# MF900RC

## Table of Contents

### General Information & Installation
- Introduction ................................................. 2
- Location and Leveling .................................. 3
- Remote Condenser and Pre-Charged Lines —
  - Installation ........................................... 4
- Coupling Instructions, Pre-Charged Tubing Kit ....... 6
- Electrical Connections ................................... 7
- Water Supply and Drain Connections .................. 7
- Final Check List ......................................... 8

### Operating Instructions
- Pre-Start and Start-Up .................................. 11
- Icemaker Operation ...................................... 12
- Electrical Refrigeration ................................ 13

### Component Description ................................ 15

### Adjustment Procedures
- Bin Thermostat Control ................................ 18

### Removal and Replacement Procedures
- Auger, Water Seal, Bearings and Coupling ......... 19
- Compressor Assembly .................................. 20
- Automatic Expansion Valve ............................ 21
- Water Reservoir Float .................................. 21
- Head Pressure Regulator Valve ....................... 22
- Liquid Line Drier ....................................... 22
- Drivemotor Assembly ................................. 22
- Freezer Assembly ...................................... 23
- Water Reservoir Assembly ............................ 24

### Service Diagnosis ..................................... 25

### Maintenance and Cleaning
- General ................................................... 28
- Icemaker .................................................. 28
- Remote Condenser ...................................... 30
- Cleaning — Icemaker ................................... 30

### List of Illustrations

- Specifications ........................................... 1
- MF900RC — Introduction ................................ 2
- Installation — Bin Thermostat Bracket ............... 3
- Pre-Charged Refrigerant Line Routing ............... 4
- Pre-Charged Refrigerant Line Connection .......... 6
- Installation, Electrical, Water Supply
  and Drain Connection ................................. 7
- Final Checklist ......................................... 9
- Water Schematic ....................................... 11
- Refrigeration Schematic ............................... 12
- Component Description ............................... 15

### Parts List & Wiring Diagrams
  (Printed in Yellow) ..................................... 1

### Parts List:
- Cabinet Assembly ....................................... 3
- Refrigeration System .................................. 5
- Water System .......................................... 7
- Drivemotor Assembly .................................. 8
- Freezer Assembly ...................................... 9
- Spout Assembly ....................................... 10
- Remote Condenser .................................... 11
- Control Box ............................................ 13

### Wiring Diagrams:
- MF900RE-2C 230/60/1 .................................. 14
- MF900RE-3C 208-220-60/3 ........................... 15
- MF900RE-7C 208/60/1 .................................. 16

### Adjustment of the Temperature Control ............... 18
- Freezer Assembly ...................................... 19
- Removal of Water Reservoir Float ................... 21
- Removal of the Freezer Assembly .................... 23
- Cleaning Water Systems ............................... 24
- Remote Condenser, Icemaker ......................... 29
MF900RC MODULAR FLAKER AND REMOTE CONDENSER

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

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Dimensions <em>H x W x D</em></th>
<th>Cond. Unit</th>
<th>Finish **</th>
<th>Basic Electrical</th>
<th>Comp. H.P.</th>
<th>No. of Wires</th>
<th>Min. Circuit Ampacity</th>
<th>Max. Fuse Size</th>
<th>Ship. Wt. lbs/kg.</th>
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</thead>
<tbody>
<tr>
<td>MF900RE-2C</td>
<td>26&quot; x 21 x 22</td>
<td>R-Air</td>
<td>EC</td>
<td>208-220/60/3</td>
<td>1</td>
<td>2</td>
<td>8.3</td>
<td>15</td>
<td>208</td>
</tr>
<tr>
<td>MF900RE-3C</td>
<td>26&quot; x 21 x 22</td>
<td>R-Air</td>
<td>EC</td>
<td>208-60/1</td>
<td>1</td>
<td>2</td>
<td>6.6</td>
<td>15</td>
<td>208</td>
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<tr>
<td>MF900RE-7C</td>
<td>26&quot; x 21 x 22</td>
<td>R-Air</td>
<td>EC</td>
<td>208-60</td>
<td>1</td>
<td>2</td>
<td>9.5</td>
<td>15</td>
<td>208</td>
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</table>

MF900RC is used only with the RC151-32B and RC302-32B remote condensers. Consult your Scotsman dealer for installation.

