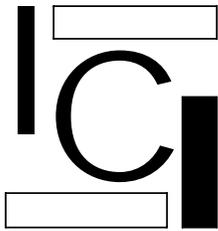
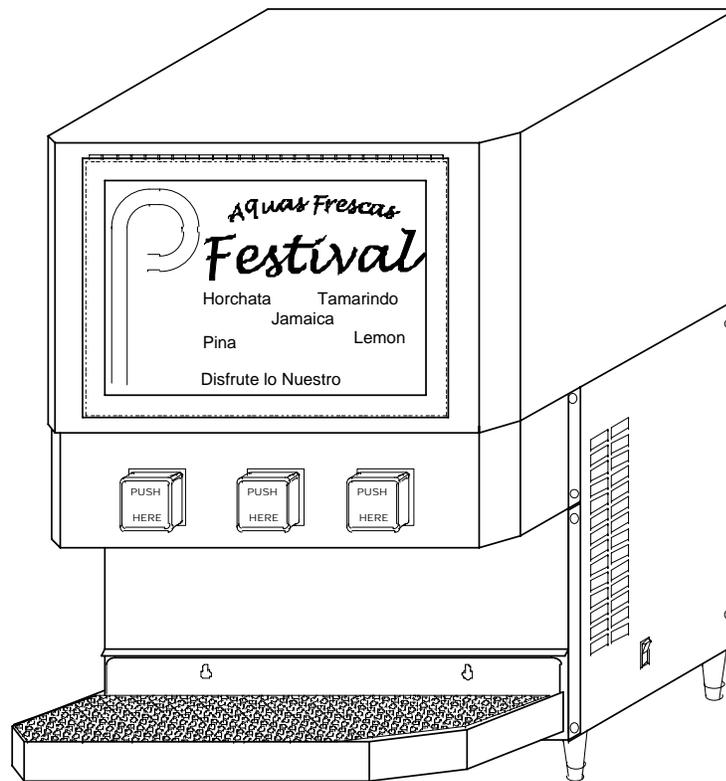


AF-J-PP

AF JUICE PERISTALTIC PUMP UNIT INSTALLATION AND SERVICE MANUAL



INTERNATIONAL CARBONIC INC.

16630 Koala Rd.

Adelanto, California 92301

800 854-1177

IMPORTANT: This manual is a guide for installing, operating, servicing and maintaining this equipment. Refer to Table of Contents for page location of detailed information to answer questions that arise during installation, operating, service and maintenance, or installation of this equipment.

TABLE OF CONTENTS

	PAGE
PREFACE	1
CHAPTER 1	
GENERAL DESCRIPTION	2
SYSTEM DESCRIPTION.....	2
DESIGN DATA.....	3
THEORY OF OPERATION.....	3 - 4
EXPLODED VIEW	5
EXPLODED VIEW DESCRIPTION.....	6 - 7
ELECTRIC SCHEMATIC	8
ELECTRIC SCHEMATIC 24 VOLT.....	9
S-1737 ASSEMBLY EXPLODED VIEW	10
S-1743 REPLACEMENT ASSEMBLY EXPLODED VIEW	11
CHAPTER II	
UNPACKING AND INSPECTION	12
SELECTING LOCATION	12
LOCATION RECOMMENDATIONS	12
SAMPLE OF POSSIBLE INSTALLATION	13
INSTALL WATER FILTER ASSY.	13
INSTALL WATER PRESSURE REGULATOR	14
INSTALL B.I.B.....	14
CONNECTING WATER INLET.....	15
ELECTRICAL REQUIREMENTS	15
CHAPTER III	
PREPARING SYSTEM FOR OPERATION	16
PREPARING AND STARTING REFRIGERATION UNIT	16
PURGE DISPENSING VALVE	16
ADJUST WATER FLOW RATE	17
ADJUST WATER TO SYRUP RATIO.....	17
CHAPTER IV	
OPERATORS INSTRUCTIONS.....	18
DAILY PRE-OPERATION CHECK	18
COOLING UNIT MAINTENANCE	18
CHECKING WATER BATH.....	18
CHANGING WATER BATH	18
CHAPTER V	
SERVICE AND MAINTENANCE	19
PERIODIC INSPECTION AND CLEANING.....	19
PERIODIC CLEANING	19
CLEANING CONDENSER COIL	19
CHANGING WATER BATH	20
CHANGING PERISTALTIC PUMP TUBING	21
CLEANING AND SANITIZING.....	22 - 23
BRIX INSTRUCTIONS.....	24
TROUBLE SHOOTING	25 - 28
NOTES.....	29

PREFACE

INTERNATIONAL CARBONIC INC. has enjoyed over 53 years of manufacturing excellence in the field of carbonation and in the beverage related industry. We have been located in the Southern California area since 1952 and have a long and proud history with quality as our standard and innovation as our goal. Originally started just after World War II in Canfield Ohio as Carbonic Dispensers we enjoyed patents on the first Sodajet type carbonator. This method of carbonation instantaneously carbonated the water to 100% saturation. We developed the first patented dispensing valve to dispense bulk beverage with carbonation equal to or in excess of bottled beverages. A valve with three flavors and soda was another first. We were the first to incorporate the total post-mix package, i.e., carbonation, refrigeration & the ability to dispense from one self contained unit. We have pioneered many such firsts and will continue to develop advance systems for the future, such as electronic interrogatable portion controls to electronic liquid level controls.

We hope you enjoy this product that has been produced to give many years of trouble free service. We thank you for your purchase and hope we may serve you in the future.

AF-J-PP CHAPTER I

GENERAL DESCRIPTION

This chapter gives the description, theory of operation, and design data for the AF JUICE PERISTALTIC PUMP unit, (AF-J-PP), and related components.

SYSTEM DESCRIPTION

The AF-J-PP is a complete self-contained Juice unit which when combined with B.I.B containers, will produce a variety of cooled non-carbonated beverages. The AF-J-PP consists of a water bath, refrigeration system, valves, and modular peristaltic pump compartment and storage compartment for the BIB containers. The cabinet is skinned with attractive stainless steel. The AF-J-PP has been designed to eliminate the use of bag in the box pumps and associated components. The AF-J-PP can brix from one to one up to twenty to one by using a state of the art controller/potentiometer adjustment. The AF-J-PP also is designed to connect to remote BIB locations if necessary

For proper function the AF-J-PP must have a water supply, and electrical supply. The AF-J-PP is designed with a unique lift off drain pan that can be emptied at any convenient drain outlet.

WARNING: Before shipping or relocating an AF-J-PP into a freezing ambient environment empty plain water. Syrup systems should be flushed, ice bank melted, and water drained from water bath. A freezing ambient environment will cause existing water in unit to freeze possibly resulting in damage to water coil, peristaltic pumps, water bath, valve(s), etc.

Water Filter Recommended (Optional) See Manufacturer Specifications for Operating Conditions

DESIGN DATA

AF-J-PP

Overall Cabinet/P.P. Base dimensions:

Height.....	28"
Width	21 1/2"
Depth.....	20 1/2"

Weights:

Shipping pounds	
Dry weight pounds.....	
Operational Weight pounds.....	

Capacities:

Unit water bath gallons.....	4.0
Refrigerant requirement (R-134a) ounces.....	6.0
Grams	170

Ambient operating temperature 40 F to 100 F

Electrical Requirements:

The cooling unit requires a 115 VAC, single phase, 60-Hertz power circuit.

Circuit Ampacity Amps	4.0
Condensing Unit Amps.....	2.1
Agitator Amps8
Peristaltic Pump Assembly @ 4 valves Amp1
Illumination	110V 12W

REFRIGERATION 1/5 H.P. capillary air-cooled.

