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MECHANICAL SPECIFICATIONS

	SF-75-J
Compressor	1/4 HP Tecumseh
Condenser	Air-Cooled
Refrigerant	21 oz. R 12
Refrigerant Control	Capillary Tube
Power Consumption - Compressor	4.5 Amps.
Power Consumption - Gear Motor	4.0 Amps.
Current	115 V, 60 cycle, 1 Ph.
Gear Motor Drive	1/10 HP
Worm - R.P.M.	10.5
Water Consumption - Freezer	2 Gallons per hour
CABINET DIMENSIONS	
Depth	24 1/2"
Width	32 1/2"
Height	40"
Height with 6" legs	46"
SHIPPING WEIGHT	
Uncrated	330
Crated	360

SPECIFICATIONS

SCOTSMAN Super Flakers are designed for restaurants, super markets, soda fountains, hospitals, bakeries, fish markets, poultry stores, packing plants, etc. It is the finest Ice Maker on the market today. It will work 24 hours a day for you, or only as needed. It produces the highest quality ice available at any price.

SCOTSMAN Super Flakers are easily installed requiring only standard water, drain and electrical connections.

ATTRACTIVE COMPACT CABINET. *Grey hammerloid finish with chrome trim, rounded corners, and removable panels for easy access to mechanical parts. Adjustable and removable legs are under cabinet.

SEALED REFRIGERATION SYSTEM. Provides quiet, efficient operation of the machine. Compressor motor is internally spring mounted for quite operation. Compressor motor is covered by a full 5-Year Warranty.

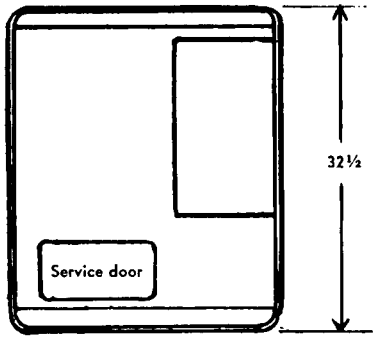
HOW IT WORKS. An exclusive patented ice-making system, wherein water in the constant level float reservoir is fed to the bottom end of the freezing cyclinder and turns to ice on the inside of this cyclinder. Ice from the refrigerated walls of this cyclinder is extruded past the ice breaker at the top of the cyclinder through a side opening by means of a stainless steel auger directly driven by a motor gear reduction drive.

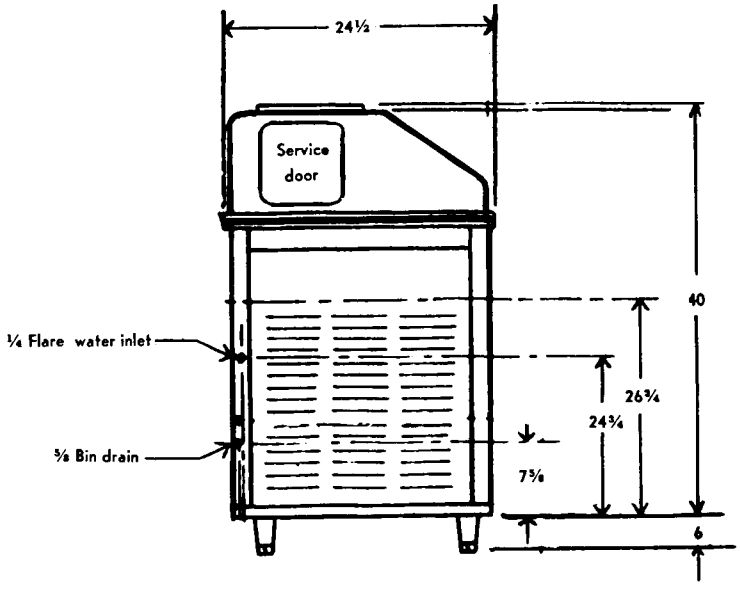
SCOTSMAN Model SF-75WSJ is completely automatic. A manual switch on the front starts the machine, and from then on, produces flakes automatically. When the storage bin fills, the machine automatically shuts off and starts up again when ice is taken from the storage compartment.

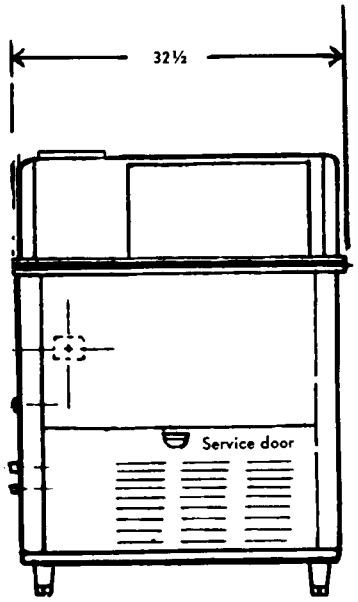
* Also available in stainless steel cabinet.

SPECIFICATIONS

SUPER FLAKER SF-75 SERIES (Storage Type)	MODEL SF-75WSJ	MODEL SF75WSJ-SS
Daily capacity up to 240 lbs.	X	X
Self contained 100 lb. storage bin	X	X
Air cooled condenser	X	X
Heavy duty ¼ HP. Compressor	X	X
Standard 115 V, 60 cy, 1 ph, AC	X	X
¼" water inlet SAE Flare	X	X
⅝" bin drain OD	X	X
Hammerloid grey exterior	X	
Stainless steel exterior		X
Stainless steel lined storage bin	X	X
46" height (with legs)	X	X
40" height (without legs)	X	X
32½" width	X	X
24 ½" depth	X	X
Approximate shipping weight 360 lbs.	360	360

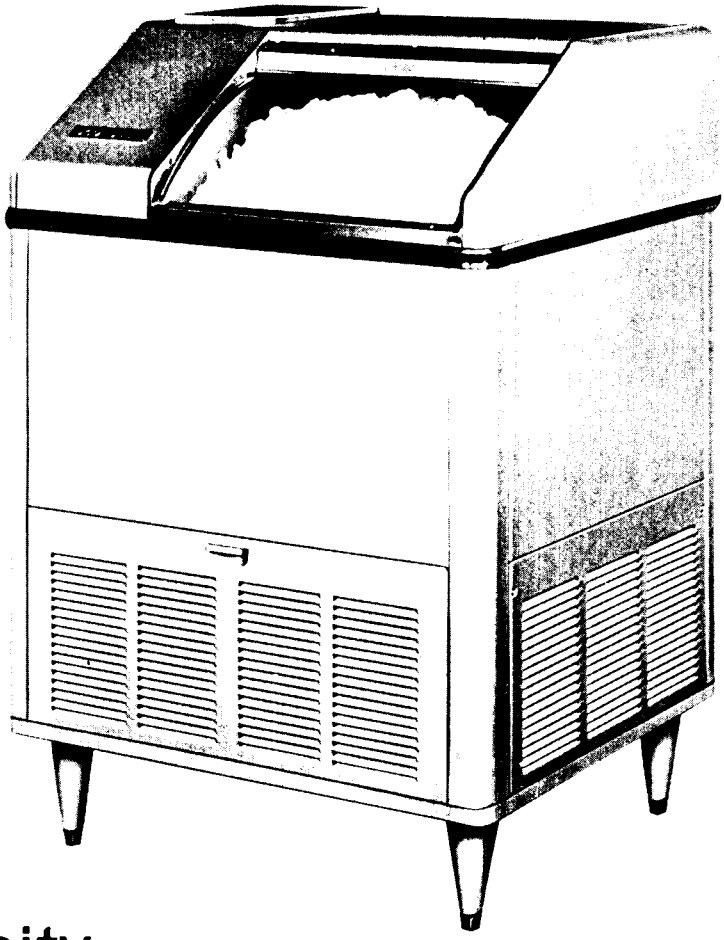




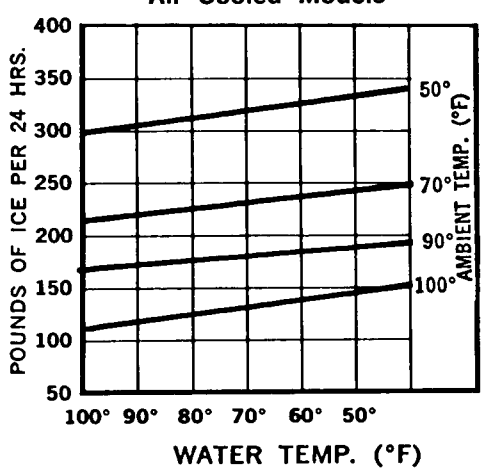


SCOTSMAN®

SUPER FLAKER
SF-75
SERIES
Storage Type



ice making capacity



INSTALLATIONS

UNDER BAR INSTALLATIONS: Locate, if possible, so left end panel is accessible. Locate so proper circulation can be attained around the unit and behind it at least four inches.

KITCHEN INSTALLATIONS: As a rule, the kitchen is not the most practical place to install an air-cooled condensing unit, as grease is almost always present and makes cleaning of the condensing unit difficult. Do not locate near range or steam table or other heating devices that may be used in the kitchen.

STOREROOM INSTALLATIONS: Be sure storeroom is of adequate size and properly ventilated. A small, poorly ventilated room will greatly impair the efficiency of the unit. The storeroom must be kept above 50° in the winter months.

BASEMENT INSTALLATIONS: Locate machine in the coolest place. Locate machine in a dry place. Keep away from furnace and boiler room. Keep away from service chutes and runways; also coal and other dust of any kind. If the machine is set over a floor drain, block the machine up enough to level it. If there is any chance of basement flooding, block the machine up to eliminate any possible damage to the machine.

