



Lancer Corporation
6655 Lancer Blvd.
San Antonio, Texas 78219
800-729-1500

Operation Manual

Technical Support/Warranty
800-729-1550
custserv@lancercorp.com
lancercorp.com
PN: 28-0941/01

TABLE OF CONTENTS

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.

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.

IMPORTANT SAFETY INSTRUCTIONS.....	3	MAINTENANCE.....	14
Intended Use.....	3	Scheduled Maintenance.....	14
Power Warning.....	3	CLEANING AND SANITIZING.....	14
CO ₂ Warning.....	3	General Information.....	14
Water Notice.....	3	Cleaning and Sanitizing Solutions.....	15
SPECIFICATIONS AND FEATURES.....	4	Cleaning and Sanitizing Product Lines.....	15
General Systems Overview.....	5	Cleaning and Sanitizing Nozzle.....	15-16
PRE-INSTALLATION CHECKLIST.....	5-6	TROUBLESHOOTING.....	16-18
INSTALLATION.....	6	DISPENSER DISPOSAL.....	18
Unpacking the Dispenser.....	6	ILLUSTRATIONS AND PART LISTINGS.....	19
Selecting/Preparing a Counter Location.....	6	Main Unit Assembly.....	19
Dispenser/Chiller Installation.....	7-8	Unit Plumbing Diagram.....	20
Installing Remote Syrup Pumps.....	9	Unit Wiring Diagram.....	21
Installing CO ₂ Supply.....	10-11		
Connecting to Syrup Supply.....	11		
Dispenser Setup.....	11-12		
Adjust Water Flow Rate & Syrup/Water Ratio.....	12-13		
Merchandiser Installation.....	13		

SAFETY NOTICES

READ ALL SAFETY INSTRUCTIONS BEFORE USING THIS UNIT.

This manual contains important safety information and all applicable safety precautions must be observed. To reduce the risk of fire, electric shock, damage to the equipment or personal injury when using this unit all instructions/warnings on the product being used must be followed:

⚠ WARNING

Text following the Warning signal indicates a hazardous situation, which if not avoided, will result in death or serious injury. Be sure to read all Warning statements before proceeding with the installation.

⚠ CAUTION

Text following the Caution signal indicates a hazardous situation, which if not avoided, could result in death or serious injury. Be sure to read the Caution statements before proceeding with the installation

⚠ ATTENTION

Text following the Attention signal addresses a situation that if not followed could potentially damage the equipment. Be sure to read the Attention statements before proceeding

NOTE

Text following the Note signal provides you with information that may help you more effectively perform the installation procedures within this manual. Disregarding information will not cause damage or injury, however it may limit the performance of the dispenser.

IMPORTANT SAFETY INSTRUCTIONS

⚠ Intended Use

- The dispenser is for indoor use only
- This appliance is intended to be used in commercial applications such as restaurants or similar.
- This appliance should not be used by children or infirm persons without supervision.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Cleaning and user maintenance shall not be performed by children without supervision.
- This unit is not a toy and children should be advised not to play with the appliance.
- The min/max ambient operating temperature for the dispenser is 4°C to 32°C (40°F to 90°F).
- Do not operate unit below minimum ambient operation conditions.
- Should freezing occur, cease operation of the unit and contact authorized service technician.
- The maximum tilt for safe operation is 5°.
- This appliance must be installed and serviced by a professional.

⚠ Carbon Dioxide (CO₂)

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

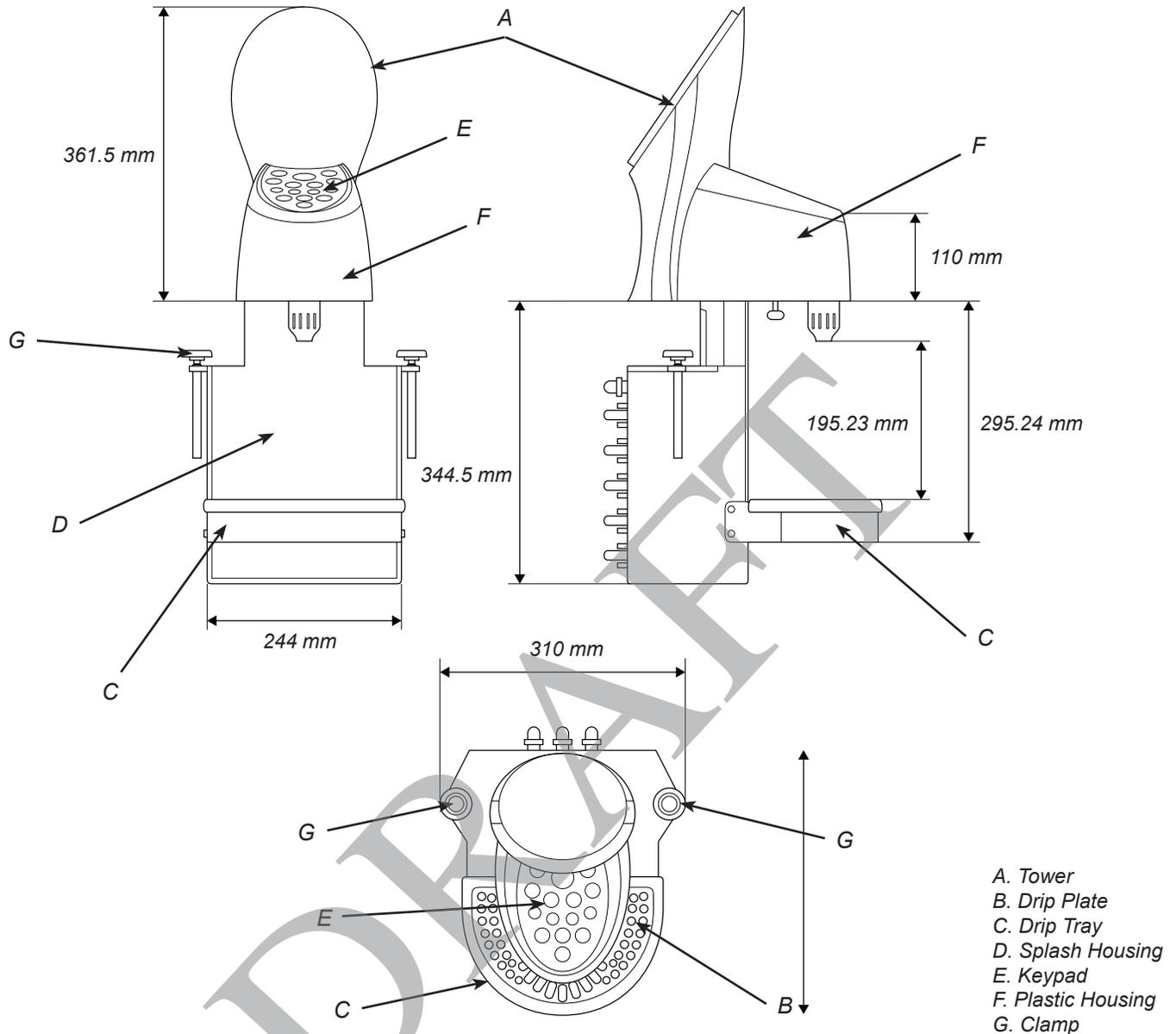
⚠ Power

- Follow all local electrical codes when making connections.
- 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.
- 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.
- **WARNING:** 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.
- **WARNING:** Make sure that all water lines are tight and units are dry before making any electrical connections
- If this dispenser is installed in an area that is susceptible to ±10% variation of the nominal line voltage, consider installing a surge protector or similar protection device.

⚠ Water Notice

- 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 codes.
- The water supply line must be at least a 9.525 mm (3/8 inches) pipe with a minimum of 20 PSI (0.137 MPA) line pressure, but not exceeding a maximum of 50 PSI (0.345 MPA). Water pressure exceeding 50 PSI (0.345 MPA) must be reduced to 50 PSI (0.345 MPA).
- 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.
- **CAUTION:** 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.
- **CAUTION:** Ensure the backflow prevention device complies with ASSE and local standards. It is the responsibility of the installer to ensure compliance.

SPECIFICATIONS AND FEATURES



DIMENSIONS

Width: 310 mm (XX inches)
 Depth: 335.8 mm (XX inches)
 Height: 706 mm (XX inches)

WEIGHT

Shipping: XX kg (XX lbs)
 Operating: XX kg (XX lbs)

ELECTRICAL

XXX VAC / XX Hz / X Amps

FLOW RATE

1.5 ounces per second

PLAIN WATER SUPPLY

Min Flowing Pressure: 20 PSIG (0.137 MPA)
 Max Static Pressure: 50 PSI (0.345 MPA)

