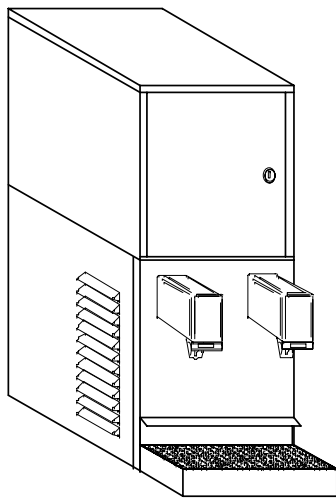


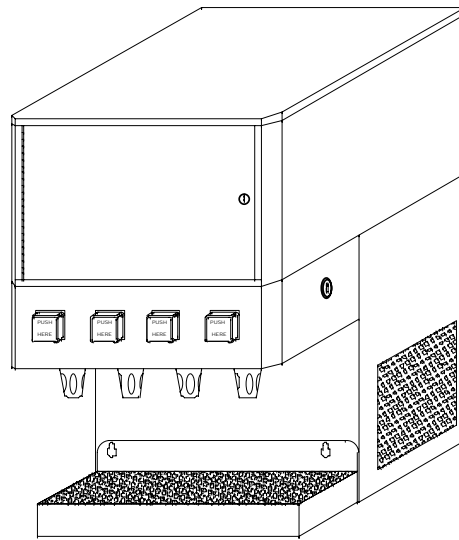
# "SC-PP UNITS"

## "STORAGE CABINET/PERISTALTIC PUMP UNITS"

### INSTALLATION AND SERVICE MANUAL

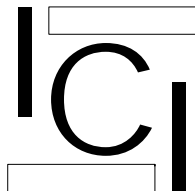


P-2000-SC-PP



LF-MS-J-PP-SC

LF-MS-QUICK PACK



"SODA-FAST SYSTEMS FOR EVERY APPLICATION AND USE"

INTERNATIONAL CARBONIC INC.

16630 KOALA RD., ADELANTO, CA 92301

(800) 854-1177 \* FAX (760) 246-4044

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.

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## 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.

## CHAPTER I

### GENERAL DESCRIPTION

This chapter gives the description, theory of operation, and design data for the juice units with a storage cabinet and peristaltic pumps, and related components. Although almost any self-contained refrigerated post-mix dispenser can be manufactured in the STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT this manual will be confined to the PREMIER 2000 and LIL FELLA MID SIZE JUICE UNITS.

### SYSTEM DESCRIPTION

The STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT is a complete self-contained Juice unit. The STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT consists of a water bath, refrigeration system, valves, and cabinet that contains the peristaltic pumps and bag in the box containers. The unit is housed in an attractive black vinyl or stainless steel. The STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT has been designed to eliminate the use of bag in the box pumps and associated components. The STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT can brix from one to one up to twenty to one by using a state of the art controller/potentiometer adjustment.

For proper function the STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT must have a water supply, and electrical supply and drainage. The STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT is designed with a unique lift off drain pan that can be emptied at any convenient drain outlet.

**WARNING:** Before shipping or relocating a STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT 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

STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT

Overall Cabinet/P.P. Base dimensions:

Premier 2000	Lil Fella Mid Size Juice
Height ..... 29 3/4"	Height ..... 36 1/4"
Width ..... 11 3/4"	Width ..... 18 3/4"
Depth ..... 17 1/2"	Depth ..... 18 5/8"

Weights:

Premier 2000	Lil Fella Mid Size Juice
Shipping..... 105 lbs	145 lbs
Dry weight ..... 90 lbs	130 lbs
Operational Weight .... 110 lbs	160 lbs

Capacities:

Premier 2000	Lil Fella Mid Size Juice
Unit water bath gallons 2.5	Unit water bath gallons 5
Refrigerant req. (R-134a) ounces 3	Refrigerant req. (R-134a) ounces 6.3
Grams .....90	Grams ..... 180

Ambient operating temperature ..... 40 F to 100 F

Electrical Requirements:

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

Premier	Lil Fella Mid Size Juice
Circuit Ampacity Amps 3.3	Circuit Ampacity Amps 3.9
Condensing Unit Amps 2.2	Condensing Unit Amps 2.1
Agitator Amps .1	Agitator Amps .8
Peristaltic Pump Assembly @ 4 valves Amp 1	
Illumination .5, (if applicable)	

REFRIGERATION capillary air-cooled.

Premier 1/9 <sup>th</sup> HP C.U.	Lil Fella Mid Size 1/5 <sup>th</sup> HP C.U.
-----------------------------------	--

## THEORY OF OPERATION

The STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT was designed to manufacture and dispense non-carbonated beverages much like your local bottling plant that cans or bottles your favorite non-carbonated drink. Unlike your local bottling plant or a standard post-mix unit the STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT is much more self-contained. It not only contains your peristaltic pumps, eliminating the need for BIB pumps but it also contains the BIB containers eliminating the need for BIB racks.

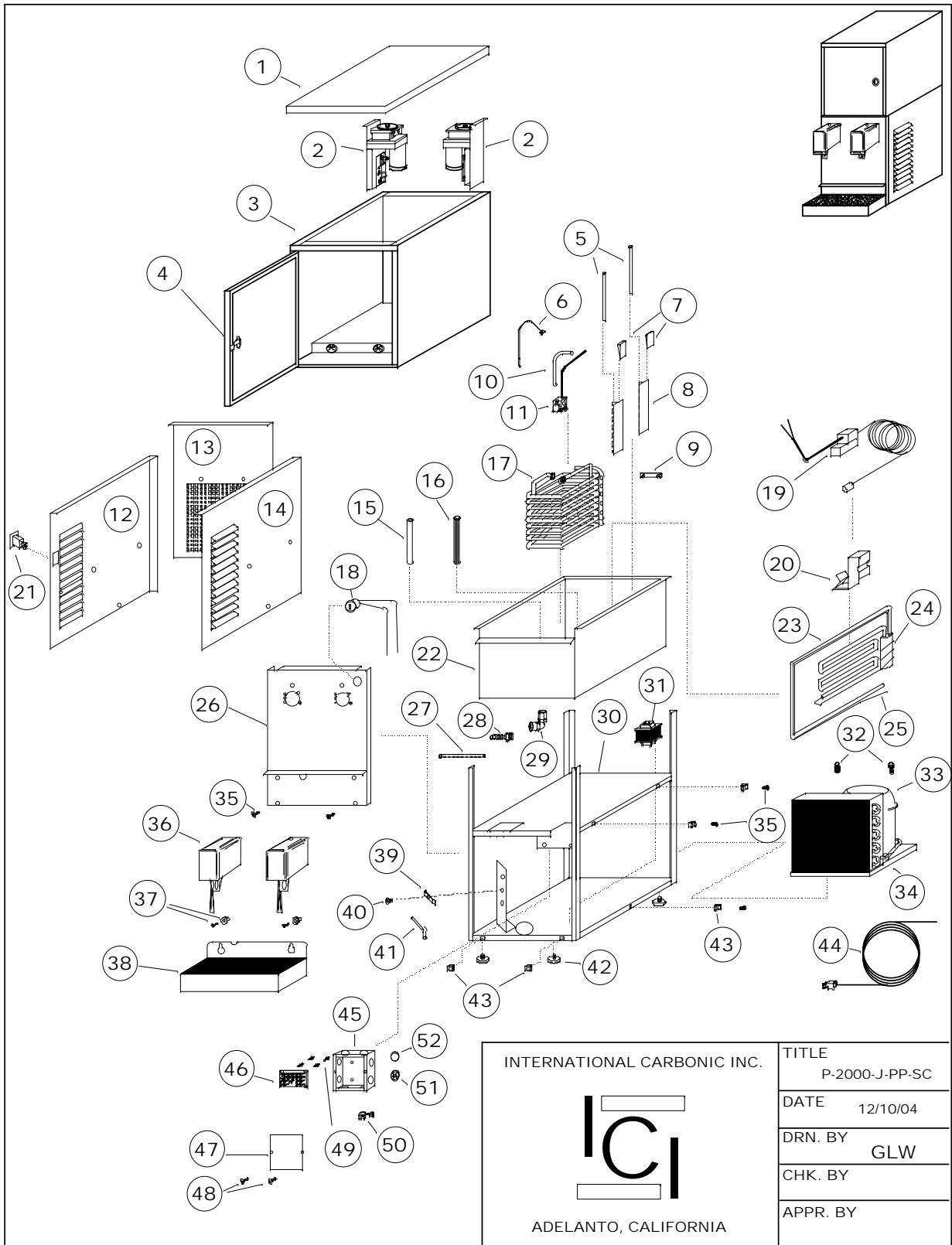
The water bath must be filled with approximately 2.5 gallons on the Premier or 5 gallons of water for the Lil Fella. After all connections are made and activation of the refrigeration a certain amount of this water will be transformed into ice, approximately 6 pounds for the Premier or 17 pounds for the Lil Fella. The refrigerated water not transformed into ice and the 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 containers and peristaltic pumps are placed in a specially designed cabinet just above the valve area. This stainless steel cabinet can be hinged up to gain access to the water bath section of the STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT. The storage cabinet also is designed with a convenient lift off service lid.

