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Manual PN: 28-0496/01

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**FOR QUALIFIED INSTALLER ONLY**

### ABOUT THIS MANUAL

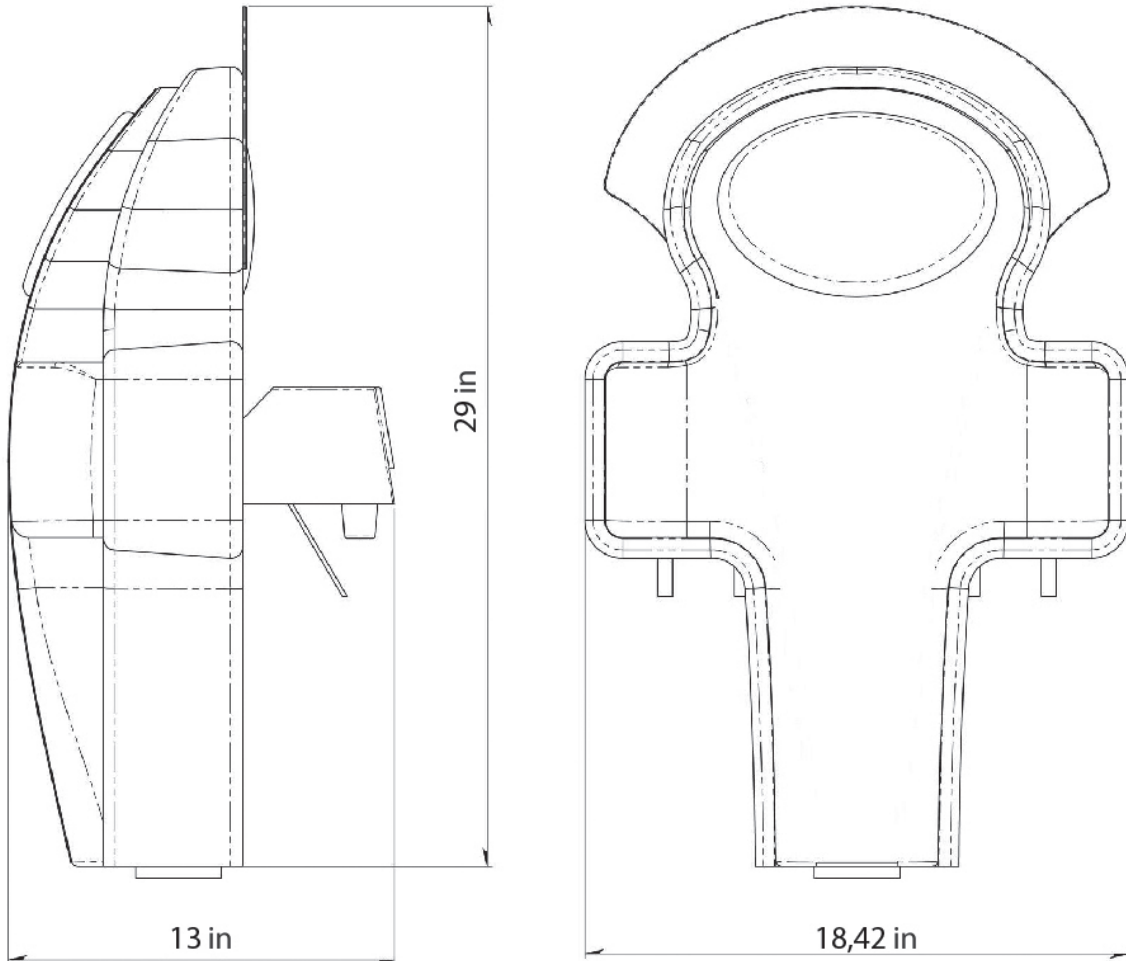
This booklet is an integral and essential part of the product and should be handed over to the operator after the installation and preserved for any further consultation that may be necessary. Please read carefully the guidelines and warnings contained herein as they are intended to provide the user with essential information for the continued safe use and maintenance of the product. In addition, it provides GUIDANCE ONLY to the user on the correct services and site location of the unit.

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

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## METAL TOWER SPECIFICATIONS



<p><b>TOWER DIMENSIONS</b>  <b>Width:</b> 18.42 inches (467.8 mm)  <b>Depth:</b> 13 inches (330.2 mm)  <b>Height:</b> 29 inches (736.6 mm)</p> <p><b>ICD DIMENSIONS</b>  <b>Width:</b> 23 inches (584.2 mm)  <b>Depth:</b> 23 inches (584.2 mm)  <b>Height:</b> 18 inches (457.2 mm)</p> <p><b>SPACE REQUIRED</b>  <b>Width:</b> 23.25 inches (590.5 mm)  <b>Depth:</b> 23.25 inches (590.5 mm)  <b>Height:</b> 48 inches (1219.2 mm)</p>	<p><b>ELECTRICAL</b>  <b>Tower:</b> 24 V / 60 Hz  <b>Power Supply:</b>            Input - 115 V / 12 Amps            Receptacle - 115 V / 10 Amps            Output - 24 V / 75 VA</p> <p><b>WEIGHT</b>  <b>Operating:</b> 255 lbs (115.67 kg)</p> <p><b>FITTINGS</b>  <b>Soda water inlet:</b> 3/8" barb  <b>Brand syrup inlets:</b> 3/8" barb</p>	<p><b>PLAIN WATER SUPPLY</b>  <b>Min flowing pressure:</b>            20 PSI (0.138 MPA)  <b>Max flowing pressure:</b>            50 PSI (0.345 MPA)</p> <p><b>CARBON DIOXIDE (CO<sub>2</sub>)</b>  <b>Min pressure:</b>            90 PSIG (0.621 MPA)  <b>Max pressure:</b>            110 PSIG (0.758 MPA)</p>
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This unit emits a sound pressure level below 70 dB

# PRE-INSTALLATION CHECKLIST

## 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.

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"/> Cordless Drill

POST MIX ACCESSORIES	
<input type="checkbox"/> CO2 Regulator Set	<input type="checkbox"/> CO2 Supply
<input type="checkbox"/> Beverage Tubing	<input type="checkbox"/> Oetiker Clamps/Fittings
<input type="checkbox"/> Water Booster	<input type="checkbox"/> Water Regulator
<input type="checkbox"/> Precision Cutters (if removing/replacing carbonator tank)	

CONSIDER LOCATION OF THE FOLLOWING PRIOR TO INSTALL	
<input type="checkbox"/> Water supply lines	<input type="checkbox"/> Drain
<input type="checkbox"/> Is the countertop level?	<input type="checkbox"/> Heating and air conditioning ducts
<input type="checkbox"/> Grounded electrical outlet.	
<input type="checkbox"/> Enough space to install the dispenser. Include space for a top-mounted ice machine, if necessary.	
<input type="checkbox"/> Does the top-mounted ice machine have a minimum clearance on all sides?	
<input type="checkbox"/> Located away from direct sunlight or overhead lighting.	
<input type="checkbox"/> Can the countertop support the weight of the dispenser? Be sure to include the weight of an ice machine (if necessary) plus the weight of the ice.	
<input type="checkbox"/> This unit is not suitable for use in an area where a water jet could be used.	



## WARNING/ADVERTENCIA/AVERTISSEMENT



⚠ The dispenser is for indoor use only. This unit is not a toy. Children should not be supervised not to play with appliance. 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. Cleaning and user maintenance shall not be performed by children without supervision. This unit is not designed to dispense dairy products. 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. Service, cleaning and sanitizing should be accomplished only by trained personnel. Applicable safety precautions must be observed. Instruction warnings on the product being used must be followed.

⚠ El dispensador sólo debe usarse en interiores. Esta unidad no es un juguete. Los niños deben ser supervisados para no jugar con aparato. 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. Limpieza y mantenimiento de usuario no deberá ser realizada por los niños sin supervisión. Esta unidad no ha sido diseñada para suministrar productos lácteos. La temperatura ambiente operativa mínima / máxima para el dispensador es de 40°F a 90°F (4°C a 32°C). No opere la unidad debajo de las condiciones de funcionamiento ambientales mínimos. En caso de congelación se produce, cesar la operación de la unidad y el contacto técnico de servicio autorizado. Servicio de limpieza y desinfección deben llevarse a cabo solamente por personal capacitado. Es necesario tomar medidas de seguridad aplicables. Advertencias de las instrucciones sobre el producto utilizado se deben seguir.

