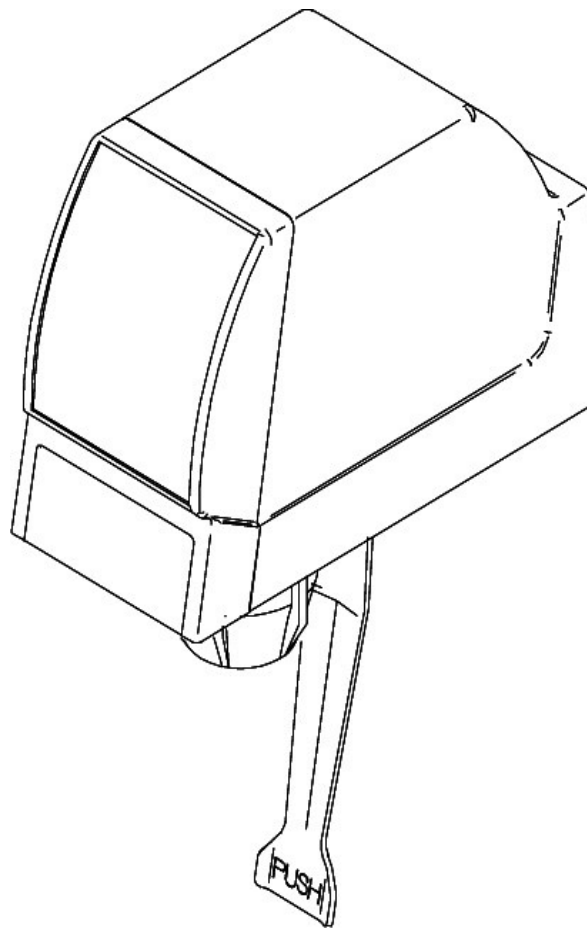


UF-1 POST-MIX VALVE

Operator's Manual



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Revision: E



**Marmon Foodservice
Technologies**

A Berkshire Hathaway Company

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Notice

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.

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Correct Disposal of this Product



RECYCLE

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Contact Information

To inquire about current revisions of any documentation or assistance with any Cornelius product, contact:

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800-238-3600

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SAFETY INSTRUCTIONS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS




- 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.

SAFETY ALERT SYMBOL



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


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. - from Rod's doc
- Keep safety signs in good condition and replace missing or damaged items.
- Learn how to operate the unit and how to use the controls.
- **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 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.
-----------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------


CO2 (CARBON DIOXIDE) WARNING

 DANGER	CO2 displaces oxygen. Strict attention MUST be observed in the prevention of CO2 gas leaks in the entire CO2 and soft drink system. If a CO2 gas leak is suspected, particularly in a small area, IMMEDIATELY ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentrations of CO2 gas experience tremors which are followed rapidly by loss of consciousness and DEATH .
------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------


MOUNTING IN OR ON A COUNTER

 WARNING	While 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 additional 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.
-------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

UNIT LOCATION

 CAUTION	<ul style="list-style-type: none"> • This unit is not designed for use in outdoor locations. • The appliance must be placed in a horizontal position. • The appliance is not suitable for installation in an area where a water jet would be used.
-------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MACHINE USAGE

 CAUTION	<ul style="list-style-type: none"> • 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. • Children should be supervised to ensure that they do not play with the appliance.
-------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

INTRODUCTION

The UF-1 (interchangeable with UFB-1) valve provides the fast flow capabilities required in today's business world; simplicity to provide dependability and ease of repair when needed and easy conversion to any of the available pouring formats.

Read this manual carefully to learn how to operate and maintain this valve. Failure to do so can result in loss of valve performance.

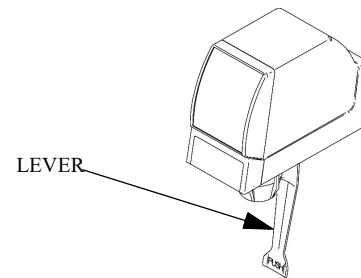
Consider this manual a permanent part of your equipment file.

UF-1 VALVES MODELS

IMPORTANT: All UF-1 valve models are capable of flow rates of 1-1/2 to 3 ounces per second (High Flow) or 2 to 4 oz./sec. (UFB-1). Certain components of the valve must be changed to convert from High Flow to 2 to 4 oz./sec. or from 2 to 4 oz./sec. to High Flow. Qualified service persons should be contacted to make this conversion. The dispensing/cooling equipment that supplies syrup and water to the valves must be capable of providing enough 40F water and syrup to permit the higher flow rates. Be certain the dispenser is capable of the higher flow rates before attempting to convert the valves.

CUP ACTUATED VALVE

Operate the cup actuated valve by pressing the cup against the lever until the cup is full; then release the lever



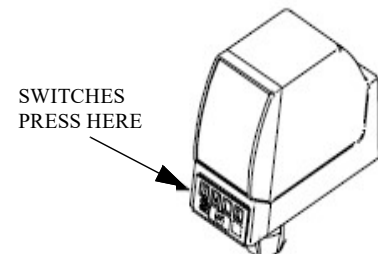
SELF-SERVE

Operate the Self-Serve by pressing the "PUSH" switch and holding until the desired amount of product has been dispensed, then release the "PUSH" switch



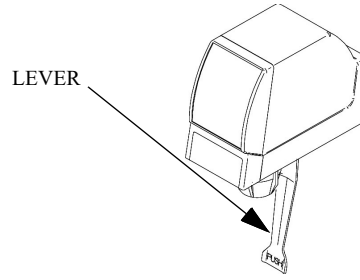
PORTION CONTROL

The portion control valve will dispense four different size drinks by pressing the desired switch. The valve also has a manual dispense function. The Portion Control valve can be programmed to dispense four different drink sizes.



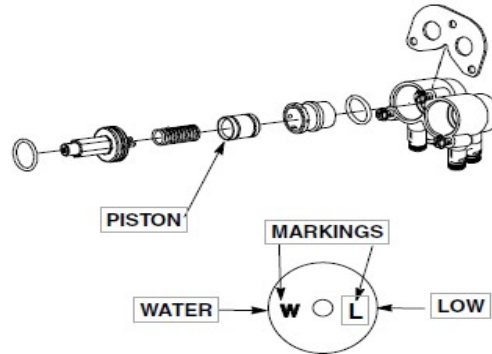
OPTIFILL™ DISPENSING CONTROL

Operate the OptiFill™ model by pressing a cup against the lever and allowing it to remain there. The valve will automatically shut off when the liquid from the cup touches the lever. There is also an automatic top-off delay that can be disabled if desired.



FLOW RATES

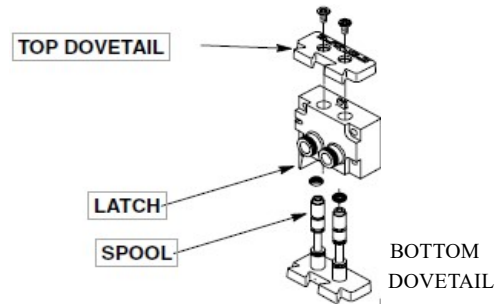
Water and Syrup pistons are marked for Low Flow (WL SL) or UFB-1 (W S). They may be supplied individually or as a Low or UFB-1 Control Module Assembly.



