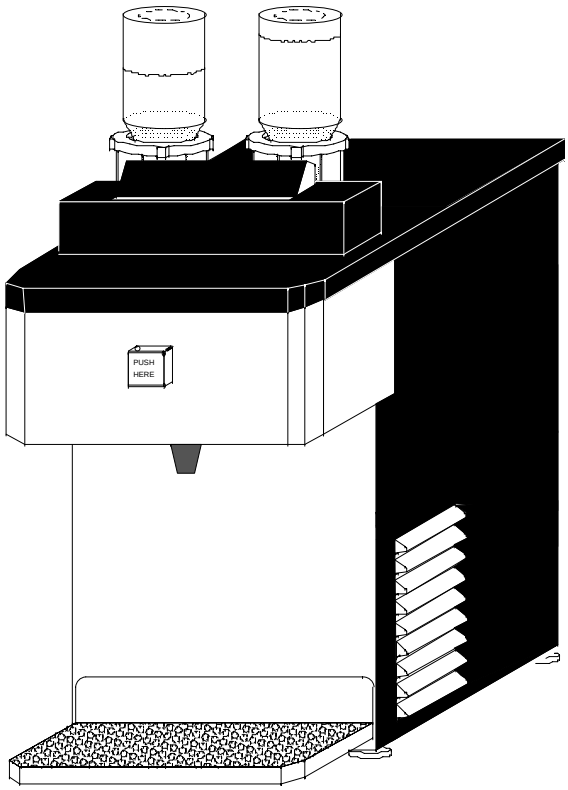
TUACA



Installation and Service Manual

INTERNATIONAL CARBONIC INC.
16630 Koala Rd.
Adelanto, California 92301
800 854-1177

3/22/05

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

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.

TUACA CHAPTER I

GENERAL DESCRIPTION

This chapter gives the description, theory of operation, and design data for the TUACA unit.

SYSTEM DESCRIPTION

The TUACA unit is a complete self-contained liquor dispenser which when supplied with TUACA will dispense a delicious chilled TUACA drink. The unit consists of a cabinet, refrigeration system, modular peristaltic pumps, and lighted merchandising. The cabinet is housed in an attractive black vinyl and then decaled with vibrant TUACA Decals. The front plate and drain are formed from attractive grained stainless steel. The TUACA unit has been designed to fit in the smallest possible space while dispensing a maximum amount of highly chilled 1oz, servings of TUACA and lime.

Essentially the TUACA unit is designed to plug and play. For proper function the TUACA unit must have 120 volt electrical supply and proper space around unit to allow the refrigeration to breath during operation. The TUACA unit is designed with a unique lift off drain pan that can be emptied at any convenient drain outlet.

DESIGN DATA

TUACA

Cabinet:

Height ..	17 ½
Overall Height w/Merchandiser	22 ½
Width	11 ¾
Depth	14 7/8
Depth w/Switch Housing	17 ¾

Weights:

Shipping	75 LBS.
Operational weight	69 LBS.

Refrigerant requirement (R-134a)	3.18 ounces 90 grams
Ambient operating temperature	40 F to 100 F

Electrical Requirements:
The cooling unit requires a 120 VAC, single phase, 60 Hertz power circuit.

