

Operation Manual

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ABOUT THIS MANUAL

This booklet is an integral and essential part of the product. Please carefully read the guidelines and warnings contained herein as they are intended to provide the user with essential information for the continued safe use and maintenance of the product. In addition, it provides **GUIDANCE ONLY** to the user on the correct services and site location of the unit.

The installation and relocation, if necessary, of this product must be carried out by qualified personnel with up-to-date safety and hygiene knowledge and practical experience, in accordance with current regulations.

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BEFORE GETTING STARTED

Each unit is tested under operating conditions and is thoroughly inspected before shipment. At the time of shipment, the carrier accepts responsibility for the unit. Upon receiving the unit, carefully inspect the carton for visible damage. If damage exists, have the carrier note the damage on the freight bill and file a claim with carrier. Responsibility for damage to the dispenser lies with the carrier.

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SAFETY NOTICES

READ ALL SAFETY INSTRUCTIONS BEFORE USING THIS UNIT.

This manual contains important safety information and all applicable safety precautions must be observed. To reduce the risk of fire, electric shock, damage to the equipment or personal injury when using this unit all instructions/warnings on the product being used must be followed:

⚠ WARNING

Text following the Warning signal indicates a hazardous situation, which if not avoided, will result in death or serious injury. Be sure to read all Warning statements before proceeding with the installation.

⚠ CAUTION

Text following the Caution signal indicates a hazardous situation, which if not avoided, could result in death or serious injury. Be sure to read the Caution statements before proceeding with the installation.

⚠ ATTENTION

Text following the Attention signal addresses a situation that if not followed could potentially damage the equipment. Be sure to read the Attention statements before proceeding.

NOTE

Text following the Note signal provides you with information that may help you more effectively perform the installation procedures within this manual. Disregarding information will not cause damage or injury, however it may limit the performance of the dispenser.

IMPORTANT SAFETY INSTRUCTIONS

Intended Use

- The dispenser is for indoor use only
- This appliance is intended to be used in commercial applications such as restaurants or similar.
- This appliance should not be used by children or infirm persons without supervision.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Cleaning and user maintenance shall not be performed by children without supervision.
- This unit is not a toy and children should be advised not to play with the appliance.
- The min/max ambient operating temperature for the dispenser is 40°F to 90°F (4°C to 32°C).
- Do not operate unit below minimum ambient operation conditions.
- Should freezing occur, cease operation of the unit and contact authorized service technician.
- The maximum tilt for safe operation is 5°.
- This appliance must be installed and serviced by a professional.

Carbon Dioxide (CO₂)

- **WARNING:** Carbon Dioxide (CO₂) is a colorless, noncombustible gas with a light pungent odor. High percentages of CO₂ may displace oxygen in the blood.
- **WARNING:** Prolonged exposure to CO₂ can be harmful. Personnel exposed to high concentrations of CO₂ gas will experience tremors which are followed by a loss of consciousness and suffocation.
- **WARNING:** If a CO₂ gas leak is suspected, immediately ventilate the contaminated area before attempting to repair the leak.
- **WARNING:** Strict attention must be observed in the prevention of CO₂ gas leaks in the entire CO₂ and soft drink system.

Power

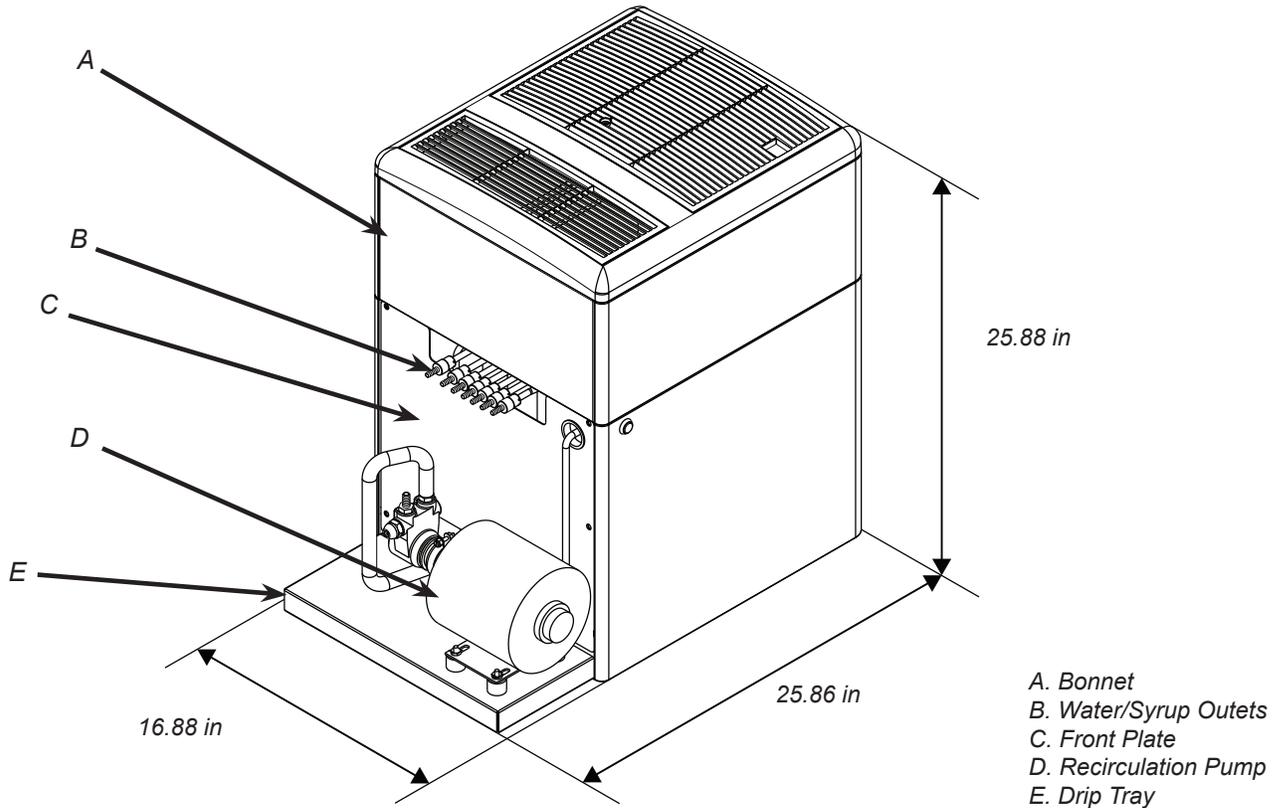
- Follow all local electrical codes when making connections.
- Check the dispenser name plate label, located behind the splash plate for correct electrical requirements of unit. **DO NOT** plug into a wall electrical outlet unless the current shown on the serial number plate agrees with local current available.
- Each dispenser must have a separate electrical circuit.
- **DO NOT** use extension cords with this unit.
- **DO NOT** 'gang' together with other electrical devices on the same outlet.
- **WARNING:** Always disconnect electrical power to the unit to prevent personal injury before attempting any internal maintenance.
- The resettable breaker switch should not be used as a substitute for unplugging the dispenser from the power source to service the unit.
- Only qualified personnel should service internal components of electrical control housing.
- **WARNING:** Make sure that all water lines are tight and units are dry before making any electrical connections
- If this dispenser is installed in an area that is susceptible to ±10% variation of the nominal line voltage, consider installing a surge protector or similar protection device.

Water Notice

- Provide an adequate, potable water supply. Water pipe connections and fixtures directly connected to a potable water supply must be sized, installed, and maintained according to federal, state, and local codes.
- The water supply line must be at least a 3/8 inches (9.525 mm) pipe with a minimum of 25 PSI (0.172 MPA) line pressure, but not exceeding a maximum of 80 PSI (0.552 MPA). Water pressure exceeding 80 PSI (0.552 MPA) must be reduced to 80 PSI (0.552 MPA).
- Use a filter in the water line to avoid equipment damage and beverage off-taste. Check the water filter periodically, as required by local conditions.
- **CAUTION:** The water supply must be protected by means of an air gap, a backflow prevention device (located upstream of the CO₂ injection system) or another approved method to comply with NSF standards. A leaking inlet water check valve will allow carbonated water to flow back through the pump when it is shut off and contaminate the water supply.
- **CAUTION:** Ensure the backflow prevention device complies with ASSE and local standards. It is the responsibility of the installer to ensure compliance.

PRE-INSTALLATION

Specifications & Features



DIMENSIONS

Width: 16.88 inches (429 mm)
Depth: 25.86 inches (657 mm)
Height (w/out legs): 25.88 inches (657 mm)

WEIGHT

Shipping: 160 lbs (73 kg)
Empty: 146 lbs (66 kg)
Operating: 237 lbs (108 kg)

ELECTRICAL

115 VAC / 60 Hz / 9.0 Amps
230 VAC / 50 Hz / 4.5 Amps

ICE BATH

Capacity: 25 - 28 lbs (11 - 13 kg)

PLAIN WATER SUPPLY

Min Flowing Pressure: 25 PSIG (0.172 MPA)
Max Static Pressure: 80 PSI (0.552 MPA)

CARBON DIOXIDE (CO₂) SUPPLY

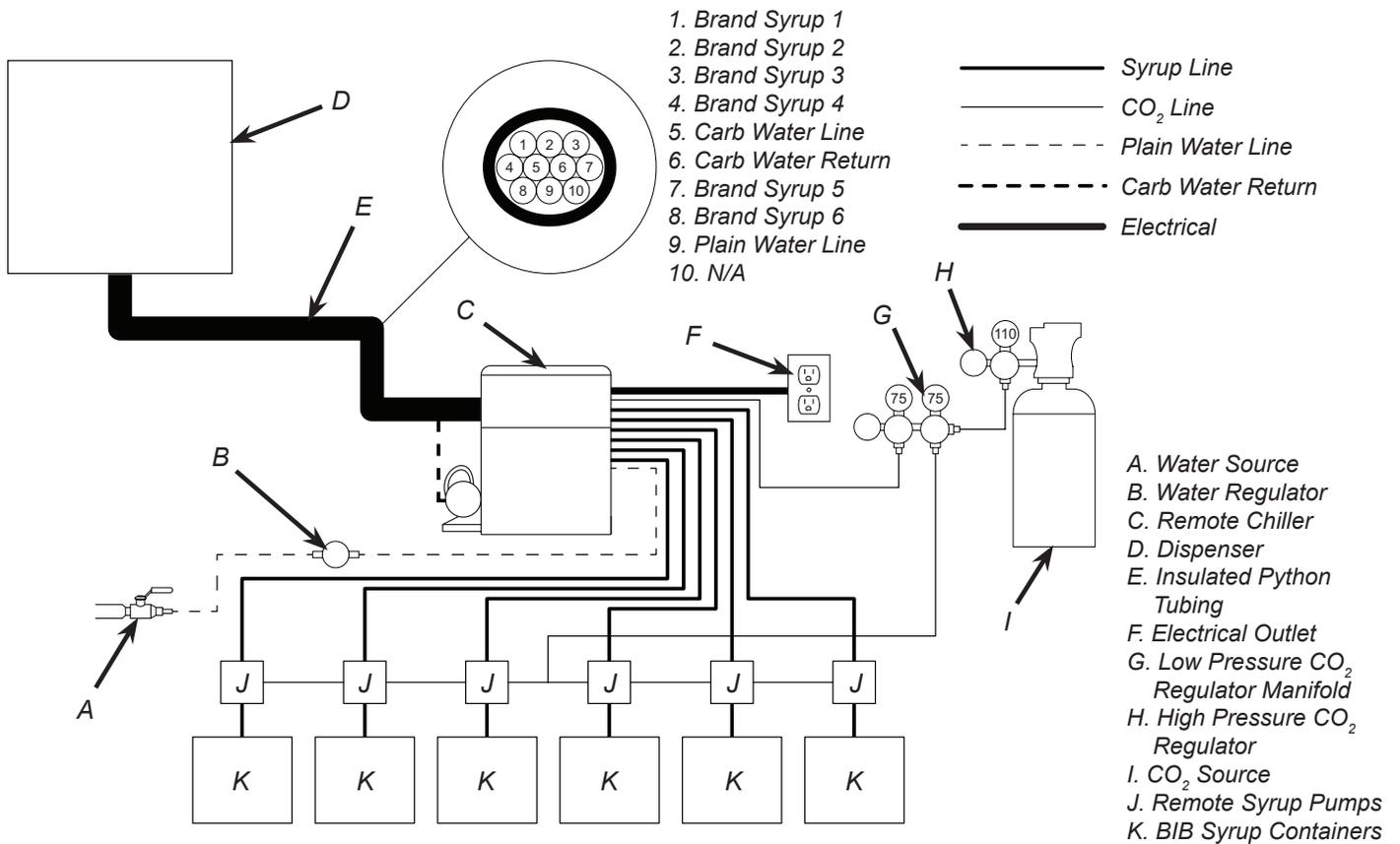
Min Pressure: 70 PSIG (0.483 MPA)
Max Pressure: 80 PSIG (0.552 MPA)

FITTINGS

Water for Carb Inlet: 3/8 inch barb
Brand Syrup Inlets: 1/4 inch barb
Carb CO₂ Inlet: 1/4 inch barb

This unit emits a sound pressure level below 70 dB

General System Overview



Pre-Installation Checklist

TOOLS REQUIRED:

- Oetiker Pliers
- Tubing Cutters
- Wrench
- Slotted Screwdriver
- Phillips Screwdriver
- Drill

BIB SYSTEM:

- BIB Rack
- BIB Syrup Boxes
- BIB Regulator Set
- BIB Connectors

POST MIX ACCESSORIES:

- High Pressure CO₂ Regulator
- Low Pressure CO₂ Regulator Manifold
- CO₂ Supply
- Chain for CO₂ Tank
- Beverage Tubing
- Oetiker Clamp Fittings
- Water Booster (Lancer PN: 82-3401 or MC-163172)
- Water Regulator (recommended)

CONSIDER THE FOLLOWING BEFORE INSTALLATION:

- Location of Water Supply Lines
- Location of Drain
- Location of Electrical Outlet
- Location of Heating and Air Conditioning Ducts
- Do you have enough space to install the chiller?
- Is countertop level?
- Can the countertop support the weight of the chiller?
- Is chiller located away from direct sunlight or overhead lighting?
- Not in area where water jet could be used.

