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SM 45H

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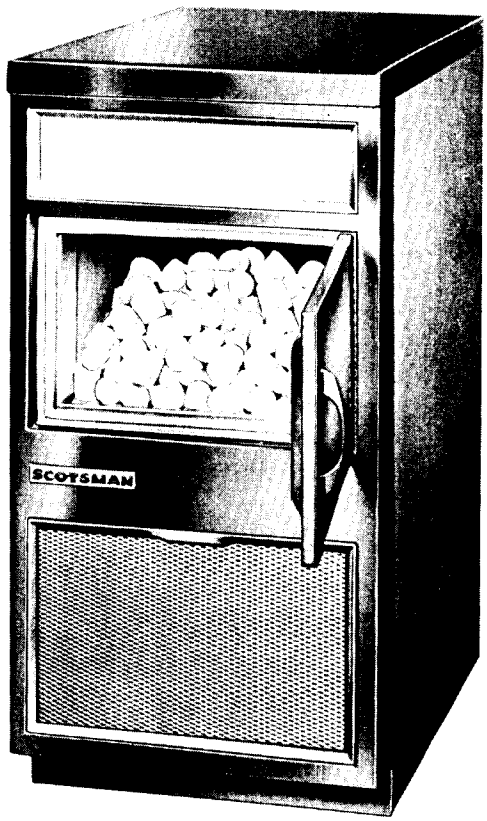
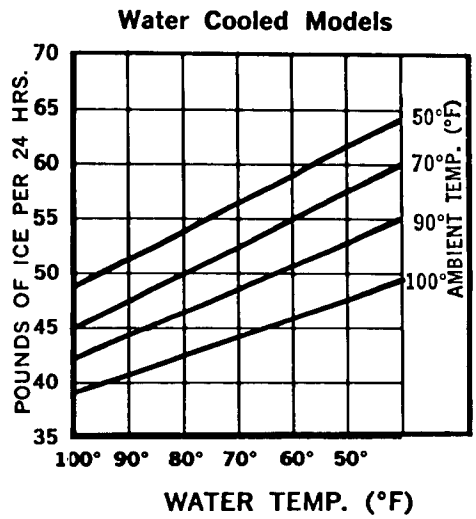
SCOTSMAN®

SUPER CUBER
SM-45
SERIES
Storage Type



ice making capacity



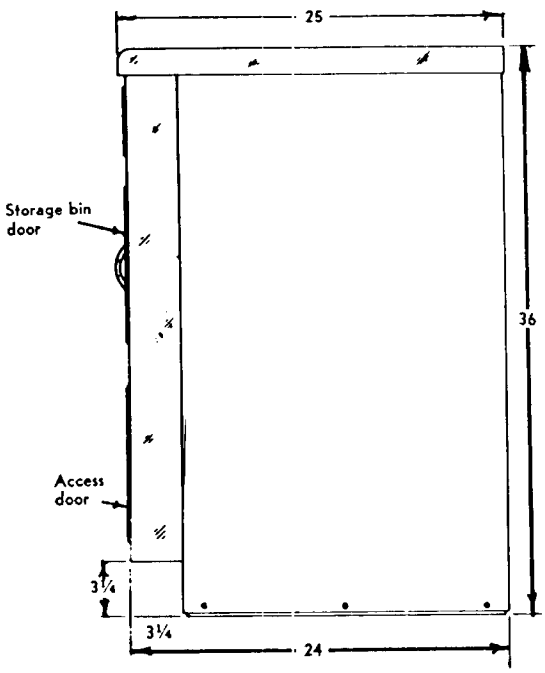
SPECIFICATIONS

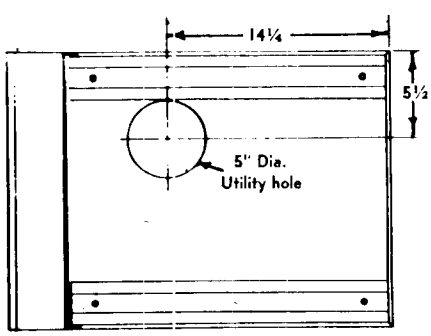
Model SM-45WH

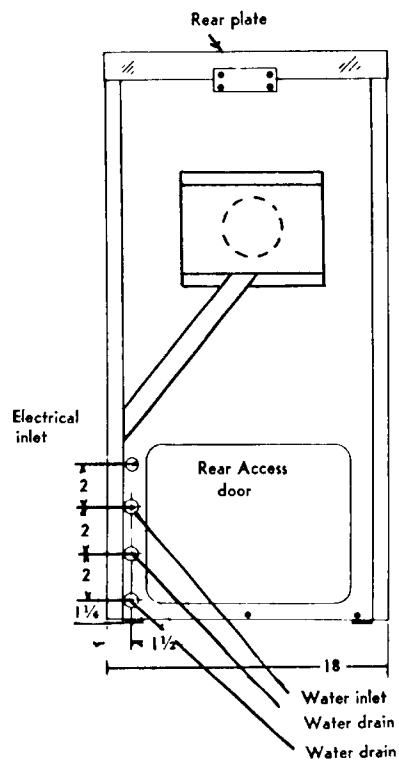
Daily capacity up to 50 lbs.
Self-contained 35 lb. capacity storage bin
Water cooled condenser
Heavy duty 1/4 HP. compressor
Standard 115 V, 60 cy, 1 ph, AC
¼" flare water inlet
⅝" OD condenser drain
Hammerloid grey exterior on sides
Removable top is 1 ¼" high—

Use for under counter installation
Stainless steel exterior front and top
Stainless steel storage bin

Height	36"
Width	18"
Depth	25"
Approximate shipping weight	175 lb.
Approximate net weight	155 lb.







