

LANCER®

COLD CARB ICE COOLED DISPENSER DROP IN - SERIES 2308

Operation and Maintenance Manual PN 28-0897



LANCER

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ISO 9001:2000 Quality System Certified

Manual PN: 28-0897
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FOR QUALIFIED INSTALLER ONLY

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THE LANCER 2308 DROP IN DISPENSER SERIES is designed using the highest quality materials and state-of-the-art technology, providing our customers with consistent quality and a unique drink experience.

PRE-INSTALLATION CHECKLIST

TOOLS REQUIRED

-
- | | |
|--|---|
| <input type="checkbox"/> Oetiker Pliers | <input type="checkbox"/> Slotted Screwdriver |
| <input type="checkbox"/> Tubing Cutters | <input type="checkbox"/> Phillips Screwdriver |
| <input type="checkbox"/> Wrench | |
| <input type="checkbox"/> Precision Cutters (if removing/replacing carbonator tank) | |

INSTALL CHECKLIST

-
- | | |
|--|---|
| <input type="checkbox"/> CO2 Supply | <input type="checkbox"/> 115V/60Hz Power Supply |
| <input type="checkbox"/> Key for keyswitch | <input type="checkbox"/> Retainer Clips (2 spares) |
| <input type="checkbox"/> Grounded electrical outlet | <input type="checkbox"/> Water Booster (only if required) |
| <input type="checkbox"/> 3/8" Barb Adaptor for Remote Pump Deck | <input type="checkbox"/> Cold Plate Drain Spider |
| <input type="checkbox"/> CO2 Regulator Set (requires adjustment to 75psi) | <input type="checkbox"/> Small Cleaning Brush |
| <input type="checkbox"/> Beverage Tubing (3/8" for dispenser & 1/4" for CO2 inlet) | |

BIB SYSTEM

-
- | | |
|--|---|
| <input type="checkbox"/> BIB Rack | <input type="checkbox"/> BIB Syrup Boxes |
| <input type="checkbox"/> BIB Regulator Set | <input type="checkbox"/> BIB Connectors for 8 (eight) syrup types |

CONSIDER LOCATION OF THE FOLLOWING PRIOR TO INSTALL

-
- | | |
|---|---|
| <input type="checkbox"/> Water supply lines | <input type="checkbox"/> Drain |
| <input type="checkbox"/> Grounded electrical outlet | <input type="checkbox"/> Heating and air conditioning ducts |
| <input type="checkbox"/> Enough space to install the dispenser | |
| <input type="checkbox"/> Located away from direct sunlight or overhead lighting | |

DOUBLE CHECK THE FOLLOWING

-
- Is the countertop level?
 - Can the countertop support the weight of the dispenser? Include the weight of the ice.
 - Is there enough space on the counter to install the dispenser? Be sure to consider spacing required under the counter for drop-in style dispensers as well as the remote pump deck.
 - Is the probe harness adequate length to reach the remote pump deck location and the dispenser? If not, a probe harness extension and adaptor will need to be ordered,
 - Is the default plain/carbonated water configuration on the valves acceptable for this install? If not, reference section 1.13 "Changing Water Options on a Valve (Prior to Installation)"

SPECIFICATIONS

85-2348P-187

ICDICC,2308,DUAL PRDCT,8-UFBSSL,23X23

DIMENSIONS

Cabinet 23 inches x 23 inches (584.2 mm x 584.2 mm)

Rim 25 inches x 25 inches (635.0 mm x 635.0 mm)

Height Without Legs

Above Counter 20 inches (508 mm)
(to top of valves)

Below Counter 23 inches (584.2 mm)

SPACE REQUIRED

Left and Right Side 6 inches (152.4 mm)

Legs (optional) 2.5 inches (63.5 mm)

Top and Back 6 inches (152.4 mm)

WEIGHT

Shipping 296 pounds (134.26 kg)

Empty 253 pounds (114.75 kg)

Operating 365 pounds (165.5 kg)

FITTINGS

Soda/Plain water inlet 3/8" barb

Brand syrup inlets 3/8" barb

ICE

Capacity 80 pounds (36.29 kg)

PLAIN WATER

Min flowing pressure: 75 PSIG (5.28 kg/cm², 5.16 BAR)

SODA WATER

Nominal CO2 pressure: 75 PSIG (5.28 kg/cm², 5.16 BAR)

WARNING/ADVERTENCIA/AVERTISSEMENT





⚠ The dispenser is for indoor use only. This unit is not a toy. It 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 unit is not designed to dispense dairy products. The min/max ambient operating temperature for the dispenser is 40 to 90 degrees F.


⚠ El dispensador sólo debe usarse en interiores. Esta unidad no es un juguete. No la deben usar niños ni personas discapacitadas sin supervisión. Esta unidad no está destinada al uso por parte de personas (incluso niños) con capacidad física, sensorial o mental reducida, o sin experiencia y conocimientos suficientes, a menos que una persona responsable de su seguridad les haya dado supervisión o capacitación en el uso de la unidad. Esta unidad no ha sido diseñada para suministrar productos lácteos. La temperatura ambiente operativa mínima / máxima para el dispensador es de 40 a 90 grados F.

⚠ Le distributeur est destiné à un usage à l'intérieur seulement. Cet appareil n'est pas un jouet. Il ne devrait pas être utilisé par des enfants ou des personnes infirmes sans surveillance. Cet appareil n'est pas destiné à un usage par des personnes (y compris les enfants) ayant des capacités physiques, sensorielles ou mentales réduites, ou manquant d'expérience et de connaissances, à moins qu'elles obtiennent de la surveillance ou des instructions au sujet de l'utilisation de l'appareil de la part d'une personne chargée de leur sécurité. Cet appareil n'est pas conçu pour distribuer des produits laitiers. La température de service ambiante minimum/maximum pour le distributeur est de 40 à 90 degrés F.


**ELECTRICAL WARNING/ADVERTENCIA ELÉCTRICA/
AVERTISSEMENT ÉLECTRIQUE**


 Check the dispenser serial number 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. Follow all local electrical codes when making connections. 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. The keyswitch does not disable the line voltage to the transformer primary. 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. Make sure that all water lines are tight and units are dry before making any electrical connections!


 Verifique la placa con el número de serie del dispensador, donde encontrará los requisitos eléctricos correctos de la unidad. No enchufe la unidad en un tomacorriente de pared a menos que la corriente indicada en la placa con el número de serie concuerde con la corriente local disponible. Al hacer las conexiones, respete todos los códigos eléctricos locales. Cada dispensador debe tener un circuito eléctrico independiente. No use extensiones con esta unidad. No la conecte junto con otros dispositivos eléctricos al mismo tomacorriente. El interruptor de llave no corta el voltaje de línea al transformador primario desconecte siempre la alimentación eléctrica a la unidad para evitar lesiones personales antes de tratar de realizar tareas de mantenimiento. El disyuntor de sobrecarga reseteable no se debe usar como sustituto para desenchufar el dispensador de la fuente de alimentación para realizar tareas de servicio de la unidad. El servicio de los componentes internos de la caja de control eléctrico debe confiarse exclusivamente a personal calificado. Asegúrese de que todas las líneas de agua estén ajustadas y las unidades estén secas antes de hacer conexiones eléctricas.

 Examinez la plaque de numéro de série du distributeur pour connaître les bonnes exigences en matière d'électricité pour l'appareil. Ne le branchez pas à une prise électrique murale à moins que le courant indiqué sur la plaque de numéro de série corresponde au courant local disponible. Respectez tous les codes électriques locaux lorsque vous faites des connexions. Chaque distributrice doit avoir un circuit électrique séparé. N'utilisez pas de cordons prolongateurs avec cet appareil. Ne pas le brancher avec d'autres appareils électriques sur la même prise. L'interrupteur à clé ne coupe pas la tension secteur au transformateur primaire. Débranchez toujours le courant électrique à l'appareil, afin de prévenir des blessures, avant de faire un entretien interne quelconque. Le disjoncteur réarmable ne devrait pas être utilisé au lieu de débrancher le distributeur de la source d'alimentation en électricité pour faire de l'entretien/une réparation de l'appareil. Seul le personnel qualifié devrait faire l'entretien/la réparation des composants internes dans le logement des commandes électriques. Assurez-vous que toutes les conduites d'eau sont étanches et que les appareils sont secs avant de faire des connexions électriques!

**CO²/CARBON DIOXIDE /EL ANHÍDRIDO CARBÓNICO/
DIOXYDE DE CARBONE**

 Carbon Dioxide (CO₂) is a colorless, noncombustible gas with a light pungent odor. High percentages of CO₂ may displace oxygen in the blood. 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. If a CO₂ gas leak is suspected, immediately ventilate the contaminated area before attempting to repair the leak. Strict attention must be observed in the prevention of CO₂ gas leaks in the entire CO₂ and soft drink system.

 El anhídrido carbónico (CO₂) es un gas incoloro, no combustible, con un olor pungente ligero. Altos porcentajes de CO₂ en la sangre pueden desplazar el oxígeno en la sangre. La exposición prolongada al CO₂ puede ser nociva. El personal expuesto a concentraciones altas de CO₂ sufre temblores seguidos de la pérdida de la consciencia y sofocación. Si se sospecha que existe una pérdida de CO₂, ventile el área contaminada antes de tratar de reparar la pérdida. Hay que prestar suma atención para evitar pérdidas de CO₂ en todo el sistema de CO₂ y de bebidas gaseosas.

 Le dioxyde de carbone (CO₂) est plus lourd que l'air et déplace l'oxygène. Le CO₂ est un gaz incolore et incombustible, ayant une odeur un peu âcre. Des concentrations fortes de CO₂ peuvent déplacer l'oxygène dans le sang. Une exposition prolongée au CO₂ peut être nocive. Le personnel exposé à de fortes concentrations de CO₂ gazeux éprouvera des tremblements, suivis rapidement d'une perte de conscience et de suffocation. On doit faire très attention de prévenir les fuites de CO₂ gazeux dans le système entier de CO₂ et de boisson gazeuse. Si on suspecte qu'il y a une fuite de CO₂ gazeux, aérez le secteur contaminé immédiatement avant d'essayer de réparer la fuite.

**WATER NOTICE/ADVERTENCIA DE SUMINISTRO DE
AGUA/AVERTISSEMENT D'ALIMENTATION DE L'EAU**

⚠ 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 laws. The water supply line must be at least a 3/8 inches (9.525 mm) pipe with a minimum of 20 PSI (137.9 kPa) line pressure, but not exceeding a maximum of 50 PSI (345 kPa). Water pressure exceeding 65 PSI (448.2 kPa) must be reduced to 65 PSI (448.2 kPa) with the provided pressure regulator. 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. 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. Ensure the backflow prevention device complies with ASSE and local standards. It is the responsibility of the installer to ensure compliance.

⚠ Proporcione un suministro adecuado de agua potable. La línea de suministro de agua debe ser de una tubería de por lo menos 3/8 pulgadas (9.525 mm) con una presión de línea mínima de 20 PSI (137.9 kPa) , pero sin superar el máximo de 50 PSI (345 kPa). La presión de agua que supere los 65 PSI (448.2 kPa) se debe reducir a 65 PSI (448.2 kPa) con un regulador de presión. Use un filtro en la línea de agua para evitar daños al equipo y cierto sabor raro en las bebidas. Verifique periódicamente el filtro de agua de acuerdo con las condiciones imperantes. El suministro de agua debe estar protegido por una separación de aire, un dispositivo de prevención del contraflujo (situado antes del sistema de inyección de CO2) u otro método aprobado para cumplir las normas NSF. Si la válvula de retención de entrada de agua tuviera pérdidas, permitiría el contraflujo del agua carbonatada a través de la bomba cuando se la detiene y contaminaría el suministro de agua. Asegúrese de que el dispositivo de prevención del contraflujo cumpla con las normas locales y de ASSE. Es responsabilidad del instalador cumplir con estos requisitos.

