty.

Warranty labor will be paid per the labor rate guide and is subject to change without notice. Call the Service Department for a copy of the current Labor Rate Guide and/or applicable Warranty Document Copy.

This guide covers IMI Cornelius Ice Makers Manufactured from June 1, 1990 thru August, 1994.

SERIAL NUMBER DATE CODE DEFINITION



MO.	1990	1991	1992	1993	1994	1995
Jan	—	AB	AC	AD	AE	AF
Feb	—	BB	BC	BD	BE	BF
Mar	—	CB	CC	CD	CE	CF
Apr	—	DB	DC	DD	DE	DF
May	—	EB	EC	ED	EE	EF
Jun	FA	FB	FC	FD	FE	FF
Jul	GA	GB	GC	GD	GE	GF
Aug	HA	HB	HC	HD	HE	HF
Sep	JA	JB	JC	JD	JE	JF
Oct	KA	KB	KC	KD	KE	KF
Nov	MA	MB	MC	MD	ME	MF
Dec	NA	NB	NC	ND	NE	NF

ORIGINAL OWNER, END-USER RESPONSIBILITY

1. To verify the equipment installation date by the return of the warranty registration card to the factory within five days of the installation.
2. To pay freight or handling charge.
3. To pay for service labor and/or parts required to correct improperly installed equipment. Installation must comply with the installation instructions.
4. To pay for normal maintenance, adjustments and cleaning.
5. To pay for service labor and/or parts required to correct unit modification or the use of non-approved remote condensers.
6. To pay for service labor and/or parts required because of neglect, abuse, misuse, accident, fire, flood, freezing or any act of God.
7. To pay for mileage, truck charges, travel time, premium labor for holidays, weekends or after hours work, flat rate service call charges, miscellaneous tool charges, use of diagnostic meters or equipment and all material not listed on the Warranty Time Rate Guide.

SEQUENCE OF OPERATION CUBER ONLY

After the installation of the water lines from the primary water supply, the float valve will be open and remain open until the reservoir is filled to the proper level. (1/4" below the support). ***Note:*** *Primary water supply must not be less than 20 psi, nor mor then 50 psi on Float Valves with no Flow Washer, or 125 psi for Float Valves with Flow Washer.*

When the on–off clean switch is in the "clean" position the water pump will run. All other components are off. When the switch is in the "on" position the compressor will be energized, after a short delay the fan will come on. When the temperature of the evaporator reaches 20°F the sensor in the evaporator tells the control board to turn the pump on. When the evaporator sensor, senses an approximate temperature of 0°F it tells the control board to switch to the harvest mode.

In the harvest cycle the pump will remain engaged for approximately 12 seconds. The compressor, hot gas valve and dump solenoid will be engaged. When the ice is harvested, the curtain opens, breaking the magnetic field to the proximity switch and the unit will return to the "Freeze" cycle. If the curtain remains open, after approximately 8 seconds the unit will shut down, indicating the bin is full. ***Note:*** *On units that are stacked, an interface cable connects the two control boards. When the bottom unit shuts off due to a full bin, the top will continue to operate until it completes the cycle it is in and then will shut off on full bin (#2).*

To check the control board: When the unit is in the freeze cycle, power should be to the compressor, fan motor and water pump (after evaporator reaches 20°). There should be no power to the hot gas valve or the dump solenoid. When the unit is in the defrost cycle, there should be power to the compressor, hot gas solenoid, and dump solenoid. (The pump will have power for approximately 12 seconds into the defrost cycle).

Approximate Pressure Ranges

Depending on operating ambient and incoming water temperature.

CUBERS

	Freeze Cycle		***DFROST CYCLE***	
Refrigerant	**Head Pressure**	**Suction Pressure Start – End**	**Head Pressure**	**Suction Pressure**
R-12	125	20-12	85-95	45
R-22	225	35-22	180-190	50
R-502	225-250	30-18	180-190	50

FLAKERS

Refrigerant	**Head Pressure**	**Suction Pressure**
R-12	125	6-9
R-22	225	22-24
R-502	225	18-20

For Volts, Amps, Fuse Size and Refrigerant Charge see Serial Nameplate.