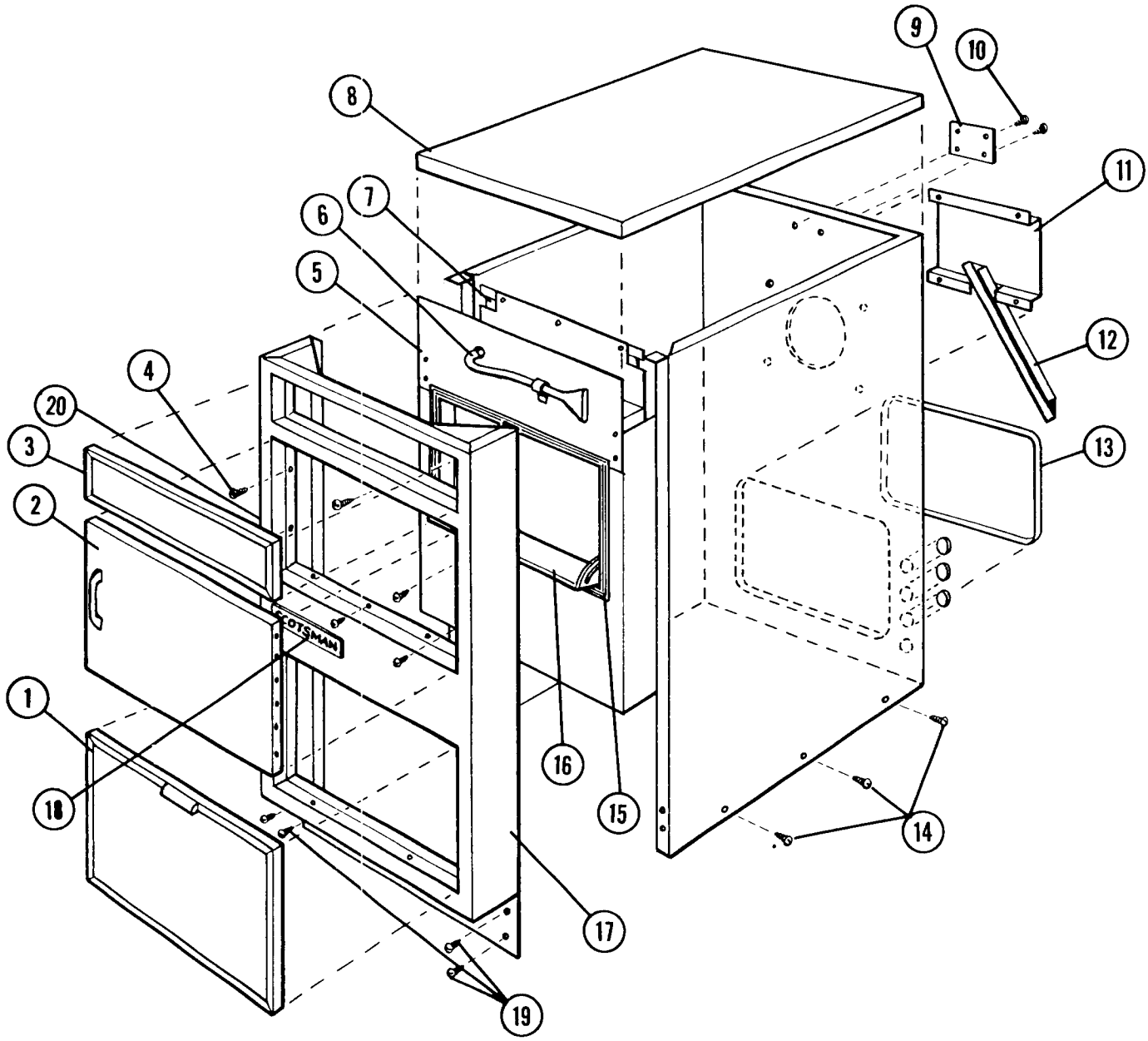
MECHANICAL SPECIFICATIONS

	Model SM 45W
Compressor	115/60/1, 1/4 H.P.
Condenser - Receiver	Water Cooled
Refrigerant	Refrigerant 12
Refrigerant Charge	16 ounces
Power Consumption Total	5.0 Amperes
Water Consumption to Produce Ice	5 Quarts per Hour
Water Used by the Condensing Unit	5 Gallons per Hour Inlet - Varies with Water Temperature.
Flow Control Rate - Water Inlet Line	.40 Gallons per Hour
Flow Control Rate - Defrost Valve	.25 Gallons per Minute.
Ice Cubes Per Harvest	24 Compact Cubes

DIMENSIONS	
Height	36"
Width	18"
Depth	25"

WEIGHTS	
Uncrated	155 lbs.
Crated	175 lbs.

SM-45
COMPLETE CASE ASSY.



ITEM NO.	PART NO.	NAME	ITEM NO.	PART NO.	
1.	A-9456	Lower Door	11.	A-17980	Baffle
2.	A-17415	Access Door	12.	A-17982	Wire Raceway
3.	A-14993	Top Door	13.	A-7676	Rear Door
4.	3-633	Screws	14.	3-04	Screws
5.	A-14997	Top Front	15.	13-615	Door Gasket
6.	13-335	Funnel	16.	A-14999	Spill Door
7.	A-17153	Top Storage Front	17.	A-14996	Case Front
8.	A-9465	Cabinet Top	18.	15-156	Emblem
9.	A-9410	Top Clip	19.	3-753	Screws
10.	3-972	Screws	20.	A-10103	Door Strike

LOCATION OF THE ICE CUBE MACHINE

UNDER BAR INSTALLATIONS - Locate unit so proper circulation can be attained around the unit and behind it at least four inches. Provide plumbing and electrical connections so the unit can be moved out where the entire top hood can be removed.

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 degrees in the winter months.

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

LOCATE THE MACHINE SO IT CAN BE SERVICED WHEN NECESSARY.

ALLOW AT LEAST FOUR INCHES OF SPACE AROUND THE MACHINE FOR

CIRCULATING AIR, WHERE POSSIBLE.

UNCRATING OF MACHINE

1. Remove shipping carton.
2. Remove four bolts in wood skid.
3. Remove skid and install four leveling legs, use skid bolts for legs.

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 all masking tape and packing members from curtains and inner cube making compartments. Re-align components such as sump pump or cube racks that may have shifted in transit.
4. Open electrical control box and prepare for hook up. Use knock outs, cord connectors, etc. Then check unit nameplate voltage against building source voltage to make sure they correspond. Caution - Improper voltage applied to units will void your warranty protection.
5. Select unit location prior to hook up of water, drain and electric in accordance with local and national codes, minimum room temperatures 50° Fahrenheit. On air cooled models select wall ventilation location.
6. Remove warranty card and Users manual from storage bin and wipe bin clean with damp cloth.
7. Fill out warranty card completely including model and serial numbers as taken from alum[illegible] plate found behind front service panel and forward to Scotsman factory using self-mailing card.

INSTALLATION

WATER SUPPLY AND DRAIN CONNECTIONS

There are four knockouts located in back right hand corner. For electrical, drain, and water inlet see page 6.

1. Open bin door and remove lower service panel to facilitate following steps.
2. Remove packing and holding wires, all points visible around sump tank and masking tape on each of the two curtains.
3. Clean out the storage bin, check all refrigeration and control capillary lines for wear or vibration noise.

WATER SUPPLY

4. The recommended water supply line is 1/4" OD copper tubing. Connect to a cold water supply line with regular plumbing fittings. Use care in connecting up water line to the machine. Water supply must be installed to conform up with local code. One connection is made inside of cabinet for both make up water and condensor water. Strainer is factory installed on flexible water inlet line.

CONDENSER DRAIN

5. The recommended drain is 5/8" OD copper tubing. Connect to drain connections. Must be run to open or trapped drain. If drain is a long run, allow a 1/4" pitch per foot. Drain must be installed to conform with local code.

BIN DRAIN

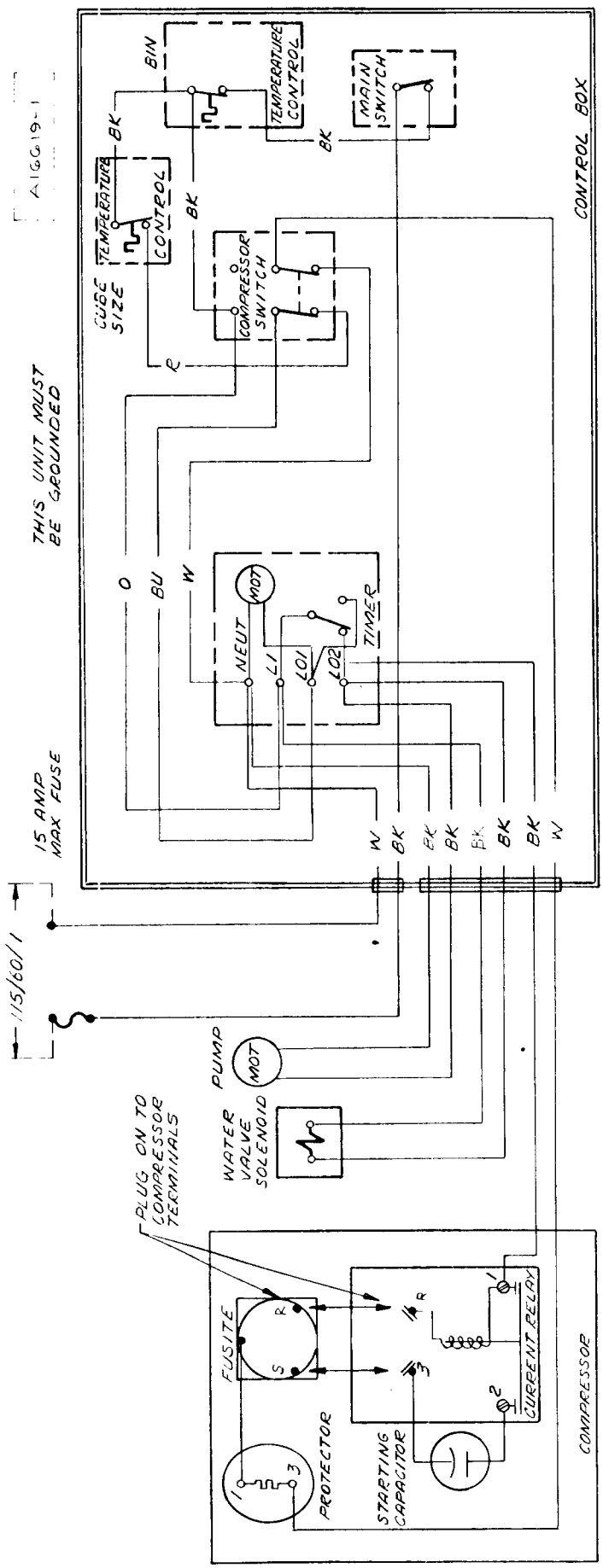
6. 5/8" tygon tubing from bottom of bin protrudes into lower machine section. Run to open drain.
7. Turn on water supply and check for water leak at connections made.
8. SM 45 110-115 V. 60 Cycle Single Phase 5.0 Amps.
   All external wiring should conform with National Underwriters' and local code requirements. Check the voltage on the line before connecting the machine.

