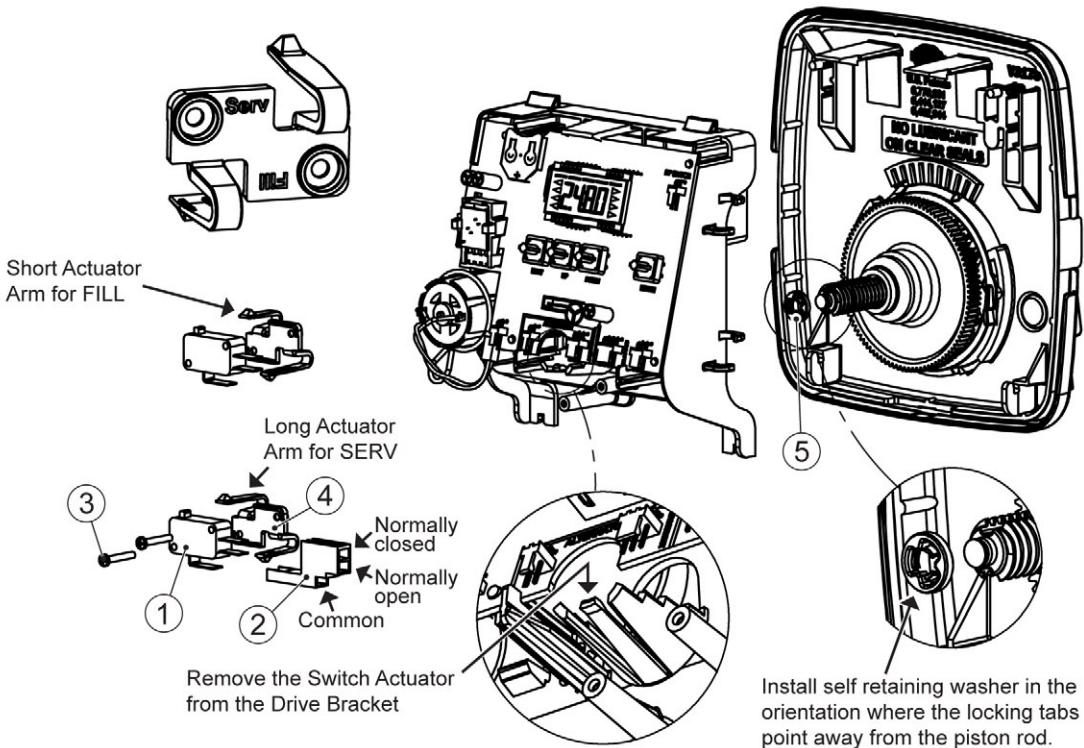


Order No. V3017
Description: WS2 SERVICE OR FILL SWITCH ASY

Caution: This control kit can only be used on Clack WS2 control valves.

Drawing No.	Order No.	Description	Quantity
1	V3301	WS1 MICROSWITCH	1
2	V3302	WS1 MOLEX CONNECTOR	1
3	V3304	WS1 SCREWS 4/40X3/4	2
Not Shown	V3303	WS1 MOLEX TERMINAL	3
4	V3807	WS2 AUX SWITCH ACTUATOR	1
5	V3808	WS2 AUX SWITCH WASHER	1
Not Shown	V3473	WS MOTOR/DP WIRE HARNESS 8 FT	Order Separately
Not Shown	V3805	STRAIN RELIEF COVER KIT	Order Separately



Part number V3017 WS2 Service or Fill Switch Asy can be used as described in setup A, B or C.

SETUP A

The V3017 can be used as an auxiliary switch that sends a signal to enable or disable operation of a secondary piece of equipment when the WS2 valve starts a regeneration cycle and sends another signal when the WS2 valve returns to service.

Remove the switch actuator on the drive bracket. Install the washer on the piston rod in the correct orientation.

Nip off the shorter actuator to allow room to make wire connections to the microswitch. Orientate the actuator so the word SERV is pointed toward the valve and up so the longer actuator is in contact with the piston rod. Attach the microswitch/actuator combination to the drive bracket using the screws. Do not over-tighten screws.

Because the V3303 terminals are unshielded, make sure the connection is made using the plastic V3302 connector.

Connection to the supplied switch may be made using the V3303 terminals. Use installer supplied wire to connect the secondary piece of equipment. The wire connects to the microswitch using the V3303 terminals. If the wire is routed through the knock-out in the back plate, use a V3805 STRAIN RELIEF COVER KIT.