Serial Name Plate Location.

1. Electric box inside machine.
2. Lower left side, Corner of cabinet.

Pressure Settings.

Crankcase pressure regulating valve factory setting with unit in the Harvest Cycle:

R-22 45 lbs. maximum
R-502 50 lbs. maximum

Water cooled factory high side pressure settings with units in the ice making mode.

R-12 120 lbs.
R-502 240 to 250 lbs.
R-22 200 lbs. for 300 and 322 Series
225 lbs. for 500 and 1400 Series

Ice Production Check

Cycle time (CT) = freeze time plus harvest time, in minutes and seconds. 1440 divided by CT = number of cycles per 24 hours.

Measure weight of ice from one cycle in pounds and fractions of a pound.

Example: Weight/cycle x cycles/day = total production/24 hrs. Compare to the production tables.

COMMERCIAL CUBER ICE MAKER

ICE PRODUCTION CAPACITY (Approximate)

Air Cooled: Take air temperature at the intake of the condenser, 2" from the condenser fins.

Water Cooled: Measure Incoming water temperature at the outlet of the "float" valve.

SERIES 300 AND 322

MODEL NUMBER (CONDENSER)	AMBIENT TEMP. ° F	INCOMING WATER TEMP. ° F		
		50°	**70**°	**80**°
AC-300-SS-MH AC-322-SS-MH Air Cooled)	70°	243	227	216
	80°	224	209	198
	90°	199	176	160
WC-300-SS-MH WC-322-SS-MH (Water cooled)	70°	225	206	193
	80°	212	191	179
	90°	198	176	164

SERIES 500

MODEL NUMBER (CONDENSER)	AMBIENT TEMP. ° F	INCOMING WATER TEMP. ° F		
		50°	**70**°	**80**°
AC-500 Air Cooled)	70°	460	400	380
	80°	430	390	360
	90°	400	370	330
WC-500 (Water cooled)	70°	500	450	400
	80°	495	445	395
	90°	490	440	390

SERIES 700

(CONDENSER)	AMBIENT TEMP. ° F	INCOMING WATER TEMP. ° F		
		50°	**70**°	**80**°
(Air Cooled)	70°	610	550	520
	80°	575	510	480
	90°	530	470	445
(Water Cooled)	70°	655	595	550
	80°	645	590	545
	90°	635	585	540
	OUTSIDE AIR ° F			
(Remote-Air) NOTE: Remote Unit designed for use with CS.120 Remote Condenser.	50°	625	555	530
	70°	615	545	520
	90°	570	505	480
	110°	500	450	425

SERIES 900

MODEL NUMBER (CONDENSER)	AMBIENT TEMP. ° F	INCOMING WATER TEMP. ° F		
		50°	**70**°	**80**°
AC-900-SS-MH (Air Cooled)	70°	696	620	594
	80°	650	582	556
	90°	580	511	494
WC-900-SS-MH (Water Cooled)	70°	674	610	552
	80°	665	610	545
	90°	666	601	529
	OUTSIDE AIR ° F			
RC-900-SS-MH (Remote-Air)	50°	741	650	620
Note: Remote unit designed for use with CS–120 remote condenser	70°	720	645	599
	90°	602	528	502
	110°	509	449	429

SERIES 1400

MODEL NUMBER (CONDENSER)	AMBIENT TEMP. ° F	INCOMING WATER TEMP. ° F		
		50°	**70°**	**80°**
(Air Cooled)	70°	1400	1240	1180
	80°	1320	1175	1110
	90°	1210	1085	1025
(Water Cooled)	70°	1420	1250	1120
	80°	1390	1220	1095
	90°	1360	1190	1070
	OUTSIDE AIR ° F			
(Remote-Air)	50°	1300	1190	1145
	70°	1230	1180	1130
	90°	1100	1050	990
	110°	950	900	860

