

Parts & Service Manual

FLAKED ICE MACHINE

Series F, FC, D, MF, RC

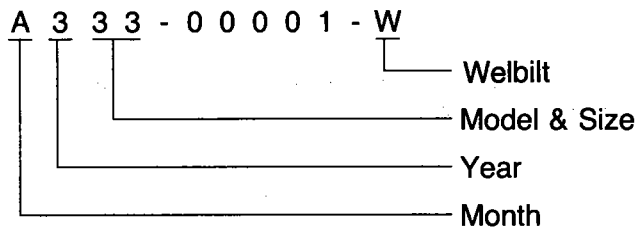
ICE-O-MATIC®

11100 E. 45TH AVE.
DENVER, COLORADO 80239
(303) 371-3737

SERIAL NUMBER FORMAT

A - January	
B - February	3 - 1983
C - March	4 - 1984
D - April	5 - 1985
E - May	6 - 1986
F - June	7 - 1987
G - July	8 - 1988
H - August	9 - 1989
I - September	0 - 1990
J - October	
K - November	
L - December	

ALL BINS	-00	MF-600	-31
		MF-750	-32
		MF-1006	-33
RC40	-01	MF-2500	-34
RC60	-02	MF-5000	-35
RC80	-03		
RC120	-04	HD-350	-41
		HD-600	-42
C-20	-11	HD-750	-43
C-40	-12		
C-61	-13	FD-550	-51
C-81	-14		
C-121	-15	D-250	-61
C-10	-16	D-350	-62
F-250	-21	D-600	-63
F-350	-22	D-750	-64
F-600	-23	D-1006	-65
F-750	-24		
F-1000	-25	DX (used)	-99
F-1006			

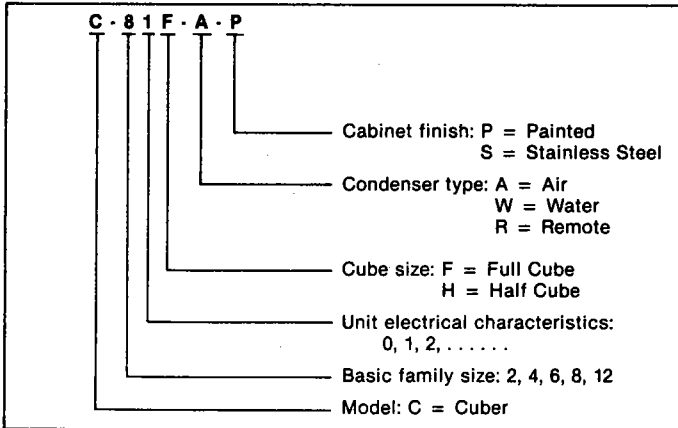


ICE-O-MATIC® | MODEL NUMBERING SYSTEM

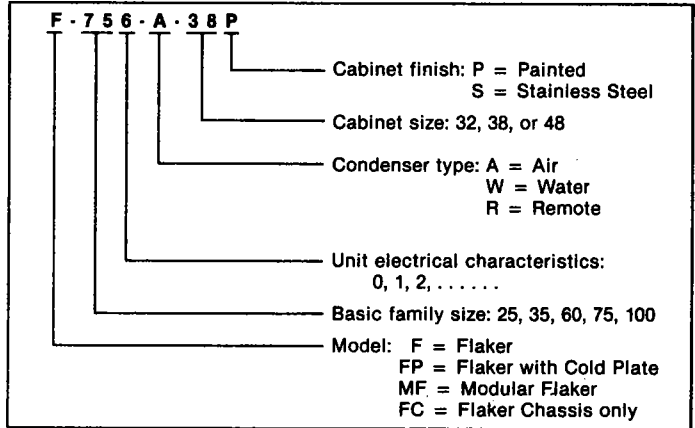
The Model Number fully describes the unit. A letter code identifies the model series. A two or three digit number identifies the basic family size and electrical characteristics. A second letter code identifies the type of condenser. Cabinet size is identified by a two digit number. Finish is identified by a letter code.

The following examples illustrate how Model Numbers are developed:

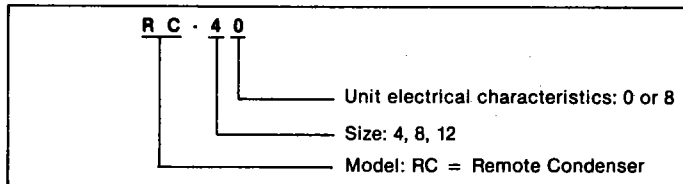
CUBERS



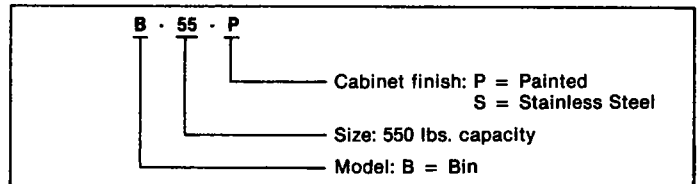
FLAKERS



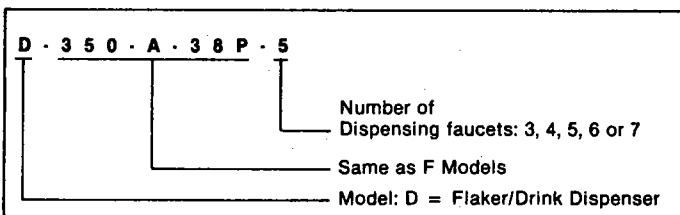
REMOTE CONDENSERS



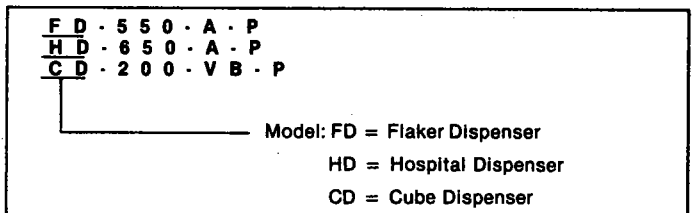
BINS



FLAKER/DRINK DISPENSERS



DISPENSERS



Other model nomenclature same as Flaker or Cuber nomenclature.

Electrical characteristics of all units are coded in the Model Number by a one digit number appearing after the basic family size. The code is as follows:

Code Number	*Volts	**Cycles	Phase	No. of Service Wires Required
0	115	60	1	2
1	208-230/115	60	1	3
2	208	60	1	2
3	230	60	1	2
4	230/115	60	3	4
5	230	50	1	2
6	208-230	60	1	2
7	208-230	60	3	3
8	208-230	50-60	1	2

*Two voltage values separated by a hyphen (-) means that the unit is capable of operating over this voltage range.

Two voltage values separated by a slant line (/) means that both voltages must be supplied at the installation. This is usually done by a neutral wire.

**Two cycle values separated by a hyphen (-) means that the unit is capable of operating at either cycle value.

TABLE OF CONTENTS

Foreword	1
Service & Matr. Record	3
Installation Instructions-All Models	4-5
Specific Installation Instructions	
Flaker	6-7
Drink-O-Matic	22-27
Modular Flaker	46-48
Remote Flaker	55-57
Maintenance Instructions	
Flaker, Modular Flaker, Remote Flaker	8-10
Drink-O-Matic — Post Mix Sanitizing and Carbonator Motor	28-29
Service Information	
Flaker — Common to all Models	11-18
Drink-O-Matic	30-43
Modular Flaker	47-48
Remote Flaker	58-62
Wiring Diagrams	
Flaker — Drink-O-Matic Chassis	19-21
Drink-O-Matic Carbonator Pump & Faucet Control Box	39
Modular Flaker	50-52
Remote Flaker	63-64
Trouble Shooting Guide	
Flaker — Common to all Models	17-18
Drink-O-Matic	41-43
Modular Flaker	49
Remote Flaker	62
Cleaning Instructions — All Models	9
Expansion Valve Setting — All Models	12
Parts Section	65

ICE-O-MATIC

FLAKED ICE MACHINE

GENERAL DESCRIPTION: The Ice-O-Matic Flaked Ice Machine consists of a hermetically sealed refrigeration system for freezing ice in a cylinder. Water is fed into the cylinder where it freezes against the wall and is then chipped off the wall by an auger. This machine is equipped with a temperature device that automatically shuts the refrigeration off when the bin is full of ice.

All components are made readily accessible by removing the front, side, and back panels. The entire machine was designed for greatest convenience to the operator as well as the service man. The unit requires an absolute minimum of floor space. The water inlet and outlet, incorporating standard pipe and copper tube fittings, are conveniently located at the back of the cabinet.

The machine is completely wired for connection to a 115 volt (or 230 volt), 60 cycle, single phase A.C. electrical supply. Use recommended size fusetron protection on an individual circuit to this machine. All connections should be made in accordance with local existing electrical codes.

The storage bin is made of stainless steel. All outside metal is made of a specially treated steel for a long lasting paint finish.

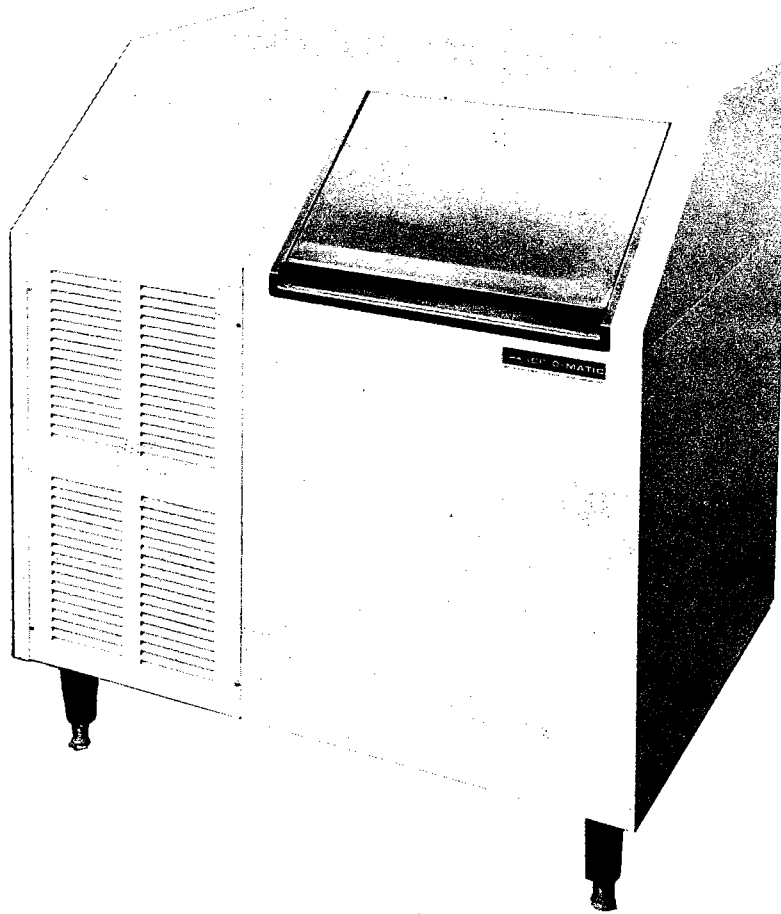
FOREWORD

ICE-O-MATIC flake ice machines are designed and manufactured for the convenience of the field service men.

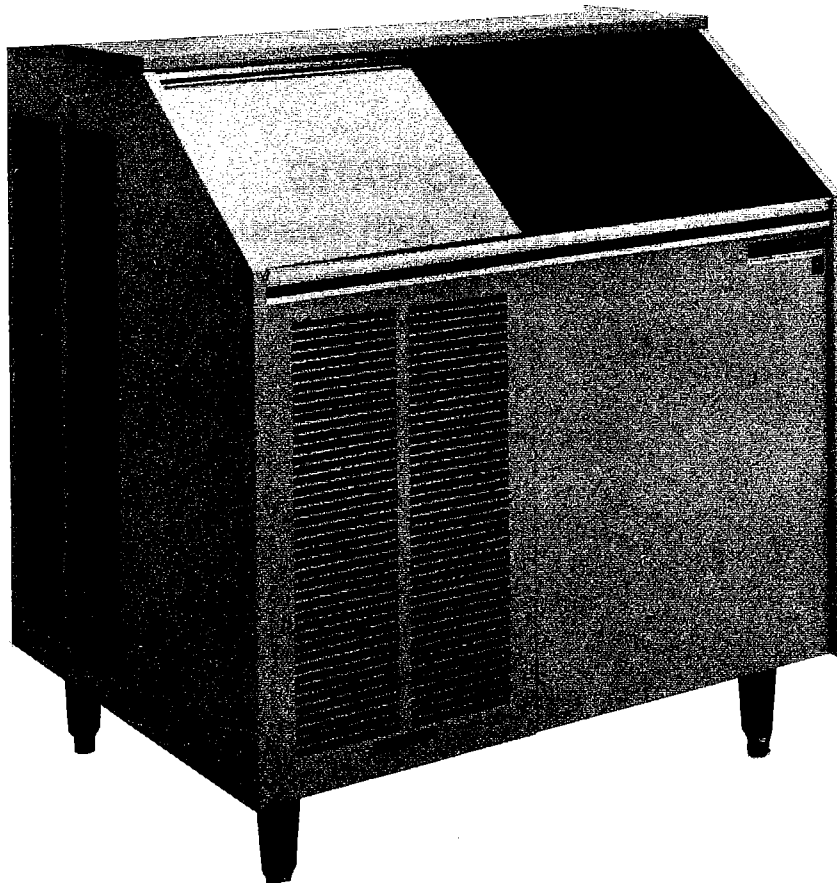
We, ICE-O-MATIC, present this service manual to aid the service men and users in the operation, maintenance, and installation of your equipment.

If at any time you encounter conditions that are not answered in this manual write to the service department of ICE-O-MATIC, explaining the conditions in detail, giving the **model number and serial number** of the unit, and we will give your questions our immediate attention and reply.

ICE-O-MATIC
11100 E. 45th Avenue
Denver, Colorado 80239
(303) 371-3737



B SERIES
Prior to 1-83



F-SERIES
After 1-83

SERVICE AND MAINTENANCE RECORD

Date Purchased _____

Date Installed _____

Model Number _____

Serial Number _____

Service Policy Number _____

Have you filled out and mailed in the warranty card?

Service and Cleaning Record

Date	Maintenance Performed	By Whom

GENERAL INSTALLATION INSTRUCTIONS

I. UNCRATING:

- A. Check crate carefully for any signs of shipping damage.
- B. Remove crate:
 - 1. Carefully remove staples from bottom of crate.
 - 2. Lift crate straight up, off entire unit.
 - 3. Check cabinet for signs of shipping damage.
- C. Remove skid from bottom of unit.
 - 1. Remove skid bolts (3/4" wrench), being careful **NOT** to tip unit toward rear and damage bin drain. The removal is best accomplished by raising the unit straight up, removing bolts, and then lifting the unit off the skid.
- D. Install legs. The machine should be raised off the floor 8" to permit bolting on the legs, or tip the cabinet to the front onto a pad. Be sure legs are secured tight to cabinet.
- E. Remove front and side panel and perform the following:
 - 1. Check for broken or damaged refrigeration lines.
 - 2. Remove tape and packing from float.
 - 3. Remove shipping brace from rear of chassis.

II. INSTALLING (All installations should conform with local codes):

- A. Connect the water inlet fitting to a fresh, cool water supply (20 to 60 p.s.i. pressure). Install a shut off valve in an accessible place between the machine and the water supply. In some locations, due to poor water conditions, a strainer should be installed in the water inlet line. If water pressure exceeds 60 p.s.i., a water pressure regulator should be installed in the water inlet line.
- B. Connect the bin drain, evaporator drain, and condenser drain (water cooled units only), to well pitched drain lines. Run all lines separately to an open or trapped drain.
- C. Electrical Instructions (all wiring must conform with existing electrical codes).

This ice machine is completely wired to the junction box on the back of the cabinet for connection to a standard electrical circuit (as indicated on the serial plate and the tag on the junction box) and it is strongly recommended that a separate electrical circuit with lines direct to a service entrance panel be provided for the ice machine.

This is of the utmost importance. Long lines with other appliances or loads often result in trouble due to low line voltage. Be sure that electrical power supply is within 10% of required voltage as greater variation will cause motor trouble.

GENERAL INSTALLATION INSTRUCTIONS

CONTINUED

- D. Place machine in permanent location maintaining a minimum of 4" from wall to back of ice machine, and with no obstructions to prevent proper ventilation on any side. Ambient temperature should not exceed 100°, or go below 50°. Water temperature should not be below 40°.
- E. Level ice machine by adjusting the leveling screws on the legs.
- F. Check the "freeness" of the auger assembly by turning the large pulley of the gear reducer. It should require only slight finger pressure.
- G. Check to see that the condenser fan blade turns freely.
- H. Turn "on/off" switch located on electrical control box to the "on" position for thirty seconds to check pulley and auger assembly and proper rotation of auger motor (see arrow on motor). If machine does not operate, check electrical connections. Check bin control. If fan runs and compressor and auger motor does not, check safety control.
- I. Turn water supply on. Check water flow to the evaporator through clear plastic tubing. Check operation of float valve.
- J. Turn "on/off" switch to "on" and wait approximately five (5) minutes for ice to start dropping into ice bin.
- K. Check for water leaks and excessive machine noise before replacing front panel.
- L. Instruct people who will be using the machine how to operate it and how to clean the condenser fins.
- M. **FILL OUT INSTALLATION AND WARRANTY CARDS.**

For Cabinets Shipped After 1/83

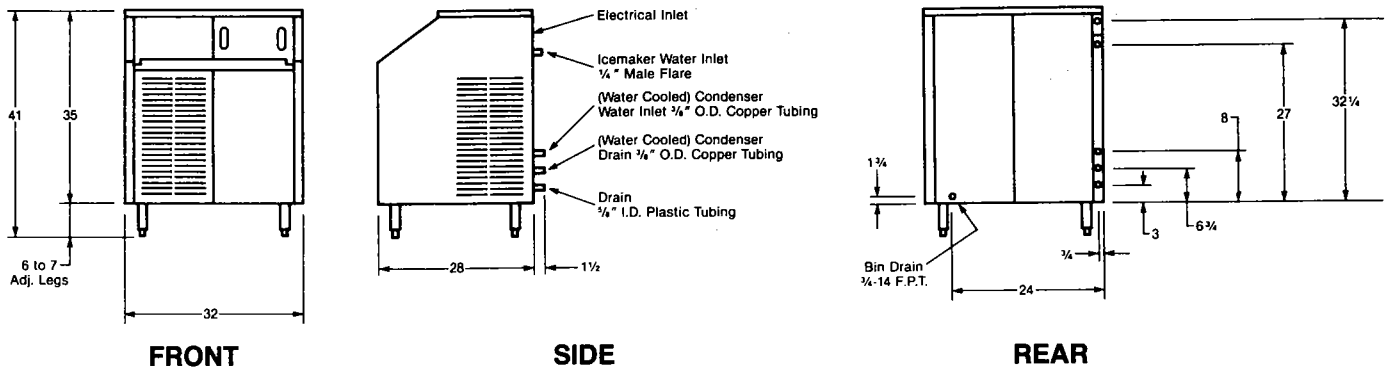
To install new style flaker cabinet — follow uncrating and installation instructions provided in the Owners Manual sent with the machine. At Step E, Number 3 the shipping brace has been replaced with 4¼" hex head bolts mounted through the rear panel directly behind the flaker chassis.

The handy box for the electrical connections is taped to the chassis frame. It must be mounted to the rear corner post before electrical connections can be made.

GENERAL INSTALLATION INSTRUCTIONS

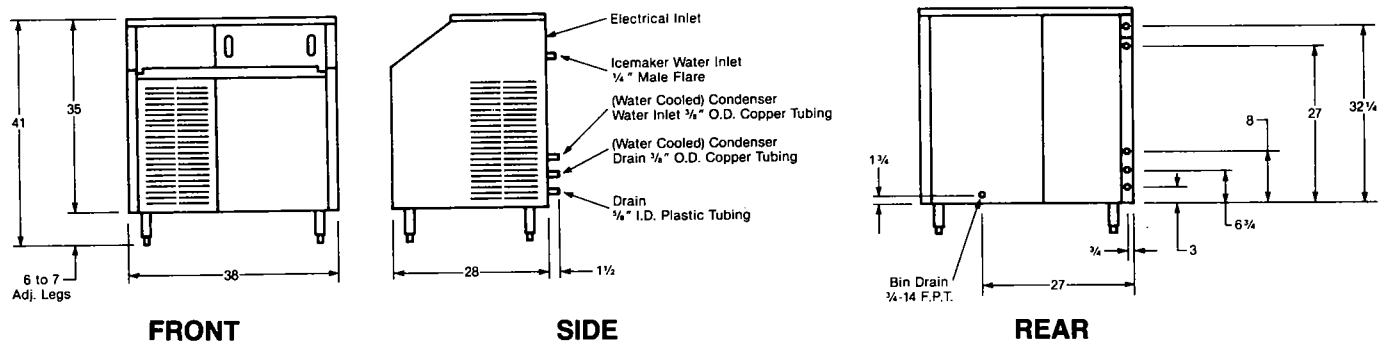
DIMENSION AND CONNECTION DIAGRAM 32" CABINET DIMENSIONS (Inches) & PLUMBING/ELECTRICAL CONNECTIONS DIAGRAM:

Bin Storage 150 lbs.



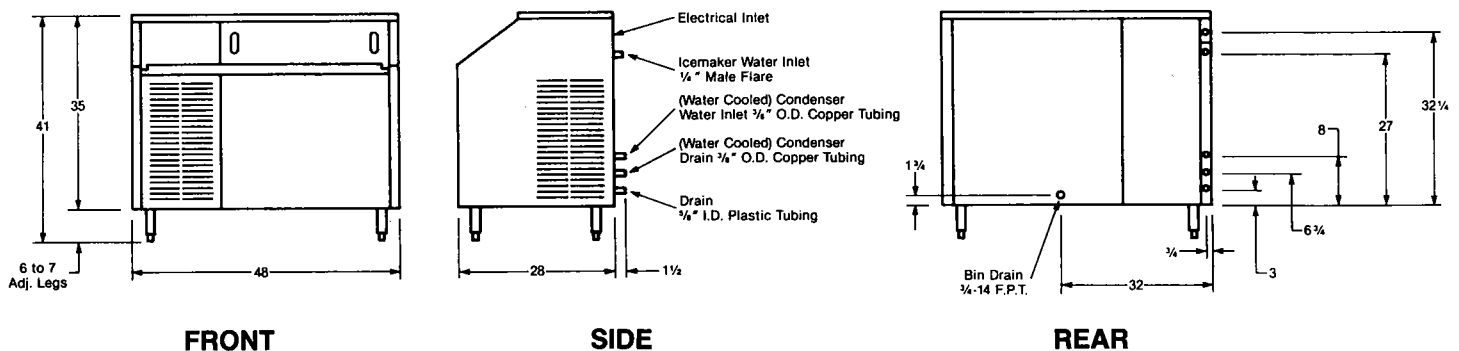
DIMENSION AND CONNECTION DIAGRAM 38" CABINET DIMENSIONS (Inches) & PLUMBING/ELECTRICAL CONNECTIONS DIAGRAM:

Bin Storage 250 lbs.



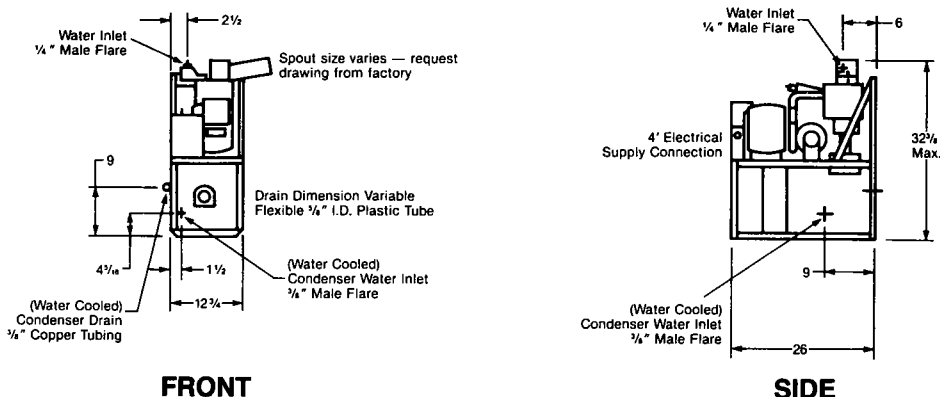
DIMENSION AND CONNECTION DIAGRAM 48" CABINET DIMENSIONS (Inches) & PLUMBING/ELECTRICAL CONNECTIONS DIAGRAM:

Bin Storage 400 lbs.



GENERAL INSTALLATION INSTRUCTIONS CONTINUED

DIMENSION (Inches) & PLUMBING/ELECTRICAL CONNECTIONS DIAGRAM:



SPECIFICATIONS:

Model Number	Ice Prod. Lbs./24 hrs. @ 70° Air 50° Water	Condensing Unit	Comp. H.P.	Voltage Characteristics	No. of Wires	Operating Amps @ Rated Voltage	Max. Fuse Size	Refrigerant	
								Type	Charge
F-250-A	246	Air	1/3	115/60/1	2	14.6	20	R-12	22 oz.
F-350-A	358	Air	1/3	115/60/1	2	14.6	20	R-12	23 oz.
F-350-W	418	Water	1/3	115/60/1	2	14.0	20	R-12	21 oz.
F-600-A	668	Air	1/2	115/60/1	2	15.1	20	R-12	24 oz.
F-600-W	781	Water	1/2	115/60/1	2	14.0	20	R-12	24 oz.
F-750-A	765	Air	3/4	115/60/1	2	16.5	35	R-12	24 oz.
F-750-W	895	Water	3/4	115/60/1	2	15.4	35	R-12	24 oz.
F-756-A	765	Air	3/4	208-230/60/1	2	12.0	15	R-12	24 oz.
F-756-W	895	Water	3/4	208-230/60/1	2	11.4	15	R-12	24 oz.
F-1002-A	1060	Air	1	208/60/1	2	10.8	15	R-12	32 oz.
F-1002-W	1240	Water	1	208/60/1	2	9.7	15	R-12	32 oz.
F-1007-A	1060	Air	1	208-230/60/3	3	10.4	15	R-12	32 oz.
F-1007-W	1240	Water	1	208-203/60/3	3	9.3	15	R-12	32 oz.
F-1006-A	1009	Air	3/4	208-230/60/1	2	9.4	15	R-502	31 oz.
F-1006-W	1133	Water	3/4	208-230/60/1	2	7.3	15	R-502	25 oz.

ICE PRODUCTION CHARTS — Pounds Per 24 Hours.

Condensing Unit	Air Temp. °F	Water Temp. °F			Water Temp. °F			Water Temp. °F			Water Temp. °F			Water Temp. °F					
		80°	70°	50°	80°	70°	50°	80°	70°	50°	80°	70°	50°	80°	70°	50°			
Air	70°	186	206	246	281	306	358	611	627	668	683	705	765	961	1009	1060	828	877	1009
	80°	176	190	236	261	288	336	580	601	638	640	677	731	926	970	1010	755	807	924
	90°	166	186	226	241	261	309	550	571	611	606	643	697	900	933	988	685	736	837
Water	70°	Not Available			311	345	418	678	708	781	758	796	895	1066	1140	1240	832	944	1133
	80°	Not Available			281	322	386	638	673	733	704	758	840	1020	1086	1161	826	938	1128
	90°	Not Available			277	289	349	599	633	690	660	713	787	981	1035	1116	820	932	1123
Model Number		F-250			F-350			F-600			F-750			F-1000			F-1006		

FLAKER MAINTENANCE INSTRUCTIONS

To insure economical, trouble free operation of your ice machine, it is recommended that the following instructions be followed every three months:

DISCONNECT ALL POWER BEFORE PROCEEDING

1. Depress float in water reservoir to check adequate flow of water to reservoir.
2. Clean condenser to insure air passage across the condenser fins.
3. Check for leaks of any kind; water, refrigerant, oil, etc.
4. Check all electrical connections.
5. Clean ice maker as per evaporator auger cleaning instructions, Pages 9-10.
6. Clean out and sanitize bin.
7. Replace all panels.
8. Check bin control by placing ice on the bin rod in the bin. It should shut off compressor, fan and auger motor.

WATER TREATMENT

Water quality varies from location to location, from season to season and from day to day. Most city water being supplied contains solids and chemicals that tend to decrease the performance and life expectancy of the ice machine.

The end product can only be as good as the raw materials, therefore, it is recommended that a local water treatment company be contacted for filtering recommendations at your location. Some of the most common conditions and causes are:

CONDITION	PROBABLE CAUSE
Water has a metallic taste.	High iron or acid content.
Water has scent of rotten eggs.	High sulphur content.
Soft ice.	High solid mineral content.
Stainless steel bin liner appears rusty or stained.	High chlorine content.

FLAKER MAINTENANCE INSTRUCTIONS

CONTINUED

EVAPORATOR

AUGER CLEANING PROCEDURE

NOTE: The importance of cleaning the auger regularly cannot be over-emphasized. An auger that has deposits on it can put excessive pressure on the auger assembly as well as reduce the ice production capacity. The auger should be cleaned at least every 3 months and more often in areas that have severe water conditions. It may be necessary to observe the auger during the first few months of operation to determine the required frequency of cleaning. The auger should be free of any discoloration. Noise coming from the auger is an indication that it needs cleaning. The clear plastic float chamber also indicates the condition of the auger.

Prior to any cleaning –

1. Remove all ice from the storage bin to prevent contamination or,
2. Provide a sanitary container to catch all ice produced during the cleaning and for 30 minutes afterward.

Ice produced during and immediately after cleaning will have an acid taste and **must be disposed of.**

THE FOLLOWING STEPS SHOULD BE TAKEN IN AUGER CLEANING PROCEDURE

AIR COOLED

1. Turn external electrical power supply to ice maker off.
2. Remove front and side panels.
3. Turn off external water supply to ice maker.
4. Drain evaporator and float reservoir by removing water feed line from float and draining into a container.
5. Replace water feed line to float reservoir.
6. Mix ice machine cleaning solution (one gallon of water to 4 oz. of ice machine cleaner).
Do not use a solution stronger than recommended.
7. Fill float reservoir with solution.
8. Replace panels.
9. Turn on external electrical power supply.
10. See chart to determine length of time to allow machine to run before adding additional cleaning solution.

F&B-250	6 minutes
F&B-350	5 minutes
F&B-600	4 minutes
F&B or L 750	3 minutes
F&B or L 1000	2 minutes
11. Repeat Steps 1, 2, 7, 8 and 9 until the one gallon of solution has been used.
12. Turn external electrical power supply to ice maker off and repeat steps 2, 4, and 5.
13. Replace panels.
14. Turn external electrical power on.
15. Turn external water supply to ice maker on.
16. Allow machine to continue running and dispose of all ice made in the first 30 minutes of operation.

FLAKER MAINTENANCE INSTRUCTIONS

AUGER CLEANING PROCEDURE

WATER COOLED

Use the same procedure as Air Cooled models except:

Do not turn external water supply off. Instead use a piece of wire holding the float ball in the water reservoir up preventing any water from entering the reservoir during cleaning operation.

PREPARING MACHINE FOR PERIOD OF INOPERATION OR STORAGE

Shut water off to the machine. Turn toggle switch to "OFF" position.

Let machine stand for ½ hour to let ice melt in auger assembly.

