



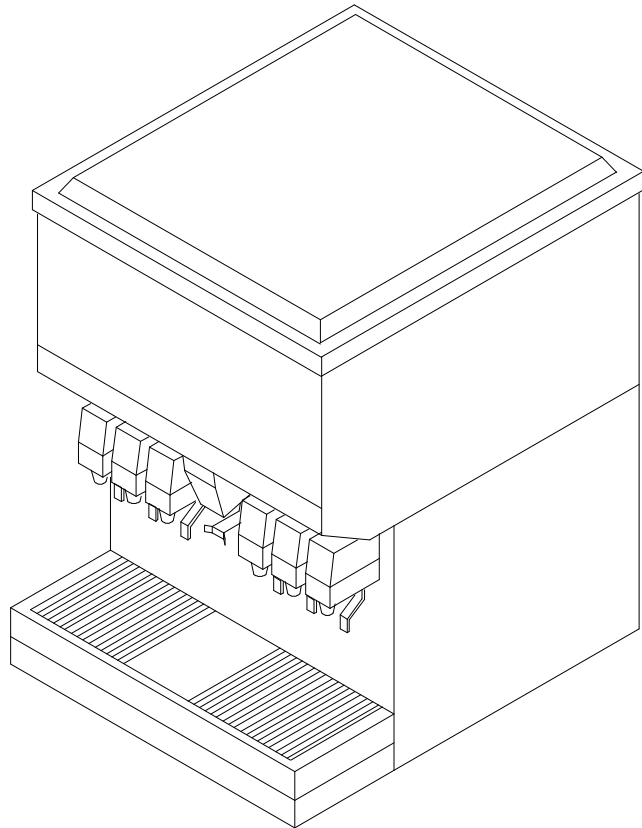
**REMCOR®**

## ICE/BEVERAGE DISPENSERS

MODELS: TJ45-A, TJ45-AB  
TJ90-A, TJ90-AB,  
TJ90-ABC

WITH AUTOMATIC ICE FILLING FROM A REMOTE ICEMAKER SOURCE

### Operator's Manual



Part No. 90632  
Revision H  
Revised March 21, 1996

THIS DOCUMENT CONTAINS IMPORTANT INFORMATION

This Manual must be read and understood before installing or operating this equipment

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# SAFETY PRECAUTIONS

**Always** disconnect power to the dispenser before servicing or cleaning.

**Never** place hands inside of hopper or gate area without disconnecting power to the dispenser. Agitator rotation occurs automatically when dispenser is energized.

This ice dispenser has been specifically designed to provide protection against personal injury and eliminates contamination of ice. To insure continued protection and sanitation, observe the following:

1. **ALWAYS** be sure the removable lid is properly installed to prevent unauthorized access to the hopper interior and possible contamination of the ice.
2. **ALWAYS** be sure the upper and lower front panels are securely fastened.
3. **ALWAYS** keep area around the dispenser clean of ice cubes.



**CAUTION: Dispenser cannot be used with crushed or flaked ice.**

**Use of bagged ice which has frozen into large chunks can void warranty. The dispenser agitator is not designed to be an ice crusher. Use of large chunks of ice which "jam up" inside the hopper will cause failure of the agitator motor and damage to the hopper. If bagged ice is used, it must be carefully and completely broken into small, cub-sized pieces before filling into the dispenser hopper**

# DESCRIPTION

The REMCORâ Ice and Ice/Beverage dispensers with model numbers suffixed with -A, -AB, and -ABC (e.g. model TJ90E-ABC) are designed to be used with one of several remote "piped ice" type machine. This combination automatically provides a continuous supply of sanitary ice at the touch of a lever. In order to complete an automatic filling installation, the following items must be obtained.

1. Icemaker. This must be obtained from the appropriate manufacturer.
2. Feed Tube Kit This kit contains parts and instructions necessary to connect the ice machine to the ice dispenser. Be sure the feed tube kit is proper for your icemaker. The following tube kits are approved for use on the TJ45/90-A dispensers:

<u>Kit No.</u>	<u>Icemaker</u>	<u>Model</u>
1913	Reynolds	CF-3-TT
1922	Reynolds	CF-6-TT
1923	Jeito	MD700
1924	Scotsman	EC900

# INSTALLATION INSTRUCTIONS

1. The ice dispenser must be fastened and sealed to the counter, using the hardware supplied with the unit. The template drawings (Figure NO TAG) indicate openings which must be cut in the counter for the ice feed tube and utilities. Check that the counter mounting surface for the dispenser is level.

Apply a continuous bead of NSF approved silastic sealant (Dow 732 or equal) approximately 1/4" inside of the unit outline dimensions, and around all openings. Then position the unit on the counter within the outline dimensions. Fasten the ice dispenser in place with mounting hardware provided. All excess sealant must be wiped away immediately.

2. Position the icemaker and install the feed tube and other components according to the instruction supplied with the feed tube kit.
3. Route the icemaker control bulb along the outside of the dispenser cabinet, and into the hopper as shown in Figure 2. Install insulating tubing and mount the bulb to the deflector assembly as shown in Figure 5. Use care when handling the bulb to avoid damaging or kinking it. Do not allow the bulb to contact any cold surfaces, or false sensing will occur. Route the bulb away from electrical terminals, moving parts, or sharp metal edges.
4. Permanently wire the dispenser to a source of 120V, 60Hz. power as shown in Figure 3. Wiring must conform to N.E.C. and local codes
5. On beverage units –AB, and – ABC connect the beverage system product lines as indicated in Figures 4, 5, and 9. This work should be done by a qualified service person.
6. Connect the drain tube to an open drain. If additional piping is required, it must be 3/4" IPS (or equal) and must continuously pitch downward away from the unit for proper drainage.
7. Complete the installation of the icemaker according to the instructions supplied with the unit and the markings on the icemaker itself.

## SINK DRAIN ASSEMBLY

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1. Use tube, clamp and insulation provided to assemble drain.
2. To assure proper drainage, do not allow "trap" to form in drain line. Be sure drain line runs flat with bottom of dispenser (see Figure 1)

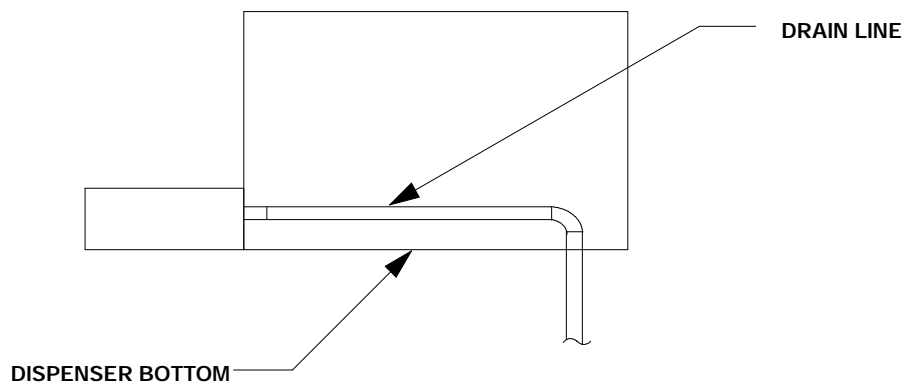


FIGURE 1. SINK DRAIN ASSEMBLY

# CLEANING INSTRUCTIONS



**WARNING: Disconnect power before cleaning. Do not use metal scrapers, sharp objects or abrasives on the surface of the liner, as damage may result. Do not use solvents or other cleaning agents, as they may attack the plastic liner.**

## DISPENSER

---

1. Clean the ice dispenser interior at least once a month.
2. Lift off agitator assembly and wash and rinse it thoroughly.
3. Carefully remove and disassemble the deflector assembly and wash and rinse all parts.
4. Wash down the inside of hopper and top cover with mild detergent solution and rinse thoroughly to remove all traces of detergent.
5. Replace agitator and deflector assembly, using care to reinstall the bulbs properly.
6. Sanitize the inside of hopper and agitator with a solution of 1 ounce of household bleach in 1 gallon of water.
7. With the brush provided, clean the inside of the ice chute with a mild detergent solution and rinse thoroughly to remove all traces of detergent. Sanitize as described in step 6.

