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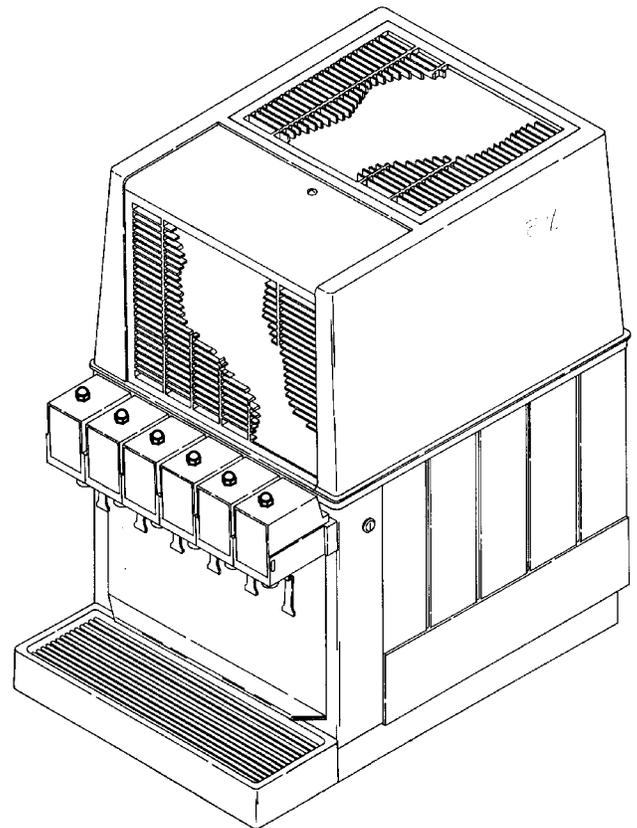
Installation/Service Manual VENTURE POST-MIX DISPENSER (Non-Carbonated)

IMPORTANT:

TO THE INSTALLER.

It is the responsibility of the Installer to ensure that the water supply to the dispensing equipment is provided with protection against backflow by an air gap as defined in ANSI/ASME A112.1.2-1979; or an approved vacuum breaker or other such method as proved effective by test.

Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed, and maintained according to Federal, State, and Local Codes.



Part No. 2095
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Control Code A-D

THIS DOCUMENT CONTAINS IMPORTANT INFORMATION

This Manual must be read and understood before installing or operating this equipment

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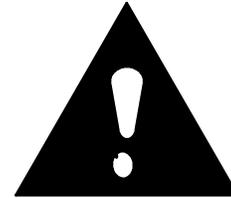
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SAFETY INFORMATION

Recognize Safety Information

This is the safety-alert symbol. When you see this symbol on our machine or in this manual, be alert to the potentiality of personal injury.

Follow recommended precautions and safe operating practices.



Understand Signal Words

A signal word - **DANGER**, **WARNING**, OR **CAUTION** is used with the safety-alert symbol. **DANGER** identifies the most serious hazards.

Safety signs with signal word **DANGER** or **WARNING** are typically near specific hazards.

General precautions are listed on **CAUTION** safety signs. **CAUTION** also calls attention to safety messages in this manual.



Follow Safety Instructions

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Learn how to operate the machine and how to use the controls properly. Do not let anyone operate the machine without instructions. Keep your machine in proper working condition. Unauthorized modifications to the machine may impair function and/or safety and affect the machine life.

CO₂ (Carbon Dioxide) Warning

CO₂ Displaces Oxygen. Strict Attention *must* be observed in the prevention of CO₂ (carbon dioxide) gas leaks in the entire CO₂ and soft drink system. If a CO₂ gas leak is suspected, particularly in a small area, *immediately* ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentration of CO₂ gas will experience tremors which are followed rapidly by loss of consciousness and suffocation.

Shipping, Storing, Or Relocating Unit

CAUTION: Before shipping, storing, or relocating the Unit, syrup systems must be sanitized and all sanitizing solution must be purged from the syrup systems. All water must also be purged from the plain and carbonated water systems. A freezing ambient environment will cause residual sanitizing solution or water remaining inside the Unit to freeze resulting in damage to the internal components.

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GENERAL INFORMATION

This manual is a guide for installing, operating, and maintaining this equipment. Refer to Table of Contents for page location of detailed information pertaining to questions that may arise during installation, operation, service and maintenance, or troubleshooting this equipment.

GENERAL DESCRIPTION

This section gives the description, theory of operation, and design data for the Five and Six-Flavor Venture Non-Carbonated Post-Mix Dispensers (hereafter referred to as the Units).

This Unit must be installed and serviced by a qualified Service Person. This Unit contains no User serviceable parts.

UNIT DESCRIPTION

The Units are compact with high-impact and corrosion resistant moulded lower housings and may be island-mounted or installed on a front or rear counter. Their refrigeration assemblies are the drop-in type which can be removed for service and maintenance. Adjustable syrup flow regulators, located on the dispensing valves, are easily accessible to control Water-To-Concentrate "Ratio" of the dispensed product. All Units have electric dispensing valves. These Unit are equipped with a 1/3-H.P. refrigeration assembly. Installation of Unit on the countertop, installation of LOOSE-SHIPPED PARTS, connection of plain water and concentrate supplies, adjustment of CO₂ regulator, filling water tank with water, and plugging the Unit power cord into an electrical outlet is all that is required for operation.

NOTE: Optional 4-inch Legs (P/N 314744000) that will elevate the Unit 4-inches above the countertop are available. When ordering legs, order a quantity of four.

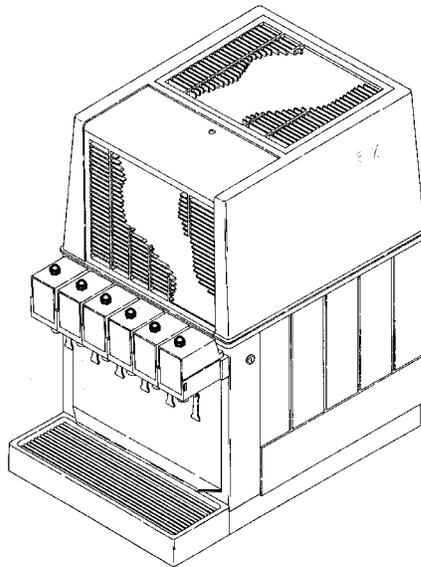


FIGURE 1. SIX-FLAVOR VENTURE NON-CARBONATED POST-MIX DISPENSER

WARRANTY REFERENCE INFORMATION

Warranty Registration Date (to be filled out by customer)
Unit Part Number:
Serial Number:
Install Date:
Local Authorized Service Center:

Table 1. Design Data	
Unit Part No.	
Five-Flavor Unit	412155
Five-Flavor Unit W/illuminated Merchandiser	412165
Six-Flavor Unit	412156
Six-Flavor Unit W/illuminated Merchandiser	412166
Overall Dimensions:	
Width	16 inches
Height	27-5/8 inches
Depth	24-1/2 inches
Weights: (approximate)	
Shipping (Cartoned Weight)	110 lbs.
Dry Weight (Approx.)	100 lbs.
Ice Bank Weight	31 lbs
Drop in Refrigeration Assembly	58 lbs
Dispensing Rate:	650 Drinks (see NOTE)
NOTE: Number of 12-oz. drinks dispensed at 40° F or below when syrup and water inlet temperature and ambient temperature are at 75° F.	
Water Tank Capacity (no ice bank) approximate:	9-3/4 gallons
Refrigerant Requirement	See Unit Nameplate
Ambient Operating Temperature	40° F to 100° F
Water Inlet Pressure Range	25-45 PSI
Electrical Requirements:	See Unit Nameplate
Legs	(Optional) see NOTE below
NOTE: Optional 4-inch Legs (P/N 314744000) that will elevate the Unit 4-inches above the countertop are available. When ordering the legs, order a quantity of four.	

THEORY OF OPERATION

The Unit was set up at the factory to dispense all non-carbonated drinks. A CO₂ cylinder delivers carbon dioxide (CO₂) gas through an adjustable CO₂ regulator to the Bag-in-Box syrup pumps. When a dispensing valve is opened, the syrup pump starts and pumps syrup through the syrup lines to the dispensing valve. Plain water is pushed through the Unit cooling coils to to dispensing valve. Syrup and water meet simultaneously at the dispensing valve resulting in a non-carbonated drink being dispensed.

