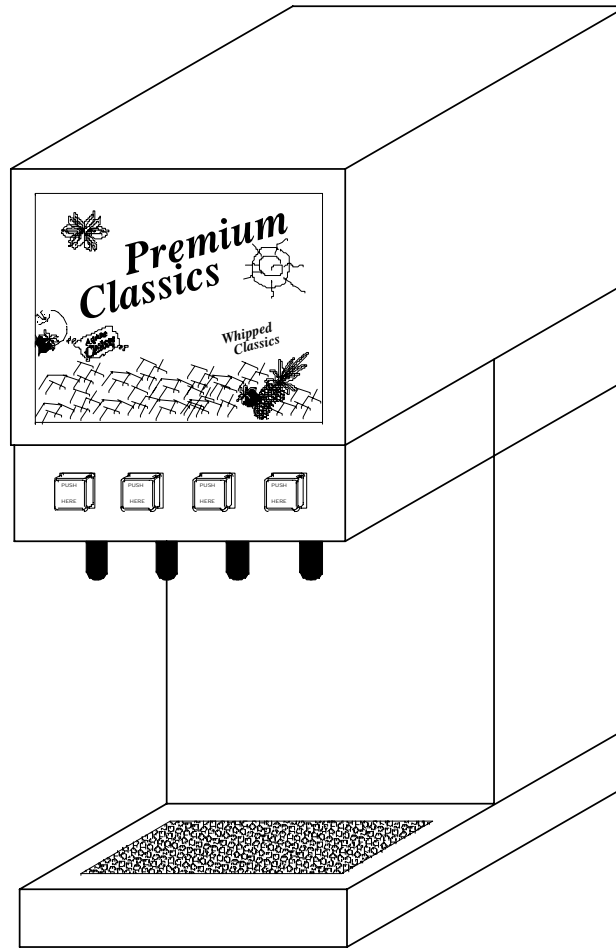
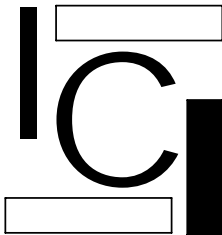


CLASSIC TOWER



INSTRUCTION/INSTALLATION



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 or maintenance of this equipment.

PREFACE

Originally started just after World War II in Canfield, Ohio as Carbonic Dispensers, INTERNATIONAL CARBONIC INC. has enjoyed over 53 years of manufacturing excellence in the field of carbonation and in the beverage related industry. We have had a long and proud history with quality as our standard and innovation as our goal. We enjoyed patents on the first Sodajet type carbonator, which 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 postmix package, i.e., carbonation, refrigeration, and the ability to dispense from one self contained unit. We have pioneered many such firsts and will continue to develop advanced systems for the future, such as electronic interrogatable portion controls to electronic liquid level controls.

We hope you enjoy this piece of equipment 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.

INSTALLATION PROCEDURES

GENERAL DESCRIPTION

This section gives the description, theory of operation, and design data for the CLASSIC TOWER and related components.

Upon receiving your CLASSIC TOWER, immediately uncrate and inspect for shipping damage.

At this time make sure all parts are also included with shipment, i.e., manual, screws, keys, etc. If shipping damage has occurred, immediately notify transit agency that transported equipment. If parts are missing, notify factory.

The CLASSIC TOWER is manufactured with a small foot-print but will accommodate up to 4 valves. This unit was designed to dispense a whipped or non-whipped drink.

THEORY OF OPERATION

The CLASSIC TOWER dispenser comes equipped with "whipper modified" dispenser valves and "whipper" nozzles. This unit is a non-refrigerated beverage dispenser.

"Whipping" action is accomplished by injecting water under pressure through a dispensing valve and into the special nozzle developed by Quick Marketing. The air vent, located in the nozzle, allows air to be blended with the water/concentrate mixture during the dispense cycle. The turbulence in the nozzle's mixing chamber created by the injection of pressurized water, concentrate and air produce an excellent environment for the foaming action characteristic of whipped beverages.

Be aware that these new "whipper valves" are the commonly used International Carbonic Inc. PFC-II valves that have been slightly modified. Although these whipper valves are brixed from the top of the valve the syrup and water lines have been reversed at their inlets. Consequently the metering pins will be reversed from a standard PFC-II, i.e., water is on the right and syrup is on the left facing the front of the unit.

