CSW2

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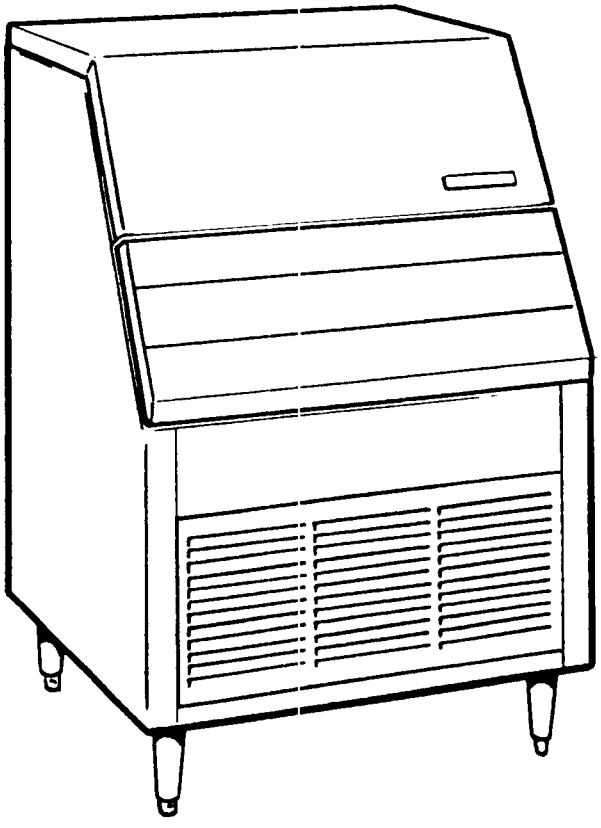
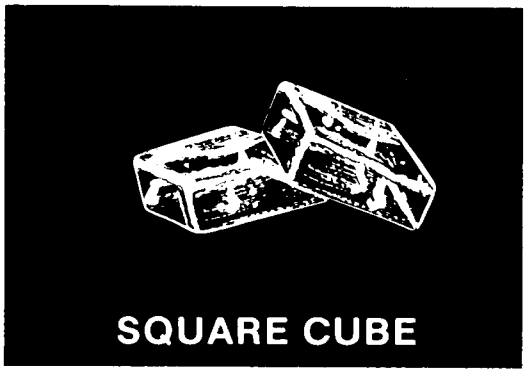


CSW2
Self Contained Cuber

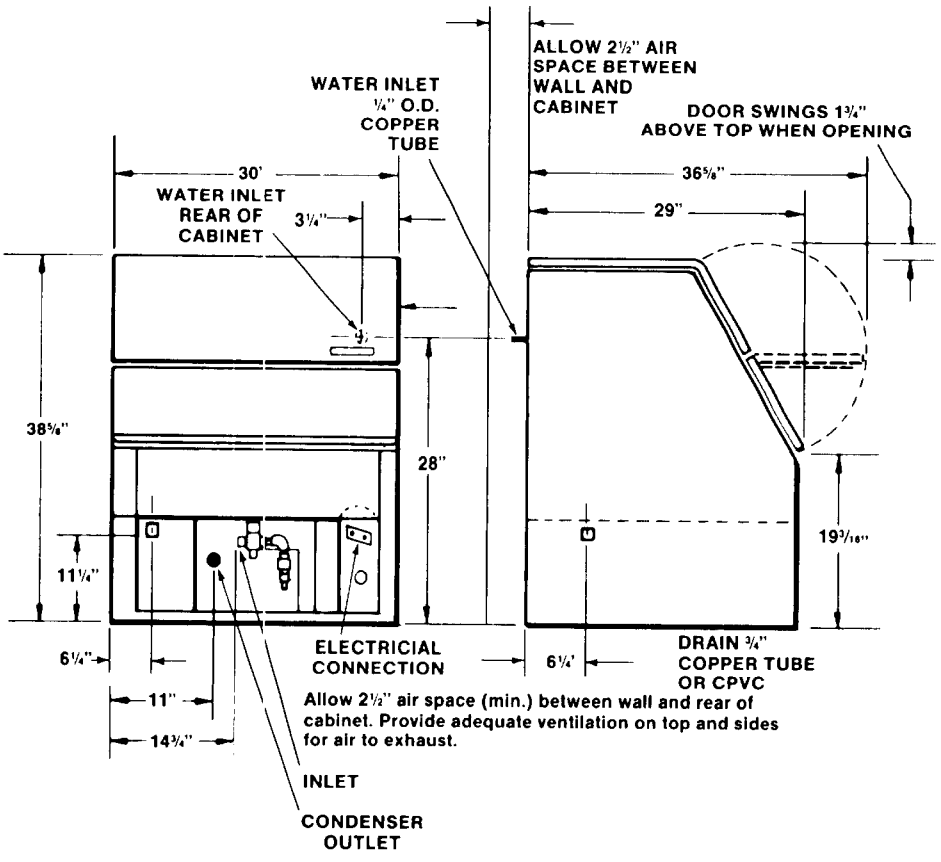


INTRODUCTION

These instructions provide the specifications and the step-by-step procedures for the installation, start up and operation for the W-Series Model CSW2 Cuber.

The Model CSW2 Self Contained Cubers are quality designed, engineered and constructed, and are thoroughly tested icemaking systems, providing the utmost in flexibility to fit the needs of a particular user.

CSW2
GENERAL INFORMATION AND INSTALLATION



This product qualifies for the following listings:

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

SPECIFICATIONS

Model Number	(Height - w/o Legs) Dimensions H" x W" x D"	Bin Cap.	Cond. Unit	Finish	Basic Electrical	Comp. H.P.	Time Delay Fuse Size Max.	Amp. (Average)	Water (In.)	Drain (In.)	Ship. Wt. (Approx. Lbs.)
CSW2AE-1A	38⅝ x 30 x 29	111 lbs	Air	ES	115/60/1	⅓	15	8.5	¼	¾	240 lbs
CSW2WE-1A	38⅝ x 30 x 29	111 lbs	Water	ES	115/60/1	⅓	15	8.5	¼ - ⅜	¾ - ½	240 lbs

IMPORTANT OPERATING REQUIREMENTS

	MINIMUM	MAXIMUM
*Air Temperatures	55° F (10.0° C)	100° F (38° C)
Water Temperatures	40° F (4.4° C)	100° F (38° C)
Water Pressures	20 lbs. gauge	100 lbs. gauge
Single Voltage Units	-10%	+10%

(Voltage rating specified on nameplate)

Extended periods of operation exceeding these limitation constitutes misuse under the terms of Scotsman Manufacturer's Limited Warranty, resulting in a loss of warranty coverage.

KLP2E-Black enamel finish legs are optional.

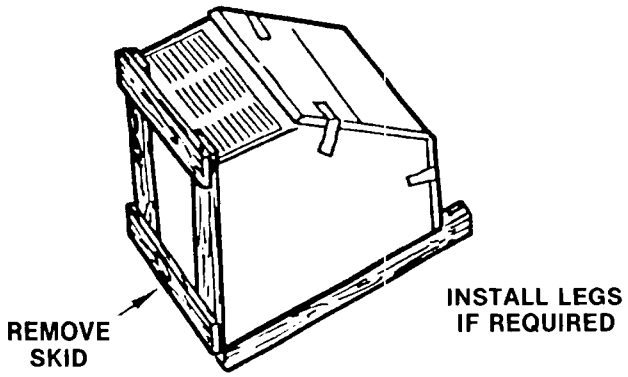
KBC1-Optional bin caster kit, two standard and two locking 3-1/2" dia. wheel casters. Lifts bin 4-7/16" off of floor.

GRIDS FOR LARGE CUBES On Model CSW2 to convert cube size to 1-1/4" x 1-1/2", order grid CCK-153-SG. Note: Order these special grids through the Scotsman Parts Department.

GENERAL INFORMATION AND INSTALLATION

UNPACK

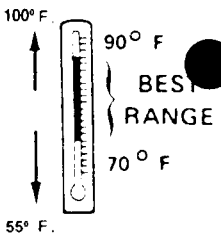
THIS ITEM IS HEAVY, WHEN HANDLING USE PROPER EQUIPMENT AND CARE TO PROTECT IT, YOURSELF, STAIRS AND FLOORS.



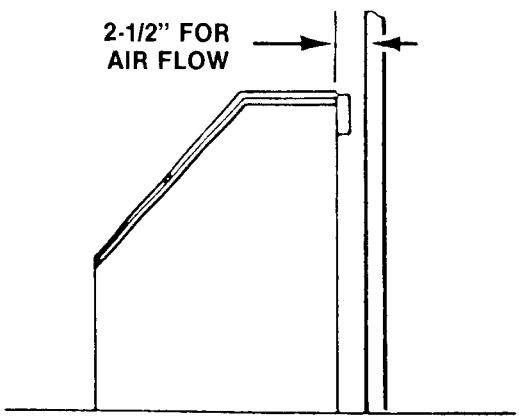
1. Carefully lay machine on its back using 2-1/4" high blocking or corner posts to prevent damage to water line.
2. Remove wooden skid.
3. Install legs if required.
4. Carefully set machine in upright position.
5. Remove exterior tape.
6. Raise storage bin door and remove two screws holding top.
7. Lift top at front edge. Top may be removed by pulling forward from hinges.
8. Remove all shipping tape and packaging from interior.
9. Check water pump pan for foreign objects or loose parts.
10. Examine carefully for concealed damage. Report immediately to carrier any damage found. Save carton and have carrier examine product and submit written report.

SELECT LOCATION

THIS UNIT MUST BE INSTALLED IN AN AREA PROTECTED FROM THE ELEMENTS, SUCH AS WIND, RAIN, WATER, SPRAY OR DRIP.

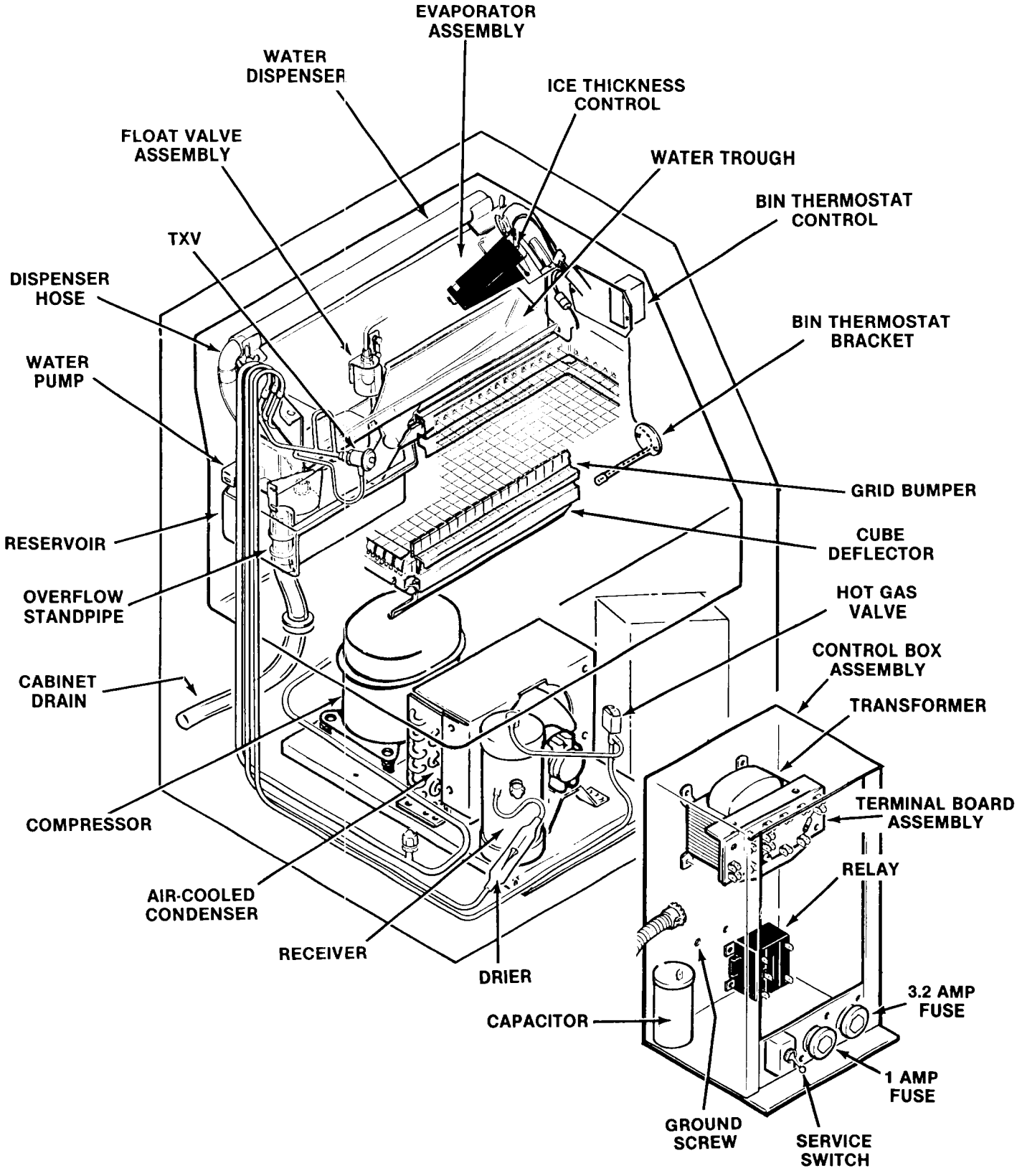


1. Locate in a well-ventilated area above 55° F. Best ice yield is obtained between 70° F. and 90° F.; higher or lower temperatures will reduce ice yield.
2. CAUTION: Do not install in areas where freezing temperatures may occur.
3. If air cooled icemaker is installed in a closed room 260° C.F.M. of air must be exchanged through the room to maintain the room air at 10° F. warmer than the available ambient air temperature.
4. For water cooled icemaker, water supply temperatures above 80° F. will result in extreme condenser water usage.
5. Leveling is important to obtain proper drainage of the storage bin; it also assures even water flow over the freezing plate and proper release of the ice slab during the harvest cycle. Level units without leveling legs with plywood or masonite shims.
6. Adjust the leveling legs (optional accessories) until the unit is level and all four legs are in solid contact with the floor.
7. When legs are used, floor must support approximately 75 lbs. per leg. (75 lbs. per sq. inch.).



8. Legs may be used and can be ordered from your Authorized Ice Machine Dealer using KLP2E. When installing icemaker without optional leg kit, installation must conform to local, state and national health and building codes.

GENERAL INFORMATION AND INSTALLATION



CSW2 - Component Location

GENERAL INFORMATION AND INSTALLATION

CUTTER GRID

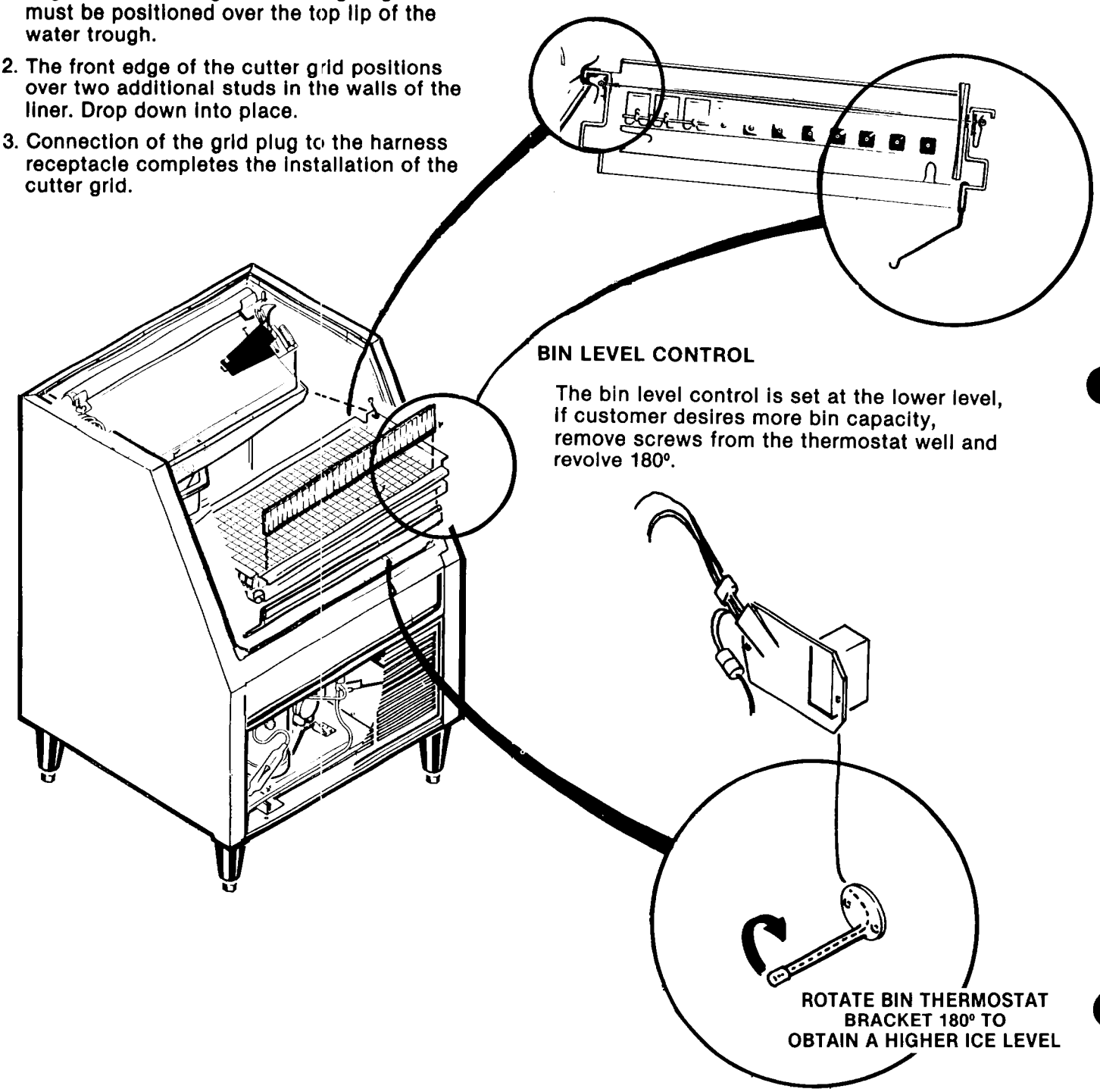
Cutter grids are factory installed. Use following procedure if changing grids is necessary.