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 and the water pressure can vary. This variance of water pressure can effect our dispensed product.



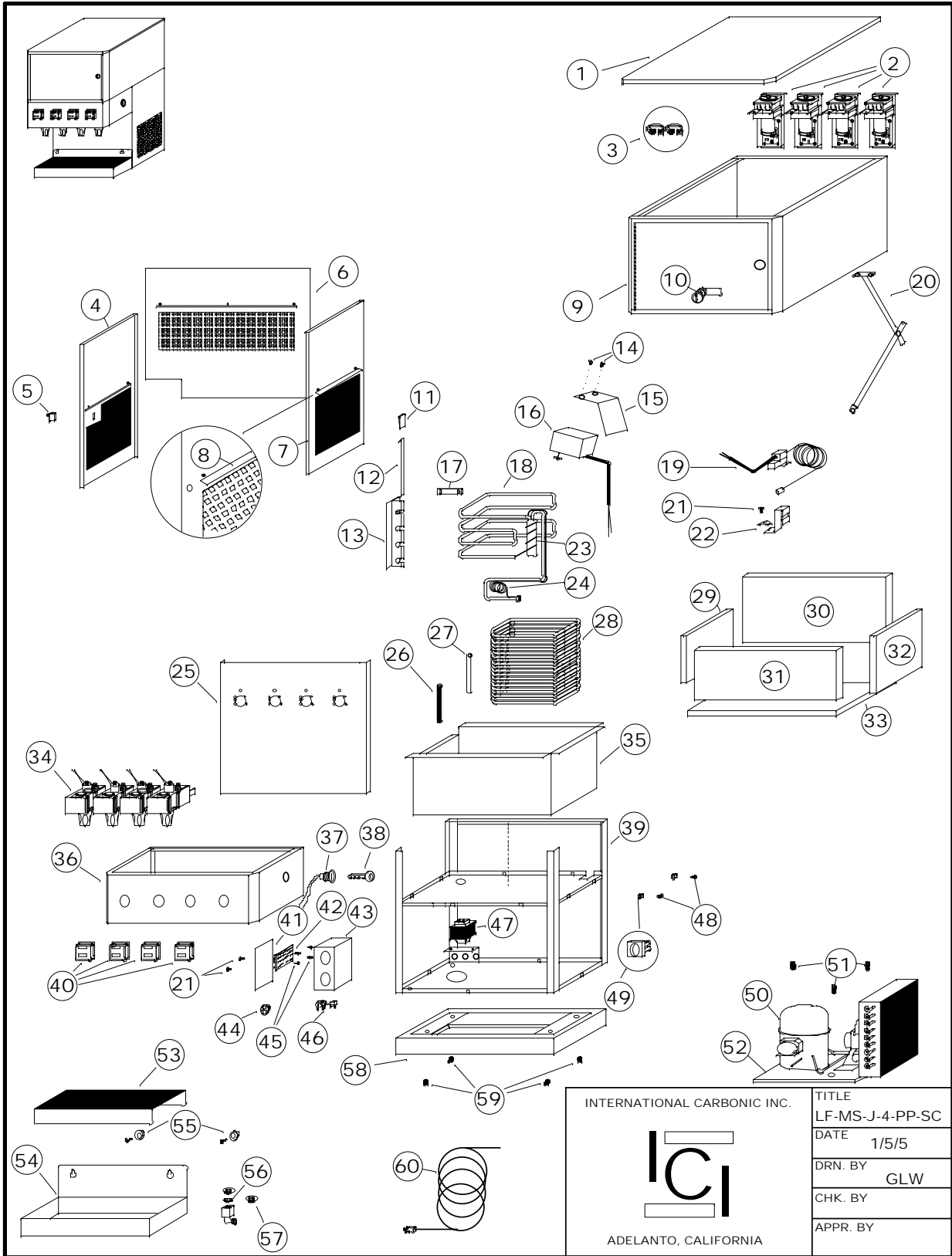



# PREMIER 2000 JUICE PERISTALTIC PUMP STORAGE CABINET

SYM	QTY	PART NO.	DESCRIPTION
1	1	S1544-SC	LID
2	2	S1737	PERISTALTIC PUMP ASSY
3	1	S1553	STORAGE COMPARTMENT COMPLETE
4	1	S0382	DOOR KEY LOCK
5	2	S0741	EVAPORATOR COIL RETAINER
6	1	G0016	TY-RAP, LARGE
7	2	S1323	EVAPORATOR GUIDE WEDGE
8	2	S1540	EVAPORATOR COIL SUPPORT BRKT.
9	2	S1324	POSITIONING BAR
10	1	....	3/8 CLEAR TUBING, 6"
11	1	S0833	AGITATOR PUMP
12	1	S1542	SERVICE PANEL, LEFT SIDE
13	1	S1541	SERVICE PANEL, REAR
14	1	S1543	SERVICE PANEL, RIGHT SIDE
15	1	S1547	STANDPIPE, 6 3/4", WHITE
16	1	S1546	OVERFLOW, 7", GRAY
17	1	S1533	WATER COIL
18	1	S1330	SWITCH LOCK, W/KEYS
19	1	S0513-A	ICE BANK CONTROL
20	1	S1304-U	ICE BANK CONTROL BULB BRACKET
21	1	S0783	UNIT ON/OFF SWITCH
22	1	S1531	BUCKET ASSY., WITH INSULATION
23	1	S1532	EVAPORATOR COIL ASSEMBLY
24	1	S0509	ACCUMULATOR
25	1	X0121	CAP TUBE, 12' - .031
26	1	S1539	VALVE MOUNTING PLATE

