CED Series 8000

Operation Manual

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8000

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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.

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.

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.

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 instuctions/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 (CO_2)

- **WARNING:** Carbon Dioxide (CO2) is a colorless, noncombustible gas with a light pungent odor. High percentages of CO_2 may displace oxygen in the blood.
- **WARNING:** Prolonged exposure to CO_2 can be harmful. Personnel exposed to high concentrations of CO_2 gas will experience tremors which are followed by a loss of consciousness and suffocation.
- **WARNING:** If a CO_2 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 CO_2 gas leaks in the entire CO_2 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

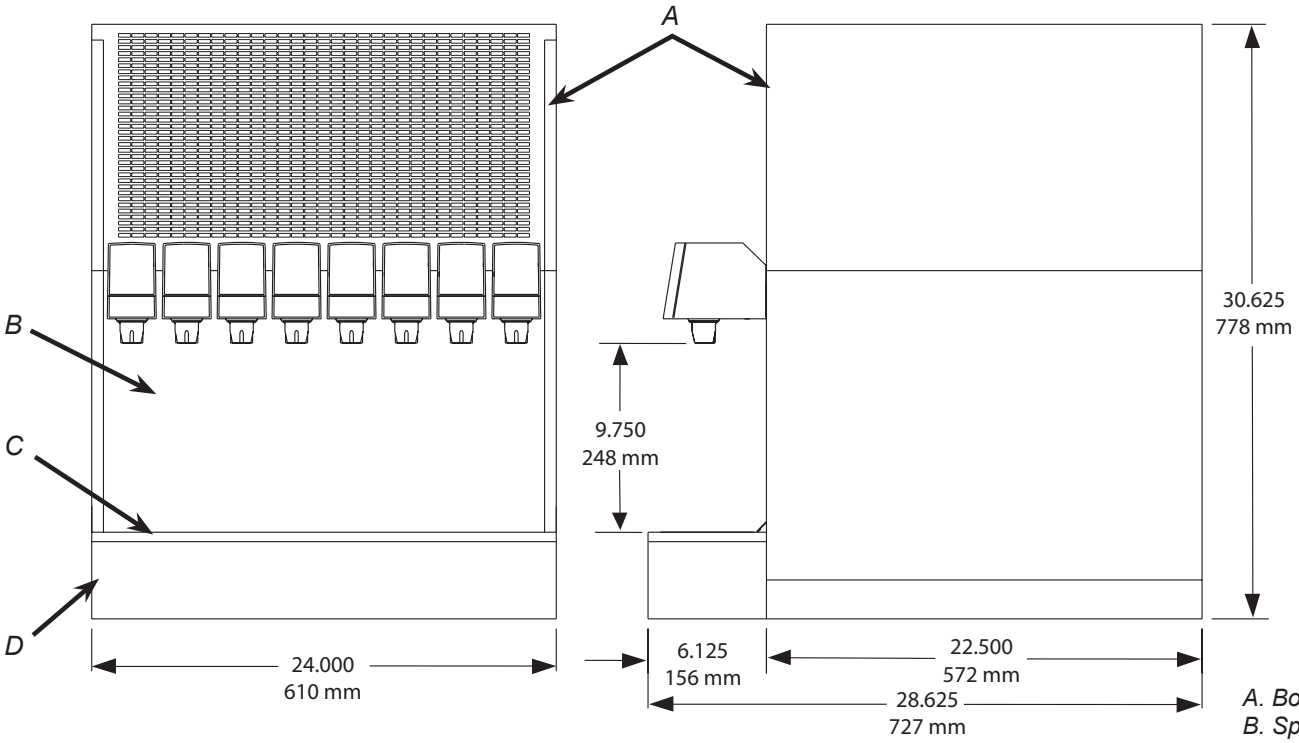
- Provide an adequate, potable water supply. Water pipe connections and fixtures directly connected to a potable water supply must be sized, installed, and maintained according to federal, state, and local codes.
- The water supply line must be at least a 3/8 inches (9.525 mm) pipe with a minimym of 25 PSI (0.172 MPA) line pressure, but not exceeding a maximum of 50 PSI (0.345 MPA). Water pressure exceeding 50 PSI (0.345 MPA) must be reduced to 50 PSI (0.345 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 CO_2 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.

⚠ Automatic Agitation

- Units are equipped with an automatic agitation system and will activate unexpectedly.
- **CAUTION:** Do not place hands or foreign objects in the water bath tank. Unplug the dispenser during servicing, cleaning, and sanitizing.
- **CAUTION:** To avoid personal injury, do not attempt to lift the dispenser without assistance. For heavier dispensers, use a mechanical lift.

PRE-INSTALLATION

Specifications & Features



A. Bonnet
B. Splash Plate
C. Cup Rest
D. Drip Tray

DIMENSIONS

Width: 24 inches (610 mm)
Depth: 28.63 inches (627 mm)
Height (w/out legs): 30.63 inches (778 mm)

WEIGHT

Shipping: 267 lbs (121 kg)
Empty: 220 lbs (99.8 kg)
Operating: 386 lbs (175 kg)

ELECTRICAL

115 VAC / 60 Hz / 16 Amps
230 VAC / 50 Hz / 7 Amps

ICE BATH

Capacity: 50 lbs (25 kg)

PLAIN WATER SUPPLY

Min Flowing Pressure: 25 PSIG (0.175 MPA)
Max Static Pressure: 60 PSI (0.414 MPA)

CARBON DIOXIDE (CO_2) SUPPLY

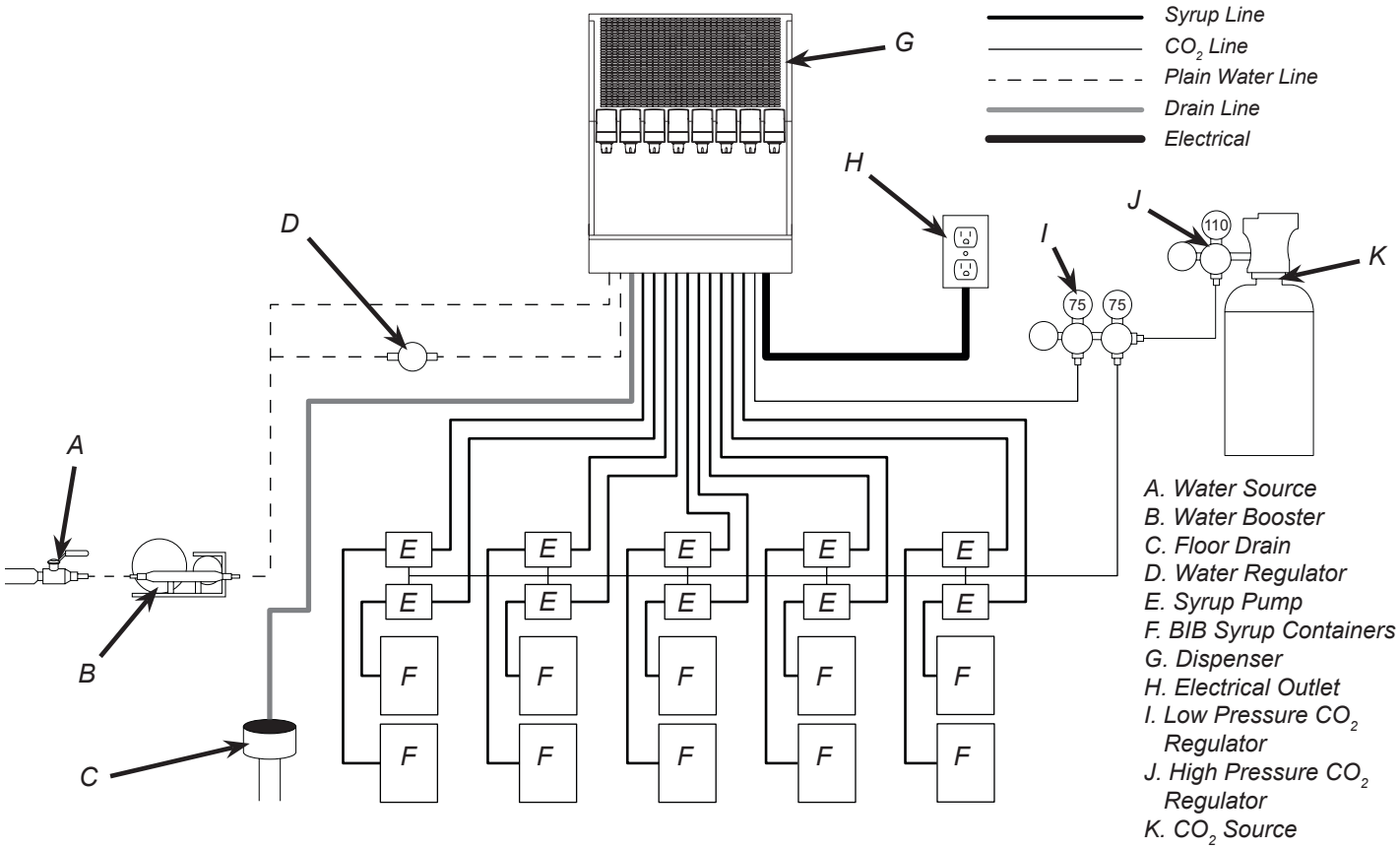
Min Pressure: 70 PSIG (0.483 MPA)
Max Pressure: 80 PSIG (0.552 MPA)

FITTINGS

Plain Water Inlet: 3/8 inch barb
Water for Carbonator Inlet: 3/8 inch barb
Brand Syrup Inlets: 3/8 inch barb
CO_2 Inlet: 3/8 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:

- ☐ CO_2 Regulator
- ☐ CO_2 Supply
- ☐ Chain for CO_2 Tank
- ☐ Beverage Dispenser
- ☐ 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 dispenser?
- ☐ Is countertop level?
- ☐ Can the countertop support the weight of the dispenser?
- ☐ Is dispenser 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 Corporation 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 13-18 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 Dispenser

1. Remove top portion of carton by lifting up.
2. Remove top inner carton pad and corners.
3. Remove accessory kit of loose parts from drip tray.
4. 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.

5. Remove splash plate.
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. DO NOT USE DRIP TRAY FRAME FOR A HANDLE.

8. Remove accessory kit of loose parts from drip tray.

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 dispenser 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, CO_2 tank, syrup containers, 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.

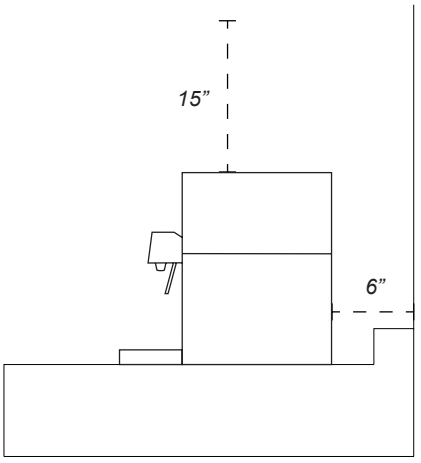
NOTE

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

4. Condenser air is drawn in from the back grill located on the bonnet and discharged out the top of the bonnet. A minimum of fifteen (15) inches (380 mm) of clearance must be maintained over the top of the unit and a minimum of six (6) inches (152 mm) clearance behind the unit to provide for proper air flow and circulation.

⚠ ATTENTION

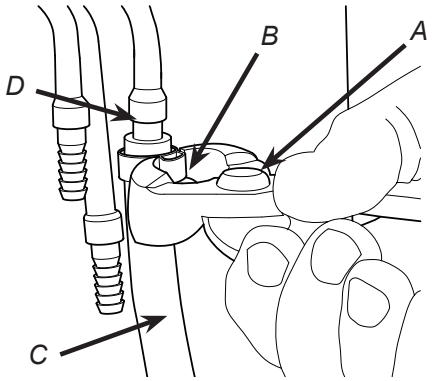
Failure to maintain specified clearance will cause the compressor to overheat and will result in compressor failure



5. Cut the necessary holes in counter for mounting in the designated dispenser location, using the template provided.

Dispenser Installation

1. Install the unit onto the counter.
2. Remove the bonnet from the dispenser by lifting up.
3. Remove the drip tray from the unit and connect the drain tube to the drain fitting located on the bottom. Secure drain tube with clamp provided in accessory kit.
4. Route the drain tube to a suitable drain and replace the unit's drip tray.
5. 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.



A. Oetiker Pliers
B. Fitting
C. Tubing
D. Syrup/Water/CO_2 Inlet

6. 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

7. Flush water supply line thoroughly.

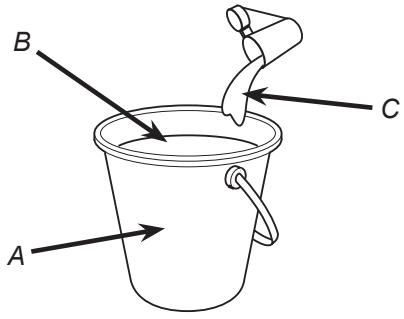
⚠ CRITICAL - to maximize performance

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:

8. Insert water line into a large bucket, and fill with approx. 5.4 gallons (20.4 L) of distilled water.
9. Add 1/8 oz (4 g) of baking soda to distilled water and stir.

⚠ ATTENTION

For proper function of the electronic ice bank control the total dissolved solids (TDS) measurements should be 300-500 ppm.



A. Bucket
B. Distilled Water (approx. 5.4 gal)
C. Baking Soda (approx. 1/8 oz)

10. Using a conductivity meter, measure the electric conductivity of the distilled water mixture.

⚠ ATTENTION

The E.C. measurement of the distilled water mixture must be between 100 and 300 uS/cm. Below 100 uS/cm, the compressor will not work properly and above 300 uS/cm could cause the lines to freeze.

11. Remove yellow cap from the water bath fill hole and insert and insert a funnel into the fill hole.
12. Remove the insulation strip from front of the refrigeration deck.
13. 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. (Repeat steps 9-11 if needed)

⚠ ATTENTION

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

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

NOTE

Valves 3 - 5 (on 6 valve units) and valves 4 - 8 (on 8 valve units) have optional plain water or carbonated water capabilities. Use the Plumbing Diagram on page 29 to determine which valves are to be plumbed with plain water or carbonated water.

NOTE

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

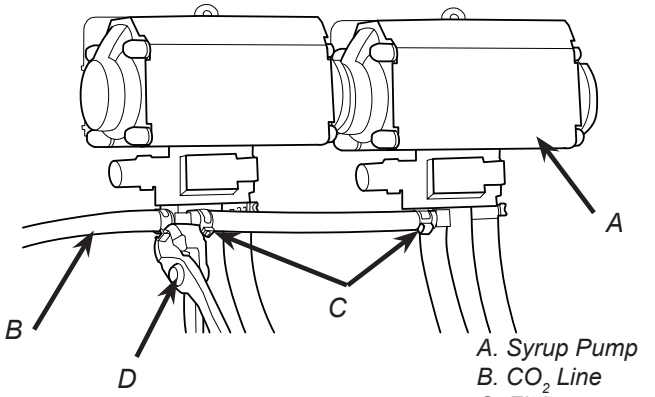
16. Route appropriate tubing from the syrup pump location to the carbonator CO_2 inlet and connect tubing to CO_2 inlet.
17. Re-attach splash plate and cup rest.
18. Plug in power cord to the unit control box.
19. Feed all tubing, power cord, and drain line through the counter top cutout.
20. Plug in 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.