⚠ Le distributeur est destiné à un usage à l'intérieur seulement. Cet appareil n'est pas un jouet. Les enfants doivent être surveillés afin de ne pas jouer avec l'appareil. 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. Nettoyage et entretien de l'utilisateur ne doivent pas être effectués par des enfants sans surveillance. Cet appareil n'est pas conçu pour distribuer des produits laitiers. La température de service ambiante minimum/maximum pour le distributeur est de 40°F à 90°F (4°C à 32°C). Ne pas utiliser l'appareil dans des conditions de performance environnementale minimale. En cas de gel, cesser l'exploitation de l'unité et contactez un technicien agréé. Nettoyage et désinfection doivent être effectuées uniquement par du personnel qualifié. Vous devez prendre des mesures de sécurité. Avertissements instructions sur le produit utilisé doivent être respectées.



## DISPENSER INSTALLATION HIGHLIGHTS



### ***This unit has been factory sanitized per Lancer specifications.***

Listed below are six critical elements which will aid in a successful installation.

1. Fill water bath until water overflows from tank overflow tube.
2. The carbonator pump motor must be disconnected from the power supply prior to connection to water supply for initial build up of ice bank. Failure to do so will result in automatic shut off of carbonator (see item 6 below) or damage to the pump.
3. If this dispenser is installed in an area that is susceptible to  $\pm 10\%$  variation of the nominal line voltage, consider installing a surge protector or similar protection device.
4. There is a five (5) minute delay which prevents the compressor and condenser fan from starting until the delay has lapsed. If electrical current is interrupted, there is always a five (5) minute delay before the compressor starts.
5. Supply Water Pressure: Minimum - 20 PSI (0.138 MPA); Maximum - 50 PSI (0.345 MPA); If pressure is over 50 PSIG (0.345 MPA), a water pressure regulator must be used.
6. On units with the built in water regulator, the regulator must be removed if inlet water pressure is less than 20 PSIG. (0.138 MPA)



## PUNTOS IMPORTANTES EN LA UNIDAD DISPENSADORA



### ***Esta unidad ha sido saneada en fabrica por las especificaciones de Lancer.***

A continuacion se relacionan 6 puntos importantes para una correcta instalacion.

1. Llene el bano-Maria hasta que el agua se desborde sobre el tubo que controla la derrama del tanque.
2. El motor de la bomba del carbonatador debe desconectarse electricamente antes de conectar el suministro de agua para la formacion inicial del banco de hielo. De no hacerse esto resultaria en un bloqueo automatico del carbonatador (ver abajo el punto 6) o en danos a la bomba.
3. Si la unidad va a ser instalada en un area en la que puedan darse variaciones de voltage de + 6 - 10% de su valor nominal, se debe considerar la conveniencia de instalar un estabilizador de corriente o sistema de proteccion similar.
4. Hay una demora de 5 minutos que evita que el compresor y el abanico del condensador arranquen hasta pasado ese tiempo. Si hay algun corte en la corriente electrica siempre se producira esa demora de 5 minutos antes de arrancar el compresor.
5. Presión de suministro del agua de red: Minimo 20 PSI (0.138 MPA); Maximo 50 PSI (0.345 MPA). En unidades sin regulador de presión incorporado, si la presión del agua es superior a 50 PSIG (0.345 MPA) se debe usar un regulador de presión.
6. En unidades con regulador de presión incorporado, el regulador debe ser eliminado cuando la presión de entrada de agua sea inferior a 20 PSIG (0.138 MPA).



## REGLES DE SECURITE POUR L'INSTALLATION DU DISTRIBUTEUR DE SODAS



### ***La propriété de cet ensemble est assurée à l'usine suivant les spécifications émises par Lancer.***

Il est essentiel de respecter les 6 points suivants pour l'installation de l'appareil:

1. Remplir le bain-Maire jusqu'à ce que l'eau déborde par le tuyau de trop-plein du réservoir.
2. Le moteur de la pompe du carbonateur doit être débranché de l'alimentation électrique avant l'arrivée de l'eau pour la formation initiale de la glace. Oublier ou négliger cette opération provoquera l'arrêt automatique du carbonateur (voir le point 6 ci-dessous) ou causera des dommages à la pompe.
3. Si le distributeur est installé dans une zone où la tension électrique nominale est susceptible de variations de (+) 10%, il est conseillé d'installer un appareil de protection contre les sautes de courant.
4. Un délai de 5 minutes empêche le compresseur et la ventilation du condenseur de se mettre en marche avant que ce laps de temps ne se soit écoulé. Lorsque le courant électrique est interrompu, il y a toujours un délai de 5 minutes avant que le presseur ne se mette en.
5. Pression de l'eau: Minimum 20 PSI (0.138 MPA); Maximum 50 PSI (0.345 MPA). Sur les unités qui n'ont pas de régulateur de pression d'eau incorporé, si la pression d'H<sub>2</sub>O est supérieure à 50 PSIG (0.345 MPA), un régulateur de pression d'eau doit être utilisé.
6. Sur les unités avec régulateur d'eau incorporé, le régulateur doit être enlevé si la pression d'arrivée est inférieure à 20 PSIG (0.138 MPA)



## 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!



## CO<sub>2</sub>/CARBON DIOXIDE /EI ANHÍDRIDO CARBÓNICO/ DIOXYDE DE CARBONE



⚠ Carbon Dioxide (CO<sub>2</sub>) is a colorless, noncombustible gas with a light pungent odor. High percentages of CO<sub>2</sub> may displace oxygen in the blood. Prolonged exposure to CO<sub>2</sub> can be harmful. Personnel exposed to high concentrations of CO<sub>2</sub> gas will experience tremors which are followed by a loss of consciousness and suffocation. If a CO<sub>2</sub> gas leak is suspected, immediately ventilate the contaminated area before attempting to repair the leak. Strict attention must be observed in the prevention of CO<sub>2</sub> gas leaks in the entire CO<sub>2</sub> and soft drink system.

⚠ El anhídrido carbónico (CO<sub>2</sub>) es un gas incoloro, no combustible, con un olor pungente ligero. Altos porcentajes de CO<sub>2</sub> en la sangre pueden desplazar el oxígeno en la sangre. La exposición prolongada al CO<sub>2</sub> puede ser nociva. El personal expuesto a concentraciones altas de CO<sub>2</sub> sufre temblores seguidos de la pérdida de la consciencia y sofocación. Si se sospecha que existe una pérdida de CO<sub>2</sub>, ventile el área contaminada antes de tratar de reparar la pérdida. Hay que prestar suma atención para evitar pérdidas de CO<sub>2</sub> en todo el sistema de CO<sub>2</sub> y de bebidas gaseosas.

⚠ Le dioxyde de carbone (CO<sub>2</sub>) est plus lourd que l'air et déplace l'oxygène. Le CO<sub>2</sub> est un gaz incolore et incombustible, ayant une odeur un peu âcre. Des concentrations fortes de CO<sub>2</sub> peuvent déplacer l'oxygène dans le sang. Une exposition prolongée au CO<sub>2</sub> peut être nocive. Le personnel exposé à de fortes concentrations de CO<sub>2</sub> gazeux éprouvera des tremblements, suivis rapidement d'une perte de conscience et de suffocation. On doit faire très attention de prévenir les fuites de CO<sub>2</sub> gazeux dans le système entier de CO<sub>2</sub> et de boisson gazeuse. Si on suspecte qu'il y a une fuite de CO<sub>2</sub> gazeux, aérez le secteur contaminé immédiatement avant d'essayer de réparer la fuite.