The "special nozzle" is marked with a white "W" on one side. This "W" must be directly facing the front of the unit to create the proper whipping action for the Orange, Pina Colada, Strawberry and Horchata products. The Horchata does not contain the same whipping ingredients as the other three beverages, but whipping does enhance the flavor and creamy mouth feel of the drink, without producing the foamy head.

For the non-whipped products, Jamaica and Tamarindo, simply rotate the nozzle 180 degrees so the "W" on the nozzle is facing in towards the splash panel on the front of the machine.

To assure consistent "whipping" action, a water booster pump is installed ahead of the dispenser. The water booster is operated with either compressed gas or an electrically operated air compressor, (gas is preferred). Either booster pump must have a 30 psi water pressure regulator installed before the booster pump on the incoming potable water supply. Pump outlet pressure is to be adjusted to 70 psi. In the near future, an electric water pump, pre-installed in the base of the equipment, may replace the booster pump. It will still require a 30 psi pressure regulator on the incoming potable water.

Syrup supply lines from the concentrate pumps to the dispenser must be a minimum of 3/8" I.D. to assure consistent product flow to the valves. Gas pressure to the pumps should be set at 40 psi to 70 psi, depending on length of run, and must have a separate regulator.

Before brixing the products, water flow through the dispense valves must be adjusted to 1.50 to 2 ounces of water per second.

Whipped products need to have an expansion gain of 30-40% (approx. 1/3rd of glass is foam). The following are the recommended brix settings for refrigerated and non-refrigerated units. These settings assume there will be ice in the glass.

Refrigerated	Brix	Non-Refrigerated	Brix
Orange	15	Orange	16
Strawberry	15	Strawberry	16
Pina-Colada	15	Pina-Colada	16
Horchata	14	Horchata	15
Jamaica	14	Jamaica	15
Tamarindo	14	Tamarindo	15
Pineapple	14	Pineapple	15

All International Carbonic Inc. CLASSIC TOWER units will be manufactured with 24 volts PFC-II valves unless otherwise directed.

INSTALLATION

This chapter covers unpacking and inspection, selecting location, installing CLASSIC TOWER and related components, connecting syrup lines, water lines and electrical requirements.

UNPACKING AND INSPECTION

Upon receiving unit, immediately remove unit from shipping carton and inspect for shipping damage.

NOTE: Before leaving the factory all CLASSIC TOWER's were carefully inspected and the carrier has accepted and signed for them. 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.!

Unpack LOOSE-SHIPPED PARTS. At this time make sure all parts listed are present and in good condition. If any parts are missing, notify factory.

LOOSE - SHIPPED PARTS

Item No.	Part No.	Name	Qty
1	S0782K	Keys	2
2	E0276	Transformer 115/24 VAC (installed in tower)	1
3	S0924	Drain Pan	1
4	S1165	Plastic Drain Assembly, (Located in drain pan)	1

LOCATION RECOMMENDATIONS FOR CLASSIC TOWER (S)

1. Position CLASSIC TOWER as close as possible to proper electrical source, 115V, 60Hz with a minimum of a 15 amp circuit.
2. Allow enough space between walls/ceiling and unit for valve plate removal and component installation.
3. Position unit as close as possible to floor drain or auxiliary drain outlet, OPTIONAL.

INSTALL CLASSIC TOWER

1. Remove S0924 drain pan from CLASSIC TOWER.
2. Position CLASSIC TOWER in the desired location.
3. Using CLASSIC TOWER as a template, mark counter after location is determined.
4. Drill mounting holes and if it is necessary to route syrup and water lines through the bottom of the CLASSIC TOWER drill an access hole now. Lines may be routed through back of tower by removing access cover.
5. Drill drain access hole if needed.
6. Reposition CLASSIC TOWER. Insert mounting screws.

7. Once located and secured the CLASSIC TOWER should have silicone applied to outside edges sealing Tower to counter. Allow time for the silicone to dry prior to use.
8. Drain pan is sent with a plugged configuration. If drain is required the plug must be removed and the S1165 drain assembly must be installed.
9. Make all connections: plain water, syrups and drain line.
10. Plug power cord into electrical outlet and turn on 24 volt key switch.