COMMERICAL FLAKER ICE MAKER
ICE PRODUCTION CAPACITY (Approximate)

(AIR COOLED) SERIES 200

Ambient Room Temp.	°F	70	80	90	100
	°C	21	27	32	38
Inlet Water Temp.	°F	50	60	70	80
	°C	10	16	21	27
Production per 24 hrs.	Lbs	200	175	150	100

(AIR COOLED) SERIES 525

Ambient Room Temp.	°F	70	80	90	100
	°C	21	27	32	38
Inlet Water Temp.	°F	50	60	70	80
	°C	10	16	21	27
Production per 24 hd.	Lbs	600	540	465	408

(WATER COOLED) SERIES 525

Ambient Room Temp.	°F	70	80	90	100
	°C	21	27	32	38
Inlet Water Temp.	°F	50	60	70	80
	°C	10	16	21	27
Production per 24 hrs.	Lbs	588	549	471	444

(AIR COOLED) SERIES 725

Ambient Room Temp.	°F	70	80	90	100
	°C	21	27	32	38
Inlet Water Temp.	°F	50	60	70	80
	°C	10	16	21	27
Production per 24 hrs.	Lbs	690	590	490	390

(WATER COOLED) SERIES 725

Ambient Room Temp.	°F	70	80	90	100
	°C	21	27	32	38
Inlet Water Temp.	°F	50	60	70	80
	°C	10	16	21	27
Production per 24 hrs.	Lbs	765	675	618	480

(AIR COOLED) SERIES 750

Ambient Room Temp.	°F	70	80	90	100
Inlet Water Temp.	°F	50	60	70	80
Production per 24 hrs.	Lbs	690	590	490	390

(WATER COOLED) SERIES 750

Ambient Room Temp.	°F	70	80	90	100
Inlet Water Temp.	°F	50	60	70	80
Production per 24 hrs.	Lbs	756	675	610	480

(AIR COOLED) SERIES 1100

Ambient Room Temp.	°F	70	80	90	100
Inlet Water Temp.	°F	50	60	70	80
Production per 24 hrs.	Lbs	1050	960	840	700

(WATER COOLED) SERIES 1100

Ambient Room Temp.	°F	70	80	90	100
Inlet Water Temp.	°F	50	60	70	80
Production per 24 hrs.	Lbs	1050	960	880	780

(AIR COOLED) SERIES 2400

Ambient Room Temp.	°F	70	80	90	100
	°C	21	27	32	38
Inlet Water Temp.	°F	50	60	70	80
	°C	10	16	21	27
Production per 24 hrs.	Lbs	2400	2110	1800	1540

(WATER COOLED) SERIES 2400

Ambient Room Temp.	°F	70	80	90	100
	°C	21	27	32	38
Inlet Water Temp.	°F	50	60	70	80
	°C	10	16	21	27
Production per 24 hrs.	Lbs	2365	2100	1840	1600

THE FOLLOWING MAINTENANCE SHOULD BE PERFORMED AT LEAST EVERY SIX MONTHS ON FLAKED ICE MACHINES

1. Check power supply with machine running for proper voltage.
2. Check water level in the float tank reservoir. Water level should be maintained at the top of the evaporator. Adjust if necessary.
3. Clean the air-cooled condenser coil with a stiff brush or vacuum cleaner.

   CAUTION: CONDENSER COOLING FINS ARE SHARP, USE CARE WHEN CLEANING.
4. Clean the ice storage bin and flush the bin drain at least once a month.
5. If a water conditioner is installed in the inlet water line, change, replace or clean the filter, strainer or cartridge as required.
6. If heavy mineral deposits on the auger and evaporator shell are encountered due to bad local water conditions, follow sanitizing and cleaning procedure.
7. Loosen hold–down cam locks and remove gear motor assembly.
8. Check thrust washer; replace if noticeably worn.
9. Lift out auger and examine for wear. If the Helix auger or the corkscrew auger round bar becomes flat on the inside more than 1/8 of an inch over a length of two inches or more it should be replaced.

