



**BEVERAGE DISPENSING TOWERS**  
**INSTALLATION/OPERATORS INSTRUCTIONS**  
**INSTRUCTIONS FOR ALL MODELS OF**  
**SOFT DRINK ISLAND-BASE DISPENSING TOWERS**

**Release Date: March 3, 1997**

**Publication Number: 630460006**

**Revision Date: January 21, 2014**

**Revision: B**

**Visit the Cornelius web site at [www.cornelius.com](http://www.cornelius.com) for all your Literature needs.**

The products, technical information, and instructions contained in this manual are subject to change without notice. These instructions are not intended to cover all details or variations of the equipment, nor to provide for every possible contingency in the installation, operation or maintenance of this equipment. This manual assumes that the person(s) working on the equipment have been trained and are skilled in working with electrical, plumbing, pneumatic, and mechanical equipment. It is assumed that appropriate safety precautions are taken and that all local safety and construction requirements are being met, in addition to the information contained in this manual.

This Product is warranted only as provided in Cornelius' Commercial Warranty applicable to this Product and is subject to all of the restrictions and limitations contained in the Commercial Warranty.

Cornelius will not be responsible for any repair, replacement or other service required by or loss or damage resulting from any of the following occurrences, including but not limited to, (1) other than normal and proper use and normal service conditions with respect to the Product, (2) improper voltage, (3) inadequate wiring, (4) abuse, (5) accident, (6) alteration, (7) misuse, (8) neglect, (9) unauthorized repair or the failure to utilize suitably qualified and trained persons to perform service and/or repair of the Product, (10) improper cleaning, (11) failure to follow installation, operating, cleaning or maintenance instructions, (12) use of "non-authorized" parts (i.e., parts that are not 100% compatible with the Product) which use voids the entire warranty, (13) Product parts in contact with water or the product dispensed which are adversely impacted by changes in liquid scale or chemical composition.

### **Contact Information:**

To inquire about current revisions of this and other documentation or for assistance with any Cornelius product contact:

**[www.cornelius.com](http://www.cornelius.com)**

**800-238-3600**

### **Trademarks and Copyrights:**

This document contains proprietary information and it may not be reproduced in any way without permission from Cornelius.

Printed in U.S.A.

# TABLE OF CONTENTS

<b>Safety Instructions</b> .....	<b>1</b>
Read and Follow ALL Safety Instructions .....	1
Safety Overview .....	1
Recognition .....	1
Different Types of Alerts .....	1
Safety Tips .....	1
Qualified Service Personnel .....	1
Safety Precautions .....	2
Shipping And Storage .....	2
CO2 (Carbon Dioxide) Warning .....	2
Mounting in or on a Counter .....	2
Unpacking and Inspection .....	3
Selecting a Location .....	3
Installing the Tower .....	3
<b>CLEANING AND MAINTENANCE INSTRUCTIONS</b> .....	<b>4</b>
Daily Cleaning .....	4
Daily Maintenance .....	4
Monthly Cleaning: (In addition to daily and weekly procedures) .....	4
Yearly Maintenance .....	4
Cleaning Interior Surfaces (Monthly Cleaning) .....	5
Cold Plate (Yearly Maintenance) .....	5
Dispensing Valves: (Daily Cleaning) .....	5
Product Tubing (Monthly Cleaning) .....	5
Sanitize Pre-Mix and Post-Mix Tank System .....	5
Sanitize Syrup lines, B-I-B Systems .....	6
Replenishing CO2 Supply (As Required) .....	6
Connecting product to the Dispenser .....	7
Preparing for Operations .....	7
Adjust Water-To-Syrup Ratio .....	8
<b>Troubleshooting</b> .....	<b>9</b>



# SAFETY INSTRUCTIONS

## READ AND FOLLOW ALL SAFETY INSTRUCTIONS

### Safety Overview

- Read and follow **ALL SAFETY INSTRUCTIONS** in this manual and any warning/caution labels on the unit (decals, labels or laminated cards).
- Read and understand **ALL** applicable OSHA (Occupational Safety and Health Administration) safety regulations before operating this unit.