THEORY OF OPERATION

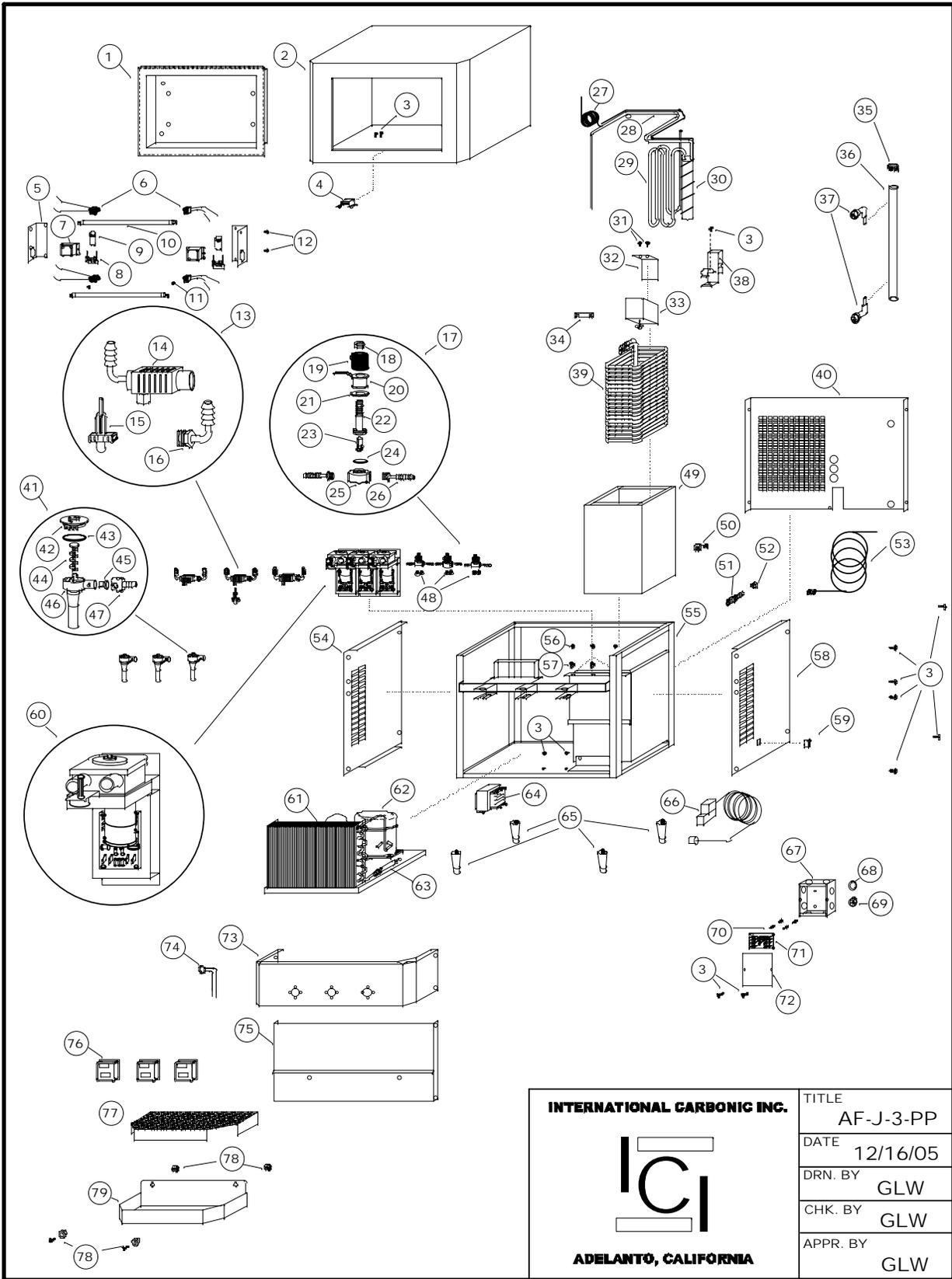
The AF-J-PP was designed to manufacture and dispense non-carbonated beverages much like your local bottling plant that cans or bottles your favorite non-carbonated drink.

The water bath must be filled with approximately 4 gallons of water. After all connections are made and activation of the refrigeration a certain amount of this water will be transformed into ice, approximately 10 pounds. This water reserve and ice bank will act as a reservoir for refrigeration. This reserve is utilized during peak periods when the BTU output of the compressor is not sufficient to meet the demand of the draw.

The incoming water is routed through a water coil that is submerged in the above mentioned water bath. The temperature of the incoming water is at ambient temperature as it enters the submerged water coil. As the incoming water passes through the water coil the heat is removed from the water in the water coil and chilled to a temperature acceptable for a quality drink, normally a temperature of 33 to 34 degrees is reached. The water is now directed to a valve where the water and syrup are mixed in proper proportions to dispense a quality drink. Depending on the ratio of water versus syrup the temperature will rise and be dispensed at approximately 40 degrees fahrenheit.

With the incorporation of the peristaltic pump the necessity for an air or CO2 supply is no longer necessary, this includes the low and high-pressure regulators normally needed for a standard juice unit. The peristaltic pumps will pull the syrup concentrate from the B.I.B., (bag in the box), and then push the syrup through syrup cooling coils, (optional), and then to the valve where the syrup concentrate and water are mixed in a proper ratio to dispense a quality drink. The syrup enters the AF-J-PP through a unique 1/4" X 3/8 S-439 bulkhead fitting at the rear of the unit.

The water source should be regulated, this is normally performed by the use of an in line water regulator. If the water is not regulated, the water pressure can and will vary. This variance of water pressure can affect our dispensed product.



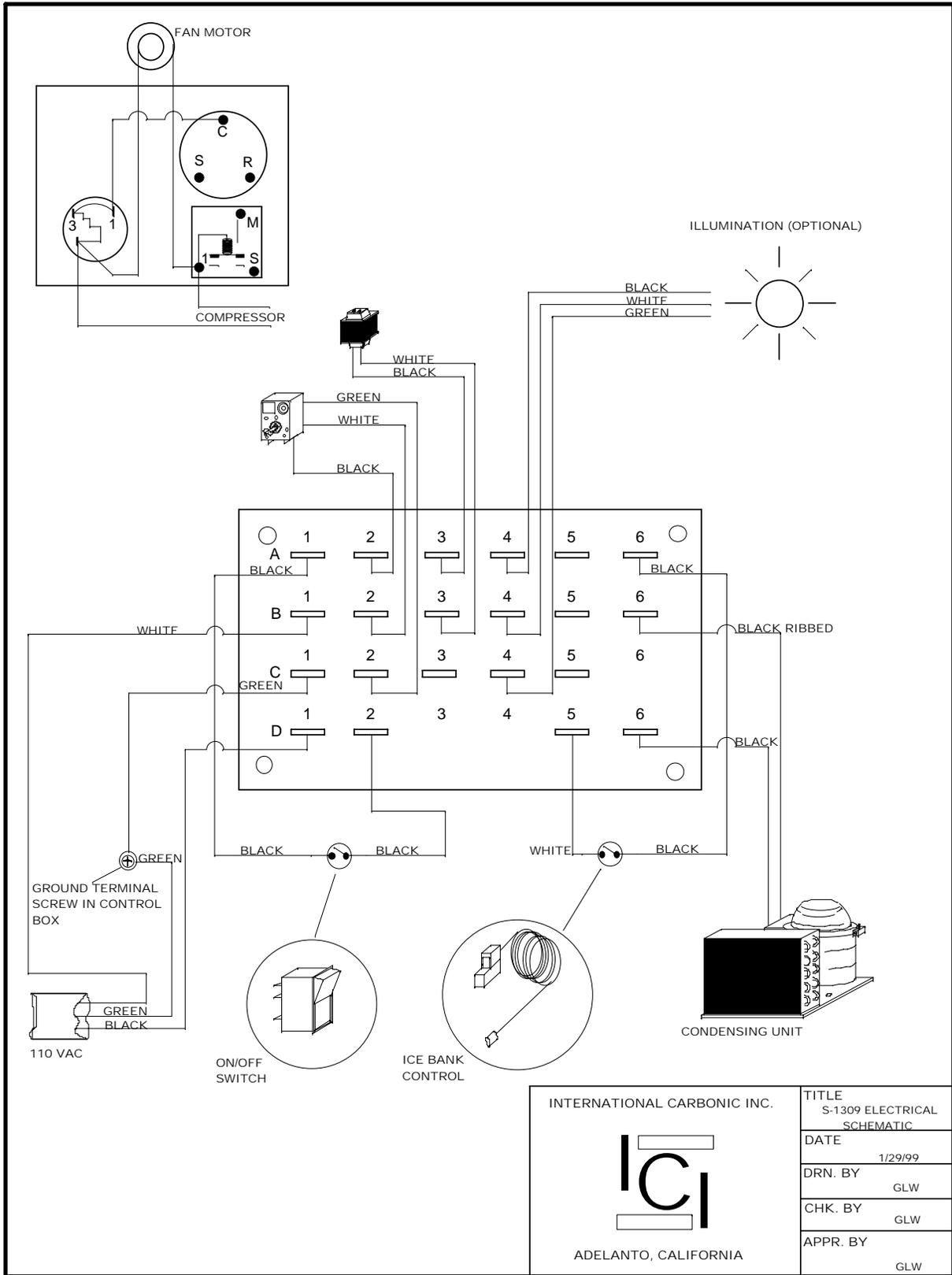
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	DATE 12/16/05
	DRN. BY GLW
	CHK. BY GLW
	APPR. BY GLW