⚠ Fournissez une alimentation en eau potable adéquate. Les connexions et les dispositifs de conduite d'eau connectés directement à une alimentation en eau potable doivent être calibrés, installés et maintenus selon les lois fédérales, provinciales et locales. La conduite d'alimentation en eau doit être un tuyau d'au moins 3/8 pouces (9.525 millimètres) avec une pression de ligne minimum de 20 LPC (137.9 kPa), mais ne doit pas dépasser un maximum de 50 LPC (345 kPa). Une pression d'eau de plus de 65 LPC (448.2 kPa) doit être réduite à 65 LPC (448.2 kPa) avec le régulateur de pression fourni. Utilisez un filtre dans la conduite d'eau pour éviter des dommages à l'équipement et un goût des boissons qui n'est pas juste. Vérifiez le filtre à eau périodiquement, selon les exigences des conditions locales. L'alimentation en eau doit être protégée au moyen d'un intervalle d'air, un disconnecteur hydraulique (situé en amont du système d'injection de CO2) ou une autre méthode approuvée pour se conformer aux normes de la NSF. Un clapet antiretour pour l'eau entrante qui fuie permettra à l'eau gazeuse de repasser par la pompe quand elle est fermée et de contaminer l'alimentation en eau. Assurez-vous que le disjoncteur hydraulique soit conforme aux normes de l'ASSE et locales. L'installateur est responsable d'assurer la conformité.

1. INSTALLATION**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.

⚠ WARNING To avoid personal injury or damage, do not attempt to lift a unit without help. For heavier units, use of a mechanical lift may be appropriate. Units are equipped with automatic agitation. The unit may activate unexpectedly. Do not place hands, or foreign objects into the ice storage compartment. Unplug dispenser from the power source , when unit is being serviced, cleaned, or sanitized.

⚠ ADVERTENCIA Evite las lesiones personales, no trate de levantar el dispensador sin ayuda. Para los dispensadores más pesados use un elevador mecánico. Las unidades equipadas con agitación automática se activan repentinamente. No ponga las manos ni objetos extraños en el compartimiento de almacenamiento de hielo. Desenchufe el dispensador durante tareas de servicio, limpieza y esterilización.

⚠ AVERTISSEMENT Pour éviter des blessures ou des dommages, n'essayez pas de soulever une unité sans aide. Pour les unités plus lourdes, l'utilisation d'un ascenseur mécanique peut être appropriée. Les unités sont équipées d'une agitation automatique. L'unité peut s'activer de manière inattendue. Ne placez pas les mains, ou des corps étrangers dans le compartiment de stockage de glace. Débranchez le distributeur de la source d'alimentation en électricité quand l'unité est entretenue, nettoyée ou aseptisée.

1.1 RECEIVING/UNPACKING THE DISPENSER

- A. Set shipping carton upright on the floor. Cut band and remove. Open top of carton & remove interior packing.
- B. Lift carton up and off of the dispenser. Remove wood shipping base from the bottom of the dispenser. (Support dispenser while removing shipping base to prevent damage to the dispenser.)
- C. Remove installation parts kits from the ice compartment. Ensure items listed on the install kit checklist are provided.
- D. Inspect unit and parts for concealed damage(s). If damage exists, notify delivering carrier and file a claim against carrier.

1.2 DRAIN SPIDER

The drain spider (Fig 1) is located directly in the center of the bin under the ice shroud. The coldplate has a cavity designed to hold the drain spider. During shipment or installation, the drain spider may become dislodged from its original position.

Prior to installing the dispenser, ensure the drain spider is in the correct position. This will prevent drain clog issues. Inspect the lower bin area and reach under the shroud to ensure the drain spider is secure in the coldplate cutout.

If the spider is not in place, locate drain spider and reinstall in the cold plate cavity where drain line exits.

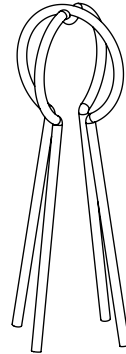


Figure 1. Drain Spider

1.3 SELECTING A LOCATION FOR THE DISPENSER

Connecting lines can be run through the back of the dispenser or extend down through a counter cutout. Seal the dispenser directly on the countertop. Counter Cutouts for each unit are included in the Installation Kit and in Section 6. Illustrations, Parts Listings and Wiring Diagrams.

- A. Select a level, well-ventilated, accessible location away from direct sunlight or overhead lighting (convenient to water, soda, and syrup lines and open type drain), a properly grounded electric supply and ensure sufficient clearance for air circulation. If an icemaker is not installed, sufficient clearance must be provided, to allow for filling the ice compartment with a five gallon bucket (minimum of 16 inches is recommended).
- B. Verify that the unit will fit in the location. Refer to the Counter Cutout Diagram (included in the Installation Kit) for dimensions. NOTE: The unit can extend up to 23 inches (58.42 cm) below the counter, including the shipping risers. It is recommended to keep the shipping risers attached to the dispenser. If the dispenser ever requires removal, the shipping risers will protect the inlet tubes from being damaged.
- C. The selected location should be able to support the weight of the dispenser, and ice. Total weight (with icemaker) for the unit could exceed 365 pounds (165.5kg). Verify that the counter is strong enough to safely support a 365 pound (165.5 kg) load, after the counter cutout is made.
- D. Unit may be installed directly on the countertop. The unit must be sealed to the countertop with an FDA approved sealant.
- E. Verify the probe harness extension adequate length to reach the remote pump deck location and the dispenser.
- F. Verify the default plain/carbonated water configuration on the valves acceptable for this install. If not, reference **Section 1.11 Changing Water Options on a Valve (Prior to Installation)**.

1.4 INSTALLATION OF THE DISPENSER AND PUMP DECK

- A. After the counter cutout is made, lower the dispenser into the counter. **NOTE:** In order to ensure unit drainage and proper carbonation, it is necessary for the dispenser to be level, front to back and side to side.
- B. Position the pump deck under the counter. Ideal placement is in close proximity to the dispenser. The pump deck must be on a level surface and have adequate electrical utilities available.

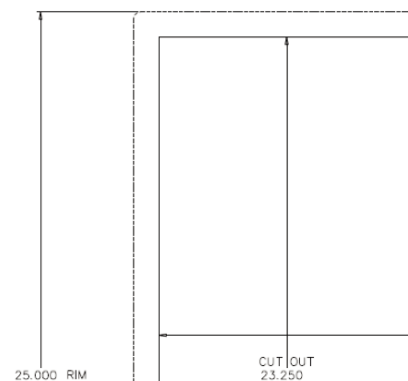


Figure 2. Cutout

1.5 LEVELING THE DISPENSER

In order to facilitate proper dispenser drainage and carbonation, ensure that the dispenser is level, front to back and side to side. Place a level on the top of the rear edge of the dispenser. The bubble must settle between the level lines (Fig 2). Repeat this procedure for the remaining three sides. Level unit if necessary. For optimum performance place the unit at a 0 degree tilt. The maximum tilt is 5 degrees.

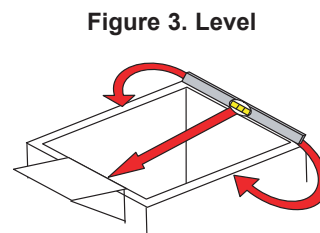


Figure 3. Level

1.6 CONNECTING TO WATER SUPPLY LINES

In addition to the following, adhere to the **WATER SUPPLY WARNINGS**, on Page 6.

WATER NOTICE

For the plain water supply line, the inlet water flowing pressure should be at least 75 psi (517.11 kPa). If the water pressure is lower than 75 psi (517.11 kPa) flowing, use a water booster system.

If the water flowing pressure is lower than 75 psi (517.11 kPa) at the plain water inlet and a water booster is NOT installed, water products will not hold a proper flow rate or water/syrup ratio. Flow conditions at the nozzle can also be affected, causing poor nozzle coning and mixing.

For the soda water supply line, do not exceed 65 psi (448.2 kPa) for the inlet water static pressure going into the carbonator pump. If the static water pressure exceeds 65 psi (448.2 kPa), install a water regulator before the carbonator water inlet.

- A. Provide an adequate potable water supply. The water supply line must be at least a 1/2 inches (12.7 mm) pipe. Water pressure exceeding 65 psi is regulated by a pressure regulator on the pump deck. Water pressure below 75 psi will require a booster pump.
- B. Install a shut-off valve in the water line feeding the deck. If a separate water line is run for plain water, ensure that it also has a shut-off valve.
- C. The carbonator pump is equipped with a strainer on the inlet side. A water supply containing any appreciable quantity of silt, fine sand, or other debris requires a filter ahead of the pump deck. Clean the filter cartridge periodically, depending on the condition of the water. Failure to do so may starve the pump of water, causing it to burn out, and voiding the warranty.
- D. Use a 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.

⚠ WARNING CHECK THE WATER FILTER PERIODICALLY, AS REQUIRED BY LOCAL CONDITIONS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE COMPLIANCE.

⚠ ADVERTENCIA VERIFIQUE PERIÓDICAMENTE EL FILTRO DE AGUA DE ACUERDO CON LAS CONDICIONES IMPERANTES. ES RESPONSABILIDAD DEL INSTALADOR CUMPLIR CON ESTOS REQUISITOS.

⚠ AVERTISSEMENT VÉRIFIEZ LE FILTRE À EAU PÉRIODIQUEMENT, SELON LES EXIGENCES DES CONDITIONS LOCALES. L'INSTALLATEUR EST RESPONSIBLE D'ASSURER LA CONFORMITÉ.

1.7 CONNECTION OF THE EQUIPMENT

- A. Position the CO₂ gas tank in the desired location. Assemble the high pressure regulator to the CO₂ gas tank and run the jumper line to the low pressure regulator.
- B. Attach the CO₂ gas line to the carbonator by attaching the line from the high pressure regulator to the CO₂ inlet. The setting of the high pressure CO₂ gas regulator should be 75 psi. **NOTE:** A secondary CO₂ regulator with a wall mount has been provided if required. Pressure will need to be adjusted to 75 psi on the regulator, if used.

⚠ WARNING DO NOT TURN ON CO₂ AT THIS TIME.

⚠ ADVERTENCIA NO CONECTE TODAVÍA LA ALIMENTACIÓN DE CO₂.

⚠ AVERTISSEMENT N'OUVREZ PAS L'ALIMENTATION EN CO₂ À CE MOMENT.

- C. Position the syrup pumps in the desired location. Attach the CO₂ gas lines leading from the low pressure regulator to these pumps.
- D. Connect the syrup lines from the pumps to the appropriate inlets at the front of the unit. The syrup inlets are identified at the bottom of the unit. **NOTE:** Use 3/8" I.D. tubing for syrup, CO₂ and water line runs up to 100 feet. For line runs over 100 feet, 1/2" tubing is recommended.
- E. If required, install water booster (Lancer p/n 82-3401 or MC-163172) between water supply and unit.
- F. Tee off outbound water line, run one line to the plain water inlet on the bottom of the dispenser and one to the remote pump deck inlet regulator.
- G. Complete the carbonated water line connection between the remote pump deck and carbonated water inlet on the dispenser.
- H. Provide a suitable drain in the plumbing system and attach the 3/4 inch (1.90 cm) diameter schedule 40 PVC drains to it. The drip pan drainage outlet is located at the right rear of the unit. The ice water drainage outlet is located at the right front of the unit.
- I. Be sure to place the drain spider in the drain outlet inside the ice bin **before** filling with ice. This device holds the ice away from the drain outlet, allowing the ice water to drain properly.