1. Install the cutter grid by locating the cutouts in the back edge of the cutter grid over the mounting studs in the sides of the storage bin. These studs are located just below the lower edge of the freezing plate. The top edge of the cutter grid and the grid gasket must be positioned over the top lip of the water trough.
2. The front edge of the cutter grid positions over two additional studs in the walls of the liner. Drop down into place.
3. Connection of the grid plug to the harness receptacle completes the installation of the cutter grid.

INSTALL CUBE DEFLECTOR

To install cube deflector to bottom front edge of cutter grid:

a. Slide rubber ice slab bumper toward center of grid.
b. Snap cube deflector over bottom edge of cutter grid.
c. Slide rubber ice slab bumper back against cube deflector.



BIN LEVEL CONTROL

The bin level control is set at the lower level, if customer desires more bin capacity, remove screws from the thermostat well and revolve 180°.

ROTATE BIN THERMOSTAT BRACKET 180° TO OBTAIN A HIGHER ICE LEVEL

GENERAL INFORMATION AND INSTALLATION

FOR THE ELECTRICIAN

CONFORM TO ALL APPLICABLE CODES

It is the personal responsibility and obligation of the customer to contact a qualified installer to assure that the electrical installation is adequate and is in conformace with the National Electrical Code and local codes and ordinances.

Be certain the cuber is connected to its own electrical circuit and individually fused. Voltage variation should not exceed ten percent of the nameplate ratings, even under starting conditions. Low voltages can cause erratic operation and may be responsible for serious damage to the icemaker.

The electrical connection to the ice cube maker must supply 115 volts, 60Hz alternating current. This connection should enter the motor compartment through the back of the unit and should be brought forward to the front of the cabinet.

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

NOTE: A separate circuit must be used with 15 ampere time delay fuses.

INSTALL ELECTRICAL WIRING

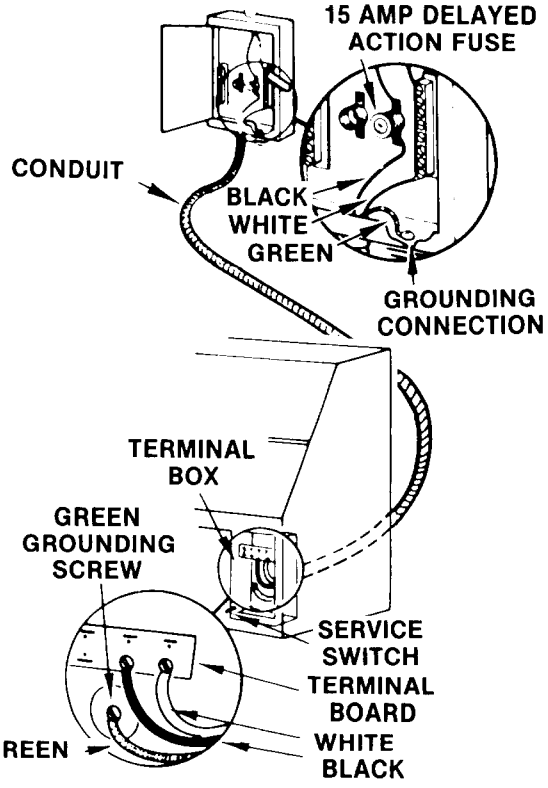
USE COPPER WIRE ONLY

WIRING— 115 V, 60 Hz (cycles) 15 Amp, Phase-Use Delayed Action Fuse

1. Remove grill by removing screws at top edge.
2. Remove electrical box cover and connect ground wire to green screw tagged "Ground" and electrical supply line to terminal board screws.

INSTALL GROUNDING WIRE

USE COPPER WIRE ONLY



ELECTRICAL GROUND IS REQUIRED ON THIS APPLIANCE.

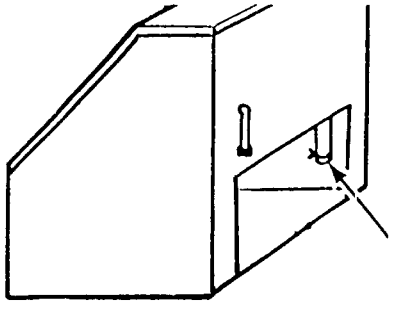
1. Permanently ground this appliance in accordance with the National Electrical Code and local codes and ordinances. Ground must be continuous.
2. Use a conductor of the appropriate size from the appliance green grounding screw to a grounded connection in the service panel or a properly driven and electrically grounded rod.
3. Replace electrical box cover.

GENERAL INFORMATION AND INSTALLATION

FOR THE PLUMBER

OBSERVE LOCAL CODES

INSTALL DRAIN

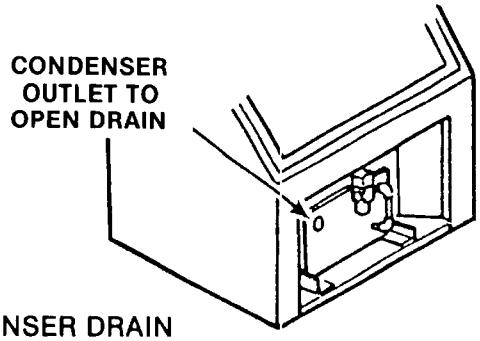


DRAIN-¾" O.D., or larger, Tubing or Pipe

1. The drain line must maintain a gradual slope to an open drain receptacle. Any rise in the drain line will cause an air lock and prevent the water from draining from the storage bin. Installation of an air vent in the drain line will eliminate the possibility of an air lock forming.
2. If a suitable drain to which the drain line can be run is not available, a small sump pump may be used to lift the drain water to an existing drain. Order the sump pump from your refrigeration supply house.

Install the sump pump on the floor behind the ice cube maker with the discharge to the rear of the ice cube maker. It will fit into the cavity in the back of the cabinet. Wire the sump pump into the terminal board of the ice cube maker, or to a convenient outlet.

Run the drain from the cabinet directly into the sump pump with a 5/8" o.d. tube or hose.The outlet of the pump must have an air break into the sewer line and be properly trapped in keeping with local sanitation requirements.



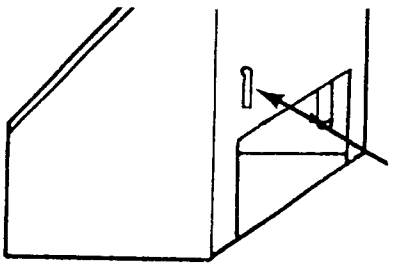
CONDENSER DRAIN

Needed on Water-Cooled Models

1. ½" galvanized pipe or copper tubing must be used to extend the condenser outlet to an open type drain.
2. Adequate flow rate must be maintained through the condenser. Runs over 40 ft. will require using larger pipe size.

INSTALL WATER SUPPLY

NOTE: Water treatment may be advisable because poor quality water can cause marginal operation or malfunction and increase cleaning frequency and maintenance costs. Contact your local commercial ice machine dealer for recommendations.



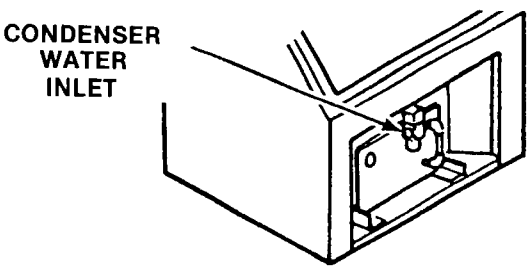
COLD WATER SUPPLY-¼" O.D. Soft Copper Tubing With Shut-Off Valve

1. A shut-off valve should be provided in the water supply line at a convenient location near the ice maker. The supply line must be adequately sized to compensate for the length of the run.

Supply runs over 10 ft. should be made with 3/8" o.d. copper tubing. Runs of 10 ft. or less may be made with 1/4 " o.d. copper tubing.

NOTE: Always flush out water lines before connecting to prevent foreign matter from entering the float valve.

2. Connect supply line to ¼" o.d. water line at rear of ice maker.
3. Water is controlled in pump reservoir by float valve. Make sure float valve opens and closes.
4. Water pressure must be 20 to 100 psi. If the pressure exceeds 100 psi, a regulator will have to be installed. The unit will operate in pressures below 20 psi; however, it may produce cloudy ice.



CONDENSER WATER INLET

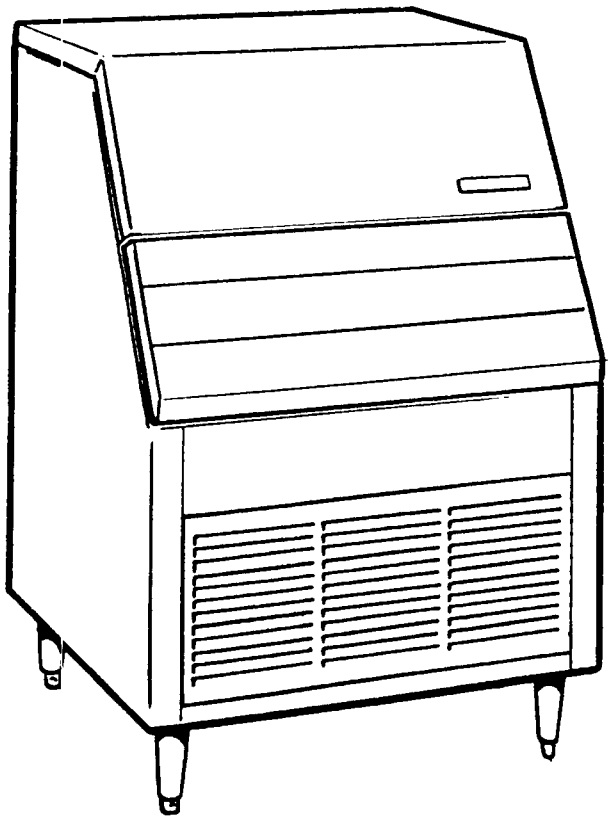
Needed on Water-Cooled Models

1. Use a 3/8" I.P.S. independent cold water supply to the water cooled condenser inlet for proper condenser operation. Runs over 40 ft. will require using larger pipe size.

GENERAL INFORMATION AND INSTALLATION

FINAL CHECK LIST

1. Is the cabinet/bin level? (IMPORTANT)
2. Is the cuber in a location where ambient temperatures are a minimum of 55-degrees F. all year around and do not exceed a maximum of 100° F?
3. Is there at least a 2-1/2" 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?
7. Have the compressor holddown bolts been checked to be sure the compressor is snug on the mounting pads?
8. Check all refrigerant lines and condult lines to guard against vibration and possible failure.
9. Has the cuber and the bin been wiped clean with clean damp cloths?
10. Has the owner/user been given the User's Instructions and instructed on how to operate the icemaker and the importance of periodic maintenance?
11. Has the owner/user been given the name and telephone number of the Authorized Scotsman Distributor or Service Agency serving him?
12. 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.



OPERATING INSTRUCTIONS

OPERATING INSTRUCTIONS STARTING

After the electricity and water to the ice cube maker have been turned on, move the switch down to "on" position. NOTE: Up is "clean", middle is "off", and down is "on". This will start ice cube maker. Additional water will be admitted automatically to the water pan when the evaporator temperature has lowered sufficiently to start freezing water to the evaporator, thus lowering the water level causing the float to open.

CHECK OPERATION

1. Start the unit by opening water valve and turning the service switch to "ON".
2. NOTE: down is "ON", middle is "OFF", and up is "CLEAN". In "CLEAN" position, only the water pump operates.
3. Check water level in pump pan. When not running, water level should be 2-1/4" deep.
4. Check for even water flow over freezing plate. Unit must be level for proper operation.
5. Check freezing plate to make sure it is getting cold.
6. Check for desired cube thickness and adjust if necessary. Maximum capacity will be obtained with ice thickness 1/2" to 5/8",
7. When slab has been harvested, observe ice cutting action of the grid. The slab should slowly "sink" into the warm wires.
8. Replace all panels.
9. Store ice scoop in a clean place.

HOW IT WORKS

WITH SERVICE SWITCH IN "ON" POSITION

1. Compressor runs.
2. Condenser fan runs.
3. Water pump runs.
4. Thickness control motor runs.
5. Cutter grid warm to touch.

WHEN DESIRED ICE SLAB THICKNESS IS REACHED, HARVEST CYCLE BEGINS WITH FOLLOWING RESULTS:

1. Thickness control arm raises, closing contacts Common to "N.C." which energizes coil of relay.
2. Compressor keeps running.
3. Condenser fan stops. (air cooled). Condenser water valve closes tightly (water cooled).
4. Water pump stops.
5. Water siphons from pan and refills.
6. Thickness control motor stops.
7. Hot gas solenoid valve is energized and opens.
8. Cutter grid warm to touch.

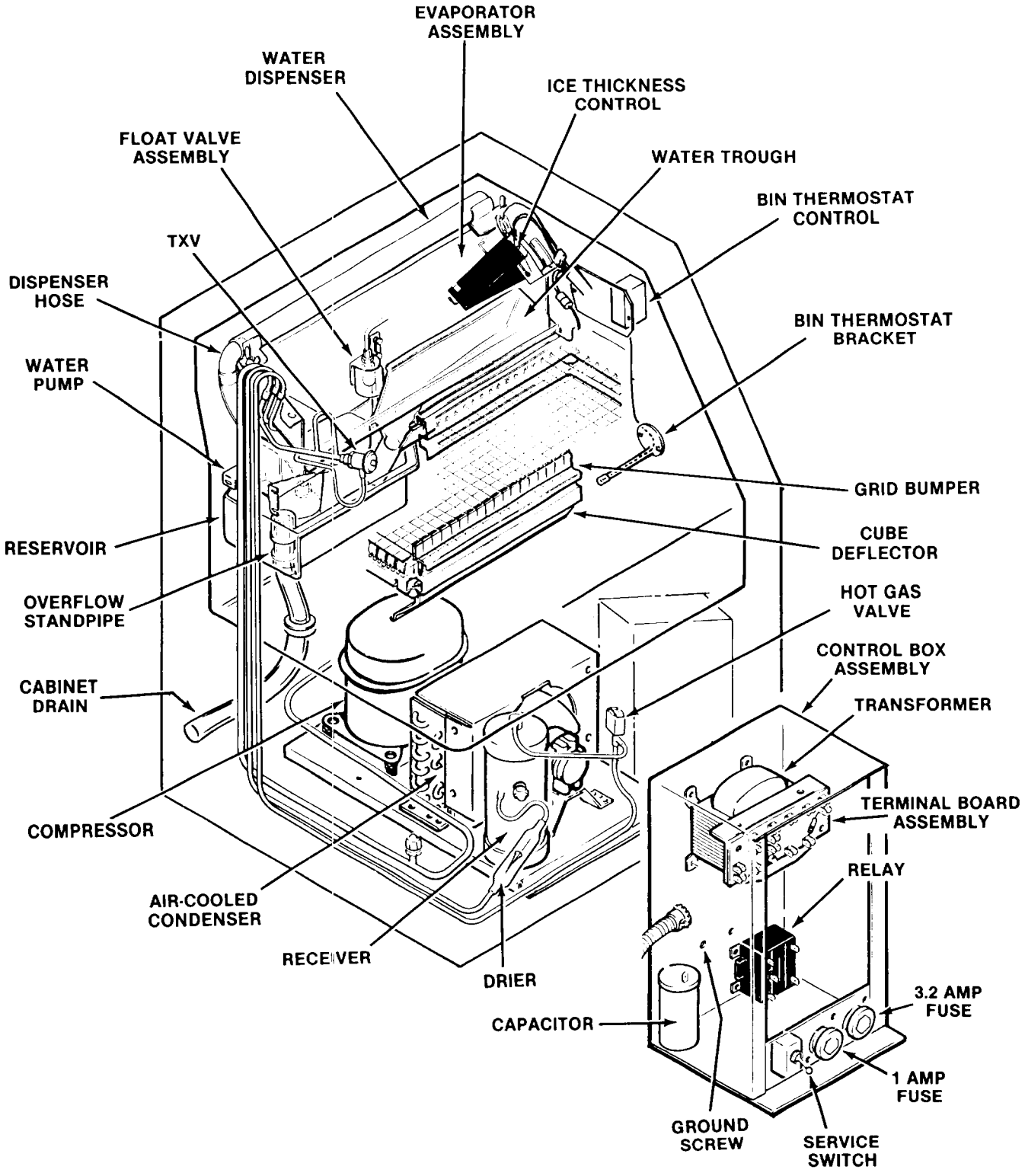
THE ICE SLAB SLIDES DOWN TO CUTTER GRID. THICKNESS CONTROL ARM FALLS CLOSING CONTACTS COMMON TO "N.O." WHICH DE-ENERGIZES COIL OF RELAY. MACHINE THEN GOES BACK INTO FREEZE CYCLE WHILE SLAB IS BEING CUT INTO CUBES ON CUTTER GRID.

