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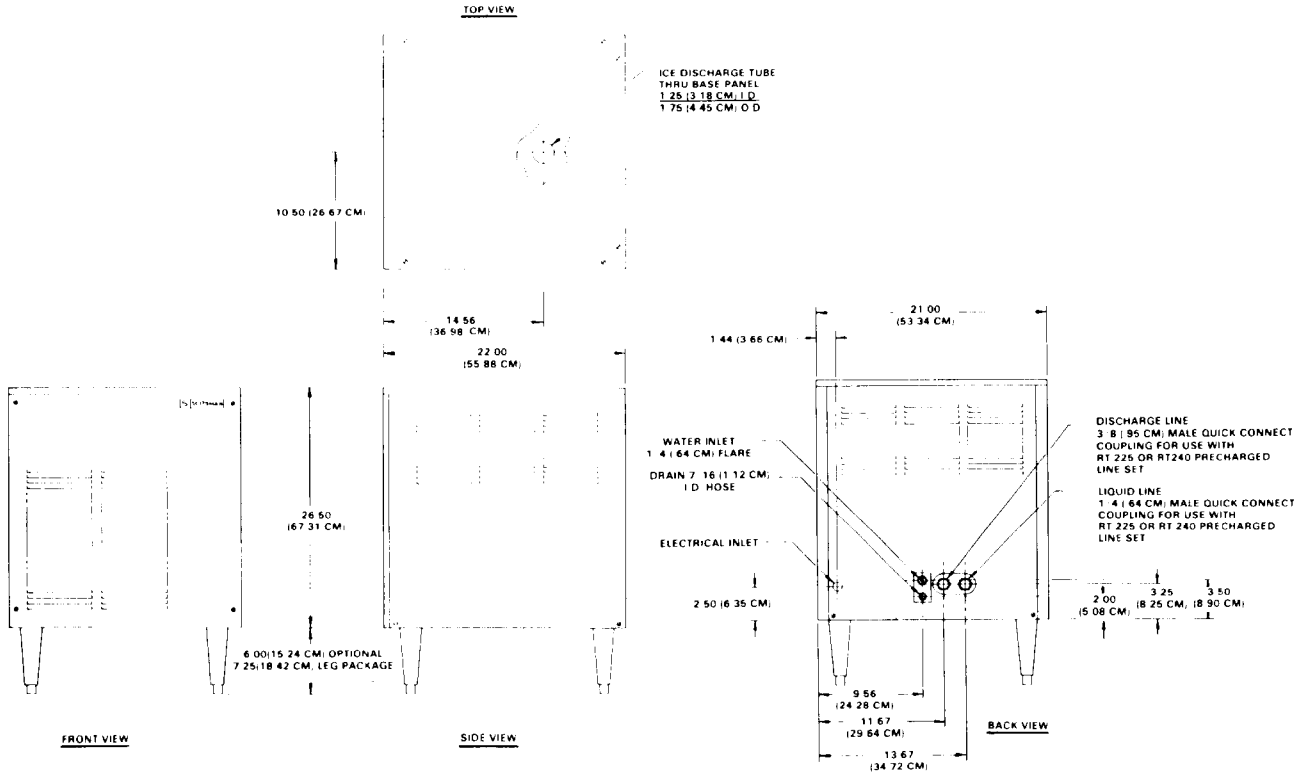
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This icemaker has been engineered to our own rigid safety and performance standards. The National Sanitation Foundation (NSF) seal, signifies that it is listed with the NSF and that it complies with the materials and construction standards of the NSF. In addition, the Underwriters Laboratories, Inc., (UL) Listing Mark and the Canadian Standards Association (CSA) Monogram, both signify that its construction and design have been inspected and tested by them. NSF, UL and CSA inspectors also periodically examine production icemakers at the factory, to assure continued compliance.

To retain the safety and performance built into this icemaker, it is important that installation and maintenance be conducted in the manner outlined in this manual.

SPECIFICATIONS MODEL MF900R



MODEL
MF900R - 2A
MF900R - 3A
MF900R - 7A

ELECTRICAL
230/60/1
208/230/60/3
208/60/1

Est. Ship Wt.
217 lbs.
217 lbs.
217 lbs.

MODEL NUMBER	MOTORS	VOLTS	HP/WATT	F.L.A.	L.R.A.
SERIAL NUMBER	COMP				
REFRIGERANT 12 OZ	HEATER	FAN			
	WATTS	OTHER			
TEST PRESSURE 140 LO - 235 HI					
A.C. SUPPLY VOLTAGE			WIRES	CYCLES	PHASE
MAXIMUM FUSE SIZE	AMPS	MINIMUM CIRCUIT CAPACITY			
GREEN PRODUCTS DIVISION 10000 13TH AVE S.W. SUPER CENTER • ALPHARETTA, MN 55007					

OPTIONAL LEG KIT

- KLP2E - 6-inch metal legs, Black Enamel
- KLP2S - 6-inch metal legs, Nickel Plated

EASY ACCESS SERVICE PANELS

OPTIONAL PANELS KIT

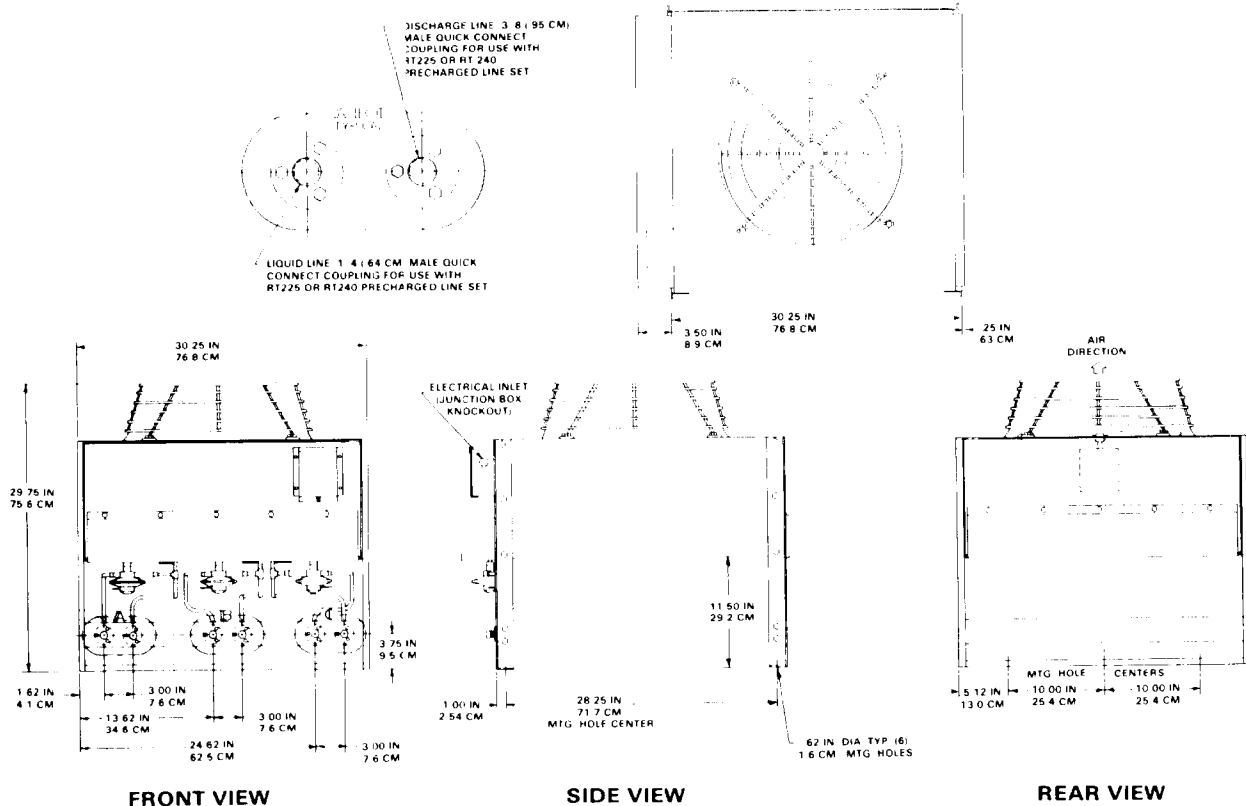
SPKMF-900 - Stainless Steel Panels for use with the MF900.

SEE NAMEPLATE for electrical and refrigeration specifications. Locate the NAMEPLATE on the lower, left part of the Rear Panel. Shown at left.

Remove Front Panel to locate the Model/Serial Number plate, shown at left on the front center of the chassis base.

SPECIFICATIONS (Con't)

MODEL RC151-32A AND RC302-32A



FRONT VIEW

SIDE VIEW

REAR VIEW

MODEL
 RC 151 - 32A
 RC 302 - 32A

ELECTRICAL
 208/230/60/1
 208/230/60/1

EST. SHIP WT.
 140 lbs.
 155 lbs.

SEE DATA PLATE for MODEL NUMBER, SERIAL NUMBER, ELECTRICAL and REFRIGERATION Specifications. Locate DATA PLATE on the upper front panel at the center of the shroud.

SCOTSMAN
AIR COOLED CONDENSER
 QUEENS PRODUCTS DIV.
 KING SEELEY THERMOS CO.
 ALBERT LEA, MINNESOTA 56007

MODEL NUMBER	RCXXX 32A
SERIAL NUMBER	XXXXXX XX
VOLTS	XXX XXX
CYCLE	XX
PHASE	X
NUMBER OF MOTORS	X
MOTOR HORSEPOWER	XX
NUMBER REFRIGERANT CIRCUITS	X
R-12 CIRCUIT	XX oz
TOTAL AMPS	XX amps
MINIMUM CIRCUIT AMPACITY	XX amps
MAXIMUM FUSE SIZE	XX amps
WORKING PRESSURE	XXX psig

SUITABLE FOR OUTDOOR USE

KIT NUMBER	PRE-CHARGED REFRIGERANT LINE KITS SIZE	EST. SHIP. WT.
RT225	25-Foot	7 lbs.
RT240	40-Foot	10 lbs.

We reserve the right to make product improvements at anytime. Specifications are subject to change without notice.

SECTION I

GENERAL INFORMATION & INSTALLATION

I. INTRODUCTION

This manual provides the specifications and the step-by-step procedures for the installation, start-up and operation, and the maintenance and cleaning for the SCOTSMAN Model MF900R Modular Flakers with remote condenser.

The Model MF-900R Modular Flakers are quality designed, engineered and constructed, and thoroughly tested ice-making systems, providing the utmost in flexibility to fit the needs of a particular user. Separate sections detail more specifically: General Information & Installation; Start Up Operation; Principles of Operation; Adjustment and Removal and Replacement Procedures; Maintenance and Cleaning Instructions; Service Diagnosis; Wiring Diagrams; and, the Illustrated Assemblies and Parts Lists.

DESCRIPTION

An attractive compact cabinet of leathergrain embossed steel, with charcoal brown baked enamel high glossy finish. Also, an optional stainless steel panel kit is available. These removable panels allow easy access to electrical and mechanical components for cleaning and maintenance.

SEALED REFRIGERATION SYSTEM

To provide quiet efficient operation of the Icemaker, the Compressor motor is internally spring-mounted. The Compressor motor is covered by a five year parts warranty. The Freezer Assembly is powered by a direct-drive, gear motor, Drivemotor Assembly.

REMOTE CONDENSER AND PRE-CHARGED REFRIGERANT LINES

The Model MF900R Modular Flaker can be installed with any one of two Remote Condensers and with either of two lengths of pre-charged refrigerant lines and sealed couplings.

Available are the single-pass Condenser and the two-pass Condenser. The single-pass Condenser can accommodate a single MF900R Flaker and one set of two pre-charged refrigerant lines. The two-pass Condenser can accommodate two separate MF900R Flakers at two different locations.

In any of the above installations or combination installations, the sets of two pre-charged refrigerant lines to be used, are the 25-foot line kits or the 40-foot line kits. These pre-charged refrigerant line kits are a one-time, initial charge type of hardware; that is, once the sealed

couplings are connected, the internal seal is severed and the lines cannot be disconnected without losing the refrigerant charge. However, they ARE REUSABLE in the refrigerant system, when they are removed and reconnected, and the complete refrigeration system is recharged with refrigerant.

STORAGE BINS

Since the MF900R Modular Flakers are continuous flow type icemaker and do not have their own attached ice storage bins, it is necessary to use an auxiliary bin, such as the bins listed below:

Use Bins: B40, B60, B80, B90, B120, B500, B750.

Accessories: BX83, BX85, BX87, BX15, BX25, BX113, BNX128, KBT1, KBT4, KBT5.

II. UNPACKING AND INSPECTION

1. Call your authorized SCOTSMAN Distributor or Dealer, for proper installation. He's listed under ICE MAKING EQUIPMENT and MACHINERY in the yellow pages of the telephone book.
2. Visually inspect the exterior of the shipping containers and skid and any severe damage noted, should be reported to the delivering carrier; and, a concealed damage claim filed subject to internal inspection, with carrier representative present.
3. BEFORE removal of any panels or packing, carefully lay the cabinet on its back and remove the shipping bolts and the shipping base or skid.
4. When ordered, install the optional leg levelers in the cabinet base sockets; then, raise the cabinet to the upright position.
5. Remove screws and shipping tape, and all doors and service panels from the cabinet, and inspect for any concealed damage. Notify carrier of any concealed damage claims, as stated in step 2 above.
6. Remove all internal support packing, tape and wires in machinery compartment.
7. Check that refrigerant lines do not rub or touch lines or other surfaces, and that fan blades, if any, move freely.
8. Check that the Compressor is snug on all mounting pads.
9. Remove optional Water Strainer from shipping envelope, for installation in water supply line.

10. Use clean damp cloth or disposable paper wiper to wipe clean the exterior surfaces of the cabinet.
11. See NAMEPLATE on the rear service panel, near the left rear corner of the cabinet and check that the location source voltage corresponds with the voltage specified on the nameplate.

CAUTION

Improper voltage supplied to the icemaker will void your parts replacement program.

12. Remove the Manufacturer's Registration Card from the front of the User's Manual and fill in all spaces including: Model Number and Serial Number taken from the aluminum plate located at the front center of the Chassis base, with Front Panel removed. Forward the completed, self addressed, registration card to the SCOTSMAN Factory.

III. LOCATION AND LEVELING—ICEMAKER

WARNING

This Modular Flaker is NOT designed for outdoor installations, or where air temperatures are below 50-degrees F., or above 100-degrees F., and the water temperature is below 40-degrees F. or above 100-degrees F. Extended periods of operation at temperatures exceeding these limitations will constitute misuse, under the terms of the SCOTSMAN Manufacturer's limited warranty coverage.

1. Position the Flaker in the selected permanent location.

NOTE

Prior consideration for location site shall include:

1. *Minimum room temperature 50-degrees F. and maximum room temperature 100-degrees F.*
2. *Water inlet temperatures: Minimum 40-degrees F. and Maximum 100-degrees F.*
3. **SERVICE ACCESS:** *Adequate space for all service connections, through the rear of the Cabinet. A six-inch minimum clearance at rear.*

2. Level the Cabinet in both the left-to-right and front-to-rear directions. The optional leveling legs can be adjusted with an open-end wrench.

IV. REMOTE CONDENSER AND PRE-CHARGED REFRIGERANT LINES — INSTALLATION

A. Location Considerations:

1. Limited to a 40-foot length or a 25-foot length of pre-charged refrigerant line from the rear of the icemaker to the Remote Condenser.
2. Maximum vertical rise of 12 feet between the icemaker and the Remote Condenser coupling connection levels.
3. Available separate electrical power source to the Remote Condenser, for the Fan Motor.
4. Best available location, protected from the extremes of dirt, dust, rain, sun and winds.
5. Must meet local building code installation requirements.

B. Unpacking and Inspection:

1. Visually inspect the exterior of the shipping container and any severe damage noted, should be reported to delivering carrier; and a concealed damage claim filed subject to internal inspection, with carrier representative present.
2. Uncrate the Remote Condenser and the Pre-Charged Refrigerant Line Kits and inspect for any concealed damage. Notify carrier of any concealed damage claims, as stated in Step 1, above.
3. Check that the pre-charged refrigerant lines are intact, not kinked, and that there is no sealed puncture or loss of refrigerant.

C. Remote Condenser — Roof Attachment:

1. Install and attach the Remote Condenser to the roof of the building, using the methods and practices of building standards that conforms to and meets the local building code requirements, in your area.
2. Install an electrical power line to the Fan Motor of the Remote Condenser. This electrical power line shall be separate from the icemaker electrical power line and have a separate junction box and switch. Install properly grounded conduit, wherever the electrical power line to the Fan Motor is exposed to outside weather.
3. Remove Junction Box Cover, from the Remote Condenser, and set Ambient Sensing Thermostat at 30-degrees F.

D. Pre-Charged Refrigerant Lines:

1. Each set of pre-charged refrigerant lines in the 25-foot length, or 40-foot length kits, consists of a 1/4-inch diameter, self-sealing LIQUID line and a 3/8-inch diameter, self-sealing DISCHARGE line. One coupling on each line is fitted with a charging port, which provides the service man with access for service gauges at the REMOTE condenser location, when necessary.

NOTE

The openings in the building ceiling or wall, listed in the next step, are minimum sizes recommended, through which the pre-charged refrigerant lines may pass; and, are to be considered, only if they conform to and meet the local building code requirements, in your area.

2. Minimum recommended sizes for openings required in a ceiling or wall, for the pre-charged refrigerant lines to pass, are as follows:
 - a. Single-pass Condenser: 1-3/4-inch diameter.
 - b. Two-pass Condenser: 2-inch diameter.
3. When possible, route the maximum length of the pre-charged refrigerant lines **INSIDE** the building, with the **MINIMUM** length on the roof, to prevent vandalism and to minimize the **CONDENSER EFFECT** that exposed lines can produce in cold weather. **INSULATE** lines that will be exposed to outside temperatures that will be below freezing, for extended periods of time.

CAUTION

1. Each coupling on the sets of pre-charged refrigerant lines, the refrigerant fittings on the Remote Condenser, and the rear of the icemaker Chassis are **SELF-SEALING** and should be tightened 1/4-turn more than snug tight.

ALWAYS USE TWO WRENCHES WHEN TIGHTENING THESE FITTINGS, ONE AS BACKUP WRENCH TO PREVENT TWISTING OF TUBING AND POSSIBLE KINKING OR LINE RUPTURE.

2. **BE SURE** to connect the ends of the pre-charged refrigerant lines, that have the charging port fittings, **TO THE REMOTE CONDENSER FITTINGS**. This gives the serviceman access for service gauges at the **REMOTE CONDENSER** location, when necessary.

4. Connect the 1/4-inch diameter refrigerant line coupling, with the **CHARGING PORT** fitting, to the Remote Condenser refrigerant fitting labeled: **LIQUID LINE**. See Figure 1-1. Use two proper size wrenches, on the coupling body hex and on the union nut, and tighten until the coupling bodies **BOTTOM**, or a definite **RESISTANCE** is felt; **THEN, TIGHTEN AN ADDITIONAL 1/4-TURN**.
5. Connect the 3/8-inch diameter refrigerant line coupling, with the **CHARGING PORT** fitting, to the Remote Condenser refrigerant fitting labeled: **DISCHARGE LINE**. Tighten as detailed in step 4.

6. Connect the 1/4-inch diameter refrigerant line coupling, to the refrigerant fitting on the lower rear of the icemaker Chassis labeled: **LIQUID LINE**. Tighten as detailed in step 4.