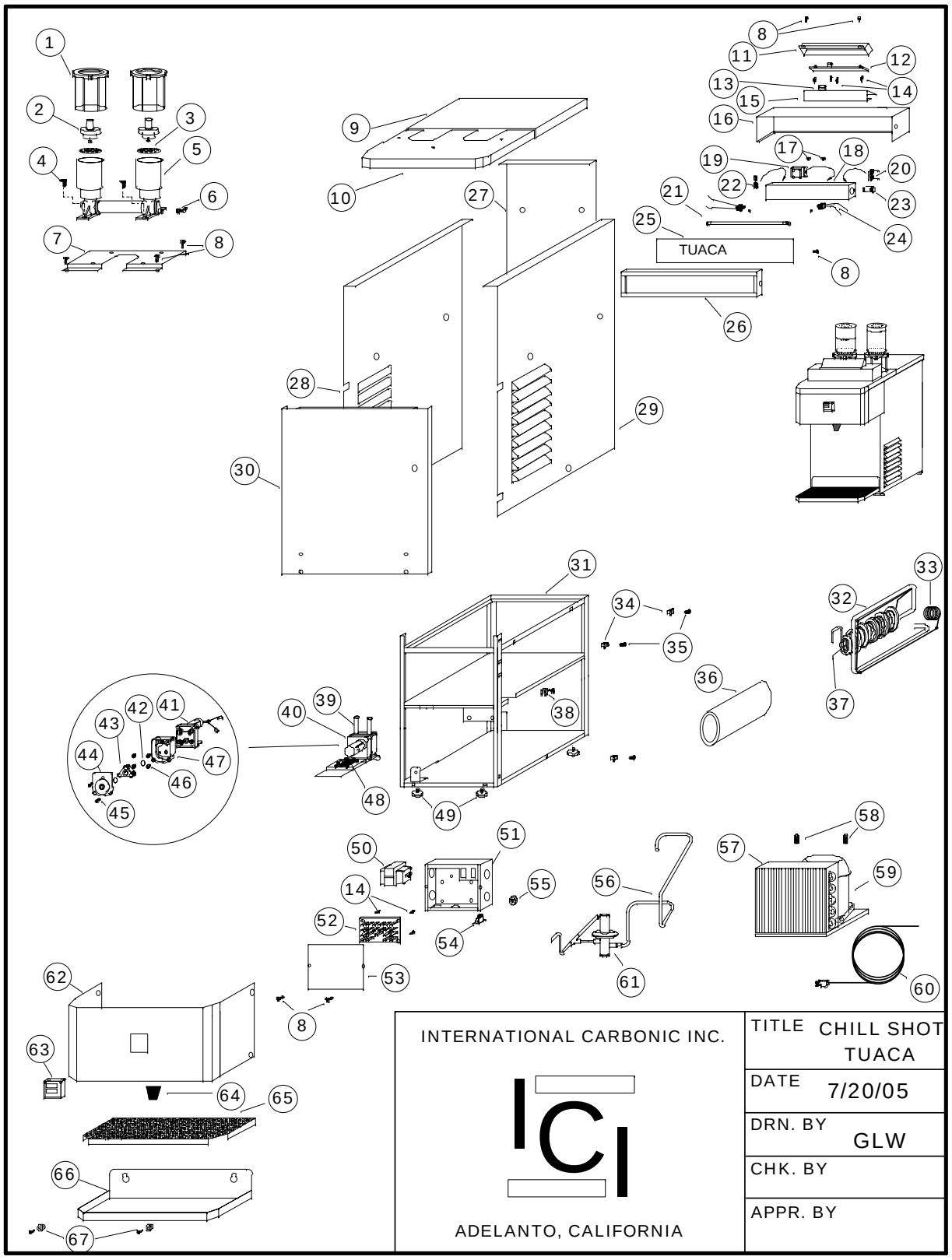
Circuit Ampacity	3.1 Amps
Condensing Unit	2.1 Amps
Peristaltic Pump Assembly	1. Amp

REFRIGERATION 1/9 H.P. capillary air-cooled.

THEORY OF OPERATION

The TUACA unit was designed to cool and dispense a chilled serving of alcohol based TUACA. After initial connection to an electrical outlet and installing the TUACA bottles into the bottle reservoir's. The unit's push switch must be activated until a small portion of TUACA is dispensed. In approximately 15 minutes from the time the unit is electrically activated the unit will dispense a chilled shot below 32 degrees.

When the Push Switch is pushed the incoming TUACA is routed to a peristaltic pump, and then through a cooling coil that is positioned next to the refrigeration evaporator coil. The temperature of the incoming TUACA is at ambient temperature as it enters the cooling coil. As the incoming TUACA passes through the cooling coil the heat is removed from the TUACA and chilled to a temperature acceptable for a quality drink, normally a temperature 7 to 16 degrees is reached. The TUACA is now directed to a dispensing nozzle where the TUACA is dispensed.