## WATER NOTICE/AGUA AVISO/ PRÉAVIS 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 (0.138 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) 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 CO<sub>2</sub> 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 (0.138 MPA) , pero sin superar el máximo de 50 PSI (0.345 MPA). La presión de agua que supere los 50 PSI (0.345 MPA) se debe reducir a 50 PSI (0.345 MPA) 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 CO<sub>2</sub>) 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 (0.138 MPA) , mais ne doit pas dépasser un maximum de 50 LPC (0.345 MPA). Une pression d'eau de plus de 50 LPC (0.345 MPA) doit être réduite à 50 LPC (0.345 MPA) avec le régu- lateur 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 CO<sub>2</sub>) 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


### 1.1 UNPACKING

- A. The Lancer dispenser is shipped in a corrugated shipping carton.
- B. Remove the corrugated shipping carton from the unit.
- C. Inspect unit and parts for concealed damage(s). If damage exists, notify delivering carrier and file claim against same.


### 1.2 SELECTING A COUNTER LOCATION

- A. Select a counter location which is close to a properly grounded electrical outlet, and a water supply that meets the requirements specified in Section 1.4 below.

### 1.3 WATER SUPPLY


	<b>CAUTION</b> FAILURE TO LIMIT WATER PRESSURE TO 50 PSI (0.345 MPA) WILL RESULT IN IMPROPER PERFORMANCE OF THE DISPENSER.
	<b>PRECAUCIÓN</b> FALTA DE LIMITAR LA PRESIÓN DE AGUA PARA 50 PSI (0.345 MPA) DARÁ LUGAR A INADECUADO EJECUCIÓN DEL DISTRIBUIDOR.
	<b>ATTENTION</b> DÉFAUT DE LIMITER LA PRESSION DE L'EAU A 50 LPC (0,345 MPA) ENTRAÎNERA MAUVAISE PERFORMANCE DU DISTRIBUTEUR.

- A. An adequate potable water supply must be provided. The water supply line must be at least a 3/8 inch (9.525 mm) pipe with a minimum of 20 PSI line pressure, but not exceeding a maximum of 50 PSI. Water pressure exceeding 50 PSI must be reduced to 50 PSI (0.345 MPA) with a pressure regulator.

	<b>CAUTION</b> A FILTER IN THE WATER LINE MUST BE USED IF THE WATER SUPPLY CONTAINS ANY APPRECIABLE AMOUNT OF SILT, SAND, OR ANY OTHER DEBRIS. FAILURE TO DO SO CAN RESULT IN EQUIPMENT DAMAGE.
	<b>PRECAUCIÓN</b> UN FILTRO EN LA LÍNEA DE AGUA DEBE UTILIZAR SI EL SUMINISTRO DE AGUA CONTIENE NINGUNA APRECIABLE CANTIDAD DE LIMO, ARENA Y CUALQUIER OTRO DESPERDICIO. NO HACERLO PUEDE PROVOCAR DAÑOS EN EL EQUIPO.
	<b>ATTENTION</b> UN FILTRE DANS LA CONDUITE D'EAU DOIT ÊTRE UTILISÉE SI L'APPROVISIONNEMENT EN EAU CONTIENT DES QUANTITÉ APPRÉCIABLE DE LIMON, DE SABLE, OU TOUTE AUTRE DÉBRIS. NE PAS S'Y CAN PROVOQUER DES DOMMAGES MATÉRIELS.

- B. The Carbonator Pump is equipped with a Strainer and a Tee on the outlet side for a plain water Valve (if required), but a water supply containing any appreciable quantity of silt, fine sand, or other debris requires a Filter ahead of the Unit. The Filter cartridge must be cleaned periodically, depending upon the condition of the water. Failure to do so may starve the Pump and cause it to burn out; thereby, voiding the equipment warranty

### 1.4 ELECTRICAL SUPPLY

	<b>GROUNDING WARNING</b> 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.
	<b>ADVERTENCIA, PUESTA A TIERRA</b> 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 TOMACORRIENTE.
	<b>EXIGENCES DE MISE À LA TERRE</b> 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.

#### 1.4 ELECTRICAL SUPPLY (CONTINUED)

- A. A standard 15 AMP, 110 VAC, 60 Hz, single phase electrical power outlet with a ground connector should be provided for the operation of the unit

#### 1.5 SYRUP CONTAINERS

- A. When the unit is used in the Coca-Cola Company installations, the syrup containers are to be attached as outlined in the appropriate Coca-Cola Company Service Manual.
- B. For other installations, the syrup containers, sold as an accessory, are stainless steel with a capacity of five gallons. They are equipped with a CO2 gas quick disconnect fitting and a syrup quick disconnect fitting. The standard syrup outlet is a 1/4 inch (6.350 mm) male flare (MF). A low pressure regulator manifold (an accessory) may be mounted on the wall above the syrup tanks.
- C. The inlets on the unit are tagged or coded to the proper valves. When making the connection to these inlets, provide a good, tight, leak-free joint to prevent twisting the tubing.

#### 1.6 INSTALLATION OF THE UNIT

- A. Inspect the counter location where the unit is to be installed.
- B. Verify that the unit will fit in the desired location.

**NOTE:** See counter cutout template which is included in the shipping carton.

- C. After the counter cutout is complete, the unit may be secured to the counter. When the dispenser is mounted to the counter top, seal dispenser base to counter top with a silicone sealant which provides a smooth and easily cleanable bond to the counter.

#### 1.7 CONNECTION OF THE UNIT

- A. Position the CO2 gas tank in location. Assemble high pressure regulator to CO2 gas tank and run jumper line to low pressure regulator.
- B. Attach the CO2 gas line to the carbonator by attaching the line from the high pressure regulator to the single check valve marked "gas" on top of the carbonator tank. The setting of the high pressure CO2 gas regulator should be 90 PSI (0.621 MPA) to 110 PSI (0.758 MPA).



**WARNING** DO NOT TURN ON THE CO2 SUPPLY 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 tanks in the desired location. Attach the CO2 gas lines leading from the low pressure regulator to these tanks.
- D. Connect syrup lines from tanks to the appropriate inlets on the unit. The syrup inlets are identified.



**CAUTION** A FILTER IN THE WATER LINE MUST BE USED IF THE WATER SUPPLY CONTAINS ANY APPRECIABLE AMOUNT OF SILT, SAND, OR ANY OTHER DEBRIS. FAILURE TO DO SO CAN RESULT IN EQUIPMENT DAMAGE.

**PRECAUCIÓN** UN FILTRO EN LA LÍNEA DE AGUA DEBE UTILIZAR SI EL SUMINISTRO DE AGUA CONTIENE NINGUNA APRECIABLE CANTIDAD DE LIMO, ARENA Y CUALQUIER OTRO DESPERDICIO. NO HACERLO PUEDE PROVOCAR DAÑOS EN EL EQUIPO.

**ATTENTION** UN FILTRE DANS LA CONDUITE D'EAU DOIT ÊTRE UTILISÉE SI L'APPROVISIONNEMENT EN EAU CONTIENT DES QUANTITÉ APPRÉCIABLE DE LIMON, DE SABLE, OU TOUTE AUTRE DÉBRIS. NE PAS S'Y CAN PROVOQUER DES DOMMAGES MATÉRIELS.

- E. Mount the water filter assembly (if used) and water regulator in a convenient location.



**CAUTION** FAILURE TO LIMIT WATER PRESSURE TO 50 PSI (0.345 MPA) WILL RESULT IN IMPROPER PERFORMANCE OF THE DISPENSER.

**PRECAUCIÓN** FALTA DE LIMITAR LA PRESIÓN DE AGUA PARA 50 PSI (0.345 MPA) DARÁ LUGAR A INADECUADO EJECUCIÓN DEL DISTRIBUIDOR.

**ATTENTION** DÉFAUT DE LIMITER LA PRESSION DE L'EAU A 50 LPC (0,345 MPA) ENTRAÎNERA MAUVAISE PERFORMANCE DU DISTRIBUTEUR.


