

# Motorized Alternating Valve

## Installation Guide for EE and EI



**V3069FF-01 • 1" and 1.25"**



**V3069MM-01 • 1" and 1.25"**

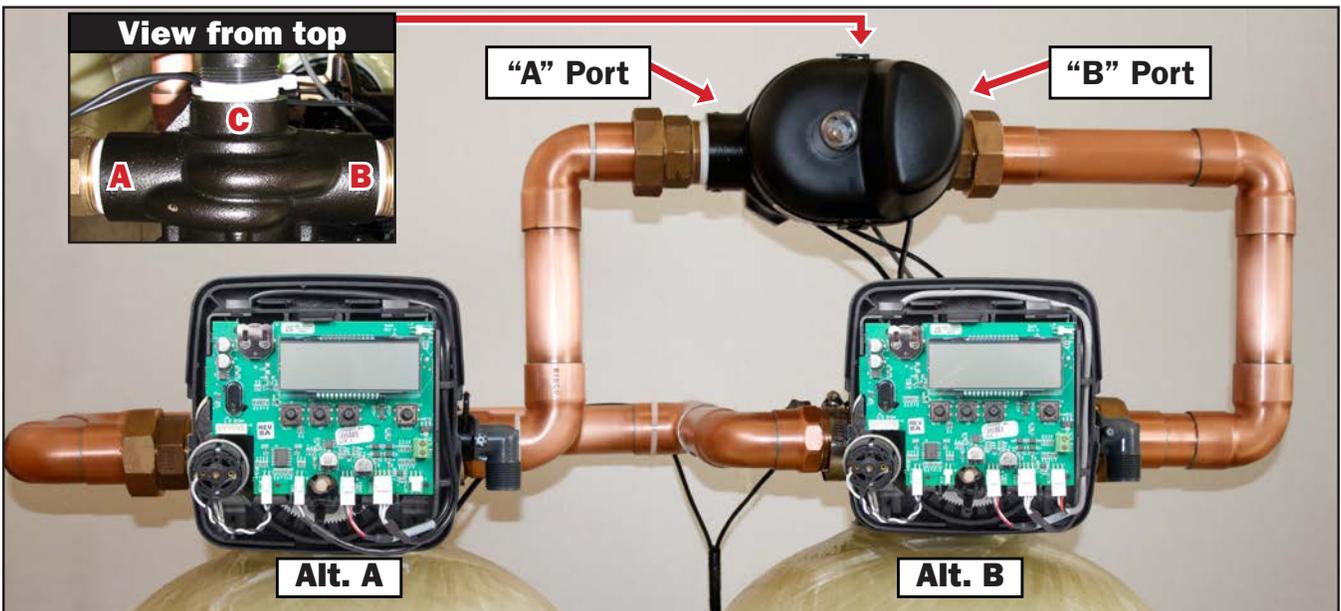


**V3071 or V3071BSPT**  
**1.5"**



**V3076 or V3076BSPT**  
**2"**

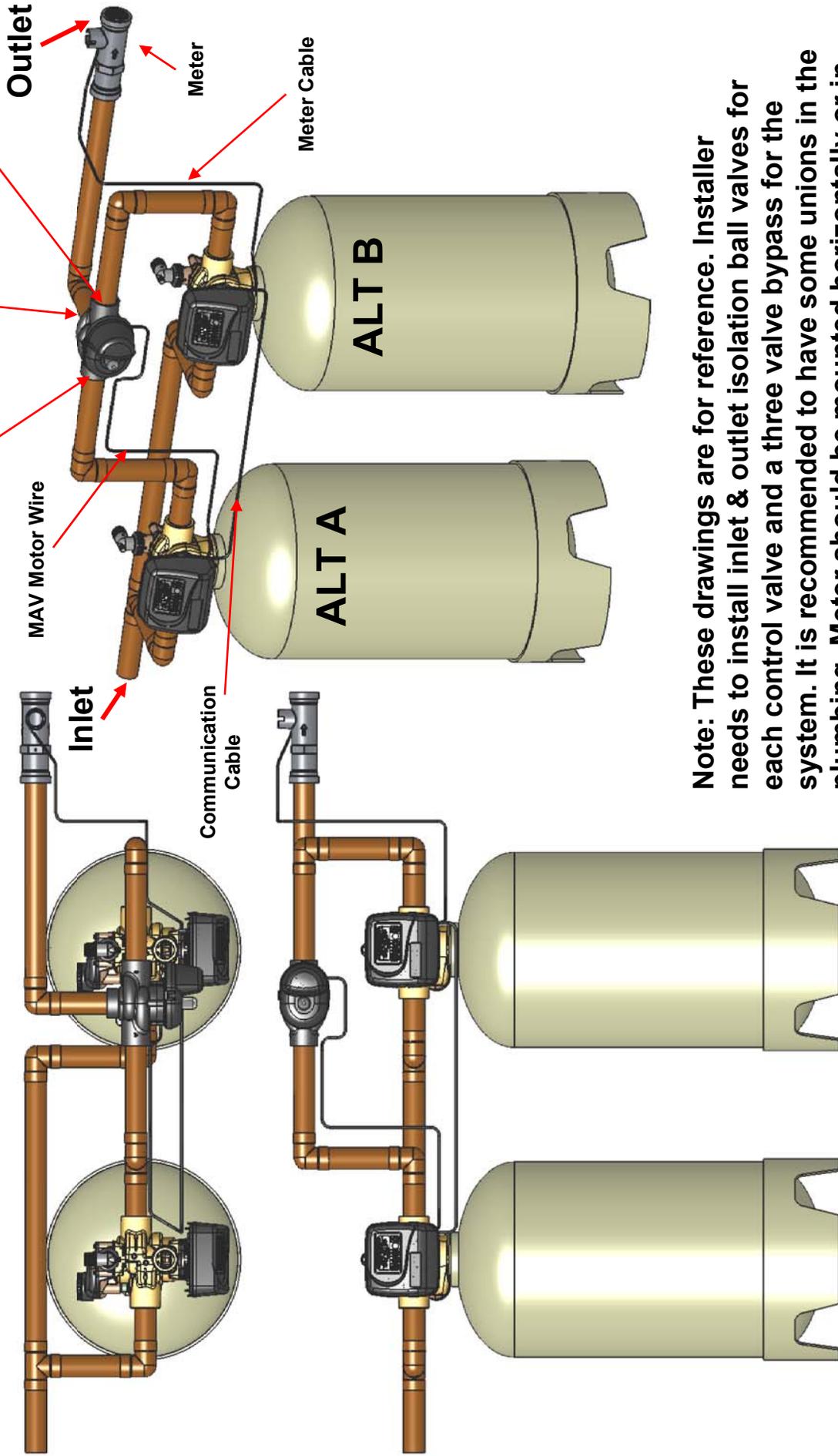
# M.A.V. Installation Guide



OPERATING PRESSURES: 20 PSI MINIMUM / 125 PSI MAXIMUM · OPERATING TEMPERATURES: 40°F MINIMUM / 110°F MAXIMUM

1. Plumb the Motorized Alternating valve according to the photo and drawing attached.  
**NOTE: The Control Valve connected to the "A" port on the Motorized Alternating Valve must be designated "Alt A" during programming. The Control Valve connected to the "B" port on the Motorized Alternating Valve must be designated "Alt B" during programming.**

V3076 MAV and WS2 valves shown. Diagram is typical for WS1.5, WS2L, or WS2 valves using V3071 or V3076 piston style MAV's and regenerating with hard water.



**Note:** These drawings are for reference. Installer needs to install inlet & outlet isolation ball valves for each control valve and a three valve bypass for the system. It is recommended to have some unions in the plumbing. Meter should be mounted horizontally or in a downflow vertical position to reduce bearing wear.

