

# COMPOSITE MOTORIZED ALTERNATING VALVE INSTALLATION GUIDE

V3034 WS1.5P MOTOR ALT VLV

V3036 WS2 PLASTIC MAV ASSY

**WARNING: USE ONLY SILICONE-BASED LUBRICANTS ON ALL CLACK CORPORATION COMPONENTS**  
HYDROCARBONS WILL DAMAGE COMPONENTS THAT CONTAIN O-RINGS AND OR PLASTIC. THIS CAN CAUSE  
LEAKS OR BREAKAGE. DO NOT USE LUBRICANTS THAT CONTAIN HYDROCARBONS SUCH AS VASELINE®/  
PETROLEUM JELLY, WD-40®, ETC. DO NOT USE CLACK CONTROL VALVE PRODUCTS ON WATER SUPPLIES THAT  
CONTAIN HYDROCARBONS, SUCH AS BENZENE, GASOLINE, KEROSENE, ETC.

**OPERATING PRESSURES: 20 PSI - 125 PSI**

**OPERATING TEMPERATURES: 40°F - 110°F**

## PARTS INCLUDED:

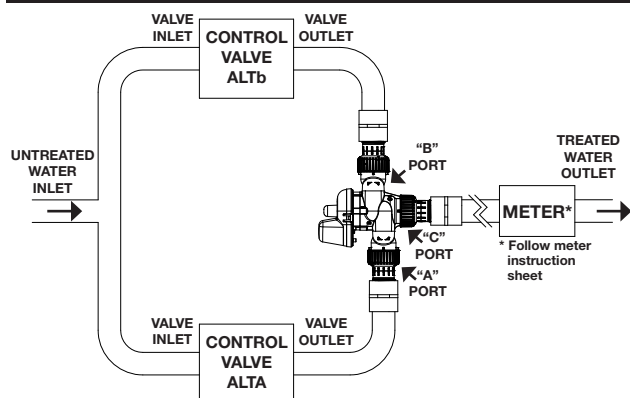
MAV • MOTORIZED ALTERNATING VALVE  
V3474 • WS ALT CONNECT CORD 8 FT BLK  
V3805 • STRAIN RELIEF COVER KIT

If the control valve manual does not include programming instructions for setting up Simple Twin Alternating (ALT A and ALT B), Separate Source (SEPS), or No Hard Water Bypass (NHBP), please contact your local equipment supplier for current instructions.

**Cables:** To bring in additional cables through the back plate, first locate the strain relief knockout on the inside of the back plate (lower-right side). Use a punch and hammer to remove the knockout. Remove one or both tabs in the strain relief on the back of the back plate with a needle nose pliers. Bring the additional cables through the knockout hole through the back plate and connect each cable to the proper location on the PCB. This will determine how much slacks needed in the cable before weaving into the strain relief. Once cables are weaved into the strain relief, use the V3805 strain relief cover kit (provided) and follow instructions for installation.

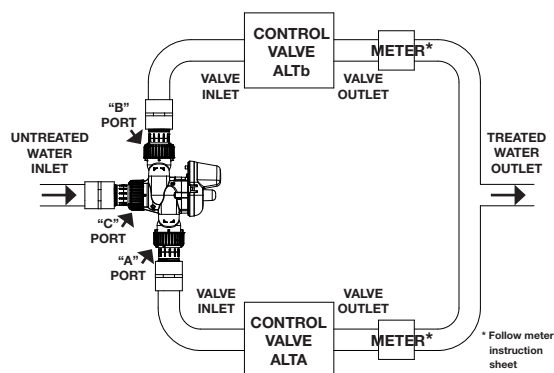
**MAV—Simple Twin Alternator:** This system allows one valve to be in service (online), while the second valve remains in standby (offline). Thread the V3474 Connect Cord through the back plate and connect to the PCB three-pin connector labeled COMM CABLE on each valve programmed ALT A and ALT B. Thread the MAV cable through the back plate and connect to the PCB two-pin connector labeled MAV on the valve programmed ALT A. If the control valve is in an error state during regeneration mode, the MAV will close the B port and keep open the A port until the errors corrected and reset.