1.8 CONNECTING TO ELECTRICAL POWER

In addition to the following, adhere to the **ELECTRICAL WARNINGS AND CAUTIONS**, on page 5.

⚠ GROUNDING 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.

⚠ ADVERTENCIA PUESTA A TIERRA ES NECESARIO PONER A TIERRA ELÉCTRICAMENTE EL DISPENSADOR PARA EVITAR LESIONES GRAVES E INCLUSO ELECTROCHOQUES FATALES. EL CABLE DE ALIMENTACIÓN TIENE UN ENCHUFE PUESTO A TIERRA DE 3 CLAVIJAS. SI NO SE DISPONE DE UN TOMA ELÉCTRICO CONECTADO A TIERRA DE TRES AGUJEROS, USE UN MÉTODO APROBADO PARA PONER A TIERRA LA UNIDAD. AL HACER LAS CONEXIONES, RESPETE TODOS LOS CÓDIGOS ELÉCTRICOS LOCALES. CADA DISPENSADOR DEBE TENER UN CIRCUITO ELÉCTRICO INDEPENDIENTE. NO USE CABLES DE EXTENSIÓN. NO CONECTE VARIOS DISPOSITIVOS ELÉCTRICOS AL MISMO TOMA CORRIENTE.

⚠ EXIGENCES DE MIS À LA TERRE LA DISTRIBUTRICE DOIT ÊTRE MISE À LA TERRE ÉLECTRIQUEMENT CORRECTEMENT POUR ÉVITER DES BLESSURES GRAVES OU UNE DÉCHARGE ÉLECTRIQUE MORTELLE. LE CORDON D'ALIMENTATION A UNE FICHE À TROIS BRANCHES MISE À LA TERRE. SI AUCUNE PRISE DE COURANT ÉLECTRIQUE À TROIS TROUS N'EST DISPONIBLE, UTILISEZ UNE MÉTHODE APPROUVÉE POUR METTRE L'UNITÉ À LA TERRE. RESPECTEZ TOUS LES CODES ÉLECTRIQUES LOCAUX LORSQUE VOUS FAITES DES CONNEXIONS. CHAQUE DISTRIBUTRICE DOIT AVOIR UN CIRCUIT ÉLECTRIQUE SÉPARÉ. N'UTILISEZ PAS DE CORDONS PROLONGATEURS. NE BRANCHEZ PAS PLUSIEURS APPAREILS ÉLECTRIQUES À LA MÊME PRISE DE COURANT.

- A. Locate a standard 20 AMP, 110 VAC, 60 Hz single phase electrical power outlet with ground connectors for the dispenser and pump deck.
- B. Route the power supply cord to the grounded electrical outlet of the proper voltage and amperage rating.
- C. Plug in the transformer box to a standard 20 AMP, 110 VAC, single phase outlet. The unit will internally convert the 110 VAC to 24 VAC.

1.9 START UP

- A. After the water, CO₂ gas, electrical power, and syrup pumps connections are made, check for leaks.
- B. Verify the Bag-In-Box contains syrup.

⚠ WARNING DO NOT OPERATE THE CARBONATOR PUMP DECK WITH THE WATER SUPPLY TURNED OFF.

⚠ ADVERTENCIA NO OPERE LA PLATAFORMA DE LA BOMBA DE CARBONATACIÓN CON EL SUMINISTRO DE AGUA ESTÁ APAGADO.

⚠ AVERTISSEMENT NE FAITES PAS FONCTIONNER LA PLATE-FORME DE POMPE DU SATURATEUR S'IL N'Y A PAS D'ALIMENTATION EN EAU.

- C. Turn on water. Open the pressure relief valve on the carbonator tank by flipping up the valve cap lever, and hold it open until water flows from the relief valve. Close (flip down) the relief valve and turn on the CO₂ gas.
- D. To fill all lines with water:
 1. Ensure a good flow of plain water is established from each valve.
 2. Turn on CO₂ at source and ensure that the HP regulator is set at 75 PSIG.
 3. Operate valves until unit gases out.
 4. Plug in carbonator pump motor.
 5. Turn on the pump switch located on the control box.
 6. Activate carbonated water valves so that the carbonator pump cycles several times and a good flow of carbonated water is established.
 7. A low pressure gas regulator controls the flow of syrup to each dispensing valve. Connect BIB connectors to BIB's. Set LP regulator to 65 PSIG. Activate all valves to purge air from the syrup lines. **NOTE:** The pump deck has a 3 minute timeout feature. If the timeout occurs, turn the deck 'OFF', then 'ON' by flipping the switch on the control box.
- E. The dispenser bin should now be filled with ice cubes one inch below the level of the door opening.

1.10 ADJUSTING RATIO

NOTE: Ensure the water and syrup fluids are cold prior to checking the ratio on any valve.

- A. Remove the valve cover.
- B. Install a syrup separator over the diffuser and through the nozzle.
- C. Position the ratio cup underneath the valve.
- D. Activate the valve for a known amount of time, capturing all liquids in the ratio cup.
- E. Adjust the water flow rate to the desired amount (for example, 3 – 3.75 oz/sec).
- F. To increase the water flow, turn the adjuster clockwise a ¼ turn at a time. To decrease, turn the adjuster counterclockwise a ¼ turn at a time.
- G. Be sure to recheck the flow each time the rate is adjusted.
- H. After setting the water flow, adjust the syrup to the desired ratio.
- I. Continue to test the valve until a consistent ratio is observed at least three consecutive times.
- J. Repeat these steps for each valve requiring adjustment.

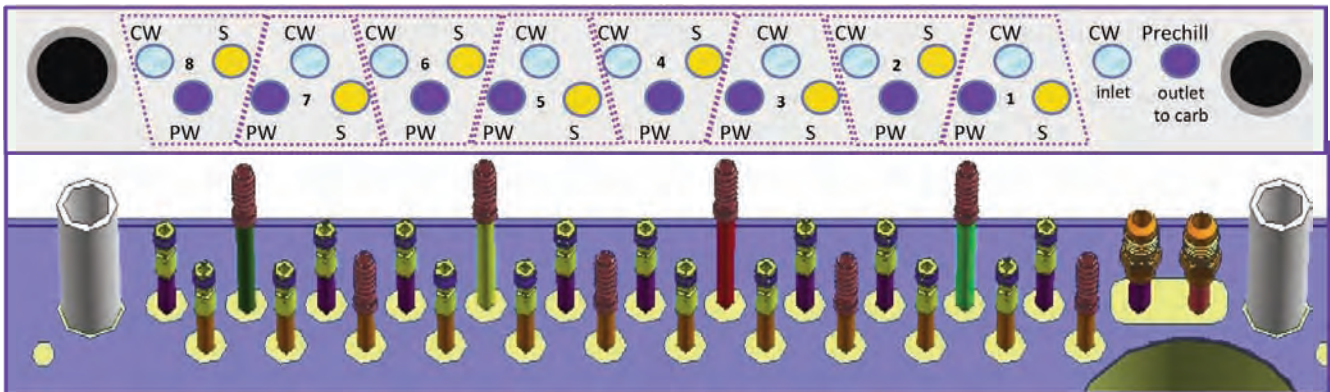
1.11 CHANGING WATER OPTIONS ON A VALVE (PRIOR TO INSTALLATION)

NOTE: Each valve has a designated carbonated and plain water outlet as specified in the diagrams in this section. All plain water outlets are located on the front row of the cold plate outlets. All carbonated water outlets are located on the back row of the cold plate outlets. Reference diagrams for details on manufacturer's default valve assignments, water option designations, and switch valve operation.

Figure 4. Manufacturer's Default Config.

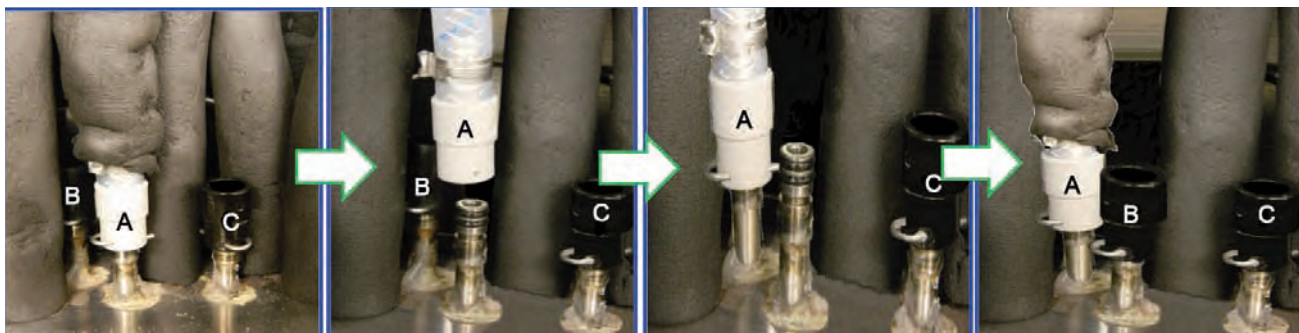


Figure 5. Water Option Designations



- A. Remove the cup rest, drip tray, and then splash plate.
- B. Remove the insulation over the capped outlet corresponding to the valve that is being switched.
- C. Remove the retainer clip from the capped outlet and pull the cap off exposing the dole fitting outlet.
- D. Remove the retainer clip from the plug-in fitting corresponding to the valve that is being switched.
- E. Pull the fitting off the dole fitting outlet.
- F. Push the Plug-in Fitting (A) onto the dole fitting outlet that was originally capped.
- G. Press firmly until fitting snaps into place.
- H. Reassemble the retainer clip. If the clip cannot be assembled, push the Plug-in Fitting (A) further onto the outlet.
- I. Assemble the Cap Fitting (B) onto the other dole outlet fitting.
- J. Press firmly until the cap snaps into place.
- K. Reassemble the retainer clip. If the clip cannot be assembled, push the cap further onto the outlet.
- L. Re-insulate the capped outlet.
- M. Proceed with installation.

Figure 6. Switch Valve Operation



1.12 CHANGING WATER OPTIONS ON A VALVE (AFTER INSTALLATION)

NOTE: Depressurization of the dispenser is required.

- A. For factory settings and diagrams, reference Section 1.11.
- B. Turn off & unplug the remote pump deck.
- C. Shut off the water supply to the remote pump deck and the dispenser.

⚠ WARNING DO NOT DISCONNECT OR CUT ANY TUBES AT THIS TIME. DEPRESSURIZATION IS REQUIRED.

⚠ ADVERTENCIA NO OPERE LA PLATAFORMA DE LA BOMBA DE CARBONATACIÓN CON EL SUMINISTRO DE AGUA ESTÁ APAGADO.

⚠ AVERTISSEMENT NE FAITES PAS FONCTIONNER LA PLATE-FORME DE POMPE DU SATURATEUR S'IL N'Y A PAS D'ALIMENTATION EN EAU.

- D. Activate each valve until each valve gases out. Shut off the CO2 supply. Activate each valve to ensure pressure is depleted.
- E. Carefully open the CO2 relief valve on the carbonator to ensure depressurization is complete.
- F. Unplug the dispenser and the remote pump deck from power source.
- G. Remove the cup rest first, and then the splash plate, then the drip tray.
- H. Each valve has a designated carbonated and plain water outlet. Reference diagram in section 1.14.

NOTE: Syrup lines have barb fittings on the outlets and water lines have dole fittings on the outlets. All plain water outlets are located on the front row. All carbonated water outlets are located on the back row.