(OPTIONAL) INSTALL DRAIN LINE

1. Connect drain line on CLASSIC TOWER(s) with drain using 3/8" I.D. clear plastic tubing to nearest outlet.
2. Do not reduce drain line from connection to drain outlet.
3. Be sure all connections are water-tight.
4. Check local plumbing codes.

INSTALL SYRUP LINES.

1. The syrup lines extend from the base of the CLASSIC TOWER approximately 12" and are marked to correspond to with their respective valve. (the CLASSIC TOWER valves are numbered from left to right).

INSTALL WATER LINE

1. The water line extends from the base of the CLASSIC TOWER approximately 12" and is marked water. Note: it is imperative to have a minimum of 70-psi water pressure to the valve to achieve a proper whipping action. Follow latest plumbing codes when making connections.

ELECTRICAL REQUIREMENTS

UNLESS SPECIFIED TO THE CONTRARY, ALL I.C.I. VALVES WILL REQUIRE A 24 VOLT TRANSFORMER.

The CLASSIC TOWER(s) require a 115*/24 VAC, single phase, 60 Hertz power circuit & **MUST BE WIRED IN ACCORDANCE WITH N.E.C. OR LOCAL ORDINANCE.**

NOTE: Running amperage will vary with usage of number of valves being dispensed and pressures exerted at valves. With 3 valves being dispensed at once, amperage will be approximately 1.2 amps. Always connect to appropriate electrical circuit.

CAUTION: AVOID GETTING ELECTRICAL CONNECTION WET.

Note: All previous steps should be understood and carried out before proceeding.

PREPARING SYSTEM FOR OPERATION

Be sure that your remote dispensing unit is operational, i.e., water is on, CO2 supply has been connected and activated, and a proper electrical connection made. All lines should be connected to your remote CLASSIC TOWER and insulated if necessary.

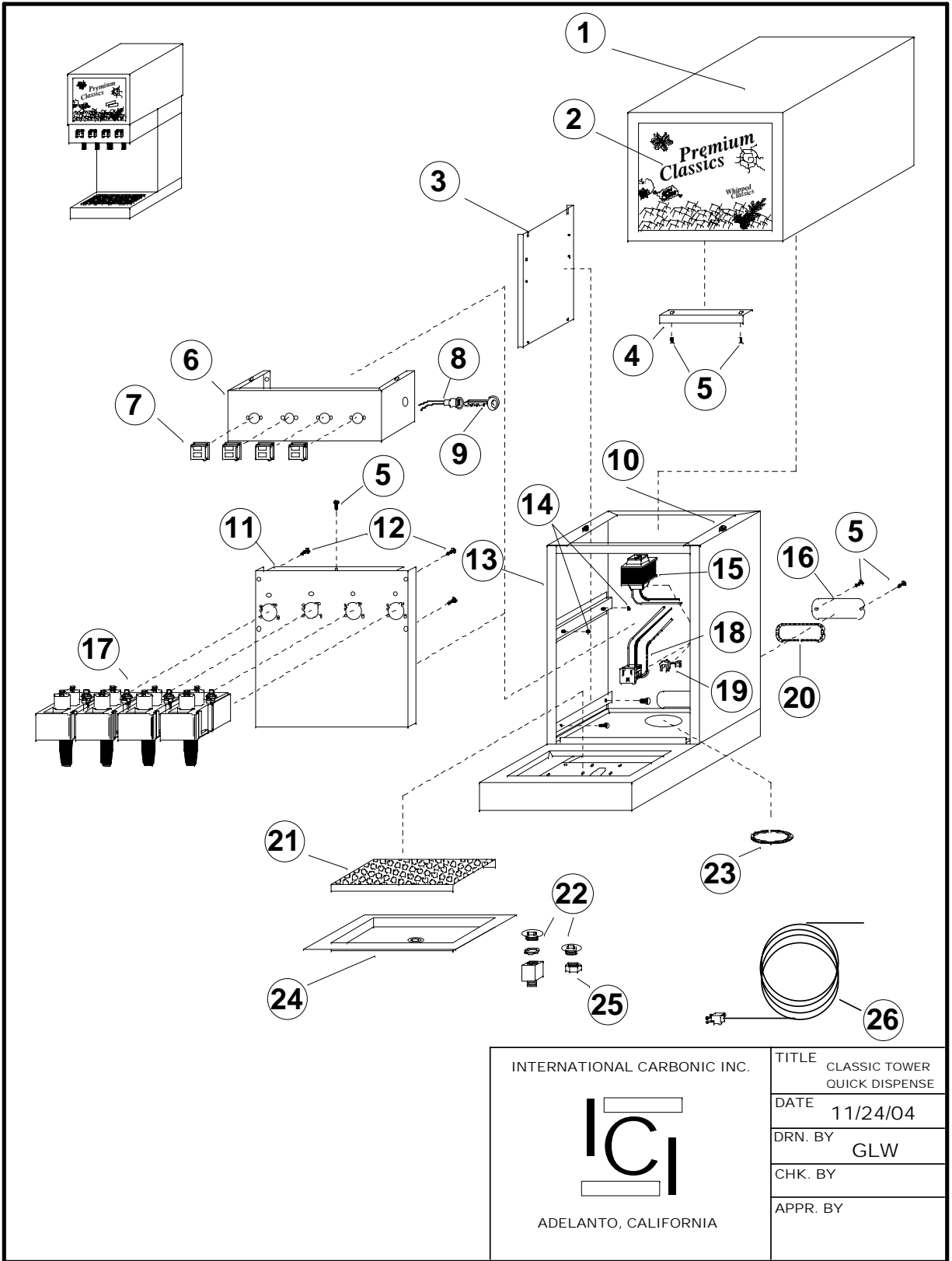
All regulators should be set., i.e., regulator(s), feeding the low pressure system and pressure regulator feeding water pump if applicable.