UNCRATING OF MACHINE: The complete machine comes in one crate. After the crate is removed, inspect for concealed damage. When installing the machine. Remove the bottom skids by removing all bolts Then check all refrigerant lines for rubbing or touching other surfaces. Also check for possible transportation damage.

PRE-INSTALLATION CLEANING: Before machine is in final location, remove warranty card and other information from machine compartment. Remove top service door, water reservoir cover, and packing under float. Then leave cover off for float adjustment after machine is installed.

SCOTSMAN SUPER FLAKERS

PREPARATION FOR INSTALLATION

1. Inspect complete unit cabinetry for shipping damage. Notify carrier of concealed damage claims.

2. Remove all service doors and panels.

3. Remove water reservoir cover and take out paper packing around float ball. Make sure plastic overflow standpipe is securely in place.

4. Remove leg packages in compartment base and install 4 legs in unit base sockets.

5. Remove water strainer from storage bin for installation on unit or in water supply line feeding unit.

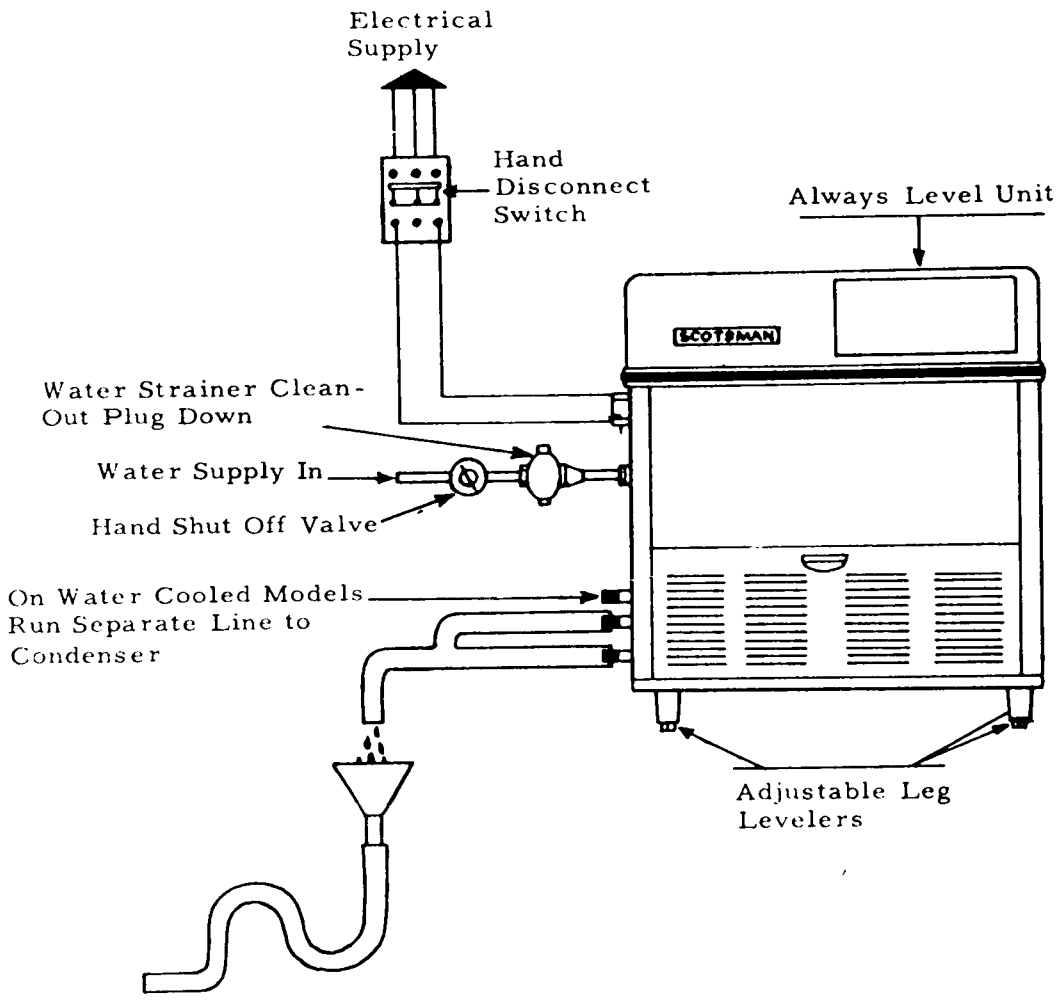
6. Open electrical control box and prepare for hook up, use knock outs, cord connectors etc. Then check unit nameplate voltage against building source voltage and make sure they correspond. Caution - Improper voltage supplied to units will void your warranty protection.

7. Select unit location prior to hook up of water drain and electricals in accordance with local and national codes. Minimum room temperatures is 50° Fahrenheit. On air cooled models, select well ventilated location.

8. Remove warranty card and Users manual from storage bin, then wipe bin clean with damp cloth.

9. Fill out warranty card completely including model and serial numbers as taken from aluminum plate found behind front service panel and forward to Scotsman Factory using self mailing card.

10. Level unit with adjustable legs then call your authorized Scotsman distributor or dealer for proper installation, start up and check out.



WATER SUPPLY. The recommended water supply line is 1/4 inch OD copper tubing. Connect to cold water supply line with regular plumbing fittings, with shut-off valve installed in an accessible place between supply line and machine. A water strainer must be installed with the unit and mounted with clean-out plug down. Locate the strainer next to the machine withthe arrow in the direction of the flow. Most plumbing codes also call for double check valves in the supply water line.

The water supply line connects to the 1/4 inch flare fitting on the machine. Water supply must be installed to conform with local code. In some cases a licensed plumber and/or a plumbing permit will be required.

DRAIN. The recommended drain from the bin is 5/8 inch OD copper tubing. Must be run to an open trapped and vented drain. If drain is a long run, allow a 1/4 inch pitch per foot. Drain must be installed to conform with local code.

INSTALLATION

ELECTRICAL CONNECTIONS:

SF-75WSJ
115 Volts, 60 Cycle, 1 Phase
15 Amp. Circuit

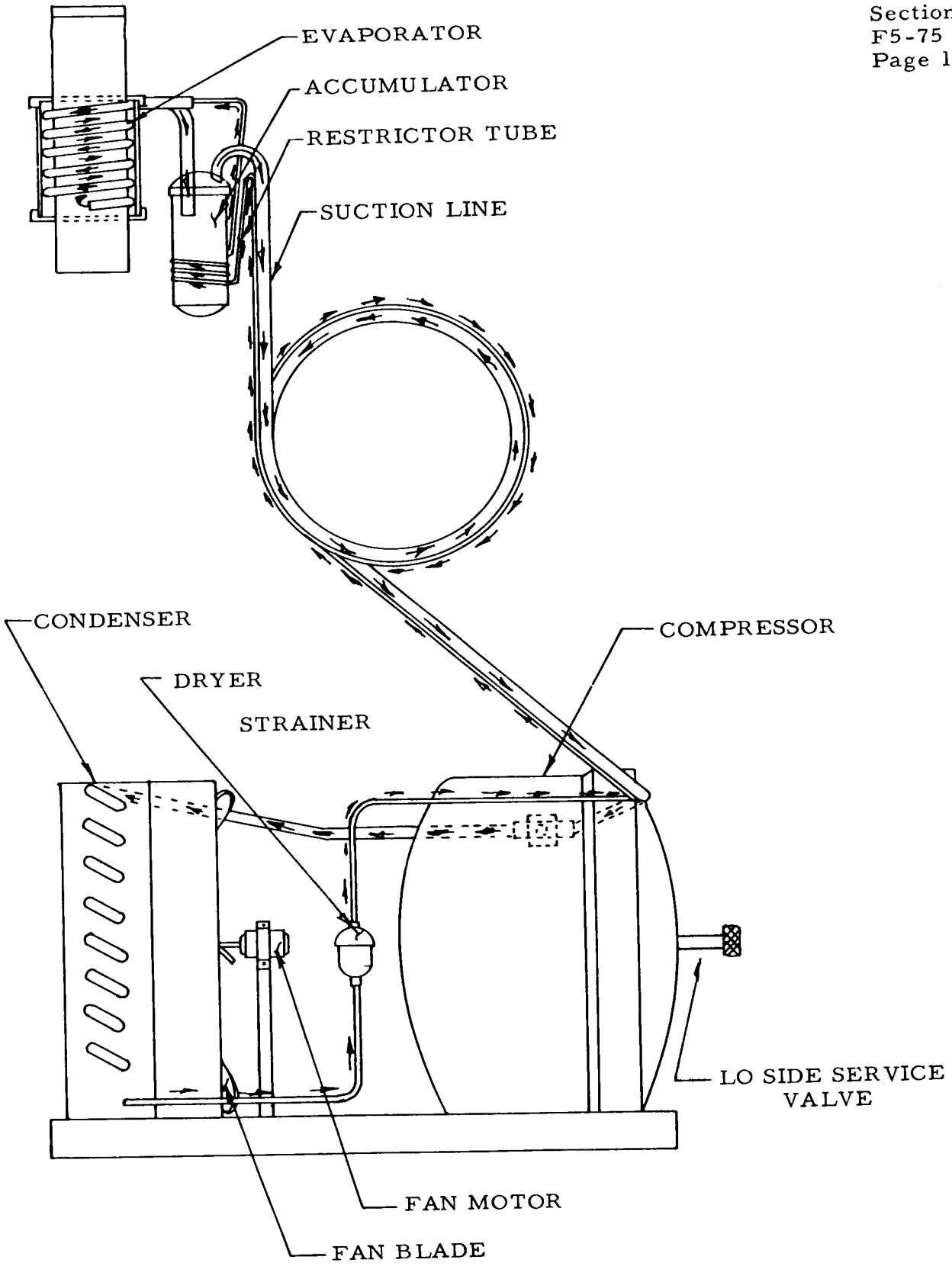
Be certain that the Super Flaker is on its own circuit and individually fused. The maximum allowable voltage variation should not exceed 10 per cent of the nameplate rating even under starting conditions. Low voltage can cause erratic operation and may be responsible for serious damage to the overload switch and motor windings.