## PREMIER 2000 JUICE PERISTALTIC PUMP STORAGE CABINET Cont.

SYM	QTY	PART NO.	DESCRIPTION
27	1	....	5" CLEAR TUBING, 1/4 I.D. X 3/8 O.D.
28	1	S1535	CONDENSATE DRAIN NIPPLE
29	1	S1534	CONDENSATE DRAIN ELBOW
30	1	S1530	FRAME COMPLETE
31	1	S1700	TRANSFORMER, 24V, 100VA
32	2	A0046	5/16 X 18 FLANGE WHIZ LOCK SCREW, 3/4"
33	1	AZA0370YXA	COMPRESSOR ONLY
34	1	AZA0370YXAXA	CONDENSING UNIT, 1/9 H.P.
35	11	A0014	SCREW, #10 X 1/2" PHILLIPS T.H., SS COMBO
36	2	PFC-II	DISPENSING VALVE
37	1	S0743	DRAIN PAN HARDWARE, SET
38	1	S1549	DRAIN PAN W/CUP REST
39	1	S1551	DRAIN TUBE HOLD DOWN BRACKET
40	1	A0025	10-24 X 1/2 TH SCREW
41	1	S1552	DRAIN TUBE, 5/16 X 5 1/2 S.S. TUBING
42	1	S1318	CUSHIONED FEET, SET OF 4
43	11	S1325	SQUARE GROMMET NUT
44	1	E0141-12	CORD
45	1	S1537	TERMINAL BOX WITH COVER
46	1	S1309	TERMINAL BOARD
47	1	S1538	TERMINAL BOX COVER ONLY
48	4	A0020	8-32 X 3/8 TH SCREW, S.S.
49	4	S1335	TERMINAL BOARD SPACER, NYLON
50	1	E0664	STRAIN RELIEF BUSHING
51	5	S0046	BUSHING UNIVERSAL
52	1	S-7/8	HOLE PLUG



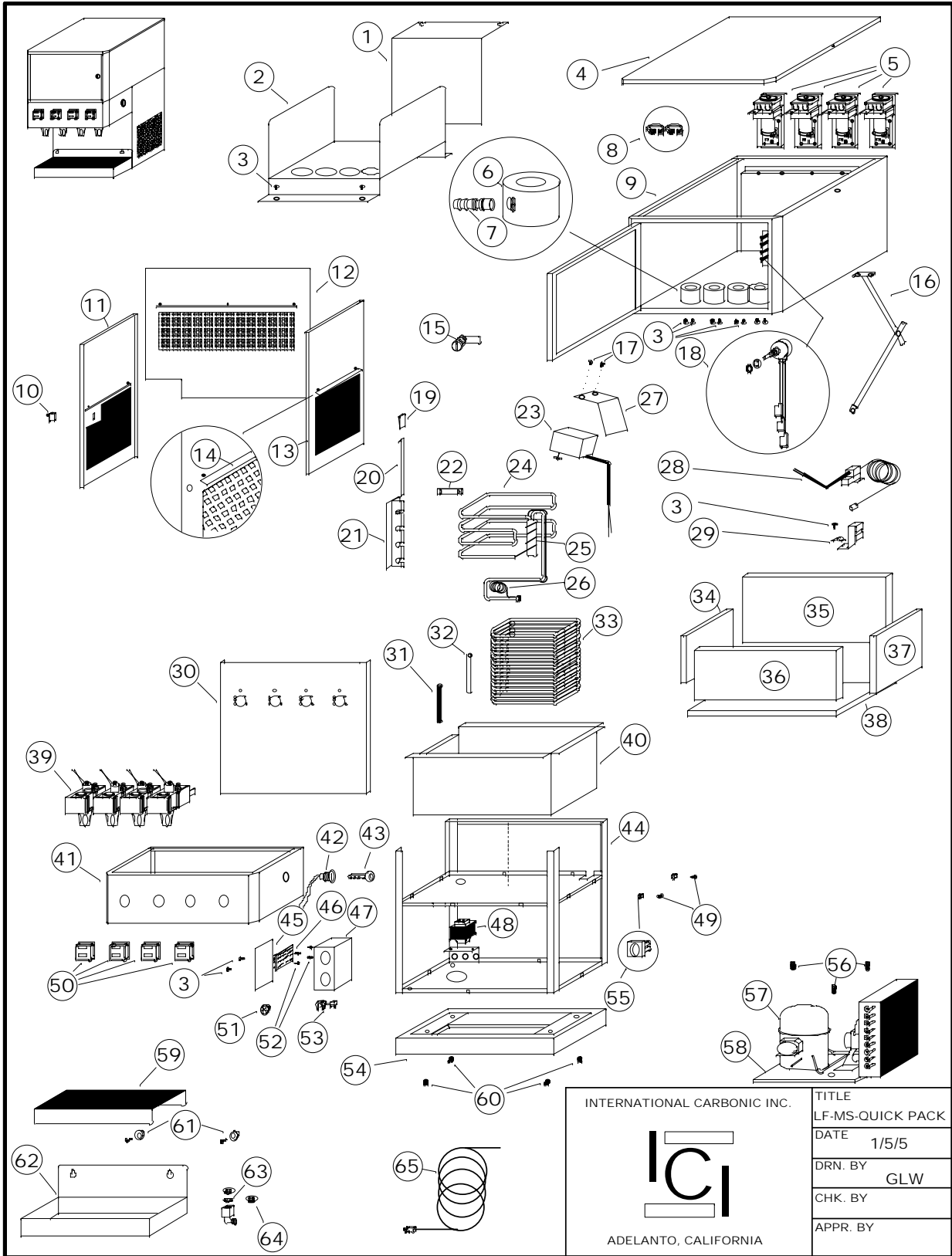
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# LF-MS-J-4-PP-SC

SYM	QTY	PART NO.	DESCRIPTION
1	1	S1377	LID, STORAGE COMPARTMENT
2	1	S1737	PERISTALTIC PUMP ASSEMBLY
3	2	S1698	PLASTIC CLAMP
4	1	S1338	SERVICE PANEL, LEFT SIDE
	1	S1338-A	SERVICE PANEL AWNING, LEFT SIDE, (not shown)
5	1	S0783	UNIT ON/OFF SWITCH
6	1	S1379	SERVICE PANEL, REAR
	1	S1379-A	SERVICE PANEL AWNING, REAR, (not shown)
7	1	S1339	SERVICE PANEL, RIGHT SIDE
8	1	S1339-A	SERVICE PANEL AWNING, RIGHT SIDE
9	1	S1378	STORAGE COMPARTMENT
10	1	S1634	CABINET LOCK ASSEMBLY
11	5	S1323	WEDGE
12	5	S0661	EVAPORATOR COIL RETAINER
13	5	S0662	EVAPORATOR SUPPORT BRACKET
14	2	F0004	SCREW, #8 X 5/16 T.H., S.S. TYPE F
15	1	S1341-LG	AGITATOR PUMP BRACKET
16	1	S0835	AGITATOR PUMP
17	2	S1324	POSITIONING BAR
18	1	S1333	EVAPORATOR COIL ASSEMBLY
19	1	S0513-A	ICE BANK CONTROL
20	1	S0681	SUPPORT HINGE
21	4	A0020	SCREW, 8-32 X 3/8 TH SS
22	1	S1304-U	ICE BANK CONTROL BRACKET
23	1	S0509	ACCUMULATOR
24	1	Z0009	CAP TUBE 12' .042
25	1	S1380	VALVE PLATE
26	1	S0658	OVERFLOW, 8", GRAY
27	1	S0657	STANDPIPE, 7 3/4", WHITE
28	1	S1334	WATER COIL, COPPER
29	1	''''	INSULATION, LEFT SIDE
30	1	''''	INSULATION, REAR