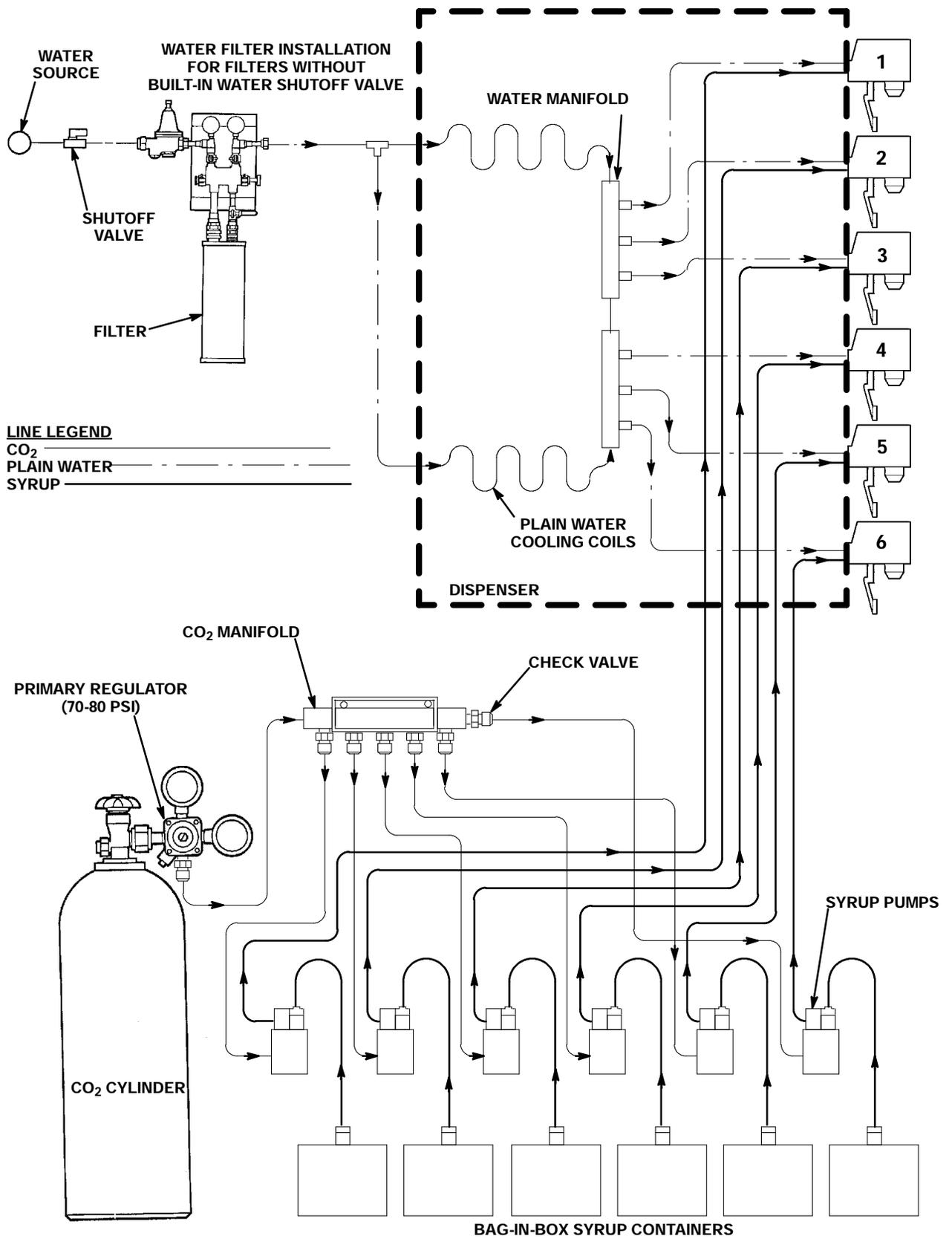


FIGURE 2. FLOW DIAGRAM (SIX-FLAVOR UNIT SHOWN)

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INSTALLATION

This section covers unpacking and inspection, selecting location, installing Unit, preparing for operation, and Unit operation.

UNPACKING AND INSPECTION

(see Figure 4).

Note: The Unit was thoroughly inspected before leaving the factory and the carrier has accepted and signed for it. Any damage or irregularities should be noted at the time of delivery (or not later than 15 days from date of delivery) and immediately reported to the delivering carrier. Request a written inspection report from Claims Inspector to substantiate any necessary claim. File claim with the delivering carrier, not with IMI Cornelius Inc.

1. After Unit has been unpacked, remove shipping tape and other packing material.
2. Remove four shipping nuts that secure drop-in refrigeration assembly in Unit.
3. Remove two screws securing Unit front access panel, then pull out on bottom of panel to remove.
4. Unpack LOOSE-SHIPPED PARTS. Make sure all items are present and in good condition.

Item No.	Part No.	Name	Qty.
1	317659039	Drip Tray	1
2	317660000	Cup Rest	1
3	3573	Cover, Back Access Hole	1
4	187254000	Screw, Sheet Metal, Phil Truss Hd; Type A, No. 6 by 3/8-inch. Long	2
5	318523-088	Baffle & O-Ring (see NOTE)	1

NOTE: BAFFLE & O-RING (item 5) is LOOSE-SHIPPED with Units equipped with Cornelius SF-1 dispensing valves. The baffle & O-ring is to be used only when dispensing concentrate that does not contain pulp.

SELECTING LOCATION



WARNING: To avoid possible fatal electrical shock or serious injury to the operator, it is **highly recommended** that a GFI (ground fault circuit interrupt) be installed in the electrical circuit for the domestic Units. It **is required** that an ELCB (earth leakage circuit breaker) be installed in the electrical circuit for the export Units.

This Unit may be island-mounted or installed on a front or rear counter. Locate the Unit so the following requirements are satisfied.

1. The Unit *must* be installed near a properly grounded electrical outlet with proper electrical requirements. The electrical circuit *must* be properly fused ("slow-blow" type fuse) or the circuit *must* be connected through an equivalent HACR circuit breaker. The electrical outlet *must* be accessible for ease of connecting and disconnecting the Unit power cord. No other electrical equipment should be connected to this circuit. **ALL ELECTRICAL WIRING MUST CONFORM TO NATIONAL AND LOCAL ELECTRICAL CODES.**



CAUTION: Do not place or store anything on top of the Unit.

2. Clearance above top of the Unit *must* be open to the ceiling. A minimum clearance of 12-inches *must* be maintained on the back side of the Unit and a minimum of 6-inches clearance to the nearest obstruction *must* be maintained on both sides of the Unit. These clearances *must* be provided to allow for proper air flow through the Unit to cool the refrigeration system. The Unit *must* be located close to a permanent drain to route the Unit drip tray and water tank drain hoses to the drain.

INSTALLING UNIT



CAUTION: This Unit is intended for indoor installation *only*. Do not install this Unit in an outdoor environment which would expose it to the outside elements.

INSTALLING UNIT ON COUNTERTOP

The drip tray drain hose, water tank drain hose, and the Unit power cord may either be routed out through access hole on back of the Unit or they may be routed down through hole cut in the countertop under front of the Unit. The concentrate source inlet lines and the plain water source inlet line that are to be connected to the Unit behind the front access panel may either be routed through back access hole or they may be routed up through hole cut in the countertop up to the Unit.

1. *Out Unit base back access hole* - Route drip tray drain hose, water tank drain hose, and the Unit power cord out Unit base back access hole. The concentrate and plain water source inlet lines that are to be connected to the Unit will be routed in through the back access hole up up to front of the Unit for connection to the Unit.

Through Hole Cut in Countertop - Place Unit in operating location on the countertop flush with the countertop edge. Cut hole in the countertop directly below the front bulkhead of the Unit to allow routing the drip tray drain hose, water tank drain hose, and the Unit power cord down through the hole and for routing the concentrate and plain water source inlet lines up through hole to connections on front of the Unit. Install COVER, BACK ACCESS HOLE (item 3) over Unit back access hole.

2. To comply with NSF International (NSF) requirements within the United States, the Unit must be sealed to the countertop and all access holes to the Unit base must be closed and sealed. Proceed as follows to seal the Unit base.
 - A. Tilt Unit up to expose bottom of base.
 - B. Liberally apply silastic sealant such as Dow Corning RTV 731 or equivalent on base bottom edges.

NOTE: Do not move Unit after positioning or seal from base to countertop will be broken.

- C. Lower Unit into operating position on the countertop to complete seal from base to countertop.
 - D. Apply additional sealant around bottom of base. Seal must have a minimum radius of 1/2-inch to prevent crevices and to insure a complete seal.
 - E. All access holes to the Unit base *must* be closed and sealed.
3. BAFFLE & O-RING (item 5) is LOOSE-SHIPED only with Units equipped with Cornelius SF-1 dispensing valves. The baffle & O-ring is only to be used when dispensing concentrate that does not contain pulp.
 - A. Remove dispensing valve nozzle
 - B. Install baffle on the dispensing valve.
 - C. Replace nozzle on dispensing valve.

FILL WATER TANK AND START REFRIGERATION SYSTEM

(see Figure 4)

1. Make sure plug in water tank drain hose is secure.

NOTE: Use low-mineral-content water where a local water problem exists.

2. Remove plug from drop-in refrigeration assembly platform water fill hole. Fill water tank with clean water to top off stainless steel coils in the coil basket. *USE LOW-MINERAL-CONTENT WATER WHERE A LOCAL WATER PROBLEM EXISTS.*
3. Install plug in water fill hole.
4. Place dispensing valves keyed lock-out switch, located on right side (facing front of Unit) in "OFF" position.
5. Place Unit power switch, located on right side (facing front of Unit), in "OFF" position.



WARNING: The Unit must be electrically grounded to avoid possible fatal electrical shock or serious injury to the operator. The Unit power cord is equipped with a three-prong plug. If a three-hole (grounded) electrical outlet is not available, use an approved method to ground the Unit.