INSTALLATION

Read This Manual

This manual was developed by Lancer Worldwide as a reference guide for the owner/operator and installer of this dispenser. Please read this manual before installation and operation of this dispenser. Please see pages 15-19 for troubleshooting or service assistance. If the service cannot be corrected please call your Service Agent or Lancer Customer Service. Always have your model and serial number available when you call.

Unpacking the Unit

1. Cut plastic band and remove.
2. Remove top portion of carton by lifting up.
3. Remove accessory kit and loose parts from top packaging.
4. Remove top inner carton pad and corners.
5. Lift unit up by plywood shipping base and remove lower portion of carton.

NOTE

Inspect unit for concealed damage. If evident, notify delivering carrier and file a claim against the same.

6. Remove plywood shipping base from unit by moving unit so that one side is off the counter top or table allowing access to screws on the bottom of the plywood shipping base.

NOTE

If unit is to be transported, it is advisable to leave the unit secured to the plywood shipping base.

7. If leg kit has been provided, assemble legs by tilting unit.

⚠ ATTENTION

DO NOT LAY UNIT ON ITS SIDE OR BACK.

Selecting/Preparing a Counter Location

NOTE

The dispenser should only be installed in a location where it can be overseen by trained personnel

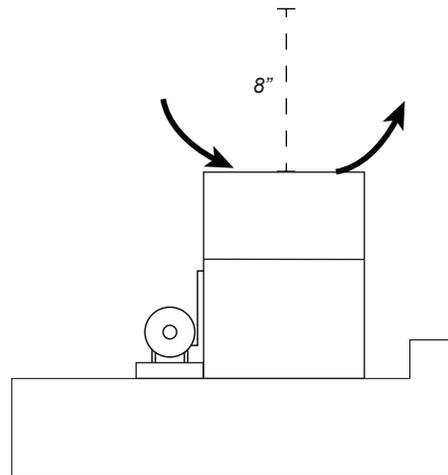
1. The unit is designed to sit on a flat, supported surface capable of supporting a minimum weight of 400 lbs (182 kg). Select a location that is in close proximity to a properly grounded electrical outlet, within five (5) feet (1.5 m) of a drain, and a water supply that meets the requirements shown in the Specifications section found on page 4.
2. Select a location for the syrup pumps, CO₂ tank, syrup containers, and water filter (recommended). Please see General System Overview on page 5 for reference.
3. The dispenser may either be counter or leg mounted. When the dispenser is to be permanently bolted to the counter top, use Lancer Sealant Kit (PN 15-0010) to seal dispenser base to counter top. For leg mounting, use Lancer Leg Kit (82-0962)

NOTE

NSF listed units must be sealed to the counter or have four (4) inch legs installed.

⚠ ATTENTION

Failure to maintain specified clearance will cause the compressor to overheat and will result in compressor failure



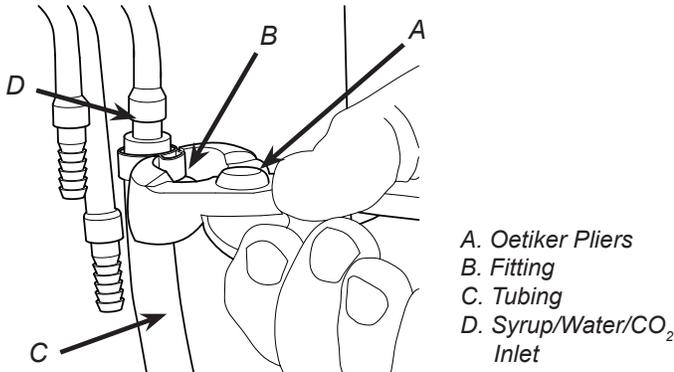
4. Condenser air is drawn in from the front half of the top cover, and discharged out the rear half of the top cover. A minimum of eight (8) inches (203 mm) clearance must be maintained over the top of the unit to provide for proper air flow and circulation.

Unit Installation

1. Remove bonnet and front plate from the unit.
2. Route appropriate tubing from the syrup pump location to the syrup inlets. Connect tubing to inlets using the oetiker pliers and fittings. Repeat for all syrup connections.

NOTE

If the unit being installed has built-in syrup pumps or uses the figal syrup supply system then the tubing in this step will be routed from the syrup supply location to the syrup inlets behind the splash plate.



3. Route appropriate tubing from the water source to the compressor deck fill hole, identified by the yellow cap, and **ONLY** connect tubing to water source.

NOTE

Leave 12 inches (305 mm) of extra tubing below the counter for servicing and moving the dispenser

4. Flush water supply line thoroughly.

⚠ CRITICAL - to maximize performance

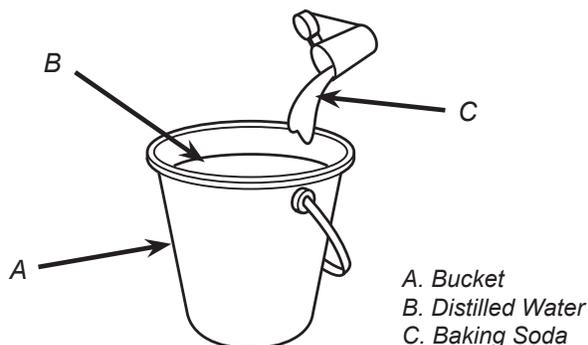
Carefully read this before filling the water bath tank. In order to optimize the maximum performance of the dispenser, the following **MUST** be adhered to:

5. Insert water line into a large bucket, and fill with approx. 5.4 gallons (20.4 L) of distilled water.

⚠ ATTENTION

For proper function of the electronic ice bank control the total dissolved solids (TDS) measurements should be 100-500 ppm.

6. Add baking soda to increase TDS if necessary.

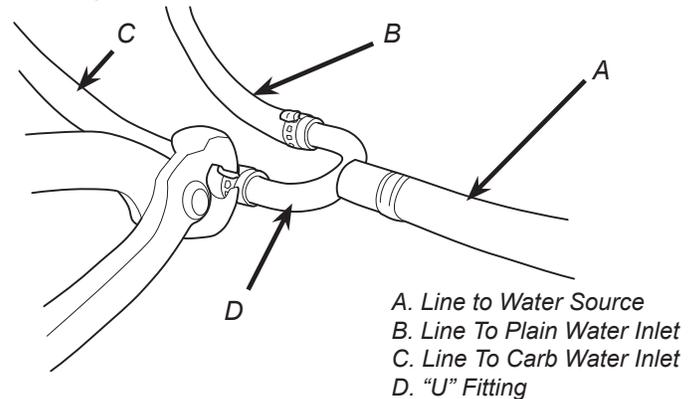


7. Remove yellow cap from the water bath fill hole and insert and insert a funnel into the fill hole.
8. Remove the insulation strip from front of the refrigeration deck.
9. Carefully pour the distilled water mixture into the water bath tank until water flows out of the overflow tube at the front of the unit.

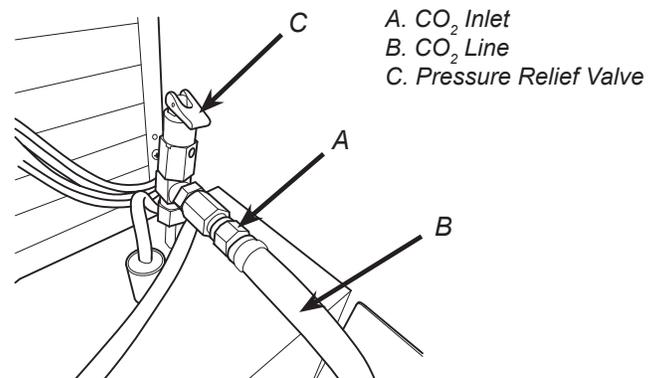
⚠ ATTENTION

The water bath compartment must be filled with water before plugging in the unit, otherwise the compressor fan may not operate properly.

10. Replace yellow cap, replace insulation, then connect water line to the carbonated water inlet in the front of the unit.
11. If plain water is to utilized for any of the valves, install a "U" fitting to the water line and connect to plain water inlet.



12. Route appropriate tubing from the syrup pump/syrup supply location to the CO₂ inlet and connect tubing to CO₂ inlet.



13. Turn on water supply and check for leaks.
14. Plug in the unit to a grounded electrical outlet then turn the unit on to begin building an ice bank.

⚠ WARNING

The dispenser must be properly electrically grounded to avoid serious injury or fatal electrical shock. The power cord has a three-prong grounded plug. If a three-hole grounded electrical outlet is not available, use an approved method to ground the unit. Follow all local electrical codes when making connections. Each dispenser must have a separate electrical circuit. Do not use extension cords. Do not connect multiple electrical devices on the same outlet.

NOTE

There is a five (5) minute delay, which prevents the compressor and condenser fan from starting until the delay has lapsed. If electrical current is interrupted, there is always a five (5) minute delay before the compressor starts.

NOTE

This unit is equipped with a protective timer for the carbonator pump motor, set for three (3) minutes. If the carbonator motor has timed out, it must be manually reset by either momentarily unplugging the unit or switching off the ON/OFF switch (if present). Once power is restored, the five (5) minute compressor delay would be in effect.

Installation to Dispenser

1. Determine the appropriate length of insulated python tubing required, allowing additional length as required for servicing.

NOTE

The length of the python must not exceed 25 feet (8 meters) if built-in syrup pumps are being used.

2. Position one end of the python near remote unit. Using a sharp knife or razor, slit the python insulation back 18 inches (46 cm) and roll insulation back to expose individual tubes.

⚠ ATTENTION

Careful not to cut tubing bundle when slitting python insulation.

NOTE

If plain water is not wanted, remove the barbed fitting and short extension fitting, and cap end of plain water line with cap from accessory kit.

3. Slide the tube insulation (from the accessory kit) over one of the 3/8 inch soda lines in the python then connect line to the 90° elbow on the inlet to the recirculating pump.
4. Connect the other 3/8 inch soda line from the python to the return inlet on the front of the unit.
5. Connect each of the 1/4 inch syrup/plain water lines to the syrup/plain water inlets on the front of the unit.

NOTE

DO NOT insulate connections at this time. Leave all connections exposed for inspection for leaks.

NOTE

The individual barbed fittings for the lines can be removed for insertion into the python tubing by removing the "U" shaped retainer pin and pulling the fitting off of the syrup line.

6. Route the opposite end of the python to tower. Determine the length required and cut if necessary.

⚠ ATTENTION

Use a sharp knife, razor blade, or tube cutter to cut tubing. Tubing cut with a saw will result in plastic shavings, which will plug the flow controls in the dispensing valve.

7. Slit the python insulation back 12 inches (30 cm) and roll insulation back to expose individual tubes.

NOTE

If plain water is not wanted, splice a stainless steel, reducing, barbed hose tee (PN 01-0527) in the 3/8 inch soda line. Use a separate 1/4 inch tube to complete the connection from the barbed tee to the tower manifold.

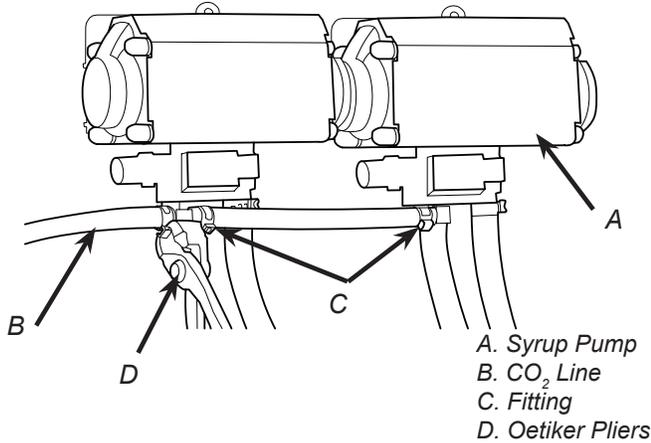
8. Connect each of the lines from the python to the syrup, soda, and plain water fittings on the tower manifold.

NOTE

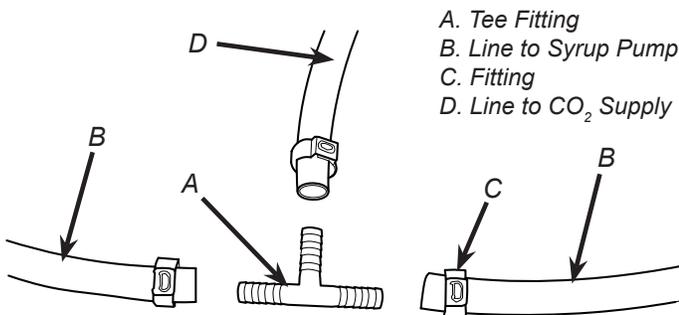
DO NOT insulate connections at this time. Leave all connections exposed for inspection for leaks.

Installing Remote Syrup Pumps - Bag In Box

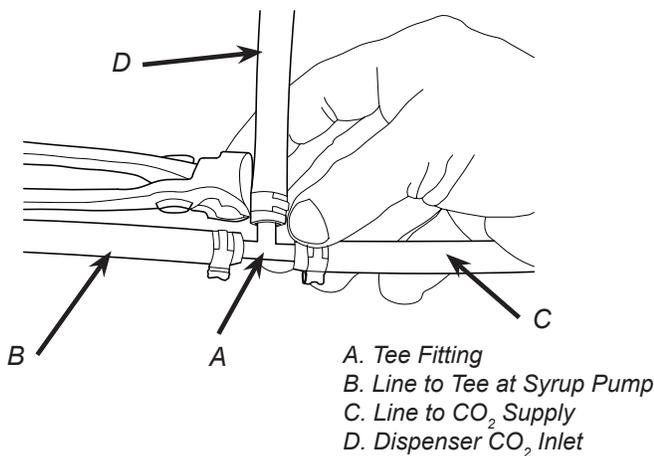
1. Install BIB rack and remote pumps according to manufacturers' instructions.
2. Once pumps and BIB rack are installed, measure and cut tubing to length between the pump CO₂ inlets, then connect tubing to all pumps.