AF-J-3-PP

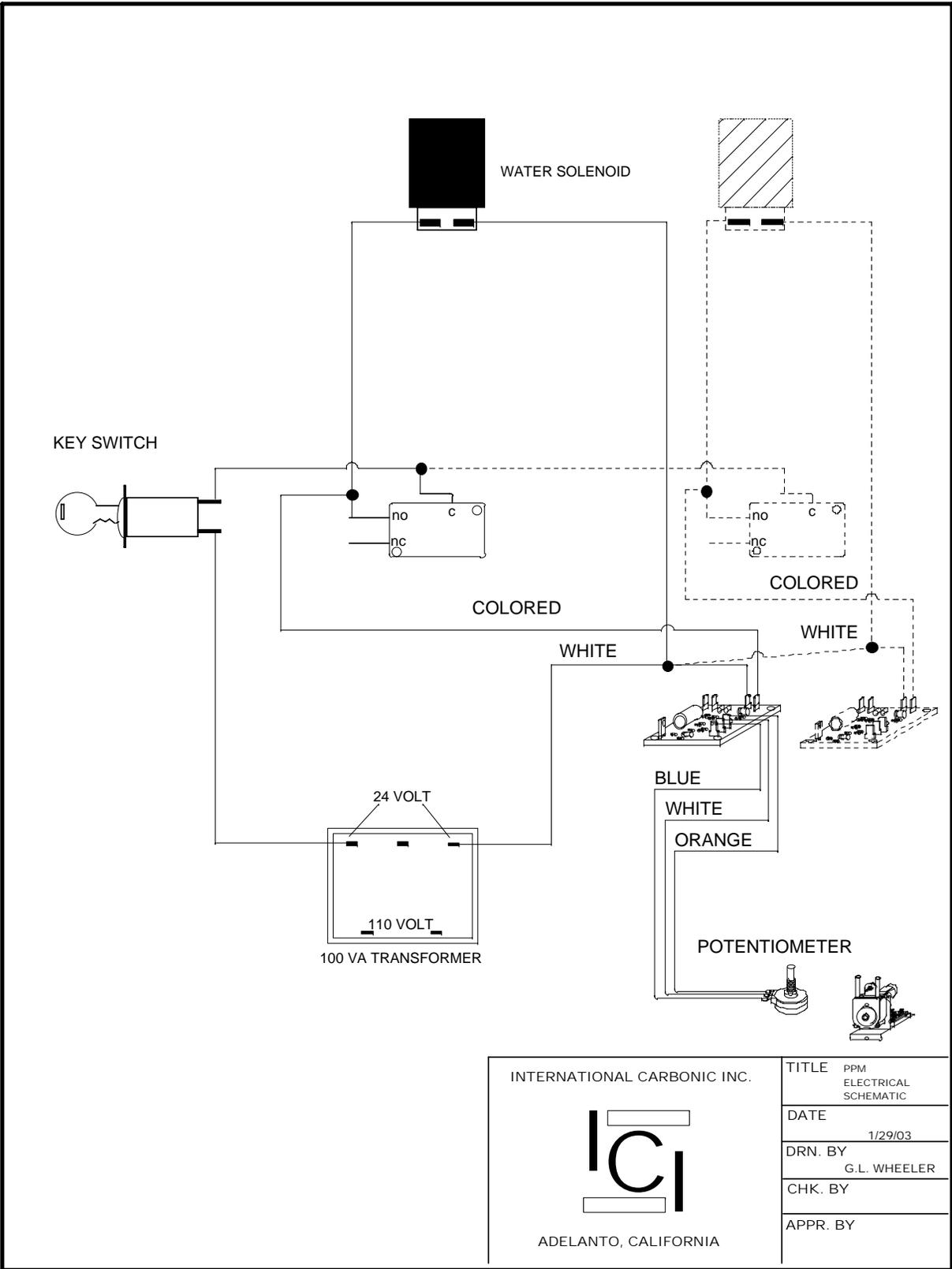
SYM	QTY	PART NO.	DESCRIPTION
1	1	S1910	ILLUMINATION MODULE COMPLETE
2	1	S1911-3	COVER/STORAGE COMPARTMENT
3	15	A0020	SCREW, 8-32 X 3/8 TH, S.S.
4	1	S1912	MAGNETIC CATCH
5	2	S0982	110V CONVERSION BRACKET
6	4	S0973	LAMPHOLDER
7	2	S0952	BALLAST
8	2	S0958	STARTER HOLDER
9	2	S0955	STARTER
10	2	S0956	LAMP
11	4	A0060	SCREW 6-32 X 1/4, FLAT HEAD
12	4	A0009	SCREW 8-32 X 1/2 PHILLIPS PH S.S.
13	3	S1907	BRIX ASSEMBLY
14	3	S1908	BRIX ASSEMBLY HOUSING
15	1	S1909	BRIX ADJUSTMENT TOOL
16	6	S0166	FITTING, BRASS EL 1/4 MP X 1/4 HOSE
17	3	S1618	SOLENOID ASSEMBLY
18	3	E0623	NUT, SOLENOID
19	3	E0525	COIL WITH SHIELD, SOLENOID 24 VOLT
20	3		
21	3	E0739	FLUX PLATE
22	3	E0527	STEM
23	3	E0730	PLUNGER
24	3	E0531	"O" RING
25	3	S0737	BODY, SOLENOID
26	3	S1620	FITTING, BRASS 1/8 MP X 1/4 HOSE
27	1	Z0009	CAPILARY TUBE, 12' - .042
28	1	S1924	SUCTION LINE
29	1	S1925	EVAPORATOR ASSEMBLY
30	1	S0409	ACCUMULATOR
31	1	F0004	SCREW, #8 X 1/2 PH HD SELF TAPPING
32	1	S1306-LG	AGITATOR BRACKET
33	1	S-835	AGITATOR
34	1	S1324	POSITIONING BAR
35	1	S1926	PLASTIC CLAMP
36	1	Y0014	DRAIN TUBING, 3/8 CLEAR
37	2	S1922	90 DEGREE, 3/8 FEMALE SLIP X 3/8 SLIP
38	1	S1304-U	ICE BANK CONTROL BULB BRKT
39	1	S1923	WATER COIL
40	1	S1913-3	REAR PANEL

AF-J-3-PP Cont.