- I. Remove the insulation over the capped outlet corresponding to the valve that is being switched.
- J. Remove the retainer clip from the capped outlet and pull the cap off exposing the dole fitting outlet.
- K. Remove the retainer clip from the plug-in fitting corresponding to the valve that is being switched.
- L. Pull the fitting off the dole fitting outlet.
- M. Push the plug-in fitting onto the dole fitting outlet that was originally capped.
- N. Press firmly until fitting snaps into place.
- O. Reassemble the retainer clip. If the clip cannot be assembled, the plug-in fitting may need to be pushed further onto the outlet.
- P. Assemble the cap fitting onto the other dole outlet fitting.
- Q. Press firmly until the cap snaps into place.
- R. Reassemble the retainer clip. If the clip cannot be assembled, the cap may need to be pushed further onto the outlet.
- S. Re-insulate the capped outlet.
- T. Turn the water supply to the pump deck back on.
- U. Open the pressure relief valve on the carbonator tank by flipping up the valve cap lever, and holding it open until water flows from the relief valve. Close the relief valve.
- V. Turn on the CO2 gas.
- W. Plug the dispenser back into its power source.
- X. Follow the procedure identified in 1.8 for filling the lines with water.
- Y. Verify there are no leaks in the system.
- Z. Clean area of excess water.
- AA. Replace the drip tray, cup rest, and splash plate.

1.13 OTHER

Pouring hot water into drain may cause the drain tube to collapse. Allow only luke warm or cold water to enter the drain tube. Pouring coffee, tea, and similar substances may cause clog the drain tube.

2. REMOVAL & INSTALLATION OF CARBONATOR TANK

2.1 REMOVAL

- A. Shut off the CO2 tank providing pressure to the carbonator tank.
- B. Shut off the water supply to the remote pump deck.
- C. Turn off & unplug the remote pump deck.

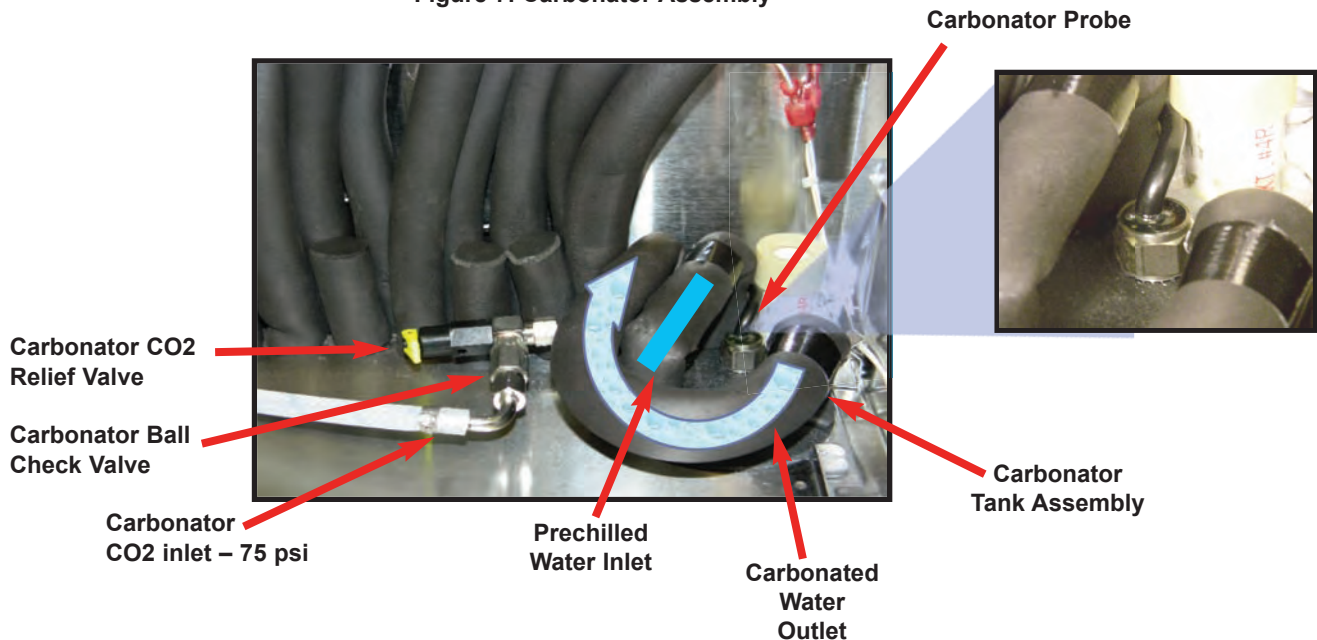
⚠ WARNING DO NOT DISCONNECT OR CUT ANY TUBES AT THIS TIME. DEPRESSURIZATION IS REQUIRED.

⚠ ADVERTENCIA NO DESCONECTAR O CORTAR CUALQUIER TUBO EN ESTE MOMENTO. LA DESPRESURIZACIÓN SE REQUIERE.

⚠ AVERTISSEMENT NE PAS DÉBRANCHER OU DE COUPER DES TUBES À CETTE ÉPOQUE. LA DÉPRESSURISATION EST NÉCESSAIRE.

- D. Activate each valve until all each valve gases out. Shut off the CO2 supply. Activate each valve to ensure pressure is depleted.
- E. Carefully open the CO2 relief valve on the carbonator to ensure depressurization is complete.
- F. Disconnect the unit and the remote pump deck from the electrical power outlets.
- G. Remove all the ice located within the ice bin.
- H. Remove the cup rest first, and then the splash plate, then the drip tray to expose the location of the carbonator tank, located on the back right side of the dispenser.
- I. Remove insulation on carbonator connections.
- J. Use a wrench to loosen and remove the carbonator probe from the tank. Set probe aside.
- K. Use a wrench to loosen and remove the carbonator inlet and outlet fittings located on the cap of the carbonator.
- L. Use a wrench to loosen and remove the CO2 inlet line attached to the CO2 relief valve.
- M. Use precision cutters, or similar tool, to carefully cut the silicone seal around the carbonator insulation cap.
- N. Firmly grip and pull the carbonator directly upward from the dispenser.

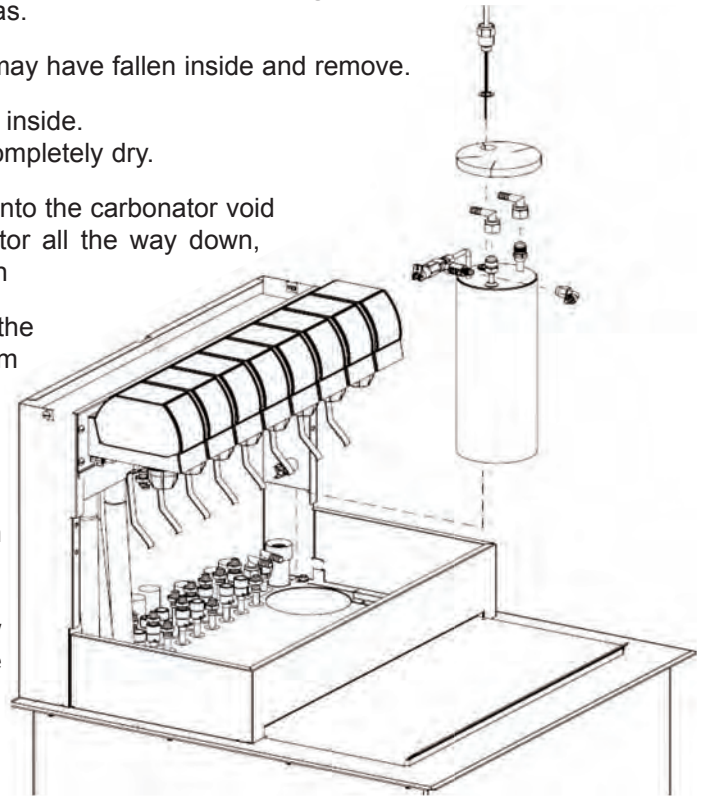
Figure 7. Carbonator Assembly



2.2 INSTALLATION

- A. Remove any excess silicone from affected areas.
- B. Check the carbonator void for any debris that may have fallen inside and remove.
- C. Check the carbonator void to ensure no fluid is inside.
Dab with a clean, dry cloth to ensure area is completely dry.
- D. Place the new carbonator, with outlets on top, into the carbonator void in the dispenser. Before pushing the carbonator all the way down, ensure the top is CO2 line is oriented as shown
- E. Press down firmly on the carbonator tank until the top of the carbonator is approximately 0.5" from the sheet metal surface.
- F. Place carbonator cap insulation onto the carbonator tank.
- G. Using silicone, seal around the seam between the sheet metal and carbonator cap insulation.
NOTE: Prior to installing the carbonator probe, DO NOT assemble probe without placing a new carbonator probe gasket located between the probe and the carbonator tank.
- H. Secure the carbonator probe tightly.

Figure 8. Carbonator Exploded



- I. Prior to connecting any tubes to the carbonator tank, ensure each tube is properly insulated.
- J. Connect the probe harness to the carbonator pump extension harness.
- K. Using a wrench, assemble the inlet and outlet connections of the carbonator. Secure firmly.
- L. Reconnect the CO2 inlet to the carbonator. **NOTE:** The carbonator will need to be refilled.
- M. Turn the water supply to the remote pump deck back on.
- N. Open the pressure relief valve on the carbonator tank by flipping up the valve cap lever, and holding it open until water flows from the relief valve. Close the relief valve and turn on the CO2 gas.
- O. Turn on the CO2 gas.
- P. Plug the dispenser back into its power source.
- Q. Follow the procedure identified in 1.8 for filling the lines with water.
- R. Verify there are no leaks in the system.
- S. Clean area of excess water or debris.
- T. Replace the cup rest, drip tray, and splash plate.

3. CLEANING AND SANITIZING INSTRUCTIONS

GENERAL INFORMATION

- A. The cleaning and sanitizing 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.
- B. Lancer equipment (new or reconditioned) is shipped from the factory cleaned and sanitized in accordance with NSF guidelines. The equipment must be cleaned and sanitized after installation is complete. The operator of the equipment must provide continuous maintenance as required by this manual and state and local health department guidelines to ensure proper operation and sanitation requirements are maintained.
- C. Cleaning and sanitizing should be accomplished only by trained personnel. Sanitary gloves are to be used during cleaning and sanitizing operations. Applicable safety precautions must be observed. Instruction warnings on the product being used must be followed.
- D. Other Required Supplies: 1) Clean cloth towels, 2) bucket, 3) extra nozzle, 4) sanitary gloves and 5) Small brush (PN 22-0017 included with installation kit).

USE SANITARY GLOVES. OBSERVE 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. ENSURE ALL SANITIZING SOLUTION IS REMOVED FROM THE SYSTEM.

3.1 CLEANING SOLUTION

Mix a mild, non-abrasive detergent (e.g. Sodium Laureth Sulfate, dish soap) with clean, potable water at a temperature of 90 to 110°F (32 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 to 110 degrees F. Extended lengths of product lines may require additional cleaning solution.

3.2 SANITIZING SOLUTION

Prepare sanitizing solutions in accordance with the manufacturer's written recommendations and safety guidelines. The solution must provide 50 to 100 parts per million (PPM) chlorine (e.g. Sodium Hypochlorite or bleach). A minimum of five gallons of sanitizing solution should be prepared. Any sanitizing solution may be used as long as it is prepared in accordance with the manufacturer's written recommendations and safety guidelines, and provides 50 to 100 parts per million (PPM) chlorine.

⚠ 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.

⚠ PRECAUCIÓN DESPUÉS DE LA ESTERILIZACIÓN, ENJUAGUE CON EL PRODUCTO FINAL HASTA QUE ELIMINAR EL SABOR QUE QUEDA. NO ENJUAGUE CON AGUA FRESCA. ÉSTA ES UNA EXIGENCIA DE NSF. SI QUEDA SOLUCIÓN DE ESTERILIZACIÓN EN EL SISTEMA, GENERA UN PELIGRO PARA LA SALUD.