THE MACHINE THEN GOES BACK INTO FREEZE CYCLE WHILE SLAB IS BEING CUT INTO CUBES ON CUTTER GRID.

WHEN STORAGE BIN GETS FULL, BIN THERMOSTAT TURNS MACHINE OFF.

1. Cutter grids remain on (warm to touch).
2. Thickness control motor on.

OPERATING INSTRUCTIONS



GENERAL OPERATION

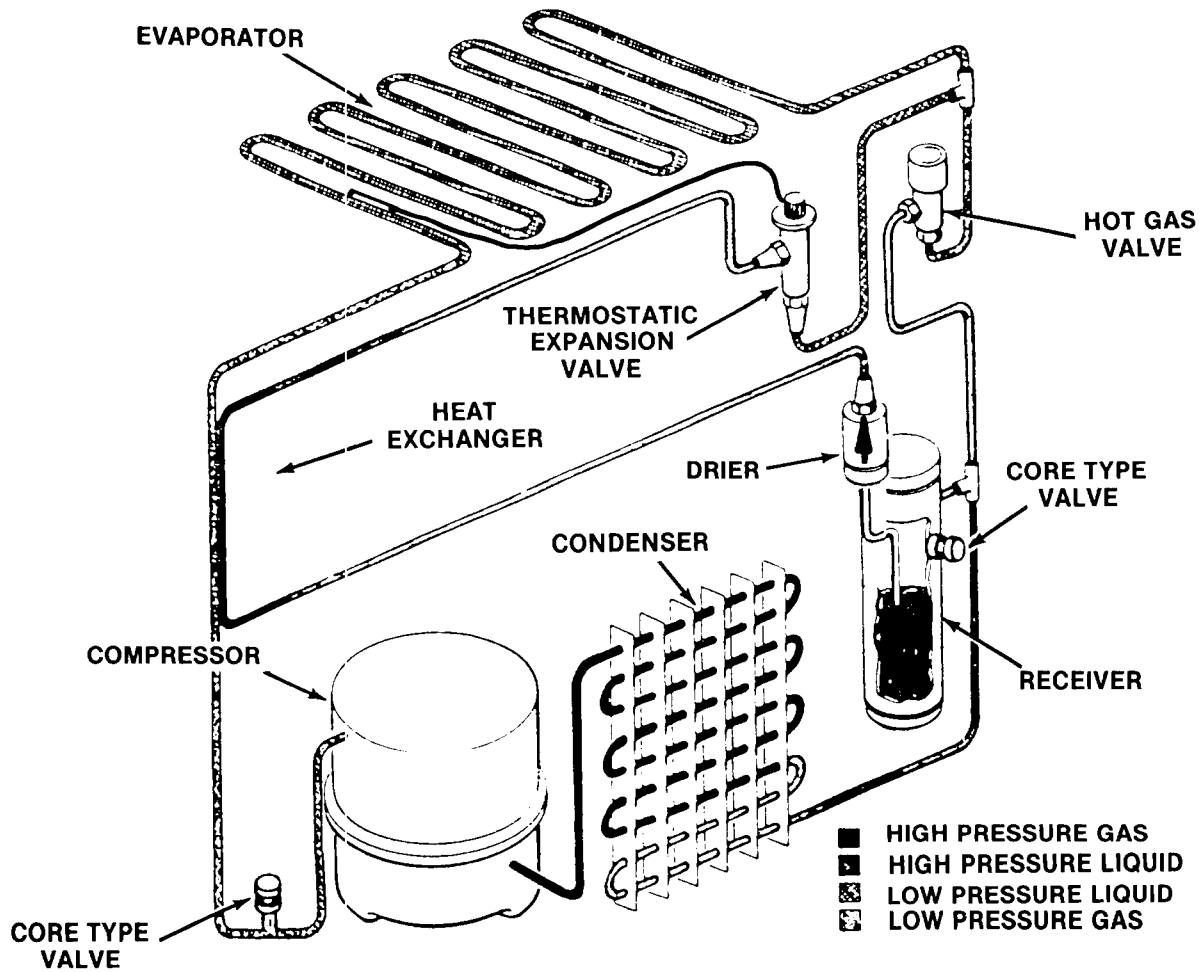
FREEZING CYCLE

Water from the sump in the reservoir of the sump assembly is pumped to the water distributor system, at the top of the evaporator plate. From the water distributor at the top of the evaporator plate, the water cascades by gravity over the plate and to the sump assembly below for recirculation. At the beginning of the freezing cycle, the electrical circuit is completed to the compressor and the water pump. The water pump operates continuously through the freezing cycle.

In the compressor, gaseous refrigerant is compressed and discharged into the condenser, as a high pressure, high temperature gas. The refrigerant is cooled by either air or water, and condenses into a high pressure, medium temperature liquid and into the receiver. This liquid refrigerant is then metered through the thermostatic expansion valve where the temperature and pressure of the liquid refrigerant are lowered and enters the evaporator plates. The refrigerant is warmed by the water cascading over the Evaporator plate and begins to evaporate off and become gas. The refrigerant next travels through the heat exchange area of the suction line where any remaining liquid refrigerant evaporates off and returns to the compressor as a low pressure, low temperature gas, and the cycle starts again.

During the freezing cycle, the hot gas solenoid valve is CLOSED.

When the ice slab is formed, the ice thickness control will sense the thickness at which it is preset to CLOSE. This will complete the electrical circuit to the relay, ending the freeze cycle.



GENERAL OPERATION

HARVEST CYCLE

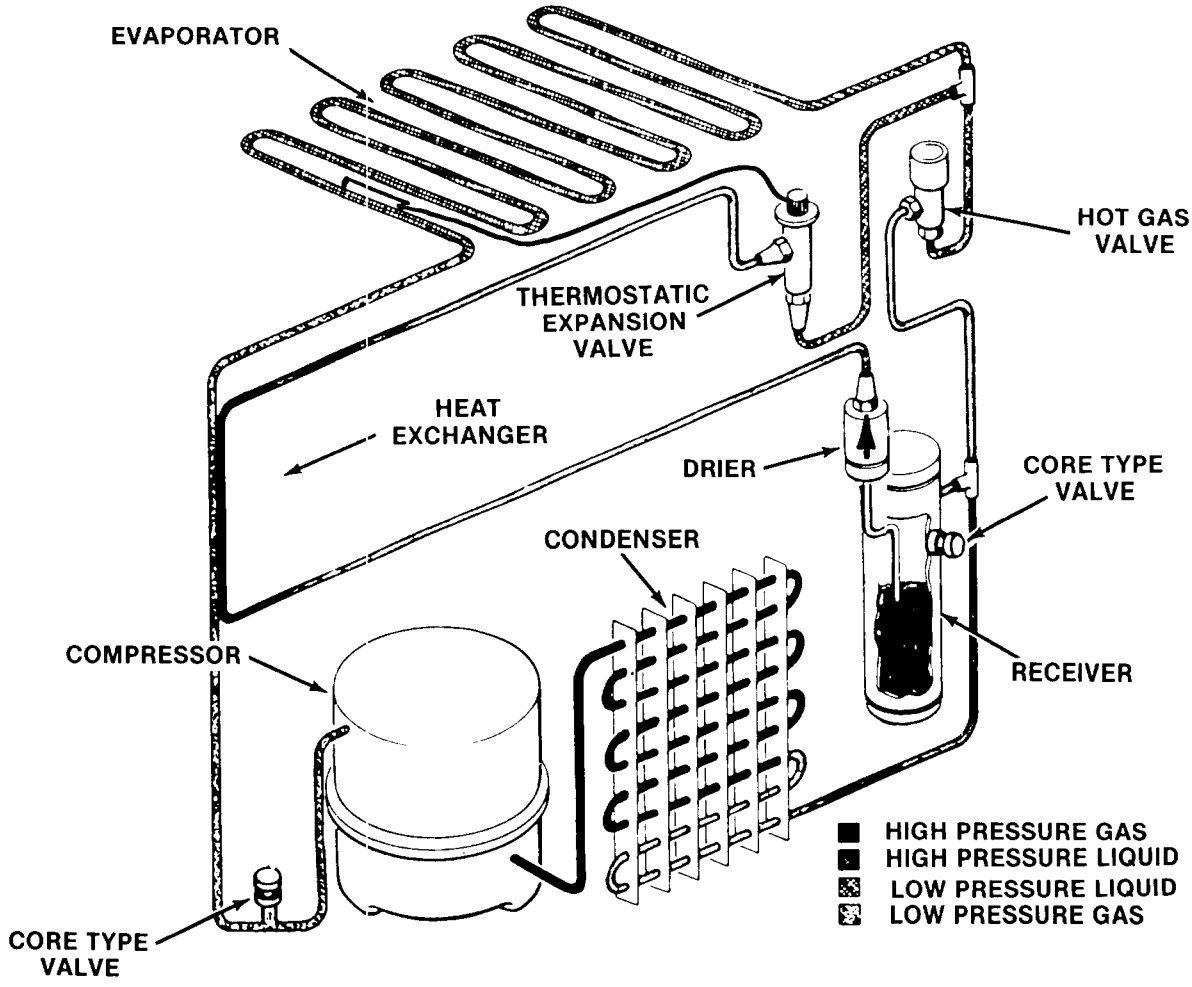
When the thickness control switches the Icemaker into the harvest cycle, high pressure, high temperature liquid refrigerant being discharged from the condenser through the hot gas solenoid valve into the evaporator plate. During this cycle, the refrigerant bypasses the expansion valve.

The thickness switch snaps from normally open to closed for slab release. The thickness motor, the pump, and the condenser fan, stop. A circuit is completed to the hot gas solenoid. To insure sufficient hot gas to release the slab, the compressor continues to run even though the fan stopped.

Hot refrigerant from the condenser is fed to the freezing plate and releases the ice slab. The slab of ice slides down onto a cutter grid and the slab is cut into cubes by the warm, low voltage cutter grid wires while the unit automatically goes into another freezing cycle.

The cubes fall down into the collecting bin. It is insulated but not refrigerated. This keeps the ice from freezing in to a lump, controls melting of the accumulating ice and assures a periodic replacement of the old ice with fresh new ice.

When the slab slides off the evaporator, the thickness switch will return to the normally open contact and a new slab begins to form.



OPERATING INSTRUCTIONS

IF THE MACHINE DOES NOT PRODUCE ICE

Check the following before calling a service technician:

A. Unit runs but produces no ice...

1. Check water supply valve to make sure it is open.
2. Service switch must be in "On" position.

B. Unit runs but produces very little ice...

1. Operating in extremely high room temperatures (normal for ice production to be low).
2. Lint blocking air flow through finned condenser. (Clean.) Check for objects around unit which would obstruct normal air flow. (Remove.)
3. Low water pressure to water cooled condenser.

C. Unit does not run...

1. Check for blown fuse in electrical supply to machine. NOTE: The fusestats in the machine compartment are to protect the low voltage grid transformer.
2. Service switch must be in "On" position.
3. Room temperature too low. (Must be above 55°F.) Unit may be shut down even though bin is not full.

D. Grid not cutting ice sheets...

1. Check grid transformer fusestats on machine compartment electrical control box.

PRIMARY TRANSFORMER

If the fuse needs to be replaced, replace it with a 1.0 amp time delay fusestat.

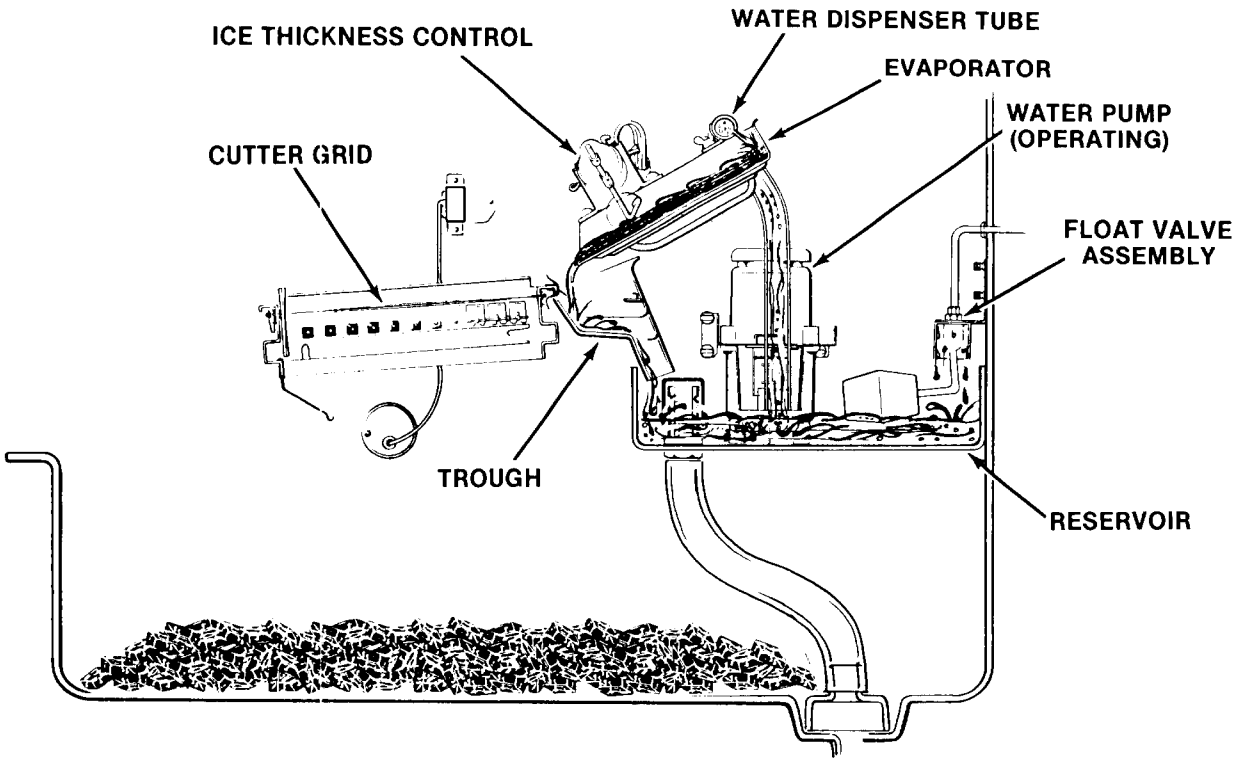
SECONDARY TRANSFORMER

If the fuse needs to be replaced, the same 3.2 amp time delay fusestat must be used. Fusestats rated below 3.2 amps will fail. REPLACE FINGER TIGHT ONLY.

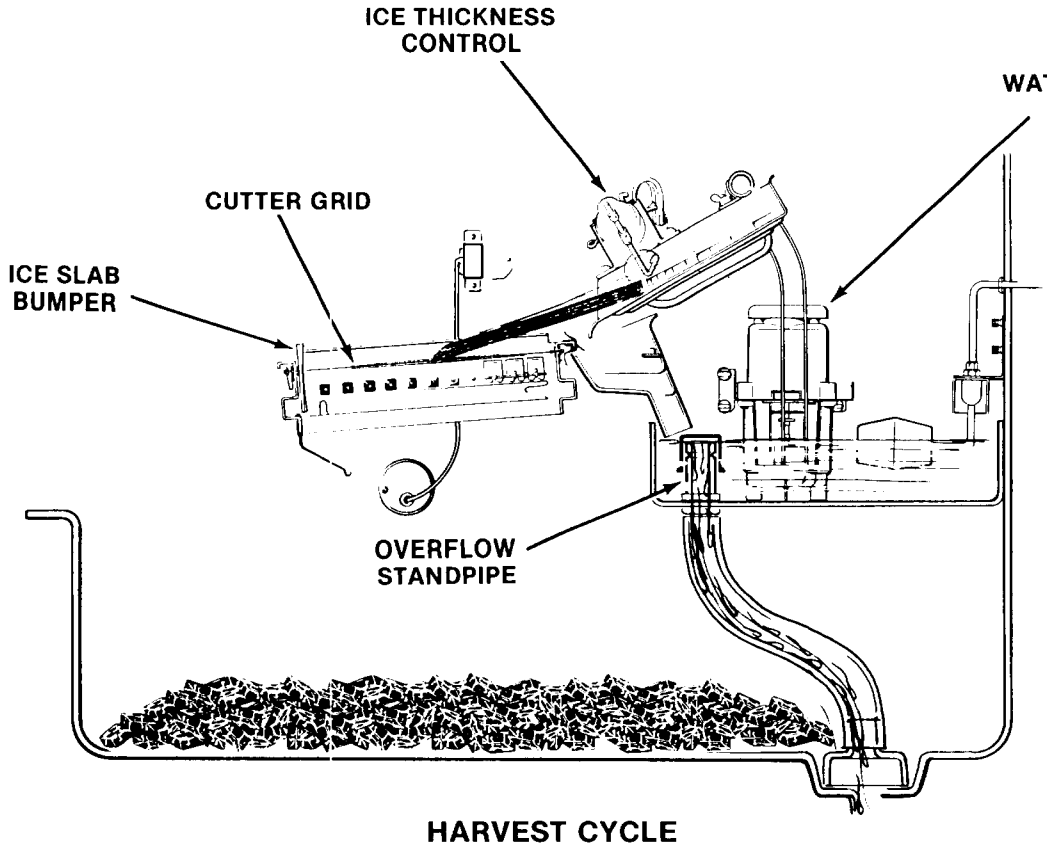
2. Check for good electrical connection (grid plug to harness).

CSW2

WATER SCHEMATIC



FREEZING CYCLE



HARVEST CYCLE

MAINTENANCE AND CLEANING INSTRUCTIONS

GENERAL

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

ICEMAKER

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

1. Check and clean or service any optional water treatment devices, if any installed.
2. Check the CSW2 cabinet is level, in the side-to-side and front-to-back directions.
3. Clean the water system, evaporator plate and sump assembly, using a solution of SCOTSMAN Ice Machine Cleaner. Refer to CLEANING.