Activate electrical power to individual CLASSIC TOWER, i.e., plug into electrical outlet, push on circuit breaker and or turn on key switch.

Actuate each valve by depressing push button until all trapped air is evacuated from lines.

CLASSIC TOWER is now ready for adjustment on water flow. Prior to connecting syrup to individual valves adjust all valves for a flow rate of 1.5 to 2 ounces per second.

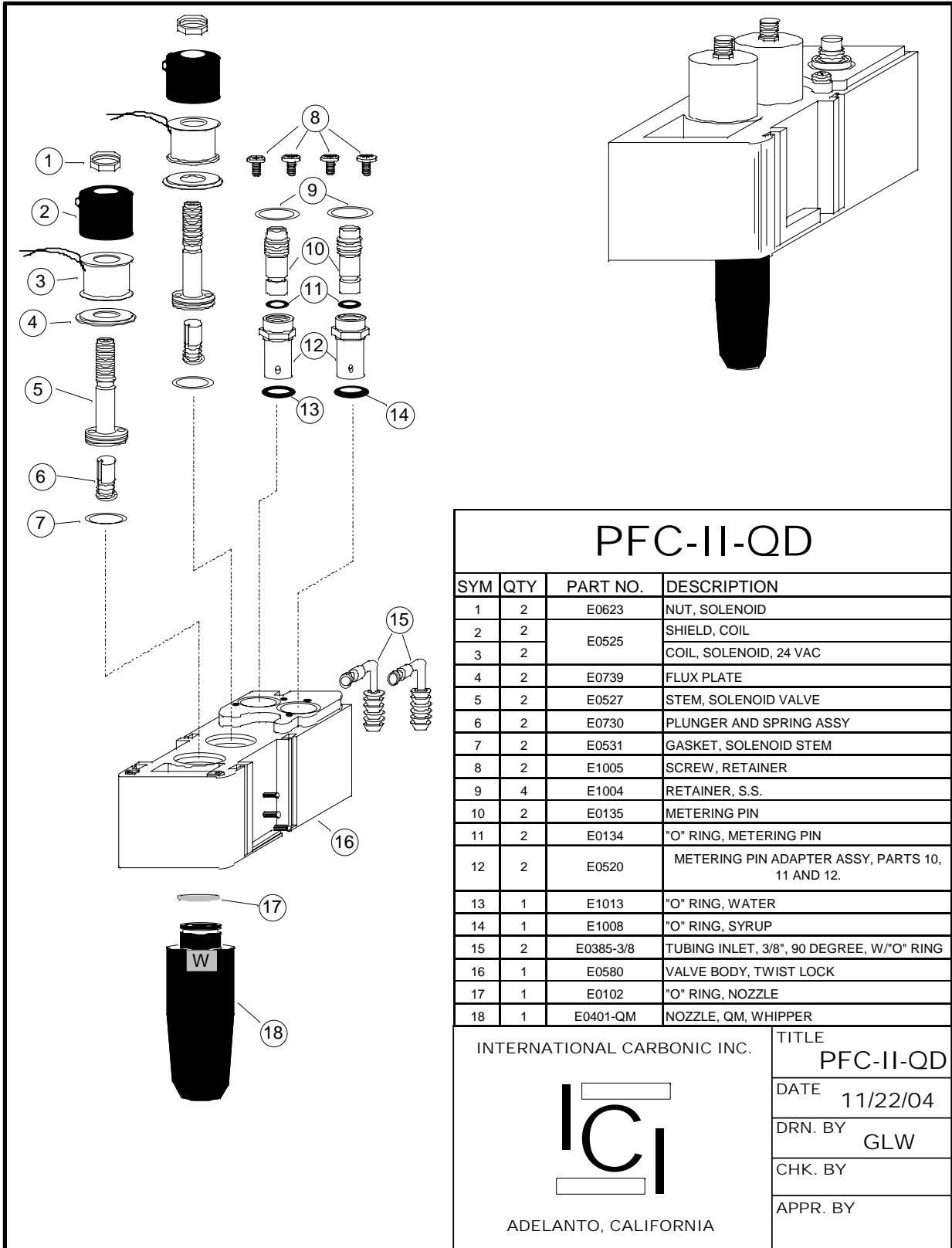
Connect syrup to respective syrup lines. Brix using a refractometer.