## 1.7 CONNECTION OF THE UNIT (CONTINUED)

- F. Connect water inlet line to water regulator, to water filter, and then to the water inlet of the carbonator pump on the carbonator.
- G. Provide a suitable drain in the plumbing system and attach the gray tube to it. The drip pan drain outlet is located at the center of the unit.
- H. Plug in the transformer box to a standard 15 AMP, 110 VAC, single phase outlet. The unit will internally convert the 110 VAC to 24 VAC.

**NOTE:** Connect Power Supply (PN 82-3029) to wire harness labeled Valves. Connect Transformer (PN 25-0069) to wire harness labeled Light.

## 1.8 START UP

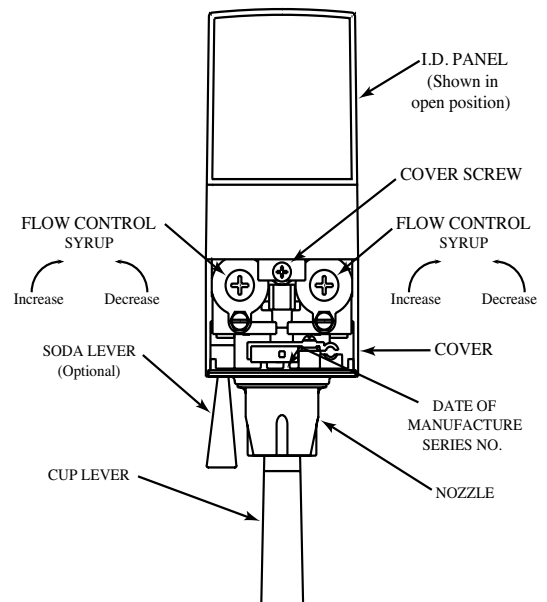
- A. After all connections to water, CO2 gas, electrical power, and syrup containers are made, check for leaks.
- B. Be sure syrup tanks contain syrup.

	<b>CAUTION</b> DO NOT OPERATE CARBONATOR PUMP WITH WATER SUPPLY SHUT OFF.
	<b>PRECAUCIÓN</b> NO HAGA FUNCIONAR LA BOMBA CARBONATADOR CON SUMINISTRO DE AGUA CIERRE.
	<b>ATTENTION</b> NE PAS FAIRE FONCTIONNER LA POMPE DE CARBONATEUR L'APPROVISIONNEMENT EN EAU COUPÉE.

- C. Turn on water; open the pressure relief valve on the carbonator tank by lifting the wire ring or flipping lever, and hold it open until water flows from the relief valve. Close the relief valve and turn on the CO2 gas and electrical power in that order.
- D. To fill all lines with water, cycle the carbonator several times by operating the dispensing valves.
  - 1. A low pressure gas regulator controls the flow of syrup to each dispensing valve. For proper operation of the valves, the pressure regulator should be set so that 40 PSI (0.276 MPA) is at the backblock of the valve.
  - 2. For diet type syrup, the tank pressures should be set at 10 PSI (0.069 MPA) (or as recommended by the syrup supplier). Additional pressure may be necessary, depending on the distance from the syrup tank to the unit.

## 1.9 ADJUSTING WATER FLOW (LEV®)

- A. 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.
- B. The refrigeration unit should have been running for at least one (1) hour before you attempt to brix the valves. The drink temperature should be no higher than 40°F (4.4°C) when the brix is set. This is best done after the unit has made an ice bank.
- C. Slide up ID panel until flow controls are exposed (see Figure 1)
- D. Remove nozzle by twisting counter clockwise and pulling down.
- E. Remove diffuser by pulling down.
- F. Install Lancer (yellow) syrup separator (PN 54-0031) in place of nozzle.
- G. Activate dispensing valve to fill separator syrup tube.
- H. Hold a Lancer brix cup under the syrup separator and dispense water and syrup into cup for four (4) seconds. Divide number of ounces (ml) of water in cup by four (4) to determine water flow rate per second
- I. To obtain the proper flow, use a screwdriver to adjust water flow control (see Figure 1).
- J. Repeat process for each valve.



**Figure 1**  
**Typical Valve Adjustment, LEV®**

## 1.10 ADJUSTING WATER TO SYRUP RATIO (BRUX)

- A. Hold the Lancer brix cup under the syrup separator and activate valve. Check ratio (brix).
- B. To obtain the proper ratio, use screw-driver to adjust syrup flow control (see Figure 1).
- C. Remove syrup separator.
- D. Install diffuser and nozzle.
- E. Slide ID panel DOWN.
- F. Repeat process for each valve.

**NOTE:** In all cases of reassembly of valves involving o-rings, be sure the o-ring is lubricated with an FDA approved lubricant or water to prevent leakage or damage to the o-ring.

## 1.11 REPLENISHING SYRUP SUPPLY (5 GALLON TANKS)

- A. To add syrup to a tank after the system is in operation, the following procedure should be used.
  1. Shut off CO2 gas supply system to syrup tanks.
  2. Snap off the self-sealing quick-coupler and allow gas in syrup tank to escape by pulling the outer shell of the quick-coupler toward the flexible line and allowing the whole connection to pull free.



**WARNING** TO AVOID POSSIBLE PERSONAL INJURY OR PROPERTY DAMAGE, DO NOT ATTEMPT TO REMOVE SYRUP TANK COVER UNTIL CO2 HAS BEEN RELEASED FROM TANK.

**ADVERTENCIA** PARA EVITAR POSIBLES LESIONES PERSONALES O DAÑOS MATERIALES, NO TRATE DE RETIRAR LA TAPA DEL TANQUE DE SORROPE HASTA QUE SE HAYA LIBERADO LA PRESIÓN DEL CO2 DEL TANQUE.

**AVERTISSEMENT** POUR ÉVITER DES BLESSURES OU DES DOMMAGES MATÉRIELS POSSIBLES, N'ESSAYEZ PAS DE RETIRER LE COUVERCLE DU RÉSERVOIR DE SIROP, JUSQU'À CE QUE DE LA PRESSION DE CO2 AIT ÉTÉ LIBÉRÉE DU RÉSERVOIR.

3. Remove the cover by pulling upward on the hinged locking bar.
4. Fill tank with appropriate syrup, leaving one inch (2.54 cm) of space for CO2 gas.
5. Replace locking cover insuring that the cover and cover gasket are properly aligned.
6. Snap on quick-coupler and lock it securely in place. Turn CO2 gas pressure ON. When properly connected, the gas will automatically enter the tank with an audible noise.

## 2. RECOMMENDED SERVICE AND MAINTENANCE

### 2.1 SCHEDULED

- A. Daily – See Section 2.5 for daily cleaning.
- B. Monthly – See Section 2.6 for monthly cleaning.
- C. Periodic Sanitizing - See sections 2.2, 2.3, and 2.4 for sanitizing requirements.
- D. As Needed - Keep exterior surfaces (to include drip tray and cup rest) of dispenser cleaned with damp, clean cloth.

### 2.2 CLEANING AND SANITIZING SYSTEMS

#### A. General Information

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

2. 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.

**IMPORTANT:** Water lines are not to be disconnected during the cleaning and sanitizing of syrup lines to avoid contamination.

## 2.2 CLEANING AND SANITIZING SYSTEMS (CONTINUED)

### 3. Recommended Preparation of Cleaning Solutions.

- a. Cleaning solutions (for example, Ivory Liquid, Calgon, etc.) mixed with clean, potable water at a temperature of 90 to 110° Fahrenheit should be used to clean equipment. The mixture ratio, using Ivory Liquid, is one (1) ounce of cleanser to two (2) gallons of water. A minimum of four (4) gallons of cleaning mixture should be prepared.

**NOTE:** Extended lengths of product lines may require that an additional volume of solution be prepared.

- b. Any equivalent cleanser may be used as long as it provides a caustic based, non-perfumed, easily rinsed mixture containing at least two (2) percent sodium hydroxide (NaOH).

### 4. Recommended Preparation of Sanitizing Solutions.

- a. Sanitizing solutions should be prepared in accordance with the manufacturer's written recommendations and safety guidelines. Follow manufacturer's requirements so that the solution provides 200 parts per million (PPM) available chlorine at a temperature of 90F to 120°F. A minimum of four (4) gallons of sanitizing solution should be prepared.