   NOTE: HELIX AUGERS DO HAVE MACHINED FLAT RELIEF SURFACES. DON'T CONFUSE THEM WITH WORN FLAT AREAS.

   Check the insert in the bottom ring of the Helix auger and replace if excessively worn.
10. Check shell vertical strips for wear. Replace the shell if excessive wear shown.
11. Check O-ring, replace if worn or cut.

12. Re–assemble. steps 6 through 10.

    CAUTION: IN RE–ASSEMBLING THE AUGER GEARMOTOR, THE HOLD DOWN CLAMPS MUST BE TIGHT AND SECURE. IN RE–INSTALLING THE EVAPORATOR SHELL, BE ABSOLUTELY SURE THAT THE "O" RING IS NOT PINCHED OFF AS THIS WOULD CAUSE A WATER LEAK AROUND THE BASE OF THE EVAPORATOR. LUBRICATE THE "O" RING WITH FOOD GRADE LUBRICANT BEFORE RE–ASSEMBLING SHELL.

13. Check for alignment of ice chute. Make sure chute gasket is not blocking path of ice flow.

14. Check bin thermostat operation. In the mid–range position the bin thermostat will open at 42° F and has 6° F differential.

FLAKER SANITIZING AND CLEANING PROCEDURE

1. Turn switch to "OFF" to stop unit.

2. (a) Turn water off and remove water hose float chamber and proceed to drain the float chamber and evaporator; or

   (b) Remove float chamber cover and while holding float up to prevent more water from entering the float chamber, remove water hose from float chamber and proceed to drain the float chamber and evaporator.

3. With the float still held closed or water still off, restore water hose to float chamber and add 1/4 oz. of "sanitizer" (see not below) to the float chamber. Release float arm so that chamber fills with water. Turn water on, if necessary.

4. Turn switch to "ON" position and make ice for a minimum of 10 minutes.

5. Remove all ice from bin.

6. During the period in which the ice is being made, mix up the "sanitizer" for the bin and use as follows:

Add 1/2 oz. “sanitizer” to a gallon of lukewarm water. With a non–metallic bristle brush, scrub the interior of the ice bin including the under side of the door, and the outside of the ice chute that protrudes into the ice bin.

7. Rinse interior bin with clean water. (NOTE: Steps 6 and 7 should take no less than 10 minutes).
8. Not less than 10 minutes after completing step #4, turn switch to “OFF” and repeat step #2. After the evaporator and float chamber have drained, restore hose to float chamber, release float, replace float cover and turn water on if necessary.
9. Turn switch to “ON”. Collect and throw away the first gallon of ice.

NOTE: APPROVED SANITIZER: “Calgon Ice Machine Sanitizer” or Household Bleach.

CUBER SANITIZING AND CLEANING PROCEDURE

1. Remove front panel to gain access to the on–off–clean switch.
2. Push switch to “clean” and allow the ice on the evaporator to release of melt away.
3. Remove ice from storage bin.
4. If lime scale is present add 2 oz. of “Lime-A-Way” or “Calgon Nickelsafe Ice Machine Cleaner” directly into water reservoir. Circulate for no longer than 15 minutes. Depress dump valve switch on control box and allow cleaner or sanitizer to drain away. Allow float valve to fill reservoir with clean, fresh water. Circulate for approximately 1 minute. Depress dump valve switch and allow water to drain away. Repeat three times.

CAUTION: All ice machine cleaner must be flushed out of the system before the sanitizing solution is used in Step 5. The reaction of the two chemicals can cause hazardous gases to be generated.

5. Pour 1/2 oz. of household bleach into the water reservoir and circulate for 15 minutes to sanitize the

circulating water system including the evaporator, pump, distributor and all inter-connecting vinyl tubing. Depress dump valve switch on control box and allow cleaner or sanitizer to drain away. Allow float valve to fill reservoir with clean, fresh water. Circulate for approximately 1 minute. Depress dump valve switch and allow water to drain away. Repeat three times.