Modular flakers above will stack on top of B60 bin with BR25 bin extensions and KR1 flat top, and the B10 bin with BR27 and BR25 bin extensions and KR1 flat top.

Electrical and water inlet and outlet located in lower center of back panel.

** EC - Enamel Charcoal; ES - Enamel Sandalwood; SS - Stainless Steel

REMOTE CONDENSERS FOR USE WITH MF900R ICE MACHINES

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Dimensions <em>H x W x D</em></th>
<th>For Use With</th>
<th>Cond. Unit</th>
<th>Finish **</th>
<th>Basic Electrical</th>
<th>No. of Wires</th>
<th>Min. Circuit Ampacity</th>
<th>Max. Fuse Size</th>
<th>Ship. Wt. lbs/kg.</th>
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</thead>
<tbody>
<tr>
<td>RC151-32B</td>
<td>29½' x 30' x 33½'</td>
<td>(1) MF900R</td>
<td>R-Air</td>
<td>Galvanized</td>
<td>208-230/60/1</td>
<td>2</td>
<td>20</td>
<td>15</td>
<td>115-52</td>
</tr>
<tr>
<td>RC302-32B</td>
<td>29½' x 30' x 33½'</td>
<td>(1) MF900R or (2) MF900R Flakers</td>
<td>R-Air</td>
<td>Galvanized</td>
<td>208-230/60/1</td>
<td>2</td>
<td>20</td>
<td>15</td>
<td>135-61</td>
</tr>
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IMPORTANT OPERATING REQUIREMENTS

<table>
<thead>
<tr>
<th>Air Temperatures</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>50° F (10.0° C)</td>
<td>100° F (38° C)</td>
<td></td>
</tr>
<tr>
<td>Water Temperatures</td>
<td>40° F (4.4° C)</td>
<td>100° F (38° C)</td>
</tr>
<tr>
<td>Water Pressures</td>
<td>20 lbs gauge</td>
<td>120 lbs gauge</td>
</tr>
<tr>
<td>Single Voltage Units</td>
<td>-10%</td>
<td>+10%</td>
</tr>
<tr>
<td>Dual Voltage Units</td>
<td>-5%</td>
<td>+5%</td>
</tr>
</tbody>
</table>

(Voltage rating specified on nameplate)

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.

This does not include the Remote Condenser. Remote Condensers are designed to operate in outdoor installations in a temperature range of -20° to 120° F.

OPTIONAL PANELS KIT

SPSKMF900A - Stainless Steel Panels for use with the MF900RC.

PRE-CHARGED REFRIGERANT TUBE KITS

RTCM225 25 foot pre-charged with R12 Freon tubing with connectors

RTCM240 40 foot pre-charged with R12 Freon tubing with connectors

June 1984
Page 1
MF900RC

GENERAL INFORMATION AND INSTALLATION

INTRODUCTION

These instructions provide the specifications and the step-by-step procedures for the installation, start up and operation for the Scotsman Model MF900RC Modular Flaker with Remote Condenser.

The Model MF900RC Modular Flaker is quality designed, engineered and constructed, and is a thoroughly tested icemaking system, providing the utmost in flexibility to fit the needs of a particular user.

The Model MF900RC modular flaker can be installed with either of two remote condensers and with either of two lengths of pre-charged refrigerant lines.

Single circuit and two circuit condensers are available. The single circuit condenser can accommodate a single MF900RC flaker. The two circuit condenser can accommodate two separate MF900RC flakers.

In any of the above installations the sets of pre-charged refrigerant lines to be used are the RTCM225 25-foot line kit or the RTCM240 40-foot line kit. These pre-charged refrigerant line kits are a one-time, initial charge type of hardware; once the sealed couplings are connected, the internal seal is severed and the lines cannot be disconnected without losing the refrigerant charge.

