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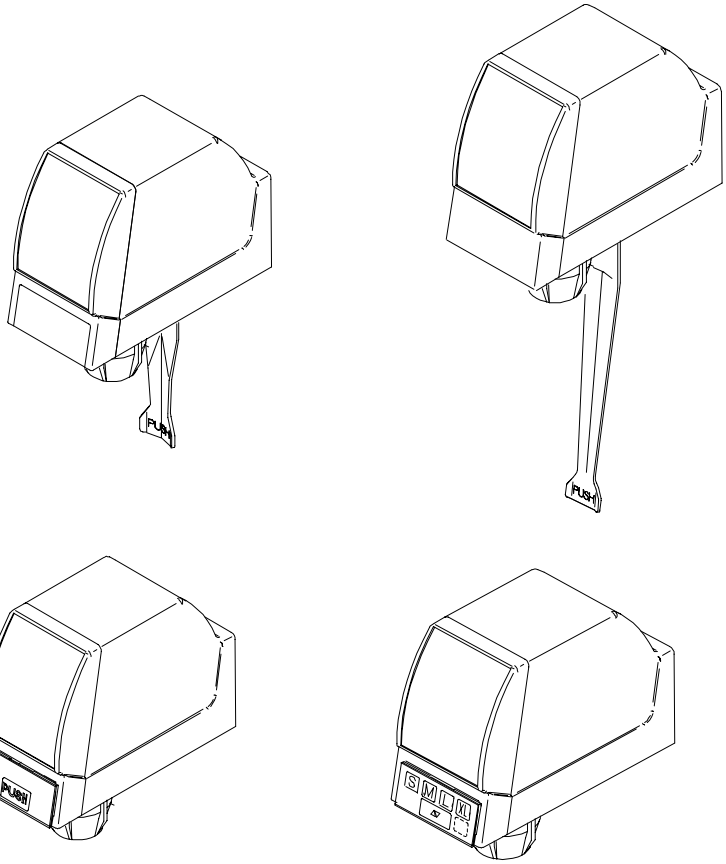
UF–1

Post-Mix Dispensing Valve



TD-217
April 24, 1996
Revised: February 2, 2005

THIS DOCUMENT CONTAINS IMPORTANT INFORMATION
This Manual must be read and understood before starting to install, repair or operate this equipment.

Printed in U.S.A.

PURPOSE OF THE MANUAL

The purpose of this training manual is to provide you, the Installer/Service Technician, with the necessary information and knowledge to install, troubleshoot and service the UF–1 dispensing valve.

Each section follows a logical step-by-step procedure that will be done during installing or servicing. It is intended that you read this manual; then attend a training session conducted by an experienced trainer. Finally, you will have the opportunity to practice your new skills on the equipment.

Training Module Sign-Off

Participant: _____ Trainer: _____

Date: _____ Location: _____

INTRODUCTION TO THE UF–1

THE UF–1 VALVE OFFERS:

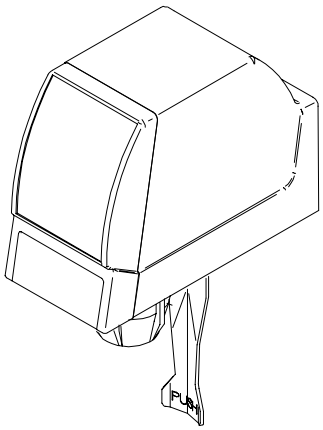
- ❑ Retrofit installation
- ❑ Can be used with B-I-B pumps or product tanks
- ❑ Reliable solid state control boards
- ❑ Includes a Low-Voltage indicator light on portion control valves
- ❑ Highest Quality Plain water and carbonated water drinks
- ❑ An Electric Key lock switch May be used To lock out valves
- ❑ Easy access to adjustable water and syrup flow regulators
- ❑ Easy access to all components
- ❑ Easy cleaning and sanitizing

IMPORTANT NOTE:

The UF-1 valve cannot pour at a flow rate higher than the dispenser is capable of satisfying. The dispenser and it's cooling system must be capable of supplying water and syrup at 40°F (or below) and at a flow rate equal to or greater than the desired finished drink flow rate. Some dispensers may restrict the flow rate and brix problems may occur when multiple valves are operated simultaneously.
Dispenser capacity is VERY IMPORTANT.

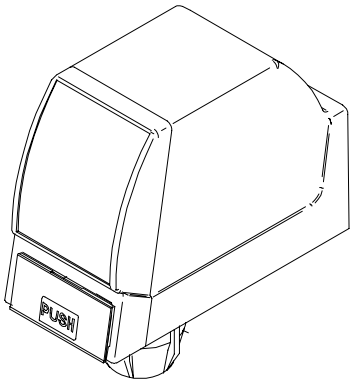
UF–1 POST MIX DISPENSING

STEP 1. CUP ACTIVATED DISPENSING VALVE



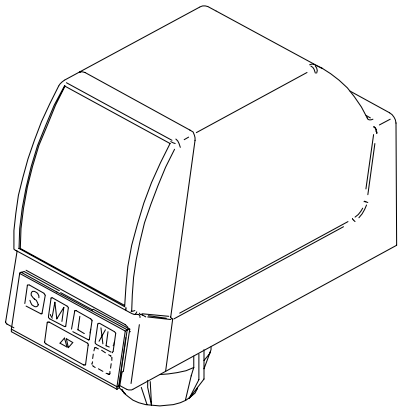
❑ UF–1 with cup activated optional lever.

STEP 2. SELF SERVE VALVE



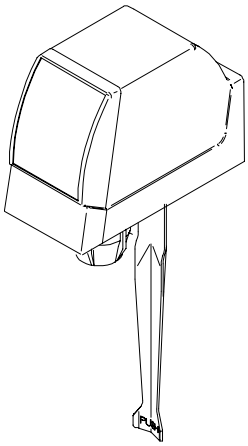
❑ Press and hold switch button until desired level is reached

STEP 3. PORTION CONTROL VALVE



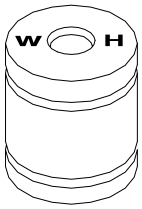
❑ Can be programmed in four drink sizes and has a manual dispense button.

STEP 4. OPTIFILL™ VALVE



❑ Cup activates the valve. The valve continues to pour until liquid from the cup touches the lever.

STEP 5. HIGH FLOW, ULTRA FLOW VALVE



❑ A High flow valve is considered to have a flow rate of 1–1/2 oz/sec. A Ultra flow valve has flow rates from 3 oz/sec. to 4–1/2 oz/sec. The piston, shown here is the only part that distinguishes one valve from the other.

STEP 6. RETRO–FIT REQUIREMENTS

❑ Plain potable water supply capable of supplying 4.5 oz/sec at a minimum of 40 PSI Flowing pressure.

❑ A carbonated water supply serving a minimum of 4.5 oz/sec. Some systems may require 2 standard carbonators or 1 large reserve carbonator.

❑ Syrup source minimum flow required is .75 oz/sec.

❑ Syrup cooling coils–5/16”ID.

❑ Syrup (lines) tubing–3/8”ID.

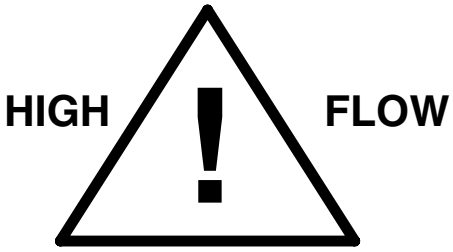
❑ Ideal tubing length from syrup supply to dispenser is no longer than 50 ft.

❑ One BIB pump per valve.

❑ BIB pump pressure setting must NOT EXCEED pump maximum operating pressure.

❑ If product tanks are used, regulated CO_2 pressure should be set as low as possible to minimize syrup carbonation.

STEP 7. CAUTION HIGH FLOW UF–1

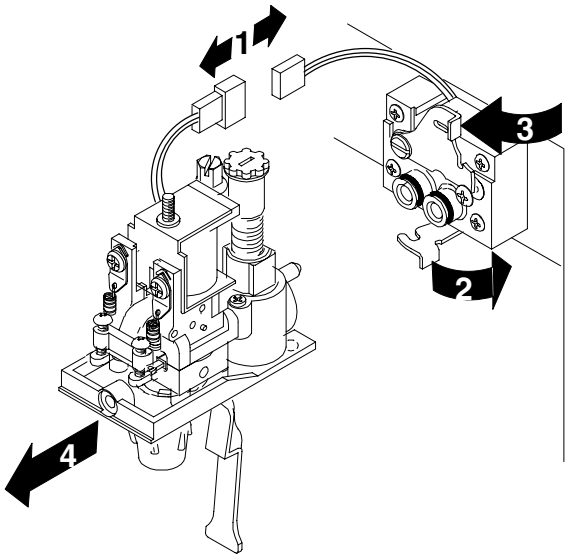


- ❑ When equipment or conditions are not properly configured to support high flow, activation of more than one high flow valve may cause the following:
  1. Loss of brix (Syrup/water ratio)
  2. Brix instability
  3. Excess foaming
  4. The apparent need to screw the adjusting screws all–the–way open.
- ❑ Marginal setups appear to operate acceptably when installed but performance will rapidly deteriorate.
- ❑ Inadequate syrup pump pressure will also cause the same symptoms listed above.