**NOTE:** Extended lengths of product lines may require that an additional volume of solution be prepared.

- b. 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 200 parts per million (PPM) available chlorine.

## 2.3 CLEANING AND SANITIZING FIGAL SYSTEMS

### A. Remove quick disconnect from syrup tank.



**CAUTION** DO NOT USE A WIRE BRUSH TO CLEAN VALVES.

**PRECAUCIÓN** NO USE UN CEPILLO DE ALAMBRE PARA LIMPIAR LAS VÁLVULAS.

**ATTENTION** NE PAS UTILISER UNE BROSSSE MÉTALLIQUE POUR NETTOYER VANNES.

- B. Using a clean plastic bristle brush and a detergent soap solution prepared in accordance with the instructions in Section 2.2, scrub both valves of the disconnect. Rinse with clean, potable water.

- C. Using a mechanical spray bottle and a sanitizing solution prepared in accordance with the instructions in Section 2.2, spray both halves of the quick disconnects. Allow to air dry.

**NOTE:** Please note that a fresh water rinse cannot follow sanitization of equipment. Purge only with the end use product. This is an NSF requirement.

- D. Connect syrup line to a syrup tank filled with clean, potable, room temperature water. Connect CO2 supply hose to tank and pressurize.

- E. Place waste container under applicable dispensing valve. Activate valve until water is dispensed. Flush and rinse line and fittings for a minimum of 60 seconds to remove all traces of residual product.

**NOTE:** Extended lengths of product lines may require additional time for flushing and rinsing lines.



**WARNING** TO AVOID POSSIBLE PERSONAL INJURY OR PROPERTY DAMAGE, DO NOT ATTEMPT TO REMOVE SYRUP TANK COVER UNTIL CO2 HAS BEEN RELEASED FROM TANK.

**ADVERTENCIA** PARA EVITAR POSIBLES LESIONES PERSONALES O DAÑOS MATERIALES, NO TRATE DE RETIRAR LA TAPA DEL TANQUE DE SOROPE HASTA QUE SE HAYA LIBERADO LA PRESIÓN DEL CO2 DEL TANQUE.

**AVERTISSEMENT** POUR ÉVITER DES BLESSURES OU DES DOMMAGES MATÉRIELS POSSIBLES, N'ESSAYEZ PAS DE RETIRER LE COUVERCLE DU RÉSERVOIR DE SIROP, JUSQU'A CE QUE DE LA PRESSION DE CO2 AIT ÉTÉ LIBÉRÉE DU RESERVOIR.

- F. Disconnect CO2 supply hose from the water filled syrup tank.

- G. Prepare cleaning solution as described in Section 2.2 above. Fill a tank with cleaning solution. Connect syrup line to the tank. Connect CO2 supply hose to tank and pressurize.

## 2.3 CLEANING AND SANITIZING FIGAL SYSTEMS (CONTINUED)

- H. Place waste container under applicable dispensing valve. Activate valve and draw cleaning solution through lines for a minimum of 60 seconds. This will ensure line is flushed and filled with cleaning solution. Allow line to stand for at least 30 minutes.

**NOTE:** Extended lengths of product lines may require additional time for flushing and filling lines.

- I. Disconnect CO2 supply hose from the tank.
- J. Connect syrup line to a tank filled with clean, potable, water at a temperature of 90 to 110°F. Connect CO2 supply hose to tank and pressurize.
- K. Place waste container under applicable dispensing valve. Activate valve to flush and rinse line and fittings for a minimum of 60 seconds to remove all traces of cleaning solution. Continue rinsing until testing with phenolphthalein shows that the rinse water is free of residual detergent.
- L. Disconnect CO2 supply hose from the tank.
- M. Fill a tank with sanitizing solution. Connect syrup line to the tank. Connect CO2 supply hose to tank and pressurize.
- N. Remove dispensing valve nozzle (twist and pull down) and pull out center mixing baffle. Using a plastic bristle brush and detergent soap solution scrub the nozzle, mixing baffle, bottom of dispensing valve, and cup lever. Rinse with clean water.
- O. Reassemble mixing baffle and nozzle.
- P. Place waste container under applicable dispensing valve. Activate valve and draw sanitizing solution through line for a minimum of 60 seconds. This will ensure line is flushed and filled with sanitizing solution. Allow line to stand for at least 30 minutes.
- Q. Disconnect CO2 supply hose from the tank.
- R. Reconnect syrup lines to syrup containers (for example, quick disconnects, figal containers, etc.) and ready unit for operation.



**WARNING** FLUSH SANITIZING SOLUTION FROM SYRUP SYSTEMS AS INSTRUCTED. RESIDUAL SANITIZING SOLUTION LEFT IN SYSTEM COULD CREATE HEALTH HAZARD.

**ADVERTENCIA** ENJUAGUE SOLUCIÓN DESINFECTANTE DE SISTEMAS DE JARABE SEGÚN LAS INSTRUCCIONES. RESIDUAL SOLUCIÓN DESINFECTANTE SISTEMA DE IZQUIERDA EN PODRÍA GENERAR RIESGOS PARA LA SALUD.

**AVERTISSEMENT** RINCER D'ASSAINISSEMENT SOLUTION DE SYSTÈMES DE SIROP COMME INDIQUÉ. RESIDUAL SOLUTION DÉINFECTANTE GAUCHE DANS UN SYSTÈME POURRAIT CREER DANGER POUR LA SANTÉ.

- S. Draw drinks and refill lines with end product to flush sanitizing solution from the dispenser.

**NOTE:** Please note that a fresh water rinse cannot follow sanitization of equipment. Purge only with the end use product. This is an NSF requirement.

- T. Test dispenser in normal manner for proper operation. Taste dispensed product to ensure there is no off-taste. If off-taste is found, additional flushing of syrup system may be required.
- U. Repeat cleaning, rinsing, and sanitizing procedures for each valve/syrup circuit.
- V. Clean exterior of unit as instructed in Section 2.1.
- W. Using a spray bottle of sanitizing solution, spray the underside of all dispenser valves, valve spouts and cup levers. Allow to air dry.

**NOTE:** Thoroughly rinse inside and outside of syrup tank that was used for sanitizing solution with plain water to remove all solution residue.


## 2.4 CLEANING AND SANITIZING BAG-IN-BOX (BIB) SYSTEMS

- A. Disconnect syrup quick disconnect coupling from syrup packages and connect coupling to a bag valve removed from an empty Bag-in-Box package.
- B. Place end of syrup inlet line, with bag valve attached, in a clean container filled with clean, potable, room temperature water.
- C. Place waste container under applicable dispensing valve. Activate valve until water is dispensed. Flush and rinse line and fittings for a minimum of 60 seconds to remove all traces of residual product.

**NOTE:** Extended lengths of product lines may require additional time for flushing and rinsing lines.

- D. Prepare cleaning solution as described in Section 2.2 above. Place end of syrup inlet line in container filled with cleaning solution.

- E. Place waste container under applicable dispensing valve. Activate valve and draw cleaning solution through lines for a minimum of 60 seconds. This will ensure line is flushed and filled with cleaning solution. Allow line to stand for at least 30 minutes.
- F. Place end of syrup inlet line in a clean container filled with clean, potable, water at a temperature of 90 to 110°F.
- G. Place waste container under applicable dispensing valve. Activate valve to flush and rinse line and fittings for a minimum of 60 seconds to remove all traces of cleaning solution. Continue rinsing until testing with phenolphthalein shows that the rinse water is free of residual detergent.
- H. Prepare sanitizing solution as described in Section 2.2 above. Place end of syrup inlet line in container filled with sanitizing solution which has been prepared.
- I. Activate valve and draw sanitizing solution through line for a minimum of 60 seconds. This will ensure line is flushed and filled with sanitizing solution. Allow line to stand for at least 30 minutes.
- J. Remove bag valve from quick disconnect coupling and reconnect syrup inlet line to syrup package. Ready unit for operation.