CARBON DIOXIDE (CO₂) SUPPLY

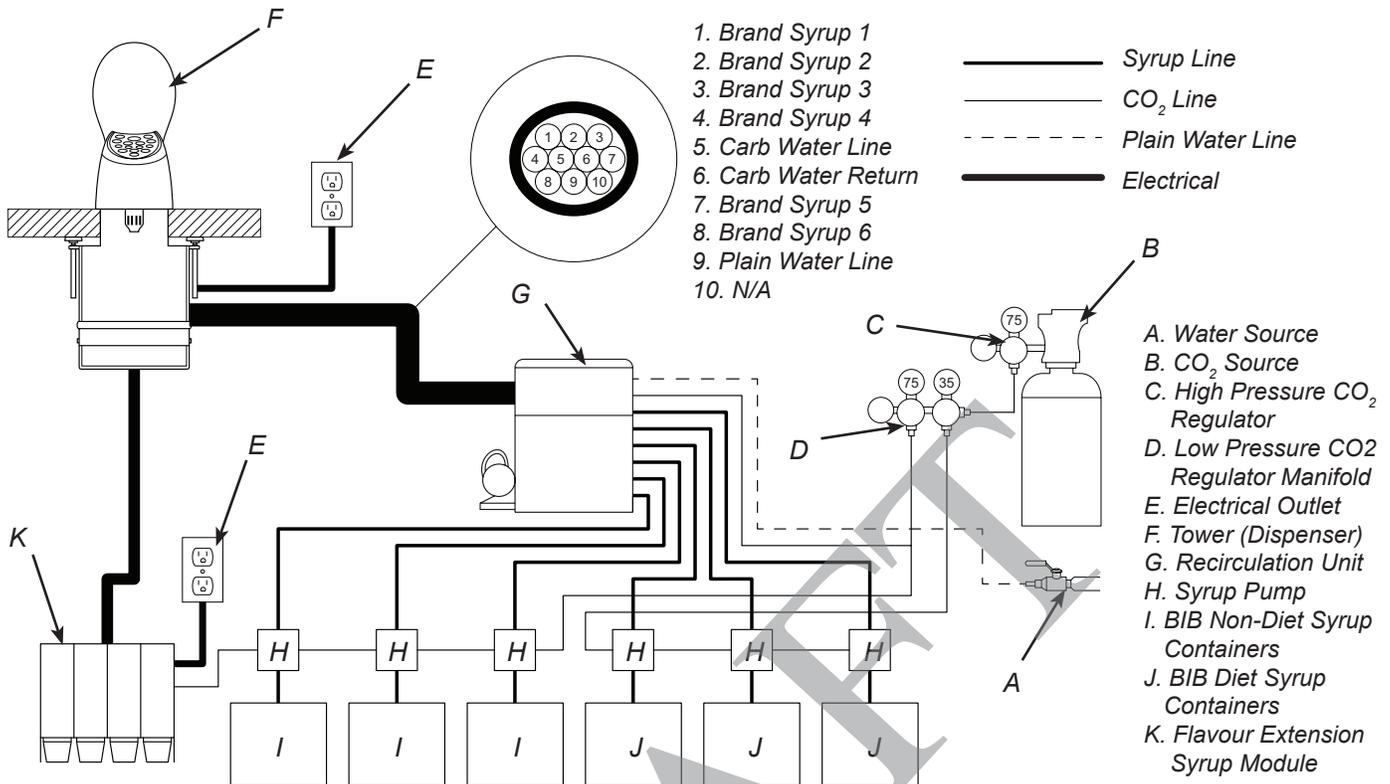
Min Pressure: 70 PSIG (0.483 MPA)
 Max Pressure: 80 PSIG (0.552 MPA)

FITTINGS

Carb Water Recirc.: 9.5 mm (3/8 inch) barb
 Plain Water Inlet: 9.5 mm (3/8 inch) barb
 Brand Syrup Inlets: 9.5 mm (3/8 inch) barb
 Flavor Injector Inlets: 6.4 mm (1/4 inch) barb
 CO₂ Inlet: 9.5 mm (3/8 inch) barb

This unit emits a sound pressure level below 70 dB

General System Overview



PRE-INSTALLATION CHECKLIST

TOOLS REQUIRED:

- Oetiker Pliers
- Tubing Cutters
- Wrench
- Slotted Screwdriver
- Phillips Screwdriver
- Drill

BIB SYSTEM:

- BIB Rack
- BIB Syrup Boxes
- BIB Regulator Set
- BIB Connectors

POST MIX ACCESSORIES:

- High Pressure CO₂ Regulator
- Low Pressure CO₂ Regulator Manifold
- CO₂ Supply
- Chain for CO₂ Tank
- Beverage Dispenser
- Beverage Tubing
- Oetiker Clamp Fittings

BEFORE INSTALLATION:

- Do you have enough space to install the dispenser?
- Is the countertop level?
- Can the countertop support the weight of the dispenser?
- Is dispenser located away from direct sunlight or overhead lighting?

CONSIDER LOCATION OF THE FOLLOWING BEFORE THE INSTALL:

- Water Supply Lines
- Electrical Outlet
- Heating and Air Conditioning Ducts

Read This Manual

This manual was developed by Lancer Corporation as a reference guide for the owner/operator and installer of this dispenser. Please read this manual before installation and operation of this dispenser. Please see pages **XX-XX** for troubleshooting or service assistance. If the service cannot be corrected please call your Service Agent or Lancer Customer Service. Always have your model and serial number available when you call.

INSTALLATION

Unpacking the Dispenser

1. Cut package banding straps and remove.
2. Open the box and carefully remove the dispenser from the corrugated shipping carton and place on a flat surface taking care to not scratch the plastic covers.
3. Leave the merchandiser in the box until the installation of the dispenser is complete.

NOTE

Inspect unit for concealed damage. If evident, notify delivering carrier and file a claim against the same.

⚠ ATTENTION

DO NOT LAY UNIT ON ITS SIDE OR BACK

Selecting/Preparing a Counter Location

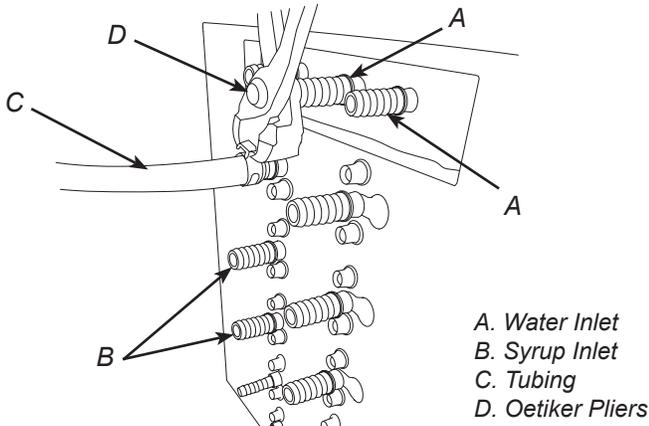
1. Select a location that is in close proximity to a properly grounded electrical outlet and a water supply that meets the requirements shown in the Specifications section found on page 4.
2. Select a location for the remote chiller system or carbonator (if necessary), syrup pumps, CO₂ tank, product containers, flavour syrup module, and water filter (recommended).
3. Once the location for the dispenser and the remote chiller have been determined, route the 10-line python and cut/trim to length.

⚠ ATTENTION

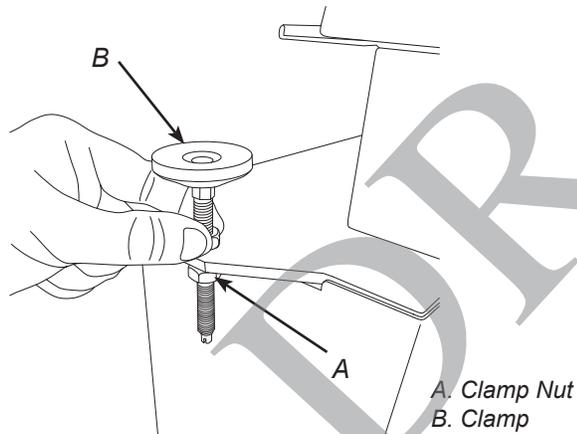
Inspect the counter location where the unit is to be installed. Verify the selected counter is strong enough to safely support the weight of the installed unit. The ideal counter for installation should measure at least 25 mm (1 in) thick (Maximum of 60 mm, 2.36 in).

Dispenser/Chiller Installation

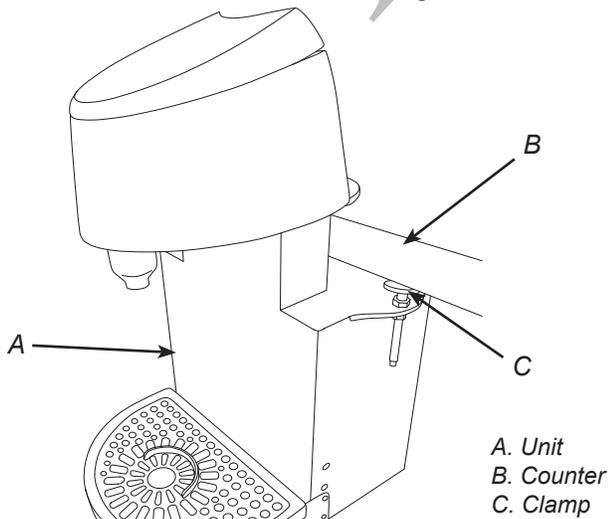
1. Connect appropriate tubing for the soda recirculation lines, located in the 10-line python and routed from the remote chiller, to the unit inlets. Repeat for plain water line (See the Plumbing Diagram on page 20 for reference).



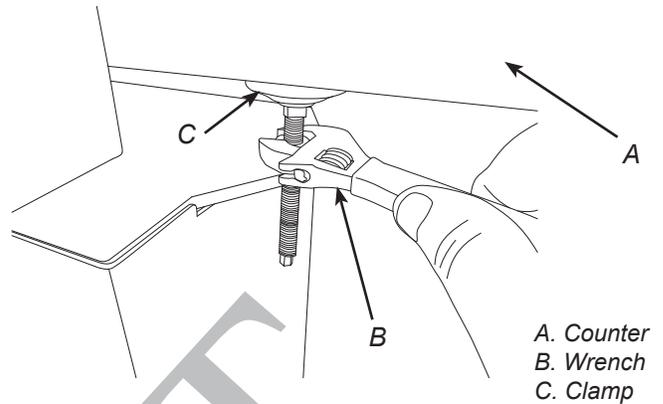
2. Connect appropriate tubing for all syrup lines located in the 10-line python and routed from the remote chiller, to the unit inlets.
3. Connect appropriate tubing for all flavour lines, routed from the remote flavour syrup module, to the unit inlets.
4. Once all connections to the unit have been made, loosen the clamp nuts and lower the two (2) clamps on either side of the unit.