STEP 8. RETRO FIT INSTRUCTIONS

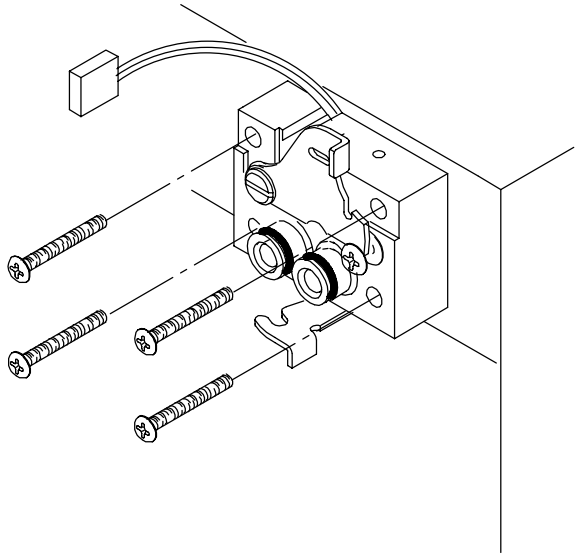
- ❑ These instructions are based on the removal of an SF–1 valve and the installation of a UF–1 valve. Replacing any other valve may require different steps to adapt the UF–1.
- ❑ Shut off the syrup and water supplies.
- ❑ Unplug the carbonator electrical power cord.
- ❑ Relieve the pressure at the carbonator or by operating the dispensing valve.

STEP 9. DISCONNECT SF–1 VALVE FROM MOUNTING BLOCK



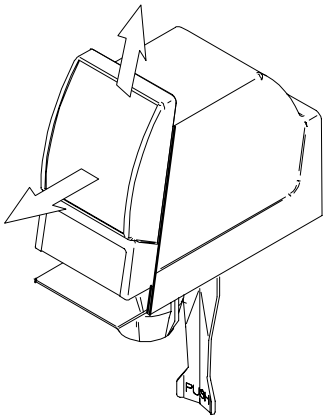
- ❑ Remove the SF–1 valve from the mounting block.
  1. Disconnect 24 Volt plug.
  2. Disengage the bottom latch.
  3. Press the valve latch plate to the left.
  4. Remove the valve.

STEP 10. REMOVE SF–1 MOUNTING BLOCK

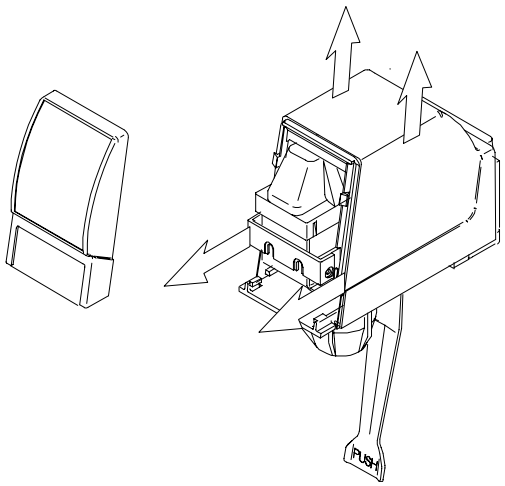


❑ Remove Four Screws, then remove block. Save the screws to use to install the UF–1 mounting block.

STEP 11. REMOVE UF–1 VALVE COVERS

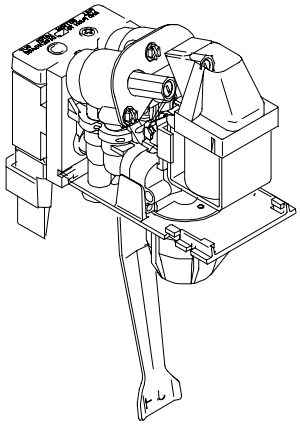


❑ Lift front cover 1/2 inch and pull forward to remove.



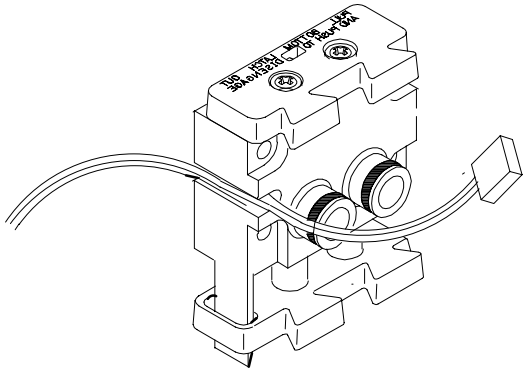
❑ To remove valve cover, slide the cover forward 1/2 ” and lift up.

STEP 12. REMOVE UF–1 VALVE FROM MOUNTING BLOCK



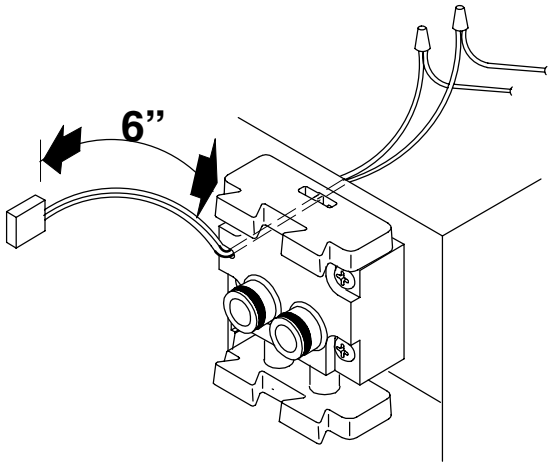
- ❑ Push release tab on the bottom of the block toward the outside. Press down on the top dovetail latch to remove valve from block.

STEP 13. UF–1 MOUNTING BLOCK WIRE PLACEMENT



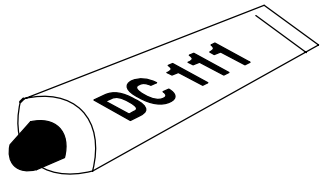
- ❑ The mounting block wire slot will accommodate 20 gauge wire with .015 ” insulation.
- ❑ For Larger wire, the wire slot may be increased in size by using a file or utility knife.

STEP 14. UF–1 MOUNTING BLOCK WIRE PLACEMENT



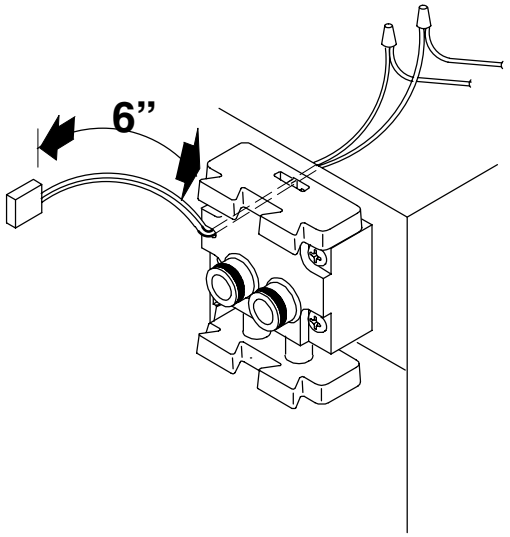
- ❑ If there is less than 6 inches of wire length in front of panel, install the jumper provided with the UF–1 valve. Splice wires and with wire nuts behind front panel making sure there is 6”.

STEP 15. CHANGE O–RINGS, AND LUBRICATE



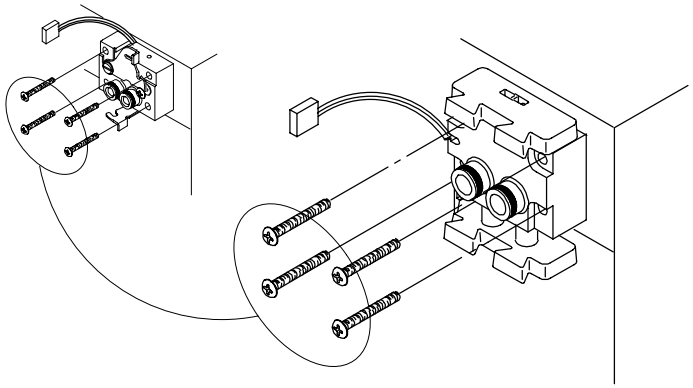
- ❑ New O–Rings provided with UF–1 valve must be installed on cooling coil outlet fitting.
- ❑ Lubricate the O–Rings using DC111 or Equivalent. DO NOT USE VASELINE OR PETROLEUM JELLY.