7. Connect the 3/8-inch diameter refrigerant line coupling, to the refrigerant fitting on the lower rear of the icemaker Chassis labeled: **DISCHARGE LINE**. Tighten as detailed in step 4.

E. Excess Length of Pre-Charged Refrigerant Lines: At installations where the icemaker Chassis-to-Remote Condenser refrigerant line path is substantially **LESS** than the 25-foot length or 40-foot length of pre-charged refrigerant line Kit to be installed, route and dress the excess refrigerant line as follows. See Figure 1-2.

1. Follow straight line routing, when possible.
2. Retain excess pre-charged refrigerant line **INSIDE** the building.
3. **SPIRAL** the excess footage of the pre-charged refrigerant line(s), in the best selected **INSIDE** location, and in a manner that **PREVENTS** refrigerant **TRAPPING**. See Figure 1-2 for recommended methods of spiralling the excess refrigerant lines.

CAUTION

DO NOT kink or crimp the refrigerant lines. DO NOT bend the excess refrigerant lines in a vertical Loop(s), which allow trapping of refrigerant in LOW sections, during OFF time. Bend and shape the excess refrigerant lines in VERTICAL spirals, not HORIZONTAL spirals. See Figure 1-2.

V. ELECTRICAL CONNECTIONS

SEE **NAMEPLATE** for current requirements to determine wire size to be used for electrical hookup. The Modular Flaker requires a solid earth ground wire. See wiring diagram.

Be certain the Modular Flaker is connected to its own electrical circuit and individually fused. The maximum allowable voltage variation should not exceed ten percent of the nameplate rating, even under starting conditions. Low voltages can cause erratic operation and may be responsible for serious damage to the overload switch and motor windings.

All external wiring should conform to the National, State and local electrical code requirements. Usually an electrical permit and services of a licensed electrician will be required. Install a separate power line, junction box and grounded conduit for areas the power line is exposed to the outside weather, for the Remote Condenser fan.

ONE OR TWO ICEMAKERS
USING ONE REMOTE CONDENSER

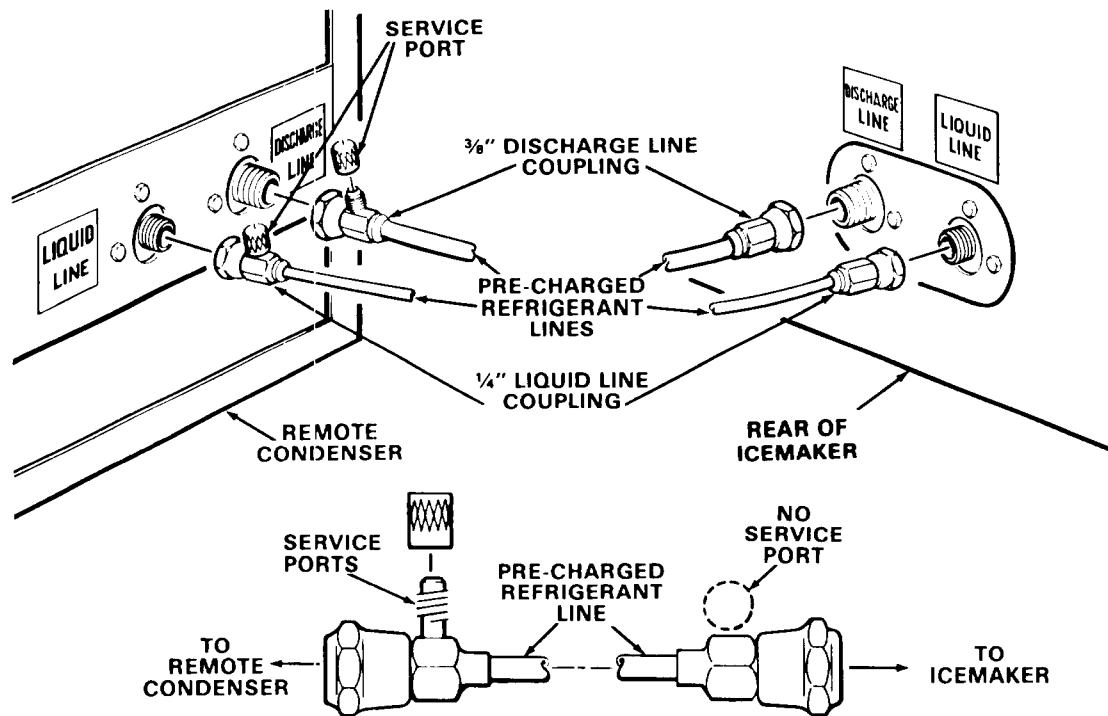
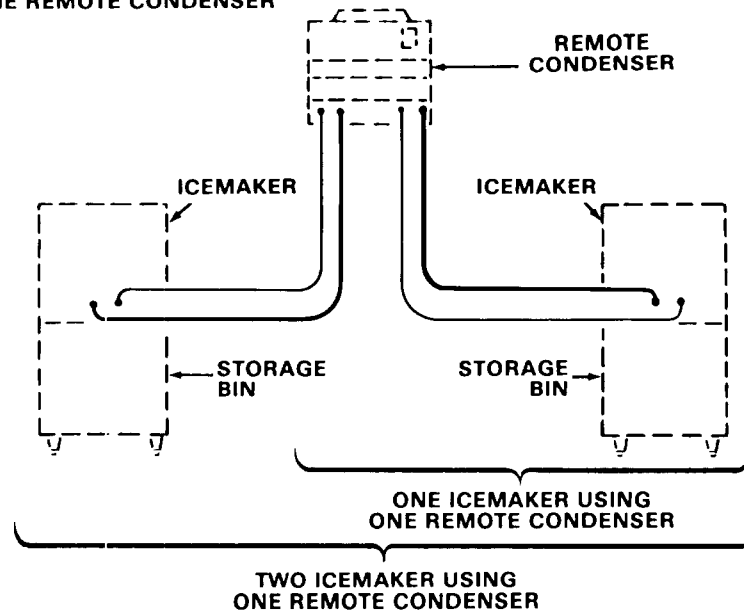
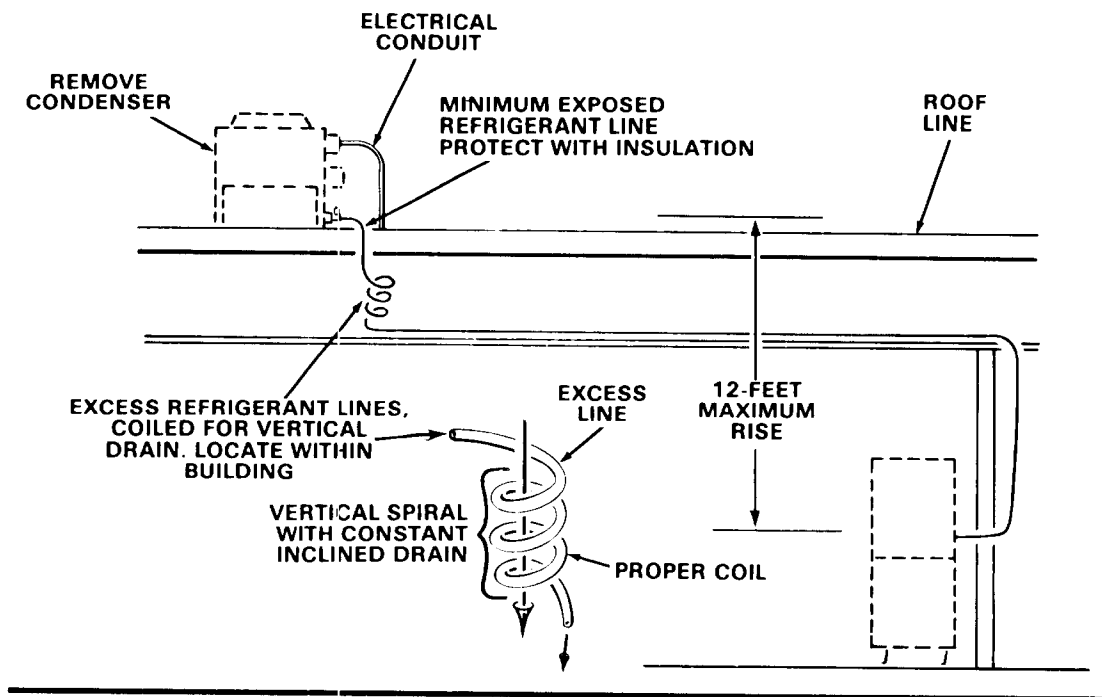
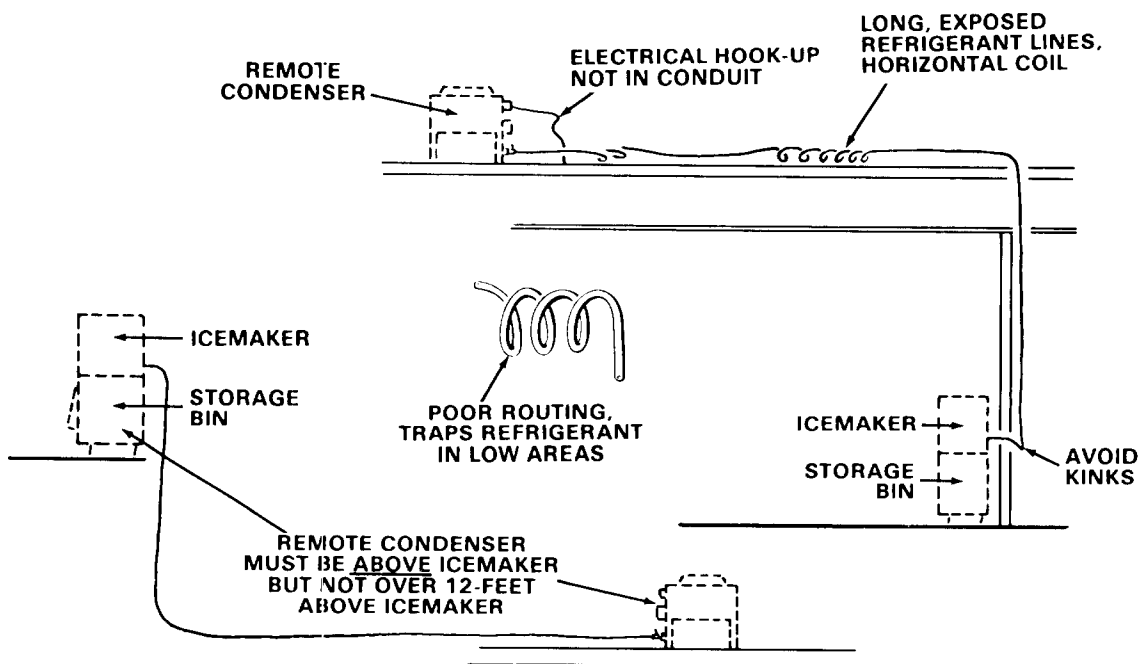


Figure 1-1. Pre-Charged Refrigerant Line Hook-Up.

CORRECT INSTALLATION



INCORRECT INSTALLATION



80 263

Figure 1-2. Pre-Charged Refrigerant Line Routing.

WARNING

BE SURE the icemaker is properly grounded and connected to the proper voltage at the location power source, to begin the 12-hour PRE-START heating of the Compressor Crankcase. This precautionary step heats the oil in the Compressor Crankcase and separates refrigerant from oil, which prevents probable damage to the Compressor, at START-UP.

VI. WATER SUPPLY AND DRAIN CONNECTIONS

A. The recommended water supply line is a 1/4-inch O.D. copper tubing. Connect to cold water supply line with standard plumbing fittings, with a shutoff valve installed in an accessible place between the water supply and the Cabinet.

A wire mesh strainer is available and must be installed with the cleanout plug down. Locate the strainer in the water supply line, next to the Cabinet with the arrow on the strainer, in the direction of the water flow. The strainer protects against large particles of rust, scale, etc., which may be loosened in the water supply pipe at the time of installation.

In some cases, a plumbing permit and services of a licensed plumber will be required.

WARNING

To prevent damage to the freezer mechanism, DO NOT operate this unit when the water supply is OFF, or is below 20 PSI, the recommended water pressure. Position the master switch to the OFF position, until proper water supply is resumed.

The Icemaker in this Cabinet will not operate when water supply temperatures are below 40-degrees F. or above 100-degrees F.

B. DRAIN CONNECTIONS: All drains are gravity type and must be 1/4-inch per foot on horizontal runs. The drains to be installed to conform with local code. The drain receptacle should be an open, trapped or vented construction.

Recommended Bin drain is 5/8-inch O.D. copper tubing, should be vented and run separately. Connect a drain line to 7/16-inch I.D. tube from the reservoir.

WARNING

This Modular Flaker will NOT operate when water supply temperature is below 40-degrees F., or above 100-degrees F. Requires 20 PSI flowing water pressure, without interruption.

VII. BIN THERMO BRACKET INSTALLATION

When shipped from the factory, each Modular Flaker has a Nylobraid ice transport tube which must be attached to the end of the Ice Spout, with a hose clamp. The free end of the tube has a Bin Thermo Bracket installed and secured to it with tape. The Bin Thermostat capillary tube is also installed and secured through slots and snug around tabs on the Bin Thermo Bracket, ready for final installation into an ice storage bin.

Most SCOTSMAN upright or vertical Bins have pre-punched holes. Punch out hole that aligns with the hole in the Flaker cabinet base and install the flaker on top of the bin. Next, insert the assembled Bin Thermo Bracket through the two-inch hole in the cabinet base into the Bin. Attach the flange of the Bin Thermo Bracket to the cabinet base, two places, with two No. 8 Sheet Metal Screws; then, slide the Sealing Pad, on the tube, down flush with the cabinet base around the tube.

Refer to Bin Thermo Bracket Installation Instructions, part number 17-1486-01, taped to the top of the icemaker.

VIII. FINAL CHECK LIST

1. Is the Cabinet/Bin level?
2. Is the Flaker in a room where ambient temperatures are a minimum of 50-degrees F. all year around?
3. Is there at least six inches clearance behind the Cabinet, for all connections?
4. All shipping tape removed from doors, panels, styrofoam blocks, etc?
5. Have all piping connections been made?
6. Has the electrical power supply wiring been properly connected, and the voltage tested and checked against the nameplate rating? Has proper Chassis-to-earth ground been installed?
7. Is the water supply shutoff valve installed and opened; and, has the inlet water supply pressure been checked to ensure a minimum of 20 PSIG?
8. Have the Compressor holddown bolts been checked, to be sure the Compressor is snug on the mounting pads?
9. Check all refrigerant lines and conduit lines to guard against vibration and possible failure.
10. Check that the Bin Thermostat Control bulb and Bracket have been properly installed.
11. Has the Flaker and Bin been wiped clean with clean damp cloths?

12. Has the Remote Condenser and associated set of pre-charged refrigerant lines been properly installed and connections made and checked?
13. Check to be sure the Ambient Sensing Thermostat, on the Remote Condenser, is set at 20-degrees F.
14. Has a separate electrical power line been routed to the Condenser Fan Motor and Chassis-to-earth ground installed and checked?
15. Has the electrical power to the icemaker been connected to start the 12-hour period of PRE-START Crankcase heating?
16. Has the owner been given the User Manual and instructed on how to operate the icemaker and the importance of periodic maintenance?
17. Has the owner been given the name and telephone number of the Authorized SCOTSMAN Distributor or Service Agency serving him?
18. Has the Manufacturer's Registration Card been properly filled out? Check for correct Model and Serial numbers from nameplate, then mail the completed card to the SCOTSMAN factory.

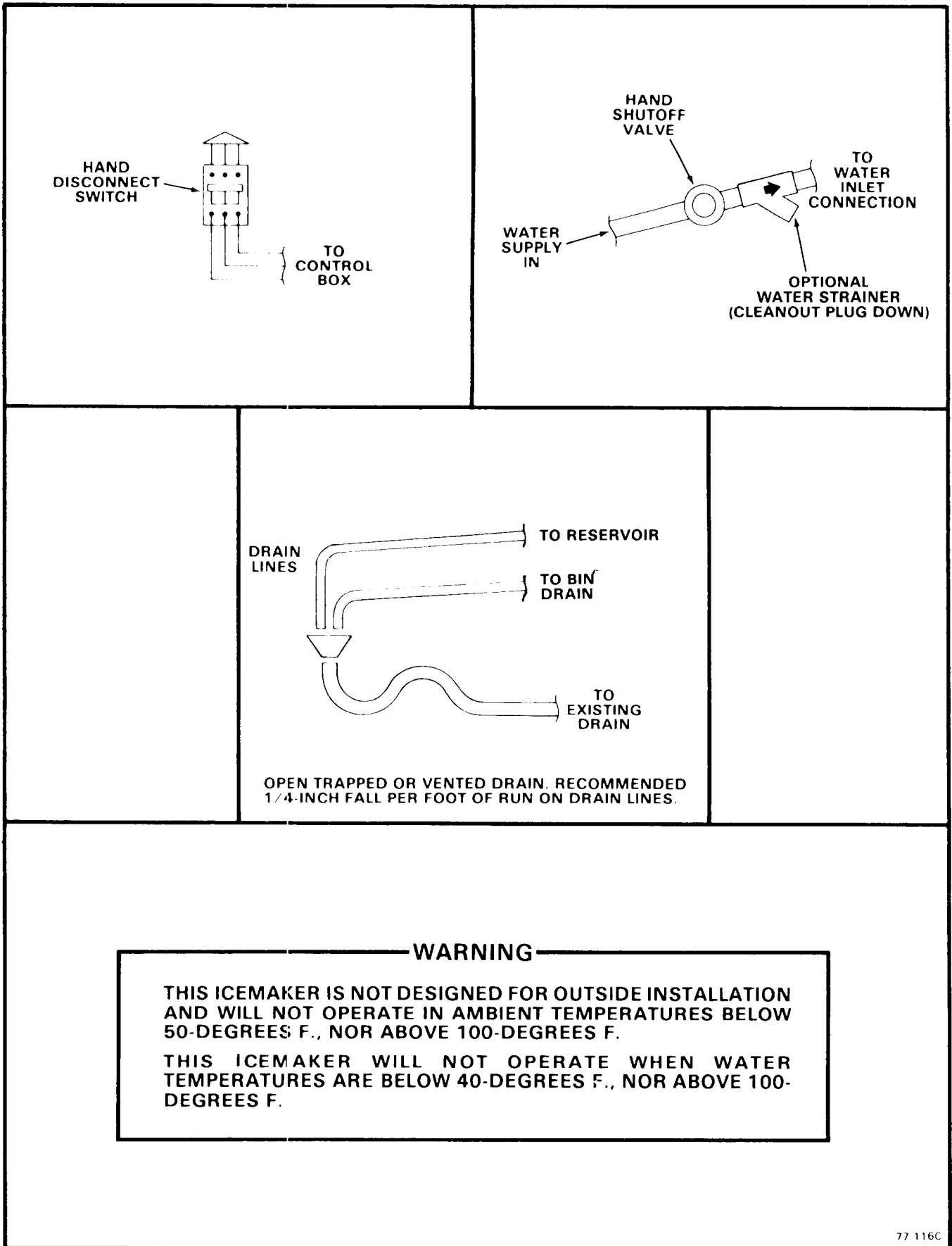


Figure 1-3. Installation Practice.

SECTION II OPERATING INSTRUCTIONS

WARNING

Check to **BE SURE** the 12-hour pre-heating of the Compressor Crankcase has been completed. Be sure the icemaker is properly grounded and connected to proper voltage at the location power source.

