

ACCUFILL VALVE HISTORY

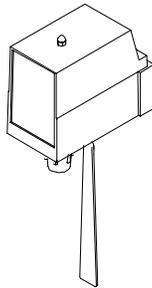
The purpose of this history is to give you a chronological reference to the changes that have occurred to the valve. Almost every change that has occurred is the result of changes that have been requested by you, the customer.

Please take the time to read this so you will be aware of the changes that have been made to the SF-1 valve. **MAKE SURE** your valves are up-to-date.

1986

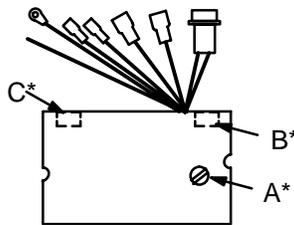
Accufill Valve Introduced

1. The original valve had only the top-off delay built into the board P/N 30-9680-000



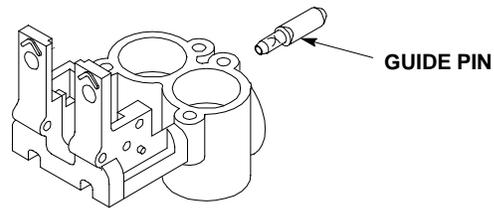
1987

1. Sensitivity potentiometer was added to the control board, to enable the customer to have control over the sensitivity in all types of environments.
 - Location A - this adjustment is located on the solder side of the circuit board.
 - Location B - this adjustment is located on the component side of the circuit board, opposite adjustment A.



1989

1. Guide Pin had Lock-Tite applied to the threads to prevent loosening of the pin in the valve body.



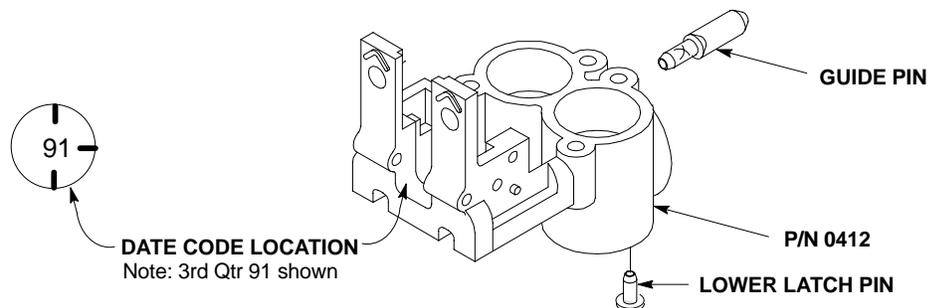
1990

1. The Piston and Sleeve for the flow controls was changed from Stainless Steel to Ceramic.

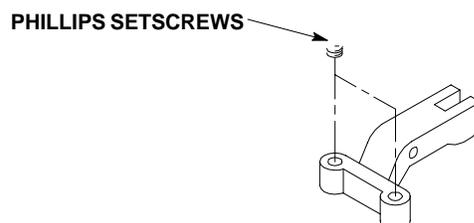


1991

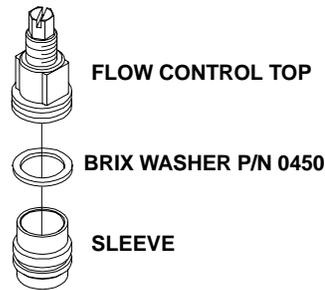
1. Valve Body P/N 0412 replaced valve body P/N 317966-027. New body has additional LOWER LATCH PIN which is ultra-sonically welded into place. The Guide Pin (previously cemented with Lock-Tite) is now ultrasonically welded into the valve body. The New Valve Body is INTERCHANGEABLE with all X-Series valves. (Cannot be used on ice-drink dispensers with shrouded valves).