MF900RC — Introduction
June 1984
Page 2
WARNING
This Modular Flaker is NOT designed for outdoor installations, or where air temperature is below 50-degrees F., or above 100-degrees F., and the water temperature is below 40-degrees F. or above 100-degrees F. Operation at temperatures exceeding these limitations will constitute misuse, under the terms of the SCOTSMAN Manufacturer’s limited warranty coverage. This does not include the Remote Condenser. Remote Condensers are designed to operate in outdoor installations in a temperature range of -20° to 120° F.

NOTE
Prior consideration for location site shall include:
Minimum room temperatures 50-degrees F. and maximum room temperature 100-degrees F.
Water inlet temperatures: Minimum 40-degrees F. and Maximum 100-degrees F.
SERVICE ACCESS: Adequate space for all service connections, through the rear of the Cabinet. A six-inch minimum clearance at rear.

1. Position the Flaker in the selected permanent location.
2. Level the Cabinet in both the left-to-right and front-to-rear directions.
3. When shipped from the factory, each modular flaker has a nylorade ice transport tube which must be attached to the end of the ice spout elbow with a hose clamp.
   Most Scotsman bin tops have pre-punched holes to accept the bin thermostat bracket and cap tube assembly. Punch out the required hole that aligns with the hole in the flaker base and follow the following step by step instructions.
   The opposite end of the ice transport tube has a bin thermostat bracket installed including the bin thermostat capillary tube.
   1. Align two inch diameter hole in flaker base with proper hole in bin top.
   2. Insert bin thermostat bracket and capillary tube assembly through two inch hole in base and on into bin.

CAUTION
Do not kink capillary tube during installation!
REMOTE CONDENSER INSTALLATION

Location Considerations:

Limited to a 40-foot length or a 25-foot length of pre-charged refrigerant line from the rear of the icemaker Chassis to the Remote Condenser.

Best available location, protected from the extremes of dirt, dust, and sun.

Must meet local building code installation requirements. Usually the services of a certified electrician are required.

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. Refer to Wiring Diagram and connect the remote condenser fan motor electrically to a separate power source. 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.

CAUTION

Do not connect pre-charged tubing until all routing and forming of tubing is complete. See Page 6 for connecting instructions.

CAUTION

Do NOT KINK OR CRIMP REFRIGERANT LINES.

3. Route both refrigerant lines through the roof opening.

Follow straight line routing, when possible.

Retain excess pre-charged refrigerant line INSIDE the building.

4. SPIRAL the excess footage of the pre-charged refrigerant lines, in the best selected INSIDE location. See Pre-Charged Refrigerant Line Routing illustration 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 Pre-Charged Refrigerant Line Hook-Up.

5. Insulate the pre-charged tubing lines individually.

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.
COUPLING INSTRUCTIONS, PRE-CHARGED TUBING KIT

--------- CAUTION ---------

The couplings 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 connected as follows:

1. Remove protector caps and plugs and if necessary, carefully wipe coupling seats and threaded surfaces with a clean cloth to prevent the inclusion of dirt or any foreign material in the system.

2. LUBRICATE male half diaphragm and synthetic rubber seal with refrigerant oil. Thread coupling halves together by hand to insure proper mating of threads. Use proper size wrenches (on coupling body hex and on union nut) and tighten until coupling bodies “bottom” or a definite resistance is felt.

3. Using a marker or ink pen, mark a line lengthwise from the coupling union nut to the bulkhead. Then tighten an additional 1/4 turn; the misalignment of the line will show the amount the coupling has been tightened. This final 1/4 turn is necessary to insure the formation of leakproof joint.

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

BE SURE to connect the ends of the precharged 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 3/8-inch diameter refrigerant line coupling, with the SERVICE PORT fitting, to the remote condenser refrigerant fitting labeled: LIQUID LINE as detailed in Coupling Instructions.

5. Connect the 1/2-inch diameter refrigerant line coupling, with the SERVICE PORT fitting, to the Remote Condenser refrigerant fitting labeled: DISCHARGE LINE. Tighten as detailed in Coupling Instructions.