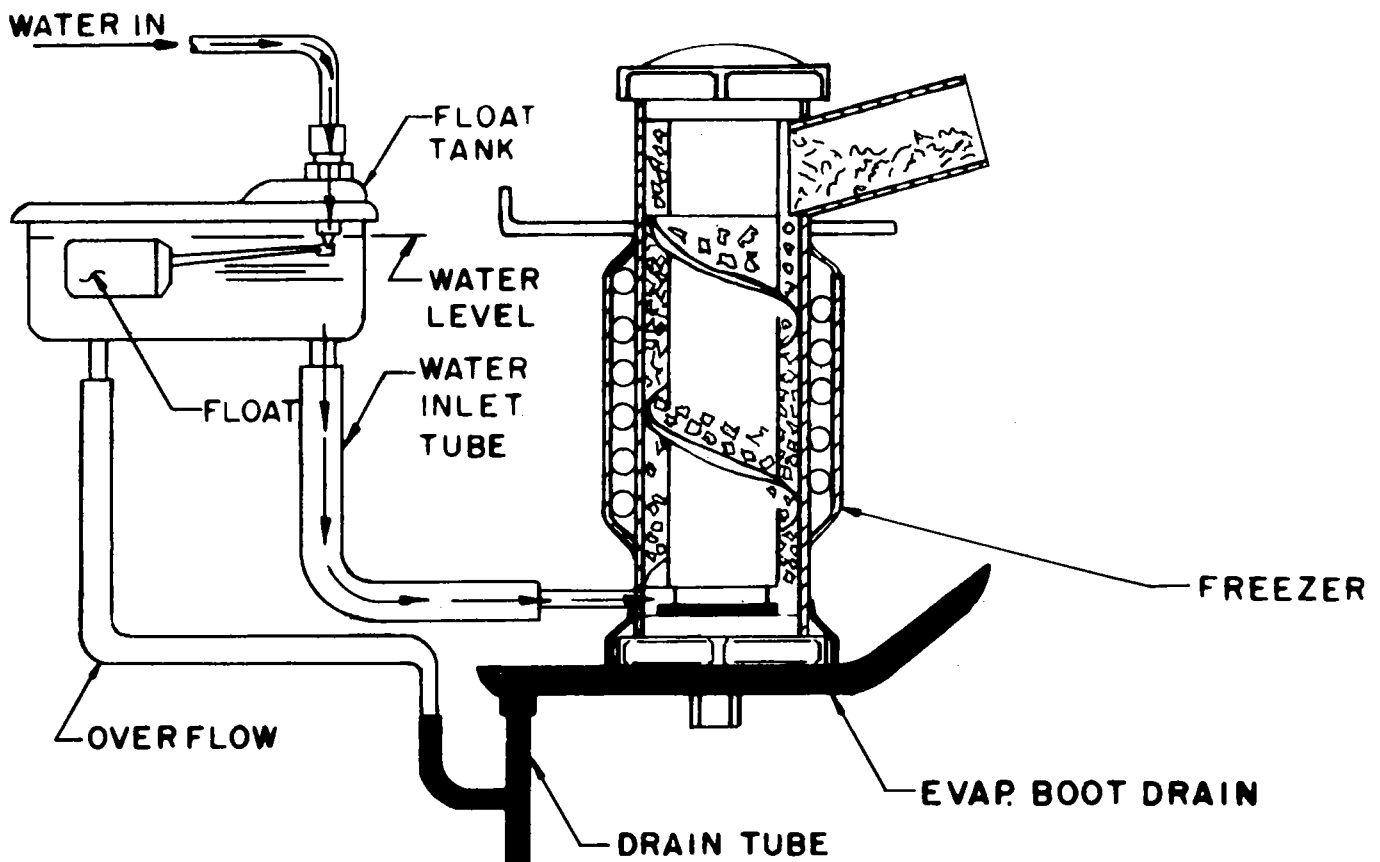
Disconnect evaporator tube-reservoir (to evaporator assembly) at the evaporator assembly.

Drain complete system and do not replace the tube. Wipe out storage bin.

FLAKER SERVICE INFORMATION

WATER SYSTEM DESCRIPTION

The water system on the flakers consists of a float operated valve that maintains the water level in the evaporator just below the ice discharge opening and above the top of the freezing chamber. Water cooled units have a regulating valve, to meter the water to the water cooled condenser to maintain a predetermined head pressure on the high side of the refrigeration system. To adjust the float water level, loosen the two (2) screws on the adjustable float tank bracket and move up or down accordingly.

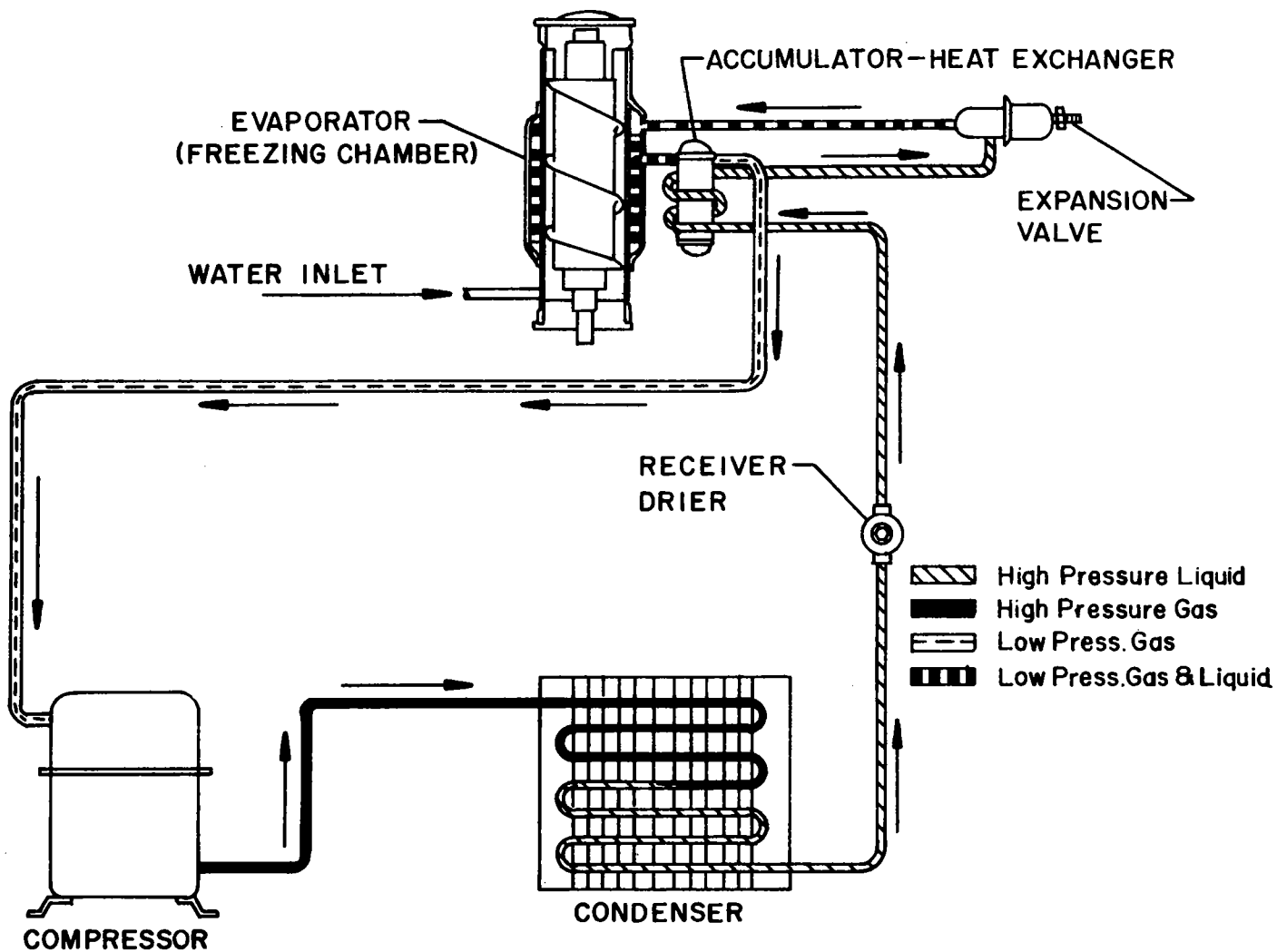


FLAKER SERVICE INFORMATION

CONTINUED

REFRIGERATION SYSTEM DESCRIPTION

The refrigeration system consists of the motor compressor, the condenser, which can be either air or water cooled; the refrigerant, the heat exchanger, the refrigerant drier, the automatic expansion valve, which meters the refrigerant to the evaporator maintaining a constant pressure and temperature in the freezing chamber; and the freezing chamber.



REFRIGERATION CYCLE

FLAKER SERVICE INFORMATION

AUTOMATIC EXPANSION VALVE

The automatic expansion valve is designed to meter refrigerant to the evaporator by maintaining a constant pressure.

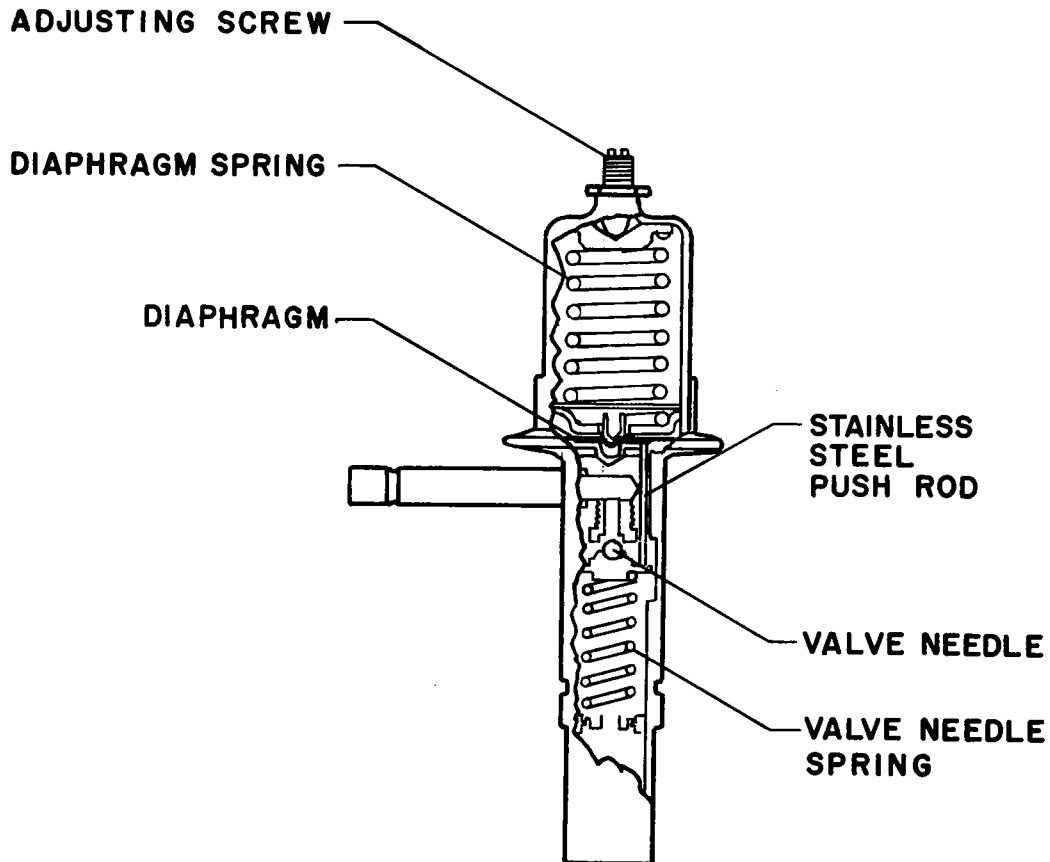
The diaphragm has pressure exerted on the top side by the diaphragm spring and by atmospheric pressure. This is opposed by the valve needle spring and evaporator pressure. The stainless steel push rod transfers the movements of the diaphragm to the valve needle.

The valve needle is a stainless steel ball that eliminates sticking and insures smooth action. Because the diaphragm employs atmospheric pressure, additional adjustment may be necessary at location by means of the adjusting screws.

The back pressure setting is shown on chart below. This pressure should give no live frost on the compressor.

EXPANSION VALVE SETTING. As follows:

BELOW 3000 FT. ALT.		OVER 3000 FT. ALT.	
250-A	15 P.S.I.G.	250-A	16 P.S.I.G.
350-A&W	15 P.S.I.G.	350-A&W	16 P.S.I.G.
600-A&W	13 P.S.I.G.	600-A&W	14 P.S.I.G.
750-A&W	12 P.S.I.G.	750-A&W	13 P.S.I.G.
1000-A&W	11 P.S.I.G.	1000-A&W	12 P.S.I.G.
1006-A	39 P.S.I.G.	1006-A	36 P.S.I.G.
1006-W	34 P.S.I.G.	1006-W	34 P.S.I.G.



FLAKER SERVICE INFORMATION

CONTINUED

ADJUSTMENTS

BIN & SAFETY CONTROL

When a unit is installed it is sometimes necessary to make internal adjustments of the range screw. In most cases, however, the external adjustment will be adequate and NO INTERNAL ADJUSTMENT MUST BE MADE. **BEFORE ANY INTERNAL ADJUSTMENTS ARE MADE – ADJUST CONTROL EXTERNALLY. If conditions require, proceed with the following settings for internal adjustment of range screw.

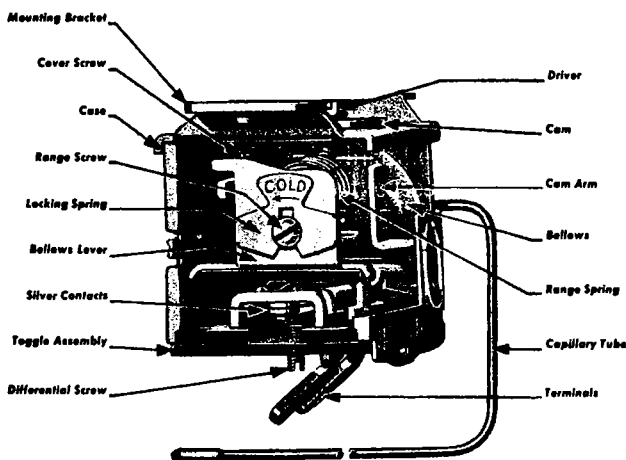
SETTINGS				SETTINGS			
BIN CONTROL				SAFETY CONTROL			
COLD OUT	NORM OUT	NORM IN	WARM IN	COLD OUT	NORM OUT	NORM IN	WARM IN
31 ⁰ ±2	36 ⁰ ±1	42 ⁰ ±1	47 ⁰ ±2	25 ⁰ ±2	30 ⁰ ±1	38.5 ⁰ ±1	43.5 ⁰ ±2
ALTITUDE CORRECTION				ALTITUDE CORRECTION			
CW TURNS OF RANGE SCREW				CW TURNS OF RANGE SCREW			
Feet	Turns	Feet	Turns	Feet	Turns	Feet	Turns
2000	5/32	8000	27/32	2000	3/16	8000	1-1/16
4000	13/32	9000	31/32	4000	1/2	9000	13/16
6000	5/8	10000	1-1/16	6000	25/32	10000	1-5/16

After altitude correction has been completed, fine adjustment of the control can be accomplished by turning the screw driver slotted shaft (external).

To set the safety control the water supply to the float is stopped and the machine is allowed to run. When the water in the float and evaporator line has depleted the control should activate and the machine should stop. The water supply should then be turned on. After a period of 3 to 5 minutes, the safety control will activate allowing the machine to run.

Bin control adjustment should be made to allow adequate bin fill without bin overflow or evaporator obstruction by packing ice.

CAUTION: Safety control setting must allow continuous water flow to evaporator.

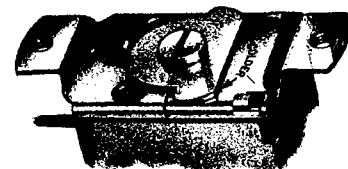


SECTION VIEW

Bin Control
Part Number 9041004-01

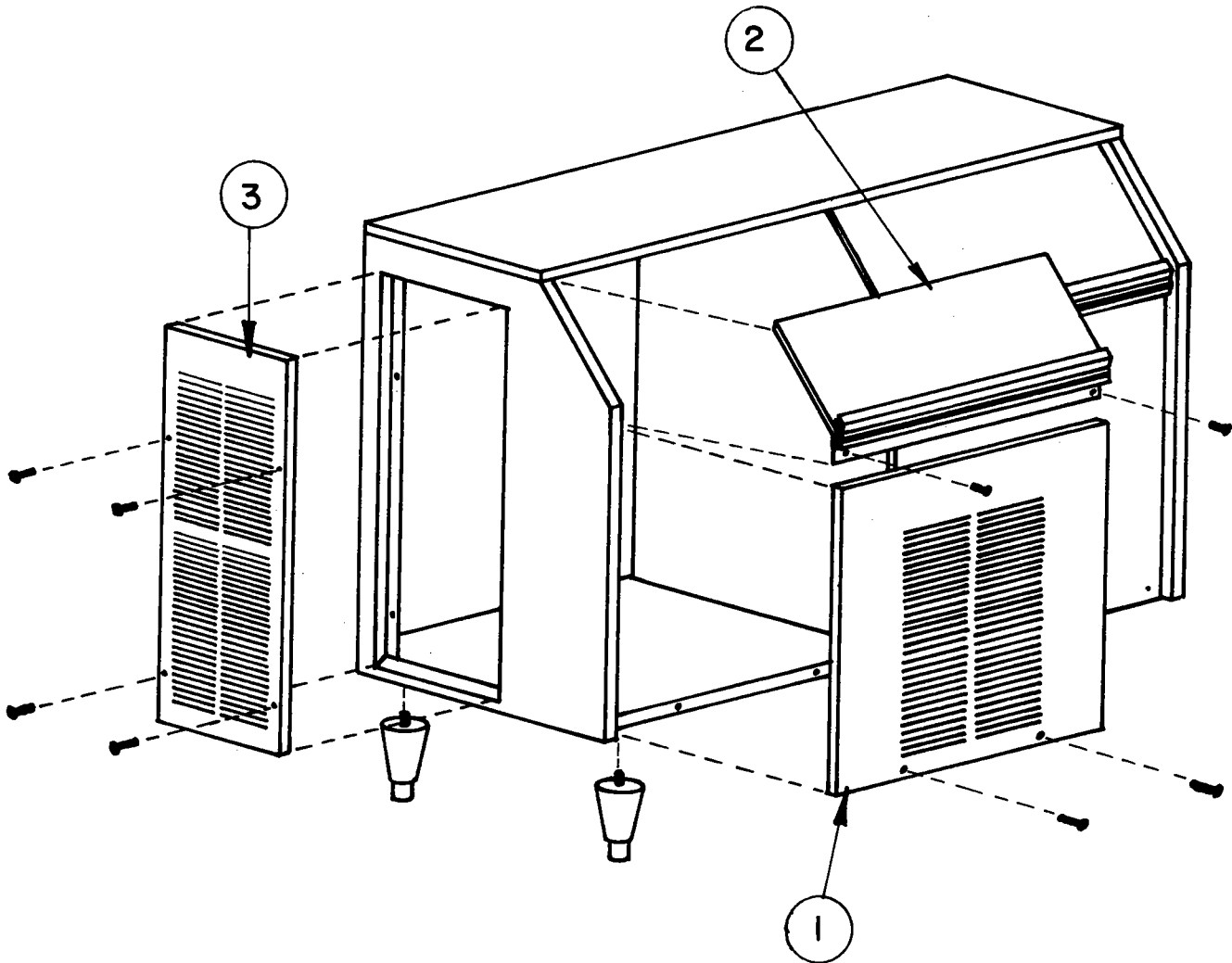
Safety Control
Part Number 9041002-02

Screw driver SLOTTED
shaft for turning the
cam



FLAKER SERVICE INFORMATION

CHASSIS REMOVAL



Chassis Removal

- 1) Remove two screws from lower left hand panel bottom side. Remove panel
- 2) Remove 2 screws from bottom of top left panel, pull down and out.
- 3) Remove 4 screws in side panel and remove panel for access to following:
 - a) disconnect water supply.
 - b) disconnect electrical supply.
 - c) loosen ice chute and pull into bin.
 - d) remove bin control cap tube from brass rod.
 - e) remove 2 screws from front of ice making chassis.
 - f) remove 4-bolts $\frac{1}{4}$ -20 from back of cabinet panel.
- 4) Pull chassis forward out of cabinet.

FLAKER SERVICE INFORMATION

CONTINUED

DISCONNECT ALL POWER BEFORE REMOVING PANELS TO REPLACE EVAPORATOR SHELL ASSEMBLY

1. Remove front, side, and rear panels.
2. Remove chassis (see page 14).
3. Disconnect water inlet tube from evaporator.
4. Disconnect drain tube from evaporator.
5. Remove safety control cap tube from well on lower section of evaporator.
6. Remove upper evaporator nut.
7. Loosen set screw in the upper part of drive coupling at bottom of auger. Insert screwdriver in coupling under fiber spider and pry up until auger can be lifted from the top of the evaporator assembly.
8. Purge refrigerant from system and disconnect suction line at service valve and cut liquid line at the compressor end of the heat exchanger.
9. Remove two bolts holding evaporator to frame and lift out evaporator assembly.
10. Remove drain boot by pressing down on one side.
11. Remove lower nut from evaporator assembly.
12. Remove lower bearing housing assembly by driving lightly against the bearing (NOT THE SEAL). Use 1-1/8" by 12" wooden driving rod for best results.
13. Re-assemble by reversing procedure outline here, and charge with proper charge as indicated on nameplate, after complete evacuating system.

FLAKER SERVICE INFORMATION

CONTINUED

DISCONNECT ALL POWER BEFORE REMOVING PANEL TO REPLACE SEAL

1. Remove front, side, and rear panels.
2. Remove chassis (see page 14).
3. Unscrew upper evaporator nut.
4. Loosen set screw in top half of drive coupling. Pry auger up with screwdriver under spider in coupling until it can be removed from top of evaporator.
5. Remove gear reducer.
6. Remove evaporator condensation boot.
7. Unscrew bottom evaporator nut.
8. Remove bottom bearing assembly.
9. Use a screwdriver to pry out the seal (it is pressed in at the factory). Clean the housing in preparation for installation of new seal.
10. Care should be taken when installing the new seal, see that it goes into bearing housing straight. Do not try to tap it in with a hammer; a steady pressure is desirable. Lubricate freely with standard cup grease for better installation results.
11. Part of the seal (a bronze and hard rubber assembly) is assembled to the auger shaft. This should be replaced by using hand pressure.
12. For re-assembly, reverse the procedure.

RUN A LEAK TEST

The insulation as used on the evaporator carries a freon expanding agent. Caution must be exercised with any leak detector, as breaking the surface of the insulation will produce a simulated leak. Consequently, when it has been determined that a refrigerant leak exists on the system and that it is not located on any portion of the EXPOSED TUBING, it will be necessary to proceed slowly in removing the insulation allowing enough time for the vapor to dissipate before leak testing. In some instances, it may even be necessary to expose the entire tubing and freezing cylinder and use a soap bubble solution to make a satisfactory test.

FLAKER SERVICE INFORMATION

CONTINUED

SERVICE DIAGNOSIS

Condition	Possible Cause or Remedy
1) Low ice production.	1) a. Check for obstructions in flow of water to the evaporator. b. Check float adjustment. c. Corroded auger, clean as per instructions. d. Stopped up water float valve. e. Restricted filter-drier. f. Dirty condenser. g. Valves in compressor not functioning properly. h. System under or over charged. (See page 7) i. Condenser fan not working. j. Low line voltage. k. Water regulating valve set too low. (water cooled units only)
2) Unit runs, but no ice production.	2) a. Water supply shut off. b. Water float valve plugged. c. Inlet water tube frozen at evaporator due to safety control set too cold. d. Combination of no water to evaporator and defective safety control. e. Unit out of gas. f. Motor compressor not pumping. g. Defective T. X. valve.
3) Vibration in water reservoir assembly.	3) a. Too high water pressure or defective water pressure regulator. b. Partially stopped up float valve.
4) Excessive noise in evaporator assembly.	4) a. Auger needs cleaning. b. Defective bearing.
5) Low Suction Pressure.	5) a. Water restriction to evaporator. b. Restricted liquid flow through filter-drier. c. System low on refrigerant. d. Moisture in refrigeration system.
6) Water leaking at bottom of evaporator assembly.	6) a. Retaining nut loose on lower housing assembly. b. Lower water seal leaking.
7) Wet ice (water being carried out with ice).	7) a. Water level set too high.
8) Wet ice (soft).	8) a. System low on refrigerant. b. Back pressure set too high. (See page 12) c. Valves in compressor not pumping properly or reeds in compressor coked (burnt deposits).

FLAKER SERVICE INFORMATION

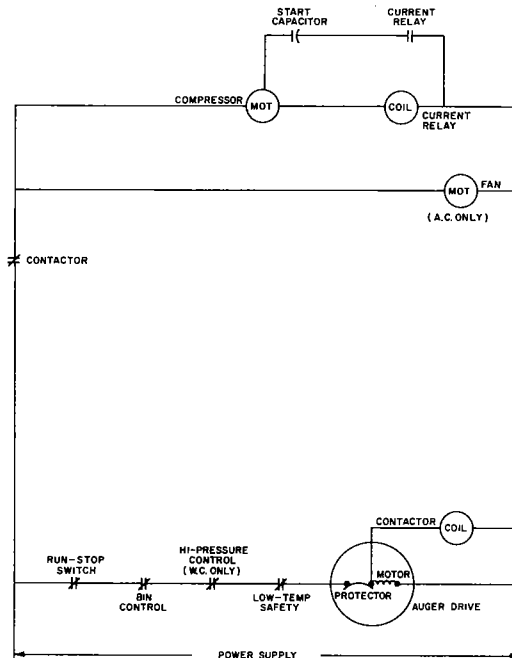
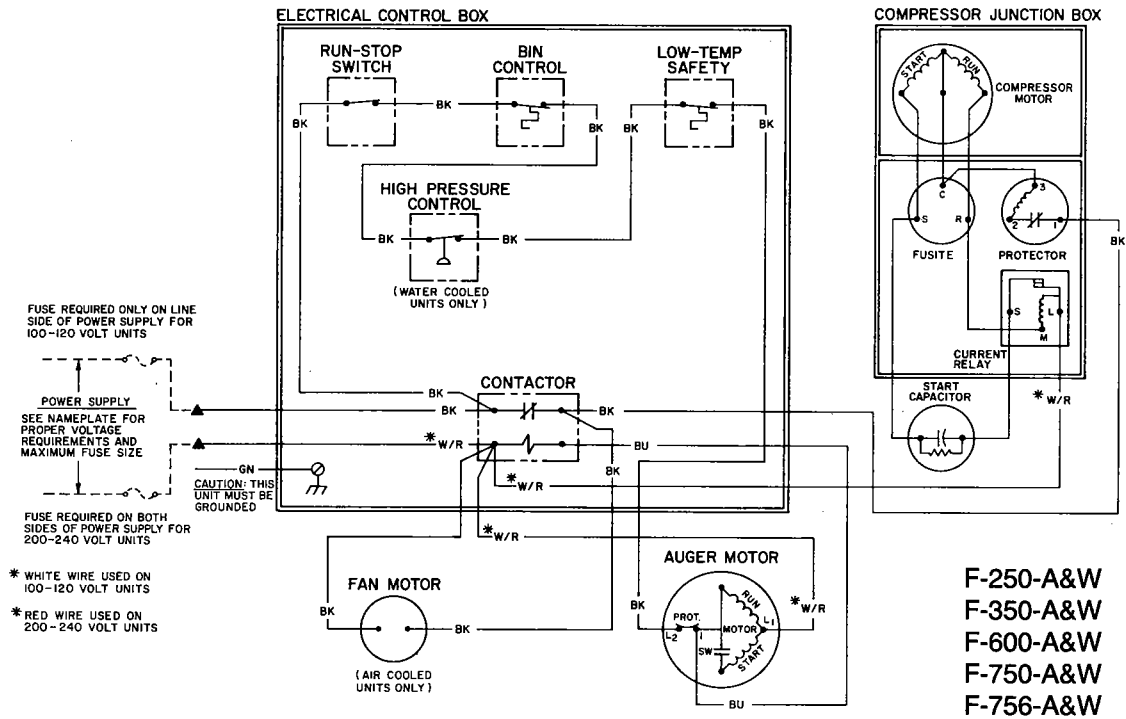
CONTINUED

SERVICE DIAGNOSIS

Condition	Possible Cause or Remedy
9) Noisy motor compressor.	9) a. High head pressure. b. Defective compressor. c. Compressor low on oil.
10) Compressor cuts out on overload.	10) a. High head pressure. b. Low line voltage (it should be within 10% of rated voltage). c. Defective compressor unit, starting capacitor, relay or overload device. d. Loose electrical connection, probably in compressor junction box.
11) High head pressure.	11) a. Dirty condenser. b. System overcharged. c. Moisture in refrigeration system.
12) Machine frozen up.	12) a. Dirty auger. b. Defective bearing. c. Loose v-belt or pulley. d. Defective auger motor.
13) Brass in ice.	13) a. Defective bearing.
14) Gear reducer input shaft turns, but output shaft does not.	14) a. Gear stripped.
15) Motor compressor and auger motor will not run.	15) a. Check 115 or 230 volt supply b. Check on/off switch. c. Activate bin control by placing hand on bulb for fifteen seconds. Readjust if necessary. d. Check safety control. e. Check for loose connections. f. Defective auger motor. g. Defective wiring harness.
16) Auger motor runs, but motor compressor does not.	16) a. Loose connections at compressor junction box. b. Defective wiring harness. c. Defective overload, relay, starting capacitor or motor compressor. d. Low voltage causing motor compressor to short circuit on overload. e. Defective time delay module
17) Motor compressor runs, but condenser fan does not.	17) a. Loose electrical connection. b. Fan blade can not turn due to obstruction. c. Fan motor burned out.
18) Auger motor does not work.	18) a. Loose connection. b. Defective auger motor. c. Defective time delay module.
19) No voltage at auger motor or compressor junction box.	19) a. Check voltage at on/off switch. b. Check bin control and/or safety control by placing a jumper across their two terminals.
20) Machine fails to shut off when bin is full	20) a. Bin control out of adjustment or it is defective.

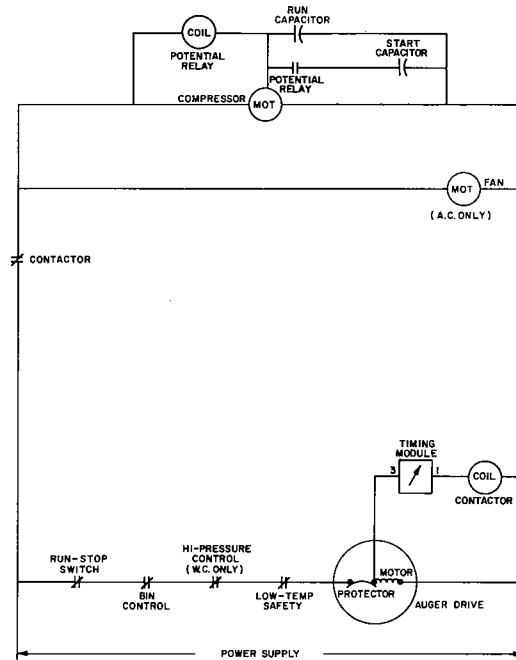
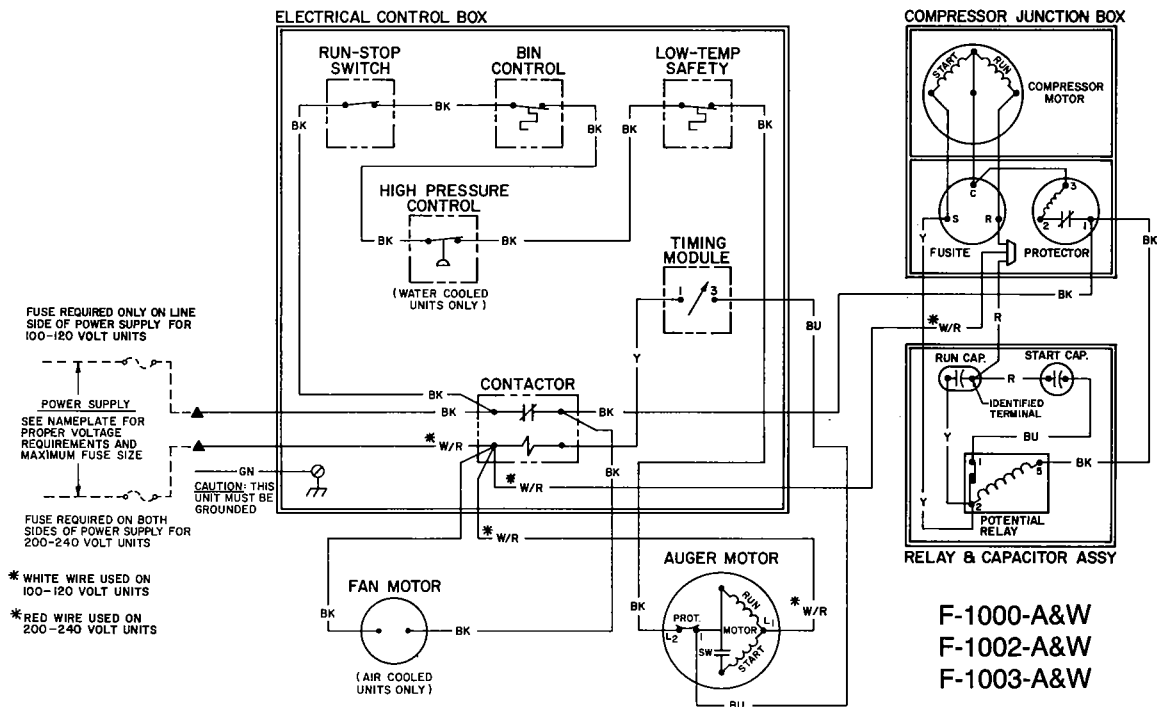
FLAKER SERVICE INFORMATION

F-250, 350, 600, 750, 756



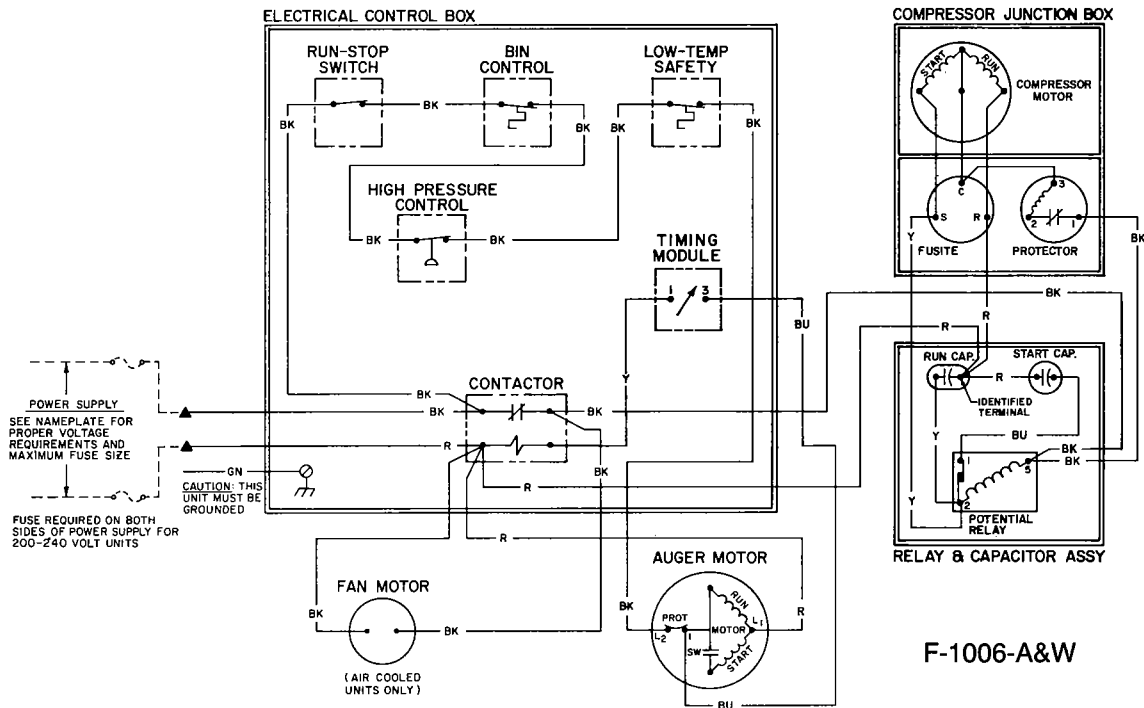
FLAKER SERVICE INFORMATION

F-1000, 1002, 1003

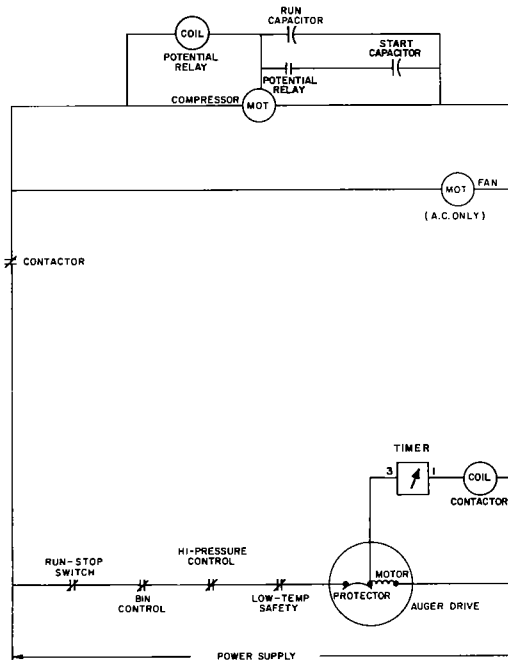


FLAKER SERVICE INFORMATION

F-1006



Note: This machine has a compressor delay and will not begin making ice until the set amount of time on the timer has passed.
Timer should be set for 5 minutes.