Cleaning requirements vary according to local water conditions and individual user operation. Continuous check of the clarity of ice cubes and visual inspection of the water system parts, evaporator plate and the sump assembly before and after cleaning will indicate frequency and procedure to be followed in local areas.

4. Check that the grid assembly is snug and secure.
5. Check and tighten all bolts and screws.
6. Check and tighten all electrical connections.
7. Check hot gas solenoid valve for correct operation.
8. With ON-OFF toggle switch in the OFF position, clean the condenser using vacuum cleaner, whisk broom or brush. Instruct customer to clean condenser frequently. DO NOT USE A WIRE BRUSH.
9. Check for water leaks and make corrections.
10. Check the bin thermostat control bulb to test shut off. Holding ice against bin thermostat control bulb well should cause the icemake to shut off.

    Within minutes after ice is removed from the bin thermostat control bulb well, the icemaker will restart.

CLEANING THE CONDENSER

Water Cooled Models

During normal operation scale deposits form on the inside walls of the water cooled condenser. The scale acts as an insulator which then requires larger amounts of water for the unit to function. This scale must be removed periodically by circulating scale dissolving chemicals. The frequency of cleaning will depend on local water conditions and how rapidly the scale deposits form. Removing scale from the condenser should be performed by your icemaker dealer.

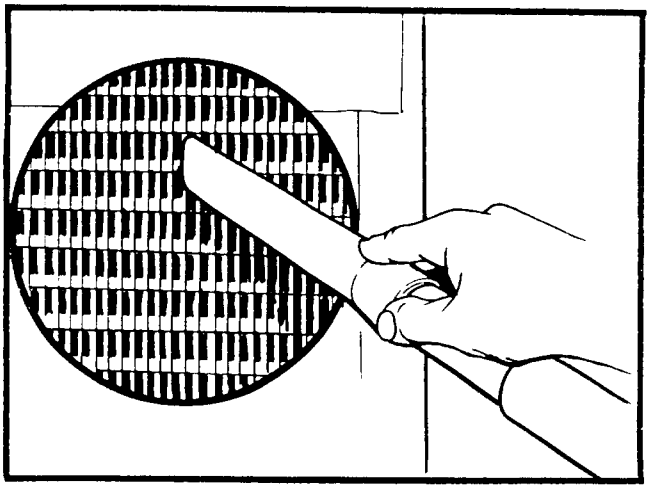
Air Cooled Models

A dirty or clogged condenser prevents proper air flow which reduces ice capacity and subjects components in the unit compartment to higher than normal pressures and temperatures. This can cause machine malfunction and early component failure.

Access to the Condenser

Remove the two screws on the grilled front panel then pull forward and disengage from the base of the machine.

CAUTION: Disconnect electrical supply to machine before removing unit compartment panel to keep condenser fan blades from rotating. Avoid contact with air cooled condenser fins which may be sharp. Avoid contact with refrigerant tubing which can become hot during normal operation.



Use a vacuum cleaner and stiff brush to remove the dirt and accumulated lint from the air cooled condenser fins. Do not use a wire brush. Removing the bolts from the fan motor bracket will allow the fan assembly to be removed for better accessibility to the condenser. Care should be used to prevent damage to the blades of the fan.

MAINTENANCE AND CLEANING INSTRUCTIONS

CLEANING INFORMATION

It is recommended that the ice maker's water system be cleaned occasionally. Water treatment may also be used to help combat the lime and mineral deposits.

SERVICE SWITCH

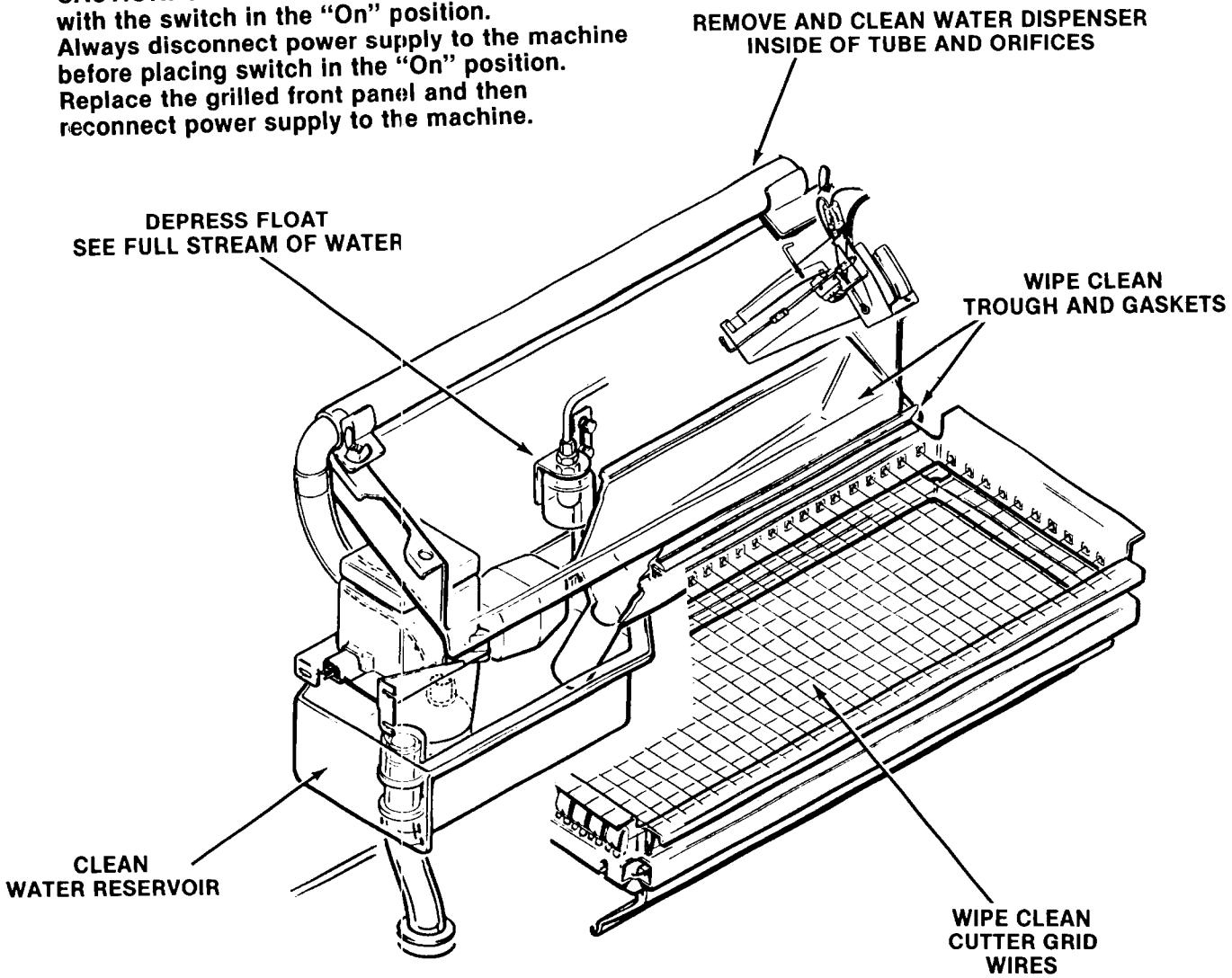
The service switch, located in back of the front panel, has three positions. The "On" position is for the normal ice making cycle. The "Off" position shuts the entire machine off. The "Clean" position is used whenever solutions are circulated through the water system for cleaning. At this position only the water pump is operative.

CAUTION: Condenser fan blades will rotate with the switch in the "On" position. Always disconnect power supply to the machine before placing switch in the "On" position. Replace the grilled front panel and then reconnect power supply to the machine.

FILTERING & TREATING WATER

In some areas it may be beneficial to filter or treat the water being supplied to the ice machine to reduce water system maintenance (see Cleaning & Sanitizing the Ice Making System) and to produce the best type of ice.

For information on filtering and treating the water see your commercial icemaker dealer.



Cleaning Water System

CSW2
CLEANING INSTRUCTIONS

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.

CLEANING INSTRUCTIONS

A. Remove the grill and shut machine "off" with master switch. Remove the door, and top panel and the cutter grid.

B. Prepare cleaning solution. Mix eight ounces of SCOTSMAN Ice Machine Cleaner with six-pints of fresh warm water.

C. Turn the master switch to the clean position. One application will make the machine sanitary. Additional applications may be necessary to remove all scale and provide the best machine function. Some areas (flanges of the freezing plate) do not receive enough contact with the cleaning solution to free them of scale. Some abrasive action from a non-metallic sponge may increase contact. In addition, the water pump may require additional cleaning for its best function. The water pan and pump can be removed and disassembled as necessary.

D. Follow cleaning with two clean water rinses; circulate each rinse for five minutes.

E. Remove the splash baffle at the lower end of the freezing plate by lifting and pushing backward off the pivot pins. Remove the plastic water trough by pressing its end flanges inward off the tabs.

F. Place removed grid, splash baffle, and water trough in the mild laundry bleach sanitizing solution (100 ppm available chlorine - approximately 1/4 gallon, see bleach container) for five minutes and rinse in clear water.

G. Sanitize ice storage areas by washing with the mild laundry bleach sanitizing solution and rinse (ice storage area, door baffle, door and top panel.).

H. Replace splash baffle, water trough, and grid. Set service switch to "on" (Down position) and replace front panel.

CAUTION

If any acid solution contacts the skin or eyes, rinse the area immediately with clear water or the solution may burn the skin.

Do not allow the acid solution to circulate any longer than is necessary to clean the water system, as it may gradually attack the metal.

Do not use abrasives such as steel wool or emery cloth to clean the freezer plate.

AFTER CLEANING TREATMENT

After the water system has been cleaned, it would be advisable to apply a Dow Corning product called "Slipicone" to the evaporator plate. This will retard future build-up and coat the evaporator with a slippery surface for better ice slab release.

CSW2
SERVICE DIAGNOSIS

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 in the icemaking-refrigeration system.

ICEMAKING - REFRIGERATION SYSTEM

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Compressor won't run; no ice in bin.	Located in cold area.	Move to warmer area (above 55° F.).
	Power disconnected.	Connect power.
	Broken wire or loose connection.	Locate and repair.
	Defective relay.	Replace relay.
	Service switch in "off" position.	Move operating rod to "on" position.
	Low voltage.	Check or restore voltage.
	Bin thermostat contacts open.	Replace bin thermostat.
	Master switch in "clean" position.	Push switch to "on" position.
	Defective compressor overload.	Replace overload.
	Defective compressor motor.	Replace compressor.
Compressor runs; no ice in bin.	Water supply shut off or float valve failure	Restore water supply.
	Ice thickness control switch stuck closed.	Repair or replace.
	Hot gas solenoid stuck "open".	Repair or replace solenoid.
	Inoperative refrigeration system.	Repair sealed system.
	Excessive use of ice cubes.	Advise customer.
	Cutter grid circuit open.	Check fuse and other parts of circuit.
	Incorrect wiring.	Check against wiring diagram.
Compressor runs continuously; bin full of ice.	Bin thermostat out of calibration.	Recalibrate or replace.
	Bin thermostat contacts stuck shut.	Replace thermostat.
	Incorrect wiring.	Check against wiring diagram.

SERVICE DIAGNOSIS

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Low ice yield.	Located in cold area.	Move to warmer area above 55° F. (for best results, 70° to 90°).
	Float set too high.	Lower float.
	Water falling on ice cubes.	Check water system components and see that they are in proper place.
	Bin thermostat out of calibration.	Recalibrate or replace.
	Evaporator ice thickness control set to produce too thin or too thick ice cubes.	Move adjusting screw to setting to produce 1/2" to 5/8" cube.
	Hot gas solenoid stuck partially open.	Repair or replace solenoid.
	Insufficient refrigeration.	Check and repair sealed system.
	Not enough water being circulated over evaporator plate.	Check for restriction in water lines. Check water pump and motor.
	Located in hot area.	Move to cooler area.
Excessive water dripping on ice cubes.	Sump Water overflowing.	Check overflow tube for restrictions. Overflow hose not inserted in liner drain.
	Water return trough out of position.	Install correctly.
	Water tube from water return trough not in the sump.	Locate tube properly.
	Ice jam on cutter grid causing water to "bridge" and drop in bin.	Check cutter grid circuit. Check for mineral deposit on evaporator plate.
	Water deflector out of position.	Install properly.
	Water line leak at water valve.	Tighten connection to stop leak.
Mineral deposit on evaporator.	High mineral content in water	See cleaning instructions.
Ice cubes too thin.	Evaporator ice thickness control set for thin ice.	Turn thickness adjusting screw clockwise until cube of desired thickness is obtained.
	Not enough water being circulated over evaporator.	Check for restriction in water lines. Check water pump, motor and distributor tube.
	Evaporator thermostat Expansion Valve bulb on wrong side of shim on evaporator clamp.	Shim must be between evaporator bracket and thermostat feeler tube.

SERVICE DIAGNOSIS

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Ice cubes too thick.	Evaporator ice thickness control set at or beyond maximum thickness.	Turn thickness adjusting screw counterclockwise until cube of desired thickness is obtained.
Condenser fan won't run during ice-making cycle.	Fan blade binding on shroud.	Adjust shroud to clear fan blade.
	Open circuit in wiring.	Locate and repair (see wiring diagram).
	Defective evaporator thermostat.	Replace thermostat.
	Fan blade dirty causing it to trip on internal overload.	Clean blade.
	Defective motor.	Replace motor.
Water pump won't run.	Pump binding in housing.	Locate and remove cause of bind.
	Open circuit in wiring.	Locate and repair (see wiring diagram).
	Defective motor.	Replace motor.
Water tank empty.	Complete water line restriction.	Check for closed shut-off valve or water line restrictions.
	Water float valve stuck shut.	Repair or replace valve.
	Water inlet screen plugged.	Remove screen and clean.
Milky ice cubes.	Water hardness in excess of 15 grains.	Advise customer that water softener may be required.
	Insufficient water supply in sump.	Consult local water treatment authorities for advice.
	Foods stored in ice bin.	Advise customer to refrain from storing food, etc. in ice bin.
	Packaging material not all removed.	Remove all packaging material.

ADJUSTMENT PROCEDURES

STORAGE BIN THERMOSTAT

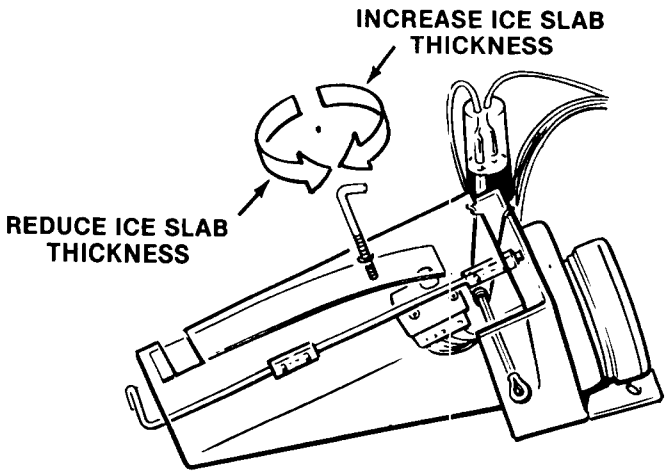
The thermostat sensing bulb is inserted in a tube well for protection. The well extends into the ice storage area. When ice has accumulated and filled the bin, it will touch the well. The cold temperature will be felt by the sensing tube inside the well. This will cause the thermostat to be satisfied and open the circuit to the ice-making components, except the grid and the thickness control motor. The thermostat opens or cuts out at 36°F and recloses at or cuts in at about 42°. You can test it by holding a handfull of ice against the well. In a short time the thermostat should open and shut off the unit.

The thermostat in the 110 lb. cuber is offset in the well cover plate. In original production the well is at the 6 o'clock position in the cover. By rotating the cover 180°, the position of the well will be at the 12 o'clock position, raising its height about 1-1/2. This will allow an additional 1-1/2 inches of ice to accumulate in the bin. (See Bin Level Control in the General Information Section.) The bin thermostat is mounted behind a cover plate on the side of the liner. The thermostat is factory calibrated for sea level operation. Recalibration of this thermostat is unnecessary unless the ice cuber is located in an area above 2000 feet above sea level.

CAUTION: Whenever the control setting is changed to a colder position, be sure that the unit will cycle off by holding some ice against the thermostat well. Failure to do so can cause damage to the unit.

ICE SLAB "THICKNESS" ADJUSTMENT

Increase the thickness of the slab by turning the evaporator thermostat adjusting screw clockwise. The thickness may be reduced by turning the adjusting screw counterclockwise.

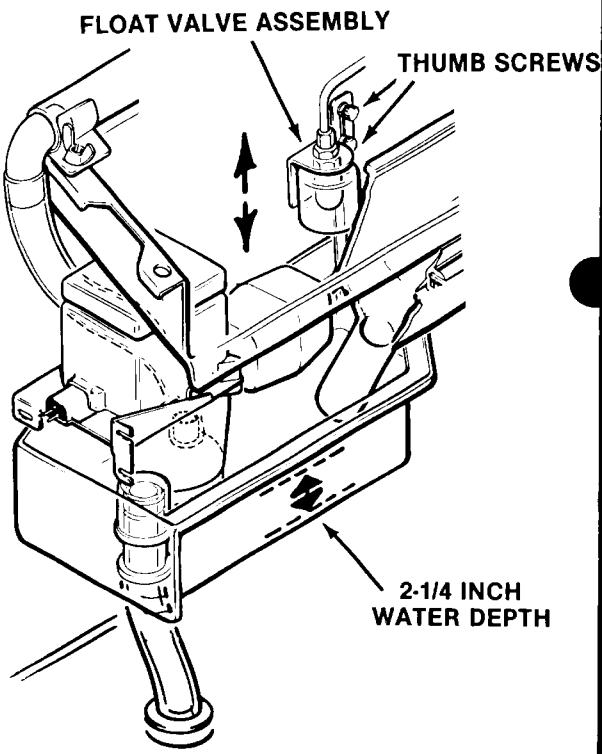


Ice Slab "Thickness" Adjustment

ADJUSTMENT OF THE FLOAT VALVE ASSEMBLY

To adjust the water level in the reservoir.