6. Connect the 3/8-inch diameter refrigerant line coupling, to the refrigerant fitting on the rear of the icemaker chassis labeled: LIQUID LINE. Tighten as detailed in Coupling Instructions.

7. Connect the 1/2-inch diameter refrigerant line coupling, to the refrigerant fitting on the rear of the icemaker Chassis labeled: DISCHARGE LINE. Tighten as detailed in step 4.

---

*Pre-Charged Refrigerant Line Connection*
ELECTRICAL CONNECTIONS

SEE MF900RC NAMEPLATE for current requirements to determine wire size to be used for electrical hookup. The flaker requires a solid chassis-to-earth ground wire. See Wiring Diagram.

Be certain the flaker is connected to its own electrical circuit and individually fused. Voltage variation should not exceed ± 5% for dual voltage units, ± 10% for single voltage units, of the nameplate rating, even under starting conditions. Low voltages can cause erratic operation and may be responsible for serious damage to the icemaker.

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.

Be certain the remote condenser is connected to its own electrical circuit and individually fused. Voltage variation should not exceed ± ten percent of the nameplate rating, even under starting conditions.

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.

---------------------------------------- CAUTION ----------------------------------------

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, separates refrigerant from oil, which prevents possible damage to the Compressor, at START-UP.

WATER SUPPLY AND DRAIN CONNECTIONS

The recommended water supply line is a 1/4-inch O.D. copper tubing with a minimum operating pressure of 20 PSIG and a maximum of 120 PSIG. 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 flaker. In some cases a plumbing permit and services of a licensed plumber will be required.

DRAIN CONNECTIONS: All drains are gravity type and must have a minimum of 1/4-inch fall per foot on horizontal runs. The drains must be installed to conform with the local plumbing code. Install separate drain line for discharge water from the water-cooled condenser. Install a vertical open vent on drain line to ensure good venting. The drain receptacle should be an open, trapped or vented construction.

Recommended bin drain is 5/8-inch O.D. copper tubing and should be vented and run separately.

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FINAL CHECK LIST

1. Is the cabinet/bin level?

2. Is the icemaker in a location where ambient temperatures are a minimum of 50-degrees F. all year around and do not exceed a maximum of 100° F? Remote Condensers are designed to operate in outdoor installations in a temperature range of -20° to 120° F.

3. Is there at least a six-inch clearance behind and around the cabinet for all connections and for proper air circulation?

4. Have all electrical and piping connections been made?

5. 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?

6. Is the water supply line shutoff valve installed and opened and has the inlet water supply pressure been checked to ensure a minimum of 20 PSIG and a maximum of 120 PSIG?

7. Remove shipping block from under the compressor.

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. Has the bin thermostat bracket been properly installed?

11. Has the icemaker and the bin been wiped clean with clean damp cloths?

12. Has the remote condenser and pre-charged refrigerant lines been properly installed and connections made and checked?

13. Has the electrical power to the icemaker been turned on to start the 12-hour period of PRE-START crankcase heating?

14. Has the owner/user been given the User Manual and instructed on how to operate the icemaker and the importance of periodic maintenance?

15. Has the owner/user been given the name and telephone number of the Authorized Scotsman Distributor or Service Agency serving him?

16. 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.

17. Refer to Pre-Start Instructions on page 11.
OPERATING INSTRUCTIONS

/// 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.

/// PRE-START ///

1. Verify that the MASTER SWITCH is in the OFF position.

2. Operate the switch at the building source to supply electrical power to the icemaker a minimum of 12 hours BEFORE start up.

/// START UP ///

/// 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.

1. Move the junction box switch for the Remote Condenser Fan to the ON position. Check the Fan Motor operation.

2. Remove screws and the top and front panel from the icemaker.

3. OPEN the water supply line shutoff valve.

4. Observe the water filling operation, see Water Schematic illustration.
   a. Water flows into the water reservoir.
   b. Water flows through water feed line to the bottom of the freezer assembly.
   c. The float moves up as the water rises.
   d. The float stops water flow, when water level reaches the molded horizontal line, on the body of the water reservoir.

