



COUNTER ELECTRIC DISPENSER SERIES 2500 REMOTE

Operation Manual

PN: 28-0377/04



Lancer Corp.
6655 Lancer Blvd.
San Antonio, Texas 78219

800-729-1500
Technical Support/Warranty: 800-729-1550
custserv@lancercorp.com
lancercorp.com



Manual PN: 28-0377/04

JANUARY, 1999

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.

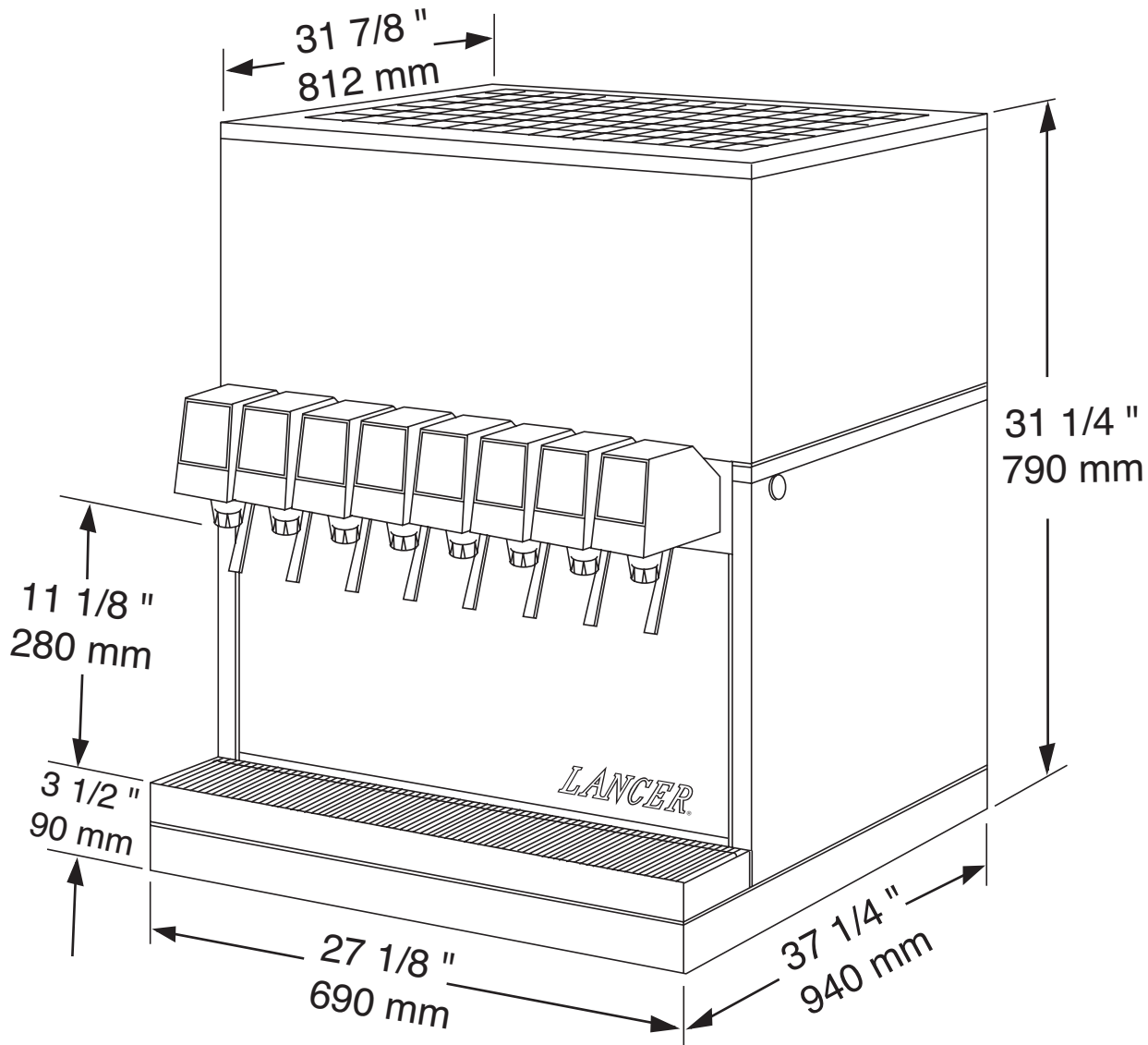
The installation and relocation, if necessary, of this product must be carried out by qualified personnel with up-to-date safety and hygiene knowledge and practical experience, in accordance with current regulations.

TABLE OF CONTENTS

SPECIFICATIONS.....	4
PRE-INSTALLATION CHECKLIST.....	5
WARNINGS/CAUTIONS.....	6-9
1. INSTALLATION.....	10
1.1 UNPACKING.....	10
1.2 SELECTING A LOCATION.....	10
1.3 INSTALLING THE REMOTE RECIRCULATING UNIT.....	10
1.4 CONNECTING TO ELECTRICAL POWER.....	11
1.5 CONNECTING PYTHON TO RECIRCULATING UNIT.....	11
1.6 CONNECTING PYTHON TOWER.....	12
1.7 CONNECTING TO WATER SUPPLY.....	12
1.8 CONNECTING TO CO2 SUPPLY.....	12
1.9 CONNECTING THE SYRUP SUPPLY.....	13
1.10 PURGING AIR FROM THE SYSTEM.....	13
1.11 COMPLETE INSULATION BETWEEN REMOTE UNIT AND PYTHON.....	13
1.12 COMPLETE INSULATION BETWEEN TOWER AND PYTHON.....	14
2. SCHEDULED MAINTANANCE.....	14
2.1 DAILY.....	14
2.2 WEEKLY.....	14
2.3 MONTHLY.....	14
2.4 EVERY SIX MONTHS.....	14
2.5 YEARLY.....	14
3. DISPENSER CLEANING AND SANITIZATION.....	14
3.1 GENERAL INFORMATION.....	14-15
3.2 CLEANING AND SANITIZING SOLUTIONS.....	15
3.3 AMBIENT PROCESS.....	15
3.4 VALVES.....	15
4. TROUBLESHOOTING.....	16
4.1 COMPRESSOR DOES NOT START (NO HUM), BUT CONDENSOR FAN MOTOR RUNS.....	16
4.2 COMPRESSOR STARTS AND CONTINUES TO RUN UNBTIL FREEZE UP AND WILL NOT CUT OFF.....	16
4.3 COMPRESSOR DOES NOT START BUT HUMS.....	16
4.4 COMPRESSOR STARTS BUT DOES NOT SWITCH OFF START WINDING (WILL RUN FOR ONLY A FEW SECONDS BEFORE INTERNAL OVERLOAD SWITCHES COMPRESSOR OFF).....	16
4.5 COMPRESSOR STARTS AND RUNS A SHORT TIME BUT SHUTS OFF ON OVERLOAD.....	16

4.6	COMPRESSOR AND CONDENSER FAN MOTOR WILL NOT START AFTER FIVE (5) MINUTE POWER OFF DELAY (LANCER EIBC EXPORT ONLY).....	17
4.7	COMPRESSOR AND CONDENSER FAN MOTOR WILL NOT START AFTER FIVE (5) MINUTE POWER OFF DELAY (LANCER EIBC USA ONLY).....	17
4.8	WARM DRINKS.....	17
4.9	MOTOR FAILS TO START (MOTOR HUMS).....	17
4.10	MOTOR FAILS TO START (MOTOR DOES NOT HUM).....	17
4.11	MOTOR RUNS CONTINUOUSLY.....	18
4.12	WATER IS RELEASED FROM PRESSURE RELIEF VALVE.....	18
4.13	LOW CARBONATION.....	18
4.14	FOAMY PRODUCT.....	18
5.	BASIC GO/NO GO CARBONATOR CONTROL TEST.....	19
6.	DISPENSER DISPOSAL.....	19
7.	ILLUSTRATIONS, PARTS LISTINGS, AND WIRING DIAGRAMS.....	20
7.1	REMOTE BEVERAGE SYSTEM ASSEMBLY.....	20-21
7.2	2500 REFRIGERATION DECK ASSEMBLY, R-134A, LANCER ELECTRONIC ICE BANK CONTROL (EIBC), USA ONLY, PN 82-2669.....	22-23
7.3	2500 REFRIGERATION DECK ASSEMBLY WITH ELECTRONIC ICE BANK CONTROL (EIBC), R-134A; PN 82-2049E, 230V/50Hz; PN 82-2103E, 115V/60Hz; PN 82-2098E, 240V/60Hz.....	24-25
7.4	FLOW DIAGRAM.....	26
7.5	WIRING DIAGRAM.....	27

CED 2500 REMOTE SPECIFICATIONS



DIMENSIONS Width: 27 1/8 in (690 mm) Depth: 37 1/4 in (946 mm) Height (w/out legs): 31 1/4 in (790 mm) SPACE REQUIRED Left Side: 4 in (101.6 mm) Right side: 4 in (101.6 mm) Back: 4 in (101.6 mm) Top: 8 in (203.2 mm) ELECTRICAL 230-240VAC/50-60Hz/2.6AMPs	WEIGHT Ice Bank: 50-55 lbs (23-25 kg) Operating: 457 lbs (207.30 kg) Shipping: 340 lbs (154.22 kg) WATER BATH Capacity: 21 gallons (79 liters) FITTINGS Water for carbonator inlet: 3/8" barb Plain water inlet: 3/8" barb Brand syrup inlets: 3/8" barb CO2 inlet: 1/4" barb	CARBONATOR WATER SUPPLY Min flowing pressure: 35 PSIG (0.241 MPA) Max static pressure: 60 PSIG (0.414 MPA) CARBON DIOXIDE (CO2) Min pressure: 70 PSIG (0.483 MPA) Max pressure: 80 PSIG (0.552 MPA)
--	---	---

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	
☐ Oetiker Pliers	☐ Slotted Screwdriver
☐ Tubing Cutters	☐ Phillips Screwdriver
☐ Wrench	☐ Cordless Drill

POST MIX ACCESSORIES	
☐ CO2 Regulator Set	☐ CO2 Supply
☐ Beverage Tubing	☐ Oetiker Clamps/Fittings
☐ Water Booster	☐ Water Regulator
☐ Precision Cutters (if removing/replacing carbonator tank)	

BIB SYSTEM	
☐ BIB Rack	☐ BIB Regulator Set
☐ BIB Syrup Boxes	
☐ BIB Connectors - ensure you have the correct connectors for syrup lineup.	