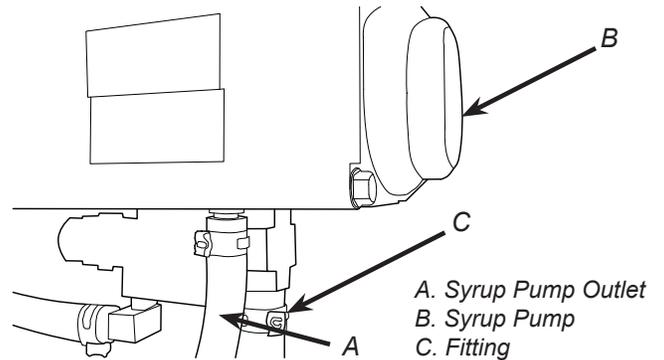
3. Using tubing cutters, cut any pump CO₂ supply line and install tee fitting, then route appropriate tubing from the CO₂ supply to the tee fitting at syrup pumps.



4. Cut tubing from CO₂ supply to tee fitting at syrup pumps and install another tee fitting.
5. Attach line from carbonator CO₂ inlet to tee fitting between syrup pumps and CO₂ supply.

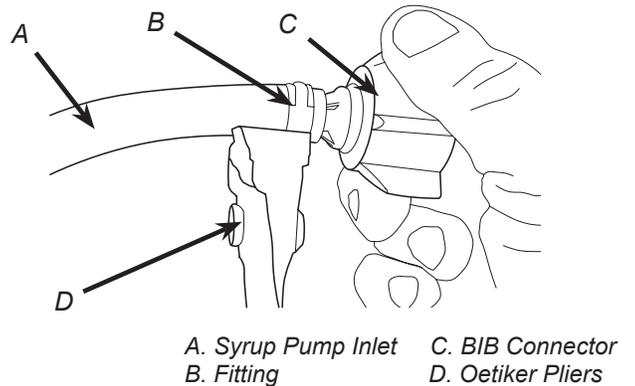


6. Connect tubing from dispenser syrup inlet to the syrup pump outlet fitting. Repeat for each syrup line/pump.

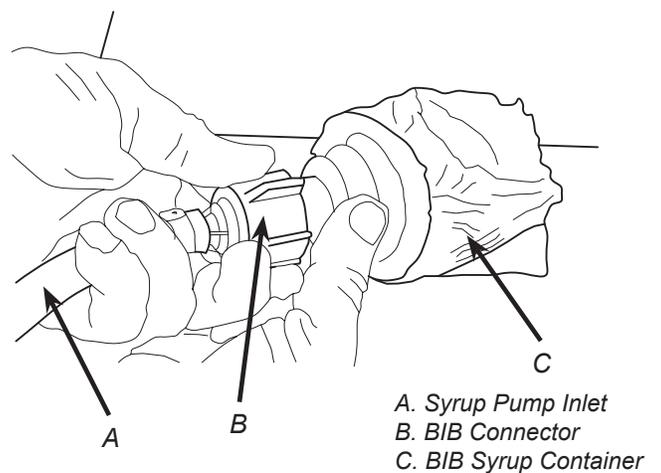


7. Install BIB (bag in box) connectors onto the syrup pump inlet tubing.

⚠ ATTENTION
Use proper connector for syrup manufacturer

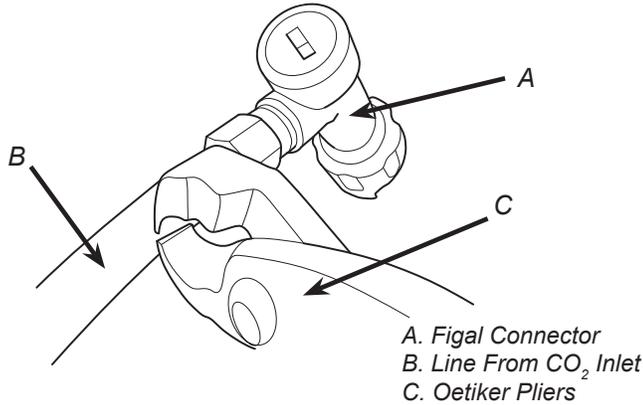


8. Connect syrup BIBs to connectors. Repeat for each syrup line/pump and each flavor injector line/pump.

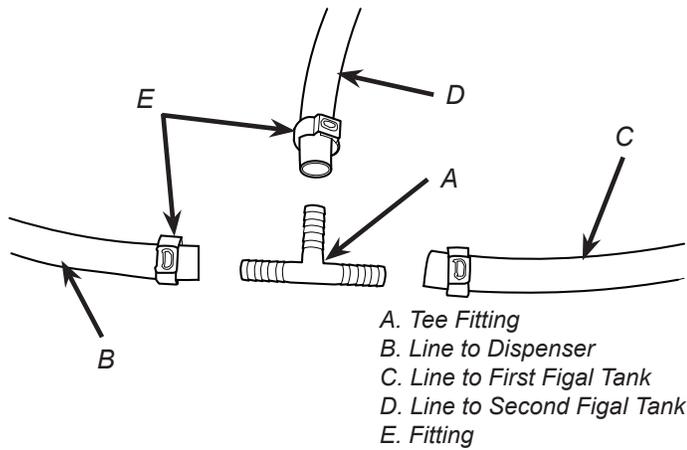


Connecting to Remote Pressurized Syrup Supply - FIGAL

1. Connect tubing routed from CO₂ inlet in dispenser to figal syrup tank CO₂ inlet.

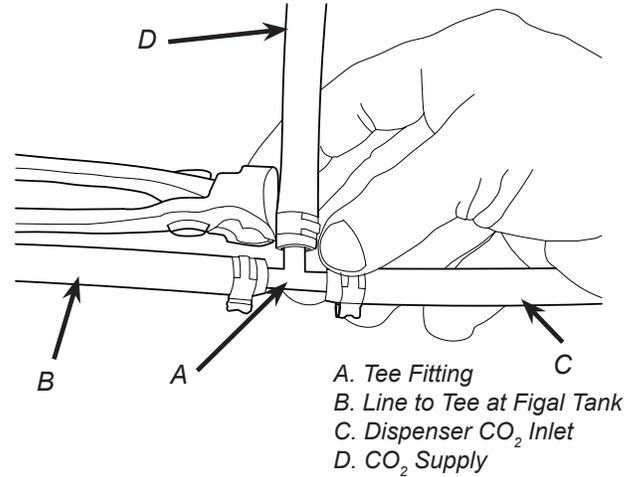


2. Using tubing cutters, cut line from CO₂ inlet to figal syrup tank and install tee fitting, then route appropriate tubing from second figal syrup CO₂ inlet to tee fitting.

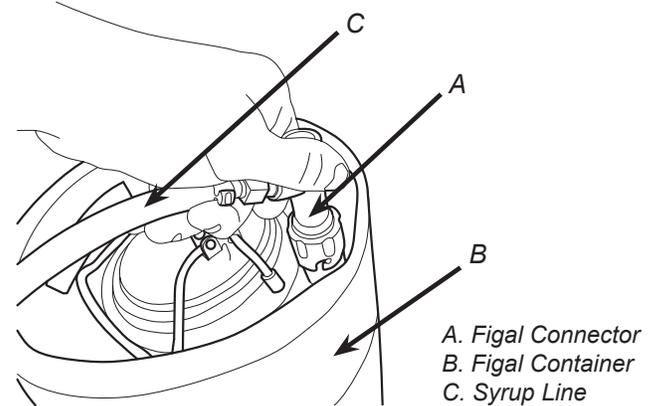


3. Repeat step 2 for remaining figal syrup tanks.

4. Cut tubing from dispenser CO₂ inlet to tee fitting at figal syrup tanks and install another tee fitting.
5. Route appropriate tubing from CO₂ supply to tee fitting between dispenser CO₂ inlet and figal syrup tanks and connect tubing to tee fitting.



6. Connect tubing from dispenser syrup inlet to the figal syrup outlet fitting. Repeat for each syrup line/tank.

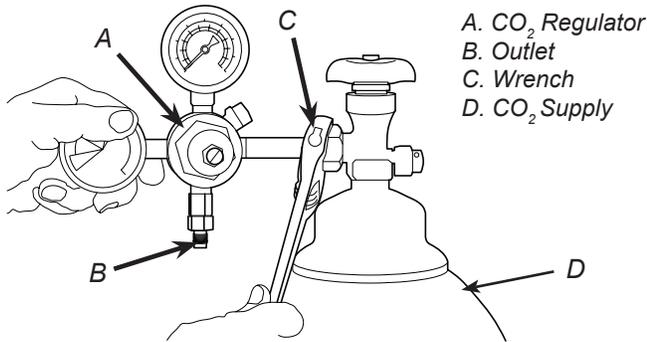


Installing CO₂ Supply / Dispenser Setup

1. Connect high pressure CO₂ regulator assembly to CO₂ cylinder or bulk system.

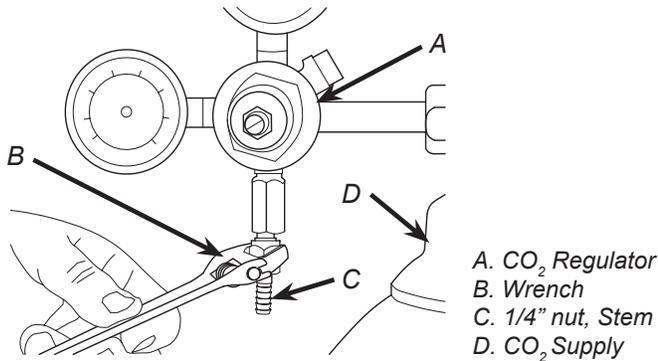
⚠ ATTENTION

Before installing regulator, assure that a seal (washer or o-ring) is present in regulator attachment nut.



- Thread regulator nut on to tank, then tighten nut with wrench

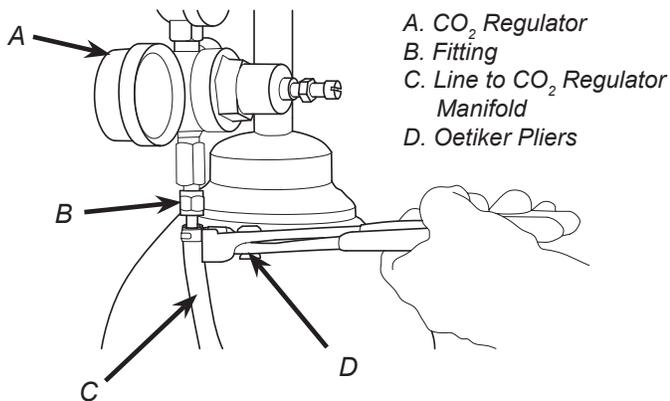
2. Connect a 1/4" nut, stem and seal to CO₂ regulator outlet.



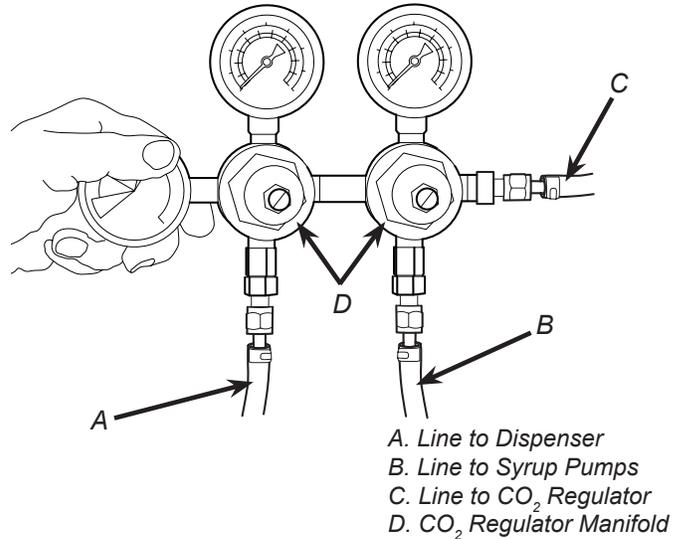
3. Route appropriate tubing from the low pressure CO₂ regulator manifold location to the 1/4" nut, stem on the high pressure CO₂ regulator attached to source and connect tubing.

⚠ ATTENTION

A dedicated CO₂ regulator is required to supply the CO₂ inlet at the unit as well as to all remote syrup pumps / remote pressurized syrup supply tanks.



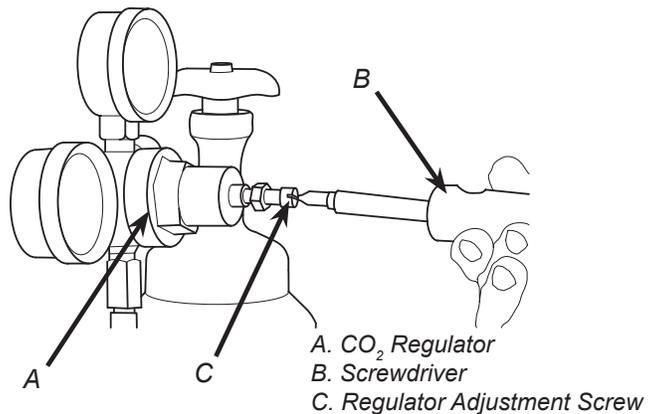
4. Connect tubing routed from the CO₂ inlet at the unit to one of the low pressure CO₂ regulator manifold outlets.
5. Connect tubing routed from the tee at the syrup pumps to the second outlet of the low pressure CO₂ regulator manifold.



6. Using a wrench, loosen lock nut on the regulator adjustment screw of the high pressure CO₂ regulator connected to the source, then using a screwdriver back out lock nut screw all the way.

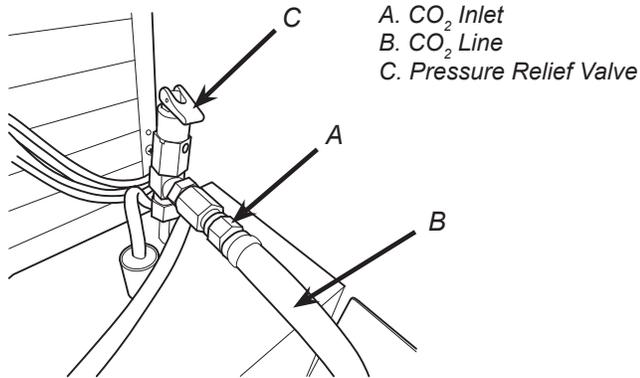
⚠ WARNING

DO NOT TURN ON CO₂ SUPPLY AT THIS TIME



7. Repeat Step 6 for both low pressure CO₂ regulators on the regulator manifold routed to the unit and the syrup pumps.

8. Purge the water to fill carbonator tank by opening carbonator relief valve. Close relief valve once water begins to come out of relief valve.