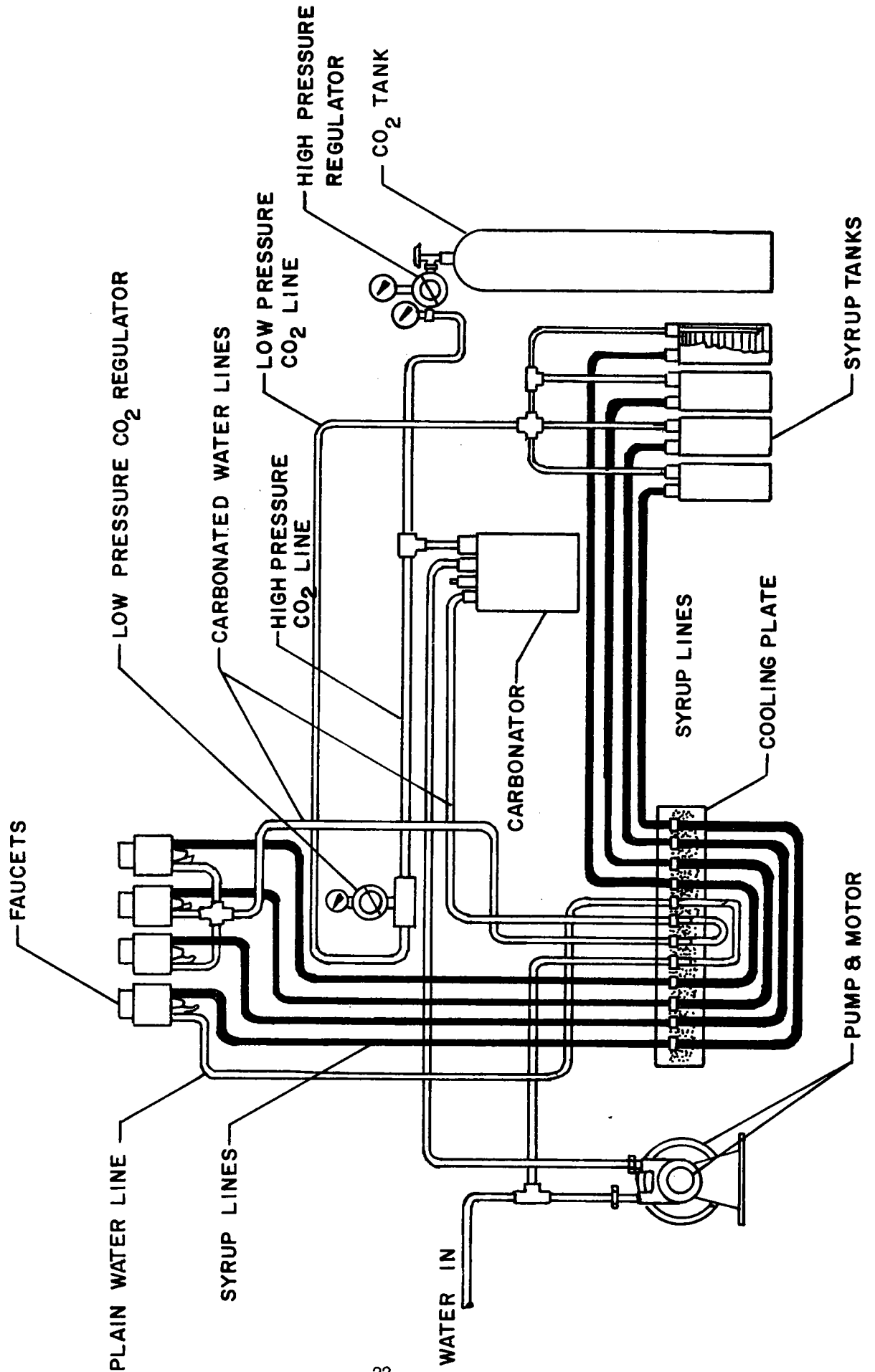
DRINK-O-MATIC

DRINK-O-MATIC



D-Series
D-38" Shown

DRINK-O-MATIC POST MIX SYSTEM



INTRODUCTION

The Drink-O-Matic pressure beverage dispenser consists of a post-mix beverage system and an Ice-O-Matic flaked ice maker. In this Parts and Service Manual, the sections pertaining to the beverage equipment and components will be referred to as "Drink-O-Matic". The ice maker sections will be referred to as "flaker"

Examples: Specific Drink-O-Matic Installation Instructions
or
General Flaker Service Information

DRINK-O-MATIC BEVERAGE DISPENSER

General Description

The Drink-O-Matic beverage dispenser is a small manufacturing plant. It manufactures ice for drinks; makes and dispenses a finished carbonated beverage. The basic materials used are electricity, water, CO₂ gas, and flavored syrup. The beverage system consists of three systems: the CO₂ system, the water system and the syrup system.

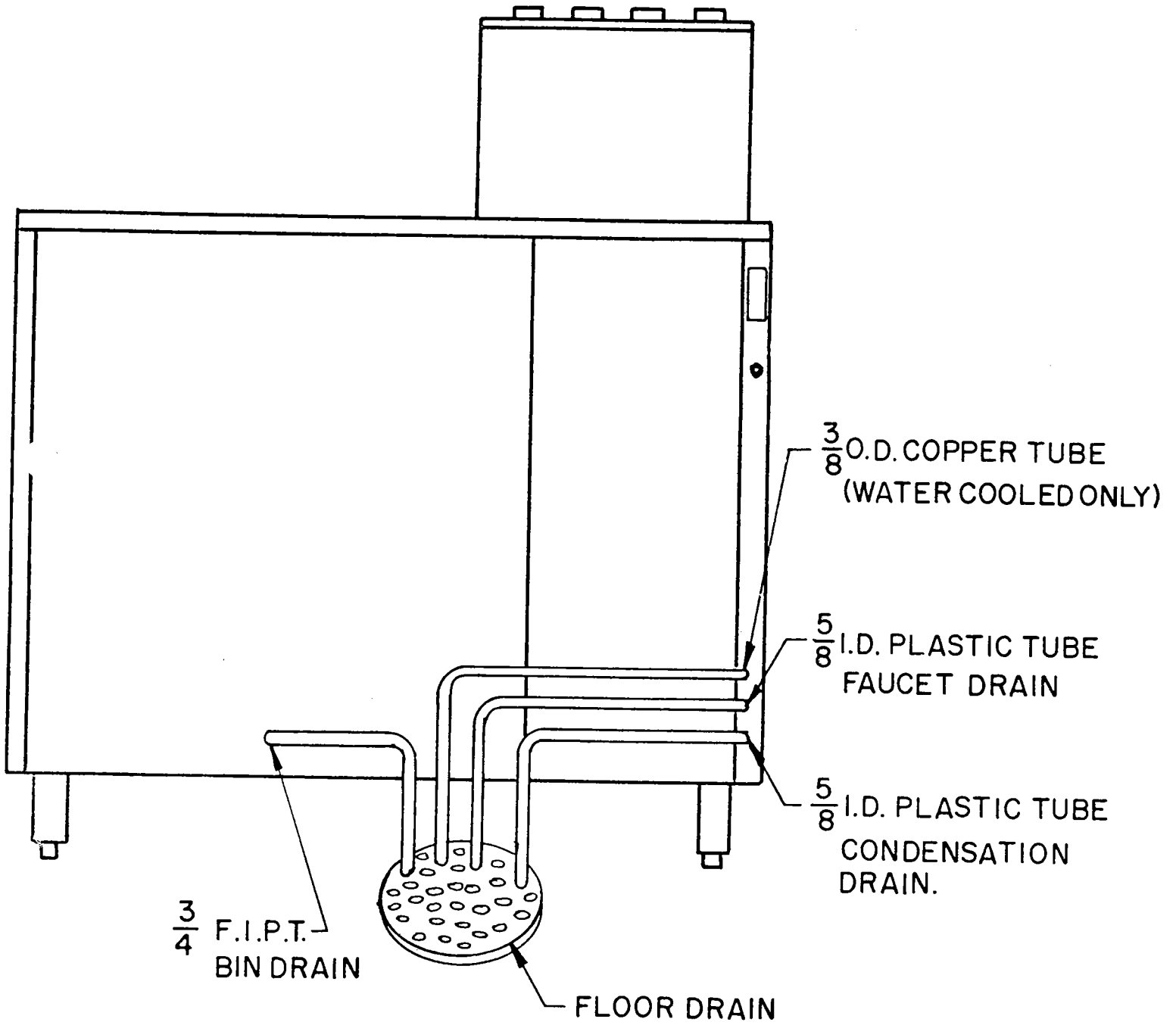
The CO₂ system consists of the CO₂ tank, the high pressure CO₂ regulator which reduces the CO₂ gas pressure to 100-120 psi for the carbonator tank where the carbonated water or soda is formed. The low pressure regulator reduces the pressure of 100-120 psi to 12 to 15 psi for pressurization of the syrup system.

The water system consists of a high pressure pump to force water into the carbonator tank.

The syrup system consists of the syrup tanks, a cold plate and electric drink faucets. The syrup tanks are pressurized with low pressure CO₂ gas forcing the syrup through the cold plate and up to the electric faucets where the carbonated water and syrup are mixed to form the finished beverage.

The visual description of the beverage system is found on Page 22.

DRAIN LAYOUT



ALL DRAINS SEPARATE TO FLOOR DRAIN

DRINK-O-MATIC

INSTALLATION INSTRUCTIONS

CAUTION:

DO NOT PUSH OR PULL ON THE SUPER STRUCTURE. Follow General Installation Instructions then proceed with:

Starting and Adjusting Drink System: After all electrical, drain and water connections have been made and tested, proceed as follows:

Remove the syrup tanks from the bin. Remove all packing material from bin.

- A. Rinse out the syrup tanks with a bicarbonate of soda solution, then clear water.
- B. Pour syrups into syrup tanks to designated level and connect syrup lines. Be sure lids are tight.
- C. Install high pressure gauge and regulator on the CO₂ tank and connect CO₂ line from the machine to the regulator.

CAUTION: BE SURE FIBER WASHER IS INSTALLED IN CYLINDER FITTING.

- D. Turn on water. Open purge or pop-off valve on top of carbonator tank in the ice bin until all air is purged out and water starts coming out of valve.
- E. Open CO₂ cylinder valve. Then turn regulator adjustment in until the gauge on regulator reads 120 lbs. maximum – 100 lbs. average.
- F. Draw carbonated water from the carbonated water faucet until the pump has cycled three or four times.
- G. Pressurize the syrup tanks by connecting the low pressure CO₂ tubes to each tank. (Recommended pressure on syrup tanks 10 to 15 psig.)
- H. Draw 2 or 3 glasses from each faucet or until the syrup is up to each faucet.
- I. Before adjusting the syrup/water ratio, allow the syrup to cool to normal temperature.
- J. Adjust each faucet to get proper mixture of syrup and carbonated water or plain water. See Drink-O-Matic Service Information for adjusting faucets.

DRINK-O-MATIC

INSTALLATION INSTRUCTIONS

Ice-O-Matic uses only a 115 volt carbonator motor. On units with 208/230 voltage, a split wire system is used to obtain 115 VAC. Carbonator motor specification is the same for all Drink-O-Matic chassis.

Model Number	Condensing Unit	Comp. H.P.	Voltage Characteristics	No. of Wires	Operating Amps @ Rated Voltage	Max. Fuse Size	Ref. Charge	Type of Ref.
D-350-A	Air	1/8	115/60/1	2	14.6	20	23 oz.	R-12
D-350-W	Water	1/8	115/60/1	2	14.0	20	21 oz.	R-12
D-600-A	Air	1/2	115/60/1	2	15.1	20	23 oz.	R-12
D-600-W	Water	1/2	115/60/1	2	14.0	20	21 oz.	R-12
D-750-A	Air	3/4	115/60/1	2	16.5	35	24 oz.	R-12
D-750-W	Water	3/4	115/60/1	2	15.4	35	24 oz.	R-12
D-751-A	Air	3/4	208-230/115/60/1	3	12.0	15	24 oz.	R-12
D-751-W	Water	3/4	208-230/115/60/1	3	11.4	15	24 oz.	R-12
D-1001-A	Air	3/4	208-230/115/60/1	3	14.1	20	31 oz.	R-502
D-1001-W	Water	3/4	208-230/115/60/1	3	12.3	15	25 oz.	R-502
D-1002-A	Air	1	208/60/1 & 115	3	10.8	15	32 oz.	R-12
D-1002-W	Water	1	208/60/1 & 115	3	9.7	15	32 oz.	R-12
D-1003-A	Air	1	208/60/1 & 115	3	12.5	14	32 oz.	R-12
D-1003-W	Water	1	208/60/1 & 115	3	11.4	20	32 oz.	R-12

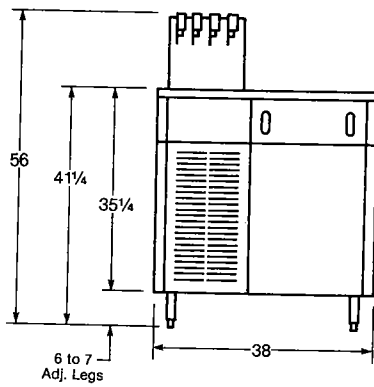
ICE PRODUCTION CHARTS — Pounds Per 24 Hours.

Condensing Unit	Air Temp. °F	Water Temp. °F			Water Temp. °F			Water Temp. °F			Water Temp. °F					
		80°	70°	50°	80°	70°	50°	80°	70°	50°	80°	70°	50°			
Air	70°	281	306	358	611	627	668	683	705	765	961	1009	1060	828	877	1009
	80°	261	288	336	580	601	638	640	677	731	926	970	1010	755	807	924
	90°	241	261	309	550	571	611	606	643	697	900	933	988	685	736	837
Water	70°	311	345	418	678	708	781	758	796	895	1066	1140	1240	832	944	1133
	80°	281	322	386	638	673	733	704	758	840	1020	1086	1161	826	938	1128
	90°	277	289	349	599	633	690	660	713	787	981	1035	1116	820	932	1123
Model Number		D-350			D-600			D-750			D-1002			D-1001		

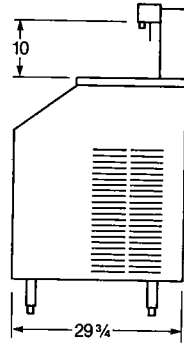
DRINK-O-MATIC INSTALLATION INSTRUCTIONS

DIMENSIONS (Inches) & PLUMBING/ELECTRICAL CONNECTIONS DIAGRAM:

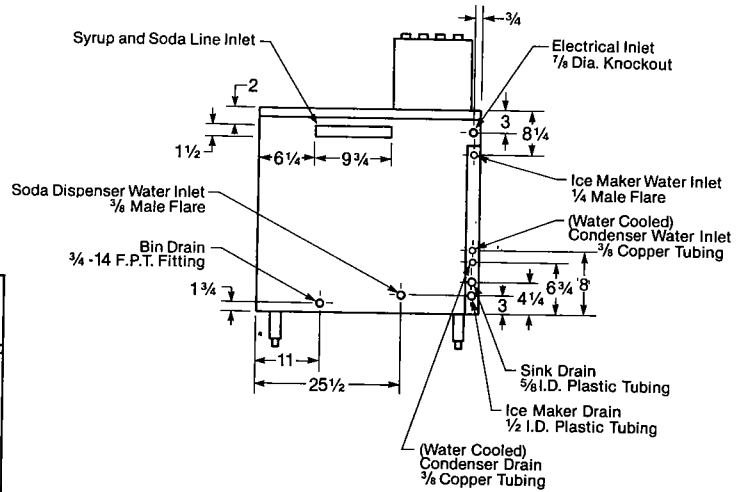
38" Cabinet



FRONT

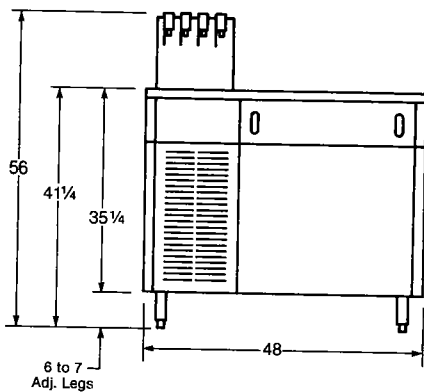


SIDE

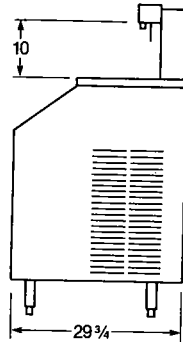


REAR

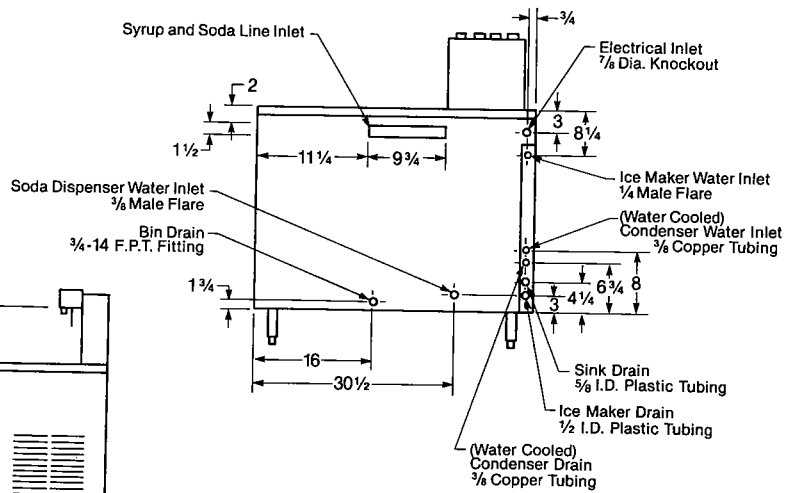
48" Cabinet



FRONT



SIDE



REAR

MAINTENANCE INSTRUCTIONS SANITIZING PROCEDURES FOR POST-MIX EQUIPMENT

1. Remove ice from cold plate.
2. Disconnect all syrup lines, gas lines and disconnect or turn off water supply to remote carbonator.
3. Connect special tank of combination detergent and bactericide to CO₂ cylinder with regulator set at 50 pounds pressure. Connect tank to syrup line and flush system. When syrup has been flushed out of lines, disconnect tank and allow sanitizing solution to stand in lines for the contact time required for the solution used. While the solution is standing in the first set of lines, follow the same procedure as used with numbers 1 and 2 and sanitize numbers 3 and 4 lines and syrup coils.

NOTE

Use a 4 foot piece of soft rubber or plastic tubing. Slide it over dispensing valve nozzle and catch sanitizer and flush water in empty syrup tank.

4. Connect tank containing clear water to the first syrup line and flush until all traces of sanitizing solution are gone. Flush remaining lines in similar manner.
5. By the use of a special tank fitting adapter (a gas tank fitting and a liquid tank fitting connected together), connect the CO₂ cylinder to the product lines and blow all the water out of the syrup system.
6. Disconnect and replace all jumper lines with lines that were sanitized at the plant and sealed in disposable plastic bags.
7. Disconnect and replace gas lines with lines that were sanitized at the plant and sealed in disposable plastic bags.
8. If gas lines show evidence of product, inspect check valves on CO₂ regulator. Rinse in clear water and replace.
9. Disassemble valve body and clean using sanitizing solution. Rinse in clear water and replace.
10. Scrub cold plate with stiff fiber brush and cleansing powder if necessary.
11. Ice down cold plate.
12. Reconnect all lines to syrup tanks and CO₂ cylinder and refill dispensing system, operate valves and adjust as necessary. Make sure all rinse water and air bubbles have been removed from system.

DRINK-O-MATIC

MAINTENANCE INFORMATION

CONTINUED

Care and Maintenance of Carbonator Motor and Pump:

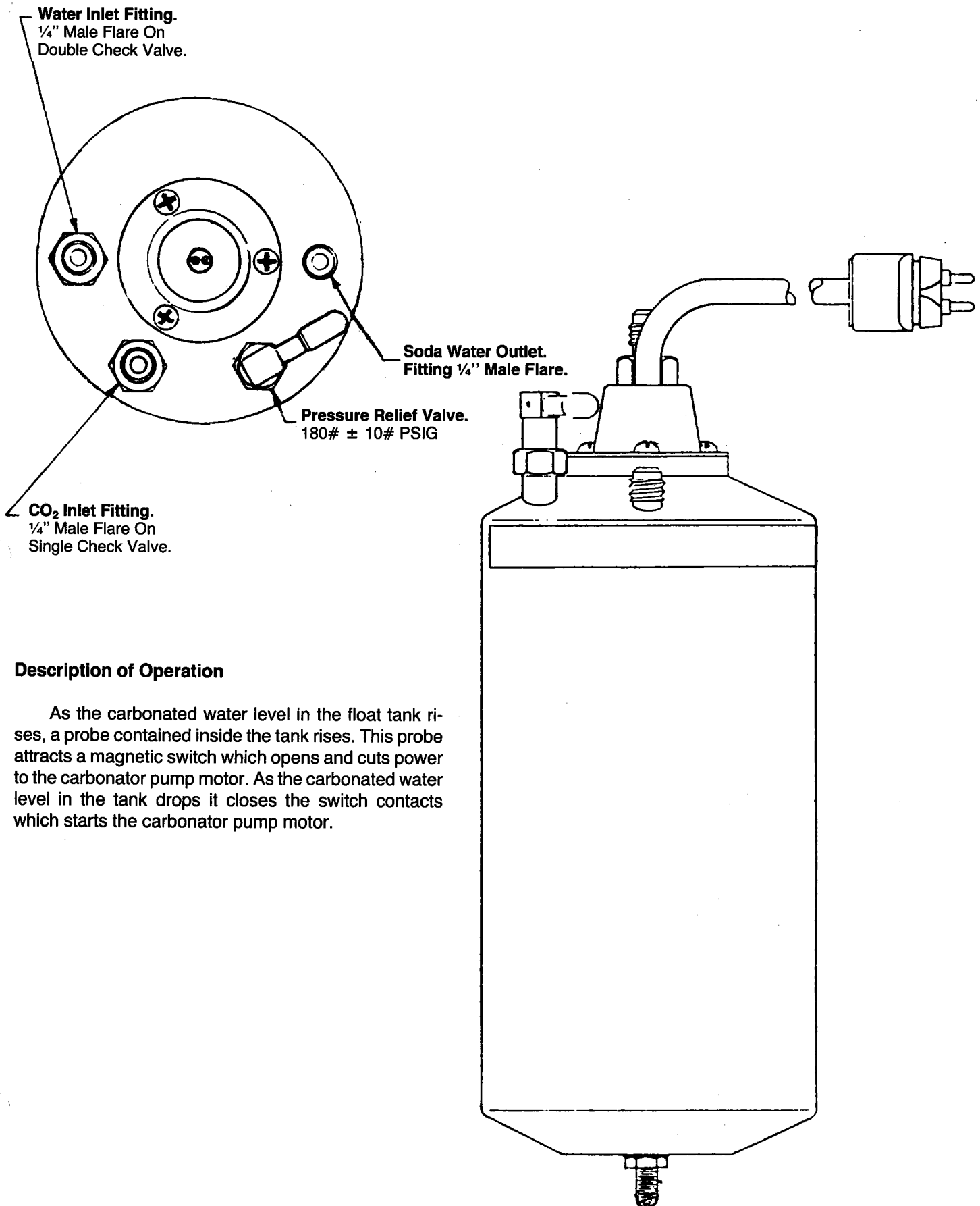
Carbonator motor should be given a few drops of fine machine oil at least twice a year. **NEVER PERMIT THE CARBONATOR PUMP TO RUN WITHOUT WATER.** Be sure at all times that there is a sufficient supply of incoming water to the carbonator pump. Due to the great capacity of the rotary pump, any restriction or an insufficiency of water for any reason will cause a starvation of water for the pump, creating buzzing noise at the pump — also poor carbonation and long running time of the pump. Eventually, the pump will lose its efficiency completely and will run continuously. This necessitates the replacement of the pump.

FAILURE OF YOUR CARBONATOR PUMP DUE TO ANY OF THE ABOVE CONDITIONS VOIDS THE WARRANTY.

Preparing DRINK-O-MATIC For Winter Storage:

1. Remove syrup from syrup tanks and rinse out with fresh water.
2. Make a solution of 2 lbs. bicarbonate of soda to 2 gal. of warm water and partially fill each syrup tank with the mixture.
3. Close tanks and pressurize.
4. Draw enough of the soda solution from each faucet to insure complete cleaning of the lines.
5. Disconnect syrup tanks, thoroughly rinse tanks with soda solution, and empty excess.
6. Rinse out tanks with fresh water and leave approximately 1 qt. fresh water in each tank.
7. Close tanks and connect back into the system.
8. Flush out lines by holding the faucets open until all tanks and lines are empty.
9. Open tanks and pour out excess water and replace lids.
10. The entire system **MUST** be blown free of water; **CARBONATOR PUMP, CARBONATOR TANK in BIN, COOLING PLATE, and ALL LINES.** Failure to do this may cause **SEVERE DAMAGE**, requiring complete replacement.
11. Follow ice maker instructions for preparing machine for period of inoperation or storage in General Maintenance Instructions Section of Manual.

DRINK-O-MATIC SERVICE INFORMATION



Description of Operation

As the carbonated water level in the float tank rises, a probe contained inside the tank rises. This probe attracts a magnetic switch which opens and cuts power to the carbonator pump motor. As the carbonated water level in the tank drops it closes the switch contacts which starts the carbonator pump motor.

DRINK-O-MATIC SERVICE INFORMATION

Carbonated Water (Soda)

Carbonated water is the resultant liquid after CO_2 gas has been placed in solution with plain water. The condition of low temperature water, introduced into the gas chamber produces a better marriage of the water and CO_2 gas, producing a better charged water under all conditions, irrespective of manufacture of the carbonating tank.

Carbonation is measured in terms of volumes of CO_2 gas in solution in the water. One volume carbonation is a solution in which a given volume of water has an equal volume of CO_2 gas in solution (absorbed) in it under atmospheric pressure. The accepted standard for highly carbonated drinks such as COLA, is 3.5 volumes of carbonation. ROOT BEER usually is accepted with less carbonation; 2.5 to 3.0; carbonated fruit drinks are considered at even lower carbonation, at 2 volumes.

Principles of Carbonation:

CO_2 gas at approximately 100 lbs. pressure, and water under pump pressure enter the stainless steel carbonating tank through individual check-valves. The water level inside the pressurized carbonating tank is controlled by a float assembly in its relation to an external switch. CO_2 gas completely fills the area in the carbonating tank, above the level of the water. The water enters the tank through a small orifice, creating a jet stream of extremely high velocity. The jet stream strikes a baffle plate breaking the water into small droplets, so that carbonation occurs instantly.

The carbonator tank is the heart of the carbonation system. Plain water absorbs CO_2 gas to become carbonated water. The carbonator tank is located in the ice storage bin.

Water is forced into the carbonator tank by the pump. A high pressure jet stream breaks up into a fine spray when it strikes the deflector plate inside the carbonator tank. The carbonated water is drawn off through the dip tube and the water level in the tank is controlled as follows:

Water Level Control:

1. The stainless steel FLOAT raises and lowers with the water level.
2. The FLOAT rides steady on a shaft which is attached to an armature.
3. This ARMATURE is free to ride within the tube at the top of the carbonator tank.
4. As the float reaches the determined low level of the water, it pulls the armature out of the magnetic field of the switch.
5. Actuating the pump MOTOR and
6. Begins to pump water under pressure through the water check-valve, the small orifice, jetting the water into the absorption chamber beginning the carbonation cycle as described previously.
7. As the water level rises, so does the float.

DRINK-O-MATIC SERVICE INFORMATION

8. When the water level reaches the predetermined height, the armature is brought into the magnetic field of the switch;
9. Actuating the switch stops the motor and water supply to the carbonator tank.

CO₂ Gas Supply:

The gas cylinder should be located as close to the carbonator as possible; secure the cylinder to the wall in such a manner that it cannot be knocked over.

1. Before attaching the high pressure regulator to a fresh cylinder, the cylinder valve should be opened momentarily to blow out any dust, dirt, or other foreign material that might be in the fitting.
2. It is best to use a new fiber washer between the cylinder valve and the high pressure regulator each time the tank is changed.
3. Tighten the nut of the regulator on the cylinder securely and test for leaks.
4. Recommended pressure for efficient carbonation is 100-120 lbs. When this setting has been made at the high pressure regulator, then test the hook-up for CO₂ gas leaks. This can be done by using warm water and soap applied with a soft brush to all joints and connections from the CO₂ drum to the base of the CO₂ check valve where the gas enters the carbonator tank. The slightest leak will show up in the form of soap bubbles at the faulty connection.
5. The carbonator tank has a pressure relief valve built into it. Whenever the regulator gauge climbs above the desired setting, the high pressure regulator is creeping and should be replaced; the pressure relief valve will protect the equipment, but CO₂ gas will be needlessly wasted.