CONSIDER LOCATION OF THE FOLLOWING PRIOR TO INSTALL	
☐ Water supply lines	☐ Drain
☐ Is the countertop level?	☐ Heating and air conditioning ducts
☐ Grounded electrical outlet.	
☐ Enough space to install the dispenser. Include space for a top-mounted ice machine, if necessary.	
☐ Does the top-mounted ice machine have a minimum clearance on all sides?	
☐ Located away from direct sunlight or overhead lighting.	
☐ 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.	
☐ 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 appliance is intended for use in commercial applications such as restaurants, stores or similar. This unit is not a toy. It should not be used by children or infirm persons without supervision. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Cleaning and user maintenance shall not be performed by children without supervision. This unit is not designed to dispense dairy products. The minimum/maximum 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 está diseñada para su uso en aplicaciones comerciales tales como restaurantes, tienda o similares. Esta unidad no es un juguete. No la deben usar niños ni personas discapacitadas sin supervisión. Esta unidad no está destinada al uso por parte de personas (incluso niños) con capacidad física, sensorial o mental reducida, o sin experiencia y conocimientos suficientes, a menos que una persona responsable de su seguridad les haya dado supervisión o capacitación en el uso de la unidad. 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 por debajo de las condiciones mínimas de funcionamiento ambiente. En caso de ocurrir congelación, cesar la operación de la unidad y póngase en contacto con el servicio técnico autorizado. Servicio de limpieza y desinfección debe llevarse a cabo solamente por personal especializado. Precauciones de seguridad aplicables deben ser observadas. Advertencias de instrucciones en el producto que se use debe ser seguido.

⚠ Le distributeur est destiné à un usage à l'intérieur seulement. Cet appareil est conçu pour une utilisation dans des applications commerciales telles que les restaurants, les dépanneurs ou similaires. 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. 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 faire fonctionner l'appareil ci-dessous les conditions minimales de fonctionnement ambiantes. Faut-gel se produisent, cesser l'exploitation de l'appareil et contactez technicien agréé. Service de nettoyage et de désinfection doivent être effectuées uniquement par du personnel qualifié. Les mesures de sécurité applicables doivent être respectées. Avertissements Instruction sur le produit utilisé doit être suivie.



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 (see Section 1.7) 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 - 25 PSI (0.172 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 25 PSIG. (0.172 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 conecta 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 (Ver Manual - Seccion 1.7) 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 25 PSI (0.172 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 der eliminado cuando la presión de entrada de agua sea inferior a 25 PSIG (0.172 MPA).



REGLES DE SECURITE POUR L'INSTALLATION DU DISTRIBUTEUR DE SODAS



La propreté da cet ensamble est assuré à l'usine sultant les spécifications èmis par Lancer .

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

1. Remplir le bain-Maire jusqu'a ce que l'eau déborde par le tuyau de trop-plein du réservoir.
2. Le moteur de la pompe du carbonateur doit etre débranché de l'alimentation électrique (Voir le manuel, Section 1.7) 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 cidessous) ou causera des dommages à la pompe.
3. Si le distributeur es installé dans une zone ou la tension électrique nominale est susceptible de variations de (+) 10%, il est conseillé d'installer un appaeil de protection contre les sautes de courant.
4. Un d'lai de 5 minutes empeche le compresseur et la ventilation du condeseateur de se mettre en marche avant que ce lees de temps ne se soit écoulé. Lorsque le courant électrique es interrompu, il y a toujours un délai de 5 minutes avant que le presseur ne se mette en.
5. Pression de l'eau: Minimum 25 PSI (0.172 MPA); Maximo 50 PSI (0.345 MPA). Sur les unités qui n'ont pas de régulateur de pression d'eau incorpré, si la pression d'H2O est supérieure à 50 PSIG (0.345 MPA), un régulateur de pression d'eau doit etre utilisé.
6. Sur les unités avec régulateur d'eau incorporé, le régulateur doit etre enlevé si la pression d'arrivve est inferieure à 25 PSIG (0.172 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!



CO₂/CARBON DIOXIDE /EI ANHÍDRIDO CARBÓNICO/ DIOXYDE DE CARBONE



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

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

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



AUTOMATIC AGITATION/AGITACIÓN AUTOMÁTICA/



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

⚠ Las unidades están equipadas con un sistema automático de agitación, por lo que se pueden activar repentinamente. No ponga las manos ni objetos extraños en el compartimiento donde se guarda el hielo. Durante el servicio, la limpieza y la esterilización, desenchufe el dispensador. Para evitar lesiones personales, no trate de levantar el dispensador sin ayuda. Para los dispensadores más pesados, use un elevador mecánico.

⚠ Les appareils sont équipés d'un système d'agitation automatique qui s'activera de manière inattendue. Ne mettez pas les mains ou des corps étrangers dans le compartiment d'entreposage de glace. Débranchez le distributeur pendant l'entretien/la réparation, le nettoyage et l'aseptisation. Pour éviter des blessures, n'essayez pas de soulever le distributeur sans aide. Pour les distributeurs plus lourds, utilisez un chariot élévateur.



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 25 PSI (0.172 MPA) line pressure, but not exceeding a maximum of 80 PSI (0.552 MPA). Water pressure exceeding 80 PSI (0.552 MPA) must be reduced to 80 PSI (0.552 MPA) with the provided pressure regulator. Use a filter in the water line to avoid equipment damage and beverage off-taste. Check the water filter periodically, as required by local conditions. The water supply must be protected by means of an air gap, a backflow prevention device (located upstream of the CO2 injection system) or another approved method to comply with NSF standards. A leaking inlet water check valve will allow carbonated water to flow back through the pump when it is shut off and contaminate the water supply. Ensure the backflow prevention device complies with ASSE and local standards. It is the responsibility of the installer to ensure compliance.

⚠ Proporcione un suministro adecuado de agua potable. La línea de suministro de agua debe ser de una tubería de por lo menos 3/8 pulgadas (9.525 mm) con una presión de línea mínima de 25 PSI (0.172 MPA), pero sin superar el máximo de 80 PSI (0.552 MPA). La presión de agua que supere los 80 PSI se debe reducir a 80 PSI (0.552 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 CO2) u otro método aprobado para cumplir las normas NSF. Si la válvula de retención de entrada de agua tuviera pérdidas, permitiría el contraflujo del agua carbonatada a través de la bomba cuando se la detiene y contaminaría el suministro de agua. Asegúrese de que el dispositivo de prevención del contraflujo cumpla con las normas locales y de ASSE. Es responsabilidad del instalador cumplir con estos requisitos.

⚠ Fournissez une alimentation en eau potable adéquate. Les connexions et les dispositifs de conduite d'eau connectés directement à une alimentation en eau potable doivent être calibrés, installés et maintenus selon les lois fédérales, provinciales et locales. La conduite d'alimentation en eau doit être un tuyau d'au moins 3/8 pouces (9.525 millimètres) avec une pression de ligne minimum de 25 LPC (0.172 MPA), mais ne doit pas dépasser un maximum de 80 LPC (0.552 MPA). Une pression d'eau de plus de 80 LPC (0.552 MPA) doit être réduite à 80 LPC (0.552 MPA) avec le régulateur de pression fourni. Utilisez un filtre dans la conduite d'eau pour éviter des dommages à l'équipement et un goût des boissons qui n'est pas juste. Vérifiez le filtre à eau périodiquement, selon les exigences des conditions locales. L'alimentation en eau doit être protégée au moyen d'un intervalle d'air, un disconnecteur hydraulique (situé en amont du système d'injection de CO2) ou une autre méthode approuvée pour se conformer aux normes de la NSF. Un clapet antiretour pour l'eau entrante qui fuie permettra à l'eau gazeuse de repasser par la pompe quand elle est fermée et de contaminer l'alimentation en eau. Assurez-vous que le disjoncteur hydraulique soit conforme aux normes de l'ASSE et locales. L'installateur est responsable d'assurer la conformité.

1. INSTALLATION

1.1 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.

- A. Cut band and remove.
- B. Remove top portion of carton by lifting up.
- C. Inspect unit for concealed damage and if evident, notify delivering carrier and file a claim against same.
- D. Remove pallet shipping base from unit by moving unit so that one side is off the counter top of table, allowing access to screws on the bottom of the pallet shipping base.

NOTE: If unit is to be transported, it is advisable to leave unit secured to pallet shipping base.

1.2 SELECTING A LOCATION

The recirculating unit is designed to sit on a flat supported surface capable of supporting a minimum weight of 500 pounds (226.8 kg). Locate recirculating unit to allow approximately 15 inches (380 mm) of clear space above and in front of the unit for proper air circulation and removal of bonnet. Air is drawn in through the front grid and is exhausted out the top. The refrigeration unit and bonnet may be rotated 180 degrees on the unit. When rotating the refrigeration unit, the bonnet must also be rotated for proper air circulation. Air is then drawn in at the back of the unit and is exhausted out the top.