TUACA
INTERNATIONAL CARBONIC INC.
ICI
ADELANTO, CALIFORNIA
TITLE CHILL SHOT TUACA
DATE 7/20/05
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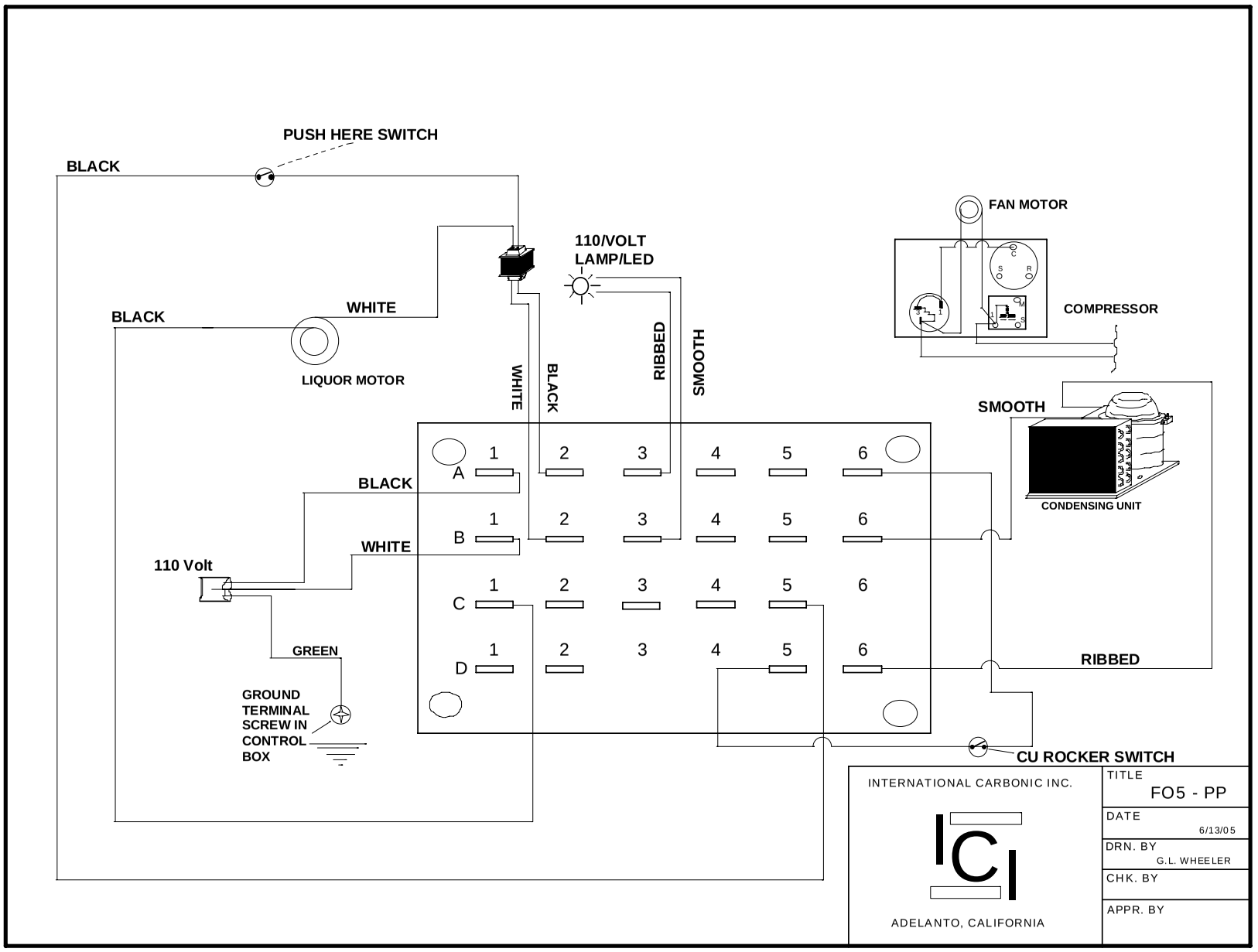
CHK. BY
APPR. BY

TUACA

SYM	QTY	PART NO.	DESCRIPTION
1	2	12074	SUPPORT ASSEMBLY, BOTTLE RESERVE
2	2	12008	BOTTLE CAP ASSEMBLY
3	2	18013	STRAINER
4	4	A0023	SCREW, 10-24 X 3/8 TH SS
5	1	12005C	BOTTLE RESERVE
6	1	18020	1/4P X 1/4H PLASTIC FITTING
7	1	S1836	BOTTLE MTG BRKT
8	16	A0020	8-32 X 3/8 T.H., S.S. SCREW
9	1	S1825	LID, BACK
10	1	S1826	LID, FRONT
11	1	S1862	LED LIGHT BAR COVER
12	1	S1851	LED LIGHT BAR
13	2	TM04	SNAP BUSHING
14	8	S1335	TERMINAL SPACER
15	1	S1850	LED BRACKET
16	1	S1851	LOGO BRACKET
17	2	A0060	SCREW, 6-32 X 1/4, FLAT HEAD
18	1	S1229-9	MERCHANDISER/LIGHT BASE BACK
19	1	S0952	BALLAST
20	1	S0958	STARTER HOLDER
21	1	S0956-9	LAMP, 9"
22	1	E0665	STRAIN RELIEF
23	1	S0955	STARTER
24	2	S0973	LAMP HOLDER
25	1	S1832	LOGO FRONT, I.D., TUACA
26	1	S1832-F	FRAME, LOGO FRONT, I.D., TUACA
27	1	S1827	SERVICE PANEL, REAR
28	1	S1828	SERVICE PANEL, LEFT
29	1	S1829	SERVICE PANEL, RIGHT
30	1	S1830	FRONT PLATE
31	1	S1833	FRAME
32	1	S1834	EVAPORATOR COIL ASSEMBLY
33	1	Z0009	CAP TUBE, 12' - .042
34	17	S1325	SQUARE GROMMET NUT

TUACA Cont.