### Recognition

#### *Recognize Safety Alerts*



*This is the safety alert symbol. When you see it in this manual or on the unit, be alert to the potential of personal injury or damage to the unit.*

## DIFFERENT TYPES OF ALERTS

### **DANGER:**

Indicates an immediate hazardous situation which if not avoided **WILL** result in serious injury, death or equipment damage.

### **WARNING:**

Indicates a potentially hazardous situation which, if not avoided, **COULD** result in serious injury, death, or equipment damage.

### **CAUTION:**

Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury or equipment damage.

## SAFETY TIPS

- Carefully read and follow all safety messages in this manual and safety signs on the unit.
- Keep safety signs in good condition and replace missing or damaged items.
- Learn how to operate the unit and how to use the controls properly.
- **Do not** let anyone operate the unit without proper training. This appliance is **not** intended for use by very young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.
- Keep your unit in proper working condition and do not allow unauthorized modifications to the unit.

## QUALIFIED SERVICE PERSONNEL

### **WARNING:**

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. **ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.**

## SAFETY PRECAUTIONS

This unit has been specifically designed to provide protection against personal injury. To ensure continued protection observe the following:

### **WARNING:**

Disconnect power to the unit before servicing following all lock out/tag out procedures established by the user. Verify all of the power is off to the unit before any work is performed.

Failure to disconnect the power could result in serious injury, death or equipment damage.

### **CAUTION:**

Always be sure to keep area around the unit clean and free of clutter. Failure to keep this area clean may result in injury or equipment damage.

## SHIPPING AND STORAGE

### **CAUTION:**

Before shipping, storing, or relocating the unit, the unit must be sanitized and all sanitizing solution must be drained from the system. A freezing ambient environment will cause residual sanitizing solution or water remaining inside the unit to freeze resulting in damage to internal components.

## CO<sub>2</sub> (CARBON DIOXIDE) WARNING

### **DANGER:**

CO<sub>2</sub> displaces oxygen. Strict attention **MUST** be observed in the prevention of CO<sub>2</sub> gas leaks in the entire CO<sub>2</sub> and soft drink system. If a CO<sub>2</sub> gas leak is suspected, particularly in a small area, **IMMEDIATELY** ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentrations of CO<sub>2</sub> gas experience tremors which are followed rapidly by loss of consciousness and **DEATH**.

## MOUNTING IN OR ON A COUNTER

### **WARNING:**

When installing the unit in or on a counter top, the counter must be able to support a weight in excess of **340 lbs.** to insure adequate support for the unit. **FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.**

**NOTE:** Many units incorporate the use of additional equipment such as ice makers. When any addition equipment is used you must check with the equipment manufacturer to determine the additional weight the counter will need to support to ensure a safe installation.

## UNPACKING AND INSPECTION

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 and immediately reported to the delivery carrier.

Request a written inspection report from Claims Inspector to substantiate any necessary claim.

File claim with the delivery carrier.

## Selecting a Location

1. The dispenser must be located near a permanent drain to route and connect unit ice bin and drip tray drain hoses. All drains and connections to such drains must meet local plumbing codes.
2. Units with electrically operated valves must be located near a properly grounded electrical outlet. Circuit should be fused and no other electrical appliance should be connected to the circuit. **All electrical wiring must conform to national and local electrical codes.**

## INSTALLING THE TOWER



### WARNING:

It is the responsibility of the installer to ensure that the water supply to the dispensing equipment is provided with protection backflow by an air gap as defined in ANSI A112.1.2-1979; or an approved vacuum breaker or other such method as provided effective by test and must comply with all federal, state and local codes.