## COLD PLATE when required

---

1. Carefully remove the lower front panel of the ice dispenser.
2. Remove cold plate cover by lifting slightly in front and slide forward.
3. Wash down the inside of the cold plate cabinet and cover with mild detergent solution and rinse. A small, long-handled brush will be found helpful in reaching the corners.
4. Replace the cover, taking care that it is securely positioned in cold plate tray.
5. Replace and lower front panel, carefully feeding the tubes and wires into the cabinet. Be sure not to pinch any tubing or wires between the panel and cabinet.

## BEVERAGE SYSTEM (when required)

---

1. Remove faucet spouts, wash in mild detergent, rinse and replace.
2. Disconnect electrical power to the carbonator. Shut off the water supply and close the CO<sub>2</sub> regulator to the carbonator.
3. Disconnect the syrup tanks from the system.
4. Energize the beverage faucets to purge the remaining soda water in the system.
5. Use a clean 5 gallon tank for each of the following:
  - A. Cleaning Tank – Fill with hot (120° – 140°) potable water.

- B. Sanitation Tank – Fill with a chlorine sanitizing solution in the strength of 1 ounce of household bleach (sodium hypochlorite) to 1 gallon of cold (ambient) potable water (410PPM).
6. Repeat the following procedure on each of the unit's syrup product lines.
    - A. Connect the cleaning tank to the syrup line to be sanitized and to the CO<sub>2</sub> system.
    - B. Energize the beverage faucet until the liquid dispensed is free of any syrup.
    - C. Disconnect the cleaning tank and hook-up the sanitizing tank to the syrup line and CO<sub>2</sub> system.
    - D. Energize the beverage faucet until the chlorine sanitizing solution is dispensed through the faucet. Flush at least 2 cups of liquid to insure that the sanitizing solution has filled the entire length of the syrup line.
    - E. Disconnect the sanitizing tank. Hook up the product tank to the syrup line and to the CO<sub>2</sub> system.
    - F. Energize the faucet to flush the sanitizing solution from the syrup line and faucet. Continue draw on faucet until only syrup is dispensed.
  7. Repeat Step 2 in reverse order to turn on the carbonator. Dispense at least 1 cup of beverage from each faucet. Check taste, continue to flush, if needed, to obtain satisfactory tasting drink.

## OPERATING INSTRUCTIONS

---

1. Ice Dispensing. Depressing the operating level activates a micro switch behind the front panel, which energizes the agitator motor and gate solenoid. This causes the agitator to rotate and the gate slide to left, allowing ice to push out the gate opening.
2. Automatic Ice Filling. Two thermostatic capillary controls are utilized. The control capillary of the ice dispenser (agitation bulb) will activate the agitation timer as it senses ice. The agitation timer causes the ice to level which allows the entire ice storage bin to fill before the ice machine shuts off. When the ice level remains at the deflector after agitation, the icemaker control capillary (icemaker bulb) stops icemaker operation until the level drops, and the bulbs warm up.

While the icemaker is running, the ice entering the hopper from the feed tube should be loose and in small pieces. Ice entering in the form of hard packed cylinders indicates a restriction or distortion of the feed tube, and could result in icemaker malfunction if not corrected.

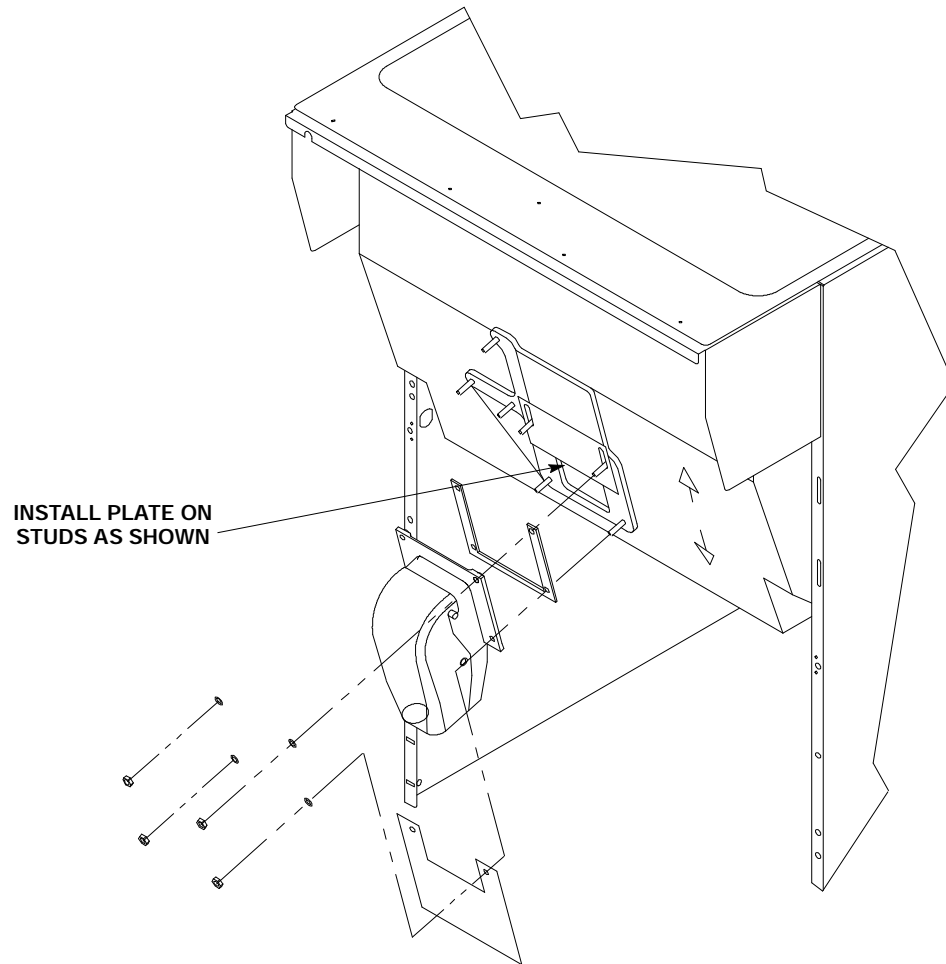
Immediately after icemaker shutoff, observe the ice in the hopper between the feed tube entrance and the deflector. It should be loosely pressed against the top of the deflector, indicating correct thermostat operation. If the ice level is low, or if ice is packed hard against the deflector it will be necessary to readjust the icemaker bin control, according to the icemaker instructions. (Adjust the control warmer to lower the ice level, and colder to raise the ice level)

3. Beverage System. (–AB and –ABC models only) Beverages may be dispensed by operating the lever on the appropriate faucets. On units with cold plates (–ABC), periodic movement of the ice in the hopper is necessary to maintain the level of ice on the cold plate. On initial startup, or after long idle period with no use, dispensing ice for 20–30 seconds is necessary to fill the cold plate, or warm beverages may be experienced.

# SERVICE AND MAINTENANCE



**CAUTION:** Disconnect power to dispenser before installing, removing or adjusting this kit.



**FIGURE 2. GATE RESTRICTOR PLATE**

## ADJUSTMENTS

---

This dispenser is provided with a gate restrictor plate, installed in its highest position. This plate adjusts the rate of ice flow from the dispenser. In applications using buckets, carafes or other large containers, the plate may be removed entirely for maximum ice flow. For glasses and cups, the plate may be adjusted downward to reduce the flow of ice. The best position depends on the type of ice being used and the size container and must be found by trial and error. Adjustment is made by loosening the upper two ice chute retaining nuts, sliding the restrictor plate to the desired position and re-tightening the nuts.



# TROUBLESHOOTING GUIDE

Should your unit fail to operate properly, check that there is power to the unit and that the hopper contains ice. If the unit still does not dispense, check the following chart under the appropriate symptoms to aid in locating the defect.