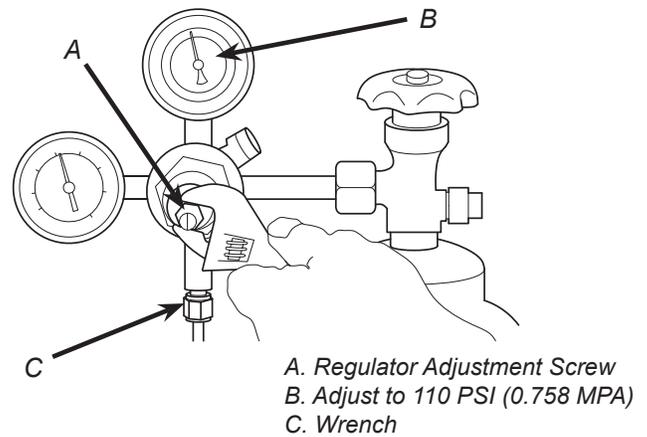


9. Activate each valve until a steady flow of water is achieved.
10. Unplug the unit then unplug the Pump Motor Connector from the control box. Use the wiring diagram on the unit control box for reference.

ATTENTION

Failure to disconnect the motor power supply will damage the carbonator motor, the pump and void the warranty

11. Turn on CO₂ and using a screwdriver, adjust regulator to 110 PSI (0.517 MPA) then tighten lock nut with wrench.



12. Adjust both of the low pressure regulators on the regulator manifold to 75 PSI (0.517 MPA) then tighten locknut with wrench.
13. Activate each valve until gas-out is achieved.
14. Plug the Pump Motor Connector back into the control box then plug in unit.

NOTE

Pump Motor will run for a few seconds to fill carb tank

15. Re-attach bonnet and front plate.
16. Activate each valve until a steady flow of carbonated water is achieved.

MAINTENANCE

Scheduled Maintenance

As Needed	<ul style="list-style-type: none"> Keep exterior surfaces of unit (include drip tray and front plate) clean using a clean, damp cloth.
Daily	<ul style="list-style-type: none"> Remove cup rest and wash in warm soapy water. Pour warm soapy water into the drip tray and wipe with a clean cloth. With a clean cloth and warm water, wipe off all of the unit's exterior surfaces. DO NOT USE ABRASIVE SOAPS OR STRONG DETERGENTS.
Weekly	<ul style="list-style-type: none"> Taste each product for off tastes. Remove the unit's bonnet and check the level of water in the water bath. Replenish as required, and replace the bonnet.
Monthly	<ul style="list-style-type: none"> Unplug the unit from the power source. Remove the bonnet and clean the dirt from the condenser using a soft brush. Replace the bonnet and plug in the unit.
Every Six Months	<ul style="list-style-type: none"> Clean and sanitize the unit using the appropriate procedures outlined in the Cleaning and Sanitizing section of this manual.
Yearly	<ul style="list-style-type: none"> Clean water bath interior, including evaporator coils and refrigeration components. Clean the entire exterior of the unit.

Removing Existing Built-in Syrup Pumps (if necessary)

NOTE

If necessary or if so desired, the dispenser can be converted from a built-in syrup pump system to a remote syrup pump or figal syrup tank system. The following are instructions on how to remove the existing built-in syrup pumps from the dispenser. For instructions on how to install a remote syrup pump or figal syrup tank system, please see the *Installation* section of this manual, pages 8-16.

1. Disconnect the unit from the power supply and remove the bonnet.
2. Loosen the valve cover retaining screws and remove the valve covers.
3. Shut off the water supply to each valve by turning the water shutoff knob at the mounting block, see page 14.
4. Prepare three to four (3 to 4) gallons of warm water in a suitable open container.
5. Disconnect the syrup supply lines from the BIB syrup supply, assemble a BIB adapter to the end of each line, and place the line in the container of warm water.
6. Open each dispensing valve until the water flowing from the valve shows no discoloration due to syrup.
7. Remove the syrup supply lines from the warm water and open each dispensing valve to purge the water from the system.
8. Turn off the CO₂ supply to the unit and disconnect the CO₂ supply line from CO₂ inlet fitting on the built-in pump package.
9. Using the oetiker pliers, cut and remove the fittings on the syrup inlet lines from the built-in syrup pumps and disconnect the lines from the pumps.
10. Disconnect the pump's syrup outlet lines from the unit's syrup inlet fittings using the oetiker pliers.
11. Using a wrench, remove the 1/8 inch barbed carbonator CO₂ check valve, if one is present.
12. Remove the four (4) sheet metal screws that secure the pump assembly to the carbonator deck and remove the pump assembly from the unit.

CLEANING & SANITIZING

General Information

- Lancer equipment (new or reconditioned) is shipped from the factory cleaned and sanitized in accordance with NSF guidelines. The operator of the equipment must provide continuous maintenance as required by this manual and/or state and local health department guidelines to ensure proper operation and sanitation requirements are maintained.

NOTE

The cleaning procedures provided herein pertain to the Lancer equipment identified by this manual. If other equipment is being cleaned, follow the guidelines established by the manufacturer for that equipment.

- Cleaning should be accomplished only by trained personnel. Sanitary gloves are to be used during cleaning operations. Applicable safety precautions must be observed. Instruction warnings on the product being used must be followed.

⚠ ATTENTION

- Use sanitary gloves when cleaning the unit and observe all applicable safety precautions.
- **DO NOT** use a water jet to clean or sanitize the unit.
- **DO NOT** disconnect water lines when cleaning and sanitizing syrup lines, to avoid contamination.
- **DO NOT** use strong bleaches or detergents; These can discolor and corrode various materials.
- **DO NOT** use metal scrapers, sharp objects, steel wool, scouring pads, abrasives, or solvents on the dispenser.
- **DO NOT** use hot water above 140° F (60° C). This can damage the dispenser.
- **DO NOT** spill sanitizing solution on any circuit boards. Insure all sanitizing solution is removed from the system.

Cleaning and Sanitizing Solutions

Cleaning Solution

Mix a mild, non-abrasive detergent (e.g. Sodium Laureth Sulfate, dish soap) with clean, potable water at a temperature of 90°F to 110°F (32°C to 43°C). The mixture ratio is one ounce of cleaner to two gallons of water. Prepare a minimum of five gallons of cleaning solution. Do not use abrasive cleaners or solvents because they can cause permanent damage to the unit. Ensure rinsing is thorough, using clean, potable water at a temperature of 90°F to 110°F. Extended lengths of product lines may require additional cleaning solution.

Cleaning and Sanitizing Syrup Lines

1. Disconnect syrup lines from BIB's
2. Place syrup lines, with BIB connectors, in a bucket of warm water.
3. Activate each valve to fill the lines with warm water and flush out syrup remaining in the lines.
4. Prepare Cleaning Solution described on previous page.
5. Place syrup lines, with BIB connectors, into cleaning solution.
6. Activate each valve until lines are filled with cleaning solution then let stand for ten (10) minutes.
7. Flush out cleaning solution from the syrup lines using clean, warm water.

Sanitizing Solution

Prepare the sanitizing solution in accordance with the manufacturer's written recommendations and safety guidelines. The type and concentration of sanitizing agent recommended in the instructions by the manufacturer shall comply with 40 CFR §180.940. The solution must provide 100 parts per million (PPM) chlorine (e.g. Sodium Hypochlorite or bleach) and a minimum of five gallons of sanitizing solution should be prepared.

8. Prepare Sanitizing Solution described above.
9. Place syrup lines into sanitizing solution and activate each valve to fill lines with sanitizer. Let sit for ten (10) minutes.
10. Reconnect syrup lines to BIB's and draw drinks to flush solution from the dispenser.
11. Taste the drink to verify that there is no off-taste. If off-taste is found, flush syrup system again.

CAUTION

Following sanitization, rinse with end-use product until there is no aftertaste. Do not use a fresh water rinse. This is a NSF requirement. Residual sanitizing solution left in the system creates a health hazard.

Cleaning and Sanitizing Syrup Lines - FIGAL

1. Disconnect syrup inlet from the figal syrup tank.
2. Prepare cleaning solution and using a plastic bristle brush, scrub both disconnect valves on figal tank with cleaning solution and rinse with clean, potable water.
3. Prepare sanitizing solution and using a spray bottle or clean cloth, sanitize both disconnect valves on figal tank and allow to air dry.
4. Turn off CO₂ supply.
5. Connect syrup line to syrup tank filled with clean, potable water.
6. Connect CO₂ line to tank filled with water and pressurize.
7. Activate appropriate valve to fill the line with water and flush out syrup remaining in the line.
8. Disconnect CO₂ line and syrup line from tank filled with water.
9. Fill a separate tank with cleaning solution and connect syrup line and CO₂ line to tank and pressurize.
10. Activate appropriate valve to fill the line with cleaning solution then let stand for ten (10) minutes.
11. Disconnect CO₂ line and syrup line from tank filled with cleaning solution then reattach lines to tank filled with water and pressurize.

12. Activate valve to flush cleaning solution from the line.
13. Disconnect CO₂ line and syrup line from tank filled with water then fill a separate tank with sanitizing solution.
14. Connect both CO₂ and syrup lines to tank filled with sanitizing solution and pressurize.
15. Activate valve to fill line with sanitizing solution then let stand for ten (10) minutes.
16. Disconnect lines from the sanitizer tank and reattach to syrup tank and pressurize.
17. Draw drinks and refill line with end use product to flush sanitizing solution from the line.
18. Taste the drink to verify that there is no off-taste. If off-taste is found, flush syrup system again.

CAUTION

Following sanitization, rinse with end-use product until there is no aftertaste. Do not use a fresh water rinse. This is a NSF requirement. Residual sanitizing solution left in the system creates a health hazard.

19. Repeat procedure for each valve/syrup tank.

TROUBLESHOOTING

TROUBLE	CAUSE	REMEDY
Miscellaneous leakage.	<ol style="list-style-type: none"> 1. Gap between parts. 2. Damaged or improperly installed o-rings. 	<ol style="list-style-type: none"> 1. Tighten appropriate retaining screws 2. Replace or adjust appropriate o-rings
Insufficient water flow.	<ol style="list-style-type: none"> 1. Insufficient incoming supply water pressure. 2. Shutoff on mounting block not fully open. 3. Foreign debris in water flow control. 4. Foreign debris in water pump strainer 	<ol style="list-style-type: none"> 1. Verify incoming supply water pressure is a minimum of 25 PSI (0.172 MPA). 2. Open shutoff fully. 3. Remove water flow control from upper body and clean out any foreign material to ensure smooth free spool movement. 4. Remove water pump strainer and clean.
Insufficient syrup flow.	<ol style="list-style-type: none"> 1. Insufficient CO₂ pressure to BIB pumps. 2. Out of CO₂. 3. Shutoff on mounting block not fully open. 4. Foreign debris in syrup flow control. 5. Bad syrup pump. 	<ol style="list-style-type: none"> 1. Adjust CO₂ pressure to 80 PSI (0.550 MPA) [minimum 70 PSI (0.480 MPA)] for BIB pumps. 2. Replace CO₂ tank/refill. 3. Open shutoff fully. 4. Remove syrup flow control form upper body and clean out any foreign material to ensure smooth free spool movement. 5. Replace BIB pump.
Erratic ratio.	<ol style="list-style-type: none"> 1. Incoming water and/or syrup supply not at minimum flowing pressure. 2. Foreign debris in water and/or syrup flow controls. 	<ol style="list-style-type: none"> 1. Check pressure and adjust 2. Remove flow controls from upper body and clean out any foreign material to ensure smooth free spool movement.
No product dispensed	<ol style="list-style-type: none"> 1. Water and syrup shutoffs on mounting block not fully open. 2. The key switch on an electric valve is in the OFF position. 3. Cup lever arm or ID panel actuator on electric valve is not actuating the switch. 4. Electric current not reaching valve. 5. Improper or inadequate water or syrup supply. 6. Transformer Failure 7. Bad valve solenoid(s) 	<ol style="list-style-type: none"> 1. Open shutoff fully. 2. Turn key switch to ON position. 3. Repair 4. Check electric current supplied to valve. If current is adequate, check solenoid coil and switch, and replace if necessary. 5. Remove valve from mounting block and open shutoffs slightly and check water and syrup flow. If no flow, check dispenser for freeze-up or other problems 6. Reset transformer circuit breaker. If breaker trips again check for pinched wire harness at backblocks 7. Replace Solenoid(s)

TROUBLE	CAUSE	REMEDY
Water only dispensed; no syrup; or syrup only dispensed, no water	<ol style="list-style-type: none"> 1. Water or syrup shutoff on mounting block not fully open. 2. Improper or inadequate water or syrup flow. 3. BIB supply too far from dispenser. 4. CO₂ pressure too low. 5. Stalled or inoperative BIB pump 6. Kinked line. 	<ol style="list-style-type: none"> 1. Open shutoff fully. 2. Remove valve from mounting block, open shutoffs slightly and check water and syrup flow. If no flow, check dispenser for freeze-up or other problems. Ensure BIB connection is engaged. 3. Check that BIB supply is within six (6) feet of the dispenser. 4. Check the CO₂ pressure to the pump manifold to ensure it is between 70 and 80 PSI (0.483 and 0.552 MPA). 5. Check CO₂ pressure and/or replace pump. 6. Remove kink or replace line.
No water just syrup, (Ice bank grew to water inlet line to carbonator tank.)	<ol style="list-style-type: none"> 1. Low water bath level. 2. Unit not level. 3. Syrup in water bath. 4. Water cage is out of position. 5. Refrigerant leak. 6. Check water supply. 7. Carbonator timed out. 8. PCB malfunctioning. 	<ol style="list-style-type: none"> 1. Add water until it flows from overflow tube. 2. Level unit and add water. 3. Melt ice bank. Remove all water. Refill. Locate possible syrup leak area and repair. 4. Reposition water cage. 5. Find leak and recharge unit. (If unit is not frozen.) 6. Turn water ON and shut unit OFF, 7. Turn unit OFF then ON to reset 8. See page 20.
Syrup only dispensed. No water, but CO ₂ gas dispensed with syrup.	<ol style="list-style-type: none"> 1. Improper water flow to dispenser. 2. Carbonator pump motor has timed out. 3. Liquid level probe not connected properly to PCB. 4. Faulty PCB assembly. 5. Faulty liquid level probe. 6. Water bath frozen. 7. Water line frozen. 	<ol style="list-style-type: none"> 1. Check for water flow to dispenser (see Insufficient Water Flow on previous page). 2. Reset by turning the unit OFF and then ON (by using the ON/OFF switch on top of the unit or unplugging unit momentarily). 3. Check connections of liquid level probe to PCB assembly. 4. Replace PCB assembly. 5. Replace liquid level probe. 6. Thaw water bath and repair faulty component. (See refrigeration related symptoms.) 7. Refer to "Compressor starts and continues to run until freeze and will not cut off" in Troubleshooting.