SI.No	Description	P/N
1.	Module Assy High Flow	1954
2.	Module Assy UFB-1	560006408
3.	High Flow Pistons: (WL SL)	
	A. Water	31-0754-011
	B. Syrup	31-0480-011
4.	UFB-1 Pistons: (W S)	
	A. Water	56-000-6006
	B. Syrup	56-000-6005

MOUNTING BLOCK

All UF-1 valves use the same mounting block. You can easily remove the valve from the mounting block by releasing the latch and depressing the top Dovetail. The water and syrup are now shut off and the valve is free to be removed. Pull the valve away from the block to remove. When installing the valve, place it on the mounting block and press the bottom dovetail upwards until the latch engages.



ENVIRONMENTAL REQUIREMENTS

SI.No	Description	Range
1.	Operational temperature	0° C (32° F) to 60° C (140° F)
2.	Operational relative humidity	20% to 100%

UF-1 OPTIFILL DISPENSING VALVE REQUIRES:

1. 24 VAC power supply connected to the dispenser chassis (see Installation Instruction P/N 3776 for details)
2. Water quality (electrical conductivity) must be 50-micro Siemens or greater.

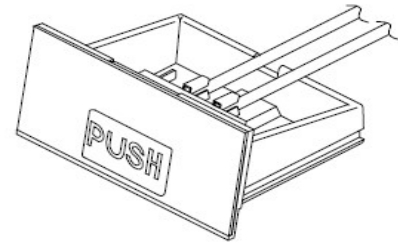
INSPECT THE VALVE REGULARLY AND PERFORM ALL MAINTENANCE PROCEDURES

1. Check syrup supply regularly. Replace when necessary.
2. Check CO2 supply and water filters frequently. Replace when necessary.
3. Clean the valve as outlined in the maintenance section.
4. Sanitize the dispensing system as required for that model.
5. DO NOT abuse the valve

ALTERNATE DISPENSING MODULES

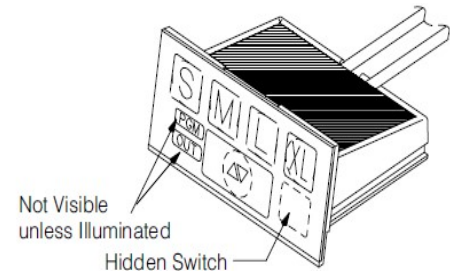
UF-1 MANUAL DISPENSE (PUSH BUTTON)

- Integrated styling with other control modules.
- Manual dispense “PUSH” for self-serve applications



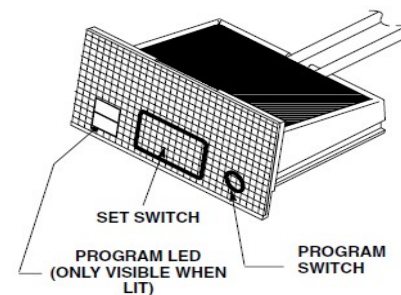
UF-1 PORTION CONTROL

- Four dispense sizes and manual pour.
- Fully programmable from front panel with Hidden Switch.
- Integrated styling with other control modules.
- Fully waterproof design.



UF-1 OPTIFILL™ DISPENSING CONTROL

- Automatic dispense and top-off delay.
- No sensitivity adjustment necessary for proper operation.
- Top-off delay time programmable.
- Fully waterproof design

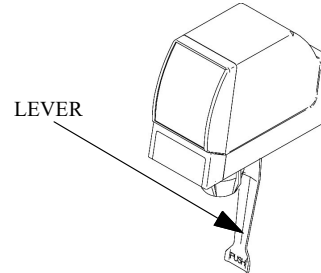


OPERATION INSTRUCTIONS

UF-1 DISPENSING VALVE

UF-1 ELECTRIC DISPENSING CONTROL

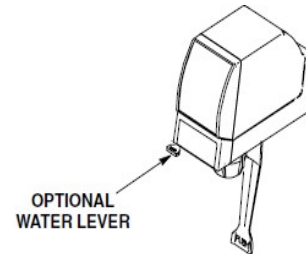
1. Press cup or glass against dispensing valve lever and dispense product until cup or glass is full. Then release lever



OPTIONAL WATER LEVER

1. If water only is desired, place cup under a dispensing valve with the water lever. Press down on the water lever to dispense. Then release lever to stop dispensing.

NOTE: The water lever is an optional item. The water lever is available as a kit, refer to illustrated parts list for part number



OPTIONAL ILLUMINATED COVER

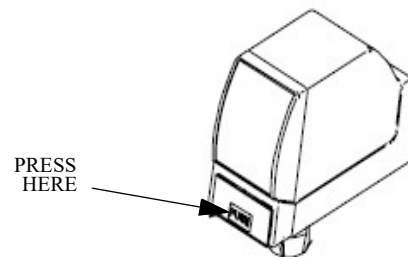
1. The downward lighting can be turned off by removing the access bushing on the back of the light module and changing the position of the selector switch.

NOTE: The illuminated cover is an optional item.

Refer to the illustrated part list for the kit number.

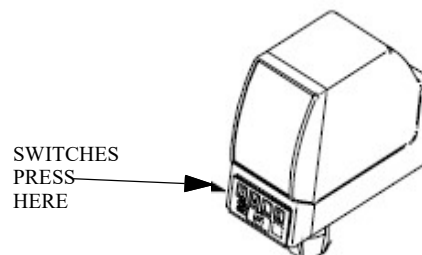
UF-1 DISPENSING VALVE WITH SELF SERVE DISPENSE SWITCH.

1. Place cup or glass under dispensing valve nozzle.
2. Press and hold the dispense switch until the cup or glass is full. Then release the switch.



UF-1 DISPENSING VALVE WITH PORTION CONTROL.

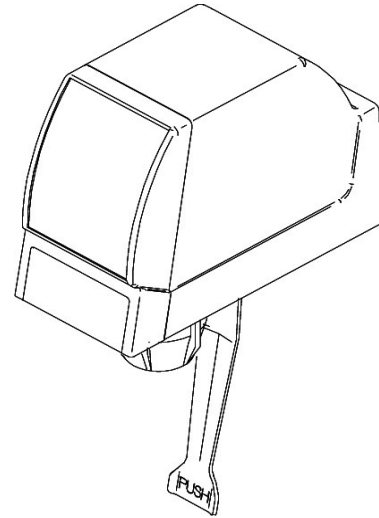
1. Place cup under dispensing valve nozzle.
2. Momentarily press and release one of the four drink size switches to dispense the portion size programmed. Dispensing will stop at the end of the programmed portion cycle. Push the "Cancel/Pour" button to interrupt the pour cycle or to top off the drink after the cycle stops.



OPTIFILL DISPENSING VALVE CONTROL

UF-1 DISPENSING VALVE WITH OPTIFILL™ DISPENSING

1. Place cup (with ice if desired) against the operating lever and allow it to stay there as the cup fills.
2. When the cup is full and liquid from the cup touches the lever the valve will shut off.
3. Automatic “top-off” (if set) will begin after the preset time if the cup is allowed to re-main in position against the valve.