All external wiring should conform to the National Underwriters and local Electrical Code requirements. Usually an electrical permit and the services of a licensed electrician will be required.

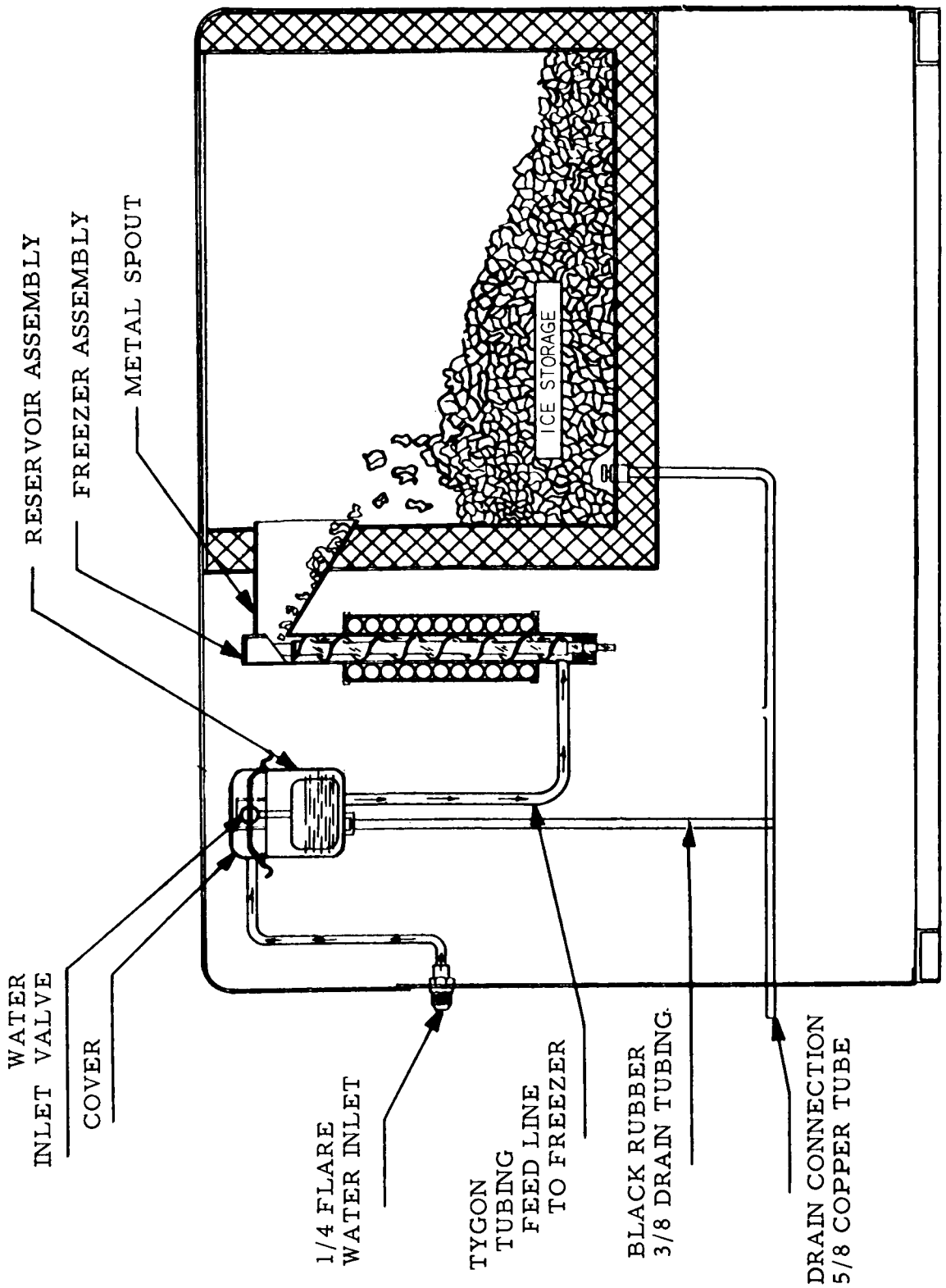
ELECTRICAL INSTALLATION:

SF-75WSJ

Compressor	1/4 HP	Tecumseh - catalog 43
	Voltage	115
	Amp. rating F.L.A.	4.5
	Watts input	450
	Cycle	60
	Phase	Single
Gear Drive Motor	1/10 HP	Queen Products
	Voltage	115
	Amp. rating	4.0
	Cycle	60
	Phase	Single Thermally Protected

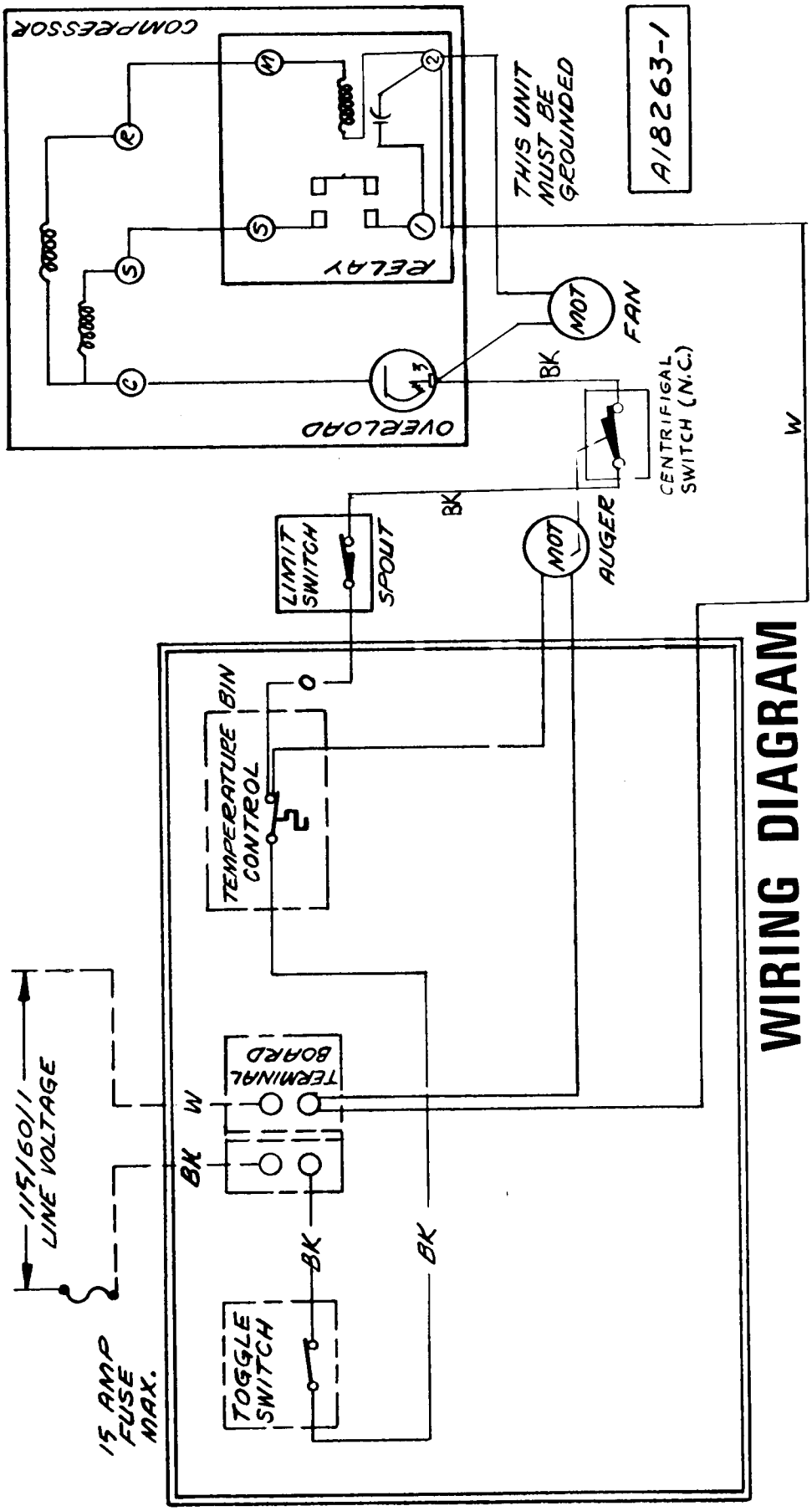


SF-75WSJ
REFRIGERATION CYCLE



WATER SCHEMATIC

SF - 75WSJ



WIRING DIAGRAM

SF 75WSJ
115-60-1

FINAL CHECK LIST

1. Is the unit 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 valve open and the electric power on?
5. Is the water reservoir filled and shut off? All packing removed?
6. Have unit and bin been wiped clean?
7. Has owner been given the Operating Instruction Sheet, and has he been instructed on how to operate the machine?
8. Have the installation and warranty cards been filled out? This is the owner's protection.
9. Check all refrigerant and conduit lines to guard against vibration and possible failure.
10. Installed in a well ventilated room where ambient temperatures do not fall below 50^{o} Fahrenheit.
11. Is unit installed with a minimum 4" air space around sides and back?