TROUBLE	CAUSE	REMEDY
Excessive foaming.	<ol style="list-style-type: none"> 1. Incoming water or syrup temperature too high. 2. CO₂ pressure too high. 3. Air in BIB lines. 4. Poor quality ice. 5. High beverage temperature. 	<ol style="list-style-type: none"> 1. Correct prior to dispenser. Consider larger dispenser or pre-cooler. 2. Adjust CO₂ pressure downward, but not less than 70 PSI (0.483 MPA). 3. Bleed air from BIB lines. 4. Check quality of ice used in drink. 5. Check refrigeration system.
Water continually overflows from water bath into drip tray.	<ol style="list-style-type: none"> 1. Loose water connection(s). 2. Flare seal washer leaks. 3. Faulty water coil. 	<ol style="list-style-type: none"> 1. Tighten water connections. 2. Replace flare seal washer. 3. Replace water coil.
Compressor starts and continues to run until freeze and will not cut off.	<ol style="list-style-type: none"> 1. PCB malfunctioning or faulty ice bank probe. 2. Ice bank probe positioned improperly. 3. Ice bank probe shorted to ground. 	<ol style="list-style-type: none"> 1. See page 20. 2. Check positioning of ice bank probe, and replace if needed. 3. Replace ice bank probe.
Warm drinks.	<ol style="list-style-type: none"> 1. Restricted airflow. 2. Dispenser connected to hot water supply. 3. Refrigeration system not running. 4. Refrigerant leak. 5. Condenser fan motor not working. 6. Dirty condenser. 7. Dispenser capacity exceeded. 	<ol style="list-style-type: none"> 1. Check clearances around sides, top, and inlet of unit. Remove objects blocking airflow through grill. 2. Switch to cold water supply. 3. Refer to page 20, the correct relay will cause compressor failure. 4. Repair and recharge. 5. Replace condenser fan motor. 6. Clean condenser. 7. Add pre-cooler or replace with larger dispenser.
Compressor does not start (no hum), gas cooler fan does not run, and no ice bank.	<ol style="list-style-type: none"> 1. There is a five (5) minute compressor and condenser fan delay. 2. Ice bank probe not completely submerged. 3. Circuit breaker or fuse tripped. 4. Inadequate Voltage 5. PCB malfunctioning 6. Incorrect Wiring 7. Faulty ice bank probe. 8. Transformer failure. 9. Ice bank probe not connected properly to PCB. 	<ol style="list-style-type: none"> 1. Allow for five (5) minute delay to lapse. 2. Fill water reservoir until water flows from overflow tube. 3. Reset breaker or replace fuse. If problem persists: Determine reason and correct or electrical circuit overloaded; switch to another circuit. 4. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. 5. See page 20. 6. Refer to wiring diagram and correct. 7. Replace ice bank probe. 8. Reset transformer circuit breaker. If breaker pops again, refer to "Circuit breaker tripping" in Troubleshooting. 9. Connect ice bank probe to PCB.

TROUBLE	CAUSE	REMEDY
Compressor does not start (no hum), but gas cooler fan motor runs.	<ol style="list-style-type: none"> 1. Compressor relay capacitors or overload malfunctioning. 2. Inadequate voltage. 3. Incorrect wiring. 4. Compressor malfunctioning. 	<ol style="list-style-type: none"> 1. Replace compressor relay capacitors or overload. 2. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. 3. Refer to wiring diagram and correct. 4. Have the unit repaired by a qualified service technician.
Compressor does not start but hums.	<ol style="list-style-type: none"> 1. Inadequate voltage. 2. Incorrect wiring. 3. Starting relay capacitors malfunctioning. 4. Compressor malfunctioning. 	<ol style="list-style-type: none"> 1. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. 2. Refer to wiring diagram and correct. 3. Replace starting relay or capacitors. Be sure to use correct rating. Failure to use correct rating will cause compressor failure. 4. Have the unit repaired by a qualified service technician.
Compressor starts but does not switch off start winding (will run for only a few seconds before internal overload switches before internal overload switches compressor off).	<ol style="list-style-type: none"> 1. Inadequate voltage. 2. Incorrect wiring. • Starting relay malfunctioning. 	<ol style="list-style-type: none"> 1. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. 2. Refer to wiring diagram and correct. 3. Replace starting relay. Be sure to use correct relay. Failure to use correct relay will cause compressor failure.
Compressor starts and runs a short time but shuts off on overload.	<ol style="list-style-type: none"> 1. Dirty condenser. 2. Insufficient or blocked air flow. 3. Inadequate voltage. 4. Incorrect wiring. 5. Defective condenser fan motor. 6. Refrigerant leak. 7. Compressor malfunctioning. 	<ol style="list-style-type: none"> 1. Clean the condenser. 2. Remove all obstruction and allow for minimum clearances of 8 inches (203 mm) over top. 3. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. 4. Refer to wiring diagram and correct. 5. Have the unit repaired by a qualified service technician. 6. Have the unit repaired by a qualified service technician. 7. Have the unit repaired by a qualified service technician.
Compressor runs normally, but water line is frozen.	<ol style="list-style-type: none"> 1. Low water level in water bath. 2. Syrup in water bath. 3. Water cage is out of position. 4. Low refrigerant charge or slow refrigerant leak. 	<ol style="list-style-type: none"> 1. Add water to water bath until water runs out of overflow into drip tray. 2. Drain water from water bath and refill with clean water. 3. Reposition water cage. 4. Find and repair leak. Recharge system.
Compressor cycles on and off frequently during the initial pulldown and/or normal operations.	<ol style="list-style-type: none"> 1. PCB malfunctioning 2. Defective probe. 3. Weak overload or pressure switch. 	<ol style="list-style-type: none"> 1. See page 20. 2. Replace probe. 3. Have the unit repaired by a qualified service technician.

TROUBLE	CAUSE	REMEDY
Circuit breaker tripping.	<ol style="list-style-type: none"> 1. Valve wire harness shorted to itself or to faucet plate. 2. PCB is bad. 3. Secondary wire harness is bad. 4. Transformer failure. 	<ol style="list-style-type: none"> 1. Detect short by disconnecting input fasten to keylock and single pin connector. Restore power if breaker doesn't trip. Then valve wire harness is shorted. If OK, reconnect. 2. Detect short by disconnecting J1 connector (24 VAC input) from PCB. Restore power, if breaker doesn't trip. Then replace PCB. If breaker does trip, then PCB is OK. Reconnect J1 connector. 3. If it does not trip, locate short in secondary harness between transformer, PCB, and valve wire harness. 4. Detect short by disconnecting both transformerfastons and restore power. If breaker does trip, replace transformer.
BIB pump does not operate when dispensing valve opened.	<ol style="list-style-type: none"> 1. A. Out of CO₂, CO₂ not turned on, or low CO₂ pressure. 2. Out of syrup. 3. BIB connector not tight. 4. Kinks in syrup or gas lines. 5. Bad BIB Pumps. 	<ol style="list-style-type: none"> 1. Replace CO₂ supply, turn on CO₂ supply, or adjust CO₂ pressure to 70-80 PSI (0.483-0.552 MPA) 2. Replace syrup supply. 3. Fasten connector tightly. 4. Straighten or replace lines. 5. Replace BIB pump.
BIB pump operated, but no flow.	<ol style="list-style-type: none"> 1. Leak in syrup inlet or outlet line. 2. Defective BIB pump check valve. 	<ol style="list-style-type: none"> 1. Replace line. 2. Replace BIB pump
BIB pump continues to operate when bag is empty.	<ol style="list-style-type: none"> 1. Leak in suction line. 2. Leaking o-ring on pump inlet fitting. 	<ol style="list-style-type: none"> 1. Replace line. 2. Replace o-ring.
BIB pump fails to restart after bag replacement.	<ol style="list-style-type: none"> 1. BIB connector not on tight. 2. BIB connector is stopped up. 3. Kinks in syrup line 4. Bad BIB Pumps. 	<ol style="list-style-type: none"> 1. Tighten BIB connector. 2. Clean out or replace BIB connector. 3. Straighten or replace line. 4. Replace BIB pump.
BIB pump fails to restart when dispensing valve is closed.	<ol style="list-style-type: none"> 1. Leak in discharge line or fittings. 2. Empty BIB. 3. Air leak on inlet line or bag connector. 	<ol style="list-style-type: none"> 1. Repair or replace discharge 2. Replace BIB. 3. Repair or replace.
Low or no carbonation.	<ol style="list-style-type: none"> 1. Low or no CO₂. 2. Excessive water pressure. 3. Worn or defective carbonator pump. 4. PCB malfunctioning. 	<ol style="list-style-type: none"> 1. Check CO₂ supply. Adjust CO₂ pressure to 70 PSI (0.483 MPA). 2. Water regulator should be set at 50 PSI (0.345 MPA) 3. Replace carbonator pump. 4. See page 20.

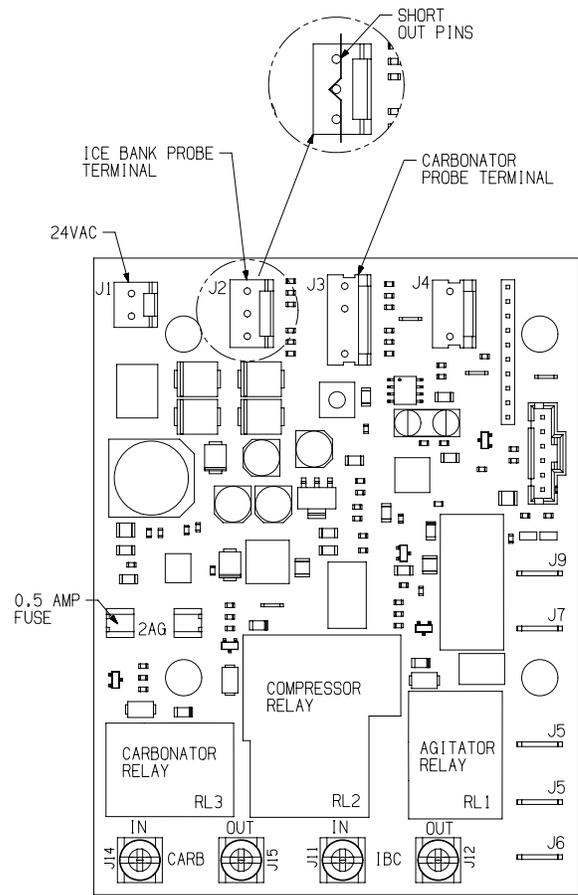
THE ELECTRONIC ICE BANK CONTROL (EIBC)

Checking the Normal PCB Operation

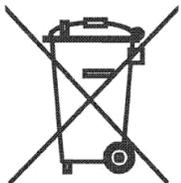
⚠ WARNING

Terminal block has AC line voltage and should be covered with tape. Tape should cover bare electrical connections to prevent electrical shock.

1. Turn power OFF or insure that power has been disconnected from dispenser
2. Check condition of 0.5 amp fuse at location shown in diagram to the right. If fuse is blown, trace cause of short in valve wire harness and associated 24 VAC lines and replace fuse. If fuse is good, continue with next step.
3. Disconnect leads from the terminal block that connect to the PCB, noting their specific location for reconnection.
4. Disconnect both the Ice Bank probe (J2) and the Carbonator probe (J3) (if equipped) connections from board.
5. Use a short copper wire, paper clip, or other means to short the Ice Bank probe terminals (J2) on the PCB by touching all three (3) pins together.
6. Set Ohm test meter to measure continuity.
7. Reconnect power or turn dispenser ON.
8. Observe time and check continuity of the PCB screw lug connections:
 - Terminal 3 to 4 (Carbonator): During the first 2.5 to 3.5 minutes there should be continuity. After 2.5 to 3.5 minutes, there should be NO continuity.
 - Terminal 2 to 1 (Compressor): During first 4 to 6 minutes, there should be NO continuity. After 4 to 6 minutes, there should be continuity. There should be NO continuity from 2 to 1.
 - You should be able to hear a “click” sound of the relay closing when the time delay ends.
9. Turn electrical power OFF for 15 seconds and then back ON again to reset Carbonator timer. Again, measure continuity of the PCB screw lug connections
 - Terminal 3 to 4: There should be continuity. Use a short copper wire, paper clip, or other means to short the Carbonator probe terminals (J3) on the PCB by touching all three (3) pins together. This should be done before the 2.5 to 3.5 minute time limit has elapsed. Measure the continuity again between Terminal 3 to 4: There should be **NO** continuity.
10. If all the above work as noted, then the board is functioning properly. Remove tape and reconnect board. If any non-conformities are found, the PCB must be replaced (PN 52-1423/01).