6. Plug Unit power cord into a grounded electrical outlet with proper electrical requirements.
7. Place Unit power switch in "ON" position. The compressor, condenser fan motor, and agitator motor will start and begin forming an ice bank. When a full ice bank has been formed, the compressor and condenser fan motor will stop but the agitator motor will continue to operate circulating ice water bath in the water tank.

CONNECTING DRIP TRAY DRAIN HOSE TO PERMANENT DRAIN

NOTE: Drip tray drain hose routed to a waste container is not recommended due to sanitation and cleaning problems. Connection of drain hose to a permanent drain is recommended.

1. Preferably, route lower end of drip tray drain hose and the water tank drain hose to a permanent drain.
2. Place DRIP TRAY (item 1) in position on Unit, then install CUP REST (item 2).

CONNECTING PLAIN WATER INLET SUPPLY LINE TO UNIT

(see Figures 2 and 4)

NOTE: IMI Cornelius Inc. recommends that a water shutoff valve and water filter be installed in the plain water source inlet line to be connected to the Unit. The plain water source water pressure *must* not exceed 45-psi. If water pressure exceeds 45-psi, a water pressure regulator *must* be used to regulate the water pressure.

The plain water source to the equipment shall be installed with adequate back flow protection to comply with applicable Federal, State, and local laws.

1. Make sure plain water source inlet line meets specifications stated in the previous **NOTE**, then route plain water source line to location behind the Unit front access panel.
2. Connect plain water source inlet line to barbed tee fitting located in the plain water line behind the front access panel.

CONNECTING CONCENTRATE SOURCE LINES TO UNIT

(see Figures 2 and 3)

Proceed as follows to connect concentrate source lines to the Unit barbed stainless-steel concentrate inlet tubes.

NOTE: The barbed stainless-steel concentrate inlet tubes, located on front of the Unit, are labeled to identify the dispensing valves they serve. For example, the barbed concentrate inlet stainless-steel tube labeled "1" provides concentrate to be dispensed from No. 1 dispensing valve.

1. Route concentrate source lines (to be numbered for identification) from the concentrate source location up to the Unit.
2. Connect the numbered concentrate source lines to the corresponding labeled Unit barbed stainless-steel concentrate inlet tubes.

PREPARING FOR OPERATION

1. Make sure DRIP TRAY (item 1) and CUP REST (item 2) are in place on Unit.
2. Open plain water inlet supply line shutoff valve.
3. Make sure the electric dispensing valve keyed lock-out switch (left-side facing front of Unit) is in the "ON" (vertical) position
4. Dispense from all dispensing valves to purge all air from plain water systems.
5. Check entire plain water system for leaks and tighten any loose connections.
6. The dispensing valves adjustable water flow regulators have been factory adjusted and should require no further adjustment. If re-adjustment should be necessary, adjust dispensing valves water flow rates as instructed in SERVICE AND MAINTENANCE section of this manual.



WARNING: CO₂ displaces oxygen. Strict attention *must* be observed in the prevention of CO₂ (carbon dioxide) gas leaks in the entire CO₂ and soft drink system. If a CO₂ gas leak is suspected, particularly in a small area, *immediately* ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentration of CO₂ gas will experience tremors which are followed rapidly by loss of consciousness and suffocation.



CAUTION: Make sure the concentrate pumps primary CO₂ regulator adjusting screw is turned to the left (counterclockwise) until all tension is relieved from the adjusting screw spring before opening the CO₂ cylinder shutoff valve.

7. Open (counterclockwise) CO₂ cylinder shutoff valve slightly to allow lines to slowly fill with gas, then open valve fully to back-seat valve. (Back-seating valve prevents leakage around valve shaft).
8. Adjust concentrate pumps primary CO₂ regulator to between 40 and 60 psi. ***DO NOT EXCEED MAXIMUM PRESSURE SPECIFIED ON THE CONCENTRATE PUMPS.***
9. Check all CO₂ connections for leaks. Tighten any loose connections.

IMPORTANT: All concentrate systems must be sanitized before Unit is put into operation.

10. Sanitize all concentrate systems as instructed in SERVICE AND MAINTENANCE section of this manual.
11. Install full concentrate bag-in-boxes into concentrate systems.
12. Dispense from all dispensing valves to purge all air from the concentrate systems.

13. Adjust dispensing valves for water-to-concentrate "Ratio" of dispensed drinks as instructed in SERVICE AND MAINTENANCE section of this manual.
14. Check entire system for CO₂ gas, plain water, and concentrate leaks and tighten any loose connections.
15. Install Unit front access panel and secure with two screws.

NOTE: Circulating air, required to cool the refrigeration assembly condenser coil, is drawn in through grille on end of the hood and is exhausted out through grille on top of the hood. For proper cooling of the condenser coil, grille on end of the hood must be positioned over the condenser coil.

16. Install hood on Unit as follows:

Standard Hood.

Install hood on Unit and secure with screw. *Make sure grille on end of the hood is positioned over the condenser coil.*

Hood With Illuminated Merchandiser.

- A. Place Unit power switch, located on right side (facing front of Unit), in "OFF" position.
- B. Lay hood with illuminated merchandiser on it's side, then remove illuminated merchandiser power cord from shipping holders on underside of the hood.
- C. Hold hood in position above the Unit, then plug hood illuminated merchandiser power cord plug into electrical adapter on the drop-in refrigeration assembly power cord.
- D. Lower hood down into position on the Unit and secure with screw. *Make sure grille on end of the hood is positioned over the condenser coil.*
- E. Place Unit power switch, located on right side (facing front of Unit), in "ON" position.

DISPENSING VALVE
BLOCK (6)

DISPENSING VALVE
RELEASE LATCH (6)

SAFETY LATCH

BARBED
CONCENTRATE
INLET TUBES (6)

PLAIN WATER
INLET CONNECTION

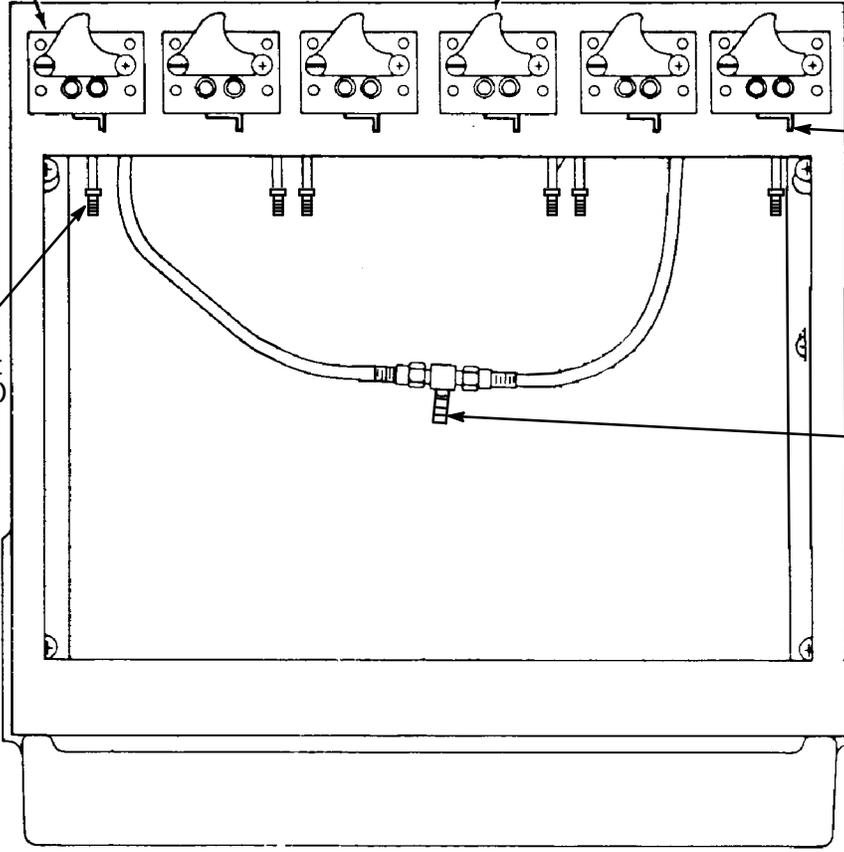


FIGURE 3. INLET SUPPLY LINE CONNECTIONS (SIX-FLAVOR UNIT SHOWN)

OPERATORS INSTRUCTIONS

This section covers operating controls, daily pre-operation check, Unit operation, adjustments, replenishing CO₂ and concentrate supplies, cleaning and sanitizing, checking drop-in refrigeration assembly condenser coil for restrictions, checking ice water bath, and periodic cleaning of CO₂ gas check valves.



WARNING: Disconnect electrical power to unit to prevent personal injury before attempting any internal maintenance. Only qualified personnel should service internal components or electrical wiring.



CAUTION: Do not place or store anything on top of the Unit.

DISPENSING VALVE LEVER

Dispensing lever, located on bottom of the dispensing valve, need only to be pressed with cup or glass to dispense product.

DISPENSING VALVE WITH WATER LEVER

Water lever, located on side of the dispensing valve cover, will dispense only plain water when actuated.

DISPENSING VALVES KEYED LOCK-OUT SWITCH

Dispensing valves keyed lock-out switch, located on left side of the Unit, must be in "ON" (vertical) position to operate electric dispensing valves. Keyed lock-out switch in "OFF" (horizontal) position turns off electrical power to the dispensing valves which prevents dispensing of product.