SERVICE

STARTING THE MACHINE: When the machine is placed and inspected as per instructions and all plumbing and electrical connections are completed and tested, turn on the water supply. Be sure the float cover is removed to check on the float operation and water level in the water reservoir. Be sure the water reservoir is filled before starting the machine. Water level should be 1/4 inch below the reservoir overflow.

When this is completed, turn on the manual switch on the front of the cabinet and the machine is in automatic operation. In two to three minutes ice will start dropping off the worm shaft and out the ice chute. Let the machine operate for at least 30 minutes and check for any excess noise other than the normal compressor noise. Test the ice storage control bulb by holding a handful of ice around the bulb until the machine shuts off. One minute should be normal for the control to function. Within minutes after the ice is removed, the bulb will warm up and the machine will automatically start up. The control is factory set and should not be reset until this test is made. Normal setting of this control should be approximately 35 degrees cut out, 45 degrees cut in.

Check low pressure setting at the time of start-up. The frost line should extend 8" out of the accumulator if properly charged with refrigerant and suction pressure will range between 15 and 16 PSI with 50° F. inlet water.

Explain the machine to the owner, showing him how the machine works and go over the owner's instruction sheet with him. Answer all the owner's questions about the machine, and do not leave with any doubt in the owner's mind about the machine, how to operate it or where to reach you should he need service on the machine. Call back the next day to check the machine again and answer any other questions the owner may have.

Service gauge connection is available on low side service valve. Purge free of any non-condensable gases before starting any test operation.

REFRIGERANT CHARGE: The below refrigerant charge is approximate. Charge so that the frost line extends 8" out of the accumulator after fifteen minutes of operation. Factory charge 21 oz. refrigerant 12. Low side pressure 14-16 P.S.I.

SERVICE

WATER SYSTEM: A water level is maintained in the water reservoir by a float operated valve. Water is piped from the water reservoir to the freezing chamber by a gravity feed line maintaining an equal water level. A removable overflow pipe is installed in the water reservoir for cleaning the reservoir as well as preventing damage should the inlet water valve fail.

The water reservoir is equipped with a 2 inch air gap to prevent back siphoning and meet all health codes.

The water level in the water reservoir is adjusted by bending float arm. The water level should be set 1/4 inch below the overflow pipe.

A water strainer must be installed in the supply line. Use strainer sent with machine.

ELECTRICAL SYSTEM: The super Flaker Model SF-75 is designed to work on standard electrical supply 115 volts, 60 cycle single phase.

Supply voltage should not vary more than plus or minus 10 percent over nameplate rating.

Special voltage requirements are available on special order. Therefore, always check nameplate for this information before checking electrical supply.

The electrical circuit consists of condensing unit, freezer gear motor, storage bin thermostat ON and Off switch and spout micro (safety) switch.

A. CONDENSING UNIT: The starting capacitor and starting relay are housed and fastened to the motor compressor.

B. GEAR MOTOR TO FREEZER: Models SF75"J" are equipped with a 1/10 horsepower direct drive gearmotor. A speed sensing switch mounted on top of the motor of the gear unit will open and stop the compressor when the RPM of the gearmotor is less than 900. At 1200 RPM it will close, starting the compressor.

In an actual operation any condition that may cause excessively hard ice and overloads within the freezer assembly, water interruptions, cold ambients, etc. is transmitted to the gearmotor reducing it's speed. When gearmotor slows down to approximately 900 RPM the speed sensing switch opens the electrical circuit to the compressor. The compressor stops and no more ice is produced, meanwhile the gearmotor continues to run, clearing the overload condition and gradually resumes full speed. At 1200 RPM gearmotor speed sensing switch closes compressor circuit causing the normal icemaking process to begin once more.

Any freeze up possibility is therby automatically cleared out by the gearmotor.

C. STORAGE BIN THERMOSTAT: Thermostat control body is located in electrical control box. The thermostat sensing tube is threaded into the ice storage bin where it automatically stops the icemaker when ice bin fills to sensing tube level and restarts icemaker when ice is removed. Factory settings are 35^{o} cut out, 45^{o} cut in.

Altitude correction begins at 2,000 feet, cut in and cut out screws should be adjusted equally, not more than 1/4 turn at a time.

D. MICRO SAFETY SWITCH: The micro switch is located in the top of the ice chute. The switch is operated by a pressure plate inside the ice chute. Ice backs up in the chute if the storage bin thermostat fails. Micro switch will shut off the condensing unit only, when operated.

E. ON-OFF SWITCH: A manual on-off switch is located in control box.

REMOVAL & INSTALLATION OF PARTS

CABINET TOP (HOOD)

1. Remove two back end screws of chrome strip.
2. Pull out tape concealing screws.
3. Remove balance of screws in chrome strip.
4. Lift off hood.

HOOD SERVICE DOOR, TOP

1. Remove screw from front edge.
2. Lift up and back to unhook pin.

CABINET SIDE SERVICE DOOR

1. Remove four screws on edges.
2. Lift out door.

CABINET FRONT SERVICE DOOR

1. Front door pulls out.

CABINET REAR SERVICE DOOR

1. Remove four screws on corners of rear service door.
2. Pull door out.

ICE STORAGE DOOR

1. Lift door up, slide back 6". Remove thumb screw that attaches safety lanyard to back of door.
2. Door will now slide out. Lift front edge slightly to clear hood lip.

ICE STORAGE DOOR FRAME

1. Remove six screws at bottom and sides.
2. Remove screw in frame back.
3. Frame will now lift out.

MOTOR COMPRESSOR

1. Remove gas charge .
2. Disconnect wiring from the compressor.
3. Loosen suction and discharge lines and cap off.
4. Remove the compressor hold-down nuts and lift compressor out of the unit.
5. Reverse steps 1 through 4 in replacing compressor.

FREEZER ASSEMBLY

1. In most instances, it will be faster to remove freezer by first removing cabinet top or hood. (See Removing and Installing Cabinet Parts.) Assembly can be changed if necessary through hood top panel.
2. Shut off water supply to unit, remove top and left side service panels.
3. Disconnect water inlet line at reservoir. Remove water supply tube at freezer and drain freezer.
4. Purge off refrigerant, unsweat suction line, disconnect capillary line at drier. Cap off all lines so no moisture can enter system.
5. Remove insulation pieces around spout, also the spout proper.
6. Remove 3 bolts holding fiber adapter base to gearmotor top cover, lift freezer out of cabinet.
7. Remove fiber adaptor spout front and back plates from old freezer and install on new replacement.
8. Re-install in reverse of above.

FREEZER WORM SHAFT

1. Turn unit off, before removing worm shaft.
2. Shut off water supply to unit.
3. Remove hood service doors.
4. Remove top and bottom straps around spout insulation pieces, remove pieces.
5. Remove two slotted head screws which fit through top chamber wall into ice breaker.
6. Tap spline coupling loose on bottom end of freezer worm shaft.
7. Complete worm shaft with ice breaker attached will now come out by lifting up on freezer cap pull ring. NOTE: Top half of water seal will come with worm shaft.
8. To remove ice breaker from shaft, first remove retainer ring in top of ice breaker.
9. Remove freezer cap and pull ring from ice breaker.
10. Remove cap screw holding shaft through bearing and pull worm shaft free from ice breaker and bearing.
11. If shaft is defective, remove water seal top half and put on new worm shaft before reassembling--when reassembling, by reversing above, put a small amount of Vaseline on shaft end. This will allow shaft to slide smoothly through rubber bottom half of water seal without tearing it.

WATER SEAL

1. To replace water seal, follow steps 1 through 7 under Worm Shaft Removal.
2. Remove 3 bolts holding freezer to fiber mounting adapter.
3. Lift freezer off adapter just high enough to allow bottom bearing and bottom half of water seal to be removed from bottom of freezer tube.
4. Lightly grease bottom half of new water seal and insert face up approximately 1/2" in bottom of freezer tube.
5. Insert bottom bearing in bottom of freezer tube, force approximately 1/8" past bottom tube end. This will allow the positioning ring on fiber adaptor to properly position freezer tube when tightening up the three mounting bolts.
6. After securing mounting bolts, put new top half of water seal on worm shaft the same way as the old seal was removed.
7. Carefully insert worm shaft assembly in freezer tube and into spline coupling on bottom.
8. Replace ice breaker screws, insulation pieces and unit is ready to resume operation.

SERVICE

STORAGE BIN THERMOSTAT:

1. Disconnect electrical supply.
2. Remove bin thermostat bulb from bin location along with its capillary tube.
3. Remove control box cover.
4. Disconnect two spade type electrical leads.
5. Loosen two screws in control mounting bracket.
6. Replace with new control and reassemble in reverse of above.
7. CAUTION: Always check new control power element charge before installation to assure receiving an operative control. A handful of ice on bulb will register an audible 'click' at cut off.

WATER RESERVOIR

1. Remove service panel in cabinet hood.
2. Turn off water supply and drain reservoir.
3. Remove 1/4 inch copper inlet water line.
4. Remove 1/2 inch plastic feed line to freezer.
5. Remove two screws holding reservoir bracket to wall.
6. Lift out reservoir.
7. To replace, reverse procedure.