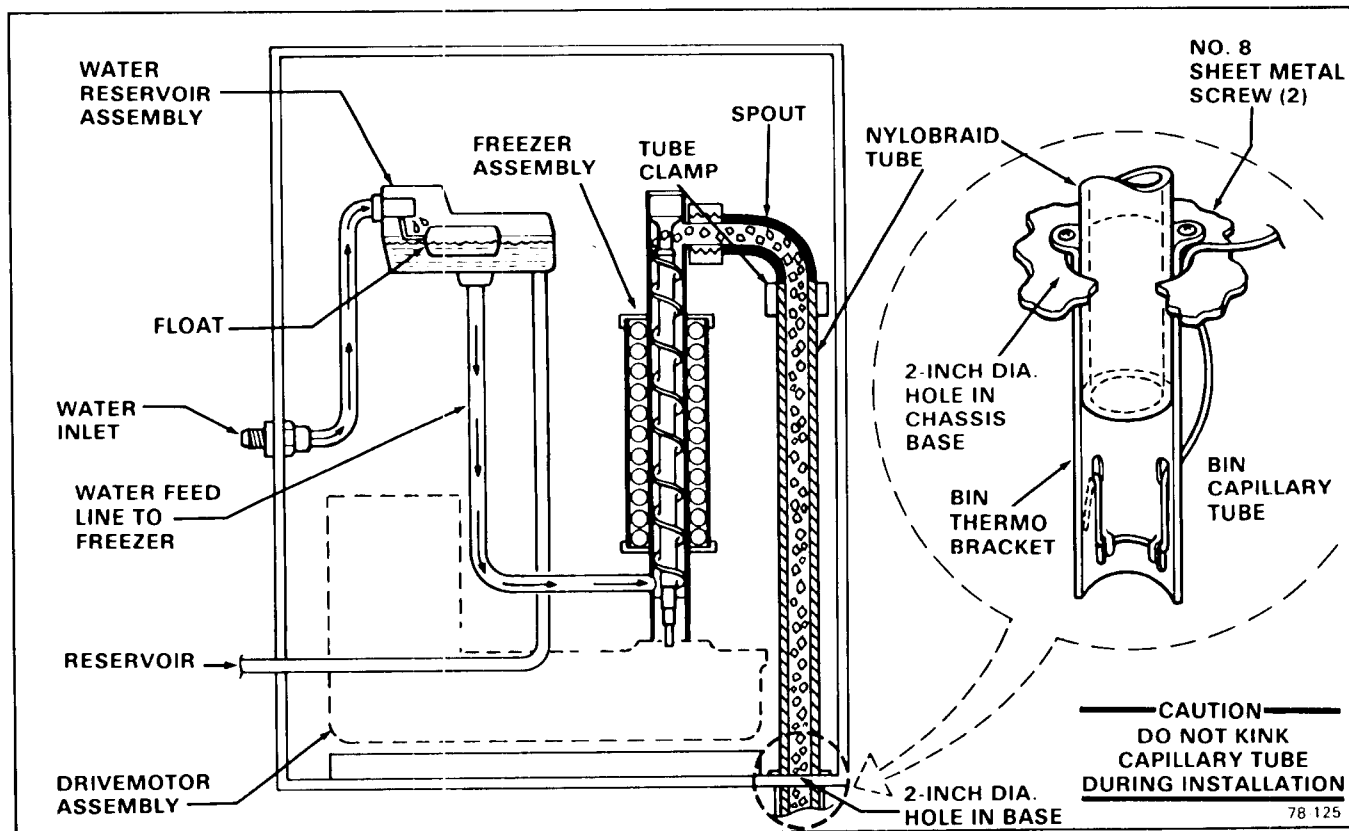
I. START UP

1. Move the junction box switch for the Remote Condenser Fan to the ON position.
2. Remove screws and the Front Panel of the icemaker.
3. OPEN the water supply line shutoff valve.
4. Observe the water filling operation, see Figure 2-1:
 - a. Water flows into Water Reservoir.
 - b. Float moves up as water rises.
 - c. Water flows through water feed line to bottom of Freezer Assembly.
 - d. Float stops water flow, when water level reaches 3/8-inches below the molded horizontal line, on the body of the Water Reservoir.

5. Move the manual ON-OFF toggle switch, on the front of the Control Box to the ON position, to start the automatic icemaker operation.
6. After two or three minutes of operation, observe that flaked ice begins dropping off the Auger and out the Ice Spout, through the Nylobraid tubing and into the Ice Storage Bin.
7. Let the system operate for about 30 minutes or until ice covers the bottom of the Bin. Check for any excess noises beyond normal Compressor noise:
 - a. Vibrating type, from touching lines.
 - b. Chattering: Lack of water in Freezer.
 - c. Compressor loose at one or more holddown bolts.

WARNING

DO NOT operate this Icemaker when the water supply is shut OFF, or is BELOW the recommended 20 PSI water pressure. Move the manual ON-OFF toggle switch on the front of the Control Box to the OFF position immediately.



CAUTION
DO NOT KINK
CAPILLARY TUBE
DURING INSTALLATION

78 125

Figure 2 - 1. Water Schematic.

8. Hold a handful of ice around the Ice Storage Bin Thermostatic Control Bulb to test shut-off. Less than one minute is about normal for Bulb shutoff function to cause the Compressor to stop.

NOTE

Within minutes after the ice is removed from the sensing bulb, the bulb will warm up and cause the Ice maker to restart. This control is factory set and should not be reset until testing is performed. Normal

setting: about 35-degrees F. CUT-OUT and 45-degrees F. CUT-IN, to prevent short cycling.

9. Thoroughly explain to the owner/user the significant specifications of the Ice maker, the start up and operation, going through the procedures in the operating instructions. Answer all questions about the Ice maker, by the owner; and, inform the owner of the name and telephone number of the authorized SCOTSMAN Service Agency serving him.

SECTION III

PRINCIPLES OF OPERATION

How It Works

I. ICEMAKER.

The water supply flows from the building source through the inline water strainer, enters at the Cabinet fitting and on to the Water Reservoir. The Water Reservoir functions to maintain a constant water level inside the Freezer Assembly. Water from the Water Reservoir enters at the bottom of the Freezer Assembly and is changed into ice by low temperatures inside the Freezer.

A stainless steel Auger within the Freezer is powered by the Drivemotor Assembly, a direct-drive gearmotor, and the rotating Auger carries the ice upward to the flared end of the Auger, see Figure 3-1, where excess water is pressed out of the ice, as it is extruded or flaked out through the Ice Spout, through the Nylobraid tubing and into the Storage Bin.

Moving the manual ON-OFF toggle switch, on the front of the Control Box, to the ON position starts the automatic and continuous icemaking process. When the Ice Storage Bin has been filled with ice, up to the level of the Thermostatic Control Bulb, the sensing bulb shuts off the icemaking process.

As the ice is removed from the Ice Storage Bin, the Thermostatic Control Bulb warms up, restarting the automatic icemaking process.

Factory settings are 35-degrees F. CUT-OUT and 45-degrees CUT-IN.

Altitude correction begins at 2000 feet, CUT-IN and CUT-OUT screws should be adjusted equally, not more than one-fourth turn at a time.

II. ELECTRICAL/REFRIGERATION

Always CHECK NAMEPLATE for electrical information BEFORE proceeding with electrical wiring connections to the Ice maker.

Cold ambient temperatures and interruptions in water supply are conditions that can cause excessively hard ice and overloads within the

Freezer Assembly, which is directly transmitted to the Drivemotor; and in turn, will cause speed reduction or ultimate freezeup.

When the Drivemotor is slowed to a pre-determined RPM, a sensing switch mounted on top of the motor is designed to open the electrical circuit to the Compressor. The Compressor stops operating, no more ice is produced, and the Drivemotor continues to operate rotating the Auger to clear the overload and gradually build up to full speed.

At a pre-determined higher RPM Drivemotor speed, the speed sensing switch closes the electrical circuit to the Compressor, causing the normal icemaking process to resume. Refer to specific details in paragraph V-II-9, on centrifugal sensing switch operation.

A Spout Switch is mounted on the side of the Ice Spout and is actuated by the movement of the spring retained spout tube against the switch actuator. The Spout Switch acts as a backup safety switch, should the Thermostatic Control Bulb fail and cause ice to jam up in the Ice Spout. The switch will shut off the icemaker only when actuated. It is an immediate and complete shut down of the entire icemaker. The Spout Switch can be manually tested, by plugging the end of the Nylobraid Tube. The switch is also manually reset.

There are two safety controls in the Control Box. The Low Pressure Control, a manual reset, non-adjustable control is used and, is set to electrically open at zero to four PSIG to stop the entire icemaker. The Auger Delay Switch, a single-pole double-throw (SPDT) switch, functions as a control device to allow the gearmotor to rotate the Auger to clear the Freezing Chamber while the compressor circuit is OFF.

Refer to the appropriate Wiring Diagram and trace circuitry and control functions, as described in the following paragraph.

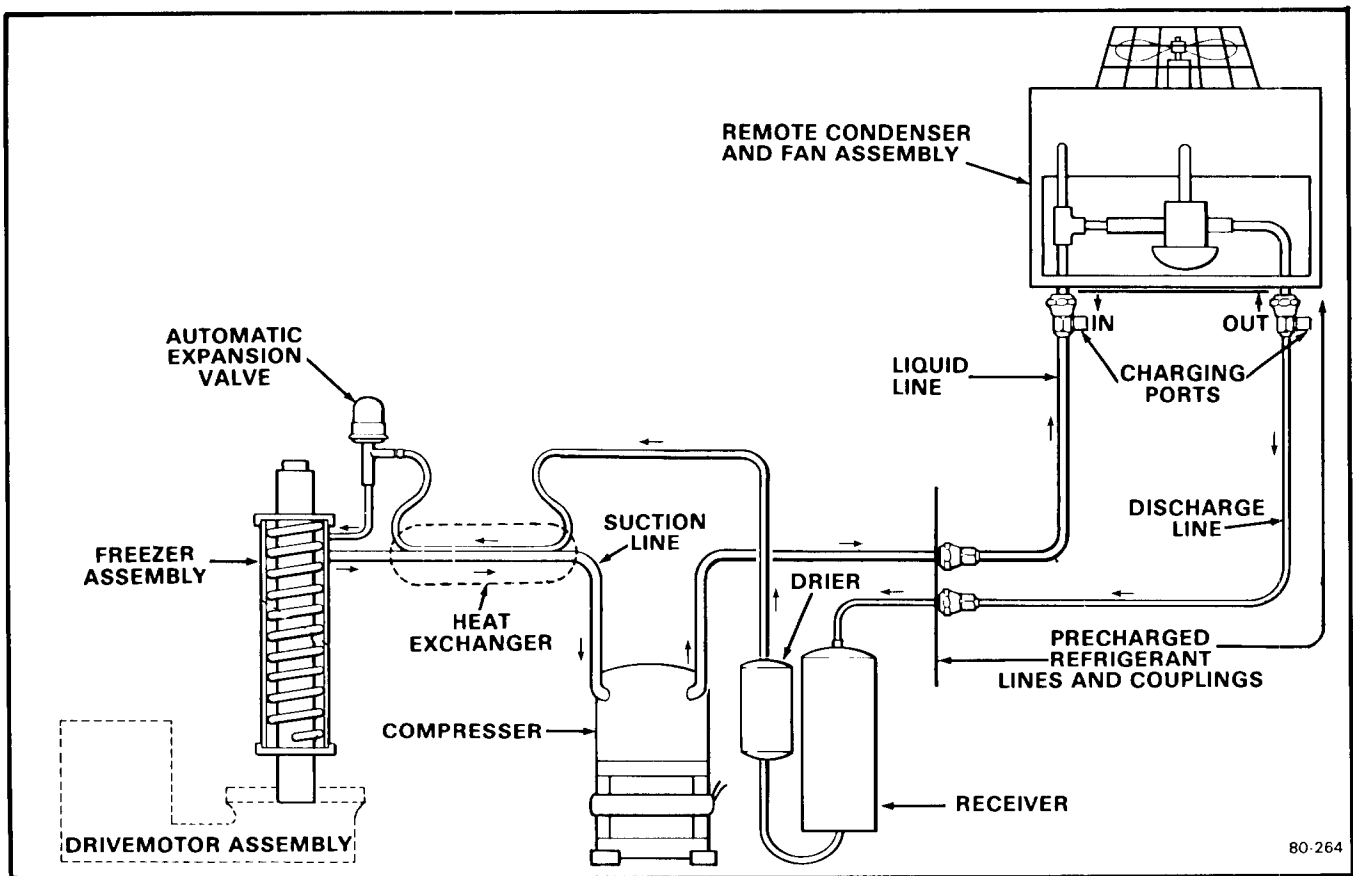


Figure 3-1. Refrigeration Cycle Schematic

As shown on all SCOTSMAN wiring diagrams, the controls are in the ICEMAKING MODE. Thus, the 1-2 contacts are CLOSED. At STARTUP, the 1-2 contacts are OPEN and the 3-2 contacts are CLOSED. As the icemaker begins to operate, the low side pressure starts to decrease from the stabilized or at-rest pressure. As soon as the pressure is reduced to 20 PSIG, the 3-2 contacts OPEN and the 1-2 contacts CLOSE.

This removes the operating controls, such as the Bin Thermostat, from the gearmotor circuit. If one of the operating controls OPENS, it will SHUT OFF the compressor circuit. The gearmotor will operate until the low side pressure increases to 32 PSIG. Then, the 1-2 contacts OPEN and SHUTS OFF the gearmotor, usually within one to two minutes, depending upon ambient conditions. This brief period of time allows the Auger to transport all the ice out of the freezing chamber. Consequently, when called on to STARTUP again, there is no ice load to start up against. Again, on STARTUP, the 1-2 contacts are OPEN and the 3-2 contacts are CLOSED.

A low-water pressure switch functions to discontinue the Icemaking process whenever incoming water pressure is reduced to below five PSIG. The Switch will automatically restart the Icemaking process when the water pressure is increased to 20 PSIG.

Suction pressure should be 15 PSIG with proper refrigerant charge and the frost line should extend out from the accumulator about eight inches. Suction pressure will vary about two PSIG plus or minus, depending upon ambient temperatures and incoming water supply temperatures to the Freezer Assembly.

PRECHARGED LINE SET	CONDENSER PACKAGE	TOTAL R-12 REFRIGERANT CHARGE
RT240	RC151	160 oz.
RT225	RC151	160 oz.
RT240	RC302	160 oz.
RT225	RC302	160 oz.

III. COMPRESSOR CRANKCASE HEATER AND AUTOMATIC EXPANSION VALVE

A. COMPRESSOR CRANKCASE HEATER
The Compressor Crankcase Heater is an electrical wire band heater located around the lower outside shell of the compressor, below the level of the crankcase oil in the compressor. The heat generated by the Crankcase Heater, heats oil in the crankcase, which keeps the refrigerant separated from the oil; and, during the OFF cycle, prevents the refrigerant from migrating back into the compressor from other areas of the refrigeration system; which can cause severe damage to the compressor, at STARTUP.

B. AUTOMATIC EXPANSION VALVE

Basically, the Automatic Expansion Valve serves to meter refrigerant to the freezer at the rate equivalent to the Compressor pumping capacity. The valve opens and stays open at a point where refrigerant flow and pumping capacity meet. This accounts for low side pressure and freezer temperatures remaining fairly constant during the operating phase of the refrigeration cycle.

WARNING

BE SURE the Compressor Crankcase Heater is ON, 12-HOURS BEFORE STARTUP, to properly heat crankcase oil, and separate the refrigerant from the oil and PREVENT POSSIBLE DAMAGE to the Compressor, at startup.

SECTION IV

ADJUSTMENT AND REMOVAL AND REPLACEMENT PROCEDURES

The procedures provided in this Section are arranged in alphabetical order, to make specific Adjustment and Removal and Replacement information easy to locate.

Read the instructions thoroughly before performing any Adjustment or Removal and Replacement Procedures.

I. ADJUSTMENT OF THE BIN THERMOSTAT CONTROL

The control for the Bin Thermostat is the Temperature Control, located in the upper part of the Control Box Assembly.

WARNING

The adjusting screws on the Temperature Control device have very sensitive response to adjustment. DO NOT attempt to adjust the screw until after thoroughly reading and understanding the following instructions and illustrations. Over-adjusting or erratic guessing, can foul the instrument and cause ultimate delay and part replacement, WHICH COULD HAVE BEEN PREVENTED.

See Figure 4-1 for location and direction of rotation, clockwise (CW) or counterclockwise (CCW), of the adjusting screws on the Temperature Control, in the particular Control Box the adjustment is to be performed.

II. ADJUSTMENT OF THE LEG LEVELERS

When the MF900R Flaker or Bin is ordered with the optional Leg Levelers, the Cabinet must be leveled in the front-to-rear and side-to-

side directions. This adjustment should be performed during initial installation of the Cabinet and anytime the Cabinet is moved from the original location to another site.

- A. Using an open-end wrench, and a carpenter's bubble level, rotate the threaded Leveler in each Leg to RAISE or LOWER the Cabinet until the Cabinet is level in the front-to-rear direction.
- B. Repeat step A, for leveling in the side-to-side direction.
- C. Recheck both the front-to-rear and the side-to-side leveling and repeat adjustments, as necessary.

III. ADJUSTMENT OF THE WATER RESERVOIR FLOAT

The correct water level in the Water Reservoir should be 3/8-inch below the raised molded line, on the side of the body of the Water Reservoir. When the water line level is above or below the raised molded line, adjustment can be performed to raise or lower the water level by raising or lowering the Water Reservoir in the slots on the Mounting Brackets, which in turn will adjust the action of the float.

- A. To RAISE the Water Level: Loosen the two Screws which attach the Water Reservoir Assembly to the Mounting Bracket and RAISE the Water Reservoir Assembly, in the slots, the desired amount; then, tighten the Screws.
- B. To LOWER the Water Level: Loosen the two Screws which attach the Water Reservoir Assembly to the Mounting Bracket and LOWER the Water Reservoir Assembly, in the slots, the desired amount; then, tighten the Screws.