6. Mix a sanitizing solution of 1oz. household bleach to one gallon of water. Using a non-metallic bristle brush, scrub the following:

   A. Inside surface of the ice bin including top and door.

   B. Inside surface of the ice maker to include evaporator section in the ice machine including the top, front panel and evaporator splash curtain.

   C. Make sure splash curtain is correctly positioned.

7. Depress dump valve switch on control box and allow cleaner or sanitizer to drain away. Allow float valve to fill reservoir with clean, fresh water. Circulate for approximately 1 minute. Depress dump valve switch and allow water to drain away. Repeat three times.

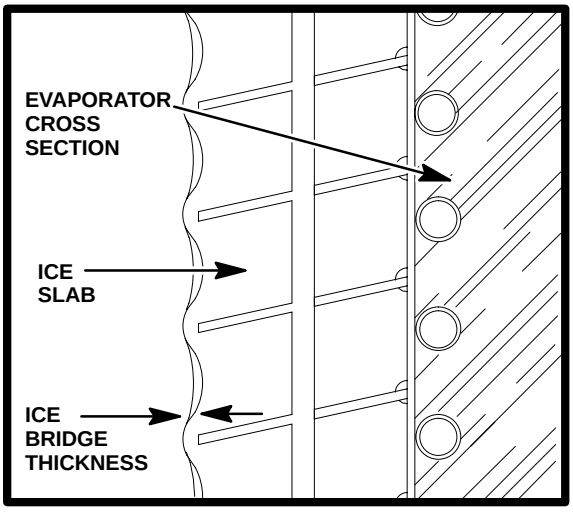
8. Push switch from “clean” to “on” position.

9. Replace front panel.

ADJUSTMENT FOR ICE BRIDGE THICKNESS

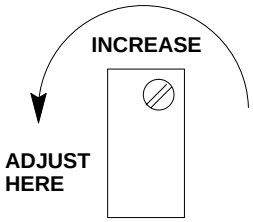
An ice bridge connecting all cubes is necessary for a proper harvest of discharge of cubes from the evaporator.

To increase ice bridge thickness carefully turn adjustment screw counter-clockwise no more than one turn at a time. Wait and check thickness before re-adjusting. (See Diagram 1 & 2)



Series 300 and 322:
Adjusting screw located on left center.

Series 500, 700, 900, and 1400:
Adjusting screw is located on the upper left corner.



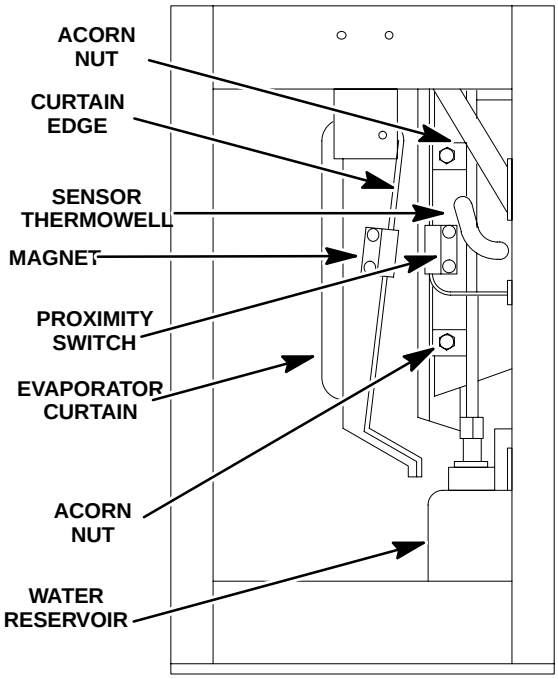
CHECKOUT PROCEDURE FOR HARVEST BIN SWITCHES

Turn on the ice machine and move the evaporator curtains(s) away from the evaporator(s). The ice machine should then shut off in approximately 8 seconds. (see detail A).