⚠ ATTENTION DÉFENSE DE RINCER L'OUTIL À L'EAU FRAICHE IMMÉDIATEMENT APRÈS UN TRAITEMENT SEPTIQUE. EN CAS DE APRÈS-GOÛT, NE PURGER AVEC LE PRODUIT FINAL UNE EXIGENCE NSF.

3.3 DAILY CLEANING

- A. Using the cleaning solution, clean Top Cover and all exterior stainless steel surfaces.
- B. Clean exterior of dispensing valves and ice chute.
- C. Remove Cup Rest, clean Drip Tray and Cup Rest, and replace Cup Rest.
- D. Wipe clean all splash areas using a damp cloth soaked in cleaning solution.
- E. Clean beverage valves as specified by the valve manufacturer.

3.4 ICE BIN CLEANING - PERFORM AT STARTUP AND MONTHLY

- A. Disconnect power to the dispenser
- B. Remove Top Cover.
- C. Melt out any remaining ice from the bin.
- D. Remove Splash Plate Assembly by lifting it up and out from the dispenser face.
- E. Use the Cleaning Solution described in Section 3.1, and a clean cloth or soft brush, to clean all removable parts, sides of Ice Bin, and surface of aluminum casting.
- F. Repeat Step E for all exterior surfaces of the dispenser.
- G. Using hot water, thoroughly rinse away the cleaning solution.
- H. Wearing sanitary gloves, soak a clean cloth towel in Sanitizing Solution, described in Section 3.2, and wash all surfaces of removable parts, sides of Ice Bin and surface of aluminum casting.
- I. Repeat Step H for all metal and plastic surfaces (**not labels**) of the dispenser exterior.
- J. Wearing sanitary gloves, reassemble all removable parts.
- K. Fill Unit with ice and replace Top Cover.
- L. Reconnect Dispenser to power source.

3.5 CLEANING AND SANITIZING BEVERAGE COMPONENTS, BAG-IN-BOX SYSTEMS

NOTE: Extended lengths of product lines may require more time for flushing and rinsing lines than described below.

- A. Disconnect the syrup quick disconnect coupling from the syrup packages and connect the coupling to a bag valve removed from an empty Bag-in-Box (BIB) package.
- B. Place the syrup inlet line in a clean container filled with clean, potable, room temperature water. Activate the valve until water is dispensed. Flush and rinse the line and fittings for a minimum of sixty seconds to remove all traces of residual product.
- C. Make the sanitizing solution. Place the syrup inlet line in a container filled with sanitizing solution.
- D. Activate the valve and draw sanitizing solution through the line for a minimum of sixty seconds. This will ensure the line is flushed and filled with sanitizing solution. Allow the line to stand for at least thirty minutes.
- E. Remove the bag valve from the quick disconnect coupling and reconnect the syrup inlet line to syrup package. Ready the unit for operation.
- F. Draw drinks to refill the lines and to flush the sanitizing solution from the dispenser.
- G. Test the dispenser for proper operation. Taste the dispensed product to ensure there is not an off-taste. If off-taste is found, flush the syrup system again.
- H. Repeat cleaning, rinsing, and sanitizing procedures for each valve and circuit.

⚠ 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.

⚠ PRECAUCIÓN DESPUÉS DE LA ESTERILIZACIÓN, ENJUAGUE CON EL PRODUCTO FINAL HASTA QUE ELIMINAR EL SABOR QUE QUEDA. NO ENJUAGUE CON AGUA FRESCA. ÉSTA ES UNA EXIGENCIA DE NSF. SI QUEDA SOLUCIÓN DE ESTERILIZACIÓN EN EL SISTEMA, GENERA UN PELIGRO PARA LA SALUD.

⚠ ATTENTION DÉFENSE DE RINCER L'OUTIL À L'EAU FRAICHE IMMÉDIATEMENT APRÈS UN TRAITEMENT SEPTIQUE. EN CAS DE APRÈS-GOÛT, NE PURGER AVEC LE PRODUIT FINAL UNE EXIGENCE NSF.

3.6 VALVES

A. Valves may be cleaned and sanitized (see preparation in Section 3.2) in the same manner.

1. Remove cover and disconnect power so the valve will not be activated during the cleaning procedure. Remove nozzle and diffuser. Wash these parts in cleaning solution, then immerse them in a bath of sanitizing solution for 15 minutes.
2. Visually inspect around nozzle area for syrup residue. This area may be cleaned with warm water and cloth or with the nozzle brush supplied. Wipe off dispensing lever.
3. Wearing sanitary gloves, remove, drain and air dry the nozzle and diffuser.
4. Wearing sanitary gloves, replace diffuser, twist nozzle in place.
5. Connect power and replace cover. Valve is ready for operation.

4. DISPENSER DISPOSAL



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

CONTINUED ON NEXT PAGE

5. TROUBLESHOOTING - CARBONATION ISSUES		
TROUBLE	CAUSE	REMEDY
5.1 No carbonation	<p>A. Water pressure too high.</p> <p>B. No CO2 or low CO2.</p> <p>C. Carbonator motor not responding.</p> <p>D. Weak or faulty carbonator pump.</p>	<p>A. Check the water regulator & ensure correct direction and location. Repair or replace regulator as required.</p> <p>B1. Verify the CO2 supply. Replace CO2 supply as required.</p> <p>B2. Verify the CO2 pressure is 75 PSI to the carbonator. Adjust as required.</p> <p>B3. Check CO2 line for restrictions & remove debris / obstructions as necessary.</p> <p>C1. Check power supply to see if plugged in.</p> <p>C2. Check if switch on pump deck is switched to ON position. If so, flip switch OFF, then back ON to reset.</p> <p>C3. Verify all connections inside the control box are secure.</p> <p>C4. Verify jumpers are assembled properly on control board.</p> <p>C5. Ensure carbonator probe connections are secure and no harnesses are damaged. Repair or replace as necessary.</p> <p>C6. Remove probe and check for debris between the probe and the carbonator tank. Remove debris.</p> <p>C7. Remove probe and inspect the probe washer to ensure washer is undamaged. Replace probe washer as required.</p> <p>D. Replace PCB board.</p>
5.2 Excessive carbonation and foaming	<p>A. CO2 pressure too high.</p> <p>B. Temperature of postchill fluid too high.</p> <p>C. Flow rate is too high</p>	<p>A. Verify the CO2 pressure is 75 PSI and adjust as required.</p> <p>B1. Check ice for bridging. Break up bridging.</p> <p>B2. Check cold plate drain to ensure nothing is impeding melted water from optimal draining. Remove clogs.</p> <p>B3. Incoming water temperature surpasses the maximum supply water temperature of the dispenser.</p> <p>B4. Ensure ice bin is filled to optimal levels. Fill bin if ice is low.</p> <p>C. Adjust to 13 oz in 4 seconds.</p>
5.3 Carbonator pump is timing out	<p>A. Low or no water pressure.</p> <p>B. Weak carbonator pump.</p> <p>C. Defective carbonator probe.</p>	<p>A1. Verify the incoming water pressure is at least 40 PSI.</p> <p>A2. Verify the water filters are not causing flow restrictions to the remote pump deck.</p> <p>A3. Verify the water booster is oriented correctly and supplying correct pressure.</p> <p>A4. Verify the water regulator is oriented correctly.</p> <p>A5. Check for water restrictions: pinched lines, clogs, etc.</p> <p>B. Replace the pump.</p> <p>C. Replace the carbonator probe.</p>

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TROUBLE	CAUSE	REMEDY
5.4 Low carbonation	<p>A. Water pressure too high.</p> <p>B. Temperature of prechill product too high.</p> <p>C. CO2 supply is low.</p> <p>D. Air in carbonator tank.</p> <p>E. Weak carbonator pump.</p> <p>F. Dirty nozzle causing break-out.</p>	<p>A. Check the water regulator & ensure correct direction & location. Repair or replace regulator as required.</p> <p>B1. Check ice for bridging. Break up bridging.</p> <p>B2. Check coldplate drain to ensure nothing is impeding melted water from optimal draining. Remove clogs.</p> <p>B3. Incoming water temperature surpasses the maximum supply water temperature of the dispenser.</p> <p>B4. Ensure ice bin is filled to optimal levels. Fill bin if ice is low.</p> <p>C. CO2 supply is low.</p> <p>C1. Verify the CO2 supply. Replace CO2 supply as required.</p> <p>C2. Verify the CO2 pressure is 75 PSI to the carbonator. Adjust as required.</p> <p>C3. Check CO2 line for restrictions & remove debris / obstructions as necessary.</p> <p>D. Use proper start-up procedure to purge and refill the carbonator tank.</p> <p>E. Replace pump.</p> <p>F. Clean the nozzle.</p>
5.5 Probe is not reading	<p>A. Probe connections are faulty or damaged.</p> <p>B. Debris between carbonator probe and carbonator tank is not allowing for a proper reading.</p> <p>C. Damaged probe washer.</p> <p>D. Defective probe assembly.</p>	<p>A. Verify probe harness & wires are securely connected and no harnesses are damaged. Repair or replace components as required.</p> <p>B. Ensure no debris is located between the probe and the carbonator tank by removing the probe and removing any debris.</p> <p>C. Ensure the probe washer is not damaged or broken. Replace component if necessary.</p> <p>D. Probe may be defective. Replace component.</p>
5.6 Blowing relief valve	<p>A. Probe is not reading.</p> <p>B. Defective remote pumpdeck control board.</p>	<p>A. Follow trouble shooting for probe not reading.</p> <p>B1. Verify jumpers are assembled properly on control board.</p> <p>B2. Replace control board as required.</p>

CONTINUED ON NEXT PAGE

TROUBLE	CAUSE	REMEDY
5.7 Pump/motor not working	<p>A. Loss of power.</p> <p>B. Faulty control board.</p>	<p>A1. Verify electrical supply to remote pump deck.</p> <p>A2. Ensure the pump deck switch is ON.</p> <p>A3. Verify all harnesses are securely connected inside control box.</p> <p>A4. Verify no harnesses are damaged, pinched, or cut.</p> <p>B. Replace control board.</p>
5.8 Pump/motor is cycling too many times	A. Defective probe.	A. Replace the probe.
5.9 Pump/motor continuously running	<p>A. Low or no water pressure</p> <p>B. Weak carbonator pump.</p> <p>C. Defective carbonator probe.</p>	<p>A1. Verify the incoming water pressure is at least 40 PSI.</p> <p>A2. Verify the water filters are not causing flow restrictions to the remote pump deck.</p> <p>A3. Verify the water booster is oriented correctly and supplying correct pressure.</p> <p>A4. Verify the water regulator is oriented correctly.</p> <p>A5. Check for water restrictions: pinched lines, clogs, etc.</p> <p>B. Replace the pump.</p> <p>C. Replace the carbonator probe.</p>
5.10 Pump motor is continuously running	A. Pinched or damaged wires (probe harnesses, harnesses inside control box)	A. Check remote pump deck and probe wiring and repair or replace as required.
5.11 Off taste in the carbonated water	<p>A. No water filter or water filter needs maintenance/ replacement.</p> <p>B. Flooded floor chase.</p> <p>C. Dirty nozzle.</p>	<p>A. Check water filter. Install new water filter or replace existing water filter.</p> <p>B. Remove water from chase and replace tubing.</p> <p>C. Check and clean nozzle.</p>
5.12 Carbonator pump is loud	<p>A. No water to pump deck.</p> <p>B. Loose pump clamp.</p> <p>C. Loose motor assembly.</p> <p>D. Faulty pump.</p>	<p>A. Check the water supply to ensure water is on & flowing at minimum required water pressures (40 PSI).</p> <p>B. Tighten clamp.</p> <p>C. Tighten clamps and screws on motor mounts.</p> <p>D. Replace the pump.</p>