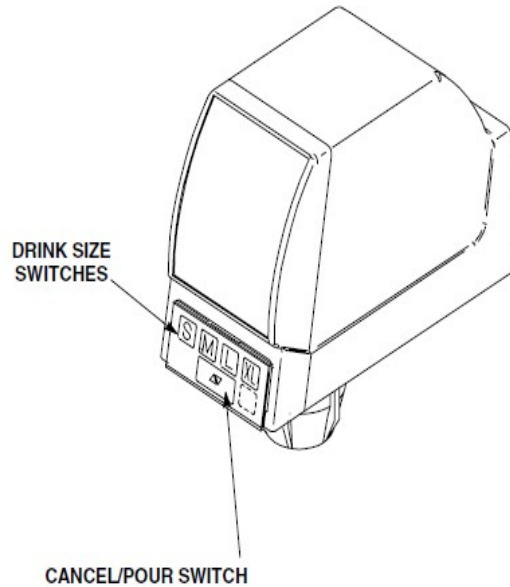
NOTES

PORTION CONTROL OPERATION

NOTE: You must momentarily depress one of the four drink-size switches, then release before the drink will dispense. You can use the cancel/pour switch for the following two separate dispensing functions:

1. You can cancel the portion control drink by depressing and immediately releasing the cancel/pour switch. Do NOT hold switch in depressed position as drink dispensing will continue manually.
2. You may also use the cancel/pour switch to dispense a non-portion controlled drink by merely depressing and holding the cancel/pour switch until desired quantity has been dispensed, then release switch.

NOTE: Each portion size is programmed at the factory and can be easily re-programmed in the field from the front control panel. The factory settings can be restored if necessary.



ADJUSTMENTS

ADJUSTING THE PORTION CONTROL

CHANGING SIZE OF DRINK DISPENSED.

Use the programming mode to set the portion size to the desired setting.

To enter the programming mode, the following criteria must be met:

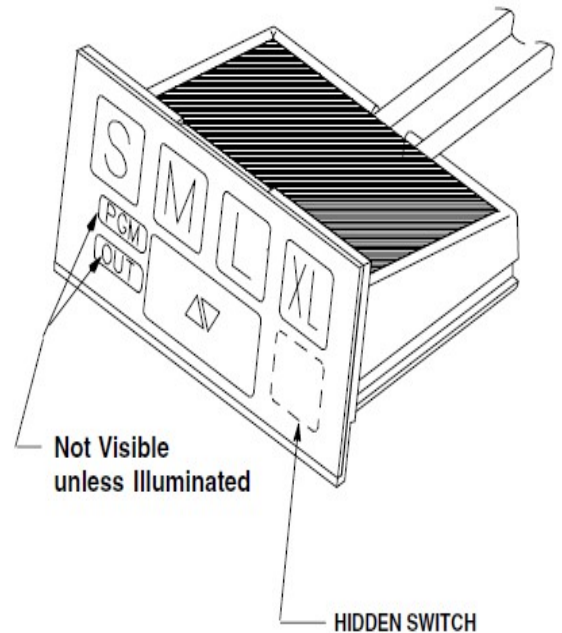
1. There is no active dispensing cycle in progress.

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.

NOTE: 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.



ADJUSTING THE PORTION CONTROL

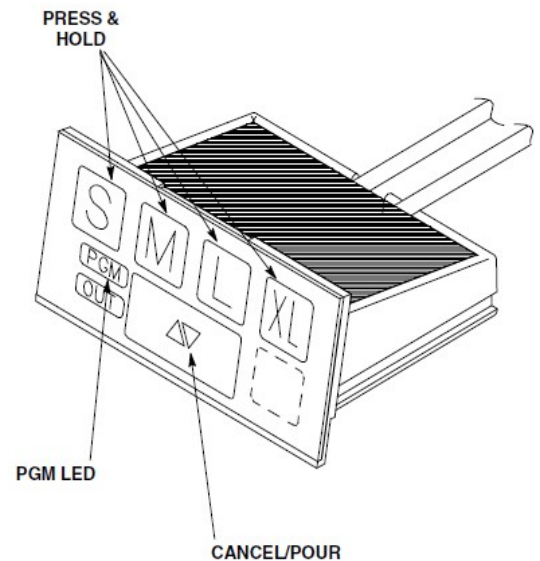
PROGRAM MODE STEPS

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

NOTE: While in the programming mode the “PGM” LED will be illuminated. While pressing a portion switch the “PGM” LED will flash.

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

NOTE: 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

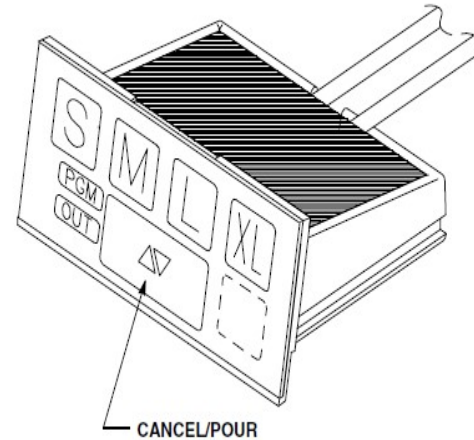


EXITING PROGRAMMING MODE

1. Press and hold the hidden 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 off.

RESTORING FACTORY SETTINGS

1. To restore to the factory setting, while in 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



OPTIFILL™ DISPENSING VALVE CONTROL

PROGRAMMING TOP-OFF DELAY TIME

NOTE:Top-off delay time has been factory set at 4.0 seconds but may be field adjusted through the program mode.

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

1. The dispensing valve is not dispensing.

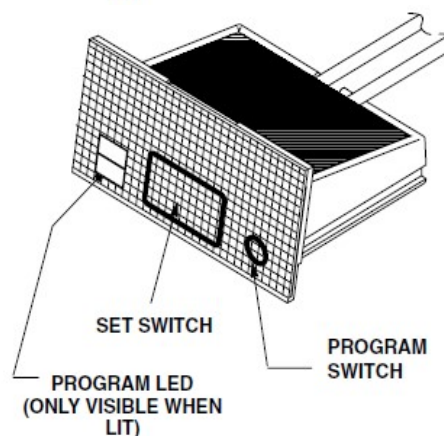
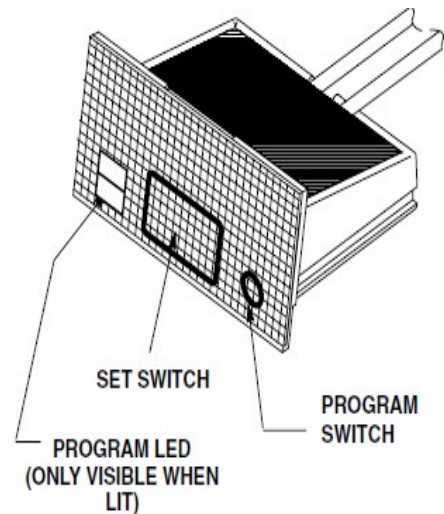
TO ENTER PROGRAMMING MODE

1. Press the PROGRAM SWITCH for 3-seconds until the LED (light) turns on. The valve is now ready for programming the top-off delay.

PROGRAMMING TOP-OFF DELAY TIME.