Trouble	Probable Cause
BLOWN FUSE OR CIRCUIT BREAKER.	A. Short circuit in wiring. B. Defective gate solenoid. C. Defective agitator motor.
GATE DOES NOT OPEN. AGITATOR DOES NOT TURN.	A. No power. B. Bent depressor plate (does not actuate switch). C. Defective dispensing switch.
GATE DOES NOT OPEN OR IS SLUGGISH. AGITATOR TURNS.	A. Defective gate solenoid. B. Weak gate spring. C. Excessive pressure against gate slide.
GATE OPENS. AGITATOR DOES NOT TURN.	A. Ice solidified in hopper. B. Defective agitator motor. C. Defective capacitor (TJ90 only).
ICE DISPENSES CONTINUOUSLY.	A. Stuck or bent depressor plate (does not release switch) B. Defective dispensing switch. C. Improper switch installation.
SLUSHY ICE. WATER IN HOPPER.	A. Blocked drain. B. Unit no level.
ICE SOLIDIFIED IN HOPPER, OR ICE AT REAR CORNER ONLY.	A. Defective or improperly adjusted thermostat. B. Defective agitation timer.
NO ICE IN HOPPER	A. Icemaker malfunction.
ICE PACKED IN HOPPER.	A. Defective or improperly adjusted control (not shutting off).
BEVERAGES DO NOT DISPENSE.	A. No 24 volt power to faucets. B. No CO <sub>2</sub> pressure.
BEVERAGES TOO SWEET.	A. Carbonator not working. B. No CO <sub>2</sub> pressure in carbonator. C. Faucet brix requires adjusting.
BEVERAGES NOT SWEET ENOUGH.	A. Empty syrup tank. B. Faucet brix requires adjusting.
BEVERAGES NOT COLD (UNITS WITH BUILT-IN COLD PLATE).	A. Unit standing with no ice use - no ice in cold plate cabinet.

**NOTE: contact your local syrup or beverage equipment distributor for additional information and troubleshooting of beverage system.**

