

MF6C

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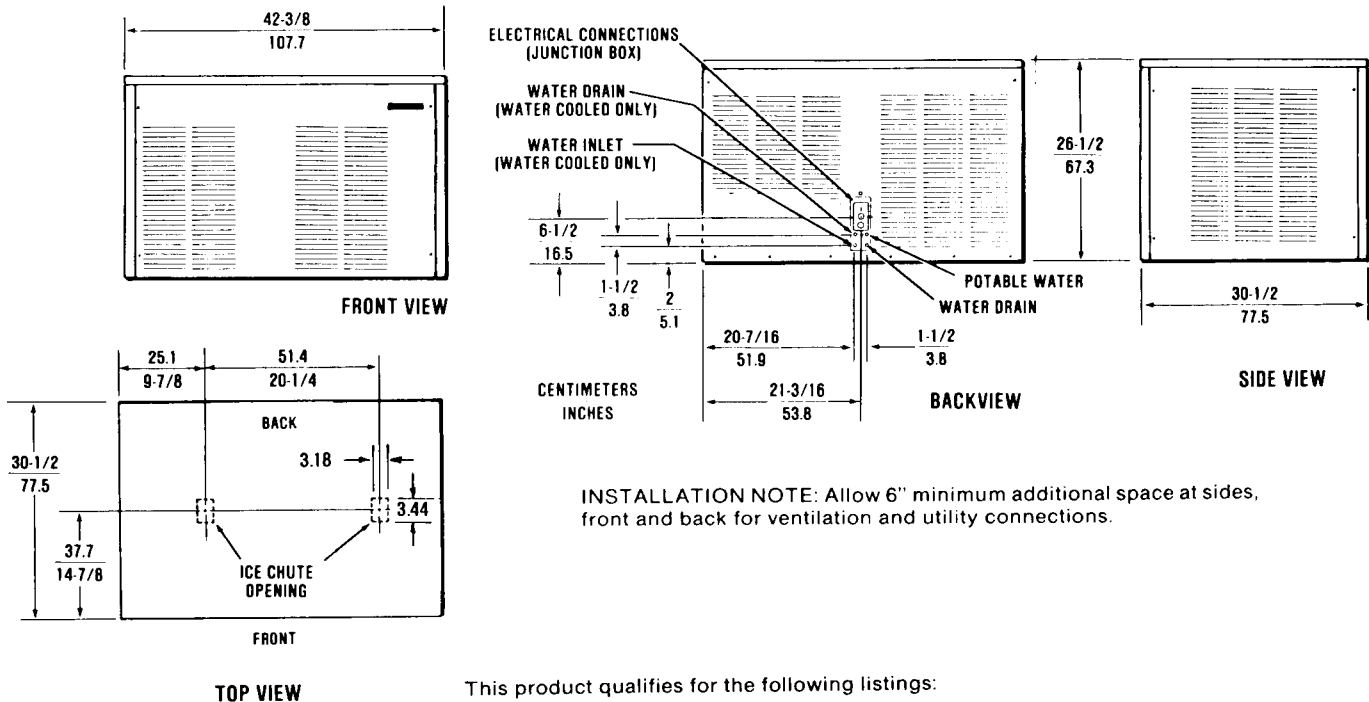
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FIRST PRODUCTION ONLY SERIAL NUMBERS 714944-09F THRU 714967-09F	
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MF6C MODULAR FLAKER



INSTALLATION NOTE: Allow 6" minimum additional space at sides, front and back for ventilation and utility connections.

This product qualifies for the following listings:



SPECIFICATIONS

Model Number	Dimensions H" x W" x D"	Bin Cap.	Ice Prod. Cap. 24 Hrs. *	Cond. Unit	Finish **	Basic Electrical	Comp. H.P.	No. of Wires	Min. Circuit Ampacity †	Max. Fuse Size	Ship. Wt. lbs./kg.
MF6AE-2C	33 3/4 x 42 1/4 x 32 1/2	—	2115 lbs.	Air	EC	230/60/1	2	2	19.7	20	630/286
MF6AE-3C	33 3/4 x 42 1/4 x 32 1/2	—	2115 lbs.	Air	EC	208-220/60/3	2	3	12.3	15	630/286
MF6AE-7C	33 3/4 x 42 1/4 x 32 1/2	—	2115 lbs.	Air	EC	208/60/1	2	2	19.0	20	630/286
MF6WE-2C	33 3/4 x 42 1/4 x 32 1/2	—	2400 lbs.	Water	EC	230/60/1	2	2	17.0	20	608/276
MF6WE-3C	33 3/4 x 42 1/4 x 32 1/2	—	2400 lbs.	Water	EC	208-220/60/3	2	3	11.5	15	608/276
MF6WE-7C	33 3/4 x 42 1/4 x 32 1/2	—	2400 lbs.	Water	EC	208/60/1	2	2	17.7	20	608/276

Order **SPKMF6** panel kit for stainless steel finish. MF6 will stack on top of the B80, B90 or B120 bins and extensions for ice storage. **KSE6** - Optional discharge kit.

Electrical, water inlets and drains located in lower right of back panel. Ice discharge chutes are located on bottom or left side panel (Back view).

** EC Charcoal Brown, Leathergrain embossed steel with high gloss backen enamel finish.

† Use this value to determine minimum wire size as per National Electric Code Standards.

IMPORTANT OPERATING REQUIREMENTS

	MINIMUM	MAXIMUM
Air Temperatures	50°F (10.0°C)	100°F (37.7°C)
Water Temperatures	40°F (4.4°C)	100°F (37.7°C)
Water Pressures	20 lbs. gauge	120 lbs. gauge

Electrical Voltage Variation

Voltage rating specified on nameplate	-10%	+10%
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Extended periods of operation exceeding these limitations constitutes misuse under the terms of Scotsman Manufacturer's Limited Warranty, resulting in a loss of warranty coverage.

We reserve the right to make product improvements at any time. Specifications and design are subject to change without notice.

MF6C GENERAL INFORMATION AND INSTALLATION

INTRODUCTION

This manual provides the specifications and the step-by-step procedures for the installation, start-up, operation, maintenance and cleaning of the SCOTSMAN Model MF6C Modular Flaker.

The Model MF6C Modular Flaker is a quality designed, engineered, constructed, and are thoroughly tested icemaking system, providing the utmost in flexibility to fit the needs of a particular user.

DESCRIPTION

The SCOTSMAN Modular MF6C continuous flow icemaker consists of two completely independent flake icemaking systems contained within an attractive compact cabinet made of texture metal

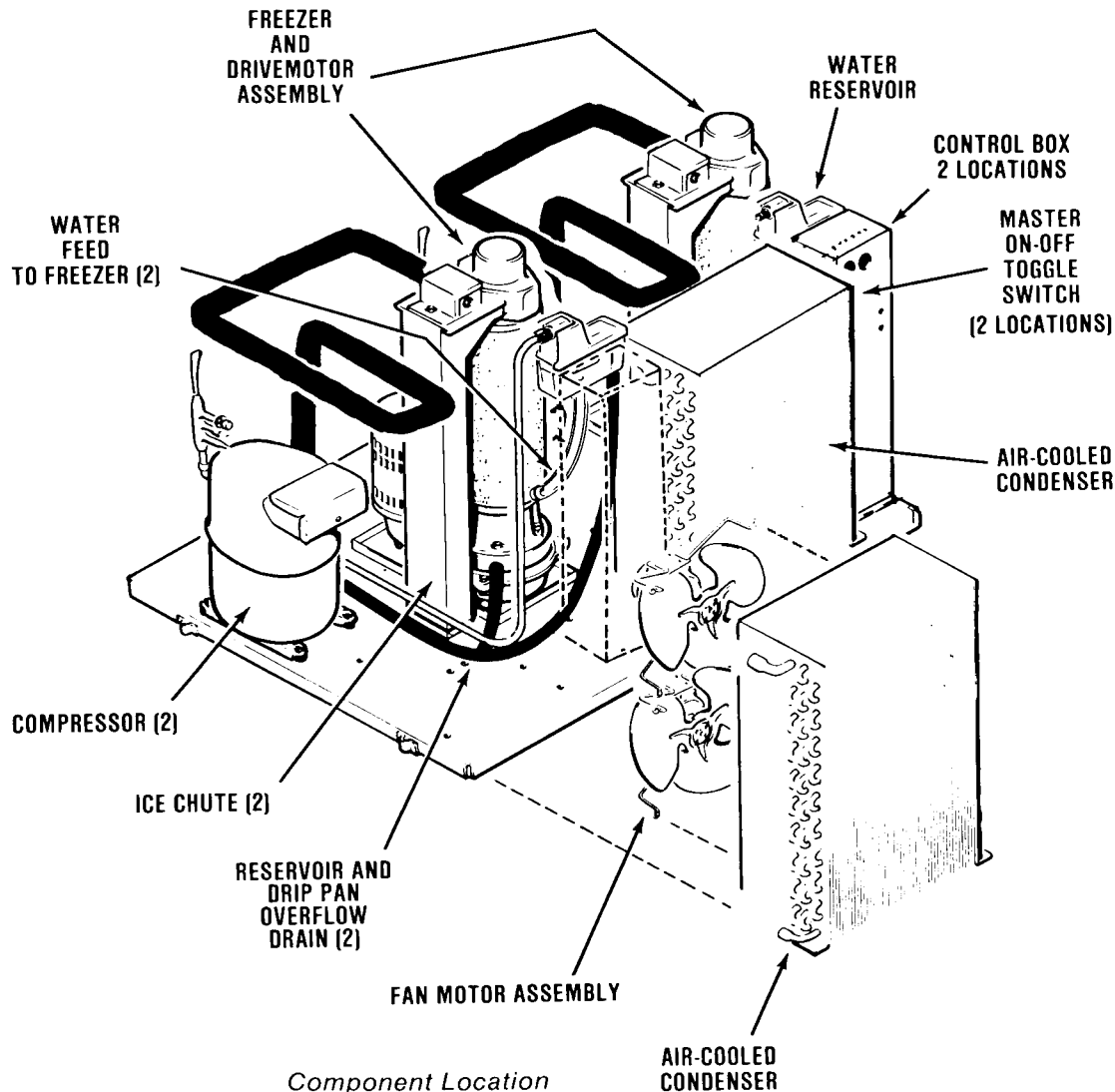
with a charcoal brown baked enamel finish. Two independent icemaking systems doubles the dependability.

SEALED REFRIGERATION SYSTEMS

To provide quiet, efficient operation of the icemaker, the compressor motors are internally spring-mounted. The compressor motor is covered by a five-year parts warranty.

STORAGE BINS

Since the MF6C modular flakers do not have their own self-contained storage bins, it is necessary to have an auxiliary bin such as the SCOTSMAN bins B90. As storage demands increase, the modular system may be enlarged with SCOTSMAN bin accessories BX83, BX87.



GENERAL INFORMATION AND INSTALLATION

LOCATION AND LEVELING

WARNING

This Icemaker is NOT designed for outdoor installations where air temperatures are below 50-degrees F., or above 100-degrees F., and 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, resulting in LOSS of warranty coverage.

Prior consideration for location site shall include:

Minimum room temperature 50-degrees F. and maximum room temperature 100-degrees F.

Water inlet temperatures: Minimum 40-degrees F. and Maximum 100-degrees F.

Well ventilated location for air-cooled model, advising user to frequently clean air-cooled condenser, located directly behind the front service panel.

SERVICE ACCESS: Adequate space for all service connections, located at the rear of the cabinet. A six-inch minimum clearance at the rear and both side panels, for routing cooling air drawn into and exhausted out of the compartment to maintain proper condensing operation on air-cooled models.

1. Position the selected bin combination in the permanent location and attach the modular icemaker to the bin.
2. Level the combination in both the left-to-right and front-to-rear directions. The leveling legs can be adjusted with an open end wrench.

ICE CHUTE INSTALLATION

Insert ice chutes into holes provided in the icemaker base and attach each chute to the ice discharge spouts with wing nuts provided. Use caution when positioning the ice chutes to prevent kinking damage to the bin thermostat capillary tubing.

WARNING

Electrical power must be disconnected before any assembly.

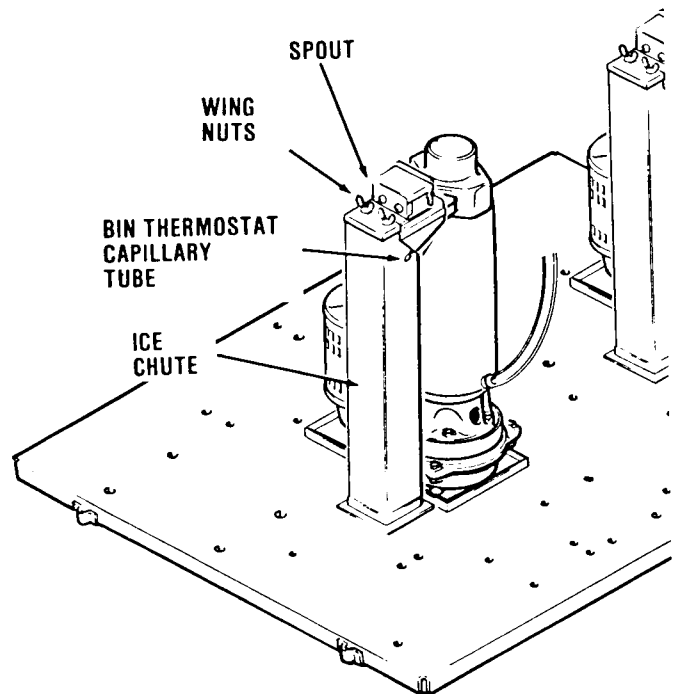
The Model MF6C is designed to be installed on top of an ice storage bin and two ice transport tubes extend through the cabinet base and into the ice storage bin. The ice chutes must be installed before operation.

1. Remove screws and cabinet top panel.
2. Slide each ice chute down and over each spout opening. When properly assembled, the ice chutes extend into the bin.
3. Fasten each ice chute to each spout using two wing nuts on each ice chute.

CAUTION

Thermostat capillary tube must not be bent or kinked. Careless handling will cause damage.

4. Check the bin thermostat capillary tube routing to be sure it does not contact other parts.



MF6C GENERAL INFORMATION AND INSTALLATION

ELECTRICAL CONNECTIONS

SEE NAMEPLATE for current requirements to determine wire size to be used for electrical hookup. The MF6C icemaker requires a solid earth ground wire. See wiring diagram.

Be certain the icemaker 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 compressor and motor windings.

All external wiring should conform to the national, state and local electrical permit and services of a licensed electrician will be required.

Make electrical connections at the junction box located at the back of the icemaker.

WATER SUPPLY AND DRAIN CONNECTIONS

AIR-COOLED MODELS: The recommended potable water supply line is a 3/8 inch O.D. copper tubing with a minimum pressure of 20 PSIG. A 3/8-inch flare fitting is provided at the water inlet at the cabinet back panel. Connect the cold water supply line with standard plumbing fittings, with a shut off valve installed in an accessible place between the water supply and the cabinet.

It is recommended that an optional water strainer or water purification system be installed between the shut off valve and the icemaker connection.

Connect a 7/16-inch I.D. tube to the overflow drains.

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

CAUTION

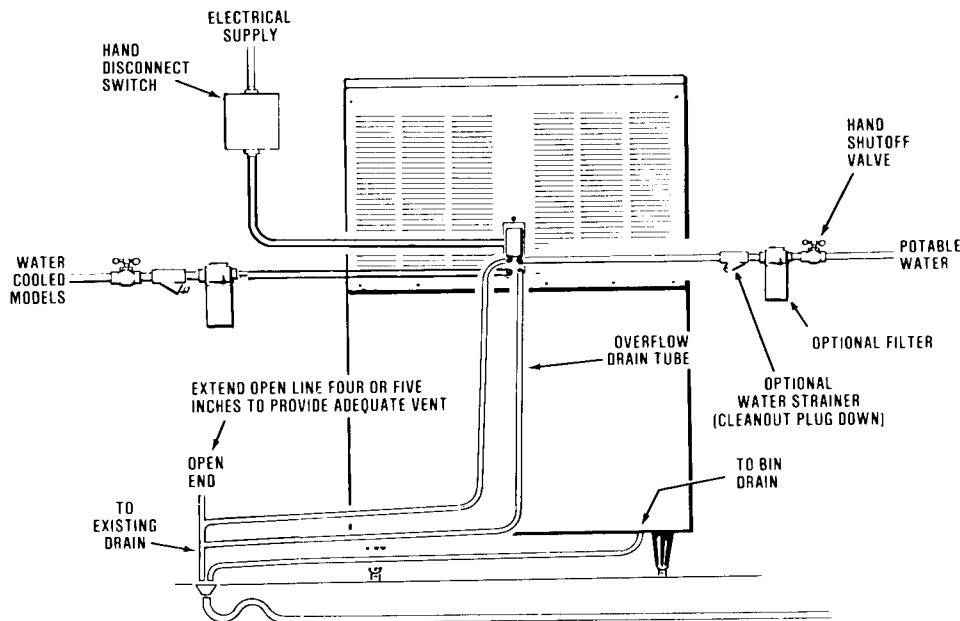
This icemaker is equipped with a low water pressure safety device which in the event of low water pressure will automatically stop the icemaker to prevent damage. The icemaker will automatically restart with increased water pressure.