**Failure to comply could result in serious injury, death or damage to the equipment.**

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

1. Use the Template supplied for locating the required clearance hole in the counter for utility lines. Cut the hole as marked and remove the material.
2. The beverage tubes, drain tube and 24v power cord then are routed through the opening in the bottom of the unit and the clearance hole in the counter.
3. Apply the double stick tape if supplied with the loose shipped parts.

**NOTE: To comply with the National Sanitation Foundation (NSF) requirements, the unit must be sealed to the counter top.**

4. Liberally apply a sealant, such as Dow Corning RTV 731 or equivalent, to the unit bottom supporting surface.
5. Lower the unit into position to complete the seal of the counter top. Apply additional sealant around the edge to ensure a complete seal.

**NOTE: Do not move the unit after positioning.**

6. Mount the tower to the counter.
7. The joint between the tower base and the valve support, must also be sealed with a sealant. Liberally apply a sealant, such as Dow Corning RTV 731 or equivalent material.
8. Remove any excess sealant.

**NOTE: For non-electrical valves, skip the next step.**

9. Mount the transformer power supply under the counter, in a position to allow access to the electrical outlet and to allow the 24V power cord to reach the dispenser.
10. Install the drain hose to the drip tray drain fitting and route the drain hose to a permanent drain.

# CLEANING AND MAINTENANCE INSTRUCTIONS

These instructions are used on all Cornelius ice drink dispensers. Some models may have additional cleaning requirements. Those models will have addition procedures listed later in the manual.

## CAUTION:

Do not use metal scrapers, sharp objects or abrasives on the ice storage hopper, top cover, agitator disc or exterior surfaces as damage to the unit may result. Do not use solvents or other cleaning agents as they may attack the material resulting in damage to the unit.

- **Soap solution** – Use a mixture of mild detergent and warm (100° F) potable water.
- **Sanitizing Solution** – Dissolve 2 packets (4 oz) of Stera Sheen Green Label into 2 gallons of warm (80 – 100° F) potable water to ensure 200 ppm of chlorine.

## DAILY CLEANING:

1. Remove cup rest from drip tray and clean with warm soapy water, rinse with clean water and allow to air dry.
2. Wipe down the exterior of the unit with warm soapy water, rinse with clean water and allow to air dry.
3. Remove valve nozzles and diffusers and wash in warm soapy water, rinse in clean water and allow to air dry.
4. Clean the interior of the ice chute using the brush provided with the unit with warm soapy water, rinse with clean water and allow to air dry.
5. Spray the ice chute inside and out with sanitizer and allow to air dry.
6. Pour warm soapy water down the drains to keep them clean and flowing smoothly.
7. Spray the nozzles and diffusers inside and outside with approved sanitizing solution, reinstall them on the valves and allow to air dry.
8. Reinstall the cup rest into the drip tray.
9. Pour all remaining sanitizer solution down the drains to help keep the drain clear.

## DAILY MAINTENANCE:

1. Check the temperature, smell and taste of the product.
2. Check the water pressure coming to the unit using the pressure gauges on the back room package.
3. Check carbonation of the drink
4. Check level of CO2 supply to the system.
5. Check the date on all of the BIB's (bags in boxes).

## MONTHLY CLEANING: (IN ADDITION TO DAILY AND WEEKLY PROCEDURES)

1. Flush and sanitize all syrup lines as well as all of the syrup connectors. (See the sanitize syrup lines section shown later in this manual).
2. Remove ice from hopper and clean and sanitize the hopper. (See the Cleaning the interior surfaces section shown later in this manual).

## YEARLY MAINTENANCE:

1. Have the water pump and check valve inspected and cleaned by a qualified service technician.
2. Have the CO2 gas check valve inspected and cleaned by a qualified service technician.

## CLEANING INTERIOR SURFACES (MONTHLY CLEANING)

### CAUTION:

When pouring liquid into the hopper, do not exceed the rate of 1/2 gallon per minute. Pouring more liquid into the hopper could result in an overflow situation may result in injury or damage to the equipment.