STEP 16. POWER LEADS TO UF–1



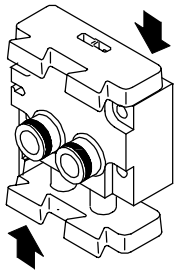
- ❑ Install replacement 24Volt wire leads, using wire nut connectors. The plug end of the wire lead must extend 6” from panel.

STEP 17. MOUNTING UF–1 VALVE BLOCK AND ROUTING WIRE HARNESS



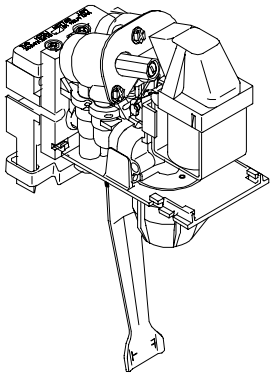
- ❑ Use the 4 screws, (retained earlier) to mount the UF–1 block
- ❑ CAUTION. Before tightening the valve block, make sure the wires are not pinched between the block and panel.

STEP 18. VALVE BLOCK IN THE OFF POSITION



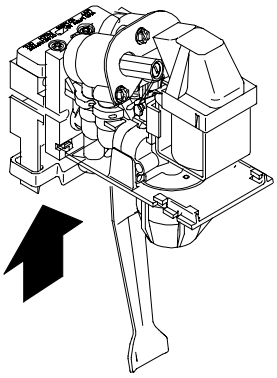
- ❑ The valve block is in the OFF position when the dovetail is fully depressed.
- ❑ The valve block is OPEN If the dovetail is in the up position with the tab latched on the bottom dovetail.

STEP 19. MOUNTING VALVE TO BLOCK



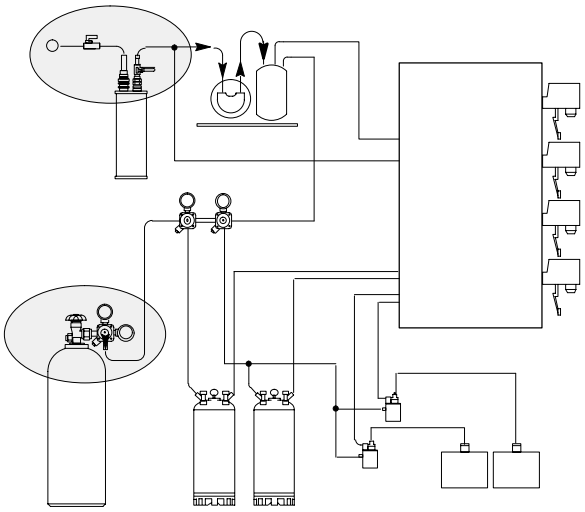
- ❑ Lubricate O–Rings on the block with DC111.
- ❑ Slide valve all the way onto block,

STEP 20. PUSHING UP ON MOUNTING BLOCK DOVETAIL
ROUTE WIRE TO VALVE CLIP



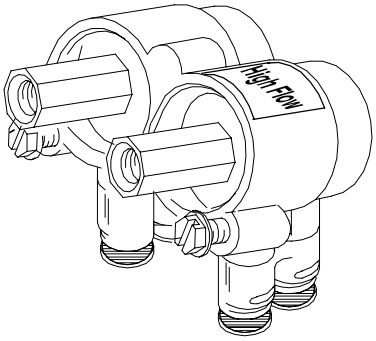
- ❑ Push upward on dovetail until a ”CLICK” is heard, indicating the valve is locked in place.
- ❑ Make sure electrical plug is retained in clip.

STEP 21. TURN ON WATER SUPPLY AND CHECK WATER FLOW RATES



- ❑ Plain and carbonated water supplies can be turned on.
- ❑ These are the actual water flow rates required to achieve the desired finished drink flow rates.
- ❑ Water flow rates:
  - 1.25 oz/sec. for 1 1/2 oz. total flow
  - 2.5 oz/sec. for 3 oz. total flow
  - 3.33 oz/sec. for 4 oz. total flow

STEP 22. ADJUSTING SCREWS

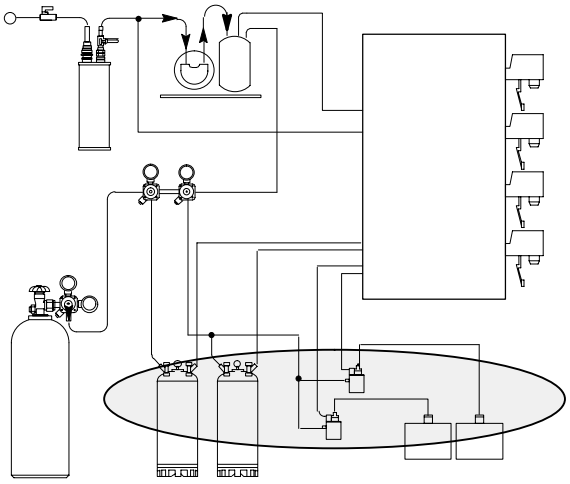


- ❑ The left adjusting screw is for the water flow rate.
- ❑ Adjust clockwise to increase and counterclockwise to decrease the flow rate.

CAUTION

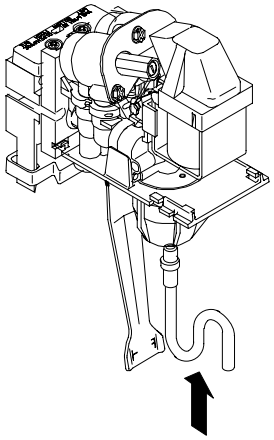
- ❑ Adjusting screw stops are built into the valve to prevent leakage when the screws are adjusted clockwise too much. Stop adjusting clockwise when turning resistance increases. turn the screw counter clockwise 2 turns after the stop is contacted.

STEP 23. SYRUP SUPPLY



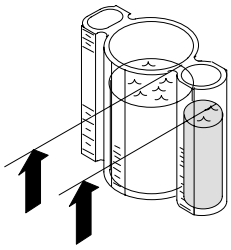
- ❑ Turn on syrup supply.

STEP 24. INSTALLATION OF SYRUP DIVERSION TUBE



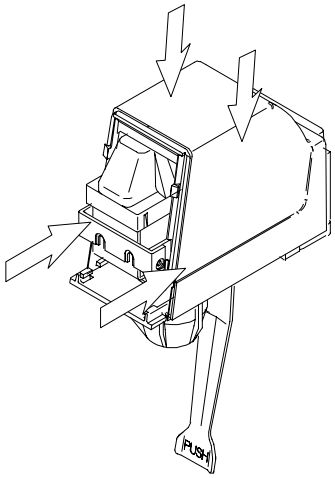
- ❑ Push rubber end of tube on to inner nozzle ”syrup Outlet” using sideways motion while pushing up (or rocking).
- ❑ The diversion tube and ratio cup are not needed when a refractometer is used. Note– a refractometer will not work for diet drinks

STEP 25. BRIX ADJUSTMENT (RATIO, SYRUP TO WATER)



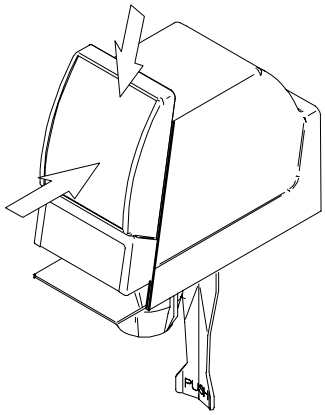
- ❑ Dispense Product from valve and compare levels in ratio cup. The liquid level in each side of the cup should be the same. If not, an adjustment is needed .
- ❑ Adjust the syrup regulator, on the right, to obtain the proper ratio.
- ❑ REFER TO SYRUP RATIO INFORMATION 0N SYRUP PACKAGE
- ❑ NOTE: In some systems, the syrup flow rate may be the limiting factor for high flow valves. In this case, the water flow rate should be adjusted down to achieve the proper ratio.
- ❑ The diversion tube and ratio cup are not needed when a refractometer is used. Note– a refractometer will not work for diet drinks (non–sugar).

STEP 26. INSTALLATION OF VALVE BACK COVER



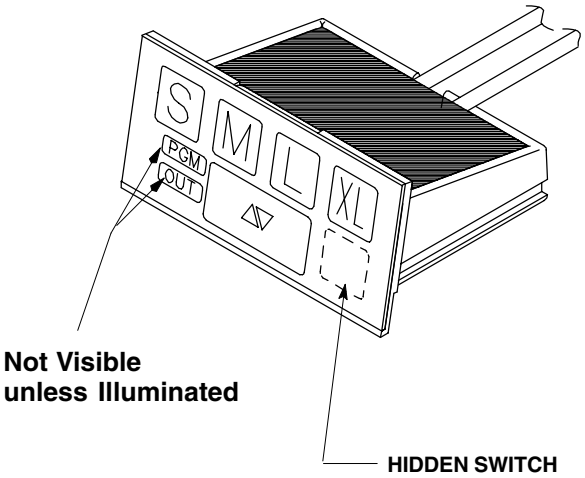
- ❑ To install valve cover, slide the cover down over valve so it rests down approximately 1/8 ” form front of base, then push cover backward 1/2 ” to lock in place.
- ❑

STEP 27. REMOVE VALVE FRONT COVER



❑ To install front valve cover, place the cover against the back cover approximately 1/2”up from base, then slide down to base to lock in place.