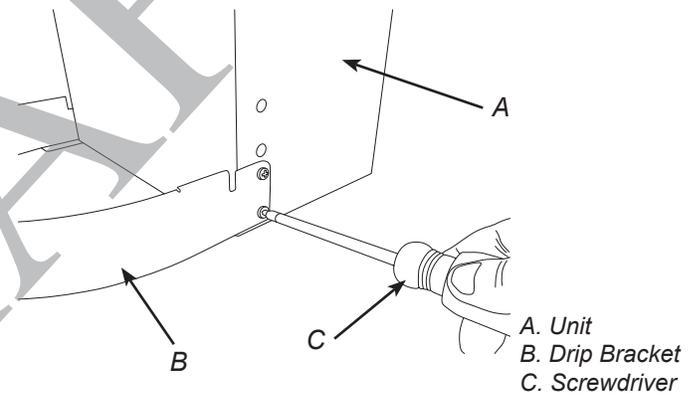
5. Slide the unit onto the counter in the designated location.



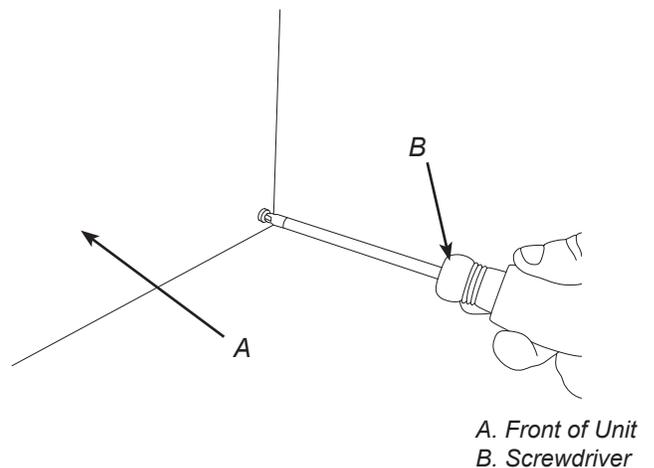
6. Using a wrench, raise the two (2) clamps underneath the counter and tighten the clamp nuts to secure the unit in place.



7. Remove the drip plate from the drip tray.
8. Remove the drip tray from the drip bracket.
9. Using a screwdriver, remove the drip bracket by unscrewing the four (4) side screws (two (2) on each side).



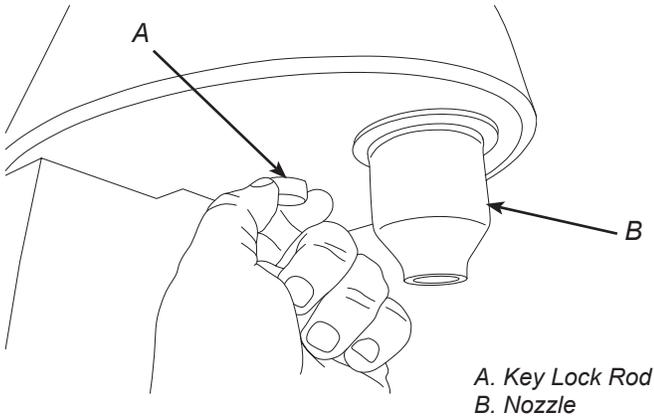
10. Remove the splash housing by removing the two (2) front screws. Pull forward at the bottom of the plate to release from the three (3) locating tabs at the top of the housing.



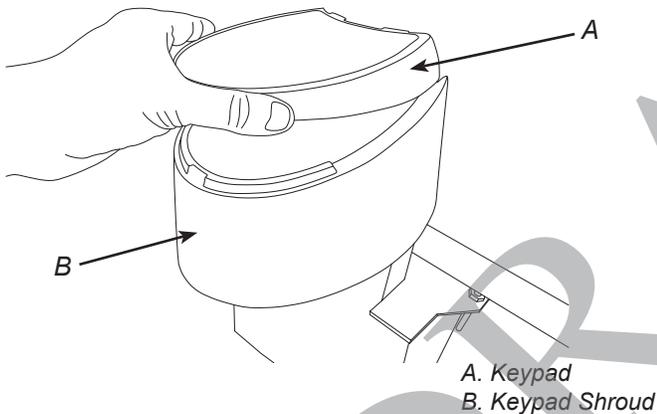
11. Unscrew the key lock rod located underneath the keypad and behind the nozzle.

⚠ ATTENTION

DO NOT pull down on key lock rod, only loosen rod enough to release the keypad.



12. Once released, gently lift up on the front of the keypad and slide forward to release from the two (2) locating tabs, remove the keypad and gently set down on the bar next to the dispenser.

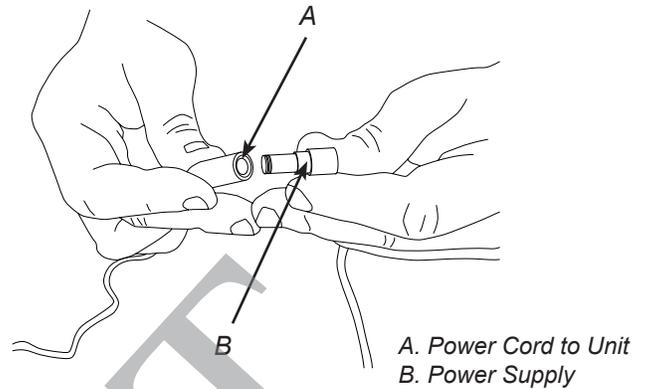


13. Remove the keypad shroud by first removing the two screws located underneath next to the keylock rod. Then remove the shroud by sliding up and out and then place on the bar next to the dispenser.
14. Reattach the keypad using the key lock rod, paying attention to not over-tighten. This will hold the keypad in place while setting flow rates.

15. Plug in power cord to power supply then route power supply cord to the designated grounded electrical outlet.

⚠ WARNING

DO NOT PLUG UNIT INTO GROUNDED ELECTRICAL OUTLET AT THIS TIME. Make sure that all water lines are tight and unit is dry before making any electrical connections



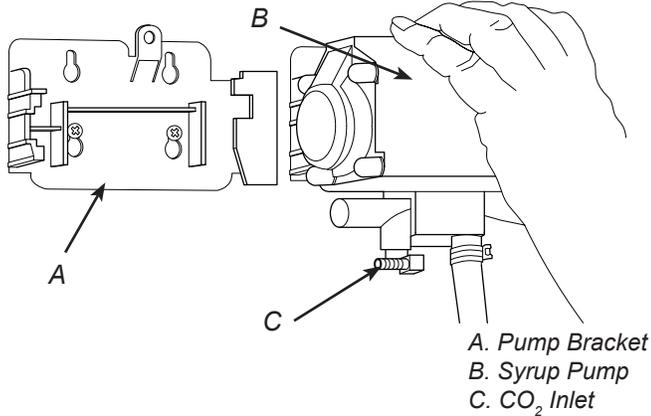
NOTE

Unit is designed to be supported by a remote chiller system or remote ice cooled system. Please see the manufacturer's specifications and instructions for installation. The following are the instructions for plumbing the remote chiller system to the tower.

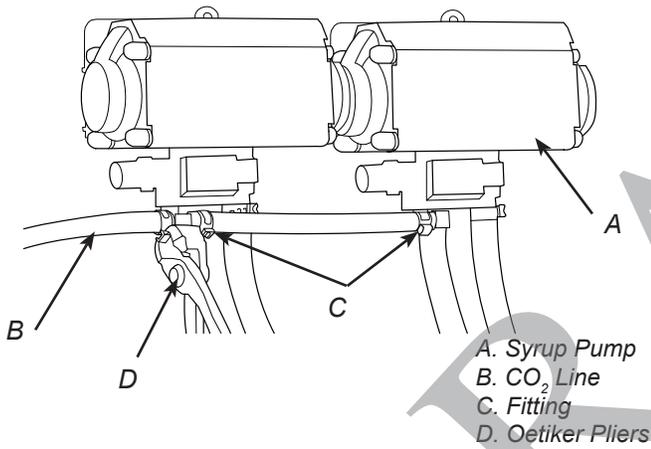
16. Route appropriate tubing from the syrup pump location to the syrup inlets at the remote chiller. Repeat for all syrup connections.
17. Route appropriate tubing from the water source to the water inlet at the remote chiller and only connect tubing to the water source.
18. Turn on the water and flush the water line thoroughly.
19. Turn off the water and connect water line to the plain water inlet at the remote chiller.
20. Route appropriate tubing from the designated CO₂ source to the CO₂ inlet at the back of the remote chiller and connect tubing to inlet.

Installing Remote Syrup Pumps

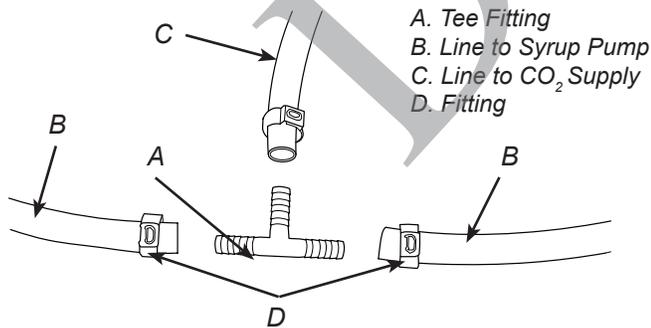
1. Mount pump brackets in pre-determined location.
2. Mount syrup pumps to pump brackets.



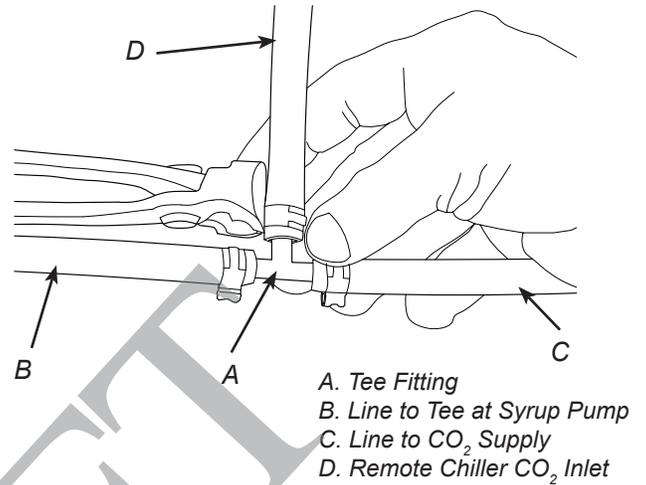
3. Measure and cut tubing to length between the pump CO₂ inlets, then connect tubing to all pumps.