UNIT POWER SWITCH

Unit power switch, (located on right side of the Unit), must be in the "ON" position before the Unit will operate.

DAILY PRE-OPERATION CHECK



WARNING: CO₂ displaces oxygen. Strict attention *must* be observed in the prevention of CO₂ (carbon dioxide) gas leaks in the entire CO₂ and soft drink system. If a CO₂ gas leak is suspected, particularly in a small area, *immediately* ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentration of CO₂ gas will experience tremors which are followed rapidly by loss of consciousness and suffocation.

1. Check CO₂ cylinder regulator assembly 1800-psi gage and if gage indicator is in shaded ("change CO₂ cylinder") portion of dial, CO₂ cylinder is almost empty and must be replaced.
2. Make sure there is a sufficient concentrate supply. If not, replenish concentrate supply as instructed.
3. Make sure drip tray is clean and clean cup rest is in place in drip tray.

UNIT OPERATION

1. Make sure dispensing valves keyed lock-out switch on left side of the Unit is in the "ON" (vertical) position.
2. Press cup or glass against the dispensing valve lever and dispense until cup or glass is full of product, then release the lever. If plain water only is desired, hold cup or glass under the dispensing valve with water lever on its side, then actuate the lever to dispense plain water.

ADJUSTMENTS

ADJUSTING DISPENSING VALVE WATER FLOW RATE

NOTE: The dispensing valves adjustable water flow regulators are factory adjusted and should require no further adjustment.

Dispensing valve(s) water flow regulator(s) may be re-adjusted as instructed in SERVICE AND MAINTENANCE section of this manual to vary amount of water dispensed.

ADJUSTING WATER-TO-CONCENTRATE "RATIO" OF DISPENSED PRODUCT

Water-to-Syrup "Concentrate" of the dispensed product should be checked periodically and if necessary, adjusted as instructed in SERVICE AND MAINTENANCE section of this manual.

ADJUSTING BAG-IN-BOX CONCENTRATE PUMPS OR CONCENTRATE TANKS SYSTEM PRIMARY CO₂ REGULATOR

The bag-in-box concentrate pumps or the concentrate tanks system primary CO₂ regulator should be checked for proper pressure settings periodically and if necessary, adjusted as instructed in SERVICE AND MAINTENANCE section of this manual.

REPLENISHING CO₂ SUPPLY



WARNING: CO₂ displaces oxygen. Strict attention *must* be observed in the prevention of CO₂ (carbon dioxide) gas leaks in the entire CO₂ and soft drink system. If a CO₂ gas leak is suspected, particularly in a small area, *immediately* ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentration of CO₂ gas will experience tremors which are followed rapidly by loss of consciousness and suffocation.

The CO₂ supply should be checked daily and if necessary, replenished as instructed in SERVICE AND MAINTENANCE section of this manual.

REPLENISHING CONCENTRATE SUPPLY

The concentrate supply should be checked daily and if necessary, replenished as instructed in SERVICE AND MAINTENANCE section of this manual.

CHANGING DISPENSED PRODUCT FLAVOR

1. The concentrate system *must* first be sanitized, then a new product flavor may be connected to the concentrate system. Refer to SERVICE AND MAINTENANCE section of this manual for instructions.

CLEANING AND SANITIZING

DAILY CLEANING OF UNIT

Daily cleaning procedure for the Unit should be performed at end of the daily operation. Refer to SERVICE AND MAINTENANCE Section of this manual for cleaning instructions.

WEEKLY CLEANING OF DISPENSING VALVES

The dispensing valves should be cleaned at least once a week. Refer to SERVICE AND MAINTENANCE section of this manual for cleaning instructions.

SANITIZING SYRUP SYSTEMS

The concentrate systems should be sanitized as instructed every 90-days, or when there is a concentrate flavor change. Refer to SERVICE AND MAINTENANCE section of this manual for instructions.

CLEANING DROP-IN REFRIGERATION ASSEMBLY CONDENSER COIL

Circulating air required to cool the refrigeration assembly condenser coil is drawn in through grille on end of the hood and is exhausted out through grille on top of hood. Restricting air in and out of unit will decrease its cooling efficiency. Area on top of hood must be kept free of obstructions at all times. Make sure nothing is stored on top of the hood. The refrigeration assembly condenser coil should be periodically cleaned as instructed in SERVICE AND MAINTENANCE section of this manual to maintain cooling efficiency.

CHECKING ICE WATER BATH

A “gurgle” heard from the Unit indicates water level in the water tank is low and more water should be added for maximum product cooling. Refer to SERVICE AND MAINTENANCE section of this manual for instructions.

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SERVICE AND MAINTENANCE

This section describes service and maintenance procedures to be performed on the Unit.

IMPORTANT: Only qualified personnel should service internal components or electrical wiring.



WARNING: Disconnect electrical power to Unit to prevent personal injury before attempting any internal maintenance. Only qualified personnel should service internal components or electrical wiring.

PREPARING UNIT FOR SHIPPING, STORING, OR RELOCATING



CAUTION: Before shipping, storing, or relocating this Unit, the syrup systems *must* be sanitized and all sanitizing solution *must* be purged from the syrup systems. All water *must* also be purged from the plain and carbonated water systems. A freezing ambient environment will cause residual water in the Unit to freeze resulting in damage to internal components.

HOOD AND FRONT PANEL REMOVAL

HOOD REMOVAL.

NOTE: Circulating air, required to cool the refrigeration assembly condenser coil, is drawn in through grille on end of the hood and is exhausted out through grille on top of the hood. For proper cooling of the condenser coil, grille on end of the hood must be positioned over the condenser coil.

Standard Hood.

Loosen one screw securing hood on the Unit, then lift hood straight up and off the Unit.

Hood With Illuminated Merchandiser.

IMPORTANT: Care must be exercised when removing hood with illuminated merchandiser from the Unit. The illuminated merchandiser's power cord *must* be unplugged from an electrical adaptor located on the drop-in refrigeration assembly power cord before the hood can be completely removed from the Unit.

1. Place power switch, located on right side (facing front of Unit), in "OFF" position.
2. Loosen one screw securing hood on the Unit. Lift hood up off the Unit far enough to be able to disconnect the illuminated merchandiser power cord from electrical adaptor on the drop-in refrigeration assembly power cord, then remove hood from the Unit.

FRONT ACCESS PANEL REMOVAL

Remove two screws securing Unit front access panel, then pull out on bottom of panel to remove.

PERIODIC INSPECTION



CAUTION: Do not place or store anything on top of the hood.