SERVICE

MICRO SWITCH IN SPOUT

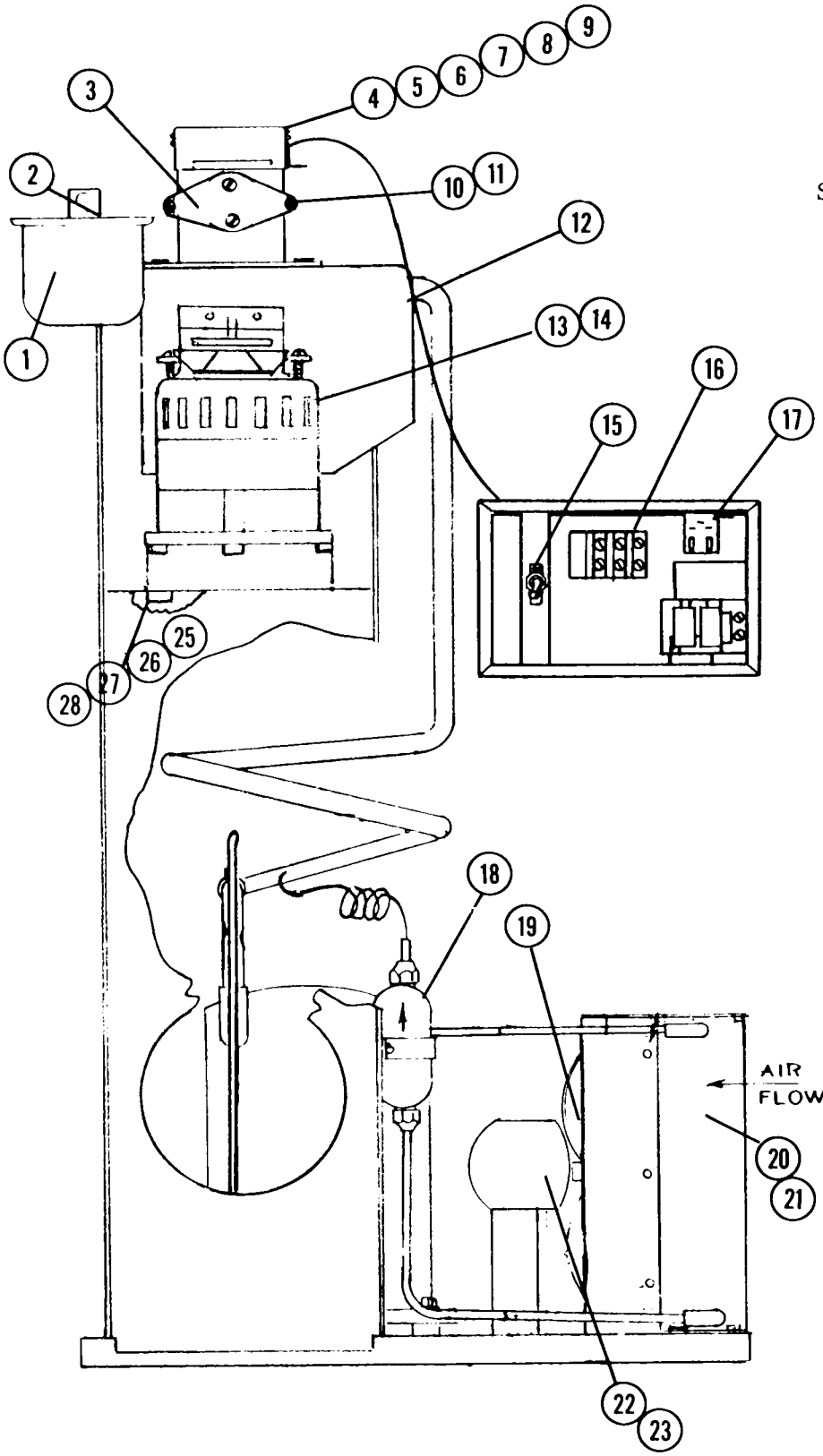
1. Remove hood service panel.
2. Remove insulation pieces around freezer spout.
3. Remove micro box cover, loosen two screws at rear of box holding switch in place, lift up.
4. Disconnect electric leads.
5. Reassemble with new micro switch.

MANUAL ON AND OFF SWITCH

1. Remove front service door.
2. Remove two screws holding switch to bracket.
3. Disconnect electrical leads from switch.
4. Remove switch.
5. To replace, reverse procedure.

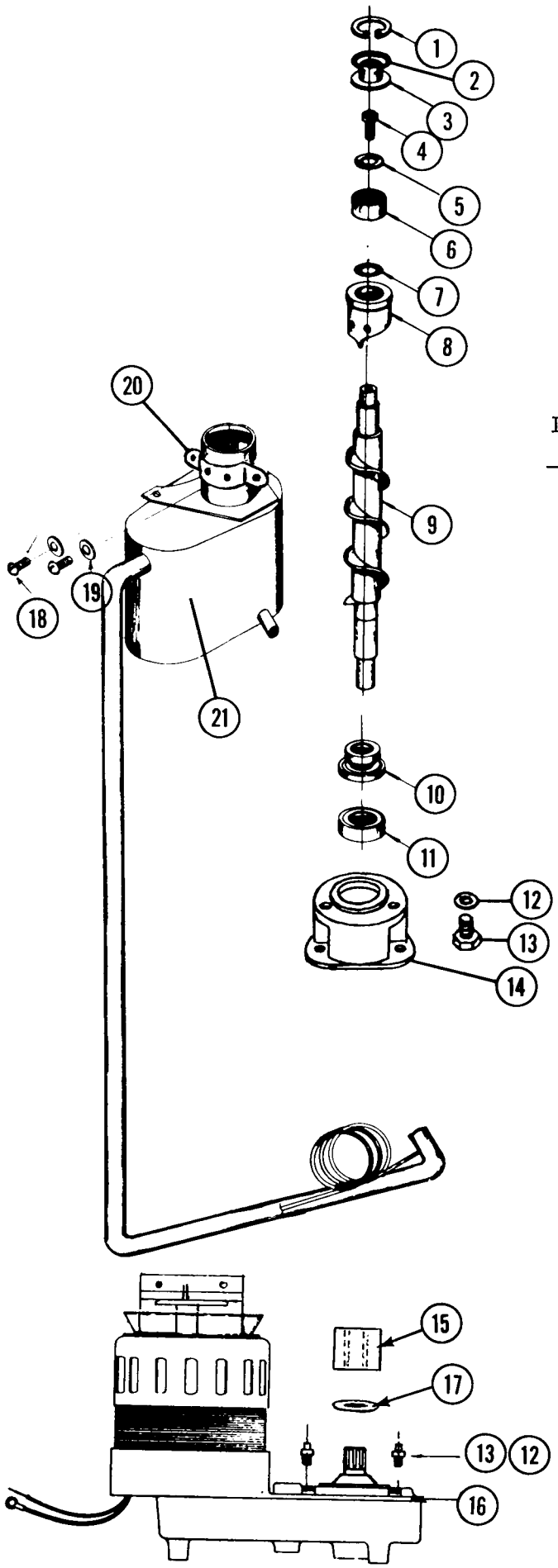
FREEZER GEARMOTOR

1. The easiest way to change the gearmotor is to remove complete cabinet hood as explained earlier in this section. If necessary because of location you can change by removing chrome trim insert strip on cabinet left side. This will expose three flat head screws. Remove same.
2. Pull off left side service panel and look up on underside of left side cabinet panel: 4 screws, 2 on each side, secure this panel to cabinet. Remove these 4 screws and entire left cabinet side below hood is now open.
3. Remove the four wire leads (2 on micro switch on top of motor, 2 from motor into control box.)
4. Remove 3 bolts thru fiber adapter into gearmotor cover and the 4 bolts holding gearmotor to mounting base.
5. Lift freezer adapter assembly off gearmotor and pull gearmotor out thru left side.



SF-75 J FLAKER CHASSIS

ITEM NO.	PART NO.	
1.	A-18256	Reservoir
2.	S-8138	Water Inlet Valve Assy.
3.	A-18340	Spout Plate
4.	12-1018	Spout Switch
5.	A-16357	Spout
6.	A-16360	Spout Pressure Plate
7.	A-14256	Knurled Nut
8.	2-560	"O" Ring
9.	A-14254	Spout Casting
10.	3-1403-53	Screws
11.	3-1417-7	Washers
12.	A-18295-2	Freezer
13.	A-18380-1	Gear Reducer Assy.
14.	A-13635	Spline Adapter
15.	12-426	Switch
16.	12-813-4	Terminal Board
17.	11-354	Temperature Control
18.	2-350	Drier
19.	18-231	Fan Blade
20.	A-15621	Condenser Shroud
21.	18-140	Condenser
22.	18-163-1	Fan Motor
23.	18-422	Fan Motor Mount
24.		
25.	A-18301	Shoulder Bolt (4)
26.	13-627	Grommet (4)
27.	3-1407-5	Washer (4)
28.	3-1407-9	Washer (4)