SYM	QTY	PART NO.	DESCRIPTION
41	3	S1900	AF DISPENSING VALVE
42	3	S1901	AF VALVE TOP
43	3	S1902	AF VALVE "O" RING
44	3	S1903	AF DIFFUSER
45	3	S1904	AF CHECK VALVE
46	3	S1905	AF VALVE BODY ONLY
47	3	S1906	AF CHECK VALVE HOUSING, 1/4 HOSE
48	7	A0018	SCREW, 8-32 X 1/4 PH SS
49	1	S1920	BUCKET ASSEMBLY W/INSULATION
50	1	E0664	STRAIN RELIEF
51	1	S0439	BULKHEAD HOSE SPLICER S.S.
52	1	S0286-A	NUT, JAM, S.S., 1/4" F. FL.
53	1	E-141-12	POWER CORD
54	1	S1914	LEFT SIDE PANEL
55	1	S1921	FRAME ASSEMBLY
56	3	A0014	SCREW, #10 X 1/2 TH S.S.
57	3	S1325	SQUARE GROMMET NUT
58	1	S1915	RIGHT SIDE PANEL
59	1	S0783	ON/OFF SWITCH
60	1	S1737	PPM ASSEMBLY
61	1	AEA1360YXAXA	CONDENSING UNIT
62	1	AEA1360YXA	COMPRESSOR ONLY
63	1	S0192Y	DRIER
64	1	S1700	TRANSFORMER
65	1	S0765	LEGS, SET OF 4
66	1	S0513-A	ICE BANK CONTROL
67	1	S1308	CONTROL BOX
68	2	TM04	HOLE PLUG
69	1	S0046	BUSHING
70	4	S1325	PLASTIC STANDOFF
71	1	S1309	TERMINAL BOARD
72	1	S1308	CONTROL BOX COVER
73	1	S1916-3	VALVE HOUSING
74	1	S1330	KEY SWITCH
75	1	S1917-3	VALVE SPLASH PLATE
76	3	S1313	SWITCH
77	1	S1918-3	CUP REST
78	1	S0743	DRAIN PAN MTG HARDWARE, SET
79	1	S1919-3	DRAIN PAN

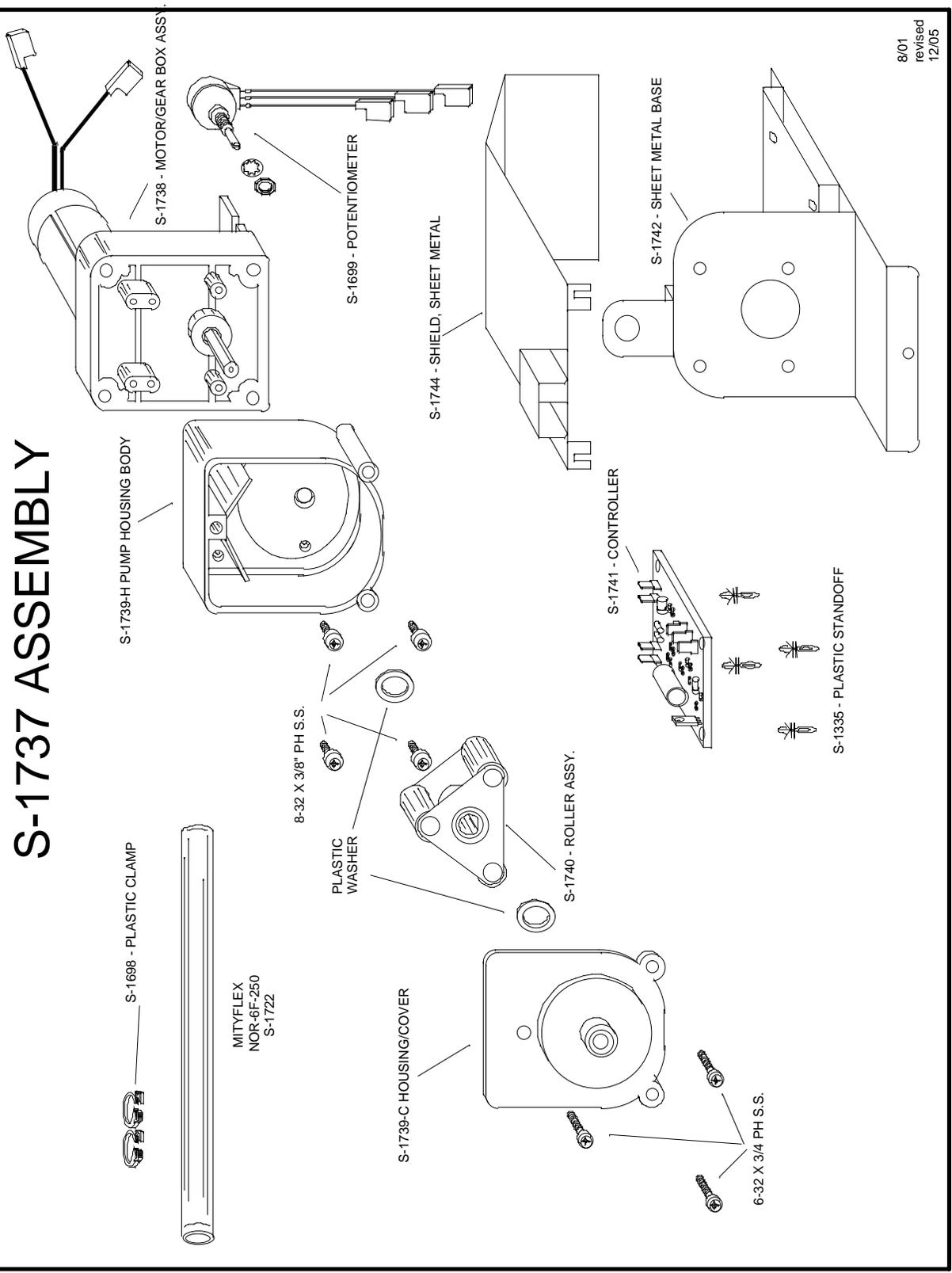


INTERNATIONAL CARBONIC INC.  ADELANTO, CALIFORNIA	TITLE
	S-1309 ELECTRICAL SCHEMATIC
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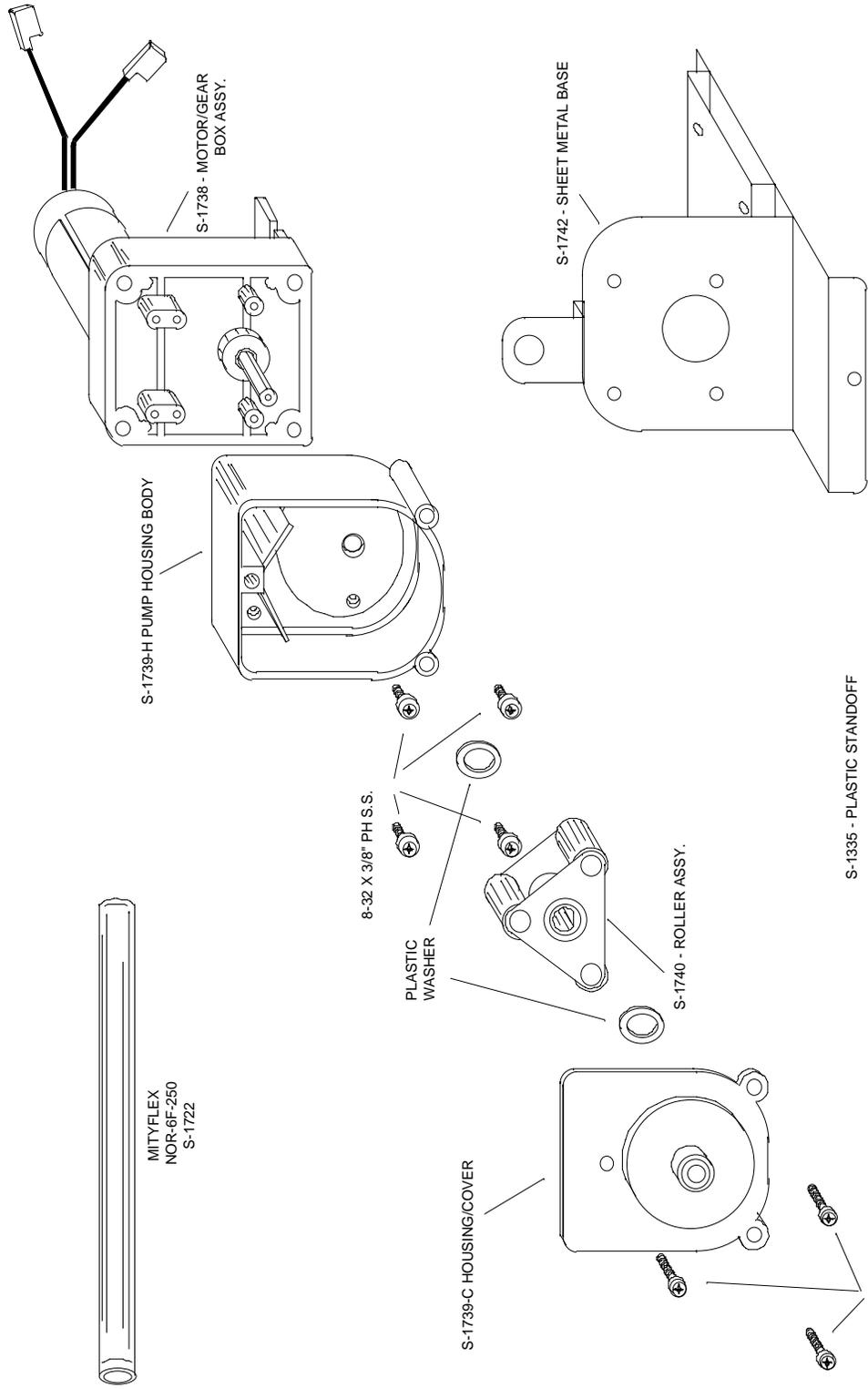
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	DATE	1/29/03
	DRN. BY	G.L. WHEELER
	CHK. BY	
	APPR. BY	