1.3 INSTALLING THE REMOTE RECIRCULATING UNIT

- A. Place unit in desired location. Ensure the unit is level.
- B. Remove the bonnet from the unit.



WARNING FAILURE TO TURN OFF BOTH THE CARBONATOR AND RECIRCULATING PUMP MOTORS WILL DAMAGE THE MOTORS AND PUMPS AND VOID THE WARRANTY.

ADVERTENCIA SI NO APAGA AMBOS CARBONATADOR Y RECIRCULAR MOTORES DE LAS BOMBAS DAÑARÁ EL MOTORES Y BOMBAS Y ANULAR LA GARANTÍA.

AVERTISSEMENT NON ÉTEIGNEZ LE DISPOSITIF DE CARBONATATION ET DE RECIRCULATION DES MOTEURS DE POMPE RISQUE D'ENDOMMAGER LES MOTEURS ET POMPES ET ANNULER LA GARANTIE.

- C. Turn off both the carbonator and recirculating pump motors at the control panel.
- D. Run drain line from overflow tube to floor drain or collection bucket.
- E. Remove the yellow plastic plug from the fill hole.
- F. Using a funnel or tube, fill the water bath compartment with water until it flows out of the overflow tube. Use bottled water where a water problem exists.
- G. Replace the yellow plug.

NOTE: The water bath compartment must be completely filled with water (water will flow out of the overflow tube) before plugging in the unit; otherwise, the compressor deck and condenser fan may not operate properly and the dispenser will freeze up. Locate dispenser to allow approximately 15 inches (380 mm) of unobstructed space above and six (6) inches (152 mm) of unobstructed space in back of the unit for proper air circulation and removal of bonnet. Air is drawn in through the back grill and is exhausted out the top grill.

1.4 CONNECTING TO ELECTRICAL POWER

NOTE: Adhere to the ELECTRICAL Warnings/Cautions, Page 8.



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.

1.4 CONNECTING TO ELECTRICAL POWER, CONTINUED

- A. Check the dispenser serial number plate for unit's correct electrical requirements. Do not plug into electrical outlet unless unit electrical configuration, located on serial plate, agrees with local available power supply.
- B. Route the power supply cord to a grounded electrical outlet of the proper voltage and amperage rating, and plug in the unit. This will turn on the refrigeration system and allow it to start cooling while completing the rest of the installation. EIBC units only: The control has a built-in five (5) minute delay. The refrigeration system will not start until after this delay.

1.5 CONNECTING PYTHON TO RECIRCULATING UNIT

- A. All remote units have a plain water feature. If plain water is not wanted, cap ends of plain water line with caps shipped with unit.
- B. Determine length of python required, allowing additional length as required for servicing.
- C. Position one end of python near remote unit. The python is composed of up to nine (9) individual plastic tubes (3/8 inch ID); six (6) for syrup, two (2) for soda, and one (1) for plain water. Slit the python insulation back 18 inches (457 mm) from end and roll insulation back to expose individual tubes. **TAKE CARE NOT TO CUT INTO TUBING BUNDLE.**
- D. Attach one end of syrup, soda, and plain water (if used) lines of the python line to the recirculation unit using flare seal washers. Use back-up open end wrench on fittings. **DO NOT OVER TIGHTEN.**

NOTE: Do not insulate connections at this time. Leave all connections exposed to inspect for leaks.

1.6 CONNECTING PYTHON TO TOWER



WARNING USE A SHARP KNIFE, RAZOR BLADE, OR TUBE CUTTER TO CUT TUBING. TUBING CUT WITH A SAW WILL RESULT IN PLASTIC SHAVINGS WHICH WILL PLUG THE FLOW CONTROLS IN THE DISPENSING VALVES.

ADVERTENCIA UN CUCHILLO AFILADO, CUCHILLA DE AFEITAR, OR CORTATUBOS PARA CORTAR TUBO. CORTE EL TUBO CON UNA SIERRA DARÁ LUGAR A LAS VIRUTAS DE PLÁSTICO QUE ENCHUFE LOS CONTROLES DE FLUJO EN LAS VÁLVULAS DE DISTRIBUCIÓN.

AVERTISSEMENT UTILISEZ UN COUTEAU SHARP, LAME DE RASOIR, OU TUBE CUTTER POUR COUPER DES TUBES. COUPE TUBE AVEC UNE SCIE PROVOQUER DES COPEAUX EN PLASTIQUE QUI BRANCHEZ LES CONTRÔLES DE FLUX DANS LES VANNES DE DISTRIBUTION.

- Route opposite end of python to tower. Determine length required and cut if necessary. Be sure to allow 12 inches (305 mm) of extra tubing length below the counter for servicing and moving the unit.
- Slit python insulation back 12 inches (305 mm) from end and roll insulation back to expose individual tubes.
- Connect each of the plastic lines from the python to the barbed fittings on each of the stainless steel syrup, soda, and plain water (if used) lines on the tower manifold. Start with the connections at the back of the tower manifold first. Secure with Oetiker clamps from kit.

NOTE: Do not insulate connections at this time. Leave all connections exposed to inspect for leaks.

1.7 CONNECTING TO WATER SUPPLY

NOTE: Adhere to the WATER SUPPLY Warnings/Cautions, Page 9.

- Using proper beverage tubing and fittings, connect tubing assembly to water source.
- Flush water supply line thoroughly.

NOTE: Off tastes and excessive silt, sand, or iron require that a water filter be installed in the water line supplying the carbonator. The water filter should be checked periodically, as required by local conditions. Do not connect to a heated (hot) water source or a water source supplying soft water. This will cause excessive foaming.

- Attach water supply to recirculation unit using a flare seal washer. Leave an additional 12 inches (305 mm) of extra tubing for servicing and moving unit.
- Turn on water supply.
- Vent air from the system by lifting the yellow lever on the relief valve on the carbonator tank until water comes out.
- Operate each of the dispensing faucets until a good flow of water is established and all of the air is removed from the lines.
- Check all water and soda line connections for leaks.
- Using test gauge assembly (PN 22-0138), set regulator (if installed) at 50 PSIG (0.345 MPA).

1.8 CONNECTING THE CO2 SUPPLY

NOTE: Adhere to the CARBON DIOXIDE Warnings/Cautions, Page 8.

- Connect the high pressure CO2 regulator assembly to CO2 cylinder. Use a new CO2 tank washer if regulator does not have built-in o-ring seal.
- Place CO2 cylinder in service location and secure it with a safety chain.
- Using tubing and fittings from installation kit connect tubing assembly to CO2 regulator using flare seal washer (PN 05-0011). Use a back-up open end wrench to prevent damage to regulator assembly.
- Attach tubing to recirculating unit using back-up open end wrench on fitting. Leave an additional 12 inches (305 mm) of extra tubing for servicing and moving the unit.



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.

1.9 CONNECTING THE SYRUP SUPPLY

- A. Using proper beverage tubing and fittings, connect to syrup inlets at control panel.
- B. Mark syrup tube assemblies with product ID tape.
- C. Connect to appropriate syrup pumps.

1.10 PURGING AIR FROM THE SYSTEM

- A. Turn the CO2 supply on slowly. Set CO2 pressure at 40 PSI (0.276 MPA).
- B. Turn on carbonator pump motor at control panel.

NOTE: The carbonator pump should start operating when power is restored; however, the refrigeration system will not restart for five (5) minutes (EIBC units only).

- C. Purge air from the syrup lines by actuating each dispensing valve to quiet the syrup pumps.
- D. Adjust CO2 pressure upward to 70 PSI (0.483 MPA).



WARNING UNDER NO CIRCUMSTANCE SHOULD THE CO2 PRESSURE EXCEED 80 PSI (0.552 MPA). PRESSURE ABOVE THIS LIMIT WILL RESULT IN DAMAGE TO THE SYRUP PUMPS. SHOULD REMOTE SYRUP PUMPS FAIL TO OPERATE PROPERLY AT 70 PSI (0.483 MPA), THE CO2 PRESSURE MAY BE REDUCED TO A MINIMUM PRESSURE OF 60 PSI (0.414 MPA), BUT NO LOWER.

ADVERTENCIA BAJO NINGUNA CIRCUNSTANCIA DEBE SUPERAR LA PRESIÓN DE CO2 80 PSI (0.552 MPA). PRESIÓN ENCIMA DE ESTE LÍMITE PUEDE CAUSAR DAÑOS A LAS BOMBAS DE JARABE. DEBE BOMBAS DE JARABE REMOTO IMPIDIENDO SU CORRECTO FUNCIONAMIENTO A 70 PSI (0.483 MPA), EL CO2 LA PRESIÓN PUEDE SER REDUCIDA A UNA PRESIÓN MÍNIMA DE 60 PSI (0.414 MPA), PERO NO INFERIOR.

AVERTISSEMENT EN AUCUN CAS SI LA PRESSION DE CO2 DÉPASSENT 80 PSI (0.552 MPA). PRESSION DESSUS DE CETTE LIMITE ENTRAÎNERA DES DOMMAGES À LA POMPE DE SIROP. DEVRAIT POMPES DE SIROP DE DISTANCE EMPÊCHER DE FONCTIONNER NORMALEMENT AT 70 PSI (0.483 MPA), LE CO2 LA PRESSION PEUT ÊTRE RÉDUITE À UNE PRESSION DE MINIMUM DE 60 PSI (0.414 MPA), MAIS NON INFÉRIEUR.