# LF-MS-J-4-PP-SC Cont.

SYM	QTY	PART NO.	DESCRIPTION
31	1	''''	INSULATION, FRONT
32	1	''''	INSULATION, RIGHT SIDE
33	1	''''	INSULATION, BOTTOM
34	4	PFC-II-PP	VALVE, PERISTALTIC PUMP READY
35	1	S1332	BUCKET, COMPLETE WITH INSULATION
36	1	S1381	VALVE HOUSING
37	1	S1330	SWITCH W/KEYS
38	2	S1330-K	KEY, ONLY
39	1	S1331-SC	FRAME COMPLETE
40	4	S1313	SWITCH, PUSH HERE
41	1	S1310	TERMINAL BOX COVER
42	1	S1309	TERMINAL BOARD
43	1	S1308	TERMINAL BOX WITH COVER
44	5	S0046	BUSHING
45	20	S1335	TERMINAL BOARD SPACER, NYLON
46	1	E0664	STRAIN RELIEF
47	1	S1700	TRANSFORMER
48	9	A0014	SCREW, #10 X 1/2", TH SS
49	9	S1325	SQUARE GROMMET NUT
50	1	AEA1360YXA	COMPRESSOR ONLY, 1/5 H.P.
51	3	A0046	SCREW, 5/16-18 X 3/4 WHIZ LOCK
52	1	AEA1360YXAXA	CONDENSING UNIT, 1/5 H.P.
53	1	S1383-A	CUP REST
54	1	S1383	DRAIN PAN
55	1	S0743	DRAIN PAN MTG HARDWARE
56	1	S1164	PLASTIC DRAIN ASSY, 1/2"
57	1	S1166-A	PLUG FOR S1164 DRAIN ASSY
58	1	S1382	BASE, 1 1/2"
59	4	A0045	SCREW, 5/16-18 X 1/2 WHIZ LOCK
60	1	E141-12	POWER CORD
	1 SET	S765	LEGS, OPTIONAL, (not shown)



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# LF-MS-QUICK PACK

SYM	QTY	PART NO.	DESCRIPTION
1	1	S1351	SHIELD, QP
2	1	S1388	BOX SUPPORT, QP
3	21	A0020	SCREW, 8-32 X 3/8 TH SS
4	1	S1377	LID, STORAGE COMPARTMENT
5	4	S1737	PERISTALTIC PUMP ASSEMBLY
6	1	S1384	CONNECTOR, QP
7	1	E0585	TUBING INLET, 1/4", PM
8	1	S1698	PLASTIC CLAMP
9	1	S1378-QP	STORAGE COMPARTMENT
10	1	S0783	UNIT ON/OFF SWITCH
11	1	S1338	SERVICE PANEL, LEFT SIDE
	1	S1338-A	SERVICE PANEL AWNING, LEFT SIDE, (not shown)
12	1	S1379	SERVICE PANEL, REAR
	1	S1379-A	SERVICE PANEL AWNING, REAR, (not shown)
13	1	S1339	SERVICE PANEL, RIGHT SIDE
14	1	S1339-A	SERVICE PANEL AWNING, RIGHT SIDE
15	1	S1634	CABINET LOCK ASSEMBLY
16	1	S0681	SUPPORT HINGE
17	2	F0004	SCREW, #8 X 5/16 T.H., S.S. TYPE F
18	1	S1699	POTENTIOMETER ASSY
19	5	S1323	WEDGE
20	5	S0661	EVAPORATOR COIL RETAINER
21	5	S0662	EVAPORATOR SUPPORT BRACKET
22	1	S1324	POSITIONING BAR
23	1	S0835	AGITATOR PUMP
24	1	S1333	EVAPORATOR COIL ASSEMBLY
25	1	S0509	ACCUMULATOR
26	1	Z0009	CAP TUBE 12' .042
27	1	S1341-LG	AGITATOR PUMP BRACKET
28	1	S0513-A	ELECTRONIC ICE BANK CONTROL, EIBC
29	1	S1304-U	ICE BANK CONTROL BRACKET
30	1	S1380	VALVE PLATE
31	1	S0658	OVERFLOW, 8", GRAY
32	1	S0657	STANDPIPE, 7 3/4", WHITE



# LF-MS-QUICK PACK Cont.

SYM	QTY	PART NO.	DESCRIPTION
33	1	S1334	WATER COIL, COPPER
34	1	''''	INSULATION, LEFT SIDE
35	1	''''	INSULATION, REAR
36	1	''''	INSULATION, FRONT
37	1	''''	INSULATION, RIGHT SIDE
38	1	''''	INSULATION, BOTTOM
39	4	PFC-II-PP	VALVE, PERISTALTIC PUMP READY
40	1	S1332	BUCKET, COMPLETE WITH INSULATION
41	1	S1381	VALVE HOUSING
42	1	S1330	SWITCH W/KEYS
43	2	S1330-K	KEY, ONLY
44	1	S1331-SC	FRAME COMPLETE
45	1	S1310	TERMINAL BOX COVER
46	1	S1309	TERMINAL BOARD
47	1	S1308	TERMINAL BOX WITH COVER
48	1	S1700	TRANSFORMER
49	9	A0014	SCREW, #10 X 1/2", TH SS
50	4	S1313	SWITCH, PUSH HERE
51	5	S0046	BUSHING
52	4	S1335	TERMINAL BOARD SPACER, NYLON
53	1	E0664	STRAIN RELIEF
54	1	S1382	BASE, 1 1/2"
55	9	S1325	SQUARE GROMMET NUT
56	3	A0046	SCREW, 5/16-18 X 3/4 WHIZ LOCK
57	1	AEA1360YXA	COMPRESSOR ONLY, 1/5 H.P.
58	1	AEA1360YXAXA	CONDENSING UNIT, 1/5 H.P.
59	1	S1383-A	CUP REST
60	4	A0045	SCREW, 5/16-18 X 1/2 WHIZ LOCK
61	1	S0743	DRAIN PAN MTG HARDWARE
62	1	S1383	DRAIN PAN
63	1	S1164	PLASTIC DRAIN ASSY, 1/2"
64	1	S1166-A	PLUG FOR S1164 DRAIN ASSY
65	1	E0141-12	POWER CORD
	1 SET	S0765	LEGS, OPTIONAL, (not shown)

## PFC-II-PP

SYM	QTY	PART NO.	DESCRIPTION
1	1	E-623	NUT, SOLENOID
2	1	E-525	COIL, W/SHIELD, SOLENOID, 24 VAC
3	4	E-1005	SCREW, RETAINER
4	1	E-739	FLUX PLATE
5	1	E-527	STEM, SOLENOID VALVE
6	2	E-1004	RETAINER, S.S.
7	1	E-135	METERING PIN
8	1	E-1024-M	ADAPTER, FLO WASHER, MODIFIED
9	1	E-134	"O" RING, METERING PIN
10	1	E-1013	"O" RING, SYRUP ADAPTOR
11	1	E-730	PLUNGER & SPRING ASSEMBLY
12	1	E-520	METERING PIN ADAPTOR ASSY, INCLUDES SYM 7,9, & 12
13	2	E-531	GASKET, SOLENOID STEM
14	1	S-1162-A	FLANGE PLUG
15	1	E-1008	"O" RING, SODA ADAPTOR
16	1	E-580	BODY, PFC-II, TWIST LOCK
17	1	E-157	SUBMINIATURE SWITCH
18	1	E-188	SPRING AND INSULATOR PAD
19	1	E-471-FF	SYRUP OUTLET TUBE
20	1	E-102	"O" RING, NOZZLE
21	1	E-581	NOZZLE, TWIST LOCK
22	1	E-690	WIRE ASSEMBLY CONSISTS OF E-691 & E-692
23	1	E-691	MALE WIRE ASSEMBLY ONLY
24	1	E-692	FEMALE WIRE ASSEMBLY ONLY

### PFC-II-Peristaltic Pump

INTERNATIONAL CARBONIC INC.