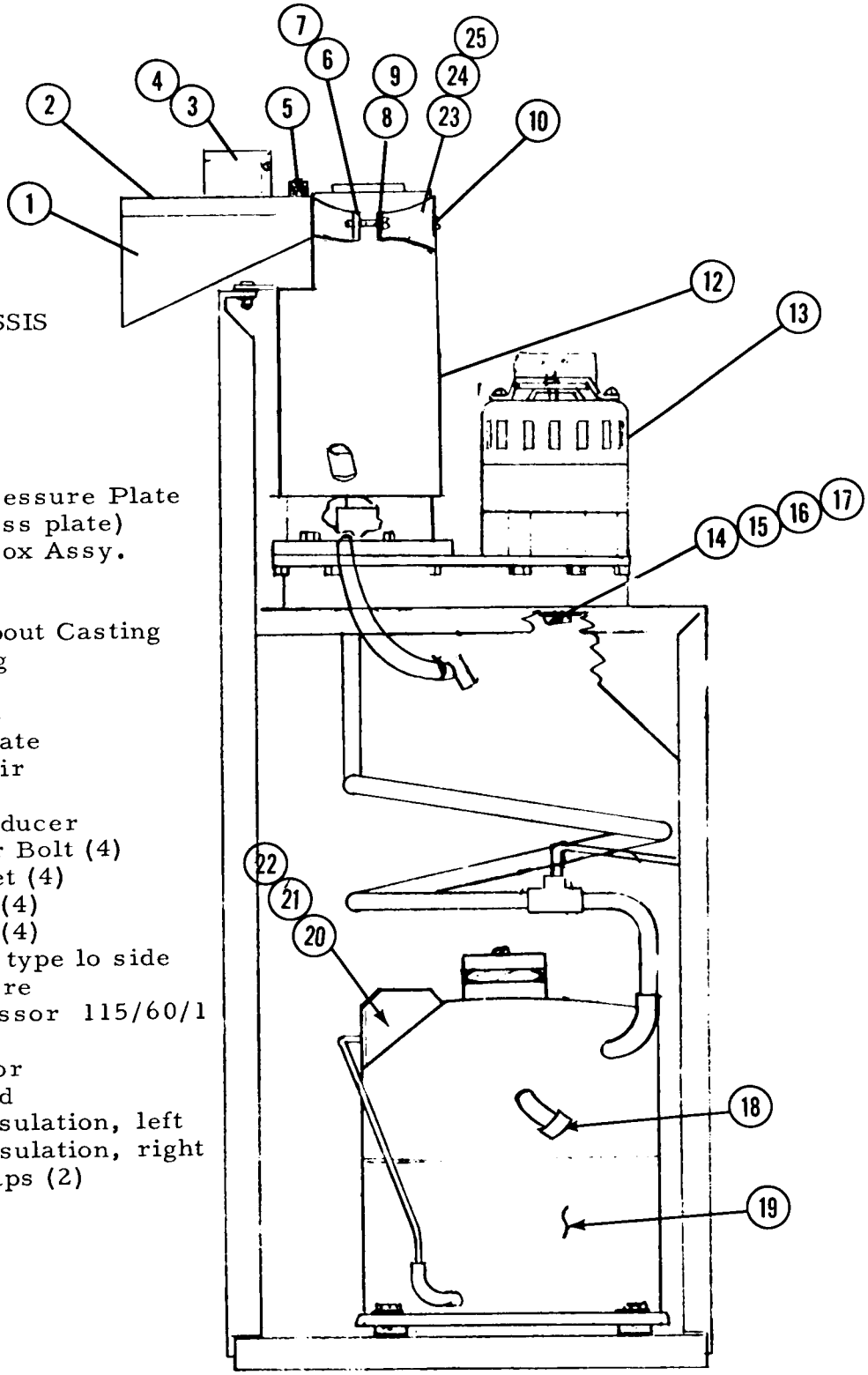
FREEZER ASSEMBLY
SF-75 "J" MODELS

ITEM NO.	PART NO.	NAME
1.	03-553	Snap Ring
2.	A-8162	Cap Hook
3.	A-7701	Cap
4.	3-758	Cap Screw
5.	A-7699	Washer
6.	2-547	Top Bearing
7.	2-386	"O" Ring
8.	A-9413	Breaker
9.	2-1313	Auger
10.	2-1300	Water Seal
11.	2-417	Lower Bearing
12.	3-1408-3	Washer
13.	3-1405-14	Screw
14.	2-1311	Adapter
15.	A-13635	Spline Adapter A3991S-002
16.	A-18380-1	Gear Reducer
17.	2-1347	Drip Shield
18.	3-1403-48	Screws
19.	3-1410-3	Washers
20.	A-18430	Spout Plate
21.	A-18294	Worm Tube-- Suction Line

A-18295-2 Freezer Complete
(Less items 12 thru 16)

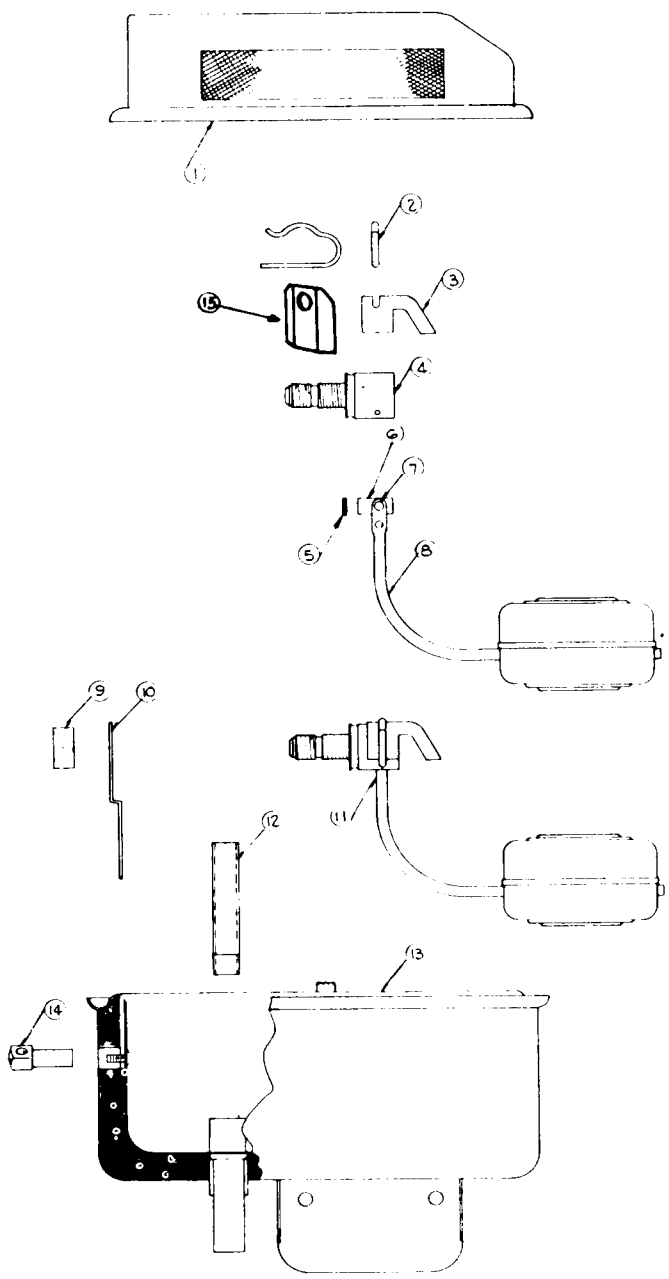
SF-75 J FLAKER CHASSIS

ITEM NO.	PART NO.	NAME
1.	A-16360	Spout Pressure Plate
2.	A-16357	Spout (less plate)
3.	A-14975	Switch Box Assy.
4.	12-1018	Switch
5.	A-14256	Nut
6.	A-14254	Front Spout Casting
7.	13-679	"O" Ring
8.	3-1403-53	Screws
9.	3-1417-7	Washers
10.	A-18430	Spout Plate
11.	A-18256	Reservoir
12.	A-18295-2	Freezer
13.	A-18380-1	Gear Reducer
14.	A-18301	Shoulder Bolt (4)
15.	13-115	Grommet (4)
16.	3-1407-5	Washer (4)
17.	3-1407-9	Washer (4)
18.	16-560	Schader type lo side valve core
19.	18-108-1	Compressor 115/60/1
20.	18-108-25	Relay
21.	18-108-28	Capacitor
22.	18-108-30	Overload
23.	A-15070	Spout Insulation, left
24.	A-15071	Spout Insulation, right
25.	A-8736	Tin Straps (2)