S-1737 ASSEMBLY



8/01
revised
12/05

S-1743 REPLACEMENT ASSEMBLY



CHAPTER II
INSTALLATION
AF-J-PP

This chapter covers unpacking and inspection, selecting location, installing AF-J-PP unit and related components.

UNPACKING AND INSPECTION

Upon receiving unit, immediately remove AF-J-PP from shipping carton and inspect for shipping damage.

NOTE: Before leaving the factory the AF-J-PP unit was carefully inspected and the carrier has accepted and signed for it. Any damage or irregularities should be noted at the time of delivery and immediately reported to delivering carrier. Request a written inspection report from claims inspector to substantiate any necessary claim. File claim with delivering agency, not **International Carbonic Inc!**

SELECTING LOCATION

IMPORTANT: Ambient temperature for cooling unit should not exceed 100 degrees "F". Operation of cooling unit in ambient above 100 degrees "F" can and will contribute to early failure of condensing unit and poor quality of finished product.

LOCATION RECOMMENDATIONS FOR AF-J-PP

1. Position unit as close as possible to proper electrical source, 115V 60Hz.
2. Position unit with a minimum of 2" space between bulkhead and cabinet for sufficient space for ventilation. Allow enough space between ceiling and unit for lid removal.
3. When BIB's are remoted position unit as close as possible to B.I.B. rack.
4. Position unit as close as possible to water source. Half inch gate valve recommended for water connection.

TABLE 2-1

LOOSE - SHIPPED PARTS

Item No.	Part No.	Name	Qty
1		Installation/Service Manual	1
2	S-1214	Drain pan	1
3*		Water filter	1

- Optional

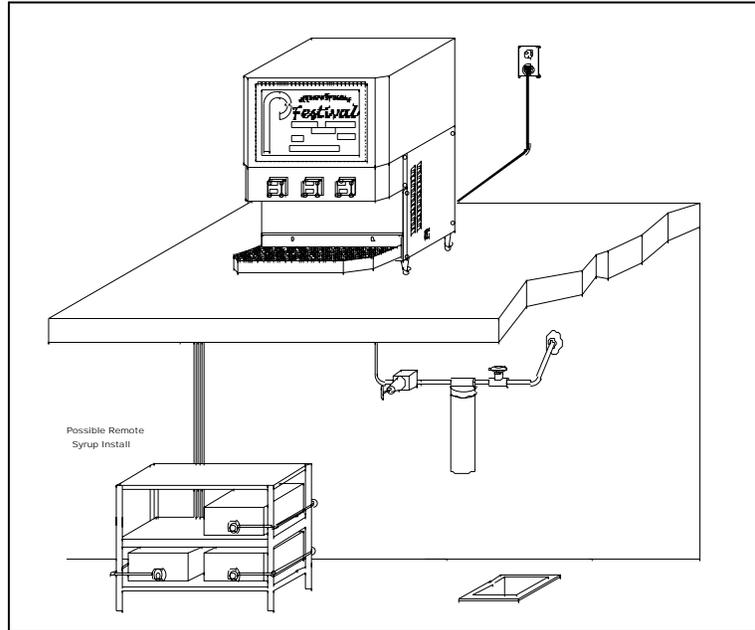


FIGURE 2 SAMPLE OF POSSIBLE INSTALLATION.

INSTALLATION

INSTALL WATER FILTER ASSY. (OPTIONAL)

1. Install water filter assembly on wall or other supporting structure.
2. Connect water filter assembly to inlet of valve on water supply line using minimum 3/8" I.D. water line.
3. Connect water filter assembly outlet to AF-J-PP plain water inlet fitting using minimum 3/8" I.D. water line. See CONNECTING WATER INLET.

When a water filter is used, it is important to thoroughly flush prior to making unit connections.

INSTALL WATER PRESSURE REGULATOR (OPTIONAL)

If water pressure varies, a water pressure regulator or water pressure-reducing valve should be installed in the water supply line. The water regulator must have an orifice of at least 3/16" so as not to restrict the water flow through the valve. Valves that are built with 1/2" pipe thread connection usually have a sufficient orifice opening.

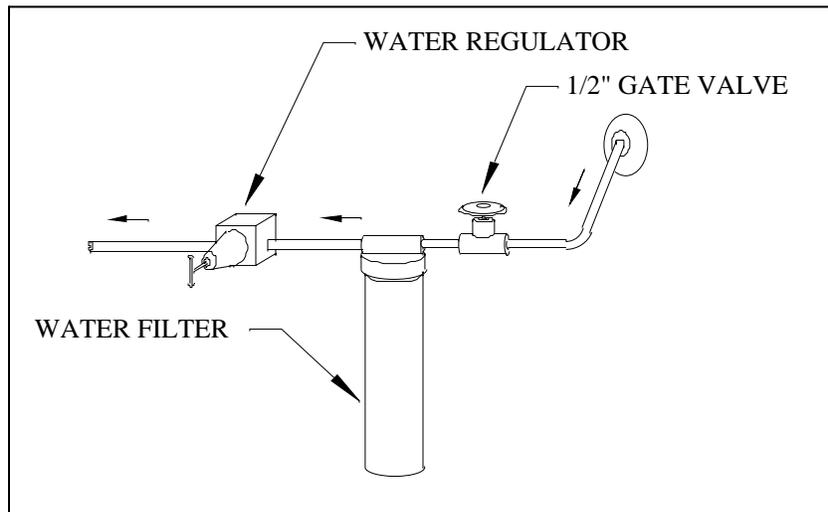


FIGURE 2-4. SUGGESTED WATER FLOW INSTALLATION

INSTALL B.I.B. When installing remote boxes.

1. Place B.I.B. as close as possible to AF-J-PP unit, preferably no farther than 15 feet. The AF-J-PP will dispense product with the B.I.B.'s at a distance of 100 feet horizontally or 17 feet vertically. **THESE DISTANCES ARE ONLY POSSIBLE IF THE SUPPLY LINE HAS COMPLETE INTEGRITY. IF EVEN THE SMALLEST VACUUM LEAK IS ALLOWED THESE DISTANCES ARE NOT POSSIBLE.**
2. Lay out syrup lines from unit to B.I.B.
3. Connect lines from B.I.B. to inlet on AF-J-PP.
4. Activate Q.C.D.
5. Check all connections for leaks, (see Chapter IV).