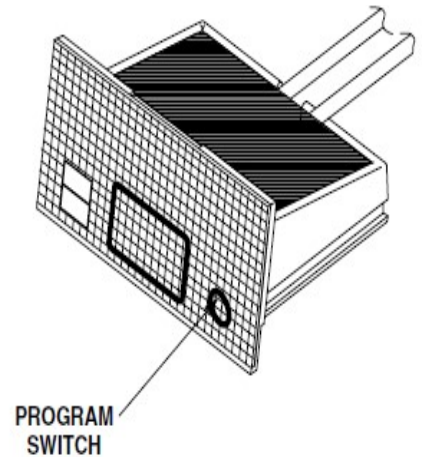
Only the top-off delay is adjustable. Use top off adjustment mainly for drinks that are foamy, such as diet drinks. To adjust the top-off delay, follow these programming steps.

1. Place an appropriate size cup (with the desired amount of ice in the cup) against the valve lever causing the valve to begin dispensing. When foam or liquid touches the lever, the valve will automatically stop dispensing. This is the initial pour. The cup must remain in place with the valve lever pressed. The LED (light) will flash at this time.
2. If you want to continue programming the top-off delay time, skip step 3 and proceed to step 4.
3. If you do not want top-off delay time, re-move the cup from against the valve lever. This will enter a zero value for the top-off delay time and will inhibit a top-off pour. When finished, exit program mode by pressing the PROGRAM SWITCH for 3-seconds until the LED (light) turns off.
4. When foam in the cup has lowered, press and release the SET SWITCH. The valve will begin dispensing and will stop when the foam or liquid touches the lever. This is the top-off pour. The time between the end of the initial pour and when the pour is re-started is the top-off delay and it is now programmed into the valve. The LED (light) will be on steady at this time.
5. When the valve stops pouring the second time, the cup may be removed and you may exit the program mode by pressing the PROGRAM SWITCH for 3-seconds until the LED (light) turns off. The top-off delay is now programmed into the valve.
6. When the valve stops pouring 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.

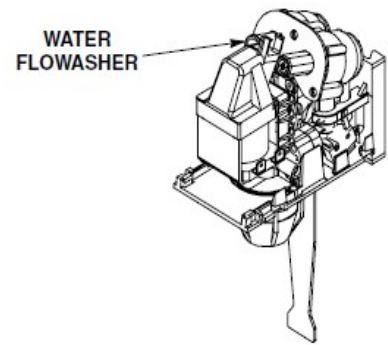


WATER FLOW RATE

DISPENSING VALVE WITH WATER

Flowasher

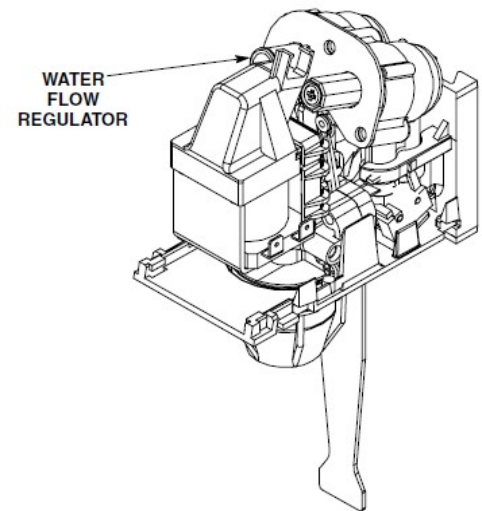
Water flowasher is at a fixed water flow rate and is nonadjustable.



DISPENSING VALVE WITH ADJUSTABLE WATER FLOW REGULATOR

Turn the water flow regulator adjusting screw counterclockwise to decrease the water flow rate. Turn the adjusting screw clockwise to increase the water flow rate. Adjustments should be no more than 1/4 turn at a time.

NOTE: 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 counterclockwise 1 1/2 turns after the stop are contacted.



ADJUST WATER-TO-SYRUP RATIO

UF-1 DISPENSING VALVE

NOTE: On a dispensing valve with adjust-able water flow regulator make sure water flow rate is adjusted to your requirement be-fore adjusting the syrup to water ratio.

Adjust water-to-syrup ratio of dispensed product by using ratio cup (P/N 311100-000) and syrup diversion tube assembly (P/N 319540-000) as follows:

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

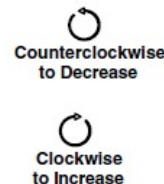
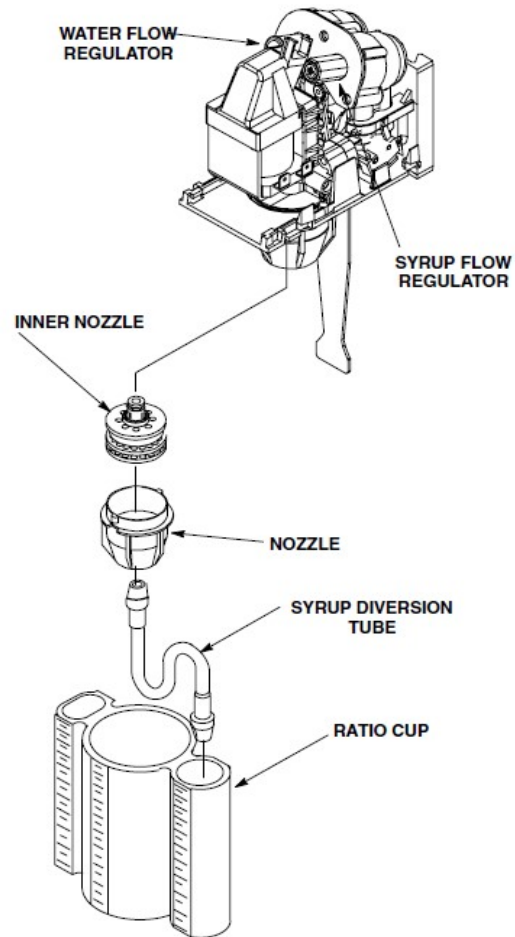
NOTE: Refer to syrup manufacturer’s recommendations on syrup package for water-to-syrup ratio.

3. Dispense enough to fill syrup diversion tube with syrup.
4. Hold large chamber of ratio cup under dispensing valve nozzle. Place free end of syrup diversion tube into syrup chamber marked for proper ratio. Dispense approximately 6 ounces of water into ratio cup. Water and syrup levels should be even in cup.
5. Adjusting Syrup Flow Regulator – If water and syrup levels are uneven in ratio-cup, adjust by turning dispensing valve syrup flow regulator adjusting screw labeled SYRUP as follows.
 - A. For less syrup, turn the adjusting screw counterclockwise no more than 1/4 turn at a time.
 - B. For more syrup, turn the adjusting screw clockwise no more than 1/4 turn at a time.

NOTE: 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 counterclockwise 1 1/2 turns after the stop are contacted.

6. Repeat water-to-syrup ratio test and adjust syrup flow regulator as many times as necessary until proper ratio of dispensed drink is achieved.
7. Remove syrup diversion tube assembly from dispensing valve.
8. Install dispensing valve front cover.

NOTE: In some dispensing systems, the syrup flow rate may be the limiting factor for Ultra flow valves. In this case, the water flow rate should be adjusted down to achieve the proper ratio.



SERVICE AND MAINTENANCE

CLEANING DISPENSING VALVE

NOTE: The solenoid is not shown to provide a clear view. it is not necessary to remove the solenoid.