   Where possible, put the Super Cuber on it's own circuit and individual fuse. The maximum allowable voltage variation should not exceed 10% of the name-plate rating even under starting conditions. Low voltage can cause erratic operation, and may be responsible for serious damage to the overload switches and motor windings.

   Important: Now level up unit.

START-UP

1. Remove cover from control box, check for loose or frayed wire, then turn both manual switchs to "on" position.
2. Turn disc on time clock to the right just far enough for water solenoid valve to energize. Allow clock to take it through harvest cycle. This will be approximately three minutes. (Figures on dial do not represent minutes, merely points of indication.) Dial pointer should be set on 3 1/2. After the compressor starts, turn the dial completely around and send it through another harvest cycle. This will completely flush out machine of any dust that may have accumulated in shipment.
3. After machine has been properly flushed, allow it to go into a freezing cycle - check for possible water leaks, check sump pump operation - should be running freely. Also note if jet tubes spray correctly and that none of the jets are plugged.
4. Time clock dial does not rotate at the end of the harvest cycle; it is started later by the cube size control located in the control box.
5. Freezing time will be approximately 30 minutes in a 70 degree ambient. (Longer if above, and shorter if below.) After 25 minutes of the freezing cycle, check water off condenser with a thermometer. (Should be approximately 100-104 degrees at this time.) If temperature is not correct, adjust water valve accordingly.
6. Watch first cube harvest and check to make sure that plastic curtains have not been damaged in shipment.
7. Check size of cubes made; if too small after a second complete cycle, adjust cube size control to lower or colder setting until desired cube size is reached.
8. Check texture of cubes made: partially cloudy cubes throughout suggest unit running short of water near end of freezing, or possibly and extremely bad water condition, which would indicate use of filtering or purifying equipment. Contact SCOTSMAN - Queen Products, Ice Machine Service Department, Albert Lea, Minnesota, for further details.
9. With unit on harvest cycle, take a handful of cubes made and hold on storage bin thermostat cover. Should cut unit off in one to two minutes - remove ice: unit should cut back on automatically. Thermostat is factory set at 35 degrees out, 40 degrees in.
10. Install gauges and check head and back pressures: Head pressure after twenty minutes of freezing cycle at 70 degrees ambient will be approximately 135 pounds PSI. The back pressure starts out at approximately 50 pounds PSI and gradually pulls down to approximately 4 pounds PSI just before harvest cycle. Higher ambients will cause higher head pressures.



WIRING DIAGRAM

SM-45W WATER COOLED
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 unit clean?
6. Has the owner been given the operating manual, and has he been instructed on how to operate the machine?
7. Have the installation and warranty cards been filled out? This is the owner's protection as well as the sellers.
8. Check all refrigerant and conduit lines to guard against vibrations and possible failure.
9. Is there 4" clearance behind and around unit for proper air circulation?
10. Is unit in a room where ambient temperatures are minimum 50° F. even in winter months?

HOW IT WORKS

REFRIGERANT CYCLE

Following the water and refrigerant cycle on page 13, note that refrigerant gas is pumped out of the discharge line of the motor compressor and enters coil which is soldered externally to the water cooled condenser. From here our gas condenses to a liquid and enters a tee in the liquid line, thence thru a drier and directly into the capillary refrigerant control.

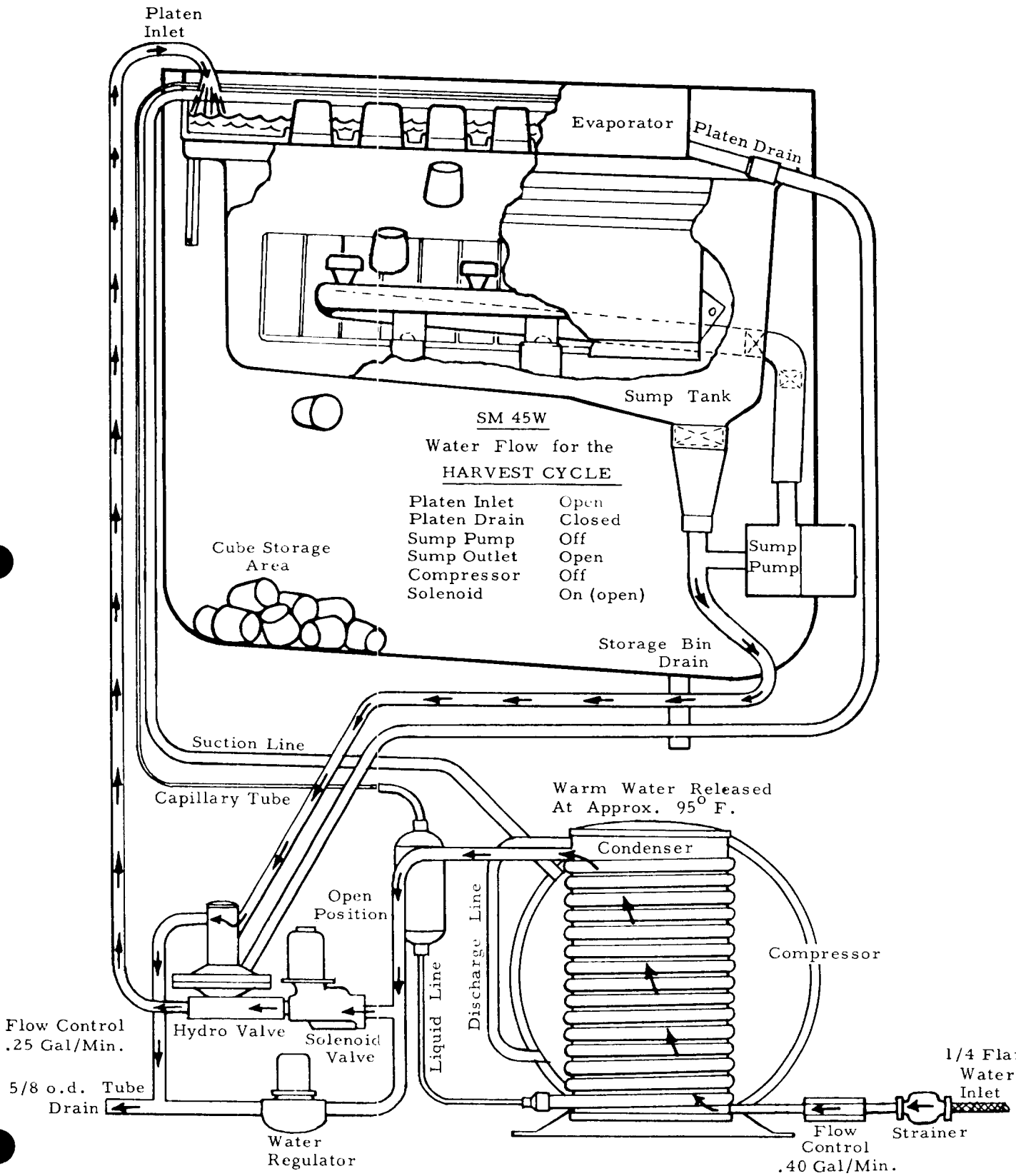
Refrigerant is now metered into the serpentine coils which are soldered to the cube cups on back and along sides and is taken back to compressor thru the suction and accumulator line.