CONNECTING WATER INLET

WATER PIPE CONNECTIONS AND FIXTURES DIRECTLY CONNECTED TO POTABLE WATER SUPPLY SHALL BE SIZED, INSTALLED AND MAINTAINED ACCORDING TO FEDERAL, STATE, AND LOCAL LAWS.

The water connection on the AF-J-PP is made to a permanent 3/8" male flare at the back of the unit.

After all primary water lines are made up, but prior to connecting water supply to cabinet, be sure to thoroughly flush all incoming water lines to remove all scale and any impurities that may be in the lines. It is imperative that the fresh water-conduit have not less than 3/8" I.D. passageway for any distance greater than ten feet from the AF-J-PP. It can be reduced to 3/8" O.D. copper tubing and connected to the water inlet connection within ten feet of the AF-J-PP. All water inlet connections are clearly tagged.

ELECTRICAL REQUIREMENTS:

The AF-J-PP requires a 120 VAC, single phase, 60 Hertz power circuit, and must be wired in accordance with N.E.C. or local ordinance.

NOTE: Check CHAPTER I for running amperage and connect to appropriate electrical circuit.

CHAPTER III
AF-J-PP
PREPARATION

All steps in previous chapters should be understood and carried out before proceeding.

PREPARING SYSTEM FOR OPERATION

Be sure that electrical power is unplugged, and valve on water supply line is closed.

PREPARING AND STARTING REFRIGERATION UNIT

1. AF-J-PP refrigeration is pre-set at factory and ready to operate.
2. Remove Cover/Storage Compartment, # S1911 to gain access to the water bath.
3. Fill water bath with clean water until water reaches the bottom of the top overflow hole. DO NOT USE DISTILLED WATER.
4. Plug AF-J-PP power cord into electrical receptacle box, turn power switch to the "ON" position. Make sure compressor, condenser fan motor, agitator motor start. The process of cooling the water bath will commence after filling water bath. With ambient and water temperature of 75 degree "F" initial pull down or formation of complete ice bank will take approximately 3.5 hrs. When full ice bank has been formed, compressor and condenser fan motor will stop. Agitator will continue to operate, circulating water in water bath.

CONNECT WATER SUPPLY

1. The water connection on the AF-J-PP is made to a permanent 3/8" male flare at the back of the unit.
2. After all primary water lines are made up, but prior to connecting water supply to cabinet, be sure to thoroughly flush all incoming water lines to remove all scale and any impurities that may be in the lines. It is imperative that the fresh water-conduit have not less than 3/8" I.D. passageway for any distance greater than ten feet from the AF-J-PP. It can be reduced to 3/8" O.D. copper tubing and connected to the water inlet connection within ten feet of the AF-J-PP. All water inlet connections are clearly tagged.

PURGE DISPENSING VALVES

Dispense water from dispensing valves until all air is purged from water lines.

ADJUST WATER FLOW RATE

Adjust dispensing valves water flow rate to approximately 6 oz. in 5 seconds.

ADJUST WATER-TO-SYRUP "RATIO"

Adjust dispensing valves for Water-to-syrup "Ratio". Contact supplier of syrup concentrate for recommended ratio.

CHAPTER IV
AF-J-PP
OPERATORS INSTRUCTIONS

This chapter covers operators' responsibilities for daily pre-operation check, adjustments, cleaning, and sanitizing.

DAILY PRE-OPERATION CHECK

1. Make sure B.I.B.'s full and ready to dispense.
2. Make sure nozzles are clean, use a bottle brush to clean interior.
3. Make sure electrical power is supplied to unit.

COOLING UNIT MAINTENANCE

NOTE: Air circulation through the condenser coil required to cool the condenser coil/compressor, is drawn in through grills on cooling unit, through condenser coil and is exhausted out grills on the other side of the unit. Restricting air circulation through the cooling unit will decrease its cooling capacity.

To avoid needless and sometimes costly repairs, it is imperative to keep condenser fins clean. This may be accomplished by one of three methods. One method is use of a condenser brush (a longhaired, soft bristle brush) to gently sweep fins of condenser clean. Second method is to use a strong vacuum. The third method is to use C02 or an air hose to blow out condenser. The latter method should only be attempted after normal business hours to avoid dust contamination.

CHECKING WATER BATH

Periodically check water level in water bath. If water level is low, water should be added as instructed for maximum product cooling. This dehydration will normally not occur in normal temperate climate zones. With normal humidity the opposite will occur.

CHANGING WATER BATH

Drain water bath a minimum of twice a year. This can be accomplished by locating the rear drain hose plastic clamp, # S1926, at the rear of the unit. Remove the top plastic clamp and pull drain tubing from S1922 fitting and then swivel down allowing drainage. Drain into bucket or proper drain. Once water is drained, water bath, water coils, bath walls, paying special attention to S-512-C EIBC Probe should be cleaned. Replace standpipe and refill with water. Fill water bath to bottom of top over flow hole.

CHAPTER V

SERVICE AND MAINTENANCE

This chapter describes service and maintenance procedures to be performed on AF-J-PP units and related components.

PERIODIC INSPECTION AND CLEANING

Daily:

1. Clean any B.I.B. racks, connecting sockets/Q.C.D.'s and general storage area with warm water.
2. Clean the beverage dispensing area.
3. Make sure nozzles are clean, use a bottle brush to clean interior and clean all exposed areas of AF valve.
4. Wipe exterior of unit with moist towel.

Weekly:

1. Order syrup to maintain product inventory.
2. Check condenser coil for obstructions or dirt.

Monthly:

1. Clean condenser fins or filter to make sure the refrigeration unit has adequate air-flow.
2. Inspect components of cooling unit water bath for cleanliness.
3. Check entire system for leaks or damaged components. Repair as necessary.

PERIODIC CLEANING

Periodically wash all external surfaces of cooling unit, rinse with clean water, then wipe dry with a clean soft cloth.

DO NOT USE ABRASIVE TYPE CLEANERS.

CLEANING CONDENSER COIL

IMPORTANT: Air circulation through the condenser coil required to cool the condenser coil/compressor, is drawn in through grills on cooling unit, through condenser coil and exhausted out grills on the other side of unit. Restricting air circulation through the cooling unit will decrease its cooling capacity.

NOTE: *Cleaning condenser coil should be done during non-business hours*

1. Unplug unit power cord from electrical socket.
2. Remove cover/storage cover and panels in preparation for service.
3. Vacuum or use a soft brush to clean fins of condenser coil. Use low-pressure compressed air or CO2 gas to blow through condenser fins. This should only be performed after normal business hours to prevent dust contamination. A damp cloth on back-side of condenser coil will prevent some dust contamination.
4. Reconnect unit power cord in electrical socket.