	<p><b>WARNING</b> FLUSH SANITIZING SOLUTION FROM SYRUP SYSTEMS AS INSTRUCTED. RESIDUAL SANITIZING SOLUTION LEFT IN SYSTEM COULD CREATE HEALTH HAZARD.</p>
	<p><b>ADVERTENCIA</b> ENJUAGUE SOLUCIÓN DESINFECTANTE DE SISTEMAS DE JARABE SEGÚN LAS INSTRUCCIONES. RESIDUAL SOLUCIÓN DESINFECTANTE SISTEMA DE IZQUIERDA EN PODRÍA GENERAR RIESGOS PARA LA SALUD.</p>
	<p><b>AVERTISSEMENT</b> RINCER D'ASSAINISSEMENT SOLUTION DE SYSTÈMES DE SIROP COMME INDIQUÉ. RESIDUAL SOLUTION DÉINFECTANTE GAUCHE DANS UN SYSTÈME POURRAIT CREER DANGER POUR LA SANTÉ.</p>

- K. Draw drinks and refill lines with end product to flush sanitizing solution from the dispenser.

**NOTE:** Please note that a fresh water rinse cannot follow sanitization of equipment. Purge only with the end use product. This is an NSF requirement.

- L. Test dispenser in normal manner for proper operation. Taste dispensed product to ensure there is no off-taste. If off-taste is found, additional flushing of syrup system may be required.
- M. Repeat cleaning, rinsing, and sanitizing procedures for each valve circuit.

## 2.5 VALVES

- A. LEV® Valves may be cleaned and sanitized (see preparation in Section 2.2) in the same manner.

**NOTE:** See Lancer Installation and Service Manual 28-0027/03 for complete information on the LEV®. This manual is available on the Lancer web site ([www.lancercorp.com](http://www.lancercorp.com)).

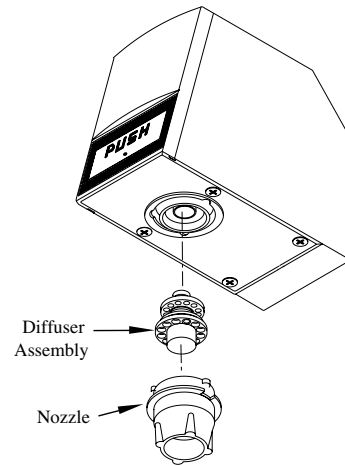
1. Remove cover and disconnect power so the valve will not be activated during the cleaning procedure. Remove nozzle and diffuser. Wash these parts in cleaning solution; then immerse them in a bath of sanitizing solution for 15 minutes.
2. Visually inspect around nozzle area for syrup residue. This area 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.

## 2.5 VALVES (CONTINUED)

### B. Volumetric Valve Cleaning and Sanitizing Procedures

**NOTE:** The Volumetric Valve is an optional use valve with the Global tower. See Lancer Maintenance Manual 28-0301/02 for complete information and adjustment procedures. This manual is available on the Lancer web site ([www.lancercorp.com](http://www.lancercorp.com)).

1. Daily Nozzle/Diffuser Cleaning (See Figure 2)  
Use the following procedures to clean the nozzle, and the diffuser assembly, each day:
  - a. Remove nozzle by twisting it counter-clockwise and pulling it down.
  - b. Pull the diffuser assembly down to remove it from the valve.
  - c. Wash the nozzle and diffuser with warm water.
  - d. If needed, apply 111 lubricant to the o-ring on the diffuser assembly. Then, carefully press it into the diffuser mounting area on the underside of the valve.
  - e. Make certain the nozzle o-ring, is in place around the nozzle mounting area on the valve.



**Nozzle/Diffuser  
Figure 2**

- NOTE:** If necessary, slide a new nozzle o-ring onto the nozzle mounting area.
- f. Install the nozzle by inserting it into the bottom plate and twisting it clockwise to lock it in place.
2. Monthly Nozzle/Diffuser Sanitizing  
Use the following procedures to sanitize the nozzle, and the diffuser assembly, once a month.
    - a. Cleaning Solution
      - (1) Prepare a caustic-based (low sudsing, non-perfumed, and easily rinsed) detergent solution and clean, potable water at a temperature of 90° to 110°F. The cleaning solution should be 2% sodium hydroxide.
    - b. Sanitizing Solution
      - (1) Prepare a chlorine solution (less than pH 7.0) containing 50 PPM available chlorine with clean, potable water at a temperature of 90 to 110°oF. 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 PPM available chlorine.
    - c. Cleaning Procedure



**CAUTION** BE CAREFUL NOT TO GET SANITIZING SOLUTION ON THE CIRCUIT BOARD.

**PRECAUCIÓN** TENGA CUIDADO DE NO CONSEGUIR SOLUCIÓN DESINFECTANTE EN EL CIRCUITO.

**ATTENTION** ATTENTION DE NE PAS SE RENDRE SOLUTION DÉINFECTANTE SUR LA CARTE DE CIRCUIT.

- (1) Disconnect power, so the valve will not be inadvertently activated while cleaning.
- (2) Remove nozzle by twisting it counter-clockwise and pulling it down.
- (3) Pull the diffuser assembly down to remove it from the valve.
- (4) Wash the nozzle and diffuser with the cleaning solution.
- (5) Immerse the nozzle and diffuser in a bath of the sanitizing solution for 15 minutes.
- (6) While the parts are in the sanitizing solution, visually inspect around the nozzle mounting area on the valve for syrup residue. Using a cloth or nozzle brush and warm water, clean this area.
- (7) Wipe off the dispensing lever and any other areas that may have been splashed by syrup.
- (8) Wearing sanitary gloves, remove, drain, and air dry the nozzle and diffuser.

- (9) Wearing sanitary gloves, carefully press the diffuser into the mounting area on the underside of the valve.
- (10) Make certain the nozzle o-ring, is in place around the nozzle mounting area on the valve. If necessary, slide a new nozzle o-ring onto the nozzle mounting area. (Wear sanitary gloves while handling the o-ring.)
- (11) Wearing sanitary gloves, install the nozzle by inserting it into the bottom plate and twisting it clockwise to lock it in place.
- (12) Connect power and replace cover. Valve is ready for operation.
- (13) Draw drinks to flush residual sanitizing solution. Taste the beverage to verify that there is no off taste. If an off taste is found, additional flushing may be required.

### 3. Valve and System Sanitizing

- a. The complete valve and dispenser system must be sanitized during initial installation. Follow the manufacturer's instructions when scheduling and conducting dispenser sanitizing. The valve must be sanitized once every two weeks. The valve may remain on the dispensing tower during the sanitizing process.
- b. For syrup side line priming, and cleaning and sanitization procedures, refer to the Syrup Purge Plug (Lancer PN 52-1912) in Section 2.5.C.

### C. Syrup Purge Plug (See Figure 3)

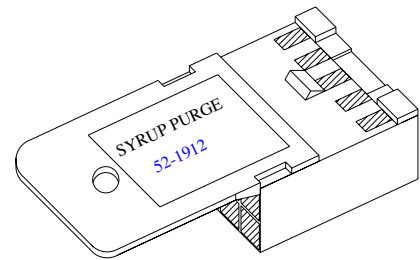
1. The Syrup Purge Plug (PN 52-1912), places the valve in continuous syrup side operation. The targeted uses for the purge plug consist of priming the syrup line on an initial Volumetric Valve install, and for cleaning and sanitization of the syrup side of the dispensing unit.
2. Operation of the syrup purge plug is as follows:

**NOTE:** With a standard 75 VA transformer, up to six (6) Volumetric Valves can be operated in the syrup purge mode simultaneously.

- a. Turn off electrical power to all valves.
- b. Install syrup purge plugs into the valve or valves to be primed or sanitized. The syrup purge plug installs in the ten-pin connector of the Volumetric Valve circuit board.
- c. Turn on electrical power to the valves. At this time, the syrup side of the valves will begin continuous operation.
- d. When through with the priming or sanitization operation, syrup purge operation can be stopped either of two ways:

**Method 1:** Turn off electrical power to all valves, remove syrup purge plugs from the valves. Turn on electrical power to all valves. Tap valve lever or push button to ensure proper operation of all valves.