HARVEST CYCLE

At the end of the freezing cycle the time clock operated cam opens compressor, sump pump circuit and closes circuit to time clock motor, and solenoid operated water valve. At this time, the water valve allows heated water in heat exchanger tank to flow by inlet water pressure through solenoid operated valve, and into the upper cavity of the freezing chamber, and, at the same time allows the surplus water from the preceding batch of ice cubes to go down the drain. The hot water from the heat exchanger flows into the rubber platen holding the cups and by conduction on back of cups causes cubes to defrost. The platen cavity is completely filled up to the overflow point, and continues to overflow while in the defrost cycle; the amount of this water running over the overflow pipe is controlled by the setting on the flow control and the length of harvest time setting on the time clock; overflow water goes down the drain also. Meanwhile, cubes being released from the cups drop by gravity into the cube chute, through curtained opening and into storage bin. At completion of harvest cycle, the micro switch on the timer shaft now drops points holding defrost components in cycle and switches to freezing cycle set of contacts. Clock motor now stops and will not start until cube size control closes once more. The freezing cycle starts and the water valve allows the hot water tank to refill. The chilled water from the upper cavity flows by gravity through the water valve to the sump tank and reservoir. This water is used to produce the next batch of cubes.

Note: A .25 G.P.M. flow control is located at the outlet of the 3 way water valve to meter the correct amount of water into the platen during the harvest. See page 13.

HARVEST CYCLE



FREEZING CYCLE

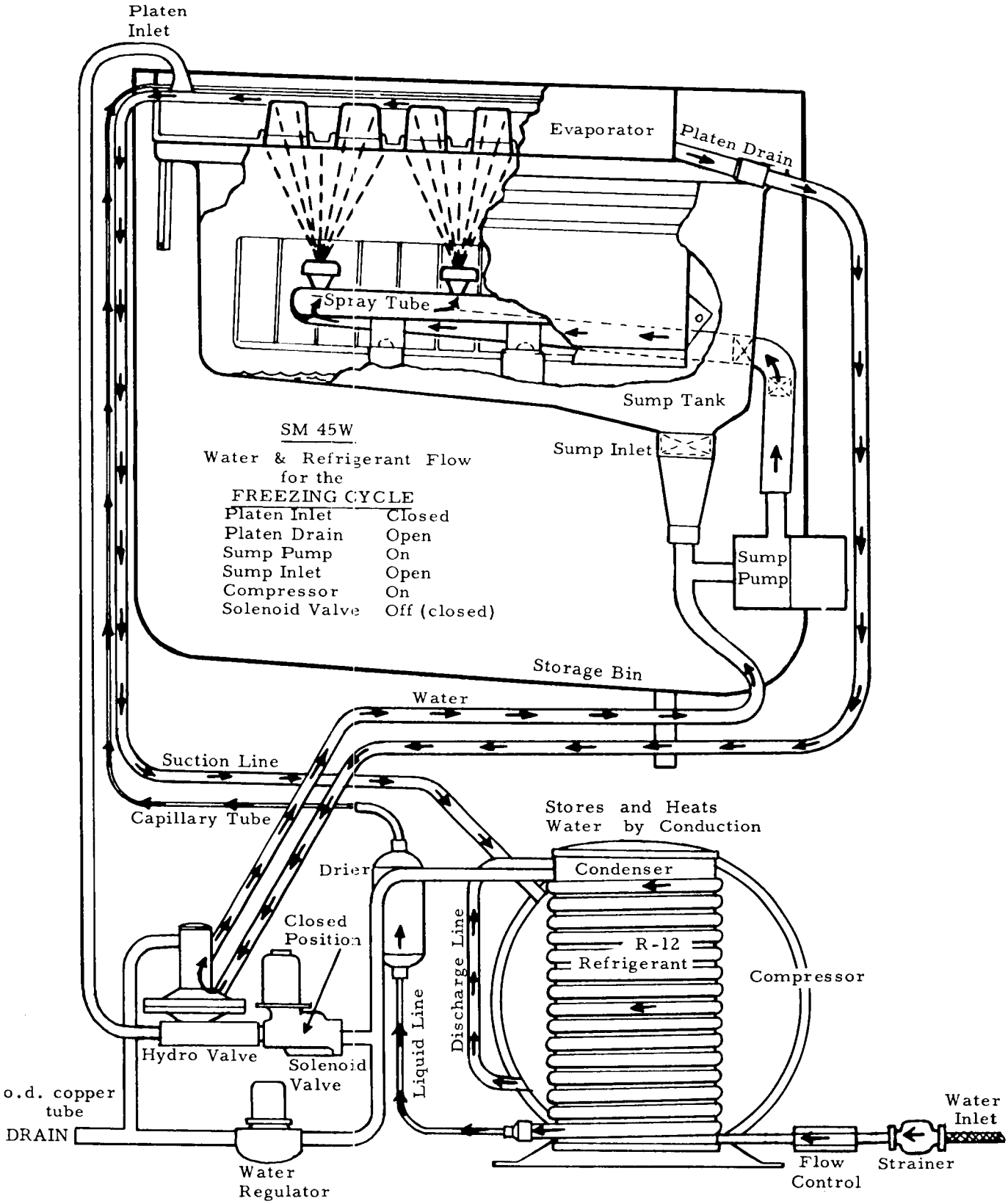
During the freezing cycle, water is trapped in heat exchanger tank. Here it picks up heat from the compressor discharge line which is coiled and soldered externally to its outer circumference. A water regulating valve which is head pressure actuated is located in the outlet of the tank to maintain the water temperature.

A .40 Gallon per minute flow control is located in the water inlet line to assist the water regulator in modulating in extreme high water pressure conditions.

All water used by the cuber enters first thru the water supply inlet and goes directly into the condenser receiver. During a normal freezing cycle, water then goes to a tee to the water regulating valve which is on the leaving side of the condenser water circuit and down the drain. At the start of the freezing cycle, reservoir and sump tank contain enough water to make a complete batch of ice cubes, plus approximately an extra cup. When time clock closes load circuit, it starts the compressor, sump pump. At the same time, it opens the circuit to the clock motor. (Clock motor does not run first part of freezing cycle--this is approximately 20 minutes.) This timer has a single pole, double throw micro switch arrangement for carrying and directing current. After a predetermined amount of ice is frozen, the cube size or reverse acting temperature switch closes, actuating the time clock motor circuit which continues the freezing cycle approximately 9 more minutes. (After clock motor starts, freezing time will be 12 minutes less defrost time setting.)

Harvest water is used to produce the next batch of ice, therefore on the initial start up it is necessary to have the unit in a harvest cycle. This can be done by manually turning timer to harvest position.

FREEZING CYCLE



SM 45W

Water & Refrigerant Flow for the FREEZING CYCLE

Platen Inlet	Closed
Platen Drain	Open
Sump Pump	On
Sump Inlet	Open
Compressor	On
Solenoid Valve	Off (closed)