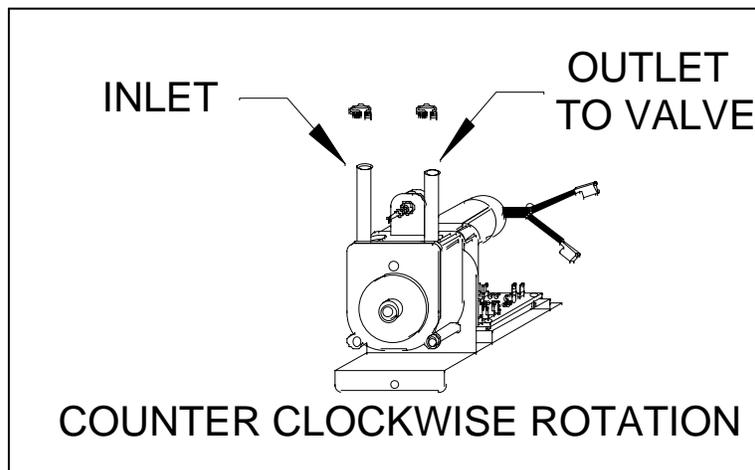
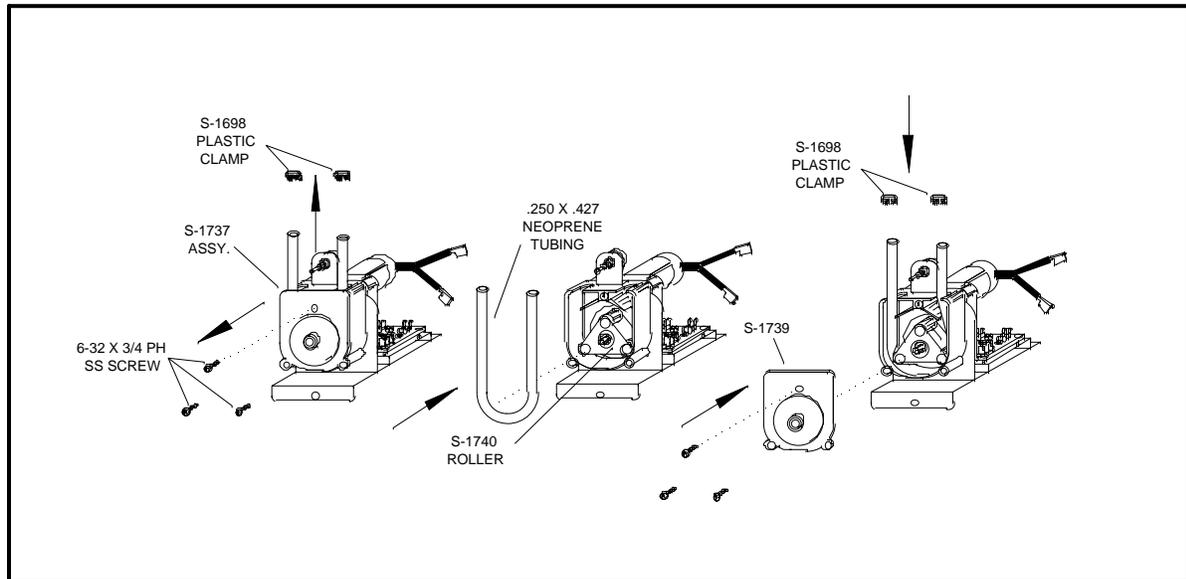
CHANGING WATER BATH

NOTE: The water bath should be changed and all components in water bath should be cleaned as often as necessary to keep it clean. A convenient time to perform this operation is when the system is being sanitized.

1. Unplug unit power cord from electrical socket.
2. Remove cover/storage compartment from unit.
3. Remove the top plastic clamp and pull drain tubing from S1922 fitting and then swivel down tubing allowing drainage.
4. If still frozen, add hot water to water bath, S1920, until ice bank is depleted.
5. Look down into water bath (if necessary, use flashlight) and inspect water bath, evaporator and all components for cleanliness. Water, refrigeration evaporator and all components should be clear and free of foreign particles. Note: special attention should be paid to ice bank bulb probe tips, S-512-C.
6. Use fiber brush and carefully clean mineral deposit from all components.
7. Wash evaporator coil with a mild soap. Copper cleans well with mild solution of citric acid (1 cup of citric acid for 2 gallons of water). Stainless steel cleans well with carbonated water. Then rinse with clean water.
8. Rinse out water bath with clean water until water running out of drain hose is clean.
10. Re-install drain hose and clamp.
11. Fill water bath to top of overflow, with water.
12. Plug AF-J-PP unit power cord in electrical socket.

CHANGING PERISTALTIC PUMP TUBING

1. Remove #10 X 1/2" Phillips TH. Screw. Then slide out S-1737 Assy.
2. Remove three 6-32 x 3/4 PH screws.
3. Remove S-1739 cover.
4. Remove neoprene tubing by pulling tubing while turn S-1740 roller.
5. Replace old neoprene tubing with new.
6. Squeeze new tubing with pliers two insert tubing in between first roller and housing wall. Force tubing into position at second roller by spinning roller while inserting tubing.
7. Reverse procedure to reinstall S-1737 assembly.



CLEANING AND SANITIZING

Your local Health Department rules and general area cleanliness should determine the frequency of which the unit should be sanitized.

SANITIZING PROCEDURES

Your local health department rules and general area cleanliness should determine the frequency at which the unit should be sanitized.

EQUIPMENT REQUIRED:

1. Stainless Steel containers (product tanks), or large volume container.
2. CO2 Supply If applicable (Same as used with dispensing unit).
3. Cleaning Agent.
4. Sanitizing Solution.
1. Phenolphthalein.

NOTE: One recommended cleaning agent and sanitizing agent is manufactured by:

MT. HOOD CHEMICAL CORP.
4444 N.W. Yeon Avenue
Portland, Oregon 97210

Trade names are: STAR - CHLORINATED CLEANER
CROWN - 12.5% SODIUM HYPOCHLORITE BLEACH

Use STAR at 18 oz. per 1 gallon of water yields 2% Sodium Hydroxide Solution.

Use Crown at 2 ounce per 9 gallons of water (gives 200 PPM of available chlorine) at a minimum contact time of 10 minutes.

1. Disconnect syrup containers and remove product from tubing by purging with carbon dioxide or flushing with warm water.
2. Visually inspect valve and valve cavity and if dirty clean with soft bristle brush. Clean exteriors of valve with a soft clothe and warm water.
3. Fill syrup lines with a caustic-based (low sudsing, non-perfumed, and rinsed) detergent solution, (STAR). The solution should be prepared in accordance with the manufacturers recommendations, but should be at least 2 percent sodium hydroxide. Make sure the syrup lines are completely filled and allow standing for at least 10 minutes.
4. Flush the detergent solution from the syrup lines with clean water. Continue rinsing until testing with phenolphthalein shows that the rinse water is free of residual detergent.
5. Fill the syrup lines with a low PH (7.0) chloride solution containing maximum 200-PPM chlorine. Make sure that lines are completely filled and allow standing for 30 minutes.

6. Reconnect syrup containers and ready Unit for operation.
7. A Draw drinks to refill syrup lines and flush the chloride solution from the dispenser.
8. Taste the beverage to verify that there is no off taste.

AF-J BRIX INSTRUCTIONS

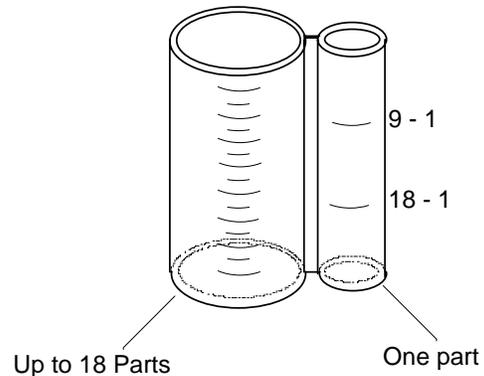
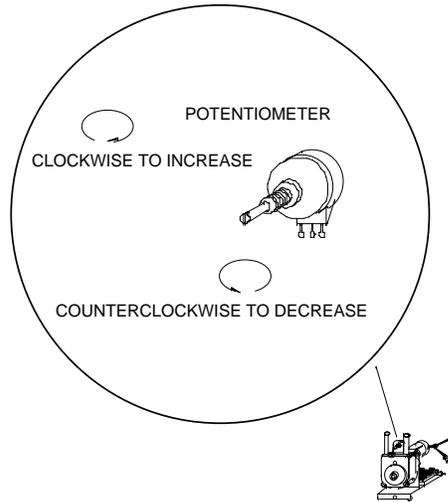
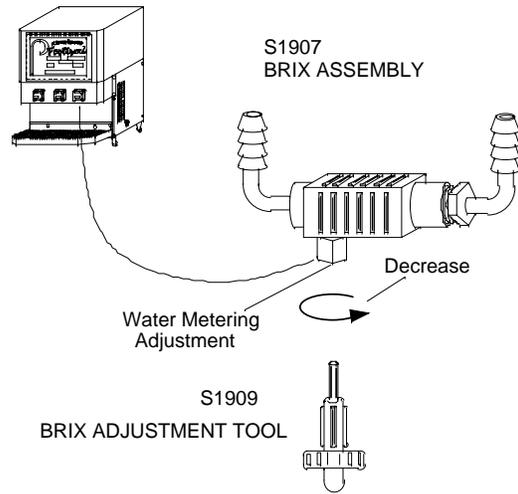
The water and syrup flows are individually adjusted by their respective metering adjustment and potentiometer.