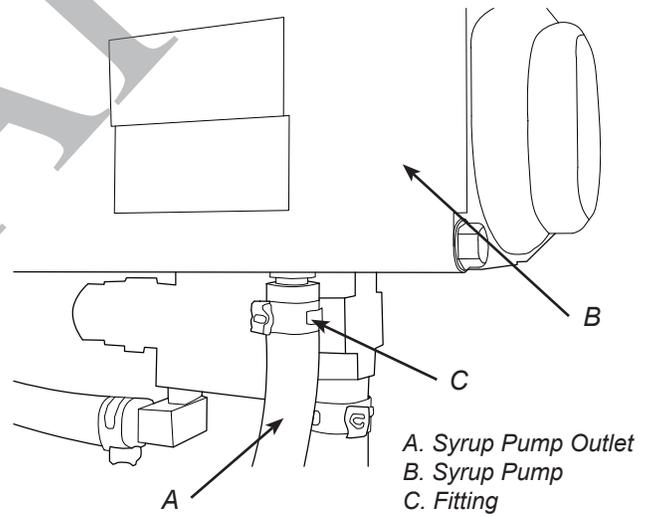
4. Using tubing cutters, cut any pump CO₂ supply line and install tee fitting, then route appropriate tubing from the CO₂ supply to the tee fitting at syrup pumps.



5. Cut tubing from CO₂ supply to tee fitting at syrup pumps and install another tee fitting.
6. Attach line from remote chiller CO₂ inlet to tee fitting between syrup pumps and CO₂ supply.



7. Connect tubing from dispenser syrup inlet to the syrup pump outlet fitting. Repeat for each syrup line/pump.

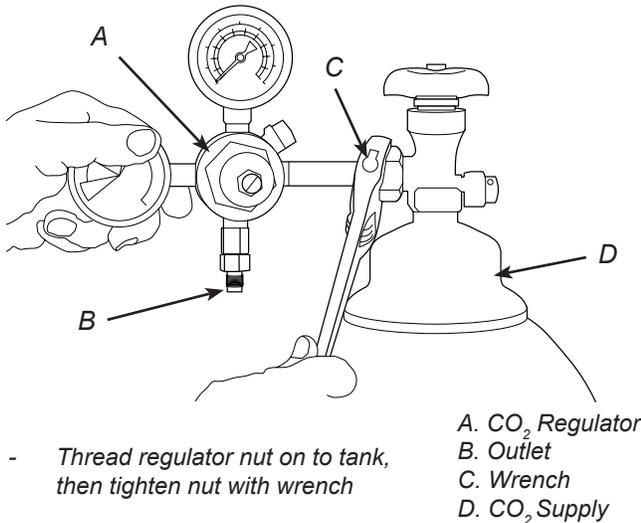


Installing CO₂ Supply

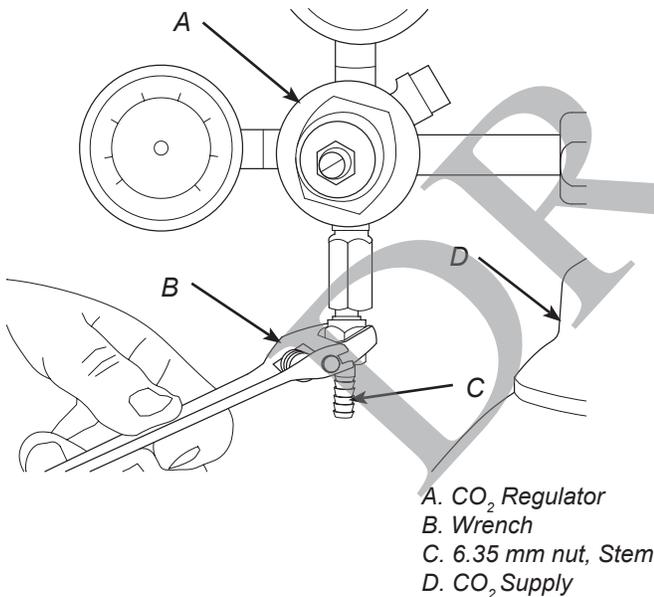
1. Connect high pressure CO₂ regulator assembly to CO₂ cylinder or bulk system.

⚠ ATTENTION

Before installing regulator, assure that a seal (washer or o-ring) is present in regulator attachment nut.



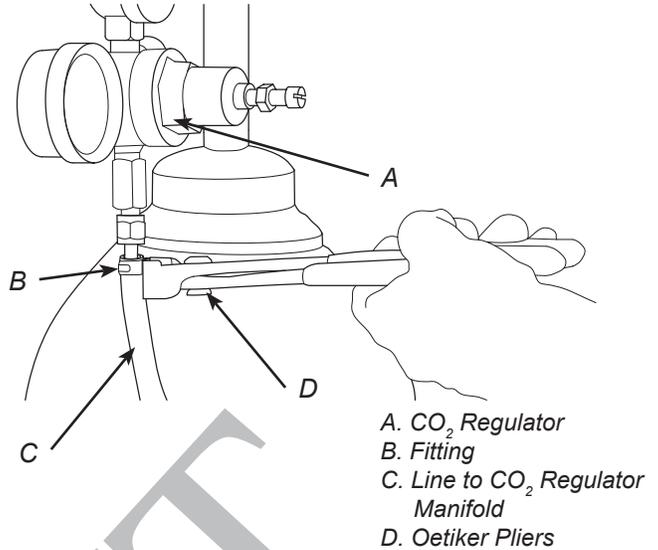
2. Connect a 6.35 mm (1/4 in) nut, stem and seal to high pressure CO₂ regulator outlet.



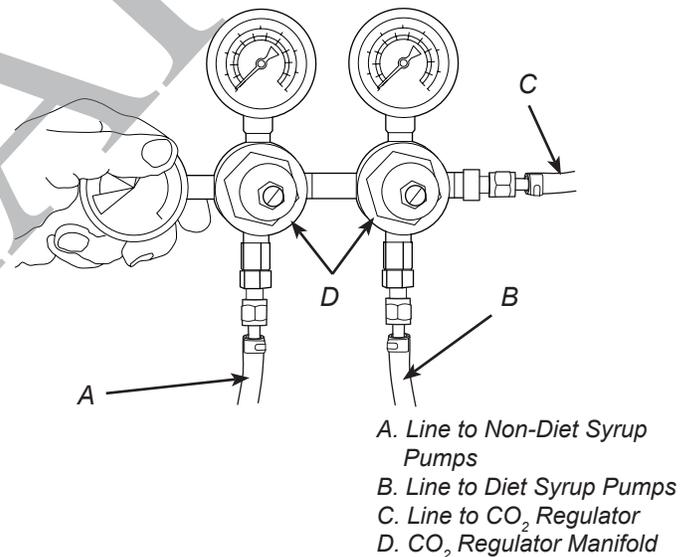
3. Route appropriate tubing from the low pressure CO₂ regulator manifold location to the 6.35 mm (1/4") nut, stem on the high pressure CO₂ regulator attached to source and connect tubing.

⚠ ATTENTION

A dedicated CO₂ regulator is required to supply the CO₂ to all normal, non-diet syrup pumps as well as to all diet syrup pumps.



4. Connect tubing routed from the CO₂ inlet at the remote chiller and normal, non-diet syrup pumps to one of the low pressure CO₂ regulator manifold outlets.
5. Connect tubing routed from the diet syrup pumps to the second outlet of the low pressure CO₂ regulator manifold.

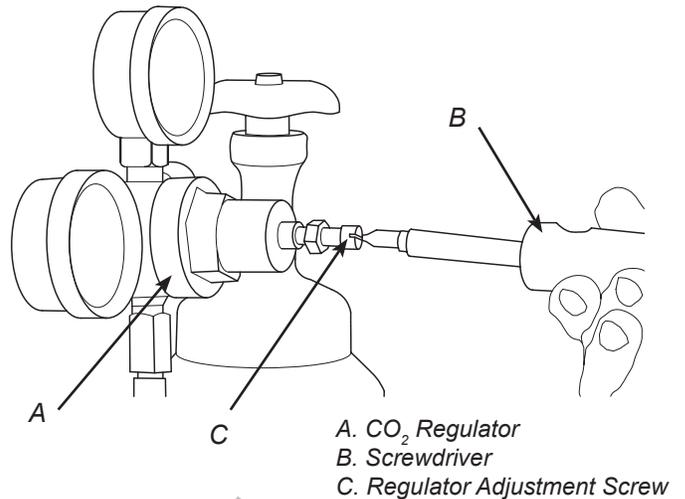
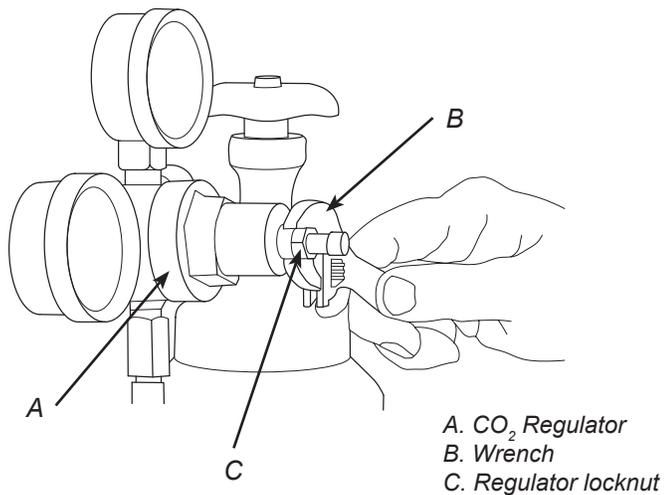


6. Using a wrench, loosen lock nut on high pressure regulator adjustment screw then using a screwdriver back out lock nut screw all the way.