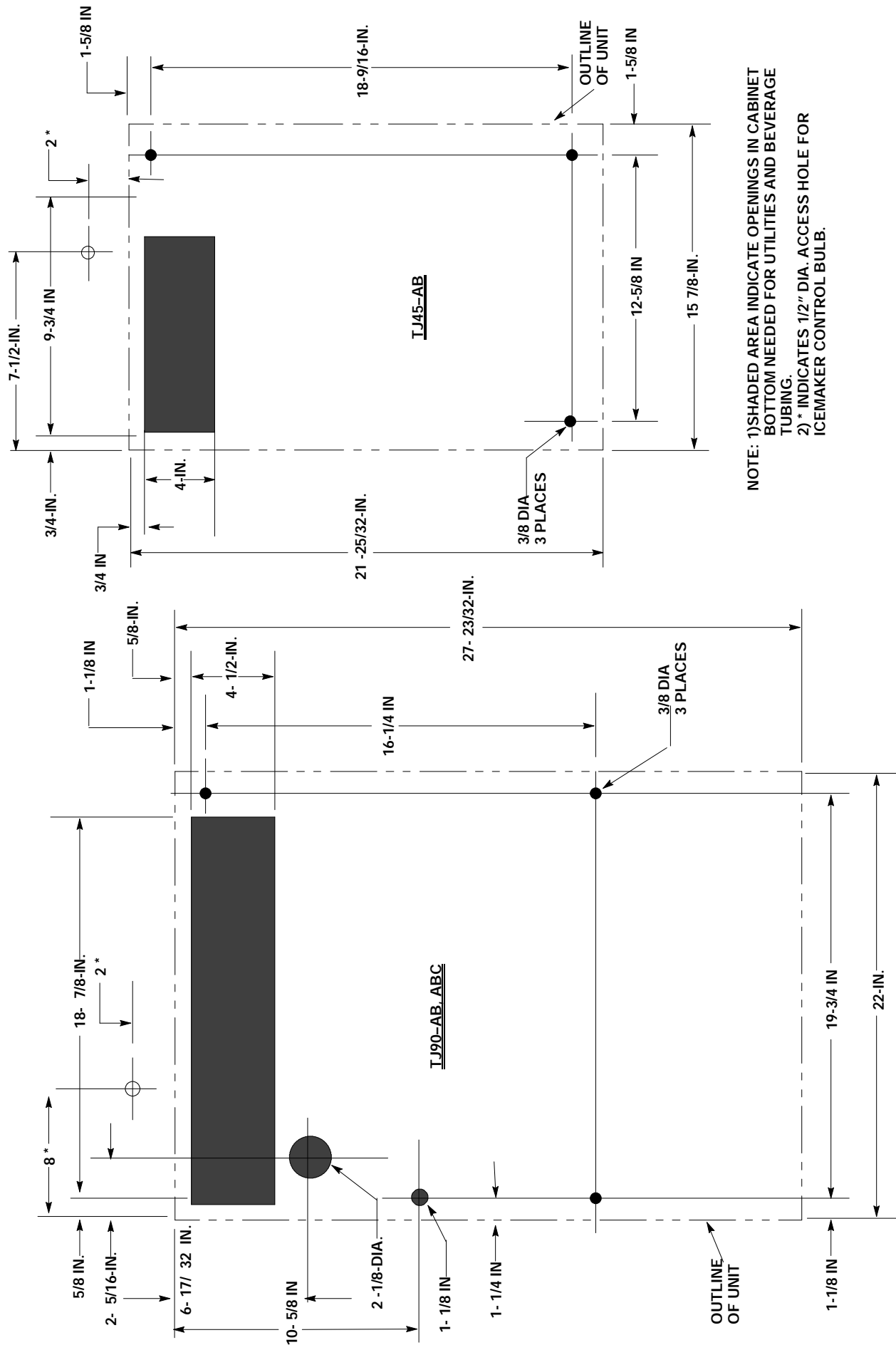


FIGURE 3. MOUNTING TEMPLATE

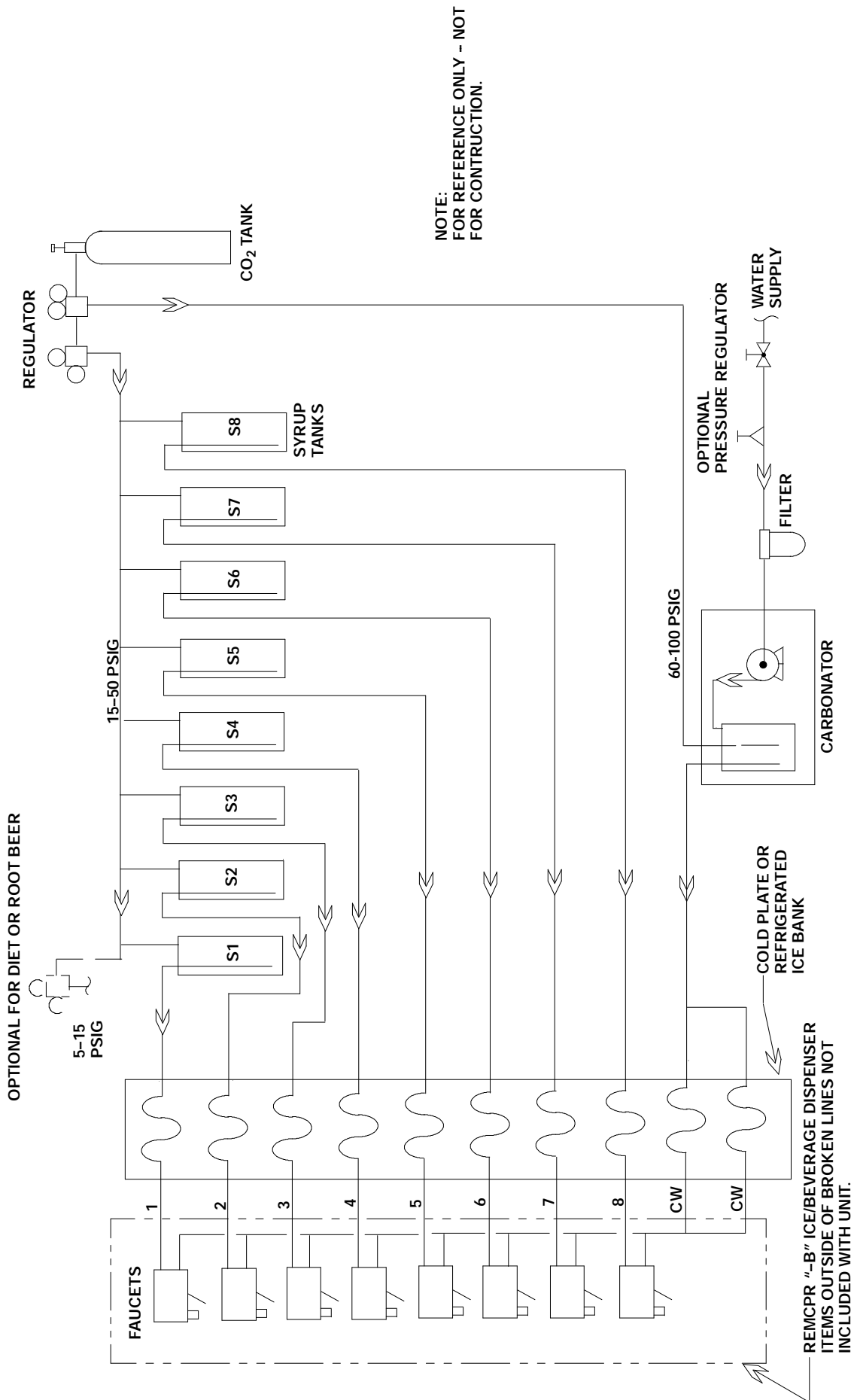
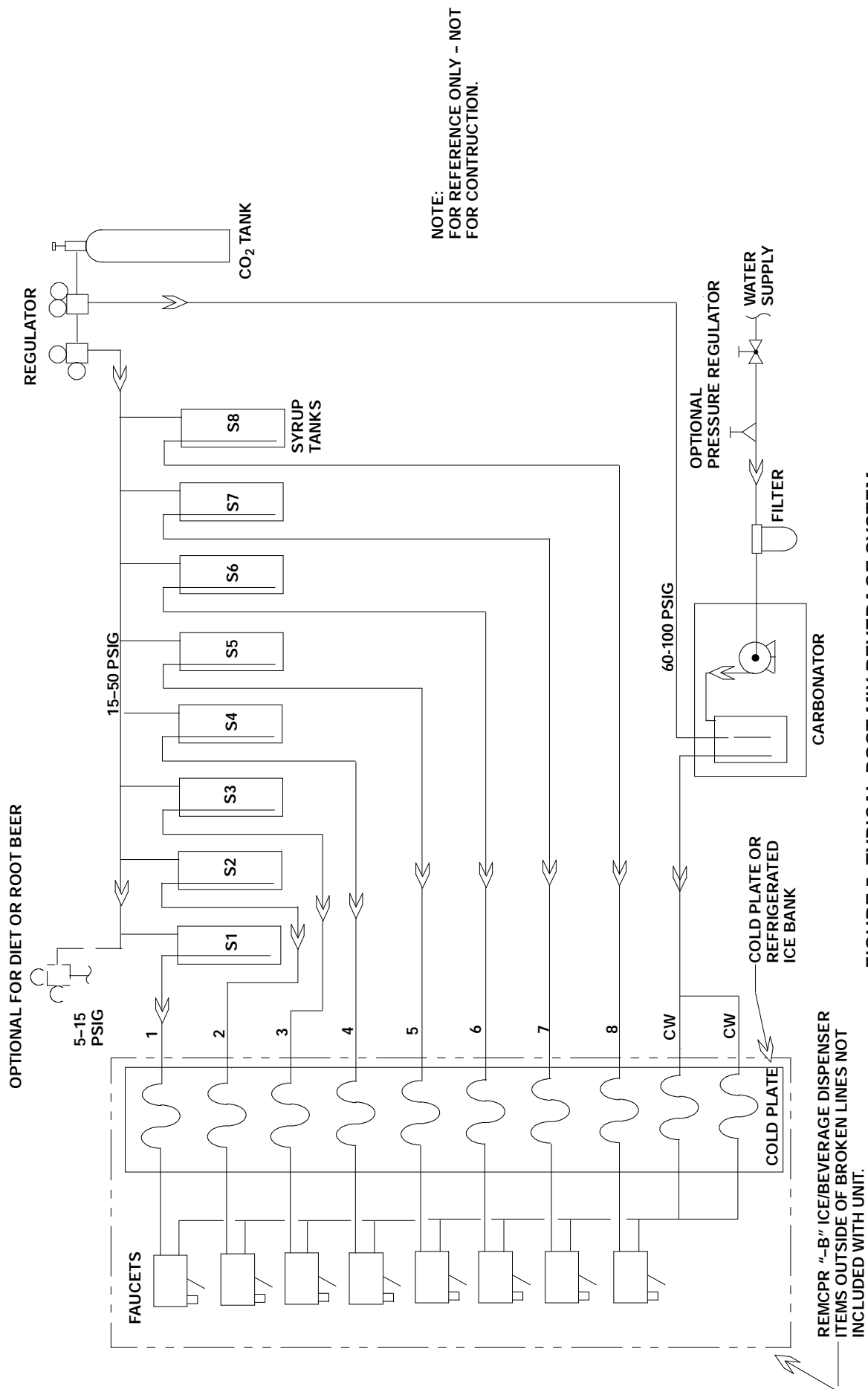


FIGURE 4. TYPICAL POST-MIX BEVERAGE SYSTEM SCHEMATIC "B" DISPENSERS

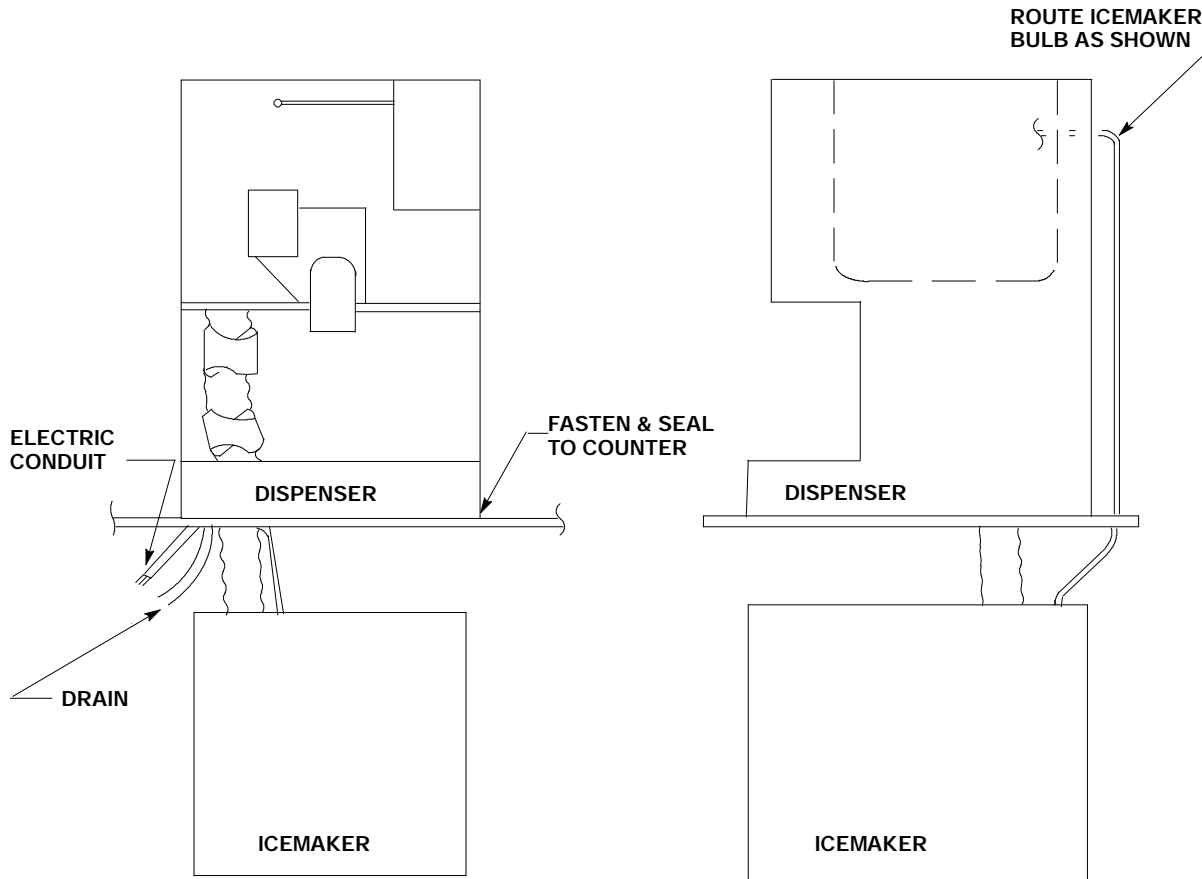


NOTE:  
FOR REFERENCE ONLY - NOT  
FOR CONSTRUCTION.