5. Check all internal water connections for leaks.

6. OPEN King Valve located on the receiver.

/// IMPORTANT ///

Remove the stem cap from the receiver outlet (King) valve and fully open the valve. Replace the cap. Check for leaks at the Stem Cap.

7. Move the Master ON-OFF toggle switch to the ON position to start the automatic icemaking operation.

8. Observe that ice begins dropping from the ice chute into the ice storage bin.

9. Let the system operate until ice covers the bottom of the bin. Check for any excess noises beyond normal compressor noise.

Water Schematic
June 1984
Page 11
a. Fan noises, blades touch other surfaces; blades bent, out-of-balance.
b. Vibrating type, from touching lines.
d. Compressor loose at one or more hold down bolts.

//////////////// CAUTION ///////////////////

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

10. Place ice on the bin thermostat bracket, to test shut-off. Less than one minute is normal for shut off function to cause the compressor 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.

11. Continue icemaking for 30 minutes, checking the operation of the icemaker. Remove all ice produced during this period. Clean and sanitize the storage bin. The unit is now ready for automatic operation.

12. 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 reservoir.

Moving the Master ON-OFF switch to the ON position starts the automatic and continuous icemaking process. 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 end of the auger, see Water Schematic illustration, and pushes out through the ice spout 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 bulb, the icemaking process shuts OFF.

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

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

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

ELECTRICAL /REFRIGERATION

The Model MF900RC 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.

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 Auger Delay Pressure Control 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.

The head pressure is normally about 120 PSIG and it is maintained by a head pressure control inside the icemaker cabinet. This control bypasses the remote condenser refrigeration circuit until there is enough pressure and then it meters the discharge of gas into the condenser. The fan runs all the time.

Suction pressure should be 13 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.
BIN THERMOSTAT CONTROL
The bin thermostat control is located in the center of the control box. The sensing capillary tube of the control is routed from the control box to the bin thermostat control bracket at the end of the ice discharge tube hanging in the ice storage bin. The bin thermostat control functions to automatically shut OFF the icemaker, when the ice storage bin is filled and ice contacts the capillary tube. It also signals the RESTART of the icemaker, when the capillary tube starts to warm up, after ice has been removed from the bin. 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.

Bin thermostat control adjustment should ONLY be performed in installations higher than 2,000 feet above sea level. Adjust only in increments of one eighth turn of a screw at a time.

COMPRESSOR CONTACTOR
The compressor contactor functions to carry the compressor line current. The contactor is wired so any control in the pilot circuit, such as the bin thermostat, low pressure and high pressure controls, etc., will cause the contactor holding coil to be de-energized, when the control contact OPENS, thereby breaking the circuit to the compressor through the contactor points.

WATER PRESSURE SAFETY SWITCH
A low water pressure safety switch is installed in the potable water inlet line on all Scotsman Flakers to prevent damage to the gearmotor and evaporator components due to low water pressure or interruption of the water supply to the unit. This safety device with an automatic reset is set to shut the refrigeration system off if the water pressure falls below 10 psig and restart the unit automatically when the pressure rises to 20 psig.

AUGER DELAY SWITCH
The function of the Auger Delay Switch is to allow the gearmotor to operate for a sufficient length of time to clear all the ice from the evaporator after the unit shuts off on the full bin control.
This insures that when the unit restarts, the gearmotor starts under a no load condition, preventing excessive loading on the gearmotor and evaporator bearings.

REFRIGERANT LOW PRESSURE CONTROL
The purpose of this safety control is to protect the unit from damage due to a loss of the refrigerant charge. It also provides additional protection from the unit in case low ambient or water temperatures exist. This is an automatic reset control connected to the refrigeration system low side. It is set to stop the unit completely when the low-side pressure drops to less than 3 psig.

---

Component Description
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.

DRIVEMOTOR
The drivemotor assembly rotates the auger through a series of reduction gears from the electric motor to the freezer assembly. 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 predetermined RPM, a sensing switch in 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.

SPOUT SWITCH
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 bin thermostat 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.
KING VALVE
The king valve prevents refrigerant from escaping from the receiver during shipment and before use. The king valve must be opened after connection of the precharged tubing kit and before operation of the icemaker.