SYM	QTY	PART NO.	DESCRIPTION
35	17	A0014	SCREW, #10 X 1/2 PH TH COMBO SS
36	1	- - - - -	INSULATION, EVAP, 3" IPS X 3/4 WALL, 12"
37	1	S0509	ACCUMULATOR
38	1	E0664	STRAIN RELIEF
39	1	S1722	TUBING, NOR-6F-250, 8"
40	1	S1737-CS	PERISTALTIC PUMP MODULE, CS
41	1	S-1738	MOTOR/GEAR ASSY
42	2	- - - - -	PPM PLASTIC WASHER, PPM
43	1	S1740	ROLLER ASSY, PPM
44	2	S1739-C	HOUSING/COVER, PPM
45	3	- - - - -	SCREW, 6-32 X 3/4 PH SS
46	4	A0019	SCREW, 8-32 X 3/8 PH SS
47	1	S1739-H	PUMP HOUSING BODY, PPM
48	1	S1741-CS	PPM CONTROL
49	4	S1318	CUSHIONED FEET
50	1	S0276-A	TRANSFORMER
51	1	S1837	CONTROL BOX
52	1	S1309	TERMINAL BOARD
53	1	S1840	CONTROL BOX COVER, ONLY
54	1	S0766	ROCKER SWITCH
55	3	S0046	BUSHING
56	1	S1838	HOT GAS BY PASS DISCHARGE VALVE ASSY
57	2	AZA0370YXAXA	CONDENSING UNIT, 1/9TH
58	1	A0046	5/16-18 X 3/4 FLANGE WHIZ LOCK
59	1	AZA0370YXA	COMPRESSOR ONLY, 1/9TH
60	1	E0141-12	POWER CORD
61	1	S1839	HOT GAS BY PASS DISCHARGE VALVE
62	1	S1841	SWITCH HOUSING
63	1	S1313	SWITCH ASSEMBLY
64	1	E0581-B	NOZZLE, TWIST LOCK
65	1	S1843	SHOT REST
66	1	S1842	DRAIN PAN
67	1	S0743	DRAIN PAN MTG HARDWARE, SET


PUSH HERE SWITCH
BLACK
110/VOLT
LAMP/LED
FAN MOTOR
BLACK
WHITE
LIQUOR MOTOR
COMPRESSOR
WHITE
BLACK
RIBBED
SMOOTH
SMOOTH
CONDENSING UNIT
A
B
C
D
1
2
3
4
5
6
BLACK
WHITE
110 Volt
GREEN
GROUND
TERMINAL
SCREW IN
CONTROL
BOX
RIBBED
CU ROCKER SWITCH
INTERNATIONAL CARBONIC INC.
ADELANTO, CALIFORNIA
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G.L. WHEELER
CHK. BY
APPR. BY

CHAPTER II
INSTALLATION
TUACA

This chapter covers unpacking and inspection, selecting location, installing TUACA unit and electrical requirements.

UNPACKING AND INSPECTION

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

NOTE: Remove the TUACA unit from the shipping carton and inspect for shipping damage. If shipping damage is found immediately contact Sentry BevCon at (800) 661-3003. Do not discard the shipping carton or any shipping materials in the event a freight claim must be filed.

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 THE TUACA UNIT

1. Position unit as close as possible to proper electrical source, 120V 6OHz.
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 vessel removal.

LOOSE - SHIPPED PARTS

Item No.	Part No.	Name	Qty
1	- - - - -	Installation/Service Manual	1
2	S1842	Drain pan	1
3	12008CS	Bottle Cap w/Sleeve	2
4	18013	Strainer	2

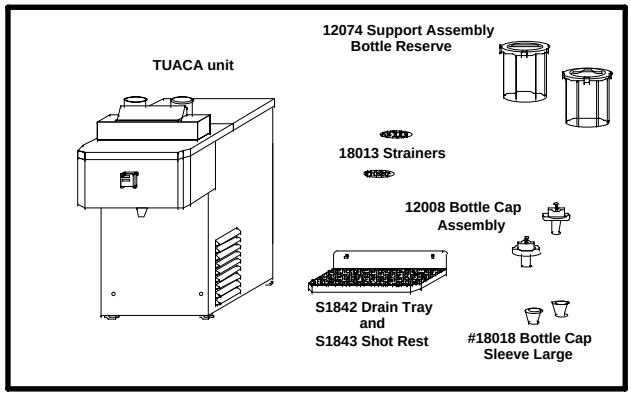
ELECTRICAL REQUIREMENTS:

The TUACA unit must be wire in accordance with N.E.C. or local ordinance.