**Method 2:** Remove syrup purge plug from the valves while they are in purge operation. In this case, the valve may continue in the purge mode for up to six (6) seconds after removal of the plug (this is normal). Tap valve lever or push button to ensure proper operation of all valves.



**Syrup Purge Plug, Volumetric Valve  
Figure 3**

### 3. TROUBLESHOOTING

TROUBLE	CAUSE	REMEDY
3.1 No carbonation.	A. Carbonator motor not running. B. Absence of CO2 gas. C. Gas only form valves. D. Carbonator tank air bound. E. CO2 gas pressure below 90 PSI (0.621 MPA). F. Carbonator motor running continuously.	A. Check power supply. Be sure toggle switch is in ON position. B. Replace with full tank of CO2 gas. C. Check for power failure. Check fuses. Clean strainer on pump. D. Relieve gas pressure in tank by pulling ring on safety relief valve until water spurts run out. E. Reset high pressure CO2 gas regulator to 90-110 PSI (0.621-0.758 MPA). Change CO2 tank if required. F. Check switch on carbonator. Check water in check valve for blockage. Check carbonator control. Check carbonator pump for efficiency.
3.2 Noisy Carbonator Pump.	A. Insufficient water supply or water leak, allowing air to be pulled into pump. B. Loose pump coupling.	A. Provide adequate water supply. Check strainer for cleanliness. B. Tighten set screw on pump coupling.
3.3 Off taste in soda.	A. Leaking water check valve, allowing carbonated water to back into supply line.	A. Dismantle and clean check valve. Replace O-Ring, if torn or distorted.
3.4 Valves inoperable	A. Loss of power.	A. Check power supply to see if plugged in. Check transformer circuit breaker. Check main power circuit breaker 110V.

#### NOTE

See Lancer Installation and Service Manual 28-0027/03 for complete troubleshooting information for LEV® valves and/or Lancer Maintenance Manual 28-0301/02 for complete troubleshooting information for the Volumetric Valve. These manuals are available on the Lancer web site ([www.lancercorp.com](http://www.lancercorp.com)).

### 4. DISPENSER DISPOSAL

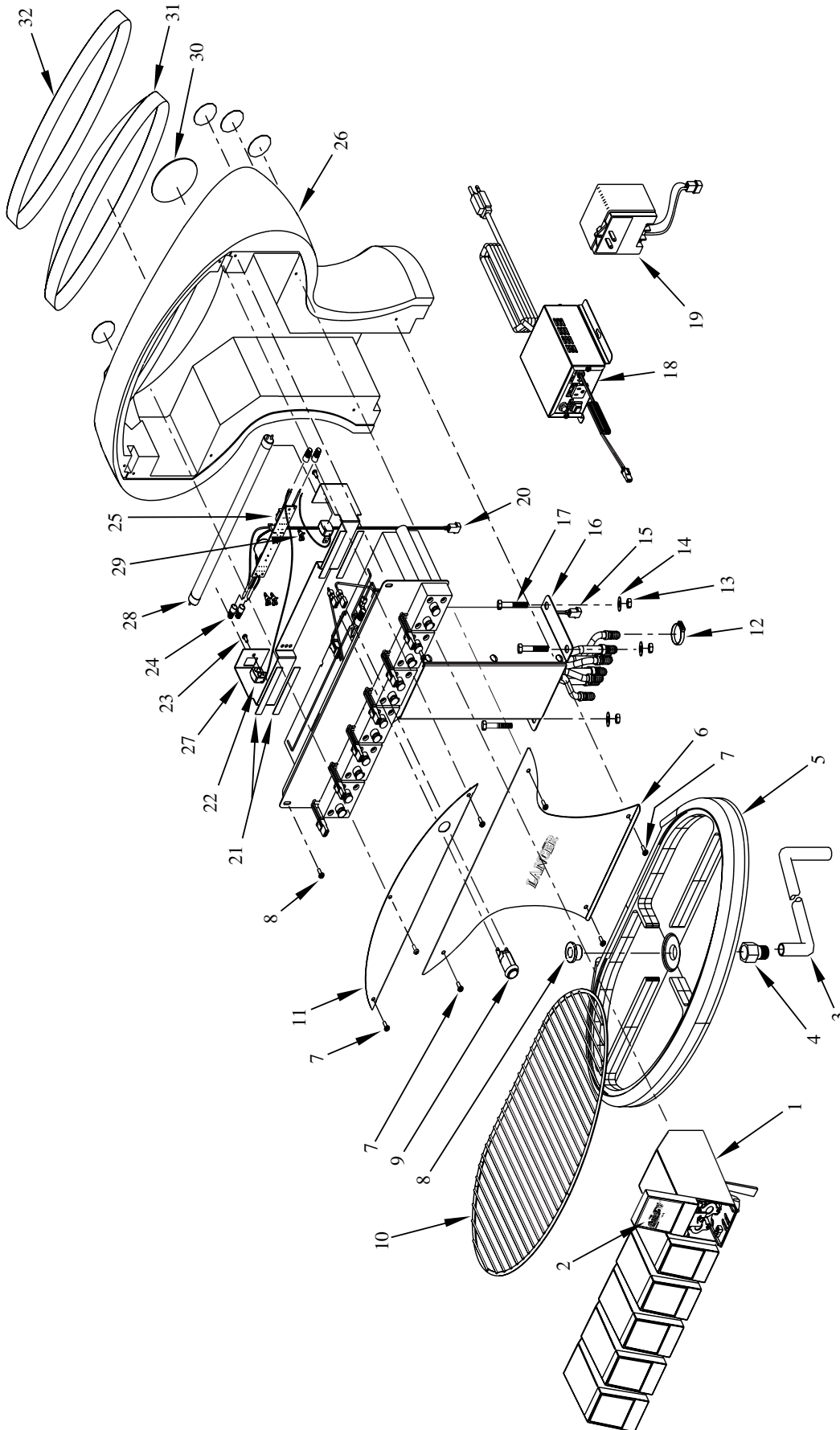


To prevent possible harm to the environment from improper disposal, recycle the unit by locating an authorized recycler or contact the retailer where the product was purchased. Comply with local regulations regarding disposal of the refrigerant and insulation.