BIN THERMOSTAT BRACKET
The bin thermostat bracket is the bin full ice contact point of the bin thermostat capillary tube.

FREEZER ASSEMBLY
The freezer assembly is a vertical cylinder wrapped on the outside with the evaporator coils. Inside the freezer assembly is a stainless steel auger. As ice forms on the interior wall, it is pushed up and out by a rotating auger.

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.

HIGH PRESSURE RECEIVER
Provides storage volume for refrigerant during cross ambient operation. The high pressure receiver is sized large enough to hold the entire refrigerant charge. During cold operation there is enough liquid in the receiver to maintain a liquid seal to the liquid line.

AUTOMATIC EXPANSION VALVE (AXV)
The automatic expansion valve regulates the flow of refrigerant to the evaporator, and reduces pressure of liquid refrigerant from condensing pressure to evaporating pressure.
ADJUSTMENT PROCEDURES

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.

Adjustment of the Temperature Control
REMOVAL AND REPLACEMENT PROCEDURES

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 four screws and washers and separate the spout assembly from the spout plate on the freezer assembly.
4. 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-rings at the bottom outside of the bearing/retainer and the O-ring bottom inside bearing retainer, for cuts, tears and general worn condition to determine replacement.

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June 1984
Page 19
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 from the freezing chamber, replace the water seal. Use extra care in handling the water seal parts, so no dirt or foreign matter contaminate the surfaces of the seal.

13. Remove four screws and lockwashers which attach the freezer assembly to the 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 a 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 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.
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.

To remove the Automatic Expansion Valve:

1. Remove screws and the Front Panel.
2. Bleed off 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.

To replace the Automatic Expansion Valve, reverse the removal procedures and follow special precautions given for steps in installing and soldering Valve tubing. Evacuate and recharge per nameplate rating.

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. Loosen the screws and lockwashers which attach the reservoir bracket and water reservoir to the control box.

2. 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 freezer insulation.
3. When proper water level within the freezer is adjusted, re-tighten screws attaching the water reservoir bracket to the control box.
REMOVAL AND REPLACEMENT OF THE HEAD PRESSURE REGULATOR VALVE

CAUTION

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

To remove the Head Pressure Regulator Valve:
1. Remove screws and the Front Panel.
2. Bleed off the refrigerant charge through the Schrader Valve.
3. Unwrap insulation around the Head Pressure Regulator Valve.

CAUTION

Wrap the Head Pressure Regulator Valve with WET CLOTHS, to protect the sensitive parts during soldering and installation. DO NOT direct flame toward the valve.

4. With the Head Pressure Regulator 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.

To replace the Head Pressure Regulator Valve, reverse the removal procedures and follow special precautions given for steps in installing and soldering Valve tubing.

REMOVAL AND REPLACEMENT OF THE LIQUID LINE DRIER

To remove the drier:
1. Remove screw and drier brace attaching the drier.
2. Bleed off 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.

REMOVAL AND REPLACEMENT OF THE DRIVEMOTOR ASSEMBLY

1. Remove top, front, and right side panels.
2. Disconnect electrical power at the source.
3. Remove electrical leads from drivemotor.
4. Remove the four bolts that attach the freezer adaptor to the drivemotor case. Lift the freezer assembly up and off the drivemotor assembly.
5. Remove the bolts that attach the drivemotor mounting plate to the icemaker base, then lift the drivemotor and mounting plate out of the machine.
6. Remove the mounting plate from the drivemotor assembly, service the drivemotor and reverse the removal procedure to replace it.
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 left side, front and rear 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.
4. Remove corbin clamp and Tygon tube from the freezer assembly that connects to the water reservoir assembly.
5. Bleed off 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. Unsolder the Liquid line at the drier.
9. Remove four screws, lockwashers and washers which attach the bottom of the freezer assembly to the adaptor on the drivemotor assembly.
10. Lift the freezer assembly up and off of the adaptor and drivemotor assembly.

To replace the freezer assembly, reverse the removal procedure. Evacuate and recharge per nameplate rating.