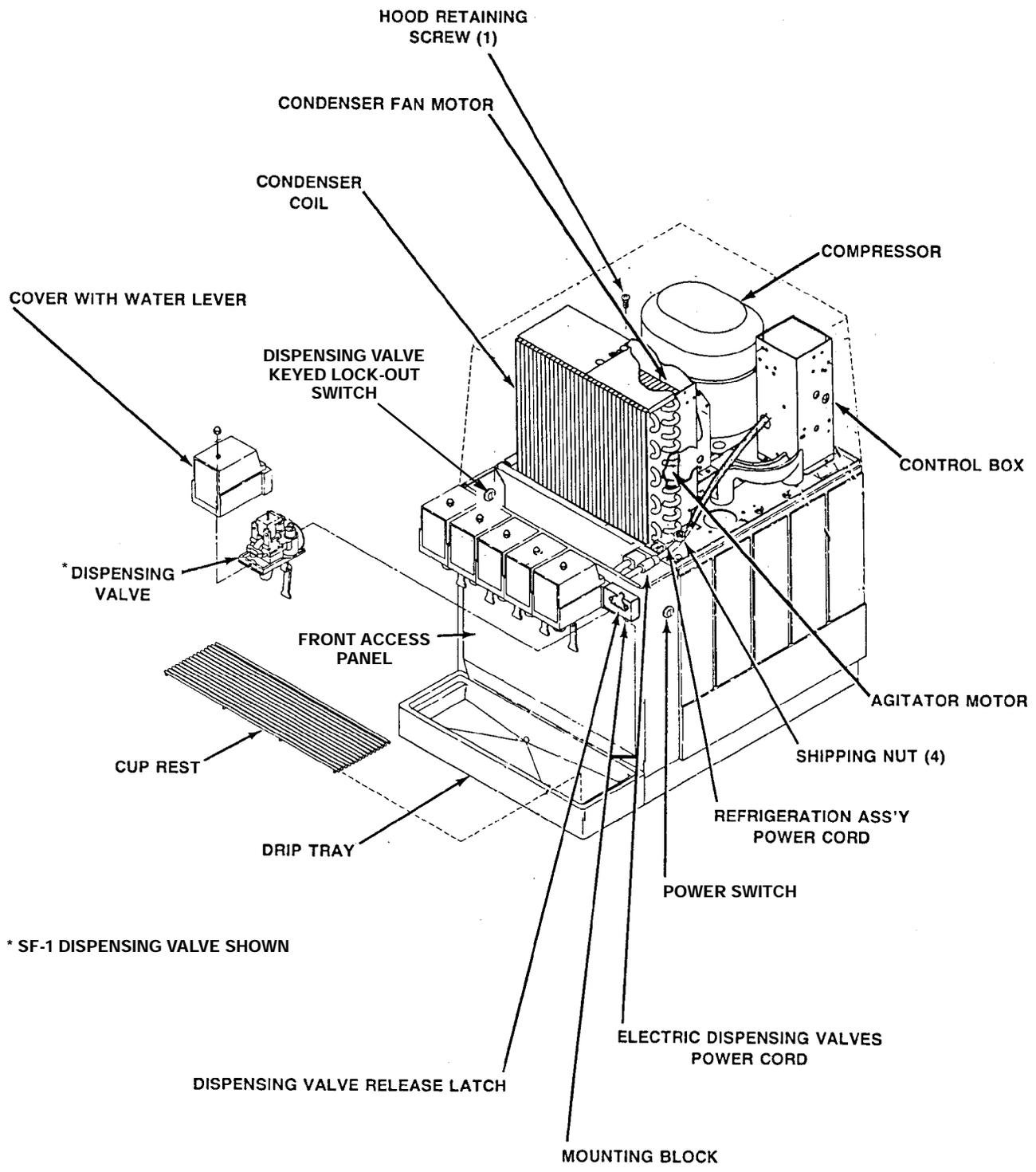


FIGURE 4. DISPENSER COMPONENTS

1. Check refrigeration condenser coil for obstructions and dirt. *DO NOT* place objects in front of the hood air intake grille or on top of the hood. Restricting circulating air in and out of Unit will decrease its cooling efficiency.
2. Check dispensing valves for dripping that indicates leaking and repair as necessary.

ADJUSTMENTS

ADJUSTING PRIMARY CO₂ REGULATOR

Adjusting Concentrate Pumps Primary CO₂ Regulator.

(see Figure 2)

NOTE: To readjust the concentrate pumps primary CO₂ regulator to a lower setting, loosen adjusting screw lock nut, then turn screw to the left (counterclockwise) until pressure gage reads 5-psi lower than the new setting will be. Turn adjusting screw to the right (clockwise) until the gage registers new setting, then tighten the lock nut.

Adjust concentrate pumps primary CO₂ regulator to between 40 and 60 psi. *DO NOT EXCEED MAXIMUM PRESSURE SPECIFIED ON THE CONCENTRATE PUMPS.*

Adjusting Concentrate Tanks Primary CO₂ Regulator.

Adjust concentrate tanks system CO₂ regulator to a minimum of 45-psi.

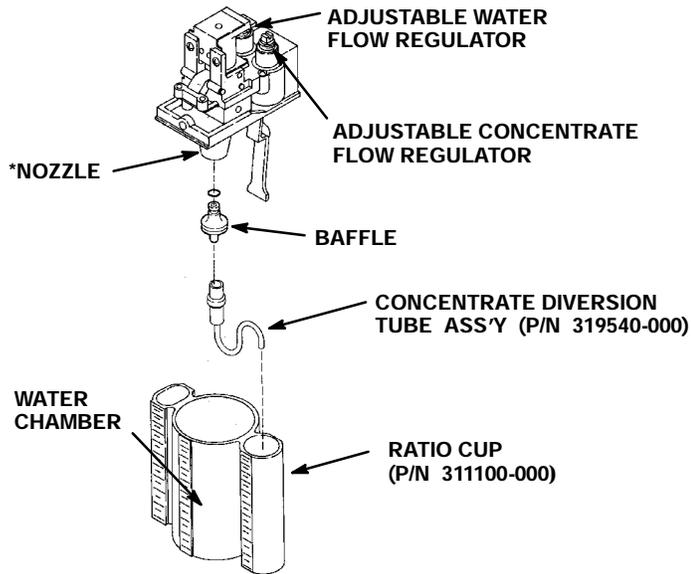
ADJUSTING DISPENSING VALVES WATER FLOW RATE

SF-1 Dispensing Valve (see Figure 5)

1. Remove dispensing valve acorn nut, then remove cover.
2. Test dispensing valve for water flow rate in accordance to the system it will be connected to.
3. Turn dispensing valve water flow regulator labeled "WATER" adjusting screw to the left (counterclockwise) no more than 1/4-turn at a time for less water or to the right (clockwise) no more than 1/4-turn at a time for more water.
4. Test dispense water flow rate and adjust the water flow regulator as many times as necessary until desired water flow rate is achieved.

UF-1 Dispensing Valve (see Figure 6)

1. Remove cover from dispensing valve by lifting front cover up 1/4-inch and pulling forward.
2. Test dispensing valve for water flow rate in accordance to the system it will be connected to.
3. Turn dispensing valve water flow regulator adjusting screw to the left (counterclockwise) for less water or to the right (clockwise) for more water.
4. Test dispense water flow rate and adjust the water flow regulator as many times as necessary until desired water flow rate is achieved.



*Concentrate distributor may be removed by first removing nozzle, then pull distributor down and off valve.

FIGURE 5. RATIO CUP AND CONCENTRATE DIVERSION TUBE ASSEMBLY (SF-1 DISPENSING VALVE)

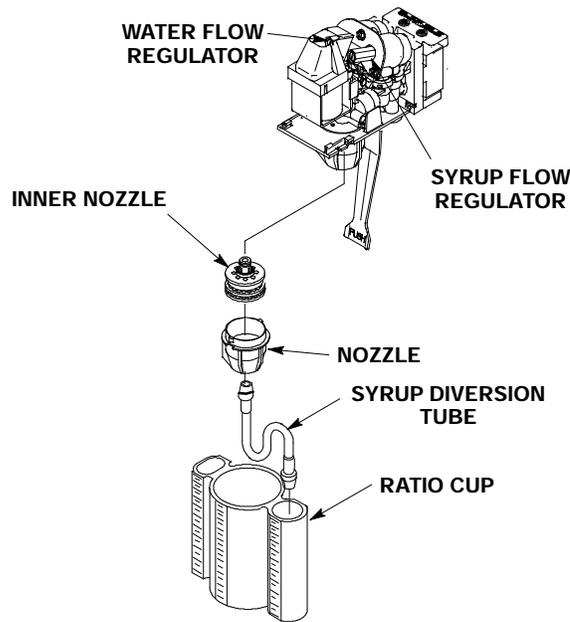


FIGURE 6. RATIO CUP AND CONCENTRATE DIVERSION TUBE ASSEMBLY (UF-1 DISPENSING VALVE)

ADJUSTING WATER-TO-CONCENTRATE ("RATIO") OF DISPENSED PRODUCT



CAUTION: To prevent any water or syrup leaks at the valves, be sure that all valve latches are secure.

SF-1 Dispensing Valve (see Figure 5)

IMPORTANT: The dispensing valves are equipped with adjustable water flow regulators to control water flow rate of the valves. Make sure water flow rate of the dispensing valves are as desired before adjusting the valves concentrate flow regulators for Water-To-Concentrate "Ratio" of the dispensed drinks.

Adjust Water-to-Concentrate "Ratio" of dispensed drink by using Syrup By-Pass Assembly (P/N 319540000), Baffle (P/N 318754011) and Ratio Cup (P/N 311100000) as follows:

1. Remove acorn nut securing dispensing valve cover, then remove the cover.
2. Remove nozzle from the dispensing valve.
3. Install Baffle (P/N 318754-011) on the dispensing valve, then replace the Nozzle.
4. Install concentrate diversion tube assembly on the dispensing valve by pushing rubber end of the diversion tube upon the baffle inside the nozzle.

NOTE: Refer to concentrate manufacturer's recommendations on the concentrate package for Water-to-Concentrate "Ratio" of the dispensed product.

5. Hold container under dispensing valve. Open dispensing valve and dispense just enough concentrate to fill the concentrate diversion tube.
6. Hold large chamber of ratio cup under the dispensing valve nozzle. Place free end of the concentrate diversion tube into concentrate chamber marked for the proper ratio. Open the dispensing valve and dispense approximately five ounces of water into the ratio cup. Water and concentrate levels should be even in the ratio cup.
7. If water and syrup concentrate levels are not even in the ratio cup, turn the dispensing valve concentrate flow regulator labeled "SYRUP" adjusting screw to the left (counterclockwise) no more than 1/4-turn at a time for less concentrate or to the right (clockwise) no more than 1/4-turn at a time for more concentrate.
8. Repeat Water-to-Concentrate "Ratio" test and adjust the concentrate flow regulator as many times as necessary until proper ratio of dispensed drink is achieved.
9. Remove the concentrate diversion tube assembly, Nozzle, and the Baffle from the dispensing valve.
10. Replace nozzle on the dispensing valve.
11. Replace dispensing valve cover and secure with acorn nut.

UF-1 Dispensing Valve (see Figure 6)

IMPORTANT: The dispensing valves are equipped with adjustable water flow regulators to control water flow rate of the valves. Make sure water flow rate of the dispensing valves are as desired before adjusting the valves concentrate flow regulators for Water-To-Concentrate "Ratio" of the dispensed drinks.