Slowly let the evaporator curtain(s) move back toward the evaporator(s) until the bottom edge of the curtains(s) is at least at the bent edge of the water reservoir or closer to the evaporator. With the curtains(s) at that position the machine should start.

ADJUSTMENT PROCEDURE FOR HARVEST BIN SWITCHES

If adjustment is necessary, loosen acorn nuts and move proximity switch closer to the curtain(s) and make sure the curtain is properly mounted. (See detail A).



TROUBLESHOOTING CUBE ICE MAKERS

STATUS INDICATORS 300 AND 322 SERIES

1. No Lights — Unit in freeze cycle.
2. Flashing Red — Bridge thickness temperature has been reached. Harvest to start in approximately 30 seconds
3. yellow — Unit in Harvest Cycle
4. Green — Unit off on Full Bin

STATUS INDICATORS 500 THRU 1400 SERIES

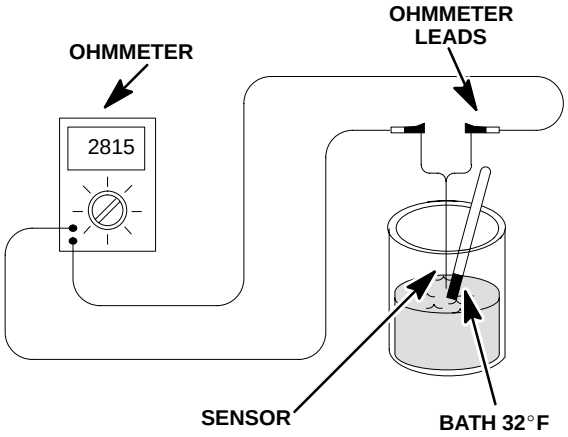
STATUS	EXPLANATION
0	Unit is in freeze cycle, making ice, no problems.
1	Unit is in harvest cycle, ice should drop shortly, no problems.
2	Indicates a full bin condition, unit off, water curtain being held open with ice.
4	Unit OFF due to suction line not pulling down to at least 40°F.
6	Unit is OFF due to condenser temperature climbing too high. Manual reset required.
Decimal Point OFF	Indicates that all sensors, except condenser, are switched off for first six minutes of freeze cycle.
Decimal Point ON	Indicates that evaporator and suction line sensors have switched “ON”.
Decimal Point FLASHING	Indicates evaporator temperature has pulled down and unit will go into harvest after time delay.

FOR MANUAL RESET - PUSH MASTER SWITCH TO “OFF” - WAIT 10 SECONDS - PUSH TO “ON” OR PUSH RESET BUTTON

TROUBLESHOOTING THE SENSORS

1. Turn off power to machine.
2. Remove the front panel and electrical box cover of the machine.

3. Cut the suspected sensor wire at least six inches from the thermowell in which it is located.
4. Remove the sensor from the thermowell.
5. Carefully separate the wires and strip the insulation off the end.
6. Pack a glass or container with ice and add some water to make an ice water solution. Check the temperature of the ice water with an accurate thermometer. Ice water must be 32°F.
7. Insert the sensor into the ice water and soak for a minimum of two minutes.
8. With a zerod ohmmeter, measure the resistance across the two wires of the sensor lead. It should read 2815 ohms ± 10% (281 ohms)on units built before March 1994; ± 5% (140 ohms) on units built from March 1994 and later.



NO ICE BEING FORMED ON EVAPORATOR.

1. No water in reservoir – clean or replace float.
2. Pump not running – check sensor & board.
3. Dump solenoid – open during freeze cycle.
4. Refrigeration problems – check for leaks.
    1. Dirty Condenser.
    2. Hot Gas valve open.
    3. Weak compressor.

ICE DOES NOT DROP AFTER 4 1/2 MINUTES IN DEFROST CYCLE.