Low Pressure CO₂ Regulator:

The low pressure regulator is located in the faucet tower. It controls the syrup flow to the electric faucets. The maximum pressure that should be used is 25 psi. To adjust the pressure, turn adjusting knob clockwise to decrease pressure.

DRINK-O-MATIC Cold Plate:

The cold plate is installed when the cabinet is built and is the bottom of the ice bin. It has two water circuits, 26 feet of $\frac{5}{16}$ stainless steel tubing imbedded in the pure aluminum plate and four (4) syrup circuits, 5 feet each.

The water circuits are the four center connectors. The syrup circuits are the four connections on each side. The cold plate pre-chills the water and syrups for the beverage system. The pre-chilling effect of the cold plate could, during times of peak drink system operation, deplete some of the ice in the storage bin. When in doubt of ice production, test only from ice chute, not allowing ice to touch bin bottom.

DRINK-O-MATIC SERVICE INFORMATION

The Electronic Faucet:

The Drink-O-Matic can use three (3) different faucets; (1) the single lever faucet that dispenses only the finished drink, (2) the double lever faucet that can dispense either the finished drink or only carbonated water or plain water, as the case may be, without the syrup; and (3) the low carbonation faucet that dispenses syrup, carbonated water and plain water to obtain a low carbonated drink.

The faucet is where the syrup and water or carbonated water is mixed to make the finished soft drink.

The faucet is powered by 24 VAC supplied by the low voltage transformer.

Principle of Faucet Operation: (Single Lever Faucet)

When the operator presses a glass against the main actuating lever of the faucet, this lever depresses the actuating button of the electric micro-switch. The switch then completes the electric circuit to both solenoid coils. This opens the orifices in the solenoid valves permitting water and syrup to flow into the spout (or mixing chamber) and into the operation glass perfectly blended. *On all models manufactured after January 1979 the bin door must be in a closed position for the faucets to operate. This prevents any overflow from the drink faucets from contaminating the ice in the bin.

Low Voltage Control Box

The low voltage control box is located just under the cabinet top in the machine compartment. The control box can be removed from the cabinet by simply unplugging the ice maker from the box and sliding it from its mounting bars. The "ON/OFF" switch at the front of the control box shuts off the entire drink system.

NOTE: Turn OFF power supply at main supply panel BEFORE working on low voltage control box.

The low voltage control box also has the 24 volt contactor which controls the carbonator pump motor.

DRINK-O-MATIC SERVICE INFORMATION

CONTINUED

- NOTE:
1. If the syrup and soda lines are exceptionally long the syrup tanks may have to be pressurized above 15 psi to achieve the desired flow rate and the desired brix. Do not exceed the recommended pressures on any of the components used in the system. Some root beers foam excessively at pressures above 15 psi and an additional low pressure regulator may be required.
 2. The faucets should be brixed when the system is at the proper temperature and when the soda flow is through a properly cooled cold plate. The temperature of the product should be below 42 degrees F. to achieve the proper taste with minimum foaming. This requires that the temperature of the soda be below 38 degrees F.

2. The syrup separator method:

- a. Using the syrup separator and a brixing cup, actuate the faucet having the most viscous syrup and measure the rate of soda flow.
- b. Adjust the soda metering stem by screwing it in clockwise and check for the soda flow until the soda flow is 1 1/4 oz/sec.
- c. Using the same syrup separator and brixing cup, adjust the syrup flow until the desired ratio of soda to syrup flow is achieved. For a normal non-dietetic cola drink this ratio should be 5 to 1 to give a brix reading of 12.

NOTE: Drink-O-Matic brixing cup has three sections or diameters. The largest diameter is used for soda measurements. The second largest diameter is used for syrups with 5 to 1 mixing ratios while the smallest diameter is used for dietetic syrups with 11 to 1 mixing ratios.

ALL DRINK-O-MATIC BRIXING CUPS ARE IDENTIFIED AS TO THESE RATIOS ON THE SIDE OF THE CUP.

- d. Adjust all of the other faucets in a like manner.

NOTE: Many beverages such as the dietetic type can only be adjusted by means of the brixing cup method since they have no sugar content and therefore cannot be adjusted by the refractometer method.

SPECIFIC DRINK-O-MATIC SERVICE INFORMATION

FAUCET ADJUSTMENTS

ADJUSTMENT OF MIXING FAUCETS: The operator has complete control over the taste of the finished drink. Both the sweetness and degree of carbonation of the finished drink are controlled by metering screws, which can be adjusted to meet the demand of each type of syrup and the degree of sweetness desired.

The recommended rate of flow for the Drink-O-Matic faucet is two ounces per second or less of finished drink. To draw faster than this rate would reduce the carbonation in the drink. The normal blend is one ounce of syrup to 5 ounces of carbonated water or plain water. This proportion can be varied to suit conditions such as individual tastes, amount of ice used in the drinks, or the brand of syrup used.

To increase the flow of syrup or water, turn the metering screws out, to the left. To decrease the flow, turn the metering screws in, to the right. These adjustments are sensitive and should be made slowly, not more than one-eighth of a turn at a time.

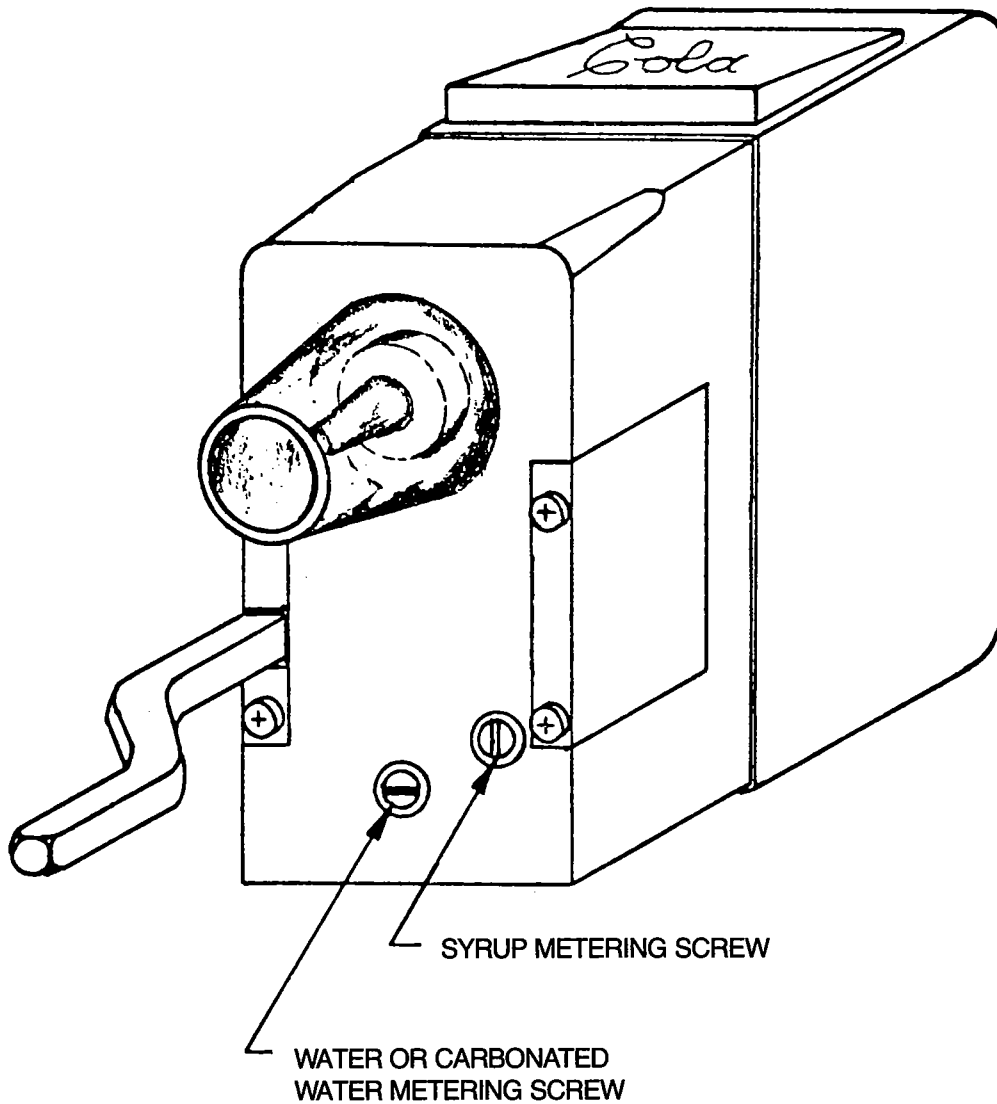
The faucets are brixed by either of two processes. In one process a refractometer is used to measure the ratio of sugar to the total product, while in the other process a brixing cup and syrup separating device are used to set the proper ratio of soda to syrup. In both methods the flow of soda water and syrup are adjusted by means of the metering stems located on the bottom of the valve just behind the outlet spout. These same are identified by letter as to which product is dispensed thru them, whether this product be syrup, water or soda. If multiple faucets are used for the system, the syrup having the greatest viscosity (the heaviest, more difficult to move) should be brixed first, with the others being brixed in any other order after this.

The two procedures for brixing are as follows:

1. The refractometer method:

- a. Make certain that the power is on, that the CO₂ gas valve is open, that the syrup tanks are filled and are pressurized at 15 psig, that the carbonator pressure is at 100 psig, that the water inlet is on, and that the carbonator electrical plug is connected.
- b. Rotate all of the metering stems counter clockwise until the threaded portion on the stem is flush with the bottom of the valve.
- c. Operate the faucet having the most viscous syrup and measure the soda flow rate on this faucet. Use a syrup to isolate the soda flow.
- d. Adjust the soda flow by rotating the metering stem clockwise until the flow rate is approximately 1¼ oz/sec.
- e. Measure the brix by use of a refractometer and adjust the syrup flow by rotating the syrup metering stem clockwise until the brix is at the value desired.
- f. Measure the total flow and readjust the soda and the syrup metering stems to maintain the total flow at 1½ oz/sec. and the brix reading to that desired.
- g. Adjust the other faucets in the system in the same manner.

DRINK-O-MATIC SERVICE INFORMATION FAUCET ADJUSTMENT



DRINK-O-MATIC

SERVICE INFORMATION

CONTINUED

A PROPERLY SERVED CARBONATED DRINK IS CONTROLLED MAINLY BY FOUR FACTORS.

- A. **Temperature** – The drink must be served under 42 degrees to prevent excess foaming.
- B. **Pressure** – If the CO₂ pressure applied to the beverage is less than the pressure inside the beverage itself (its carbonation), the gas in the beverage will race ahead of the liquid when the faucet is opened. This causes foaming. If too much CO₂ pressure is applied to the beverage, it will cause over carbonation, thus making it more difficult to handle.
- C. **Rate of Flow** – The speed at which the drink is poured is very important. A good rate of flow is 6 ounces in 3 seconds. Faster pouring can cause turbulence, which can cause foaming. Slower pouring will increase the efficiency of any cooling system.
- D. **Well Kept Equipment** – Proper cleaning will prevent the possibility of foreign particles gathering in the beverage system. These particles can cause turbulence, thereby leading to excess foam.

SERVICING METHODS OF DETERMINING EXCESSIVE FOAMING

- FIRST – Draw off a cup of beverage and determine product temperature.
- SECOND – If the temperature is below 42 degrees, then the trouble is not in the refrigeration or method of cooling system. The trouble would be somewhere in the CO₂ or beverage system.
- THIRD – If the temperature is above 42 degrees, then the trouble is in the refrigeration system.

PRESSURE TABLES

The approximate pressure drop per foot when pouring a 6-ounce drink during a three-second period is as follows:

1/4" I.D. Beverage Tubing = .75 pounds per foot
5/16" I.D. Beverage Tubing = .45 pounds per foot

Additional pressure drop should be added to the length of tubing (mentioned above) at the rate of approximately 1/2 pound per vertical foot lift = .50 pound/vertical foot (providing there is any vertical lift).

If more than one product tank is used on one flavor (in series), an additional 1.25 pounds pressure per tank should be added to the total required CO₂ regulator setting.

DRINK-O-MATIC

SERVICE INFORMATION

CONTINUED

Beverage/per foot of tubing:

Amount of beverage contained in each foot of tubing:

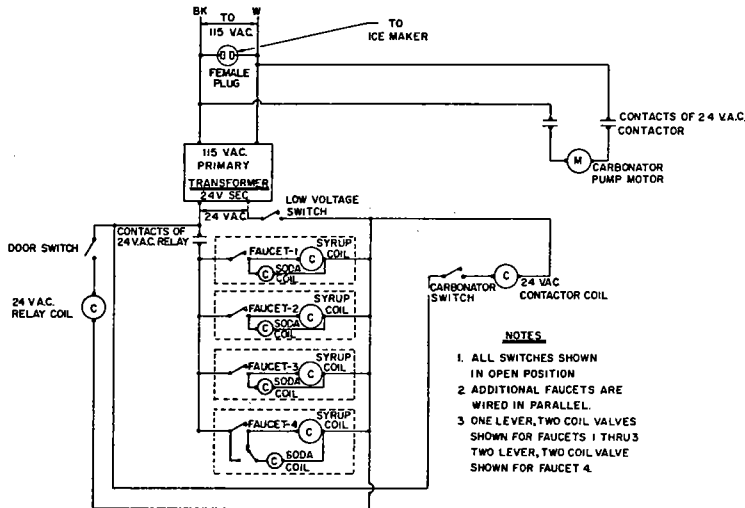
- A. 3/16" I.D. tubing contains 1/6 ounce/foot.
- B. 1/4" I.D. tubing contains 1/3 ounce/foot.
- C. 3/8" I.D. tubing contains 3/4 ounce/foot.
- D. 1/2" I.D. tubing contains 1-1/3 ounce/foot.

DRINK-O-MATIC SERVICE INFORMATION CONTINUED

Drink System Wiring:

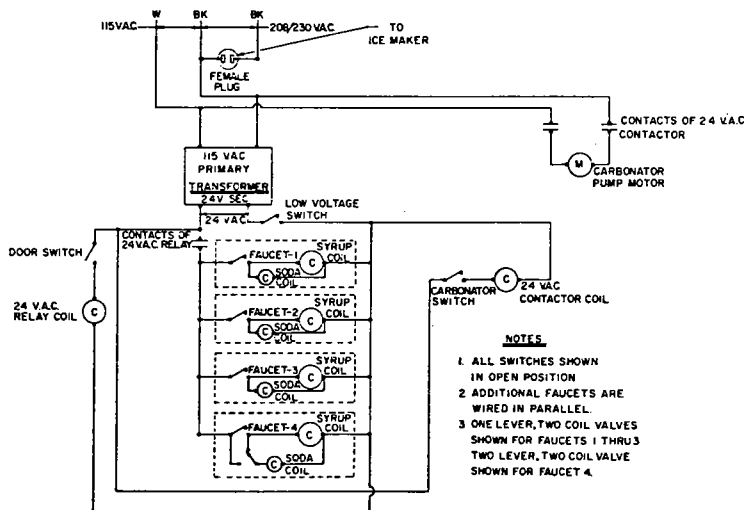
Note: For ice machine wiring see diagrams on pages 13-16.

Drink-O-Matic 24-Volt System 115 V.A.C.



* Door switch and 24 volt relay on models manufactured after January 1979.

Drink-O-Matic 24-Volt System 208/230 V.A.C.



* Door switch and 24 volt relay on models manufactured after January 1979.

DRINK-O-MATIC SERVICE INFORMATION

CONTINUED

Dismounting Faucet Solenoid Valve:

CAUTION: BEFORE REMOVING FAUCET FROM A DISPENSER, OR BEFORE DISMANTLING A SOLENOID VALVE THAT IS MOUNTED ON A DISPENSER, BE SURE ALL CO₂ PRESSURE AND WATER PRESSURE IS OFF THE LINES LEADING TO THE FAUCET AND TURN OFF POWER TO FAUCETS AT LOW VOLTAGE CONTROL BOX SWITCH.

Dismounting Solenoid Valve:

1. Remove screws and lock washers from plunger housing.
2. Remove coil housing.
3. Remove coil by lifting only. Do not cut wires.
4. Remove the two screws from plunger housing bore.
5. Remove plunger housing, lifting straight up.
6. Remove plunger spring.
7. Remove plunger. (To reassemble – reverse procedure.)

Faucet Power Supply:

The standard Drink-O-Matic faucet is supplied with 24 volt, 60 cycle power supply from a low voltage transformer, 115 volt faucets are also available.

The method of distinguishing if faucets are 115V or 24V are:

1. By color code. A red label indicates and specifies 115 VAC, a green label indicates and specifies 24 VAC. Either color label is located on the bottom side of the faucet.

If colored label is not distinguishable or is removed:

2. The 115 VAC faucet uses one black power cord (2 wire conductor) and one green ground wire. The 24 VAC faucet uses only a black power cord (2 wire conductor), in either case, leads are visible on left side of faucet at rear.

Adjustment of Procon Pump:

The Procon Pump is pre-set at the factory for an outlet pressure of 200 psi. Do not exceed this setting.

To adjust the Procon Pump:

1. Install water pressure gauge in pump outlet line.
2. Turn on pump at low voltage control box switch.
3. Remove nut located on inlet port. Turn, adjusting screw with large broad point screwdriver until 200 psi is obtained.

DRINK-O-MATIC SERVICE INFORMATION

CONTINUED

DRINK SYSTEM

SERVICE DIAGNOSIS

Condition	Probable Cause or Remedy
1) Poor Carbonation	1) a. Low CO ₂ pressure, adjust to 100 p.s.i. b. High water pressure. See adjusting procon pump page 40. c. Abnormally high ambient temperatures. Cool water before entering pump. d. Carbonator air bound. Open pressure relief valve. e. Carbonator not operating.
2) Carbonator Running Excessively	2) a. Defective carbonator tank or switch. b. Restriction in water supply, clean water strainer. c. High pump pressure, see adjusting procon pump page 40. d. Excessive CO ₂ pressure. Reset to 100 p.s.i. If regulator creeps, replace it. e. Defective water check valve on carbonator tank. f. Insufficient water supply. g. Worn procon pump.
3) Noisy Procon Pump	3) a. Insufficient water supply. b. Loose inlet line, causing air to be sucked into pump.
4) Bad Taste in Soda	4) a. Detergent film on glass. b. Chlorination giving bad taste. Install charcoal base filter unit in water line to machine. c. Check CO ₂ gas supply for foul gas.
5) Drink Foams	5) a. Carbonated water dispensed too fast, set high pressure regulator at 100 p.s.i. b. Grease or detergent film on glass will cause foaming. c. Syrup that is fermented or spoiled will cause foaming.
6) Drink Flat	6) a. Adjust faucet, see faucet adjustment page b. Grease or detergent film on glass. c. Drinks served at temperature above 40° will go flat fast. d. Carbonator not operating properly, check CO ₂ supply.
7) Drink Not Uniform	7) a. Check operation and setting of faucets. See faucet adjustment page b. Check pressure on syrup tanks. (Should be 14-30 p.s.i.) c. Over filled syrup tanks. d. Warm syrup (allow to cool). e. Syrup line dirty or restricted. Back flush see page 28.

DRINK-O-MATIC

SERVICE INFORMATION

CONTINUED

SERVICE DIAGNOSIS ELECTRIC FAUCET

Complaint	Possible Cause	Remedy
8. Syrup or water drips through spout.	A) Foreign matter on plunger seat.	A1. Operate faucet several times to flush out. A2. Remove plunger from solenoid valve, and clean valve port and plunger seat. A3. Back flush valve.
	B) Nick or cut on plunger seat.	B. Remove plunger and replace.
	C) Broken or defective plunger spring.	C. Remove spring and replace.
9. Faucet continues to pour even when lever is not actuated.	A) Lever is sticking.	A. Clean syrup from lever and lubricate with vaseline.
	B) Electric switch defective.	B. Replace.
	C) Plunger stuck.	C1. Replace spring and/or clean solenoid housing. C2. Back flush valve.
10. Noisy Solenoid Valve	A) Dirt or particles in back of plunger.	A1. Operate faucet several times to flush out. A2. Back flush. A3. Remove and clean plunger and solenoid housing.
11. Actuation of lever results in no flow.	A) Defective switch.	A. Replace.
	B) Bad solenoid coil and switch.	B. Check and correct.
	C) Power off.	C. Check circuit and fuse and correct.
	D) Low Voltage.	D. Voltage at coil should be 100 volts on 115 VAC line. If voltmeter not available, turn off all lights and other electrically operated devices to check under best conditions at that location.
	E) Bin Door open*	
12. Drink too sweet. Insufficient soda or water to syrup ratio (heavy drink).	A) Soda solenoid coil defective.	A. Replace.
	B) Defective soda solenoid coil connection.	B. Check and correct.
	C) A non-carbonated faucet may be in a high carbonated faucet application.	C. Check Drink-O-Matic sales literature for proper numbers and replace if necessary.
	D) Insufficient soda flow due to low carbonator pressure.	D. Check CO ₂ supply pressure and replace tank if CO ₂ pressure is low and/or reset regulator as required.
	E) Obstruction in water and/or soda line.	E. Clean out line.
	F) Water shut-off valve partially closed.	F. Check and open freely.
	G) Syrup pressure too high.	G. Check and reset low pressure regulator.

Models manufactured after January 1979.

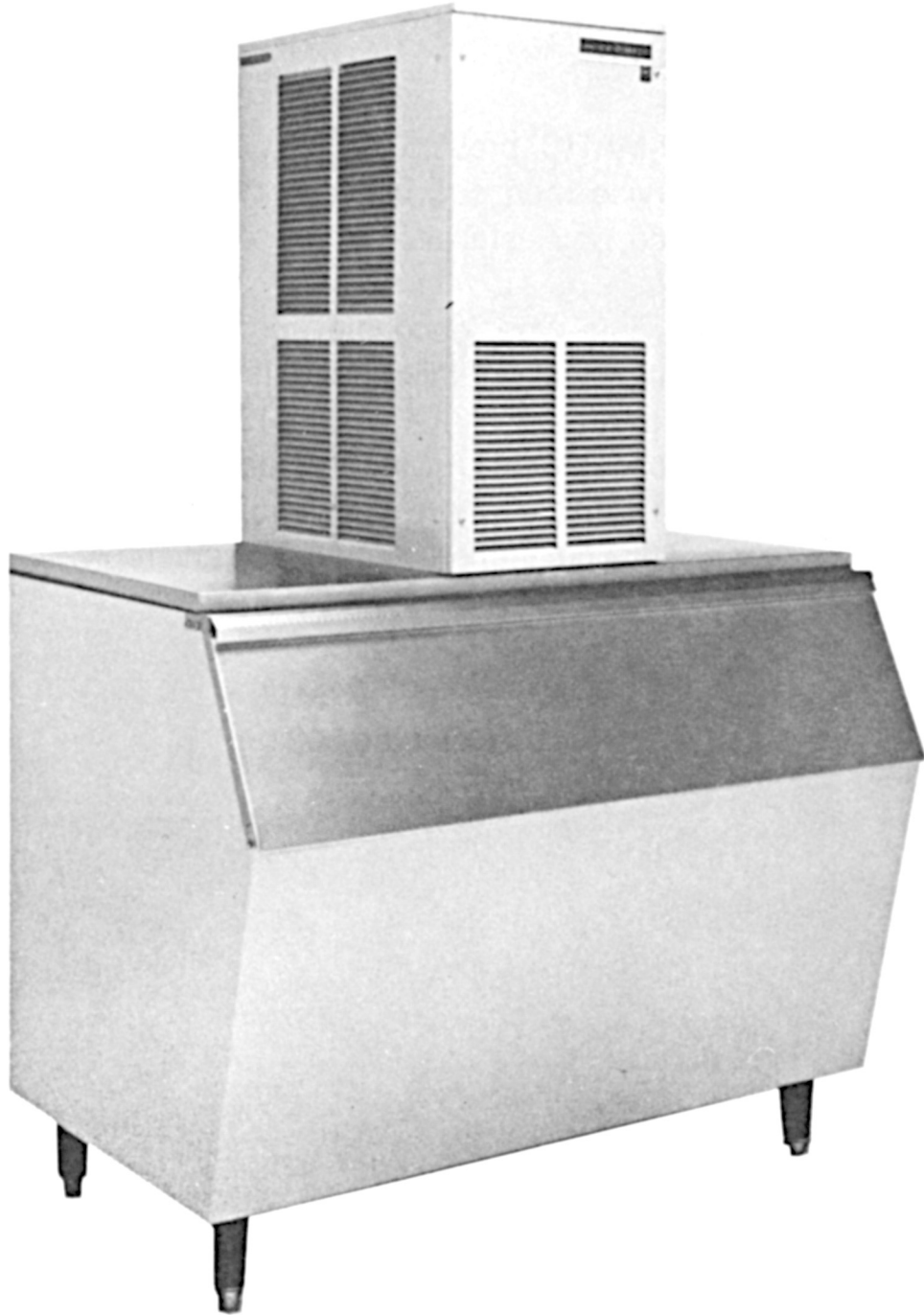
DRINK-O-MATIC SERVICE INFORMATION

CONTINUED

13. Drink not sweet enough — excessive soda or water to syrup ratio (light drink)
- A) Syrup solenoid coil defective.
 - B) Defective syrup solenoid coil connection.
 - C) Carbonator pressure too high.
 - D) Obstruction in syrup line.
 - E) Water pressure too high. Drink will also have low carbonation.
14. Foaming of finished drink.
- A) Over carbonation of syrup.
 - B) Carbonation of syrup.
 - C) Dirty lines, valves etc.
 - D) Supercooled ice in drink.
 - E) Product temperature too high.
 - F) Pressure too high.
15. Inconsistent Brixing.
- A) Dirty lines, valves, etc.
 - B) CO₂ supply low.
 - C) Leak in CO₂ line.
 - D) Leaking water check valve on carbonator tank.
 - E) System overload with excessive multiple faucet operation.
- A. Replace.
 - B. Check and correct.
 - C. Check and correct.
 - D1. Check transparent block to see if there is any obvious obstruction.
 - D2. Back flush.
 - D3. Remove and clean syrup plunger and solenoid coil housing.
 - E. Add regulator in water inlet line.
- A. Reduce CO₂ pressure on carbonator.
 - B. Reduce CO₂ pressure on syrup. Some root beers will foam when their CO₂ pressures are above 15 p.s.i. Larger sized syrup lines may be required for long runs.
 - C1. Back flush.
 - C2. Remove and clean syrup plunger and solenoid coil housing.
 - D. Use ice at approximately 32°F.
 - E. Product temperature must be below, 42°F.
 - F. Reduce CO₂ pressure to recommended setting.
- A1. Back flush.
 - A2. Remove and clean syrup plunger and solenoid coil housing.
 - B. Renew CO₂ cylinder.
 - C. Locate and correct.
 - D. See carbonator trouble shooting guide.
 - E1. Increase line sizes if multiple head dispensing reduces flow pressure excessively.
 - E2. Limit number of faucets in simultaneous operation at any station to no more than two.
 - E3. Add an additional carbonator system.
 - E4. Locate syrup tanks close to faucets to reduce line pressure losses.

MODULAR FLAKER

MODULAR FLAKER



MF 600 — MF 1000
on B-60 Bin

INSTALLATION INSTRUCTIONS

I. UNCRATING:

- A. Check crate carefully for any signs of shipping damage.
- B. Remove crate:
 - 1. Carefully remove staples from bottom of crate.
 - 2. Lift crate straight up, off entire unit.
 - 3. Check cabinet for signs of shipping damage.
- C. Remove skid from bottom of unit.
 - 1. Remove skid bolts.
The removal is best accomplished by removing the two end panels, removing bolts and then lifting the unit off the skid.
- D. Remove front and side panels and perform the following:
 - 1. Check for broken or damaged refrigeration lines.
 - 2. Remove tape and packing from float.
 - 3. Remove bin control wire tie down before starting unit.

II. INSTALLING (All installation should conform with local codes):

- A. Place the machine in permanent location maintaining a minimum of 4" from wall to back of machine, and with no obstructions to prevent ventilation on each side. Do not place the machine in a location where the room temperature is below 50° or above 100°. A 70° constant room temperature is ideal. Locate the machine away from any heat or grease generating equipment such as boilers, kitchen ranges, etc.
- B. Connect the water inlet fitting to a fresh, cool water supply (20 to 60 p.s.i. pressure). Hold the fitting with a small pipe wrench so that the tube inside will not be twisted. Install a shut off valve in an accessible place between the machine and the water supply. In some locations, due to poor water conditions, a strainer should be installed in the water inlet line. If water pressure exceeds 60 p.s.i. a water pressure regulator should be installed in the water inlet line.
- C. Connect the 5/8" O.D. drain and condenser drain (water cooled units only), to well pitched drain lines. Run all lines separately to an open or trapped drain.
- D. Electrical Instructions (All wiring must conform with existing electrical codes).
Electrical supply must be routed from back of machine to control box and connected to the terminal board inside control box. It is recommended that a separate electrical circuit be provided for the ice machine.

This is of the utmost importance. Long lines with other appliances or loads often result in trouble due to low line voltage. Be sure that electrical power supply is within 10% of required voltage as greater variation will cause motor trouble.

INSTALLATION INSTRUCTIONS

CONTINUED

- E. Level ice machine.
- F. Check to see that the condenser fan blade turns freely.
Check mechanical bin control (Damper door), for freedom of movement. See page 48 for instructions.
- G. Turn "on/off" switch located on electrical control box to the "on" position for thirty seconds to check pulley and auger assembly and proper rotation of auger motor (see arrow on motor). If machine does not operate, check electrical connections. Check bin control for proper operation. If fan runs and compressor and auger motor does not, check safety control.
- H. Turn water supply on. Check water flow to the evaporator through clear plastic tubing. Check operation of float valve.
- I. Turn "on/off" switch to "on" and wait approximately five (5) minutes for ice to start dropping into ice bin.
- J. Check for water leaks and excessive machine noise before replacing front panel.
- K. Instruct people who will be using the machine how to operate it and how to clean the condenser fins. (Air cooled).
- L. **FILL OUT INSTALLATION AND WARRANTY CARDS.**

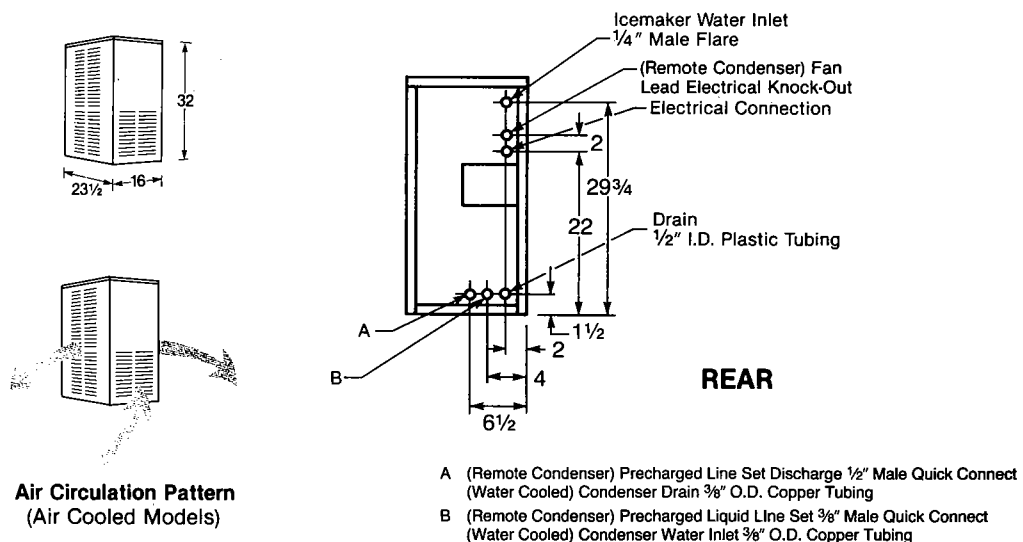
INSTALLATION INFORMATION

Model Number	Ice Prod. Lbs./24 Hrs. @ 70° Air 50° Water	Condensing Unit	Comp. H.P.	Voltage Characteristics	No. of Wires	Operating Amps @ Rated Voltage	Max. Fuse Size	Ref. Charge	Type of Ref.
MF-600-A-P	668	Air	1/2	115/60/1	2	15.1	20	24 oz.	R-12
MF-600-W-P	781	Water	1/2	115/60/1	2	14.0	20	20 oz.	R-12
MF-750-A-P	765	Air	3/4	115/60/1	2	16.5	25	21 oz.	R-12
MF-750-W-P	895	Water	3/4	115/60/1	2	15.4	35	20 oz.	R-12
MF-756-A-P	765	Air	3/4	208-230/60/1	2	12.0	15	21 oz.	R-12
MF-756-W-P	895	Water	3/4	208-230/60/1	2	11.4	15	20 oz.	R-12
MF-1002-A-P	1060	Air	1	208/60/1	2	10.8	15	32 oz.	R-12
MF-1002-W-P	1240	Water	1	208/60/1	2	9.7	15	26 oz.	R-12
MF-1003-A-P	1060	Air	1	230/60/1	2	12.5	14	32 oz.	R-12
MF-1003-W-P	1240	Water	1	230/60/1	2	11.4	20	26 oz.	R-12
MF-1003-R-P	1121	Remote	1	208/60/1	2	8.3	15	128 oz.	R-12
MF-1006-A	1133	Air	3/4	208-230/60/1	2	8.1	15	32 oz.	R-502
MF-1006-W	1080	Water	3/4	208-230/60/1	2	6.3	15	24 oz.	R-502
MF-1007-A-P	1060	Air	1	208-230/60/3	3	10.4	15	32 oz.	R-12
MF-1007-W-P	1240	Water	1	208-230/60/3	3	9.3	15	26 oz.	R-12

ICE PRODUCTION CHARTS — Pounds Per 24 Hours.