1. Remove agitator assembly.
2. Using a nylon bristle brush or sponge, clean the interior of the hopper, top cover and agitator assembly with soap solution. Thoroughly rinse the hopper, cover and agitator surfaces with clean potable water.
3. Reassemble agitator assembly. Take special care to ensure that the thumbscrew is tight.
4. Using a mechanical spray bottle filled with sanitizing solution, spray the entire interior and agitator assembly. Allow to air dry.
5. Remove merchandiser and ice chute cover from unit.
6. With a nylon bristle brush or sponge, clean the inside of the ice chute, gasket, and cover with soap solution and rinse thoroughly to remove all traces of detergent.
7. Reassemble ice chute assembly.
8. Using a mechanical spray bottle filled with sanitizing solution, spray the inside of the ice chute. Allow to air dry.
9. Reinstall merchandiser.

## COLD PLATE (YEARLY MAINTENANCE)

1. Remove splash panel.
2. Remove or move the plastic cold plate cover to expose the cold plate.
3. Locate and remove any debris from the drain trough. Check that the drain holes are not clogged.
4. Pour small amount of soap solution through cold plate openings in hopper.
5. Using a cloth, wash down the surfaces of the cold plate and plastic cover with soap solution.
6. Install and properly position the access covers on the cold plate.
7. Install the splash panel in the reverse order it was removed.
8. Rinse cold plate surface by pouring potable water through hopper openings.

## DISPENSING VALVES: (DAILY CLEANING)

Refer to addendum supplied with the unit that is applicable to the manufacturer of the valves installed on the unit.

## PRODUCT TUBING (MONTHLY CLEANING)

### CAUTION:

Only trained and qualified persons should perform these cleaning and sanitizing procedures.

### Sanitize Pre-Mix and Post-Mix Tank System

1. Remove all the quick disconnects from all the tanks. Fill a suitable pail or bucket with soap solution.
2. Submerge all disconnects (gas and liquid) in the soap solution and then clean them using a nylon bristle brush. **(Do not use a wire brush)**. Rinse with clean water.
3. Prepare sanitizing solution and using a mechanical spray bottle, spray the disconnects. Allow to air dry.
4. Using a clean, empty tank, prepare five (5) gallons of the sanitizing solution. Rinse the tank disconnects with approximately 9 oz. of the sanitizing solution. Close the tank.

5. Prepare cleaning tank by filling clean five (5) gallon tank with a mixture of mild detergent and potable water (120°F).
6. Connect a gas disconnect to the tank and then apply one of the product tubes to the cleaning tank. Operate the appropriate valve until liquid dispensed is free of any syrup.
7. Disconnect cleaning tank and hook up sanitizing tank to syrup line and CO<sub>2</sub> system. Energize beverage faucet until chlorine sanitizing solution is dispensed through the faucet. Flush at least two (2) cups of liquid to ensure that the sanitizing solution has filled the entire length of the syrup tubing.
8. Allow sanitizer to remain in lines for fifteen (15) minutes.
9. Repeat the step above, applying a different product tube each time until all tubes are filled with the sanitizing solution.
10. Remove the nozzle and syrup diffuser and clean them in a mild soap solution.
11. Rinse with clean water and reassemble the nozzle and syrup diffuser on the valve.
12. Rinse the parts in clean water, reassemble the valve and reconnect it to the dispenser.
13. Discard the tank of sanitizing solution and reconnect the product syrup tanks. Operate the valves until all sanitizer has been flushed from the system and only product syrup is flowing.