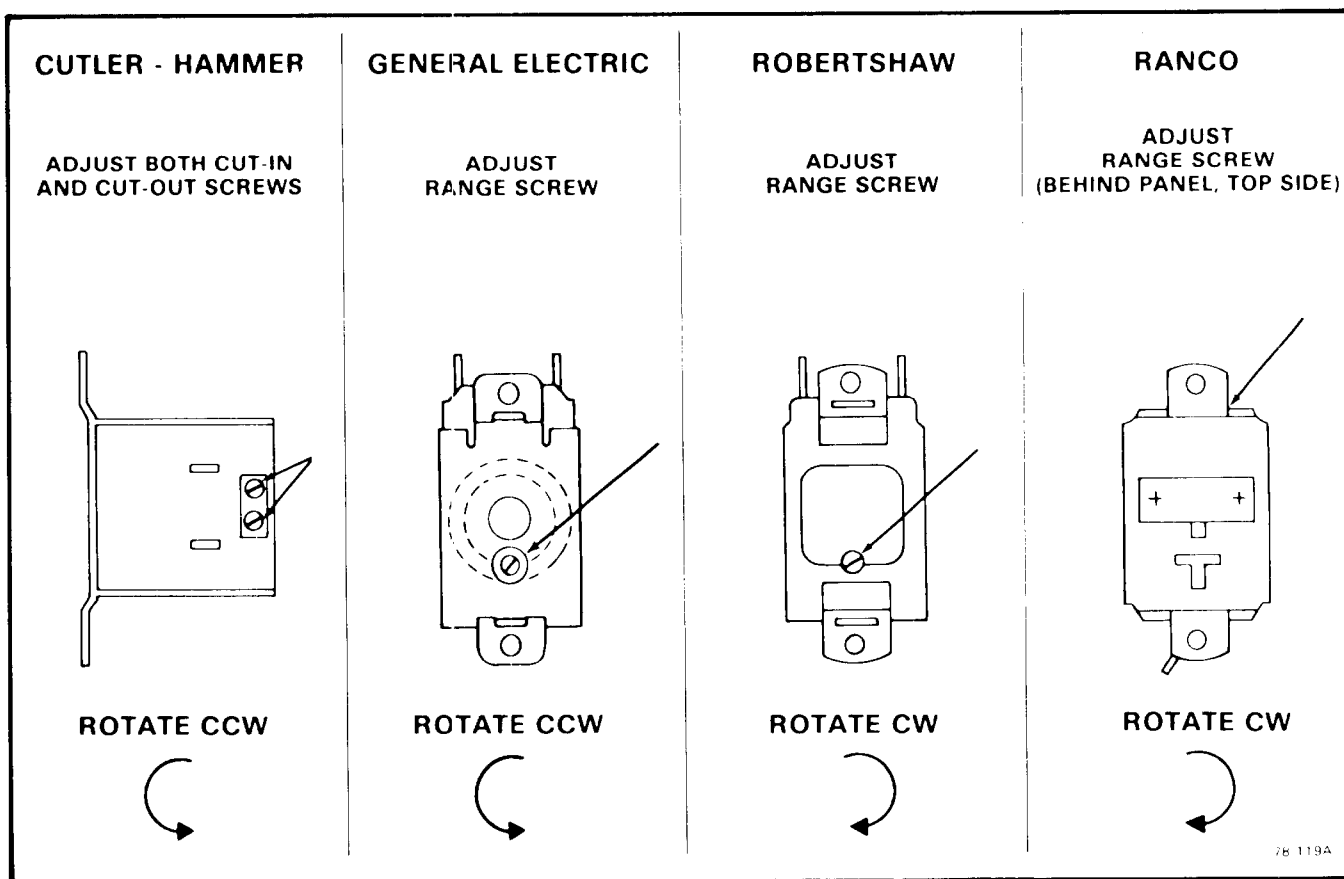


Figure 4-1. Adjustment of the Temperature Control.

WARNING

Be sure the electrical power supply and the water supply are OFF, before starting any of the following REMOVAL AND REPLACEMENT procedures, as a precaution to prevent possible personal injury or damage to equipment.

NOTE

When the Auger cannot be pulled out, proceed to steps 12 and 13, to gain access to the bottom of the Auger. Then, with a rawhide mallet or placing a piece of wood on the bottom end of the Auger, tap the bottom of the Auger to break it loose and pull the Auger out, as in the step 4 above.

IV. REMOVAL AND REPLACEMENT OF THE AUGER, WATER SEAL, BEARINGS AND COUPLING

A. To remove the Auger, Water Seal, Bearings, and Coupling:

1. Remove screws and the Front Panel and the Left Side Panel.
2. Remove the Freezer Cap from the top of the Freezer Assembly.
3. Perform the steps in procedure IV-XI to remove the Spout Assembly.
4. Grasp the wire Cap Hook at the top of the Freezer Assembly and pull out the Auger and attached Cap, Bearing/Retainer, Bearing and O-Rings, at the top of the Auger; and, the top half of the Water Seal at the bottom of the Auger.

5. Remove the Cap Hook from the Bearing/Retainer.
6. Remove the Retaining Ring and the Cap.
7. Remove the Cap Screw and Washer and remove the Bearing/Retainer from the Auger.
8. Clean away the old grease from the top of the Auger, the Bearing/Retainer, Cap, Cap Screw and Washer, and the O-Ring and Retaining Ring.
9. Inspect the O-Ring at the top of the Bearing/Retainer and the O-Ring at the bottom outside of the Bearing/Retainer, for cuts, tears and general worn condition to determine replacement.
10. Inspect the Bearing pressed into the top of the Bearing/Retainer and, if it is to be replaced, remove the Retaining Ring and press the Bearing out of the Bearing/Retainer.

11. Slide the upper half of the Water Seal off of the bottom of the Auger.

NOTE

1. *Any time the Auger is removed for replacement, or for the inspection and replacement of the Bearings or Coupling, use extra care in handling the Water Seal parts, so no dirt or foreign matter are deposited on the surfaces of the Seal.*
 2. *If there is any doubt about the effectiveness of the Water Seal or O-Ring, REPLACE THEM. A dirty, worn or faulty Water Seal or O-Ring will cause a leak and ultimately require a second, time consuming removal and replacement procedure to be performed, that COULD HAVE BEEN PREVENTED.*
12. Remove four screws and lockwashers which attach the Freezer Assembly to the Adaptor on the Drivemotor Assembly.
 13. Raise the Freezer Assembly off of the Adaptor, to gain access to the Bearing and Retainer; then, temporarily secure the Freezer Assembly out of the way to allow room to work. Be careful not to damage the gasket.
 14. Using a suitable length and size wooden dowel or stick inserted through the top of the open Freezer Assembly, tap the lower half of the Water Seal and the lower Bearing in the Retainer, out the bottom of the Freezer Assembly.
 15. Inspect the lower half of the Water Seal. If reusable, use care to protect it from dirt, etc. prior to replacement procedure.
 16. Inspect the lower Bearing in the Retainer; and, if the Bearing is to be replaced, press the Bearing out of the Retainer.
 17. Reach through the Adaptor and remove the Coupling on the Drivemotor for inspection.
 18. Check the Coupling for cracks, chipping and excessive wear.
- B. To replace the Auger, Water Seal, Bearings, and Coupling, reverse the removal procedure.

NOTE

1. *When installing the Retainer assembled with Bearing, in the bottom of the Freezer Assembly, some Retainers will insert as a slip fit, and some will have to be forced into place because of very tight fit. Carefully tap a piece of wood positioned across the bottom of the Retainer, to evenly seat the Retainer in the chamber of the Freezer.*
2. *After assembling the parts on the upper end of the Auger and BEFORE installing the Cap and Cap Hook, apply an ample coating of Shell Alvania 3 Grease, P/N 19-0309-01, to the upper part of the Bearing/Retainer to cover the Retaining Ring and the Cap Screw and Washer. Then, install the Cap and Cap Hook in place.*

V. REMOVAL AND REPLACEMENT OF THE AUTOMATIC EXPANSION VALVE

CAUTION

Always install a replacement Drier, anytime the sealed refrigeration system is opened. Do not replace the Drier until all other repair or replacement have been completed. **BE SURE the Compressor Crankcase Heater is ON, 12-HOURS BEFORE START UP.**

- A. To remove the Automatic Expansion Valve:
1. Remove screws and the Front Panel.
 2. Bleed off or blow the refrigerant charge through the Schrader Valve.
 3. Unwrap insulation around the Automatic Expansion Valve.

CAUTION

Wrap the Automatic Expansion Valve with **WET CLOTHS**, to protect the sensitive parts during soldering and installation. **DO NOT** direct flame toward the valve.

4. With the Automatic Expansion Valve covered with WET CLOTHS, unsolder the 1/4-inch O.D. line from the side of the valve.
 5. Unsolder the 3/8-inch O.D. line from the bottom of the valve and remove the Valve.
- B. To replace the Automatic Expansion Valve, reverse the removal procedures and follow special precautions given for steps in installing and soldering Valve tubing.

VI. REMOVAL AND REPLACEMENT OF THE BIN THERMOSTAT CONTROL

- A. To remove the Bin Thermostat Control:

1. Remove screws and the Front Panel to gain access to the Bin Thermostat Control.
2. Trace capillary tube, from the Bin Thermostat Control, down to the Cube Deflector.
3. Carefully remove the capillary tube from the bulb holder holes on the side of the Cube Deflector.
4. Carefully withdraw the capillary tube from the Bin, up through the Chassis Base.
5. Remove electrical leads from the Bin Thermostat Control.
6. Remove screws and the Bin Thermostat Control.

- B. To replace the Bin Thermostat Control, reverse the removal procedures.

VII. REMOVAL AND REPLACEMENT OF THE COMPRESSOR ASSEMBLY

CAUTION

Always install a replacement Drier, anytime the sealed refrigeration system is opened. Do not replace the Drier until all other repair or replacement has been completed. BE SURE the Compressor Crankcase Heater is ON, 12-HOURS BEFORE STARTUP.

A. To remove the Compressor Assembly:

1. Remove screws and the Top, Front and Left Side Panels.
2. Bleed off or blow the refrigerant charge through the Schrader valve.
3. Remove the cover from the terminal box on the Compressor; then, remove screws and electrical leads from the Compressor.
4. Disconnect the Compressor Crankcase Heater electrical leads from the Control Box.
5. Unsolder the refrigerant suction line and the discharge line from the Compressor.
6. Remove four bolts and washers which secure the Compressor to the Chassis mounting base.
7. Slide and remove the Compressor from the left side of the Cabinet.
8. Unsolder the process header from the Compressor and retain for installation on the replacement Compressor.

NOTE

Prior to next step, note the exact location of the Compressor Crankcase Heater on the Compressor, so installation will be the same on the replacement Compressor.

9. Loosen and remove the Compressor Crankcase Heater from Compressor. Retain for replacement Compressor.

B. To replace the Compressor Assembly, reverse the removal procedure.

VIII. REMOVAL AND REPLACEMENT OF THE DRIER

NOTE

Always install a replacement Drier, any time the sealed refrigeration system is opened. Do not replace the Drier until all other repair or replacement has been completed.

A. To remove the Drier:

1. Remove screws and the Front Panel and the Left Side Panel.
2. Remove screw and Drier Brace attaching the Drier to the Chassis base.
3. Bleed off or blow the refrigerant charge through the Schrader valve.
4. Unsolder refrigeration lines at each end of Drier, remove the Drier and separate the Drier from the Drier Brace.

B. To replace the Drier:

CAUTION

1. If the factory seal is broken on the replacement Drier, exposing it to the atmosphere more than a few minutes, the Drier will absorb moisture from the atmosphere and lose substantial ability for moisture removal.
2. Be sure the replacement Drier is installed with the arrow positioned in the direction of the refrigerant flow.

1. Remove the factory seals from the replacement Drier and install the Drier in the refrigerant lines with the arrow positioned in the direction of the refrigerant flow.
2. Install the Drier Brace on the Drier.
3. Solder the Drier into the lines, two places.
4. Purge the system and check for leaks.
5. Thoroughly evacuate the system to remove moisture and non-condensables.
6. Charge the system with refrigerant, by weight. SEE NAMEPLATE.
7. Replace the Front Panel and the Left Side Panel and attach both with screws removed earlier.

IX. REMOVAL AND REPLACEMENT OF THE DRIVEMOTOR ASSEMBLY

A. To remove the Drivemotor Assembly:

1. Perform all steps in procedure IV-X to gain access for removal of the Drivemotor Assembly.
2. Remove bolts, lockwashers and washers which attach the Drivemotor to the Chassis base.
3. Lift the Drivemotor from the Chassis base and out of the Cabinet.

B. To replace the Drivemotor Assembly, reverse the removal procedure.

X. REMOVAL AND REPLACEMENT OF THE FREEZER ASSEMBLY

NOTE

1. The Cabinet may have to be removed from its permanent location, especially if located in a corner, in order to have access to the left side and rear of the Chassis.
2. In addition to shutting OFF electrical power and inlet water to the icemaker, be sure to disconnect the inlet water line at the rear of the Cabinet BEFORE moving the icemaker from the permanent location.
3. Always install a replacement Drier, anytime the sealed refrigeration system is opened. Do not replace the Drier until all other repair or replacement has been completed.

A. To remove the Freezer Assembly, see Figure 4-2:

1. Remove screws and left side, front and rear panels.
2. Refer to procedures IV-XI and remove the Spout Assembly.
3. Remove Corbin clamp and Tygon tube from the Freezer Assembly that connects to the Water Reservoir Assembly.
4. Bleed off or blow the refrigerant charge through the Schrader valve.
5. Unsolder the suction line from the Compressor.

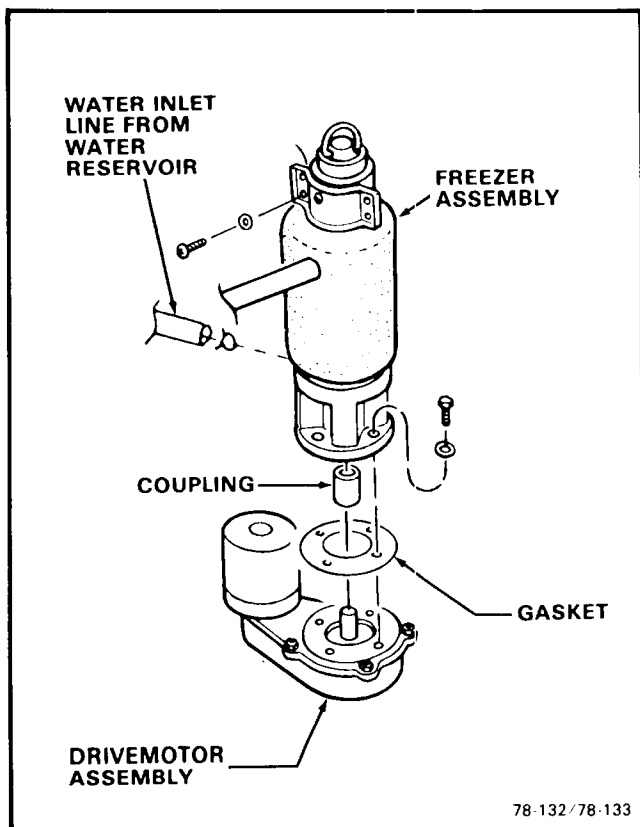


Figure 4-2. Removal of the Freezer Assembly.

CAUTION

Wrap the Automatic Expansion Valve with WET CLOTHS, to protect the sensitive parts during soldering and installations. DO NOT direct flame towards the valve.

6. Unsolder the Automatic Expansion Valve from the Freezer Assembly.
7. Remove four screws, lockwashers and washers which attach the bottom of the Freezer Assembly to the Adaptor on the Drivemotor Assembly.
8. Lift the Freezer Assembly up and off of the Adaptor and Drivemotor Assembly.

NOTE

Thoroughly evacuate the system to remove moisture and non-condensables.

B. To replace the Freezer Assembly, reverse the removal procedure.

XI. REMOVAL AND REPLACEMENT OF THE SPOUT ASSEMBLY

A. To remove the Spout Assembly, see Figure 4-3:

1. Remove screws and the Front Panel and Left Side Panel.
2. Remove the Hose Clamp and disconnect the Nylobraid tube from the end of the spout.
3. Remove the Freezer Cap from the top of the Freezer Assembly.
4. Disconnect the electrical leads from the Spout Switch.
5. Remove four screws and washers and separate the Spout Assembly from the Spout Plate on the Freezer Assembly.

NOTE

At this time, inspect the spout Gasket and retain for the replacement procedure. Replace a torn, cut or worn, defective gasket.

B. To replace the Spout Assembly, reverse the removal procedure.

XII. REMOVAL AND REPLACEMENT OF THE WATER PRESSURE CONTROL

A. To remove the Water Pressure Control:

1. Remove screws and the Front Panel and the Left Side Panel.
2. Remove screws and the Control Box Cover.
3. Disconnect the two blue electrical leads of the Water Pressure Control, from the terminals on the Auger Delay Control and the Bin Thermostat device in the Control Box Assembly.

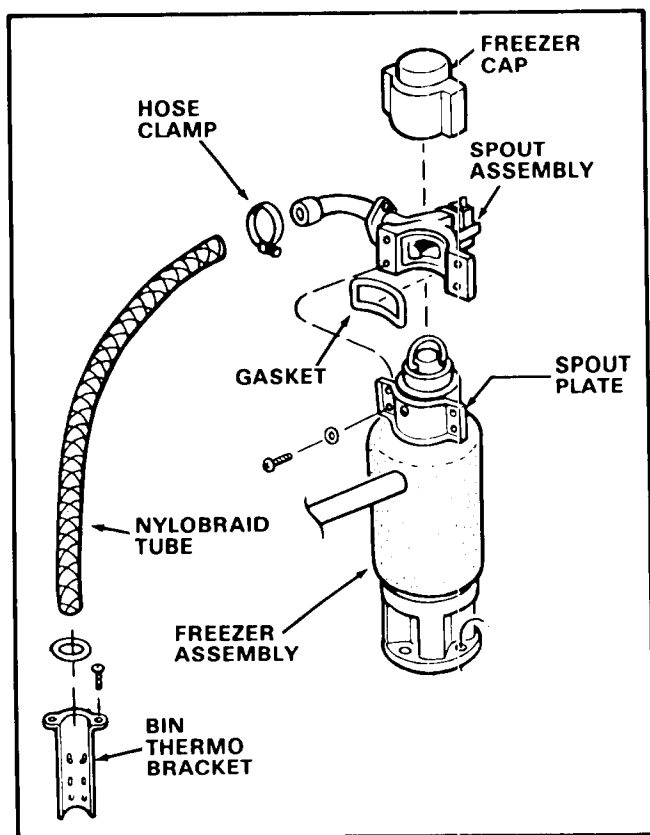


Figure 4-3. Removal of the Spout Assembly.

4. Unscrew the flare nut fitting and disconnect the Water Pressure Control from the Utility Bracket and the Tee on the inlet water tubing.

NOTE

At this time, inspect the O-Ring and retain for the replacement procedure. Replace O-Ring that is cut, torn or indicates excessive wear.

- B. To replace the Water Pressure Control, reverse the removal procedure.

XIII. REMOVAL AND REPLACEMENT OF THE WATER RESERVOIR ASSEMBLY

- A. To Remove the Water Reservoir Assembly, see Figure 4-4:

1. Remove screws and the Front Panel and the Left Side Panel.

NOTE

Be prepared with container or rags, to catch water left in lines, when lines are disconnected in next steps, to prevent draining water on parts, components, electrical lines, etc.

2. Disconnect the water inlet tube from the Water Reservoir Assembly.
3. Remove two Corbin clamps and two tubes from the bottom of the Water Reservoir Assembly.

4. Unscrew and remove the wing nut from the bottom of the Water Reservoir Assembly.
 5. Lift and remove the Water Reservoir Assembly from the mounting bracket.
- B. To replace the Water Reservoir Assembly, reverse the removal procedure.

NOTE

Check that the installed replacement Water Reservoir Assembly float moves freely. The correct water level in the Water Reservoir is 3/8-inch below the raised molded line, on the side of the body of the Water Reservoir.