STEP 28. ADJUSTING PORTION CONTROL



❑ To enter the programming mode, the following criteria must be met.

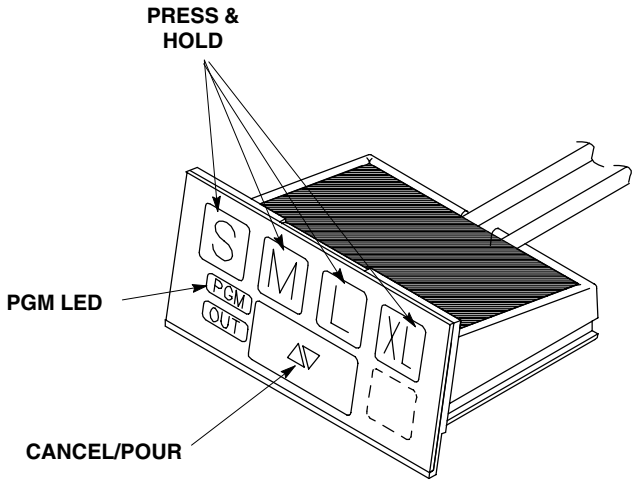
- 1. There is no active dispensing cycle in progress.
- 2.The “out” display is inactive. (The valve input voltage is within normal operational limit (20.5 VAC to 27.5 VAC)) .

❑ Accessing Programming Mode

- 1. Press and hold the hidden switch for 3 seconds, without interruption. When you have entered into the program mode, the ”PGM” LED will be illuminated. While in the programming cycle for any dispensing size, the PGM” LED will flash.

Notice: On The Portion Control module, the ”PGM/OUT” displays are not visible unless they are Illuminated. This is similar to the dashboard warning lights on automobiles. They are shown here to identify their location.

STEP 29. ADJUSTING PORTION CONTROL CON'T



- 1.Place appropriate size cup (with the desired amount of ice) under nozzle.
- 2.Press and hold the desired portion switch until the liquid/foam level reaches the desired cup level.

Notice: While in the programming mode the "PGM" LED will be illuminated. While pressing a portion switch the "PGM" LED will flash.

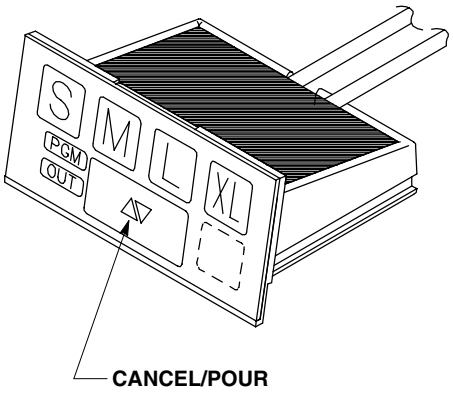
- 3.Release the switch storing the pour time value in memory. The "PGM" LED will stop flashing and return to steady illumination.
- 4. Programming steps for this drink size are now complete. Repeat steps 1 though 3 for each drink size to be programmed.

Notice: Any drink size may be programmed as many times as desired before exiting the program mode. It is not necessary to adjust all cup sizes while in the program mode.

❑ Exiting Programming Mode

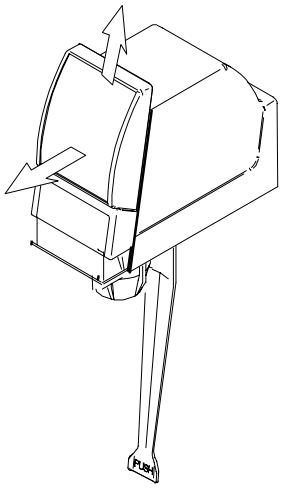
- 1. Press and hold the program switch for 3 seconds. When you have exited the program mode, the timer values stored in temporary memory will be written to permanent storage and the "PGM" LED will go out.

STEP 30. RESTORING SETTINGS



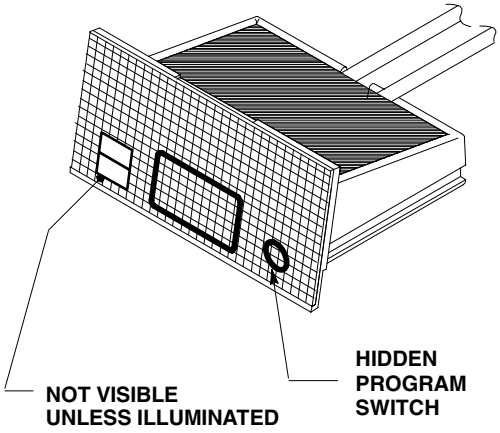
- 1.To restore to the factory setting, while in the program mode, press and hold the cancel/pour switch. then, at the same time, press the desired dispensing size switch. the factory programmed setting is now restored.
- 2.Repeat for each drink size to be restored to the factory programmed setting.

STEP 31. ADJUSTING OPTIFILL™ TOP OFF DELAY



❑ Remove front cover from valve to gain access to switches needed to adjust top–off.

STEP 32. ENTER PROGRAM MODE



❑ You may enter the programming mode only under the following conditions:

- The valve is not dispensing.

❑ Accessing Programming Mode

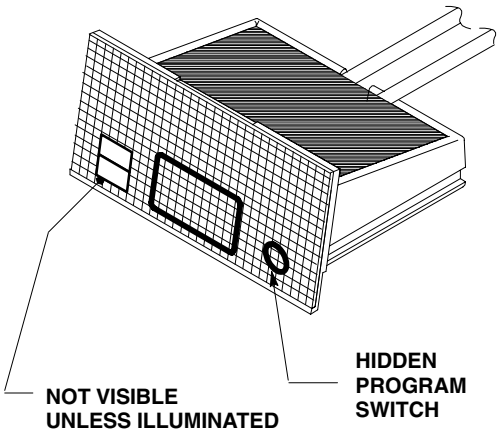
- Press and hold the program switch for 3 seconds, then release.

When program mode had been obtained, the LED will be illuminated.

Program mode procedure.

- 1.Place appropriate size cup (with the desired amount of ice) under nozzle and press against the lever.
- 2.When the liquid from the cup touches the lever, dispensing will stop. The top–off delay timer begins to record, and the LED will flash.
- 3. If you want delay time, continue with step 5.
- 4. If you do not want delay time, remove cup from against the lever. The LED will be continuously; then exit the programming mode.
- 5.When the foam lowers to the desired level (or the desired amount of time has elapsed) press the large rectangular switch to start the top–off cycle. The LED will light continuously. The time elapsed between the initial shut–off in step 2 and pressing the large rectangular switch will be saved as the top–off delay.

STEP 33. ENTER PROGRAM MODE (CON'T)



- 6.When the valve stops pouring the the second time, the cup can be removed and you may exit the programming mode . The top–off delay is now set.

❑ Exiting Program Mode
To leave the programming mode press and hold the program switch for 3 seconds.

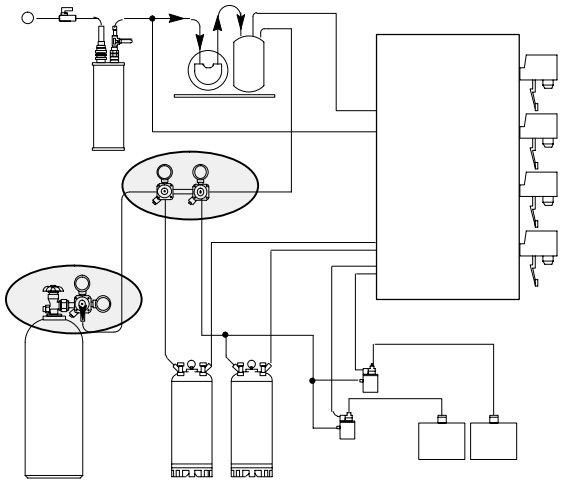
STEP 34. TROUBLESHOOTING

STEP 35. CHECK BEFORE SERVICING

❑ Check the following supplies before troubleshooting the UF–1 valve.