### Sanitize Syrup lines, B-I-B Systems

1. Remove all the quick disconnects from all the B-I-B containers.
2. Fill a suitable pail or bucket with soap solution.
3. Submerge all disconnects (gas and liquid) in the soap solution and then clean them using a nylon bristle brush. (**Do not use a wire brush**). Rinse with clean water.
4. Using a plastic pail, prepare approximately five (5) gallons of sanitizing solution.
5. Rinse the B-I-B disconnects in the sanitizing solution.
6. Sanitizing fittings must be attached to each B-I-B disconnect. If these fittings are not available, the fittings from empty B-I-B bags can be cut from the bags and used. These fittings open the disconnect so the sanitizing solution can be drawn through the disconnect.
7. Place all the B-I-B disconnects into the pail of sanitizing solution. Operate all the valves until the sanitizing solution is flowing from the valve. Allow sanitizer to remain in lines for fifteen (15) minutes.
8. Remove the nozzle and syrup diffuser from each valve and clean them in a soap solution. Rinse with clean water and reassemble the nozzle and syrup diffuser to the valve.
9. Remove the sanitizing fittings from the B-I-B disconnects and connect the disconnects to the appropriate B-I-B container. Operate the valves until all sanitizer has been flushed from the system and syrup is flowing freely.

### REPLENISHING CO<sub>2</sub> SUPPLY (AS REQUIRED)

**NOTE: When indicator on the 1800-psi gage is in the shaded (“change CO<sub>2</sub> cylinder”) portion of the dial, CO<sub>2</sub> cylinder is almost empty and should be changed.**

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

#### **WARNING:**

To avoid personnel injury and/or property damage, always secure the CO<sub>2</sub> cylinder with a safety chain to prevent it from falling over. Should the valve become accidentally damaged or broken off, a CO<sub>2</sub> regulator can cause serious personnel injury or death could occur.



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

## CONNECTING PRODUCT TO THE DISPENSER

**NOTE: All inlet connections are clearly marked with a label adjacent to the inlet connections.**

**NOTE: Always leak check all connections.**

Post-Mix units must have syrup, carbonated water and plain water connected. The number of syrups will depend on the number of valves on the dispenser. Refer to the plumbing diagram for details of the hookup.

Pre-Mix units must have a pre-mix supply connected to each inlet for each valve to be supplied. Refer to the plumbing diagram for details of the hook-up.

**NOTE: A plumbing diagram when supplied with the unit, can be found in the dispensing tower.**

## PREPARING FOR OPERATIONS

On Units Without Electrically Operated Valves, Skip Steps 1 & 2 Below

1. Plug transformer into electrical outlet. The 24V supply must be connected in the dispensing tower.
2. Turn the key-switch to the ON position.
3. Adjust the CO2 regulators as indicated in the following chart:

<b>Post-Mix</b>	
<b>Regulator</b>	<b>Pressure Setting</b>
Primary (Carbonator)	90 - 120 PSI
Secondary, Sugared Syrup Tank	55 PSI
Secondary, Diet Syrup Tank	8 - 12 PSI
Secondary, B-I-B	60 PSI
<b>Pre-Mix</b>	
Basic pressure shown is based on ambient temperature of 72°F. Use a Cornelius Pre-Mix slide rule for exact Calculations.	
Basic Pressure	47 PSI
For each 10 ft. of horizontal tubing between tank and dispenser	Add 1 PSI
For each 2 ft. of elevation	Add 1 PSI
For each tank per flavor over 3 tanks	Add 1 PSI

4. Operate each valve until product is flowing.
5. Adjust the brix (water-to-syrup ratio) for post-mix valves.
6. Set the flow rate for pre-mix valves.