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

WATER-COOLED MODELS: A separate connection for the condenser is required. A 3/8-inch O.D. copper tubing is provided for a separate water inlet line to and a separate drain line to be connected.

Connect a 7/16-inch I.D. tube to the overflow drain.

Recommended bin drain should be vented and run separately.



OPEN, TRAPPED OR VENTED DRAIN. RECOMMENDED 1/4-INCH FALL PER FOOT OF RUN ON DRAIN LINES.

Installation, Water Supply and Drain Connection

MF6C

GENERAL INFORMATION AND INSTALLATION

FINAL CHECK LIST

1. Is the cabinet level? (IMPORTANT)
2. Have all electrical and piping connections been made?
3. Has the voltage been tested and checked against the nameplate rating?
4. Is the water supply line shutoff valve installed and electrical wiring properly connected?
5. Have the bin and cabinet been wiped clean?
6. Have the compressor hold-down nuts been checked to be sure both the compressors are snug on the mounting pads?
7. Has the owner/user been given the User Manual and instructed on how to operate the icemaker?
8. Has the Manufacturer's Registration Card been properly filled out? Check for correct model and serial numbers from Serial nameplate, then mail the completed card to the SCOTSMAN factory.
9. Check all refrigerant lines and conduit lines, to guard against vibration or rubbing and possible failure.
10. Is there at least six inches clearance behind, and at both sides of the cabinet for proper air circulation?
11. Is the cabinet in a room where ambient temperatures are within the minimum and maximum temperatures specified?
12. Has water supply pressure been checked to insure a minimum of 20 PSIG operating pressure?
13. Has the owner been given the name and telephone number of the authorized SCOTSMAN Service Agency serving him?

OPERATING INSTRUCTIONS

OPERATING INSTRUCTIONS

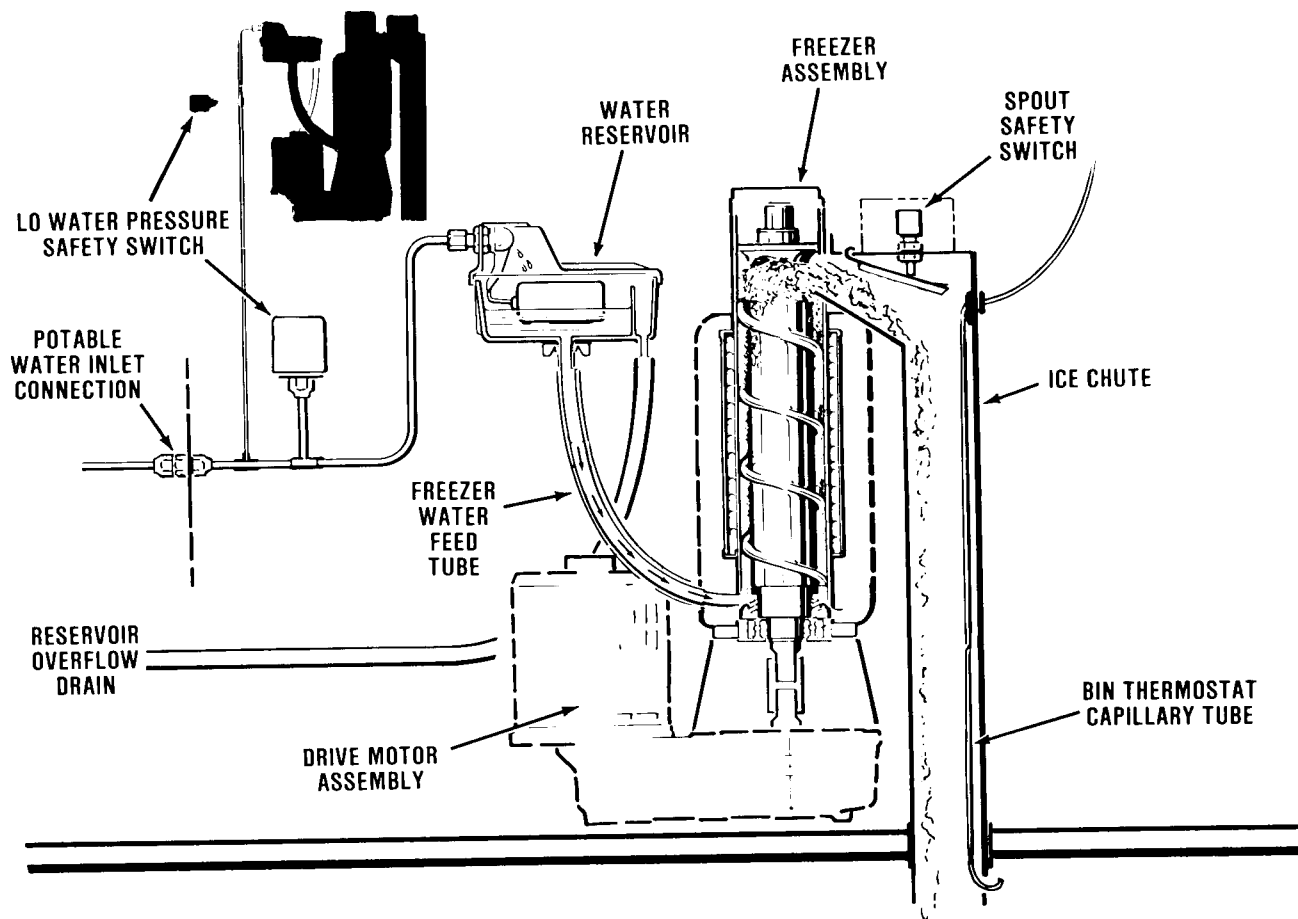
START UP

1. Remove screws and the top and front panel.
2. OPEN the water supply line shutoff valve.
3. Observe the water filling operation, see Water Schematic illustration.
 - a. Water flows into both water reservoirs.
 - b. Water flows through water feed line to bottom of freezer assemblies.
 - c. Floats move up as water rises.
 - d. Floats stop water flow, when water level reaches the molded horizontal line, on the body of the water reservoir.
4. Check all internal water connections for leaks.
5. Move both Master ON-OFF toggle switches to the ON positions to start the automatic icemaking operation.

6. Observe that ice begins dropping from each ice chute into the ice storage bin.
7. Let the two systems operate until ice covers the bottom of the bin. Check for any excess noises beyond normal compressor noise:
 - a. Fan noises, when air-cooled: blades touch other surfaces; blades bent, out-of-balance.
 - b. Vibrating type, from touching lines.
 - c. Chattering: Lack of water in freezer.
 - d. Compressor loose at one or more holdown bolts.

WARNING

DO NOT operate this icemaker when the water supply is OFF, or is BELOW the recommended 20 PSIG water pressure. Move the Master ON-OFF toggle to OFF, immediately.



MF6C OPERATING INSTRUCTIONS

- Place ice on each ice storage bin thermostat control bulb, to test shut-off of each individual system. Less than one minute is normal for shut off function to cause the compressor of each individual system to stop.

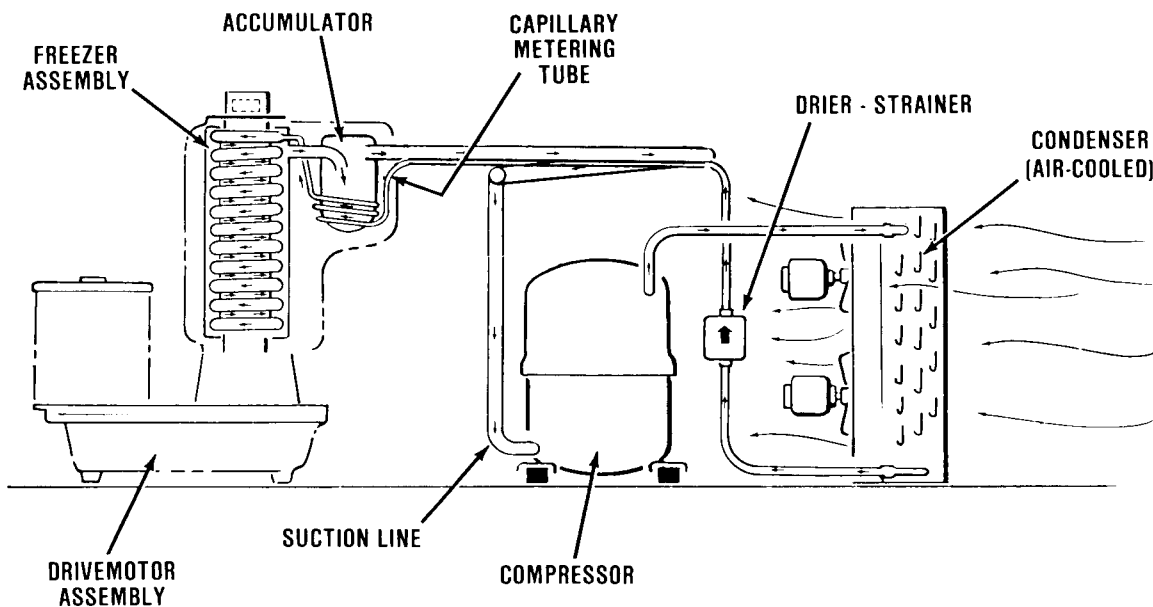
Within minutes after the ice is removed from the sensing bulb, the bulb will warm up and cause the icemaker to restart. This control is factory set and should not be reset until testing is performed. Normal setting is 35-degrees F. CUT-OUT and 45-degrees F. CUT-IN, to prevent short cycling.

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

ICEMAKER OPERATION

The water supply flows from the building source through the optional inline water strainer, enters at the inlet fitting and on to the water reservoirs. The water reservoirs function to maintain a constant water level inside the freezer assemblies. Water from the water reservoirs enters at the bottom of each freezer assembly and is changed into ice by low temperatures inside the freezer.

Moving the Master ON-OFF switches to the ON positions starts the automatic and continuous icemaking process. A stainless steel auger within the freezer is powered by the drivemotor assemblies, a direct-drive gearmotor, and the rotating augers carry the ice upward to the end of the augers, see Water Schematic illustration, and pushed out through the ice chutes and into the ice storage bin. When the ice storage bin has been filled with ice, up to the level of the bin thermostat control capillary bulbs, the icemaking processes shut OFF.



Refrigeration Cycle

MF6C OPERATING INSTRUCTIONS

When ice is removed from the ice storage bin, the bulb warms up, restarting the automatic icemaking process.

Factory settings of the Bin Thermostats are 35-degrees F. CUT-OUT and 45-degrees F. CUT-IN.

Altitude adjustment should ONLY be performed on icemakers installed at 2000-foot level locations and ABOVE, and adjust only in increments of one-fourth turn of screw at a time.

ELECTRICAL OPERATION

The Model MF6C icemakers are designed to operate on standard electrical supply 230 volts, 60 Hertz, single phase. Other voltage requirements are available on special order. Therefore, always CHECK NAMEPLATE for electrical information BEFORE proceeding with wiring connection to the icemaker.

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.

Each ice chute has a safety switch that acts as a backup, should the bin thermostat control fail, and cause ice to jam up, in the chute. This safety switch will shut off the icemaker when actuated; and is an immediate and complete shutdown of the icemaker. When ice blockage is removed the icemaker will automatically restart.

There are three safety controls in the control box on the water-cooled models and two safety controls in the control box for the air-cooled models. The low pressure control, an automatic reset, non-adjustable control, is used on both models 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 drivemotor 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.

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 drivemotor circuit. If one of the operating controls OPENS, it will SHUT OFF the compressor circuit. The drivemotor will operate until the low side pressure increases to 32 PSIG. Then, the 1-2 contacts OPEN and SHUTS OFF the drivemotor, 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 START-UP 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.

On all models, a low-water pressure switch functions to discontinue the icemaking process whenever inlet water pressure is reduced to below 20 PSIG. The switch will automatically restart the icemaking process when the water pressure is increased to 20 PSIG.

On the water-cooled models only, a manual reset, high head pressure control is factory set to stop the entire icemaker should the head pressure reach 250 PSIG.

On water-cooled models, correct head pressure is 135 PSIG. Adjustments can be made on the water regulator assembly valve. On air-cooled models, the head pressure is normal about 130 PSIG, however it will vary depending upon ambient air temperature.

Suction pressure should be 14 PSIG with proper refrigerant charge. Suction pressure will vary about two PSIG plus or minus, depending upon ambient temperatures and inlet water supply temperatures to the freezer assembly.

When charging the system with refrigerant, always CHECK NAMEPLATE for specific refrigeration charge for individual icemaker.

ADJUSTMENT AND REMOVAL AND REPLACEMENT

Read the instructions thoroughly before performing any adjustment or removal and replacement procedures.

ADJUSTMENT OF THE BIN THERMOSTAT CONTROL

The control for the bin thermostat is the temperature control, located in the center of the control box.

See *Adjustment of the Temperature Control* for location and direction of rotation, clockwise (CW) or counterclockwise (CCW), of the adjusting screws on the temperature control.

To adjust the bin thermostat control:

1. Hold a handful of ice against the capillary bulb in the ice storage bin.
2. Slowly rotate the adjusting screw in the appropriate direction until the icemaker shuts OFF.

3. Remove ice from the capillary bulb; then, place warm hand on the capillary bulb to restart the icemaker.
4. Place handful of ice against the capillary bulb and observe that the icemaker should shut OFF within ten seconds, usually less.

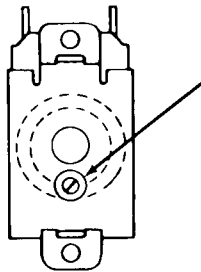
//////////////////// **WARNING** //////////////////////

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 instructions and illustrations. Over-adjusting or erratic guessing, can foul the instrument and cause ultimate delay and part replacement, WHICH COULD HAVE BEEN PREVENTED.

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GENERAL ELECTRIC

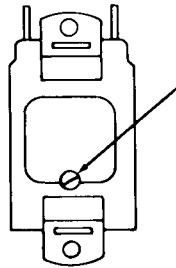
ADJUST RANGE SCREW



ROTATE CCW
COLDER

ROBERTSHAW

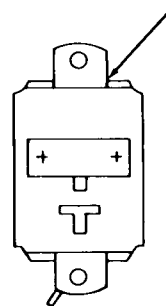
ADJUST RANGE SCREW



ROTATE CW
COLDER

RANCO

ADJUST RANGE SCREW (BEHIND PANEL, TOP SIDE)



ROTATE CW
COLDER

Adjustment of the Temperature Control

MF6C ADJUSTMENT AND REMOVAL AND REPLACEMENT

ADJUSTMENT OF THE WATER REGULATOR ASSEMBLY

The correct head pressure on water-cooled models is 135 PSIG. Adjustments can be performed on the water regulator assembly to increase or decrease the head pressure.

To adjust the water regulator assembly:

1. To INCREASE the head pressures: Rotate the adjusting screw, on the water regulator assembly COUNTERCLOCKWISE.
2. To DECREASE the head pressure: Rotate the adjusting screw, on the water regulator assembly CLOCKWISE.

ADJUSTMENT OF THE WATER RESERVOIR FLOAT

The correct water level in the water reservoir should be at the level of 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 bending the metal arm of the float, inside the water reservoir.