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 RESERVOIR ASSEMBLY

To remove the water reservoir assembly:

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.

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

(Continued)
<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>POSSIBLE CAUSE</th>
<th>CORRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making wet ice (Continued)</td>
<td>Back pressure too high.</td>
<td>Overcharge of refrigerant, faulty compressor or high head pressure. Lower pressure as indicated. AXV not working properly.</td>
</tr>
<tr>
<td></td>
<td>Faulty compressor or valve plate.</td>
<td>Replace compressor</td>
</tr>
<tr>
<td></td>
<td>AXV not metering refrigerant properly.</td>
<td>Adjust or replace AXV.</td>
</tr>
<tr>
<td>Low ice production.</td>
<td>Loss of refrigerant. Under or over-charge of refrigerant.</td>
<td>Check and recharge. See NAMEPLATE for charge correction.</td>
</tr>
<tr>
<td></td>
<td>Dirty or plugged condenser.</td>
<td>Clean condenser.</td>
</tr>
<tr>
<td></td>
<td>Low water level in water reservoir.</td>
<td>See CORRECTION for water leaks above.</td>
</tr>
<tr>
<td></td>
<td>Inlet water strainer partially plugged.</td>
<td>Remove screen and clean.</td>
</tr>
<tr>
<td></td>
<td>Corroded or stained auger due to water condition.</td>
<td>Remove auger and clean, or use Scotsman Ice Machine Cleaner. See Maintenance Section.</td>
</tr>
<tr>
<td>Gearmotor noise.</td>
<td>Low on oil.</td>
<td>Remove case cover to check for proper oil level. Top of gears should be covered. Use: Sun Oil Company Prestige 50-EP.</td>
</tr>
<tr>
<td></td>
<td>Rotor Bearing worn</td>
<td>Replace Rotor Bearing.</td>
</tr>
<tr>
<td>Icemaker will not operate.</td>
<td>Blown fuse in line.</td>
<td>Replace fuse and check for cause of blown fuse.</td>
</tr>
<tr>
<td></td>
<td>Loose electrical connection.</td>
<td>Check wiring.</td>
</tr>
<tr>
<td></td>
<td>Switch in OFF position.</td>
<td>Set switch to ON position.</td>
</tr>
<tr>
<td></td>
<td>Inoperative master switch.</td>
<td>Replace switch or thermal overload.</td>
</tr>
<tr>
<td></td>
<td>Off on manual-reset high pressure control.</td>
<td>Reset — Check condenser.</td>
</tr>
<tr>
<td></td>
<td>Low supply water pressure.</td>
<td>Restore water pressure.</td>
</tr>
<tr>
<td></td>
<td>Low on refrigerant off-on low pressure control.</td>
<td>Find leak, replace drier, evacuate and recharge.</td>
</tr>
</tbody>
</table>
## SERVICE DIAGNOSIS (Continued)

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>POSSIBLE CAUSE</th>
<th>CORRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icemaker continues to operate with full storage bin.</td>
<td>Bin thermostat not properly set or is defective.</td>
<td>Re-set or replace bin thermostat.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re-set to 35-degrees cut-out, 45-degrees cut-in.</td>
</tr>
<tr>
<td>Compressor cycles intermittently.</td>
<td>Low voltage.</td>
<td>Check for overloading.</td>
</tr>
<tr>
<td></td>
<td>Dirty condenser.</td>
<td>Clean condenser.</td>
</tr>
<tr>
<td></td>
<td>Air circulation blocked.</td>
<td>Remove cause or move unit.</td>
</tr>
<tr>
<td></td>
<td>Inoperative condenser fan motor.</td>
<td>Replace motor.</td>
</tr>
<tr>
<td></td>
<td>Non-condensable gases in system.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bin thermostat differential too small causing short cycling.</td>
<td>Check for gas leaks, evacuate and recharge.</td>
</tr>
<tr>
<td></td>
<td>Low on refrigerant causing low pressure control to cycle.</td>
<td>Set or replace bin thermostat.</td>
</tr>
<tr>
<td></td>
<td>Low water pressure causing control to cycle.</td>
<td>Check for leaks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Restore water pressure.</td>
</tr>
<tr>
<td>Icemaker operates but makes no ice.</td>
<td>Loss or undercharge of refrigerant.</td>
<td>Check for leaks and recharge.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See NAMEPLATE for correct charge.</td>
</tr>
<tr>
<td></td>
<td>Water not entering chamber.</td>
<td>Plugged strainer or supply line.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check and clean.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Air lock in gravity feed line.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check and remove air lock.</td>
</tr>
<tr>
<td></td>
<td>Moisture in system.</td>
<td>Check, evacuate, replace drier.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recharge. See NAMEPLATE for correct charge.</td>
</tr>
<tr>
<td></td>
<td>Water seal leaking.</td>
<td>Replace seal.</td>
</tr>
<tr>
<td></td>
<td>Drivemotor or drive coupling stripped.</td>
<td>Repair or replace drivemotor or drive coupling.</td>
</tr>
<tr>
<td></td>
<td>Compressor over load faulty.</td>
<td>Replace over load.</td>
</tr>
</tbody>
</table>
MAINTENANCE AND CLEANING