INTERNATIONAL CARBONIC INC.  ADELANTO, CALIFORNIA	TITLE	CLASSIC TOWER QUICK DISPENSE
	DATE	11/24/04
	DRN. BY	GLW
	CHK. BY	
	APPR. BY	

CLASSIC TOWER

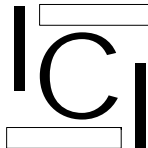
SYM	QTY	PART NO.	DESCRIPTION
1	1	S0919	COVER
2	1	S0919-M	MERCHANDISER
3	1	S0920	BOOSTER PUMP MOUNTING BRKT
4	1	S0926	MERCHANDIZER HOLDING BRACKET
5	7	A0020	8-32 X 3/8 TH SS SCREW
6	1	S0921	VALVE HOUSING
7	4	S1313	PUSH HERE SWITCH
8	1	S1330	SWITCHLOCK, WITH KEYS
9	1 Set	S1330-K	KEY ONLY FOR SWITCHLOCK
10	1 Set	S0743	DRAIN PAN HARDWARE, SET
11	1	S0922	VALVE PLATE
12	4	A0024	SCREW, 10-24 X 3/8 TH SS
13	1	S0923	COUNTER MOUNT BASE
14	2	A0030	8-32 HEX NUT, SS
15	1	E0276	TRANSFORMER
16	1	S0923-C	ACCESS COVER
17	4	PFC-II-QD	VALVE, SPECIAL, Quick Dispense
18	1	S1244	SNAP IN RECEPTACLE
19	1	E0664	STRAIN RELIEF
20	9 3/4"	-----	7/64 ADHESIVE FORM A GROMMET
21	1	S0925	CUP REST
22	1	S1165	PLASTIC DRAIN ASSY
23	9"	-----	1/32 ADHESIVE FORM A GROMMET
24	1	S0924	DRAIN PAN
25	1	S1168	3/4 - 16 NF, SS JAM NUT
26	1	E0141-6	POWER CORD



PFC-II-QD

SYM	QTY	PART NO.	DESCRIPTION
1	2	E0623	NUT, SOLENOID
2	2	E0525	SHIELD, COIL
3	2		COIL, SOLENOID, 24 VAC
4	2	E0739	FLUX PLATE
5	2	E0527	STEM, SOLENOID VALVE
6	2	E0730	PLUNGER AND SPRING ASSY
7	2	E0531	GASKET, SOLENOID STEM
8	2	E1005	SCREW, RETAINER
9	4	E1004	RETAINER, S.S.
10	2	E0135	METERING PIN
11	2	E0134	"O" RING, METERING PIN
12	2	E0520	METERING PIN ADAPTER ASSY, PARTS 10, 11 AND 12.
13	1	E1013	"O" RING, WATER
14	1	E1008	"O" RING, SYRUP
15	2	E0385-3/8	TUBING INLET, 3/8", 90 DEGREE, W/"O" RING
16	1	E0580	VALVE BODY, TWIST LOCK
17	1	E0102	"O" RING, NOZZLE
18	1	E0401-QM	NOZZLE, QM, WHIPPER

INTERNATIONAL CARBONIC INC.