TUACA Installation Instructions

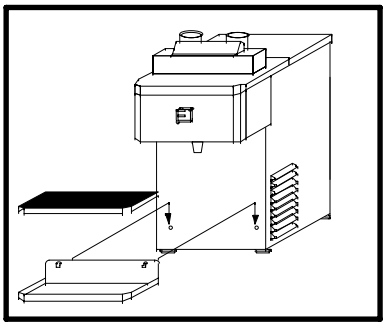
Remove the TUACA unit from the shipping carton and inspect for shipping damage. If shipping damage is found immediately contact Sentry BevCon at 800 661-3003. Do not discard the shipping carton or any shipping materials in the event a freight claim must be filed.

1. The following parts are included with this Shippment.

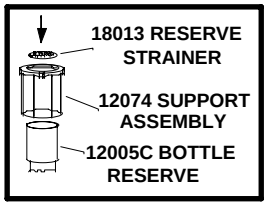


2. Find a convenient location to place the unit.

3. DO NOT PLUG UNIT INTO ELECTRICAL OUTLET.

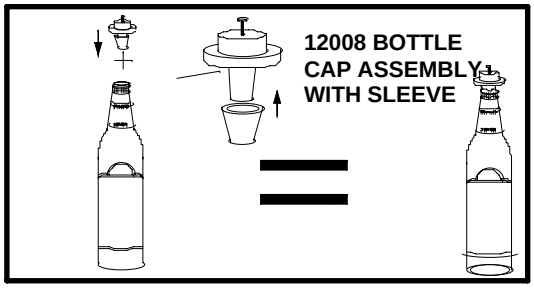


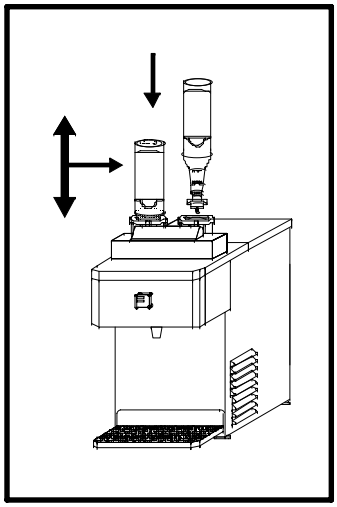
4. Remove protective plastic from drip Tray. Align mounting holes over the mounting screws on front of the machine.



5. Install both stainless steel strainers in bottle reserves.

6. Slip bottle caps into the TUACA bottles.



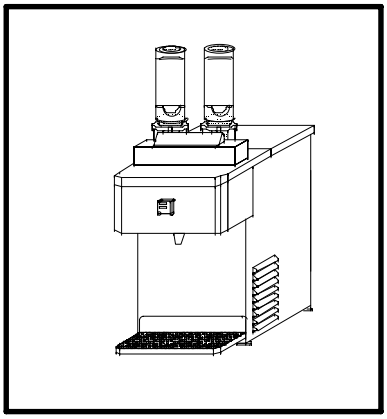


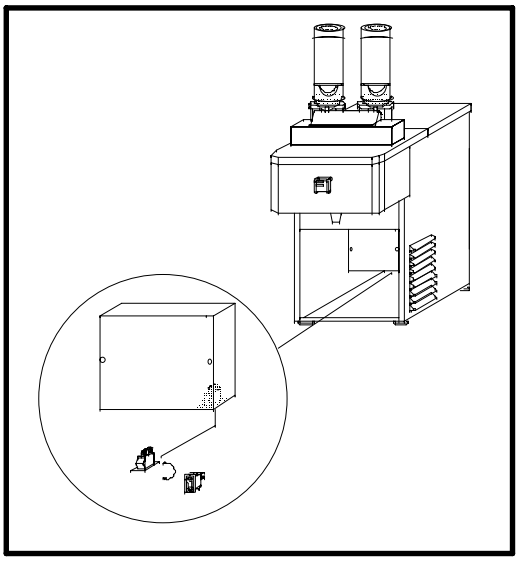
7. Turn TUACA bottle upside down and insert into bottle reserve. Adjust support assembly to stablize bottle.

8. Plug unit into a 110 volt outlet. The refrigeration system will automatically start. If refrigeration does not come on go to step #12.

9. Activate the "PUSH HERE" switch until the TUACA is dispensed. The level of the TUACA in the bottles will drop as the cooling coils are filled. Dispense 6-8 ounces in order to flush unit.
DO NOT REUSE!