XIV. REMOVAL AND REPLACEMENT OF REMOTE CONDENSER FAN MOTOR ASSEMBLY, THERMOSTAT CONTROL, HEAD PRESSURE CONTROL VALVE.

CAUTION

Always install a replacement Drier, anytime the sealed refrigeration system is opened. Do not replace the Drier until all other repair or replacement has been completed. **BE SURE the Compressor Crankcase Heater is ON, 12-HOURS BEFORE STARTUP.**

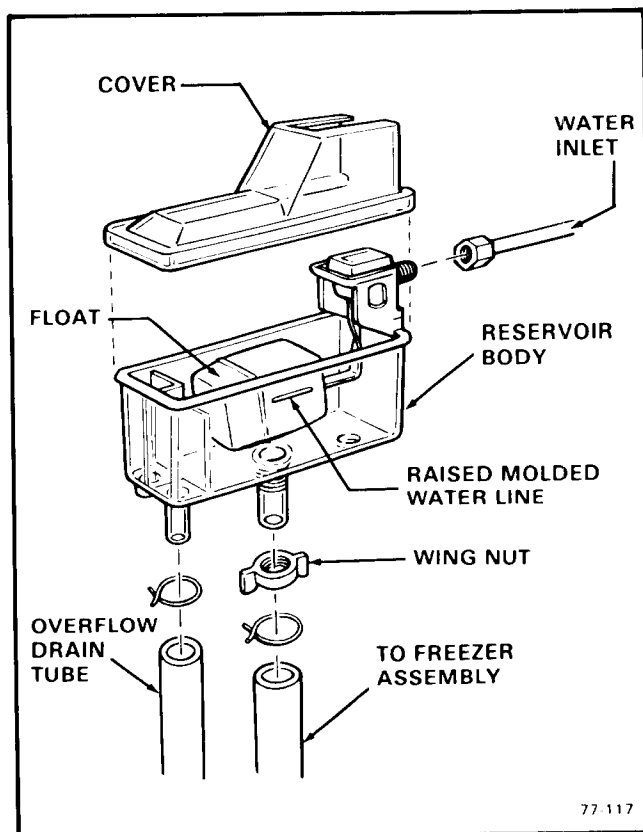


Figure 4-4. Removal of the Water Reservoir Assembly.

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A. To remove:

WARNING

Be sure the electrical power supply to the Remote Condenser Fan Motor is OFF and the electrical power supply to the icemaker is OFF.

1. Loosen screws securing the wire guard around the Fan Blade on top of the Remote Condenser; then, rotate the wire guard hooks away from the screws and remove the wire guard.

CAUTION

BEFORE removing the Fan Blade in the next step, observe and mark the exact location of the height of the Fan Blade, on the shaft of the Fan Motor. This is a critical point, to be sure the replacement Fan Blade is installed in the same position, for proper balance and maximum efficiency of air flow. USE CARE in handling the Fan Blade to prevent bending blades or otherwise disturbing the sensitive balance.

2. Loosen two setscrews, note and mark location of Fan Blade on shaft of Fan Motor and remove the Fan Blade.
3. Remove Cover to Junction Box and disconnect the electrical wire leads from the Fan Motor in the Junction Box. Pull wire leads out rear of Box.
4. Remove four nuts, lockwashers, flatwashers and mounting bolts and the Fan Motor from the mounting bracket inside the Condenser shroud.

NOTE

BEFORE removing the Thermostat Control, capillary line and bulb, in the next step, observe routing and exact positioning of the bulb for identical positioning during replacement procedures.

5. Remove the screw, clamp and the Thermostat Control capillary bulb from the underside of the Remote Condenser. Remove plastic tie from tubing.
6. Carefully work the rubber grommet out of the hole in the Junction Box.
7. Disconnect the electrical wire leads from the Thermostat Control in the Junction Box.
8. Remove screws and the Thermostat Control from the Junction Box, carefully pulling the capillary line and bulb up through the hole in the Junction Box. Remove and retain rubber grommet from capillary line.
9. Bleed off or blow the refrigerant charge in the particular set of pre-charged refrigerant lines connected to the specific Head Pressure Control Valve to be replaced on the Remote Condenser.

CAUTION

Wrap the Head Pressure Control Valve with WET CLOTHS, to protect the sensitive parts during unsoldering; and also during later soldering for installation. DO NOT direct flame toward the Valve body. Use extra care to DIRECT FLAME AWAY from the Valve body.

10. With the Head Pressure Control Valve protected with WET CLOTHS, unsolder tubing connected to the Valve, three places, and remove the valve.

B. To replace these parts, reverse the removal procedures and follow special precautions given for installing and soldering tubing connections to Valve.

SECTION V

MAINTENANCE & CLEANING INSTRUCTIONS

I. GENERAL

The periods and procedures for maintenance and cleaning are given as guides and are not to be construed as absolute or invariable. Cleaning especially will vary, depending upon local water conditions and the ice volume produced and, each Ice maker must be maintained individually, in accordance with its own particular location requirements.

II. ICEMAKER

THE FOLLOWING MAINTENANCE SHOULD BE SCHEDULED AT LEAST TWO TIMES PER YEAR ON THIS ICE-MAKER. CALL YOUR AUTHORIZED SCOTSMAN SERVICE AGENCY.

1. Check and clean optional water line Strainers.
2. Remove cover from Water Reservoir and depress the float to ensure that a full stream of water enters the Reservoir.
3. Check that the Ice maker cabinet is level, in side-to-side and front-to-rear directions.
4. Check that the water level in the Water Reservoir is below the overflow, but high enough that it does not run out of the spout opening.

NOTE

It is not abnormal for some water to emerge from the Ice Spout with flaked ice during normal ice production.

5. Clean the Water Reservoir and interior of the Freezer Assembly, using a solution of SCOTSMAN Ice Machine Cleaner. Refer to procedure V-IV, CLEANING-Ice maker.

NOTE

Cleaning requirements vary according to local water conditions and individual user operation. Visual inspection of the Auger before and after cleaning will indicate frequency and procedure to be followed in local areas.

6. When doubtful about refrigerant charge, install refrigerant gauges on Schrader valves and perform step 7.
7. Check gauge for Suction line pressure:
Varies between 12 to 16 PSIG, depending upon inlet water temperature and ambient air temperature.
8. Check Drivemotor operation:
Normal operating temperatures are about 160-degrees F., which is hot to touch.

9. Check operation of the centrifugal sensing switch:

MF900R: 1/4 HP Motor.

Switch will OPEN between 850-950 RPM and the Compressor STOPS, with the Drivemotor operating. Switch will CLOSE between 1100-1250 RPM and the Compressor will RESTART, with Drivemotor building back up to normal operating speed.

10. Remove rubber insulating cap, the Retaining Ring and the Hook and Cap from the top of the Freezer Assembly.
11. Inspect the Top Bearing. If moisture is around Bearing, wipe clean of all grease and apply a coating of Shell Alvania 3 Grease, Scotsman P/N 19-0309-01, 1-lb. Can. Replace parts removed in step 10.
12. Check for water leaks. Tighten drain line connections. Pour water down Bin drain to be sure that drain line is open and clear.
13. Check the quality of ice. Ice flakes should be wet when formed, but will cure rapidly to normal hardness in the Bin.
14. Check the Bin Thermostatic Ice Control Bulb.

NOTE

The Bin Thermostat is factory set at 10-degrees F. differential and should keep the entire Ice maker system shut off at least 10 minutes in high ambient temperatures, longer in low ambient temperatures during normal operation. Settings are 35-degrees F. CUT-OUT and 45-degrees F. CUT IN.

15. Check the Spout Switch.

NOTE

The Spout Switch is manually reset and functions as a safety switch, to automatically stop the icemaking process if the Bin Thermostat Bulb were to fail and cause ice to jam up in the Ice Tube.

III. REMOTE CONDENSER

Frequent cleaning and inspection of the Remote Condenser should be performed to maintain maximum efficiency of ice maker. A dirty Condenser or blocked air flow will greatly decrease icemaking efficiency.

1. With electrical power OFF, on both the ice maker and the Fan Motor of the Remote Condenser, clean the Condenser, using a vacuum cleaner, whisk broom or brush. DO NOT USE A WIRE BRUSH. Instruct customer to clean frequently.

2. Check that Fan Blades move freely, are not touching any surfaces, are not bent or out of balance; and, the wire guard is properly installed and securely attached.
3. Check that the roof area immediately surrounding Remote Condenser is free and clear of any debris that may collect, such as leaves, paper, trash, etc.

IV. CLEANING - Ice maker

1. Remove screws and the Front Panel.
2. Move the manual ON-OFF toggle switch, on the front of the Control Box, to the OFF position.
3. Remove all ice from the Ice Storage Bin.
4. CLOSE the water supply shutoff valve; or block the float in the Water Reservoir.
5. Disconnect the tube between the Water Reservoir and the bottom of the Freezer Assembly and drain water from the Reservoir and tube. Reconnect the tube.

— WARNING —

SCOTSMAN Ice Machine Cleaner contains Phosphoric and Hydroxyacetic acids. These compounds are corrosive and may cause burns if swallowed, DO NOT induce vomiting. Give large amounts of water or milk. Call Physician immediately. In case of external contact flush with water. KEEP OUT OF THE REACH OF CHILDREN.

6. Prepare cleaning solution: Mix eight ounces of SCOTSMAN Ice Machine Cleaner with two quarts of hot water.
7. Remove the Cover to the Water Reservoir.
8. Slowly pour the cleaning solution into the Water Reservoir.
9. Move the manual ON-OFF toggle switch, on the front of the Control Box, to the ON position.

10. Continue to slowly pour the cleaning solution into the Water Reservoir, maintain level just below the Reservoir overflow.
11. Continue icemaking, using the cleaning solution, until all the solution is used up and the Water Reservoir is almost empty. DO NOT allow the icemaker to operate with empty Reservoir.
12. Move the manual ON-OFF toggle switch, on the front of the Control Box to the OFF position.
13. Wash and rinse the Water Reservoir.
14. OPEN the water supply shutoff valve; or remove the block from the float in the Water Reservoir.
15. Move the manual ON-OFF toggle switch, on the front of the Control Box, to the ON position.
16. Continue icemaking for at least 15 minutes, to flush out any cleaning solution. Check ice for acid taste - continue icemaking until ice tastes sweet.
17. Move the manual ON-OFF toggle switch, on the front of the Control Box, to the OFF position.

— CAUTION —

DO NOT use ice produced from the cleaning solution. Be sure none remains in the bin.

18. Remove all ice from the Ice Storage Bin.
19. Add hot water to the Ice Storage Bin and thoroughly wash and rinse all surfaces within the Bin.
20. Clean and sanitize the Ice Storage Bin each week.

SECTION VI SERVICE DIAGNOSIS

The Service Diagnosis Section is for use in aiding the serviceman in diagnosing a particular problem for pin-pointing the area in which the problem lies, thus an ever available reference for proper corrective action.

The following charts lists corrective actions for the causes of known symptoms of certain problems that can occur in the Icemaking - Refrigeration System.

I. ICEMAKING - REFRIGERATION SYSTEM

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Water Leaks.	Defective water seal. Gravity feed line leaking. Water level in reservoir too high. Storage bin drain and connecting fittings.	Replace Seal. Check hose clamps. Adjust water level to 3/8-inch below reservoir overflow, then raise reservoir until water flows out freezer spout, then lower reservoir 3/8-inch. Check and repair.
Excessive noise or chattering.	Mineral or scale deposit on auger and inner freezing chamber walls. Intermittent water supply. Water level in reservoir too low. Gear Reducer loose on frame. Motor compressor not solid on rubber mounts. Gearmotor end-play or worn bearing.	For severe deposit, remove and manually polish auger, sand inner chamber walls of freezer barrel. For lighter concentration, use Scotsman Ice Machine Cleaner periodically. Check and clean water strainer. Check gravity feed line for air lock. Remove air lock. See CORRECTION for Water Leaks above. Tighten Gear Reducer. Repair or replace rubber mounts. Repair or replace bearing.
Making wet ice. (Ice melts too quickly, is not cold enough to properly cure in the Bin.)	Surrounding air temperature too high. Under or over-charge of refrigerant.	Correct or move cabinet. Recharge with proper amount. Should frost out of accumulator at least 8-inches. See nameplate for correct charge. See CORRECTION for Water Leaks above.

ICEMAKING - REFRIGERATION SYSTEM (Cont'd)

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Making wet ice (cont'd)	<p>Back pressure too high.</p> <p>Faulty compressor or valve plate.</p>	<p>Overcharge of refrigerant. Faulty compressor or high head pressure. Lower pressure as indicated.</p> <p>Repair or replace compressor or valve plate.</p>
Low ice production.	<p>Loss of refrigerant. Under or over-charge of refrigerant.</p> <p>Drivemotor weak.</p> <p>Dirty or plugged condenser.</p> <p>Low water level in water reservoir.</p> <p>Partial restriction in capillary tube or drier.</p> <p>Defective automatic expansion valve.</p> <p>Optional inlet water strainer partially plugged.</p> <p>Corroded or stained auger due to water condition.</p>	<p>Check and recharge. See NAMEPLATE for correct charge.</p> <p>Replace Drivemotor.</p> <p>Clean condenser.</p> <p>See CORRECTION for Water leaks above.</p> <p>Moisture in system. Overcharge of oil in system. Remove charge by blowing back through cap tube. Replace drier and recharge.</p> <p>Replace valve.</p> <p>Remove screen and clean.</p> <p>Remove auger and clean, or use SCOTSMAN Ice Machine Cleaner. See Maintenance Section.</p>
Gearmotor noise.	Low on oil.	Remove case cover to check for proper oil level. Top of gears should be covered. Use: Sun Oil Company Prestige 50-EP.
Icemaker will not operate.	<p>Blown fuse in line.</p> <p>Bin thermostat set too high.</p> <p>Loose electrical connection.</p> <p>Switch in OFF position.</p> <p>Inoperative master switch.</p> <p>Off on manual-reset pressure control.</p>	<p>Replace fuse and check for cause of blown fuse.</p> <p>Adjust thermostat. Set at 35-degrees cut-out, 45-degrees cut-in.</p> <p>Check wiring.</p> <p>Set switch to ON position.</p> <p>Replace switch or thermal overload.</p> <p>Reset.</p>
Icemaker continues to operate with full storage bin.	Bin thermostat not properly set or is defective.	Re-set or replace bin thermostat Re-set to 35-degrees cut-out, 45-degrees cut-in.

ICEMAKING - REFRIGERATION SYSTEM (Cont'd)

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Compressor cycles intermittently.	<p>Low voltage.</p> <p>Dirty condenser.</p> <p>Air circulation blocked.</p> <p>Inoperative condenser fan motor.</p> <p>Non-condensable gases in system.</p> <p>Bin thermostat differential too small causing short cycling.</p> <p>Cycling on ice spout microswitch.</p>	<p>Check for overloading.</p> <p>Clean condenser.</p> <p>Remove cause or move unit.</p> <p>Replace motor.</p> <p>Check for gas leaks, evacuate and recharge.</p> <p>Widen differential 35-degrees cut-out, 45-degrees cut in.</p> <p>Set or replace Bin thermostat.</p>
Icemaker operates but makes no ice.	<p>Loss or undercharge of refrigerant.</p> <p>Water not entering freezing chamber.</p> <p>Moisture in system.</p> <p>Water seal leaking.</p> <p>Water turned off while unit was operating.</p> <p>Drivemotor or drive coupling stripped.</p>	<p>Check for leaks and recharge. See NAMEPLATE for correct charge.</p> <p>Plugged strainer or supply line. Check and clean. Air lock in gravity feed line. Check and remove air lock.</p> <p>Check, evacuate, replace drier.</p> <p>Recharge. See NAMEPLATE for correct charge.</p> <p>Replace seal.</p> <p>Freezer inlet water line froze shut. Unit must be turned off and defrosted.</p> <p>Repair or replace drivemotor or drive coupling.</p>

SECTION VII WIRING DIAGRAMS

This Section is provided as an aid in understanding the electrical circuitry of the Modular Flaker.

The Wiring Diagrams in this Section are:

Figure 7-1. Wiring Diagram MF900R - 2A & MF900R - 7A.

Figure 7-2. Wiring Diagram, MF900R - 3A.

WARNING

When conducting a continuity check of the Modular Flaker:

1. Disconnect the main power source.
2. DO NOT use an incandescent lamp or jumper wire, conduct all tests with a volt-ohm-meter.

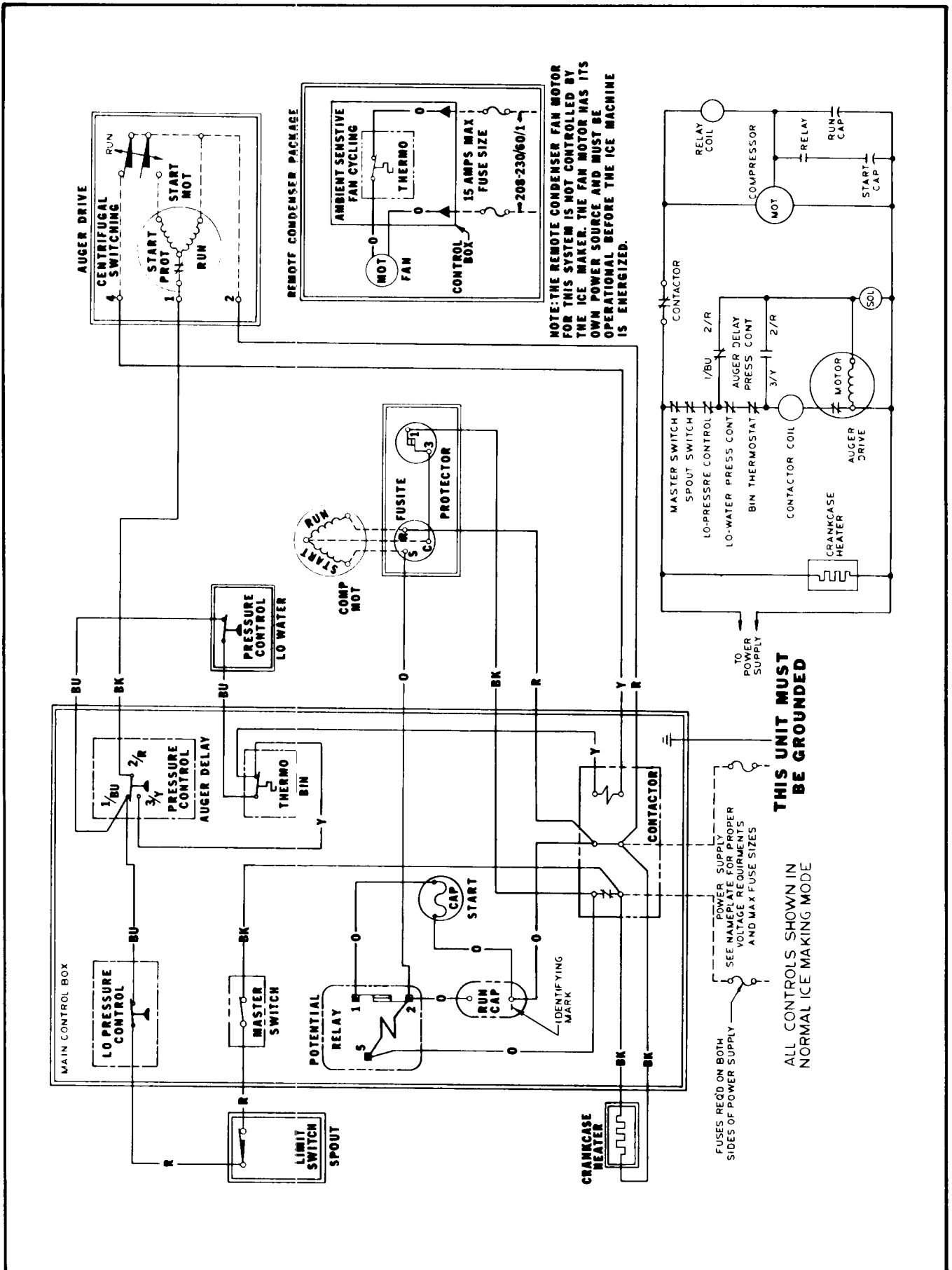


Figure 7-1. Wiring Diagram MF900R-2A & MF900R-7A.