Adjust Water-To-Concentrate ("Ratio") of dispensed product by using ratio cup (P/N 311100000) and Syrup Diversion Tube Assembly (P/N 319540000) as follows:

1. Remove cover from the dispensing valve by lifting cover up 1/4-inch and pulling cover forward.
2. Install syrup diversion tube assembly on the dispensing valve by pushing rubber end of the syrup diversion tube up on syrup outlet of the inner nozzle.

NOTE: Refer to syrup Manufacturer's recommendations on the concentrate package for Water-To-Concentrate ("Ratio") of the dispensed product.

3. Dispense just enough to fill the concentrate diversion tube with concentrate.
4. Hold large chamber of the ratio cup under the dispensing valve nozzle. Place free end of the syrup diversion tube into syrup chamber marked for proper ratio. Dispense approximately six ounces of water into the ratio cup. Water and concentrate levels should be even in the ratio cup.

NOTE: Adjusting screws stops are built into the dispensing valve to prevent leakage when the screws are adjusted clockwise too far. Stop adjusting clockwise when turning resistance increases. Turn screw counterclockwise 1-1/2 turns after the stop is contacted.

5. If water and concentrate levels are not even in the ratio cup, turn the dispensing valve concentrate flow regulator labeled "SYRUP" adjusting screw to the left (counterclockwise) no more than 1/4-turn at a time for less concentrate or to the right (clockwise) no more than 1/4-turn at a time for more concentrate.
6. Repeat Water-To-Concentrate ("Ratio") test and adjust concentrate flow regulator as many times as necessary until proper ratio of dispensed drink is achieved.
7. Remove syrup diversion tube assembly from the dispensing valve.
8. Install dispensing valve front cover.

CLEANING AND SANITIZING

DAILY CLEANING OF UNIT

1. Remove cup rest from the drip tray.
2. Wash drip tray in place on the Unit, then rinse drip tray with hot water allowing water to drain out through the drain hose.
3. Wash cup rest, then rinse the cup rest with clean water. Install cup rest in the drip tray.
4. Clean all external surfaces of the Unit with a sponge. Rinse out the sponge with clean water, then wring excess water out of the sponge and wipe off all external surfaces on the Unit. Wipe Unit dry with a clean soft cloth. **DO NOT USE ABRASIVE CLEANERS.**
5. Remove nozzle and syrup diffusers from the dispensing valves. Place nozzles and syrup diffusers in sanitizing solution.
6. Wash the nozzles and syrup diffusers in sanitizing solution, then rinse them with potable water.
7. Re-install nozzles and syrup diffusers back on the dispensing valves.

SANITIZING POST-MIX SYRUP SYSTEMS

IMPORTANT: Only qualified Service Personnel should perform sanitizing procedure on the post-mix syrup systems.

The post-mix syrup systems should be sanitized every 90-days using a non-scented household liquid bleach containing a 5.25 % sodium hypochlorite concentration. Proceed as follows to sanitize the post-mix syrup systems.

1. Disconnect syrup supplies from syrup systems.
2. Rinse quick disconnects (syrup tanks systems) or bag-in-box connectors (syrup bag-in-box systems) in warm potable water.

STEP 1. WASH SYRUP SYSTEMS

3. Using a clean syrup tank (syrup tank system) or a five-gallon container (bag-in-box system), prepare a full tank or container of liquid dishwasher detergent by using 70° F (21° C) to 100° F (38° C) potable water and 0.5 oz. (15 ml) of liquid dishwasher detergent to one gallon of potable water. Stir detergent solution to thoroughly mix the solution.
4. Syrup Tank Systems.
 - A. Observe and note CO₂ pressure setting on the syrup tanks CO₂ regulator, then re-adjust CO₂ regulator to 60 to 80-psi. Pressurize syrup tank containing detergent solution to 60 to 80-psi.
 - B. Connect detergent solution tank, pressurized at 60 to 80-psi, into one of the syrup systems.

Bag-in Box Syrup Systems.

- C. Install bag valves, cut from empty bag-in-box syrup containers, on ends of syrup containers syrup outlet tubes connectors.
 - D. Place all syrup outlet tubes, with bag valves on their ends, in container containing detergent solution.
5. Flush the syrup system and dispensing valve as follows:
- A. Place waste container under applicable dispensing valve.
 - B. Activate the dispensing valve for one minute to purge all syrup and flush out the syrup system.
 - C. Continue to activate the dispensing valve in cycles ("ON" for 15-seconds, "OFF", then "ON" for 15-seconds). Repeat "ON" and "OFF" cycles for 15-cycles.
6. Connect detergent solution to the remaining syrup systems and flush syrup out of the syrup systems as instructed in step 5 preceding.
7. Remove detergent solution source from the syrup system.

STEP 2. FLUSH SYRUP SYSTEMS

8. Syrup Tank Systems.

Connect syrup tank containing potable water, pressurized at 60 to 80-psi, into one of the syrup systems.

Bag-in-Box Syrup System.

Fill five-gallon container with potable water, then place all bag-in-box syrup containers syrup outlet tubes in container containing potable water.

9. Flush detergent solution out of the syrup system and dispensing valve as follows:
- A. Place waste container under applicable dispensing valve.
 - B. Activate the dispensing valve for one minute to purge all detergent solution and flush out the syrup system.
 - C. Continue to activate the dispensing valve in cycles ("ON" for 15-seconds, "OFF", then "ON" for 15-seconds). Repeat "ON" and "OFF" cycles for 15-cycles.
10. Connect potable water source to the remaining syrup systems and flush detergent solution out of the syrup systems as instructed in step 9 preceding.
11. Remove potable water source from the syrup system.

STEP 3. SANITIZE SYRUP SYSTEMS

12. Using a clean syrup tank (syrup tanks system) or a five-gallon container (bag-in-box system), prepare sanitizing solution using 70° F (21° C) to 100° F (38° C) potable water and 0.5 oz. (15 ml) of non-scented household liquid bleach that contains a 5.25 % sodium hypochlorite concentration to one gallon of potable water. This mixture *must not* exceed 200 PPM of chlorine. Stir sanitizing solution to thoroughly mix.

13. Syrup Tank Systems.

Connect sanitizing solution tank, pressurized at 60 to 80-psi, into one of the syrup systems.

Bag-in-Box Syrup System.

Place all bag-in-box syrup containers syrup outlet tubes in container containing sanitizing solution.

14. Sanitize the syrup system and dispensing valve as follows:
- A. Place waste container under applicable dispensing valve.

- B. Activate the dispensing valve for one minute to purge all water from and install sanitizing solution in the syrup system and dispensing valve.
 - C. Continue to activate the dispensing valve in cycles (“ON” for 15-seconds, “OFF”, then “ON” for 15-seconds). Repeat “ON” and “OFF” cycles for 15-cycles.
15. Repeat steps 13 and 14 to flush water out of and install sanitizing solution in the remaining syrup systems and dispensing valves.
 16. Remove sanitizing solution source from the syrup system.
 17. Allow sanitizing solution to remain in the syrup systems for not less than 10 or no more than 15-minutes (max.) contact time.

STEP 4. WATER FLUSH SYRUP SYSTEMS



WARNING: Flush sanitizing solution from the syrup systems as instructed. Residual sanitizing solution left in the syrup systems could create a health hazard.

18. Fill syrup tank (syrup tank system) or a five-gallon container (bag-in-box system) with potable water.
19. Syrup Tank Systems.
Connect syrup tank containing potable water, pressurized at 60 to 80-psi, into one of the syrup systems.
Bag-in-Box Syrup System.
Place all bag-in-box syrup containers syrup outlet tubes in container containing potable water.
20. Flush sanitizing solution from the syrup system and the dispensing valve as follows:
 - A. Place waste container under applicable dispensing valve.
 - B. Activate the dispensing valve for one minute to purge all sanitizing solution out of the syrup system and the dispensing valve.
 - C. Continue to activate the dispensing valve in cycles (“ON” for 15-seconds, “OFF”, then “ON” for 15-seconds). Repeat “ON” and “OFF” cycles for 15-cycles.
21. Repeat steps 19 and 20 preceding to purge sanitizing solution out of the remaining syrup systems and dispensing valves.
22. Remove potable water source from the syrup system.

STEP 5. PURGE WATER OUT OF SYRUP SYSTEMS (RESTORE OPERATION)

23. Syrup Tank Systems.
 - A. Noting syrup tanks CO₂ regulator pressure setting observed in step 4 preceding, readjust CO₂ regulator to the observed pressure setting,
 - B. Connect tanks containing syrup into syrup systems.Bag-in-Box Syrup System.
 - C. Remove all bag valves from bag-in-box syrup containers outlet tubes connectors.
 - D. Connect bag-in-box syrup containers into the syrup systems.
24. Place waste container under dispensing valves. Dispense from all dispensing valves to permit syrup to purge all potable water from the syrup systems and the dispensing valves. Continue to dispense from the dispensing valves until only syrup is dispensed from the syrup systems and valves.



WARNING: To avoid possible personal injury or property damage, do not attempt to remove the syrup tank cover until CO₂ pressure has been released from the tank.

25. Dispose of waste sanitizing solution in a sanitary sewer, not in a storm drain, then thoroughly rinse the inside and the outside of the container that was used for sanitizing solution to remove all sanitizing solution residue.