PRODUCT/SYRUP FLOW ISSUES		
TROUBLE	CAUSE	REMEDY
5.13 No syrup	<ul style="list-style-type: none"> A. Syrup box empty. B. No CO2 to syrups. C. Kinked line obstructing syrup flow. D. Bad syrup pump. E. Faulty BIB disconnect. F. Clogged syrup lines. G. Mounting block on valve set to OFF position. H. Debris in valve module. I. Faulty wiring for valve module 	<ul style="list-style-type: none"> A. Check syrup boxes and replace as required. B. Check CO2 pressures & ensure minimum pressures are being provided. C. Check whole tubing lengths for kinks and repair or replace the tubing. D. Replace syrup pump. E. Replace or reconnect the disconnect. F. Sanitize the lines and the valve. G. Turn the mounting block shut off to ON position. H. Clean the valve. I. Verify the wiring is securely connected and undamaged. Repair as required.
5.14 Low syrup flow rate	<ul style="list-style-type: none"> A. Kinked line obstructing syrup flow. B. Faulty BIB disconnect. C. Clogged syrup lines. D. Mounting block not fully open. E. Sticking flow control. F. Low CO2 pressures. G. Brix is out of tolerance. 	<ul style="list-style-type: none"> A. Check whole tubing lengths for kinks and repair or replace the tubing. B. Replace or reconnect the disconnect. C. Sanitize the lines and the valve. D. Turn the mounting block shut off to fully ON position. E. Clean and adjust flow control. F. Ensure CO2 pressure are set to minimum pressure requirements. G. Run Brix test.
5.15 High syrup flow rate	<ul style="list-style-type: none"> A. Sticking flow control. B. Brix is out of tolerance. 	<ul style="list-style-type: none"> A. Clean and adjust flow control. B. Adjust water to 13 oz in 4 sec. Verify ratio. Adjust the syrup as needed.
5.16 Low or high water/soda	<ul style="list-style-type: none"> A. Sticking flow control. B. Flow rate setting incorrect. 	<ul style="list-style-type: none"> A. Clean and adjust flow control. B. Adjust to 15 oz in 4 seconds
5.17 Product won't stop flowing	<ul style="list-style-type: none"> A. Debris in valve plunger. B. Solenoid stuck in open position OR reference manufacturer's trouble shooting guide. 	<ul style="list-style-type: none"> A. Clean out debris. B. Replace solenoid.
5.18 Product (water or syrup) stops flowing midway thru pour	<ul style="list-style-type: none"> A. Weak solenoid coil OR reference manufacturer's trouble-shooting guide. 	<ul style="list-style-type: none"> A. Replace solenoid coil.
5.19 Syrup blooming at end of pour	<ul style="list-style-type: none"> A. Weak water or syrup module B. Old product. 	<ul style="list-style-type: none"> A. Replace solenoid coil B. Check expiration dates on syrup.

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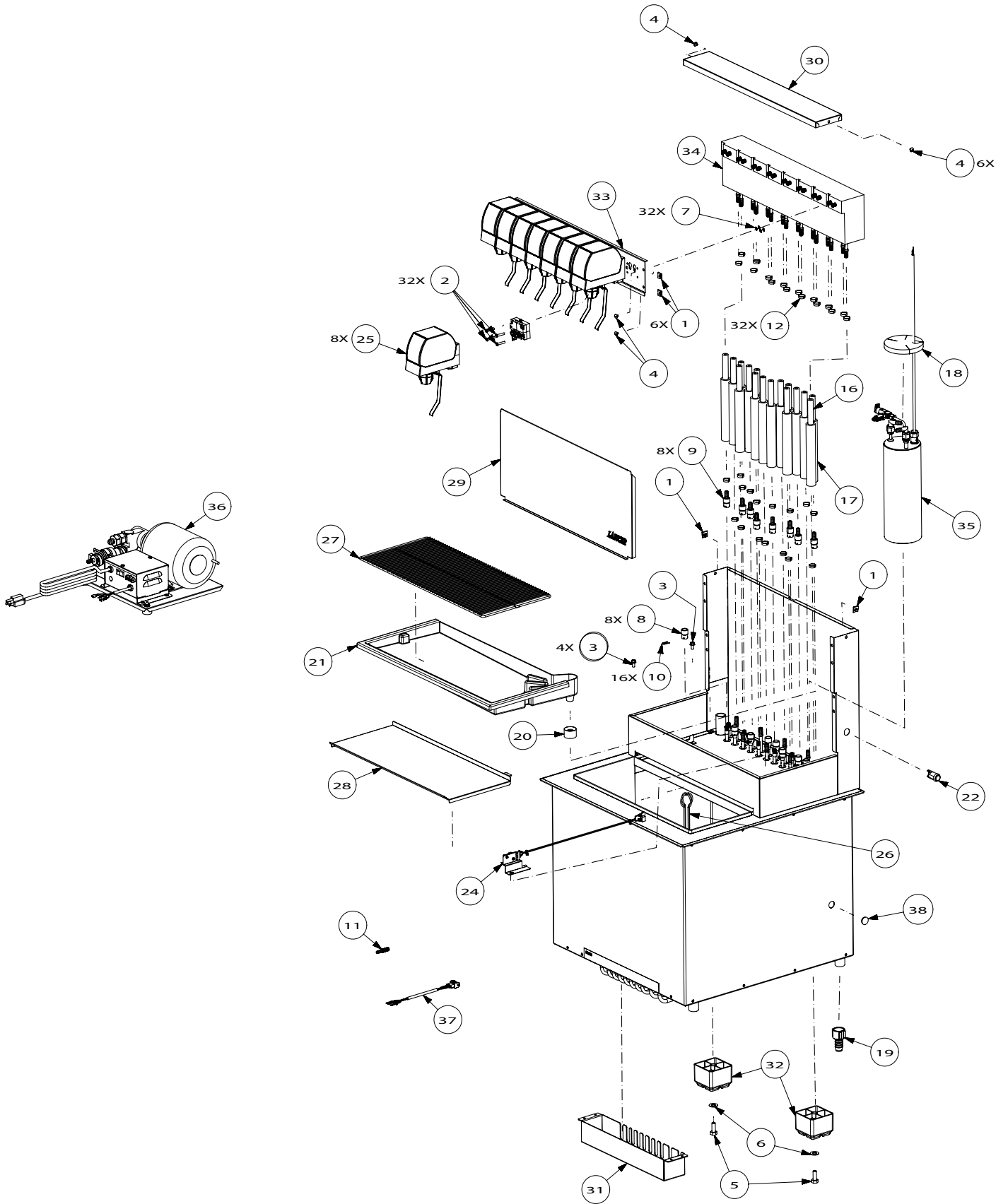
TROUBLE	CAUSE	REMEDY
5.20 Flow decreases while being dispensed	<ul style="list-style-type: none"> A. Restriction in the lines. B. Weak coil. C. Bad BIB pump. D. Restriction in CO2 supply. 	<ul style="list-style-type: none"> A. Check all lines and ensure no restrictions or kinking exists. B. Replace coil. C. Replace the BIB pump. D. Clear restriction. working.
5.21 Drink sputters during dispense	<ul style="list-style-type: none"> A. Hole in the bag. B. Air in the syrup lines. C. Bad o-rings on auto shut off. D. Bad clamp on tubing. 	<ul style="list-style-type: none"> A. Replace the bag. B. Flush the air out of the syrup line. C. Replace the o-rings on the auto shut off. D. Replace clamps.
5.22 Altered flow at nozzle	<ul style="list-style-type: none"> A. Dirty nozzle. B. Nozzle not assembled correctly. 	<ul style="list-style-type: none"> A. Clean the nozzle. B. Adjust nozzle to correct location and ensure it is secure.
SODA/WATER FLOW ISSUES		
5.23 No water flow	<ul style="list-style-type: none"> A. Bad coil. B. Debris in module. C. Mounting block turn off. D. Coil disconnected. E. Remote pump deck motor unplugged. F. Remote pump deck motor is in time-out mode. 	<ul style="list-style-type: none"> A. Replace coil. B. Clean module. C. Turn mounting block on. D. Plug in coil. E. Plug in the remote pump deck motor. F. Reset the remote pump deck by turning the switch on the control box OFF then ON.
5.24 Carbonator pump is loud	<ul style="list-style-type: none"> A. Bad or weak coil. B. Mounting block not turned on all the way. C. Flow control not adjusted correctly D. Water booster not running/ plugged in (if using water booster kit). E. Lines not 'T'ed correctly:water regulator 'T'ed to both carbonated and plain water cold plate inlets. F. Clogged water filter restricting flow to inlet. G. Debris inside the valve. 	<ul style="list-style-type: none"> A. Replace coil. B. Check mounting block and ensure valve is set to full ON position. C. Check flow rate and adjust flow controls as necessary. D. Plug in water booster. E. Check plumbing to ensure only the carbonated water inlet is T'ed off the regulator. F. Change the water filters. G. Clean the valve.

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TROUBLE	CAUSE	REMEDY
5.25 Water flow too high	A. Flow control not adjusted correctly.	A. Check flow rate and adjust flow controls as necessary.
5.26 Flow rate cannot be adjusted	A. Flow control is stuck. B. Mounting block not turned on all the way. C. Debris inside the valve. D. Bad or weak coil.	A. Repair or replace the flow control module per valve manufacturer's recommendations. B. Check mounting block and ensure valve is set to full ON position. C. Clean the valve. D. Repair or replace coil per valve manufacturer's recommendations.
5.27 Flow decreases while being dispensed	A. Flow control is stuck. B. Debris inside the valve. C. Bad or weak coil. D. Water supply turned off	A. Repair or replace the flow control module per valve manufacturer's recommendations. B. Clean the valve. C. Repair or replace coil per valve manufacturer's recommendations. D. Check water supply and turn on.
5.28 Drink sputters during dispense	A. Weak carbonator pump.	A. Replace the carbonator pump.