DAILY NOZZLE CLEANING PROCEDURE.

1. Prepare sanitizer solution in a clean container and fill up a clean spray bottle.
2. Remove the valve nozzles and diffusers and place them in sanitizer solution, Allow soak if needed.
3. Clean them using valve brush and then soak them back again in the sanitizer solution for a minimum of 2 minutes. (Do not use a wire brush)
4. Spray the sanitizing solution upwards into the underside of valve as shown in Figure 1, ensuring that all surfaces are saturated, Clean the region using the valve brush. (Do not use a wire brush)
5. Spray the sanitizer solution to the underside of the valves again. Allow valves to air dry.
6. Wipe the valve levers using sanitizer-soaked towel.
7. Wash hands and reinstall the cleaned and sanitized nozzles and diffusers back onto the valves.

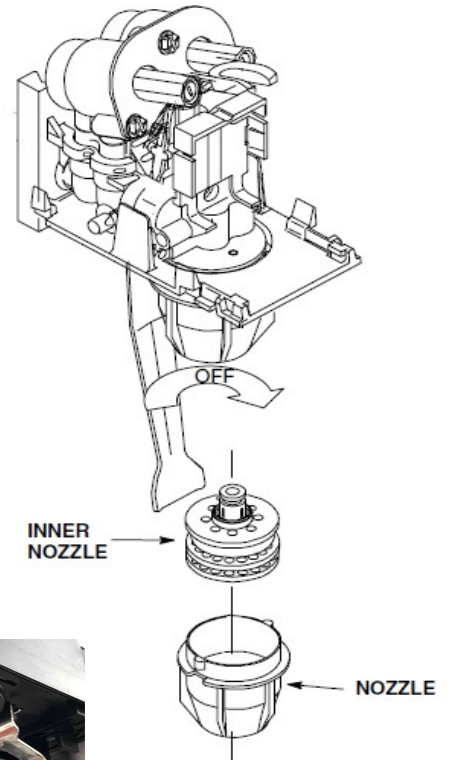


Figure 1.

Removal And Replacement Procedures Of UF-1 Valve

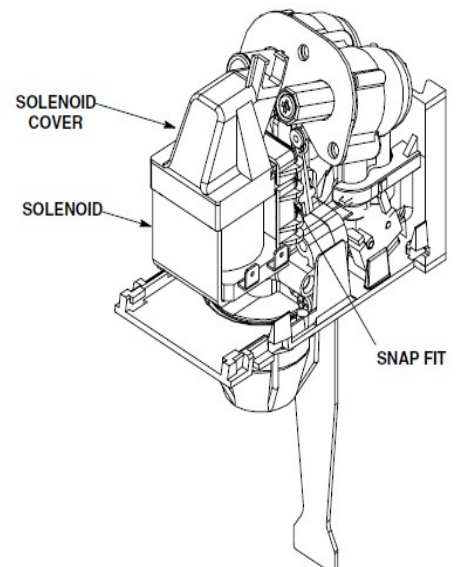
REMOVE AND REPLACE SOLENOID COIL

REMOVAL

1. Remove dispensing valve cover from valve. Lift the front cover straight up for 1/4 inch and pull forward. Slide rear cover forward 1/4 inch and lift off.
2. Disconnect wiring from solenoid coil.
3. Remove solenoid cover by lifting up.
4. Remove solenoid coil by releasing snap fit (on both sides) with thumb, as shown.

INSTALLATION

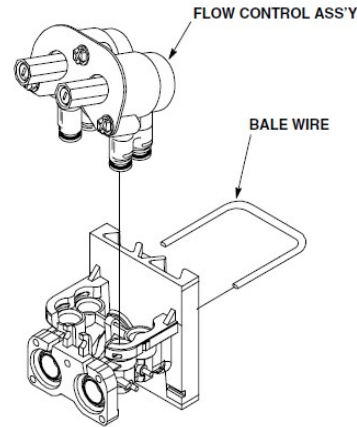
1. Install new solenoid coil. Snap into the snap fittings.
2. Connect wires and install solenoid cover.
3. Install dispensing valve covers.



REMOVE AND REPLACE SWITCH

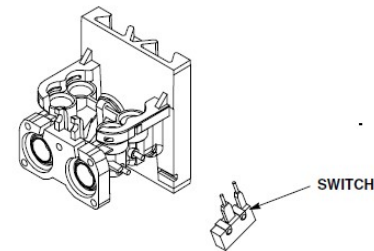
REMOVAL

1. Remove dispensing valve cover. Lift front cover straight up for 1/4 inch and pull for-ward. Slide rear cover forward 1/4 inch and lift off.
2. Remove valve from dispenser by releasing the latch with your thumb and pressing the top dovetail. Pull valve forward.
3. Then disconnect wires from switch terminals.
4. Remove nozzle.
5. Remove Bottom Plate by releasing snap fit with thumbs, (on both sides), and pivot the Bottom Plate down.
6. Remove switch.



INSTALLATION

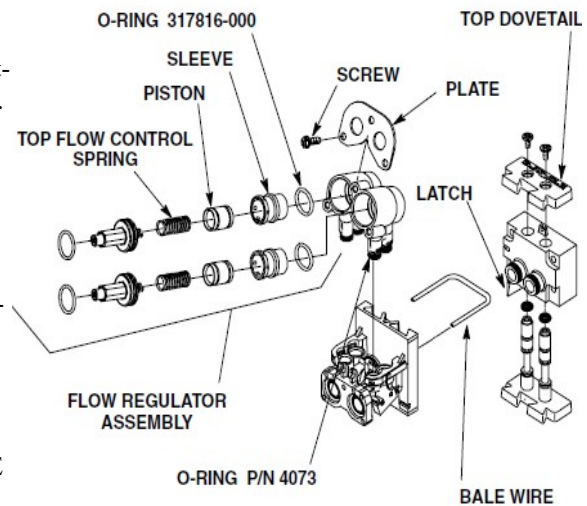
1. Install new switch by reversing removal procedure. The switch button must be down and toward the rear of the valve.
2. Install the Bottom Plate by inserting the Bottom Plate rear tabs and then pivot up to secure the snap fits.
3. Install dispensing valve cover.



REMOVE AND REPLACE SYRUP OR WATER FLOW REGULATOR

Removal

1. Remove dispensing valve cover. Lift front cover straight up for 1/4 inch and pull for-ward. Slide rear cover forward 1/4 inch and lift off.
2. Remove the valve by pressing down on the top dovetail on the mounting block. This shuts off syrup and water flow and releases the valve. Pull valve away from the block.
3. Remove the bail wire that locks the flow regulator assembly into the valve body. Re-move the flow regulator assembly.
4. Remove three screws securing the plate, then remove the plate.
5. Remove the flow control tops.
6. 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.
7. The sleeve normally need not be removed from body. If you need to remove the sleeve, pull sleeve up out of the body, **AL-WAYS INSTALL NEW O-RING P/N 317816-000 ON SLEEVE BEFORE INSTALLING SLEEVE IN BODY.**



NOTE: Complete Flow Control module can also be replaced as an assembly. High Flow Regulator Assembly P/N 1954, 2 to 4 oz./sec. regulator assembly P/N 560006408, 1 1/2 oz. Standard Flow Washer Water Syrup Regulator Assembly P/N 1957, and 3 oz. Flow Washer Water Syrup Regulator Assembly P/N 1958.