FIGURE 5. TYPICAL POST-MIX BEVERAGE SYSTEM SCHEMATIC "-BC" DISPENSERS

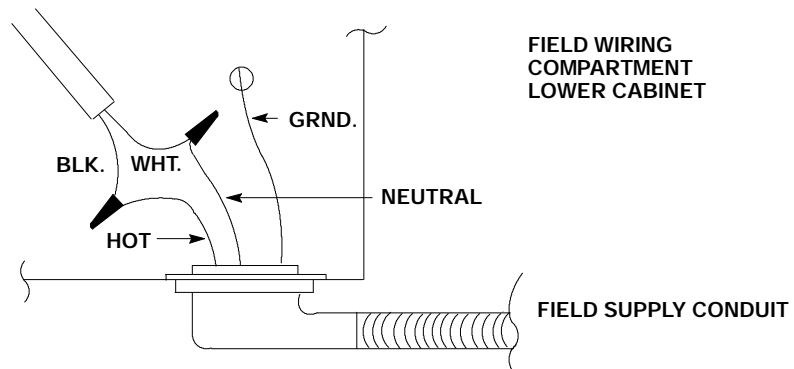
REMCPR "-B" ICE/BEVERAGE DISPENSER ITEMS OUTSIDE OF BROKEN LINES NOT INCLUDED WITH UNIT.