ADELANTO, CALIFORNIA

TITLE
PFC-II-QD

DATE 11/22/04

DRN. BY GLW

CHK. BY

APPR. BY

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.
5. 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 flushing with warm water.
2. Visually inspect valve by removing nozzle and inspecting nozzle and valve cavity. Using a soft bristle brush 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.
6. Reconnect syrup containers and ready Unit for operation.
7. 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.

TROUBLE SHOOTING

IMPORTANT: Only qualified personnel should service the CLASSIC TOWER and components.

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

Trouble		Probable Cause		Remedy
DISPENSING VALVES				
Water or syrup leaking from nozzle after actuation	1.	Foreign debris under plunger seat or bent, creased stem.	1.	<ol style="list-style-type: none"> Disconnect syrup or water from affected valve. Relieve pressure by activating valve. Remove E-623 nut from syrup or water solenoid. Remove e-525 coil assembly from e-527 stem. Remove E-527 stem from valve body. Note: care should be taken not to dent smooth E-527 wall. 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. Inspect E-730 plunger seat for damage, replace if damaged. Reassemble by reversing above procedure.
No water, no syrup being dispensed from valve	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 	<ol style="list-style-type: none"> No electrical power. Frozen water bath. Pinched or crimped lines. Broken sub-miniature switch. Bad transformer. Disconnected wire. 	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 	<ol style="list-style-type: none"> 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.
No syrup being dispensed	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 7. 8. 	<ol style="list-style-type: none"> Syrup container empty. Syrup lines crimped. Syrup Coil defective. QCD of syrup installed incorrectly. Low-pressure regulator defective or plugged. Syrup disconnect not attached correctly. Loose electrical connection of syrup solenoid and or open electrical connection. Blockage of Syrup Passage. 	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 7. 8. 	<ol style="list-style-type: none"> Replenish syrup supply. Straighten syrup lines. Change Syrup Coil Re-install QCD correctly. Repair or replace low-pressure regulator. Lubricate and attach. Tighten connection and/or repair open circuit. Check proper voltage. Clear Blocked Passage

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. Water pump motor worn out or damaged. 6. Water pump worn out or damaged. 	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 	<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 motor. 6. Replace water pump.
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 flow regulator not properly adjusted. 2. CO2 gas pressure in syrup tanks insufficient. 3. Syrup tubing I.D. insufficient. 	<ol style="list-style-type: none"> 1. 2. 3. 	<ol style="list-style-type: none"> 1. Adjust water-to-syrup ratio (see CLASSIC TOWER installation instructions). 2. Adjust low-pressure regulator as instructed. 3. Increase syrup tubing I.D. Note: see "Brix instructions"
Adjustment of syrup metering pin does not produce desired water-to-syrup ratio	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 	<ol style="list-style-type: none"> 1. No syrup supply. 2. Syrup tank quick disconnects not secure. 3. Low-pressure CO2 regulator out of adjustment. 4. B.I.B. QCD disconnected or improperly installed. 5. Syrup line restricted. 	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 	<ol style="list-style-type: none"> 1. Replenish syrup supply as instructed. Secure quick disconnects. 2. Adjust low-pressure CO2 regulator as instructed. 3. Connect B.I.B. disconnect securely. Clear restriction or replace restricted line. 4. Disassemble and clean syrup flow control. Adjust water-to-syrup ratio, see "Brix instruction". 5.
Product Not Whipping	<ol style="list-style-type: none"> 1. 2. 3. 4. 	<ol style="list-style-type: none"> 1. No syrup supply. 2. Insufficient water pressure. 3. Nozzle not positioned properly. 4. Insufficient water volume. 	<ol style="list-style-type: none"> 1. 2. 3. 4. 	<ol style="list-style-type: none"> 1. Replenish syrup supply as instructed. 2. Check/Replace booster pump. 3. Rotate nozzle to proper position 4. Adjust water flow to 1.5 to 2.0 ounces per second.