# NOTES

## 5. ILLUSTRATIONS AND PARTS LISTINGS

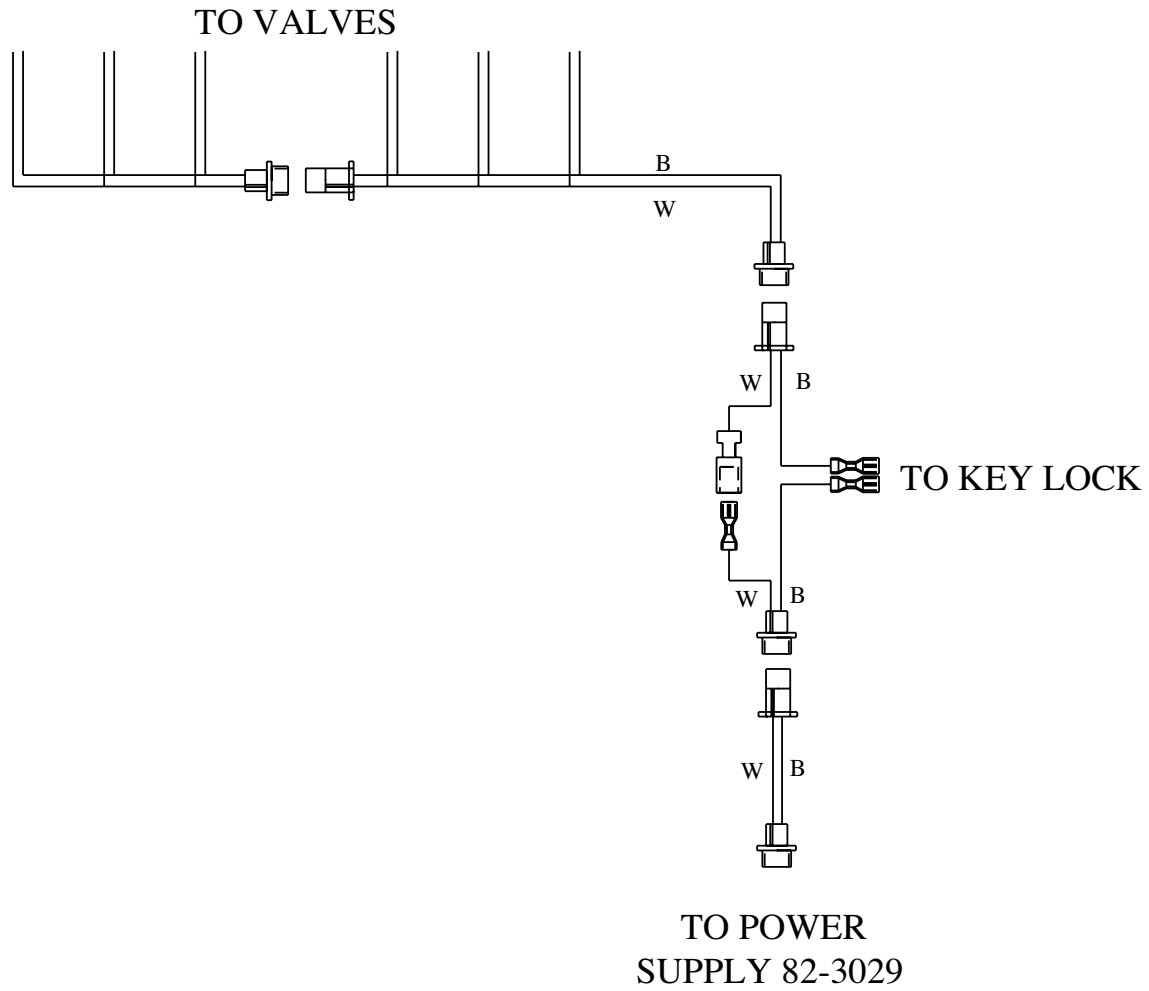
### 5.1 PACIFIC TOWER



## 5.1 PACIFIC TOWER (CONTINUED)

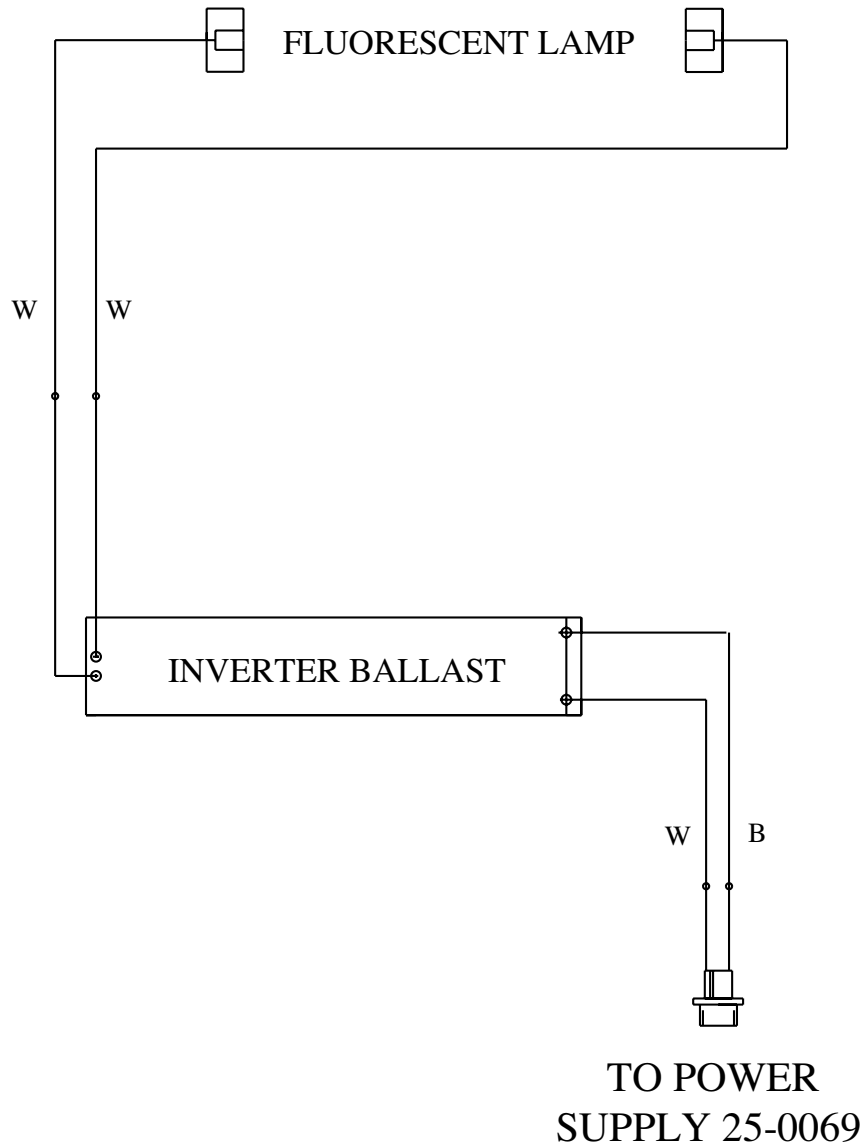
<u>Item</u>	<u>Part No.</u>	<u>Description</u>
1	19-0116	LEV®
2	82-1599	Kit, Label, 6 LEV®, IC, 3-2-1
3	08-0184	Tubing, Gray, Drain, 5/8" ID
4	01-1940	Fitting, Drain, 3/4 - 16F X 5/8 BARB, SS
5	05-1977	Drip Tray, Red, Pacific Tower
6	30-8407	Plate, Splash, Pacific Tower
7	04-0585	Screw, M4 X 0.7 X 10, PHD, PH, SST
8	01-2222	Fitting, Drain, 3/4 - 16, Male Flange, SS
9	12-0097	Switch,Key Lock, Maintain, Spade
10	23-1275	Cup Rest, Pacific Tower
11	30-8408	Panel, Key Lock, Pacific Tower
12	07-0448	Clamp, Oetiker, 9/16"
13	04-0295	Nut, Hex, 5/16 - 18
14	04-1103	Washer, 3/8" ID X 7/8" OD
15	52-2394	Harness Assy, 6 Valve
16	23-1138/01	Structure and Manifold Assy, GT
17	04-1112	Screw, 5/16 - 18 X 2.000 HH, H, BL, S, ZP
18	82-3029	Power Supply Assy, 120 -24V, 75W, EX SW
19	25-0069	Transformer, 50VA, 24V, 115V60, Plug In
20	52-1473	Harness Assy, Hook-up, MQ, IC
21	15-0204	Tape, Double Coated Acrylic Foam
22	12-0225	Bi-Pin Lamp Holder
23	04-0135	Screw, 6 -32 X 0.312, PH, PH, MS, SS, PL
24	11-0007	Nut, Wire, Vendor Part #3-0253
25	52-1754/01	PCB Assy, Lamp Driver, 24V, with Filter
26	05-1976	Cladding, Red, Pacific Tower
27	30-8409	Bracket, Lamp/PCB, Pacific - GT
28	12-0047/02	Lamp, Fluorescent, DL, Phillips #F8T5/D
29	05-1535	Support, PCB, 0.156X 0.187 X 0.250H
30	06-2507	Decal, 3" Round, Coca-Cola, PT
31	06-2508	Graphics, Oval-Panel, CC, PT
32	15-0140	Extrusion, 4mm Hollow Pipe

5.2 WIRING DIAGRAM - VALVES



WIRING DIAGRAM FOR VALVES

4.3 WIRING DIAGRAM - MERCHANDISER



WIRING DIAGRAM  
FOR MERCHANDISER

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***LANCER***<sup>®</sup>

Lancer Corp.

800-729-1500

Technical Support/Warranty: 800-729-1550

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