2. Allenhead setscrews in actuator arm were replaced with roundhead Phillips setscrews.

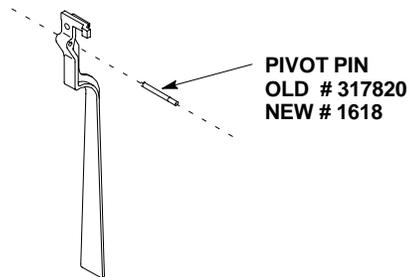


3. Brix washers were added below the flow control top to improve the seal.

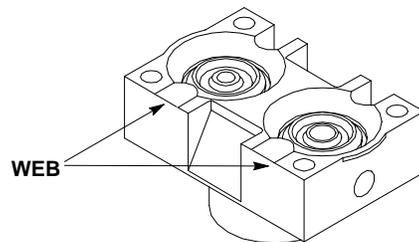


1992

1. The pivot pin on the actuating arm of the Accufill Valve has been Stainless Steel in the past. In high humidity locations, where there is heavy condensation on the body of the valve, the S/S pivot pin can act as a conductor from the water flow regulator to the actuating arm. If this happens, the valve will turn off immediately, giving the impression that the valve is defective.



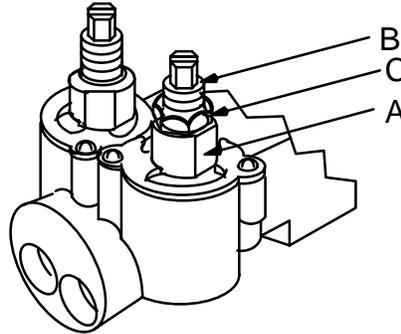
2. The outlet block was designed to be installed for syrup dispensing on the right or left of the valve. Because the block was symmetrical and could be installed either way, there was always a chance to make an error. As an aid the old block was inscribed "water" and "syrup" on the sides of the block, but an error could still be made. The block has been modified so it can only be installed with the carbonated water flow on the left and the syrup on the right. The new block has a "Web" closing two of the four slots for the inlet valve (banjo) arms. This block can only be installed with the open slots in front and mounts the block correctly for water on the left and syrup on the right.



3. A stainless steel continuity strip is added to valve lever to aid in sensitivity adjustments.

1993

1. The water flow control top (item A) was changed from a conductive material to a non-conductive material. This is being done to improve the reliability of this part. This means that the adjusting screw (item B) was then changed to a conductive (Stainless-Steel) material. The solid state control was changed to provide a terminal capable of fitting the new adjusting screw (item B). The new terminal from the solid state control will fit over the adjusting screw and is secured with a lock nut (item C).



The following table shows the old part number for each part and the new part number for easy reference.

Item	Description	Old Part #	New Part #
A	Flow Control Top	31-9133-012	31-9133-007
B	Adjusting Screw	31-0632-001	31-0632-000
C	Lock Nut	N/A	31-0477-000
	Solid State Control	30-9911-022	30-9911-023

There are two new kits available for the Accufill valve which concern the updating of the flow control top. They are as follows:

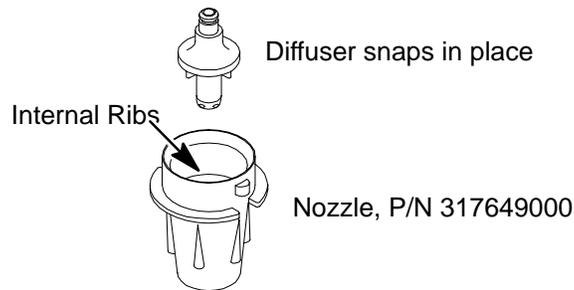
This kit is for the replacement of a defective Circuit Board. The kit provides for the updating of the flow control top at the same time.