6. ILLUSTRATIONS AND PARTS LISTINGS

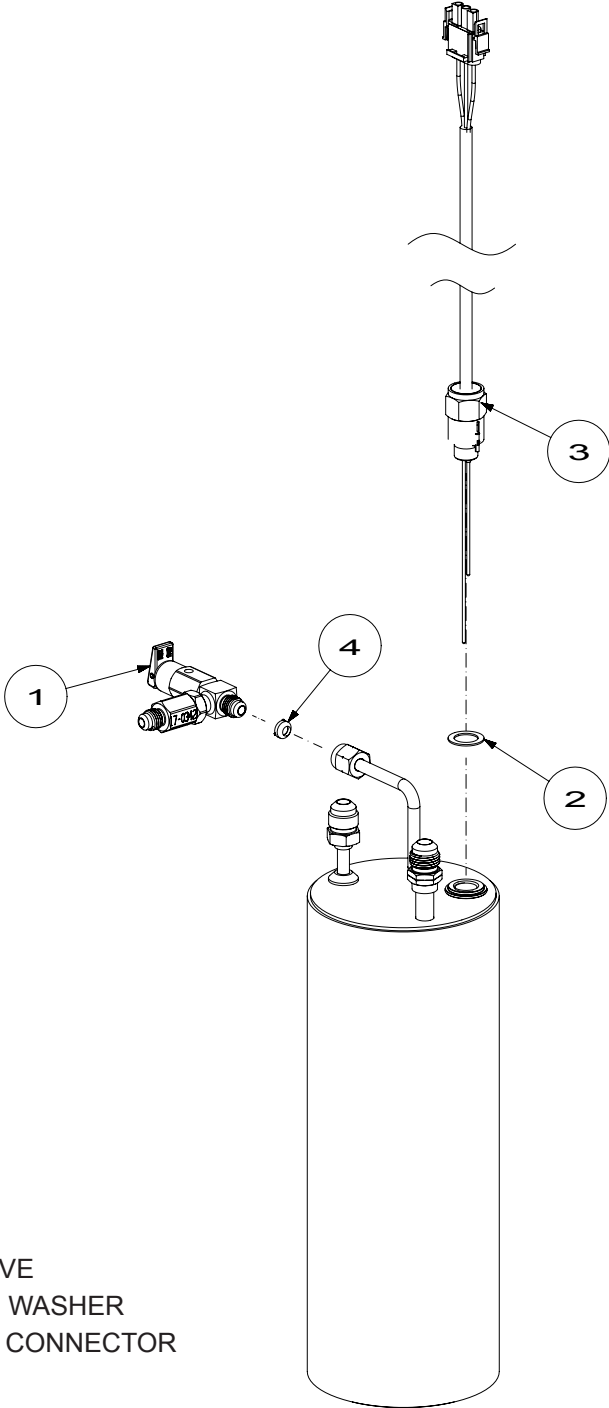
6.1 SERIES 2300 DROP-IN



6.1 SERIES 2300 DROP-IN PARTS LIST

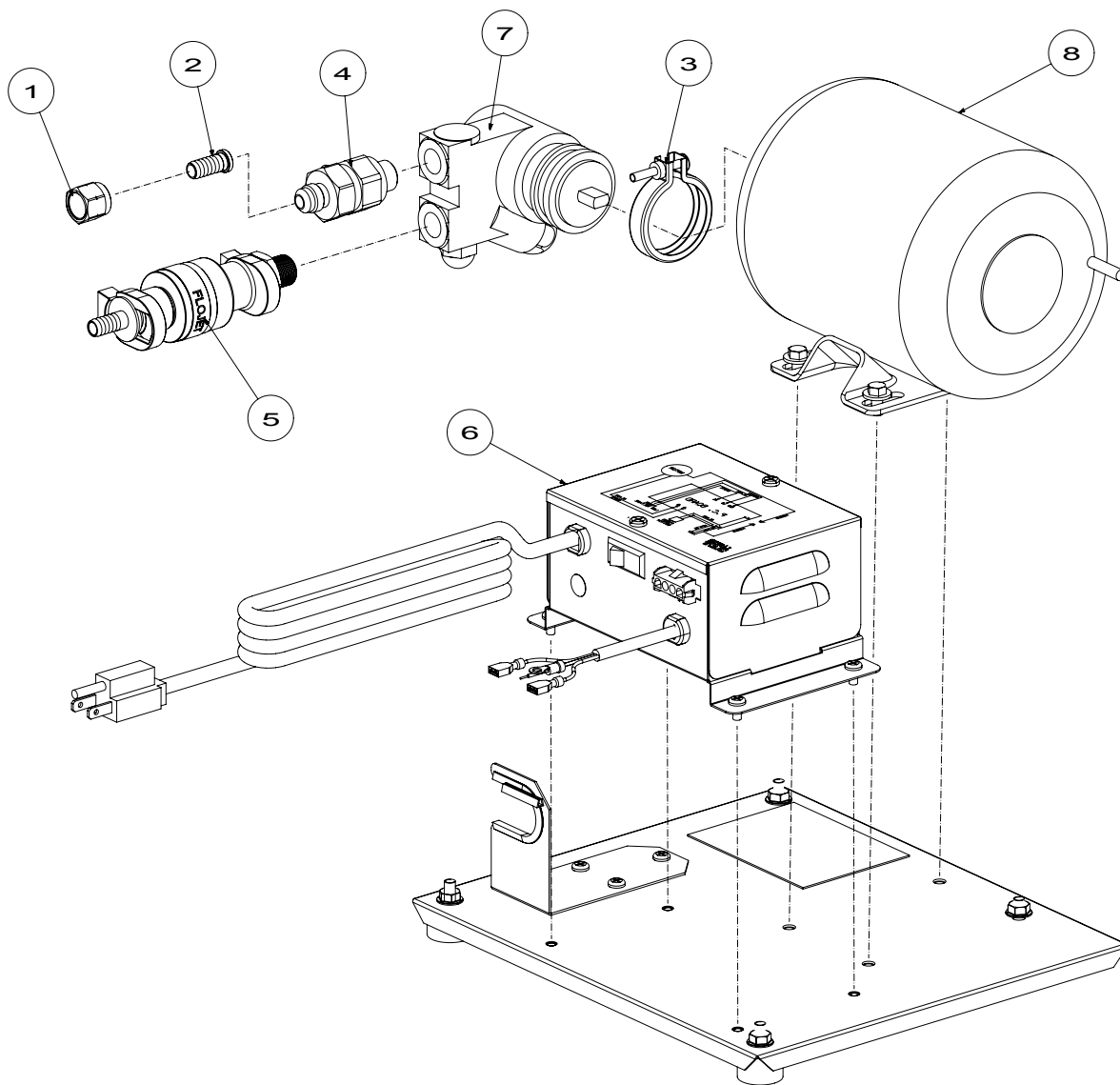
<u>Item</u>	<u>Part No.</u>	<u>Description</u>
1	03-0414	TOWER NUTS, J-TYPE
2	04-1089	BACK BLOCK SCREWS
3	04-1537	TOWER BASE SCREWS
4	04-1559	TOWER CAP & FAUCET PLATE SCREWS
5	04-0838	SCREW FOR LEGS
6	04-0537	WASHER FOR LEGS
7	02-0005	DOLE FITTING O-RINGS
8	05-3024	OUTLET CAPS
9	05-3025	PLUG-IN WITH 3/8" BARB
10	03-0153	CAP/PLUG FITTING RETAINER
11	01-0594/01	SPLICER FOR CO2 LINE
12	01-0424/01	CO2 ELBOW WITH 3/8 BARB, 1/4 SWIVEL
13	07-0449	OETIKER CLAMPS
16	08-0594	TOWER PLUMBING (WATER, CARB WATER, SYRUP)
17	88-0118	TOWER TUBULAR INSULATION
18	50-0625	CARBONATOR TOP INSULATION
19	05-1054	DRIP TRAY DRAIN ADAPTOR (BARB)
20	05-2467	DRIP TRAY COUPLER
21	05-2586	DRIP TRAY, BLACK
22	12-0097	KEY SWITCH
23	81-0126	KEY ONLY FOR SWITCH (NOT SHOWN)
24	82-4463	BIN SWITCH KIT
25	9-0503	UFB-1 CORNELIUS VALVES
26	23-0862	COLD PLATE DRAIN SPIDER
27	23-1553	CUP REST
28	30-11069	ICE BIN LID
29	30-5424-01	SPLASH PLATE
30	30-9779	TOWER CAP
31	30-11268	INLET GUARD
32	05-2583	LEGS
33	51-6441	FAUCET PLATE
34	48-2489	FOAM TOWER ASSEMBLY
35	82-3728	CARBONATOR ASSEMBLY W/ CO2 RELIEF & PROBE
36	82-4380	PUMP DECK ASSY
37	52-3383	PROBE HARNESS EXTENSION
38	05-1502	ICE BIN FOAM PLUG

6.2 CARBONATOR ASSEMBLY & PARTS LIST



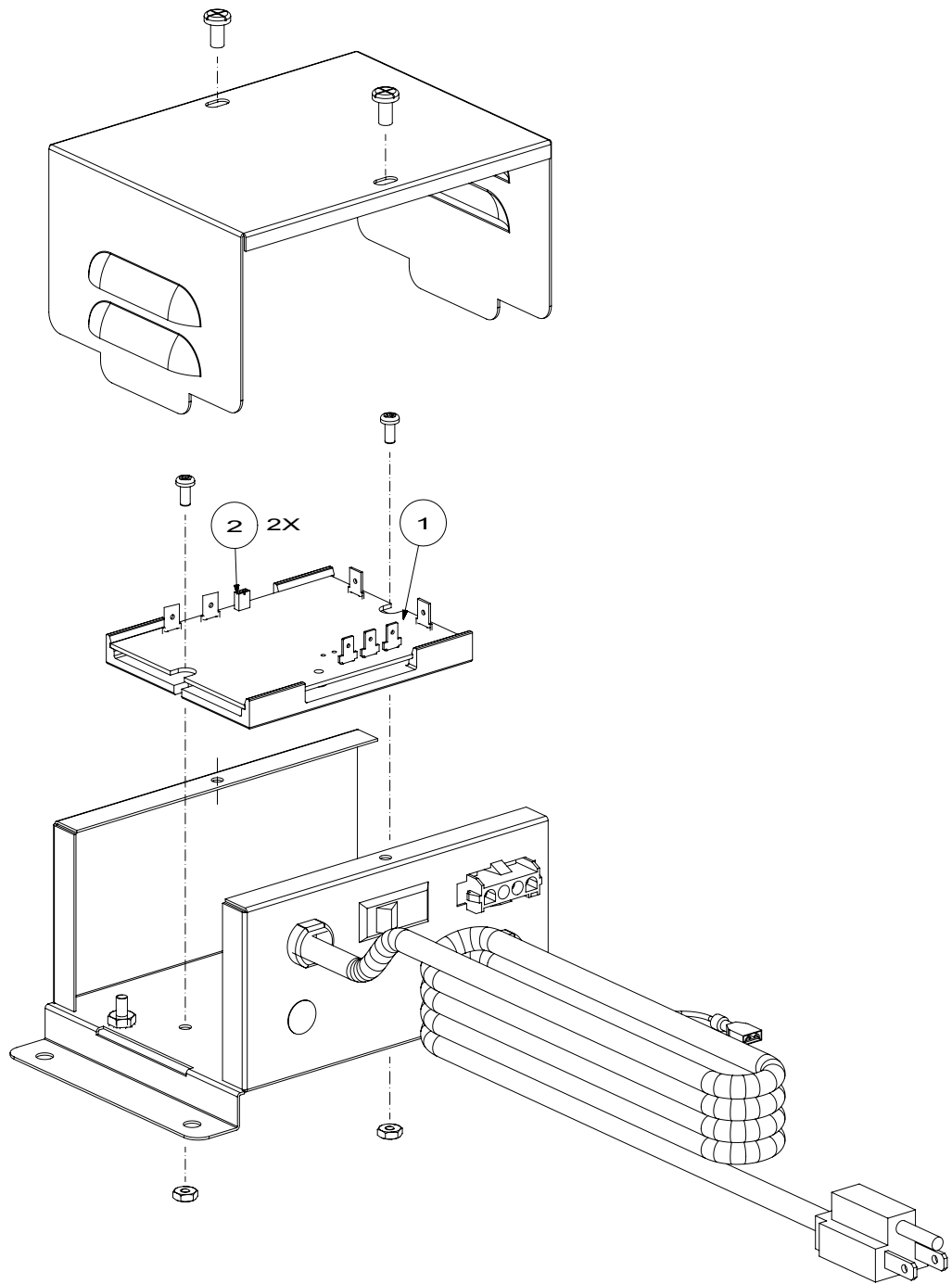
<u>Item</u>	<u>Part No.</u>	<u>Description</u>
1	17-0469	CO2 RELIEF VALVE
2	02-0096	PLASTIC PROBE WASHER
3	52-3375	PROBE W/ 3 PIN CONNECTOR
4	05-0011/01	WASHER SEAL

6.3 REMOTE PUMP ASSEMBLY & PARTS LIST



<u>Item</u>	<u>Part No.</u>	<u>Description</u>
1	01-0218	SWIVEL ADAPTOR FOR BRASS CHECK VALVE
2	01-0234	3/8" BARB ADAPTOR FOR BRASS CHECK VALVE
3	07-0582	PUMP & MOTOR CLAMP
4	17-0611-02	BRASS CHECK VALVE
5	18-0330	65 PSI WATER REGULATOR
6	82-4385	CONTROL BOX ASSEMBLY
7	86-0181	125 GPH PUMP
8	91-0185	CARBONATOR MOTOR