ADELANTO, CALIFORNIA

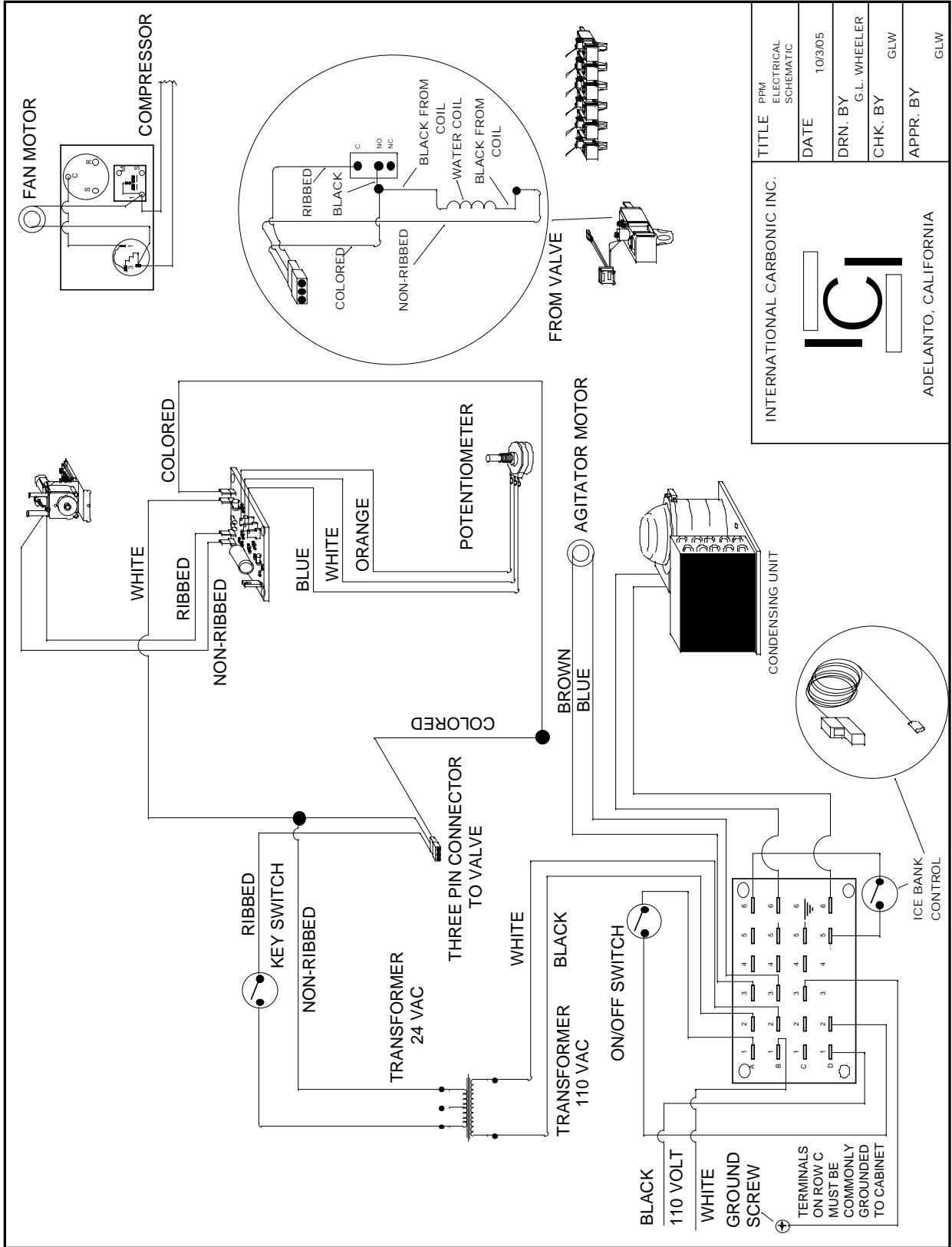
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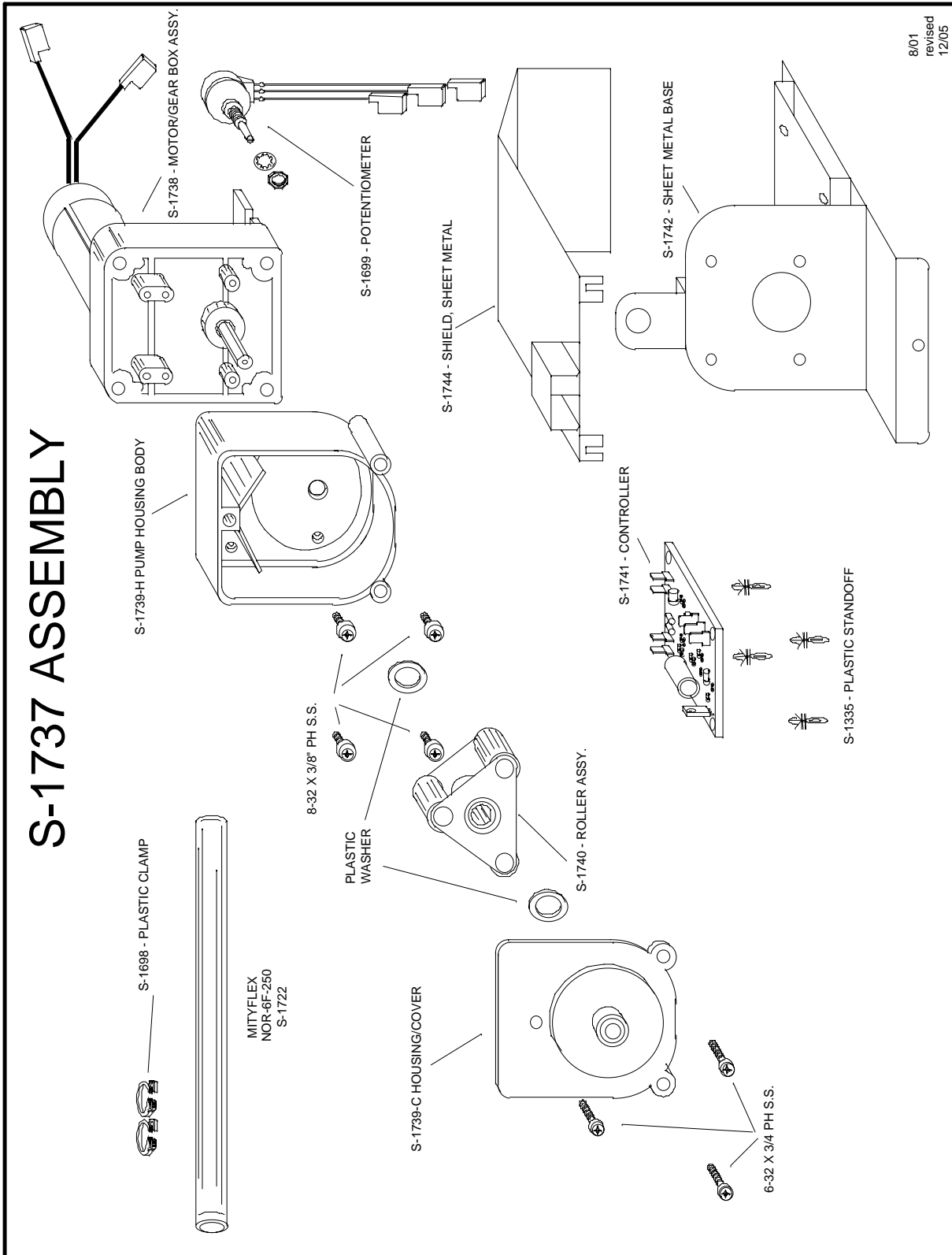
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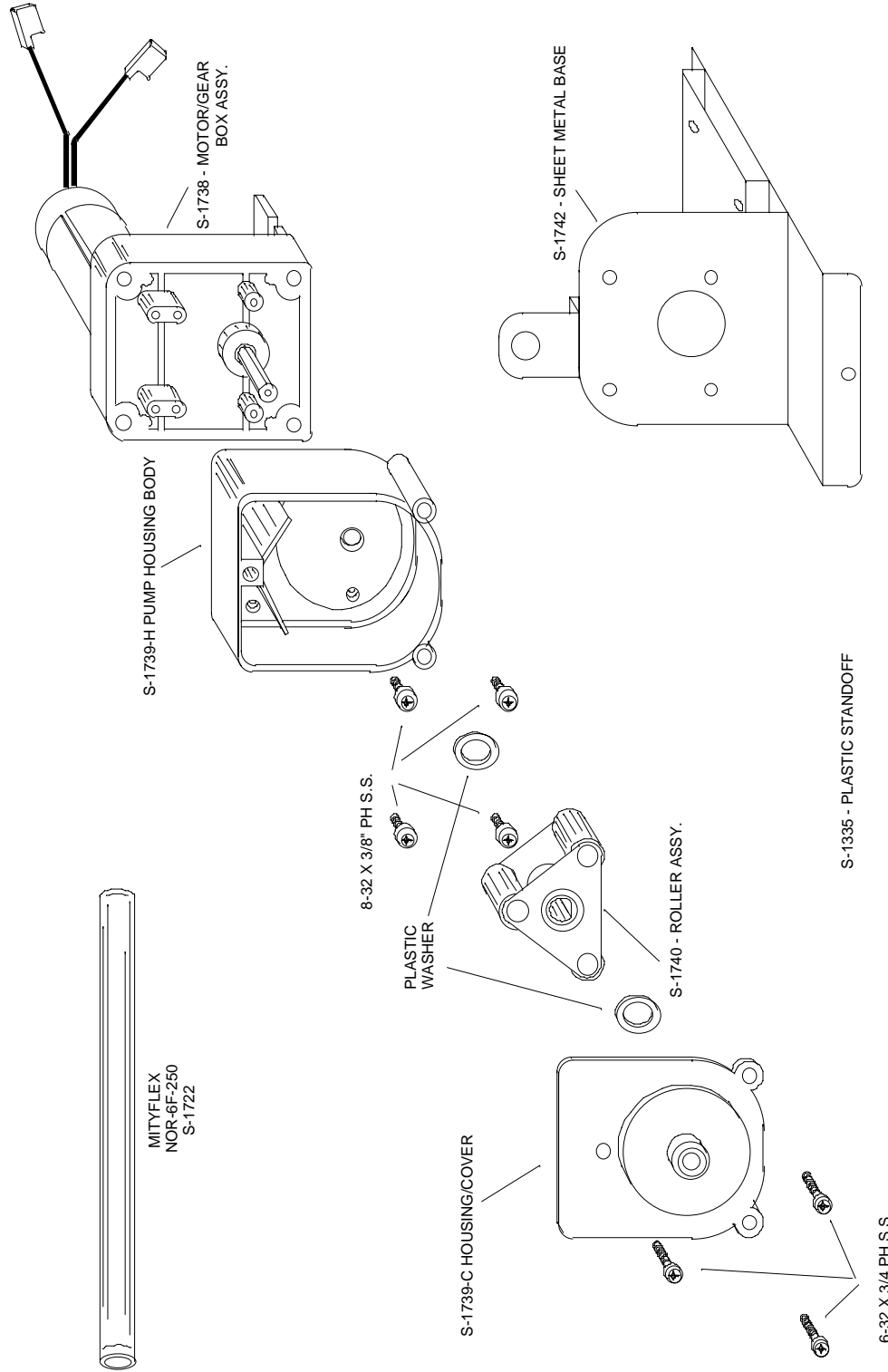
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# S-1737 ASSEMBLY