1. Is Hot Gas valve opening?
2. Is the evaporator free of scale & deposits or loosing its plating?
3. Are the dividers bent, warped, or separated from evaporator back.?
4. Is CPR valve set at 50 PSI in defrost?
5. Head pressure dropping too low?
6. Is bridge thickness 1/8” minimum?

ICE FORMS ON BOTTOM HALF OF EVAPORATOR.

1. Is reservoir overflowing?
2. Is dump solenoid open?
3. Is unit low on refrigerant?
4. Is Hot Gas valve open during freeze cycle?
5. TXV feeding properly?

LOW HEAD PRESSURE.

1. Is there the proper charge in unit?
2. Is there a leak in the system?
3. Are ambient conditions to cold? (below 50° F).
4. On water cooled units is the water valve set properly?
5. Is incoming water to condenser, too cold (below 45°F).

FLUCTUATING LOW SIDE PRESSURE (MORE THAN 5#).

1. Is TXV bulb tight on top of suction line?
2. Is there a proper charge in unit?
3. Is water running over the evaporator continuously?
4. TXV is faulty.

WATER OVERFLOW RESERVOIR.

1. Check water pressure, not less than 20 psi, and not more than 50 psi on Float Valves with no Flow Washer, or 125 psi for Float Valves with Flow Washers..
2. Float defective or set too high.
3. Obstruction in water line to pump.
4. Obstruction in cross–over tube.

CURTAIN DOES NOT STAY IN PLACE.

1. Adjust rear bracket closer to evaporator.

ICE TOO THICK OR TOO THIN.

1. Adjust potentiometer (Bridge adjustment CCW thickner, CW thinner).
2. Check evaporator sensor for proper ohms.
3. Is dump solenoid open or float overfilling reservoir?

GOES OFF ON CODE 4

1. Refrigerant Leak.
2. High suction pressure.
3. Check sensor for proper ohms.

GOES OFF ON CODE 6.

1. Is fan operating during freeze cycle & fan blade free.
2. Is condenser clean?
3. Is sensor defective?
4. On “water cooled” is there water to the condenser?

HIGH HEAD PRESSURE.

1. Is condenser clean.
2. Is fan operating properly?
3. On “water cooled” is water valve adjusted properly?
4. Too high ambient conditions (above 100° F).

COMPRESSOR WILL NOT START.

1. Is there power from the board?
2. Is there power from the power relay?
3. Are start components good?
4. Check LRA.

ICE DROPS, BUT UNIT STAYS IN DEFROST OR WILL NOT SHUT OFF ON FULL BIN.

1. Is proximity switch too close to magnet or faulty switch?
2. Is proximity switch plugged into board properly?
3. Board is bad?

COMPRESSOR RUNS WHEN BIN IS FULL OR WHEN SWITCH IS “OFF” POSITION.

1. Bad power relay (contacts stuck closed).

FAN MOTOR WILL NOT RUN.

1. Is there low head pressure?
2. Is fan motor locked up?
3. Is condenser sensor good?
4. Are connections tight on board?
5. Is control board bad?

WATER PUMP WILL NOT RUN

1. Is evaporator below 20°F?
2. Is evaporator sensor good?
3. Is pump motor good – Does it run in the “clean” position?
4. Are connections tight on board?
5. Is control board bad?

GOES OFF ON #2 BIN NOT FULL

1. Curtain out of adjustment?
2. Bridge too thin – Cubes breaking off too soon?
3. Bad proximity switch?
4. Bad control board?

TROUBLESHOOTING FLAKERS

Trouble	Probable Cause	Remedy
1. Unit will not run	On-off switch in “off” position.	Turn switch to “on”
	Defective on-off switch.	Check and replace.
	Blown fuse.	Replace fuse and check for cause of blown fuse.
	Thermostat set too warm for ambient.	Adjust colder.
	Power relay contacts corroded.	Check and clean.
	Defective thermostat.	Check and replace
	Loose electrical connection	Check wiring
2. Compressor cycles intermittently.	Low voltage.	Check line voltage
	Dirty condenser.	Clean condenser.
	Air circulation restricted.	Remove restriction.
	Defective condenser fan motor.	Check and replace.
	Defective relay, overload protector or starting capacitor.	Check and replace.