Condensing Unit	Air Temp. °F	Water Temp. °F			Water Temp. °F			Water Temp. °F			Water Temp. °F		
		80°	70°	50°	80°	70°	50°	80°	70°	50°	80°	70°	50°
Air	70°	611	627	668	683	705	765	961	1009	1060	828	877	1009
	80°	580	601	638	640	677	731	926	970	1010	755	807	924
	90°	550	571	611	606	643	697	900	933	988	685	736	837
Water	70°	678	708	781	758	796	895	1066	1140	1240	832	944	1133
	80°	638	673	733	704	758	840	1020	1086	1161	826	938	1128
	90°	599	633	690	660	713	787	981	1035	1116	820	932	1123
Model Number		MF-600			MF-750			MF-1002			MF-1006		

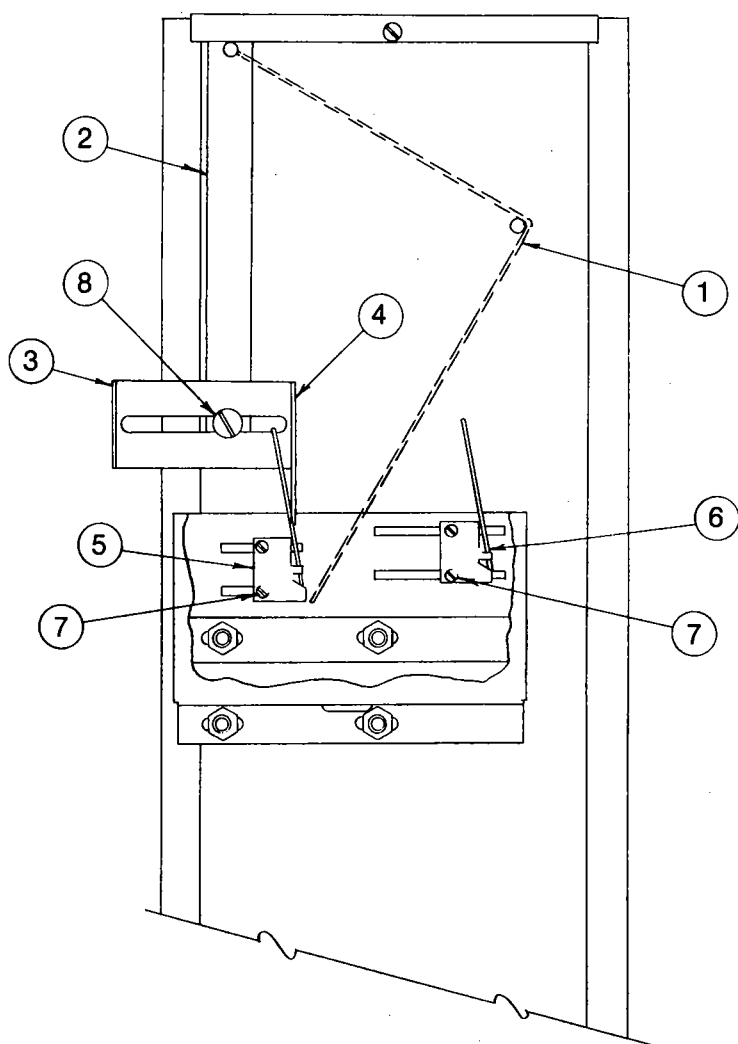
DIMENSIONS (Inches) & PLUMBING/ELECTRICAL CONNECTIONS DIAGRAM



MODULAR FLAKER SERVICE INFORMATION

BIN CONTROL ADJUSTMENT

PRIOR TO JUNE 1, 1983



The MF flaker uses two bin micro-switches in the damper door/bin control assembly. Below are instructions for adjusting these switches when installing the machine. (Machines manufactured 1/81-5/83)

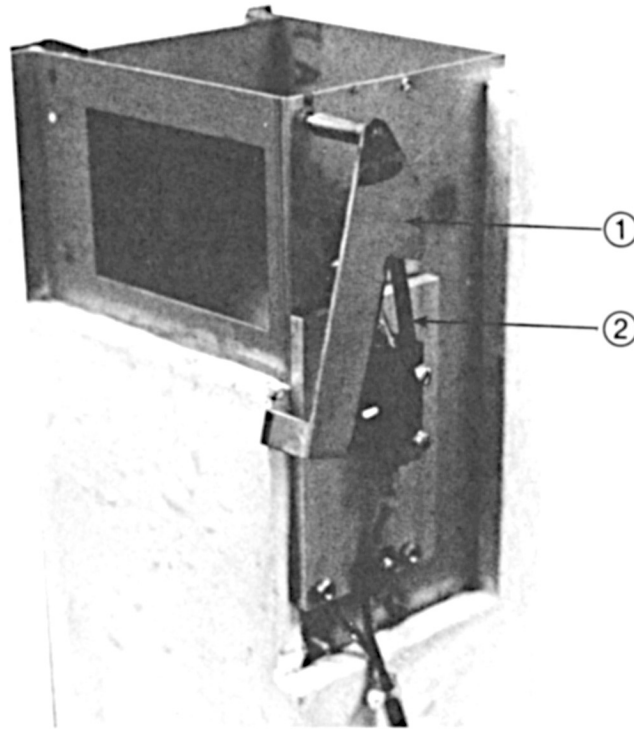
Ice builds into the down chute after the bin is full. This ice pushes the damper door (1) upward also moving the switch activator arm (2) attached to the damper door. Switch activators 3 and 4 move with the switch activator arm (2). The short switch activator (3) travels into contact with the switch arm from Switch 5. When this switch snaps over, the machine shuts off. This action should take place when the top of the damper door (1) is parallel with the top of the down chute. Switch 5 will turn the machine off before the long switch activator arm (4) contacts with the switch arm on Switch 6. Switch 6 is a back up to Switch 5. If Switch 5 fails, the long switch activator arm (4) will continue to move until it snaps over the arm on Switch 6, shutting the machine off. Switch 6 must be manually re-set.

Under normal operation, the down chute should fill, lifting the damper door (1). Switch activator 3 will snap over Switch 5 shutting the machine off. When the ice is removed from the bin, the damper door (1) and Switch Activators 3 and 4 drop down into the normal operating position (as pictured). When normal position is resumed, the long switch activator (4) will re-set the switch arm on Switch 5 and the machine will start. Each Switch (5 and 6) has two adjusting screws (7). Switch activators can be adjusted with Screw 8.

The operation of the damper door/bin control and any adjustments necessary for proper operation should be made at the time of machine installation.

MODULAR FLAKER SERVICE INFORMATION

BIN CONTROL ADJUSTMENT – AFTER JUNE 1, 1983



After: 6-1-83

On Modular Flakers manufactured after 6-1-83. Ice builds into the down chute, lifting the damper door. This moves the switch activator (1) over to contact the switch (2), which turns the unit off. The unit will start when ice is removed from the down chute. The damper door will drop down, move the switch activator and close the switch. NOTE: This machine has a compressor delay, and will not begin making ice until the set amount of time (5 minutes) on the timer has passed.

MODULAR FLAKER SERVICE INFORMATION

SERVICE DIAGNOSIS

Condition

Possible Cause or Remedy

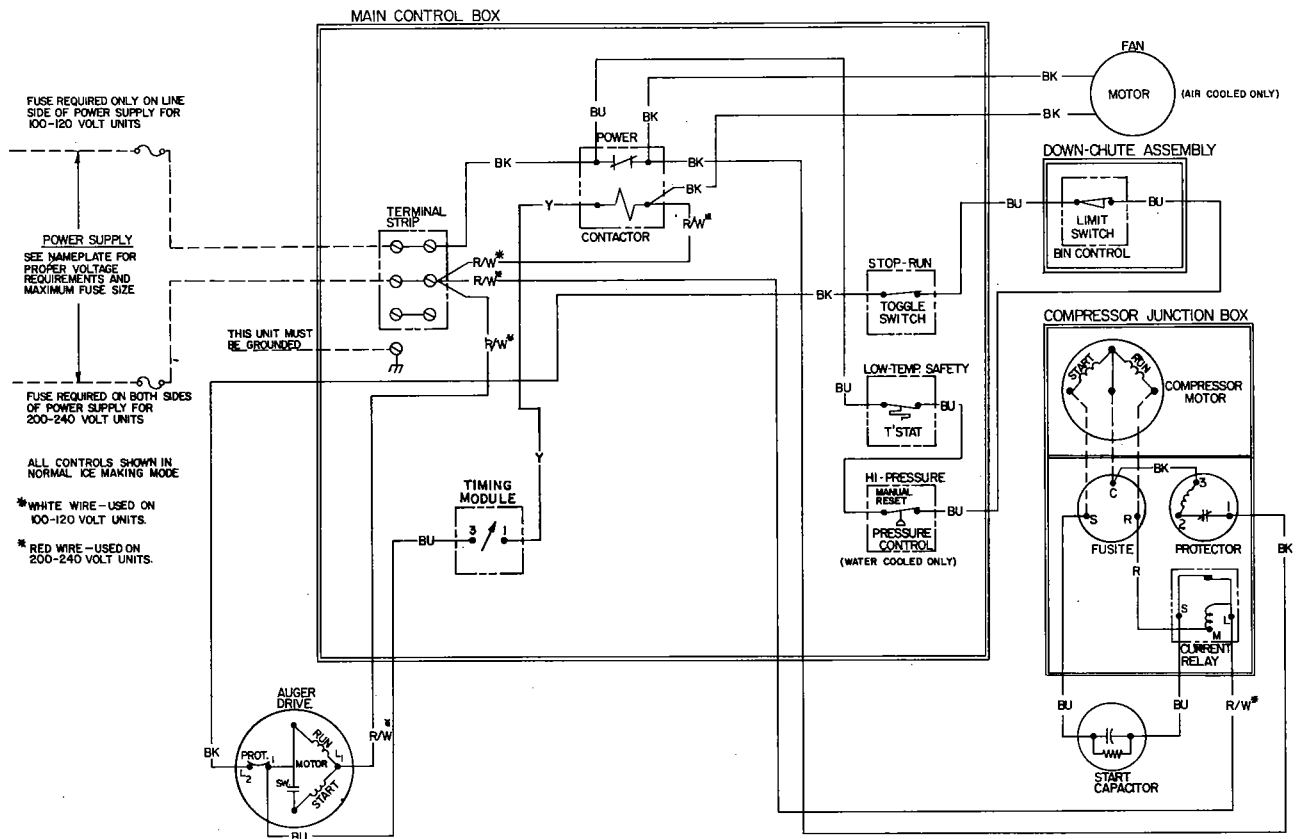
- | | | |
|---------------------------|----|---|
| *1) Machine will not run. | 1) | a. Defective on/off switch.
b. Check electrical supply.
c. Bin switch defective.
d. Defective contactor.
e. Bin switch activator out of adjustment. |
| *2) Machine short cycles. | 2) | a. Bin switch activator out of adjustment. |

WATER COOLED ONLY

- b. Water valve defective or out of adjustment.
- c. High pressure control defective or out of adjustment.

MODULAR FLAKER SERVICE INFORMATION & WIRING DIAGRAM

MF-600, 750, 756, 1002



FUSE REQUIRED ONLY ON LINE SIDE OF POWER SUPPLY FOR 100-120 VOLT UNITS

POWER SUPPLY SEE NAMEPLATE FOR PROPER VOLTAGE REQUIREMENTS AND MAXIMUM FUSE SIZE

FUSE REQUIRED ON BOTH SIDES OF POWER SUPPLY FOR 200-240 VOLT UNITS

ALL CONTROLS SHOWN IN NORMAL ICE MAKING MODE

* WHITE WIRE - USED ON 100-120 VOLT UNITS.

* RED WIRE - USED ON 200-240 VOLT UNITS.

THIS UNIT MUST BE GROUNDING

TIMING MODULE

HI-PRESSURE MANUAL RESET PRESSURE CONTROL (WATER COOLED ONLY)

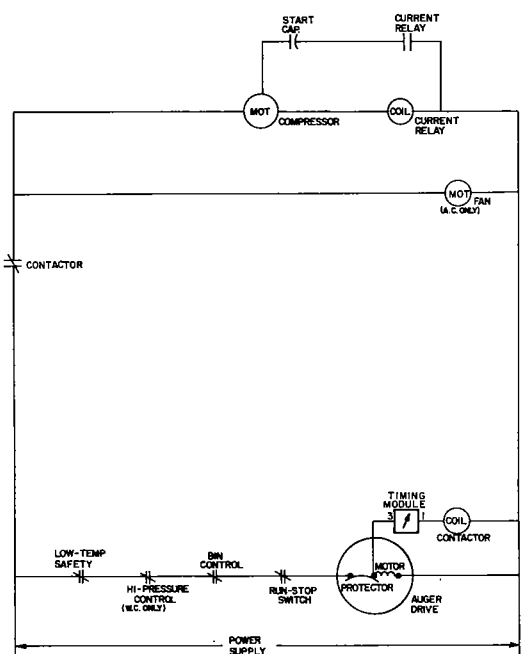
COMPRESSOR MOTOR

FUSITE

PROTECTOR

CURRENT RELAY

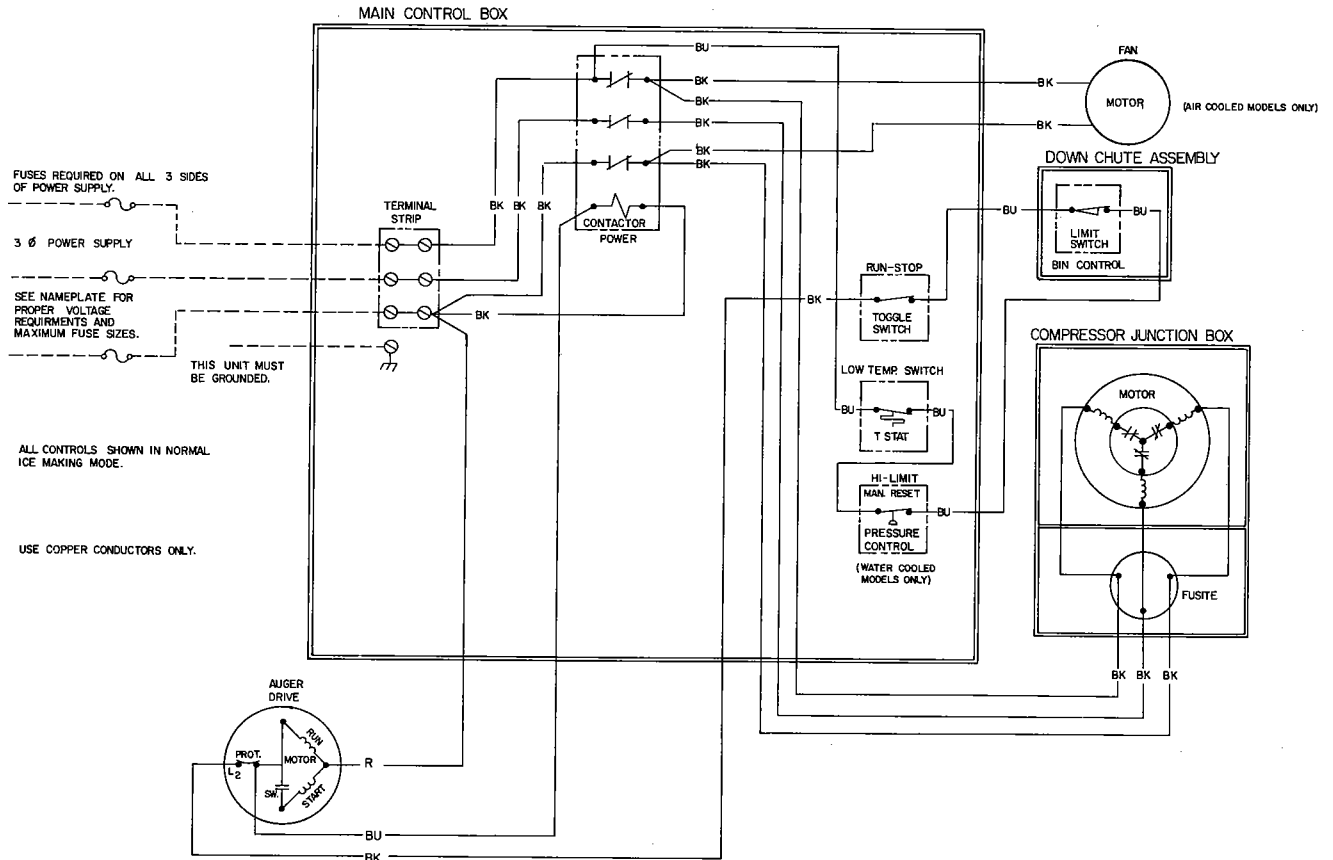
START CAPACITOR



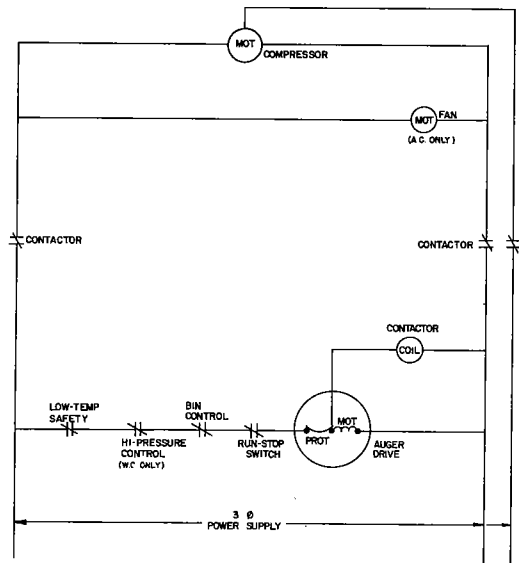
NOTE: THIS MACHINE HAS A COMPRESSOR DELAY, AND WILL NOT BEGIN MAKING ICE UNTIL THE SET AMOUNT OF TIME (5 MINUTES) ON THE TIMER HAS PASSED.

MODULAR FLAKER SERVICE INFORMATION

MF-1007

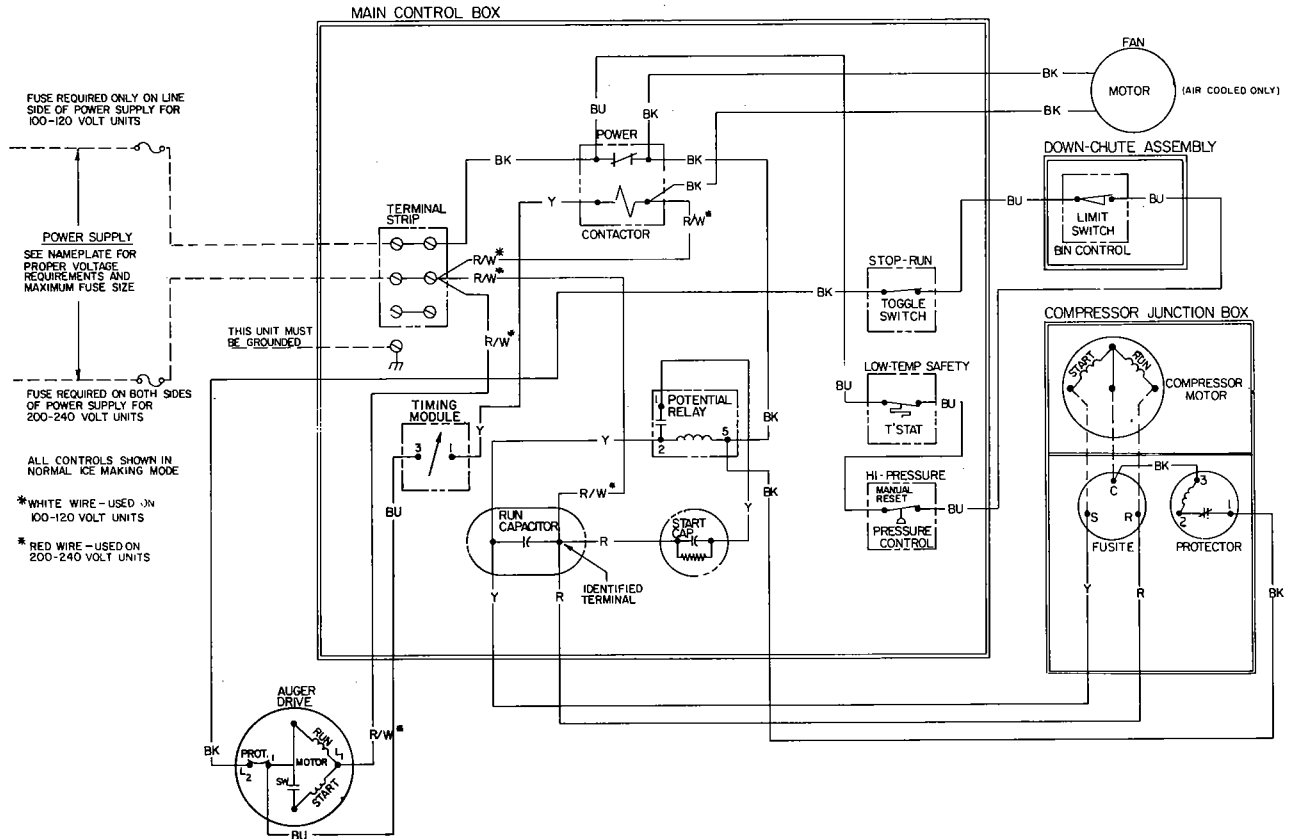


NOTE: THIS MACHINE HAS A COMPRESSOR DELAY, AND WILL NOT BEGIN MAKING ICE UNTIL THE SET AMOUNT OF TIME (5 MINUTES) ON THE TIMER HAS PASSED.

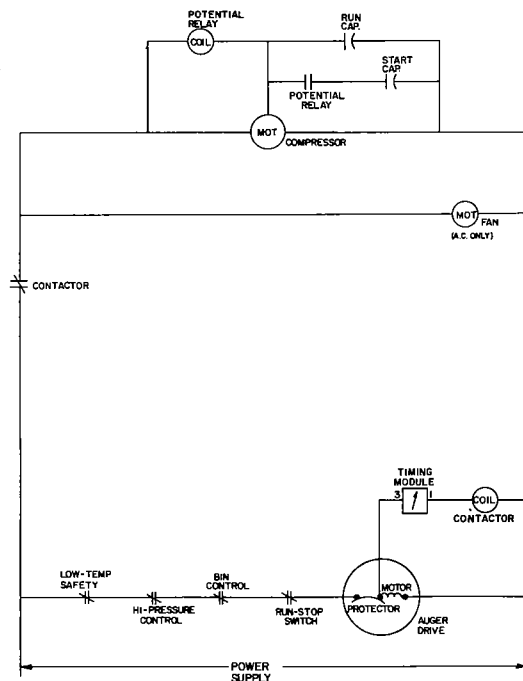


MODULAR FLAKER SERVICE INFORMATION

MF-1006

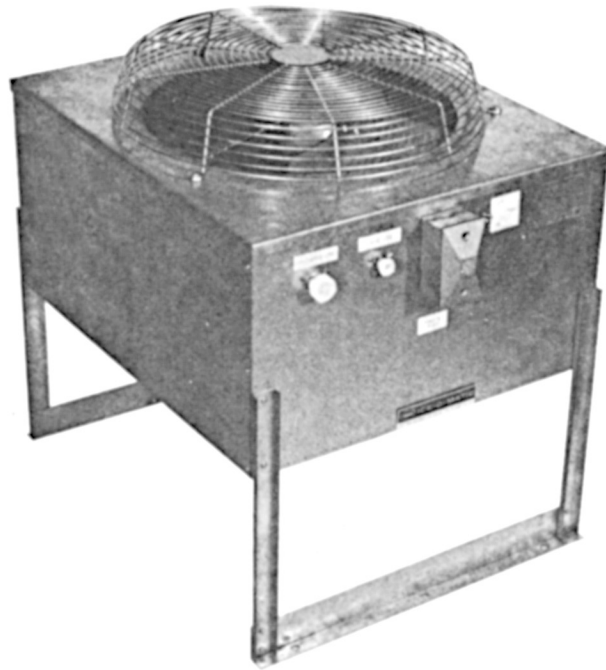


NOTE: THIS MACHINE HAS A COMPRESSOR DELAY, AND WILL NOT BEGIN MAKING ICE UNTIL THE SET AMOUNT OF TIME (5 MINUTES) ON THE TIMER HAS PASSED.



REMOTE FLAKER

REMOTE FLAKER



REMOTE FLAKER

ICE-O-MATIC REMOTE CONDENSER SYSTEMS

INTRODUCTION

Ice-O-Matic Remote Condenser Systems are made up of three packages. The remote condenser, the ice making unit, and the pre-charged line set. Pre-charged line sets are available in either 25- or 40-foot lengths.

Normal installation of the ice making unit should be followed. Please see installation instructions included with the ice maker.

In any installation, the pre-charged line sets, consisting of a liquid line ($\frac{3}{8}$ " dia.) and a discharge line ($\frac{1}{2}$ " dia.) are used as a one time, initial charge type of installation. This is, once the sealed couplings are connected and the internal seal is broken, the lines cannot be disconnected without losing the refrigerant charge. They are however, reusable and when they are removed and re-connected the complete refrigeration system must be evacuated and re-charged with the proper amount of refrigerant. See page 3 for proper refrigerant charges.

GENERAL DESCRIPTION

The remote condenser should be used in areas where sufficient airflow is not available in the area the ice maker is being installed or the heat being rejected by the condenser coil is undesirable.

The condenser coil should not be exposed to temperatures below -20°F or above 120°F .

The remote condenser functions as a normal refrigeration system until the temperature at the condenser coil drops below 70°F . At this time the mixing valve will begin to bypass enough hot gas from the discharge line directly into the receiver to keep the liquid line feeding the expansion valve at a steady 125 p.s.i. on R-12 (225 p.s.i. on R-502 units). This bypassing is done in spurts through the mixing valve. The amount of gas being bypassed will depend on the temperature at the condenser coil (e.g. the colder the temperature at the condenser coil, the more gas will bypass, the warmer the line between the valve and the receiver will become). For the complete explanation of this valve please refer to the schematic on page 6 of this manual.

The condenser fan will run throughout the cycle. The bypassing action of the mixing valve eliminates the need for the fan control.

There is an on-off switch provided at the condenser coil. This switch turns off only the condenser fan and should always be in the on position when the icemaker is running. For proper wiring of the condenser to the ice maker please refer to the wiring diagrams included in this manual on pages 61 and 62.

For individual part description of the components in the remote condenser refer to page 59 of this service manual. For ice maker information refer to flaker or cuber manual included with the ice maker section.

REMOTE INSTALLATION INSTRUCTIONS

REMOTE CONDENSER

1. Choose a location that is protected from the extremes of dirt, dust, rain, sun and prevailing winds.
2. Vertical discharge mounting of the condenser is recommended.
3. Unit must be leveled.
4. Installation must meet local building, plumbing and electrical codes.
5. Condenser coil should not be exposed to temperatures above 120°F or below – 20°F.

PRE-CHARGED LINE SET

1. Install the 3/8" liquid line and 1/2" discharge line to the proper ports, as labeled, being sure the service port is towards the remote condenser end. See attached diagram on pages 64 and 65.
2. See attached diagrams on pages 64 and 65 for proper installation techniques and tube routings of the line sets.
3. Lubrication (refrigerant oil) is recommended for both coupling halves to insure proper trouble free assembly of line sets.
4. Thread coupling halves together by hand to insure proper fit. Using a wrench on both halves, to prevent tubes from twisting, tighten until snug. Then an extra 1/4 turn to insure a leak free joint.
5. Plan ahead when routing lines so that excess tubing remains inside building.

ELECTRICAL CONNECTIONS

1. The ice maker and the remote condenser both require a solid earth ground that meets national, state and local electrical requirements.
2. See nameplate for current requirements to determine wire size to be used for electrical hook up.
3. Make sure supply voltage is the same as the rated voltage shown on nameplate.
4. See wiring diagram on pages 61 and 62 for proper connections between remote condenser and ice machine.

RULES FOR RUNNING REMOTE LINES

1. Loops in excess tubing should be run vertically and contained inside building.
2. Condenser should be above ice maker, lowest part of system should be the ice maker, lines should not run below the line connections on the ice maker (e.g. – lines routed below — then up to connections on ice maker result in oil traps). See pages 60 and 61.

