



FOR QUALIFIED INSTALLER ONLY. This basic Installation Sheet is an initial release. If a complete Operations Manual (for the unit being installed) is required or needed, please refer to the Lancer web site (lancercorp.com) for immediate access, or for your convenience, scan this QR code with a mobile device (app required) for immediate access. Contact Lancer Customer Service for assistance as required.

TOOLS REQUIRED: Oetiker Pliers, Tubing Cutters, Wrench, Phillips and Slotted Screwdriver, Precision Cutters



WARNING THE DISPENSER IS FOR INDOOR USE ONLY. THIS UNIT IS NOT A TOY. DISPENSER 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 INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY. 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).

ADVERTENCIA EL DISPENSADOR SÓLO DEBE USARSE EN INTERIORES. ESTA UNIDAD NO ES UN JUGUETE. 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°F A 90°F (4°C A 32°C).

AVERTISSEMENT 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°F À 90°F (4°C À 32°C).

1. INSTALLATION

1.1 RECEIVING THE UNIT

Each unit is completely tested under operating conditions and thoroughly inspected before shipment. At time of shipment, the carrier accepts the unit and any claim for damage(s) must be made with carrier. Upon receiving units from the delivering carrier, carefully inspect carton for visible indication(s) of damage. If damage exists, have carrier note same on bill of lading and file a claim with the carrier.

1.2 UNPACKING



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 EXTRANOS 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 DEMAINÈRE 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.

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



1.3 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.

1.4 WATER SUPPLY



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.

- 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.



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.

- 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

1.5 ELECTRICAL SUPPLY



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 TOMACORRIENTE.

EXIGENCES DE MISE 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. 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

1.6 ELECTRICAL WARNING



WARNING 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. THIS UNIT MUST BE PROPERLY ELECTRICALLY GROUNDED TO AVOID POSSIBLE FATAL ELECTRICAL SHOCK OR SERIOUS INJURY TO THE OPERATOR. 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 POWER SUPPLY MUST HAVE A SEPARATE ELECTRICAL CIRCUIT. DO NOT USE EXTENSION CORDS. 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 POWER TO THE DISPENSER BEFORE ATTEMPTING ANY INTERNAL MAINTENANCE. 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!

ADVERTENCIA ELÉCTRICA 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. ESTA UNIDAD DEBE ESTAR DEBIDAMENTE CONECTADO A TIERRA PARA EVITAR POSIBLES CHOQUES ELÉCTRICOS MORTALES O LESIONES GRAVES AL OPERADOR. 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 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.

AVERTISSEMENT ÉLECTRIQUE 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. L'UNITÉ DOIT ÊTRE MISE À LA TERRE ÉLECTRIQUEMENT POUR ÉVITER UNE DÉCHARGE ÉLECTRIQUE MORTELLE OU DES BLESSURES GRAVES POSSIBLES À L'OPÉRATEUR. LE BLOC D'ALIMENTATION DOIT ÊTRE MIS 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 SOURCE D'ALIMENTATION DOIT AVOIR UN CIRCUIT ÉLECTRIQUE SÉPARÉ. N'UTILISEZ PAS DE CORDONS PROLONGATEURS. NE BRANCHEZ PAS PLUSIEURS APPAREILS ÉLECTRIQUES À LA MÊME PRISE DE COURANT. L'INTERRUPTEUR À CLÉ NE COUPE PAS LA TENSION SECTEUR AU TRANSFORMATEUR PRIMAIRE. DÉCONNECTEZ TOUJOURS L'ALIMENTATION EN ÉLECTRICITÉ À LA DISTRIBUTRICE AVANT DE FAIRE DE L'ENTRETIEN INTERNE. 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!

1.7 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.

1.8 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.

1.9 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.

- 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.

1.10 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.



CAUTION DO NOT OPERATE CARBONATOR PUMP WITH WATER SUPPLY SHUT OFF.

PRECAUCIÓN NO HAGA FUNCIONAR LA BOMBA CARBONATADOR CON SUMINISTRO DE AGUA CIERRE.

ATTENTION 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.

1.11 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
- 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.
- J. Repeat process for each valve.

1.12 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.
- 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.

1.13 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 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'À CE QUE DE LA PRESSION DE CO2 AIT ÉTÉ LIBÉRÉE DU RESERVOIR.

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.

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 BROSSE 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.

2.3 CLEANING AND SANITIZING FIGAL SYSTEMS (CONTINUED)

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

- 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.
- 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.



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

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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.

- 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.

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 DÉSDINFECTANTE GAUCHE DANS UN SYSTÈME POURRAIT CREER DANGER POUR LA SANTÉ.

- 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).

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.

- 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).

2.5 VALVES (CONTINUED)

1. Daily Nozzle/Diffuser Cleaning

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.

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°F. 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 DÉSINFECTANTE 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.

2.5 VALVES (CONTINUED)

C. Syrup Purge Plug

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.

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