Circuit Board Replacement Kit with Update Flow Control Top P/N 2702		
Description	Part Number	Quantity
Flow Control Top	31-9133-007	1
Adjusting Screw	31-0632-000	1
Lock Nut	31-0477-000	1
O-Ring	31-7816-000	1
O-Ring	180025-000	1
Seal Washer	0450	1
Instructions	1972	1
Circuit Board	31-9911-023	1

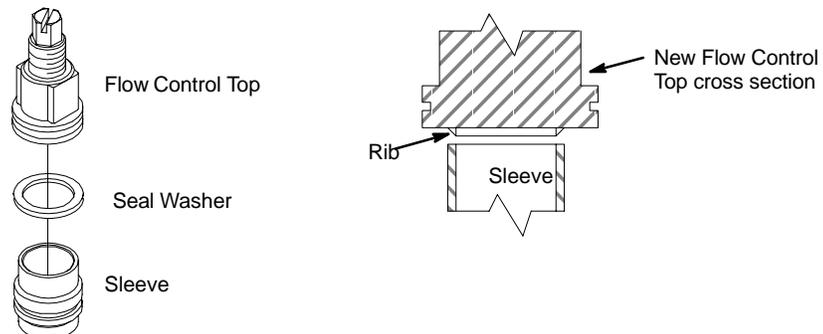
This kit contains all the parts necessary to update the flow control top without having to replace the solid state control.

Kit to Update Flow Control Top		
P/N 2708		
Description	Part Number	Quantity
Flow Control Top	31-9133-007	1
Adjusting Screw	31-0632-000	1
O-Ring	31-7816-000	1
O-Ring	180025-000	1
Seal Washer	0450	1
Lock Nut	31-0477-000	1
Instructions	1972	1
Ring Terminal	2709	1

- The valve nozzle, P/N 317649000 has been redesigned with a ribbed inner surface to allow the diffuser to actually snap into place inside the nozzle. The redesigned nozzle should prevent the diffuser from getting lost or misplaced. The nozzle and diffuser can be removed from the valve as an assembly, then separated as needed for cleaning.



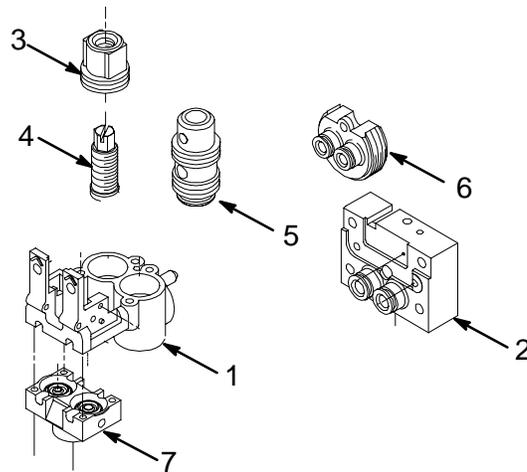
- Redesign of the Flow Control Top has eliminated the need for the rubber seal washer, P/N 0450 that has been used in the past. The drawing at the left shows how the washer had been placed in the assembly. The new Flow Control Top can be identified by the new material color which is white. The part number has not changed. The bottom of the Flow Control Top has a circular rib (see drawing at the right) which will mate with the sleeve and create the seal. The rib will conform to the sleeve and thus ensure a good tight seal. (See picture on next page).



4. The SF-1 family of valves has been improved. The valve components is now being molded of a new material and will be white in color. The new material (new nylon blend) provides many manufacturing benefits and also is more resistant to a wider variety of sanitizing solutions. Users of the valve will not notice a difference in the valve's operation, however; service persons should experience fewer service calls.