⚠ WARNING

DO NOT TURN ON CO₂ SUPPLY AT THIS TIME

7. Repeat Step 6 for both low pressure regulator adjustment screws on the regulator manifold



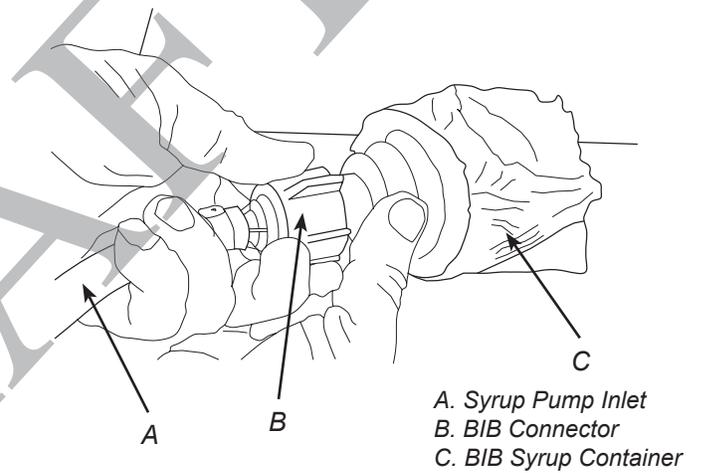
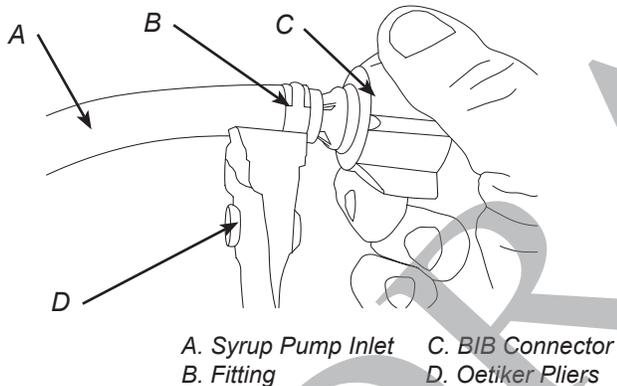
Connecting to Syrup Supply

1. Install BIB (bag in box) connectors onto the syrup pump inlet tubing.

⚠ ATTENTION

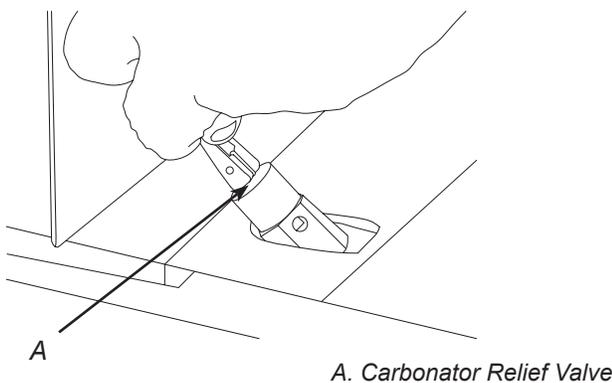
Use proper connector for syrup manufacturer

2. Connect syrup BIBs to connectors. Repeat for each syrup line/pump and each flavor injector line/pump.



Dispenser Setup

1. Turn on the water supply.
2. Verify all Bag-in-Box or Figal tanks contain syrup and check for leaks.
3. Open the pressure relief valve located on the remote chiller system by flipping up on the valve cap lever. Hold open until water flows from the relief valve then close (flip down) relief valve.



4. Connect power cord to grounded electrical outlet. Keypad LEDs will flash in a sequence to validate the electronics and configure the keypad.

⚠ WARNING

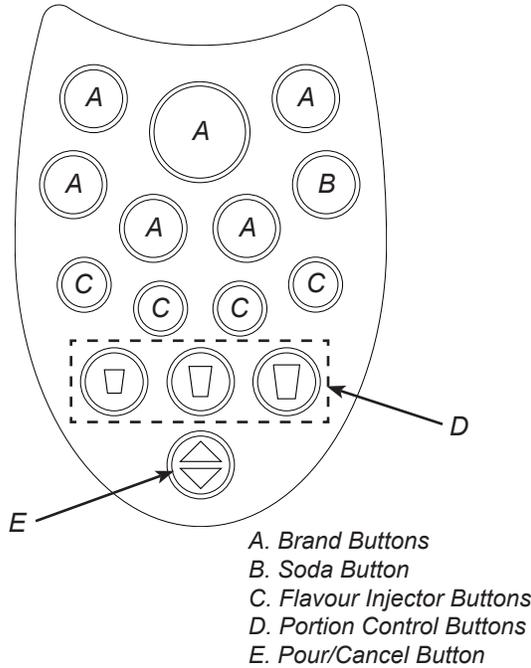
The dispenser must be properly electrically grounded to avoid serious injury or fatal electrical shock. The power cord has a three-prong grounded plug. If a three-hole grounded electrical outlet is not available, use an approved method to ground the unit. Follow all local electrical codes when making connections. Each dispenser must have a separate electrical circuit. Do not use extension cords. Do not connect multiple electrical devices on the same outlet.

5. Locate a valve that utilizes plain water brand then close the syrup line at the backblock for that corresponding valve.

NOTE

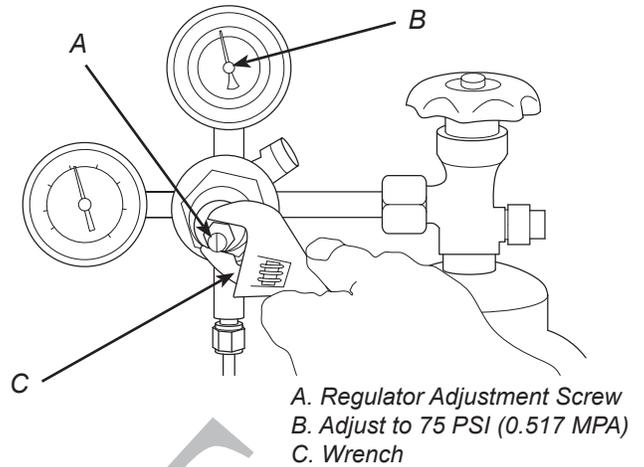
Example: Oasis and Schweppes Lemonade both utilize plain water in their syrups.

- Using the keypad, select the brand whose syrup line was closed in the previous step, then press and hold the pour/cancel button until a steady flow of water is achieved.



- Select the soda button then press and hold the pour/cancel button until a steady flow of water is achieved.
- Ensure that the pump deck at the remote chiller is turned off before turning on the CO₂.

- Turn on CO₂ at the source then, using a screwdriver, adjust the high pressure regulator at the source to 75 PSI (0.517 MPA) then tighten locknut with wrench.



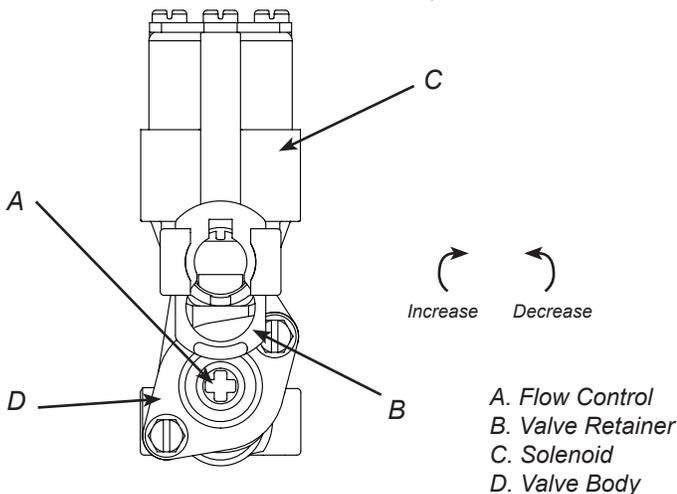
- Adjust the low pressure regulator routed from the normal, non-diet syrup pumps and remote chiller to 75 PSI (0.517 MPA).
- Adjust the second low pressure regulator routed from the diet syrup pumps to 35 PSI (0.241 MPA).
- Select the soda button then press and hold the pour/cancel button until gas out.
- Reactivate the pump deck at the remote chiller.
- Repeat Step 12 until a steady flow of soda is achieved.

Adjust Water Flow Rate & Syrup/Water Ratio

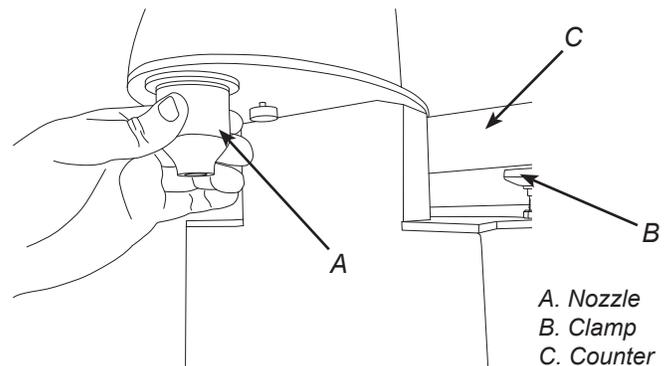
NOTE

The refrigeration unit should have been running for at least one (1) hour before attempting to set flow rates on valves. The drink temperature should be no higher than 40°F (4.4°C) when flow rates are set. This is best done after the remote chiller has already made an ice bank.