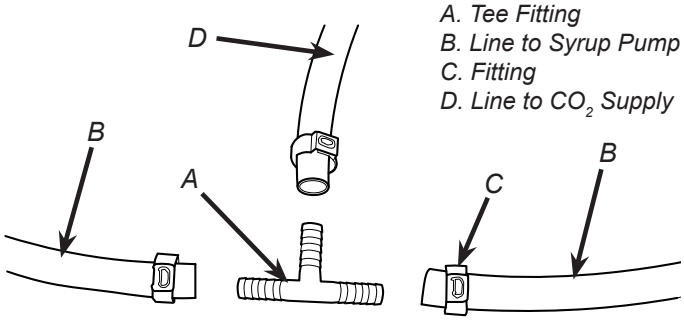
Installing Remote Syrup Pumps - Bag In Box

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 CO_2 inlets, then connect tubing to all pumps.



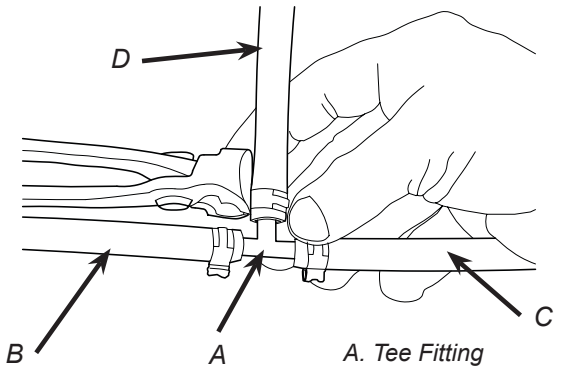
A. Syrup Pump
B. CO_2 Line
C. Fitting
D. Oetiker Pliers

3. Using tubing cutters, cut any pump CO_2 supply line and install tee fitting, then route appropriate tubing from the CO_2 supply to the tee fitting at syrup pumps.



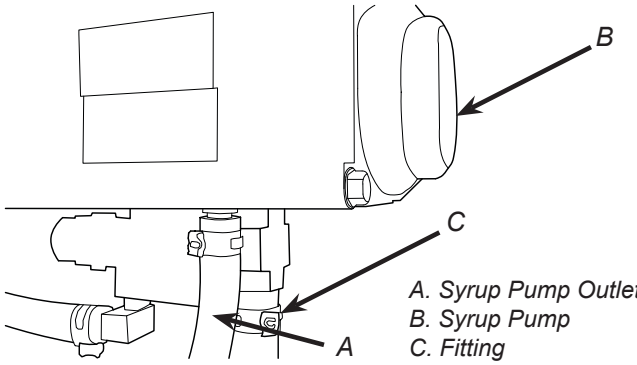
A. Tee Fitting
B. Line to Syrup Pump
C. Fitting
D. Line to CO_2 Supply

4. Cut tubing from CO_2 supply to tee fitting at syrup pumps and install another tee fitting.
5. Attach line from carbonator CO_2 inlet to tee fitting between syrup pumps and CO_2 supply.



A. Tee Fitting
B. Line to Tee at Syrup Pump
C. Line to CO_2 Supply
D. Dispenser CO_2 Inlet

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

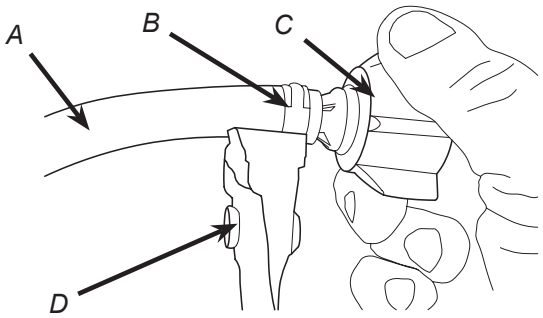


A. Syrup Pump Outlet
B. Syrup Pump
C. Fitting

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

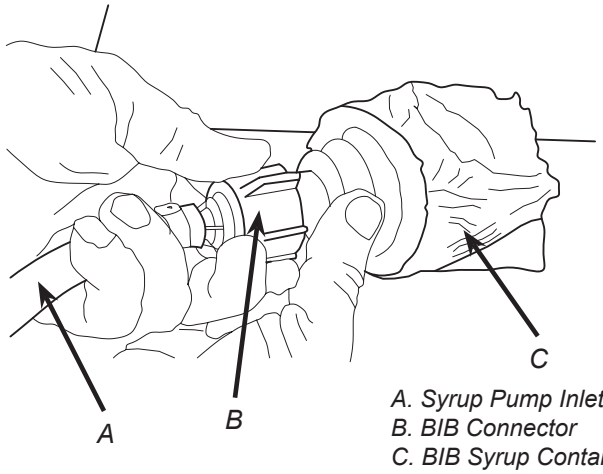
⚠ ATTENTION

Use proper connector for syrup manufacturer



A. Syrup Pump Inlet
B. Fitting
C. BIB Connector
D. Oetiker Pliers

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



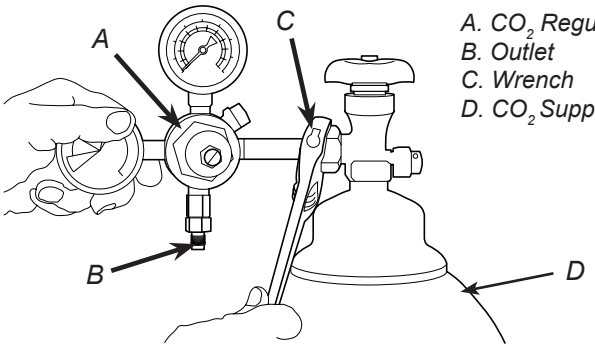
A. Syrup Pump Inlet
B. BIB Connector
C. BIB Syrup Container

Installing CO_2 Supply

1. Connect high pressure CO_2 regulator assembly to CO_2 cylinder or bulk system.

⚠ ATTENTION

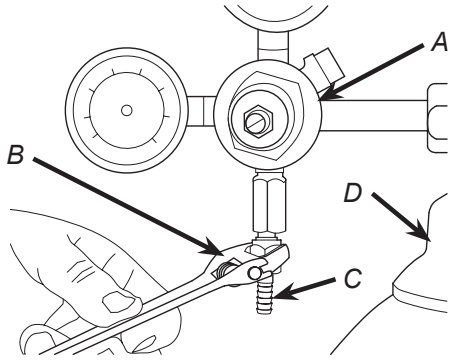
Before installing regulator, assure that a seal (washer or o-ring) is present in regulator attachment nut.



A. CO_2 Regulator
B. Outlet
C. Wrench
D. CO_2 Supply

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

2. Connect a 1/4” nut, stem and seal to CO_2 regulator outlet.

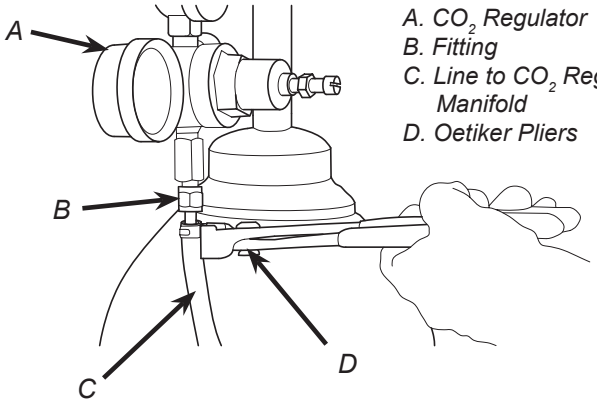


A. CO_2 Regulator
B. Wrench
C. 1/4” nut, Stem
D. CO_2 Supply

3. Route appropriate tubing from the low pressure CO_2 regulator manifold location to the 1/4” nut, stem on the high pressure CO_2 regulator attached to source and connect tubing.

⚠ ATTENTION

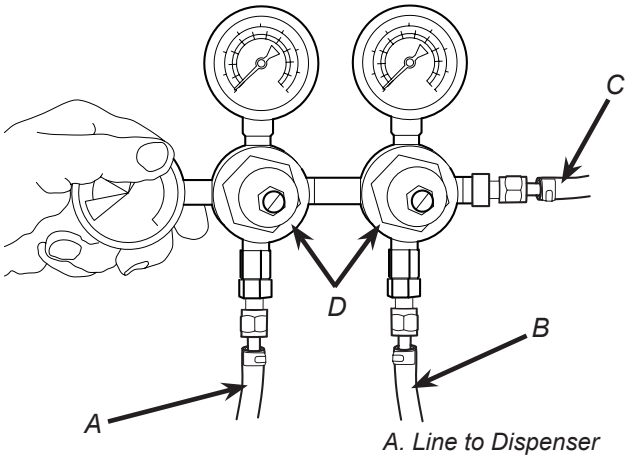
A dedicated CO_2 regulator is required to supply the CO_2 inlet at the unit as well as to all syrup pumps.



A. CO_2 Regulator
B. Fitting
C. Line to CO_2 Regulator Manifold
D. Oetiker Pliers

4. Connect tubing routed from the CO_2 inlet at the unit to one of the low pressure CO_2 regulator manifold outlets.

5. Connect tubing routed from the tee at the syrup pumps to the second outlet of the low pressure CO_2 regulator manifold.

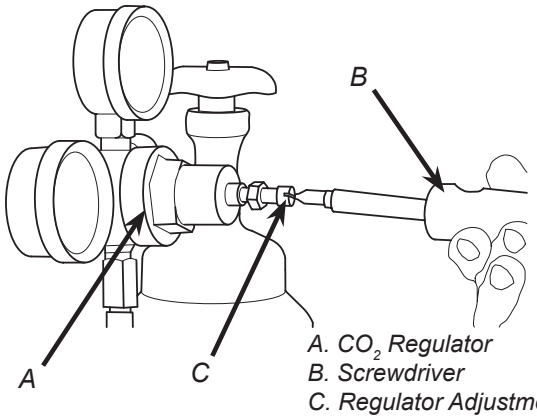


A. Line to Dispenser
B. Line to Syrup Pumps
C. Line to CO_2 Regulator
D. CO_2 Regulator Manifold

6. Using a wrench, loosen lock nut on the regulator adjustment screw of the high pressure CO_2 regulator connected to the source, then using a screwdriver back out lock nut screw all the way.

⚠ WARNING

DO NOT TURN ON CO_2 SUPPLY AT THIS TIME

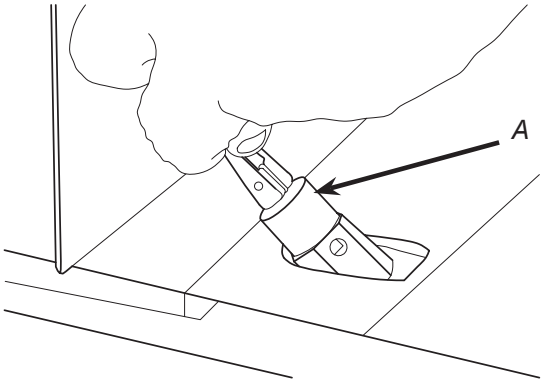


A. CO_2 Regulator
B. Screwdriver
C. Regulator Adjustment Screw

7. Repeat Step 6 for both low pressure CO_2 regulators on the regulator manifold routed to the unit and the syrup pumps.

Dispenser Setup

1. Turn on water source then purge water to fill carbonator tank by opening carbonator relief valve. Close relief valve once water begins to comes out of relief valve.



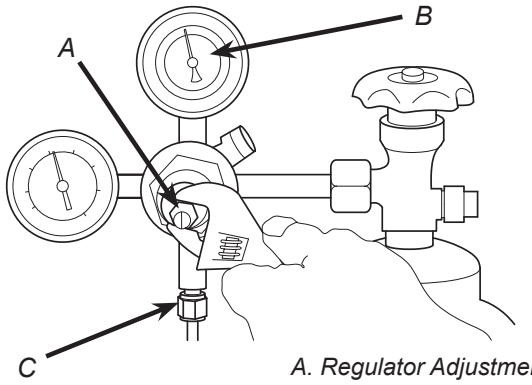
A. Carbonator Relief Valve

2. Activate each valve until a steady flow of water is achieved.
3. Unplug the unit then unplug the Pump Motor Connector from the control box. Use the wiring diagram either on the unit control box or in the back of this manual for reference.

⚠ ATTENTION

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

4. Turn on CO_2 and using a screwdriver, adjust regulator to 75 PSI (0.517 MPA) then tighten lock nut with wrench.



A. Regulator Adjustment Screw
B. Adjust to 75 PSI (0.517 MPA)
C. Wrench

5. Activate each valve until gas-out is achieved.
6. 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

7. Re-attach bonnet.
8. Activate each valve until a steady flow of carbonated water is achieved.

Adjust Water Flow Rate & Syrup / Water Ratio

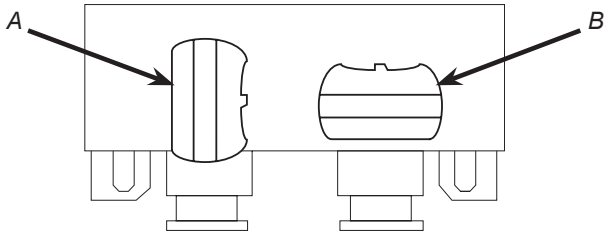
NOTE

The water flow can be adjusted between 1.25 oz/sec (37 ml/sec) and 2.50 oz/sec (74 ml/sec) on all dispensing valves using the following procedures:

NOTE

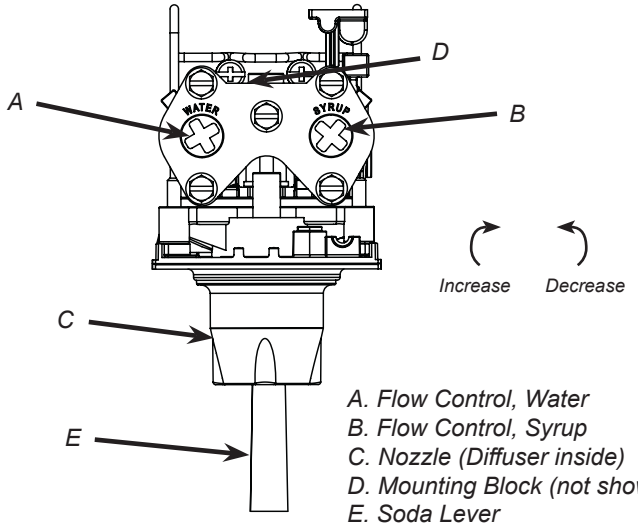
The refridgeration unit should have been running for at least one (1) hour before attempting to set flow rates on valves. The drink temperature should be no higher than 40°F (4.4°C) when flow rates are set. This is best done after the unit has already made an ice bank.