CLEANING DROP-IN REFRIGERATION ASSEMBLY CONDENSER COIL

(see Figure 4)

Excessive accumulation of dust, lint, and grease on drop-in refrigeration assembly condenser coil will restrict air flow through the coil and cause a loss of cooling. Perform the following procedure to clean the condenser coil.

1. Unplug Unit power cord from electrical outlet.
2. Remove hood from Unit as follows:

Standard Hood-

Loosen one screw securing the hood, then lift hood straight up and off the Unit

Hood With Illuminated Merchandiser-

IMPORTANT: Care must be exercised when removing hood with illuminated merchandiser from the Unit. The illuminated merchandiser's power cord *must* be unplugged from an electrical adaptor located on the drop-in refrigeration assembly power cord before the hood can be completely removed from the Unit.

- A. Loosen one screw securing hood on the Unit.
 - B. Lift hood up off Unit far enough to be able to disconnect the illuminated merchandiser power cord from electrical adaptor on the drop-in refrigeration assembly power cord, then remove hood from the Unit.
3. Vacuum or use a soft brush to clean the condenser coil. If available, use low-pressure compressed air.
 4. Clean dust and dirt from around top of the refrigeration assembly.

NOTE: Circulating air, required to cool the refrigeration assembly condenser coil, is drawn in through grille on end of the hood and is exhausted out through grille on top of the hood. For proper cooling of the condenser coil, grille on end of the hood must be positioned over the condenser coil.

5. Install Hood on Unit as follows:

Standard Hood

Install hood on Unit and secure with screw. *Make sure grille on end of the hood is positioned over the condenser coil.*

Hood With Illuminated Merchandise

- A. Hold hood in position above the Unit, then plug hood illuminated merchandiser power cord into electrical adaptor on the drop-in refrigeration assembly power cord.
 - B. Lower hood down into position on the Unit and secure with screw. *Make sure grille on end of the hood is positioned over the condenser coil.*
6. Plug Unit power cord into electrical outlet.

CHECKING ICE WATER BATH

A "gurgle" heard from Unit indicates water level in water tank is low and more water should be added for maximum cooling. Before adding more water, ice water bath and ice bank should be checked for cleanliness and water tank coils check for excessive mineral deposit build-up.

1. Unplug Unit power cord from electrical outlet.
2. Remove hood from Unit as follows:

Standard Hood

Loosen one screw securing the hood, then lift hood straight up and off the Unit

Hood With Illuminated Merchandiser

IMPORTANT: Care must be exercised when removing hood with illuminated merchandiser from the Unit. The illuminated merchandiser's power cord *must* be unplugged from an electrical adaptor located on the drop-in refrigeration assembly power cord before the hood can be completely removed from the Unit.

- A. Loosen one screw securing hood on the Unit.
 - B. Lift hood up off Unit far enough to be able to disconnect the illuminated merchandiser power cord from electrical adaptor on the drop-in refrigeration assembly power cord, then remove hood from the Unit.
3. Remove plug from drop-in refrigeration assembly platform water fill hole.
 4. Using a flashlight, inspect ice water bath and ice bank for cleanliness. Ice water bath should be clear and ice bank free of foreign particles.
 5. If cleaning of water tank is necessary, refer to CLEANING WATER TANK in this section.
 6. Fill water tank with clean water to top of stainless steel coils located in coil basket. *USE LOW-MINERAL-CONTENT WATER WHERE A LOCAL WATER PROBLEM EXISTS.*
 7. Install plug in water fill hole.
 8. Install Hood on Unit as follows:

Standard Hood

Install hood on Unit and secure with screw. *Make sure grille on end of the hood is positioned over the condenser coil.*

Hood With Illuminated Merchandise

- A. Hold hood in position above the Unit, then plug hood illuminated merchandiser power cord into electrical adaptor on the drop-in refrigeration assembly power cord.
 - B. Lower hood down into position on the Unit and secure with screw. *Make sure grille on end of the hood is positioned over the condenser coil.*
9. Plug Unit power cord into electrical outlet.

CLEANING WATER TANK

1. Unplug drop-in refrigeration assembly power cord, and disconnect electric dispensing valves power cord.
2. Lift drop-in refrigeration assembly up and out of Unit.



CAUTION: Never use an ice pick or other instrument to remove ice from drop-in refrigeration assembly evaporator coils. Such practice can result in punctured refrigeration circuit.

3. Allow ice bank to melt. Hot water may be used to speed melting.
4. Use fiber brush and carefully clean mineral deposit build-up from agitator motor shaft and ice bank sensing bulb.
5. Wash inside of water tank and drop-in refrigeration assembly evaporator coils, then rinse with clean water.
6. Install plug in end of water tank drain hose, then place drain hose inside of Unit.
7. Install drop-in refrigeration assembly in Unit by reversing removal procedure.
8. Return to step 6 of CHECKING ICE WATER BATH to fill water tank with water, install hood, and re-start the Unit.

REPLENISHING CO₂ SUPPLY



WARNING: CO₂ displaces oxygen. Strict attention *must* be observed in the prevention of CO₂ (carbon dioxide) gas leaks in the entire CO₂ and soft drink system. If a CO₂ gas leak is suspected, particularly in a small area, *immediately* ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentration of CO₂ gas will experience tremors which are followed rapidly by loss of consciousness and suffocation.

NOTE: When indicator on CO₂ cylinder regulator assembly 1800-psi gage is in shaded (“change CO₂ cylinder”) portion of dial, CO₂ cylinder is almost empty and should be changed.

1. Fully close (clockwise) CO₂ cylinder valve.
2. Slowly loosen CO₂ regulator assembly coupling nut allowing CO₂ pressure to escape, then remove regulator assembly from empty CO₂ cylinder.
3. Unfasten safety chain and remove empty CO₂ cylinder.



WARNING: o avoid personal injury and/or property damage, always secure CO₂ cylinder in upright position with safety chain to prevent it from falling over. Should the valve become accidentally damaged or broken off, CO₂ cylinder can cause serious personal injury.

4. Position CO₂ cylinder in upright position and secure with safety chain.
5. Make sure gasket is in place inside CO₂ regulator coupling nut, then install regulator on CO₂ cylinder.
6. Open (counterclockwise) CO₂ cylinder valve slightly to allow lines to slowly fill with gas, then open valve fully to back-seat valve. (back-seating valve prevents leakage around the valve shaft.)
7. Check CO₂ connections for leaks. Tighten loose connections.

REPLENISHING CONCENTRATE SUPPLY

BAG-IN-BOX CONCENTRATE SUPPLY

1. Disconnect concentrate outlet tube connector from empty bag-in-box container.
2. Rinse concentrate outlet tube connector in warm water.
3. Connect concentrate outlet tube connector to a full bag-in-box container.
4. Dispense from dispensing valve to purge all air from concentrate system and until normal dispensing resumes.

CONCENTRATE TANK CONCENTRATE SUPPLY

1. Remove quick disconnects from empty concentrate tank.
2. Check quick disconnects for sticky or restricted operation. Wash quick disconnects in warm water.
3. Connect quick disconnects to a full concentrate tank.
4. Dispense from dispensing valve to purge all air from concentrate system and until normal dispensing resumes.

CONCENTRATE FLAVOR CHANGE

NOTE: If a concentrate flavor change is made, the applicable concentrate system must be sanitized. Only qualified personnel should perform the sanitizing procedure. Refer to SANITIZING CONCENTRATE SYSTEM in this manual section for sanitizing procedure.

1. Sanitize system in which the concentrate flavor is going to be changed.
2. Connect full tank of new flavor concentrate into the concentrate system.
3. Dispense from dispensing valve and allow concentrate to purge all potable water from the concentrate system.

CLEANING CO₂ SYSTEM CO₂ GAS CHECK VALVES

(see Figure 7)

The CO₂ regulators CO₂ gas check valves must be inspected and serviced at least once a year under normal conditions and after any servicing or disruption of the CO₂ system. *ALWAYS REPLACE BALL SEAT (QUAD RING SEAL) EACH TIME GAS CHECK VALVES ARE SERVICED.*

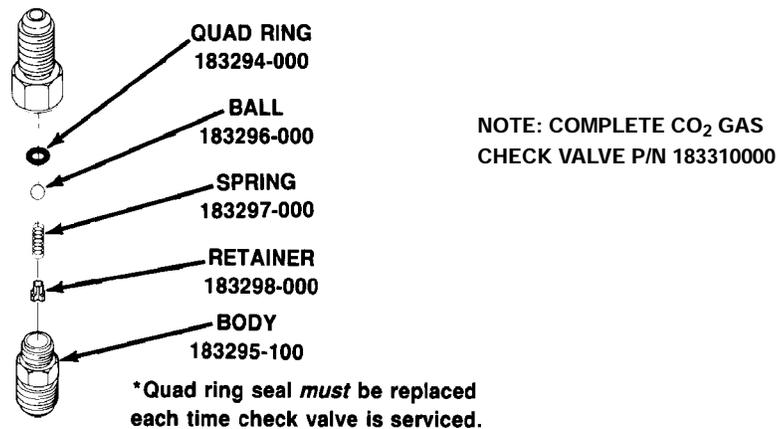


FIGURE 7. CO₂ GAS CHECK VALVE ASSEMBLY

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TROUBLESHOOTING

IMPORTANT: Only qualified personnel should service internal components or electrical wiring.