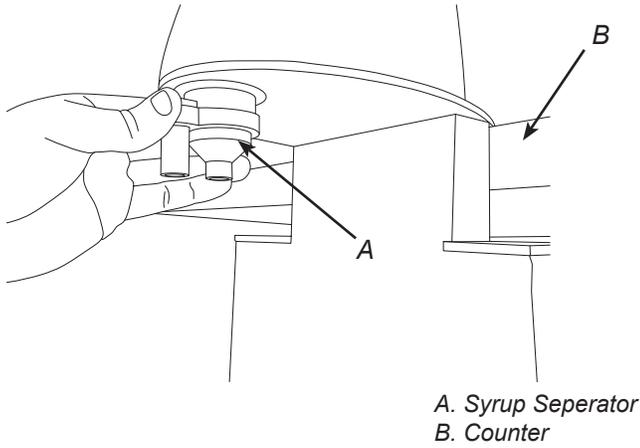
- Using a Lancer ratio cup verify water flow rate (5 oz. in 4 sec.) by activating the soda module. Remove the protective cap for the corresponding valve and use a screwdriver to adjust if needed.



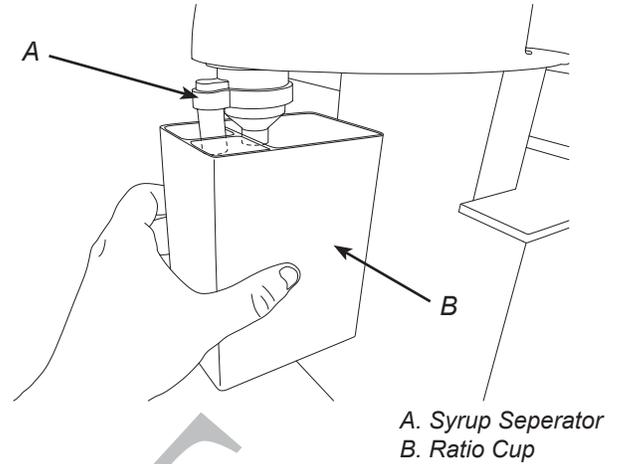
- Repeat Step 1 for the plain water brand whose syrup was closed in the previous section.
- Open the syrup line at the backblock, closed in the previous section.
- Once all the water modules have been calibrated, remove nozzle by twisting counter clockwise and pulling down.



- Install Lancer syrup separator (PN 82-3458) in place of nozzle.



- Using a Lancer ratio cup, activate syrup valve and capture a sample. Verify that the syrup level is even with the water level. Use a screwdriver to adjust if needed.

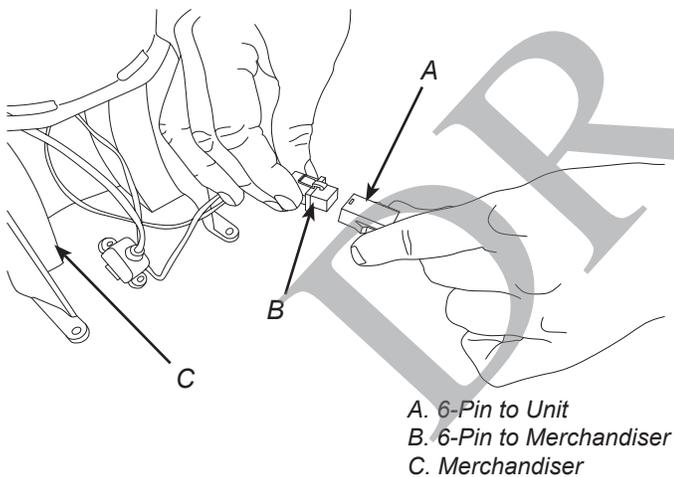


- Repeat Step 8 for each brand/syrup line then remove the syrup separator and reinstall nozzle.

- Turn off the soda and plain water backblocks.
- Purge each syrup line by selecting the brand and pressing the pour button, until no air is coming from the lines and a steady flow is achieved.
- Turn back on the soda and plain water backblocks.

Merchandiser Installation

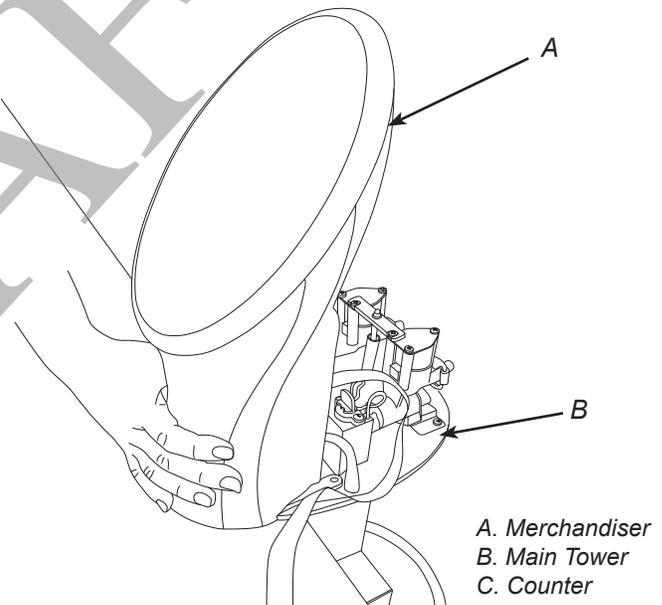
- Unplug power to the unit before installing the merchandiser.
- Remove keypad from key lock rod and set on bar next to unit.
- Remove the merchandiser from the box.
- Plug in the six (6) pin connector and USB cable to the main tower.



- Gently slide the merchandiser onto the unit. A 4 mm (0.15 in) screw will designate the front of the main tower.

⚠ ATTENTION

Careful not to pinch any cables or wires when installing the merchandiser to the unit.



- Using a screwdriver and screws provided, attach the merchandiser to unit.
- Reinstall keypad shroud to unit.
- Reattach keypad to key lock rod/keypad shroud.
- Reinstall splash housing, drip bracket, drip tray, and drip plate.

Scheduled Maintenance

As Needed	<ul style="list-style-type: none"> Keep exterior surfaces of dispenser (include drip tray and drip plate) clean using a clean, damp cloth.
Daily	<ul style="list-style-type: none"> Remove outer nozzle and rinse well in warm water. DO NOT use soap or detergent. This will cause foaming and off taste in finished product. Using the brush provided and cleaning solution, clean the nozzle injectors. See Cleaning and Sanitizing Nozzle section on the next page for reference. Remove drip plate and drip tray and wash both in cleaning solution. With a clean cloth and cleaning solution, wipe off all of the unit's exterior surfaces and splash areas. DO NOT USE ABRASIVE SOAPS OR STRONG DETERGENTS. DO NOT USE AMMONIA BASED PRODUCTS WHEN CLEANING THE SCREEN OR SURROUNDING PLASTICS. Replace the drip plate, drip tray, and nozzle.
Weekly	<ul style="list-style-type: none"> Taste each product for off tastes. If off taste occurs clean and sanitize the unit using the appropriate procedures outlined in the Cleaning and Sanitizing section of this manual. Check the water level in the water bath for the remote chiller (if necessary). Replenish as required.
Monthly	<ul style="list-style-type: none"> Clean and sanitize the unit using the appropriate procedures outlined in the Cleaning and Sanitizing section of this manual.
Every Six Months	<ul style="list-style-type: none"> Clean remote chiller according to manufacturer's instructions (if necessary). Clean the entire exterior of the unit.

CLEANING AND SANITIZING

General Information

- 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.

- 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.

⚠ ATTENTION

- Use sanitary gloves when cleaning the unit and observe all applicable safety precautions.
- DO NOT** use a water jet to clean or sanitize the unit.
- DO NOT** disconnect water lines when cleaning and sanitizing syrup lines, to avoid contamination.
- DO NOT** use strong bleaches or detergents; These can discolor and corrode various materials.
- DO NOT** use metal scrapers, sharp objects, steel wool, scouring pads, abrasives, or solvents on the dispenser.
- DO NOT** use hot water above 60° C (140° F). This can damage the dispenser.
- DO NOT** spill sanitizing solution on any circuit boards. Insure all sanitizing solution is removed from the system.

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 32°C to 43°C (90°F to 110°F). 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 50 to 100 parts per million (PPM) chlorine (e.g. Sodium Hypochlorite or bleach). A minimum of five gallons of sanitizing solution should be prepared. Any sanitizing solution may be used as long as it is prepared in accordance with the manufacturer's written recommendations and safety guidelines, and provides 50 to 100 parts per million (PPM) chlorine.

⚠ CAUTION

If a powder sanitizer is used, dissolve it thoroughly with hot water prior to adding to the product system. Ensure sanitizing solution is removed from the dispenser as instructed.

Cleaning and Sanitizing Product Lines

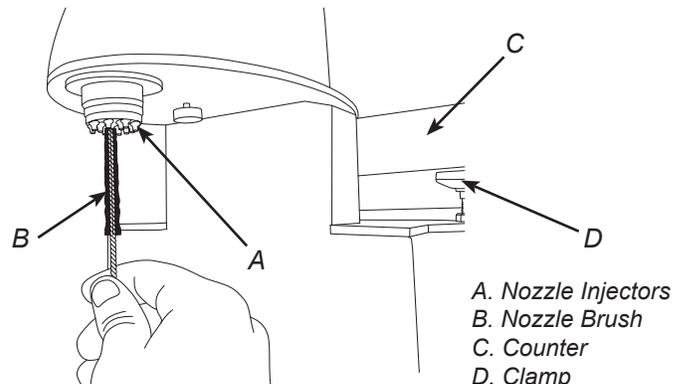
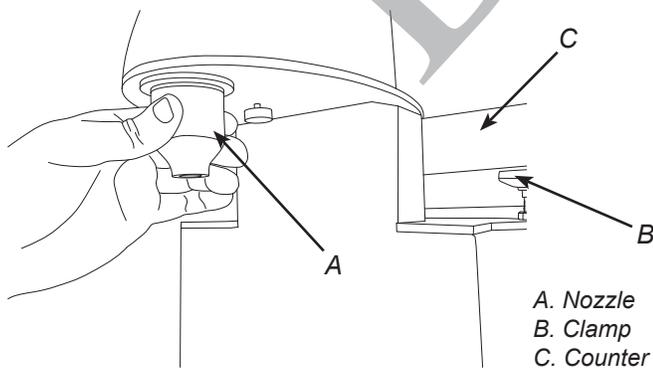
1. Disconnect product lines from BIB's or other product supply.
2. Place product lines, with BIB connectors, in a bucket of warm water.
3. Activate each valve to fill the lines with warm water and flush out product remaining in the lines.
4. Prepare Cleaning Solution described above.
5. Place product lines, with BIB connectors, into cleaning solution.
6. Activate each valve until lines are filled with cleaning solution then let stand for ten (10) minutes.
7. Flush out cleaning solution from the syrup lines using clean, warm water.
8. Prepare Sanitizing Solution described above.
9. Place product lines into sanitizing solution and activate each valve to fill lines with sanitizer. Let sit for ten (10) minutes.
10. Reconnect product lines to BIB's and draw drinks to flush solution from the dispenser.
11. Taste the drink to verify that there is no off-taste. If off-taste is found, flush product 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.