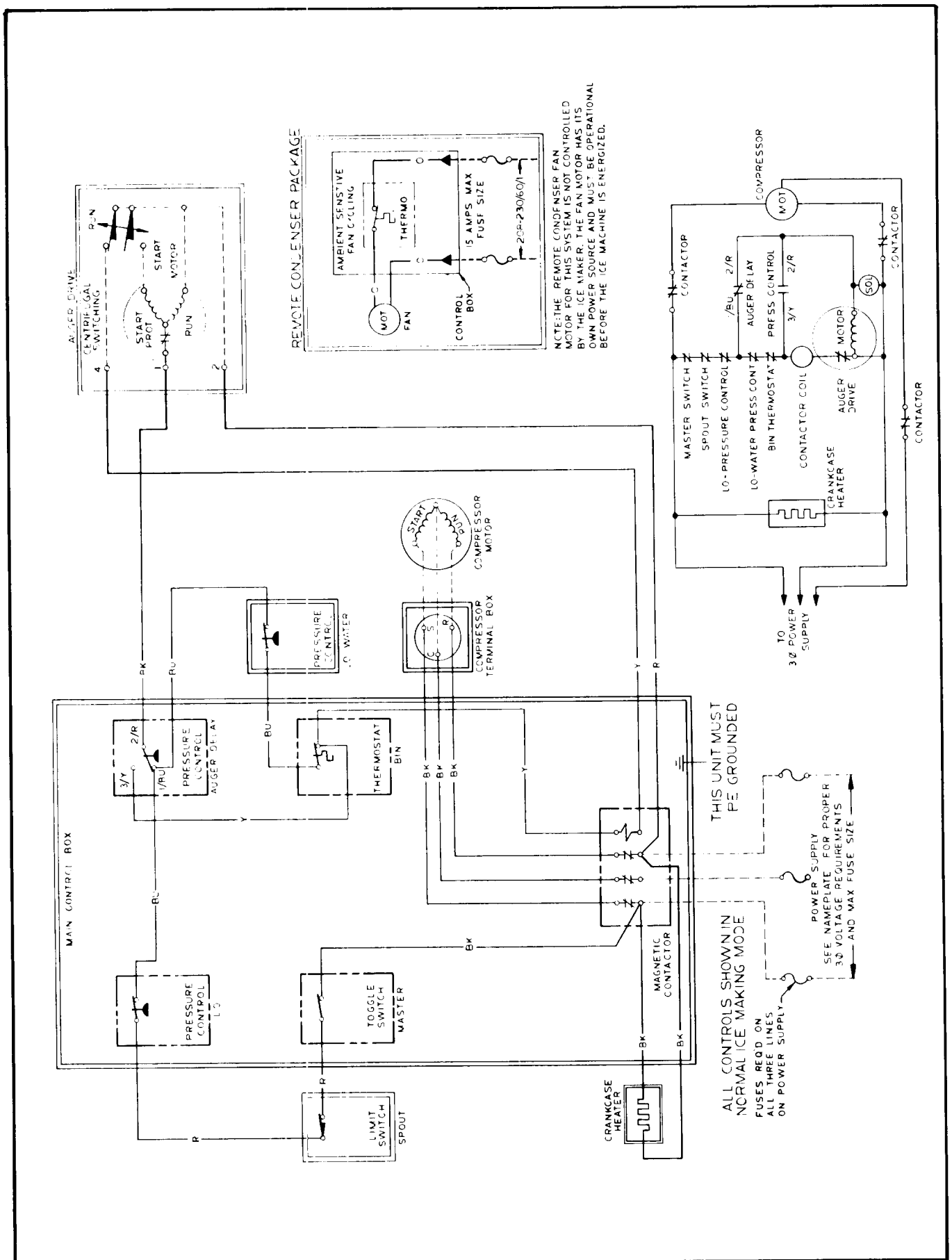


Figure 7-2. Wiring Diagram, MF900R-3A.

SECTION VIII

THE PARTS ILLUSTRATIONS AND PARTS LIST

I. GENERAL

This section contains the Parts Illustrations and the Parts List for each of the major assemblies in the MF-900R Modular Flaker with Remote Condenser.

Each Parts Illustration shows an assembly as an exploded view, with an Index Number for each part or sub-assembly, given in disassembly order. These Index Numbers key with the Parts List for the assembly and are found in the Parts List Column headed Index Number. The Description Column gives the identifying nomenclature for the item indexed. The Part Number Column gives the number of item. The Number Required Column gives the number of items required per assembly, but not necessarily the total number of parts required per Flaker.

All assemblies are cross-referenced both from the major assembly listing where they first appear in the Parts Listing to their break-down listing, and from the break-down listing, back to the major assembly (next higher assembly) listing.

A *No Number* designation, when used in the Part Number Column indicates the unit is not available from SCOTSMAN as an assembly. This designation is used only for the convenience and clarity of division in cataloging.

When an Index Number is followed by a letter (e.g. la, lb.), the letter indicates the part listed is part of the assembly indexed by the basic Index Number. The number required of the part

indexed by the number and letter combination is for only one of the assemblies indexed by the basic Index Number and not necessarily the total number or parts used in the Flaker. Where the notation *Ref* occurs in the Number Required Column the number of the assemblies or parts required for use in the Flaker will be found under previous Index Number or in the next higher assembly Parts Listing. The next higher listing Figure/Index number is shown in the Description Column immediately following the items description.

II. HOW TO USE THE ILLUSTRATIONS AND PARTS LIST

To find the part number of a required part or assembly, turn to the List of Illustrations and find the page number of the Parts Illustration of the major or sub-assembly containing the part. Turn to the indicated page and locate the part and its Index Number on the specific illustration. Find the Index Number on the required part in the Parts List to determine the complete description of the part.

III. HOW TO ORDER PARTS OR ASSEMBLIES

When ordering parts or assemblies, to avoid costly delays and errors in shipment, give the part number, the complete description shown in the list, and the quantities of each part or assembly required. Also include the Model name, the serial number of the Flaker for which the part is required, and for parts which require color matching, the color of the Cabinet. See Figure 8-00, at the end of this section for detailed ordering instructions.

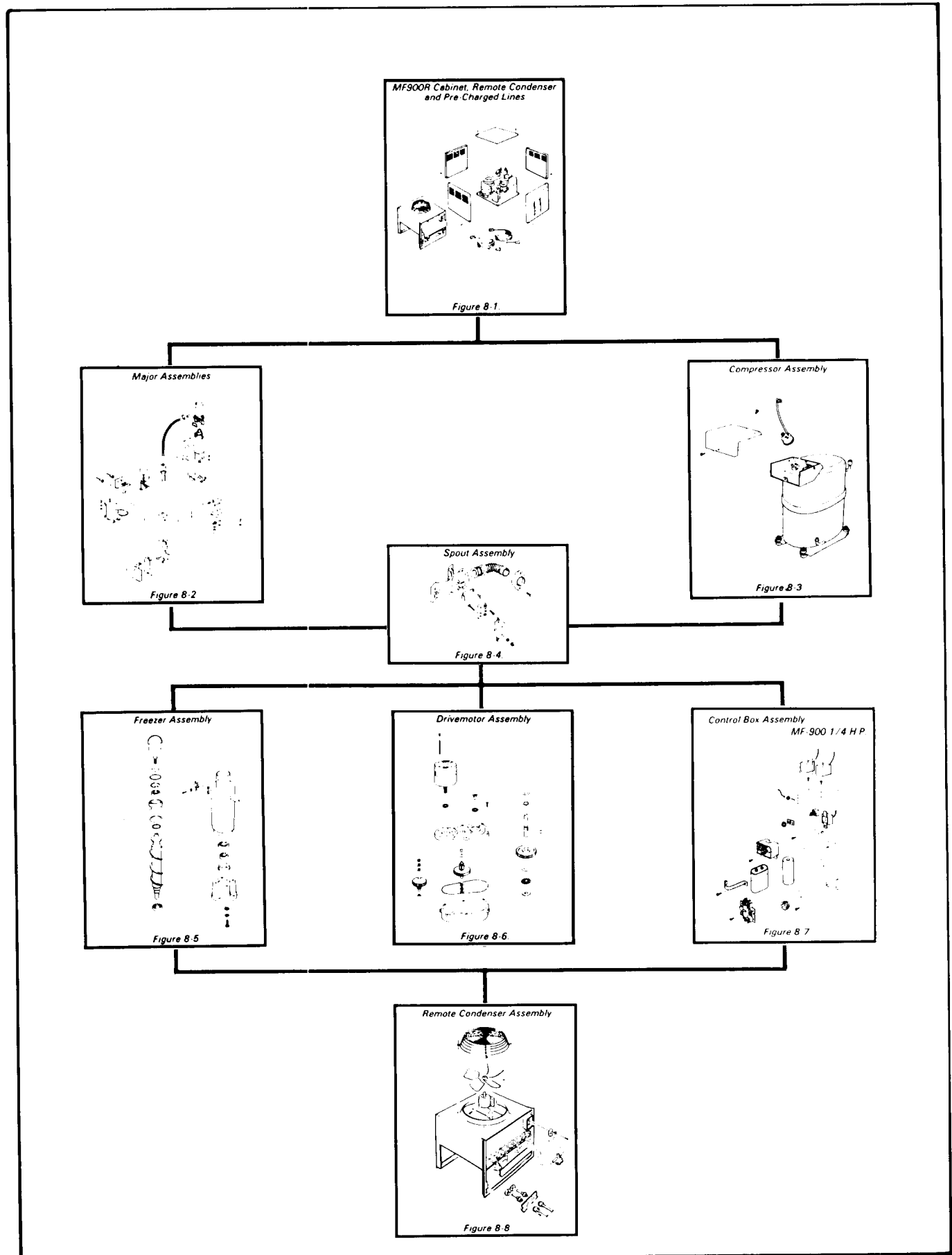
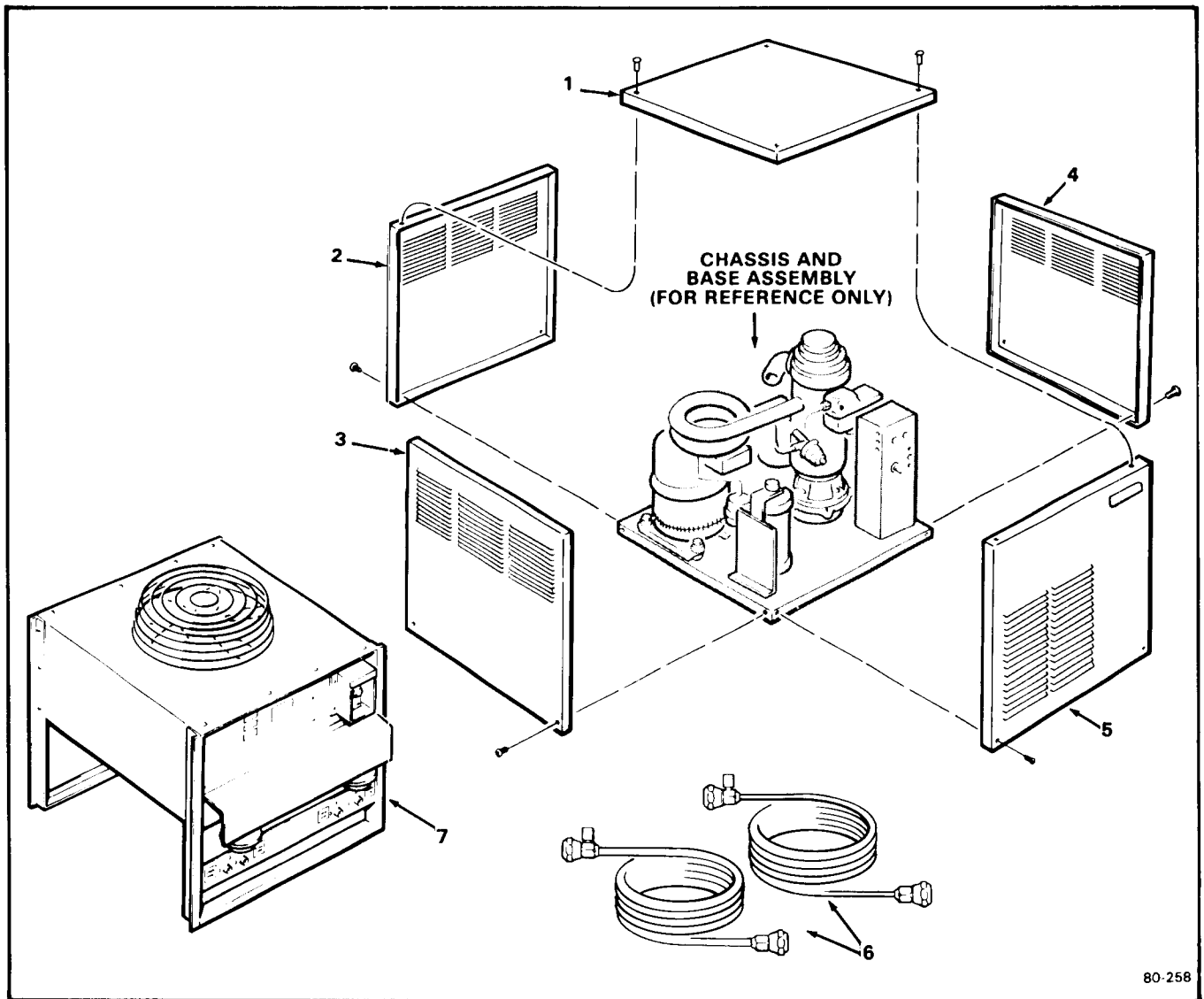


Figure 8-A. Modular Flaker MF900R Flow Chart.



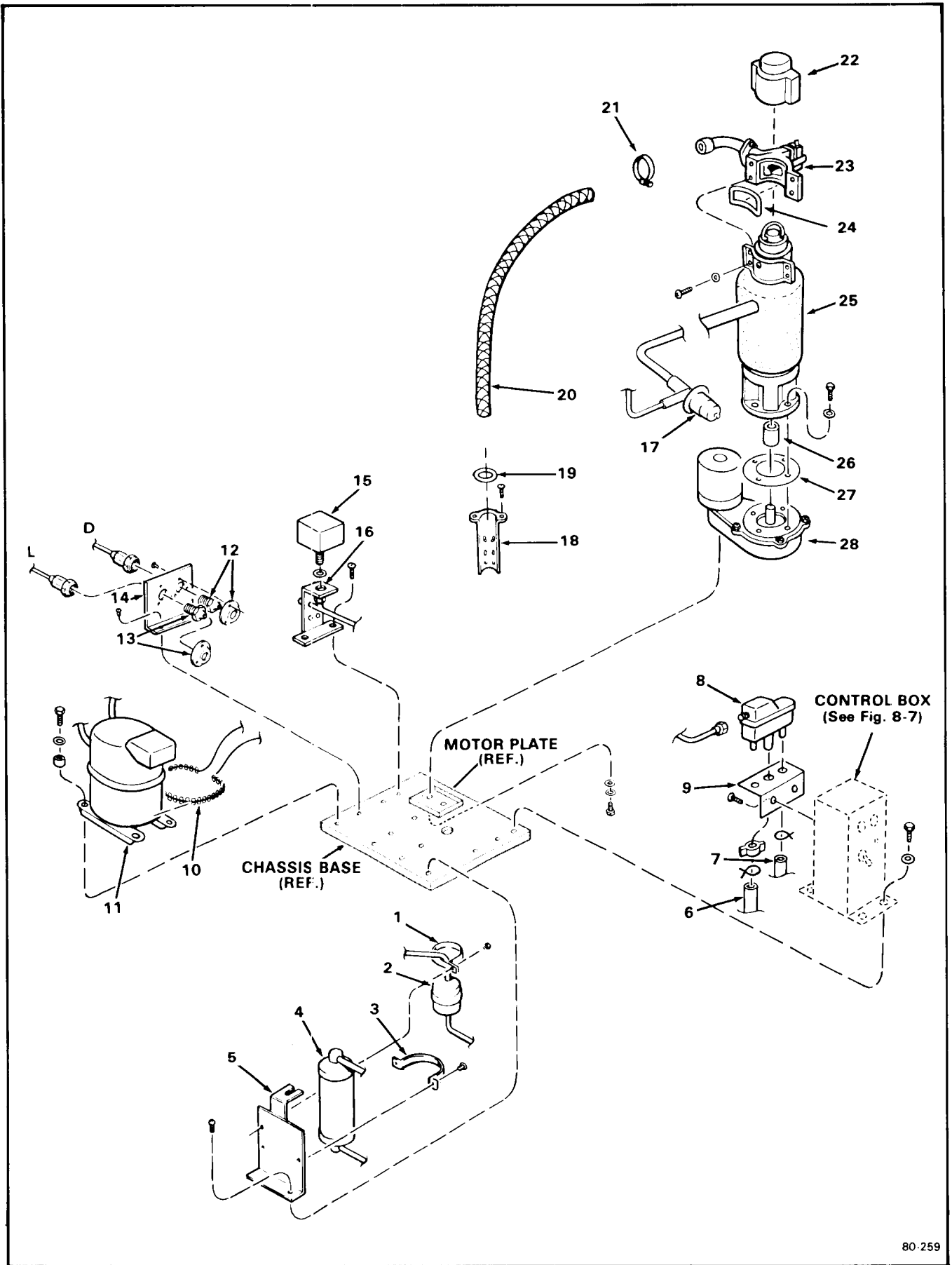
80-258

Figure 8-1. MF-900R Cabinet, Remote Condenser and Pre-Charged Lines

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	MF-900R Cabinet * * *	No Number	1
1	Panel, Top (C.R.S. Painted)	A26625-003	1
	Panel, Top (Stainless Steel)	A26625-002	1
	attaching parts, Index 1		
	Lockwasher, No. 8 Counter Sunk External Tooth—Carbon Steel Zinc Plated	03-1417-15	6
	Screw, No. 8 x 1-1/4 S/T Flat Hd	03-1419-09	6
	Nut, Speed - No. 8 J-Type	03-1423-06	6
	* * *		

Figure 8-1. MF900R Cabinet, Remote Condenser and Pre-Charged Lines (Cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
2	Panel, Rear (C.R.S. Painted)	A29779-001	1
	Panel, Rear (Stainless Steel)	A29779-002	1
	attaching parts, Index 2		
	Screw, No. 8 x 1/2 T/F Tap	03-1404-09	2
	Lockwasher, No. 8 Counter Sunk External Tooth - Carbon Steel	03-1417-03	2
* * *			
3	Panel, Left Side (C.R.S. Painted)	A26864-003	1
	Panel, Left Side (Stainless Steel)	A26864-002	1
	attaching parts		
	Lockwasher, No. 8 External Tooth - Carbon Steel Zinc Plated	03-1417-03	2
	Screw, No. 8 x 1/2 T/F Tap	03-1404-09	2
	Nut, Speed - No. 8	03-1507-00	2
* * *			
4	Panel, Right Side (C.R.S. Painted)	A26866-003	1
	Panel, Right Side (Stainless Steel)	A26866-002	1
	attaching parts		
	Lockwasher, No. 8 External Tooth - Carbon Steel Zinc Plated	03-1417-03	2
	Screw, No. 8 x 1/2 T/F Tap	03-1404-09	2
	Nut, Speed - No. 8	03-1507-00	2
* * *			
5	Panel, Front (C.R.S. Painted)	A26865-003	1
	Panel, Front (Stainless Steel)	A26865-002	1
	attaching parts		
	Lockwasher, No. 8 Counter Sunk External Tooth - Carbon Steel Zinc Plated	03-1417-15	4
	Screw, No. 8 x 1-1/4 S/T Flat Hd	03-1419-09	4
	Nut, speed - No. 8 J-Type	03-1423-06	4
* * *			
6	Tubing, Pre-Charged Remote Tubing Kit (25-Foot)	RT-225	1
	Tubing, Pre-Charged Remote Tubing Kit (40-Foot)	RT-240	1
* * *			
7	Condenser, Remote (Single Pass)	RC151-32A	1
	Condenser, Remote (Two Pass)	RC302-32A	1
* * *			



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Figure 8-2. Major Assemblies.