- E. Continue to purge air from the syrup and soda lines until all air has been removed and only soda and syrup are flowing steadily from the valve. Repeat this procedure for each valve.
- F. Turn on recirculating pump motor at control panel.

NOTE: The recirculating pump should start operating when power is restored; however, the refrigeration system will not restart for five (5) minutes (EIBC units only).

1.11 COMPLETE INSULATION BETWEEN REMOTE UNIT AND PYTHON

- A. Check all of the unit's syrup, water and CO2 connections for leaks and repair if necessary.
- B. Close the python insulation which had been rolled back earlier for connection to remote unit syrup, soda and plain water (if used) lines. Seal python insulation to remote lines with plastic tape. There should be no gaps in the insulation.



CAUTION THE PYTHON INSULATION MUST BE AIR TIGHT TO PREVENT THE FORMATION OF CONDENSATION. ALL AREAS MUST BE SEALED WITH PLASTIC TAPE AND THEN COVERED WITH INSULATION TAPE. FAILURE TO SEAL BOTH ENDS OF PYTHON WILL RESULT IN POOR PERFORMANCE FROM DISPENSER.

PRECAUCIÓN EL AISLAMIENTO PYTHON, DEBERÁ SER ESTANCO AIRE PARA EVITAR LA FORMACIÓN DE CONDENSACIÓN. TODAS LAS ÁREAS DEBEN SELLARSE CON CINTA DE PLÁSTICO Y LUEGO SE CUBRE CON CINTA AISLANTE. NO SELLAR AMBOS EXTREMOS DE PYTHON QUE PUEDE REDUCIRSE EL RENDIMIENTO DE DISTRIBUIDOR.

ATTENTION L'ISOLATION DOIT ÊTRE ÉTANCHE PYTHON AIR POUR ÉVITER LA FORMATION DES CONDENSATION. TOUS LES DOMAINES DOIVENT ÊTRE SCELLÉS AVEC DU RUBAN ADHÉSIF, PUIS RECOUVERTE AVEC ISOLATION TAPE. NON SEAL DEUX EXTRÉMITÉS DE PYTHON DONNERA UNE MAUVAISE PERFORMANCE DE DISTRIBUTEUR.

- C. Starting as close to the remote unit as possible, wrap the syrup, soda and plain water (if used) lines with a single layer of insulated tape until all plastic tape has been covered.
- D. Replace bonnet on remote unit.

1.12 COMPLETE INSULATION BETWEEN TOWER AND PYTHON

- A. Check all of the tower's syrup and water connections for leaks and repair if necessary.



CAUTION THE PYTHON INSULATION MUST BE AIR TIGHT TO PREVENT THE FORMATION OF CONDENSATION. ALL AREAS MUST BE SEALED WITH PLASTIC TAPE AND THEN COVERED WITH INSULATION TAPE. FAILURE TO SEAL BOTH ENDS OF PYTHON WILL RESULT IN POOR PERFORMANCE FROM DISPENSER.

PRECAUCIÓN EL AISLAMIENTO PYTHON, DEBERÁ SER ESTANCO AIRE PARA EVITAR LA FORMACIÓN DE CONDENSACIÓN. TODAS LAS ÁREAS DEBEN SELLARSE CON CINTA DE PLÁSTICO Y LUEGO SE CUBRE CON CINTA AISLANTE. NO SELLAR AMBOS EXTREMOS DE PYTHON QUE PUEDE REDUCIRSE EL RENDIMIENTO DE DISTRIBUIDOR.

ATTENTION L'ISOLATION DOIT ÊTRE ÉTANCHE PYTHON AIR POUR ÉVITER LA FORMATION DES CONDENSATION. TOUS LES DOMAINES DOIVENT ÊTRE SCELLÉS AVEC DU RUBAN ADHÉSIF, PUIS RECOUVERTE AVEC ISOLATION TAPE. NON SEAL DEUX EXTRÉMITÉS DE PYTHON DONNERA UNE MAUVAISE PERFORMANCE DE DISTRIBUTEUR.

- B. Close the python insulation which had been rolled back earlier for connection to tower manifold. Seal python insulation and tower manifold insulation with plastic tape. There should be no gaps in the insulation. The python insulation should be butted firmly against the tower manifold insulation and sealed in place with plastic tape.
- C. Follow valve manufacturer's recommendations for adjusting water to syrup ratio (brix).

2. SCHEDULED MAINTENANCE

2.1 DAILY

- A. Remove the nozzle and diffuser from each valve and rinse well in warm water. **DO NOT** use soap or detergent. This will cause foaming and off taste in finished product.
- B. Remove the cup rest and wash in warm soapy water.
- C. Pour warm soapy water into the drip tray and wipe with a clean cloth.
- D. With a clean cloth and warm water, wipe off all of the unit's exterior surfaces. **DO NOT USE ABRASIVE SOAPS OR STRONG DETERGENTS.**
- E. Replace the cup rest, valve diffusers, and valve nozzles.

2.2 WEEKLY

- A. Taste each product for off tastes and/or brix changes.
- B. Remove the bonnet and check the level of water in the water bath. Replenish as required, and replace the bonnet.

2.3 MONTHLY

- A. Unplug the dispenser from power source.
- B. Remove the bonnet and clean the dirt from the condenser using a soft brush.
- C. Replace the bonnet and plug in the unit.

2.4 EVERY SIX MONTHS

- A. Clean and sanitize the unit using the appropriate procedures outlined in Section 3 of this manual.

2.5 YEARLY

- A. Clean water bath interior, including evaporator coils and refrigeration components.
- B. Clean the entire exterior of the unit.
- C. Sanitize syrup lines.

3. DISPENSER CLEANING AND SANITIZATION

3.1 GENERAL INFORMATION

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

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

3.1 GENERAL INFORMATION (CONTINUED)

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

3.2 CLEANING AND SANITIZING SOLUTIONS

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

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

3.3 AMBIENT PROCESS

The ambient process is the most common method for cleaning and sanitizing dispenser equipment.

- A. Prepare the Cleaning Solution, referred to in Section 3.2.
- B. Fill lines at pump inlet with Cleaning Solution (Section 3.2). The solution should be prepared in accordance with the manufacturer's recommendations. Make sure the lines are completely filled and allow to stand for at least ten (10) minutes.
- C. Flush the detergent solution from the lines with clean water.
- D. Prepare the Sanitizing Solution, referred to in Section 3.2.
- E. Fill the lines with Sanitizing Solution. Make sure that lines are completely filled and allow to stand for ten (10) minutes.
- F. Draw drinks to refill lines and flush solution from the dispenser.
- G. Taste the beverage to verify that there is no off taste. If off-taste is found, flush the syrup system again.



CAUTION FOLLOWING SANITIZATION, RINSE WITH END-USE PRODUCT UNTIL THERE IS NO AFTERTASTE. DO NOT USE A FRESH WATER RINSE. THIS IS A NSF REQUIREMENT. RESIDUAL SANITIZING SOLUTION LEFT IN THE SYSTEM CREATES A HEALTH HAZARD.

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

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

3.4 VALVES

- A. Valves may be cleaned and sanitized in the same manner
 - 1. Remove cover and disconnect power so not to activate the valve while cleaning. 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 and twist nozzle into place.
 - 5. Connect power and replace cover. Valve is ready for operation.

4. TROUBLESHOOTING

TROUBLE	CAUSE	REMEDY
4.1 Compressor does not start (no hum), but condenser fan motor runs	A. Compressor relay or overload malfunctioning. B. Inadequate voltage. C. Incorrect wiring. D. Compressor malfunctioning	A. Replace compressor relay or overload. B. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. C. Refer to wiring diagram and correct. D. Replace compressor.
4.2 Compressor starts and continues to run until freeze up and will not cut off	A. Ice bank control failure B. Incorrect wiring.	A. Replace ice bank control. B. Refer to wiring diagram and correct.
4.3 Compressor does not start but hums	A. Inadequate voltage. B. Incorrect wiring. C. Starting relay malfunctioning. D. Compressor malfunctioning	A. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage B. Refer to wiring diagram and correct C. Replace starting relay. Be sure to use correct relay. Failure to use correct relay will cause compressor failure. D. Replace compressor
4.4 Compressor starts but does not switch off start winding (will run for only a few seconds before internal overload switches compressor off).	A. Inadequate voltage. B. Incorrect wiring. C. Starting relay malfunctioning	A. Measure voltage across common and run terminal on compressor. B. Refer to wiring diagram and correct C. Replace starting relay. Be sure to use correct relay. Failure to use correct relay will cause compressor failure.
4.5 Compressor starts and runs a short time but shuts off on overload	A. Dirty condenser B. Insufficient or blocked air flow. C. Inadequate voltage. D. Incorrect wiring. E. Defective condenser fan. F. Refrigerant leak. G. Compressor malfunctioning	A. Clean the condenser. B. Remove all obstructions and allow for minimum clearances of 15 inches (380 mm) over top. C. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. D. Refer to wiring diagram and correct. E. Replace condenser fan motor. F. Repair and recharge. G. Replace compressor

TROUBLE	CAUSE	REMEDY
4.6 Compressor and Condenser Fan Motor will not start after five (5) minute Power Off Delay (Lancer EIBC Export only)	A. Fuse blown on EIBC PCB. B. Relay will not turn on compressor C. Transformer tripped. D. Probe unplugged	A. Replace fuse on EIBC PCB. B. Failed relay. Replace Control Board. C. Reset transformer. D. Check probe connections at PCB.
4.7 Compressor and Condenser Fan Motor will not start after five (5) minute Power Off Delay (Lancer EIBC, USA Only)	A. Improper Wiring B. Probe Unplugged C. Damaged Electronics	A. Check Power Indicator Lamp; check wiring per Wiring Diagram. B. Check Probe connection at PCB. C. Replace Control
4.8 Warm Drinks	A. Restricted airflow B. Dispenser connected to hot water supply. C. Refrigeration system not running. D. Refrigeration leak. E. Condenser fan motor not working. F. Dirty Condenser. G. Dispenser capacity exceeded.	A. Check clearances around sides, top, and inlet of unit. Remove objects blocking airflow through grill. B. Switch to cold water supply. C. Refer to Sections 4.1 - 4.7. D. Repair and recharge. E. Replace condenser fan motor. F. Clean condenser. G. Add pre-chiller.
4.9 Motor fails to start (Motor hums)	A. Pump binding. B. Open Winding infield.	A. Loosen Pump Clamp and rotate Pump slightly to free binding, if this fails, replace pump. B. Replace Motor.
4.10 Motor fails to start (Motor does not hum)	A. Cutout due to overloading by pump binding. B. Blown Fuse, or Circuit Breaker tripped. C. Defective Motor. D. Defective PC Board. E. Defective Probe.	A. Let Motor cool and follow Pump binding remedy. B. Replace Fuse or reset Circuit Breaker. C. Replace Motor. D. Replace PC Board. E. Replace Probe.