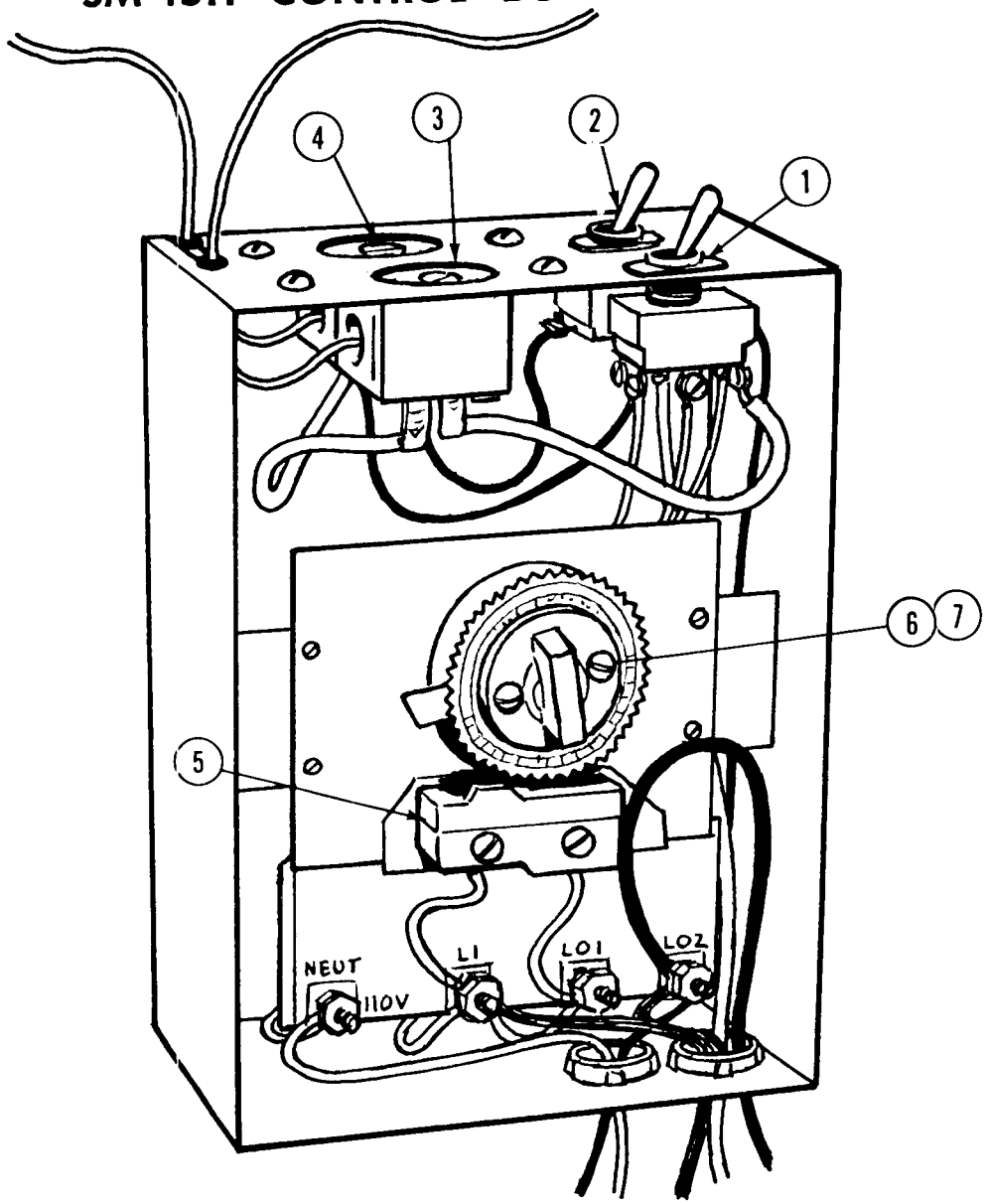
SERVICE ANALYSIS

SYMPTOM	POSSIBLE CAUSE	SUGGESTED CORRECTION
Unit will not run	Blown fuse	Replace fuse and check for cause of blown fuse.
	Bin thermostat set too high	Adjust thermostat. Set between 35 to 40 degrees.
	Switch in off position	Turn switch to on position.
	Inoperative master switch	Replace switch.
	Timer micro-switch open	Replace.
Compressor cycles intermittently	Low voltage	Check circuit for overloading. Check voltage at the supply to the building. If low, contact the power company.
	Dirty condenser - Air cooled models only	Clean with vacuum cleaner, air or stiff brush. (Do NOT use wire brush).
	Air circulation blocked	Allow sufficient air space all around unit.
	Non-condensable gases in system.	Purge the system.
Cubes too small	Cube size control set too high	Lower the setting. Turn towards colder.
	Partially restricted capillary	Blow charge, add new gas and drier.
	Moisture in system	Replace the dryer.
	Shortage of water	See remedies for Shortage of Water.
	Shortage of refrigerant	Check for leaks and recharge.
Cloudy cubes	Shortage of water	See remedies for Shortage of Water.
	Dirty water supply	Use water softener or water filter.
	Accumulated impurities	Use SCOTSMAN Ice Machine Cleaner.
Poor harvest	Too short defrost time	Check and adjust harvest cycle. Timer should be set at 3 1/2.
	Water temperature too low	Temperature of the water in hot water tank too low. Should be between 100-105 degrees. Reset water regulating valve.
	Restriction in incoming water	Check water feed line strainer. Clean to give greater water flow.
		Flow control plugged up.
	Solenoid control not opening the water valve	Solenoid binding or burned out. Replace, also check flow control orifice.
	Air vent holes in upper cube cups plugged	Clean out holes.

SERVICE ANALYSIS

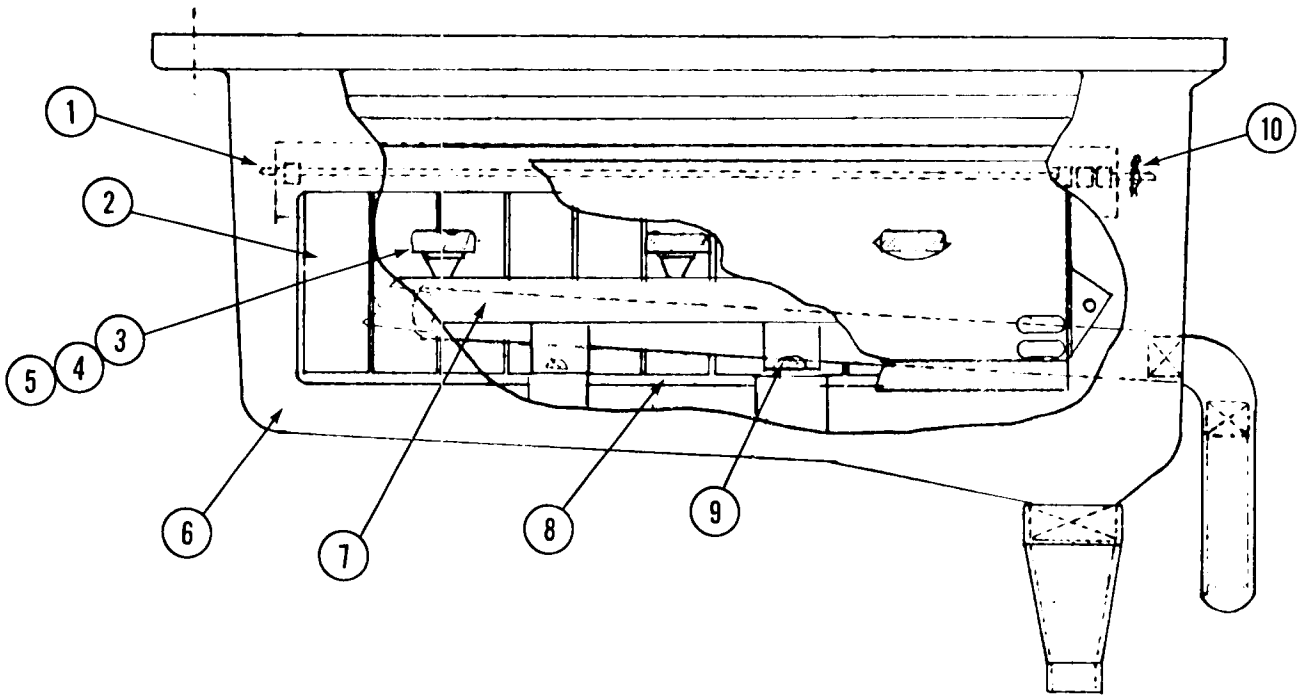
SYMPTOM	POSSIBLE CAUSE	SUGGESTED CORRECTION
Shortage of water	Water spraying out through curtains	Replace broken curtains if any broken
	Water entering hot water tank too slowly	Building pressure too low
		Partial restriction in water strainer
		Clean strainer
Irregular size cubes and some cloudy	Some jets plugged	Clean jets
	Shortage of water	See shortage of water
	Unit not leveled	Water overflowing air vent holes on low side burning cubes. Level as required.
	Sump pump motor binding	Replace.
Cubes too large	Cube size control set too low	Raise setting on cube size control.
	Inefficient compressor	Replace
	Timer micro-switch stuck together.	Replace micro-switch only.
Decreased Ice Capacity	Leaky water valve	Replace or repair
	High head pressure	Dirty condenser. Clean.
		Non-Condensable gas in the system: purge the system. Too hot a location with poor circulation: relocate the unit, or provide for ventilation by cutting openings.
		Overcharge of refrigerant. Correct the charge.
	Partially restricted cap tube	Purge and replace charge and drier.
Hole washed inside cube	Water over the top of the cube cups during harvest	Level unit.