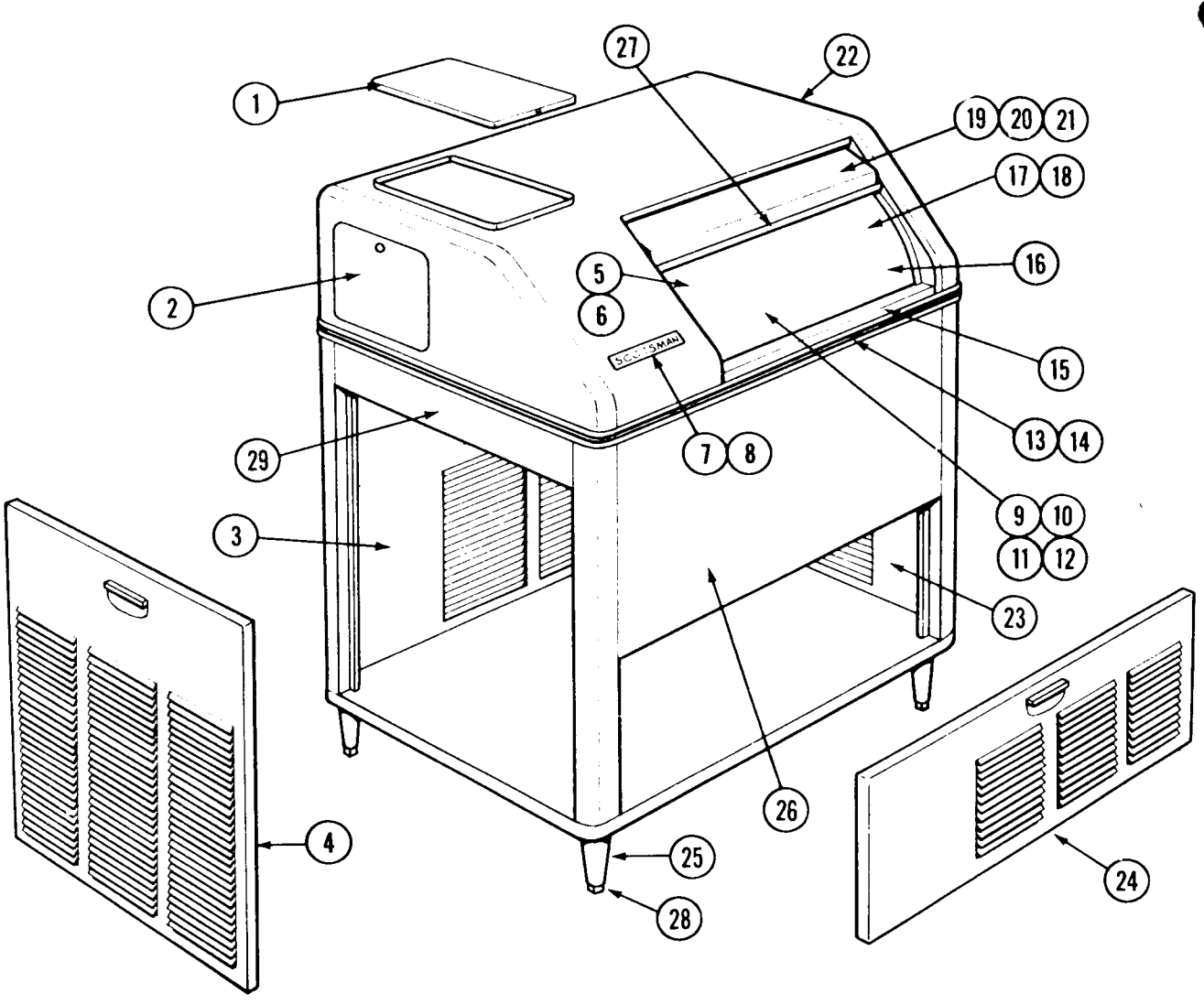


RESERVOIR ASSEMBLY SF-75 J

ITEM NO.	PART NO.	NAME
1.	A-16012	Reservoir Cover Ass'y
2.	2-1259	Float Pin
3.	2-1320	Water Deflector
4.	S-8772	Water Inlet
5.	S-6947	Valve Seat
6.	A-5777	Valve Seat Holder
7.	3-1001	Rivet
8.	A-12067	Float Ass'y (includes arm)
9.	S-7044	Nut
10.	A-12869	Inlet Water Bracket
11.	S-8138	Inlet Water Valve Ass'y (includes valve seat, holder and float assembly)
12.	S-6715	Stand Pipe
13.	A-13408	Reservoir Body Ass'y
14.	A-8055	Bracket Nut
	A-8351	Reservoir Complete (Less Cover)
15.	A-18418	Water Deflector

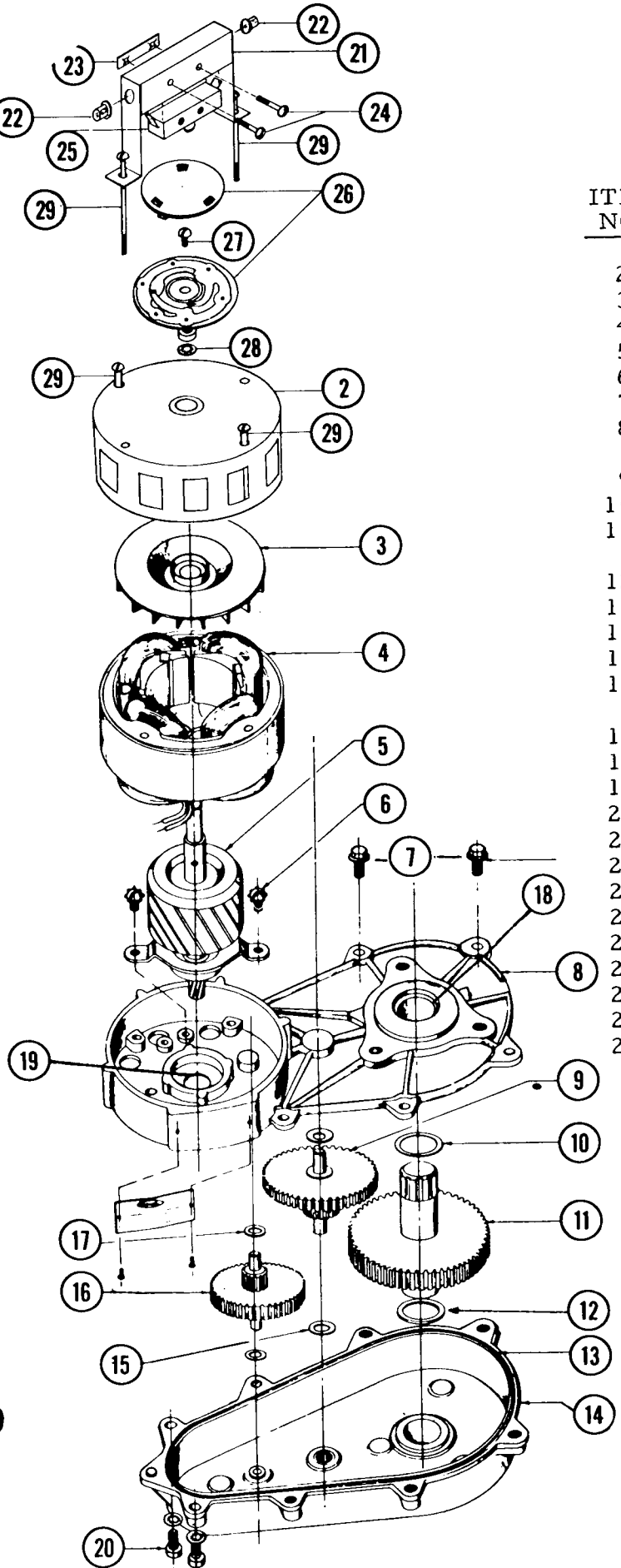


SF-75 J CASE AND HOOD ASSEMBLY



ITEM NO.	PART NO.	NAME
1.	A-6767	Top Door Assy.
2.	A-6530	Top Side Door
3.	A-16563	Back Door
4.	S-9405	Left Door
5.	2-1615	Bulb Holder *
6.	13-557	Grommets *
7.	15-156	Emblem
8.	3-271	Nuts
9.	A-18891	Storage Bin Assy.
10.	A-18088	Drain Assy. under bin See Item 16.
11.		Bottom Insulation *
12.		Insulation Layout *
13.	A-6510	Front Moulding
14.	15-324	Insert - order per foot
15.	A-16208	Door Track Assy. *
16.	A-18090	* Drain Fitting (female) in bin
17.	A-6448	Drain Strainer *
18.	2-530	"O" Ring * Fits Item 10
19.	A-15559	Door Assembly
20.	3-640	Door Glides *
21.	3-1195	Door Glides (hood) *
22.	A-15599	Hood Assembly
23.	A-16561	Right Door
24.	A-15789	Front Door
25.	A-15803	Leg
26.	A-18291	Case Assembly
27.	A-16209	Door Catch *
28.	8-522	Leg Leveler
29.	A-7714	Left Panel

* Not Shown
Add an "S" to panel Nos. for stainless steel.



SF75J GEAR MOTOR ASSY.

ITEM NO.	PART NO.	NAME
2.	A-17047	Motor Housing
3.	A-16915	Cooling Fan
4.	12-1400-1	Stator Assy.
5.	A-16934-1	Rotor Assy.
6.	3-1245	Screws
7.	3-1251	Flange Screws
8.	A-16920	Gear Case Cover
9.	2-1521	Gear & Pinion
10.	3-1408-5	Washer
11.	2-1513	Gear & Output Shaft
12.	3-1408-4	Washer
13.	2-1505	"O" Ring
14.	A-16919	Gear Case Assy.
15.	3-1408-6	Washer
16.	2-1520	1st Gear & Pinion
17.	3-1408-7	Washer
18.	2-1503	Grease Seal
19.	2-1504	Grease Seal
20.	3-1252	Screw
21.	A19887	Switch Bracket
22.	12-1213-3	Snap Bushings
23.	3-886	Twin Speed Nut
24.	3-1403-9	Screws
25.	12-1544	Switch
26.	A19898	Synchro Snap Assy.
27.	3-1403-10	Screw
28.	3-1417-6	Washer
29.	3-1403-43	Motor Bolts