## ADJUST WATER-TO-SYRUP RATIO

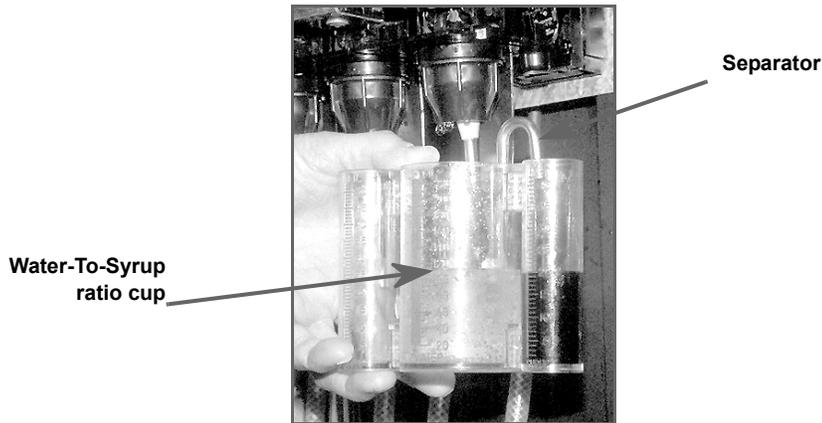


Figure 1.

1. Remove valve cover and install syrup separator over the diffuser and through the nozzle.
2. Hold cup under valve and dispense beverage for a specific time (i.e. 2 seconds).  
**NOTE: Water and syrup must be cold before checking ratios.**
3. Adjust carbonated water flow to the desired rate (such as 90 to 110 ml (3 to 3.75 oz.) per second).
4. Turn the flow adjuster 1/4 of a turn at a time and recheck the flow. To increase reading turn clockwise.
5. Set syrup flow adjuster to get the desired ratio.
6. Test the valve and adjust until a consistent ratio is delivered three consecutive times.
7. Repeat procedure for other valves

Valve Type	
Manufacturer	Maximum Operating Pressure
<b>Portion Control</b>	
Cornelius	130 psi
Flowmatic	100 psi
<b>Pushbutton</b>	
Cornelius	130 psi
Flowmatic	100 psi
<b>Lever Type</b>	
Cornelius	130 psi
Flowmatic	100 psi
<b>Autofill Lever</b>	
Cornelius	130 psi
Flowmatic	100 psi
<b>Non-Electric</b>	
Cornelius	130 psi

# TROUBLESHOOTING



## WARNING:

Disconnect power to the unit before servicing. Follow all lock out/tag out procedures established by the user. Verify all power is off to the unit before performing any work.

**Failure to comply could result in serious injury, death or damage to the equipment.**

Trouble	Probable Cause	Remedy
Adjustment of dispensing valve syrup flow regulator does not increase to desired water-to-syrup "ratio"	<ul style="list-style-type: none"> <li>A. Dispensing valve syrup flow regulator, syrup tank quick disconnect, or syrup line restricted.</li> <li>B. Syrup tank quick disconnects not secure.</li> <li>C. Syrup tanks secondary CO<sub>2</sub> regulator out of adjustment.</li> <li>D. No syrup supply.</li> <li>E. Improper syrup Baume.</li> <li>F. Dirty or inoperative piston or spring in dispensing valve syrup flow regulator.</li> <li>G. Tapered nylon washer inside tube swivel nut connector distorted from being overtightened.</li> </ul>	<ul style="list-style-type: none"> <li>A. Sanitize syrup system as instructed.</li> <li>B. Secure quick disconnects.</li> <li>C. Adjust syrup tanks secondary CO<sub>2</sub> regulator as instructed.</li> <li>D. Replenish syrup supply.</li> <li>E. Replace syrup supply.</li> <li>F. Disassemble and clean dispensing valve syrup flow regulator.</li> <li>G. Replace nylon washer and make sure it seats properly.</li> </ul>
Adjustment of dispensing valve syrup flow regulator does not decrease to desired water-to-syrup "ratio"	<ul style="list-style-type: none"> <li>A. Dirty or inoperative piston or spring in dispensing valve syrup flow regulator.</li> </ul>	<ul style="list-style-type: none"> <li>A. Disassemble and clean dispensing valve syrup flow regulator.</li> </ul>
Only carbonated water dispensed	<ul style="list-style-type: none"> <li>A. Quick disconnects not secure on syrup tanks.</li> <li>B. Out of syrup.</li> <li>C. B-I-B connectors not properly connected.</li> <li>D. Syrup secondary CO<sub>2</sub> regulator not properly adjusted.</li> <li>E. Inoperable dispensing valve.</li> <li>F. Dispensing valve syrup flow regulator not properly adjusted.</li> <li>G. Dispensing valve syrup flow regulator, syrup tank quick disconnect, or syrup lines restricted.</li> </ul>	<ul style="list-style-type: none"> <li>A. Secure quick disconnects on syrup tanks.</li> <li>B. Replenish syrup supply as instructed.</li> <li>C. Properly attach the connectors.</li> <li>D. Adjust syrup tanks secondary CO<sub>2</sub> regulator as instructed.</li> <li>E. Repair dispensing valve.</li> <li>F. Adjust dispensing valve syrup flow regulator (Water-to-Syrup "Ratio") as instructed.</li> <li>G. Sanitize syrup system as instructed.</li> </ul>