SM-45H CONTROL BOX



ITEM NO.	PART NO.	NAME
1	12-1214	Compressor Switch
2	12-426	Main Switch
3	11-345	Cube Size Control
4	11-311	Bin Control
5	12-645-20	Timer Micro Switch
6	12-645-1	Complete Timer
7	12-367	Timer Motor only

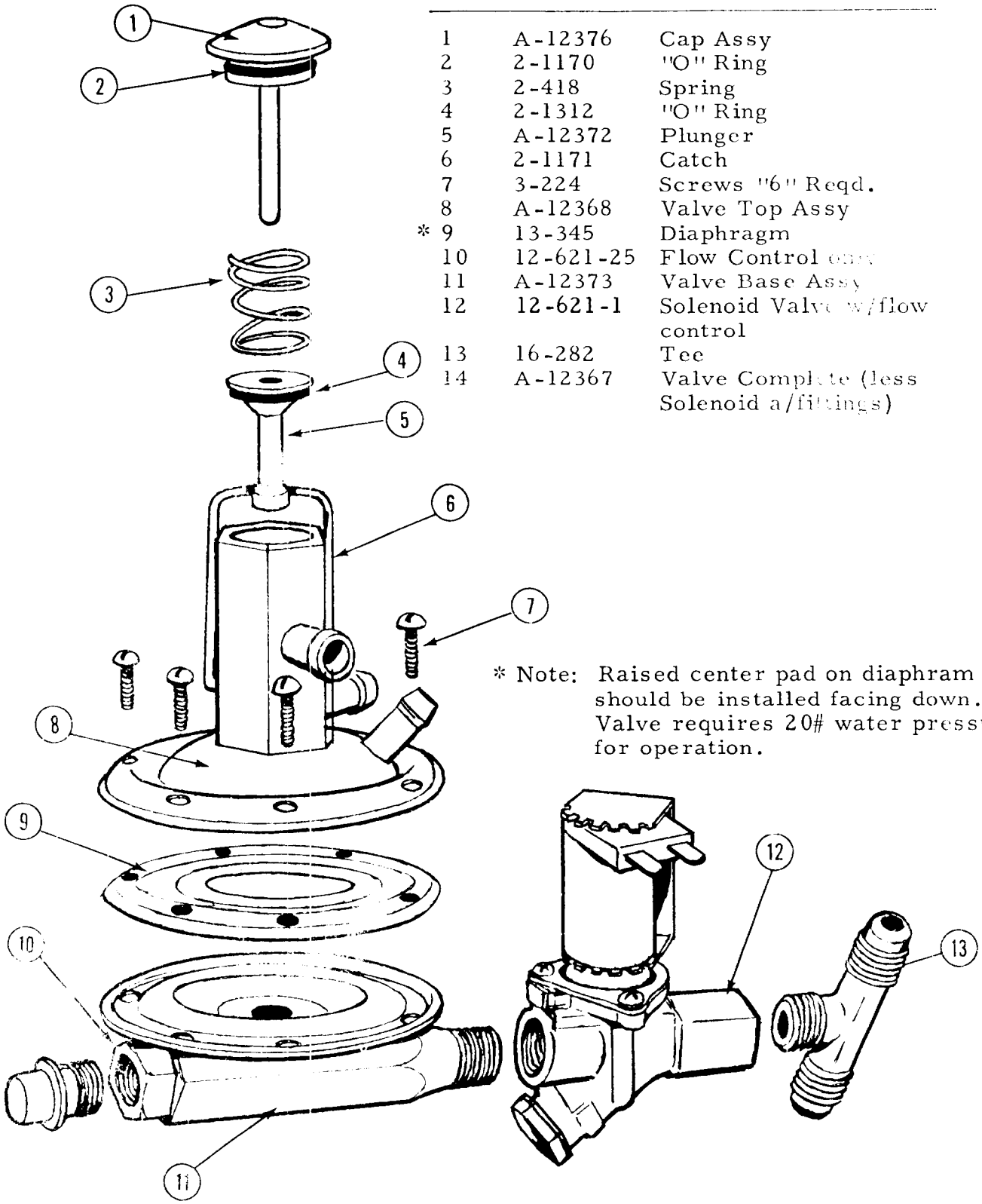
RESERVOIR ASSY SM-45H



Item No.	Part No.	Name
1.	A-17968	Curtain Rod
2.	2-465	Curtains (22 Per Unit)
3.	13-292	Jet Caps, Rubber
4.		6 required
4.	A-12345	Jet Top 6 required
5.	A-9543	Spinners 6 required
6.	A-17967	Sump Tank (includes Curtains)
7.	A-16991	Spray Bar Ass'y
8.	A-15440	Cube Chute
9.	3-551	Screws 3 required
10.	3-1087	Cotter Pin

SILENT 3WAY VALVE
Used Thru "H" Models

Item No.	Part No.	Name
1	A-12376	Cap Assy
2	2-1170	"O" Ring
3	2-418	Spring
4	2-1312	"O" Ring
5	A-12372	Plunger
6	2-1171	Catch
7	3-224	Screws "6" Reqd.
8	A-12368	Valve Top Assy
* 9	13-345	Diaphragm
10	12-621-25	Flow Control only
11	A-12373	Valve Base Assy
12	12-621-1	Solenoid Valve w/flow control
13	16-282	Tee
14	A-12367	Valve Complete (less Solenoid a/fittings)

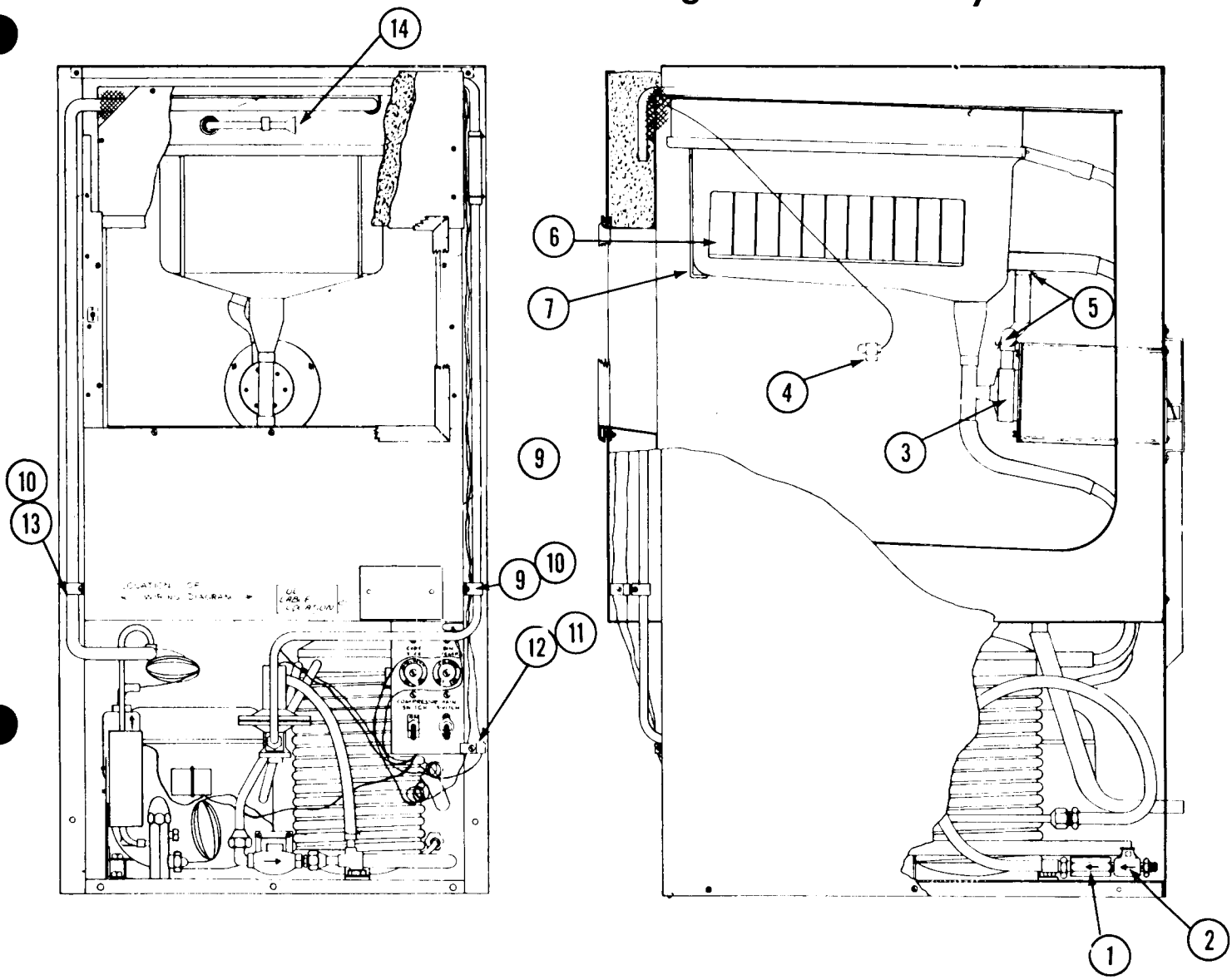


* Note: Raised center pad on diaphram should be installed facing down. Valve requires 20# water pressure for operation.