One recommended method utilizes the ratio brix cup, see illustration. The brix cup is divided into two sections, one to hold up to 9 parts water and the smaller section to hold one or two parts of syrup. When adjusting a flavor with a ratio of more than 9 to 1 syrup 2 line must be used. When using syrup 2 line the waterside is doubled to 18 to 1 vs. 9 to 1.

Due to the fact that the AF Valve has no syrup separator the only way to set the brix is with the use of a stop-watch in conjunction with the brix cup. Disconnect syrup and adjust water to run 1.5 ounces per second. Run water into the large section of brix cup stopping when reaching the appropriate fill line, (example 5-1). Time this fill time with stop watch and note.

Reconnect syrup and disconnect water performing the same procedure with the syrup. During the same time period syrup should reach appropriate fill line. Adjust potentiometer until the appropriate line is reached in the appropriate time period..

When facing the AF unit, the syrup adjustment is always located on the right side of unit and under the S1911 storage/cover. The water is located under valve housing, S-1916, see illustration. To decrease water flow, use brix adjustment tool clockwise. To decrease syrup flow, turn potentiometer counter clockwise to increase reverse rotation respectively.



TROUBLE SHOOTING

IMPORTANT: Only qualified personnel should service AF-J-PP unit and components.

WARNING: To avoid personal injury and or property damage, always disconnect electrical power and shut off plain water before starting any repairs. If repairs are to be made to the water system, bleed water system pressure before proceeding. If repairs are to be made to syrup system, remove quick-disconnects, remove QCD from BIB, then bleed system pressure before proceeding.

COOLING UNIT

Trouble		Probable Cause		Remedy
Frozen water bath	1. 2. 3.	Bad ice bank control/probe. Agitator pump defective Under charge on refrigerant.	1. 2. 3.	Replace bad ice bank control/probe. Replace Agitator pump. Find refrigerant leak, repair and recharge.
Cooling or condensing unit non-operational	1. 2. 3. 4. 5. 6. 7. 8.	No electrical power. No water in water bath Defective ice bank control. Dirty water bath/Probe tip. Dirty condenser unit. Improper voltage/amperage Loss of refrigerant. Bad overload and relay. Compressor bad. Restriction (pinched or crimped line).	1. 2. 3. 4. 5. 6. 7. 8.	Plug power cord into electrical box. Check on/off switch. Fill water bath with water. Replace ice bank control. Change water bath clean probe tip. Clean condenser unit w/vacuum cleaner. Check for proper voltage/amperage. Repair leak and replenish refrigerant. Replace overload and relay Replace compressor. Repair, straighten or replace defective line.

Compressor does not operate	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 7. 8. 	<p>No power source.</p> <p>Electrical power to cooling unit turned off.</p> <p>Low voltage.</p> <p>Loose, disconnected, or broken wire.</p> <p>Inoperative ice bank control.</p> <p>Inoperative overload protector or start relay.</p> <p>Inoperative compressor.</p> <p>Full ice bank.</p>	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 7. 8. 	<p>Plug power cord to electrical box. Check line voltage.</p> <p>Turn on power switch to unit.</p> <p>Voltage must be at least 110 V at compressor terminals at start.</p> <p>Tighten connection or replace broken wiring.</p> <p>Replace ice bank control.</p> <p>Replace defective part.</p> <p>Replace compressor.</p> <p>Refrigeration not called for.</p>
Compressor works continuously but does not form ice bank.	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 	<p>Cooling capacity is exceeded by over drawing.</p> <p>Cooling unit located in excessively hot area.</p> <p>Air circulation through condenser coil is restricted</p> <p>Loss of refrigerant or insufficient charge.</p> <p>Dirty water bath/Probe tip.</p>	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 	<p>Reduce amount of drinks taken per given time of install higher volum unit.</p> <p>Relocate cooling unit.</p> <p>Check and if necessary, clean condenser coil.</p> <p>Repair leak and/or recharge with sufficient refrigerant.</p> <p>Clean water bath/probe tip.</p>
Compressor will not stop after forming ice bank	<ol style="list-style-type: none"> 1. 2. 	<p>Ice bank control probe defective.</p> <p>Ice bank control stuck in closed position.</p>	<ol style="list-style-type: none"> 1. 2. 	<p>Replace ice bank control probe.</p> <p>Replace ice bank control.</p>
<p>Note: During overload protector shut off condenser fan motor will continue to work. Otherwise, troubleshooting condenser fan motor problems is the same as "Compressor does not operate", paragraph in addition to the following.</p>				
Condenser fan motor not operating	<ol style="list-style-type: none"> 1. 2. 3. 	<p>Electrical cord loose or disconnected from condenser fan motor or compressor terminals.</p> <p>Fan blade obstructed.</p> <p>Inoperative condenser fan motor.</p>	<ol style="list-style-type: none"> 1. 2. 3. 	<p>Tighten connections or replace cord.</p> <p>Remove obstruction.</p> <p>Replace condenser fan motor.</p>

DISPENSING VALVES			
Water leaking from nozzle after actuation	1.	Foreign debris under plunger seat or bent, creased stem water only.	1. <ol style="list-style-type: none"> a. Disconnect water from affected valve. b. Relieve pressure by activating valve. c. Remove E-623 nut from water solenoid. d. Remove E-525 coil assembly from E-527 stem. e. Remove E-527 stem from valve body. Note: care should be taken not to dent smooth E-527 wall. f. Valve stem seat should be inspected for any foreign debris. If debris is found remove at this time, also check E-730 stem. Movement should be unrestricted and free. g. Inspect E-730 plunger seat for damage, replace if damaged. h. Reassemble by reversing above procedure.
No water, no syrup being dispensed from valve	1. 2. 3. 4. 5. 6. 7. 8.	No electrical power. Frozen water bath. Pinched or crimped lines. Broken S-1313 switch. Bad transformer. Disconnected wire. Defective S-1737 assy. Worn or defective neoprene tubing in S-1737 assy.	1. Plug power cord into electrical box. Check line voltage. 2. See "Frozen water bath". 3. Repair defective line. 4. Replace defective switch. 5. Replace bad transformer. 6. Attach disconnected wire. 7. Replace S-1737 assy. 8. Replace defective tubing.

No syrup being dispensed	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 	<ol style="list-style-type: none"> 1. Syrup container empty. 2. Syrup lines crimped. 3. QCD of syrup installed incorrectly. 4. S-1737 Assy defective. 5. Defective neoprene tubing. 6. Defective S-1700 transformer. 	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 	<ol style="list-style-type: none"> 1. Replenish syrup supply. 2. Straighten syrup lines. 3. Re-install QCD correctly. 4. Replace S-1737 Assy. 5. Replace neoprene tubing. 6. Replace S-1700 transformer.
No water being dispensed	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 	<ol style="list-style-type: none"> 1. Plain water inlet supply shutoff closed. 2. Water filter fouled/clogged. 3. Pinched or crimped line. 4. Loose electrical connection, 24 volt. 5. Defective S-1700 transformer. 6. Frozen water bath. 	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 	<ol style="list-style-type: none"> 1. Open plain water inlet supply line shut off valve. 2. Replace filter or cartridge. 3. Repair defective line. 4. Tighten connection and or repair open circuit. 5. Replace defective S-1700 transformer. See "Frozen water bath".
Water-to-syrup ratio to low or too high	<ol style="list-style-type: none"> 1. 2. 3. 	<ol style="list-style-type: none"> 1. Syrup adjusted to low. 2. Syrup B.I.B. placement to far away for P.P. Pumps. 3. S-1737 Pump assy defective. 	<ol style="list-style-type: none"> 1. 2. 3. 	<ol style="list-style-type: none"> 1. Adjust water-to-syrup ratio (see brixing instructions). 2. Move B.I.B. closer to unit. 3. Remove and repair S-1737 pump assy.