10. In approximately 15 minutes the unit will dispense ice-cold TUACA shots.





11. Your unit is equipped with an on/off switch. This switch is supplied to shut off the refrigeration during time of flushing. If refrigeration does not initially come on remove front panel and check switch to make sure it is in the on position.

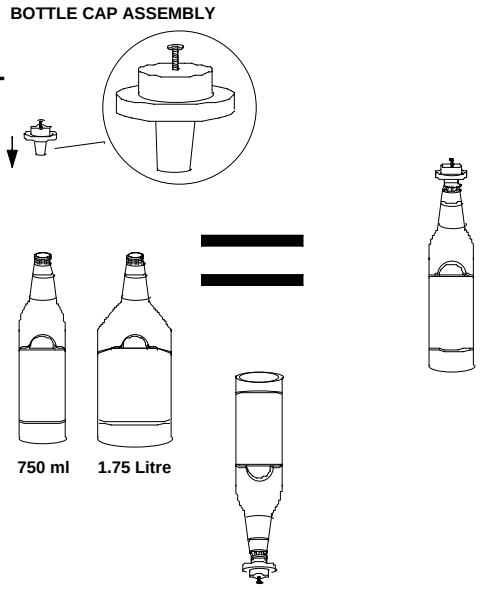
Note: to increase your customers enjoyment cool your shot glasses before serv

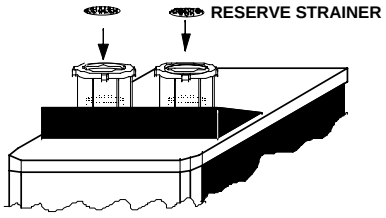
For Service and/or Installation Assistance
Please Call Sentry BevCon
800 661-3003

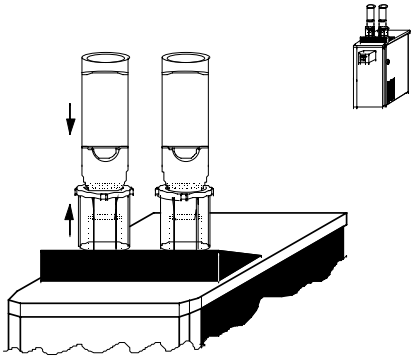
FLOW PLAN BOTTLE MOUNT

Note: Chill Shot should be positioned prior to the following being performed:

1. Remove cap from liquor bottle to be dispensed from Chill Shot.
2. Locate Bottle Cap Assembly and Sleeve. 750 ml bottle uses small sleeve, the 1.75 L bottle uses medium large sleeve.
3. Install Sleeve on to Bottle Cap Assembly.
4. Install Bottle Cap Assembly with Sleeve onto the liquor bottle to be served.
5. Locate Reserve Strainer and place into the Bottle Reserve Assembly.
6. Carefully turn liquor bottle over and install into Chill Shot Bottle Reserve Assembly.
7. Adjust the Support Assembly to balance the liquor bottle.
8. Repeat steps 1 through 7 for each bottle to be served.
9. Plug unit into 110-volt outlet to engage the condensing unit and lights. Immediately activate PUSH switch until a small amount of Tuaca is dispensed.
10. Tuaca will be ready to dispense in approximately 15 minutes.







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Revised
9/5/04

CHAPTER III
TUACA UNIT
OPERATORS INSTRUCTIONS

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

DAILY PRE-OPERATION CHECK

1. Make sure TUACA reservoir is full and ready to dispense.
2. Make sure nozzle is clean.
3. Make sure electrical power is supplied to unit.
4. Make sure unit is clean.

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.

CLEAN NOZZLE

Use a bottlebrush and clean nozzle nightly.

PERIODIC INSPECTION AND CLEANING

Daily:

1. Clean TUACA bottles and reservoir area with warm water.
2. Clean the beverage dispensing area.
3. Clean nozzle and all exposed areas on valve plate.
4. Wipe exterior of unit with moist towel.

Weekly:

1. Order TUACA 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 airflow.
2. Check entire system for leaks or damaged components. Repair as necessary.

DO NOT USE ABRASIVE TYPE CLEANERS.