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, the icemaker must be maintained, in accordance with its 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 strainer or water purification system.
2. Remove screws and top and front panel.
3. Remove cover from the water reservoir and depress the float to ensure that a full stream of water enters the 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 the water reservoir is below of the overflow and is level with the molded horizontal line on the reservoir body.
6. Clean the 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.

When doubtful about refrigerant charge, install refrigerant gauges on Schrader valves and check gauge for compressor head pressure of the system. See Nameplate for refrigerant charge specifications.

Check gauge for suction line pressure: Varies between 11 to 15 PSIG, depending upon inlet water temperature and ambient air temperatures.

Check the drivemotor operation:
Normal operating temperatures are about 160-degrees F., which is hot to touch.
Check operation of the centrifugal sensing switch for the drive motor:

WARNING
Disconnect electrical power supply before removal procedure.

NOTE
Before the next step, move the Master ON-OFF switch to OFF, to stop the icemaker.

7. Remove rubber insulating cap, the Retaining Ring and the Hook and Cap from the top of the Freezer Assembly.
8. Inspect the O-rings and the top bearing in the upper bearing retainer, 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.
9. Check for refrigerant leaks.
10. Check for water leaks. Pour water down bin drain to be sure that drain line is open and clear.
11. Check the quality of ice. Ice should be wet when formed, but will cure rapidly to normal hardness in the bin.
12. Check the bin thermostat control bulb, hold ice on the control bulb of the 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.

June 1984
Page 28
REMOTE CONDENSER

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

1. With building source electrical power OFF to the icemaker and remote condenser, clean the remote condenser fins, using a vacuum cleaner, whisk broom or brush. DO NOT USE A WIRE BRUSH. Instruct customer to clean frequently.

2. Check that Fan Blade moves freely, is not touching any surfaces, is not bent or out of balance; and, the wire guard is properly installed and securely attached.

3. Check that the roof area immediately surrounding the Remote Condenser is free and clear of any debris that may collect, such as leaves, paper, trash, etc.

ICEMAKER CLEANING

1. Remove screws and the top and front panel.

2. Move the master ON-OFF toggle switch to the OFF position.

3. Remove all ice from the ice storage bin.

4. Remove the reservoir cover and 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, freezer and tube. Reconnect the tube.

6. Prepare cleaning solution: Mix eight ounces of SCOTSMAN Ice Machine Cleaner with two quarts of hot water.

7. Slowly pour the cleaning solution into the water reservoir.

8. Move the master ON-OFF switch to ON position and make ice with the cleaning solution.

9. Continue to slowly pour the cleaning solution into the water reservoir, maintaining the level just below the 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 the master ON-OFF switch to OFF.

12. Wash and rinse the water reservoir.

13. Remove the block from the float in the water reservoir. Move the master ON-OFF switch to ON position.

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 the master ON-OFF switch to the OFF position.

CAUTION

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

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.

June 1984
Page 30