1. Loosen the wing nuts which attach the float valve bracket and the float valve to the chassis.
2. Move the float valve UP or DOWN to properly position the float valve at the correct water line level. The proper water level is just below the top of the overflow standpipe, 2-1/4" depth water.
3. When proper water level within the reservoir is adjusted, re-tighten screws attaching the float valve bracket to the chassis.



Float Valve Assembly Adjustment

REMOVAL AND REPLACEMENT PROCEDURES

REMOVAL AND REPLACEMENT OF THE CUTTER GRID

Low line voltage or a poor electrical connection at one of the pins connecting the cutter wires will slow down the cutting process and result in the next ice slab being formed before the first slab is completely cut into cubes. A fustat is in the low voltage circuit to the grid. Check the fuse on any cutting problem.

The heat input of the cutter grid is so designed that the ice slab will cut through in 80% of the time required to produce another slab of the same thickness.

Prolonged usage of improper service techniques may cause a cutter wire to break. In addition, certain types of water may cause the silver plated pins to become coated with lime, scale or corrosion. This results in a poor electrical connection.

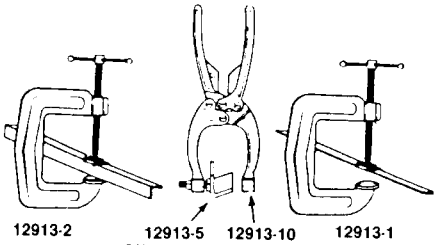
The entire set of wires in the cutter grid should be replaced whenever failure occurs. Partial replacement is no more than an invitation to a repeat service call. Always examine insulators for cracks and connecting pins for corrosion and scale. Make sure spring clips exert proper tension on the cutter wire.

WARNING

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

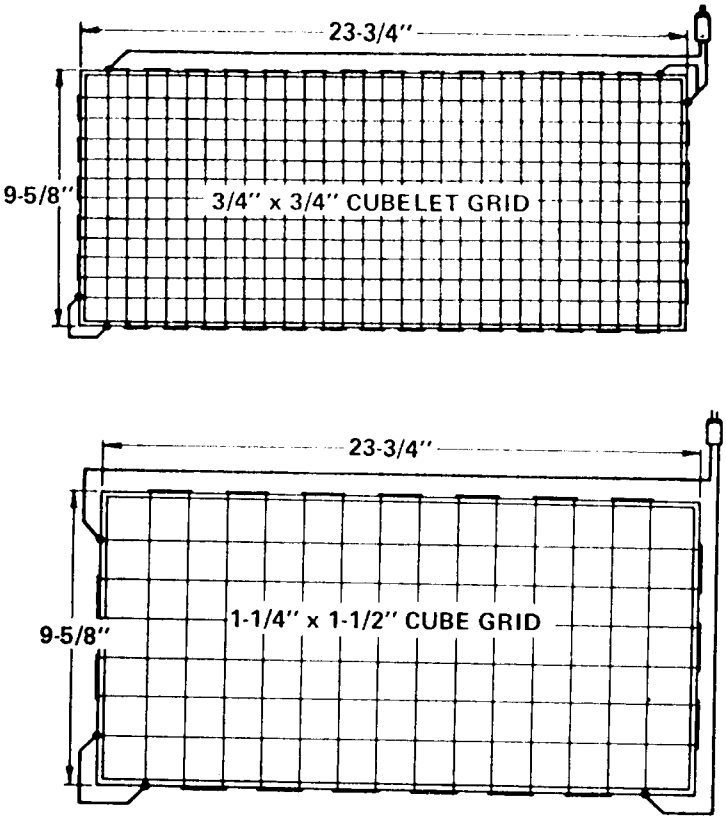
1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Lift ice access door, remove two screws and pull forward to remove door, front and top panel assembly.
4. Unplug grid harness from back corner of grid assembly.
5. Lift up and pull cutter grid forward to remove cutter grid.

To replace cutter wires use tool No. 12913. Use of this tool allows the spring clips to be compressed without deforming and loss of tension, and reduces the time required to replace all the wires in the grid assembly.



Cutter Grid Wire Replacement

1. Mark the location of the terminals where the grid harness connects. Also mark which set of wires the silver plated pins connect. The fastest way to remove the old wires is to cut each individual wire.
2. Insert the new wires into the side having insulators only and position the silver plated connecting pins. After these are all in position, clamp tool No. 12913-1 over these wires to keep them securely in their proper location.

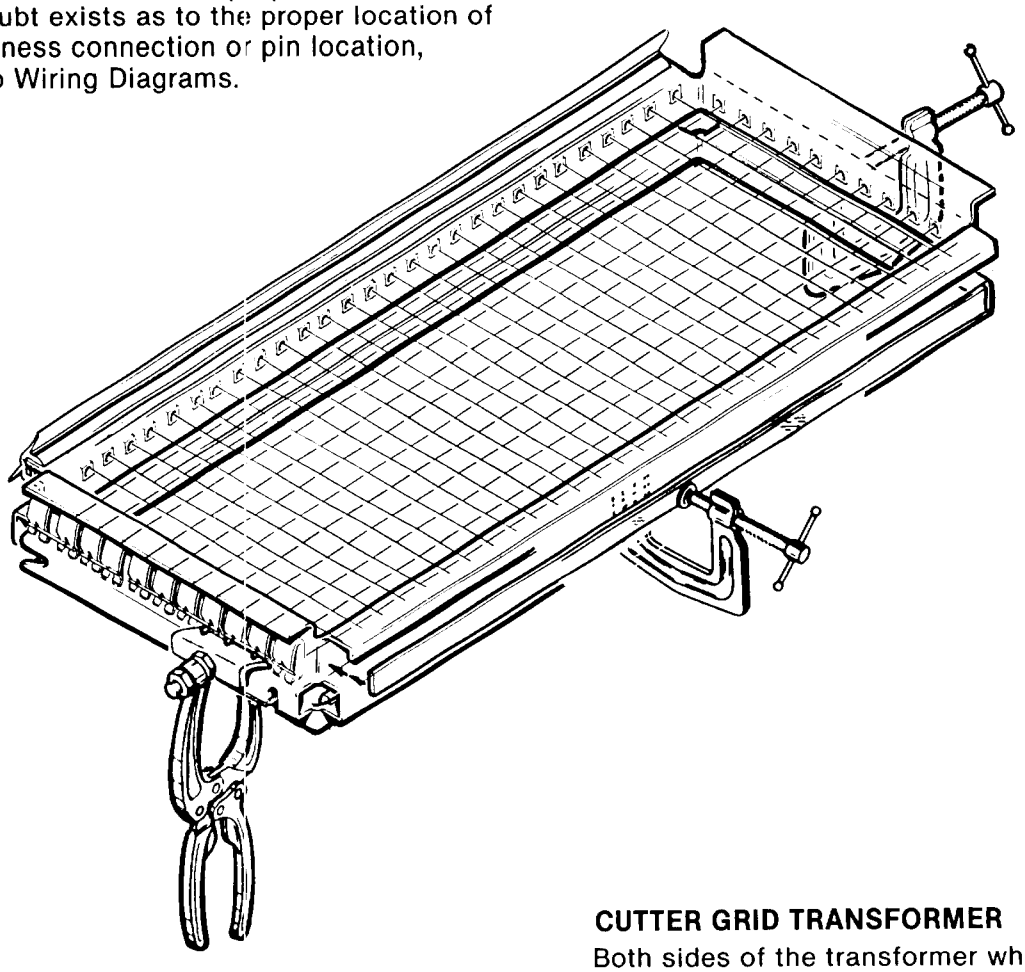


Cutter Grid Wire Schematic

REMOVAL AND REPLACEMENT PROCEDURES

3. Turn the grid assembly over to the opposite side and place all insulators and spring clips in position. Clamp tool No. 12913-2 over the radius end of the spring clip. NOTE: This tool keeps the spring clip and insulator in position while depressing the clip with tool No. 12913-10.
4. Using tool No. 12913-10, depress two spring clips at a time and insert the connecting pins through the loops on the end of the grid wire. NOTE: At the same time reconnect the grid wire harness at the proper terminals. If any doubt exists as to the proper location of the harness connection or pin location, refer to Wiring Diagrams.
5. Be sure all wires have proper tension when the clips are released, as a loose wire will give a poor electrical circuit. When reusing old connecting pins, make sure the silver plating is in good condition and not corroded, as this also causes a poor electrical circuit.

To replace the cutter grid and the wire, reverse the removal procedure.



CUTTER GRID TRANSFORMER

Both sides of the transformer which feeds the cutter grid are fused with Fustats. The icemaker must be electrically disconnected before testing. The primary coil of the transformer may be checked for continuity by disconnecting the respective leads from the terminal board. The primary side of the transformer is fused with a 1 amp fustat. The secondary side of the transformer is fused with a 3.2 amp fustat.

The secondary transformer voltage varies from model to model. Typical voltage

Model CSW2	21.0 Volt Output

REMOVAL AND REPLACEMENT PROCEDURES

REMOVAL AND REPLACEMENT OF THE EVAPORATOR

Deep depressions, or a pitted or scaled plate, will cause problems with the release of ice slab during the defrost or release cycle. Scale that has formed due to impurities in the water can be cleaned. (See section on Cleaning the Water System.) However, a pitted plate, or one that has depressions caused by some foreign object striking the surface, may require replacement to alleviate the above condition.

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

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

//

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Lift ice access door, remove two screws and pull forward to remove door, front and top panel assembly.
4. Remove cutter grid. See Cutter Grid removal procedures.
5. Lift up and remove water trough.
6. Remove two wing nuts and remove water distributor by lifting up and unplugging water supply tubing.
7. Bleed off or blow the refrigerant charge through the Schrader valve.
8. Loosen the evaporator from the evaporator mount and unsolder the tubing connected to the evaporator.
9. Dismount the expansion valve sensing bulb from the suction line.
10. Carefully unsolder the valve from the connecting tubing. Use a heat shield to avoid overheating the storage bin in or next to the valve.

NOTE: Solder used to connect the tubing to the evaporator is a soft solder and has a lower melting point.

To replace the evaporator, reverse the removal procedure.

REMOVAL AND REPLACEMENT OF THE ICE THICKNESS CONTROL

The thickness sensing control affects the length of the freezing cycle. The thickness control closes its contacts when the ice slab reaches a preset thickness. A variation in either ambient air or incoming water temperature will affect the efficiency of the refrigeration system. This will vary the length of time it takes the ice slab to reach the thickness at which the thickness control is preset to CLOSE: which, in turn, will affect the overall cycle time.

See thickness control adjustment BEFORE attempting to adjust the control.

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

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

//

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Open ice access door, remove 2 screws and pull forward and up to remove ice access door, front and top panel assembly.
4. Remove two hex acorn nuts and lift the Ice Thickness Control and remove the control.
5. Disconnect electrical leads from the Ice Thickness Control and remove the control.

To replace the Ice Thickness Control, reverse the removal procedure.

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

To remove the water regulator assembly refer to slide out chassis procedure and complete all steps.

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

REMOVAL AND REPLACEMENT 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.

7. Refer to name plate specifications and recharge refrigeration system by weight.

REMOVAL AND REPLACEMENT OF THE WATER DISTRIBUTOR

WARNING

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

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Lift ice access door, remove two screws and pull forward to remove door, front and top panel assembly.
4. Remove two wing nuts and remove water distributor by lifting up and unplugging water supply tubing.

To replace the water distributor, reverse the removal procedure.

REMOVAL AND REPLACEMENT OF THE BIN THERMOSTAT CONTROL

To remove the bin thermostat control:

1. Remove the two front screws from the front panel and lift and remove panel.
2. Remove screws, cover plate and the bin thermostat well.
3. Remove the bin thermostat capillary tube from the bin thermostat well.
4. Remove screws and the bin thermostat control.
5. Remove electrical leads.

To replace the bin thermostat control, reverse the removal procedure.

REMOVAL AND REPLACEMENT OF THE FLOAT VALVE ASSEMBLY

WARNING

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

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Lift ice access door, remove two screws and pull forward to remove door, front and top panel assembly.
4. Remove cutter grid. See Cutter Grid removal procedures.
5. Lift up and remove water trough.
6. Disconnect water inlet line from float valve assembly.
7. Remove two thumbscrews from water valve and remove valve.

To replace the Float Valve Assembly, reverse the removal procedures.

To adjust the water level in the reservoir.

1. Loosen the wing nuts which attach the float valve bracket and the float valve to the chassis.
2. Move the float valve UP or DOWN to properly position the float valve at the correct water line level. The proper water level is just below the top of the overflow standpipe, 2-1/4" depth water.
3. When proper water level within the reservoir is adjusted, re-tighten screws attaching the float valve bracket to the chassis.

REMOVAL AND REPLACEMENT PROCEDURES

EXPANSION VALVE REPLACEMENT

The expansion valve performs one very simple function - it supplies the evaporator the right amount of refrigerant under all load conditions.

The remote bulb senses the temperature of the refrigerant in the coil outlet of the evaporator. It varies the amount of refrigerant fed through the valve. This will maintain a 3 degree F. to 10 degree F. temperature difference between the inlet and outlet of the evaporator. This temperature difference is referred to as "superheat".

Moisture in the system, an incorrect charge of refrigerant or improper position or loose bulb can cause symptoms which may appear as a malfunctioning expansion valve. Eliminate these possibilities before assuming the valve needs replacing.

In evaluating the performance of the valve:

A. It must bleed enough refrigerant to the evaporator plate so that an even slab is formed. A hollow or shallow spot in the center of the ice slab indicates that not enough refrigerant is getting to the evaporator.

1. Expansion valve with a high superheat setting.
2. Moisture freezing in valve orifice, causing a partial restriction.
3. Partially restricted valve (foreign material).
4. Improper positioned valve sensing bulb.

B. The valve must prevent liquid refrigerant from proceeding past the remote bulb of the valve. It can do this by modulating toward the closed position as its bulb senses the cold refrigerant.

C. The valve will modulate to keep suction pressure fairly steady during the freeze cycle. Fluctuating suction pressure during the cycle indicates the valve is "hunting". Abnormal fluctuation can cause the freeze cycle to be longer than normal. It is often caused by the improper mounting of the sensing bulb. Mount it on the side of the suction line.

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

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

//

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Lift ice access door, remove two screws and pull forward to remove door, front and top panel assembly.
4. Dismount the expansion valve sensing bulb from the suction line.
5. Blow or bleed off refrigerant charge at the process valve.
6. Carefully unsolder the valve from the connecting tubing. Use a heat shield to avoid overheating the storage bin in or next to the valve.

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.

To replace the Expansion valve, reverse the removal procedures.

SLIDE-OUT CHASSIS PROCEDURE

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

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

//

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Remove two screws and front louvered panel.
4. Blow or bleed off refrigerant charge at the process valve.
5. Unsolder lines connected to the Hot Gas Valve at the receiver and at the bottom of the hot gas valve.
6. Unsolder suction line located at the front of the chassis.
7. Cut the tubing connected to the drier.

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 PROCEDURES

NOTE

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

8. Unbolt chassis from the frame and slide the chassis out.

To replace the Slide Out Chassis, reverse the removal procedures.

REMOVAL AND REPLACEMENT OF THE DRIER

WARNING

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

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Remove two screws and front louvered panel assembly.
4. Bleed off or blow the refrigerant charge through the process valve.
5. Cut the refrigerant lines at both ends of the drier, and remove the drier.

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.

To replace the drier:

CAUTION

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

Be sure the replacement drier is installed with the arrow positioned in the direction of the refrigerant flow.

1. Remove the factory seals from the replacement drier and install the drier in the refrigerant lines with the arrow positioned in the direction of the refrigerant flow.
2. Solder the drier into the lines, two places, taking precautions to NOT OVERHEAT the drier body, during installation soldering.
3. Purge the system and check for leaks.
4. Thoroughly evacuate the system to remove moisture and non-condensables.
5. Charge the system with refrigerant, by weight. SEE NAMEPLATE.

REMOVAL AND REPLACEMENT OF THE COMPRESSOR ASSEMBLY

COMPRESSOR (CHECKING)

A. Voltage must be within 10% of rated voltage at compressor terminals during starting phase.
B. Use an ohm meter to check the windings.
C. Connect starting cord to compressor. If compressor does not start and an audible "hum" heard, compressor is "stuck" and should be replaced.
D. If compressor starts, check for loose wiring, defective relay, bin thermostat, or pressure control.

To remove compressor refer to SLIDE-OUT CHASSIS PROCEDURE and remove chassis from cabinet.

1. Disconnect the electrical leads connected to the compressor.
2. Unsolder the suction line and discharge line from the compressor.
3. Remove four bolts, lockwashers and washers which secure the compressor to the chassis mounting base.
4. Remove the compressor from the chassis.

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.

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

To replace the compressor assembly, reverse the removal procedure.

REMOVAL AND REPLACEMENT OF THE CONDENSER - AIR-COOLED MODELS

1. Refer to the Slide-Out Chassis procedure and remove the chassis from the cabinet.
2. Unsolder and disconnect refrigerant lines from the condenser.
3. Cut and remove the drier from the refrigerant lines connecting to the condenser.