To adjust the water reservoir float:

1. To RAISE the water level: Hold one end of the metal arm of the float and slightly bend the float up.
2. To LOWER the water level: Hold one end of the metal arm of the float and slightly bend the float DOWN.
3. To perform MAJOR adjustment:
When repair or replacement has been performed and the water level line between the water reservoir and the freezer assembly has been substantially altered:
 - a. Loosen the three screws and lockwashers which attach the reservoir bracket and water reservoir to the freezer mount.
 - b. Move the reservoir bracket UP or DOWN to properly position the water reservoir at the correct water line level within the freezer. The proper water level within the freezer is just below the top of the auger.
 - c. When proper water level within the freezer is adjusted, re-tighten screws attaching the water reservoir bracket to the freezer mount.

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

To remove the auger, water seal, bearings, and coupling:

////////// 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.

//////////

1. Remove screws and the top panel.
2. Remove the freezer cap from the top of the freezer assembly.
3. Remove two wing nuts and separate the ice chute assembly from the spout on the freezer assembly.
4. Remove four screws and washers and separate the spout assembly from the spout plate on the freezer assembly.

Inspect the spout gasket and retain for the replacement procedure. Replace a torn, cut or worn, defective gasket.
5. 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.

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.

6. Remove the cap hook from the bearing/retainer.
7. Remove the retaining ring and the cap.
8. Remove the cap screw and washer and remove the bearing/retainer from the auger.
9. 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.
10. 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.

MF6C ADJUSTMENT AND REMOVAL AND REPLACEMENT

11. 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.
12. Slide the upper half of the water seal off of the bottom of the auger.

NOTE

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.

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.

13. Remove four screws and lockwashers which attach the freezer assembly to the adaptor on the drivemotor assembly.
14. Raise the freezer assembly off of the adaptor, to gain access to the bearing and retainer; then, temporarily secure the freezer assembly up out of the way to allow room to work. Be careful not to damage the gasket.
15. 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.
16. Reach through the adaptor and remove the coupling on the drivemotor for inspection.
17. Check the coupling for cracks, chipping and excessive wear.

To replace the auger, water seal, bearings, and coupling, reverse the removal procedure.

NOTE

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.

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.

REMOVAL AND REPLACEMENT OF THE COMPRESSOR ASSEMBLY

To remove compressor:

1. Remove two screws and the cover from the compressor junction box.
2. Disconnect the electrical leads at the compressor junction box, that originate in the control box.
3. Bleed off or blow the refrigerant charge through the Schrader valve.
4. Unsolder the suction line from the compressor.
5. Unsolder the discharge line from the compressor.
6. Unsolder the process header tube from the compressor and retain for installation on the replacement compressor.
7. Remove four bolts, lockwashers and washers which secure the compressor to the chassis mounting base.
8. Remove the compressor from the chassis.
9. To replace the compressor assembly, reverse the removal procedures.

NOTE

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.

NOTE

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

10. When recharging the system with refrigerant, always check nameplate for the specified refrigerant charge.

(Continued on page 37)

THE PARTS ILLUSTRATIONS AND PARTS LISTS

GENERAL

This section contains the Parts Illustrations and the Parts List for each of the major assemblies in the Model MF6C Ice maker.

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.

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 icemaker for which the part is required, and for parts which require color matching, the color of the Cabinet.

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.

- 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.

Write an order for the Part. (Use SCOTSMAN Parts Order Form (DN103). Be sure to include:

- Distributor Name.
- (Use for DROP-SHIP order ONLY.)
- Distributor Purchase Order Number.
- Carrier.
- How shipped (Truck, Rail, UPS, etc.)
- Date ordered.
- Part Catalog Number. (Use full TEN digits (spaces) listed in Parts Manual, including dashes between numbers.)
- Description - as listed in Parts Manual.
- Quantity - number of parts ordered. (Use far right column.)

MF6C

WIRING DIAGRAMS

This section is provided as an aid in understanding the electrical circuitry.

WARNING

When conducting a continuity check of the electrical system:

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

The wiring diagrams in this Section are:

AIR-COOLED MODELS 208/60/1 and 230/60/1
(with Contactor Isolation Relay)

WATER-COOLED MODELS 208/60/1 and 230/60/1
(with Contactor Isolation Relay)

AIR-COOLED MODELS 208-230/60/3
(with Contactor Isolation Relay)

WATER-COOLED MODELS 208-230/60/3
(with Contactor Isolation Relay)

AIR-COOLED MODELS 208/60/1 and 230/60/1
(without Contactor Isolation Relay)

WATER-COOLED MODELS 208/60/1 and 230/60/1
(without Contactor Isolation Relay)

AIR-COOLED MODELS 208-230/60/3
(without Contactor Isolation Relay)

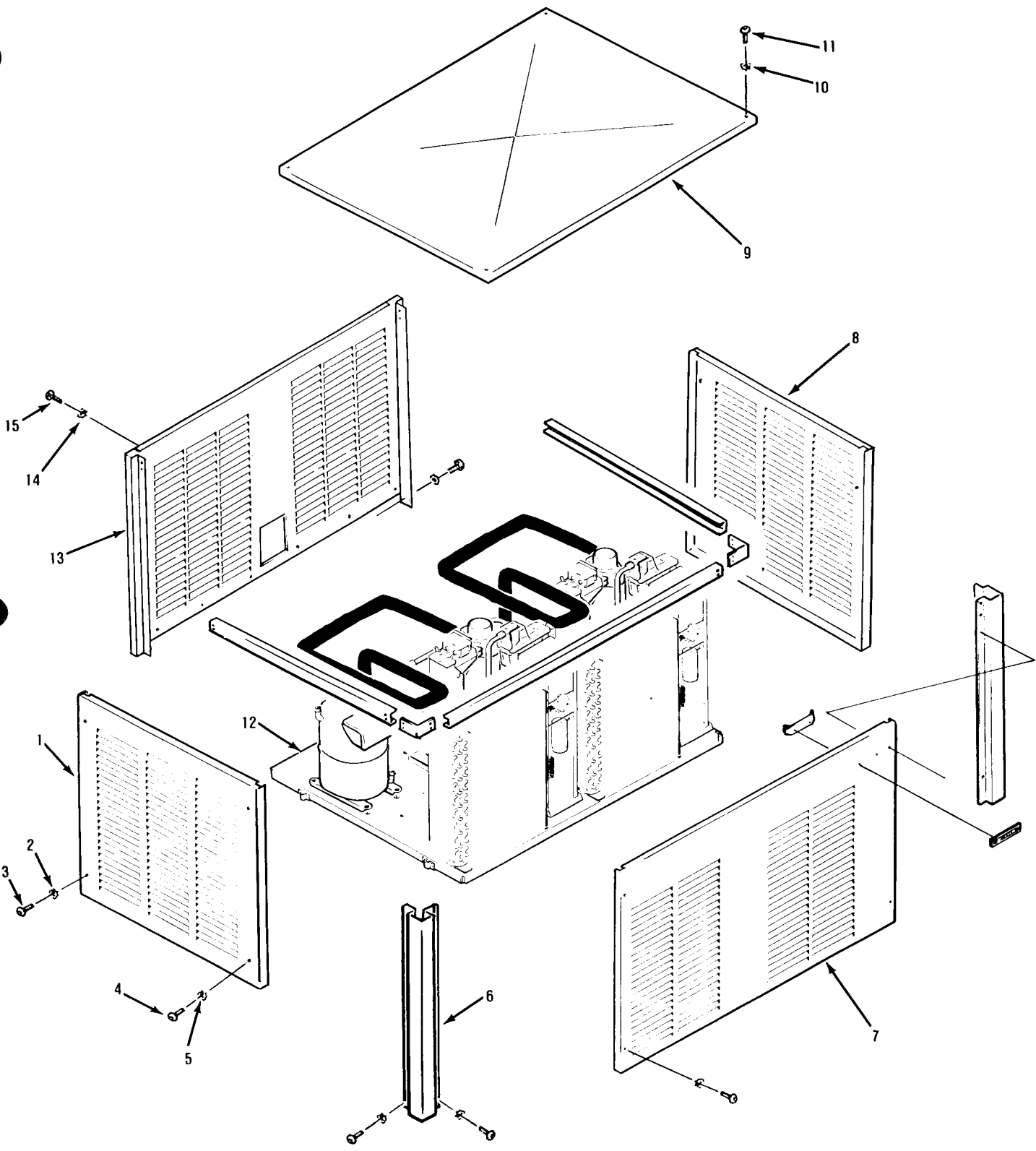
WATER-COOLED MODELS 208-230/60/3
(without Contactor Isolation Relay)

MF6C
THE PARTS ILLUSTRATIONS AND PARTS LISTS

CABINET ASSEMBLY

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	A30668-001	Side Panel
2	03-1417-03	Washer
3	03-1404-19	Screw
4	03-1404-19	Screw
5	03-1417-03	Washer
6	A30674-001	Corner Post
7	A30667-001	Panel Front
8	A30668-001	Side Panel
9	A30672-001	Panel Top
10	03-1417-03	Washer
11	03-1404-10	Screw
12	<i>No Number</i>	Base Assembly
13	A30669-001	Panel Rear
14	03-0571-00	Screw
15	03-1417-09	Washer

MF6C
THE PARTS ILLUSTRATIONS AND PARTS LISTS



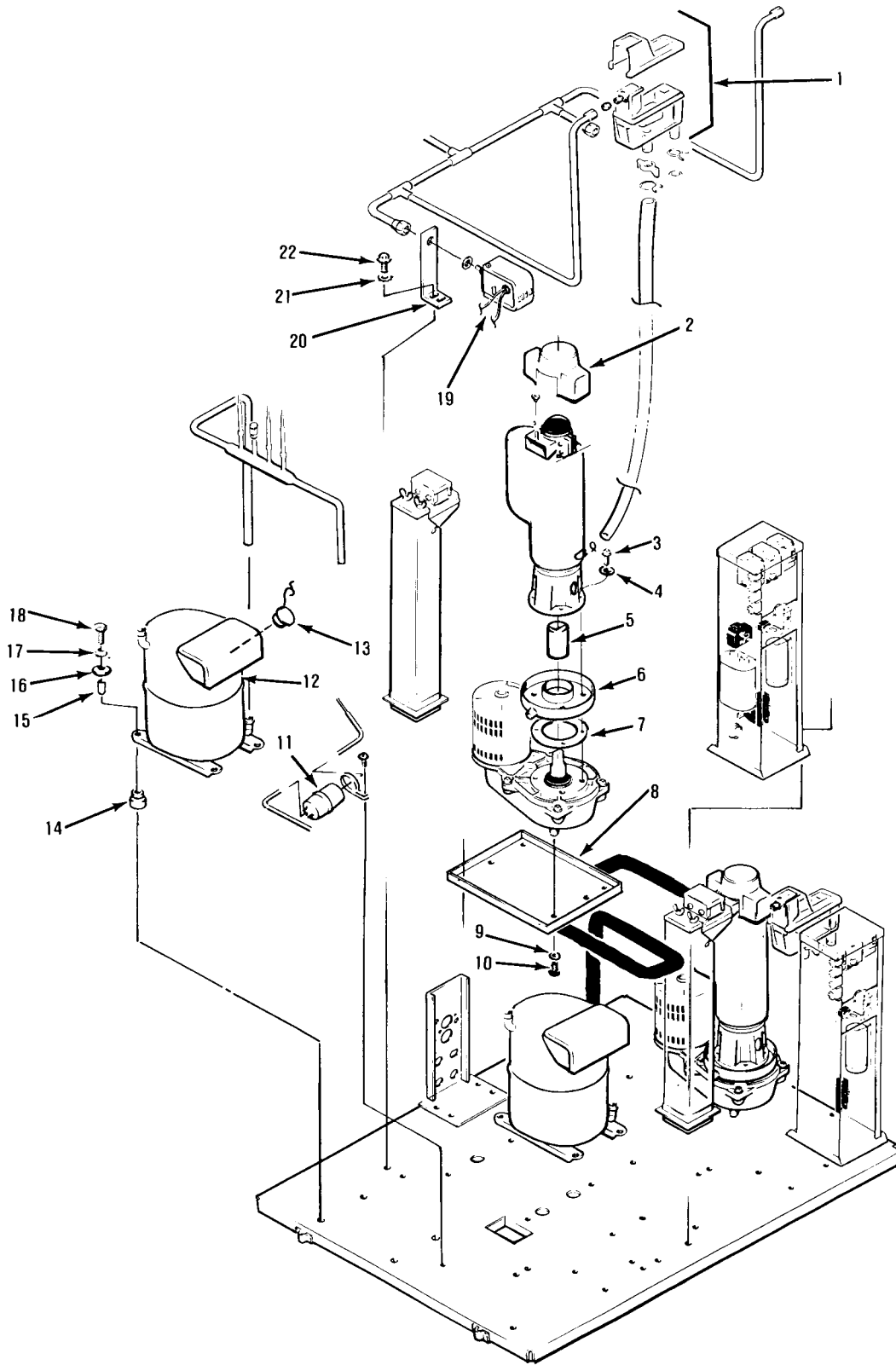
Cabinet Assembly

MF6C
THE PARTS ILLUSTRATIONS AND PARTS LISTS

MAJOR ASSEMBLIES

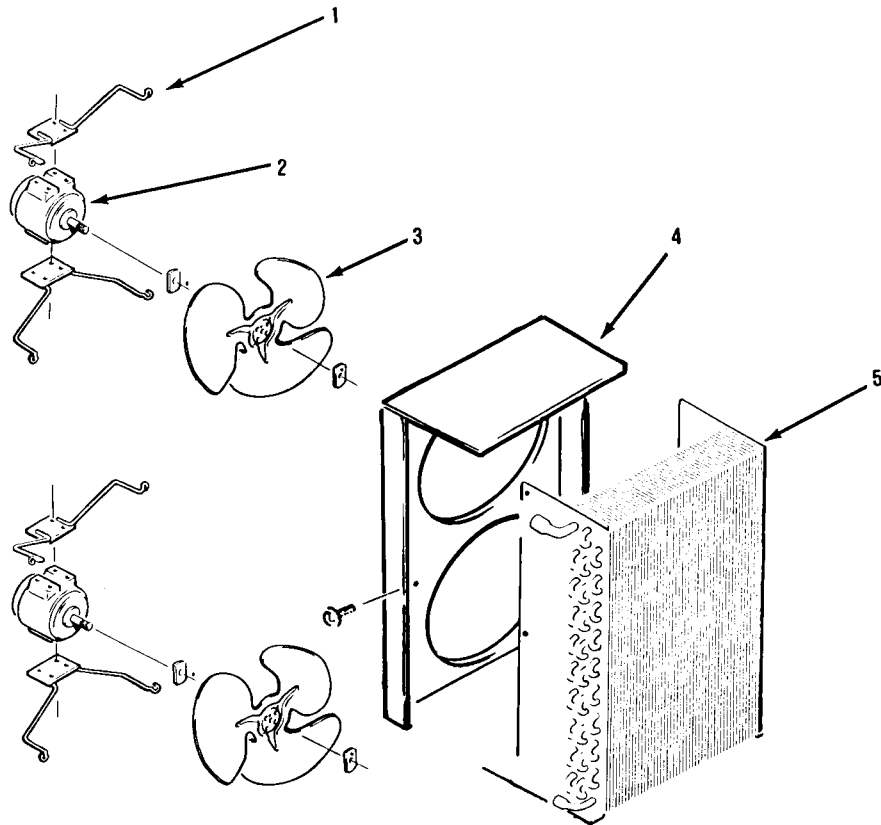
ITEM NUMBER	PART NUMBER	DESCRIPTION
1	02-2217-01	Reservoir
2	13-0809-01	Freezer Cap
3	03-1420-03	Screw
4	03-1408-03	Washer
5	15-0573-01	Coupling
6	A21290-000	Drip Pan
7	13-0704-00	Gasket
8	A28207-001	Motor Plate
9	03-1408-35	Washer
10	03-1420-01	Screw
11	02-0544-01	Drier
12	18-3800-02	Compressor Assem. - 230/60/1
	18-3800-03	Compressor Assem. - 208-220/60/3
	18-3800-07	Compressor Assem. - 208/60/1
13	18-2300-25	Overload - 230/60/1
	18-2300-32	Overload - 208/60/1
		NOTE: 208-220/60/3 Internally protected. No Service Replacement Part.
14	18-2300-27	Grommet
15	18-2300-26	Sleeve
16	03-2408-29	Washer
17	03-1417-12	Lockwasher
18	03-1405-40	Screw
19	11-0296-00	Low Pressure Control (Water)
20	A30705-001	Pressure Control Bracket
21	03-1417-09	Lockwasher
22	03-0571-00	Screw