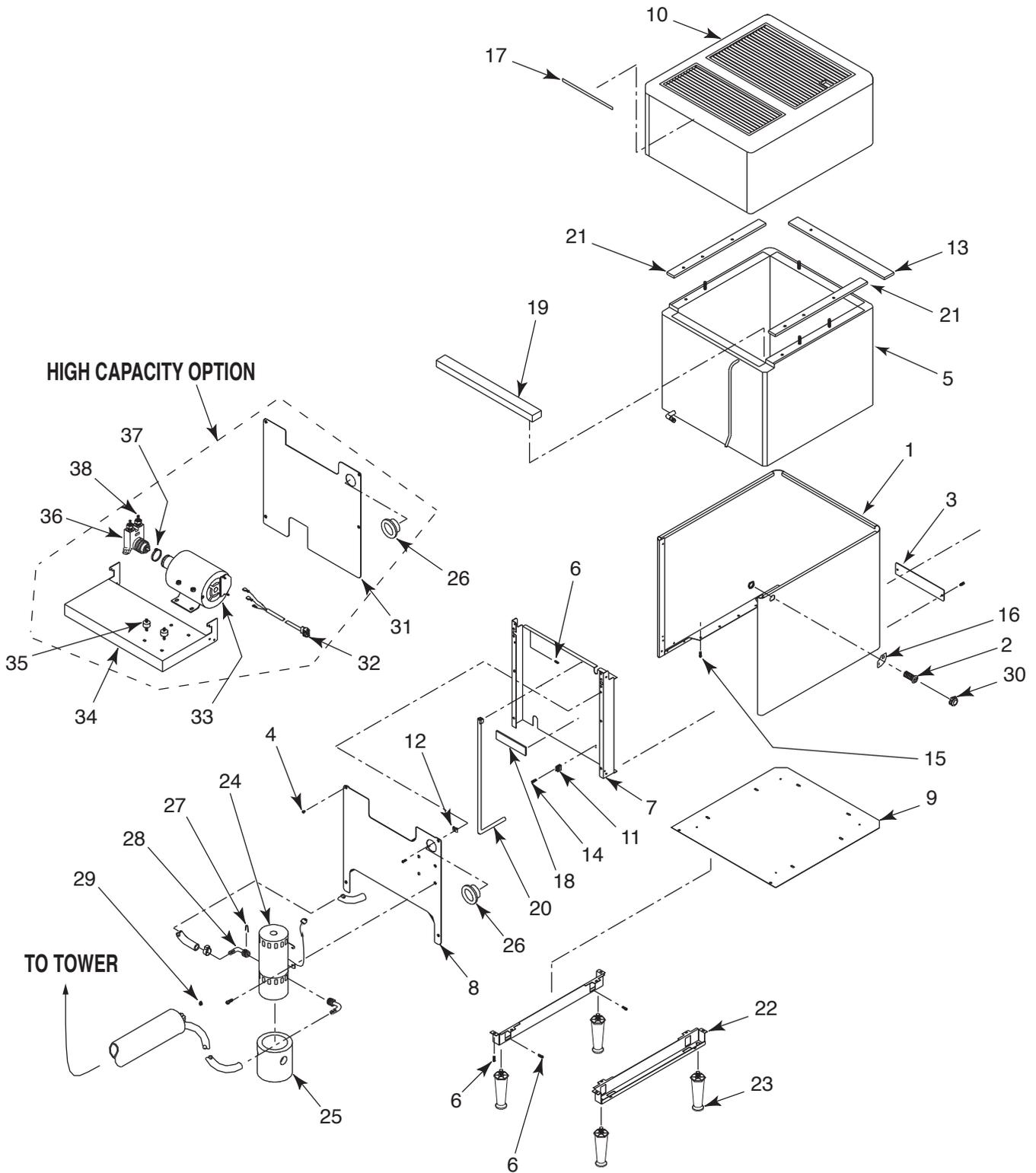
Dispenser Disposal



To prevent possible harm to the environment from improper disposal, recycle the unit by locating an authorized recycler or contact the retailer where the product was purchased. Comply with local regulations regarding disposal of the refrigerant and insulation.

ILLUSTRATIONS AND PART LISTINGS

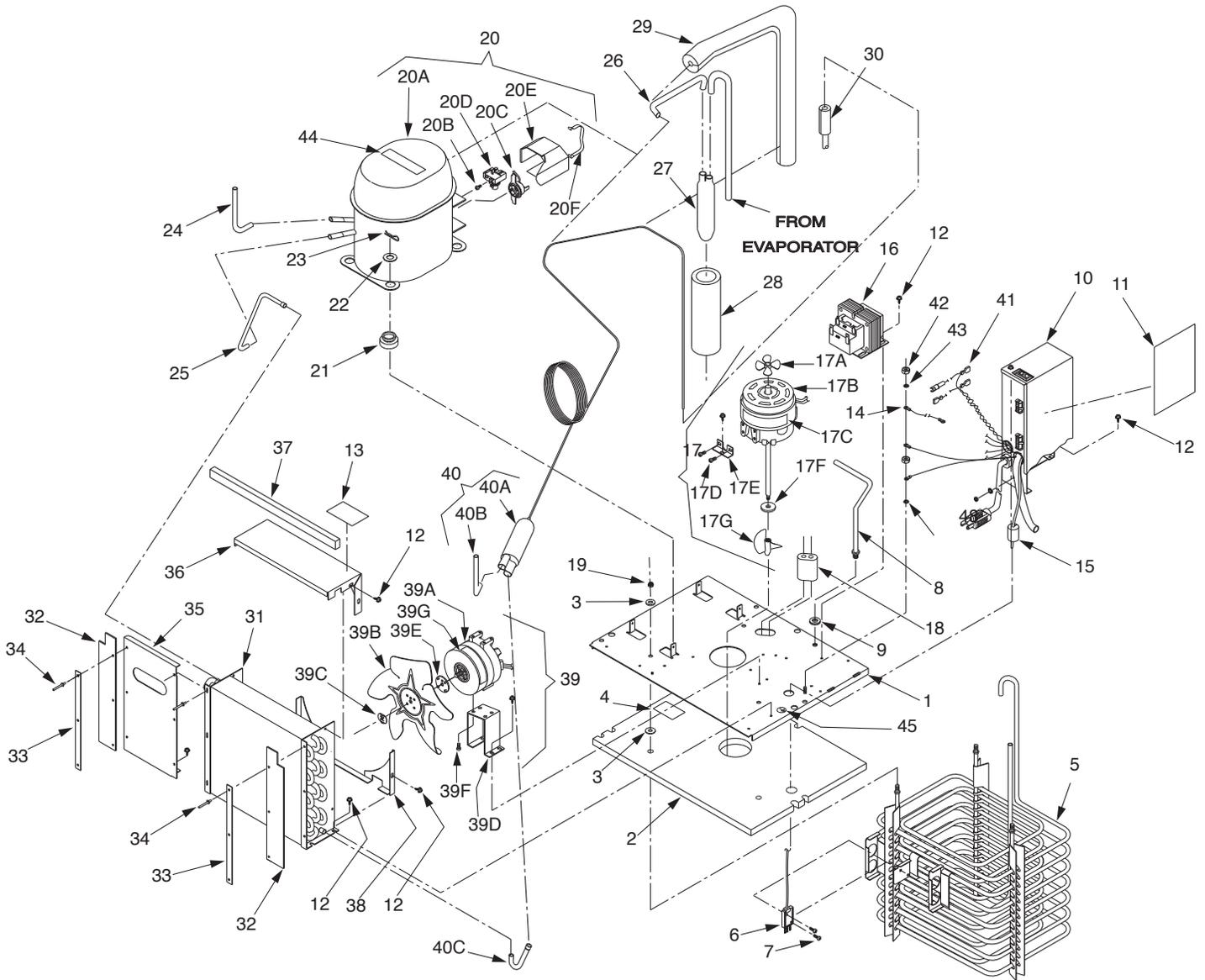
Cabinet Assembly



<u>Item</u>	<u>Part No.</u>	<u>Description</u>			
-	82-2551	Cabinet Assy	23	81-0112	Leg, Plastic
1	51-5629/01	Wrapper Assy	24	82-0795	Pump, Recirculation, 115V
2	12-0097	Key Switch	-	82-0799	Pump, Recirculation, 230V
3	07-0347	Cover Plate	25	50-0194	Pump Insulation
4	04-0068	Screw, 10 - 24 x 0.375 FH, Machine	26	13-0046	Bushing
5	42-0057	Tank Assy, Foamed	27	03-0162	Retainer, Pump
-	42-0058	Tank Assy, Foamed, LF Sol	28	01-1388	Elbow Assy, Pump
6	04-0504	Screw, 8 - 18 x 0.375 AB	29	04-0562	Screw, 1/4 - 20 x 0.375, THD, SL
7	30-7353/01	Front Plate Support	30	07-0405	Plug, Key Switch
8	30-5240/02	Plate, Front Assy			
9	30-7358	Plate, Tank, Bottom			
10	82-2764	Bonnet Assy	31	30-7581	Plate, Front, Hi-Cap, Remote
11	03-0062	Clip, Overflow Tube	32	52-1826	Cord Assy, Motor
12	04-0074	Nut, Clip	33	91-0008	Motor, 115V/60Hz, Carb
13	50-0150	Insulation, Tank, Back	-	91-0011	Motor, 230V/50Hz, Carb
14	04-0077	Screw, 4 - 20 x 0.250	34	51-5332/01	Bracket Assy, Pump
15	04-0545	Screw, 8 - 16 x 0.750	35	04-0035	Isolator, 1/4 - 20, Double Stud
16	06-0881	Label, Key Switch	36	86-0076	Pump, Stainless Steel
17	06-0632	Label, "WARNING"	37	07-0017	Clamp with Screw
18	06-0851	Label, Overflow	38	01-0255	Hose Stem, Stainless Steel, 3/8 MPT x 3/8 Barb
19	50-0248	Insulation, Tank, Front	-	50-0113	Insulation, Foam Cap, RT (Not Shown)
20	08-0004	Tubing, Tygon, 5/16"ID	-	50-0270	Insulation, Foam Cap, LT (Not Shown)
21	50-0151	Insulation, Tank, Sides			
22	51-0717/01	Bracket, Leg			

High Capacity Option

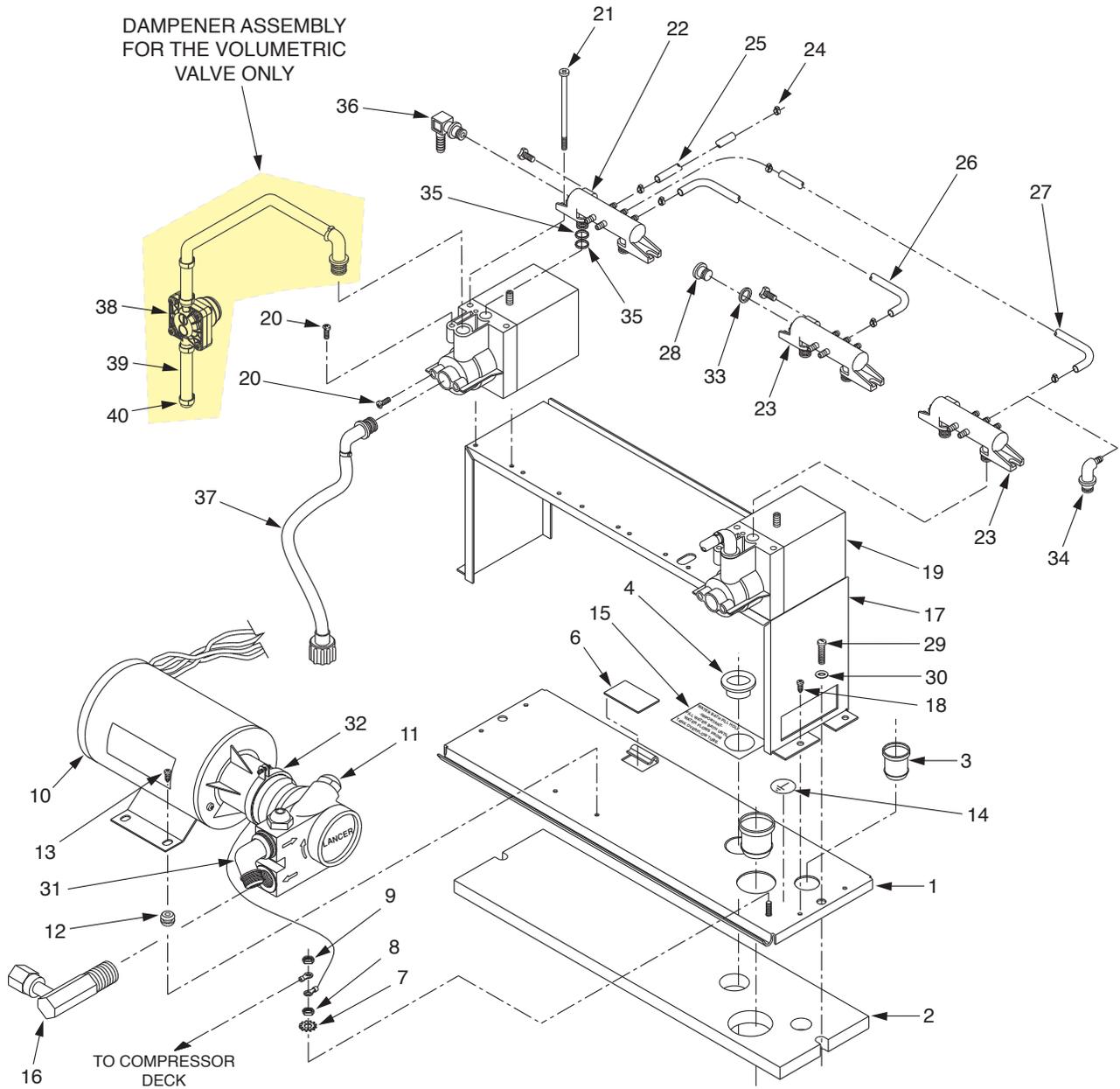
Refrigeration Deck Assembly



Item	Part No.	Description
-	82-2554	Deck Assy, Refrigeration, 115V/60Hz
-	82-2486	Deck Assy, Refrigeration, 230V/50Hz
-	82-2633	Deck Assy, Refrigeration, 220V/60Hz
1	51-5107/01	Deck Plate, Sub-Assy
2	50-0200/01	Insulation, Deck Plate
3	04-0063	Washer, Flat, 1/4"
4	89-0014	Hole Cover
5	82-2494	Evaporator Assy
6	52-1773	Probe Assy
7	04-0394	Screw, 6 - 32 X .500"
8	51-0068	Handle
9	04-0574	Washer, Lock, 5/16"
10	REF	Control Housing Assy
-	52-0900/02	Control Housing Assy with Kill Switch
-	52-0903/02	Control Housing Assy without Kill Switch
11	06-2221	Label, Wiring Diagram
12	04-0504	Screw, 8 - 18 X .375"
13	06-0080/01	Label, Nameplate
14	52-1209	Lead Assy, Ground
15	02-0041	Seal
16	25-0047	Transformer, 75VA, 24V, 115V/60Hz
-	25-0048	Transformer, 75VA, 24V, 220V/50-60Hz
17	82-2558	Agitator Assy, 115V/60Hz
-	82-2487	Agitator Assy, 230V/50Hz
-	82-2761	Agitator Assy, 220V/60Hz