REMOTE INSTALLATION INSTRUCTIONS

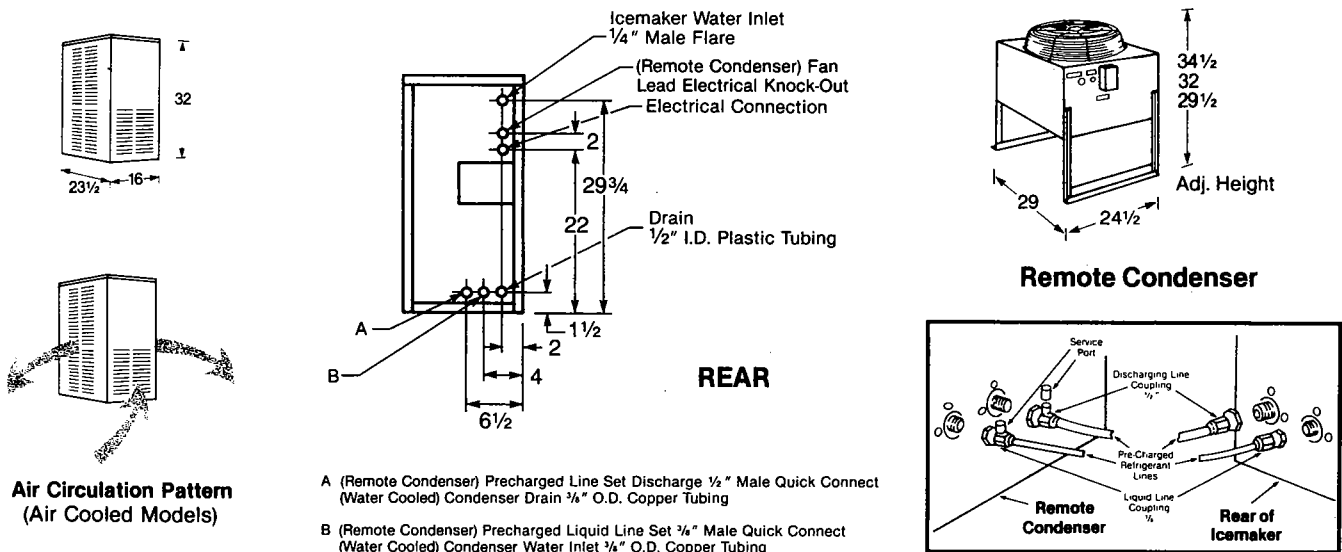
Model Number	Ice Prod. Lbs./24 Hrs. @ 70° Air 50° Water	Condensing Unit	Comp. H.P.	Voltage Characteristics	No. of Wires	Operating Amps @ Rated Voltage	Max. Fuse Size	Ref. Charge	Type of Ref.
MF-750-R-P	732	Remote	¾	115/60/1	2	21.1	30	104 oz.	R-12
MF-756-R-P	732	Remote	¾	208-230/60/1	2	11.7	20	104 oz.	R-12
MF-1002-R-P	1121	Remote	1	208/60/1	2	12.2	20	144 oz.	R-12
MF-1006-R-P	905	Remote	¾	208/230/60/1	2	8.2	15	146 oz.	R-502

Remote Condensing Unit		
Model Number	Voltage Characteristics	No. of Wires
RC-40	115/60/1	2
RC-48	208-230/50-60/1	2
RC-68	208-230/50-60/1	2
RC-88	208-230/50-60/1	2

Precharged Tubing Kit (Req'd.)	
25' Tube Length	40' Tube Length
RT325-12	RT340-12
RT325-12	RT340-12
RT325-502	RT340-502
RT325-12	RT340-12

Used with Series MF	
Model Number	
MF-750-R	
MF-756-R	
MF-1006-R	
MF-1002-R	

DIMENSIONS (Inches) & PLUMBING/ELECTRICAL CONNECTIONS DIAGRAM:

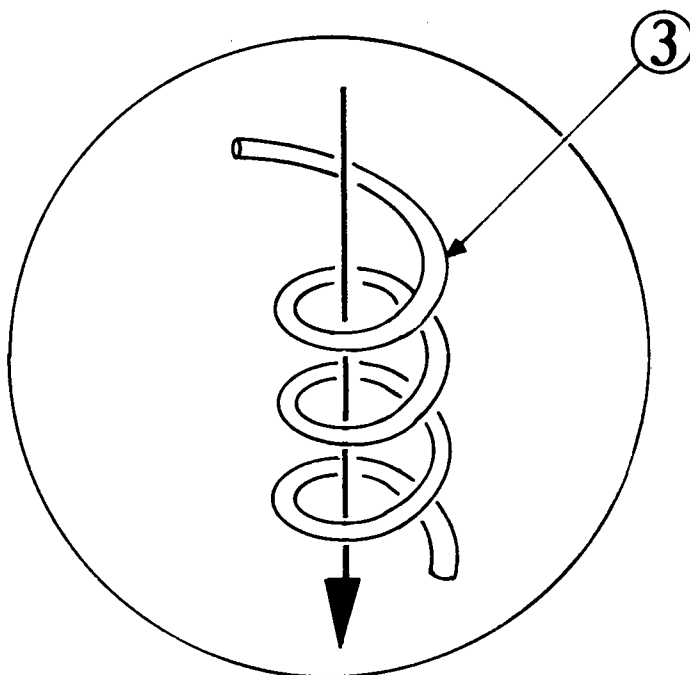
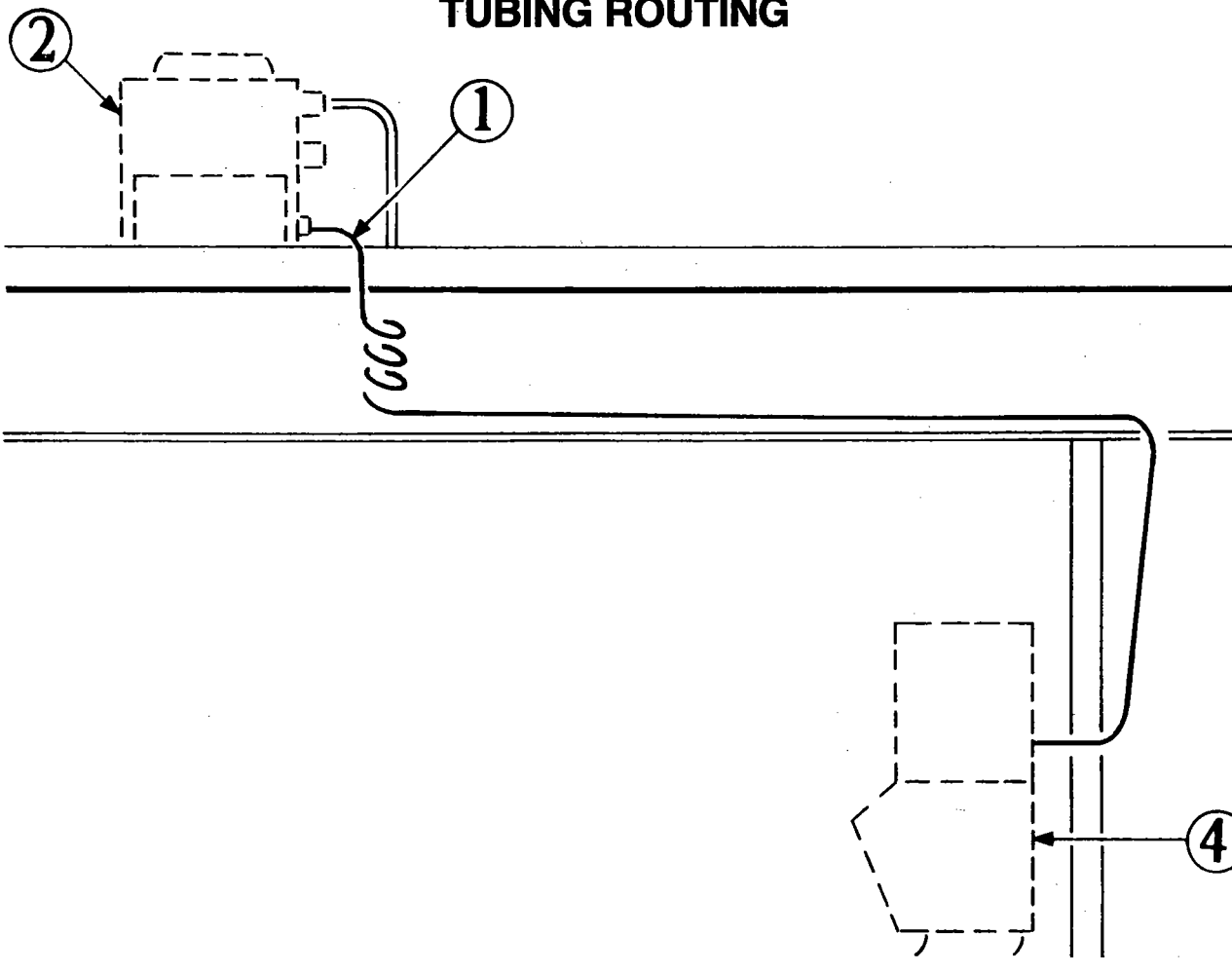


ICE PRODUCTION CHARTS — Pounds Per 24 Hours.

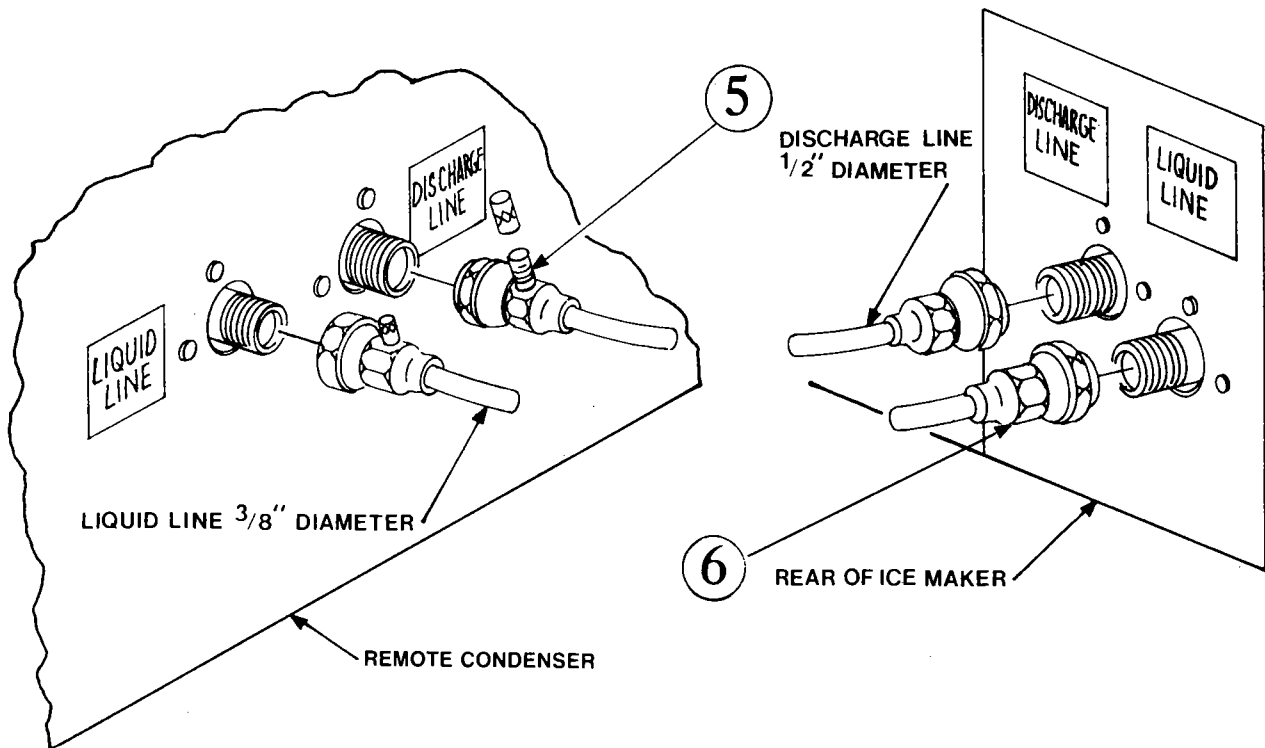
Condensing Unit	Air Temp. °F	Water Temp. °F			Water Temp. °F			Water Temp. °F		
		50°	70°	90°	50°	70°	90°	50°	70°	90°
Remote Air	110°	687	615	561	1032	921	794	863	778	706
	90°	715	653	597	1088	970	856	944	883	816
	70°	732	667		1121	1039		1073	905	
	50°	743	676		1127	1062		1080	905	
	30°	750			1132			1080		
	0°	758			1137					
Model Number		MF-750-R			MF-1002-R			MF-1006-R		

REMOTE INSTALLATION INSTRUCTIONS

TUBING ROUTING



REMOTE INSTALLATION INSTRUCTIONS



PROPER TUBING ROUTING

When installing discharge and liquid lines from remote condenser to the ice making head please use the following guidelines:

1. Remote condenser 2 should always be installed above the ice maker 4 as shown.
2. All excess tubing 1 should be routed inside the building and coiled in a vertical spiral as shown in 3 to prevent oil trapping in the lines. Any tubing run outside should be insulated to protect it from surrounding ambient conditions. Tubing should follow straight line routing whenever possible. The lowest spot in the remote tubing run should be the connection at the back of the ice maker head.

CONNECTING PRE-CHARGED LINES

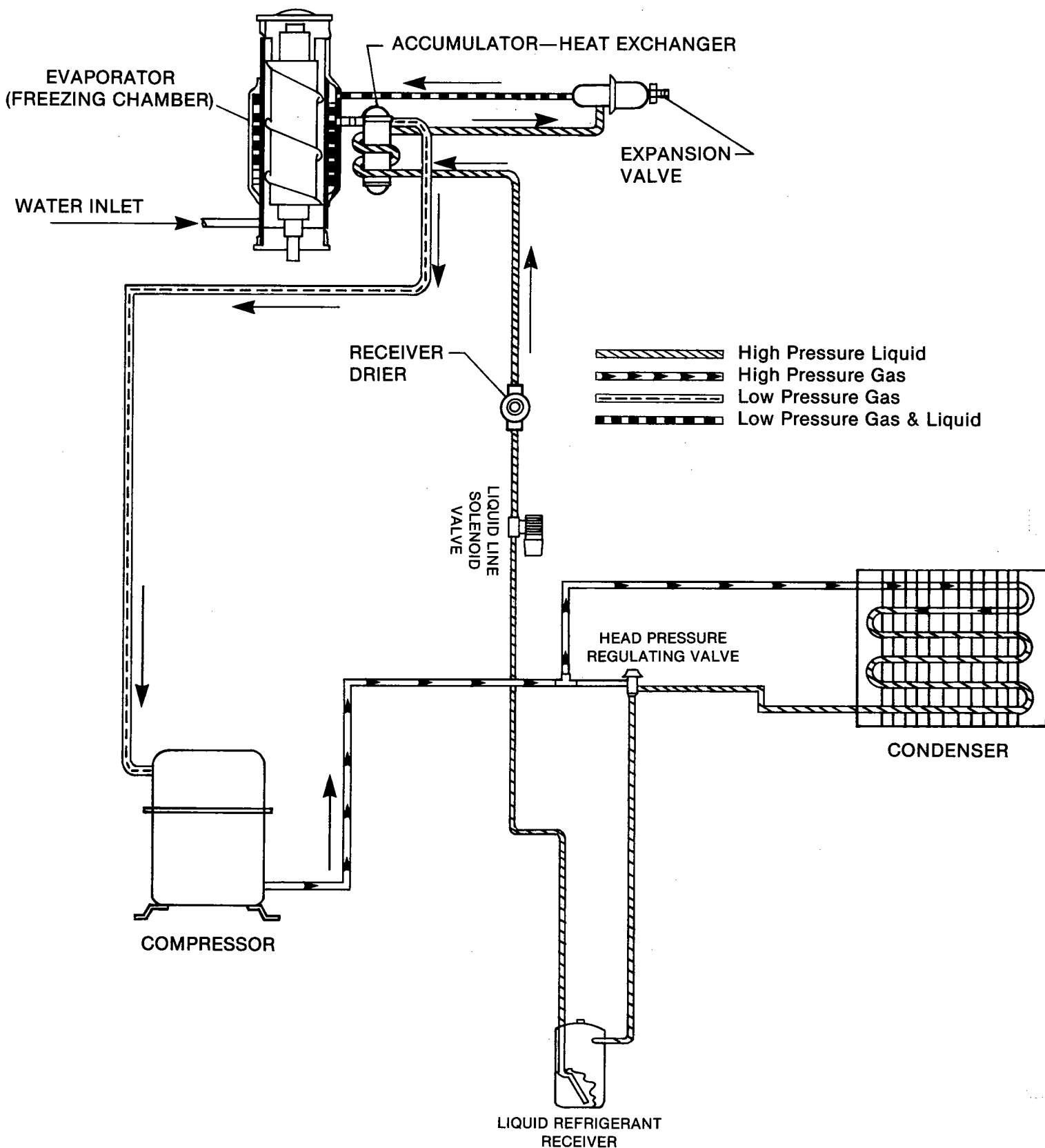
Both the discharge and liquid lines come equipped with schraeder fittings on one end of the tubing. This schraeder should be connected to the remote condenser on both the discharge and liquid lines for access to pressure readings at the condenser as shown in #5. When connecting the quick connect fittings, #6, always lubricate fitting with refrigerant oil. Fittings should be tightened until snug — and then given another quarter turn. **ALWAYS LEAK CHECK AROUND FITTINGS AFTER INSTALLATION HAS BEEN MADE.**

FOR DUAL CIRCUITED CONDENSER

The dual pass condenser is two separate condensers contained in one shroud. When routing lines insure that the discharge and liquid lines from each machine go to one condenser. Do not connect the discharge line from one machine and the liquid line from another machine to the same condenser.

REMOTE SERVICE INFORMATION

REMOTE FLAKER REFRIGERATION CYCLE



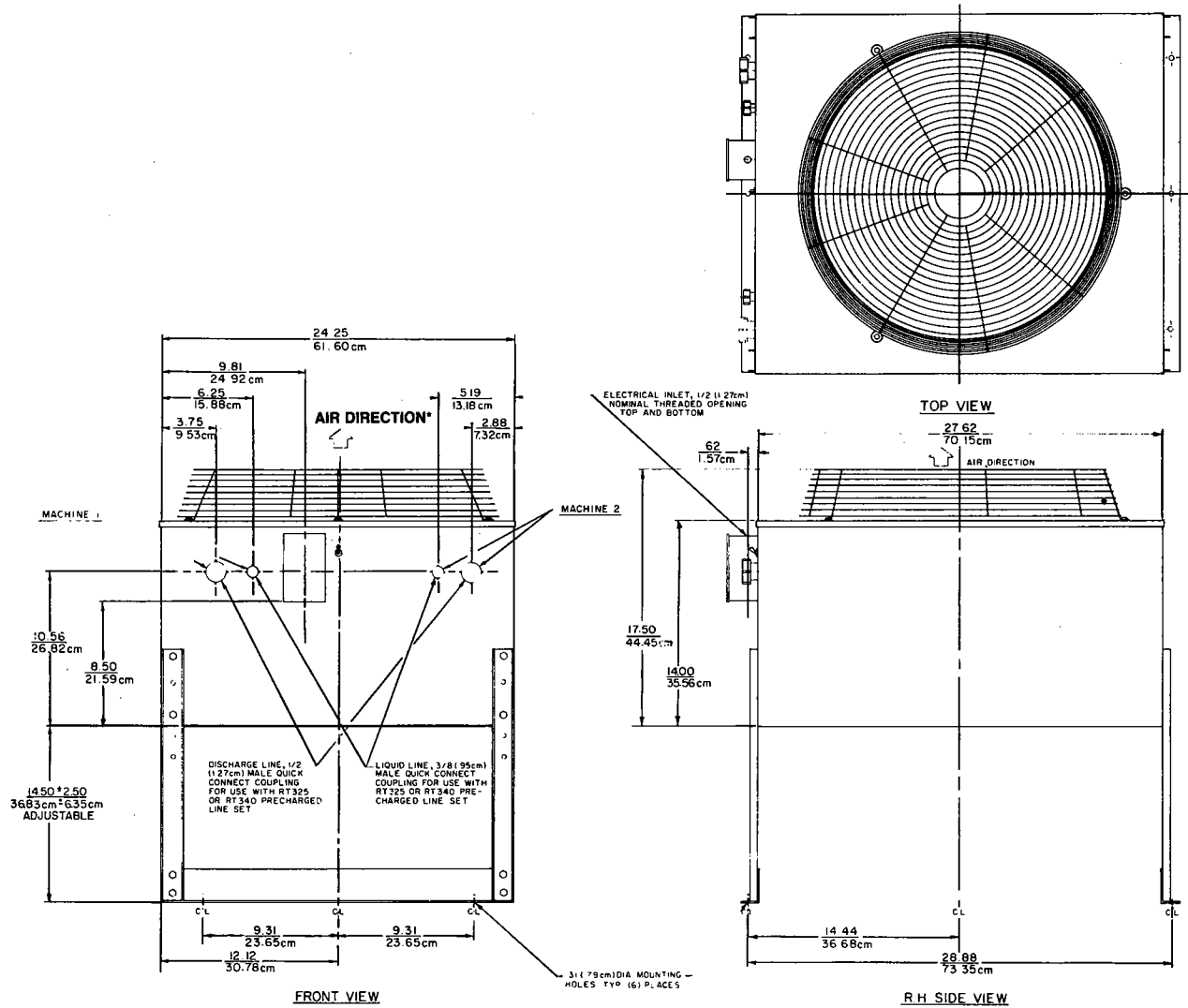
REMOTE SERVICE INFORMATION

- 1) **Mixing Valve** — This valve serves as the head pressure regulating valve. It contains a pre-determined charge of nitrogen in the bellows. Refer to page 60 for diagram and explanation.
- 2) **Receiver** — The amount of liquid in the receiver will vary with the temperature at the condenser coil.
- 3) **Liquid line solenoid valve and pump-down low pressure control** — When the bin control opens or the on-off switch is turned to the off position the liquid line solenoid valve closes and the system begins to pump down. When the low pressure reaches 19 p.s.i. on R-12 (36 p.s.i. on 502 units) the dual pumpdown low pressure control opens the pumpdown contactor and shuts the machine off. After the bin control closes or the on-off switch is turned back on, the liquid line solenoid valve opens and the high and low side pressures start to equalize. When the low side pressure reaches 42 p.s.i. on R-12 (59 p.s.i. on 502 units) the pumpdown low pressure control closes and the machine starts into a freeze cycle. When the machine is off for extended periods of time (e.g. overnight) it will pump itself down approximately once every hour. This is due to the equalizing of the pressures during the off cycle resetting the pumpdown low pressure control. It is a normal function of the system. The high pressure control opens at 250 p.s.i. on R-12 units (350 p.s.i. on R-502 units). In the event of extremely high discharge pressure. All flaker models require setting the back pressure by adjusting the Automatic Expansion Valve on installation (see Owner's Manual included with flaker). See page 12. Since this is below the cut out of the pumpdown low pressure control, as soon as the bin control or on-off switch opens, the unit shuts off. The liquid line solenoid drops into the liquid line to prevent any migration to the rooftop condenser, however there is no "pumpdown phase" which has just the compressor running to pump the unit down as on the cuber.
- 4) **Condenser fan motor** — Is a single speed permanent split capacitor motor and should be wired according to the wiring diagram on page 61 and 62 in this manual. The motor should be oiled every six months with 5 ccs of 20 weight SAE non-detergent oil. Apply oil through the neoprene oil hole in the center of the motor. The on-off switch mounted on the outside of the condenser cabinet should be left in an on position for proper operation. Turning this switch off cuts power only to the fan motor.

REMOTE SERVICE INFORMATION

CONDENSER DIMENSIONS RC-40-2 & RC-60-2

Condenser Fan Motor is 208 volts.



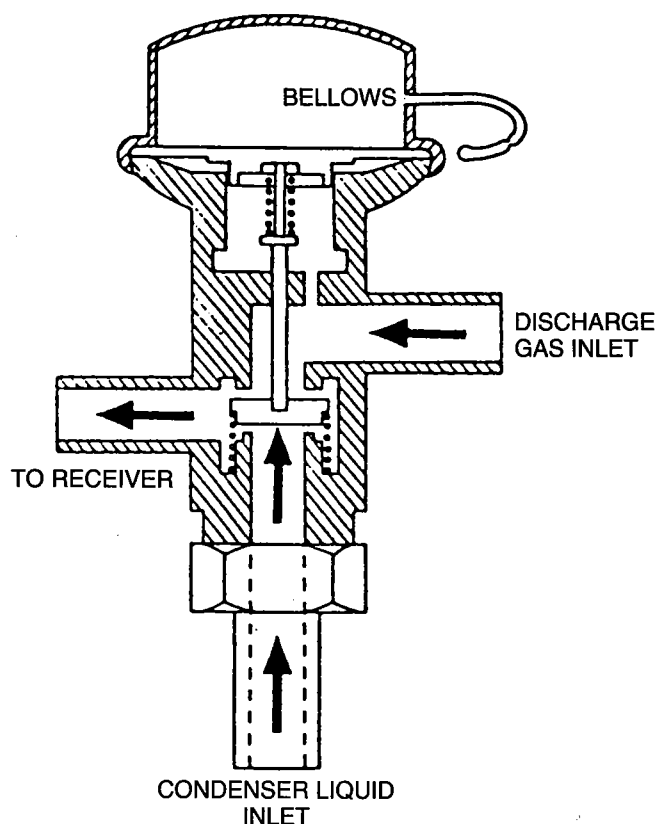
REMOTE SERVICE INFORMATION

MIXING VALVE OPERATION

The mixing valve is used to maintain a constant head pressure. There is a nitrogen charge contained in the bellows of the valve, this charge works against liquid line pressure going to the receiver.

When the temperature at the condenser is above 70° the refrigerant flow through the valve is from the condenser to the receiver.

When the temperature at the condenser is below 70° the pressure in the bellows of the mixing valve overcomes the pressure in the liquid line going to the receiver, the valve opens and allows discharge high pressure gas, as well as liquid from the condenser to flow through the valve and mix in the receiver to maintain head pressure and liquid line temperature and pressure.



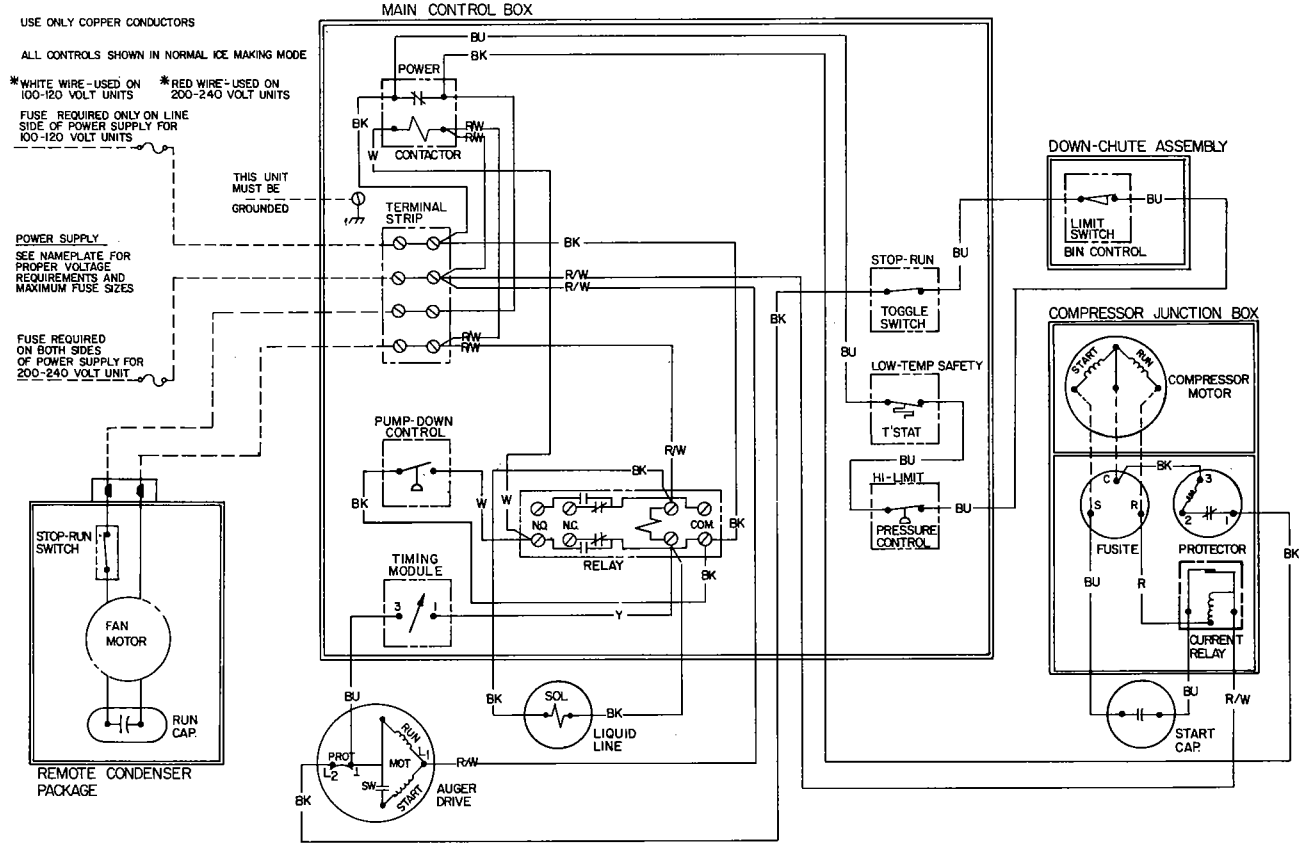
NOTE: If it becomes necessary to evacuate and re-charge the machine, the entire charge (see refrigerant charge on page 3 of this manual) must be added before accurate pressure readings can be taken.

TROUBLE SHOOTING GUIDE

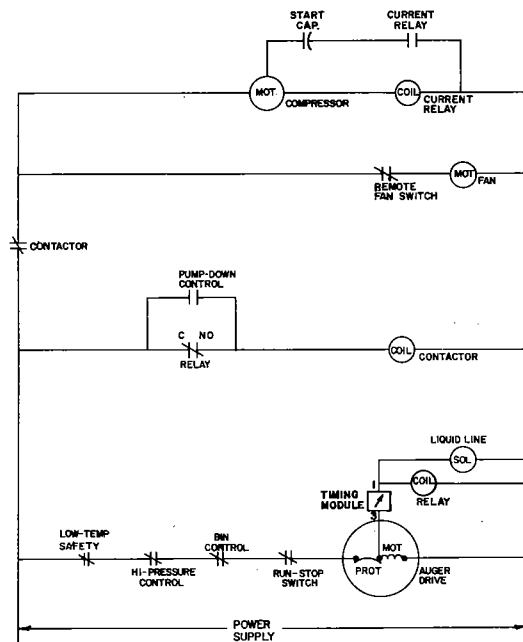
- 1) Machine off on head pressure control.
 - A) Fan unit switched off on roof.
 - B) Condenser dirty or improper airflow.
- 2) Icemaker low on production.
 - A) Refrigerant leak in system, check quick connect couplings and all refrigeration lines.
 - B) Mixing valve not functioning properly in cold ambients, not allowing gas to bypass condenser. Line between mixing valve and receiver should be warm to hot in ambients below 70°F, at the condenser, if valve is functioning properly.
- 3) Compressor cycling on overload.
 - A) Rooftop condenser coil dirty, or insufficient air flow across condenser coil.
- 4) Compressor will not start.
 - A) Overcharge of refrigerant in system, unit comes precharged from factory. If necessary to drop refrigerant charge please refer to page 4 for charge and type of refrigerant in system.
 - B) Defective start components on compressor.
 - C) Defective compressor or pumpdown contactor.
- 5) In the event of erratic pressure readings please refer to mixing valve schematic and explanation on page 66.

REMOTE SERVICE INFORMATION

MF-750-R REMOTE WIRING DIAGRAM

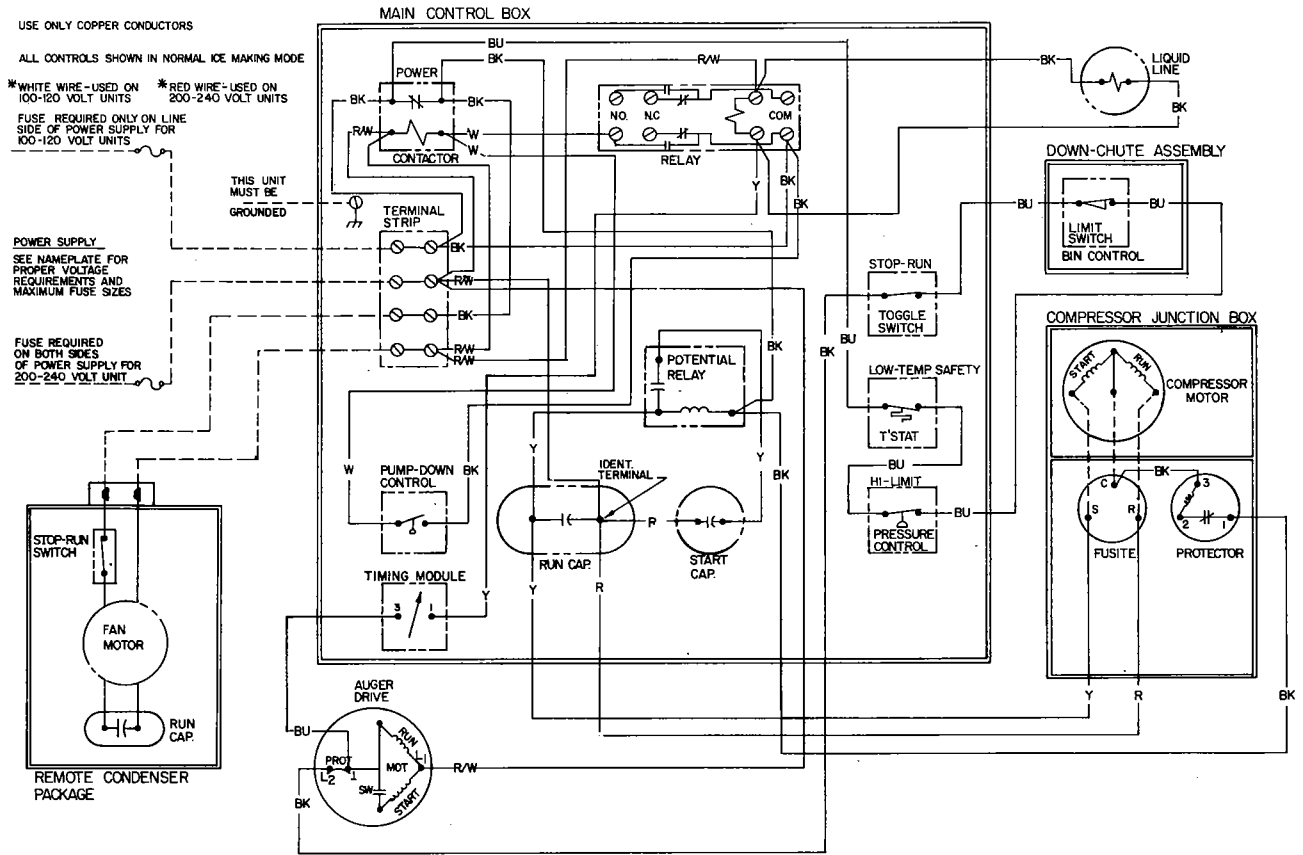


NOTE: THIS MACHINE HAS A COMPRESSOR DELAY, AND WILL NOT BEGIN MAKING ICE UNTIL THE SET AMOUNT OF TIME ON THE TIMER HAS PASSED.