- CO2
- Electrical
- Water/Carbonator
- Syrup
- Leaks

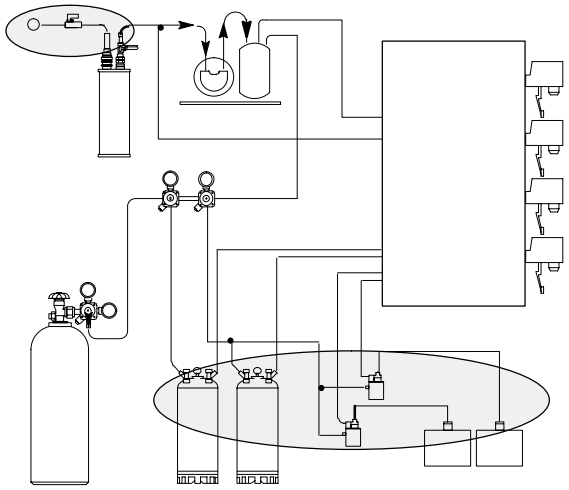
STEP 36. CHECK CO2 REGULATORS



❑ Check CO2 supply and replace if necessary.

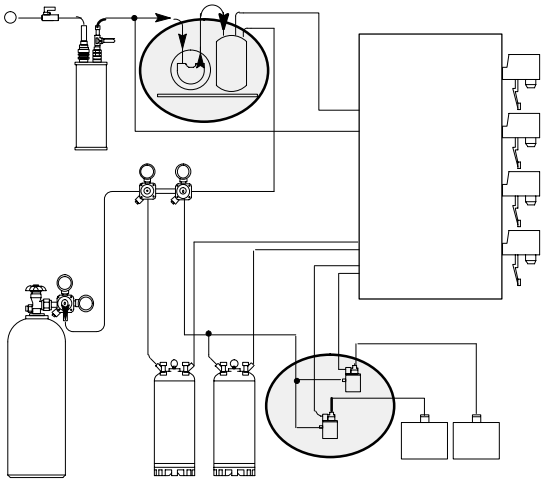
❑ See that the CO2 regulators are adjusted to proper setting for both syrup and carbonator.

STEP 37. CHECK POWER AND WATER SUPPLY



❑ Make sure electrical power, CO2, syrup, and water are being supplied to dispensing valves. Check to be sure there are no restrictions or kinks in the tubing.

STEP 38. CHECK CONNECTIONS



❑ Make sure the carbonator and BIB pumps are operating correctly.

STEP 39. TROUBLESHOOTING CHART

TROUBLESHOOTING

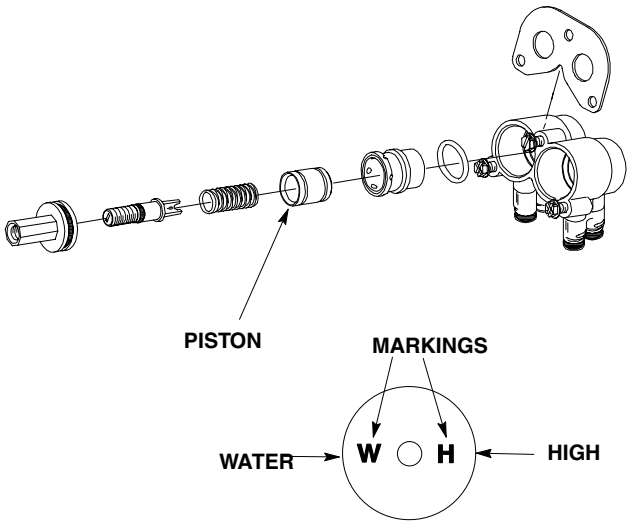
IMPORTANT: Only qualified personnel should service internal components or electrical wiring.

WARNING: If repairs are to be made to carbonated water system, disconnect electrical power to Cooling Unit, shut off plain water and CO_2 supplies, and relieve the carbonated water system pressure before proceeding. If repairs are to be made to syrup system, remove quick disconnects from applicable syrup tank, then relieve the system pressure before proceeding. If repairs are to be made to CO_2 system, stop dispensing, shut off CO_2 supply, then relieve the system pressure before proceeding.
If repairs are to be made to an existing Rooftop Condensing unit, disconnect the power to the condensing unit before proceeding

Trouble	Probable Cause	Remedy
WATER-TO-SYRUP RATIO TOO LOW OR TOO HIGH	A. Dispensing valve syrup flow regulator not properly adjusted.	A. Adjust water-to-syrup ratio as instructed.
	B. CO_2 gas pressure to syrup tanks insufficient to push syrup out of tanks, or to pump the syrup.	B. Adjust the secondary CO_2 regulator supplying the syrup tanks.
ADJUSTMENT OF DISPENSING VALVE SYRUP FLOW REGULATOR DOES NOT INCREASE TO DESIRED WATER-TO-SYRUP RATIO.	A. Dispensing valve syrup flow regulator, syrup tank quick disconnect, or syrup line restricted.	A. Sanitize syrup system.
	B. No syrup supply.	B. Replenish syrup supply.
	C. Syrup quick disconnect not securely connected.	C. Securely connect quick disconnect.
	D. Syrup CO_2 regulator out of adjustment.	D. Adjust syrup CO_2 regulator.
	E. Improper syrup baume.	E. Replace syrup supply.
	F. Dirty or inoperative piston or spring in dispensing valve adjustable syrup flow regulator.	F. Disassemble and clean dispensing valve syrup flow regulator.
	G. Syrup pump insufficient capacity.	G. Replace syrup pump.
ADJUSTMENT OF DISPENSING VALVE SYRUP FLOW REGULATOR DOES NOT DECREASE TO DESIRED WATER-TO-SYRUP RATIO	A. Dirty or inoperative piston of spring in dispensing valve adjustable syrup flow regulator.	A. Disassemble and clean dispensing valve syrup flow regulator.
NO PRODUCT DISPENSED FROM ALL DISPENSING VALVES.	A. No electrical power to dispenser.	A. Connect electrical power to dispenser.
	B. Disconnected or broken wiring to dispensing valves.	B. Connect or replace wiring.

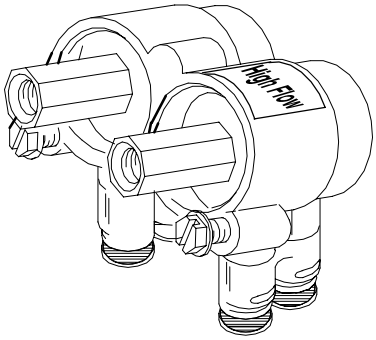
Trouble		Probable Cause		Remedy
	C.	Inoperative 24VAC transformer.	C.	Replace transformer.
NO PRODUCT DISPENSED FROM ONE DISPENSING VALVE.	A.	Broken or disconnected wiring.	A.	Repair or connect wiring.
	B.	Inoperative dispensing valve solenoid coil.	B.	Replace solenoid coil as instructed.
	C.	Inoperative dispensing valve micro switch.	C.	Replace micro switch as instructed.
NO PRODUCT DISPENSED BUT OTHER VALVES ARE DISPENSING, AND " OUT" DISPLAY IS VISIBLE.	A.	Low-Voltage condition exists.	A.	Check secondary voltage. Must be 24 VAC±10%.
			B.	Replace transformer with a larger capacity transformer to accomate multi valve dispensing (More than 3 valves).
ONLY CARBONATED WATER DISPENSED.	A.	Syrup quick disconnects not secure.	A.	Secure the syrup quick disconnects.
	B.	Out of syrup.	B.	Replenish syrup supply as instructed.
	C.	Syrup CO_2 regulator not properly adjusted.	C.	Adjust syrup CO_2 regulator.
	D.	Inoperable dispensing valve.	D.	Repair dispensing valve.
	E.	Dispensing valve adjustable syrup flow regulator not properly adjusted.	E.	Adjust water-to-syrup ratio as instructed.
	F.	Dispensing valve adjustable syrup flow regulator, syrup tank quick disconnect, or syrup lines restricted.	F.	Sanitize syrup system.
	G.	Syrup pump not working.	G.	Repair or replace the syrup pump.
ONLY SYRUP DISPENSED.	A.	No carbonated water supply.	A.	Restore carbonated water supply.
	A.	No carbonated water supply.	A.	Restore carbonated water supply.
	B.	Dispensing valve adjustable water flow regulator not properly adjusted.	B.	Adjust dispensing valve water flow rate as instructed.
VALVE SOLENOID OPERATES BUT NO PRODUCT IS DISPENSED.	A.	Valve not properly engaged on mounting block.	A.	Correctly install valve on the mounting block.
VALVE SLOW TO SHUT-OFF	A.	Dirty plunger or actuator arm.	A.	Clean all valve parts, especially the solenoid plunger and actuator arm.
OPTIFILL™ DISPENSING VALVE WILL NOT SHUT OFF WHEN PRODUCT TOUCHES LEVER.	A.	Broken or missing ground connection.	A.	Repair or add wire to connect valve dispenser wiring harness common (pin 2) to chassis (see Installation Instructios P/N 3776).

STEP 40. PISTON I.D.