FIGURE 6. INSTALLATION



SEE INSTALLATION KIT INSTRUCTION FOR FEED TUBE DETAILS

FIGURE 7. FIELD WIRING



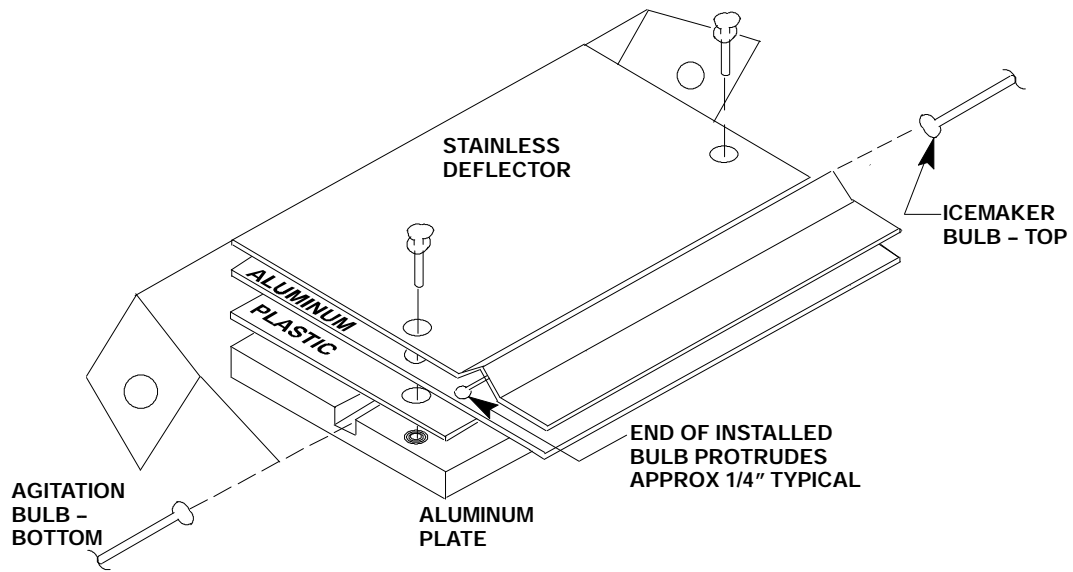


FIGURE 8. DEFLECTOR ASSEMBLY

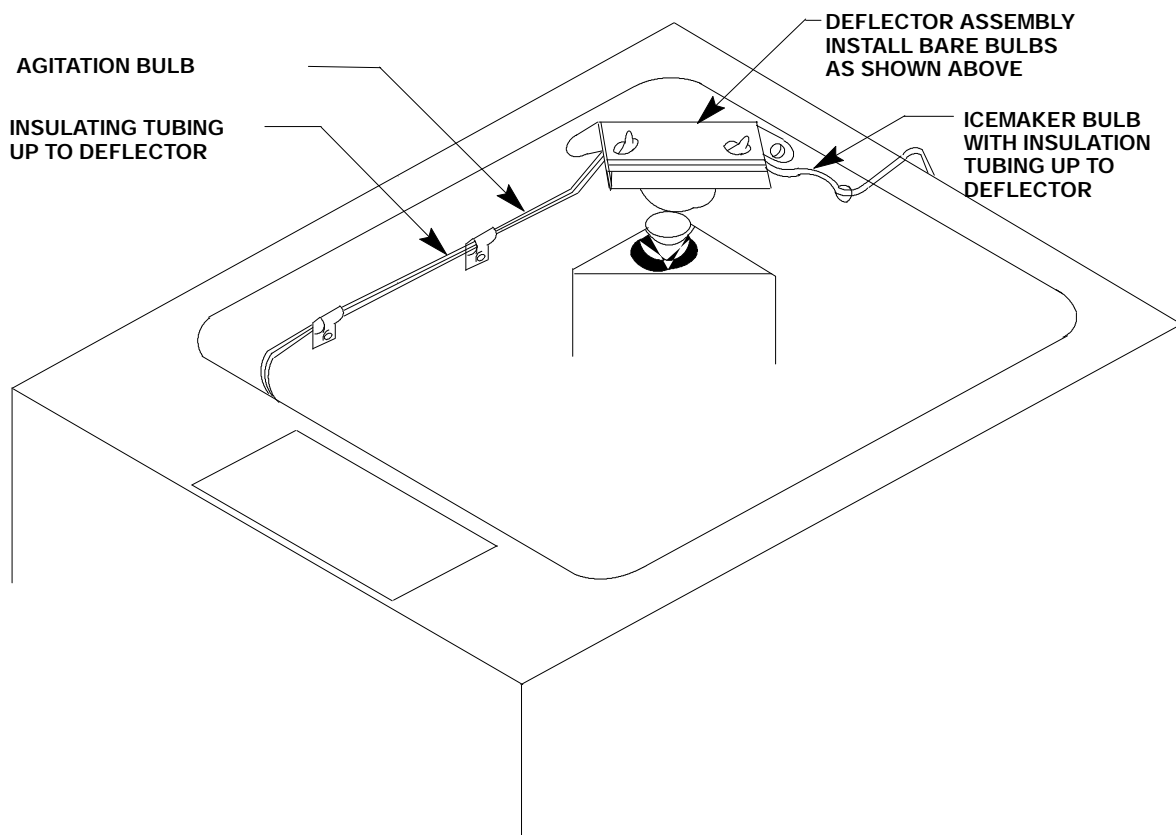
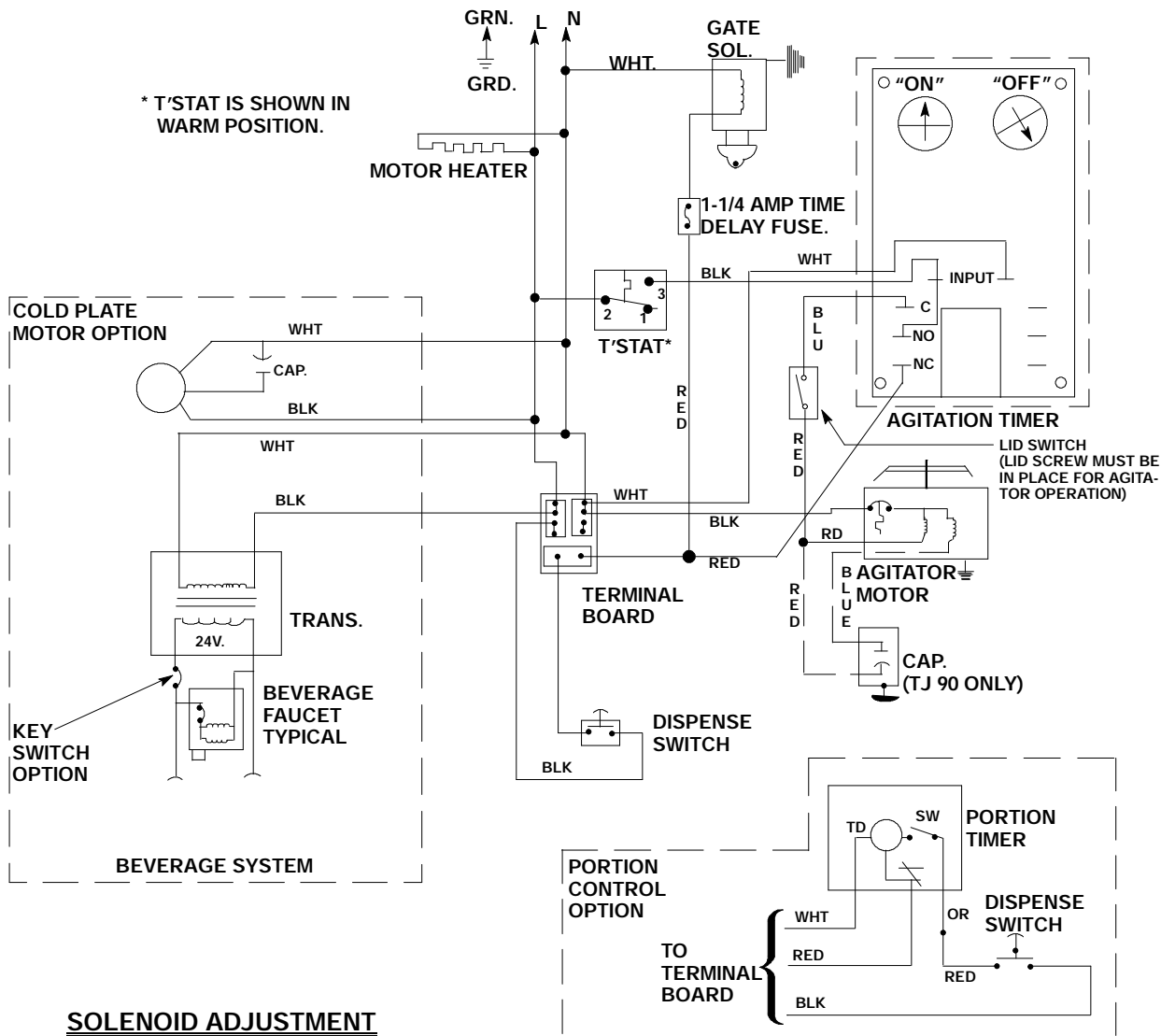
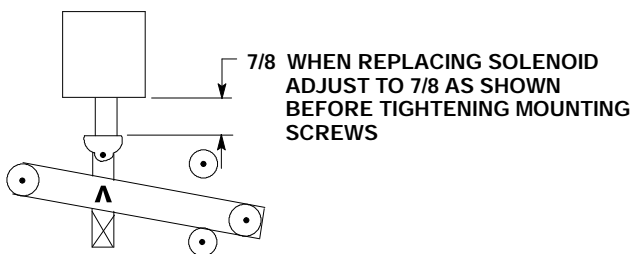