1. Close syrup shut-off at mounting block for first valve.



A. Plain Water ON
B. Syrup Closed

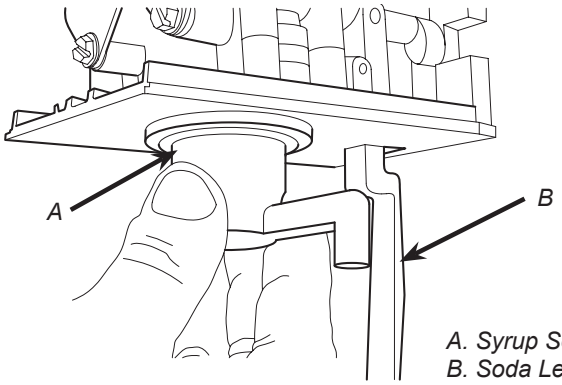
2. Slide up on ID panel until flow controls are exposed.
3. Using a Lancer ratio cup verify water flow rate (5 oz. in 4 sec.). Use a screwdriver to adjust if needed.



A. Flow Control, Water
B. Flow Control, Syrup
C. Nozzle (Diffuser inside)
D. Mounting Block (not shown)
E. Soda Lever

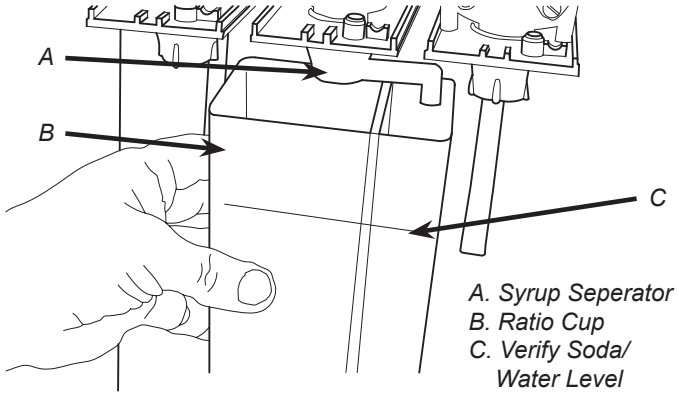
4. Remove nozzle by twisting counter clockwise and pulling down, then remove diffuser by pulling down.

5. Install Lancer (yellow) syrup seperator (PN 54-0031) in place of nozzle.



A. Syrup Seperator
B. Soda Lever

6. Re-open syrup shut-off at mounting block.
7. Activate valve to purge syrup until steady flow is achieved.
8. Using a Lancer ratio cup, activte the valve and capture a sample. Verify that the syrup level is even with the water level. Use a screwdriver to adjust if needed.



A. Syrup Seperator
B. Ratio Cup
C. Verify Soda/ Water Level

9. Repeat process for each valve.

MAINTENANCE

Scheduled Maintenance

As Needed	• Keep exterior surfaces of dispenser (include drip tray and cup rest) clean using a clean, damp cloth.
Daily	• Remove each nozzle and diffuser from each valve and rinse well in warm water. ***DO NOT*** use soap or detergent. This will cause foaming and off tast in finished product. • 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 unt's exterior surfaces. ***DO NOT USE ABRASIVE SOAPS OR STRONG DETERGENTS.*** • Replace the cup rest and nozzles.
Weekly	• Taste each product for off tastes. • Remove cup rest and splash plate to view water level tube indicator. Replenish as required, and replace the cup rest and splash plate.
Monthly	• Unplug the dispenser 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	• Clean and sanitize the unit using the appropriate procedures outlined in the Cleaning and Sanitizing section of this manual.
Yearly	• Clean water bath interior, including evaporator coils and refrigeration components. • Clean the entire exterior of 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.

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.

Cleaning and Sanitizing Syrup Lines

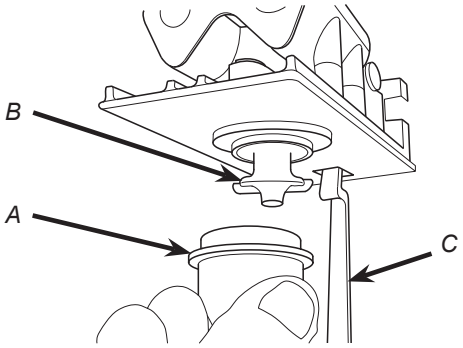
1. Disconnect syrup lines from BIB's
2. Place syrup lines, with BIB connectors, in a bucket of warm water.
3. Activate each valve to fill the lines with warm water and flush out syrup remaining in the lines.
4. Prepare Cleaning Solution described on previous page.
5. Place syrup lines, with BIB connectors, 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.
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 Nozzles

1. Disconnect power, so as to not activate valve while cleaning.
2. Remove nozzle by twisting counter clockwise and pulling down.
3. Remove diffuser by pulling down.



A. Nozzle
B. Diffuser
C. Soda Lever

4. Rinse nozzle and diffuser with warm water.
5. Wash nozzle and diffuser with cleaning solution then immerse in sanitizing solution and let sit for fifteen (15) minutes.
6. Set nozzle and diffuser aside and let air dry. ***DO NOT*** rinse with water after sanitizing.
7. Reconnect diffuser and nozzle.
8. Connect power.
9. 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.

TROUBLESHOOTING

TROUBLE	CAUSE	REMEDY
Water leakage around nozzle.	1. O-ring not properly installed above diffuser 2. O-ring is damaged or missing.	1. Install or replace o-ring correctly. 2. Replace o-ring.
Leakage between upper and lower bodies.	1. Gap between upper and lower valve bodies. 2. Worn or damaged paddle arm assemblies. 3. Cracked valve bodies	1. Tighten all six (6) retaining screws. 2. Replace paddle arm assemblies. 3. Replace Valve Body.
Miscellaneous leakage.	1. Gap between parts. 2. Damaged or improperly installed o-rings.	1. Tighten appropriate retaining screws 2. Replace or adjust appropriate o-rings
Insufficient water flow.	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	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.	1. Insufficent CO_2 pressure to BIB pumps. 2. Out of CO_2. 3. Shutoff on mounting block not fully open. 4. Foreign debris in syrup flow control. 5. Bad syrup pump.	1. Adjust CO_2 pressure to 80 PSI (0.550 MPA) [minimum 70 PSI (0.480 MPA)] for BIB pumps. 2. Replace CO_2 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.

TROUBLE	CAUSE	REMEDY
Erratic ratio.	1. Incoming water and/or syrup supply not at minimum flowing pressure. 2. Foreign debris in water and/or syrup flow controls.	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	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)	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)
Water only dispensed; no syrup; or syrup only dispensed, no water	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. CO_2 pressure too low. 5. Stalled or inoperative BIB pump 6. Kinked line.	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 CO_2 pressure to the pump manifold to ensure it is between 70 and 80 PSI (0.483 and 0.552 MPA). 5. Check CO_2 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.)	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.	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 19.
Valve will not shut off.	1. Cup lever may be sticking or binding. 2. Switch not actuating freely. 3. Solenoid armature not returning to bottom position.	1. Correct or replace lever. 2. Check switch for free actuation. 3. Replace defective armature or spring.

TROUBLE	CAUSE	REMEDY
Syrup only dispensed. No water, but CO_2 gas dispensed with syrup.	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.	1. Check for water flow to dispenser (see Insufficient Water Flow on previous page). 2. Reset by turning the unit OFF and then 3. ON (by using the ON/OFF switch on top of the unit or unplugging unit momentarily). 4. Check connections of liquid level probe to PCB assembly. 5. Replace PCB assembly. 6. Replace liquid level probe. 7. Thaw water bath and repair faulty component. (See refrigeration related symptoms.) 8. Refer to “Compressor starts and continues to run until freeze and will not cut off” in Troubleshooting.
Excessive foaming.	1. Incoming water or syrup temperature too high. 2. CO_2 pressure too high. 3. Water flow rate too high. 4. Nozzle and diffuser not installed. 5. Nozzle and diffuser not clean. 6. Air in BIB lines. 7. Poor quality ice. 8. High beverage temperature.	1. Correct prior to dispenser. Consider larger dispenser or pre-cooler. 2. Adjust CO_2 pressure downward, but not less than 70 PSI (0.483 MPA). 3. Re-adjust and reset ratio. Refer to “Adjust Water Flow Rate & Syrup/Water Ratio” Section on page 12. 4. Remove and reinstall properly. 5. Remove and clean. 6. Bleed air from BIB lines. 7. Check quality of ice used in drink. 8. Check refrigeration system.
Water continually overflows from water bath into drip tray.	1. Loose water connection(s). 2. Flare seal washer leaks. 3. Faulty water coil.	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.	1. PCB malfunctioning or faulty ice bank probe. 2. Ice bank probe positioned improperly. 3. Ice bank probe shorted to ground.	1. See page 19. 2. Check positioning of ice bank probe, and replace if needed. 3. Replace ice bank probe.
Warm drinks.	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.	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.

TROUBLE	CAUSE	REMEDY
Compressor does not start (no hum), gas cooler fan does not run, and no ice bank.	1. There is a five (5) minute compressor and condenser fan delay. 2. Ice bank probe not completely submergered. 3. Circuit breaker or fuse tripped. 4. Inadeequate Voltage 5. PCB malfunctioning 6. Incorrect Wiring 7. Faulty ice bank probe. 8. Transformer failure. 9. Ice bank probe not connected properly to PCB.	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 19. 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.
Compressor does not start (no hum), but gas cooler fan motor runs.	1. Compressor relay capacitors or overload malfunctioning. 2. Inadequate voltage. 3. Incorrect wiring. 4. Compressor malfunctioning.	1. Replace compressor relay capacitors or overload. 2. Measure voltage across commom 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.	1. Inadequate voltage. 2. Incorrect wiring. 3. Starting relay capacitors malfunctioning. 4. Compressor malfunctioning.	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).	1. Inadequate voltage. 2. Incorrect wiring. • Starting relay malfunctioning.	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.

TROUBLE	CAUSE	REMEDY
Compressor starts and runs a short time but shuts off on overload.	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.	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.	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.	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.	1. PCB malfunctioning 2. Defective probe. 3. Weak overload or pressure switch.	1. See page 19. 2. Replace probe. 3. Have the unit repaired by a qualified service technician.
Circuit breaker tripping.	1. Valve wire harness shorted to itself or to faucet plate. 2. PCB is bad. 3. Secondary wire harness is bad. 4. Transformer failure.	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.	1. A. Out of CO_2, CO_2 not turned on, or low CO_2 pressure. 2. Out of syrup. 3. BIB connector not tight. 4. Kinks in syrup or gas lines. 5. Bad BIB Pumps.	1. Replace CO_2 supply, turn on CO_2 supply, or adjust CO_2 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.	1. Leak in syrup inlet or outlet line. 2. Defective BIB pump check valve.	1. Replace line. 2. Replace BIB pump

TROUBLE	CAUSE	REMEDY
BIB pump continues to operate when bag is empty.	1. Leak in suction line. 2. Leaking o-ring on pump inlet fitting.	1. Replace line. 2. Replace o-ring.
BIB pump fails to restart after bag replacement.	1. BIB connector not on tight. 2. BIB connector is stopped up. 3. Kinks in syrup line 4. Bad BIB Pumps.	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.	1. Leak in discharge line or fittings. 2. Empty BIB. 3. Air leak on inlet line or bag connector.	1. Repair or replace discharge 2. Replace BIB. 3. Repair or replace.
No product out light.	1. Burned-out lamp 2. Faulty wiring or pressure switch in product line.	1. Replace lamp. 2. Repair or replace.
Low or no carbonation.	1. Low or no CO_2. 2. Excessive water pressure. 3. Worn or defective carbonator pump. 4. PCB malfunctioning.	1. Check CO_2 supply. Adjust CO_2 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 19.

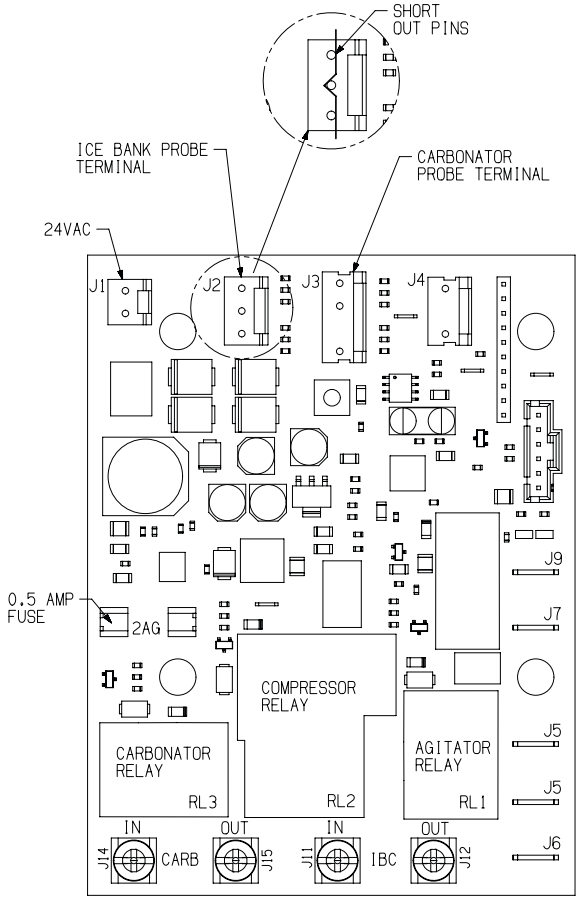
THE ELECTRONIC ICE BANK CONTROL (EIBC)

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

Series 8000 Performance & Optional Accessories

Draw Performances		
Draws per Minute	**75° F (23.9° C)**	**90° F (23.9° C)**
4 - 12 seconds	Indefinite	325
2 - 24 seconds	Indefinite	168
2 - 18 seconds	Indefinite	290

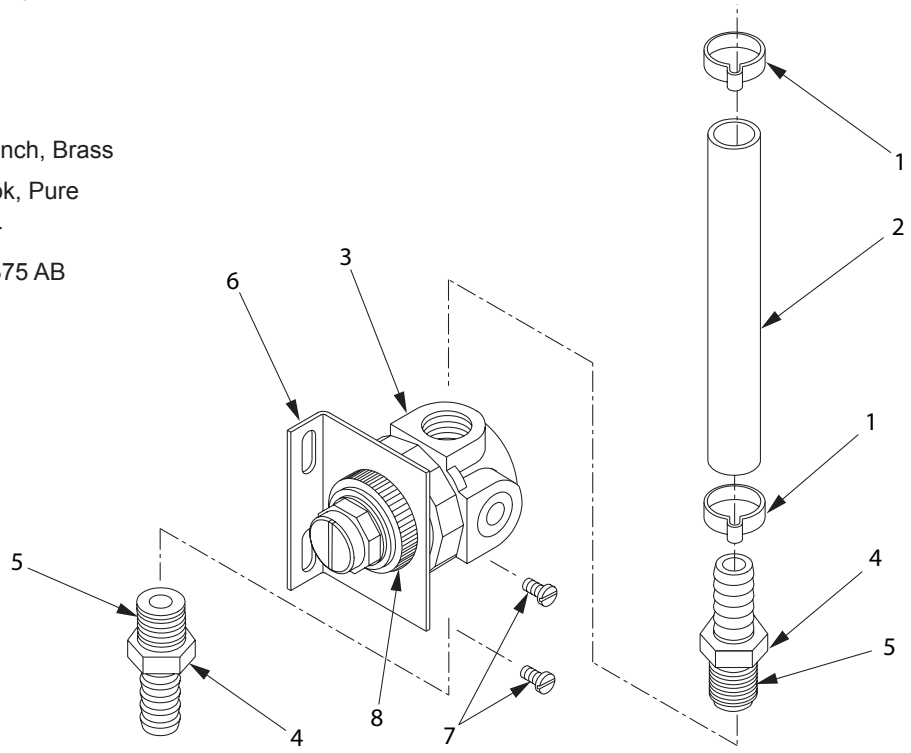
Initial Pull Down		
75° F (23.9° C)	**90° F (32.2° C)**	**105° F (40.6° C)**
2:45	3:40	5:40