Item	Part No.	Description			
17a	05-0424/01	Propeller, 2.625" Diameter	30	50-0159	Insulation
17b	91-0119	Motor, Agitator, 115V/60Hz	31	23-0985	Condenser
-	91-0112	Motor, Agitator, 230V/50Hz	32	50-0201	Baffle, Rubber
-	91-0130	Motor, Agitator, 220V/60Hz	33	30-5112	Retainer Strip
17c	06-0633	Label, 115V/60Hz, 25W	34	040518	Rivet, 0.125" X 0.328"
-	06-0634	Label, 230V/50Hz, 25W	35	30-5867	Handle/Air Shield
-	06-2191	Label, 220V/60Hz, 25W	36	30-5865	Fan Shroud, Upper
17d	04-0059	Screw, 8 - 36 X .375"	37	50-0249	Insulation, Strip
17e	30-5113/01	Bracket, Agitator Motor	38	30-5866	Fan Shroud, Lower
17f	02-0032	Washer, Rubber	39	52-2140	Fan Assy, 115V/60Hz
17g	05-1437	Propeller, Water	-	52-2147	Fan Assy, 220V/50-60Hz
18	02-0040	Seal, Extrusion	39a	91-0007	Motor Assy, 115V/60Hz, 9W
19	04-0032	Nut, Lock, 1/4" - 20		91-0009	Motor Assy, 220V/50-60Hz, 9W
20	83-0033	Compressor Assy, 1/3 hp, 115V/60Hz (includes items listed below)	39b	07-0354	Fan Blade
-	83-0034	Compressor Assy, 1/3 hp, 240- 220V/50Hz	39c	04-0060	Nut, Flat
-	83-0038	Compressor Assy, 1/3 hp, 220V/60Hz	39d	30-5864	Bracket, Fan Motor
			39e	02-0033	Silencer, Fan Blade
			39f	04-0059	Screw, 8 - 36 X 0.375"
20a	83-0033-01	Compressor, 1/3 hp, 115V/60Hz	39g	06-0433/01	Label, 115V/60Hz, 9W
-	83-0034-01	Compressor, 1/3 hp, 240-220V/50Hz	-	06-0670	Label, 220V/50-60Hz, 9W
20b	04-1010	Screw, Brass, 6 - 32 X 0.250"	40	23-0765	Dryer Cap Assy
20c	12-0339	Overload, 115V, 60Hz	40a	23-0982	Dryer Cap
-	12-0290	Overload, 230V, 50Hz	40b	47-0344	Tube, Process
-	12-0253	Overload, 220V, 60Hz	40c	47-0698	Tube, Condenser, Out
20d	12-0005	Relay, 115V, 60Hz	41	52-2008	Harness Assembly, Transformer
-	12-0031	Relay, 230V, 50Hz	42	04-0110	Nut, 8-32
-	12-0028	Relay, 220V, 60Hz	43	04-0576	Washer, Lock, Internal Tooth
20e	13-0066	Cover, Terminal	44	06-0430	Label, 115V/60Hz, 1/3 HP
20f	03-0040	Bale Strap	-	06-0460	Label, 230V/50Hz, 1/3 HP
20g	03-0041	Spring Overload (Not Shown)	-	06-0666	Label, 240V/60Hz, 1/3 HP
20h	12-0260	Start Capaciter, 220V/60Hz (Not Shown)	45	06-0877	Label, Ground
			-	11-0018	Wire Tie
21	02-0114	Grommet, Compressor	-	15-0012	Duct Tape
22	04-0537	Washer, Compressor	-	15-0011	Adhesive, Insulation
23	03-0150	Clip, Retainer, Compressor	-	95-0177	Refrigerant, R-134a
24	47-0344	Tube, Process	-	96-0004	Solder, 60/40
25	47-0718	Tube, Compressor Discharge	-	96-0003	Brazing Alloy
26	47-0724	Tube, Return Line	-	26-0377	Capacitor, 230V/50Hz (For use with PN 91-0065)
27	51-0061	Accumulator			
28	50-0211	Boot	-	26-0374	Capacitor, 115V/60Hz (For use with PN 91-0063)
29	50-0205	Insulation			

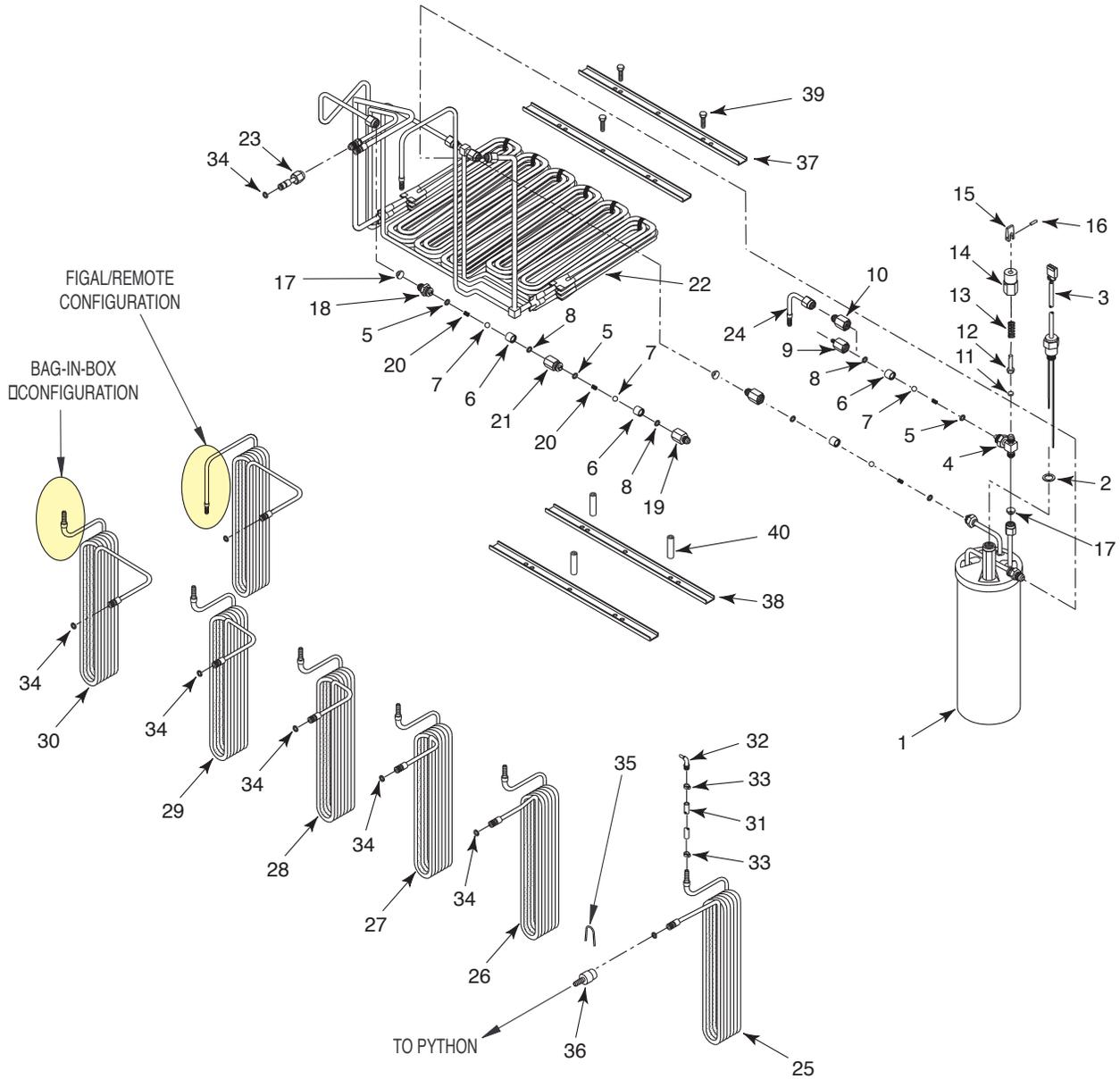
Carbonator Deck/Pump Bracket Assembly



<u>Item</u>	<u>Part No.</u>	<u>Description</u>			
-	82-0887/01	Deck Assy, Carbonator, 115V, 60Hz	17	30-5111	Pump Support
-	82-0943/01	Deck Assy, Carbonator, 220V, 50-60Hz	18*	04-0504	Screw, 8 - 18 X 0.375
1	REF	Plate, Carbonator Deck	19*	82-0251	Mini Pump
-	51-5411	Plate Assy, Carbonator Deck	20*	04-0275	Screw, Half Moon
-	30-6800	Plate, Carbonator Deck	21*	04-0359	Screw, 8 - 32 X 3.100
2	REF	Insulation, Carbonator Deck	22	54-0091	Manifold Assy (used on 6V and 5V)
-	50-0328	Insulation, Carbonator Deck	23	54-0092	Manifold Assy (used in 6V and 5V)
3*	05-0436	Sleeve, Probe	24	07-0441	Clamp, Oetiker
4	04-0711	Caplug	25	08-0272	Tube, CO2 Carbonator (used on 6V and 5V)
5*	05-0435	Sleeve, CO2 IN	26	08-0271	Tube, CO2 Carbonator (used on 6V and 5V)
6	89-0014	Cover, Hole	27	08-0268	Tube, CO2 Carbonator (used on 6V)
7	04-0576	Washer, No. 8 Int. tooth	-	08-0269	Tube, CO2 Carbonator (used on 5V)
8*	04-0110	Nut, no. 8 - 32	28	05-0604	Plug, CO2 Manifold
9	REF	Lead Assy, Ground (Compressor Deck to Carbonator Deck)	29*	04-0431	Screw, 1/4 - 20 X 1.000, Round Head
10*	REF	Carbonator Motor	30*	04-0033	Washer, 1/4"
-	91-0063	Carbonator Motor, 115V/60Hz	31	01-0987	Elbow, Brass
-	91-0065	Carbonator Motor, 220V/50-60 Hz	32*	07-0017	Clamp with screw
11*	86-0015	Pump, 100 GPH	33	02-0089	O-Ring
12*	02-0194	Grommet, 0.250 OD X 0.156 ID X 0.049 W	34	01-1325/01	Elbow Assy, CO2 (used on 5V)
13*	04-0061	Screw, 8 - 18 X 0.500 AB	35	02-0005	O-Ring
14	06-0877	Label, Ground	36	01-1072	Elbow Assy (included in Installation Kit)
15	06-0856	Label, Water Fill	37	49-0101/01	Tubing Assy, BIB
16	01-1515	Pump Outlet Assy	38	82-2744	Dampener Assy
-	82-0900	Pump Bracket Assy, 6 Pump	39	08-0029	Tubing, Braided, 0.250 ID
-	82-0906	Pump Bracket Assy, 5 Pump	40	07-0409	Clamp, Oetiker

* Items can be interchanged between Delta, Delta II, and Delta III.

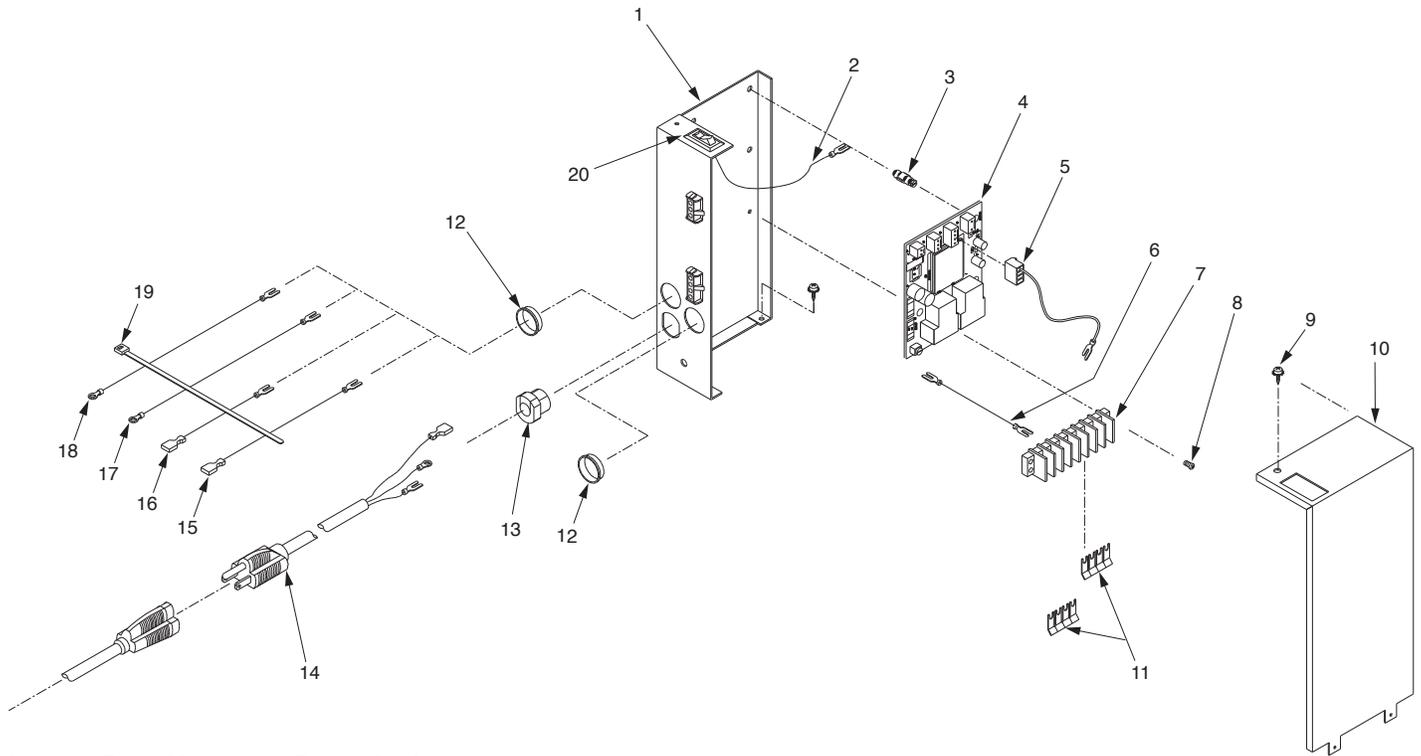
Carbonator/Syrup Line Assemblies



Item	Part No.	Description
1	REF	Tank Assy, Carbonator
2	02-0096	Washer
3	52-0909	Probe Assy
-	17-0468	Fitting Assy, CO2 IN (For Use with Pumps)
-	17-0469	Fitting Assy, CO2 IN (For Use without Pumps)
4	01-1311	Fitting Sub Assy, CO2
5	02-0003	O-Ring
6	01-0689	Sleeve
7	01-0674	Ball
8	02-0025	O-Ring
9	01-1334	Body, Check Valve, Gas
10	01-0669	Body, Check Valve, Gas
-	54-0066	Relief Valve Assy
11	02-0023	Seat
12	05-0536	Stem
13	03-0024/01	Spring
14	05-0537	Body, Relief Valve
15	05-0525	Lever
16	81-0196	Pin
17	05-0011	Flare Seal Washer, Small
-	17-0485	Double Check Valve Assy
18	01-1466	Fitting, Check Valve
19	01-0673	Body
20	03-0021	Spring