REMOVAL AND REPLACEMENT PROCEDURES

4. Remove screws, lockwashers and the condenser from the chassis base.

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.

To replace the air-cooled condenser, reverse the removal procedure.

REMOVAL AND REPLACEMENT OF THE CONDENSER - WATER-COOLED MODELS

1. Refer to the Slide-Out Chassis procedure and remove the chassis from the cabinet.
2. Unsolder the refrigerant lines at the water-cooled condenser.
3. Unsolder the water lines at the water-cooled condenser.
4. Remove two screws and washers and the water-cooled condenser from the cabinet.

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.

To replace the water-cooled condenser, reverse the removal procedures.

REMOVAL AND REPLACEMENT OF THE WATER PUMP

1. Disconnect electrical power to the cuber.
2. Remove front panel assembly by removing (2) two screws.
3. Remove the cutter grid and water trough.
4. Remove (2) two thumb screws and remove sump assembly.
5. Remove (3) hex nuts and the pump and motor assembly from the liner. Removal of the water pump unplugs the pump from the wiring harness.

To replace the water pump, reverse removal procedures.

REMOVAL AND REPLACEMENT OF THE HIGH PRESSURE SAFETY CONTROL (WATER-COOLED MODELS)

WARNING

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

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Remove two screws and remove the front louvered panel.
4. Remove screws and remove the control box cover.
5. Bleed off or blow the refrigerant charge at the process valve.
6. Disconnect the electrical leads connected to the High Pressure Safety Control.
7. Remove screws and remove the High Pressure Safety Control from the control box.
8. Unsolder the High Pressure Safety Control tubing and remove the control.

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.

To replace the High Pressure Safety Control, reverse the removal procedure.

REMOVAL AND REPLACEMENT OF THE HOT GAS VALVE COIL

WARNING

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

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Remove two screws and front lower panel.
4. Remove screws and the control box cover.
5. Unplug electrical leads connected to the coil.
6. Remove screws and remove the valve body from the control box.
7. Unsnap clamp from the top of the coil and remove the coil from the valve.

To replace the Hot Gas Valve Coil, reverse the removal procedure.

REMOVAL AND REPLACEMENT PROCEDURES

REMOVAL AND REPLACEMENT OF THE HOT GAS VALVE

WARNING

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

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Close the inlet water valve to the icemaker.
3. Remove two screws and front lower panel.
4. Remove screws and the control box cover.
5. Unplug electrical leads connected to the coil.
6. Remove screws and remove the valve from the control box.
7. Unsnap clamp from the top of the coil and remove the coil from the valve.
8. Bleed off or blow refrigerant charge through the process valve.
9. Unsolder the tubing connections to valve and remove the valve.

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.

To replace the Hot Gas Valve, reverse removal procedures.

REMOVAL AND REPLACEMENT OF THE RECEIVER

1. Refer to the Slide-Out Chassis procedure and perform steps to remove the chassis.
2. Unsolder all refrigerant lines connected to the receiver.
3. Unbolt and remove receiver from the chassis.

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.

To replace the receiver, reverse the removal procedures.

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

WARNING

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

NOTE

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

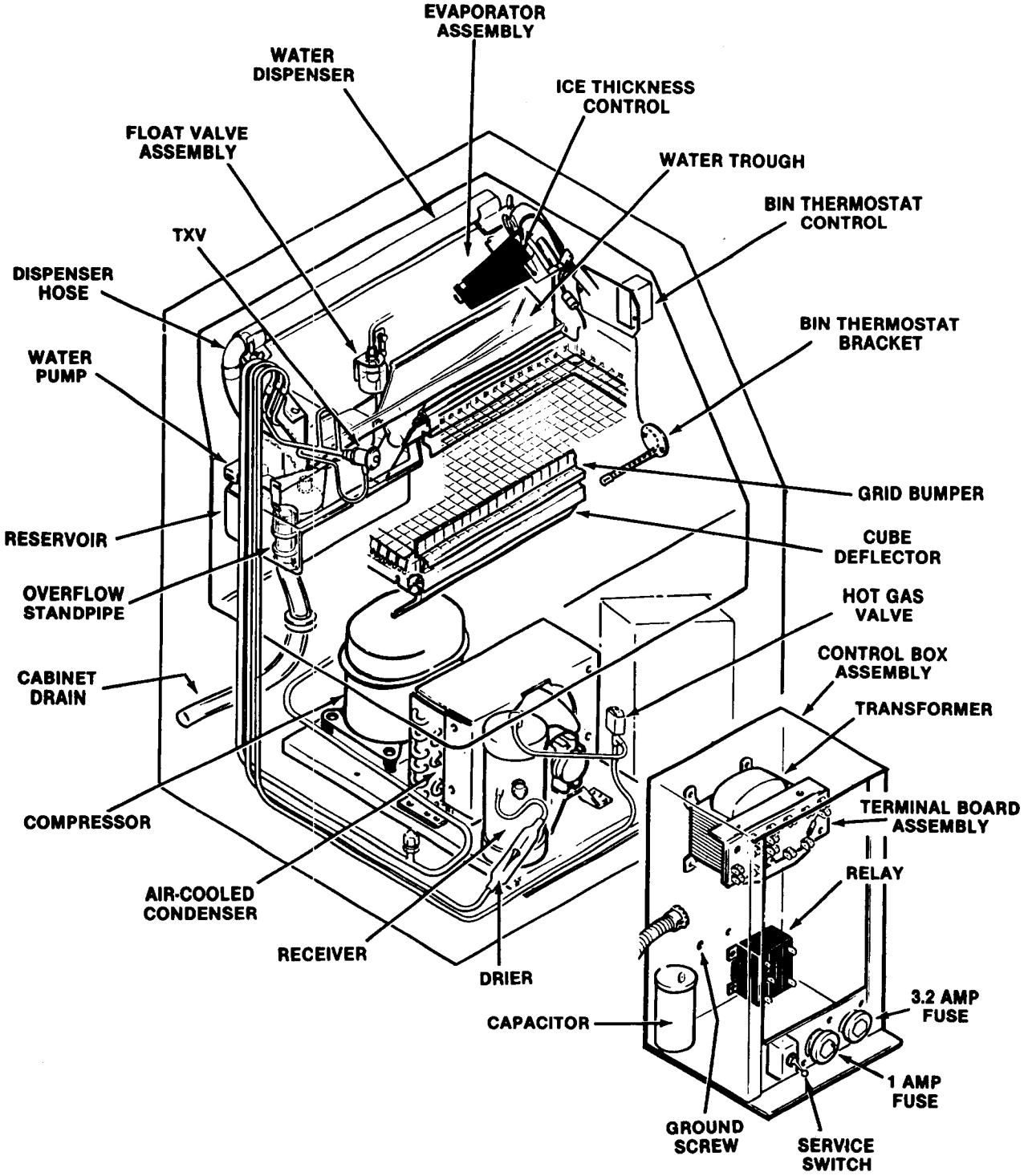
To remove the fan motor assembly:

1. Disconnect the electrical supply to the icemaker at the circuit breaker or fuse box.
2. Remove screws and the lower front panel. Remove screws and the top panel.
3. Disconnect the electrical lead from the fan motor at the compressor control box.
4. Remove two screws securing the motor bracket to the chassis base and remove the fan motor and motor bracket from the chassis.
5. Remove the nut from the end of the fan motor shaft and remove the fan blade.
6. Remove four screws securing the fan motor to the motor bracket and separate the motor from the bracket.

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

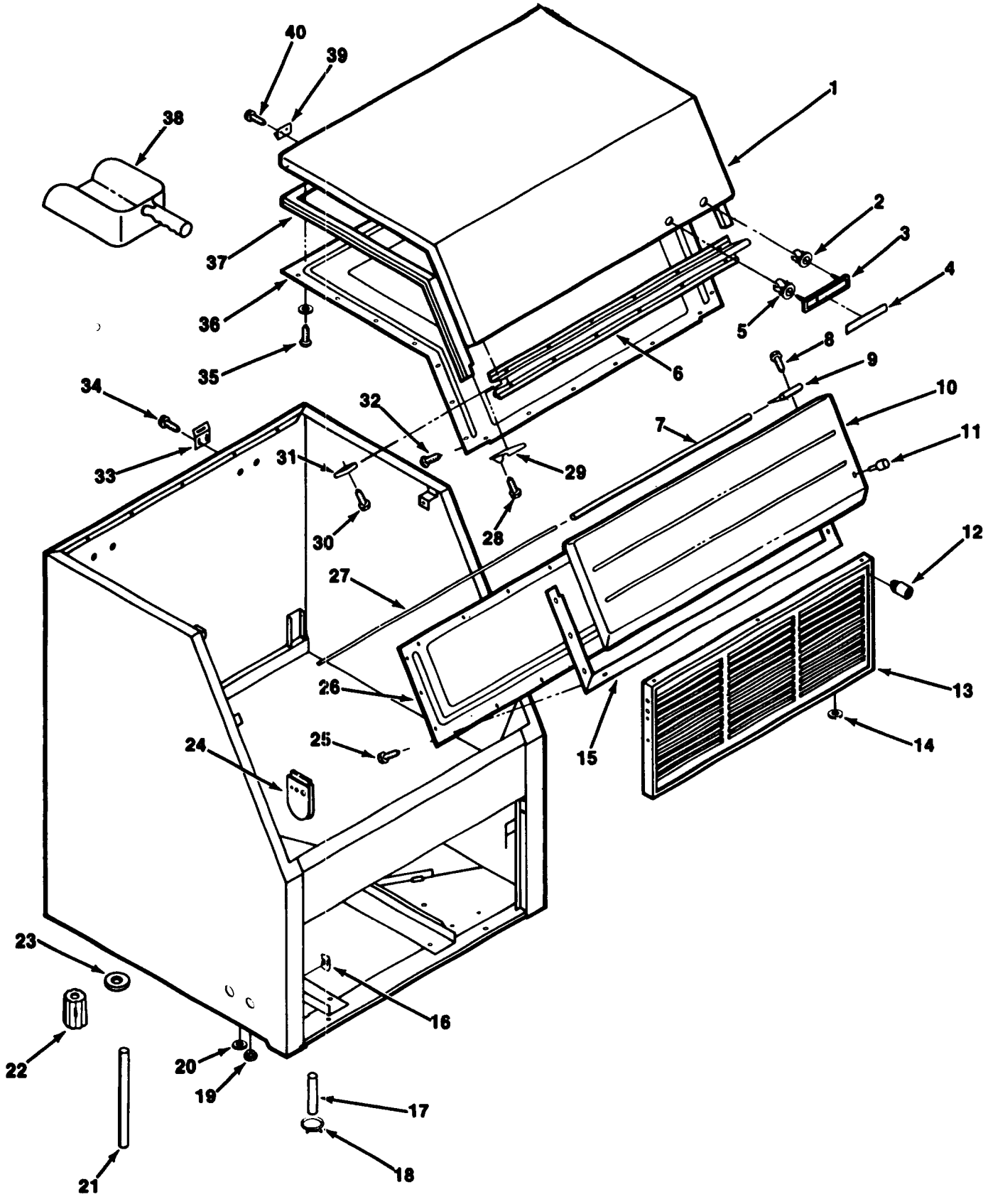
CABINET ASSEMBLY

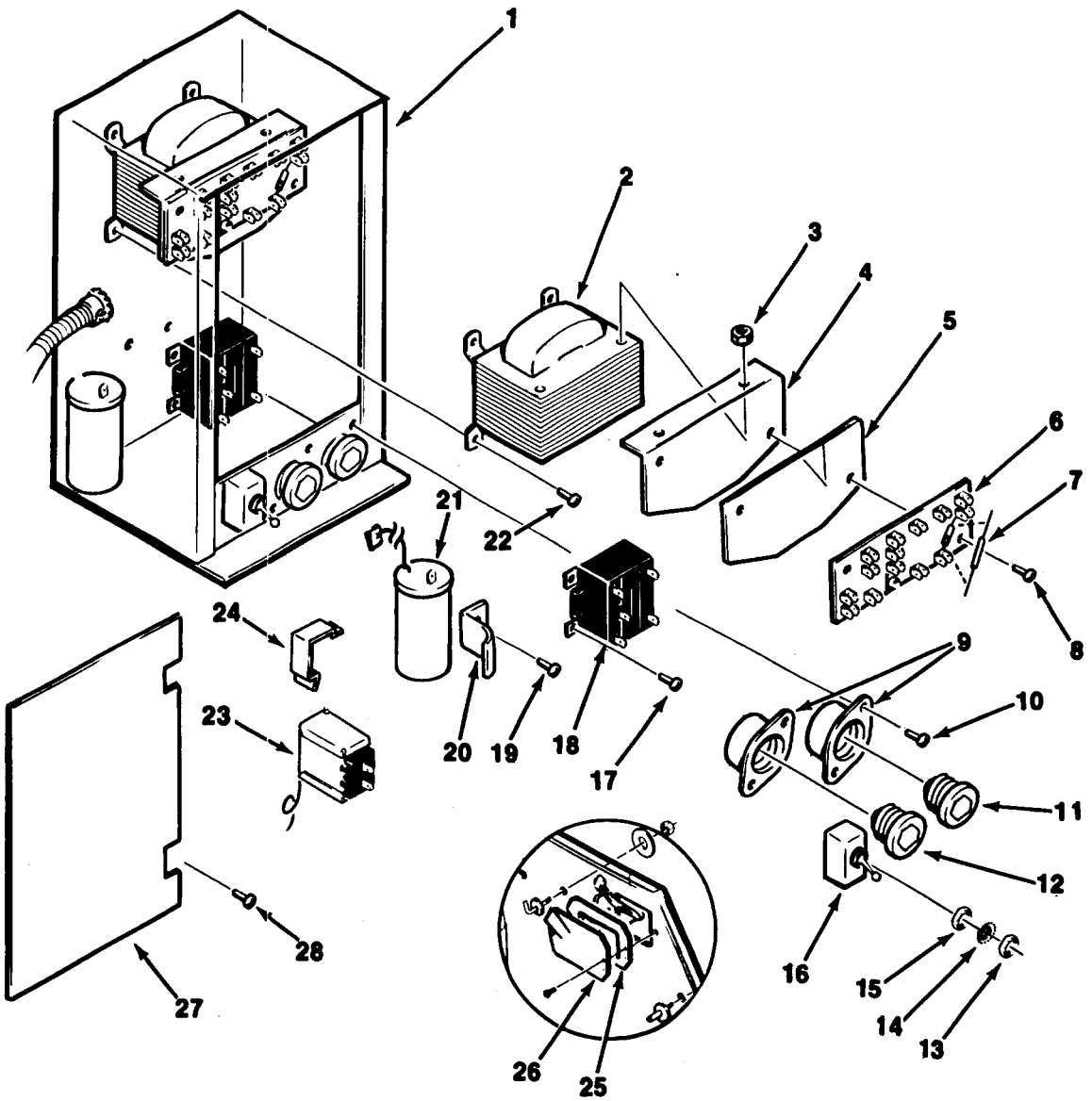
ITEM NUMBER	PART NUMBER	DESCRIPTION
1	0755535	Panel, Exterior Top
2	0654067	Clip, Tubular
3	0837577	Nameplate Escutcheon
4	0780003	Insert, Nameplate
5	0654068	Clip, Tubular
6	0577337	Cover, Hinge Rod
7	0577338	Spacer, Hinge Rod
8	0681228	Screw, #10-32 x 5/8
9	0562308	Hinge, Storage Door (2)
10	0599474	Panel, Exterior Storage Door
11	0596561	Bumper, Rubber
12	0681476	Clip, Tubular
13	0585293	Panel, Front
14	0593842	Washer, Rubber
15	0577329	Gasket
16	0487322	Speednut
17	0598399	Hose, Drain
18	0596727	Clamp
19	0596097	Grommet
20	0587863	Grommet
21	0598402	Hose Drain
22	0598371	Cover Drain
23	0598401	Gasket Drain
24	0598394	Grommet, Tubing
25	0596671	Screw
26	0562427	Panel, Interior Storage Door
27	0562305	Rod, Hinge
28	0681228	Screw, #10-32 x 5/8
29	0562307	Hinge, Upper Panel (2)
30	0680988	Screw
31	0577339	Spacer, Hinge Rod (2)
32	0596671	Screw
33	0585227	Bracket (2)
34	0681228	Screw, #10-32 x 5/8
35	0596671	Screw
36	0562312	Panel, Interior Top
37	0755542	Gasket
38	0587100	Scoop, Ice Cube
39	0585563	Bracket
40	0681228	Screw, #10-32 x 5/8