SM-45H LESS FRONT

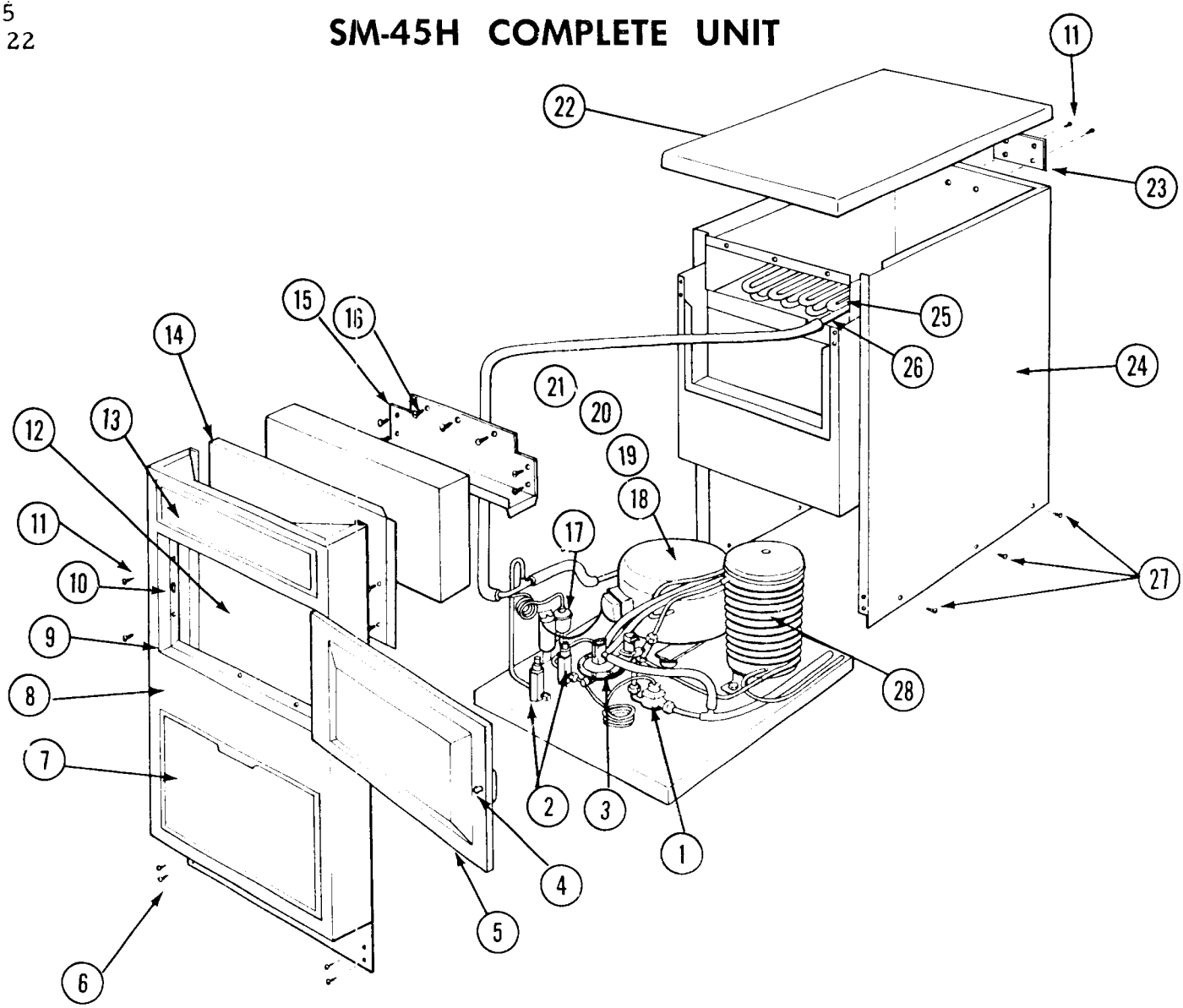
Front View

Right Side Cutaway View



Item No.	Part No.	Name
1	A-13346-4	Flow Control
2	16-162	Strainer
3	12-1379-1	Sump Pump
4	13-398	Bulb Grommet
5	2-534-1	Clamps
6	A-17251	Sump Tank Assy
7	A-12354	Extension Nuts
8	13-615	Door Gasket
9	2-1299	Clamp
10	3-129	Screw
11	2-1306	Clamp
12	3-128	Screw
13	2-1092	Clamp
14	13-335	Funnel

SM-45H COMPLETE UNIT



Item No.	Part No.	Name
1	11-314	Water Reg. Valve
2	18-138	Service Valve
3	A-12367	3Way Valve
4	A-10103	Door Strike
5	A-17415	Door Assembly
6	3-753	Screws
7	A-9456	Lower Door
8	A-14996	Case Door
9	13-615	Door Gasket
10	2-836	Door Catch
11	3-124	Screw
12	A-14999	Spill Door *
13	A-14993	Top Door
14	A-14997	Top Front

Item No.	Part No.	Name
15	A-17153	Top Front Storage
16	3-972	Screws
17	2-831	Drier
18	18-1200-1	Compressor
19	18-1206	Relay
20	18-1207	Capacitor
21	18-1210	Overload
22	A-9465	Cabinet Top
23	A-9410	Top Clip
24	A-17041	Cabinet Assy
25	A-17276	Evaporator Assy
26	13-291	Rubber Cup Holder
27	3-04	Screws
28	A-18554	Condenser

* Not Shown

SERVICE-COMPLETE UNIT

Removal and Installation of Cabinet Parts

CABINET TOP (HOOD)

1. To remove cabinet top, it is first necessary to remove two rear plate screws. See page 6.
2. After screws are removed, pull top forward until side clips are free.
3. Lift off hood.

CABINET LOWER SERVICE DOOR

1. Front door pulls out, pull out and up.

ICE STORAGE DOOR

1. Remove pin thru center of hinge.
2. Door now is free-lift off.

CABINET FRONT

1. Remove top (hood).
2. See cabinet panel assembly layout drawing on page 6.
3. Remove all screws at bottom and sides of ice storage door frame.
4. Remove four screws at bottom front under lip or 90 degree edge.
5. Front will now lift out.

REMOVAL AND REPLACEMENT OF FUNCTIONAL PARTS

In order to work on the spray bar, it will be necessary to work from the front of the cabinet. This work can be done thru the storage bin door.

Spray bar is located inside of plastic sump tank. To remove tank first disconnect all hose connections to tank and two plated extension nuts located in front of sump tank. See page 21, item 7. Now lower front of tank until it clears stainless steel freezer frame. Push tank lightly forward until it drops off pins protruding from back of freezer frame.

TO REMOVE SUMP PUMP- See page 21, item 3.

1. Disconnect complete unit electrically. Remove lower front access door, cover from control box, and disconnect pump leads from timer.
2. On back of case remove covers from pump motor well and wire protector.
3. Thru front ice access door remove 3 wing bolts and pump assembly can now be removed.
4. Replace in reverse being sure that rubber gasket is put on new pump.

TO REMOVE BIN THERMOSTAT

Study first page 6 "Complete Unit". It will be necessary to remove cabinet front before removing bin thermostat.

Now remove control box cover and then loosen two screws holding bin thermostat to front control box. This will loosen control, pull down and remove two electrical connections.

Next, up in storage bin on the left side wall is a clip holding end of bin thermal bulb, pull out thermal bulb and its capillary away from cabinet.

Replace in reverse order.

TO REPLACE CUBE SIZE CONTROL

First study Page 6 "Complete Unit". It will be necessary to remove cabinet front, top front, and top front storage before removing cube size control. Now remove screw in front of freezer frame, allowing frame to slide forward to release pigtail on cappilary tube. Remove cover from control box, loosen two screws holding control, and remove electrical connection.