Optional Accessories

Part No.	Description
82-2203	Marquee
06-1784	Graphics, Coca-Cola, Screened
06-2104	Graphics, Coca-Cola, Three Cup
82-2184/01-20	Merchandiser Kit Assembly, USA
82-2184/01	Merchandiser Kit Assembly, International

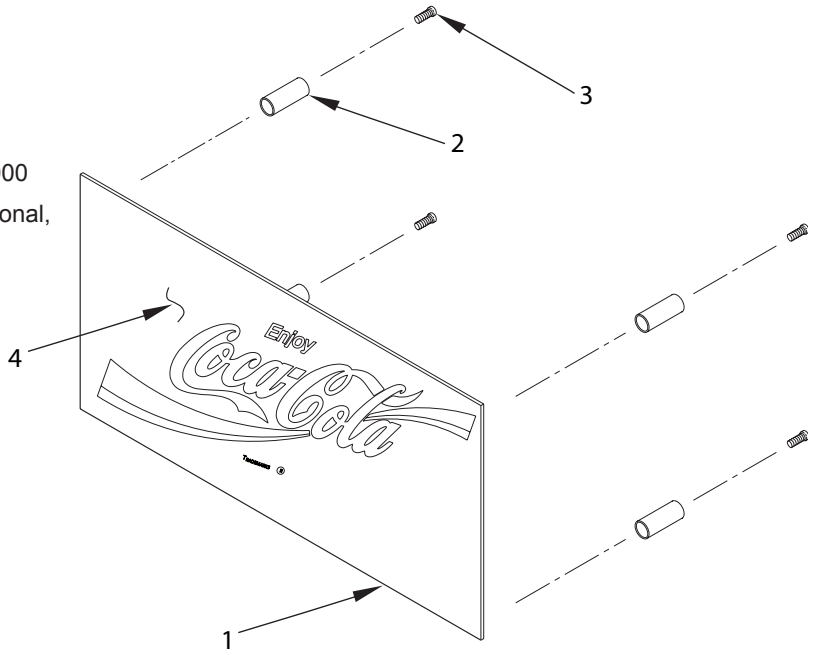
Water Regulator

Item	Part No.	Description
-	18-0302	Regulator Water Assy
1	07-0438	Clamp, Oetiker
2	08-0311	Hose
3	18-0252	Regulator
4	01-0446	Stem, Hose, 9/16 inch, Brass
5	15-0087	Sealant, Perma-Lok, Pure
6	07-0481/01	Bracket, Regulator
7	04-0504	Screw, 8 - 18 x 0.375 AB
8	01-1429	Nut, 7/8 - 18 UNS

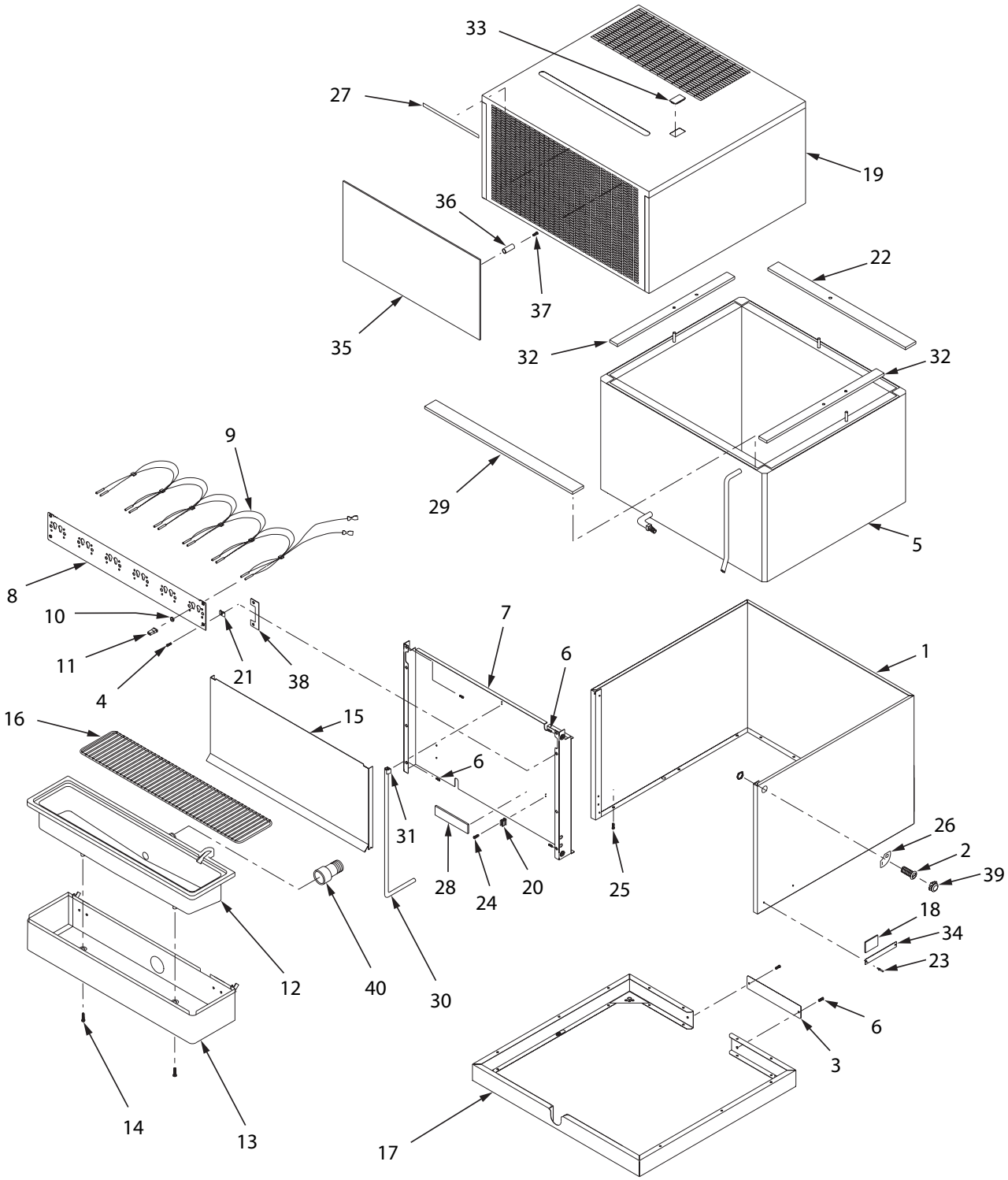


Merchandiser Assembly

Item	Part No.	Description
-	82-2184/01-20	Merchandiser Kit Assy, USA
-	82-2184/01	Merchandiser Kit Assy, International
1	51-5544	Plate Assy, Front Merchandiser
2	10-0229	Stand Off
3	04-0069	Screw, 10 - 24 x 0.500, PH
4	06-1966	Decal, Merchandiser, USA, 8000
-	06-1965	Decal, Merchandiser, International, 8000

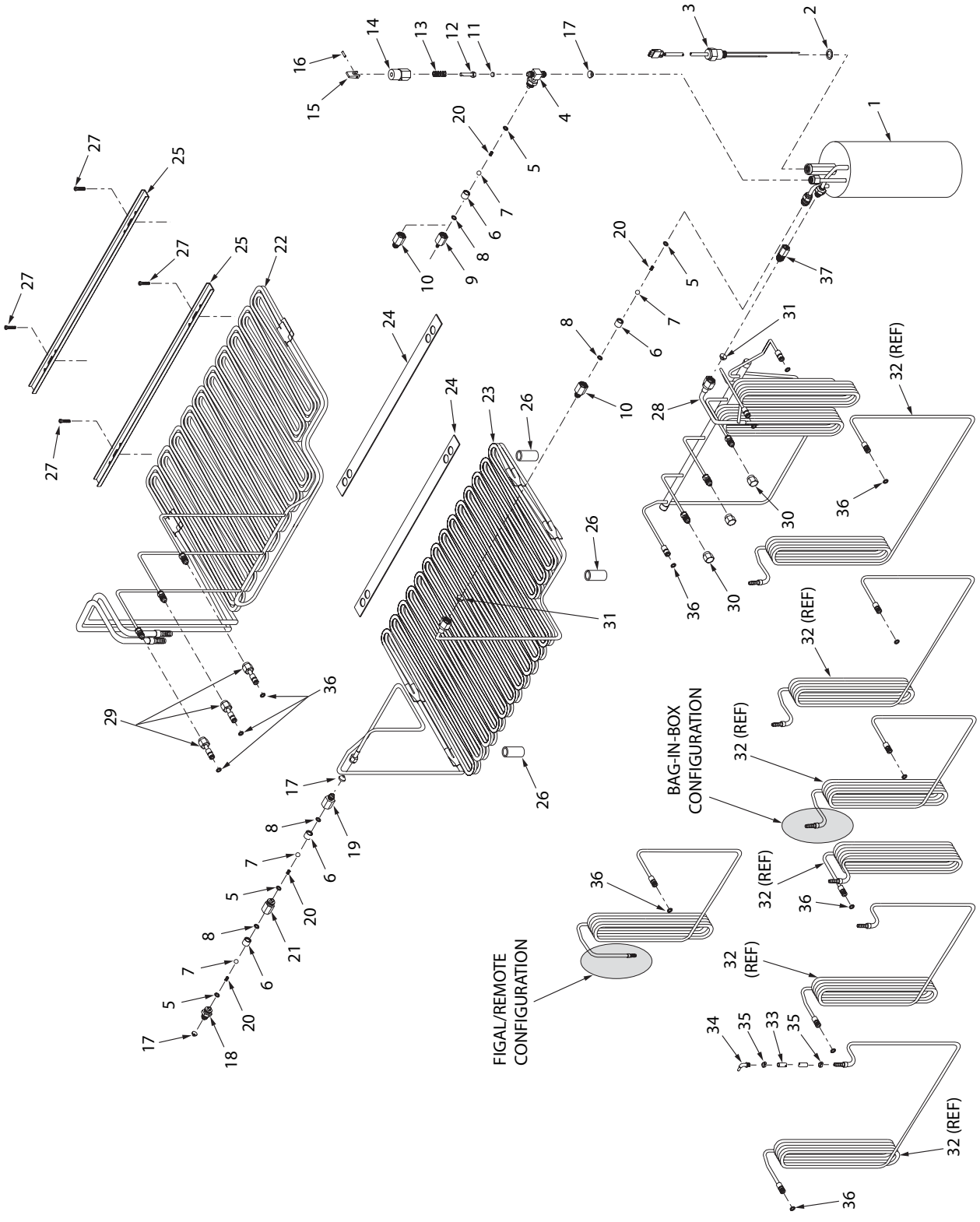


Cabinet Assembly



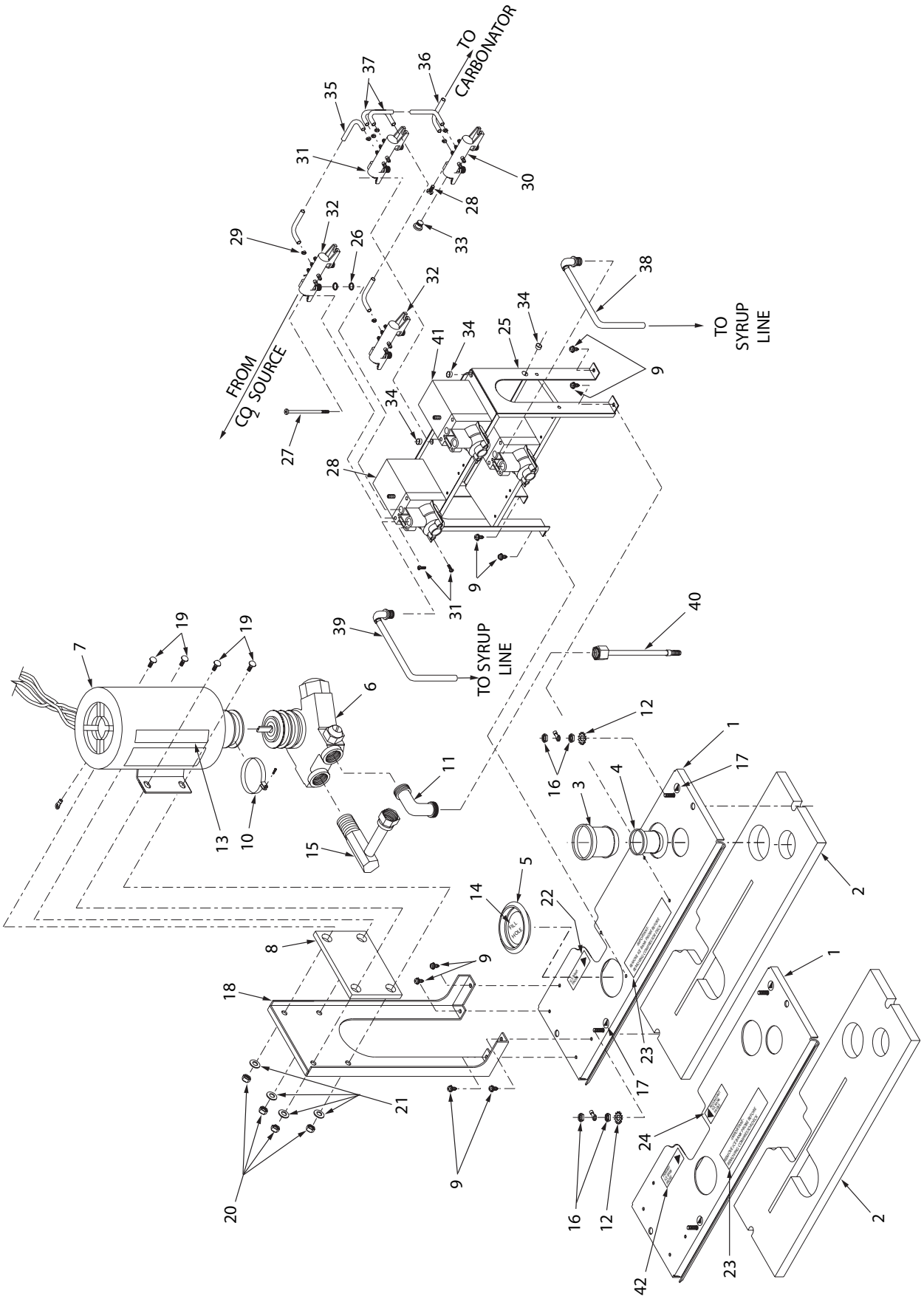
Item	Part No.	Description
-	82-2089-01	Cabinet Assy, Self-Serve, 8000
-	82-2089-06	Cabinet Assy, MDS, 8000
-	82-2089	Cabinet Assy, 8000
1	30-7039	Wrapper, Tank, 8000
2	12-0097	Key Switch
3	30-7087	Cover, Two (2) Inch Base
4	04-0068	Screw, 10 - 24 X 0.375 FH, Machine
5	42-0101	Tank Assy, Foamed, 8000
6	04-0504	Screw, 8 - 18 X 0.375 AB
7	30-7042	Front Plate, 8000
8	REF	Faucet Plate Assy
-	51-5515	Faucet Plate Assy, 6 Valve, 8000
-	51-5579	Faucet Plate Assy, 8 Valve, 8000
9	REF	Harness Assy
-	52-2032	Harness Assy, 6 Valve, 8000
-	52-0893	Harness Assy, 8 Valve, 8000
10	13-0005	Bushing
11	11-0015	Socket, Housing
12	05-1508	Drip Tray Top, 8000
13	51-5510	Weld Assy, Drip Tray, 8000
14	04-0407	Screw, 6 - 19 X 0.500, PHD
15	REF	Splash Plate
-	30-7080	Splash Plate, for Drip Tray, 8000
-	30-7028	Splash Plate, No Drip Tray, 8000
16	REF	Cup Rest
-	23-1209	Cup Rest, 8000
-	23-1219	Cup Rest, Sure-Fill, 8000
17	51-5529	Frame Assy, Base
18	06-0075-01	Nameplate, Serial Number
19	23-1208	Bonnet Assy, 8000 (Graphics Ordered by Country)
-	23-1092	Bonnet Assy, Self-Serve, 8000
-	23-1235	Bonnet Assy, Front Access, 8000
-	23-1223	Bonnet Assy, MDS
20	03-0062	Clip, Retaining
21	04-0074	Nut, Clip
22	50-0307	Insulation, Back, 8000
23	04-0072	Rivet
24	04-0077	Screw, 4 - 20 X 0.250 AB
25	04-0545	Screw, 8 - 16 X 0.780 Plastite
26	06-0881	Label, Key Switch
27	06-0632	Label CAUTION, Bonnet
28	06-0851	Label, Overflow
29	50-0308	Insulation, Front, 8000
30	08-0004	Drain Tube, 8000
31	03-0302	Clip, Retaining, Drain Tube, 8000
32	50-0306	Insulation, Sides, 8000
33	05-0786	Plug, Bonnet
34	REF	Name Plate
-	06-0075-86	Name Plate, 8006 Model
-	06-0075-88	Name Plate, 8008 Model
35	82-2121	Merchandiser Plate Assy, 8000
36	10-0229	Stand Off
37	04-0069	Screw
38	30-5314	Shim Plate
39	07-0405	Plug, Key Lock
40	05-1054	Fitting, Insert X IPS, 3/4 inch