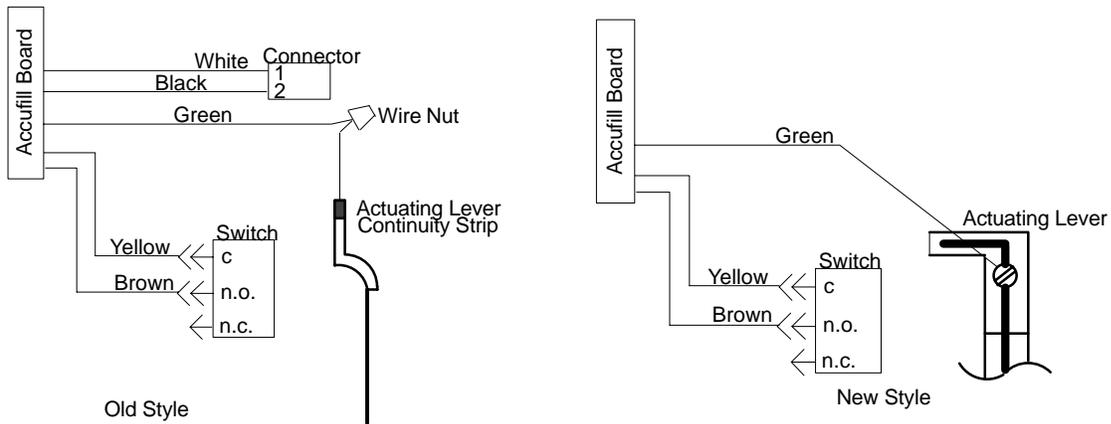
Valve components made of the new material will be easy to recognize — The new components are all white in color. Components of the old material was translucent.

The part numbers of the complete valve did not change; however, there are new part numbers on the components of the new material. All parts are interchangeable and can be mixed. See table below:



Item #	Old Material Part Number	Description	New White Material Part Number
1	0412 0413	Valve Body Valve Body Retrofit Kit	3074 3073
2	0407	Mounting Block	3077
3	319133-007	Top Flow Control	319133-051
4	310632-000	Adjusting Screw	310632-051
5	319545-011	Housing Flow Washer	319545-051
6	317645-007	Threaded Block	317645-051
7	317639-017	Valve Block	317639-051

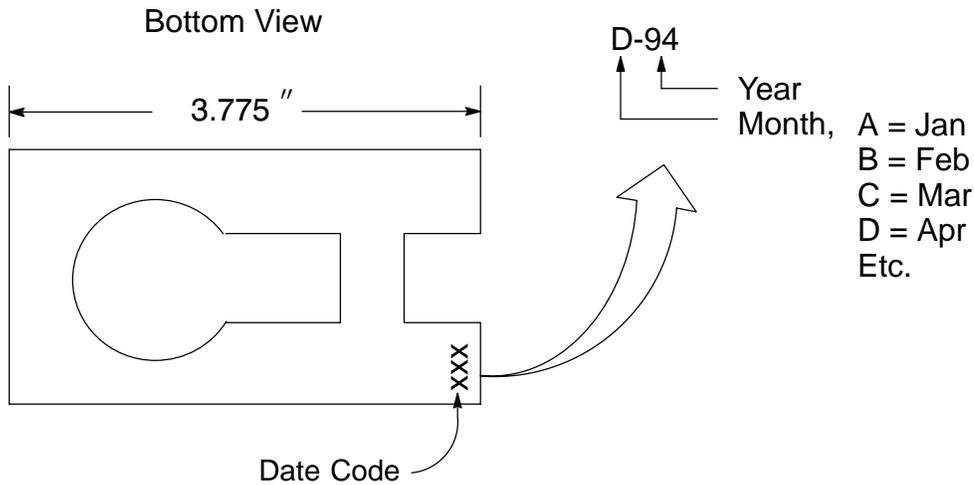
- Previously the green wire lead was connected to the continuity strip with the use of a yellow wire nut, on the current version the green wire lead is connected directly to the stainless steel continuity strip eliminating the need for the yellow wire nut.