Item	Part No.	Description			
21	01-0670	Body	28	REF	Tube Assy, Syrup, No. 3
22	23-1199	Cage Assy, Remote/Recirc	-	48-0475/01	Tube Assy, Syrup, Figal/Remote (Use on 6 Valve Units)
23	48-0492/01	Adapter, CO2 Water OUT	-	48-0503/01	Tube Assy, Syrup, Figal/Remote (Use on 5 Valve Units)
24	01-0424	Swivel, Hose Assy	-	48-0477/01	Tube Assy, Syrup, Figal/Remote (Use on 4 Valve Units)
25	REF	Tube Assy, Syrup, No. 6	-	48-0451/01	Tube Assy, Syrup (Use on 6 Valve Units)
-	48-0478/01	Tube Assy, Syrup, Figal/Remote (Use on 6 Valve Units)	-	48-0501/01	Tube Assy, Syrup (Use on 5 Valve Units)
-	48-0454/01	Tube Assy, Syrup (use on 6 Valve Units)	-	48-0453/01	Tube Assy Syrup (Use on 4 Valve Units)
-	49-0221	Tube Assy, Syrup to Mini Pump (12")	-	29 REF	Tube Assy, Syrup, No. 2
-	49-0221-01	Tube Assy, Stainless Steel, Syrup to Mini Pump (12")	-	48-0474/01	Tube Assy, Syrup, Figal/Remote (Use on 6 Valve Units)
-	49-0222	Tube Assy, Syrup to Mini Pump (10")	-	48-0502/01	Tube Assy, Syrup, Figal/Remote (Use on 5 Valve Units)
-	49-0222-01	Tube Assy, Stainless Steel, Syrup to Mini Pump (10")	-	48-0503/01	Tube Assy, Syrup (Use on 4 Valve Units)
26	REF	Tube Assy, Syrup, No. 5	-	48-0450/01	Tube Assy, Syrup (Use on 6 Valve Units)
-	48-0477/01	Tube Assy, Syrup, Figal/Remote (Use on 6 Valve Units)	-	48-0500/01	Tube Assy, Syrup (Use on 5 Valve Units)
-	48-0478/01	Tube Assy, Syrup, Figal/Remote (Use on 5 Valve Units)	-	48-0501/01	Tube Assy, Syrup (Use on 4 Valve Units)
-	48-0453/01	Tube Assy Syrup, (Use on 6 Valve Units)	-	30 REF	Tube Assy, Syrup, No. 1
-	48-0454/01	Tube Assy Syrup, (Use on 5 Valve units)	-	48-0473/01	Tube Assy, Syrup, Figal/Remote (Use on 6 Valve Units)
-	48-0450/01	Tube Assy Syrup (use on 6 valve units)	-	48-0449/01	Tube Assy, Syrup (Use on All Units)
27	REF	Tube Assy, Syrup, No.4	31	08-0029	Tube, Flexible
-	48-0476/01	Tube Assy, Syrup, Figal/Remote (Use on 6 Valve Units)	32	REF	Adapter Assy
-	48-0477/01	Tube Assy, Syrup, Figal/Remote (Use on 5 Valve Units)	-	01-1483	Adapter Assy, Elbow
-	48-0478/01	Tube Assy, Syrup, Figal/Remote (Use on 4 Valve Units)	-	01-1022	Adapter Assy, Elbow, Stainless Steel
-	48-0452/01	Tube Assy, Syrup (Use on 6 Valve Units)	33	07-0409	Clamp, Oetiker
-	48-0453/01	Tube Assy, Syrup (Use on 5 Valve Units)	34	02-0005	O-Ring
-	48-0454/01	Tube Assy, Syrup (Use on 4 Valve Units)	35	03-0153	Retainer, Convert
			36	05-0781	Adapter, 1/4B x Dole
			37	30-6767	Brace, Water Coils
			38	30-6807	Spacer, Lower, Water Cage
			39	04-1116	Screw, 10 - 24 x 0.625, PHD, PH, 18 - 8, SS
			40	01-1831	Spacer, 10 - 24, Threaded

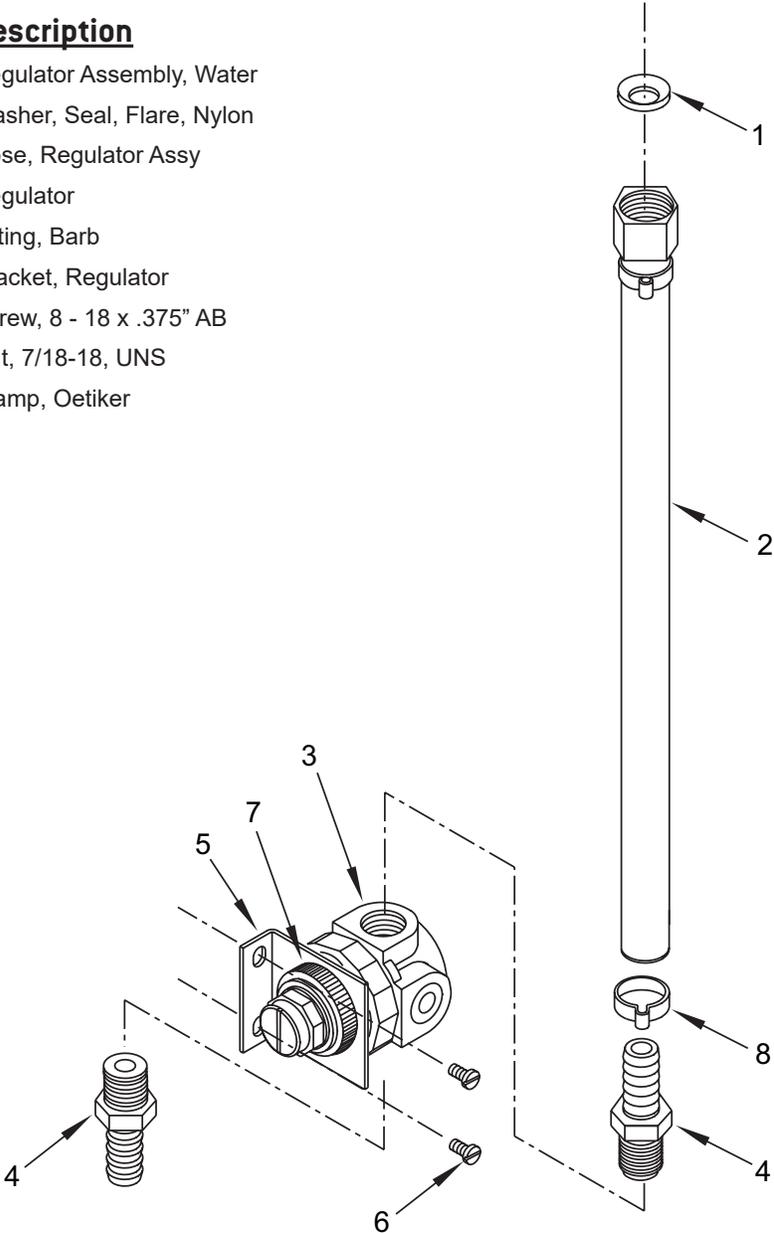
Control Housing Assembly



<u>Item</u>	<u>Part No.</u>	<u>Description</u>
-	52-0900/02	Control Housing, With ON/OFF Switch
1	30-5109/02	Control Housing
2	52-0868/01	Lead Assy, ON/OFF Switch
3	13-0047	Stand-off
4	52-1423/01	PCB Assy
5	52-2027	Lead Assy, Probe Ground (Non-Carb Units Only)
6	52-2061	Lead Assy, EIBC
7	12-0190	Terminal Block
8	04-0477	Screw, 8 - 32 X 0.375"
9	04-0504	Screw, 8 - 16 X 0.375"
10	30-5108/01	Cover, Control Box
11	11-0186	Jumper, 4-Position
12	13-0059	Bushing
13	13-0028	Strain Relief
14	52-1219	Power Cord (Pigtail)
15	52-0904	Harness Assy, Trans #1
16	52-0905	Harness Assy, Trans #2
17	52-0906	Harness Assy, Comp #1
18	52-0907	Harness Assy, Comp #2
19	11-0008	Tie Wrap
20	12-0089	Switch

Water Regulator Assembly

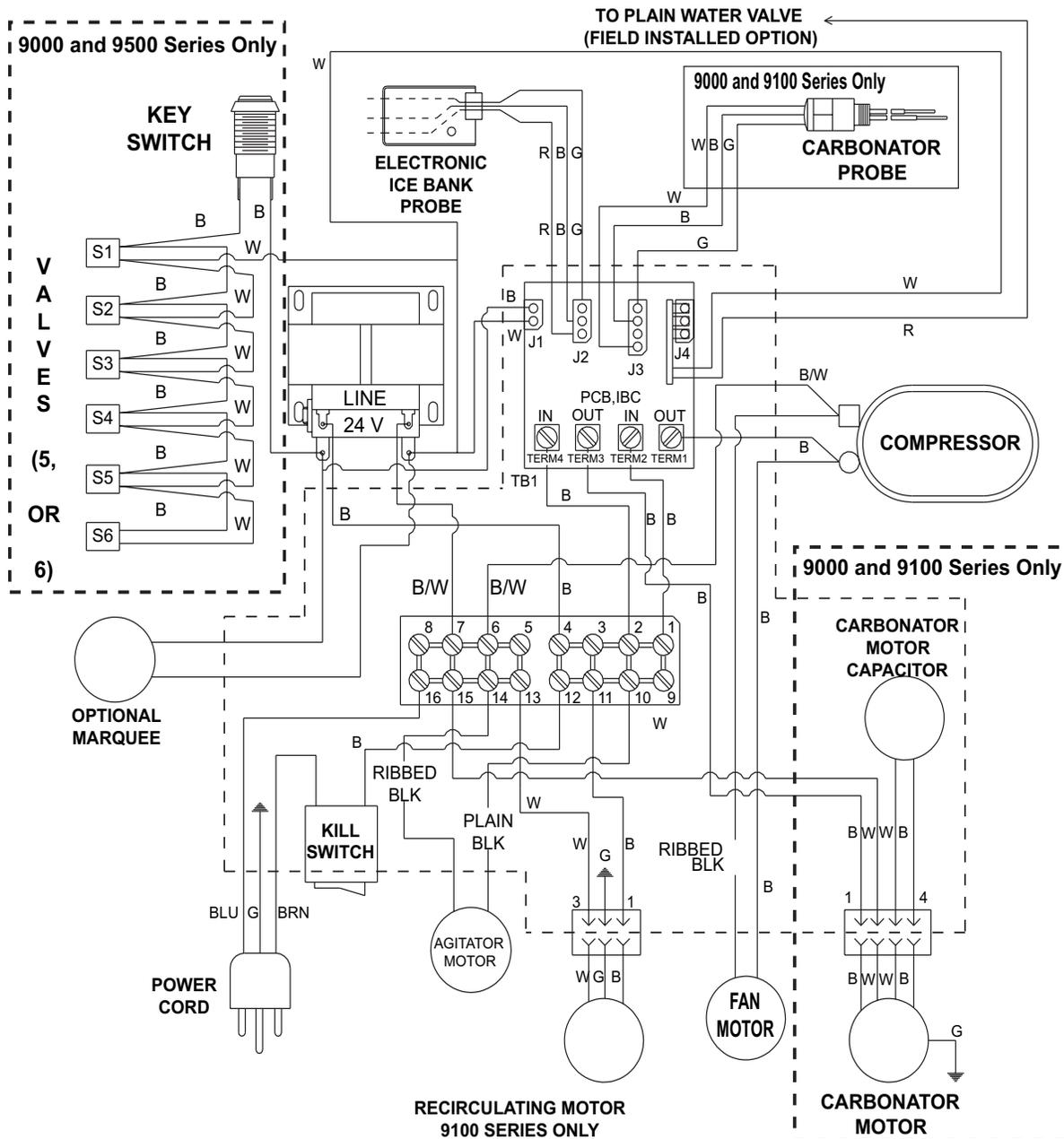
<u>Item</u>	<u>Part No.</u>	<u>Description</u>
	18-0253/02	Regulator Assembly, Water
1	05-0017	Washer, Seal, Flare, Nylon
2	49-0227	Hose, Regulator Assy
3	18-0252	Regulator
4	01-0446	Fitting, Barb
5 R	07-0481/01	Bracket, Regulator
6	04-0504	Screw, 8 - 18 x .375" AB
7	01-1429	Nut, 7/18-18, UNS
8	07-0438	Clamp, Oetiker



Wiring Diagram

IMPORTANT

1. WHEN STARTING UNIT OR IF CURRENT IS INTERRUPTED, THERE IS A FIVE (5) MINUTE DELAY BEFORE THE COMPRESSOR/FAN STARTS.
2. THERE IS A THREE (3) MINUTE PROTECTION TIMER ON THE CARBONATOR PUMP MOTOR. IF THE MOTOR HAS TIMED OUT, CHECK WATER SUPPLY AND RESET BY MOMENTARILY DISCONNECTING POWER.



RECIRCULATING MOTOR
9100 SERIES ONLY

SYM.	DESCRIPTION
	CHASSIS GROUND
	CHAMFER PIN
	OPTIONAL WATER BOOST PCB, IBC J4
	CONTROL BOX

DELTA

LANCER

LABEL, WIRING DIAGRAM
06-2221

Plumbing Diagram