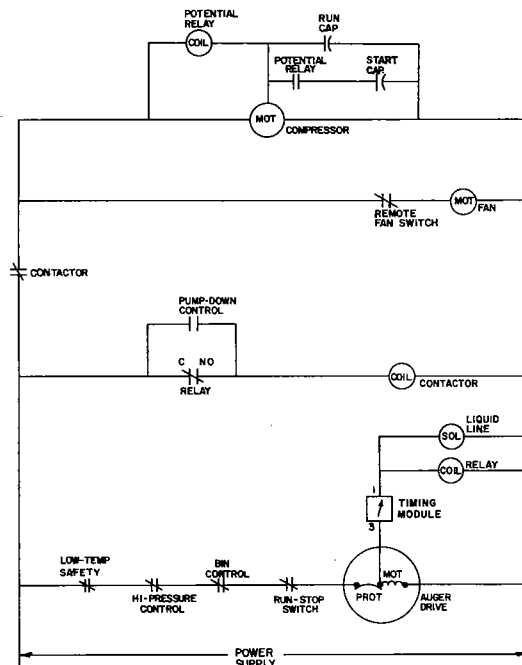


REMOTE SERVICE INFORMATION

MF-1002-R & MF-1006-R



NOTE: THIS MACHINE HAS A COMPRESSOR DELAY, AND WILL NOT BEGIN MAKING ICE UNTIL THE SET AMOUNT OF TIME ON THE TIMER HAS PASSED.



PARTS SECTION

PARTS SECTION

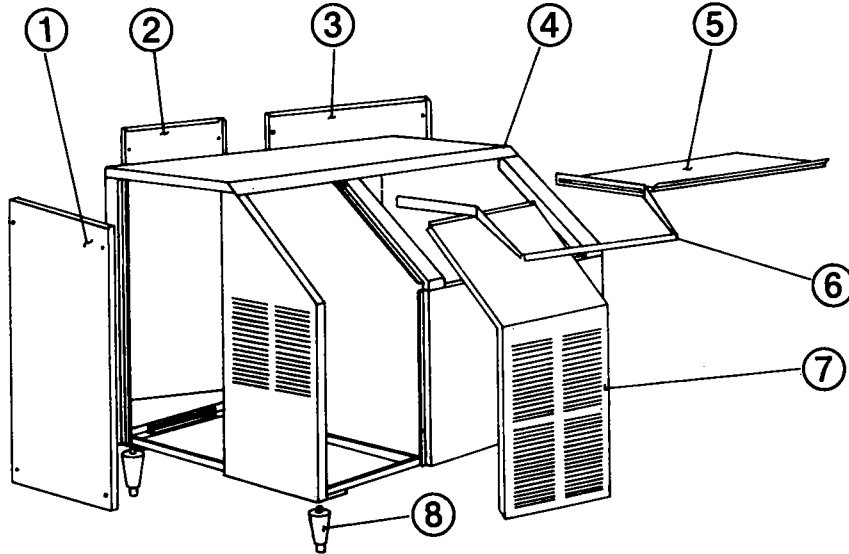
This Section contains parts specific to all Flakers.

PARTS SECTION

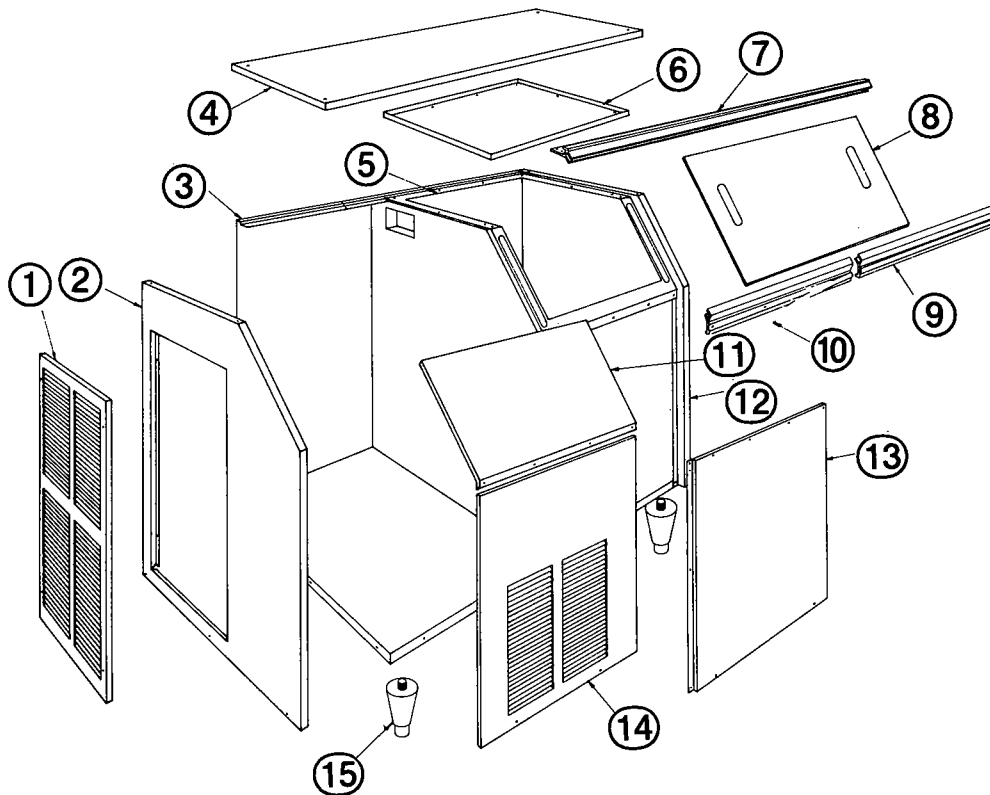
PARTS SECTION

FLAKER CABINET SECTION

B-SERIES FLAKERS PRIOR TO 1/83 PAGE 66



F-SERIES AFTER 1/83 PAGE 67

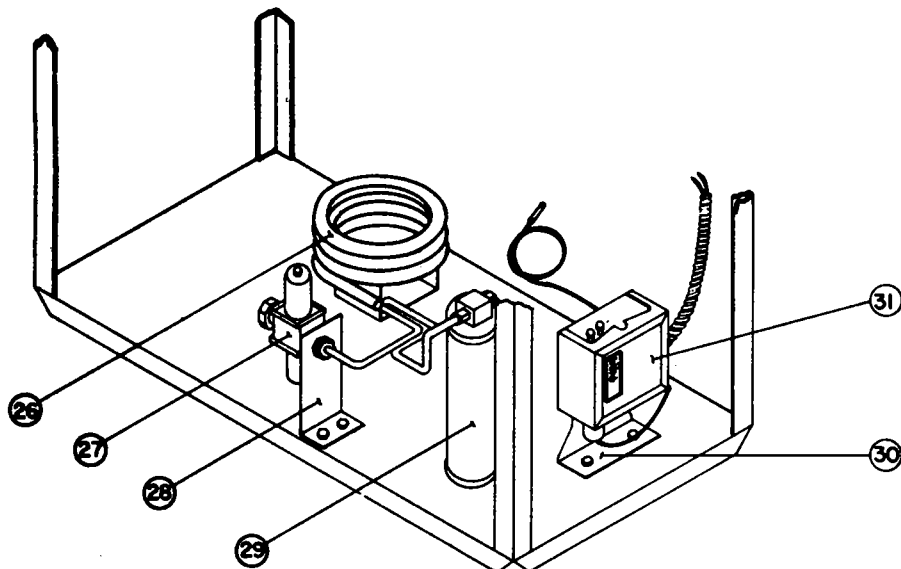
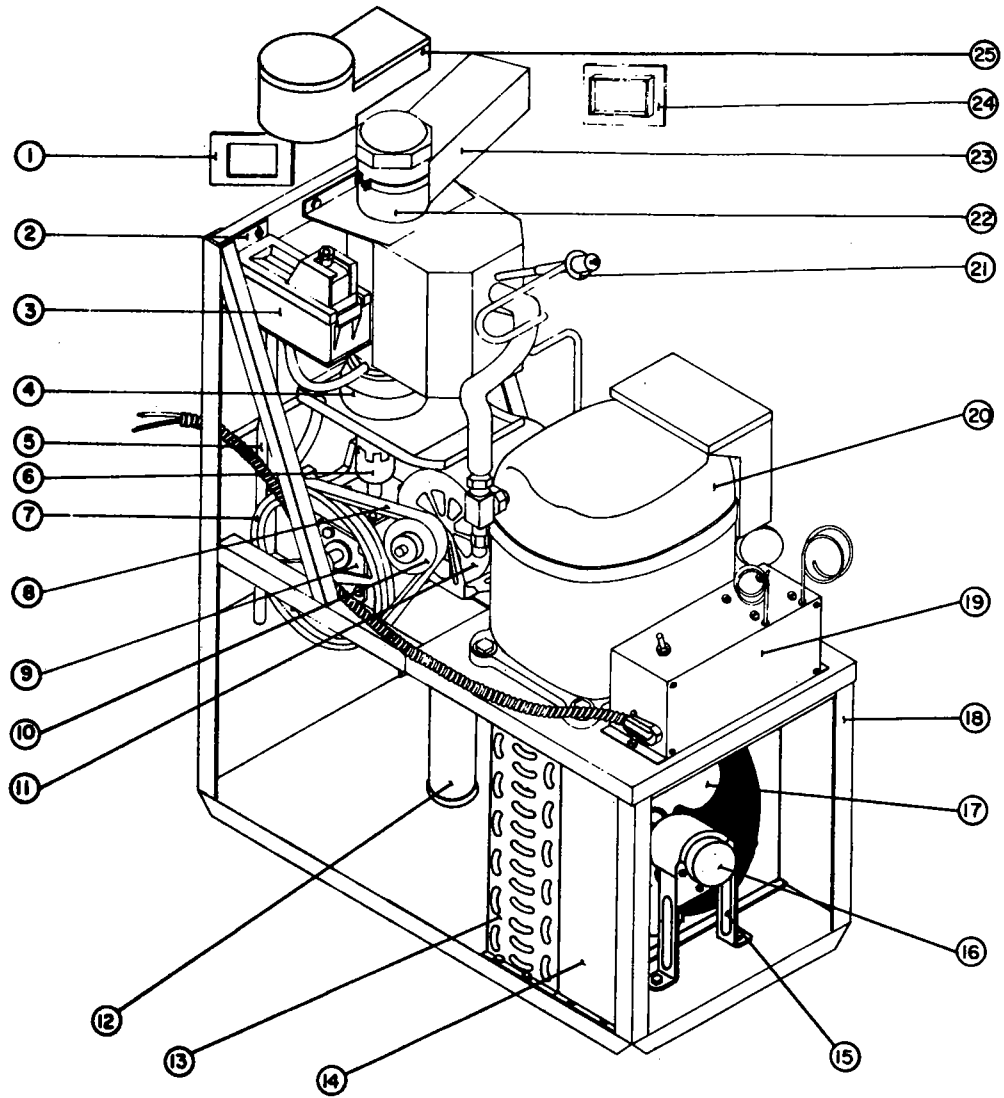


F-SERIES AFTER 1/83

INDEX #	DESCRIPTION	PART NO.	NOTES	32"	36"	46"													
1	Access Panel	3021359-01		X	X	X													
1	Access Panel S/S	3021359-02		X	X	X													
2	L/H Side Panel	3021236-01		X	X	X													
2	L/H Side Panel S/S	3021236-02		X	X	X													
3	Back Panel	3021251-01		X															
3	Back Panel	3021228-01			X														
3	Back Panel	3021273-01				X													
4	Top Panel	3021252-01		X															
4	Top Panel S/S	3021252-02		X															
4	Top Panel	3021230-01			X														
4	Top Panel S/S	3021230-02			X														
4	Top Panel	3021272-01				X													
4	Top Panel S/S	3021272-02				X													
6	Bin Cover	3021253-01		X															
6	Bin Cover	3021231-01			X														
6	Bin Cover	3021271-01				X													
7	Top Extrusion	9061029-01		X															
7	Top Extrusion	9061027-01			X														
7	Top Extrusion	9061028-01				X													
8	Door	9051093-01		X															
8	Door	9051093-03			X														
8	Door	9051093-07				X													
9	Bottom R/H Extrusion	9061034-01		X															
9	Bottom R/H Extrusion	9061035-01			X														
9	Bottom R/H Extrusion	9061036-01				X													
10	Bottom L/H Extrusion	9061033-01		X	X	X													
11	Top L/H Front Panel	3021232-01		X	X	X													
11	Top L/H Front Panel S/S	3021232-02		X	X	X													
12	R/H Side Panel	3021235-01		X	X	X													
12	R/H Side Panel S/S	3021235-02		X	X	X													
13	R/H Front Panel	3021254-01		X															
13	R/H Front Panel S/S	3021254-02		X															
13	R/H Front Panel	3021234-01			X														
13	R/H Front Panel S/S	3021234-02			X														
13	R/H Front Panel	3021323-01				X													
13	R/H Front Panel S/S	3021323-02				X													
14	Bottom L/H Front Panel	3021233-01		X	X	X													
14	Bottom L/H Front Panel S/S	3021233-02		X	X	X													
15	Leg Set	9021043-03	Set of 4	X	X	X													

PARTS SECTION

CHASSIS ASSEMBLY



PARTS SECTION

CHASSIS ASSEMBLY

INDEX #	DESCRIPTION	PART NO.	NOTES	250	350	600	750	756	1000	1002	1003	1006	1007
1	Evaporator Gasket	9051011-01		X	X								
1	Evaporator Gasket	9051012-01				X	X	X				X	
1	Evaporator Gasket	9051023-01							X	X	X		X
2	Float Bracket	3011695-01		X	X	X	X	X	X	X	X	X	X
3	Float Assembly	9131032-01		X	X	X	X	X	X	X	X	X	X
	Float Ball & Stem	9131111-01	Not Shown	X	X	X	X	X	X	X	X	X	X
4	Drip Boot	9051007-01		X	X								
4	Drip Boot	9051006-01				X	X	X				X	
4	Drip Boot	9051022-01							X	X	X		X
5	Y-Drain	9051009-01		X	X	X	X	X	X	X	X	X	X
6	Coupler Assembly	9111012-01		X	X								
6	Coupler Assembly	9111004-01				X	X	X	X	X	X	X	X
	Coupler 1/2	9111004-90	Upper			X	X	X	X	X	X	X	X
	Coupler 1/2	9111004-92	Lower			X	X	X	X	X	X	X	X
	Nylon Spider Gear	9111004-91		X	X	X	X	X	X	X	X	X	X
7	Pulley	9111002-07	Gear Reducer	X	X								
7	Pulley	9111002-08	Gear Reducer			X	X	X	X	X	X		X
7	Pulley	9111002-15	Gear Reducer									X	
8	V-Belt	9111001-01		X	X	X	X	X					
8	V-Belt	9111001-09							X	X	X		X
8	V-Belt	9111001-10										X	
9	Gear Reducer	9171001-01	See page 77 for	X	X								
9	Gear Reducer	9171002-01	Internal Components			X	X	X	X	X	X	X	X
10	Pulley	9111002-02		X	X								
10	Pulley	9111002-03				X	X	X	X	X	X	X	X
11	Auger Motor	9161008-01		X	X	X	X						
11	Auger Motor	9161021-01						X		X	X	X	X
11	Auger Motor	9161051-01							X				
12	Drier	9151004-01	As Required	X	X	X	X	X	X	X	X	X	X
12	Receiver Drier	9151033-01	Water Cooled Only		X	X	X	X	X	X	X	X	X
13	Air Condenser	9141012-01		X	X								
13	Air Condenser	9141002-01				X							
13	Air Condenser	9141003-01					X	X					
13	Air Condenser	9141013-01							X	X	X		X
13	Air Condenser	9141046-01										X	
14	Shroud Front	9131063-01		X	X								
14	Shroud Side	9131063-02		X	X								
14	Shroud Front	9131020-01				X	X	X					
14	Shroud Side	9131020-02				X	X	X					

PARTS SECTION

CHASSIS ASSEMBLY

INDEX #	DESCRIPTION	PART NO.	NOTES	250	350	600	750	756	1000	1002	1003	1006	1007
14	Shroud Front	9131039-01							X	X	X		X
14	Shroud Side	9131062-01							X	X	X		X
14	Shroud Front	9131119-01										X	
14	Shroud Side	3051141-01										X	
15	Fan Motor Bracket	9131047-01		X	X								
15	Fan Motor Bracket	9131015-01			X	X	X						
15	Fan Motor Bracket	9131084-01							X	X	X	X	X
16	Fan Motor	9161028-01		X	X								
16	Fan Motor	9161004-01				X	X						
16	Fan Motor	9161006-01						X					
16	Fan Motor	9161026-01							X				
16	Fan Motor	9161027-01								X	X	X	X
17	Fan Blade	9131046-01		X	X								
17	Fan Blade	9131017-01				X	X	X					
17	Fan Blade	9131085-01							X	X	X		X
17	Fan Blade	9131055-02										X	
18	Chassis Frame	2021204-01		X	X	X	X	X					
18	Chassis Frame	2021308-01							X	X	X	X	X
19	On/Off Switch	9101021-01		X	X	X	X	X	X	X	X	X	X
19	Bin Control	9041004-01											
19	Safety Control	9041002-01											
19	Contactor	9101018-01	Prior to 2/85	X	X	X	X		X				
19	Contactor	9101002-01	After 2/85	X	X								
19	Contactor	9101002-03	After 2/85			X	X						
19	Contactor	9101002-04	After 2/85					X				X	
19	Contactor	9101019-01	Prior to 2/85							X	X		
19	Contactor	9101079-01											X
19	Time Delay	9101085-01	As Required						X	X	X	X	X
20	Compressor	9181024-91		X	X								
20	Compressor	9181001-91				X							
20	Compressor	9181006-91					X						
20	Compressor	9181006-92						X					
20	Compressor	9181008-91							X				
20	Compressor	9181008-92								X			
20	Compressor	9181008-93									X		
20	Compressor	9181054-91										X	
20	Compressor	9181008-95											X

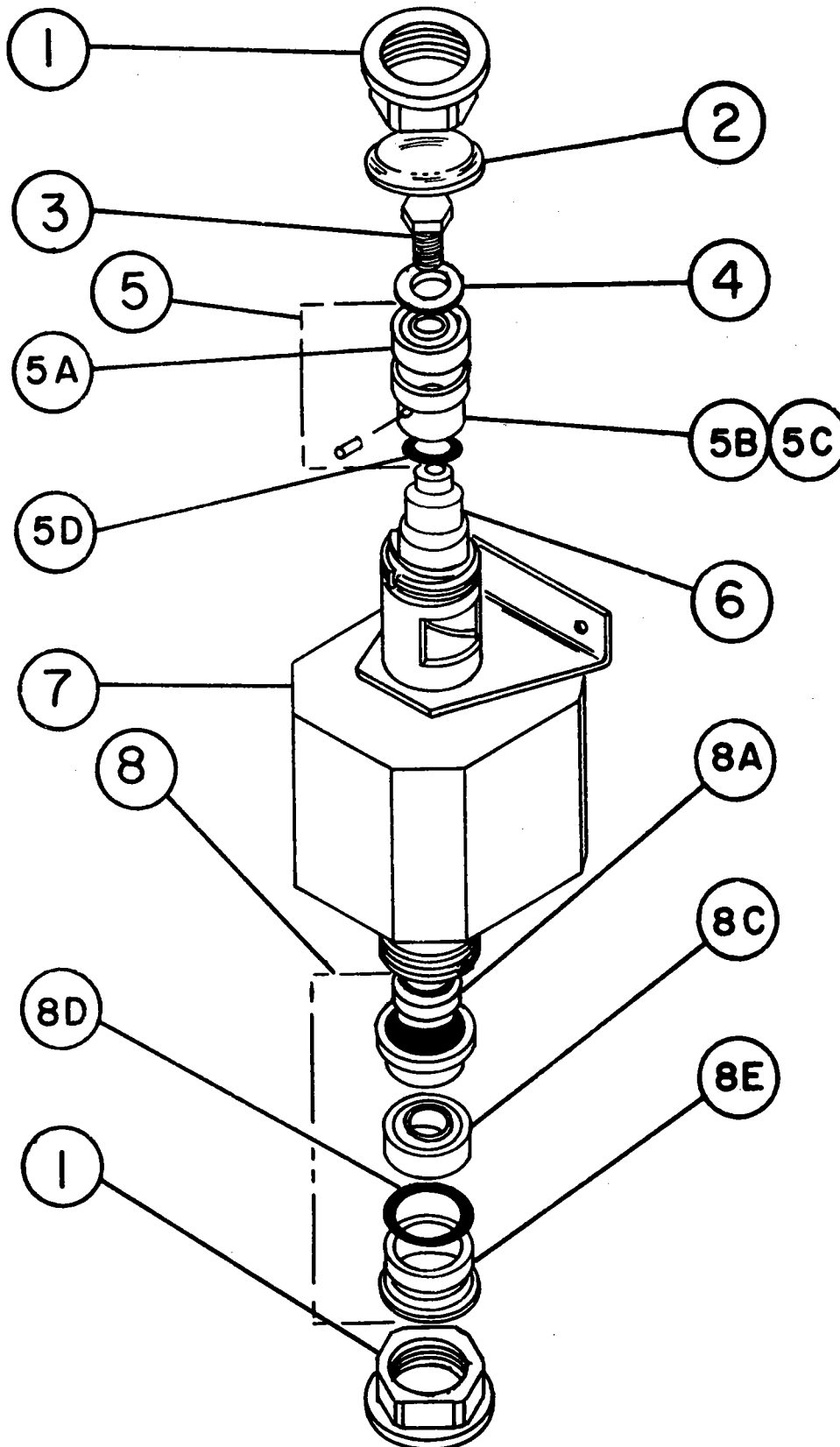
PARTS SECTION

CHASSIS ASSEMBLY

INDEX #	DESCRIPTION	PART NO.	NOTES	250	350	600	750	756	1000	1002	1003	1006	1007
20	Overload	9181005-12		X	X								
20	Overload	9181005-01				X							
20	Overload	9181005-03					X						
20	Overload	9181005-04						X					
20	Overload	9181005-06							X				
20	Overload	9181005-08								X	X		
20	Overload	9181005-11										X	
20	Relay	9181004-05		X	X								
20	Relay	9181004-01				X							
20	Relay	9181004-03					X						
20	Relay	9181004-02	After 5/83					X					
20	Relay	9181004-04	Prior to 5/83					X					
20	Relay	9181010-02							X				
20	Relay	9181010-03								X			
20	Relay	9181010-04									X	X	
20	St. Capacitor	9181003-09		X	X								
20	St. Capacitor	9181003-01				X							
20	St. Capacitor	9181003-03					X						
20	St. Capacitor	9181003-04						X					
20	St. Capacitor	9181003-06							X				
20	St. Capacitor	9181003-07								X	X		
20	St. Capacitor	9181003-08										X	
20	Run Capacitor	9181009-02							X				
20	Run Capacitor	9181009-01								X		X	
20	Run Capacitor	9181009-03									X		
21	Expansion Valve	9151056-02		X	X	X	X	X	X	X	X		X
21	Expansion Valve	9151056-01										X	
22	Evaporator Assembly	2051013-01	See pages 74-75	X									
22	Evaporator Assembly	2051042-01	For individual		X								
22	Evaporator Assembly	2051014-01	internal component			X	X	X				X	
22	Evaporator Assembly	2051043-01	part numbers						X	X	X		X
23	Ice Chute	2021164-01		X	X								
23	Ice Chute	2021166-01				X	X	X				X	
23	Ice Chute	2021165-01							X	X	X		X
24	Ice Chute Gasket	9051004-01		X	X								
24	Ice Chute Gasket	9051005-01				X	X	X				X	
24	Ice Chute Gasket	9051023-01							X	X	X		X

PARTS SECTION

EVAPORATOR COMPONENTS



PARTS SECTION

EVAPORATOR COMPONENTS

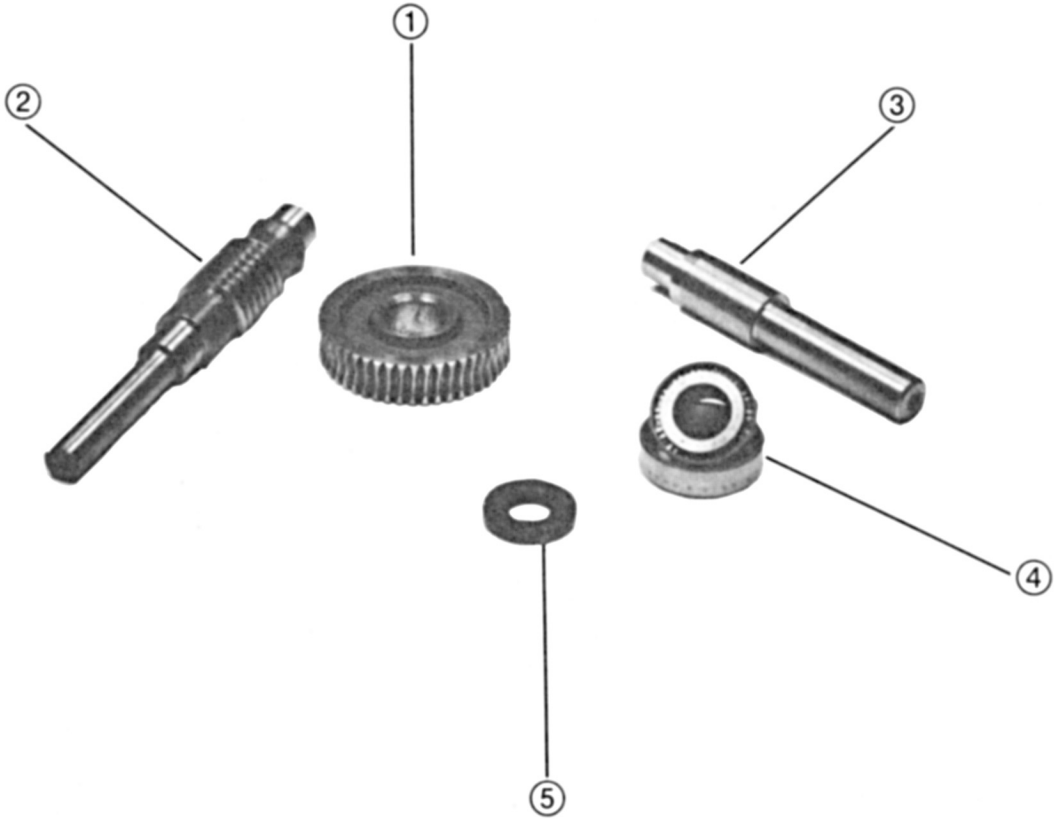
INDEX #	DESCRIPTION	PART NO.	NOTES	250	350	600	750	756	1000	1002	1003	1006	1007
1	Nut	3041006-01	As Required	X	X								
1	Nut	3041005-01	As Required			X	X	X				X	
1	Nut	3041024-01	As Required						X	X	X		X
2	Cap	3011011-01		X	X								
2	Cap	3011012-01				X	X	X	X	X	X	X	X
3	Bolt	9031001-01		X	X	X	X	X	X	X	X	X	X
4	Washer	9031004-09		X	X	X	X	X	X	X	X	X	X
5	Upper Housing Assembly	2051030-01		X	X								
5	Upper Housing Assembly	2051033-01				X	X	X				X	
5	Upper Housing Assembly	2051032-01							X	X	X		X
5A	Upper Bearing	9121001-02		X	X								
5A	Upper Bearing	9121001-01				X	X	X	X	X	X	X	X
5B	Upper Housing	3041018-01		X	X								
5B	Upper Housing	3041017-01				X	X	X				X	
5B	Upper Housing	3041022-01							X	X	X		X
5C	Locating Pin	9131010-01		X	X								
5C	Locating Pin	9131010-02				X	X	X	X	X	X	X	X
5D	O-Ring	9131009-03		X	X								
5D	O-Ring	9131009-02				X	X	X				X	
5D	O-Ring	9131009-06							X	X	X		X
6	Auger	9131013-01		X									
6	Auger	9131012-01			X								
6	Auger	9131011-01				X	X	X				X	
6	Auger	9131014-01							X	X	X		X
7	Evaporator Barrel	2051027-01		X									
7	Evaporator Barrel	2051025-01			X								
7	Evaporator Barrel	2051023-01				X	X	X				X	
7	Evaporator Barrel	2051021-01							X	X	X		X
8	Lower Housing Assembly	2051028-01		X	X								
8	Lower Housing Assembly	2051029-01				X	X	X				X	
8	Lower Housing Assembly	2051031-01							X	X	X		X
8A	Seal Assembly	9121026-91		X	X								
8A	Seal Assembly	9121025-91				X	X	X	X	X	X	X	X
8C	Lower Bearing	9121001-03		X	X								
8C	Lower Bearing	9121001-01				X	X	X	X	X	X	X	X
8D	O-Ring	9131009-04	Prior to 1/79	X	X								
8D	O-Ring	9131009-08	After 1/79	X	X								
8D	O-Ring	9131009-01				X	X	X				X	
8D	O-Ring	9131009-07							X	X	X		X

PARTS SECTION

EVAPORATOR COMPONENTS

INDEX #	DESCRIPTION	PART NO.	NOTES	250	350	600	750	756	1000	1002	1003	1006	1007
8E	Lower Housing	3041007-01		X	X								
8E	Lower Housing	3041004-01				X	X	X				X	
8E	Lower Housing	3041021-01							X	X	X		X

GEAR REDUCER INTERNAL COMPONENTS



PARTS SECTION

GEAR REDUCER COMPONENTS

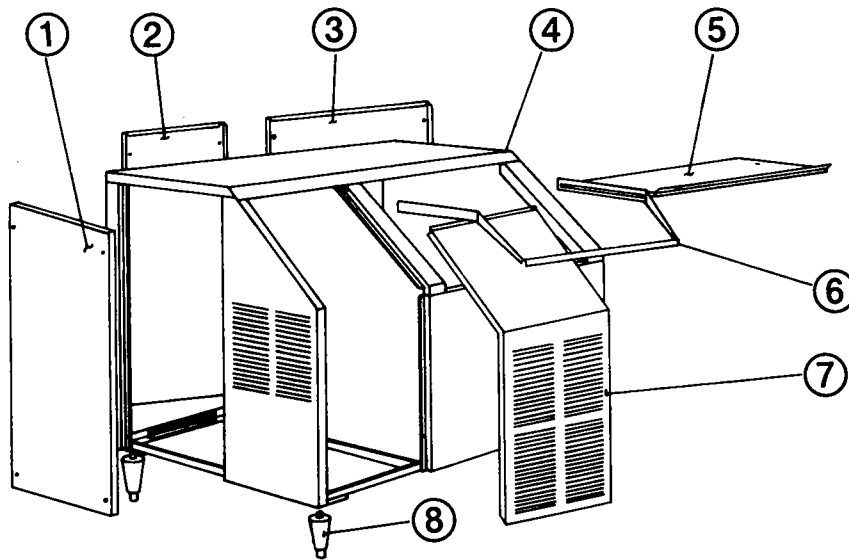
INDEX #	DESCRIPTION	PART NO.	NOTES	250	350	600	750	756	1000	1002	1003	1006	1007
1	Worm Gear	9171001-59	Grove	X	X								
1	Worm Gear	9171001-88	Morse	X	X								
2	Input Worm	9171001-57	Grove	X	X								
2	Input Worm	9171001-89	Morse	X	X								
3	Output Shaft	9171001-56	Grove	X	X								
3	Output Shaft	9171001-90	Morse	X	X								
4	Input Bearing	9171001-50	Grove	X	X								
4	Input Bearing	9171001-87	Morse	X	X								
4	Output Bearing	9171001-50	Grove	X	X								
4	Output Bearing	9171001-85	Morse	X	X								
5	Input Seal	9171001-54	Grove	X	X								
5	Input Seal	9171001-83	Morse	X	X								
5	Output Seal	9171001-54	Grove	X	X								
5	Output Seal	9171001-82	Morse	X	X								
1	Worm Gear	9171002-60	Grove			X	X	X	X	X	X	X	X
1	Worm Gear	9171002-89	Morse			X	X	X	X	X	X	X	X
2	Input Worm	9171002-59	Grove			X	X	X	X	X	X	X	X
2	Input Worm	9171002-90	Morse			X	X	X	X	X	X	X	X
3	Output Shaft	9171002-58	Grove			X	X	X	X	X	X	X	X
3	Output Shaft	9171002-91	Morse			X	X	X	X	X	X	X	X
4	Input/Output Bearing	9171002-51	Grove			X	X	X	X	X	X	X	X
4	Input/Output Bearing	9171002-88	Morse			X	X	X	X	X	X	X	X
5	Input Seal	9171002-55	Grove			X	X	X	X	X	X	X	X
5	Input Seal	9171002-86	Morse			X	X	X	X	X	X	X	X
5	Output Seal	9171002-57	Grove			X	X	X	X	X	X	X	X
5	Ouput Seal	9171002-86	Morse			X	X	X	X	X	X	X	X