WARNING: If repairs are to be made to a product system, remove quick disconnects from the applicable product tank, then relieve the system pressure before proceeding. If repairs are to be made to the CO₂ system, stop dispensing, shut off the CO₂ supply, then relieve the system pressure before proceeding. If repairs are to be made to the refrigeration system, make sure electrical power is disconnected from the unit.

Trouble	Probable Cause	Remedy
TROUBLESHOOTING DISPENSING SYSTEM		
WATER-TO-CONCENTRATE "RATIO" TOO LOW OR TOO HIGH.	A. Dispensing valve concentrate flow regulator not properly adjusted.	A. Adjust Water-to-Concentrate "Ratio" as instructed.
	B. <u>Concentrate Tanks System.</u> CO ₂ gas pressure to concentrate tanks insufficient to push concentrate out of tanks. <u>Bag-in-Box System.</u> CO ₂ gas pressure to concentrate pumps insufficient to operate pumps.	B. Adjust concentrate tanks CO ₂ regulator as instructed. Adjust concentrate pumps CO ₂ regulator as instructed.
ADJUSTMENT OF DISPENSING VALVE CONCENTRATE FLOW REGULATOR DOES NOT INCREASE TO DESIRED WATER-TO-CONCENTRATE "RATIO".	A. No concentrate supply.	A. Replenish concentrate supply as instructed.
	B. Concentrate supply container not securely connected into concentrate system.	B. Securely connect concentrate supply container into concentrate system.
	C. <u>Concentrate Tanks System.</u> Concentrate tanks CO ₂ regulator out of adjustment.	C. Adjust concentrate tanks CO ₂ regulator as instructed.
	<u>Concentrate Bag-in-Box System.</u> Concentrate pumps CO ₂ regulator out of adjustment.	Adjust concentrate pumps CO ₂ regulator as instructed.
	D. Dispensing valve syrup flow regulator, syrup tank quick disconnect, or syrup line restricted.	D. Sanitize syrup system as instructed.
E. Improper Baume of concentrate.	E. Replace concentrate supply.	

Trouble	Probable Cause	Remedy
ADJUSTMENT OF DISPENSING VALVE CONCENTRATE FLOW REGULATOR DOES NOT INCREASE TO DESIRED WATER-TO-CONCENTRATE "RATIO" (CONT'D)	F. Dirty or inoperative concentrate flow regulator.	F. Disassemble and clean dispensing valve concentrate flow regulator.
	G. Tapered plastic washer inside tube swivel nut connection distorted from being over tightened restricting concentrate flow.	G. Replace plastic washer. Make sure it seats properly.
ADJUSTMENT OF DISPENSING VALVE CONCENTRATE REGULATOR DOES NOT DECREASE TO DESIRED WATER-TO-CONCENTRATE "RATIO".	A. Dirty or inoperative concentrate flow regulator.	A. Disassemble and clean dispensing valve concentrate flow regulator.
NO PRODUCT DISPENSED.	A. Dispensing valves keyed lock-out switch in "OFF" position.	A. Place keyed lock-out switch in "ON" position.
	B. No electrical power to Unit.	B. Plug in Unit power cord or check for blown fuse or tripped circuit breaker.
	C. Disconnected dispensing valve power cord.	C. Connect dispensing valves power cord.
	D. Disconnected or broken wiring to dispensing valves.	D. Connect or replace wiring.
	E. Inoperative transformer or dispensing valve solenoids.	E. Replace inoperative part.
ONLY CONCENTRATE DISPENSED.	A. Water inlet supply line shutoff valve closed.	A. Open water inlet supply line shutoff valve.
TROUBLESHOOTING REFRIGERATION SYSTEM		
COMPRESSOR DOES NOT OPERATE	A. Ice bank sufficient	A. Refrigeration not called for.
	B. Unit power cord unplugged, power switch in "OFF" position, or drop-in refrigeration assembly power cord unplugged.	B. Plug in power cord(s) or place Unit power switch (located behind front panel) in "ON" position.
	C. No power source (blown fuse or tripped circuit breaker).	C. Replace fuse or reset circuit breaker (Note: Fuse or circuit breaker are not part of the Unit).
	D. Inoperative Unit power switch (or power cord unplugged.	D. Replace power switch or plug Unit power cord into electrical outlet.
	E. Low voltage.	E. Voltage must be at least 103 Volts (115VAC Unit) at compressor terminals when compressor is trying to start.

Trouble	Probable Cause	Remedy
COMPRESSOR DOES NOT OPERATE (CONT'D)	F. Loose, disconnected or broken wiring.	F. Tighten connection or replace broken wiring.
	G. Overload protector cut out; overheated compressor. Condenser fan motor not operating as required.	G. Compressor will cool enough to restart. Do not overdraw cooling capacity of Unit. Refer to CONDENSER FAN MOTOR NOT OPERATING in this section.
	H. Inoperative overload protector or start relay.	H. Replace inoperative part.
	I. Inoperative ice bank control probe.	I. Replace inoperative ice bank control.
	J. Inoperative compressor.	J. Call Service Person.
COMPRESSOR WILL NOT STOP AFTER SUFFICIENT ICE BANK IS PRODUCED (NOTE: ICE BANK SHOULD JUST COVER CONTROL BULB).	A. Ice bank control capillary tube kinked or broken.	A. Replace ice bank control.
	B. Ice bank control stuck in closed position.	B. Replace ice bank control.
COMPRESSOR OPERATES CONTINUOUSLY BUT DOES NOT FORM SUFFICIENT ICE BANK.	A. Cooling capacity is exceeded by overdrawing.	A. Reduce amount of drinks drawn per given time.
	B. Unit located in excessively hot area or air circulation through condenser coil is restricted.	B. Relocate unit or check and if necessary, clean condenser coil as instructed.
NOTE: Ice bank freezes from bottom of the evaporator upward. A refrigerant leak or insufficient charge might show an ice bank at bottom and not at top the of evaporator.		
AGITATOR MOTOR NOT OPERATING.	A. Power switch in "OFF" position.	A. Place power switch in "ON" position.
	B. Unit power cord or refrigeration assembly power cord unplugged.	B. Connect power cord(s).
	C. No power source (blown fuse or tripped circuit breaker).	C. Replace fuse or reset circuit breaker. (Note: Fuse or circuit breaker are not part of Unit).
	D. Agitator motor propeller obstructed.	D. Remove obstruction.
	E. Low voltage.	E. Voltage must be at least 103 volts (115 VAC Unit) at compressor terminals when compressor is trying to start.
	F. Loose, disconnected, or broken wiring.	F. Tighten connections or replace broken wiring.
	G. Inoperative agitator motor.	G. Replace agitator motor as instructed.

WARRANTY

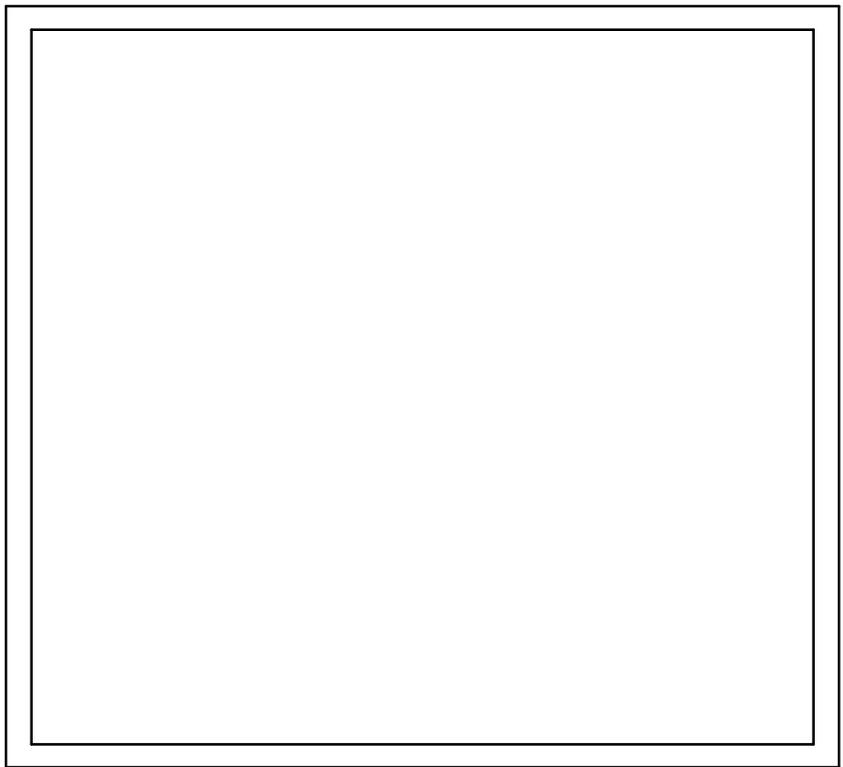
IMI Cornelius Inc. warrants that all equipment and parts are free from defects in material and workmanship under normal use and service. For a copy of the warranty applicable to your Cornelius, Remcor or Wilshire product, in your country, please write, fax or telephone the IMI Cornelius office nearest you. Please provide the equipment model number, serial number and the date of purchase.

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