Installation

1. Install top flow control, spring, and piston in sleeve.
2. Secure water flow or syrup flow regulators in the regulator assembly body with plate and tighten the three screws.
3. Install Flow Control module and the bale wire ("U" shaped wire). Route switch wires around rear leg of flow control.
4. 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.
5. Place the harness connector in the holder provided. Then install valve cover.
6. Was Water Flow Regulator Removed?
7. If water flow regulator was removed from dispensing valve, water flow rate must be checked and, if necessary, the regulator must be adjusted as instructed.

8. Was Syrup Flow Regulator Removed?
9. If syrup flow regulator was removed, check dispensing valve for water-to-syrup ratio of dispensed product and, if necessary, adjust as instructed.
10. Install dispensing valve cover and secure.

NOTE: New O-Rings (4) P/N 4073 must be installed on the flow control assembly before its installation in the dispensing valve body

REMOVE AND REPLACE WATER FLOWASHER ASSEMBLY

Removal

1. Remove dispensing valve cover. Lift front cover straight up for 1/4 inch and pull forward. Slide rear cover forward 1/4 inch and lift off.
2. Release the latch with your thumb. Depress the top valve dovetail on the mounting block. This shuts off the product and water flow, and releases the valve. Pull valve away from the block.
3. Remove three screws securing plate that secure water flowasher assembly into the dispensing valve body, then remove the plate.
4. Pull water flowasher assembly up out of dispensing valve body.
5. Remove water flowasher retainer from bottom of housing, water flowasher then re-move flowasher from housing.

Installation.

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

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

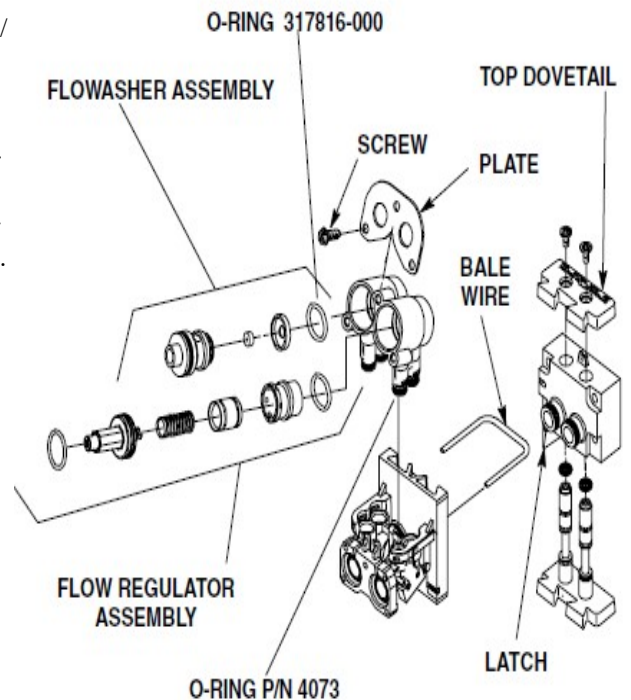
2. Replace flowasher assembly in flow control housing. Replace plate. Tighten the three screws that fastens the plate.
3. Install flow control assembly in dispensing valve body. Install the bale wire. Route switch wires around rear leg of Flow Control.

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

4. Install dispensing valve on unit by inserting valve on block fittings and pushing in until tight. Then push up on bottom dovetail until the latch has snapped into place.

NOTE: Always make sure bale wire holding Flow Control module is in place before installing valve on block.

5. Connect dispensing valve electrical wiring harness connector to unit wiring harness connector, and place connector in holder.
6. Install dispensing valve cover.



REMOVE AND REPLACE INLET BANJO VALVE

REMOVAL

1. Remove dispensing valve covers. Lift front cover straight up for 1/4 inch and pull forward. Slide rear cover forward 1/4 inch and lift off.
2. Disconnect dispensing valve wiring harness connector from unit wiring harness connector.
3. Remove valve from dispenser by releasing the latch, then depressing the top valve dovetail, and pulling valve forward.
4. Remove solenoid cover by lifting up.
5. Remove solenoid wires from solenoid. Re-move solenoid by releasing snap fit with thumbs and pulling forward.
6. Remove nozzle and bottom plate.
7. Lay valve on its back with five screws facing you.
8. Remove five screws and remove valve head, being careful not to lose the return springs from Banjo.
9. Remove Banjo from valve body.

NOTE: Banjo now may be installed either direction since it now has a double-sided seat. You can turn Banjo over and actually use it as a spare part.

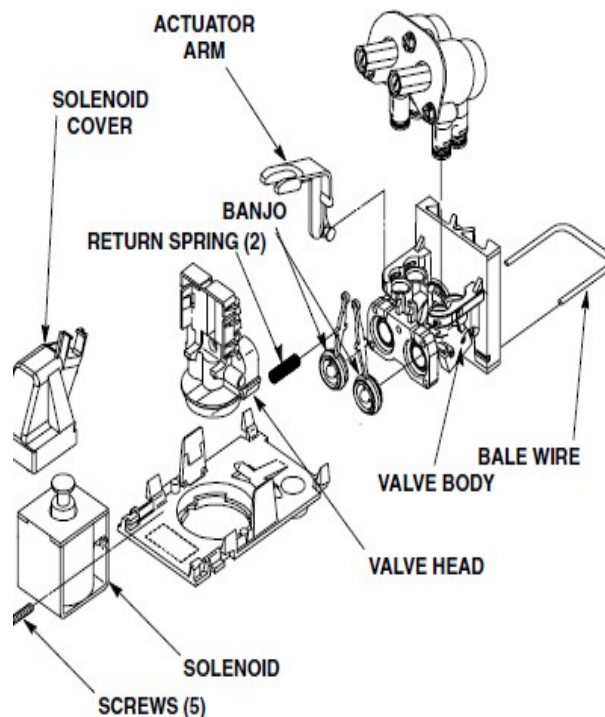
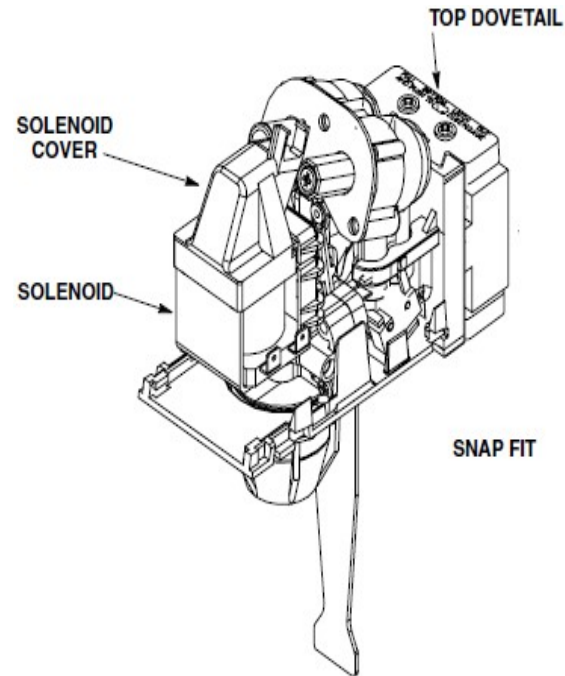
INSTALLATION

NOTE: Always wet the Banjo with water before installing. Clean all parts thoroughly before assembly.