FIGURE 9. HOPPER INTERIOR

**DANGER: ELECTRIC SHOCK HAZARD DISCONNECT  
POWER BEFORE SERVICING UNIT**



**SOLENOID ADJUSTMENT**



**FIGURE 10. WIRING DIAGRAM TJ45, 90-A DISPENSER  
SERVICE INFORMATION**

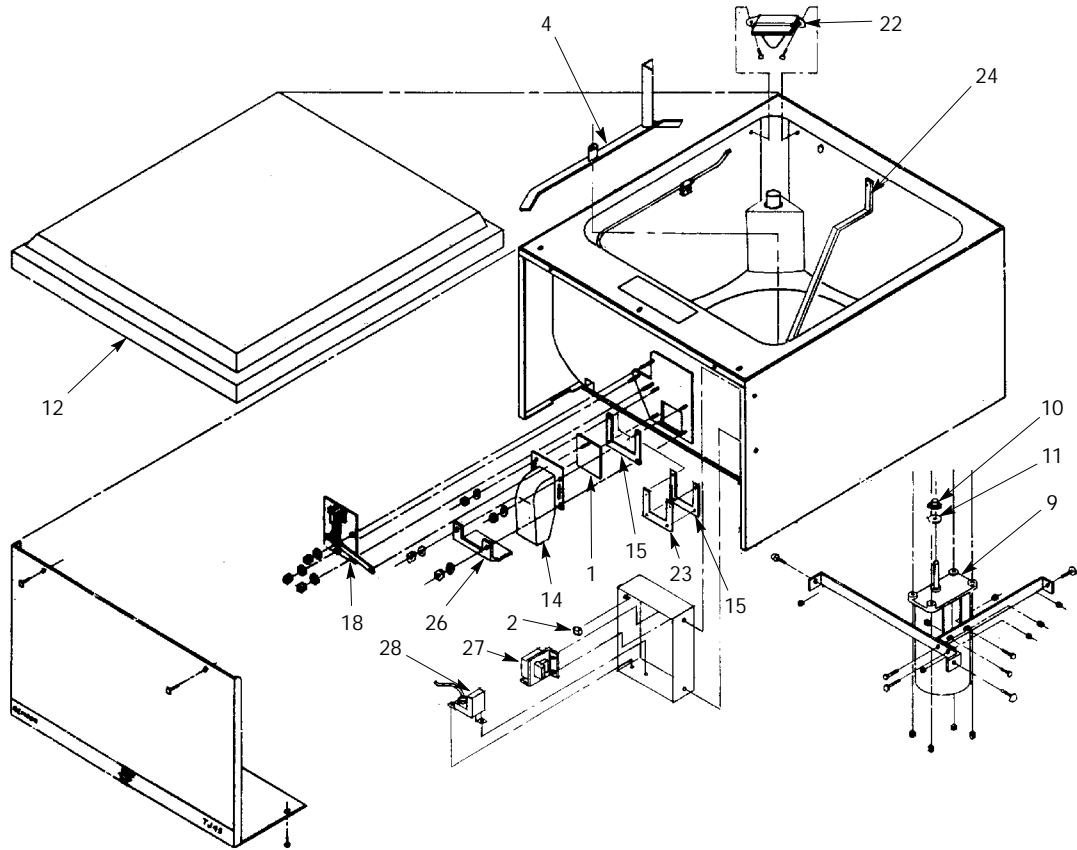


FIGURE 11 UPPER SECTION EXPLODED VIEW TJ45

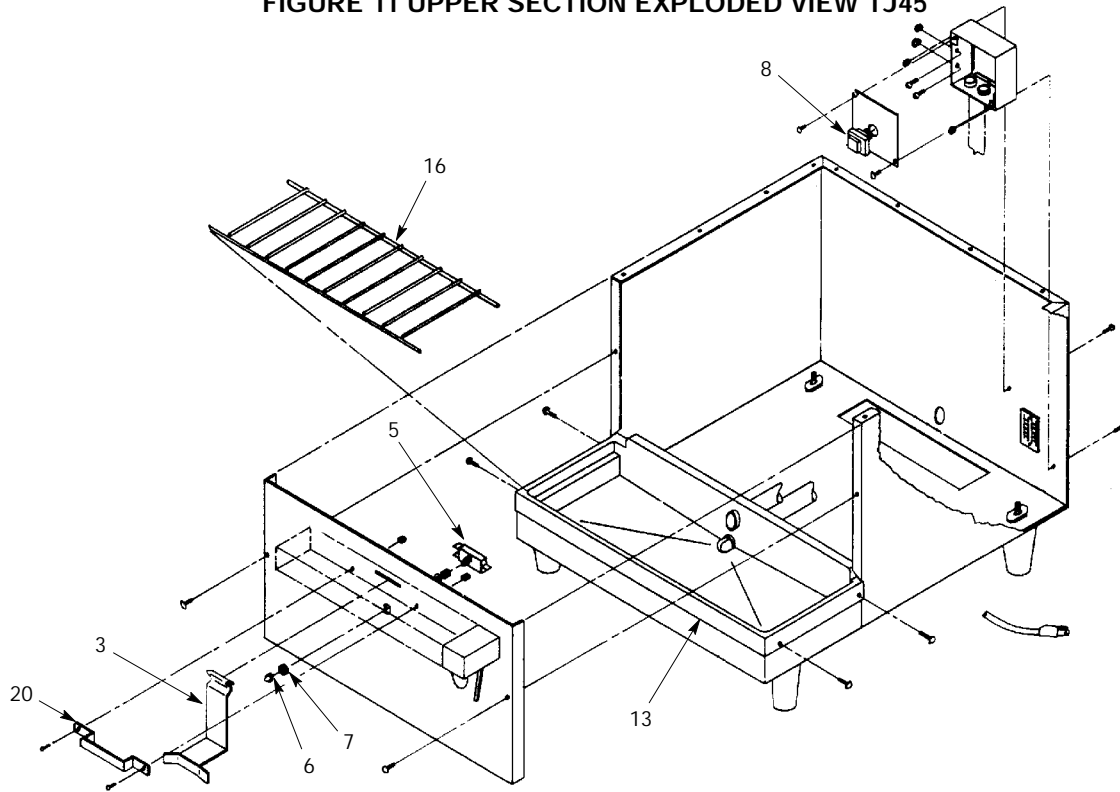
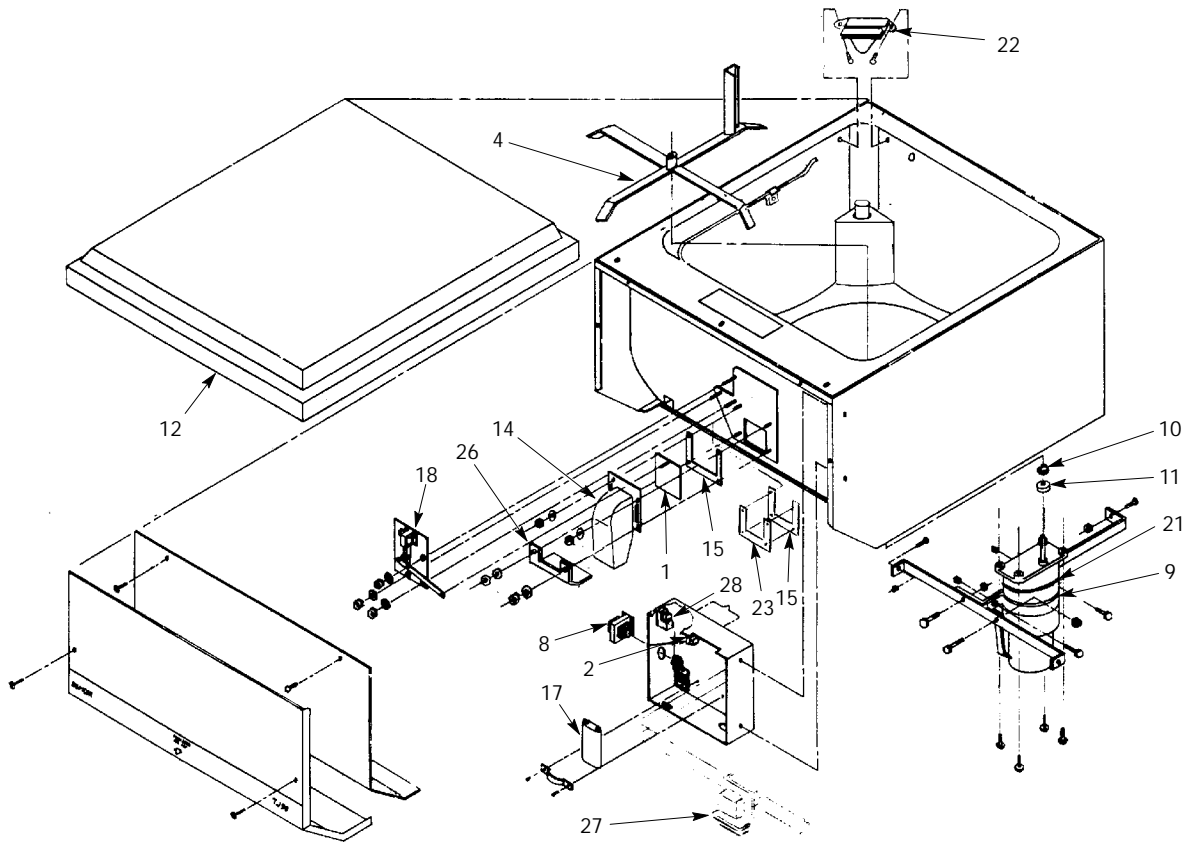
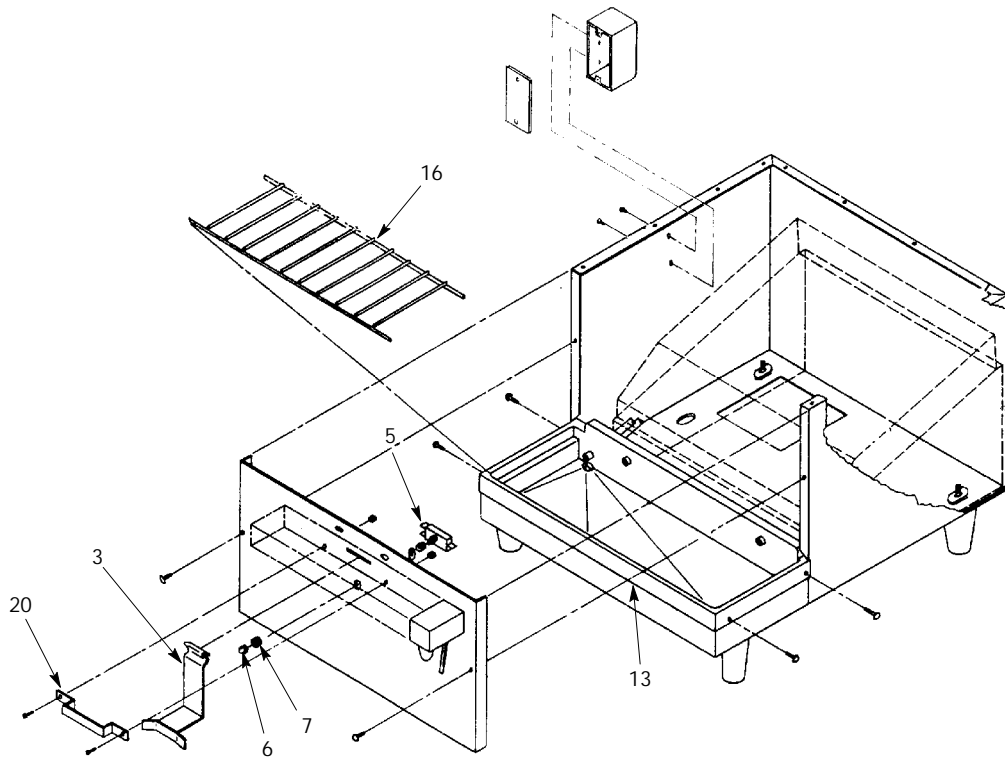