# S-1743 REPLACEMENT ASSEMBLY



17  
CHAPTER II

INSTALLATION  
STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT

This chapter covers unpacking and inspection, selecting location, installing STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT and related components.

UNPACKING AND INSPECTION

Upon receiving unit, immediately remove STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT from shipping carton and inspect for shipping damage.

NOTE: Before leaving the factory the STORAGE CABINET/PERISTALTIC JUICE TYPE 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 STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT

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 and access to water bath.
3. Position unit as close as possible to floor drain.
4. Position unit as close as possible to water source. Half inch gate valve recommended for water connection.

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TABLE 2-1

LOOSE - SHIPPED PARTS

Item No.	Part No.	Name	Qty
1		Installation/Service Manual	1
2	S-1214	Drain pan	1
3	----	Product Decals	1 per flavor
4	S-1330-K	Keys	2
5*		Water filter	1

\* Optional

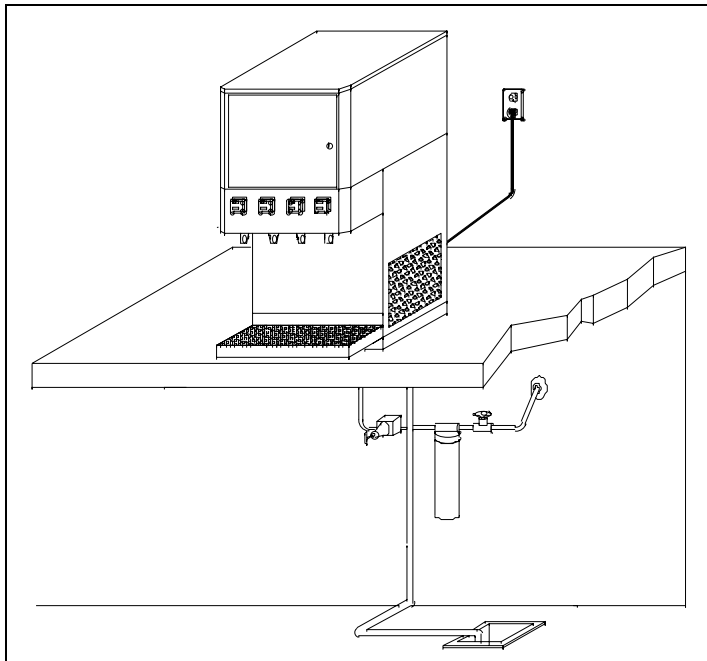


FIGURE 2 SAMPLE OF POSSIBLE INSTALLATION.