TROUBLE	CAUSE	REMEDY
4.11 Motor runs continuously.	A. Water Supply shut off. B. Water supply pressure less than 25 PSIG (0.138 MPA). C. Restriction in Water Supply Line. D. Restriction in Inlet Water Check Valve. E. Restriction in Pump. F. Defective PC Board. G. Defective Probe.	A. Reestablish water supply. B. Connect Pressure Gage to Pump Tee and increase Pump By-Pass pressure to 200 PSIG (1.38 MPA) C. Locate restriction and establish proper flow. D. Disassemble Inlet Water Check Valve and clean. E. Remove and clean Pump Strainer. If Pump is still restricted, replace Pump. F. Replace PC Board. G. Replace Probe.
4.12 Water is released from Pressure Relief Valve.	A. Defective seal in Pressure Relief Valve. B. Defective Spring in Pressure Relief Valve.	A. Replace Pressure Relief Valve. B. Replace Pressure Relief Valve.
4.13 Low Carbonation	A. Low CO2 pressure. B. Leaking CO2 Supply Line.	A. Increase CO2 pressure or replace CO2 tank. B. Locate leak and repair.
4.14 Foamy Product	A. Over carbonation B. Dirty Product Valve. C. Product temperature too high.	A. Reduce CO2 pressure. B. Disassemble and clean Product Valve. C. Product temperature must be below 42°F (5.5°C). Check cooling system.

5. BASIC GO/NO GO CARBONATOR CONTROL TEST

This is a test to determine if the liquid level control is operating properly. The test will simulate the rising and falling of the water level in the tank. The test assumes the motor is known to be good.

1. Unplug Unit from AC powerline.
2. Remove cover from control box.

WARNING

115 OR 230 VAC IS PRESENT ON TERMINALS 1,2,3, AND 4

3. Remove the 3 wire probe cable connectors from the G, LO and HI terminals on the control board.
4. Plug the Unit into the AC power line. If the motor fails to run, the control board is bad. If motor does run, go to step 5.

NOTE: The carbonator motor should start running when plugged in with no probe wires attached to the control board.

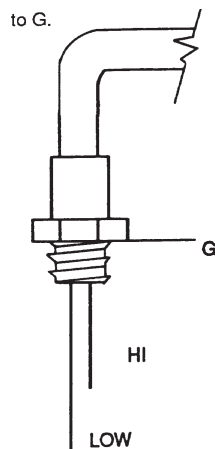
5. Connect clips to the G and to LO terminals. The motor should continue to run. If the motor does not continue to run, the board is bad. If motor runs, go to step 6.
6. Connect the remaining clip to the HI terminal. The motor should stop. If the motor does not stop, the board is bad. If motor stops, go to step 7.

NOTE: The carbonator motor should stop running as soon as the HI terminal is touched.

7. Remove clip from HI terminal and the motor should stay OFF. If the motor starts, the board is bad. If motor does not run, go to step 8.
8. Remove clip from LO terminal and the motor should start running. If the motor does not run, the board is bad. If motor runs, go to step 9.

WARNING: UNPLUG UNIT.

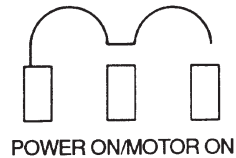
9. To reconnect the 3 probe cable connectors, remember white wire to HI, black to LO, green to G.



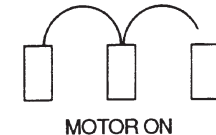
WATER LEVEL SIMULATION

G LO HI

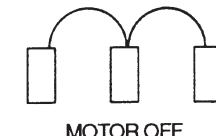
No water.



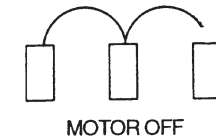
Water touching LO probe.



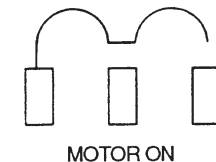
Water touching LO & HI probes.



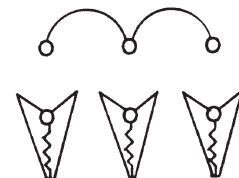
Water drops off HI probe, but still on LO probe.



No water.



ALLIGATOR CLIPS



NOTE: THIS SAME TEST SEQUENCE MAY BE USED WITH THE PROBE CONNECTED TO THE ELECTRONIC CONTROL AND USE THE ALLIGATOR JUMPER CONNECTED TO THE APPROPRIATE PROBE WIRE.

8

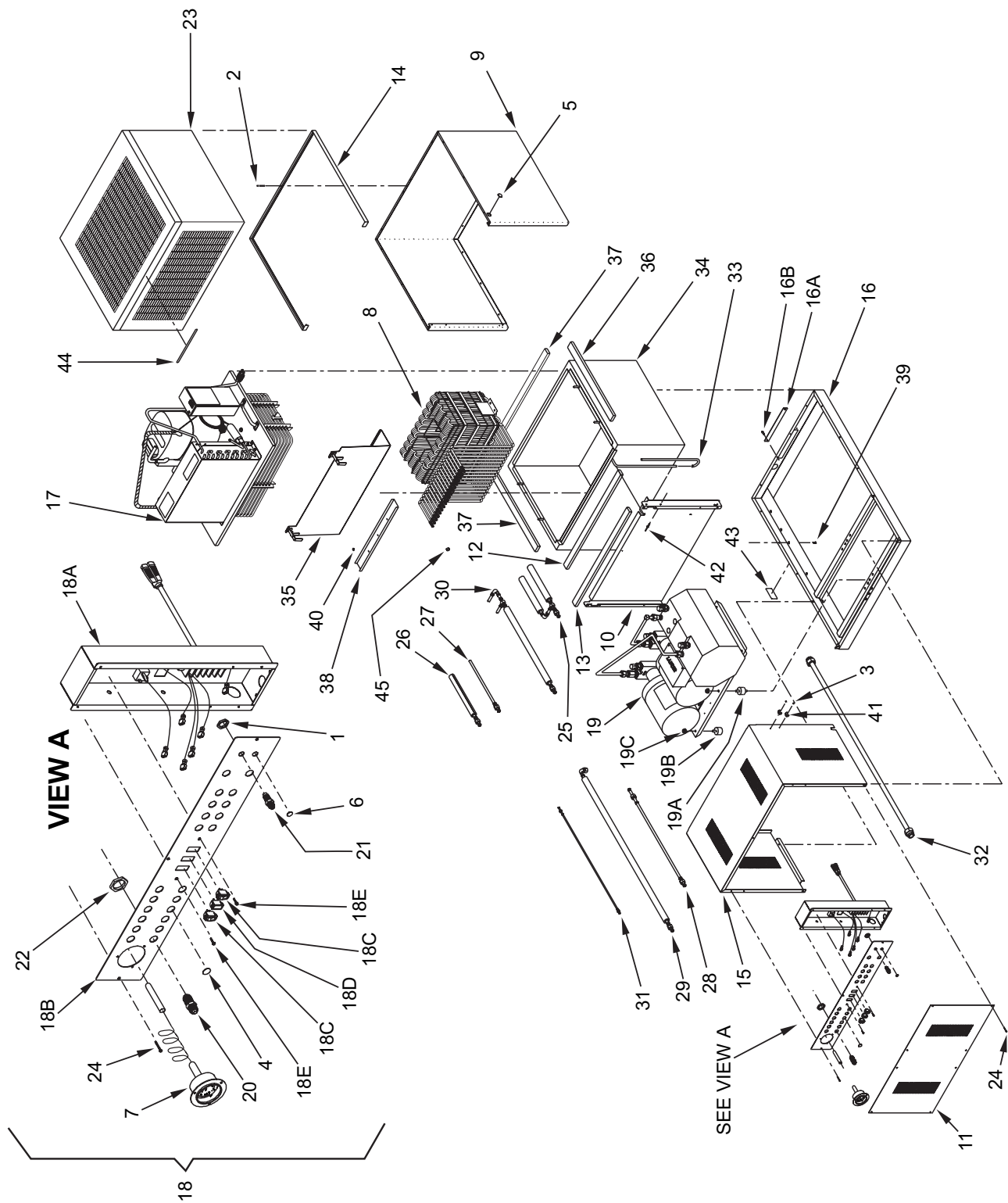
6. DISPENSER DISPOSAL



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.