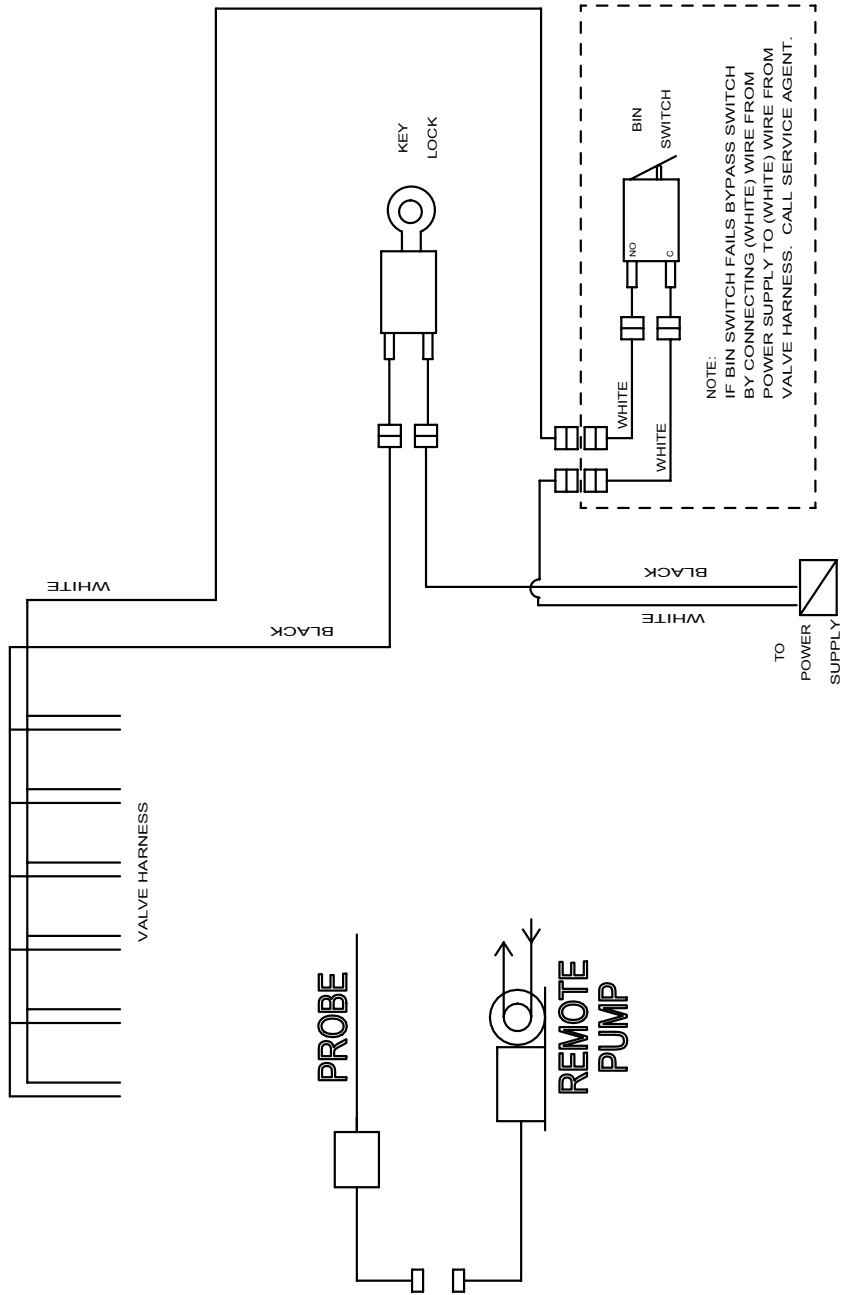
6.4 CONTROL BOX AND PARTS LIST



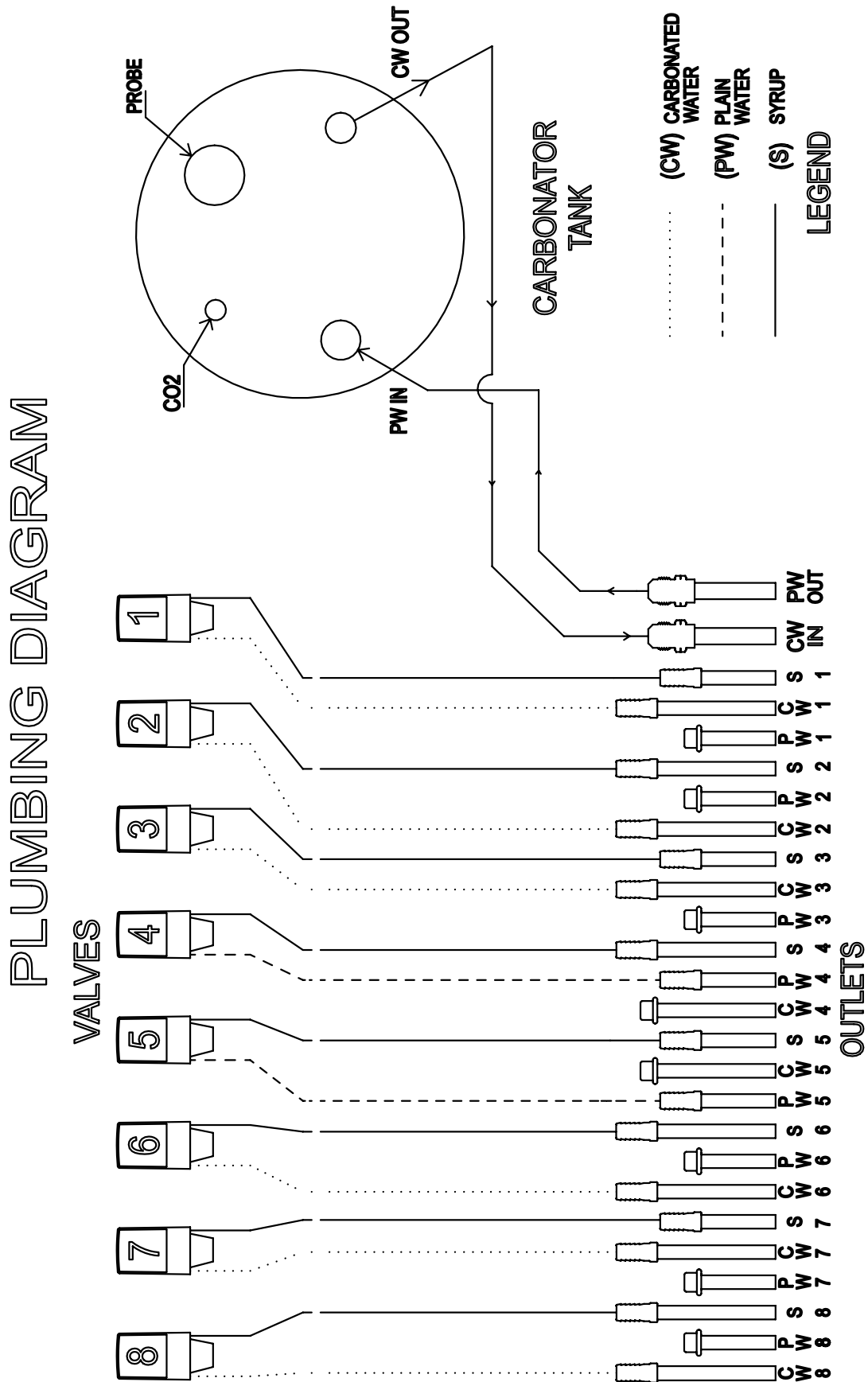
<u>Item</u>	<u>Part No.</u>	<u>Description</u>
1	64-1017	ELECTRONIC BOARD W/ JUMPER
2	45-0109	JUMPER (2 EACH)

6.5 ICE COOLED UNIVERSAL WIRING DIAGRAM WITH BIN LID SWITCH

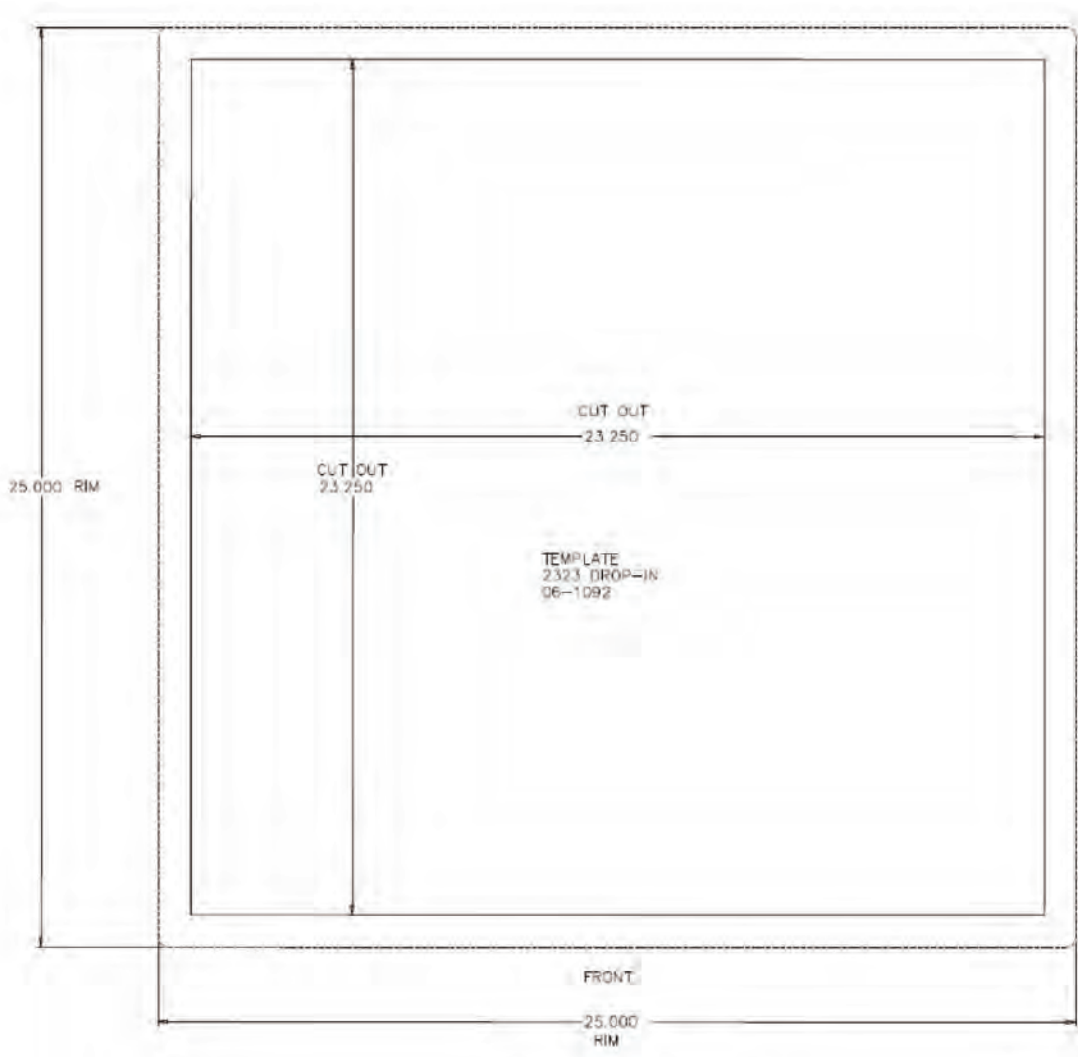
WIRING DIAGRAM WITH BIN SWITCH



6.6 RECOMMENDED PLUMBING, 8 VALVE



6.7 COUNTER CUTOUT



LANCER[®]

LANCER

To order parts, call

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Warranty/Technical Support: 800-729-1550

Email: custserv@lancercorp.com

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