Cleaning and Sanitizing Nozzle

1. Disconnect power, so as to not activate valve while cleaning.
2. Remove outer nozzle by twisting counter clockwise and pulling down.
3. Rinse nozzle with warm water.
4. Wash nozzle with cleaning solution then immerse in sanitizing solution and let sit for fifteen (15) minutes.
5. Set nozzle aside and let air dry. **DO NOT** rinse with water after sanitizing.
6. Using the brush provided and cleaning solution, clean the nozzle injectors.
7. Using the brush provided, sanitize the nozzle injectors and let air dry.
8. Reconnect nozzle.



3. Rinse nozzle with warm water.
4. Wash nozzle with cleaning solution then immerse in sanitizing solution and let sit for fifteen (15) minutes.
7. Using the brush provided, sanitize the nozzle injectors and let air dry.
8. Reconnect nozzle.

9. Connect power.
10. Taste the drink to verify that there is no off-taste. If off-taste is found, sanitize the nozzle and nozzle injectors 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.

TROUBLESHOOTING

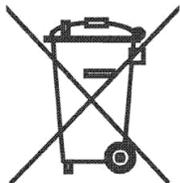
TROUBLE	CAUSE	REMEDY
Miscellaneous leakage.	<ol style="list-style-type: none"> 1. Gap between parts. 2. Damaged or improperly installed o-rings. 	<ol style="list-style-type: none"> 1. Tighten appropriate retaining screws 2. Replace or adjust appropriate o-rings
Insufficient water flow.	<ol style="list-style-type: none"> 1. Insufficient incoming supply water pressure. 2. Shutoff on mounting block not fully open. 3. Foreign debris in water flow control. 4. Foreign debris in water pump strainer 	<ol style="list-style-type: none"> 1. Verify incoming supply water pressure is a minimum of 25 PSI (0.172 MPA). 2. Open shutoff fully. 3. Remove water flow control from upper body and clean out any foreign material to ensure smooth free spool movement. 4. Remove water pump strainer and clean.
Insufficient product flow.	<ol style="list-style-type: none"> 1. Insufficient CO₂ pressure to BIB pumps. 2. Out of CO₂. 3. Shutoff on mounting block not fully open. 4. Foreign debris in product flow control. 5. Bad product pump. 	<ol style="list-style-type: none"> 1. Adjust CO₂ pressure to 80 PSI (0.550 MPA) [minimum 70 PSI (0.480 MPA)] for BIB pumps. 2. Replace CO₂ tank/refill. 3. Open shutoff fully. 4. Remove product flow control form upper body and clean out any foreign material to ensure smooth free spool movement. 5. Replace BIB pump.
Erratic ratio.	<ol style="list-style-type: none"> 1. Incoming water and/or product supply not at minimum flowing pressure. 2. Foreign debris in water and/or product flow controls. 	<ol style="list-style-type: none"> 1. Check pressure and adjust 2. Remove flow controls from upper body and clean out any foreign material to ensure smooth free spool movement.
No product dispensed	<ol style="list-style-type: none"> 1. Water and product shutoffs on mounting block not fully open. 2. The key switch on an electric valve is in the OFF position. 3. Electric current not reaching valve. 4. Improper or inadequate water or product supply. 5. Transformer Failure 6. Bad valve solenoid(s) 	<ol style="list-style-type: none"> 1. Open shutoff fully. 2. Turn key switch to ON position. 3. Check electric current supplied to valve. If current is adequate, check solenoid coil and switch, and replace if necessary. 4. Remove valve from mounting block and open shutoffs slightly and check water and syrup flow. If no flow, check dispenser for freeze-up or other problems 5. Reset transformer circuit breaker. If breaker trips again check for pinched wire harness at backblocks 6. Replace Solenoid(s)

TROUBLE	CAUSE	REMEDY
Water only dispensed; no product; or product only dispensed, no water	<ol style="list-style-type: none"> 1. Water or product shutoff on mounting block not fully open. 2. Improper or inadequate water or product flow. 3. BIB supply too far from dispenser. 4. CO₂ pressure too low. 5. Stalled or inoperative BIB pump 6. Kinked line. 	<ol style="list-style-type: none"> 1. Open shutoff fully. 2. Remove valve from mounting block, open shutoffs slightly and check water and syrup flow. If no flow, check dispenser for freeze-up or other problems. Ensure BIB connection is engaged. 3. Check that BIB supply is within six (6) feet of the dispenser. 4. Check the CO₂ pressure to the pump manifold to ensure it is between 70 and 80 PSI (0.483 and 0.552 MPA). 5. Check CO₂ pressure and/or replace pump. 6. Remove kink or replace line.
Syrup only dispensed. No water, but CO ₂ gas dispensed with syrup.	<ol style="list-style-type: none"> 1. Improper water flow to dispenser. 2. Carbonator pump motor has timed out. 	<ol style="list-style-type: none"> 1. Check for water flow to dispenser (see Insufficient Water Flow on previous page). 2. Reset by turning the unit OFF and then ON.
Excessive foaming.	<ol style="list-style-type: none"> 1. Incoming water or syrup temperature too high. 2. CO₂ pressure too high. 3. Water flow rate too high. 4. Nozzle and diffuser not installed. 5. Nozzle and diffuser not clean. 6. Air in BIB lines. 7. Poor quality ice. 8. High beverage temperature. 	<ol style="list-style-type: none"> 1. Correct prior to dispenser. Consider larger dispenser or pre-cooler. 2. Adjust CO₂ pressure downward, but not less than 70 PSI. 3. Re-adjust and reset ratio. Refer to “Adjust Water Flow Rate & Syrup/Water Ratio” Section. 4. Remove and reinstall properly. 5. Remove and clean. 6. Bleed air from BIB lines. 7. Check quality of ice used in drink. 8. Check refrigeration system.
Warm drinks.	<ol style="list-style-type: none"> 1. Restricted airflow. 2. Dispenser connected to hot water supply. 3. Dispenser capacity exceeded. 	<ol style="list-style-type: none"> 1. Check clearances around sides, top, and inlet of unit. Remove objects blocking airflow through grill. 2. Switch to cold water supply. 3. Add pre-cooler or replace with larger dispenser.
BIB pump does not operate when dispensing valve opened.	<ol style="list-style-type: none"> 1. Out of CO₂, CO₂ not turned on, or low CO₂ pressure. 2. Out of syrup. 3. BIB connector not tight. 4. Kinks in syrup or gas lines. 5. Bad BIB Pumps. 	<ol style="list-style-type: none"> 1. Replace CO₂ supply, turn on CO₂ supply, or adjust CO₂ pressure to 70-80 PSI (0.483-0.552 MPA) 2. Replace syrup supply. 3. Fasten connector tightly. 4. Straighten or replace lines. 5. Replace BIB pump.
BIB pump operated, but no flow.	<ol style="list-style-type: none"> 1. Leak in syrup inlet or outlet line. 2. Defective BIB pump check valve. 	<ol style="list-style-type: none"> 1. Replace line. 2. Replace BIB pump
BIB pump continues to operate when bag is empty.	<ol style="list-style-type: none"> 1. Leak in suction line. 2. Leaking o-ring on pump inlet fitting. 	<ol style="list-style-type: none"> 1. Replace line. 2. Replace o-ring.

TROUBLE	CAUSE	REMEDY
BIB pump fails to restart after bag replacement.	<ol style="list-style-type: none"> 1. BIB connector not on tight. 2. BIB connector is stopped up. 3. Kinks in syrup line 4. Bad BIB Pumps. 	<ol style="list-style-type: none"> 1. Tighten BIB connector. 2. Clean out or replace BIB connector. 3. Straighten or replace line. 4. Replace BIB pump.
BIB pump fails to restart when dispensing valve is closed.	<ol style="list-style-type: none"> 1. Leak in discharge line or fittings. 2. Empty BIB. 3. Air leak on inlet line or bag connector. 	<ol style="list-style-type: none"> 1. Repair or replace discharge 2. Replace BIB. 3. Repair or replace.
No product out light.	<ol style="list-style-type: none"> 1. Burned-out lamp 2. Faulty wiring or pressure switch in product line. 	<ol style="list-style-type: none"> 1. Replace lamp. 2. Repair or replace.
Low or no carbonation.	<ol style="list-style-type: none"> 1. Low or no CO₂. 2. Excessive water pressure. 3. Worn or defective carbonator pump. 	<ol style="list-style-type: none"> 1. Check CO₂ supply. Adjust CO₂ pressure to 70 PSI (0.483 MPA). 2. Water regulator should be set at 50 PSI (0.345 MPA) 3. Replace carbonator pump.