7. ILLUSTRATIONS, PARTS LISTINGS, AND WIRING DIAGRAMS

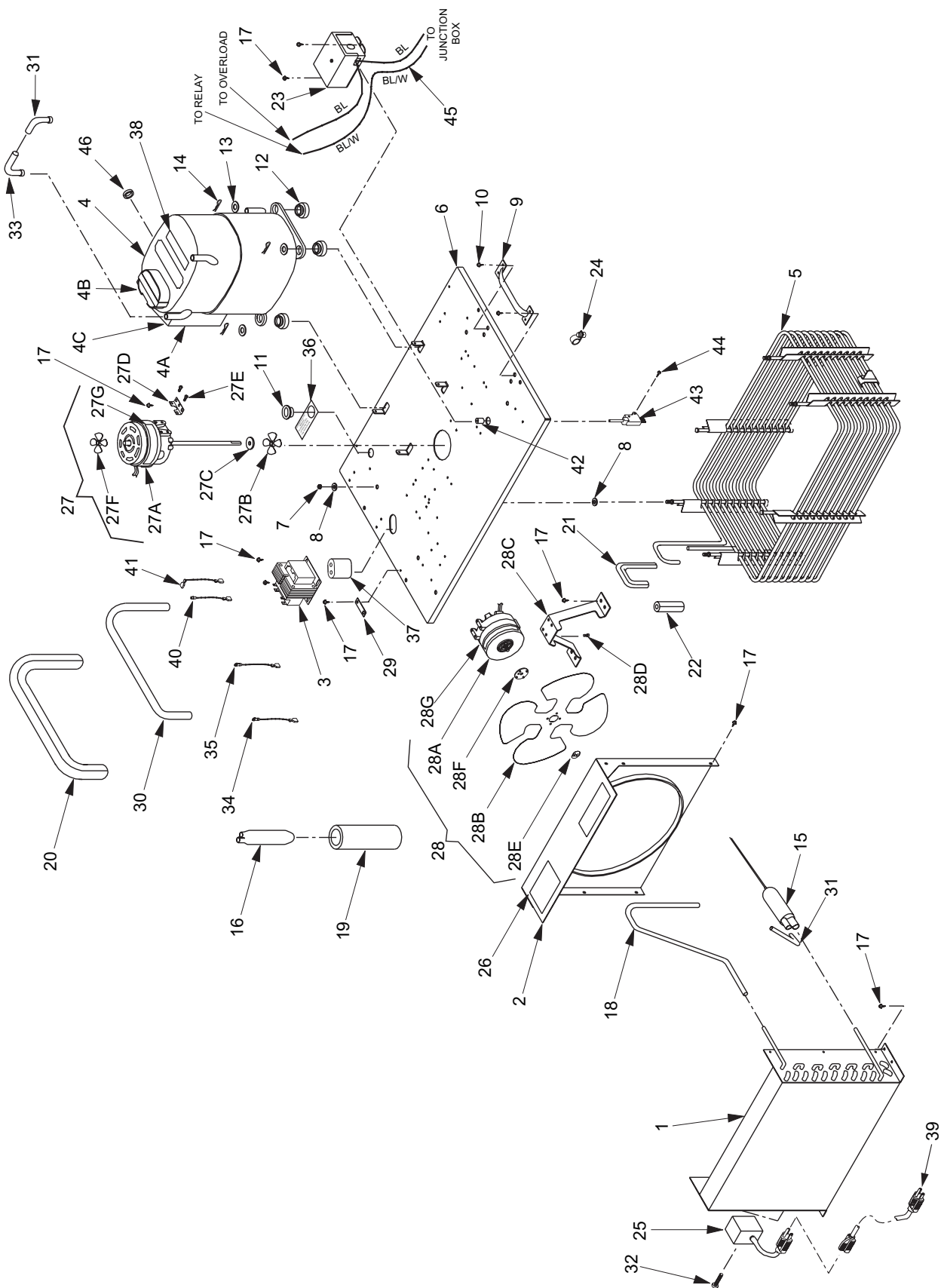
7.1 REMOTE BEVERAGE SYSTEM ASSEMBLY



7.1 REMOTE BEVERAGE SYSTEM ASSEMBLY (CONTINUED)

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Item</u>	<u>Part No.</u>	<u>Description</u>
1	04-0002/01	Nut, 7/16 - 20	30	49-0263	Tube Assy, 3/8 x 25
2	04-0067	Rivet	31	49-0264	Tube Assy, 1/4 x 15
3	04-0077	Screw, 4 - 20 x 0.250	32	49-0266	Conduit Assy, 3/4 x 46
4	07-0394	Plug, 5/8 Hole	33	08-0100	Over Flow Tube
5	05-1502	Plug, key Hole	34	42-0013	Tank Assy
6	07-0480	Plug, 0.437 Hole	35	82-1120	Insulator, Plate
7	22-0029	Thermometer	36	50-0102	Insulation, Tape, Left and Right
8	23-0798/01	Cage Assy	37	50-0184	Insulation, Tape, Back
9	30-0643/01	Wrapper, External	38	30-5599/02	Retainer
10	30-0649/02	Front Support Plate	39	04-0061	Screw, 8 - 18 x 0.500
11	30-5189	Front Panel	40	04-0082	Nut, 10 - 24, SS
12	50-0175	Insulation, Front	41	03-0115	Clip, Over Flow Tube
13	50-0180	Insulation, Top	42	04-0072	Rivet, 0.125 DIA x 0.312
14	51-0547	Trim, Gray	43	06-1580	Label, Patent
15	51-0654	Front Wrapper	44	06-0632	Label, CAUTION
16	51-0696	Base Frame Assy	45	07-0448	Oetiker Clamp, 9/16
16A	07-0146	Plate, Cover			
16B	04-0087	Screw, 8 - 32 x 0.250			
R 17	82-2670	Compressor Deck, 3/4, 115V/60Hz, EIBC, USA Only	R in margin indicates revision or change		
R -	82-2103E	Compressor Deck, 3/4, 115V/60Hz, EIBC, Export Only			
R -	82-2049E	Compressor Deck, 3/4, 230V/50Hz, EIBC, Export Only			
R -	82-2098E	Compressor Deck, 3/4, 240V/60Hz, EIBC, Export Only			
18	82-1143	Control Box Assy			
18A	52-0680	Control Box			
18B	30-5188/01	Control Panel			
18C	12-0089	Switch			
18D	12-0049	Light			
18E	04-0504	Screw, 8 - 18 x 0.375			
19	85-1927-01	Carbonator/Recirculating Deck Assy, 115V			
-	85-1928-01	Carbonator/Recirculating Deck Assy, 220V			
19A	04-0035	Isolator, 1/4 - 20. Double Stud			
19B	04-0247	Isolator, 1/4 - 20. Single Stud			
19C	04-0032	Nut, Lock, 1/4 - 20			
20	01-1060	Fitting, Bulkhead, 3/8 Flare			
21	01-0037	Fitting, Bulkhead, 7/16 Flare			
22	04-0215	Nut, 5/8 - 18			
23	23-0632	Bonnet Assy			
24	04-0190	Screw, 8 - 32 x 0.500			
25	49-0258	Tube Assy, 3/8 x 22			
26	49-0259	Tube Assy, 3/8 x 11 3/4			
27	49-0260	Tube Assy, 3/8 x 11 1/2			
28	49-0261	Tube Assy, 3/8 x 22 1/2			
29	49-0262	Tube Assy, 3/8 x 37 1/2			

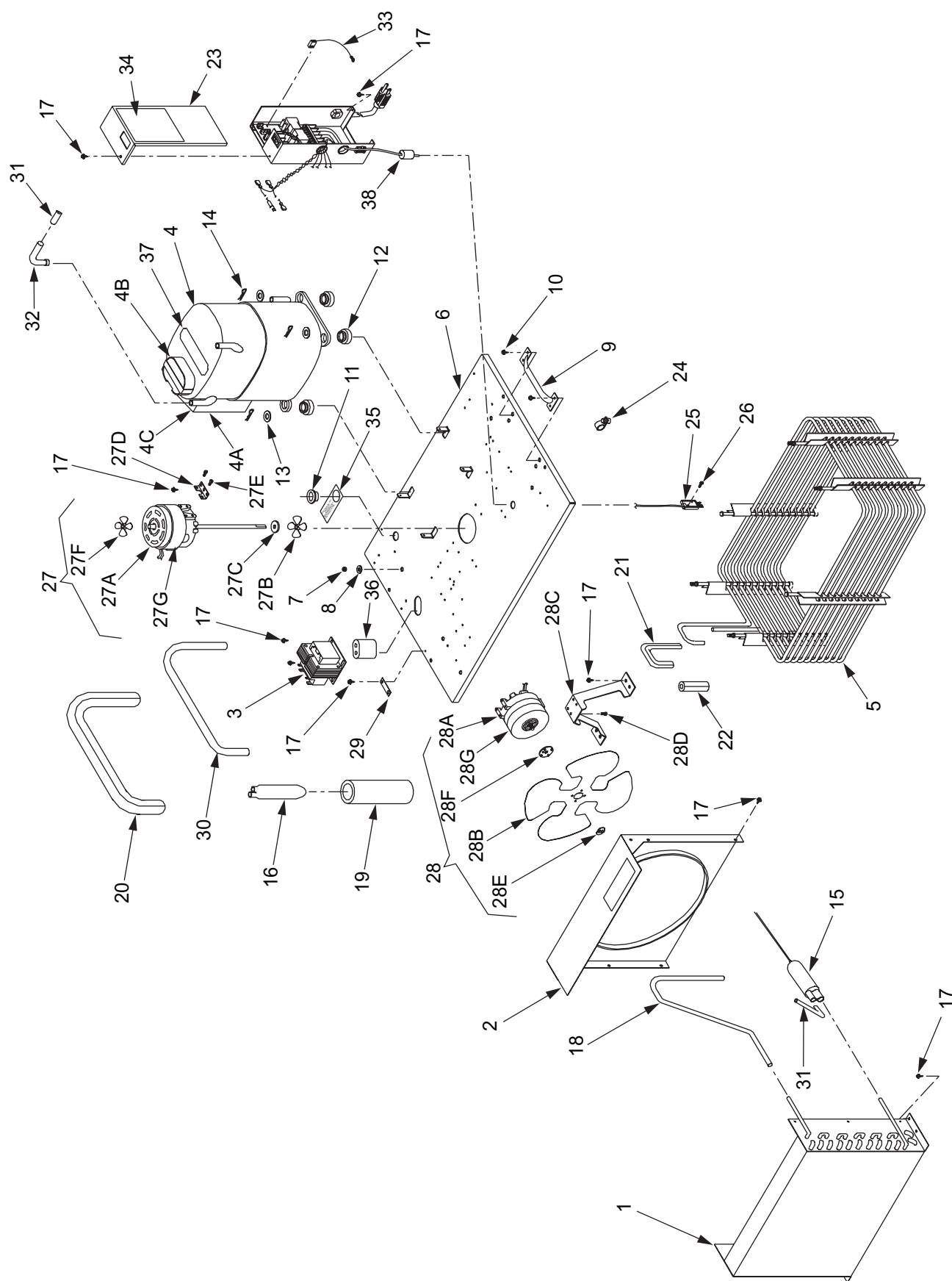
**7.2 2500 REFRIGERATION DECK ASSEMBLY, R-134A, LANCER ELECTRONIC ICE BANK
CONTROL (EIBC), USA ONLY, PN 82-2669
(MANUFACTURED FROM 01/99)**