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 STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT 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.

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### 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.

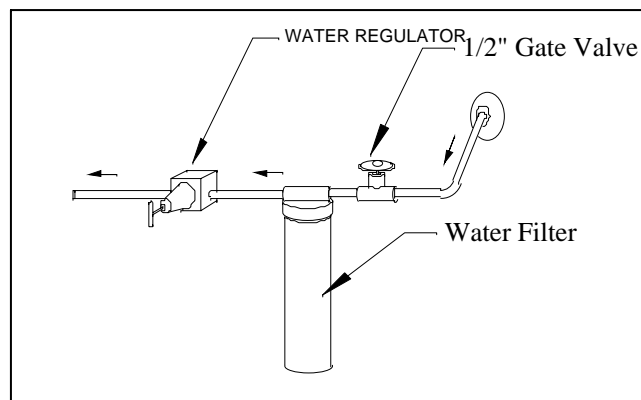


FIGURE 2-4. SUGGESTED WATER FLOW INSTALLATION

### INSTALL DRAIN LINE

1. Connect drain line on STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT with drain using 1/2" I.D. clear plastic tubing to nearest outlet.
2. Do not reduce drain connection from cabinet outlet.
3. Be sure all connections are water-tight.

### INSTALL B.I.B.

1. Install Bag in the Box container in storage cabinet and connect correct disconnect.
2. Check all connections for leaks.

### 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 STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT is made to a flexible water line by means of a 3/8", hose or barb connection.

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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 STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT. It can be reduced to 3/8" O.D. copper tubing and connected to the water inlet connection with-in ten feet of the STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT. All water inlet connections are clearly tagged.

ELECTRICAL REQUIREMENTS:

The STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT 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  
STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT  
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. STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT refrigeration is pre-set at factory and ready to operate.
2. Hinge up storage compartment and inspect the water bath for the following:
  - a. Standpipe and overflow are in place.
  - b. Agitator is in place.
  - c. Ice bank bulb is in place.
3. Fill water bath with clean water until water runs out of condensate drain outlet, white plastic tube, (approximately ½" from top of water bath). DO NOT USE DISTILLED WATER.
4. Open water inlet supply line.
5. Plug STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT 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 now start. With ambient and water temperature of 75 degree "F" initial pull down or formation of complete ice bank will take approximately 4 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.

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.

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### CHAPTER IV

## STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT 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 and in place.
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 CO<sub>2</sub> 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 therefore it is paramount that the condensate drain be installed.

#### CHANGING WATER BATH

Drain water bath a minimum of twice a year. This can be accomplished by locating the standpipe in the water bath area and removing by twisting and pulling up. Once water is drained, water bath, water coils, bath walls, etc. should be cleaned. Replace standpipe and refill with water. Fill water bath to top of standpipe, (S-1211).

#### CLEAN NOZZLES

Remove nozzles nightly and let soak in warm water. DO NOT SOAK IN HOT HOT WATER OR BLEACH WATER!

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CHAPTER V

SERVICE AND MAINTENANCE

This chapter describes service and maintenance procedures to be performed on STORAGE CABINET/PERISTALTIC JUICE TYPE UNIT units and related components.

PERIODIC INSPECTION AND CLEANING

Daily:

1. Clean all B.I.B. quick disconnects and general storage area with warm water.
2. Clean the beverage dispensing area.
3. Remove and clean nozzles and all exposed areas on valves.
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*

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1. Unplug refrigeration unit power cord from electrical socket.
2. Vacuum or use a soft brush to clean fins of condenser coil. Use low-pressure compressed air or CO<sub>2</sub> 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.
3. Plug refrigeration unit power cord in electrical socket.

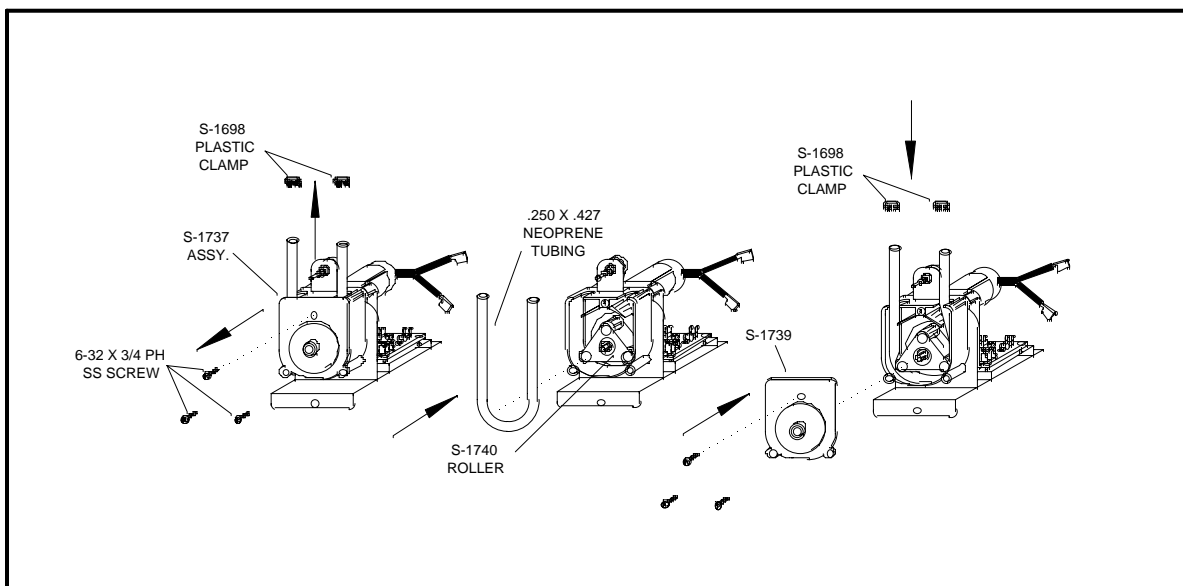
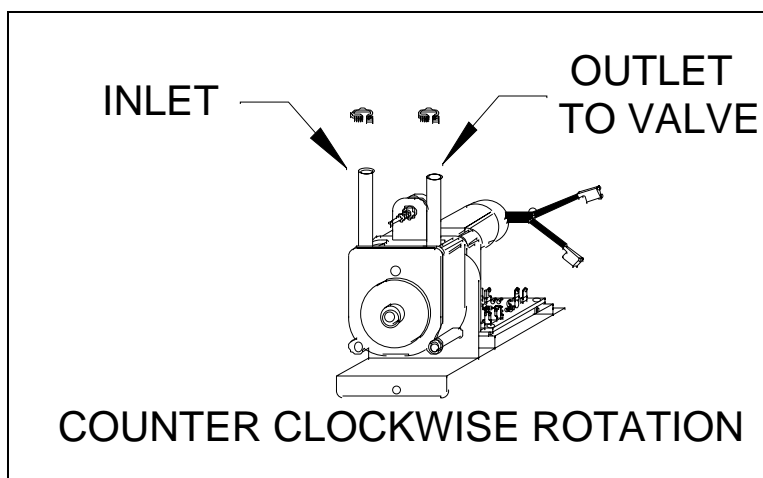
#### CHANGING WATER BATH

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 power cord from electrical socket.
2. Remove bag in the box containers.
3. Hinge up storage cabinet exposing water bath area.
4. Remove white standpipe from water bath allowing the water to drain.
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.
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.
9. Re-install stand-pipe in drain hole.
10. Fill water bath to top of stand pipe, (condensate drain), with fresh clear clean water.
11. Hinge down the storage cabinet.
12. Replace bag in the box containers.
13. Re-connect electrical power.