MF6C THE PARTS ILLUSTRATIONS AND PARTS LISTS



Major Assemblies

MF6C THE PARTS ILLUSTRATIONS AND PARTS LISTS

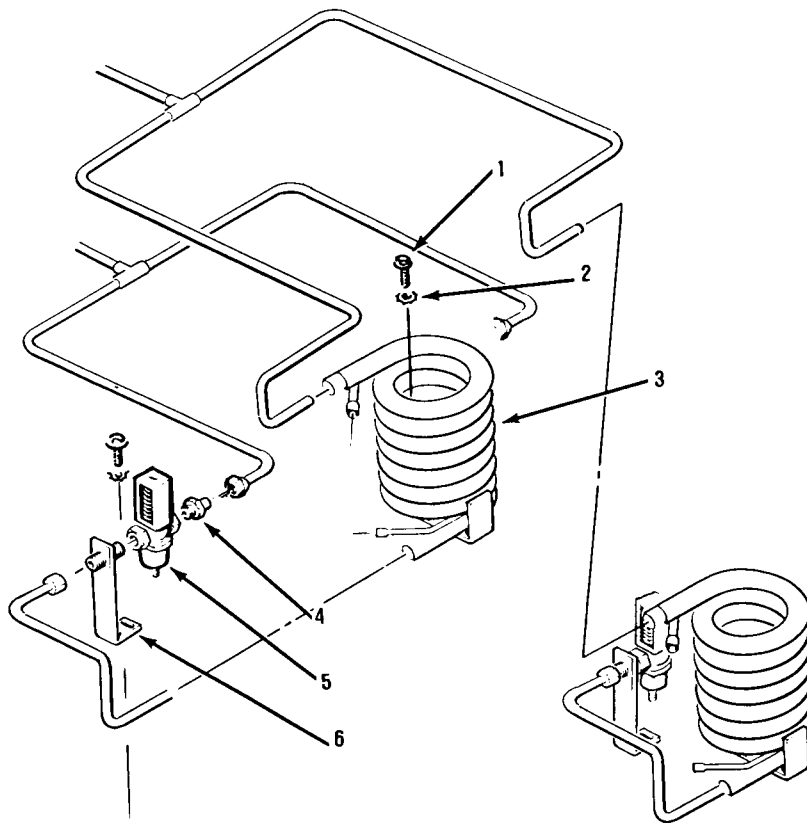


AIR-COOLED ASSEMBLIES

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	02-2373-01	Fan Mounting Bracket
2	12-1575-02	Fan Motor
3	18-0231-00	Fan Blade and Nut
4	A26161-001	Shroud
5	18-3714-01	Condenser

Air-Cooled Assemblies

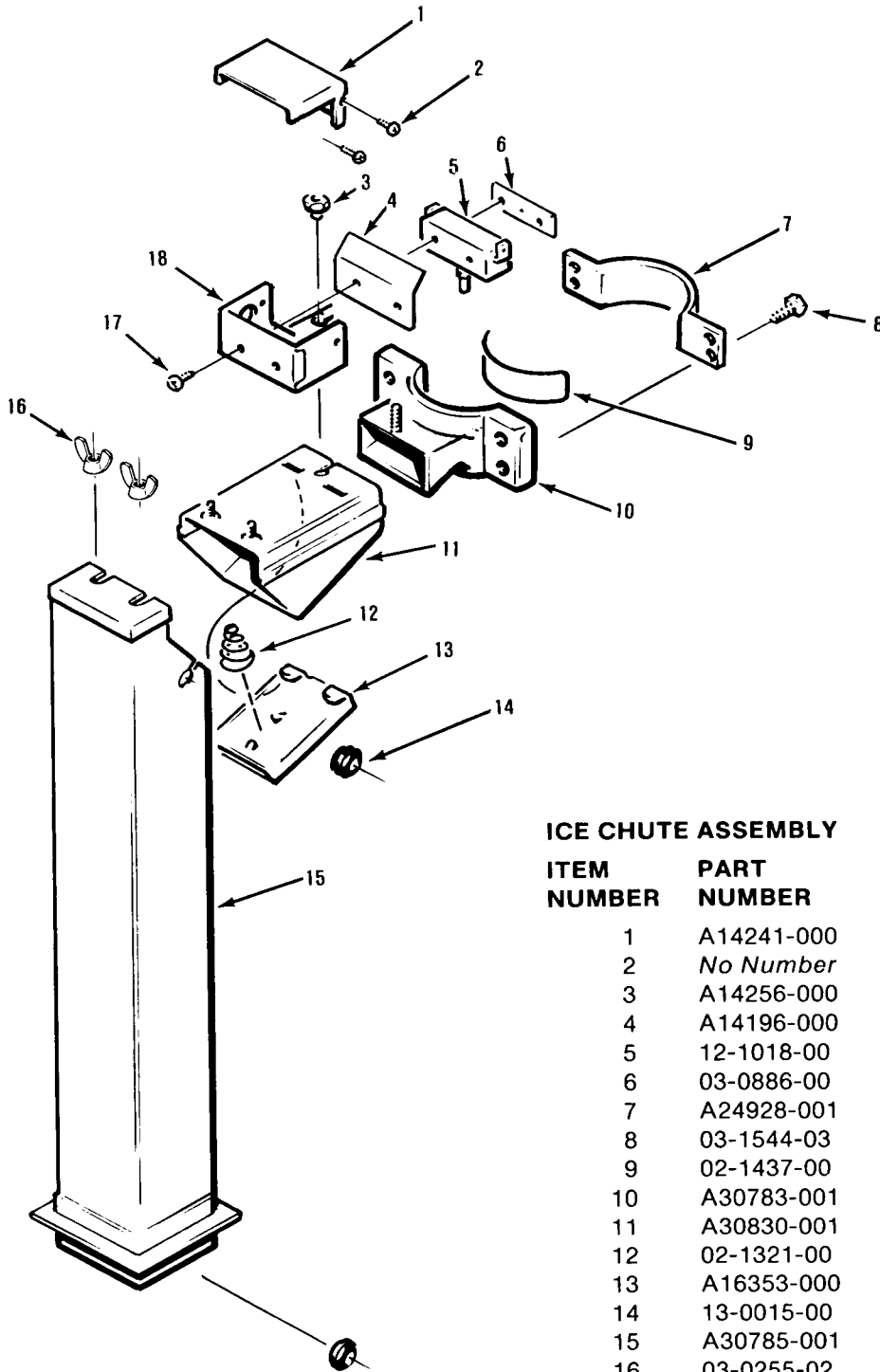
MF6C
THE PARTS ILLUSTRATIONS AND PARTS LISTS



WATER-COOLED ASSEMBLIES

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	03-0571-00	Screw
2	03-1417-09	Lockwasher
3	18-3306-02	Condenser
4	16-0355-00	Coupling
5	11-0198-02	Water Regulator
6	A15924-000	Pipe Nipple Assembly

MF6C THE PARTS ILLUSTRATIONS AND PARTS LISTS



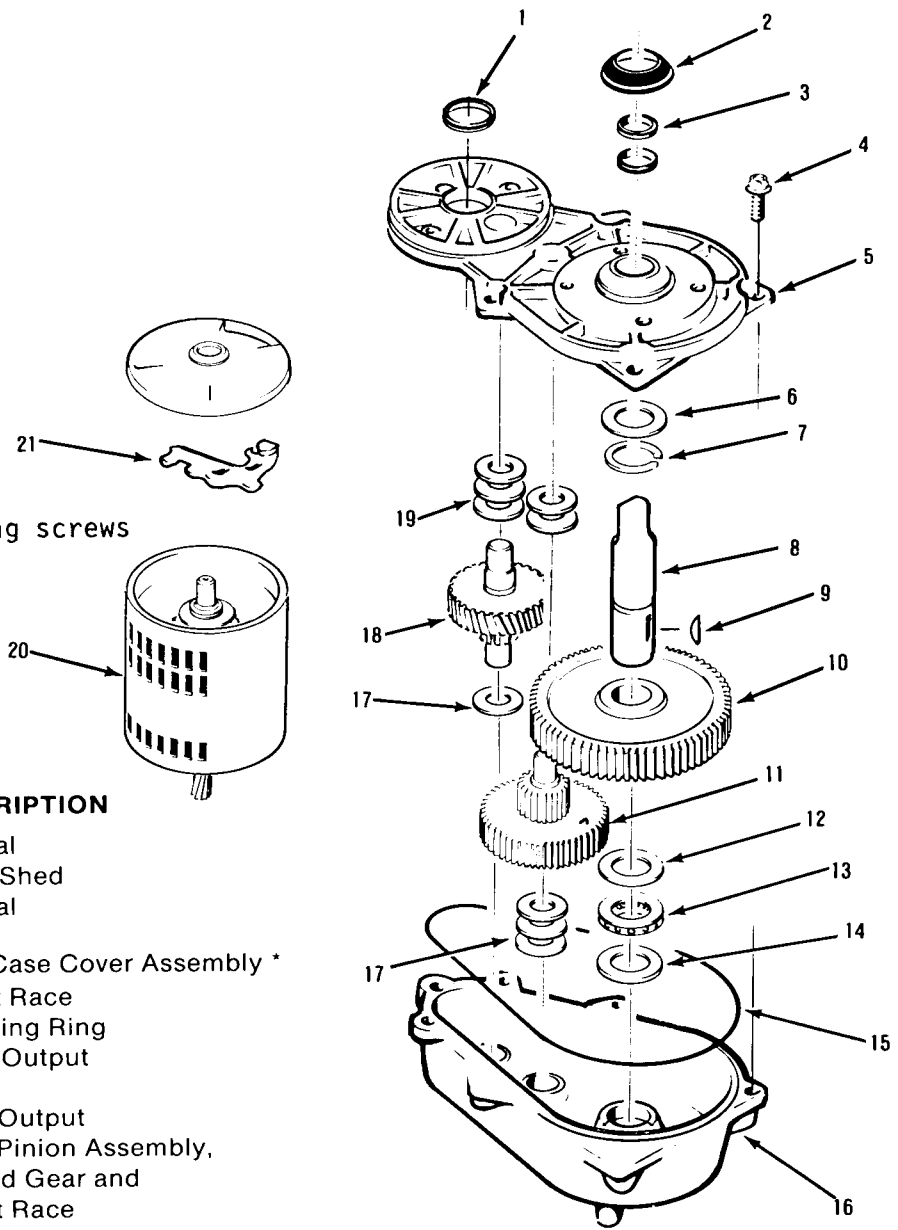
ICE CHUTE ASSEMBLY

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	A14241-000	Cover
2	No Number	Screw
3	A14256-000	Nut
4	A14196-000	Insulation
5	12-1018-00	Switch
6	03-0886-00	Speed Nut
7	A24928-001	Spout Plate
8	03-1544-03	Screw
9	02-1437-00	Gasket
10	A30783-001	Spout
11	A30830-001	Spout Fabricated Assembly
12	02-1321-00	Spring
13	A16353-000	Pressure Plate Assembly
14	13-0015-00	Grommet
15	A30785-001	Ice Chute Fab. Assembly
16	03-0255-02	Wing Nut
17	03-1403-08	Screw
18	A14976-000	Box Limit

Ice Chute Assembly

MF6C

THE PARTS ILLUSTRATIONS AND PARTS LISTS



*NOTE: Torque cover mounting screws
250-300 inch pounds.

DRIVE MOTOR ASSEMBLY

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	02-1606-00	Oil Seal
2	13-0709-02	Water Shed
3	02-1607-01	Oil Seal
4	03-1251-01	Screw
5	A31230-001	Gear Case Cover Assembly *
6	02-1681-00	Thrust Race
7	03-1363-00	Retaining Ring
8	02-1652-00	Shaft, Output
9	03-1364-00	Key
10	02-1653-00	Gear, Output
11	02-2071-00	Third Pinion Assembly, Second Gear and
12	02-1681-00	Thrust Race
13	02-1680-00	Bearing
14	02-1679-00	Thrust Race
15	A26103-001	"O" Ring
16	A31230-001	Gear Case Assembly Bottom *
17	03-1408-24	Washer
18	02-2072-00	Second Pinion Assembly, First Gear and
19	03-1408-24	Washer
20.	A32425-002	Drive Motor
21.	12-1741-22	Start Switch, Emerson
	12-1741-28	Start Switch, Ge
	12-2314-21	Cent. Switch, Ge (p.s.c.)
23.	A32402-022	Gearmotor Assembly, Complete
24.	A25835-001	Gearcase Oil

*NOTE: Gearcase cover and
bottom are sold as a set only.
Order Part Number A31230-001

Drive Motor Assembly

MF6C

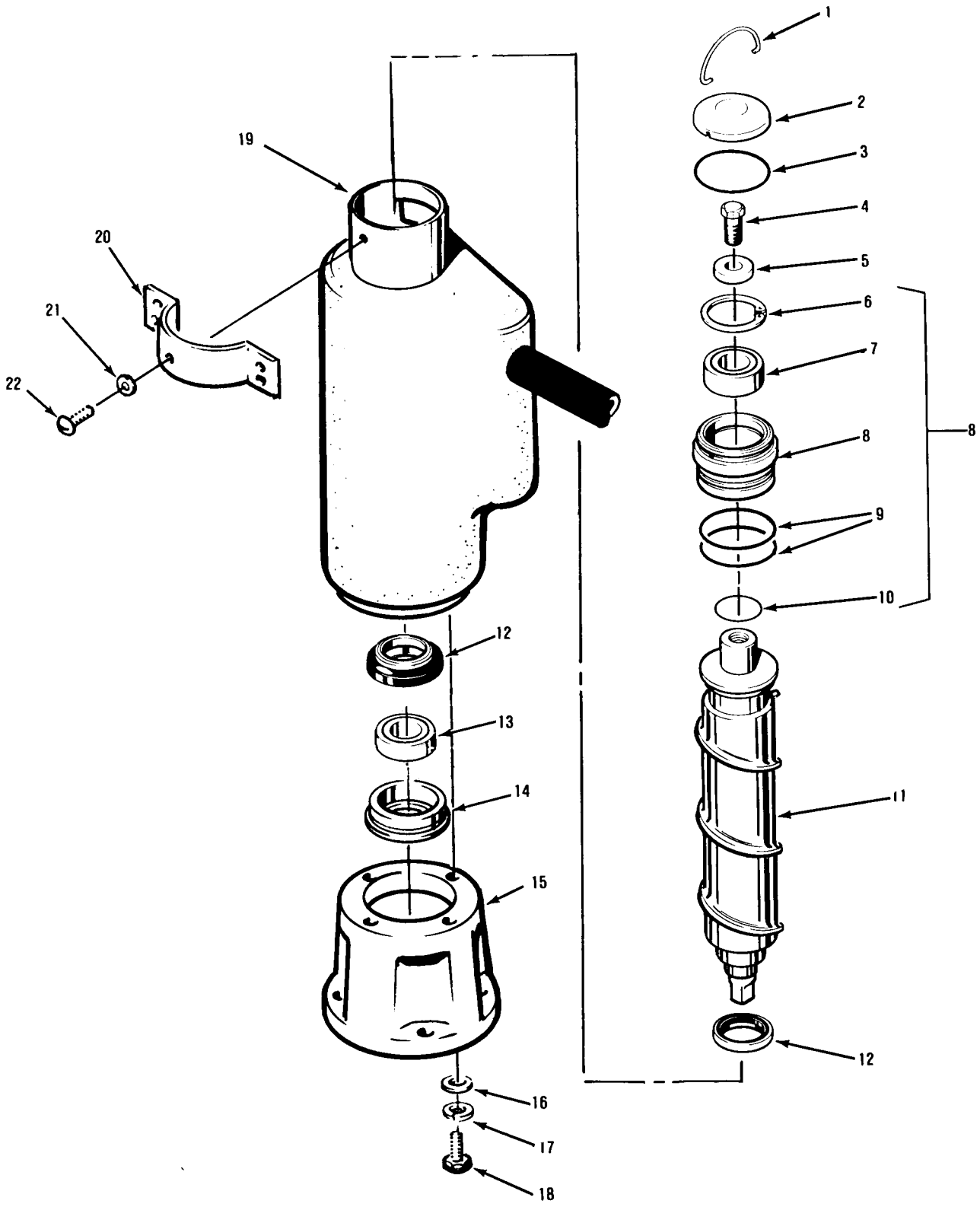
THE PARTS ILLUSTRATIONS AND PARTS LISTS

Note: See Page 26 and 27 First Production Only.
Serial Numbers 714944-09F thru 914967-09F.