7.2 2500 REFRIGERATION DECK ASSEMBLY, R-134A, LANCER ELECTRONIC ICE BANK CONTROL (EIBC), USA ONLY, PN 82-2669 (CONTINUED)
(MANUFACTURED FROM 01/99)

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Item</u>	<u>Part No.</u>	<u>Description</u>
R 1	23-0986	Condenser	R 33	01-1713	Reducer, Fitting, Elbow
R 2	51-0349	Shroud Assy	R 34	52-0878	Wire, Transformer Lead, Primary
R 3	25-0047	Transformer, 115V/60Hz	R 35	52-0879	Wire, Transformer Lead, Primary
R 4	83-0101	Compressor, 115V/60Hz	R 36	06-0856/01	Fill Hole Label
R 4A	12-0233	Start Capacitor, 115V/60Hz	R 37	02-0040	Seal, Extrusion
R 4B	12-0227	Overload, 115V/60 Hz	R 38	06-0663	Label, 115V/60Hz, 3/4 HP
R 4C	12-0232	Relay, 115V/60Hz	R 39	21-0085	Power Cord, USA
R -	-----	Refrigerant, R134A Only, 15.5 Ounces	R 40	52-1504	Wire Assy, Secondary, White
R 5	23-1205	Evaporator Coil Assy	R 41	52-1505	Wire Assy, Secondary, Black
R 6	82-0675	Compressor Deck Assy	R 42	02-0041	Seal
R 7	04-0032	Nut, 1/4 - 20	R 43	52-1897	Probe Assy
R 8	04-0063	Washer, 0.260 ID x 0.687 OD, SS	R 44	04-0394	Screw, 6 - 32 x 0.500, PHP, SS
R 9	07-0268	Deck Handle	R 45	52-1827	Harness Assy, EIBC
R 10	04-0260	Screw, 10 - 16 x 0.625	R 46	13-0059	Bushing, Heyco
R 11	04-0538	Fill Hole Plug	R in margin indicates change or revision		
R 12	02-0114	Grommet, Compressor			
R 13	04-0537	Washer, Compressor			
R 14	03-0150	Retainer Clip, Compressor			
R 15	23-0999	Dryer/Capillary Tube Assy			
R 16	51-5400	Accumulator			
R 17	04-0504	Screw, 8 - 18 x 0.375			
R 18	47-2064	Tube, High Side			
R 19	50-0105	Accumulator Insulator Boot			
R 20	50-0106	Insulation, Low Side			
R 21	50-0107	Insulation, Evaporator Outlet			
R 22	50-0108	Insulation, Evaporator Inlet			
R 23	52-1882	Electronic Ice Bank Control (EIBC)			
R 24	03-0049	Cord Clip			
R 25	52-0100	Power, Junction Assy			
R 26	06-0031/01	Wiring Diagram, 2500			
R 27	52-1259	Agitator Motor Assy, 115V/60Hz			
R 27A	91-0083	Motor, Agitator, 115V/60Hz			
R 27B	05-0502	Propeller, Agitator			
R 27C	02-0032	Washer, Rubber, 1.000 OD			
R 27D	30-5113/01	Agitator Motor Bracket			
R 27E	04-0059	Screw, 8 - 36 x 0.375			
R 27F	05-0424/01	Agitator Fan			
R 27G	06-0633	Label, 115V/60Hz, 25W			
R 28	52-0740	Fan Motor Assy, 115V/60Hz			
R 28A	91-0017	Fan Motor, 115V/60Hz			
R 28B	07-0257	Fan Blade			
R 28C	30-0043	Bracket, Fan Motor			
R 28D	04-0059	Screw, 8 - 36 x 0.375			
R 28E	04-0060	Nut, Fan Blade			
R 28F	02-0413	Silencer, Fan Blade			
R 28G	06-0667	Label, 115V/60Hz, 35W			
R 29	11-0118	Connector, Ground			
R 30	47-2033/01	Tube, Suction			
R 31	47-0344	Tube, Process			
R 32	04-0070	Screw, 10 - 24 x 1.312			

**7.3 2500 REFRIGERATION DECK ASSEMBLY WITH ELECTRONIC ICE BANK CONTROL (EIBC),
R-134A; PN 82-2049E, 230V/50Hz; PN 82-2103E, 115V/60Hz; PN 82-2098E, 240V/60Hz
(INTERNATIONAL ONLY)**

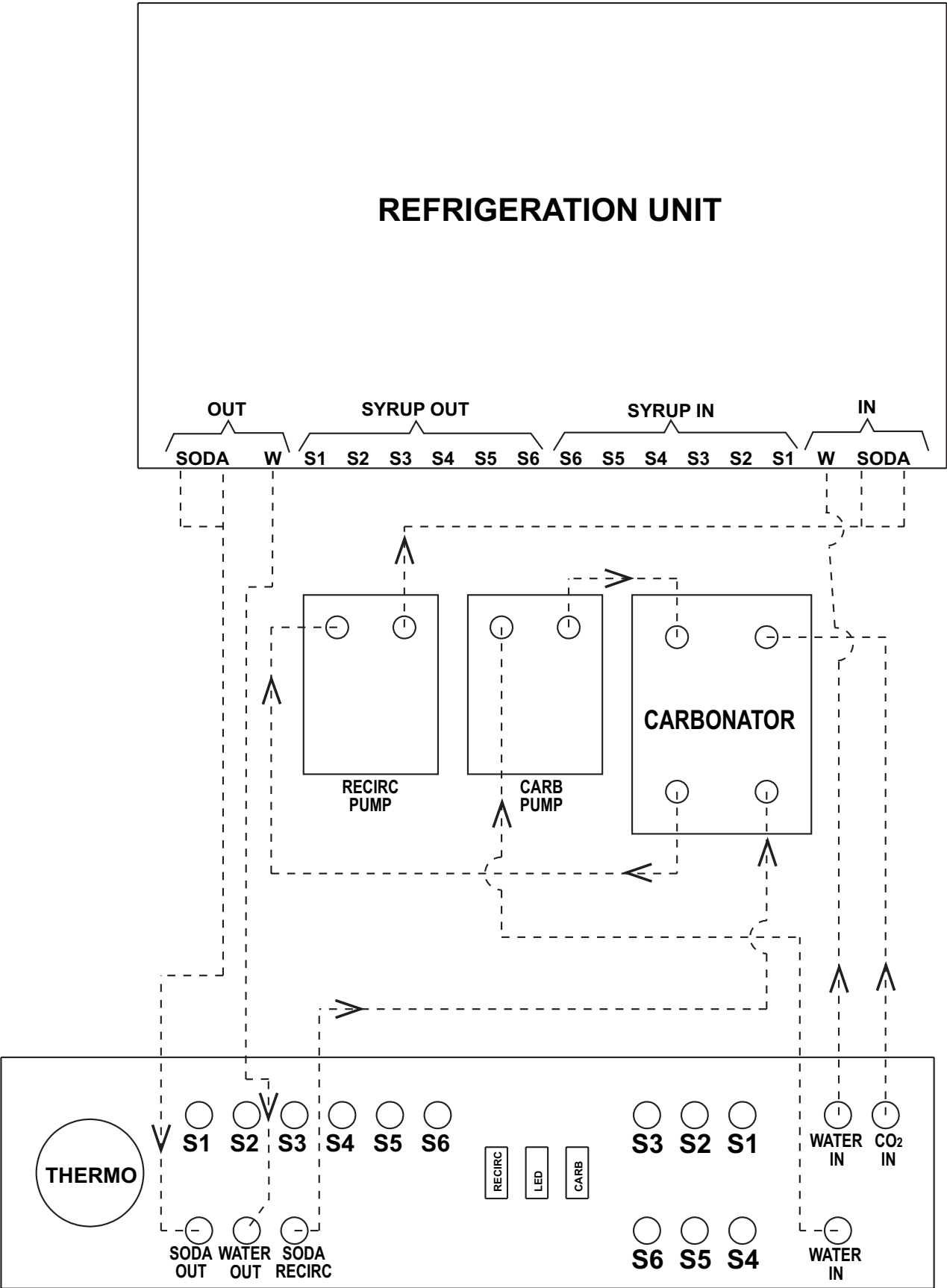


**7.3 2500 REFRIGERATION DECK ASSEMBLY WITH ELECTRONIC ICE BANK CONTROL (EIBC),
R-134A; PN 82-2049E, 230V/50Hz; PN 82-2103E, 115V/60Hz; PN 82-2098E, 240V/60Hz
(CONTINUED)**