1. Install the Banjo, and actuator arm and assemble dispensing valve by reversing dis-assembly procedure. Tighten the five screws evenly to ensure proper sealing of the Banjo.
2. Install the return springs.

NOTE: Always make sure bale wire (U shaped wire) is in place before installing valve on block.

3. Install dispensing valve on unit by inserting valve on block fitting and pushing in until tight. Then push up on the bottom dovetail plate until the latch has snapped into place.
4. Connect dispensing valve wiring harness connector to unit wiring harness connector.
5. Install dispensing valve cover.



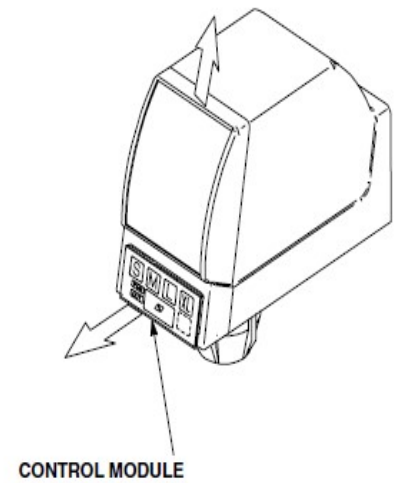
REMOVE AND REPLACE CONTROL MODULES

REMOVAL.

1. Remove dispensing valve covers from valve.
2. Tag electrical wires for identification. Then disconnect Control module wires from solenoid coil and unit wiring harness connector. See electrical diagram, Figure 1, 2, 3, 4.
3. Slide or pull (drawer action) Control module from dispensing valve.

INSTALLATION.

1. Install Control module by reversing removal procedure.
2. Adjust Portion Control module for size of drinks dispensed as instructed.
3. Install dispensing valve cover.



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 CO2 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 CO2 system, stop dispensing, shut off CO2 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	Dispensing valve syrup flow regulator not properly adjusted. CO ₂ gas pressure to syrup tanks insufficient to push syrup out of tanks, or to pump the syrup.	Adjust water-to-syrup ratio as instructed. 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.	Dispensing valve syrup flow regulator, syrup tank quick disconnect, or syrup line restricted. No syrup supply. Syrup quick disconnect not securely connected. Syrup CO ₂ regulator out of adjustment. Improper syrup baume. Dirty or inoperative piston or spring in dispensing valve adjustable syrup flow regulator. Syrup pump insufficient capacity.	Sanitize syrup system. Replenish syrup supply. Securely connect quick disconnect. Adjust syrup CO ₂ regulator. Replace syrup supply. Disassemble and clean dispensing valve syrup flow regulator. Replace syrup pump.
ADJUSTMENT OF DISPENSING VALVE SYRUP FLOW REGULATOR DOES NOT DECREASE TO DESIRED WATER-TO-SYRUP RATIO	Dirty or inoperative piston of spring in dispensing valve adjustable syrup flow regulator.	Disassemble and clean dispensing valve syrup flow regulator.
NO PRODUCT DISPENSED FROM ALL DISPENSING VALVES.	No electrical power to dispenser. Disconnected or broken wiring to dispensing valves. Inoperative 24VAC transformer.	Connect electrical power to dispenser. Connect or replace wiring. Replace transformer.
NO PRODUCT DISPENSED FROM ONE DISPENSING VALVE.	Broken or disconnected wiring. Inoperative dispensing valve solenoid coil. Inoperative dispensing valve micro switch.	Repair or connect wiring. Replace solenoid coil as instructed. Replace micro switch as instructed.
NO PRODUCT DISPENSED BUT OTHER VALVES ARE DISPENSING, AND “ OUT” DISPLAY IS VISIBLE.	Low-Voltage condition exists.	Check secondary voltage. Must be 24 VAC±10%. Replace transformer with a larger capacity transformer to accommodate multi valve dispensing (More than 3 valves).



ONLY CARBONATED WATER DISPENSED.	Syrup quick disconnects not secure. Out of syrup. Syrup CO ₂ regulator not properly adjusted. Inoperable dispensing valve. Dispensing valve adjustable syrup flow regulator not properly adjusted. Dispensing valve adjustable syrup flow regulator, syrup tank quick disconnect, or syrup lines restricted. Syrup pump not working.	Secure the syrup quick disconnects. Replenish syrup supply as instructed. Adjust syrup CO ₂ regulator. Repair dispensing valve. Adjust water-to-syrup ratio as instructed. Sanitize syrup system.
ONLY SYRUP DISPENSED.	No carbonated water supply. Dispensing valve adjustable water flow regulator not properly adjusted.	Restore carbonated water supply. Adjust dispensing valve water flow rate as instructed.
VALVE SOLENOID OPERATES BUT NO PRODUCT IS DISPENSED.	Valve not properly engaged on mounting block.	Correctly install valve on the mounting block.
VALVE SLOW TO SHUT-OFF	Dirty plunger or actuator arm.	Clean all valve parts, especially the solenoid plunger and actuator arm.
OPTIFILL DISPENSING VALVE WILL NOT SHUT OFF WHEN PRODUCT TOUCHES LEVER.	Broken or missing ground connection.	Repair or add wire to connect valve dispenser wiring harness common (pin 2) to chassis (see Installation Instructions P/N 3776).

REFERENCE MATERIAL

WIRING DIAGRAM FOR UF-1 DISPENSING VALVE

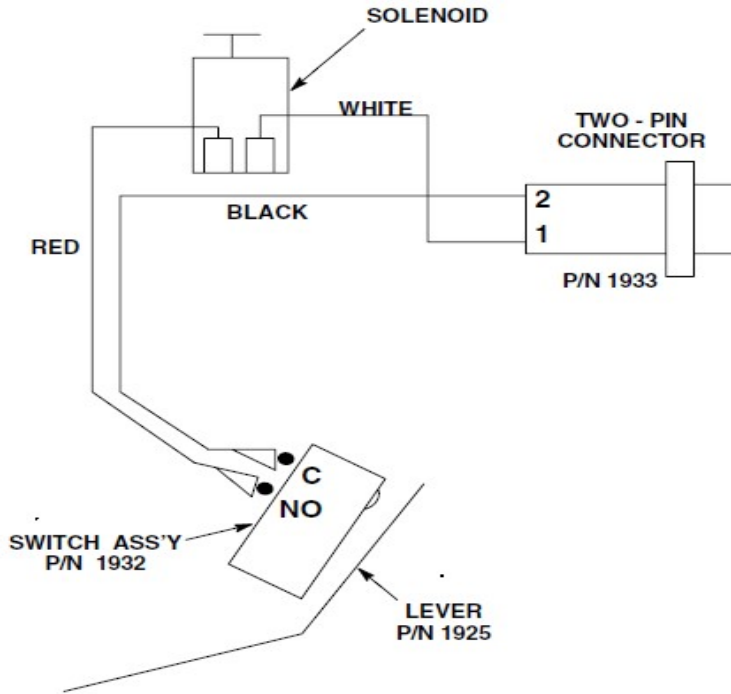


Figure 1.