FREEZER ASSEMBLY

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	A08582-000	Breaker Hook
2	A08581-000	Freezer Cap
3	13-0617-20	"O" Ring
4	03-1405-36	Screw
5	A06273-000	Washer
6	03-1558-04	Retainer Ring
7	02-0646-00	Bearing
8	A26708-001	Bearing Retainer (Includes Items 6-10)
9	13-0617-40	"O" Ring
10	13-0617-15	"O" Ring
11	02-2048-01	Auger
12	02-0929-01	Water Seal
13	02-0619-00	Bearing
14	A10591-000	Bearing Retainer
15	02-1629-00	Adapter
16	03-1410-04	Washer
17	03-1408-03	Washer
18	03-1420-03	Screw
19	A30779-020	Freezer
20	A24928-001	Spout Plate
21	03-1409-20	Washer
22	03-1506-03	Screw

MF6C THE PARTS ILLUSTRATIONS AND PARTS LISTS



Freezer Assembly

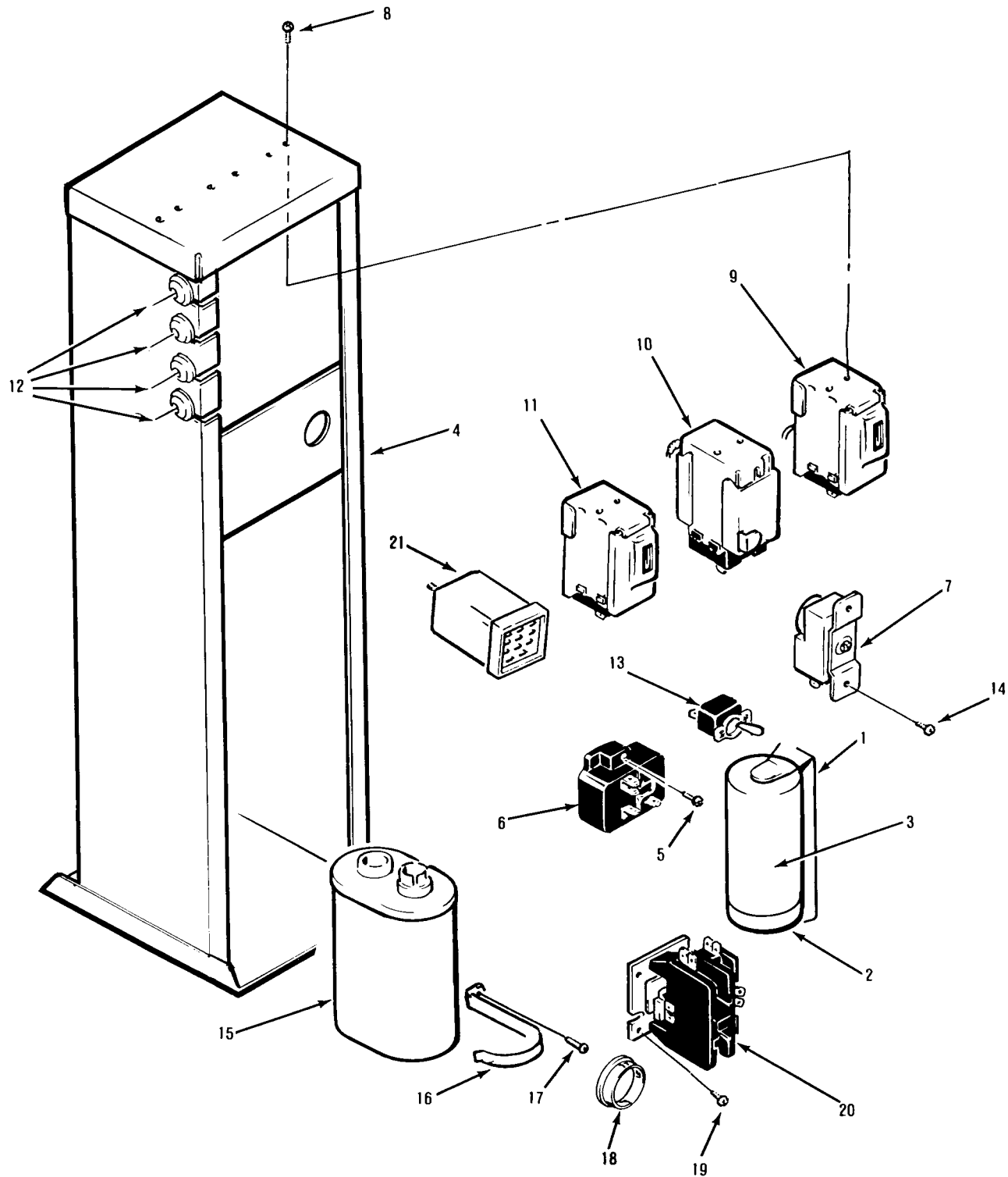
MF6C

THE PARTS ILLUSTRATIONS AND PARTS LISTS

CONTROL BOX

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	18-2200-39	Start Capacitor Bracket
2	18-3724-01	Capacitor Cap
3	18-1901-15	Start Capacitor — 230-208/60/1
4	A28065-001	Control Box
5	03-1403-04	Screw
6	18-1903-29	Relay — 230/60/1
	18-1903-34	Relay — 208/60/1
7	11-0412-01	Bin Thermostat
8	03-1403-02	Screw
9	11-0402-01	Auger Relay Control
10	11-0403-01	Fan Pressure Control (A-C)
	11-0388-02	Hi Pressure Control (W-C)
11	11-0420-01	Low Pressure Control
12	13-0557-00	Grommet
13	12-0426-01	Master Switch
14	03-1403-17	Screw
15	18-1902-29	Run Capacitor — 230/60/1
	18-1902-34	Run Capacitor — 208/60/1
16	<i>No Number</i>	Capacitor Bracket
17	03-1403-23	Screw
18	12-1213-12	Snap Bushing
19	03-1403-17	Screw
20	12-2048-02	Contactactor 230-208/60/1
	12-0739-02	Contactactor 208-230/60/3
21	12-2090-05	Relay, Contactactor Isolation, 208-230

MF6C THE PARTS ILLUSTRATIONS AND PARTS LISTS



Control Box Assembly

MF6C
THE PARTS ILLUSTRATIONS AND PARTS LISTS

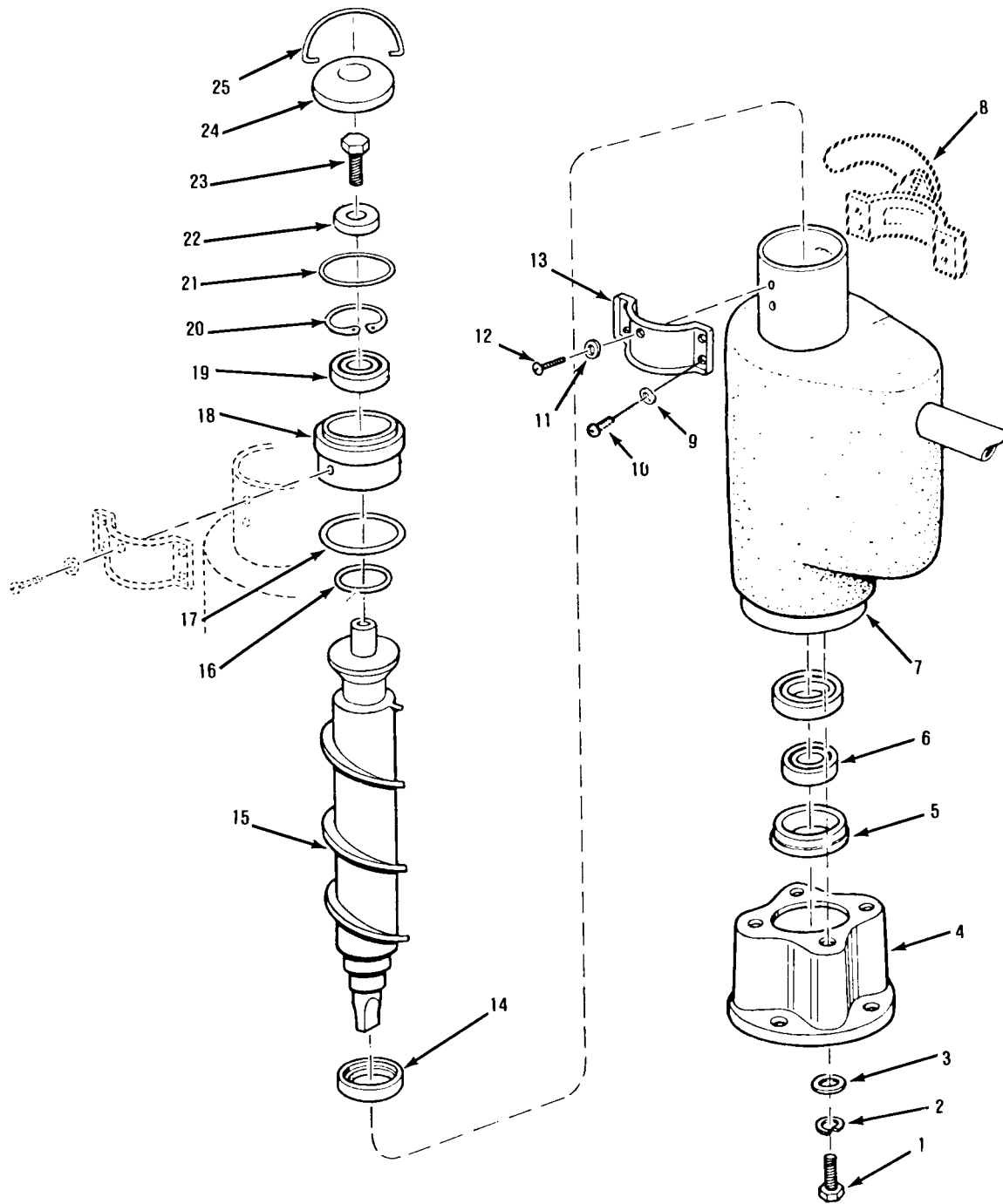
FREEZER ASSEMBLY

FIRST PRODUCTION ONLY

SERIAL NUMBERS 714944-09F THRU 714967-09F

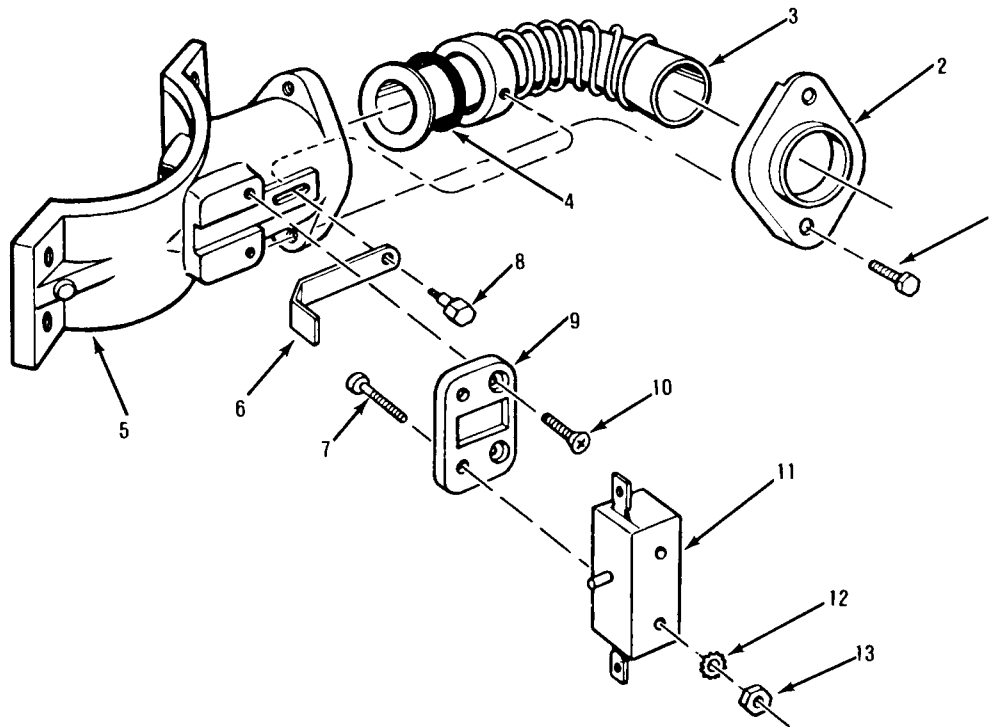
ITEM NUMBER	PART NUMBER	DESCRIPTION
1	03-1405-41	Screw
2	03-1408-03	Washer
3	03-1410-04	Washer
4	02-1629-00	Adapter
5	A10591-000	Bearing Retainer
6	02-0619-00	Bearing
7	A29361-020	Freezer
8	<i>No Number</i>	Spout
9	03-1409-20	Washer
10	03-1506-05	Screw
11	03-1409-20	Washer
12	03-1506-03	Screw
13	A24928-001	Spout Plate
14	02-0929-01	Water Seal
15	02-2048-01	Auger
16	13-0617-15	"O" Ring
17	13-0617-40	"O" Ring
18	A26708-001	Bearing Retainer and Bearing
19	02-0646-00	Bearing
20	03-1558-04	Retainer Ring
21	13-0617-20	"O" Ring
22	A06273-000	Washer
23	03-1405-36	Screw
24	A08581-000	Freezer Cap
25	A08582-000	Breaker Hook

MF6C THE PARTS ILLUSTRATIONS AND PARTS LISTS



Evaporator Assembly

MF6C THE PARTS ILLUSTRATIONS AND PARTS LISTS



SPOUT ASSEMBLY

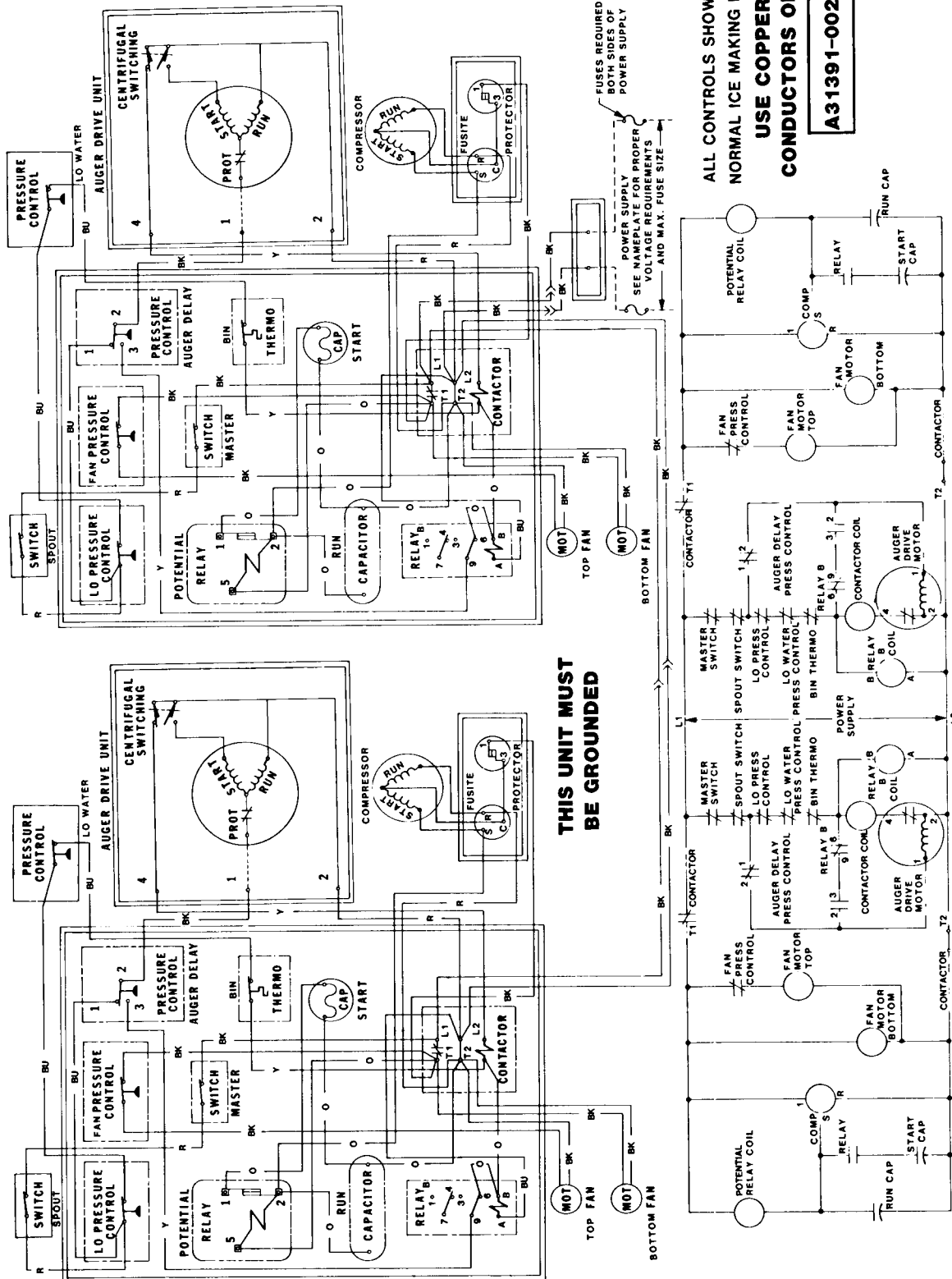
First Production ONLY
Serial Numbers 714944-09F thru 714967-09F