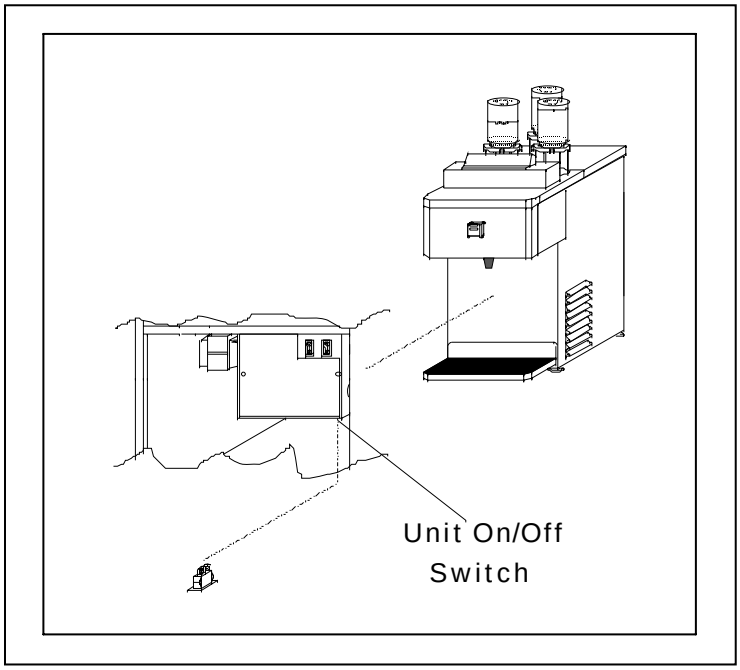
CLEANING CONDENSER COIL

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 refrigeration unit power cord from electrical socket.
2. Remove 9 screws securing service panels, 3 screws per service panel. Remove panels in preparation for service.
3. Vacuum or use a soft brush to clean fins of condenser coil.
4. Replace panels.
5. Plug refrigeration unit power cord in electrical socket.

FLUSHING LIQUOR COIL



It is recommended to flush the Liquor Coil periodically. To accomplish this task shut off the condensing unit at condensing unit on off switch located under the control box on the lower right hand side.

Flush all liquor out of liquor coil and into a container to be reused.

After condensing unit has been off for at least one hour fill liquor reservoir with hot water and flush through coil. Flush coil until water comes out clear.

Refill reservoir with saved liquor and flush all water out of liquor coil.

When all water is flushed out of system turn on condensing unit. In approximately 15 minutes cold shots can be dispensed.

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. Note: Your Liquor plumbing will not need cleaning as often as the Lime mix section of your unit if at all.

EQUIPMENT REQUIRED:

1. Stainless Steel container (product tank), or large volume container.
2. Cleaning Agent.
3. Sanitizing Solution.
4. 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. Turn off TUACA by unplugging unit. Remove front panel and then remove control access panel. Disconnect wires at A6 and B6 on control terminal board. Plug TUACA into 110 volt outlet, activate push switch and empty out product from tubing by 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 nozzle tubes with a soft clothe and warm water. Replace valve nozzle then go to step #3.
3. Fill bottle reserve 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 bottle reserve with clean water. Continue rinsing until testing with phenolphthalein shows that the rinse water is free of residual detergent.
5. Fill the bottle reserve 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. Refill bottle reserve with clean hot water.
7. Draw water until chloride solution is dispensed from unit and liquor reservoir is empty.
8. Fill reservoir with TUACA.
9. Push switch until TUACA is dispensed.
10. Replace wires at control box terminal, i.e., A6 and B6.
11. Replace panel and control box cover.
12. Wait 15 minutes and then taste the beverage to verify that there is no off taste.

FREQUENTLY ASKED QUESTION:

Q. Should the machine be left on all the time?
A. Yes, your electrical usage will be minimal and the TUACA unit will have less electrical and refrigeration problems.

Q. If the machine is left on how much will the electricity bill go up?
A. The amount will vary depending on your area but on average the cost will be approximately $.75 per day.

Q. How often should I clean the unit.
A. As often as necessary, refer to previous section PERIODIC INSPECTION AND CLEANING.