Carbonator, Water / Syrup Line Assembly



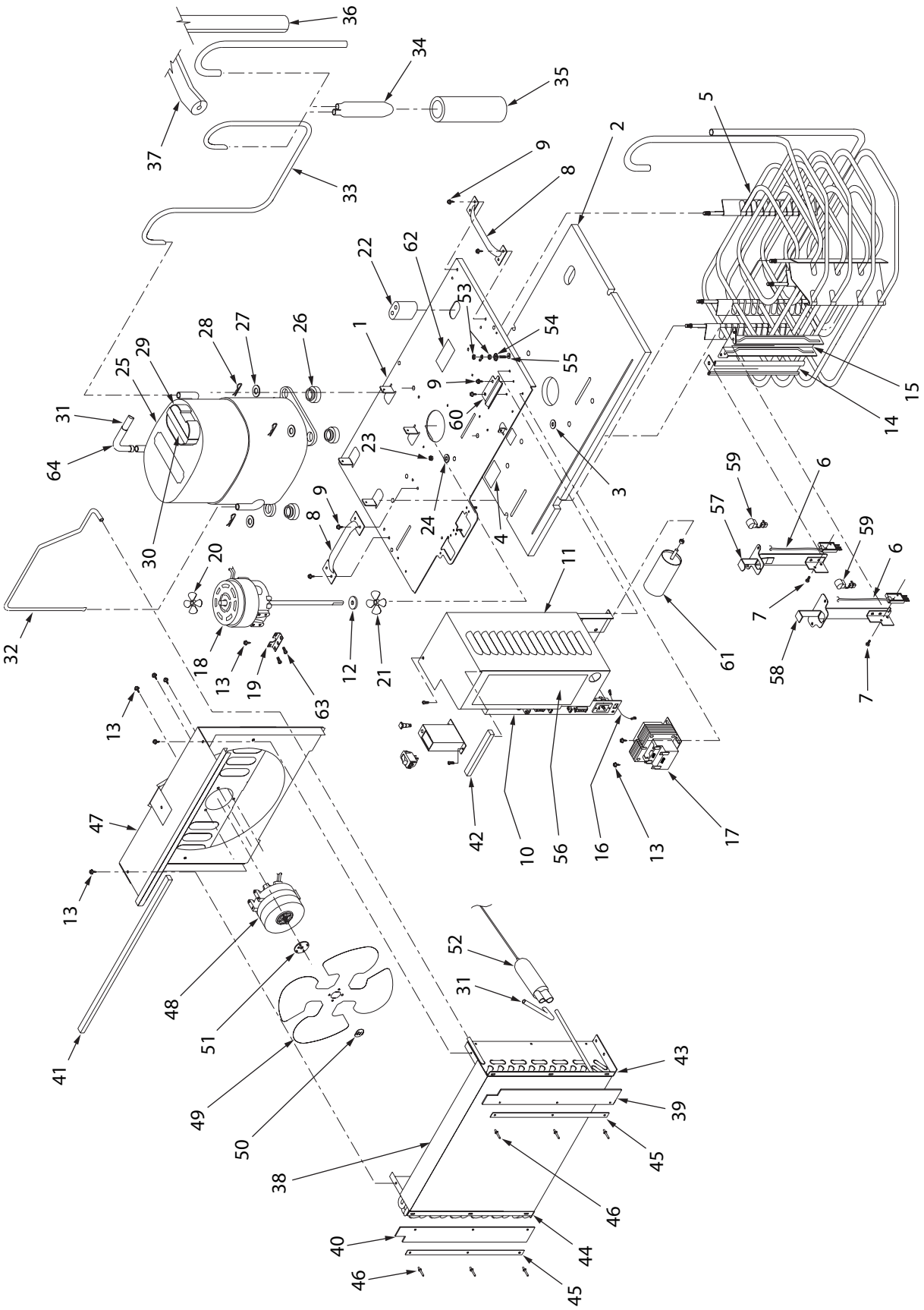
Item	Part No.	Description
1	82-2102	Carbonator Assy
-	82-2110	Carbonator Assy
2	02-0096	Washer
3	52-2043	Probe Assy
-	17-0468	Fitting Assy, CO2 IN (For Use With Pumps)
-	17-0469	Fitting Assy, CO2 IN (For Use Without Pumps)
4	01-1311	Fitting Sub-Assy, CO2
5	02-0003	O-Ring
6	01-0689	Sleeve
7	01-0674	Ball
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	Valve Assy, Double Check
-	17-1001	Valve Assy, Check, Carmun
18	01-1466	Fitting, Check Valve
19	01-0673	Body
20	03-0021	Spring
21	01-0670	Body
22	48-1596	Tube Assy, Plain Water Coils, 8000
23	48-1617	Tube Assy, Soda Coils, 8000
24	30-7202	Water Coils Separators, 8000
25	30-7073	Brace, Water Coils, 8000
26	01-1697	Spacer, 10 - 24, TRD
27	04-0222/01	Screw, 10 - 24 X 1.50 RHD, SL, MS, SS
28	REF	Manifold Assy
-	48-1598	Rechill Manifold Assy, 6 Valve
29	48-0492/01	Adapter, CO2 Water Out
30	01-0204	Cap
31	05-0017	Flare Seal Washer, Large
32	REF	Syrup Tube Assemblies
Syrup Tubes - 6 Valve Unit, No Pumps, 1/4 Barb Inlet		
-	48-1508	Tube Assy, Syrup #1
-	48-1509	Tube Assy, Syrup #2
-	48-1510	Tube Assy, Syrup #3
-	48-1511	Tube Assy, Syrup #4
-	48-1512	Tube Assy, Syrup #5
-	48-1513	Tube Assy, Syrup #6
Syrup Tubes - 6 Valve Unit, No Pumps, 3/8 Barb Inlet		
-	48-1411	Tube Assy, Syrup #1
-	48-1412	Tube Assy, Syrup #2
-	48-1413	Tube Assy, Syrup #3
-	48-1414	Tube Assy, Syrup #4
-	48-1415	Tube Assy, Syrup #5
-	48-1416	Tube Assy, Syrup #6
Syrup Tubes - 6 Valve Unit, With Pumps		
-	48-1520	Tube Assy, Syrup #1
-	48-1521	Tube Assy, Syrup #2
-	48-1522	Tube Assy, Syrup #3
-	48-1523	Tube Assy, Syrup #4
-	48-1524	Tube Assy, Syrup #5
-	48-1525	Tube Assy, Syrup #6
Syrup Tubes - 8 Valve Unit, No Pumps, 1/4 Barb Inlet		
-	48-1640	Tube Assy, Syrup #1
-	48-1641	Tube Assy, Syrup #2
-	48-1642	Tube Assy, Syrup #3
-	48-1643	Tube Assy, Syrup #4
-	48-1644	Tube Assy, Syrup #5
-	48-1645	Tube Assy, Syrup #6
-	48-1646	Tube Assy, Syrup #7
-	48-1647	Tube Assy, Syrup #8
Syrup Tubes - 8 Valve Unit, No Pumps, 3/8 Barb Inlet		
-	48-1192	Tube Assy, Syrup #1
-	48-1193	Tube Assy, Syrup #2
-	48-1194	Tube Assy, Syrup #3
-	48-1195	Tube Assy, Syrup #4
-	48-1196	Tube Assy, Syrup #5
-	48-1197	Tube Assy, Syrup #6
-	48-1198	Tube Assy, Syrup #7
-	48-1199	Tube Assy, Syrup #8
Syrup Tubes - 8 Valve Unit, With Pumps		
-	48-1175	Tube Assy, Syrup #1
-	48-1176	Tube Assy, Syrup #2
-	48-1177	Tube Assy, Syrup #3
-	48-1178	Tube Assy, Syrup #4
-	48-1179	Tube Assy, Syrup #5
-	48-1180	Tube Assy, Syrup #6
-	48-1181	Tube Assy, Syrup #7
-	48-1182	Tube Assy, Syrup #8
33	08-0029	Tube, Flexible
34	REF	Adapter Assy
-	01-1483	Adapter Assy, Elbow
35	07-0409	Clamp, Oetiker
36	02-0005	O-Ring
37	17-1004	Valve Assy, Check

Carbonator Deck / Pump Bracket Assembly



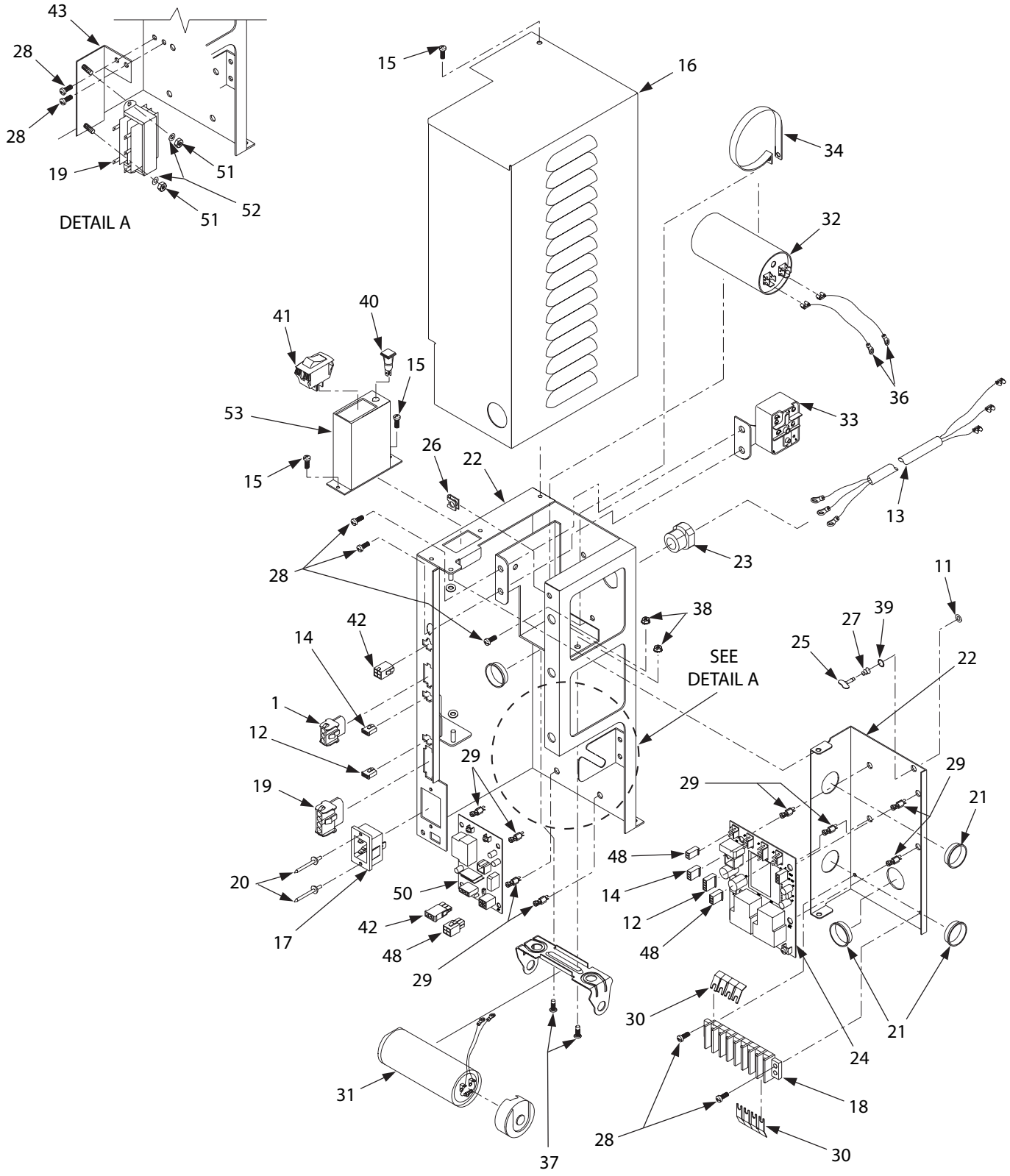
Item	Part No.	Description
-	82-2094	Deck Assy, Carbonator, 115 V/60 Hz
-	82-2104	Deck Assy, Carbonator, 230 V/50 Hz
-	82-2147	Deck Assy, Carbonator, 115 V/60 Hz, Redundant Control
-	82-2381	Deck Assy, Carbonator, 230 V/50 Hz, Redundant Control
1	REF	Plate, Carbonator Deck
-	51-5524	Carbonator Deck Assy, PEM, 8000
-	51-5552	Carbonator Deck Assy, PEM, Redundant Control
2	REF	Insulation, Carbonator Deck
-	50-0305	Insulation, Carbonator Deck, 8000
-	50-0317	Insulation, Carbonator Deck, Redundant Control
3	05-0436	Sleeve, Probe
4	05-0502	Sleeve, CO2 IN
5	04-1004	Cap Plug, Two (2) Inch Fill Hole
6	REF	Pump, BR, 100GPH
-	86-0001	Pump, 100GPH
-	86-0085	Pump, 100GPH, Fluid-O-Tech
7	REF	Carbonator Motor
-	91-0063	Carbonator Motor, 115 V/60 Hz
-	91-0065	Carbonator Motor, 220 V/50-60 Hz
8	50-0309	Insulation, Carbonator Bracket
9	04-0061	Screw, 8 - 18 X 0.500, PHD
10	07-0017	Clamp with Screw
11	01-0987	Elbow, 90, 3/8 MF X 3/8 MP
12	04-0576	Washer, Lock, Internal Tooth
13	REF	Label, Carbonator Motor
-	06-0431	Label, 115V/60Hz, 1/4HP
-	06-0461	Label, 220V/50-60Hz
14	06-1648	Label, Cap Plug
15	23-1211	Assy, Pump Outlet, 8000
16	04-0110	Nut, 8 - 32, ST, BT
17	06-0877	Label, Ground
18	30-7069	Bracket, Carbonator Motor
19	04-1013	Bolt, Carriage, 1/4 - 20 X 0.750
20	04-0032	Nut, Lock, 1/4 - 20, ST, BT
21	04-0033	Washer, Flat, 1/4 X 0.065, TX
22	06-1649	Label, Probe
23	06-1605	Label, Remove Probe
24	06-1683	Label, Redundant Probe
-	82-2093	Pump Bracket Assy, 6 Pump
-	82-2201	Pump Bracket Assy, 8 Pump
25	51-5512	Bracket Assy, Mini-Pump
26	02-0005	O-Ring
27	04-0359	Screw
28	04-0275	Screw, Half Moon
29	07-0441	Clamp, Oetiker
30	54-0093	Manifold Assy
31	54-0092	Manifold Assy
32	54-0091	Manifold Assy
33	05-0604	Plug, CO2 Manifold
34	13-0005	Strain Relief, Bushing
35	08-0271	Tube, CO2
36	08-0268	Tube, CO2
37	08-0269	Tube, CO2
38	49-0221	Tube Assy, 12 Inch
39	49-0271	Tube Assy, 18 Inch
40	48-1556	Tube Assy, Carbonator Pump
41	82-0251	Mini Pump
42	06-1682	Label, Primary Probe