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	03-1405-02	Screw 1/4-20 x 3/8 Hex Head Cap
2	A29041-001	Retainer Plate
3	02-2490-01	Tube, Ice Discharge
4	13-0617-43	"O" Ring
5	A29050-001	Spout
6	A29429-001	Actuator, Switch
7	03-1418-38	Screw No. 6-32 x 1 Flat Head Machine Phil Recess
8	A25305-001	Screw, Shoulder
9	02-2377-01	Barrier, Thermal
10	03-1418-01	Screw No. 6-32 x 3/8 Flat Head Machine - Phil Recess
11	12-1644-00	Switch
12	03-1417-01	Lockwasher No. 6 External Tooth Phosphor Bronze
13	03-1406-01	Nut No. 6-32 Hex Machine Screw
14	A29430-020	Complete Assembly

Spout Assembly

MF6C WIRING DIAGRAMS

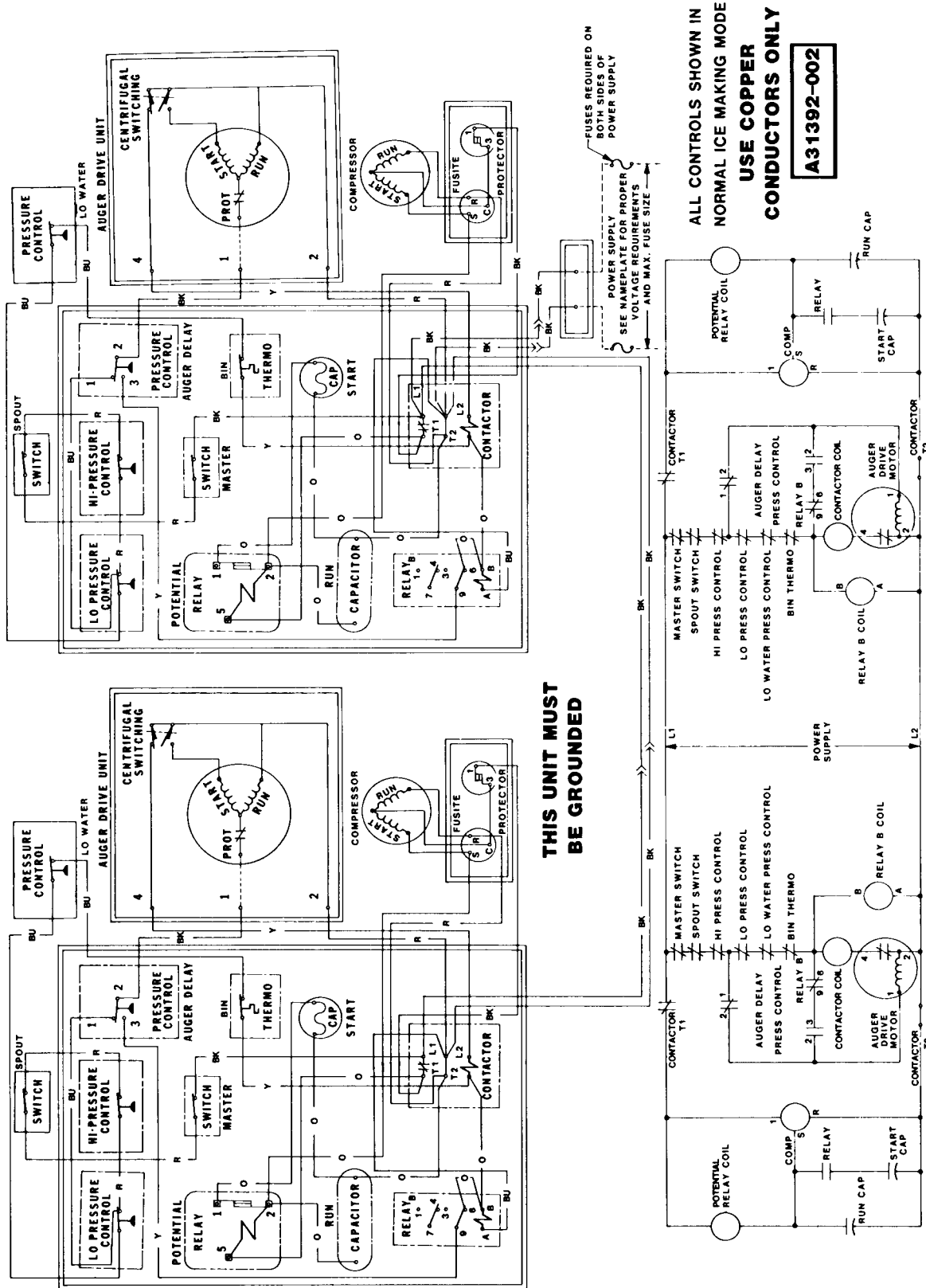
(WITH CONTACTOR ISOLATION RELAY)



**THIS UNIT MUST
BE GROUNDED**

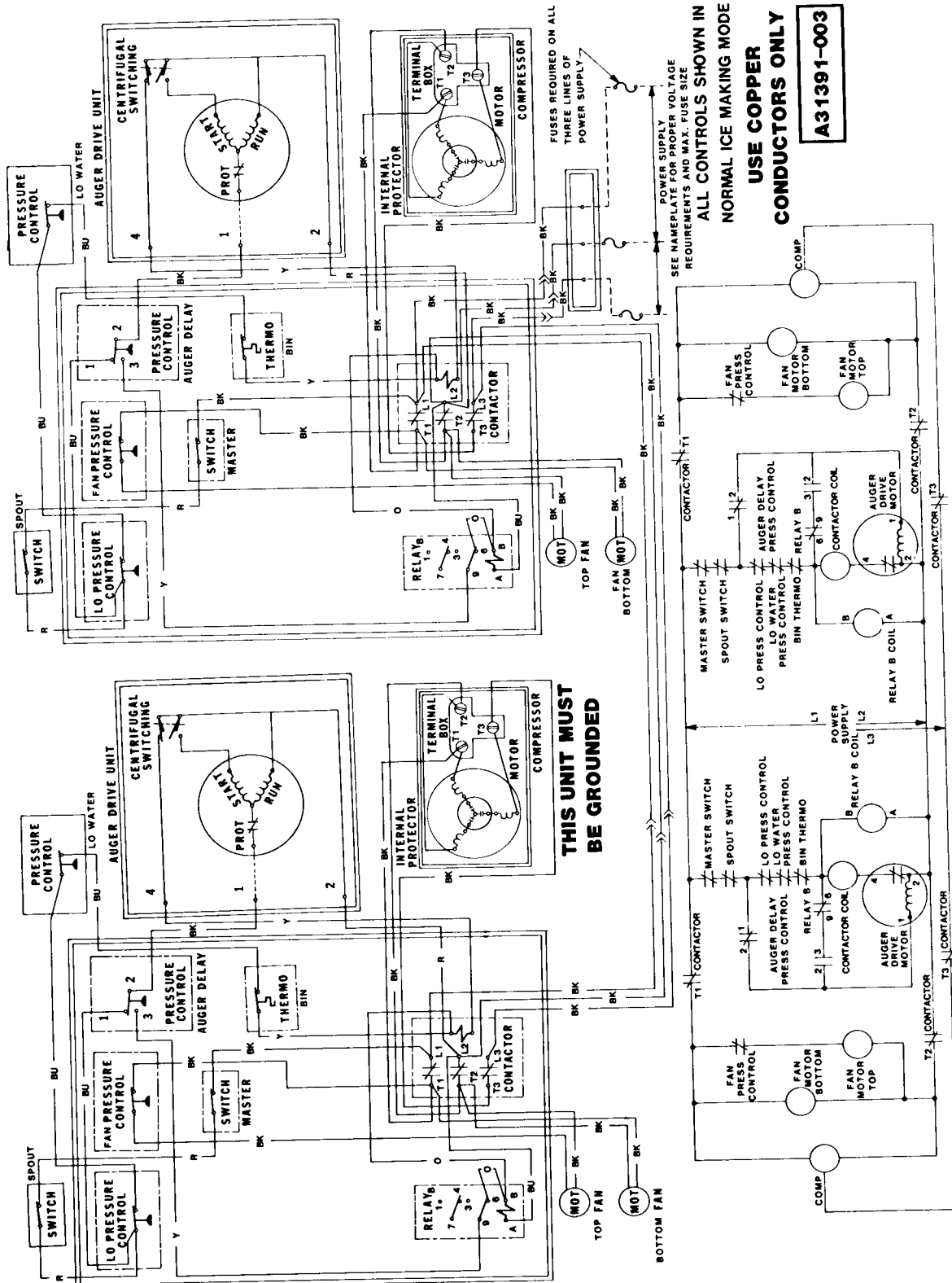
ALL CONTROLS SHOWN IN
NORMAL ICE MAKING MODE
USE COPPER
CONDUCTORS ONLY
A31391-002

MF6C WIRING DIAGRAMS (WITH CONTACTOR ISOLATION RELAY)



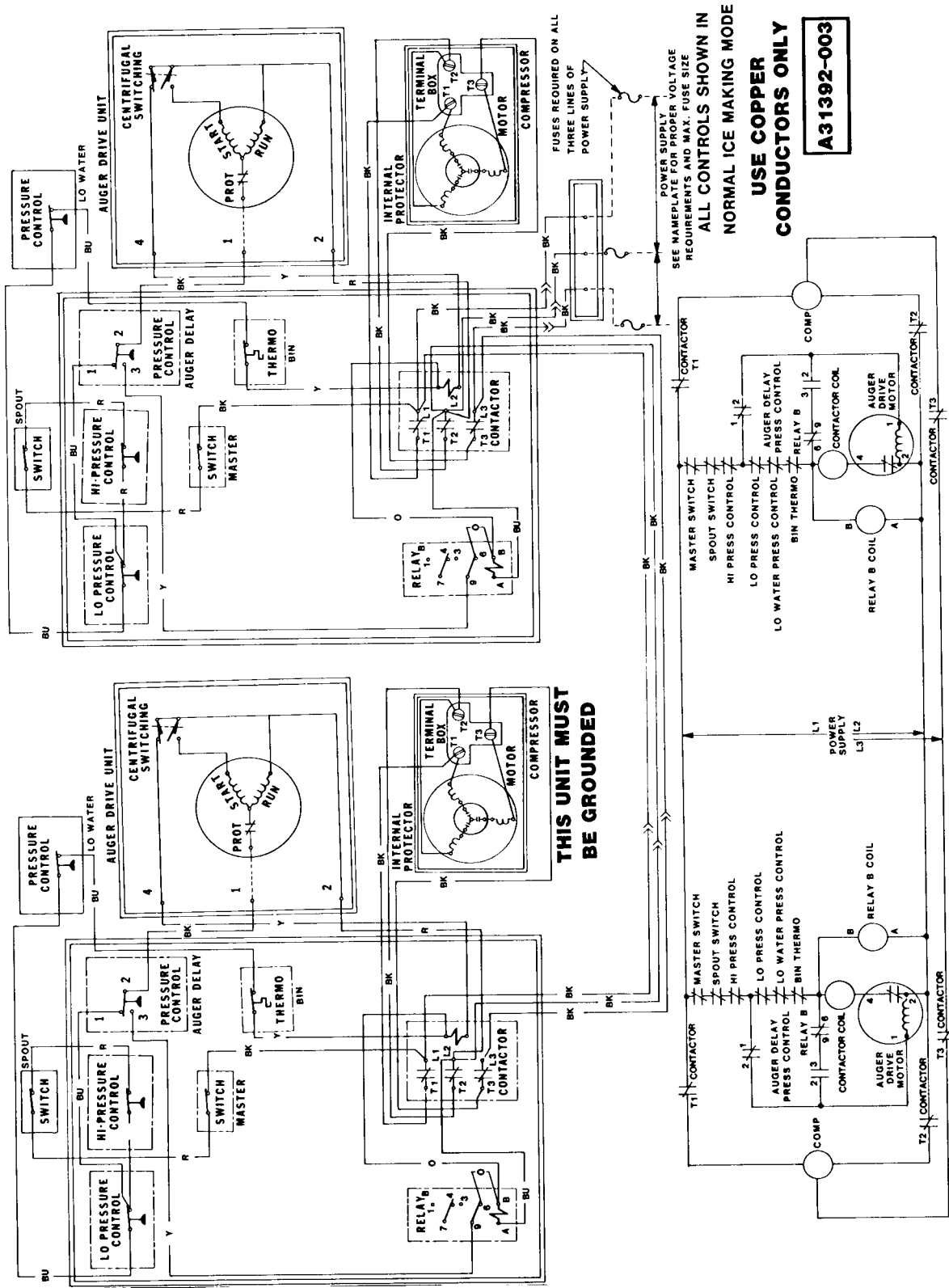
Water-Cooled Models 208/60/1 and 230/60/1

MF6C WIRING DIAGRAMS (WITH CONTACTOR ISOLATION RELAY)



Air-Cooled Models 208-230/60/3

MF6C WIRING DIAGRAMS (WITH CONTACTOR ISOLATION RELAY)



**USE COPPER
CONDUCTORS ONLY**

A31392-003

**THIS UNIT MUST
BE GROUNDED**

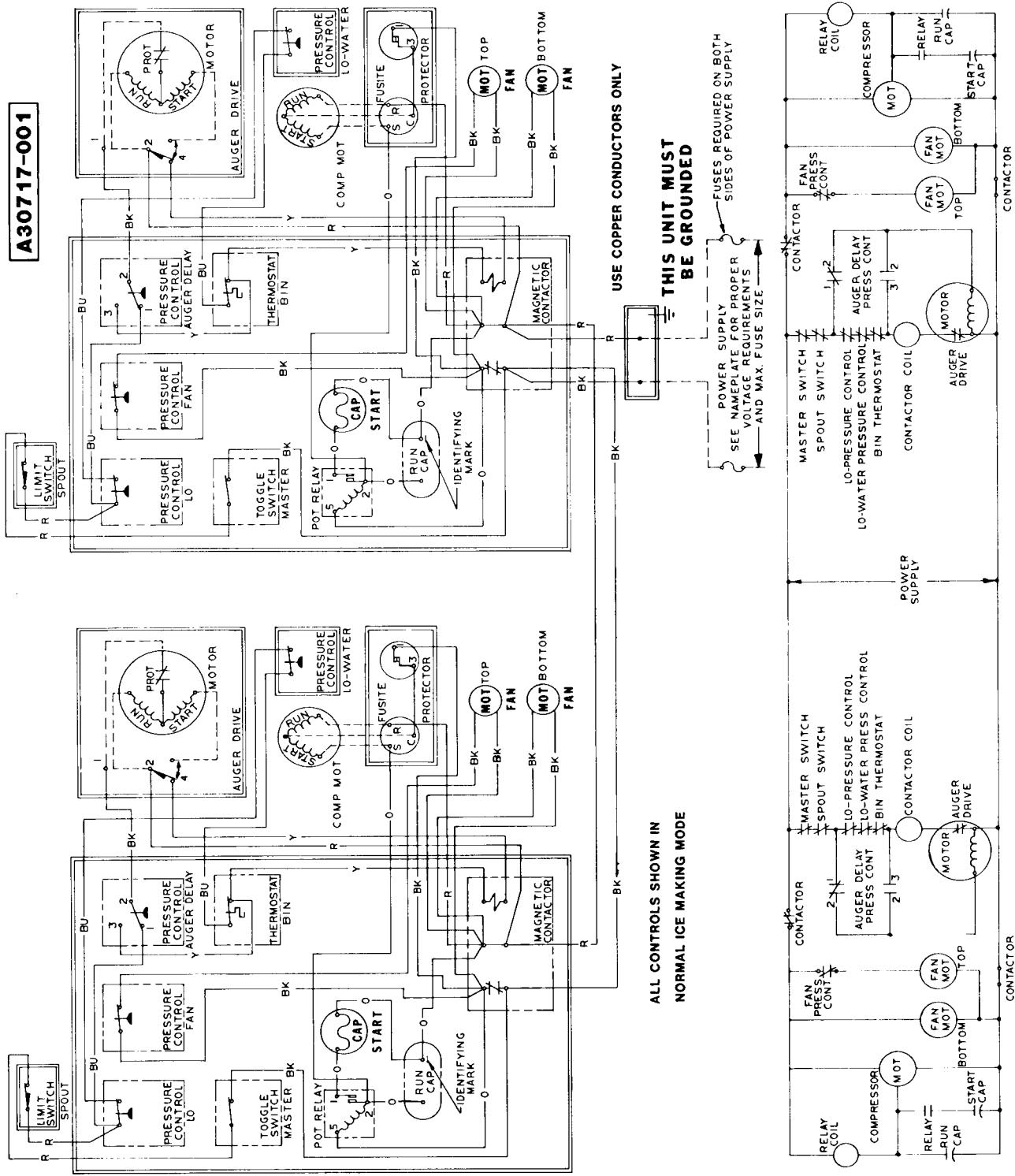
NORMAL ICE MAKING MODE
ALL CONTROLS SHOWN IN
SEE NAMEPLATE FOR PROPER VOLTAGE
REQUIREMENTS AND MAX. FUSE SIZE