FIGURE 12 EXPLODED VIEW LOWER SECTION TJ45





**FIGURE 13 EXPLODED VIEW UPPER SECTION TJ90**



**FIGURE 14 EXPLODED VIEW LOWER SECTION TJ90**

# PARTS LIST

Item No.	Part No. TJ45 -A -AB	Part No. TJ90 -A, -AB, -ABC	Description
1	21491	21491	Gate Slide
2	30528	30528	Interlock Switch
3	21515	21515	Depressor Lever
4	21948	21932	Agitator (-A, -AB Models Only)
	-----	21958	Agitator (-ABC Models Only)
5	30895	30895	Dispense Switch
6	31007	31007	Switch Boot
7	31163	31163	Switch Insert
8	31091	31091	Transformer
9	31106	31112	Agitator Motor
10	50454	50454	Motor Shaft Seal
11	50481	50806	Motor Gasket
12	50800	50801	Lid
13	50750	50793	Sink (-A, -AB, Models Only)
	-----	51019	(-ABC Models Only)
14	53015	53015	Ice Chute Back Section
	53016	53016	Ice Chute Cover
15	50770	50770	Gate Gasket
16	70426	70441	Sink Grill
17	-----	30774	Capacitor
18	31093	31093	Solenoid Assembly
19	70438	70438	Rebuilding Kit
20	22644	22644	Depressor Retainer
21	-----	30794	Agitation Motor Heater (ABC Models Only)
22	21575	21575	Deflector Assy
23	21929	21929	Ice Cutter
24	21934	-----	Ice Level Rod
25	-----	22081	Gate Restrictor
26	23062	23062	Foam Shield
27	31290	31290	Agitation Timer
28	31001	31001	Thermostat

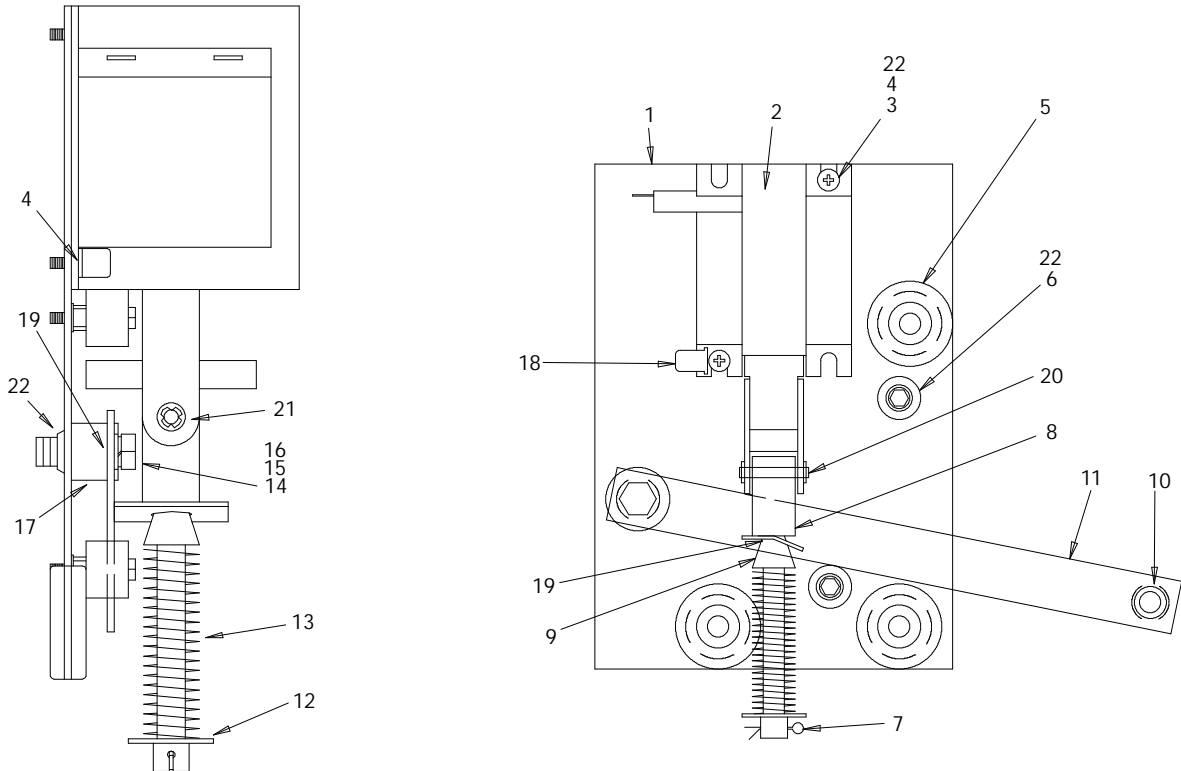


FIGURE 15. SOLENOID ASSEMBLY

Index No.	Part No.	Qty.	Name
1	21493	1	Solenoid Mounting Plate
2#	31551	1	Solenoid Service Kit
3	70171	2	8-32 x 3/8 Phil Tr HD Screw
4	70121	2	No. 8 Lockwasher
5	50752	3	Isolator
6*	50789	2	Bumper Assembly
7*	70423	1	Cotter Pin
8*	10080	1	Gate Lift Rod
9	10081	1	Gate Lift Rod Bushing
10	50754	1	Gate Arm Bearing
11	21492	1	Gate lift Arm
12	70043	1	Flatwasher
13*	70422	1	Spring
14	70263	1	1/4-20 x 3/4 Hex Hd Screw
15	70048	1	1/4 Lockwasher
16	70066	1	1/4 Flatwasher
17	10077	1	Pivot Bearing
18	30227	1	1/4 Quick Connect Tab
19	50305	--	Lubricant
20*	21592	1	Solenoid Linkage Pin
21*	70433	2	Retainer Ring
22	51088	--	Loctite
--*	70438	--	Rebuilding Kit

NOTE: \* Parts supplied with rebuilding kit.  
 # 31551 solenoid supplied with items 20 & 21.



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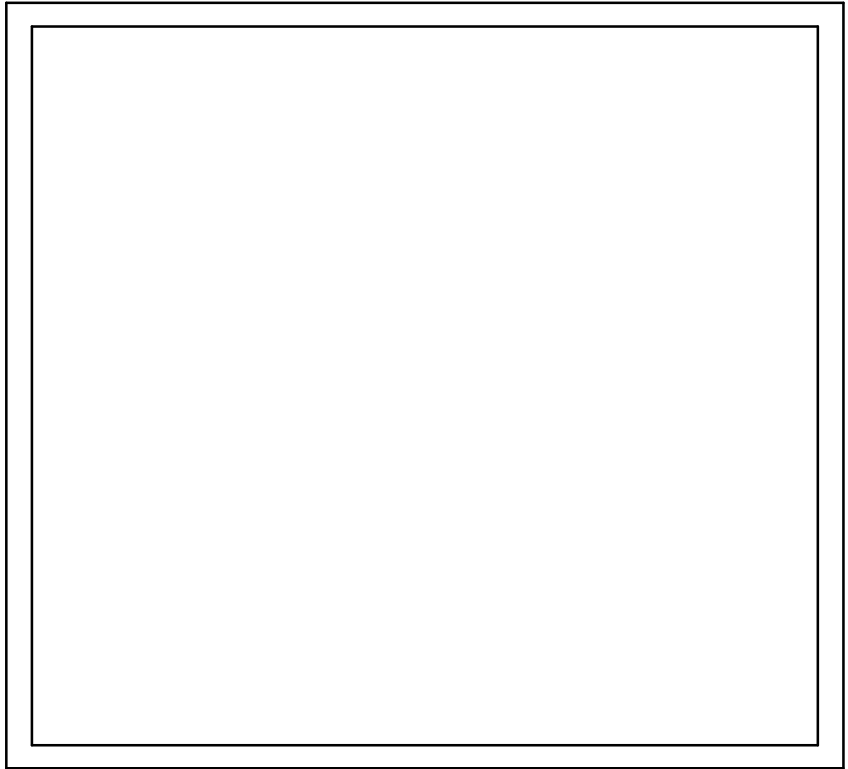
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## WARRANTY

IMI Cornelius Inc. and Remcor Products Company warrants that all equipment and parts are free from defects in material and workmanship under normal use and service. For a copy of the warranty applicable to your Cornelius and or Remcor product, in your country, please write, fax or telephone the IMI Cornelius office nearest you. Please provide the equipment model number, serial number and the date of purchase.

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