## REGENERATION WITH HARD WATER

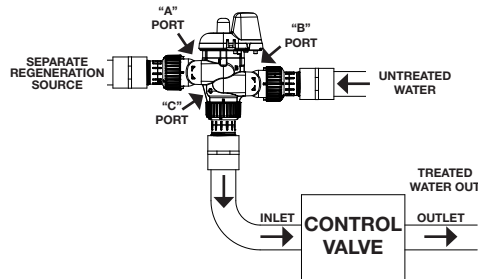


## REGENERATION WITH SOFT WATER

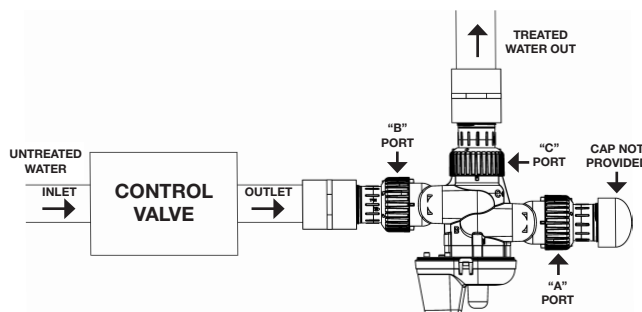
Note: WS2 and WS2QC valve cannot be used in this type of installation.



**MAV—Separate Source Regeneration:** This system allows a separate water source used for regeneration. When in Service Mode, the MAV will close water flow between the A port and C port (separate regeneration source) and open water flow between the B port and C port (untreated water). Thread the MAV cable through the back plate and connect to the PCB two-pin connector labeled MAV. Program the valve as SEPS. If the control valve enters an error during regeneration mode, the MAV will remain in its current state until the errors corrected and reset.



**MAV—Convert to No Bypass Valve:** To allow the MAV to operate as a No Hard Water Bypass, install a plug in the A port. This shuts off water to the outlet during regeneration. Thread the MAV cable through the back plate and connect to the PCB two-pin connector labeled MAV. Program the valve as NHBP. The MAV will close before the first regeneration cycle that is not FILL, SOFTENING, or FILTERING and open after the last regeneration cycle that is not FILL. If the control valve enters an error state during regeneration mode, the MAV will remain in its current state until the errors corrected and reset.



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## 1.5" MAV • V3034 WS1.5P MOTOR ALT VLV

| Drawing No. | Order No. | Description                          | Qty. |
|-------------|-----------|--------------------------------------|------|
| 1           | V3073     | MAV/NOHWBY COVER ASY                 | 1    |
| 2           | V3476     | WS MOTOR ASY 8 FT                    | 1    |
| 3           | V3592     | SCREW #8-3/4 PHPN T-25 SS            | 3    |
| 4           | V3262-01  | WS1.5&2ALT/2BY REDUCGEARCVASY        | 1    |
| 5           | V3110-01  | WS1 DRIVE REDUCING GEAR PLAIN        | 3    |
| 6           | V3264     | WS2 BYPASS REDUCTION GEAR AXLE       | 3    |
| 7           | V3527     | SCREW 1/4-20 X 3/4 BHSCS SS          | 4    |
| 8           | V3072     | MAV/NOHWBY 1/125/15 DRIVE ASY        | 1    |
| 9           | V3506-01  | MAV/NOHRD 1/125/15 PISTON            | 1    |
| 10          | V3074     | MAV 1/125/15 STACK ASY               | 1    |
| 11          | V4368     | WS1.5P MAV BONDED BODY               | 1    |
| 12          | V3042     | WS1/1.25/1.5 MAV & NHWB SERVICE PACK |      |
| Not Shown   | V3474     | WS ALT CONNECT CORD 8FT BLK          | 1    |
|             | V3805     | STRAIN RELIEF COVER KIT              |      |

## 2.0" MAV • V3036 WS2 PLASTIC MAV ASSY

| Drawing No. | Order No. | Description                    | Qty. |
|-------------|-----------|--------------------------------|------|
| 1           | V3073     | MAV/NOHWBY COVER ASY           | 1    |
| 2           | V3476     | WS MOTOR ASY 8 FT              | 1    |
| 3           | V3592     | SCREW #8-3/4 PHPN T-25 SS      | 3    |
| 4           | V3262-01  | WS1.5&2ALT/2BY REDUCGEARCVASY  | 1    |
| 5           | V3110-01  | WS1 DRIVE REDUCING GEAR PLAIN  | 3    |
| 6           | V3264     | WS2 BYPASS REDUCTION GEAR AXLE | 3    |
| 7           | V3642     | SCREW 1/4-20 X 1 1/4 BHSCS SS  | 4    |
| 8           | V3078     | MAV/NOHWBY 2 DRIVE ASY         | 1    |
| 9           | V3634-01  | MAV/NOHWBY 2 PISTON            | 1    |
| 10          | V3077     | WS2 MAV STACK ASSEMBLY         | 1    |
| 11          | V4474     | WS2 PLASTIC MAV BODY NPT       | 1    |
| 12          | V3043     | WS2 MAV & NHWB SERVICE PACK    |      |
| Not Shown   | V3474     | WS ALT CONNECT CORD 8FT BLK    | 1    |
|             | V3805     | STRAIN RELIEF COVER KIT        |      |