DRAFT

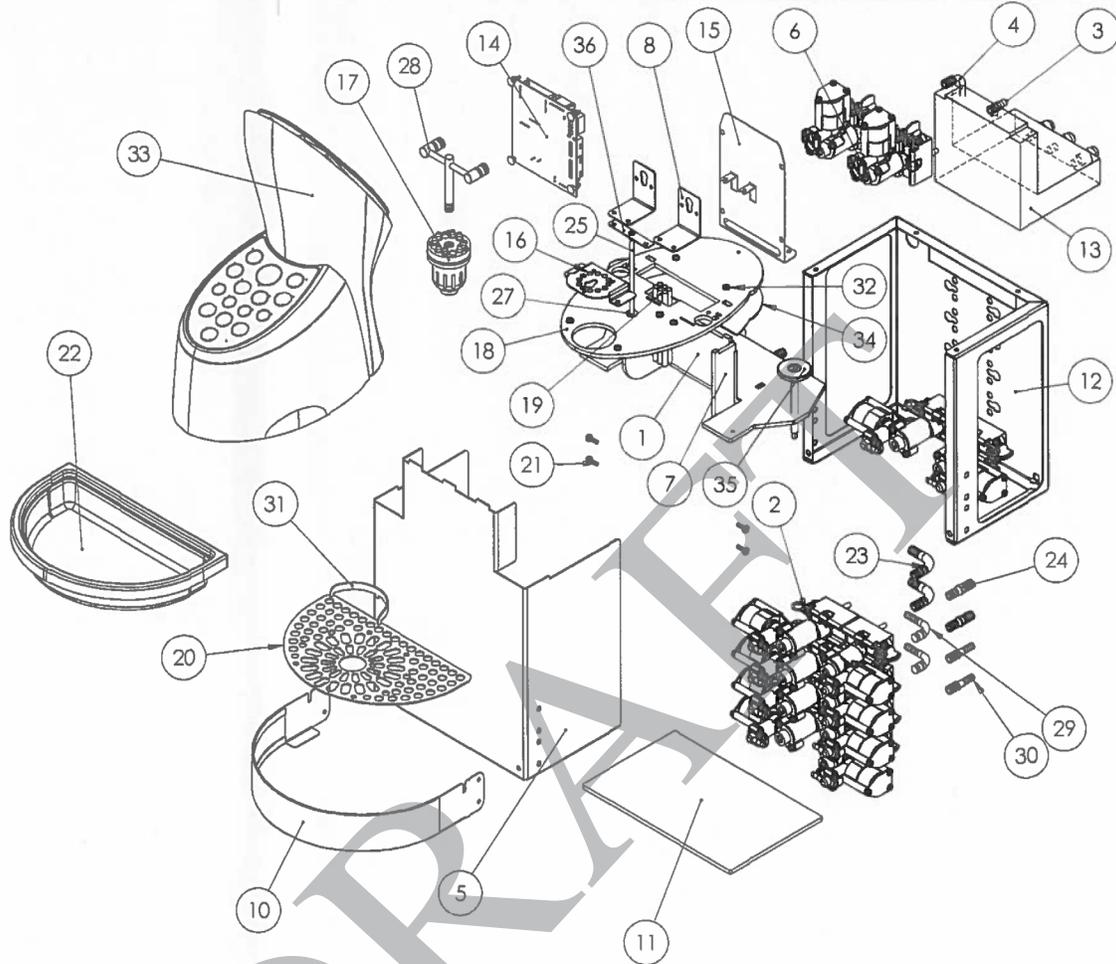
Dispenser Disposal



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.

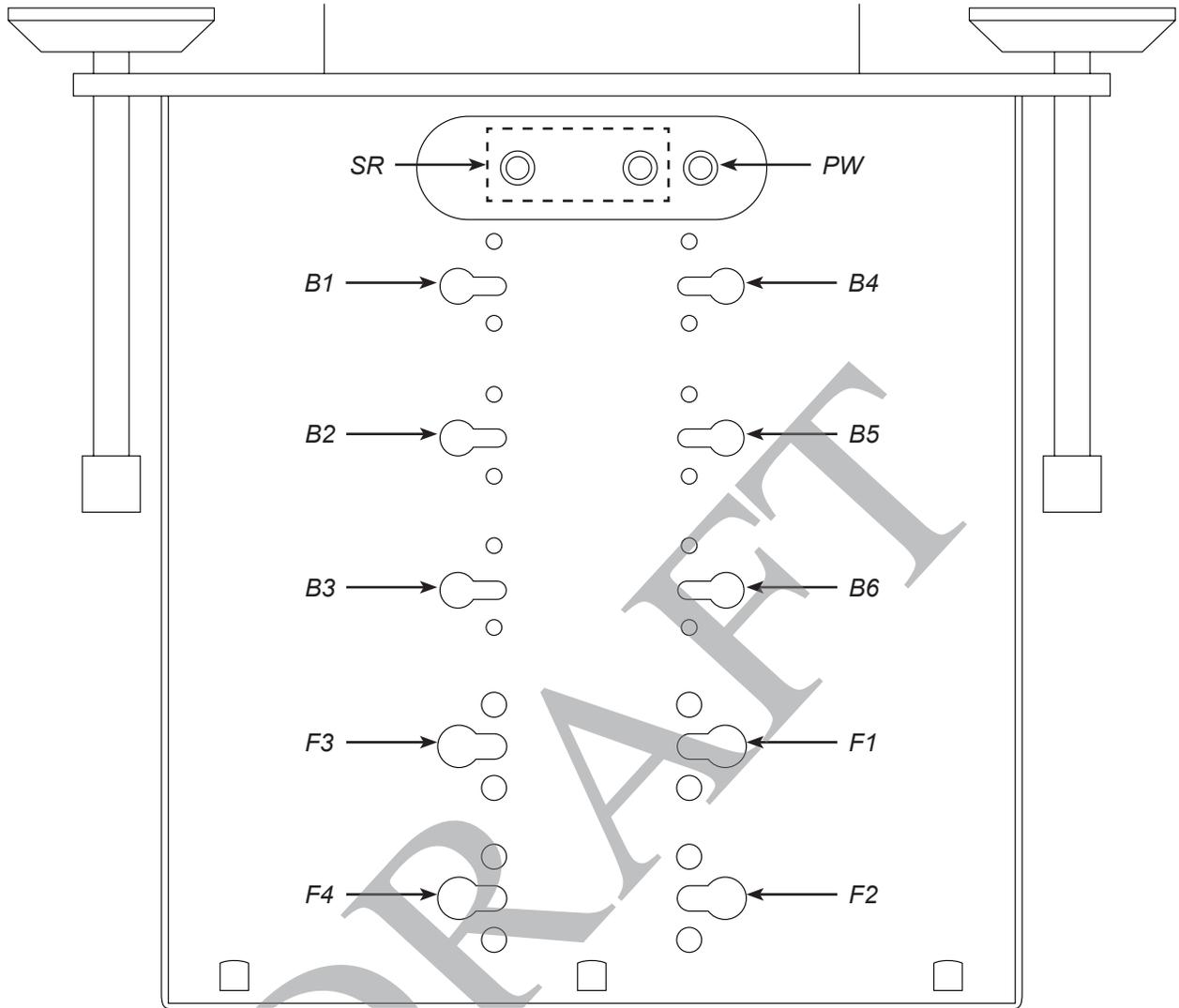
ILLUSTRATIONS AND PART LISTINGS

Main Unit Assembly

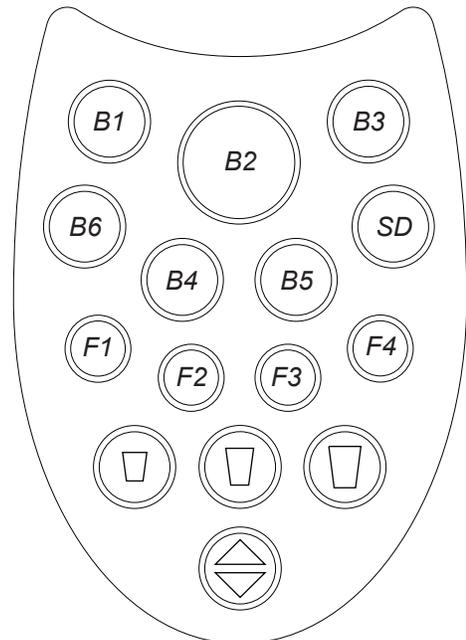


<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Item</u>	<u>Part No.</u>	<u>Description</u>
1	TTCOS-012	MPUpLeg	19		1_4syrupLine
2		VVSyrupVAssem	20	TTCOS-034	TT_Drip_Plate
3	TTCOS-030	SodaReCirc Assem	21		M4_12mm_PanHead
4	TTCOS-022	WaterPipeTT	22	TTCOS-048	ccbb-drip-tray
5	TTCOS-007	SplashHousing	23		3_8_Elbow_BB
6		BonusValveFlipAssem	24		3_8_Straight_BB
7	TTCOS-013	ClampBracePlate	25	TTCOS-027	Key_Lock_Rod
8	TTCOS-016	Valve_Bracket	26	TTCOS-023	Locking Nut
10	TTCOS-008	NewDripBracket	27		Locking Rod O' Ring
11	TTCOS047	BottomCoverSheet	28	TTCOS-030	Soda_NoZ_Pipe_Assem
12	TTCOS-017	WorkTopValveBoxx2BF	29		SSyrupElbow
13		FoamInsuBlock	30		1_4_Straight_BB
14		Valve_InterfaceModule	31	TTCOS-035	CupStop
15	TTCOS-018	Valve_PCB_Bracket	32		ISO 7045 - M4 x 5 - Z -- 5N
16	TTCOS-005	TNozzleBracket	33	TTCOS-044	ccbb-external-parts-020315
17		NozzleAssem	34	TTCOS-046	RubberFootPad
18	TTCOS-015	metal-base-profile-051114	35		Clamp M8 Locking Bolt
			36	TTCOS-015	New_KeyGuide_Plate

Unit Plumbing Diagram



Item	Description
B1	Brand Syrup 1
B2	Brand Syrup 2
B3	Brand Syrup 3
B4	Brand Syrup 4
B5	Brand Syrup 5
B6	Brand Syrup 6
F1	Flavour Injector 1
F2	Flavour Injector 2
F3	Flavour Injector 3
F4	Flavour Injector 4
PW	Plain Water Line
SR	Soda Recirculation
SD	Soda Line



DRAFT

LANCER[®]

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