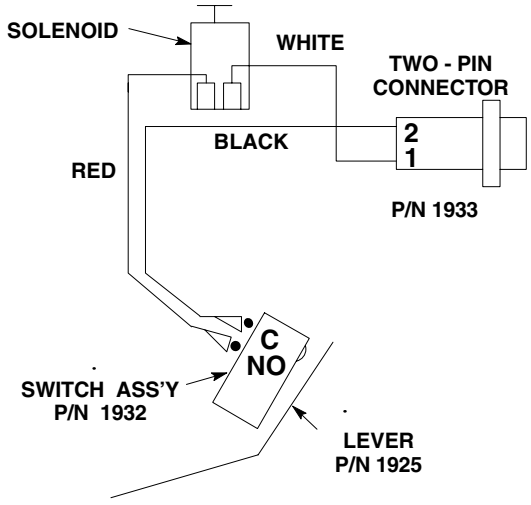
❑ The water regulator flow piston is identified with letters. The ”w” is for water and the letter ”H”stands for high–flow.

STEP 41. LABEL I. D. LOW OR HIGH FLOW



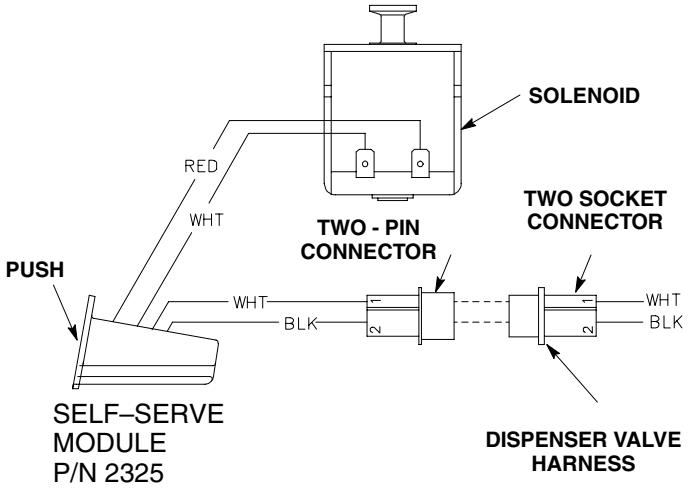
❑ The flow label.

STEP 42. WIRING DIAGRAM



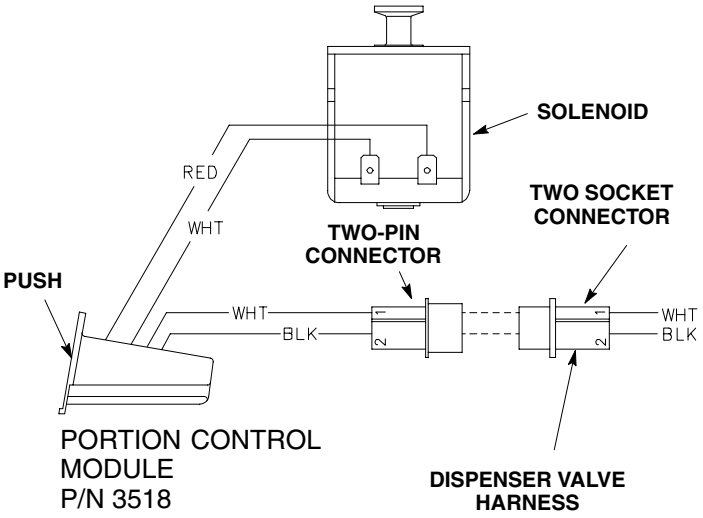
❑ UF–1 dispensing valve.

STEP 43. WIRING DIAGRAM



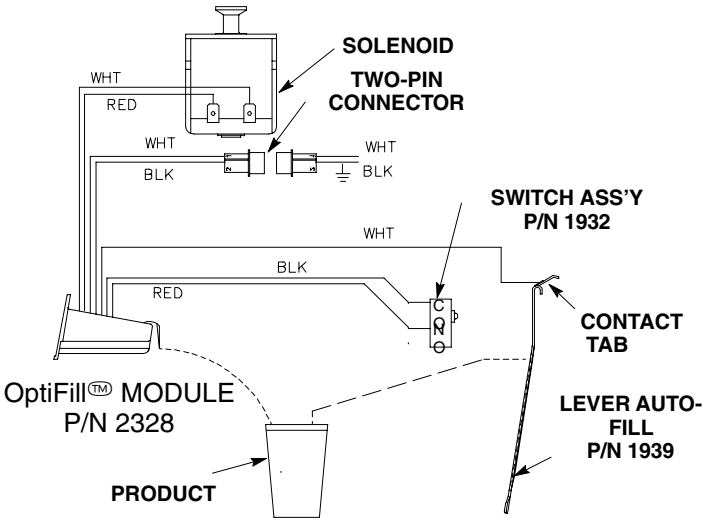
❑ UF–1 self serve dispensing valve.

STEP 44. WIRING DIAGRAM



❑ UF–1 portion control dispensing valve.

STEP 45. WIRING DIAGRAM

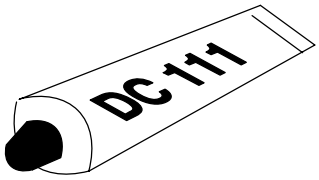


❑ UF–1 Optifill™ dispensing valve.

STEP 46. REMOVAL AND REPLACEMENT

❑ Removing and replacing the major components of the UF–1 dispensing valve

STEP 47. O–RING REPLACEMENT AND LUBRICATION



❑ 1. Use new o-rings when reassembling valve parts to the body.
2. Always lubricate o-rings with Dow Corning DC–111 silicone lubricant when reassembling to ensure easier assembly and a proper seal.

STEP 48. CONTROL MODULE

❑ Removal

1. Remove dispensing valve covers.
2. Tag electrical wires for identification. Then disconnect control module wires from solenoid coil and unit wiring harness connector. See electrical diagram.
3. Slide or pull (drawer action) control module from dispensing valve. (Top-off on Optifill™)

❑ Replace

1. Install control module by reversing removal procedure.
2. Adjust portion control module for size of drinks dispensed as instructed.
3. Install dispensing valve covers.

STEP 49. DISPENSE SWITCH MARKER

❑ Removal

1. Remove dispensing valve cover.
2. Remove valve from dispenser,
3. Remove Bale Wire (“U” shaped pin), then remove Flow Control Assembly.
4. Then disconnect wires from switch terminals.
5. Remove nozzle.
6. Remove Bottom Plate by releasing snap fit with thumbs, (on both sides), and pivot the Bottom Plate down.
7. Remove switch by pushing down on (top) terminal side of switch until it is removed from it’s snap fit.

❑ Replace

1. Install new switch by reversing removal procedure. The switch button must be down and toward the rear of the valve. Route switch wires around rear left of flow control.
2. Install the Bottom Plate by inserting the Bottom Plate rear tabs and then pivot up to secure the snap fits.
3. Install dispensing valve covers.

STEP 50. SOLENOID COIL

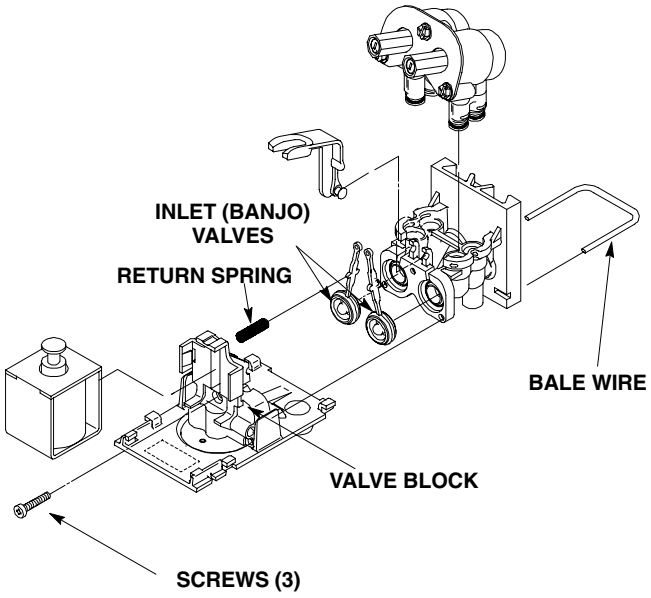
❑ Removal

1. Remove dispensing valve covers from valve.
2. Disconnect wiring from solenoid coil.
3. Remove solenoid cover by sliding forward.
4. Remove solenoid coil by releasing snap fit (on either side) with thumb, as shown.

❑ Replace

1. Install new solenoid coil. Snap into the snap mounting.
2. Connect wires and install solenoid cover.
3. Install dispensing valve covers.

STEP 51. BANJO VALVE



❑ Removal

1. Remove dispensing valve covers.
2. Disconnect dispensing valve wiring harness.
3. Remove valve from valve block.
4. Remove solenoid cover.
5. Remove solenoid wires from solenoid. Remove solenoid by releasing snap fit with a screw driver and pull forward.
6. Remove nozzle and bottom plate.
7. Remove three screws and remove valve block, being careful not to lose the return springs from inlet (Banjo) valves.
8. Remove inlet (Banjo) valve from valve block.