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 by removing nozzle and inspecting nozzle and valve cavity. Clean nozzle with cleaning agent, then sanitizing solution, then with potable water. Inspect valve cavity and if dirty clean with soft bristle brush. Clean exteriors of valve with a soft cloth and warm water. Replace valve nozzle then go to step #3.
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.

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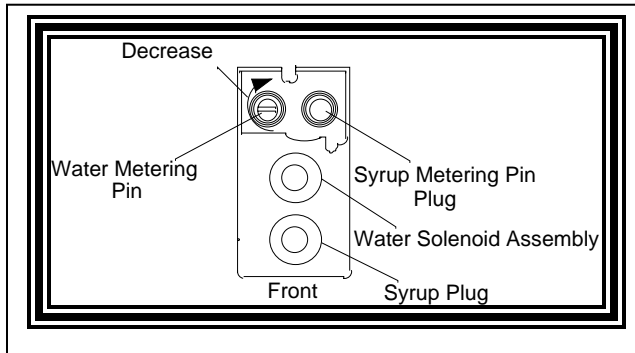
6. Reconnect syrup containers and ready Unit for operation.
7. A Draw drinks to refill syrup lines and flush the chloride solution from the dispenser.
8. Taste the beverage to verify that there is no off taste.

NOTE: WHEN SANITIZING A TWO FLAVOR VALVE BOTH SYRUPS SHOULD BE FLUSHED SIMULTANEOUSLY, BOTH SYRUPS SHOULD BE CLEANED, (DETERGENT SOLUTION), SIMULTANEOUSLY, BOTH SYRUPS SHOULD BE FLUSHED UNTIL FREE OF DETERGENT SIMULTANEOUSLY AND BOTH SYRUPS SHOULD BE SANITIZED SIMULTANEOUSLY.



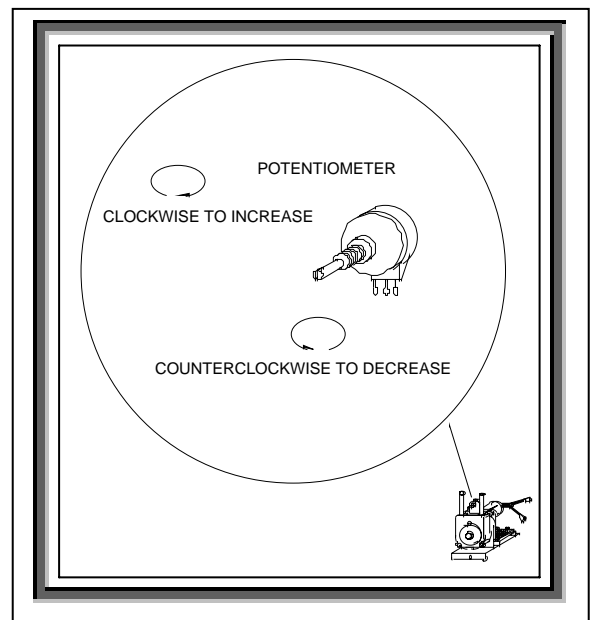
28  
BRIX INSTRUCTIONS

BRIXING PFC-II-PP VALVE

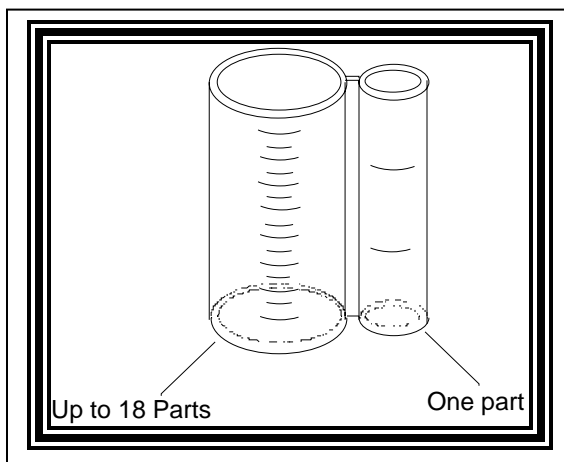


The water and syrup flows are individually adjusted by their respective metering pin / potentiometer.

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.



When facing the valve, the syrup is always to the right and the water/soda is to the left. To decrease syrup or water flow, turn metering pin clockwise. To decrease syrup or water flow, when using flow control valves turn counter-clockwise. To increase, reverse rotation respectively.



The ultimate goal is to achieve a proper ratio of water vs. syrup. This ratio can and will vary with differing products.

Note: Contact product supplier for proper ratio adjustments.

TROUBLE SHOOTING

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

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"> <li>a. Disconnect water from affected valve.</li> <li>b. Relieve pressure by activating valve.</li> <li>c. Remove E-623 nut from water solenoid.</li> <li>d. Remove E-525 coil assembly from E-527 stem.</li> <li>e. Remove E-527 stem from valve body. Note: care should be taken not to dent smooth E-527 wall.</li> <li>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.</li> <li>g. Inspect E-730 plunger seat for damage, replace if damaged.</li> <li>h. Reassemble by reversing above procedure.</li> </ol>	
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 sub-miniature switch. Bad transformer.  Disconnected wire. Defective S-1737 assy. Worn or defective neoprene	1. 2. 3. 4. 5. 6. 7. 8.	Plug power cord into electrical box. Check line voltage. See "Frozen water bath". Repair defective line. Replace defective switch.  Replace defective transformer. Attach disconnected wire. Replace S-1737 assy. Replace defective tubing.

		tubing in S-1737 assy.		
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No syrup being dispensed	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> </ol>	<ol style="list-style-type: none"> <li>1. Syrup container empty.</li> <li>2. Syrup lines crimped.</li> <li>3. QCD of syrup installed incorrectly.</li> <li>4. S-1737 Assy defective.</li> <li>5. Defective neoprene tubing.</li> <li>6. Defective S-1700 transformer.</li> </ol>	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replenish syrup supply.</li> <li>2. Straighten syrup lines.</li> <li>3. Re-install QCD correctly.</li> <li>4. Replace S-1737 Assy.</li> <li>5. Replace neoprene tubing.</li> <li>6. Replace S-1700 transformer.</li> </ol>
No water being dispensed	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plain water inlet supply shutoff closed.</li> <li>2. Water filter fouled/clogged.</li> <li>3. Pinched or crimped line.</li> <li>4. Loose electrical connection, 24 volt.</li> <li>5. Defective E-276 transformer.</li> <li>6. Frozen water bath.</li> </ol>	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> </ol>	<ol style="list-style-type: none"> <li>1. Open plain water inlet supply line shut off valve.</li> <li>2. Replace filter or cartridge.</li> <li>3. Repair defective line.</li> <li>4. Tighten connection and or repair open circuit.</li> <li>5. Replace defective E-276 transformer.</li> <li>6. See "Frozen water bath".</li> </ol>
Water-to-syrup ratio to low or too high	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> </ol>	<ol style="list-style-type: none"> <li>1. Syrup adjusted to low.</li> <li>2. Syrup B.I.B. placement to far away for P.P. Pumps.</li> <li>3. S-1737 Pump assy defective.</li> </ol>	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust water-to-syrup ratio (see brixing instructions).</li> <li>2. Move B.I.B. closer to unit.</li> <li>3. Remove and repair S-1737 pump assy.</li> </ol>



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