Refrigeration Deck Assembly



Item	Part No.	Description
-	82-2091	Deck Assy, 115 V/60 Hz, 134A
-	82-2146	Deck Assy, 115 V/60 Hz, 134A, Redundant Control
-	82-2146-06	Deck Assy, 115 V/60 Hz, 134A, Redundant, MDS
-	82-2130	Deck Assy, 115 V/60 Hz, 134A, Export
-	82-2195	Deck Assy, 220 V/60 Hz, 134A
-	82-2101	Deck Assy, 230 V/50 Hz, 134A
-	82-2382	Deck Assy, 230 V/50 Hz, 134A, Redundant Control
-	82-2382-06	Deck Assy, 230 V/50 Hz, 134A, Redundant Control, MDS
-	82-2384	Deck Assy, 220 V/60 Hz, 134A, Redundant Control
-	82-2384-06	Deck Assy, 220 V/60 Hz, 134A, Redundant Control, MDS
1	51-5523	Deck/Pem Assy, Compressor
-	51-5551	Deck/Pem Assy, Compressor Redundant Control
2	50-0304	Insulation, Compressor Deck
3	04-0063	Washer, Flat
4	89-0014	Cover, Hole
5	REF	Evaporator Coil Assy
-	82-2090	Evaporator Coil Assy, 8000
-	82-2148	Evaporator Coil Assy, Redundant Control
6	52-2053	Probe Assy, EIBC
-	52-2088	Probe Assy, Redundant EIBC
7	04-0470	Screw, 6 - 19 X 0.438
8	07-0268	Handle, 2000X Compressor Deck
9	04-0260	Screw, 10 - 16 X 0.625
10	REF	Control Housing Assy
-	52-2055	Control Housing Assy, with ON/OFF Switch, 115V/60Hz
-	52-2090	Control Housing Assy, 115V/60Hz, Redundant Control
-	52-2090-06	Control Housing Assy, 115V/60Hz, Redundant, MDS
-	52-2068	Control Housing Assy, 115V/60Hz, Without Kill Switch
-	52-2059	Control Housing Assy, 230V/50Hz
-	52-2104	Control Housing Assy, 220V/60Hz
11	30-7079	Cover, Control Housing
-	30-7166	Cover, Control Housing, Redundant Control
12	02-0032	Washer
13	04-0504	Screw, 8 - 18 X 0.375
14	51-5519	Holder Assy, Probe
15	51-5548	Bracket, Holder Assy
16	52-2048	Lead Assy, Ground
17	REF	Transformer
-	25-0047	Transformer,75 VA, 24 V, 115 V/50-60 Hz, Reset Breaker
-	25-0048	Transformer,75 VA,24 V, 220 V/50-60 Hz, Reset Breaker
18	REF	Motor Assy
-	52-2034	Motor Assy, Agitator, 25 W, 115 V/60 Hz, 8 Inch Vented
-	52-2060	Motor Assy, Agitator, 230 V/50 Hz, 18.3 Watts, 8 Inch
19	30-5113/01	Bracket, Agitator
20	05-0424/01	Propeller, 2.625 Diameter, 35o Pitch
21	05-0502	Propeller, 2.250 Diameter, 37o Pitch
22	02-0040	Seal, Extrusion
23	04-0032	Nut, NYLOK, 1/4 - 20
24	04-0033	Washer, Flat (0.281 ID)
25	REF	Compressor
-	83-0104	Compressor, 3/4 HP, 134A, 115 V/60 Hz
-	83-0105	Compressor, 3/4 HP, 134A, 230 V/50 Hz
-	83-0106	Compressor, 3/4 HP, 134A, 220 V/60 Hz
26	02-0114	Grommet, Compressor
27	04-0537	Washer, Flat (0.467 ID)
28	03-0150	Retainer, Clip
29	13-0006	Cover, Terminal
30	03-0301	Bale Strap
31	47-0344	Tube, Process
32	47-2047	Tube, Compressor (HI Side)
33	47-2065	Tube, Suction Line
34	51-5400	Accumulator, Vertical
35	50-0105	Boot
36	50-0310	Insulation, Tube, 35 Inch
37	50-0311	Insulation, Tube, 15 Inch
38	23-1210	Condenser
39	50-0312	Insulation, Baffle, Right
40	50-0313	Insulation, Baffle, Left
41	50-0314	Insulation, Baffle, Top
42	50-0315	Insulation, Baffle, Control Box
43	30-7184	Bracket, Baffle, Right
44	30-7185	Bracket, Baffle, Left
45	30-7186	Plate, Retainer
46	04-0518	Rivet, 0.1250 X 0.328
47	51-5577	Bracket/Shroud Assy, Fan
48	REF	Motor, Fan
-	91-0017	Motor, Fan, 35W, 115V/60Hz
-	91-0019	Motor, Fan, 35W, 230V/60Hz
49	07-0553	Fan Blade, 11 Inch, 4 Petal, 28 Degree
50	04-0060	Nut, Flat
51	02-0413	Silencer
52	23-0999	Dryer Cap Assy
53	04-0110	Nut, 8 - 32
54	04-0576	Washer, Internal Tooth
55	06-0877	Label, Ground
56	06-1719	Label, Connector Locations, Redundant Control
-	06-1609	Label, Connector Locations, Electric Box
57	51-5520	Bracket Assy, Slider
58	51-5547	Bracket Assy, Slider, Redundant Control
59	13-0089	Relief, Strain 90 Degree
60	30-7173	Bracket, Transformer
61	26-0377	Capacitor, Carbonator Motor (230V/50Hz ONLY)
62	06-0080-01	Label, Name Plate
63	04-0059	Screw, 8 - 36 X 0.375, PHD
64	01-1713	Fitting, Reducer, EL, 1/2 X 5/16
65	REF	Overload
-	12-0227	Overload, Thermal, 3/4 HP, Compressor, 115 V/60 Hz
-	12-0045	Overload, Thermal, 3/4 HP Compressor, 230V/60Hz
66	95-0177	Refrigerant, R134A
67	30-7071	Bracket, Filter, Left
68	30-7172	Bracket, Filter, Right
69	23-1218	Air Filter Assy, 8000
-	23-1222	Air Filter Assy, MDS
70	52-1213	Harness Assy, Transformer, Second

Control Housing Assemblies

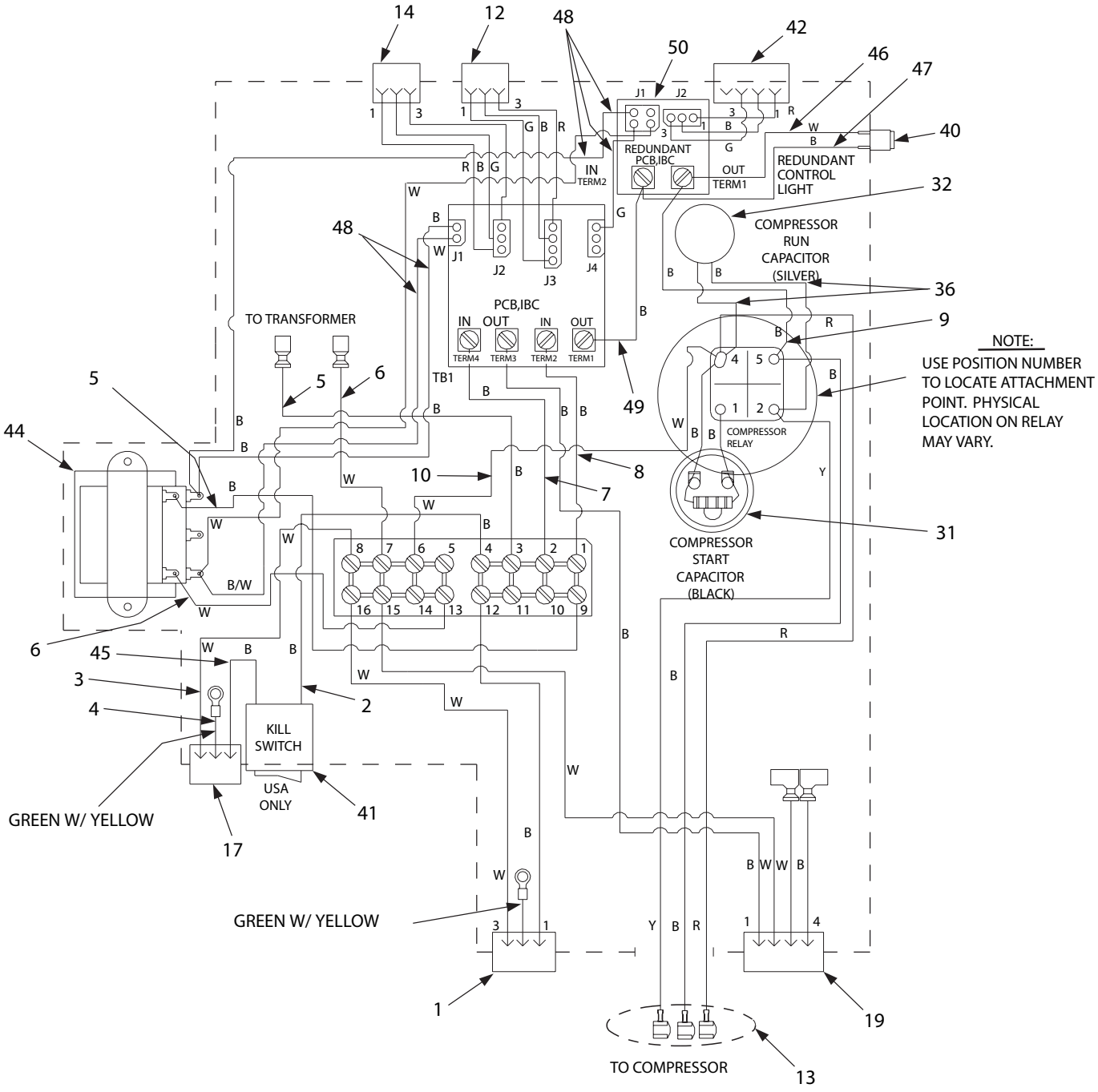


Item	Part No.	Description
-	52-2059	Control Housing, Without ON/OFF, 230 V/50 Hz
-	52-2055	Control Housing, With ON/OFF, 115 V/60 Hz
-	52-2068	Control Housing, Without ON/OFF, 115 V/60 Hz
-	52-2090	Control Housing, Redundant Control, 115 V/60 Hz
-	52-2090-06	Control Housing, MDS, 115 V/60 Hz
-	52-2104	Control Housing, 220V/60Hz
1	52-2037	Harness Assy, Recirc A/C Outlet
2	52-2038	Lead Assy, Hot, Power Supply
3	52-2039	Lead Assy, Common Inlet
4	52-2040	Lead Assy, Ground Inlet
5	52-2041	Lead Assy, Hot, PCB, Transformer
6	52-2042	Lead Assy, Common, PCB
7	52-2044	Lead Assy, Carbonator,Terminal PCB
8	52-2045	Lead Assy, Compressor, Terminal PCB
9	52-2046	Lead Assy, Compressor, PCB Relay
10	52-2047	Lead Assy, Common Relay
11	04-1024	Retainer, Nylon
12	52-2050	Harness Assy, Carbonator Probe
13	52-2051	Cable Assy, Compressor Relay
14	52-2052	Harness Assy, EIBC Probe
15	04-0504	Screw, 8 - 18 X 0.375
16	30-7166	Cover, Control Box, RC
-	30-7079	Cover, Control Box
17	11-0369	Plug, Male, Schurter
18	12-0190	Block, Terminal
19	52-0908	Harness Assy, Carbonator
20	04-0072	Rivet, 0.125 Diameter X 0.312
21	13-0059	Bushing, 2850, Convert
22	51-5555	Control Box Hinge Assy, RC
-	51-5528	Control Box Hinge Assy
23	13-0088	Relief, Strain, 14/3 SJT
24	52-1423	PC Board Assy, Series II
25	04-1015	Stud, Wing Head
26	04-1016	Receptacle, Clip-On
27	04-1017	Spring, SS, Ejector
28	04-0477	Screw, 8-32 X .375, PHD
29	13-0047	Stand-Off, 0.250
30	11-0186	Jumper, Terminal, 40 Circuit
31	12-0233	Capacitor, Start, 115V/60Hz
-	12-0246	Capacitor, Start, 220V/60Hz
-	12-0235	Capacitor, Start, 230V/50Hz
32	12-0231	Capacitor, Run, 115V/60Hz
-	03-0303	Clip, Capacitor, Retaining (For 220 V and 230 V 50/60 Hz Only)
33	12-0232	Relay, Compressor, 115 V/60 Hz
-	12-0247	Relay, Compressor, 220 V/60 Hz
-	30-7034	Bracket, 220V Compressor, Relay (For 220V Use Only)
-	12-0236	Relay, Compressor, 230 V/50 Hz
34	30-7100	Bracket, Run, Cap, 115 V/60 Hz
35	30-7101	Bracket, Start, Cap, 115 V/60 Hz
36	52-2054	Lead Wire Assy, 14 AWG
37	04-1018	Screw, 10 - 32 X 0.500, FH
38	04-1019	Nut, Locknut with Star Washer
39	04-1023	Washer, Black Nylon Wear
40	12-0242	Indicator Light, Neon Red
41	12-0243	Switch, SPST, ON/OFF
-	12-0089	Switch, KILL, SPDT
42	52-2084	Harness Assy, Probe Connector
43	51-5560	Bracket Assy, Transformer
44	25-0101	Transformer, 115V, 12 VA.
45	52-2080	Lead Assy, Power to Kill
-	52-2049	Lead Assy, Power, IN/KILL
46	52-2086	Lead Assy, RPCB to Light
47	52-2087	Lead Assy, Hot RPCB to Light
48	52-2081	Harness Assy, Transformer to PCB
49	52-2085	Lead Assy, Compressor,PCB - RPCB
50	52-1737	PCB Assy, EIBC
51	04-0110	Nut, 8 - 32
52	04-0576	Washer, Lock, Internal Tooth
53	51-5546	Extension Assy, Switch