Notice: Inlet (Banjo) valve may be installed either direction since it has a double–sided seat. You can turn inlet (Banjo) valve over and use it as a spare part.

❑ Replace

Notice: Wet the inlet (Banjo) valve with water before installing. Clean all parts thoroughly before assembly.

1. Install the inlet (Banjo) valve, and actuator arm and assemble dispensing valve by reversing disassembly procedure.
2. Install the return springs.

Notice: Make sure bale wire (U shaped wire) is in place before installing valve on block.

3. Install dispensing valve on valve block.
4. Connect dispensing valve wiring harness connector.
5. Install dispensing valve covers..

STEP 52. COMPLETE FLOW CONTROL ASSEMBLY

❑ Removal

1. Remove dispensing valve cover.
2. Remove the valve from valve block.
3. Remove the bail wire that locks the flow control assembly into the valve body. Remove the flow control assembly.

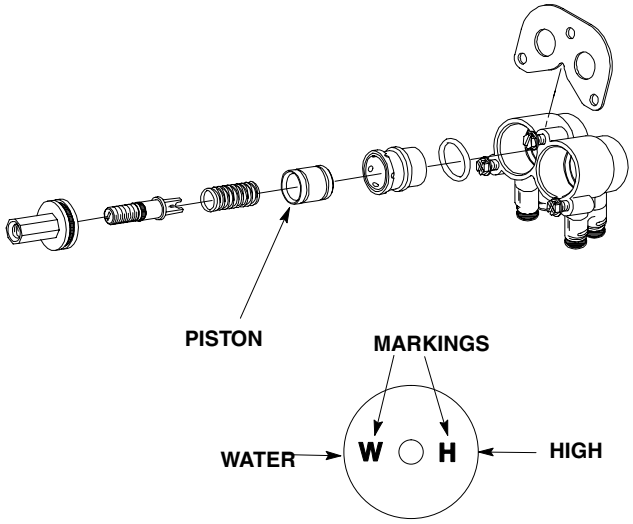
Reminder: New O-rings (4) P/N 4073 *must* be installed on the flow control assembly before its installation in the dispensing valve body. Lubricate O-rings.

❑ Replace

1. Install flow control assembly and the bale wire (“U” shaped wire). Route switch wires around rear leg of flow control.
2. Install dispensing valve on the mounting block.
3. Adjust regulators for proper flow rates and water to syrup ratios.

Notes:

STEP 53. FLOWASHER CONTROL, WATER FLOW OR SYRUP FLOW REGULATORS



❑ Removal

1. Remove dispensing valve cover.
2. Remove valve from the valve block.
3. Remove three screws securing plate that secure water flowasher and regulator assembly into the dispensing valve body, remove the plate.

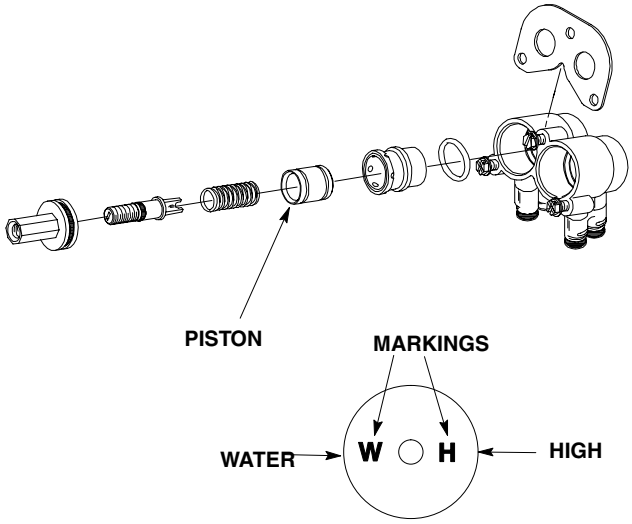
Next 2 steps for flowasher control

4. Pull water flowasher assembly up out of dispensing valve body.
5. Remove water flowasher retainer from bottom of housing, water flowasher then remove flowasher from housing.

Next 3 steps for flow regulator assembly

6. Remove the flow control tops.
7. Pull top flow control spring and piston up out of flow regulator cylinder, or tip module over collecting spring, piston, and sleeve in your hand.
8. The sleeve normally need not be removed from body. If you need to remove the sleeve, pull sleeve up out of the body, *ALWAYS* INSTALL NEW O-RING P/N 317816–000 ON SLEEVE BEFORE INSTALLING SLEEVE IN BODY.
9. Secure water flow or syrup flow regulators in the regulator assembly body with the flow control tops.
10. Position plate properly on the flow control assembly with 3 mounting screws.
11. Install dispensing valve on the mounting block.
12. Check water flow and adjust as required. 12. Check water to syrup ratio and adjust as required.
13. Install valve covers.

STEP 54. FLOWASHER ASSEMBLY, WATER FLOW OR SYRUP FLOW REGULATORS (CON'T)



❑ Replace

First 3 steps for flowasher only

1. Install flowasher in bottom of housing, water flowasher and secure with retainer. Flowasher must be installed in water flowasher housing with concave surface of flowasher facing away from its retainer. Flowasher marking up (visible) when in pocket.

Notice: Always install a new O-ring, P/N 317816–000 on the flowasher assembly before installing it into the flow control housing.

2. Replace flowasher assembly in flow control housing. Replace plate. Tighten the three evenly screws that fastens the plate.

3. Install flow control assembly in dispensing valve body.

Next 2 steps for flow regulator only

4. Install top flow control, spring, and piston in sleeve.

5. Secure water flow or syrup flow regulators in the regulator assembly body with the flow control tops.

6. Position plate properly on the flow control assembly with 3 mounting screws.

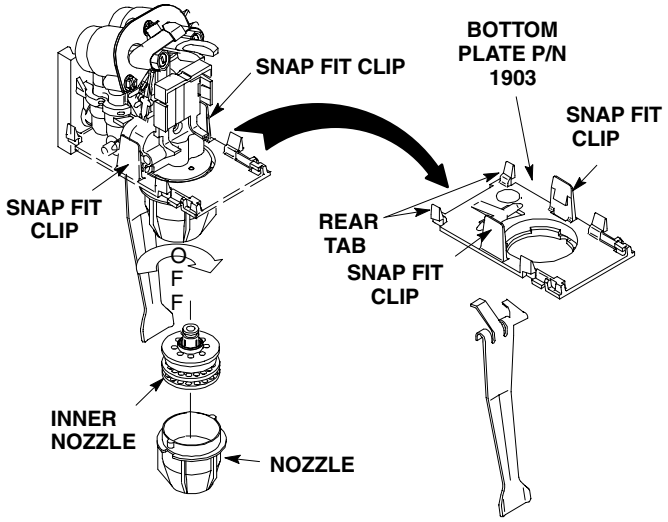
7. Install dispensing valve on the mounting block. Press the bottom of dovetail latch upward until it is tight and is snapped into place. This will turn on the product flow.

8. Check water flow and adjust as required.

9. Check water to syrup ratio and adjust as required.

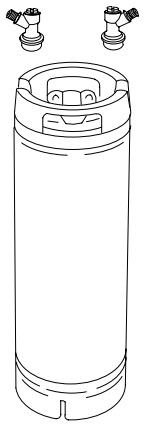
10. Install valve covers and secure.

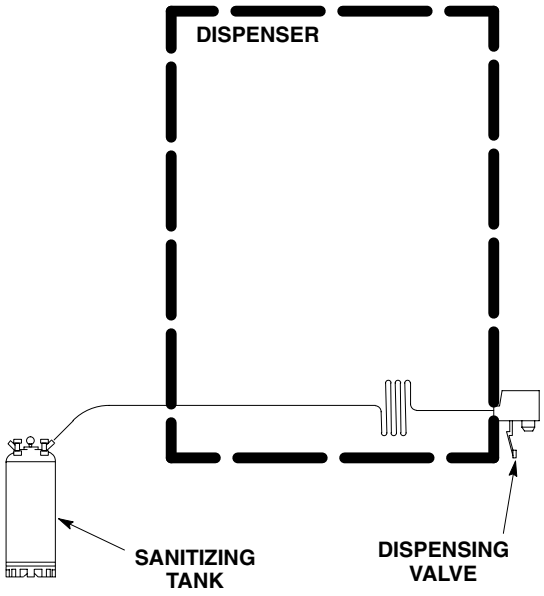
STEP 55. MAINTENANCE



❑ Cleaning dispensing valve
1. Remove nozzle assembly (contains inner nozzle) from dispensing valve. Separate the inner nozzle from the nozzle and wash the two parts in warm water.
2. Remove the bottom plate by releasing the two snap–fit clips. Remove the lever from the bottom plate and wash the bottom plate and the lever in warm water.
3. Reassemble the lever into the bottom plate and return the bottom plate to the valve. *Be sure the rear tabs are properly secured.*
4. Return the inner nozzle to the nozzle and replace the assembly to the valve.