A-18380 Gear Motor Assy. Complete

Output Shaft turns at 10 RPM

SERVICE ANALYSIS

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Jnit will not run	Blown Fuse	Replace fuse and check for cause of blown fuse.
	Thermostat set too high	Adjust thermostat. 35° cut-out and 45° cut-in.
	Loose electrical connection	Check wiring.
	Switch in OFF position	Turn switch to ON.
	Inoperative master switch	Replace switch.
Compressor cycles intermittently	Low voltage	Check for overloading.
	Dirty Condenser	Clean.
	Air circulation blocked	Move unit to correct.
	Inoperative condenser motor	Replace.
	Non-condensable gases in system	Purge off.
Making wet ice	Surrounding air temperature	Correct or move unit to cooler location
	Under or over-charge of refrigerant	Recharge with the proper amount.
	High water level in water reservoir	Lower to 1/4 inch below over-flow pipe.
	Faulty compressor	Repair or replace.
Low ice production	Loss of refrigerant, under or over-charge of refrigerant.	Check and recharge with proper amount of refrigerant.
	Dirty or plugged condenser	Clean condenser
	Low water level in water reservoir	Adjust to 1/4 inch below over-flow pipe.
	Partial restriction in capil-lary tube or drier	Moisture in system. Over-charge of oil in system. Re-move charge and drier. Re-place and recharge system.
	Inlet water strainer partially plugged.	Remove screen and clean.
	Corroded or stained worm shaft due to water condition	Remove worm shaft and clean.
Machine runs but makes no ice	Loss or under-charge of refrigerant	Check for leaks and recharge
	Drive gearmotor or drive coupling stripped.	Check. Repair and/or replac
	Water not entering freezing chamber	Plugged strainer or supply line. Check and clean. Air lock in gravity feed line. Check and remove air lock.
	Moisture in system	Check and remove charge and drier. Replace and recharge.
	Water seal leaking	Replace seal.
	Defective manual overload switch.	Replace switch.

SERVICE ANALYSIS

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Water Leaks	Defective water seal	Replace
	Gravity feed line leaking	Check hose clamps
	'O' ring in spout casting leaking	Remove spout casting and install new 'O' ring
	Storage bin drain & connecting fittings	Check and repair.
	Water level in reservoir too high	Adjust to 1/4 inch below overflow pipe.
Excessive noise or chattering	Mineral or scale deposit on auger and inner freezing chamber walls.	Remove and manually polish auger, polish inner chamber walls of freezer barrel.
		For lighter concentrations use Scotsman Ice Machine Cleaner periodically.
	Low suction	Add gas to raise suction pressure.
	Intermittent water supply	Check & clean water strainer. Check gravity feed line for air lock. Remove air lock.
	Water level in reservoir too low	Adjust to 1/4 inch below overflow pipe.
	Gear motor loose on frame	Tighten.
	Gearmotor end-play or worn bearings.	Repair or replace.
Machine continues to run with full storage bin	Storage bin thermostat not properly set	Reset or replace. 35° cut-out, 45° cut-in Check operation with handful of ice.

MAINTENANCE INSTRUCTIONS - FLAKERS

THE FOLLOWING MAINTENANCE MUST BE ACCOMPLISHED TWO TIMES PER YEAR ON ALL SCOTSMAN SUPER FLAKERS. CALL YOUR AUTHORIZED SCOTSMAN SERVICE DEPART - MENT.

1. Check and clean water strainers and float valve. Depress float valve to insure full stream of water.
2. Check water level and machine level, keep water level below overflow, but as high as possible and still not run out of spout opening with machine off. Water droplets come out of spout with ice at all times. Adjust as required.
3. Clean reservoir and interior of freezer using SCOTSMAN Ice Machine Cleaner.
   A. If machine has been cleaned regularly and no problems such as dry ice or chatter are noticed, clean as per the following instructions:

   a. Set main switch to OFF.
   b. Remove all ice from storage bin.
   c. Turn off water supply or block float. Drain reservoir by removing overflow tube (gray plastic tube) in reservoir. Replace overflow tube.
   d. Set main switch to ON and pour cleaning solution into reservoir. Do not fill above overflow tube.
      Models SF1 & SF75--Use 4 oz. of Scotsman cleaner and 1 qt. hot water.
   e. Continue to make ice on solution until the solution is used up and reservoir is empty.
   f. Set main switch to Off. Remove overflow tube, wash and rinse reservoir, replace overflow tube, turn water on or remove float block.
   g. Turn MAIN SWITCH to ON. Let unit run for at least (15) minutes to flush out any cleaning fluid. Check ice for acid taste.-- run until ice tastes sweet.
   h. Turn MAIN SWITCH to OFF. Add hot water to ice bin, using this melt water, thoroughly wash and rinse all surfaces within the storage bin.
   i. Turn MAIN SWITCH to On. Replace Service Door. Unit is ready for normal operation.

MAINTENANCE INSTRUCTIONS (Continued)

NOTE: Cleaning requirements vary according to local water conditions. Visual inspection of the auger before and after cleaning will indicate best procedure to be followed in local areas.

4. Check high and low side pressures. On air-cooled models head pressures range between 130 and 145 PSI. Suction pressure should be above 12 PSI and will range up to 16 PSI depending upon water and ambient temperatures.
5. Check gearmotor operation. Normal running temperatures are in the area of 160° farenheit, which is hot to the touch. Check operation of centrifugal switch and the micro switch it actuates. When micro switch is actuated, compressor stops, gearmotor continues to run.
6. Check top bearing of freezing tube. Remove retainer ring around edge of stamped brass cap. If moisture is around bearing, wipe up and remove grease. Add new grease. Use Beacon No. 325. Replace cap and retainer ring.
7. Clean air-cooled condenser. Inform customer to clean frequently. Always shut off machine when cleaning.
8. Oil condenser fan motor when possible.
9. Check for refrigerant leaks and proper frost line. Should frost out of accumulator at least one-half way to compressor, and in some areas back to service valve.
10. Check for water leaks. Tighten drain line connections. Run water down bin drain line to make sure it is open.
11. Check quality of ice. Ice should be wet when formed, but will cure rapidly to normal hardness in bin.
12. Check thermostat and pressure plate cut off in spout. Micro switch cuts off only compressor. Bin thermostat should be set at 10° differential and should keep entire machine off at least twenty minutes in high ambients (longer in low) during normal operation. Settings are 35° cut out, 45° cut in.

PARTS LIST
SF-75WS"J"

ELECTRICAL COMPONENTS

Bin Thermostat	11-354
Micro Switch-Spout	12-1018
On/Off Switch	12-426
Terminal Board	12-813-4

CONDENSING UNIT (TECUMSEH 115/60/1 1/4HP)

Motor-Compressor	18-108-1
Dryer	2-350
Relay	18-108-25
Starting Capacitor	18-108-28
Overload	18-108-30
Fan Motor	18-163-1
Fan Motor Mount	18-422
Fan Blade	18-231
Fan Shroud	A-15621
Tire Type Service Valve	16-559
Tire Type Service Valve - core only	16-560

MISCELLANEOUS

Spring Clamp Pliers	50-46
Worm Tube Nut Wrench	A-8497
Ice Scoop	2-540
Ice Machine Cleaner - 8 oz. bottle	19-343
Grey Spray-On Touch-Up Paint	10-153
Tygon Tubing - 9/16" ID	5-179
Tygon Tubing - 1/2" ID	5-186
Rubber Tubing - 3/8" ID	13-79
Clamp (for 5-179)	2-536
Clamp (for 5-186)	2-536
Clamp (for 5/8 drain tube)	2-534
Clamp (for 11/16 drain tube - Green)	2-535
Retainer Ring Plier	50-637

PARTS LIST
SF-75 WS"J"

DRIVE CIRCUIT

Gearmotor assembly	A-18380-1
Spline Coupling	A-13635
Fiber Adaptor Bracket	2-1311
Rubber Drip Shield - Fits Gearmotor Shaft	2-1347
Sliding Door - Ice Storage	A-15559
Door Stop Lanyard	2-1736
Wing Screw to Door	3-1276
Pan Screw to Frame	3-1403

FREEZER ASSEMBLY COMPLETE

Freezer Assembly Complete	A-18295-2
Ice Breaker	A-9413
"O" Ring	2-386
Top Bearing	2-547
Cap Screw	3-758
Worm Tube Washer	A-7699
Worm Tube Cap	A-7701
Retainer Ring	3-553
Worm Shaft	2-1313
Water Seal	2-1300
Bearing, Bottom	2-417

PARTS LIST

SF-75WSJ

CABINET PARTS

Machine Case (less doors)	A-18291
Storage Bin Assembly	A-18891
Drain Assembly, Female	A-18090
Drain "O" Ring	2-530
Thermo Bulb Studs (2)	2-1615
Storage Drain Fitting (male)	A-18088
Case Hood Assembly (less doors)	A-15559
Door Slide Assembly	A-16208
Bin Drain Screen	A-6448
Sliding Door	A-15599
Door Glides (4)	3-640
Front Door	A-15789
Right Side Door	A-16561
Rear Door	A-16563
Left Side Door	S-9405
Hood Top Door Assembly	A-6767
Hood Side Door Assembly	A-6530
Rear Moulding Strip - 24"	A-6509
Front Moulding Strip - 87 1/4"	A-6510
Emblem	15-156
Leg	A-15803
Leg Leveler	8-522
Plywood Crate	1-650

WATER CIRCUIT

Water Reservoir Assembly Complete, less cover	A-8351
Water Inlet Valve	S-8138
Float Assembly	A-12067
Rubber Valve Seats	S-6947
Float Pin	2-1259
Water Deflector - Plastic	2-1320
Stand Pipe	S-6715
Reservoir Cover	A-16012
Water Strainer	16-162