1994

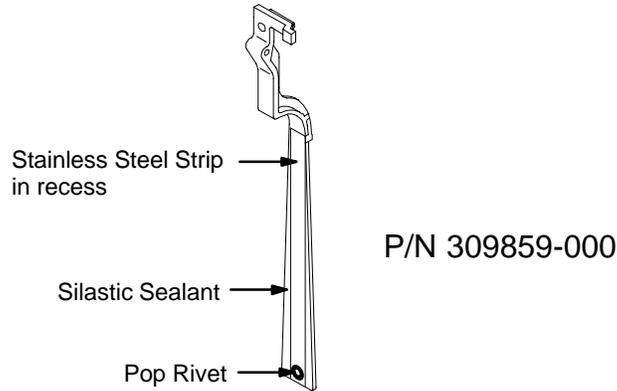
- The length of the support, bottom cover has been increased from 3.75" to 3.775". The additional length allows the support, bottom cover to rest against the mounting block. This will reduce any side to side movement.

This change starts with bottom cover date coded D-94 (April 1994). The location and explanation of the date code, as well as the new length, is shown below.



1995

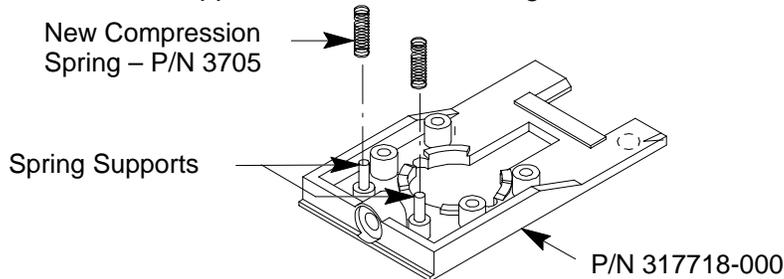
1. The Accufill valve lever has undergone the following changes to insure that the stainless steel strip does not come loose from the lever:
 - Lever recessed for the stainless steel contact strip.
 - Silastic sealant added on each side of the stainless steel strip to prevent moisture from getting behind the strip.
 - A pop-riquet was added at the bottom of the lever



VALVE VERSIONS

PART NUMBER	DATE	DESCRIPTION
30-9680-000	10/86	Valve Post Mix Electric Autofill (Top Off Delay)
30-9680-022	7/87	Valve Post Mix Black Accufill
30-9680-015	12/90	Valve Latch Accufill WFR/Sfr W/Cover
30-9680-016	2/92	Valve Latch Continuity With Cover
30-9680-017	4/93	Valve Latch with Cover S.S. Screw
30-9860-051	1994	Valve Latch Accufill With Cover Pensar

2. SF-1, New Support–Cover, 317718-000
 Support, Cover, P/N 317718-000 – This part was redesigned to move the springs below the arms of the Valve Inlet. The springs are secured on two pins that project from the Support, Cover. See drawing.



In 1994 spring supports (posts) were molded into 317718-000 even though the valve still functioned using the old configuration extension springs attached to the valve inlet paddle arms. The change is now finalized and simplifies the assembly. Please note the part number for the Support, Cover has not changed but there is a new part number for the new springs, P/N 3705.

3. Accufill® Valve Sensitivity Kit P/N 4703

Accufill valves can experience “slow” or “no” shut-off under certain conditions. Investigation has shown that even with the sensitivity adjusted to the maximum, the circuit board can still be slow to turn the valve off.

Kit P/N 4703 has been created to relieve this problem. The kit provides a jumper wire from the water flow control to the syrup flow control. This jumper wire, combined with an increase in flow rate to at least 2 oz/sec., will provide sufficient signal boost to overcome the sluggish shut-off problem.

4. SF-1 Flow Control Retainer Redesign

The design of the flow control retainer changed to provide a more positive and even pressure on the water and syrup sides of the valve. The new design applies pressure to both the water and syrup flow control housings at the same time. It is necessary to remove all four screws when removing the retainer to gain access to either or both flow controls (after the valve is removed from the dispenser). The new design, P/N 4147, will be a direct replacement for all old styles.



P/N 4147