Trouble	Probable Cause	Remedy
2. Compressor cycles intermittently. (cont'd)	Loose electrical connection.	Check wiring.
3. Making wet ice.	Surrounding air temperature too high.	Correct or move unit.
	High water level in float reservoir.	Lower water level,
	Dirty condenser	Clean condenser.
	Faulty compressor	Check and replace
	Refrigerant leak	Check and repair
	"O" ring leaking at bottom of evaporator shell	Check and replace
4. Unit runs but makes no ice.	Leak in refrigerant system	Check and repair
	Moisture in system	Check, dehydrate and add drier to system
	No water	Check water supply
	"O" ring leaking at bottom of evaporator shell	Check and replace "O" ring
	Compressor not running	Check electrical
5. Water leaks	Worn or bad float valve	Check and replace
	Float and arm assembly stuck	Check and replace

Trouble	Probable Cause	Remedy
5. Water leaks (cont'd)	"O" ring leaking at bottom of evaporator shell	Check and replace
	Storage bin drain and tubing	Check and repair
6. Excessive noise or chattering.	Mineral or scale deposits on inside of evaporator shell	Remove and clean inside surfaces by immersing evaporator shell in ice machine cleaner.
	Intermittent water supply	Check inlet water line
	Water level in float tank too low	Check and adjust water level
	Auger gearmotor end-play or worn bearings	Repair or replace
	Air lock in gravity water supply line from float tank to evaporator shell	Remove Air Lock.
7. Machine runs with full bin of ice	Storage bin thermostat set too cold	Check and adjust warmer
	Bin thermostat thermowell out of path of ice	Adjust thermowell

Trouble	Probable Cause	Remedy
8. Unit off on reset	Ice jams up in evaporator shell	Clean inside surface of evaporator shell
	Bin thermostat will not shut off machine. Set too cold	Check and adjust or replace
	Auger motor has worn bearings	Check and replace
9. Unit goes off on reset	Ice chute out of alignment, restricted ice flow out of evaporator section	Re-align
	Ice chute center separator bent restricting ice flow out of evaporator section	Replace ice chute
	Incoming water temperature too cold	Maintain temperature above 50° F
	Bin thermostat does not shut off when bin is full if ice	Replace bin thermostat if necessary
	Mineral or scale deposits on inside of evaporator shell and evaporator	Inspect and clean

Trouble	Probable Cause	Remedy
9. Unit goes off on reset (cont'd)	Strips loose or missing on inside of evaporator shell	Inspect and replace evaporator shell if necessary
	Low ambient temperature in room where unit is located	Maintain temperature above 50 degrees
	Gearmotor sticking which causes it to draw excessive amperage	Check amp draw of gearmotor with an amprobe
	Plugged capillary tube or expansion valve, causing low back pressure	Check back pressure, replace cap tube or valve, evacuate and re-charge system, replace drier-strainer
	Slight leak, causing low back pressure	Check back pressure, find gas leak, repair leak, evacuate system, add drier and recharge
	Loose hold-down assy	Check and tighten or replace
	Auger worn excessively on the inside surfaces causing thicker flaked ice to be made	Replace auger

Trouble	Probable Cause	Remedy
9. Unit goes off on reset (cont'd)	Auger out of line causing excessive wear on the lower outside surface where it rubs against evaporator shell liner at the bottom	Replace auger and evaporator shell
	Broken auger	Replace auger
	Evaporator surfaces worn or gouged, causing thicker ice to be made	Inspect and replace evaporator if necessary
	Auger guide bushing worn down	Replace auger guide bushing (corkscrew type augers only)
	Loose gearmotor mounting plate	Check and tighten
	Low water level in float tank reservoir	Adjust float arm to maintain correct water level
	Worn thrust washer	Replace