Replace in reverse.

FUNCTIONAL PARTS - BASE COMPARTMENT

Functional parts in the base compartment would consist of the motor compressor, compressor relay, water regulating valve, complete solenoid valve and manual on-off switch. All of these parts with the exception of the motor compressor can be worked on by merely removing lower service door.

TO REPLACE MOTOR COMPRESSOR

First remove front panels. Now remove 3 screws on either side of cabinet base.

Pull assembly out to expose motor compressor. Pump unit down, then purge off excess refrigerant. Remove electrical relay from clamp holder. This relay is manually pushed on over compressor terminals, pull off the same way.

Now loosen the four bolts holding the compressor to base and lift out. Replace with new compressor in reverse of above.

SILENT 3-WAY WATER VALVE

Working parts of valve can be replaced without removing complete valve from unit. By removing 6 screws, (Item no. 7, page 20) complete top of valve including diaphram can be removed. Plunger, "O" Rings, return spring, or diaphram can now be replaced.

Complete valve and solenoid can be removed by disconnecting 3 flare nut connections and unpluging electrical cord.

FUNCTIONAL PARTS AND MAINTENANCE

PART NAME: Reverse Acting Temperature Control Ranco Type A 11-377

NUMBER: 11-345

FUNCTION: Reverse acting temperature control, closes on temperature decrease, opens on temperature rise. Control determines length of freezing cycle and by the same token, the cube size. A lower setting on control will produce larger cubes, a higher setting, smaller cubes. This control actuates time clock motor. Part No. 12-645-1, which then takes over balance of freezing cycle and also defrost period.

SETTING: Control is adjustable with a screw driver on an offset cam.

REPAIRABLE: No. Replace when inoperative.

MAINTENANCE: Check electrical connections. Blow free of dust, dirt, lint etc.

PART NAME: Timer

NUMBER: 12-645-1

FUNCTION: Heart of the cyclematic control system is the temperature control Part No. 11-345 and the time clock it actuates. All electrical components are connected to the time clock terminal board and are shunted by means of a single pole double throw micro-switch arrangement to either the freezing cycle or harvest cycle. Contact points are in turn actuated by two metal cams that are directly connected to the electrical time clock motor. Timer has a 12 minute cycle, 8 1/2 minutes on freezing cycle after being cut on by temperature control and 3 1/2 minutes on defrost cycle. Time clock face has numerals to 7 on half of face. Each numeral represents a one minute period. Face also has a lever beneath it which can be moved to lengthen or shorten defrost period.

SETTING: Normal setting for defrost is 3 1/2 minutes.

REPAIRABLE: Yes. Micro-switch, Part No. 12-645-20 are replaceable as well as timer clock motor only, Part No. 12-367.

MAINTENANCE: Check all electrical connections, blow contact points free of dust, dirt, etc.

PART NAME: Bin Thermostat Ranco Type A-10-2012

PART NUMBER: 11-311

FUNCTION: To automatically cut unit off when cubes in bin reach control capillary location and start up again automatically when cubes removed.

SETTING: Factory set - In 40^{o} - Out 35^{o} - There is adjustabe dial on face, colder turn to right -54" capillary.

REPAIRABLE: No.

MAINTENANCE: None.

PART NAME:	Water regulating valve - H. & H. "Little Giant".
PART NUMBER:	11-314
FUNCTION:	To maintain constant head pressures by regulating amounts of incoming water thru water cooled condenser.
SETTING:	135 pounds P.S.I. on head pressure gauge and about 104° leaving water off condenser.
REPAIRABLE:	No - you can flush out however.
MAINTENANCE:	None.
PART NAME:	Complete water solenoid Detroit Controls Type TAH 8161 S-25
PART NUMBER:	12-621-1
FUNCTION:	Passes measured amount of defrost water to freezer during harvest cycle - stops flow during freezing cycle.
SETTING:	Factory Set - Pass 1/4 gallon per minute.
REPAIRABLE:	No.
MAINTENANCE:	None.
PART NAME:	Sump pump March AC-82-T (115-60)
PART NUMBER:	~~12-1379-1~~ A23194-000
FUNCTION:	To continuously re-circulate water from sump tank, thru stationery jets, up into bottom of cube cups.
SETTING:	None required.
REPAIRABLE:	No.
MAINTENANCE:	None.
PART NAME:	Hermetic Motor Compressor [illegible]/1 - Copeland 1/4 H.P.
PART NUMBER:	18-1200-1
FUNCTION:	Circulates and retrieves refrigerant throughout entire system.
SETTING:	None required.
REPAIRABLE:	No.
MAINTENANCE:	Keep clean and free of dust, grease, etc.

CUBER MAINTENANCE INSTRUCTIONS

THE FOLLOWING MAINTENANCE MUST BE ACCOMPLISHED TWO TIMES PER YEAR ON ALL SCOTSMAN SUPER CUBERS.

1. Clean water tank and evaporator, sump tank and screen, using SCOTSMAN ice Machine Cleaner.
2. Remove jet tube and manually clean jets by dismantalling same.
3. Check curtain assembly.
4. Tighten all electrical connections.
5. Tighten all bolts.
6. Check water supply. Clean water strainer.
7. Check for refrigeration leaks with halide torch.
8. Check for water leaks. Tighten drain line connections.
9. Check size and condition of cubes. Adjust as required.
10. Check bin thermostat setting. Factory set at approximately 35^{o} out, 39^{o} in.

PROCEDURE FOR USE OF SCOTSMAN ICE MACHINE CLEANER IN SCOTSMAN ICE MACHINES.

1. Place COMPRESSOR SWITCH to 'OFF'.
2. Remove ice cubes from storage bin.
3. Mix 8 ounces of SCOTSMAN CLEANER in a quart of hot water. Pour this solution through rubber funnel. See page 6
4. Rotate TIMER knob clockwise (toward you) until you hear the sound of running water.
5. Allow unit to operate for at least 45 minutes.
6. Mix 1 ounce of SCOTSMAN CLEANER in a pint of hot water. Wash all surfaces in storage bin. Thoroughly rinse all surfaces of bin with clean water.
7. Place COMPRESSOR SWITCH to 'ON'. Unit is in normal operation.

SM-45 H PARTS LIST

Main Control Box

Part No.	Name
12-1214	Compressor Switch
12-426	Main Switch
11-345	Cube Size Control
11-311	Bin Control
12-645-1	Timer
12-645-20	Micro-switch Timer
12-367	Timer Motor

Silent 3 Way Water Valve

A-12367	Complete Valve
A-12376	Cap Assembly
2-1170	"O" Ring
2-418	Spring
2-1312	"O" Ring
A-12372	Plunger
2-1171	Catch
3-224	Screws
A-12368	Valve Top Ass'y.
13-345	Diaphram
A-12373	Valve Base Ass'y.

Case Parts

A-9465	Cabinet Top
A-17415	Ice Access Door
A-10103	Door Strike
A-9456	Lower Door
A-14996	Case Front
A-14999	Spill Door
A-14993	Top Door

Reservoir Assembly

A-17967	Sump Tank (Includes Curtains)
A-17968	Curtain Rods (2 reqd.)
2-465	Curtains (22 reqd.)
A-16991	Spray Bar
13-292	Jet Caps (Rubber-6 reqd)
A-12345	Jet Top (6 reqd.)
A-9543	Spinners (6 reqd.)
A-15440	Cube Chutes
3-1087	Cotter Pin (curtain)

Misc. Electrical

Part No.	Name
12-1379-1	Sump pump
18-1200-1	Compressor
18-1206	Relay
18-1207	Capacitor
12-621-1	Solenoid Valve (with flow control)
12-621-25	Flow Control Only 25 G.P.M.

Misc. Parts

16-162	Strainer
A-13346-4	Flow Control (.40 G.P.M.)
13-398	Bulb Grommet
A-12354	Extension Nuts
2-1299	Clamp
13-615	Door Gasket
13-335	Funnel
11-314	Water Regulating Valve
18-138	Service Valve
2-831	Drier
A-17276	Evaporator Ass'y.
13-291	Rubber Cup Holder
A-18554	Condensor