Water-Cooled Models 208-230/60/3

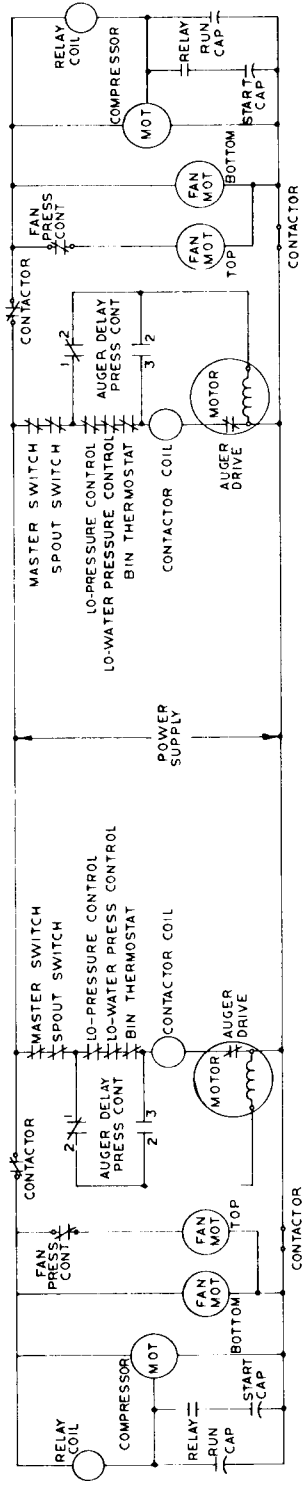
MF6C WIRING DIAGRAMS

(WITHOUT CONTACTOR ISOLATION RELAY)

A30717-001



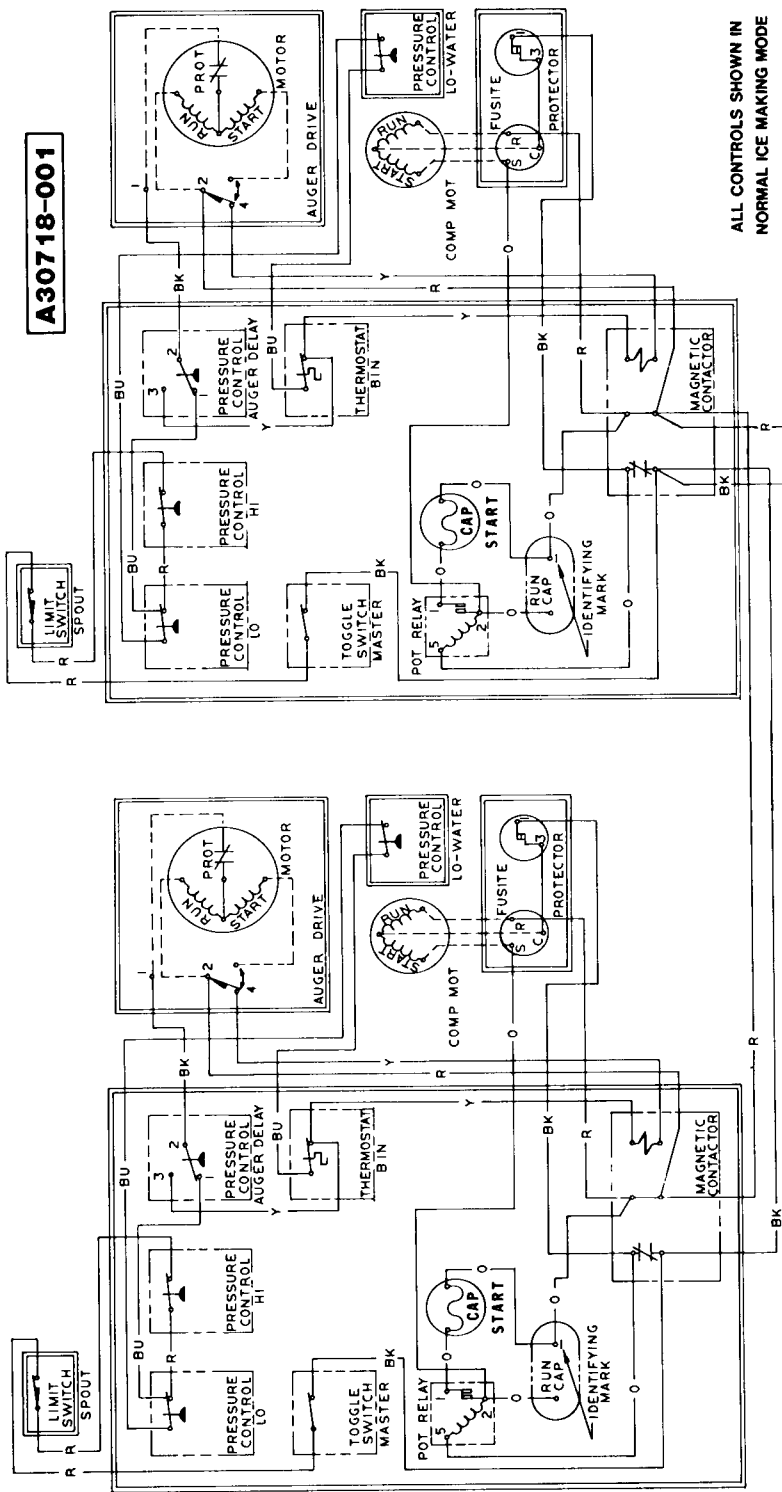
**ALL CONTROLS SHOWN IN
NORMAL ICE MAKING MODE**



Air-Cooled Models 230/60/1 and 208-60/1

MF6C WIRING DIAGRAMS (WITHOUT CONTACTOR ISOLATION RELAY)

A30718-001



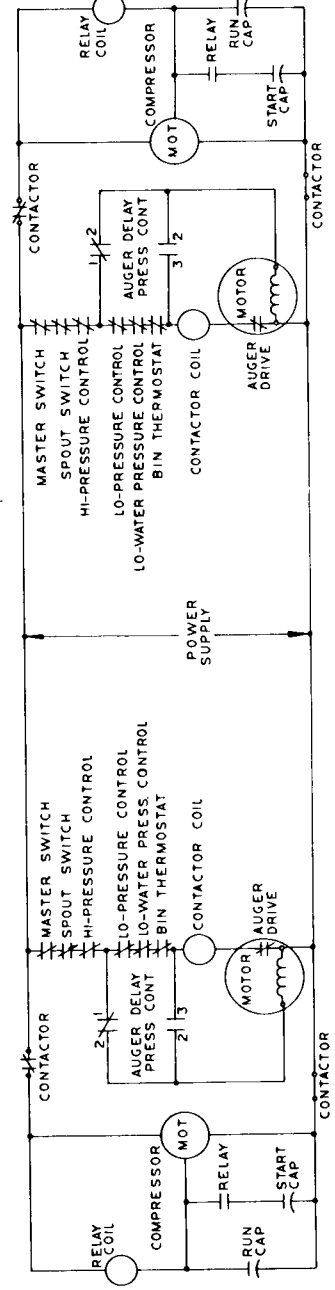
ALL CONTROLS SHOWN IN
NORMAL ICE MAKING MODE

**THIS UNIT MUST
BE GROUNDED**

FUSES REQUIRED ON BOTH
SIDES OF POWER SUPPLY

USE COPPER CONDUCTORS ONLY

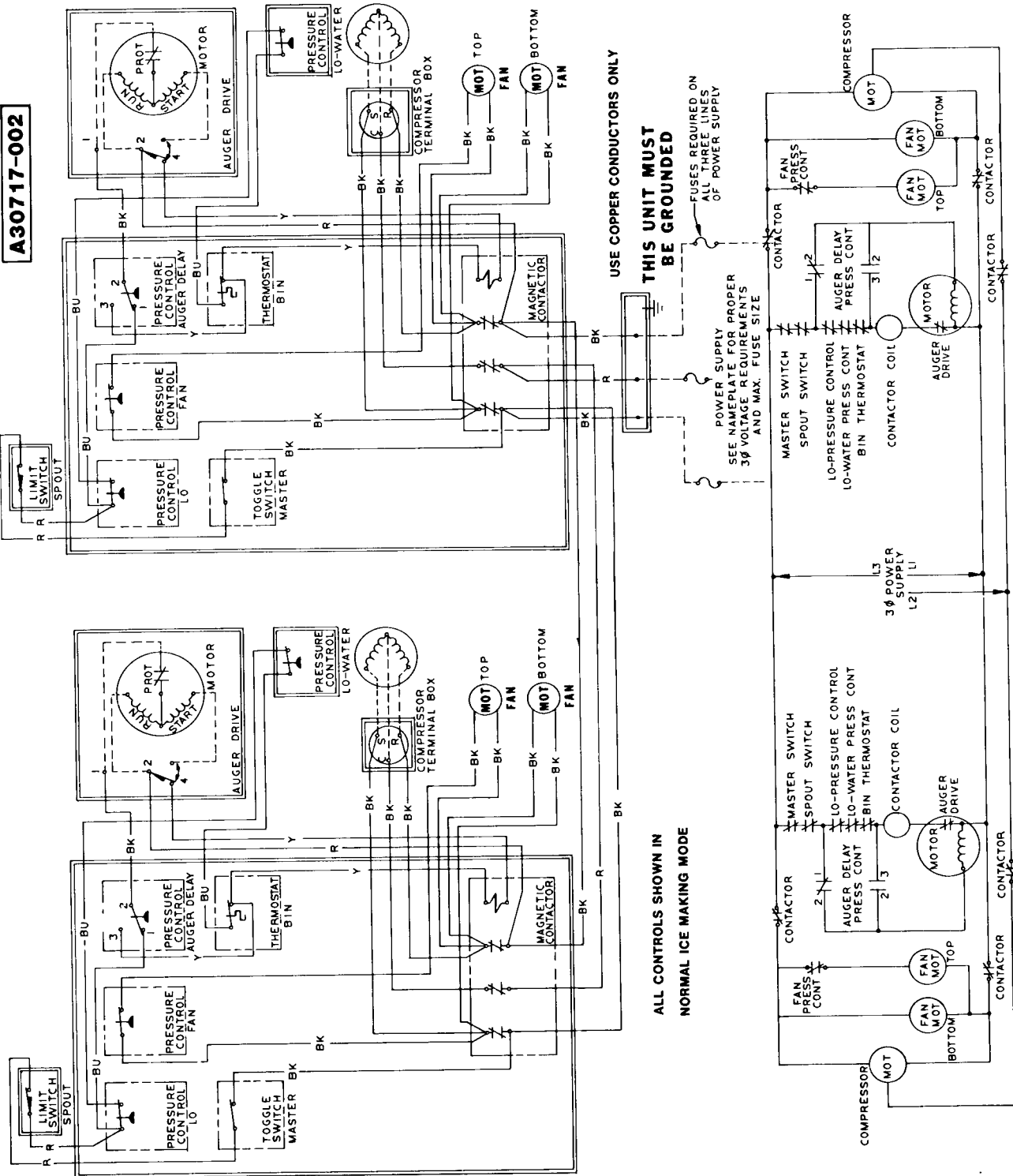
POWER SUPPLY
SEE NAMEPLATE FOR PROPER
VOLTAGE REQUIREMENTS
AND MAX. FUSE SIZE



Water-Cooled Models 230/60/1 and 208/60/1

MF6C WIRING DIAGRAMS

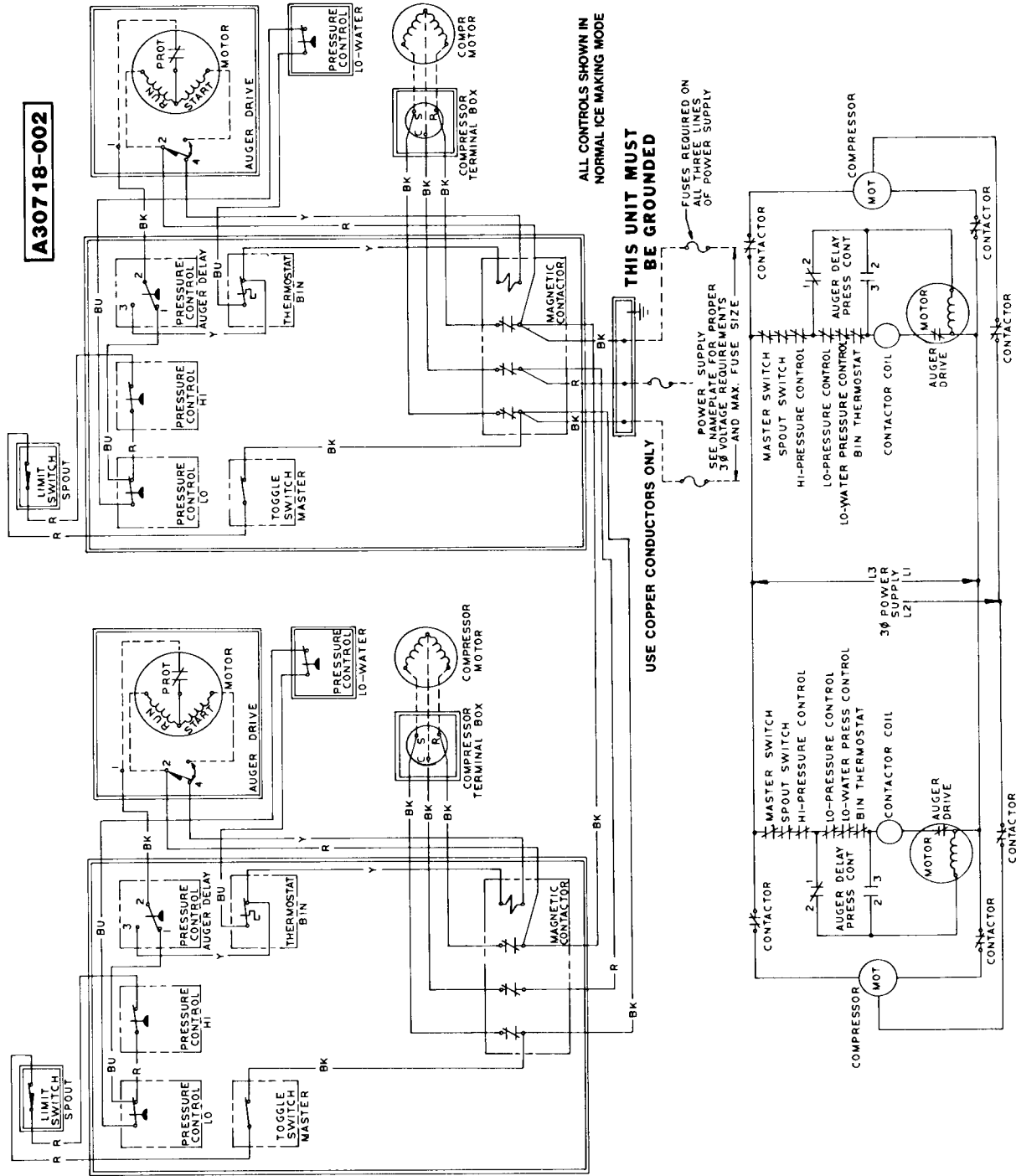
(WITHOUT CONTACTOR ISOLATION RELAY)



Air-Cooled Models 208-230/60/3

MF6C WIRING DIAGRAMS

(WITHOUT CONTACTOR ISOLATION RELAY)



MF6C ADJUSTMENT AND REMOVAL AND REPLACEMENT

(Continued from page 12)

REMOVAL AND REPLACEMENT OF THE CONDENSER — AIR-COOLED MODELS

To remove the air-cooled condenser:

1. Remove screws and remove cabinet panels.
2. Bleed off or blow the refrigerant charge through the Schrader valve.
3. Remove one screw and disconnect the drier brace and drier.
4. Unsolder and disconnect the condenser inlet tube at the condenser.
5. Unsolder and disconnect the condenser outlet tube at the condenser.
6. Remove six screws, lockwashers and washers securing the condenser to the chassis base.
7. Remove the condenser from the chassis base.
8. To replace the condenser, reverse the removal procedure.