WIRING DIAGRAM FOR UF-1 SELF SERVE DISPENSING VALVE

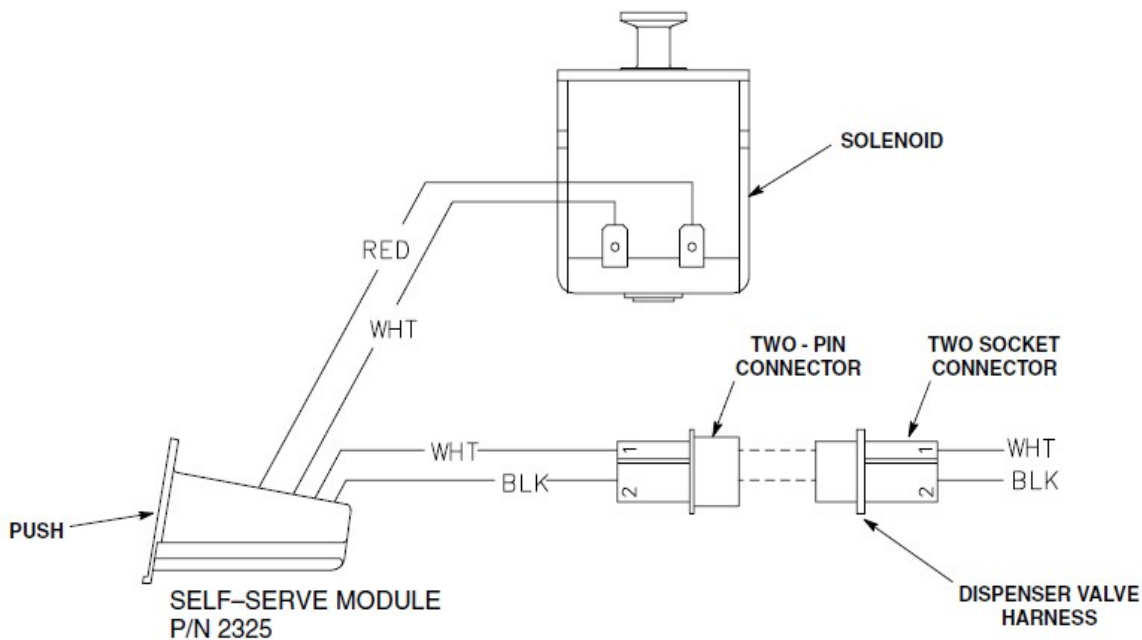


Figure 2.

WIRING DIAGRAM FOR UF-1 DISPENSING VALVE WITH PORTION CONTROL

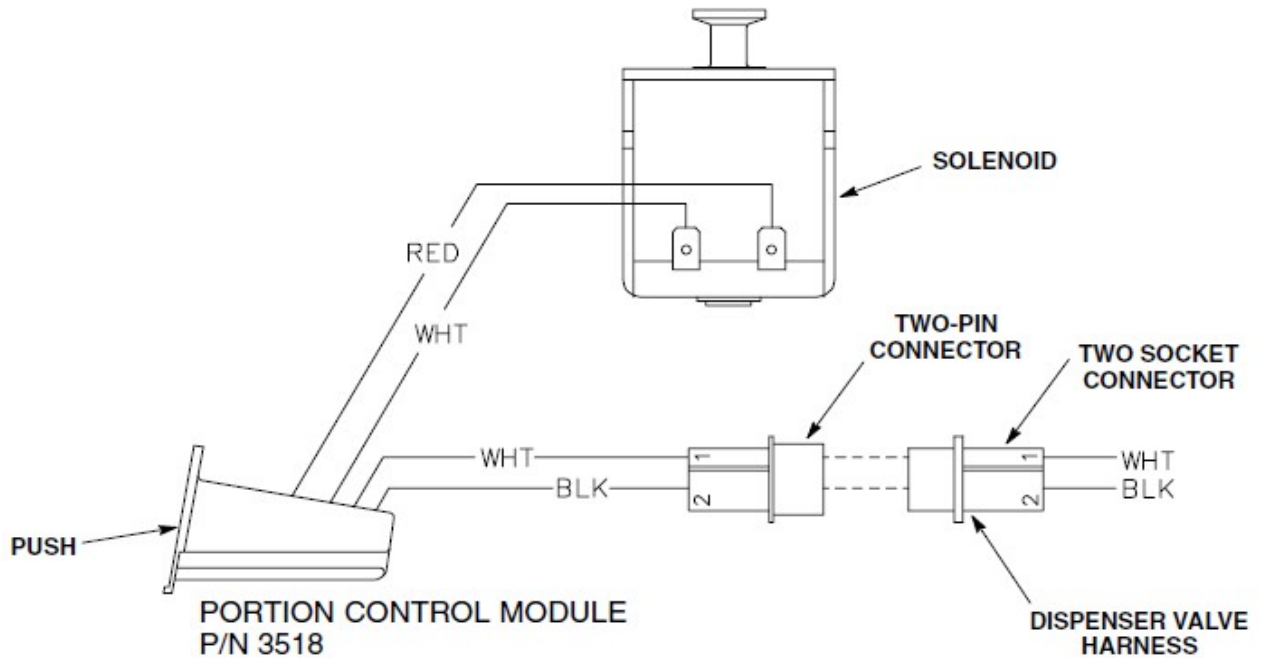


Figure 3.

WIRING DIAGRAM FOR UF-1 OPTIFILL DISPENSING VALVE

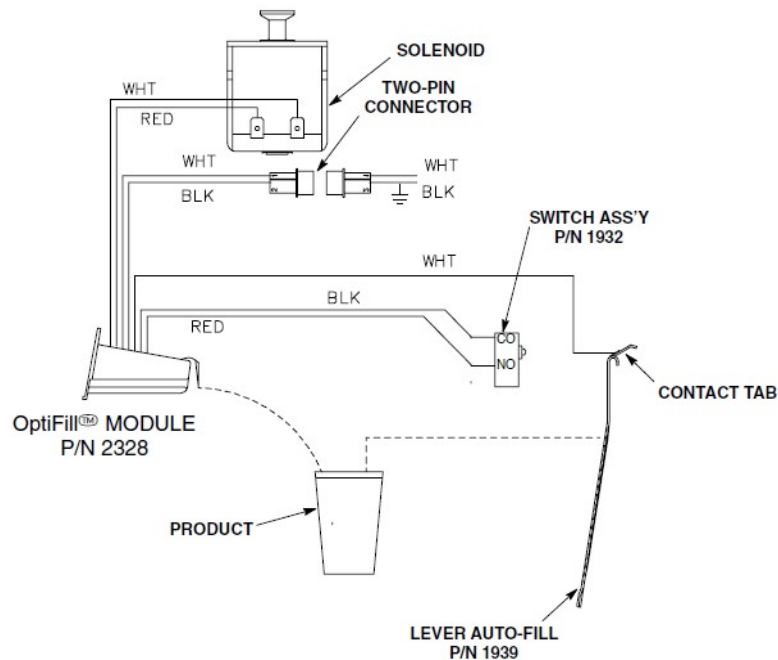


Figure 4.



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