Figure 8-2. Major Assemblies

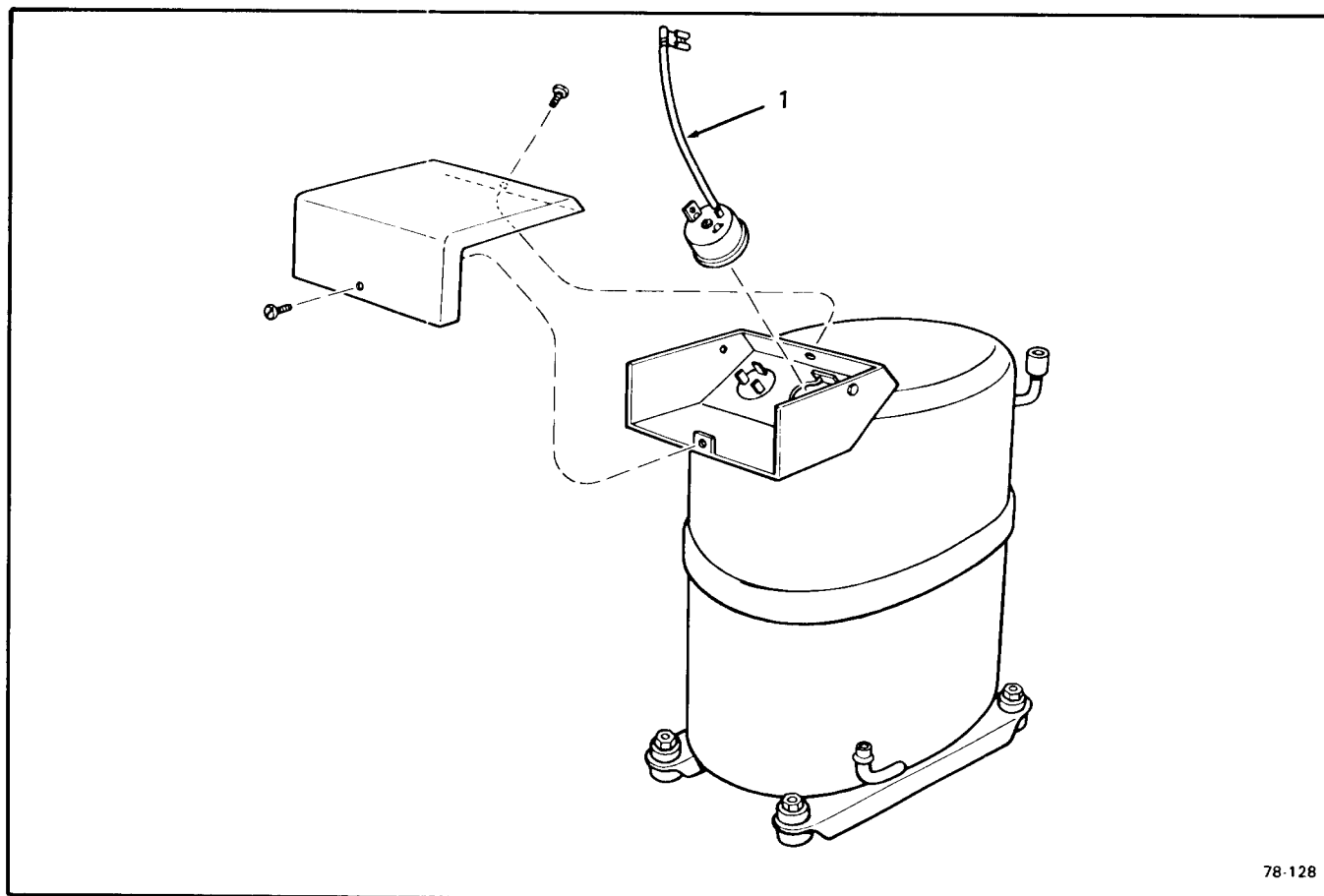
INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Major Assemblies * * *	No Number	Ref.
1	Brace, Drier * * *	A09388-001	1
2	Drier attaching parts, Index 2 to 1 Screw, No. 10-16 x 3/4 S/T * * *	02-0544-01 03-1360-01	1 1
3	Strap, Receiver Assembly Mounting attaching parts, Index 3 and 4 Screw No. * * *	No Number 03-1403-28	1 2
4	Receiver Assembly * * *	A29773-001	1
5	Bracket, Receiver attaching parts, Index 5 Screw, No. 6 x 1/4 T/F Tap * * *	No Number 03-1404-03	1 2
6	Tube (Reservoir Overflow to Drain) * * *	13-0079-03	1
7	Tube (Reservoir to Freezer Inlet) attaching parts, Index 7 to 8 Clamp (Index 6) Clamp (Index 7) * * *	13-0674-09 02-0534-00 02-0694-00	1 1 2
8	Reservoir Valve Assembly, Float (Not Shown) attaching parts, Index 8 Wing Nut (p/o Reservoir) * * *	02-2217-01 02-2217-02 No Number	1 1 1
9	Bracket, Mounting attaching parts, Index 8 Screw, No. 8-18 x 1/2 Phil Pan Hd * * *	A20959-000 03-1572-02	1 2

Figure 8-2. Major Assemblies (Cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
10	Heater, Crankcase * * *	12-1868-02	1
11	Compressor (See Figure 8-3) attaching parts, Index 11	No Number	1
	Grommet	18-2300-27	4
	Sleeve, Mounting	18-2300-26	4
	Lockwasher, No. 1/16 External Tooth	03-1417-12	4
	Washer, Special	03-1408-29	4
	Screw, No. 5/16-18 x 1-3/4 Hex Cap * * *	03-1405-40	4
12	Coupling Assembly, Discharge attaching parts, Index 12	No Number	1
	Screw, No. 10 x 3/8 T/F Tap * * *	03-1404-15	3
13	Coupling Assembly, Liquid attaching parts, Index 13	No Number	1
	Screw, No. 10 x 3/8 T/F Tap * * *	03-1404-15	3
14	Support, Coupling attaching parts, Index 14	No Number	1
	Screw, No. 1/4 x 20 T/F Hex Head * * *	03-0571-00	2
15	Control Pressure — Water * * *	11-0296-00	1
16	Bracket, Utility	A27993-001	1
	Washer, Rubber	03-1409-21	1
	attaching parts, Index 15 to 16		
	Nut, Pal	03-1394-00	1
	Screw, No. 10-16 x 3/4 S/T * * *	03-1360-01	2
17	Valve, Automatic Expansion * * *	11-0416-01	1
18	Bracket, Bin Thermo attaching part, Index 18	A27901-001	1
	Screw, No. 8 Sheet Metal * * *	No Number	2

Figure 8-2. Major Assemblies (Cont'd)

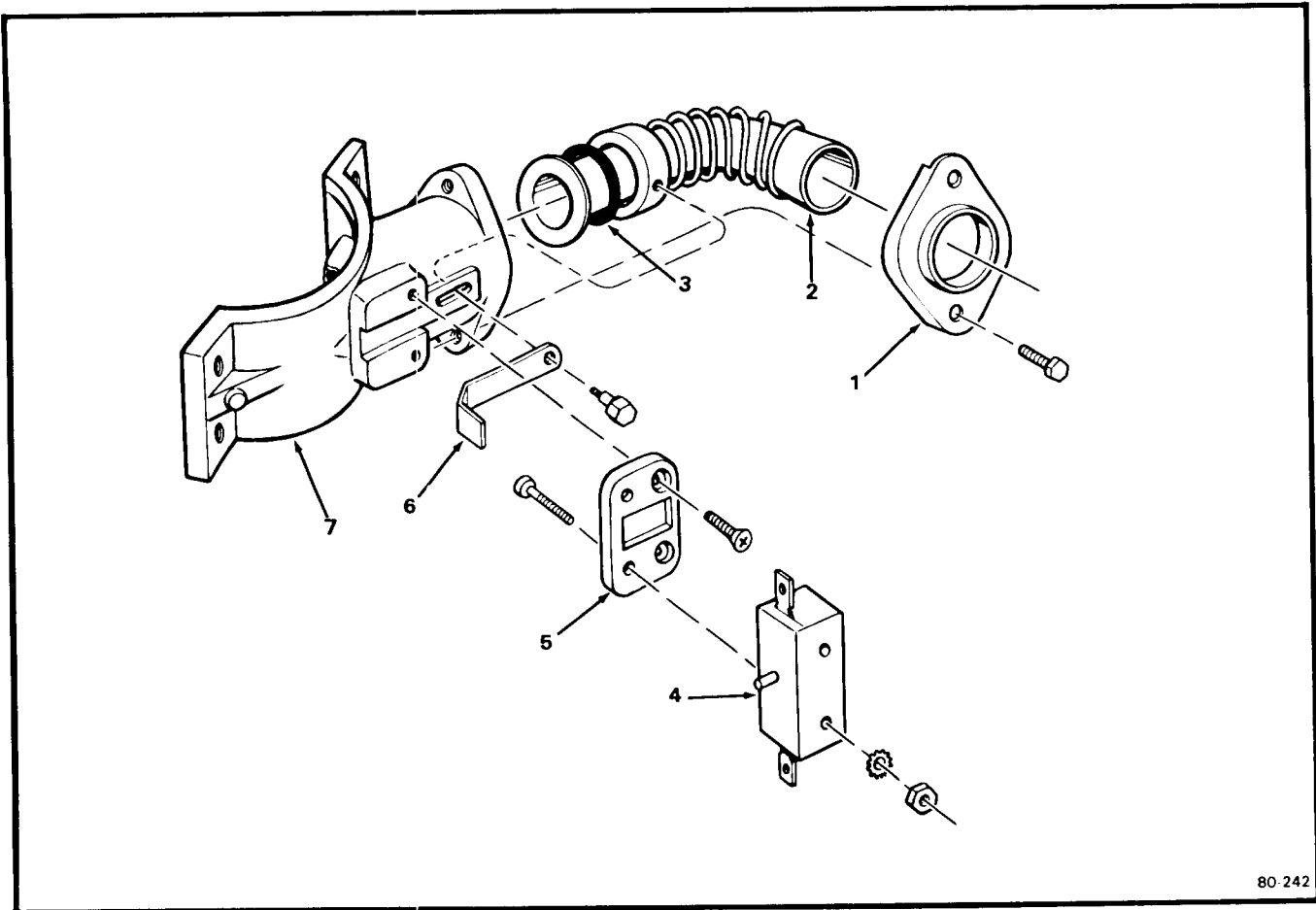
INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
19	Pad, Sealing * * *	13-0806-01	1
20	Tube, Ice attaching parts, Index 20	A26537-005	1
21	Clamp, Hose * * *	02-0179-02	1
22	Cap, Freezer * * *	13-0809-01	1
23	Spout Assembly (See Figure 8-4) * * *	No Number	1
24	Gasket, Spout attaching parts, Index 23 and 24 Lockwasher, No. 1/4 Internal Tooth — Phosphor Bronze Screw, No. 1/4-20 x1 Soc - Hd Cap (SS) * * *	02-1437-00 03-1417-07 03-1544-03	1 4 4
25	Freezer Assembly (See Figure 8-5) attaching parts, Index 25 Washer, Special Lockwasher, No. 5/16 Helical Spring - Carbon Steel Zinc Plated Screw, No. 1/4-20 x 1 Soc-Hd Cap (SS) * * *	No Number 03-1408-35 03-1410-04 03-1420-01	1 3 3 3
26	Coupling * * *	15-0573-01	1
27	Gasket * * *	13-0704-00	1
28	Drivemotor Assembly (See Figure 8-6) * * *	A2431-022 A24317-022	1



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Figure 8-3. Compressor Assembly.

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Compressor Assembly — 230/60/1	18-3800-02	Ref.
	Compressor Assembly — 208-220/60/3	18-3800-03	Ref.
	Compressor Assembly — 208/60/1 (See Figure 8-2/11 for next higher Assembly)	18-3800-07	Ref.
	* * *		
1	Overload — (230/60/1)	18-2300-25	1
	Overload — (208/60/1)	18-2300-32	1
	* * *		
	(NOTE: 208-220/60/3 internally protected. No service replacement part.)		



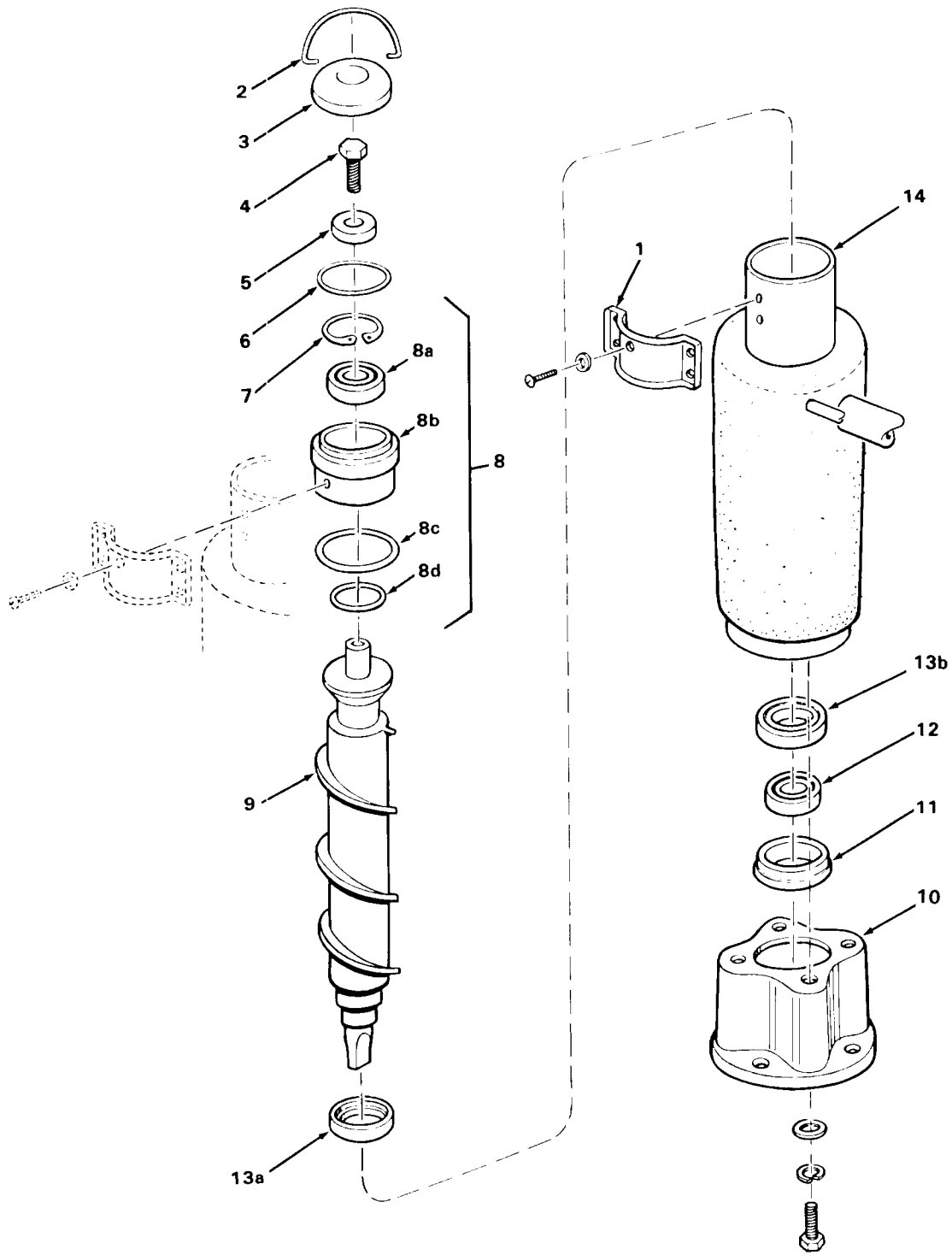
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Figure 8-4. Spout Assembly

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Spout Assembly (See Figure 8-2/23 for next higher Assembly)	A29430-020	Ref.
1	*** Plate, Retainer attaching parts, Index 1 to 7 Screw No. 1/4 - 20 x 3/8 Hex Head Cap ***	A29041-001 03-1405-02	1 2
2	Tube, Ice Discharge ***	02-2490-01	1
3	O-Ring ***	13-0617-43	1
4	Switch attaching parts, Index 4 to 5 Screw, No. 6 - 32 x 1 Flat Hd. Mach - Phil Recess Lockwasher, No. 6 External Tooth - Phosphor Bronze Nut, No. 6 - 32 Hex Mach. Screw ***	12-1644-00 03-1418-38 03-1417-01 03-1406-01	 2 2 2

Figure 8-4. Spout Assembly

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
5	Barrier, Thermal attaching parts, Index 5 to 4 Screw, No. 6 - 32 x 3/8 Flat Hd. Mach. - Phil Recess * * *	02-2377-01	1
		03-1418-01	2
6	Actuator, Switch attaching parts, Index 6 to 7 Screw, Shoulder * * *	A29429-001	
		A25305-001	1
7	Spout * * *	A29050-001	1



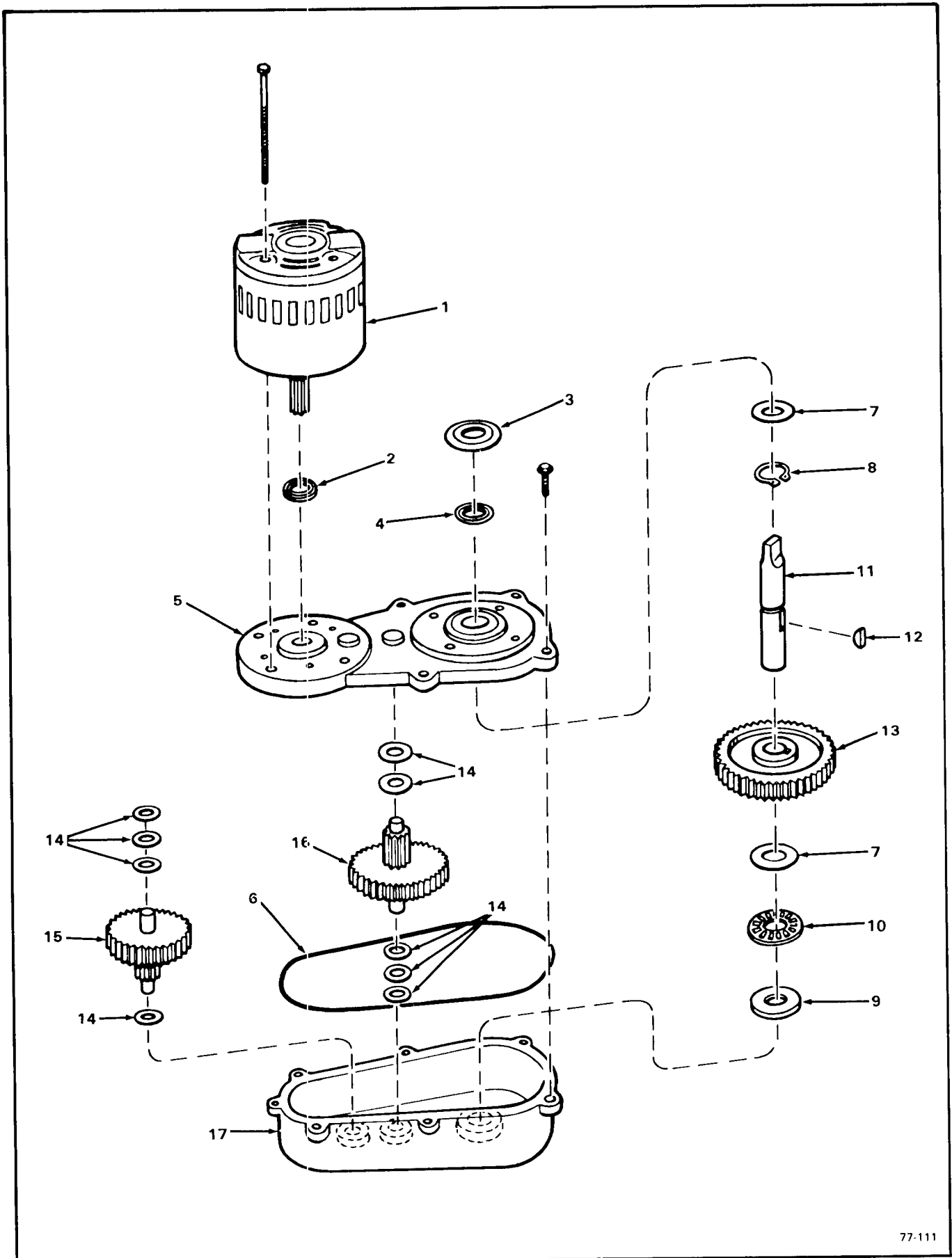
Freezer 8-5. Freezer Assembly.