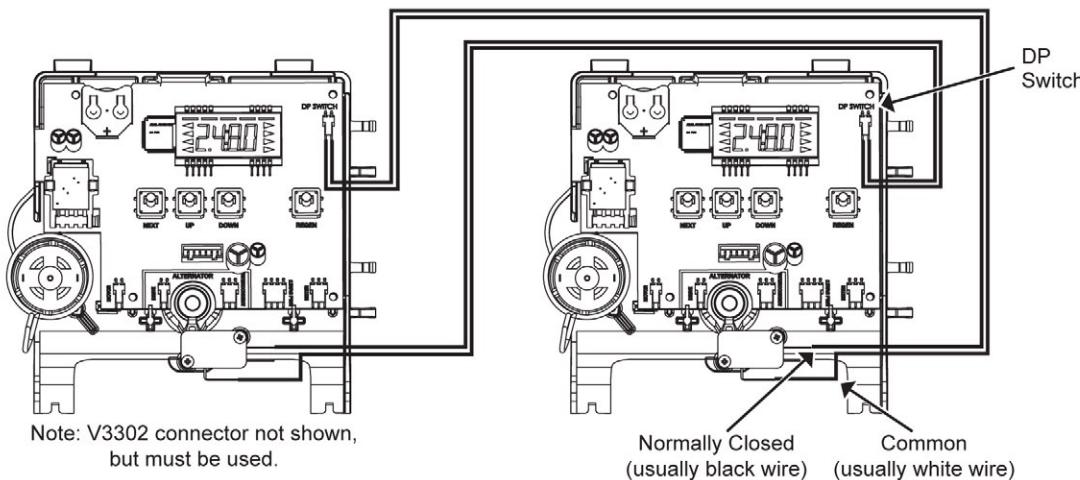
Order No. V3017
Description: WS2 SERVICE OR FILL SWITCH ASY

SETUP B

The V3017 can be used to connect two WS2 valves together to prevent both valves from regenerating at the same time. Each WS2 valve must have the following:

- Program both WS2 valves so the DP option is set to HoLD.
- Install the washer on the piston rod in the correct orientation on each valve. Remove the switch actuator on each drive bracket.
- Two V3017 switch kits are needed, one installed on each WS2 valve drive bracket. Nip off the shorter actuator to allow room to make wire connections to the microswitch. Orientate the actuator so the word SERV is pointed towards the valve and up so the longer actuator is in contact with the piston rod. Attach the microswitch/actuator combination to the drive bracket using the screws. Do not over-tighten screws.
- Use two V3473 cords and attach V3303 terminals to each wire. Because the V3303 terminals are unshielded, make sure the connection is made using the plastic V3302 connector. For each WS2 valve connect the end with the DP connector to one valve and the V3303 terminal end to the switch kit on the other WS2 valve (see Figure B1). Connect one wire with the V3303 terminal to the common end of the microswitch and the other wire to the normally closed end of the microswitch. Because the DP connector is a dry contact the color of the wire does not matter.
- If the wire is routed through the knock out in the back plate, use two of the V3805 STRAIN RELIEF COVER KIT's (one on each valve).

Figure B1



SETUP C

The V3017 can be used to connect two WS2 valves together so that when one WS2 valve (designated as the primary control valve) is in the refill cycle a signal is sent to the other WS2 valve (designated as the secondary control valve) to begin its regeneration cycle.

If the system containing the primary WS2 valve is to regenerate before the system containing the secondary WS2 valve then the following must occur:

- Program the primary WS2 valve so that the Fill cycle occurs after the regeneration (i.e. Post fill). The primary WS2 valve must be programmed for at least 2 minutes of Fill.
- The PC board on the secondary WS2 valve must have a two-pin connection.
- Program the secondary WS2 valve so that the regeneration starts only when the primary WS2 valve is in the Fill cycle. This can be accomplished by programming the valve so that the days between regenerations are far enough apart to prevent premature regeneration. If the secondary WS2 valve has a meter, make sure that the volume capacity is set to "oFF". Also program the secondary WS2 valve so that the DP switch is set to regenerate immediately.
- Complete the following steps:
 - On the primary WS2 valve, install the washer on the piston rod in the correct orientation. Remove the switch actuator on the drive bracket.
 - Nip off the longer actuator to allow room to make wire connections to the microswitch. Orientate the actuator so the word FILL on the actuator is pointed towards the valve and up so the shorter actuator is in contact with the piston rod. On the primary WS2 valve attach the microswitch/actuator combination to the drive bracket using the screws. Do not over-tighten screws.
 - Use a V3473 cord and attach a V3303 terminal to each of the two wire ends. Because the V3303 terminals are unshielded, make sure the connection is made using the plastic V3302 connector. Connect the end with the DP connector to the secondary WS2 valve and the V3303 terminal end to the switch kit on the primary WS2 valve. Connect one wire with the V3303 terminal to the common end of the microswitch and the other wire to the normally open end of the microswitch. Because the DP connector is a dry contact the color of the wire does not matter.
 - If the wire is routed through the knock out in the back plate, use two of the V3805 STRAIN RELIEF COVER KIT's (one on each valve).
 - Test the assembly for proper operation. Press and hold the REGEN button on the primary WS2 valve. After the motor stops running press REGEN to step through the cycles until the primary WS2 valve is in the Fill cycle. The secondary WS2 valve should begin its regeneration cycle in 2 minutes. If the secondary WS2 valve does not begin its regeneration cycle in 2 minutes, check the orientation of the washer, the interconnect cord connections and the secondary valve programming.