NOTE

The parts listing above applies to the following illustrations: *Control Housing Assemblies - 115 V/60 Hz - Redundant Control, Control Housing Assemblies - 115 V/60 Hz*, and *Control Housing Assemblies - 230 V/50 Hz - 220 V/60 Hz*

Control Housing Assemblies - 115 V/60 Hz - Redundant Control



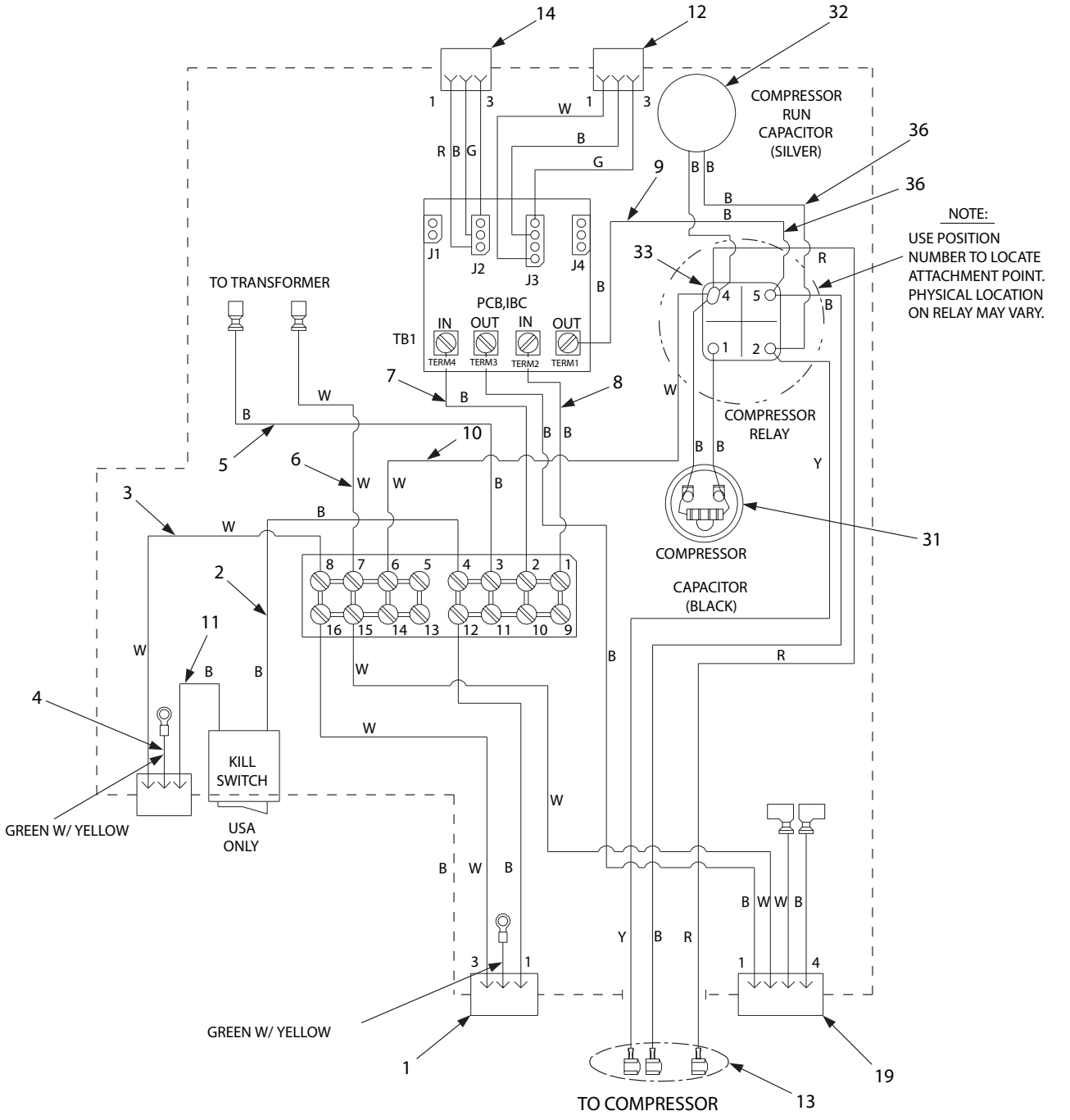
8000 CCD

115V/60HZ - REDUNDANT CONTROL

SYMBOL	DESCRIPTION
	CONTROL BOX
	CHAMFER PIN 1

SCHEMATIC SHOWN FOR WIRING CLARITY

Control Housing Assemblies - 115 V/60 Hz

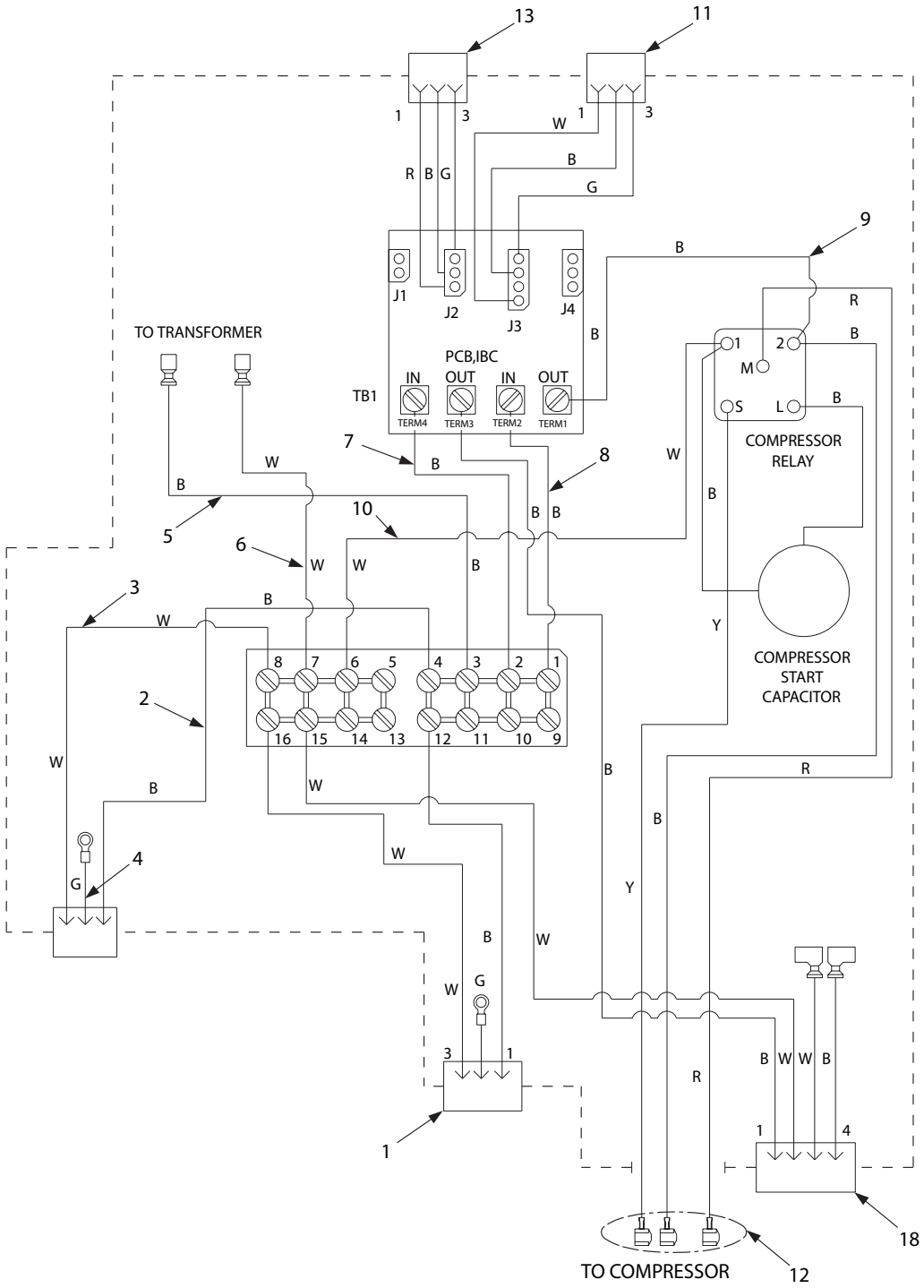


8000 CCD
115V/60HZ

SYMBOL	DESCRIPTION
- - - - - - -	CONTROL BOX
	CHAMFER PIN 1

SCHEMATIC SHOWN FOR WIRING CLARITY

Control Housing Assemblies - 230 V/50 Hz - 220 V/60 Hz



8000 CCD

230V/50HZ - 220V/60HZ

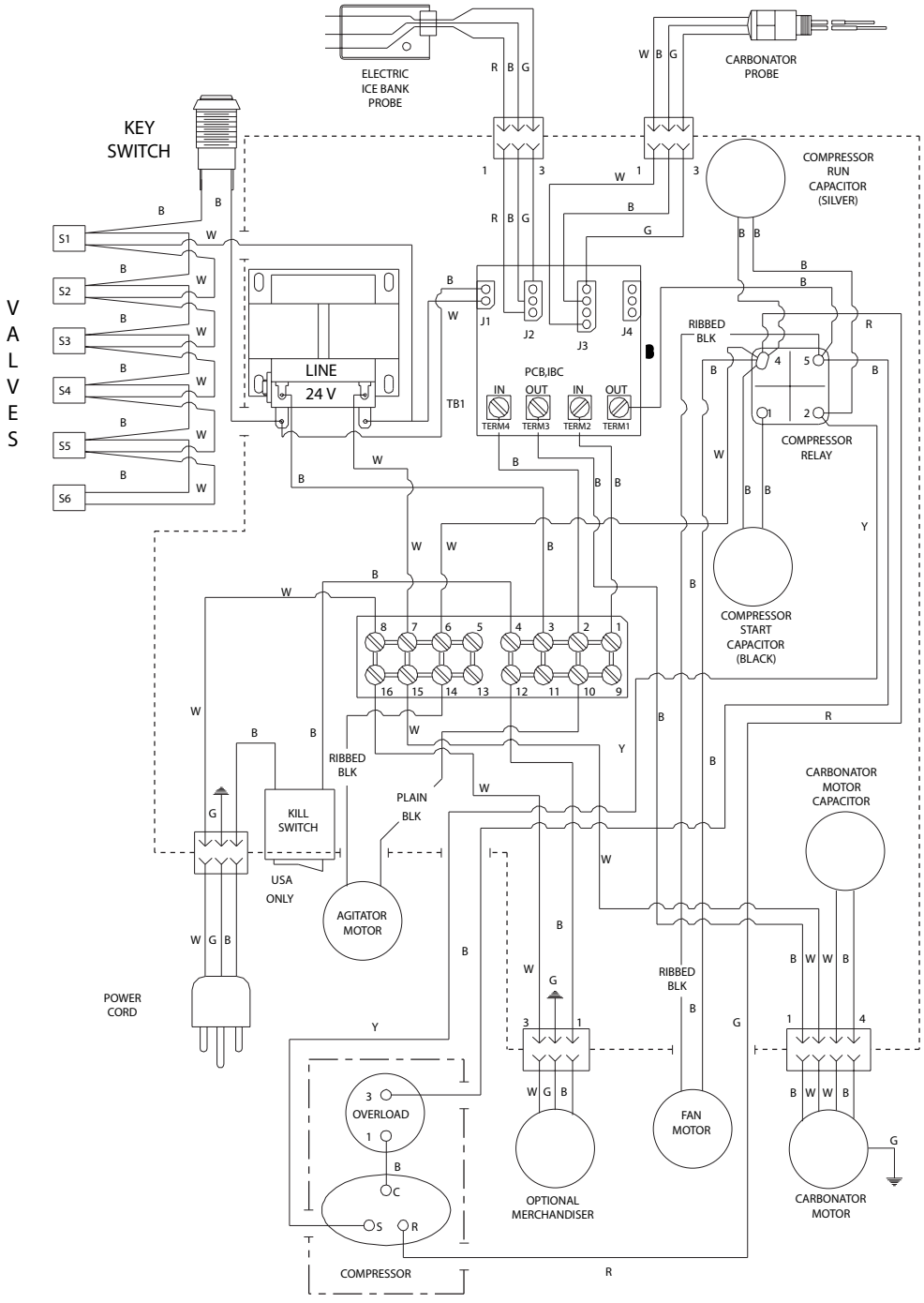
SYMBOL	DESCRIPTION
- - - - - - -	CONTROL BOX
	CHAMFER PIN 1

SCHEMATIC SHOWN FOR WIRING CLARITY

Wiring Diagram - 115 V/60 Hz, PN: 06-1604

IMPORTANT

1. WHEN STARTING UNIT OR IF CURRENT IS INTERRUPTED, THERE IS A 5 MINUTE DELAY BEFORE THE COMPRESSOR/FAN STARTS.



SYMBOL	DESCRIPTION
⏚	CHASSIS GROUND
- - - - - - - - - - - -	CONTROL BOX
▱	CHAMFER PIN 1