CSW2 - Component Location

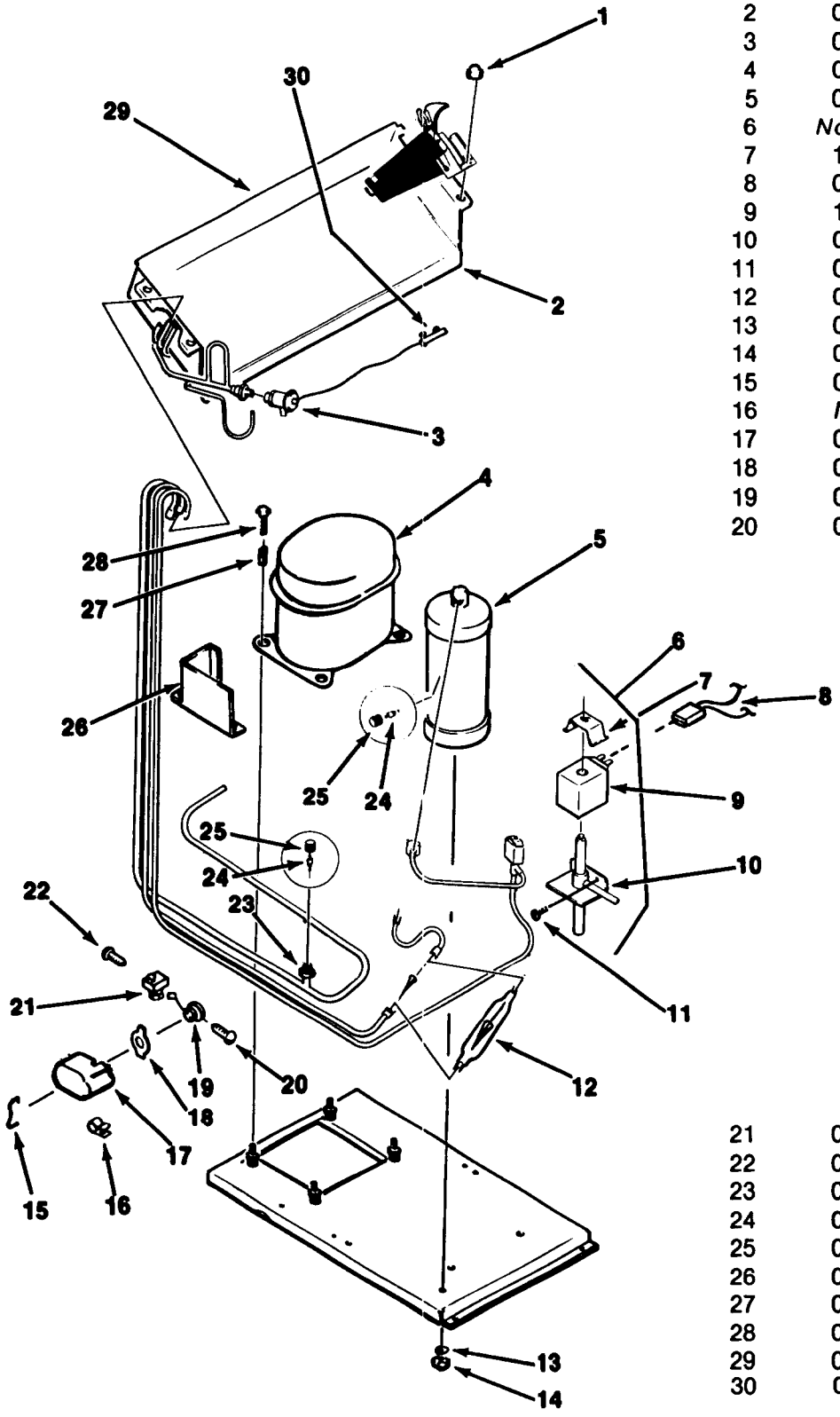
CSW2
THE PARTS ILLUSTRATIONS AND PARTS LISTS





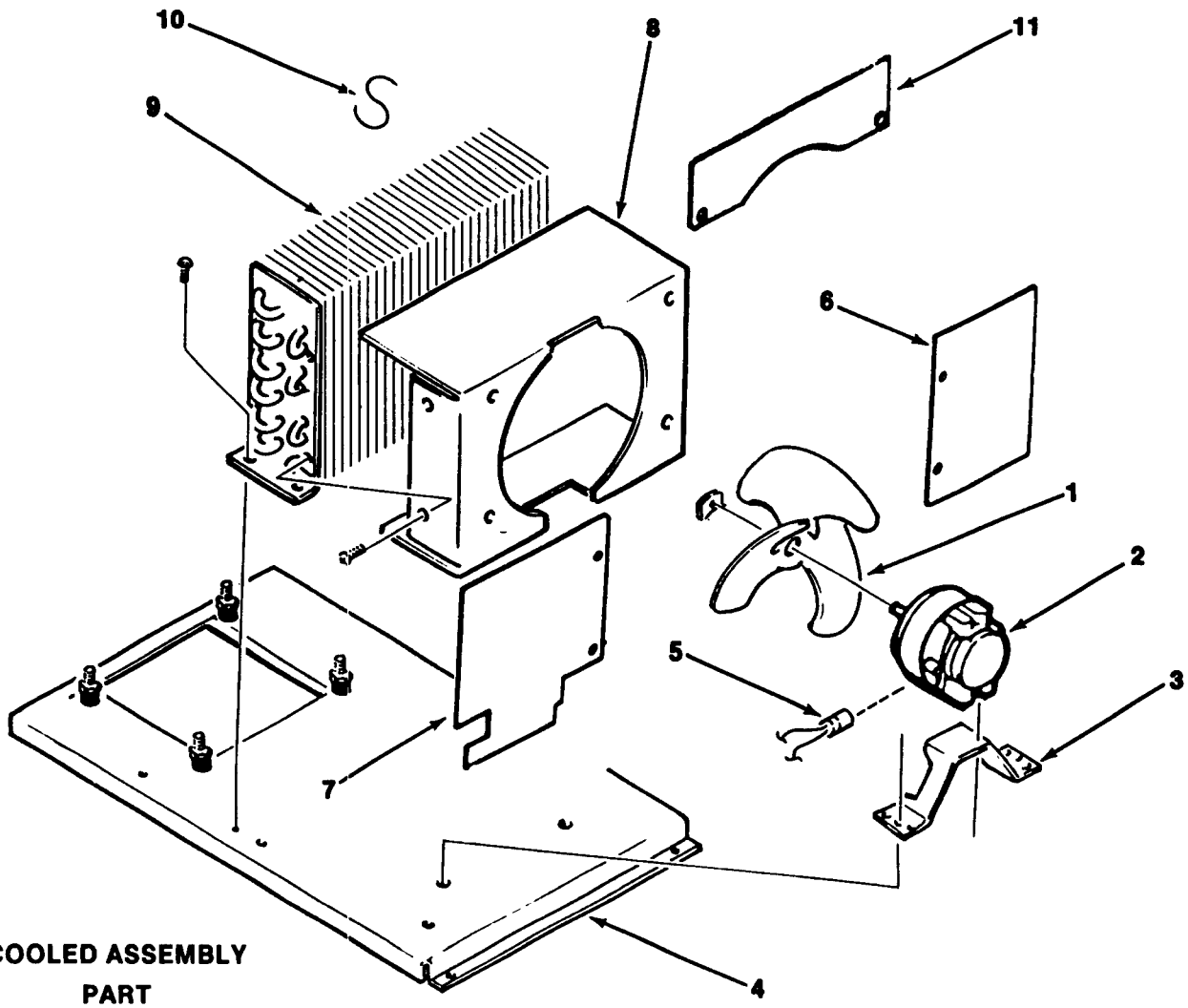
TERMINAL BOX ASSEMBLY

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	*No Number*	Shell, Terminal Box
2	0598276	Transformer
3	0595176	Nut, #8-32
4	0564724	Bracket, Terminal
5	0572027	Protector, Transformer
6	0598409	Board, Terminal
7	0598412	Resistor
8	0680968	Screw
9	12-2275-02	Receptacle
10	0680604	Screw
11	12-2276-04	Fusestat (3.2 Amp)
12	12-2276-02	Fusestat (1.0 Amp)
13	0596021	Nut
14	0596022	Lockwasher
15	0596021	Nut
16	0560940	Switch, Service
17	0595354	Screw
18	0598411	Relay, Defrost Control
19	0595354	Screw
20	0560767	Clamp, Capacitor
21	0598216	Capacitor
22	0595354	Screw
23	0572847	Switch, High Pressure (Water-Cooled Only)
24	0596216	Clip (Water-Cooled Only)
25	0598467	Plate
26	0562262	Gasket
27	0585270	Cover, Control Box
28	0680968	Screw



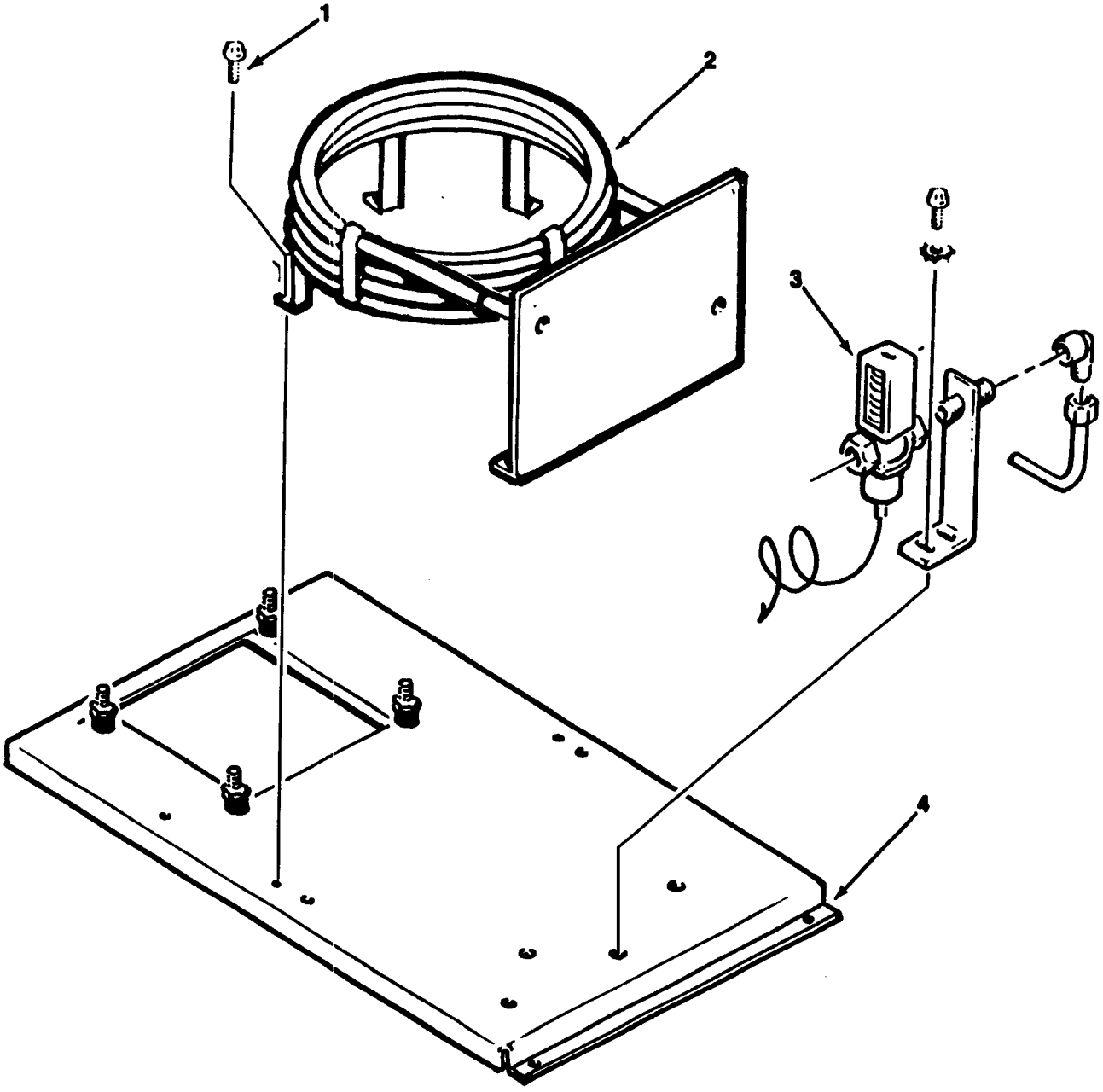
REFRIGERATION SYSTEM

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	0595181	Nut, Cap (2)
2	0681584	Nut, Wing (2)
3	0757353	Valve, Expansion
4	0780038	Compressor
5	0572803	Tank Receiver
6	*No Number*	Hot Gas Defrost Valve
7	12-2009-01	Clamp
8	0598509	Harness, Solenoid Valve
9	12-2008-01	Coil, Solenoid Valve
10	0598502	Body Solenoid Valve
11	0681058	Screw
12	0572801	Drier
13	0681467	Washer
14	0595172	Nut, 3/8-16
15	0560850	Strap, Bale
16	*No Number*	Clamp, Wire
17	0589230	Cover, Terminal
18	0560851	Pring, Overload
19	0598210	Overload
20	0595036	Screw, 6-32 x 1/4
21	0598215	Relay, Starting
22	0595036	Screw, 6-32 x 1/4
23	0561955	Valve, Body
24	0561958	Core, Valve
25	0561957	Cap, Valve
26	0598218	Protector, Wire
27	0583536	Sleeve
28	0681342	Screw
29	0780099	Evaporator Ass'y.
30	0593496	Clip-Capillary Bulb



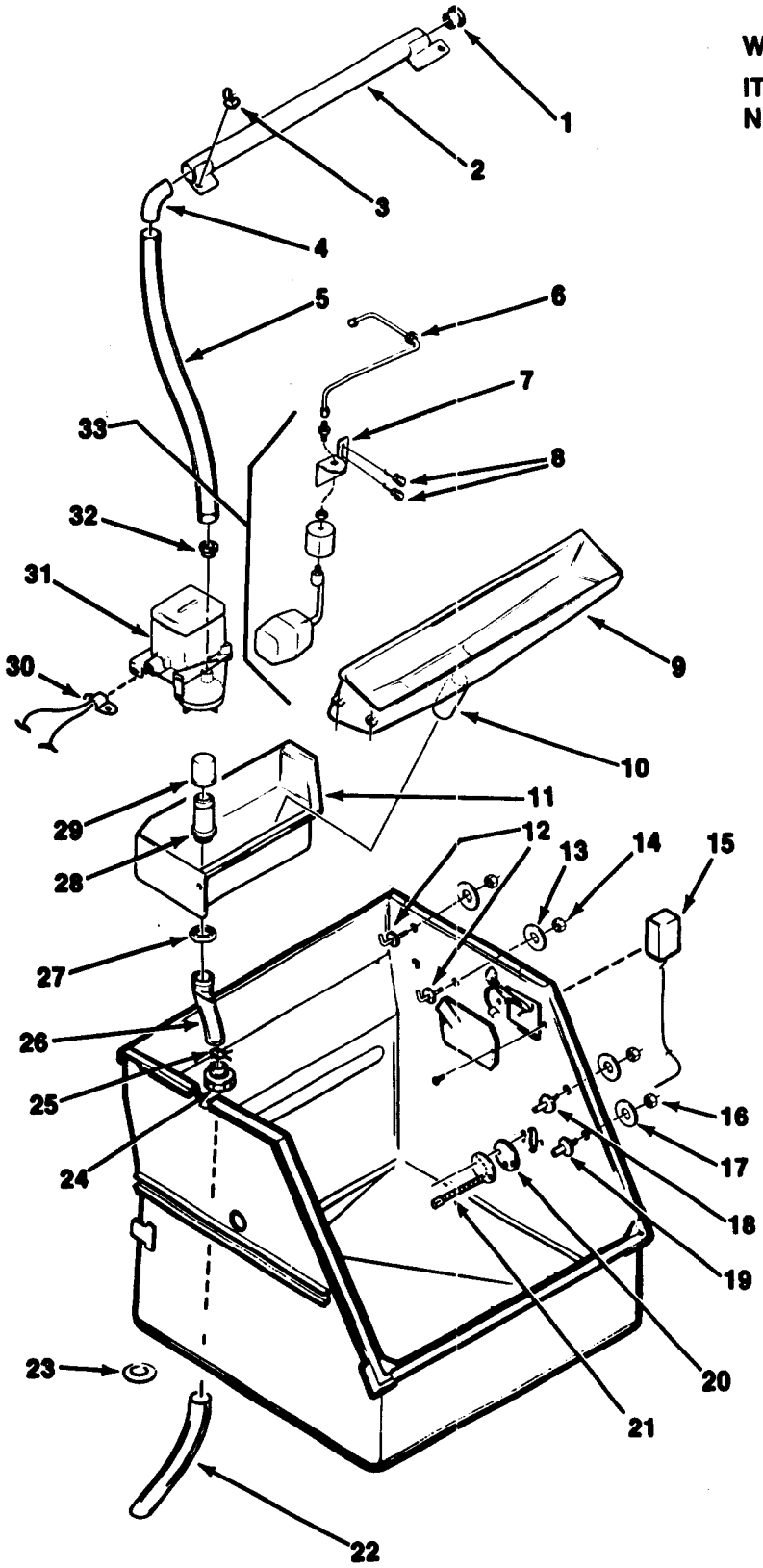
AIR-COOLED ASSEMBLY

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	0560842	Blade, Fan
		Attaching Parts, Index 1 and 2
	059380	Nut, Speed
2	12-1575-01	Motor, Fan
		Attaching Parts, Index 2 and 3
	0680811	Screw
3	0560839	Bracket, Fan Motor
		Attaching Parts, Index 3 and 4
	0680439	Screw
4	*No Number*	Plate, Base
5	0598570	Harness, Fan Motor
6	0560844	Baffle (Right)
7	0577025	Baffle (Left)
8	0560837	Shroud
		Attaching Parts, Index 8 and 9
	0681233	Screw, #10-12 x 1/2
9	0560834	Condenser
		Attaching Parts, Index 9 and 4
	0681305	Screw, 1/4-20 x 1/2
	0595380	Nut, Speed
10	0564433	Clip
11	0560846	Baffle (Top)