PARTS SECTION

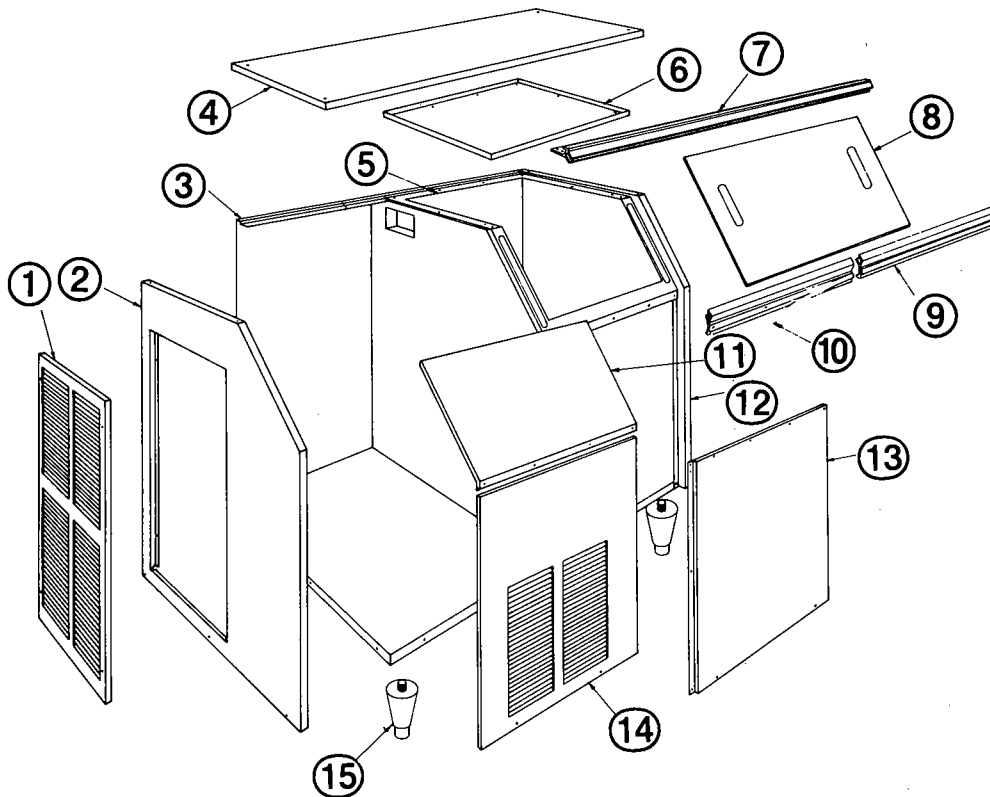
**This section contains parts specific
to the Drink-O-Matic**

DRINK-O-MATIC PARTS SECTION CABINET PARTS

B-SERIES FLAKERS PRIOR TO 1/83

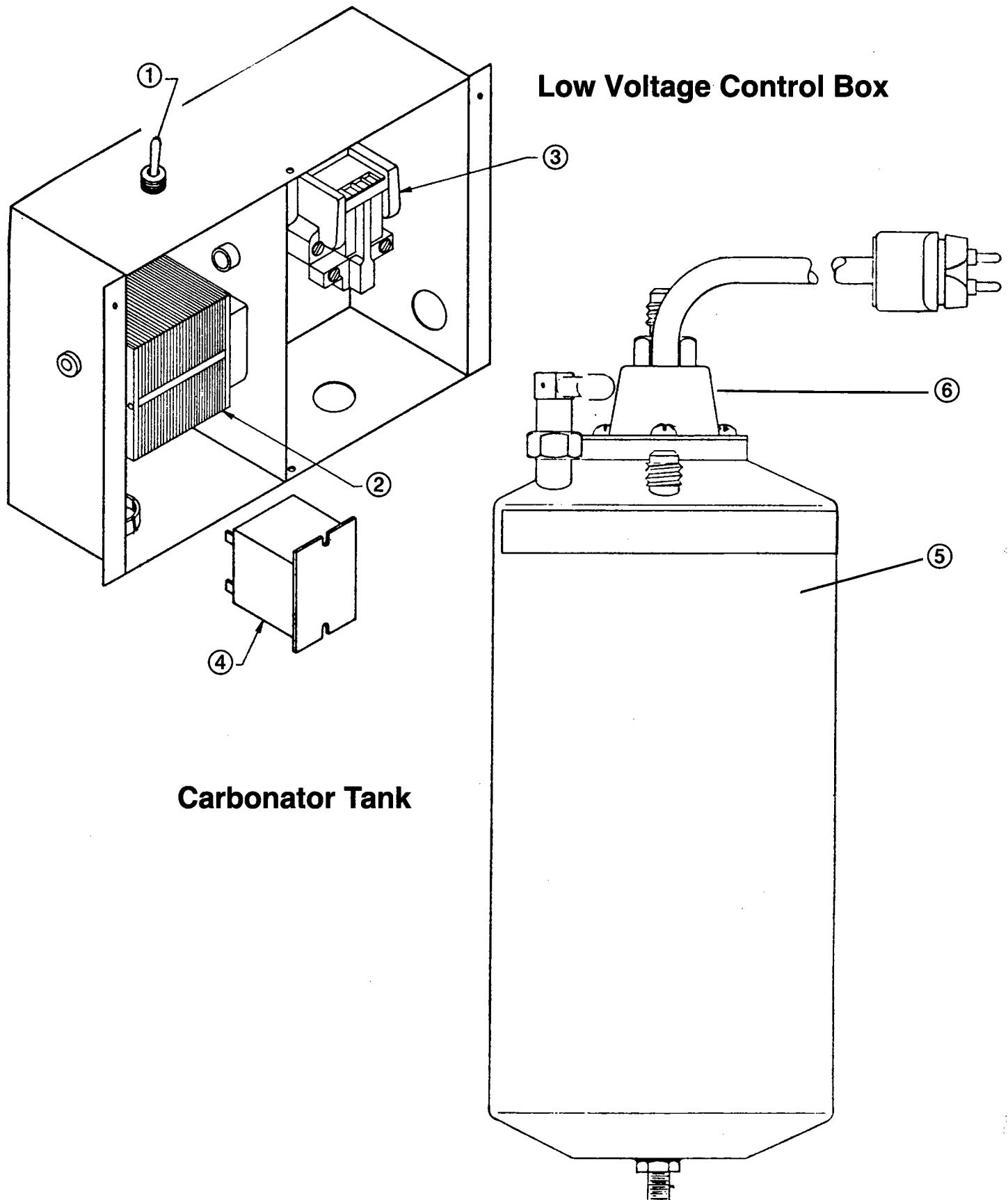


F-SERIES AFTER 1/83

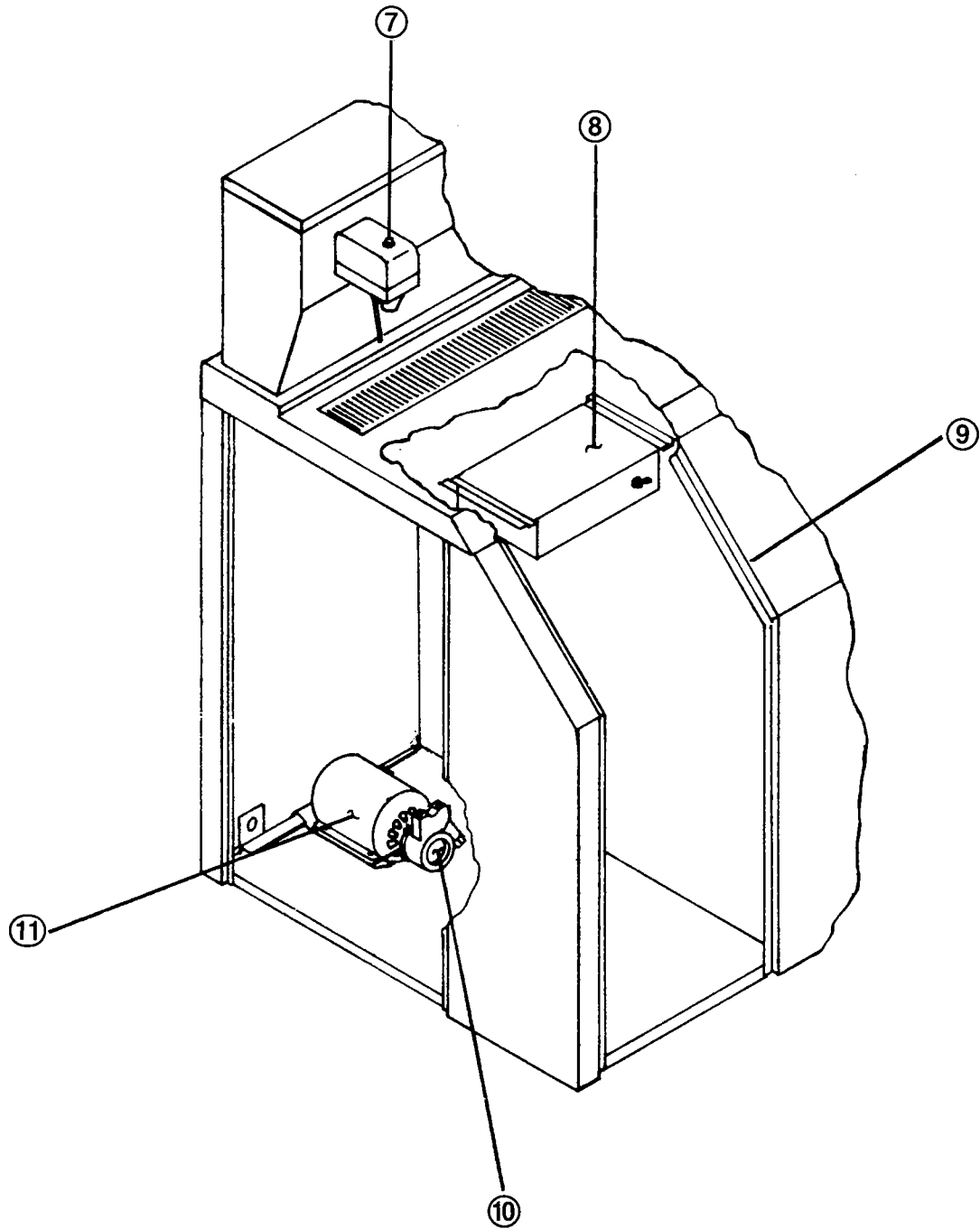


All cabinet parts are listed on pages 66 and 67. All tower components are special order only. Specify model type and cabinet size when requesting tower parts.

DRINK-O-MATIC PARTS SECTION



DRINK-O-MATIC PARTS SECTION



PARTS SECTION

DRINK-O-MATIC

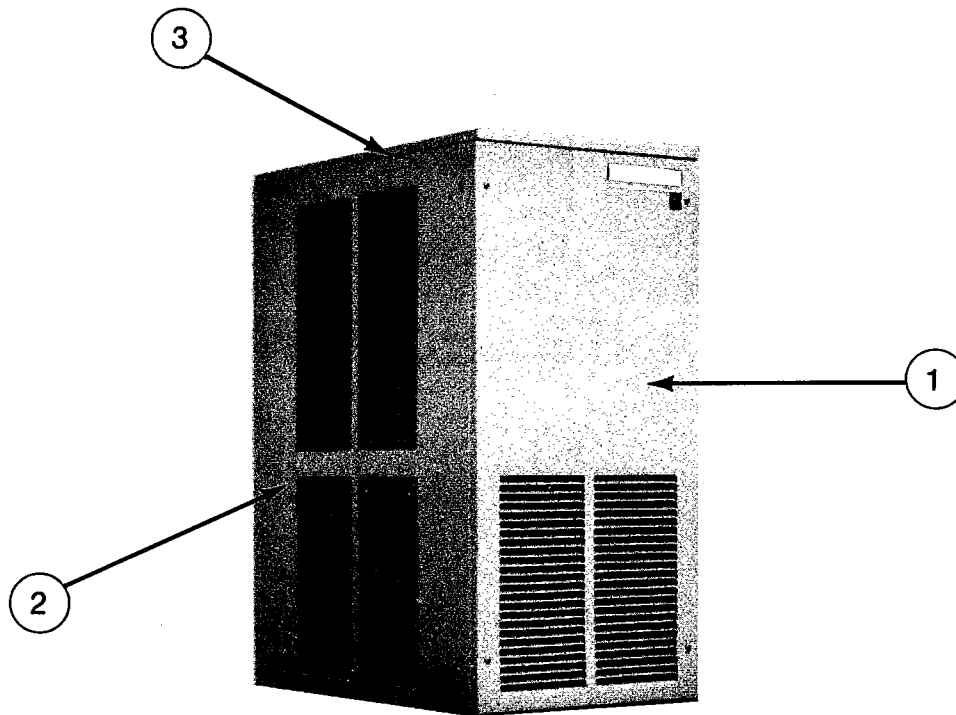
INDEX #	DESCRIPTION	PART NO.	NOTES	250	350	600	750	756	1000	1002	1003	1006	1007
1	On/Off Switch	9101060-01											
2	Transformer	9101004-01											
3	Contactora	9101116-01											
4	Relay	9101026-03											
5	Carbonator Tank Assembly	9191194-01	McCann										
5	Carbonator Tank Assembly	9191018-01	Jo Bell										
6	Proximity Control	9191194-90	McCann										
6	Proximity Control	9191018-90	Jo Bell										
7	Faucet McCann	9191169-01	Carbonated										
7	Faucet McCann	9191169-07	Carbonated w/Soda										
7	Faucet McCann	9191169-05	Noncarb. w/Water										
7	Faucet Dole	9191142-01	Root Beer										
7	Faucet Dole	9191142-02	Sprite										
7	Faucet Dole	9191142-03	Orange										
7	Faucet Dole	9191142-04	Coca Cola										
7	Faucet Dole	9191142-05	Tab										
7	Faucet Dole	9191142-06	Diet Coke										
7	Faucet Cornelius	9191167-02	Pre-mix										
7	Faucet Cornelius	9191199-01	SF-1										
7	Faucet Cornelius	9191199-02	SF-1 w/Side Lever										
7	Faucet Int'l. Carbonic	9191197-01	FT II										
7	Faucet Int'l. Carbonic	9191197-02	FT II Diet										
7	Faucet Concession	9191005-01	Carbonated										
7	Faucet Concession	9191005-02	Carbonated w/Soda										
7	Faucet Concession	9191005-03	Noncarb. w/Water										
8	Low Voltage Control Box		See Items 1-4										
9	Bin Door Switch	9101109-01											
10	Procon Pump	9191081-01											
11	Carbonator Motor	9161073-01											
BELOW ITEMS NOT SHOWN													
	L.P. Regulator	9041046-01											
	H.P. Regulator	9041047-01											
	Manual Water Filler	9131040-01											

PARTS SECTION

This section contains parts specific
to the Modular Flaker

When Ordering Parts
Please Specify
Model and Serial Number

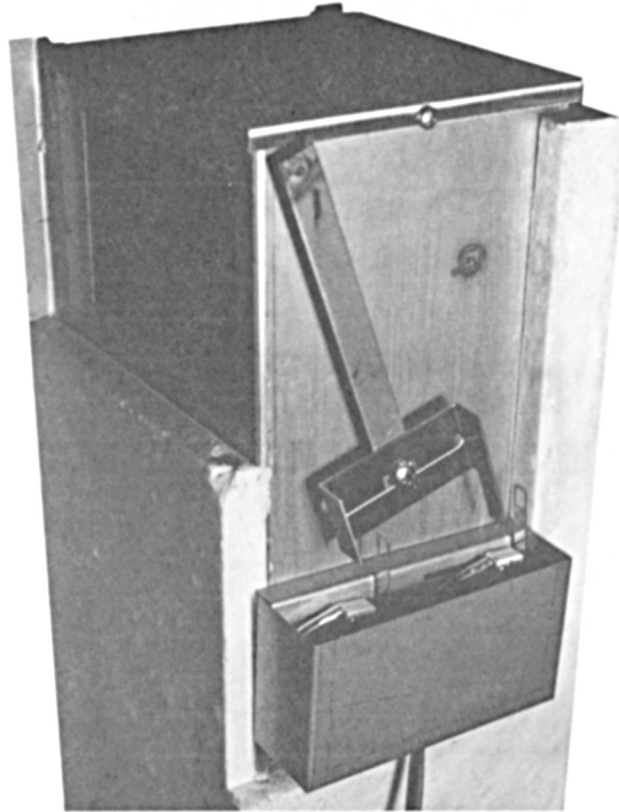
PARTS SECTION MODULAR FLAKER CABINET



INDEX #	DESCRIPTION	PART NO.	NOTES
1	Front Panel	3021002-01	
1	Front Panel S/S	3021002-02	
2	Side Panel	3021003-01	Left or Right
2	Side Panel S/S	3021003-02	Left or Right
3	Top Panel	3021004-01	
3	Top Panel S/S	3021004-02	
	Panel Screw	9031074-01	8 x 1/2"
	Panel Screw	9031074-02	8 x 1 1/2"

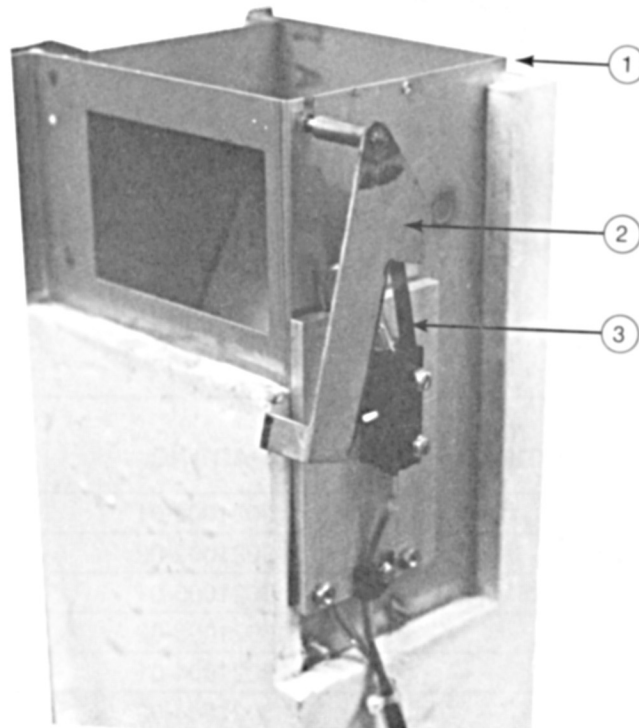
PARTS SECTION

MODULAR FLAKER CONTROL BOX



NOTE:
Time Delay has been
incorporated into all
modular flaker control
boxes manufactured
after 6/84.

PARTS SECTION



After 6-1-83

PARTS SECTION

MODULAR FLAKER

INDEX #	DESCRIPTION	PART NO.	NOTES	MF600	MF750	MF756	MF1006
1	Terminal Board	9101037-01		X	X	X	X
2	Contactora	9101002-01		X	X		
2	Contactora	9101002-02				X	
2	Contactora	9101002-04					X
3	On/Off Switch	9101001-02		X	X	X	X
4	Safety Control	9041002-01		X	X	X	X
5	Time Delay	9101085-01	As Required	X	X	X	X
6	Down Chute	2021004-01	W/O Switch/Door	X	X	X	X
7	Damper Door	2021294-01		X	X	X	X
8	Bin Switch	9101114-01		X	X	X	X
9	Down Chute Cover	3011199-01		X	X	X	X
10	Down Chute Assembly	2061031-01	Items 6, 7, 8, 9	X	X	X	X

PARTS SECTION

All Chassis and Evaporator Components for Modular Flaker Series are the same as F-Series (pages 69-78) with the following exceptions:

DESCRIPTION	PART NO.	NOTES	MF600	MF750	MF756	MF1006
Air Condenser	9141016-01		X	X	X	
Air Condenser	9141017-01					X
V-Belt	9111001-08		X	X	X	
Pulley	9111002-15	6"				X
Ice Chute Gasket	9051029-01		X	X	X	X
Ice Chute	2021070-01		X	X	X	X
Fan Shroud	9131001-01		X	X	X	
Fan Shroud	9131118-01					X
Fan Motor	9161045-04		X	X		
Fan Motor	9161045-05				X	

PARTS SECTION

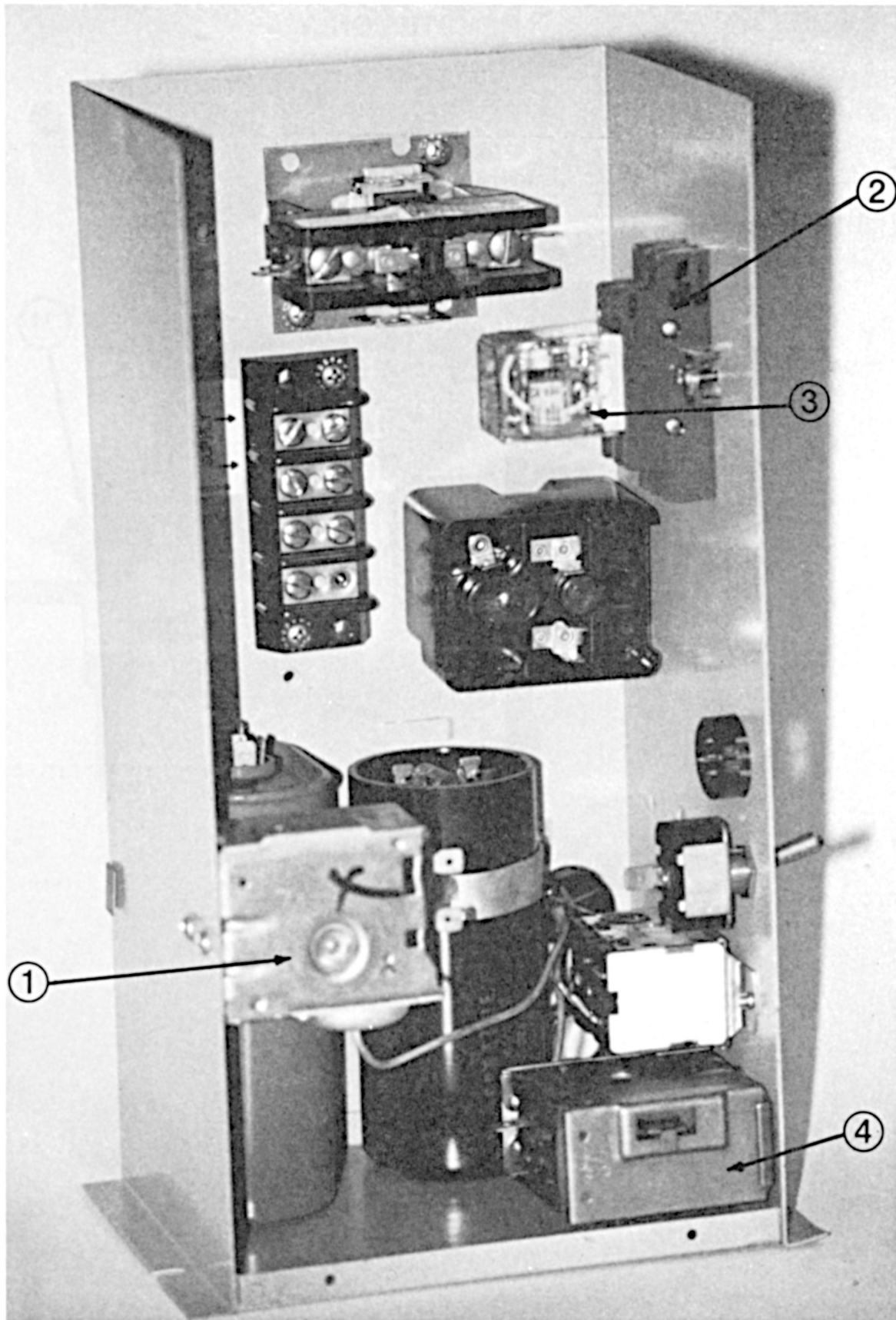
**This section contains parts specific
to the Remote Flaker**

**REMOTE
FLAKER**

**REMOTE
FLAKER**

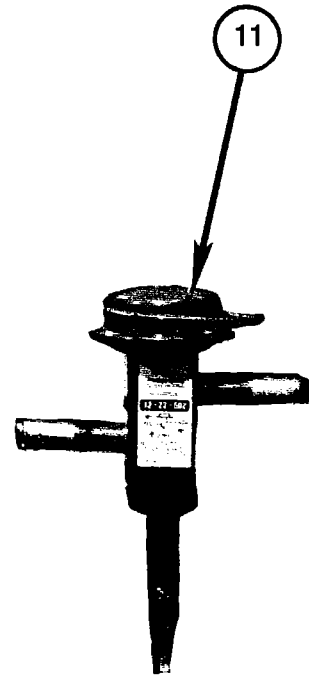
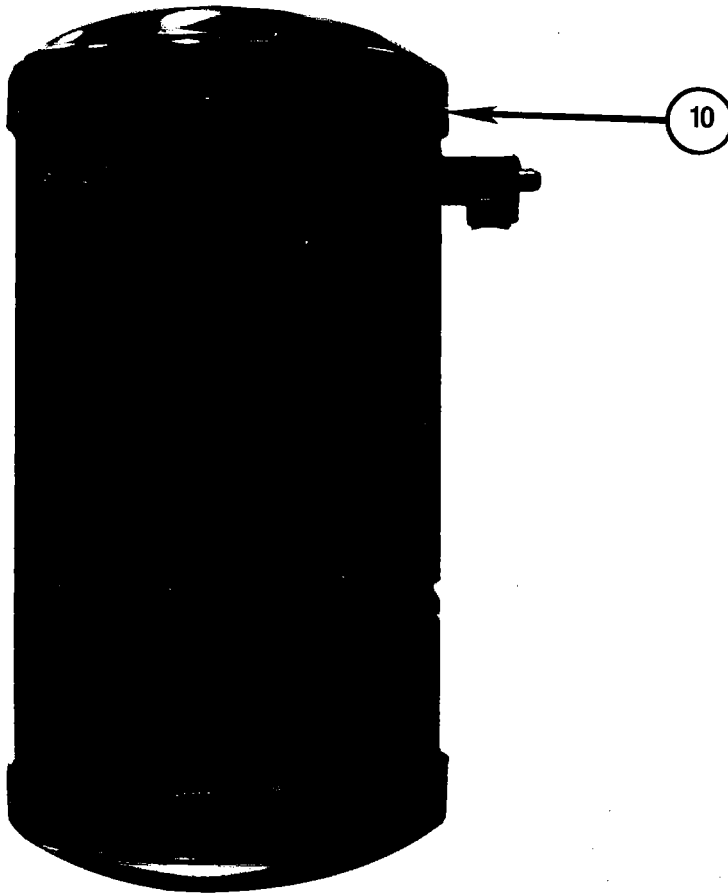
PARTS SECTION

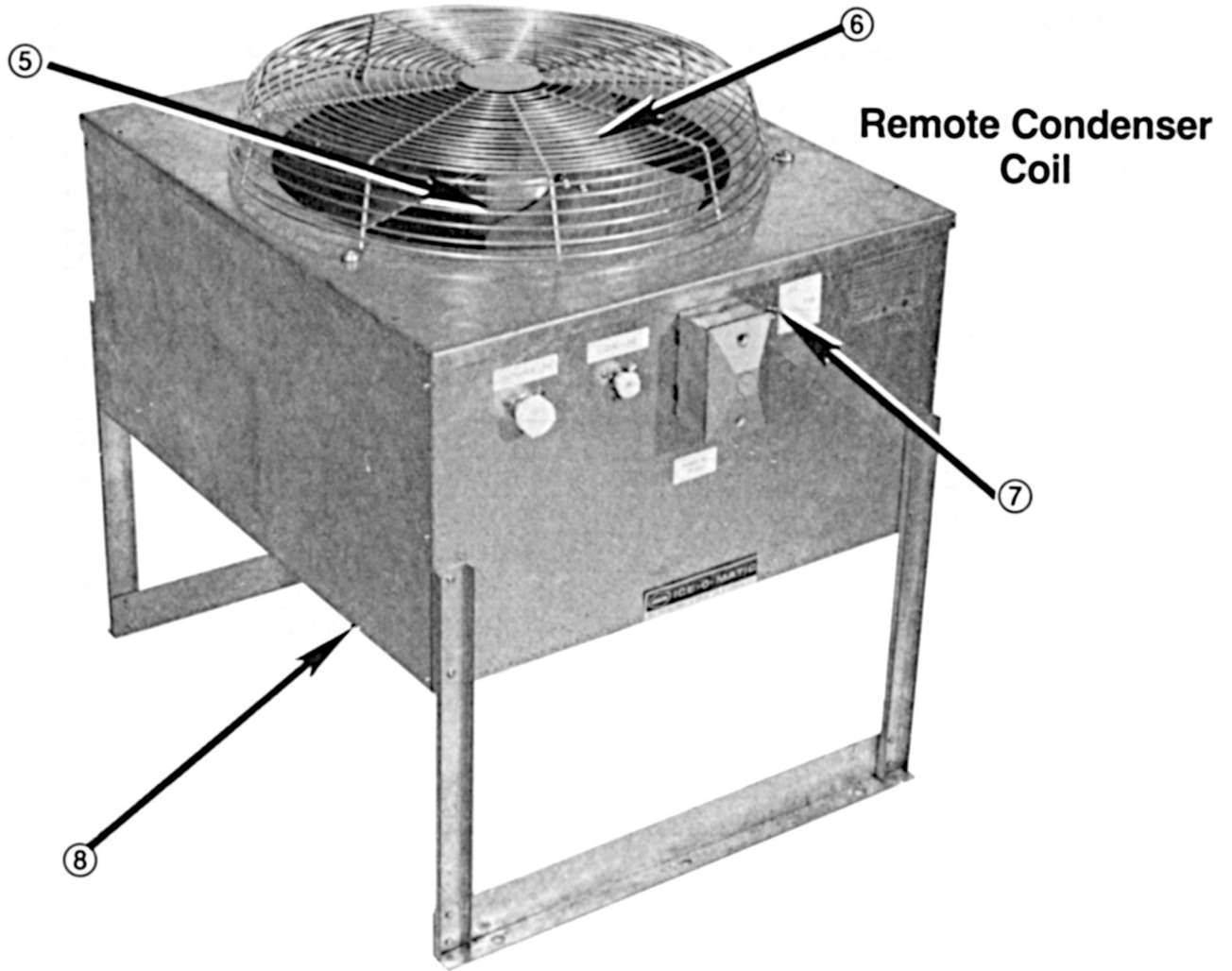
MF SERIES CONDENSING UNIT CONTROLS
MF750, MF756, MF1006 REMOTES ONLY



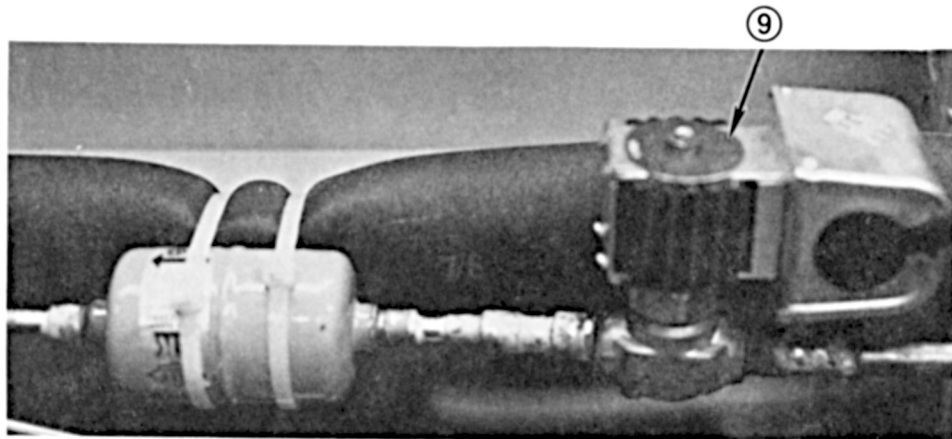
PARTS SECTION

CONDENSING UNIT COMPONENTS REMOTES ONLY





Liquid Line/Pump Down Solenoid



PARTS SECTION

INDEX #	DESCRIPTION	PART NO.	NOTES	MF750	MF756	MF1006
1	L.P. Pump Down Control	9041040-01		X	X	
1	L.P. Pump Down Control	9041040-02				X
2	Relay Socket	9101083-01		X	X	X
3	Relay	9101084-01		X	X	X
4	H.P. Control	9041001-01		X	X	
4	H.P. Control	9041001-02				X
5	Fan Blade	9131006-01	Set of 4	X	X	X
6	Fan Motor	9161001-01		X		
6	Fan Motor	9161001-02			X	X
7	On/Off Switch	9101001-01		X	X	X
8	Air Condenser	9141019-01		X	X	
8	Air Condenser	9141001-01	Single Pass			X
8	Air Condenser	9141025-01	Dual Pass			X
9	Solenoid	9151039-01	Valve Assembly	X	X	X
9A	Coil Only	9151039-90	Not Shown	X	X	X
10	Receiver	9151026-01		X	X	X
11	Mixing Valve	9151027-01		X	X	
11	Mixing Valve	9151027-02				X
12	Motor Capacitor	9101036-02		X		
12	Motor Capacitor	9101036-01			X	X

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