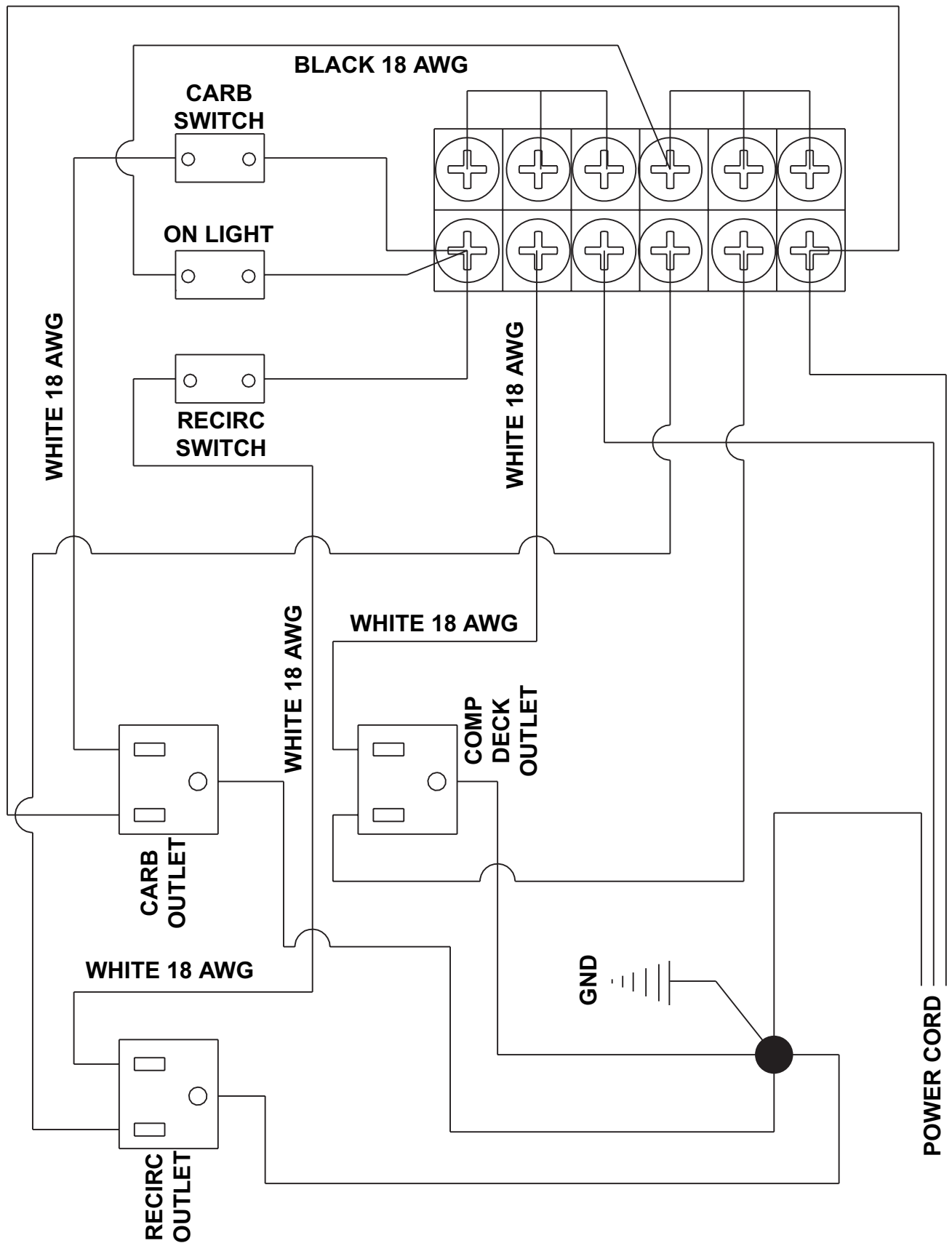
(INTERNATIONAL ONLY)

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Item</u>	<u>Part No.</u>	<u>Description</u>
R 1	23-0986	Condenser	R 27F	05-0424/01	Agitator Fan
R 2	51-0349	Shroud Assy	R 27G	06-0633	Label, 115V/60Hz, 25W
R 3	25-0047	Transformer, 115V/60Hz	R -	06-0634	Label, 230V/50-60Hz, 25W
R -	25-0048	Transformer, 230V/50-60Hz	R 28	52-0740	Fan Motor Assy, 115V/60Hz
R 4	83-0101	Compressor, 115V/60Hz	R -	52-0741	Fan Motor Assy, 240V/60Hz
R -	83-0102	Compressor, 230V/50Hz	R -	52-0742	Fan Motor Assy, 230V/50Hz
R -	83-0103	Compressor, 240V/60Hz	R 28A	91-0017	Fan Motor, 115V/60Hz
R 4A	12-0233	Start Capacitor, 115V/60Hz	R -	91-0018	Fan Motor, 230V/50Hz
R -	12-0235	Start Capacitor, 230V/50Hz	R -	91-0019	Fan Motor, 240V/60Hz
R -	12-0246	Start Capacitor, 240V/60Hz	R 28B	07-0257	Fan Blade
R 4B	12-0227	Overload, 115V/60Hz	R 28C	30-0043	Bracket, Fan Motor
R -	12-0045	Overload, 230V/50Hz	R 28D	04-0059	Screw, 8 - 36 x 0.375
R -	12-0043	Overload, 240V/60Hz	R 28E	04-0060	Nut, Fan Blade
R 4C	12-0232	Relay, 115V/60Hz	R 28F	02-0413	Silencer, Fan Blade
R -	12-0236	Relay, 230V/50Hz	R 28G	06-0667	Label, 115V/60Hz, 35W
R -	12-0247	Relay, 240V/60Hz	R -	06-0668	Label, 230V/50Hz, 35W
R -	-----	Refrigerant, R134A Only; 115V/60Hz and 240V/60Hz, 15.50 Ounces; 230V/50Hz, 15.75 Ounces	R -	06-0669	Label, 240V/60Hz, 35W
R 5	23-1205	Evaporator Coil Assy	R 29	11-0118	Connector, Ground
R 6	82-0675	Compressor Deck Assy	R 30	47-2033/01	Tube, Suction
R 7	04-0032	Nut, 1/4 - 20	R 31	47-0344	Tube, Process
R 8	04-0063	Washer, 0.260 ID x 0.687 OD, SS	R 32	01-1713	Reducer, Fitting, Elbow
R 9	07-0268	Deck Handle	R 33	52-2027	Harness Assy, EIBC Ground
R 10	04-0260	Screw, 10 - 16 x 0.625	R 34	06-1542	Wiring Diagram, Label, EIBC
R 11	04-0538	Fill Hole Plug	R 35	06-0856/01	Fill Hole Label
R 12	02-0114	Grommet, Compressor	R 36	02-0040	Seal, Extrusion
R 13	04-0537	Washer, Compressor	R 37	06-0663	Label, 115V/60Hz, 3/4HP
R 14	03-0150	Retainer Clip, Compressor	R -	06-0664	Label, 230V/50Hz, 3/4HP
R 15	23-0999	Dryer/Capillary Tube Assy	R -	06-0665	Label, 240V/60Hz, 3/4HP
R 16	51-5400	Accumulator	R 38	02-0041	Seal
R 17	04-0504	Screw, 8 -18 x 0.375	R in margin indicates change or revision		
R 18	47-2064	Tube, High Side			
R 19	50-0105	Accumulator Insulator Boot			
R 20	50-0106	Insulation, Low Side			
R 21	50-0107	Insulation, Evaporator Outlet			
R 22	50-0108	Insulation, Evaporator Inlet			
R 23	52-2026	Control Housing Assy, EIBC			
R 24	03-0049	Cord Clip			
R 25	52-1773	Probe Assy, EIBC			
R 26	04-0394	Screw, 6 -32 x 0.500			
R 27	52-1259	Agitator Motor Assy, 115V/60Hz			
R -	52-1118	Agitator Motor Assy, 220-240V/50-60Hz			
R 27A	91-0083	Motor, Agitator, 115V/60Hz			
-	91-0086	Motor, Agitator, 230V/50Hz and 240V/60Hz			
R 27B	05-0502	Propeller, Agitator			
R 27C	02-0032	Washer, Rubber, 1.000 OD			
R 27D	30-5113/01	Agitator Motor Bracket			
R 27E	04-0059	Screw, 8 - 36 x 0.375			

7.4 FLOW DIAGRAM



7.5 WIRING DIAGRAM



LANCER[®]

Lancer Corp.

800-729-1500

Technical Support/Warranty: 800-729-1550

custserv@lancercorp.com

lancercorp.com