CLEANING AND SANITIZING
SANITIZING SYRUP TANK SYSTEMS





❑ IMPORTANT: Only qualified personnel should perform sanitizing procedure. The syrup systems should be sanitized every 90 days following Sanitizer Manufacturer's recommendations. Use Chlor–tergent (Oakite Products, Inc.) or equivalent sanitizer. Proceed as follows.

A. Remove quick disconnects from syrup tanks, then rinse quick disconnects in potable water.

B. Using a clean syrup tank prepare a full tank of sanitizing solution as follows:

Using a clean, empty syrup drink tank, prepare a full tank of sanitizing solution by using 70° F to 100° F (max) plain water and .67 oz./gallon of sanitizer. This mixture will provide 200–ppm of chlorine.

Shake sanitizing solution tank to thoroughly mix solution, then connect tank into one of the syrup systems.

C. Place waste container under applicable dispensing valve. Open dispensing valve to permit sanitizing solution to push syrup out of syrup system. Continue to draw from dispensing valve until only sanitizing solution is dispensed from syrup system, then close valve.

D. Repeat steps 2 and 3 to purge syrup from and install sanitizing solution in remaining syrup systems.

E. Allow sanitizing solution to remain in syrup systems for not less than 10 or no more than 15 minutes (max.) contact time.

F. Remove tank containing sanitizing solution from syrup system, then connect tanks containing syrup into the syrup systems.

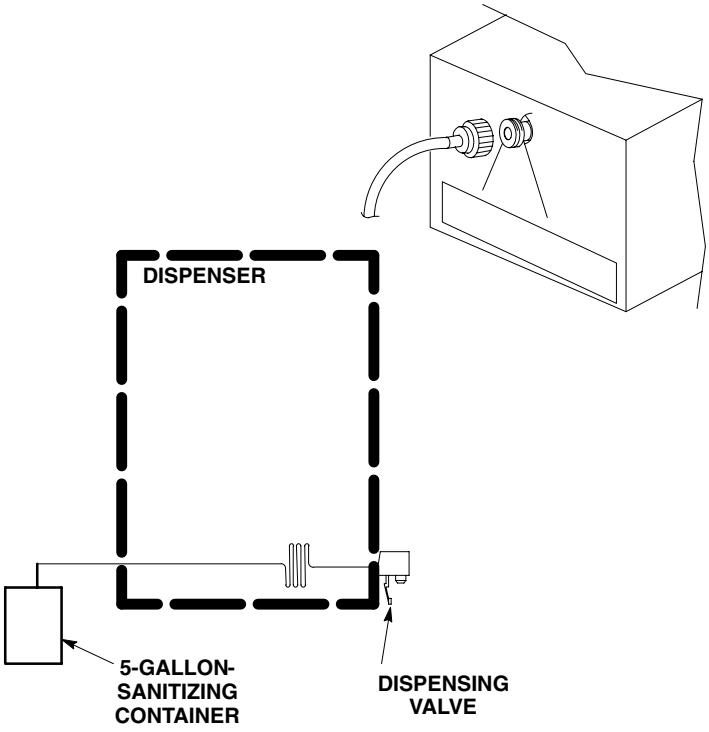
G. **WARNING: Flush sanitizing solution from syrup system as instructed. Residual sanitizing solution left in system could create a health hazard.** Place waste container under dispensing valve. Open dispensing valve to permit syrup to purge sanitizing solution from syrup system and dispensing valve. Continue to draw from dispensing valve until only syrup is dispensed from system, then close valve.

H. Repeat step F to purge sanitizing solution out of remaining syrup systems until only syrup is dispensed.

I. Dispose of waste sanitizing solution in sanitary sewer, not in storm drain.

J. Thoroughly rinse inside and outside of syrup tank that was used for sanitizing solution to remove all sanitizing solution residue.

SANITIZING B-I-B SYRUP SYSTEMS



- ❑ Unscrew syrup outlet tubes connectors from B-I-B syrup containers.
- ❑ Wash syrup outlet tubes connectors in warm water.
- ❑ Using a clean 5–gallon container, prepare four gallons of sanitizing solution by using 70° F to 100° F (max.) plain water and .67 oz./gallon of sanitizer. This mixture will provide 200–ppm of chlorine.
- ❑ Thoroughly stir solution in container to thoroughly mix the sanitizing solution.
- ❑ Install bag valves cut from a empty bag-in–box syrup containers on ends of syrup outlet tube connectors.
- ❑ Place all syrup outlet tubes, with bag valves on their ends, in container with sanitizing solution.
- ❑ Dispense from all dispensing valves until only sanitizing solution is dispensed. Allow sanitizing solution to remain in syrup systems for not less than 10 and no more than 15 minutes (maximum) contact time.

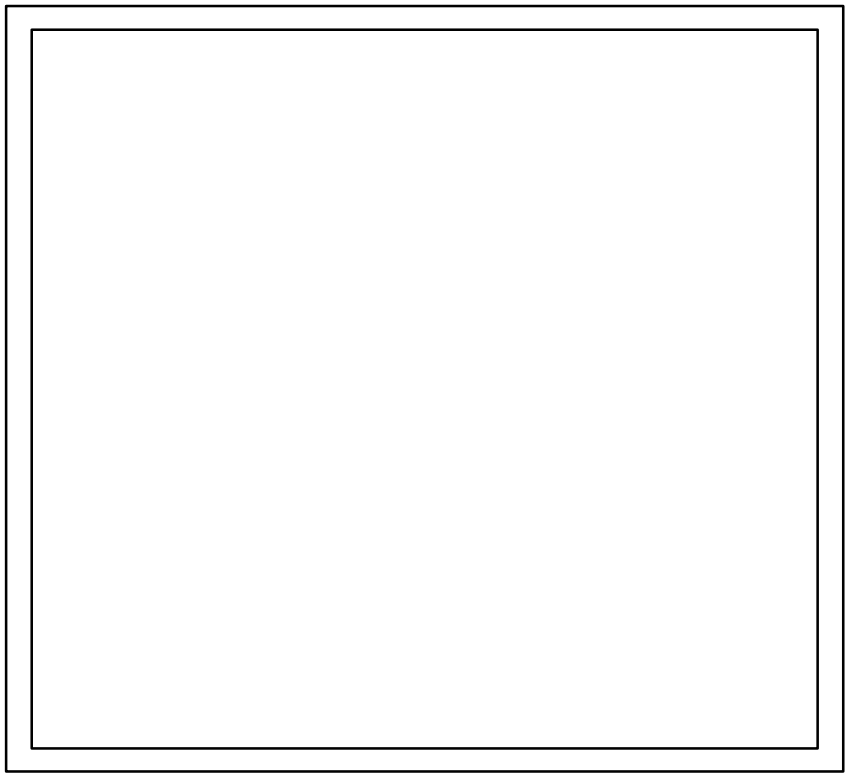
- ❑ **WARNING: Flush sanitizing solution from syrup systems as instructed. Residual sanitizing solution left in system could create a health hazard.** Remove all bag valves from syrup outlet tubes connectors.
- ❑ Connect all syrup outlet tubes connectors to B-I-B syrup containers.
- ❑ Place waste container under dispensing valve. Dispense from dispensing valve to permit syrup to purge all sanitizing solution from syrup system and dispensing valve. Continue to dispense from dispensing valve until only syrup is dispensed.
- ❑ Dispose of waste sanitizing solution in sanitary sewer, not in storm drain.
- ❑ Thoroughly rinse inside and outside of container that was used for sanitizing solution to remove all sanitizing solution residue.

DAILY CLEANING

- ❑ Clean all external surfaces of valve with sponge. Rinse out sponge with clean water, then wring excess water out of sponge and wipe off external surfaces. Wipe valve with a clean soft cloth until dry. Do not use abrasive cleaners.

WEEKLY CLEANING OF DISPENSING VALVES

- ❑ Turn dispensing valves key–lock switch on side of unit to “OFF” (horizontal) position, then remove dispensing valve cover.
- ❑ Remove nozzle and baffle from dispensing valve. Wash nozzle, baffle, and cover in warm potable water.
- ❑ **IMPORTANT: When washing dispensing valve, care must be taken not to get water on electric solenoid coil.** Hold appropriate container under dispensing valve. BE CAREFUL NOT TO GET WATER ON ELECTRICAL SOLENOID COIL, slowly pour warm potable water over portion of dispensing valve ahead of solenoid coil.
- ❑ Install removed parts on dispensing valve, then turn dispensing valve key–lock switch to “ON” (vertical) position. **WARNING: To avoid possible personal injury or property damage, do not attempt to remove syrup tank cover until CO_2 pressure had been released.**



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