Figure 8-5. Freezer Assembly.

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Freezer Assembly (See Figure/Index 8-2/25 for next higher Assembly) * * *	No Number	Ref.
1	Plate, Spout attaching parts, Index 1 Washer, Non-Metallic .250 I.D. Screw, No. 1/4-20 x 3/8 Phil Recessed Hd Sealing * * *	A24928-001 03-1409-20 03-1506-03	1 1 1
2	Hook * * *	A08582-000	1
3	Cap * * *	A08581-000	1
4	Screw, No. 1/2-20 x 1 Hex Cap * * *	03-1405-36	1
5	Washer, Brass 17/32 I.D. x 1-5/8 O.D. x 5/16 * * *	A06273-000	1
6	O-Ring (Fits into outside groove, Index 8) * * *	13-0617-20	1
7	Ring, Internal Retaining * * *	03-1558-04	1
8	Retainer, Top Bearing — w/Bearing	A26708-001	1
8a	Bearing (Top)	02-0646-00	1
8b	Retainer (Order P/N A26708-001)	No Number	1
8c	O-Ring - (Internal)	13-0617-15	1
8d	O-Ring - (External) * * *	13-0617-40	1
9	Auger * * *	02-2048-01	1
10	Adaptor attaching parts, Index 10, 11, 12, 13 to 14 Washer, Special Lockwasher, No. 5/16 Helical Spring Screw, No. 5/16-18 x 1-1/4 Hex Cap * * *	02-1629-00 03-1408-03 03-1410-04 03-1405-41	1 4 4 4

Figure 8-5. Freezer Assembly (Cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Gasket (Not Shown) * * *	13-0704-00	1
11	Retainer, Bearing * * *	A10591-000	1
12	Bearing * * *	02-0619-00	1
13	Seal, Water	A22569-000	1
13a	Seal, Upper (Fits on Index 9)	No Number	Ref.
13b	Seal, Lower (Fits on top of Index 12) * * *	No Number	Ref.
14	Freezer - (Repair Assembly) * * *	A29767-020	1



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Figure 8-6. Drivemotor Assembly.

Figure 8-6. Drivemotor Assembly

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Drivemotor Assembly (1/4 H.P.) (12.2 R.P.M.) (See Figure/Index 8-2/28 for next higher Assembly) * * *	A24317-022	Ref.
1	Motor, Drive attaching part, Index 1 to 5 Screw, Motor (p/o Index 1) * * *	A26455-002 No Number	1 4
2	Seal, Oil * * *	02-1606-00	1
3	Shed, Water * * *	13-0709-02	1
4	Seal, Oil * * *	02-1607-00	1
5	Cover Assembly, Gear Case attaching parts, Index 5 to 17 Screw, No. 5/16 x 1 Flange * * *	A22200-000 03-1251-01	1 6
6	O-Ring * * *	A26103-001	1
7	Race, Thrust * * *	02-1681-00	2
8	Ring, Retaining * * *	03-1363-00	1
9	Race, Thrust * * *	02-1679-00	1
10	Bearing * * *	02-1680-00	1
11	Shaft, Output attaching part, Index 11 to 13 * * *	02-1652-00	1
12	Key (No. 91 Woodruff, Nickel Steel) * * *	03-1364-00	1
13	Gear, Output * * *	02-1653-00	1

Figure 8-6. Drivemotor Assembly (Cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
14	Washer, Special (.515 I.D. x 875 O.D. x .028 Steel) * * *	03-1408-24	9
15	Second Pinion Assembly, First Gear * * *	02-2072-00	1
16	Third Pinion Assembly, Second Gear * * *	02-2071-00	1
17	Case Assembly, Gear * * *	A22199-000	1

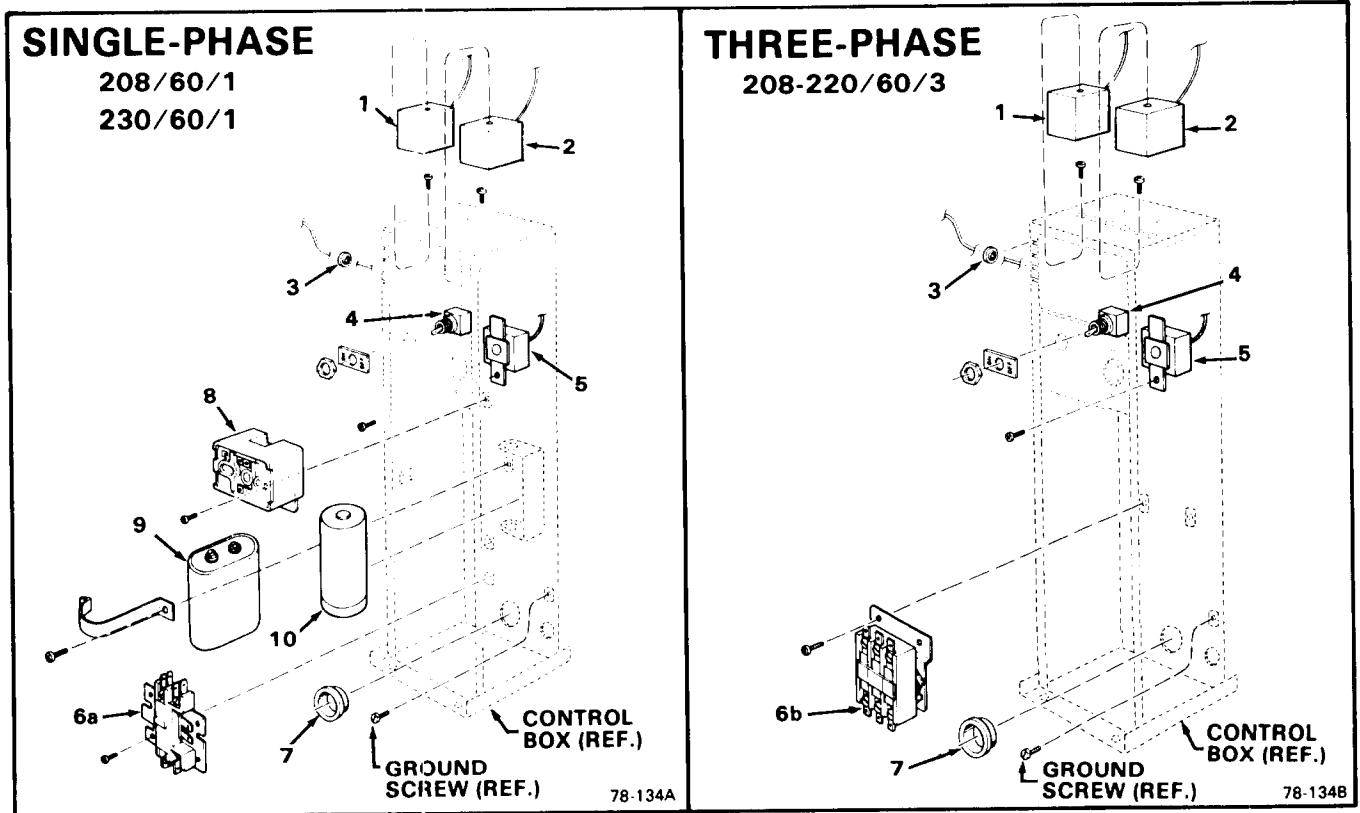
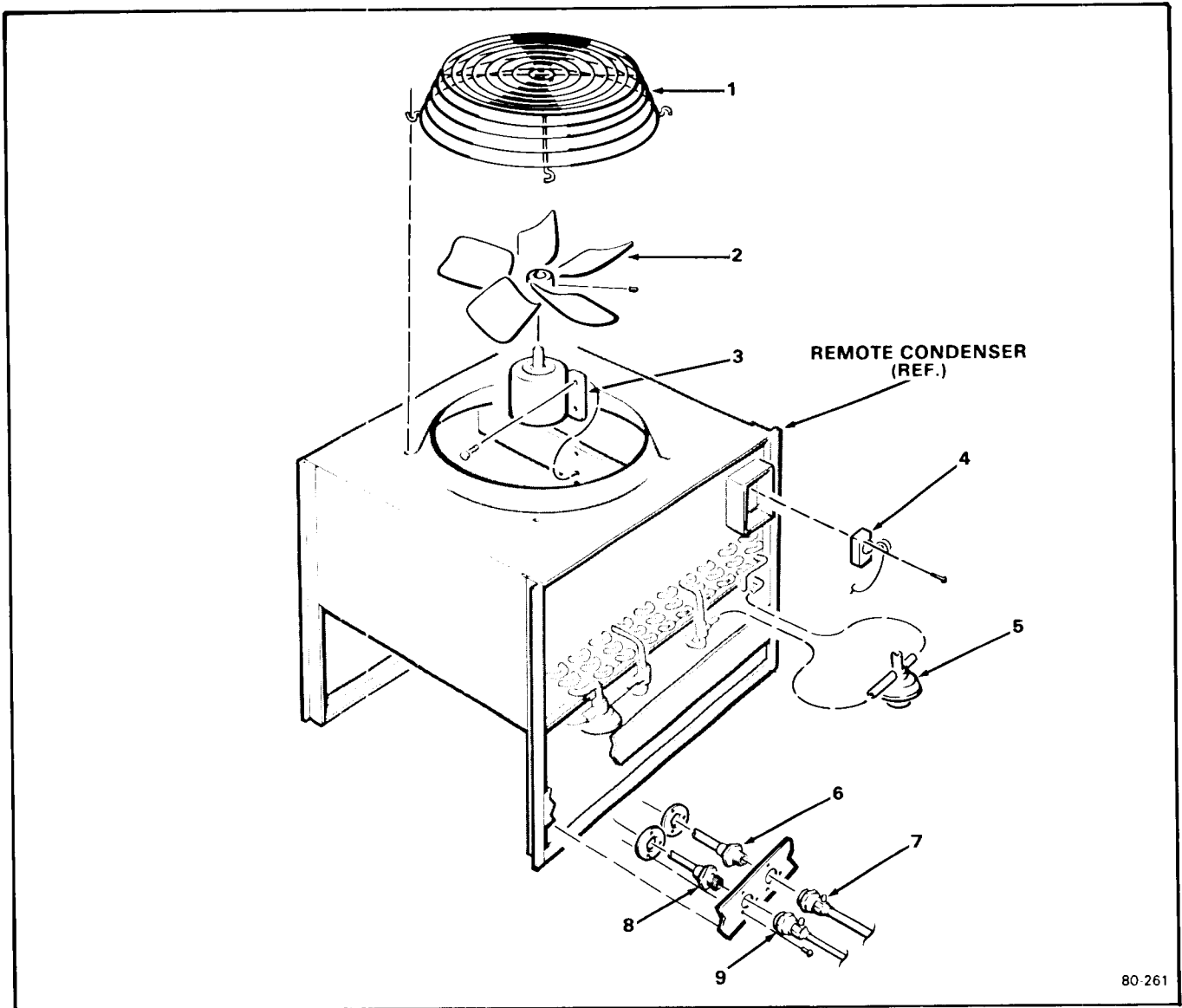


Figure 8-7. Control Box Assembly.

INDEX NO.	DESCRIPTION	PART NUMBER	PHASE		
			1 208 60	1 230 60	3 208 230 60
	Control Box Assembly (See Figure 8-2 for next higher Assembly) * * *	No Number			
1	Control, Low Pressure attaching parts, Index 1 Screw, No. 6-32 x 1/4 Pan Hd * * *	11-0358-01 03-1403-02	1 2	1 2	1 2
2	Control, Auger Delay attaching parts, Index 2 Screw, No. 6-32 x 1/4 Pan Hd * * *	11-0402-01 03-1403-02	1 2	1 2	1 2
3	Grommet * * *	13-0557-00	3	3	3
4	Switch, Toggle * * *	12-0426-01	1	1	1

Figure 8-8. Control Box Assembly (Cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	PHASE		
			1	1	3
			208 60	230 60	208 230 60
5	Control, Temperature attaching part, Index 5	11-0354-00	1	1	1
	Screw No. 8-32 x 3/8 Phil Recess Pan Hd * * *	03-1403-17	2	2	2
6a	Contactor	12-2048-02	1	1	—
6b	Contactor	12-0739-02			1
	attaching parts, Index 7				
	Screw, No. 8-32 x 3/4 Phil Recess Pan Hd (6a)	03-1403-17	4	4	—
	Screw, No. 10-24 x 3/8 Phil Recess Pan Hd (6b) * * *	03-1403-26	—	—	2
7	Bushing, Snap * * *	12-1213-12	1	1	1
8	Relay	18-1903-29	—	1	—
	Relay	18-1903-34	1	—	—
	attaching parts, Index 8				
	Screw, No. 6-32 x 3/8 Phil Recess Pan Hd * * *	03-1403-04	1	1	—
9	Capacitor, Run	18-1902-29	—	1	—
	Capacitor, Run	18-1902-34	1	—	—
	attaching parts, Index 9				
	Bracket, Capacitor	No Number	1	1	—
	Screw, No. 8-32 x 1-1/4 Phil Recess Pan Hd * * *	No Number	1	1	—
10	Capacitor, Start * * *	18-1901-15	1	1	—



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Figure 8-8. Remote Condenser RC151, RC302.

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Remote Condenser (See Figure/Index 8-1/7 for next higher Assembly)	No Number	Ref.
1	*** Guard, Fan ***	02-2618-01	1
2	*** Blade, Fan ***	18-3733-01	1
3	*** Motor, Fan ***	18-3734-01	1
4	*** Thermostat, Control ***	11-0417-01	1

Figure 8-8. Remote Condenser RC151, RC302 (Cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
5	Valve, Head Pressure Control, Single Pass (RC151)	11-0414-01	1
	Valve, Head Pressure Control, Two Pass (RC302) * * *	11-0414-01	2
6	Connector, 1/4-inch tubing, male * * *	No Number	1
7	Connector, 1/4-inch tubing, female * * *	No Number	1
8	Connector, 3/8-inch tubing, male * * *	No Number	1
9	Connector, 3/8-inch tubing, female * * *	No Number	1

Figure 8-6. — Drivemotor Assembly

Figure 8-6 Drivemotor Assembly - 1/10 W.P. (Cont.)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
1	Set Screws	09-1246-00	2
4	Stator Assembly 115-60-1	12-1430-01	1
5	Rot. Rotor and Pin Gear	AD4454-001	1
6	Includes Bearing Index 7 and Washer Index 16	13-0617-04	1
7	Ring Springs	02-1501-00	1
8	Bearing, Rotor	02-1501-00	1
9	Including parts Index 5, 6, 7, 11	09-1245-00	2
10	Stator No. 10-32 x 5-16 Machine W/W	13-0709-01	1
11	Washer	13-0709-01	1
12	Pin Gear and Pin	AD4454-001	1
13	Includes Washer Index 16 and Pin Index 10	13-0617-04	1
14	Including part Index 11 thru 21	13-0617-04	1
15	Pin Gear and Pin	AD4454-001	1

Figure 8-00. How To Use The Illustrated Parts List.

SCOTSMAN PARTS ORDER FORM ON 103

Name: **2** Street: **3** City: **3** State: **3** Zip Code: **3**

Carrier: **3** Date: **3**

Part Number: **g** 02-1501-00 Description: **h** ROTOR BEARING Quantity: **i** 1

NOTE: THE SHADED AREAS ARE FOR FACTORY USE ONLY

HOW TO USE A SCOTSMAN PARTS MANUAL WHEN ORDERING PARTS FOR ICE SYSTEMS PRODUCTS

IMPORTANT A. All Part Numbers have TEN DIGITS (spaces), required for use in the Computer System. BE SURE to fill in ALL SPACES in the CATALOG NUMBER column, on the Parts Order form as shown above.

B. Enter the QUANTITY of the Parts ordered, in the last digit column under the QUANTITY column heading, the one under the small 55 number, for parts from 1 thru 9. For 10 or more parts use two columns.

To be sure you receive the proper parts in the proper quantities, ALWAYS use the PART NUMBERS and DESCRIPTIONS given in the Parts Manuals.

The figures above illustrate the way a Parts Manual would be used, if the Part being ordered were the ROTOR BEARING that is used in the DRIVEMOTOR ASSEMBLY of an AF325 Automatic Flaker, for example.

PROCEDURE:

- At the beginning of Section VIII, THE PARTS ILLUSTRATIONS AND PARTS LISTS, in each Parts and Service Manual, is Figure 8-A; which, is a flow chart prepared from exploded views in Section VIII. Use the flow chart to quickly determine which Figure contains the Assembly, Component or Part.

FIGURE 1: Since the Part required in the above example is in the DRIVEMOTOR ASSEMBLY, shown as FIGURE 8-6.

- Open the Manual to page showing FIGURE 8-6.

- Locate the PART and its INDEX NUMBER on the exploded view illustration.

FIGURE 2: The INDEX NUMBER for the PART is 7.

- Check the numerical sequence in the associated Parts List following the illustration.

- LOCATE the INDEX NUMBER 7, in the INDEX NO. column, the first column on the left side of the Parts List page.

FIGURE 3: INDEX NO. 7 is listed as a BEARING, ROTOR in the DESCRIPTION column. The Part Number for the Rotor Bearing is 02-1501-00 as listed in the PART NUMBER column on the right side of the Parts List page. And, one Rotor Bearing is listed in the REQ'D NUMBER column, or that ONLY one of those parts is required for one Drivemotor Assembly.

- Write an order for the Part. (Use SCOTSMAN Parts Order Form DN103)

- FIGURE 4:**
- a. Distributor Name.
 - b. (Use for DROP-SHIP order ONLY).
 - c. Distributor Purchase Order Number.
 - d. Carrier
 - e. How shipped (Truck, Rail, UPS, etc.)
 - f. Date ordered
 - g. Part Catalog Number (use full TEN digits (spaces) listed in Parts Manual, including dashes between numbers.
 - h. Description - as listed in Parts Manual.
 - i. Quantity - number of parts ordered. (use far right column)

Figure 8-00. How To Use The Illustrated Parts List.