Dispensed product carbonation too low	A. Carbonator primary CO <sub>2</sub> regulator out of adjustment for existing water conditions or temperature.	A. Adjust carbonator primary CO <sub>2</sub> regulator (Reference manual provided with carbonator).
	B. Air in carbonator tank.	B. Vent air out of carbonator tank through relief valve. Actuate dispensing valve carbonated water lever to make carbonator pump cycle on.
	C. Water, oil, or dirt, in CO <sub>2</sub> supply.	C. Remove contaminated CO <sub>2</sub> . Clean CO <sub>2</sub> system (lines, regulators, etc.) using a mild detergent. Install a clean CO <sub>2</sub> supply.

Dispensed product comes out of dispensing valve clear but foams in cup or glass	A. Oil film or soap scum in cup or glass.	A. Use clean cup or glass.
	B. Ice used for finished drink is sub-cooled.	B. Do not use ice directly from freezer. Allow ice to become "wet" before using. (Refer to following NOTE)

**NOTE: Crushed ice in the glass also causes dispensing problems. When finished drink hits sharp of ice, carbonation is released from dispensed drink.**

- |   |  |
|---|--|
| C. Carbonator CO <sub>2</sub> regulator pressure too high for existing water conditions or temperature.     | C. Reduce carbonator CO <sub>2</sub> regulator pressure setting. Reference manual provided with carbonator.  |
| D. Syrup over-carbonated with CO <sub>2</sub> as indicated by bubbles in inlet syrup lines leading to unit. | D. Remove syrup tanks quick disconnects. Relieve tank CO <sub>2</sub> pressure, shake tank vigorously, then relieve tank CO <sub>2</sub> pressure as many times as necessary to remove over-carbonation. |
| E. Warm Product - No ice in bin, bridged ice on cold plate or plugged drain                                 | E. Replenish ice, break ice up to eliminate bridging, unplug the drain   |

**NOTE: If water supply is dirty, be sure to flush lines and carbonator completely. It may be necessary to remove lines to carbonator tank. Invert and flush tank and all inlet lines to remove any foreign particles or dirt**

No product dispensed from one dispensing valve	A. Broken or disconnected wiring.	A. Repair or connect wiring.
	B. Inoperative dispensing valve solenoid coil.	B. Replace solenoid coil as instructed.
	C. Inoperative dispensing valve micro switch.	C. Replace micro switch as instructed.

Only syrup dispensed	A. Plain water inlet supply line shutoff valve closed.	A. Open plain water inlet supply line shutoff valve.
	B. Carbonator power cord unplugged from electrical outlet.	B. Plug carbonator power cord into electrical outlet.
	C. Carbonator primary CO <sub>2</sub> regulator not properly adjusted.	C. Adjust carbonator primary CO <sub>2</sub> regulator (Reference manual provided with carbonator).



**Cornelius Inc.**  
**[www.cornelius.com](http://www.cornelius.com)**