NOTE

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.

NOTE

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

9. Recharge the system with refrigerant always check nameplate for the specified refrigerant charge.

REMOVAL AND REPLACEMENT OF THE CONDENSER — WATER-COOLED MODELS

To remove the water-cooled condenser:

1. Shut off water supply valve connected to the water cooled connection.
2. Remove the screws and cabinet panels.
3. Disconnect the water inlet and outlet lines from the condenser.
4. Bleed or blow the refrigerant charge through the Schrader valve.
5. Unsolder the refrigerant inlet and outlet lines from the condenser.
6. Remove two bolts, lockwashers and washers which secure the condenser to the chassis mounting base.
7. Remove the condenser from the cabinet.
8. To replace the condenser, reverse the removal procedure.

NOTE

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.

NOTE

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

8. When recharging the system with refrigerant always check nameplate for the specified refrigerant charge.

REMOVAL AND REPLACEMENT OF THE LIQUID LINE DRIER

To remove the drier:

1. Remove screw and drier brace attaching the drier.
2. Bleed off or blow the refrigerant charge through the Schrader valve.
3. Unsolder refrigerant lines at top and bottom of drier, remove the drier and separate the drier from the drier brace.

To replace the drier:

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.

CAUTION

If the factory seal is broken on the replacement drier, exposing it to the atmosphere for more than a few minutes, the drier will absorb moisture from atmosphere and lose substantial ability for moisture removal.

Be sure the replacement drier is installed 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 for specifications.

MF6C ADJUSTMENT AND REMOVAL AND REPLACEMENT

REMOVAL AND REPLACEMENT OF THE DRIVEMOTOR ASSEMBLY

To remove the drivemotor assembly:

1. Perform all steps in Removal and Replacement of the Freezer Assembly procedures to gain access for removal of the drivemotor assembly.
2. Remove the drivemotor terminal cover and disconnect the three electrical wire leads.
3. Remove four bolts, lockwashers and washers which attach the drivemotor to the freezer mount at the rear of the chassis. Lift the freezer assembly up and off of the adaptor and drivemotor assembly.
4. Lift the drivemotor from the freezer mount.

To replace the drivemotor assembly, reverse the removal procedure.

REMOVAL AND REPLACEMENT OF THE FAN MOTOR ASSEMBLY — AIR-COOLED MODELS

NOTE

Before beginning this procedure, observe the fan blade position on the shaft of the fan motor and mark the fan blade so it will be correctly positioned during reassembly. Direction of air flow should be toward the fan motor.

To remove the fan motor assembly:

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.

////////// WARNING //////////

Be sure the electrical power supply to the icemaker is OFF before proceeding with removal procedures.

////////// //////////

2. Remove screws and the cabinet top panel.
3. Disconnect the electrical lead from the fan motor at the compressor control box.
4. Remove two screws securing the motor bracket to the chassis base and remove the fan motor and motor bracket from the chassis.
5. Remove the nut from the end of the fan motor shaft and remove the fan blade.
6. Remove four screws securing the fan motor to the motor bracket and separate the motor from the bracket.

To replace the fan motor assembly, reverse the removal procedure.

REMOVAL AND REPLACEMENT OF THE FREEZER ASSEMBLY

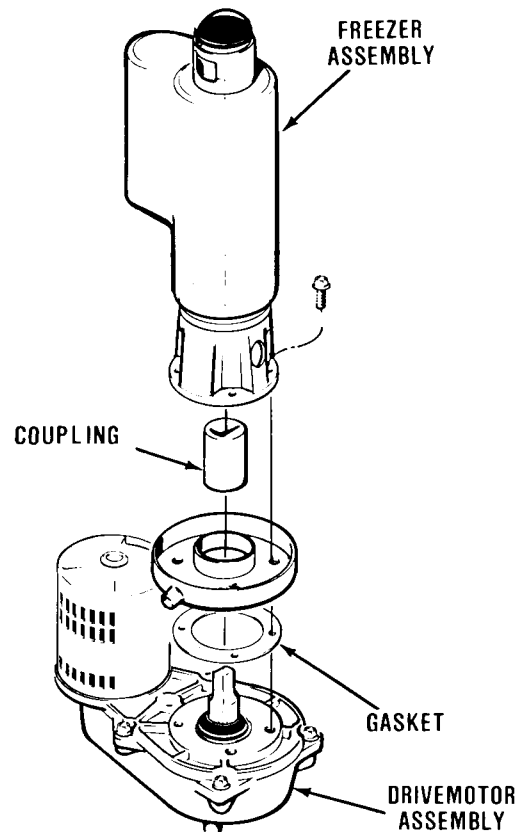
NOTE

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. Shut OFF electrical power and close the inlet water valve to the icemaker. Disconnect the inlet water line at the rear of the cabinet BEFORE moving the icemaker from the permanent location.

To remove the freezer assembly:

1. Remove screws and the cabinet panels.
2. Disconnect the electrical leads from the spout switch.
3. Remove four screws and washers and separate the spout assembly from the spout plate on the freezer assembly.

Inspect the spout gasket and retain for the replacement procedure. Replace a torn, cut or worn, defective gasket.



Removal of the Freezer Assembly

MF6C ADJUSTMENT AND REMOVAL AND REPLACEMENT

4. Remove corbin clamp and Tygon tube from the freezer assembly that connects to the water reservoir assembly.
5. Bleed off or blow the refrigerant charge through the Schrader valve.
6. Unsolder the suction line from the compressor.
7. Unsolder the automatic expansion valve from the freezer assembly.
8. Remove four screws, lockwashers and washers which attach the bottom of the freezer assembly to the adaptor on the drivemotor assembly.
9. Lift the freezer assembly up and off of the adaptor and drivemotor assembly.

To replace the freezer assembly, reverse the removal procedure.

NOTE

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.

REMOVAL AND REPLACEMENT OF THE WATER REGULATOR VALVE ASSEMBLY — WATER-COOLED MODELS

1. Remove screws and cabinet panels.
2. Shut off water supply to the water-cooled connection.
3. Bleed off or blow the refrigerant charge through the Schrader valve.
4. Unsolder capillary tube from the discharge line process header.
5. Disconnect the water inlet and outlet lines from the water regulator valve.
6. Remove the two screws from the valve bracket to the machine base and remove the water regulator valve.
7. To replace the water regulator assembly, reverse the removal procedure.

NOTE

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.

NOTE

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

REMOVAL AND REPLACEMENT OF THE WATER RESERVOIR ASSEMBLY

To remove the water reservoir assembly:

WARNING

Be sure the electrical power supply to the icemaker is OFF before proceeding with removal procedures.

1. Shut off water supply to the icemaker at the water supply valve.
2. Remove screws and cabinet panels.

NOTE

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

3. Disconnect the water inlet tube from the water reservoir assembly.
4. Remove two Corbin clamps and two tubes from the bottom of the water reservoir assembly.
5. Unscrew and remove the wing nut from the bottom of the water reservoir assembly.
6. Lift and remove the water reservoir assembly from the mounting bracket.

To replace the water reservoir assembly, reverse the removal procedure.

NOTE

Check that the installed replacement water reservoir assembly float moves freely. Bend metal arm of float to adjust, as necessary. The correct water level in the water reservoir is the point of the raised molded line, on the side of the body of the water reservoir.

SERVICE DIAGNOSIS

INTRODUCTION

The Service Diagnosis 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 chart lists corrective actions for the causes of known symptoms of certain problems that can occur.

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Water leaks.	Defective water seal.	Replace seal.
	Gravity feed line leaking.	Check hose clamps.
	Water level in reservoir too high.	Adjust water level to molded line on the float assembly.
	Storage bin drain and connecting fittings.	Check and repair.
Excessive noise or chattering.	Mineral or scale deposit on auger and inner freezing chamber walls.	For severe deposit, remove and manually polish auger, sand inner chamber walls of freezer barrel.
		For lighter concentration, use Scotsman Ice Machine Cleaner periodically.
	Intermittent water supply.	Check and clean water strainer.
		Check gravity feed line for air lock.
		Check to be sure float orifice is not restricted.
	Water level in reservoir too low.	Check incoming water supply.
		Remove air lock.
Gear reducer loose on frame. Motor compressor not solid rubber mounts. Gearmotor end-play or bearing.	See CORRECTION for Water Leaks above.	
	Tighten gear reducer.	
	Repair or replace rubber mounts.	
Making wet ice. (Ice melts too quickly, is not cold enough to properly cure in the bin.)	Repair or replace bearing.	
	Surrounding air temperature, too high.	Correct or move cabinet, provide adequate ventilation.
	Under or over-charge of refrigerant.	Recharge with nameplate rating.

(Continued)

MF6C
SERVICE DIAGNOSIS (Continued)

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Making wet ice (Cont'd)	Back pressure too high.	Overcharge of refrigerant, faulty compressor or high head pressure. Lower pressure as indicated.
	Faulty compressor.	Repair or replace compressor.
Low ice production.	Loss of refrigerant. Under or over-charge of refrigerant.	Check and recharge. See NAMEPLATE for charge correction.
	Dirty or plugged condenser.	Clean condenser.
	Low water level in water reservoir.	See CORRECTION for water leaks above.
	Partial restriction in capillary tube or drier.	Moisture in system. Overcharge of oil in system. Remove charge by blowing back through cap tube. Evacuate. Replace drier and recharge.
	Inlet water strainer partially plugged.	Remove screen and clean.
	Corroded or stained auger due to water condition.	Remove auger and clean, or use Scotsman Ice Machine Cleaner. See Maintenance Section.
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.	Blown fuse in line.	Replace fuse and check for cause of blown fuse.
	Bin thermostat set too high.	Adjust thermostat. Set at 35-degrees cut-out, 45-degrees cut-in.
	Loose electrical connection.	Check wiring.
	Switch in OFF position.	Set switch to ON position.
	Inoperative master switch.	Replace switch or thermal overload.
	Off on manual-reset pressure control. (W/C Only)	Reset.
	Low supply water pressure.	Restore water pressure.
	Low on refrigerant off-on low pressure control.	Find leak, replace drier, evacuate and recharge.

MF6C SERVICE DIAGNOSIS (Continued)

SYMPTOM	POSSIBLE CAUSE	CORRECTION
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.
Compressor cycles intermittently.	Low voltage. Dirty condenser. Air circulation blocked. Inoperative condenser fan motor. Non-condensable gases in system. Bin thermostat differential too small causing short cycling.	Check for overloading. Clean condenser. Remove cause or move unit. Replace motor. Check for gas leaks, evacuate and recharge. Widen differential 35-degrees cut-out, 45-degrees cut-in. Set or reinstall bin thermostat.
Bin thermostat installed improperly.	Low on refrigerant causing low pressure control to cycle.	Check for leaks.
Icemaker operates but makes no ice.	Loss or undercharge of refrigerant. Water not entering chamber. Moisture in system. Water seal leaking. Drivemotor or drive coupling stripped. Compressor over load faulty.	Check for leaks and recharge. See NAMEPLATE for correct charge. Plugged strainer or supply line. Check and clean. Air lock in gravity feed line. Check and remove air lock. Check, evacuate, replace drier. Recharge. See NAMEPLATE for correct charge. Replace seal. Repair or replace drivemotor or drive coupling. Replace over load.

MAINTENANCE & CLEANING INSTRUCTIONS

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 icemaker must be maintained individually, in accordance with its own particular location requirements.

ICEMAKER

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

1. Check and clean optional water line strainers or water purification system.
2. Remove screws and top and front panel.
3. Remove cover from each water reservoir and depress the float to ensure that a full stream of water enters each reservoir.
4. Check that the icemaker cabinet is level, in side-to-side and front-to-rear directions.
5. Check that the water level in each water reservoir is below of the overflow and is level with the molded horizontal line on the reservoir body.
6. Clean each water reservoir and interior of the freezer assembly, using a solution of SCOTSMAN Ice Machine Cleaner. Refer to CLEANING-Icemaker.

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.

7. When doubtful about refrigerant charge, install refrigerant gauges on Schrader valves and check gauge for compressor head pressure of each separate system. See Nameplate for refrigerant charge specifications.
8. Check gauge for suction line pressure: Varies between 12 to 16 PSIG, depending upon inlet water temperature and ambient air temperatures.
9. Check each drivemotor operation:
Normal operating temperatures are about 160-degrees F., which is hot to touch.
10. Check operation of the centrifugal sensing switch for each drive motor:

MF6C: 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.

WARNING

Disconnect electrical power supply before removal procedure.

NOTE

Before the next step, move each Master ON-OFF switch to OFF, to stop the fan motors and icemakers.

11. Inspect the lip seal and the top bearing seated in the ice breaker, wipe clean of old grease and apply a coating of Taylor Freezer food grade grease, SCOTSMAN P/N 19-0569-01 or equivalent. Replace all parts removed in steps 10 thru 14.
12. Clean the air-cooled condensers, using a vacuum cleaner, whisk broom or brush. The icemaking performance and capacity is affected by the clean condition of the air-cooled condenser. Instruct customer to clean frequently and to be sure icemaker and fan motor are OFF.
13. Check that fan blades move freely, are not touching any surfaces and are not bent or out of balance.
14. Check for refrigerant leaks.
15. Check for water leaks. Pour water down bin drain to be sure that drain line is open and clear.
16. Check the quality of ice. Ice should be wet when formed, but will cure rapidly to normal hardness in the bin.
17. Check the bin thermostat control bulb, hold ice on the control bulb of each system to test icemaker shut-off.

NOTE

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

MF6C MAINTENANCE & CLEANING INSTRUCTIONS

CLEANING

1. Remove screws and the top and front panel.
2. Move both master ON-OFF toggle switches to OFF position.
3. Remove all ice from the ice storage bin.
4. Remove each reservoir cover and block the float in each water reservoir.
5. Disconnect the tube between each water reservoir and the bottom of each freezer assembly and drain water from each reservoir and tube. Reconnect each 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.

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6. Prepare cleaning solution: Mix twelve ounces of SCOTSMAN Ice Machine Cleaner with three quarts of hot water.
7. Slowly pour the cleaning solution into each water reservoir.
8. Move each master ON-OFF switch to ON position and make ice with the cleaning solution.

9. Continue to slowly pour the cleaning solution into each water reservoir, maintaining the level just below each reservoir overflow.
10. 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.
11. Move each master ON-OFF switch to OFF.
12. Wash and rinse the water reservoirs.
13. Remove the block from the float in the water reservoir. Move the master ON-OFF switches to ON positions.
14. Continue icemaking for at least 15 minutes, to flush out any cleaning solution. Check ice for acid taste - continue icemaking until ice tastes sweet.
15. Move each of the master ON-OFF switches to OFF positions.

//////////////////// **CAUTION** //////////////////////

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

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16. Remove all ice from the ice storage bin.
17. Add hot water to the ice storage bin and thoroughly wash and rinse all surfaces within the bin.
18. Clean and sanitize the ice storage bin each week.