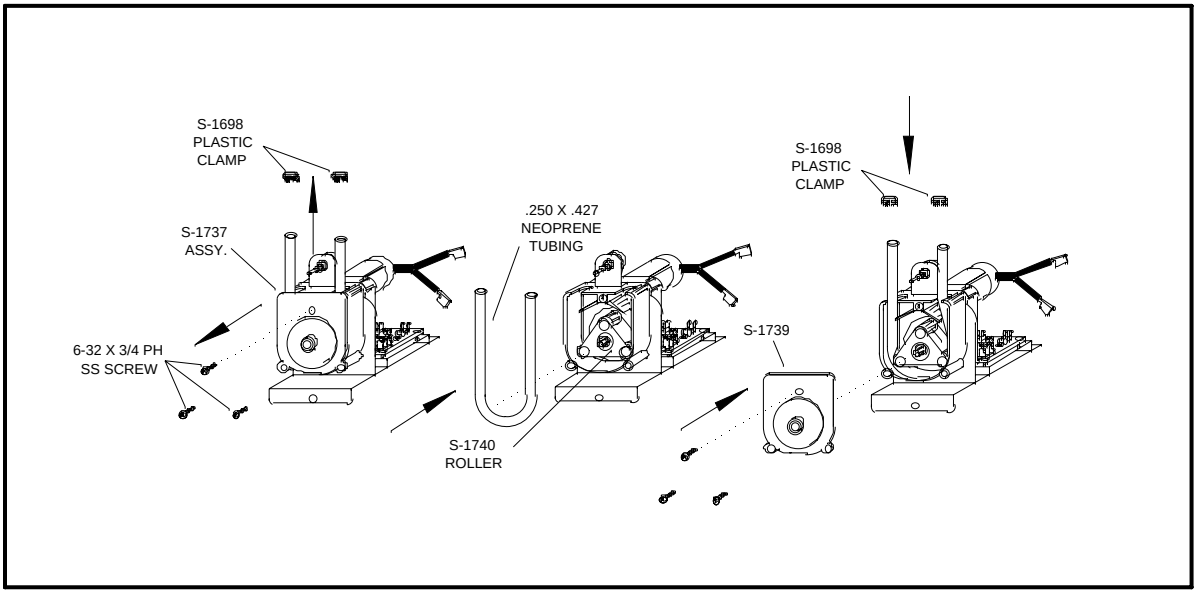
Q. What happens if the TUACA gets low?
A. When you reservoirs are low the nozzle will have a noticeable drip wasting your product.

Q. Is there any periodic maintenance that must be performed?
A. Yes, again depending on usage your peristaltic pump tubing will have to be changed.

Q. How often must this tubing be changed?
A. Again depending on the usage approximately every 6 months to a year.

CHANGING PERISTALTIC PUMP TUBING

1. Remove #10 X 1/2" Phillips TH. Screw. Then slide out S-1027 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.



TROUBLE SHOOTING

IMPORTANT: Only qualified personnel should service TUACA unit and components.

WARNING: To avoid personal injury and or property damage, always disconnect electrical power, before starting any repairs. If repairs are to be made to the TUACA unit, drain TUACA unit before proceeding.

COOLING UNIT

Trouble		Probable Cause		Remedy
Cooling or condensing unit non-operational	1.	No electrical power.	1.	Plug power cord into electrical box.
	2.	Improper voltage/amperage	2.	Check for proper voltage/amperage.
	3.	Loss of refrigerant.	3.	Repair leak and replenish refrigerant.
	4.	Bad overload and relay.	4.	Replace overload and relay
	5.	Compressor bad.	5.	Replace compressor.
	6.	Restriction (pinched or crimped line).	6.	Repair, straighten or replace defective line.
	7.	Condenser Dirty	7.	Clean condenser unit w/vacuum cleaner.
Condenser fan motor not operating	1.	Electrical cord loose or disconnected from condenser fan motor or compressor terminals.	1.	Tighten connections or replace cord.
	2.	Fan blade obstructed.	2.	Remove obstruction.
	3.	Inoperative condenser fan motor.	3.	Replace condenser fan motor.
Compressor does not operate	1.	No power source.	1.	Plug power cord to electrical box.
	2.	Electrical power to cooling unit turned off.	2.	Check line voltage.
	3.	Low voltage.	3.	Voltage must be at least 110 V at compressor terminals at start.
	4.	Loose, disconnected, or broken wire.	4.	Tighten connection or replace broken wiring.
	5.	Inoperative overload protector or start relay.	5.	Replace defective part.
	6.	Inoperative compressor.	6.	Replace compressor.
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.				
Condenser fan motor not operating	1.	Electrical cord loose or disconnected from condenser fan motor or compressor terminals.	1.	Tighten connections or replace cord.
	2.	Fan blade obstructed.	2.	Remove obstruction.
	3.	Inoperative condenser fan motor.	3.	Replace condenser fan motor.

TUACA leaking from nozzle after actuation	1.	Peristaltic pump tubing has lost its elasticity.	1.	a. Replace PPM tubing.
No TUACA being dispensed	1. 2. 3. 4. 5. 6. 7.	No electrical power. Pinched or crimped lines. Broken liquor switch. Bad transformer. Disconnected wire. Defective PPM assy. Worn or defective neoprene tubing in PPM assy.	1. 2. 3. 4. 5. 6. 7.	Plug power cord into electrical box. Check line voltage. Repair defective line. Replace defective switch. Replace defective transformer. Attach disconnected wire. Replace PPM assy. Replace defective tubing.
No TUACA being dispensed	1. 2. 3. 4.	TUACA reservoir empty. PPM Assy defective. Defective neoprene tubing. Defective transformer.	1. 2. 3. 4.	Replenish TUACA supply. Replace PPM Assy. Replace neoprene tubing. Replace transformer.

NOTE SECTION

Frequently Called Numbers:

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