— — — — — —	COMPRESSOR

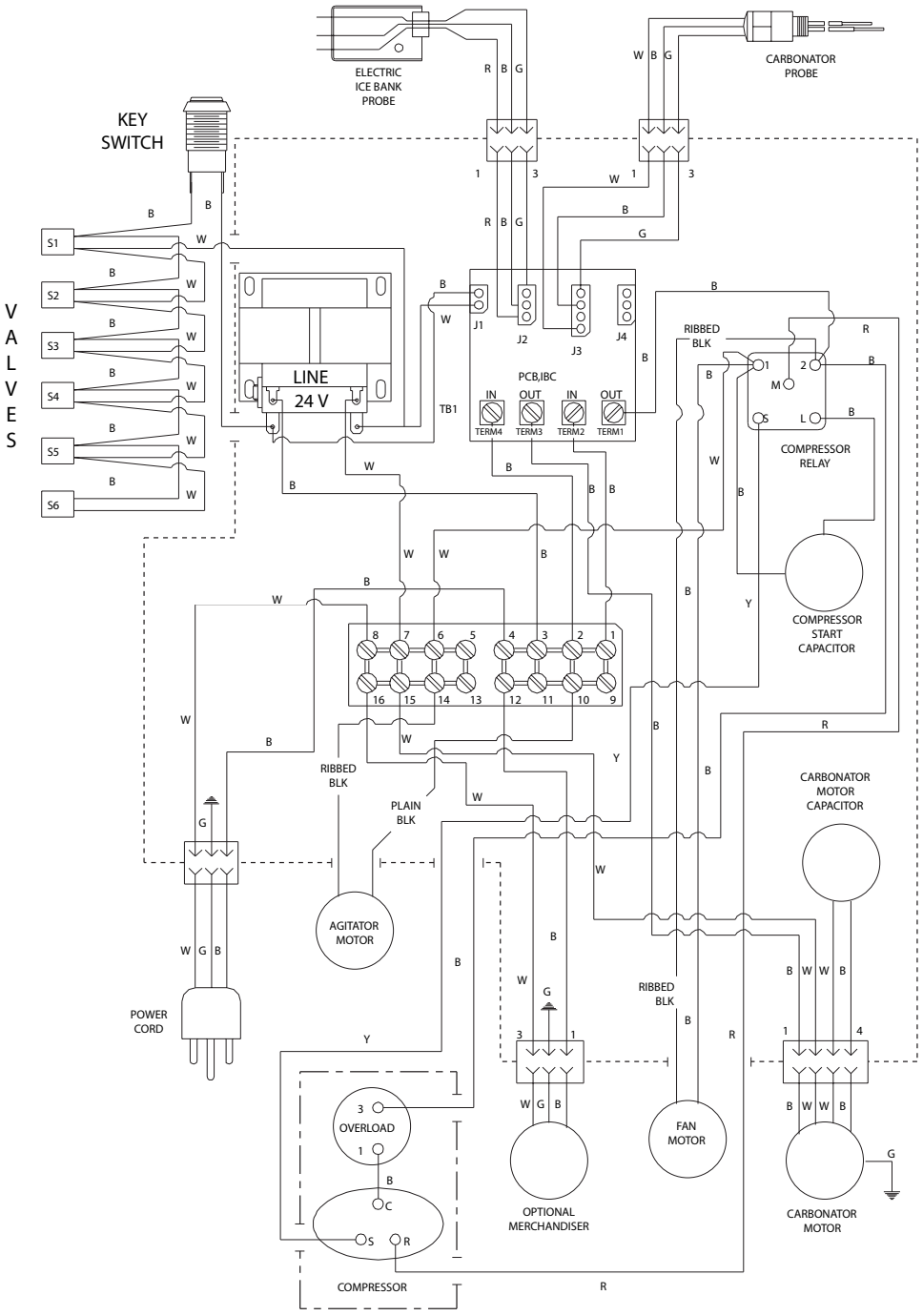
- 8000 CED

LANCER LABEL, 115V/60HZ WIRING DIAGRAM PN 06-1604

Wiring Diagram - 230 V/50 Hz - 220 V/60 Hz, PN: 06-1652

IMPORTANT

1. WHEN STARTING UNIT OR IF CURRENT IS INTERRUPTED, THERE IS A 5 MINUTE DELAY BEFORE THE COMPRESSOR/FAN STARTS.



SYMBOL	DESCRIPTION
⏚	CHASSIS GROUND
- - - - - - - - - - - -	CONTROL BOX
▭	CHAMFER PIN 1
— - — - —	COMPRESSOR

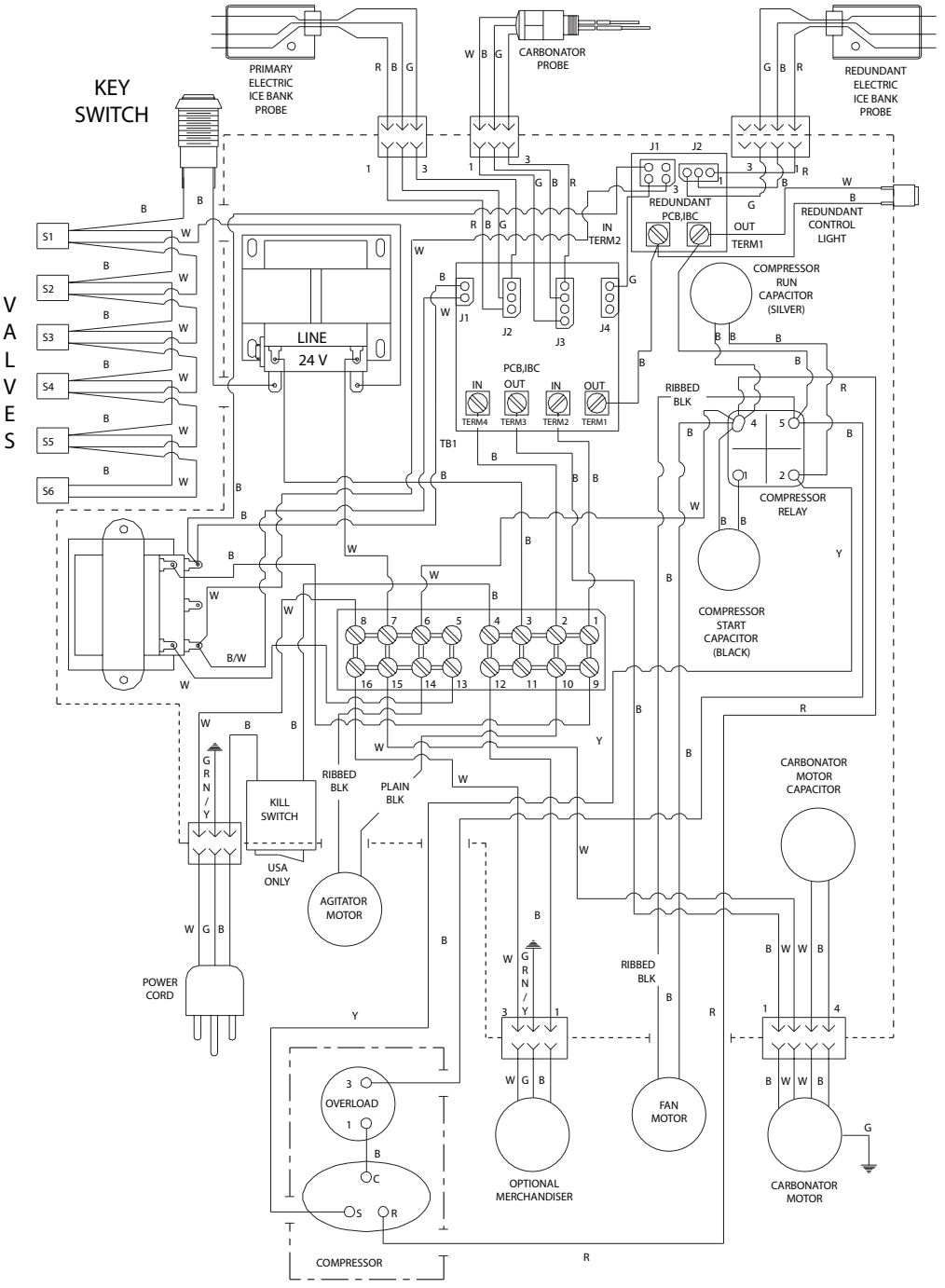
- 8000 CED

LANCER. LABEL, WIRING DIAGRAM 230V/50HZ, 220V/60HZ PN 06-1652

Wiring Diagram - 115 V/60 Hz - Redundant Control, PN: 06-1718

IMPORTANT

1. WHEN STARTING UNIT OR IF CURRENT IS INTERRUPTED, THERE IS A 5 MINUTE DELAY BEFORE THE COMPRESSOR/FAN STARTS.

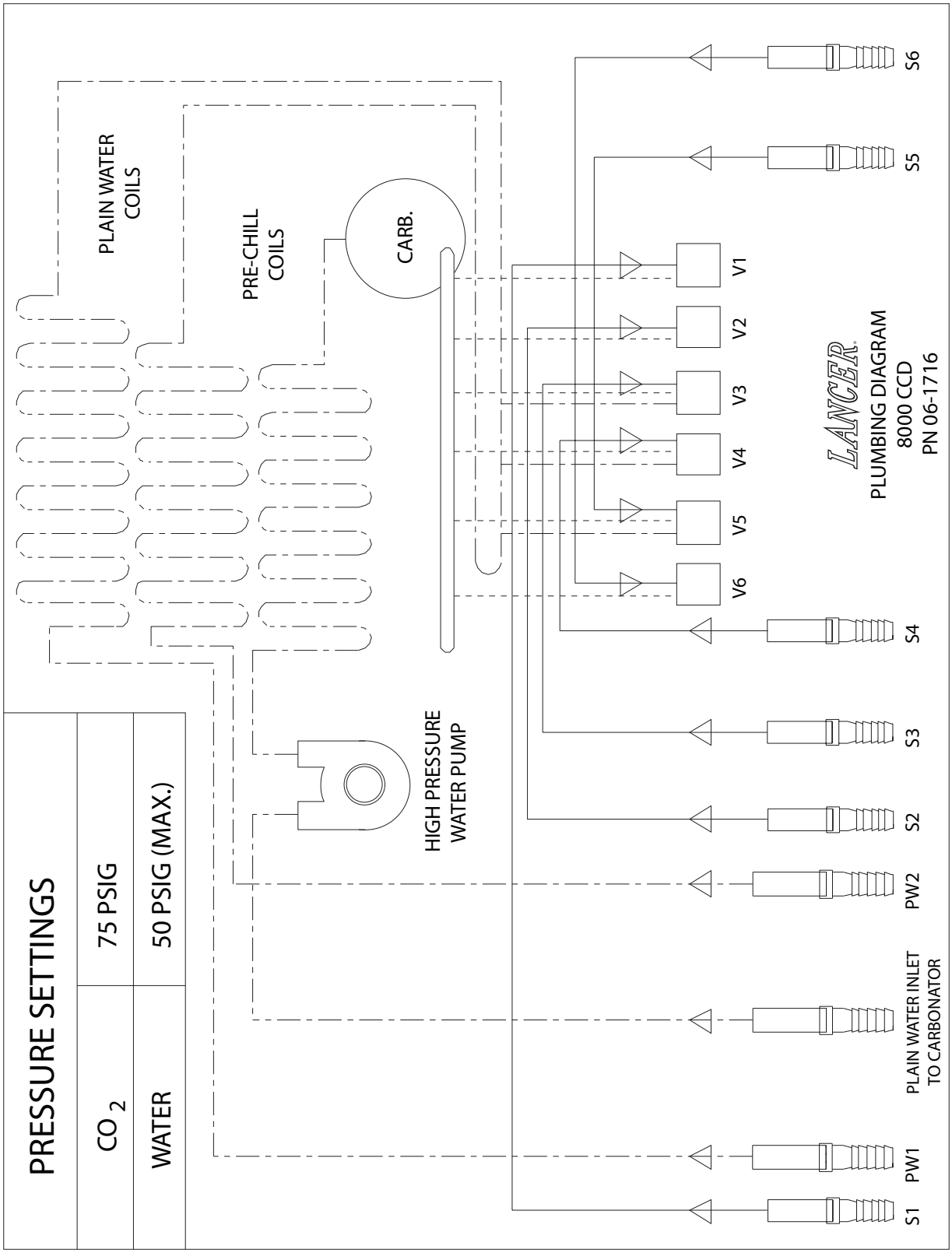


SYMBOL	DESCRIPTION
⏚	CHASSIS GROUND
- - - - - - - - - - - -	CONTROL BOX
▭	CHAMFER PIN 1
— — — — — —	COMPRESSOR

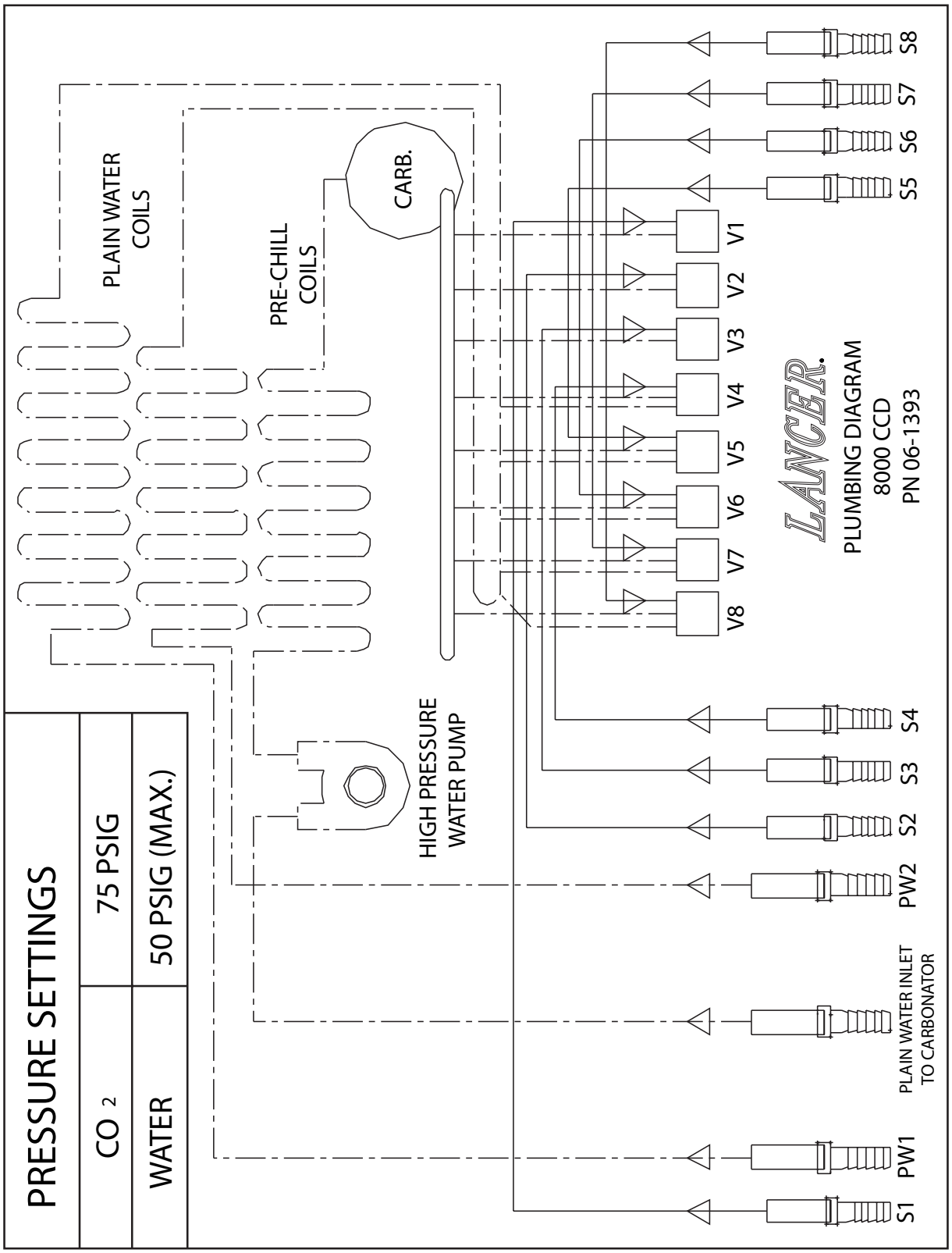
LANCER® LABEL, 115V/60HZ - REDUNDANT CONTROL WIRING DIAGRAM PN 06-1718

- 8000 CED

Plumbing Diagram - 6 Valve, PN: 06-1716



Plumbing Diagram - 8 Valve, PN: 06-1393



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