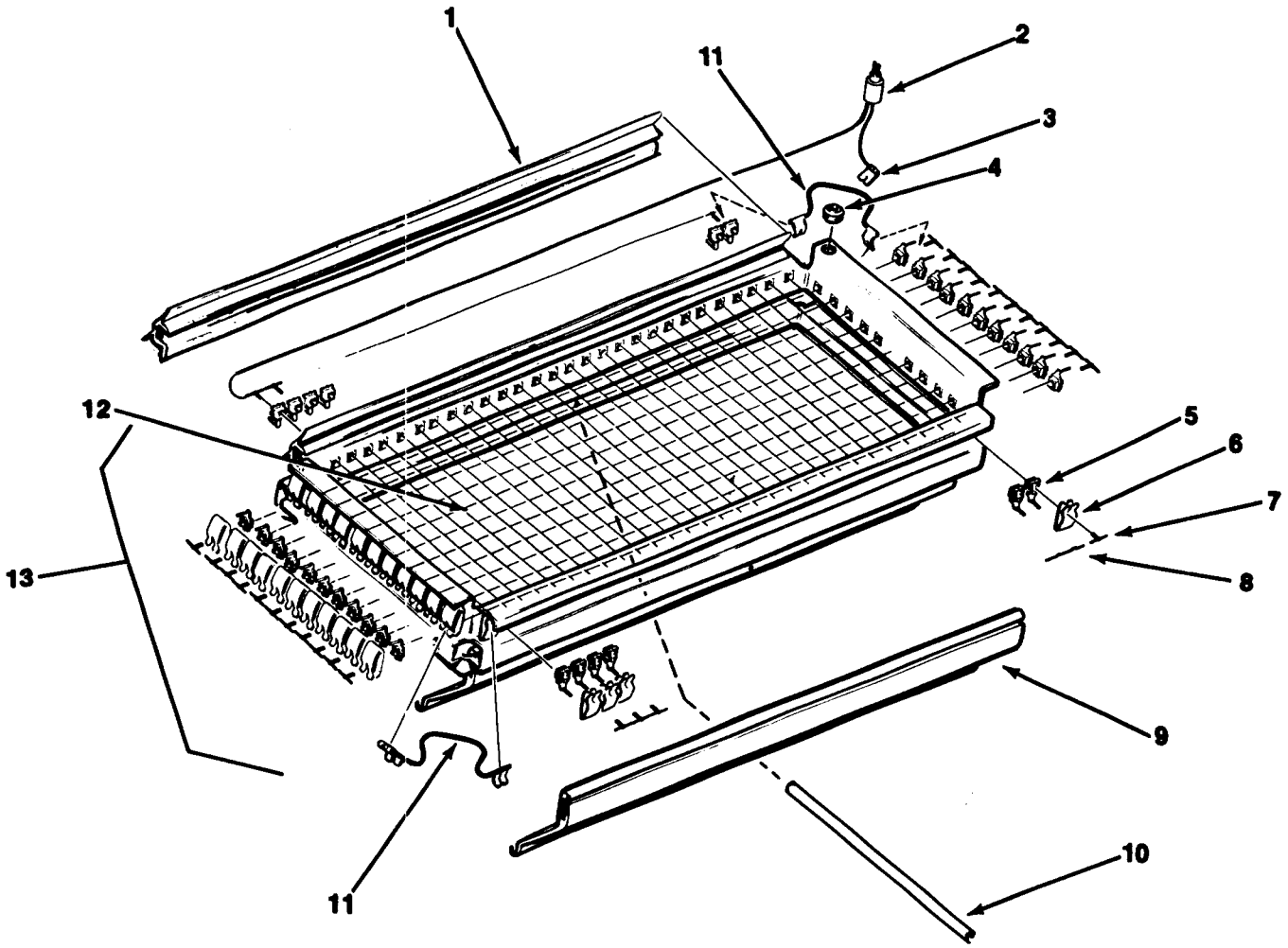
WATER-COOLED ASSEMBLY

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	0681305	Screw, 1/4-20 x 1/2
2	0598050	Condenser
3	0585386	Water Valve
4	*No Number*	Base Plate



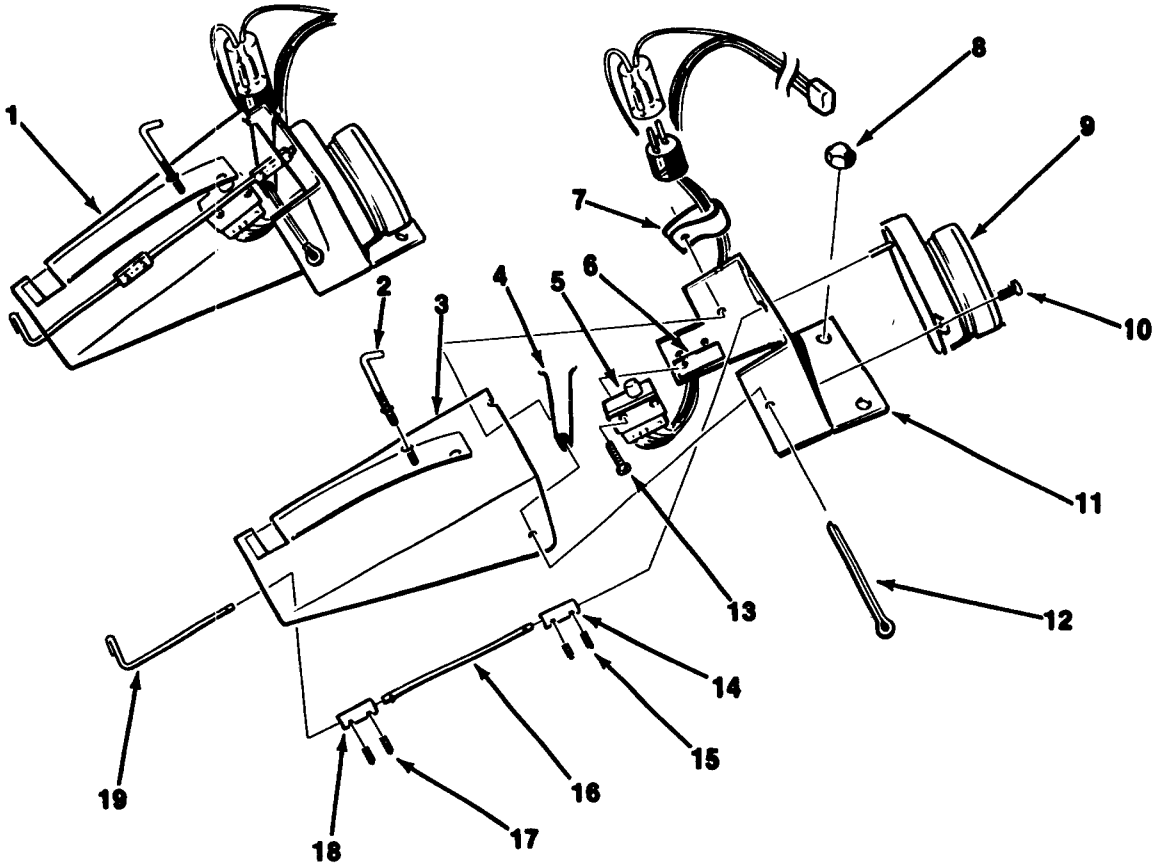
WATER SYSTEM — STORAGE BIN

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	0583481	Seal, Dispenser
2	0562280	Dispenser, Water
3	0681584	Nut, Wing (2)
4		Elbow
5	0756276	Hose, Dispenser
6	*No Number*	Grommet
7	0587675	Bracket, Float Valve
8	*No Number*	Thumbscrews
9	0593069	Trough, Water
10	0568379	Tubing, Plastic
11	0585148	Pan, Water
12	0598478	Stud (2)
13	0585231	Washer, Stud
14	03-1406-08	Nut, 1/4-20
15	0593201	Thermostat, Bin Control
16	03-1406-08	Nut, 1/4-20
17	0585231	Washer, Stud
18	0598397	Stud (2)
19	0598476	Stud (2)
20	0562262	Gasket, Thermostat Well
21	0562251	Well, Thermostat
22	0598402	Hose Drain
23	0598401	Gasket Drain
24	0598371	Cover Drain
25	0596727	Clamp
26	0598399	Hose, Drain
27	0583266	Nut
28	0577430	Tube, Siphon
29	0562296	Cap, Siphon
30	0569434	Plub, Pump
31	0756782-20	Pump, Water
32	0587556	Flow Washer Pump Inlet
33	0593654	Float Valve Assembly



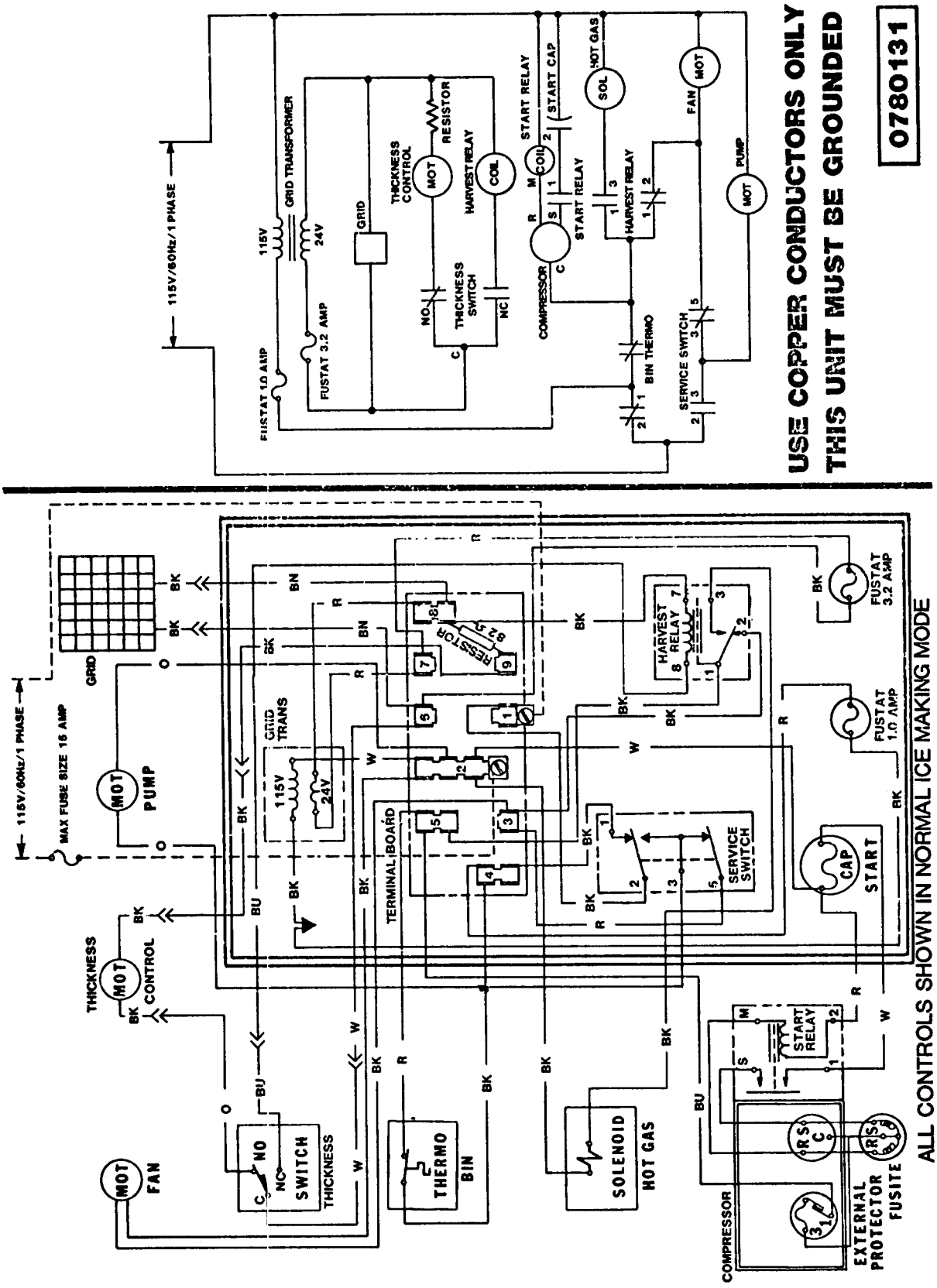
ICE CUTTER GRID ASSEMBLY

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	0563425	Baffle, Splash
2	0585536	Plug Assembly (3/4"Cube)
3	*No Number*	Clip, Terminal
4	0680634	Bushing, Strain Relief
5	0598277	Insulator, Grid (1-1/4" Cube) (40) ea. (3/4" Cube) (80) ea.
6	0564072	Clip, Grid Wire (1-1/4" Cube) (40) ea. (3/4" Cube) (80) ea.
7	0587112	Pin, Cutter Wire
8	0587111	Pin, Cutter Wire (3/4" Cube) (38) ea.
9	0577026	Deflector, Cube
10	0562575	Brace, Grid Frame (3/4" Cube Only)
11	0587102	Wire, Connector Grid (3/4" Cube)
12	0588114	Kit, Cutter Wire (1-1/4" Cube)
	0588115	Kit, Cutter Wire (3/4" Cube)
13	CCK154CG	Complete Grid Ass'y. (3/4" x 3/4")
	CCK153SG	Complete Grid Ass'y. (1-1/4" x 1-1/2")

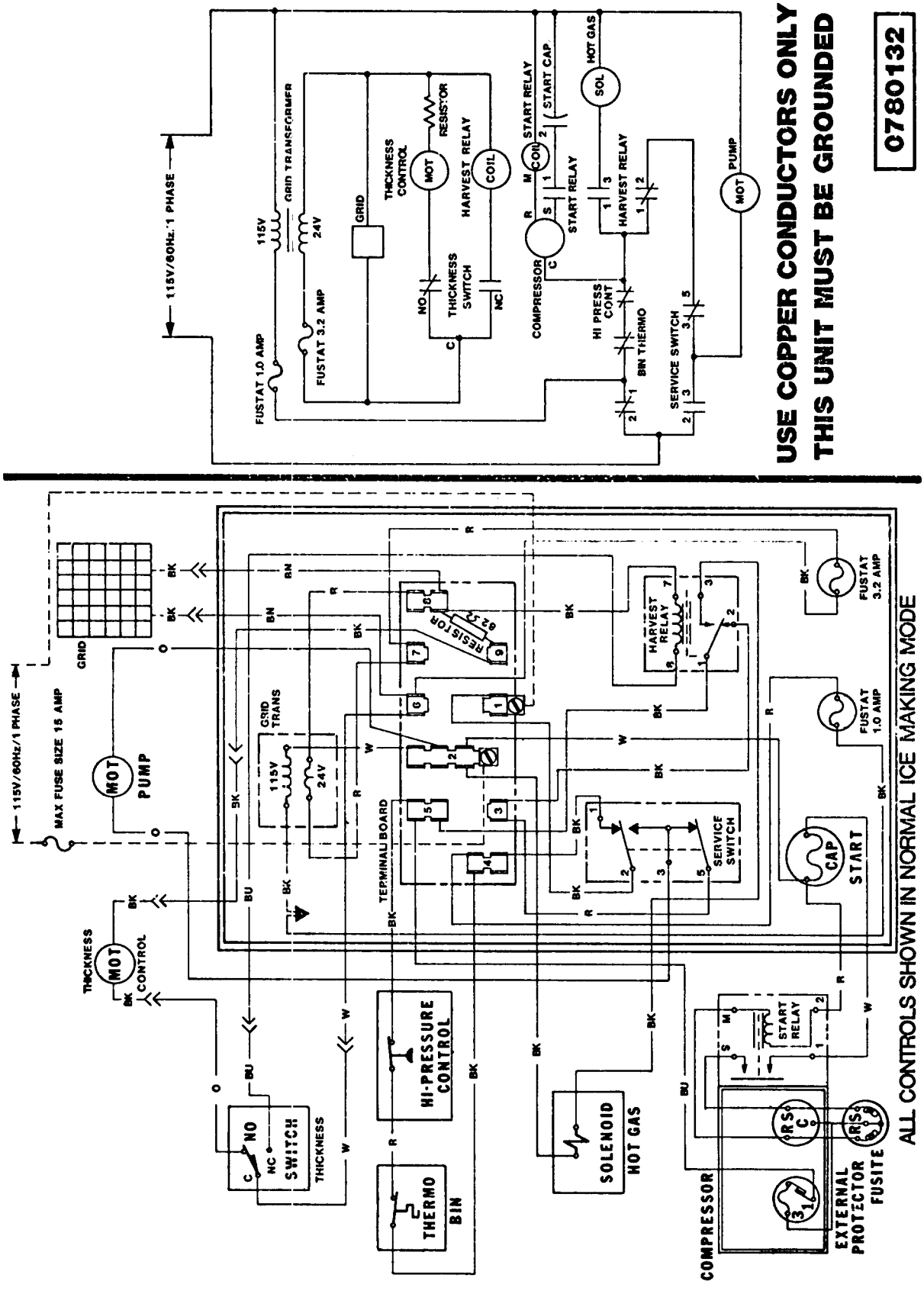


ICE THICKNESS CONTROL ASSEMBLY

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	0598369	Control, Ice Thickness
2	0751991	Screw, Adjusting
3	0587293	Bracket, Shaft
4	0560861	Spring, Hold Down
5	0587889	Harness, Switch
6	0587996	Spacer
7	0596338	Clamp, Wire
8	0595181	Nut, Cap (2)
9	0577540	Motor, Control
10	0680854	Screw, 4-40 x 3/8
11	0607811	Bracket, Motor
12	0680668	Cotter, Pin
13	0681433	Screw, 4-40 x 3/4
14	0572489	Coupling, (2)
15	0595330	Setscrew, 6-32 x 3/16
16	0607816	Shaft, Flexible
17	0595330	Setscrew
18	0585508	Coupling
19	0585507	Shaft, Formed End



Wiring Diagram, CSW2 AE-1A (115/60/1) Air-Cooled



Wiring Diagram, CSW2 WE-1A (115/60/1) Water-Cooled