# M.A.V. Installation Guide

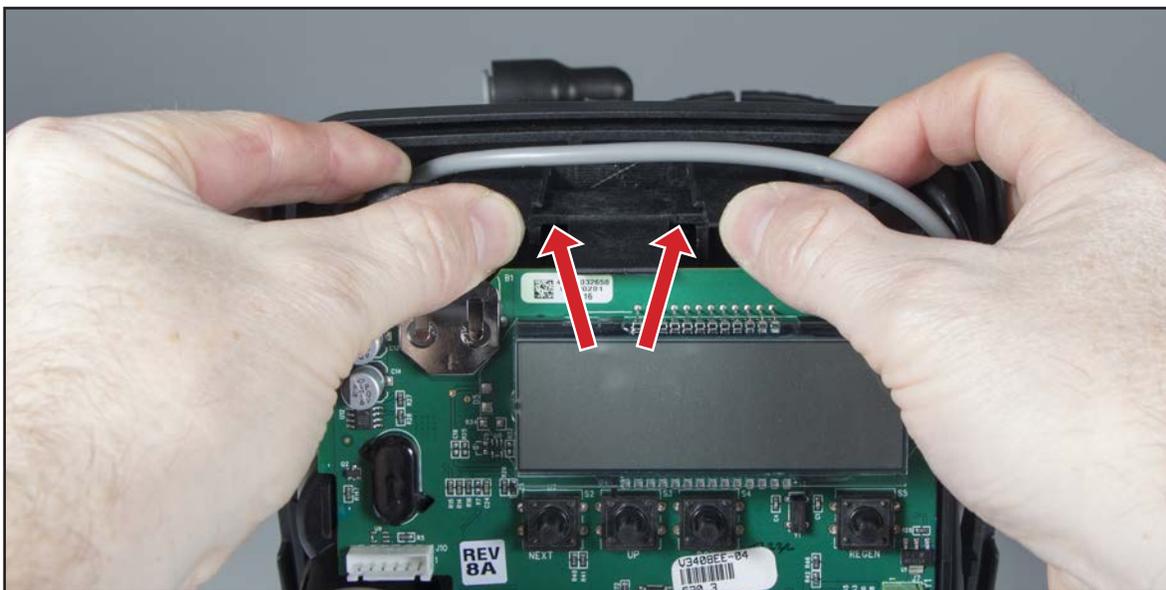
2. Before connecting the meter, motorized alternating valve (MAV), and interconnect cables, it is necessary to remove the front cover and drive bracket assemblies for each control valve.



- 2a. Remove front cover from each control valve. Pull out on each covers release tabs located on each side of the cover and pull cover off.

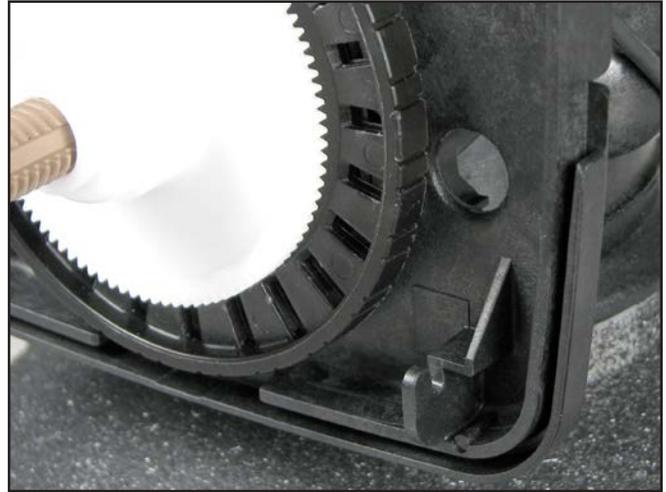


- 2b. Disconnect power and meter cables from each PC Board.



- 2c. Remove drive bracket assembly by pressing up on the drive bracket's release tabs and pulling out on the top tabs the drive bracket should come forward for removal.

# M.A.V. Installation Guide



3. Once drive bracket is removed, locate knockout on backplate. You can use a punch or a Phillips screw driver and place it in the center of the knockout circle and tap it with a mild to medium force with a hammer to punch out circle knockout piece.



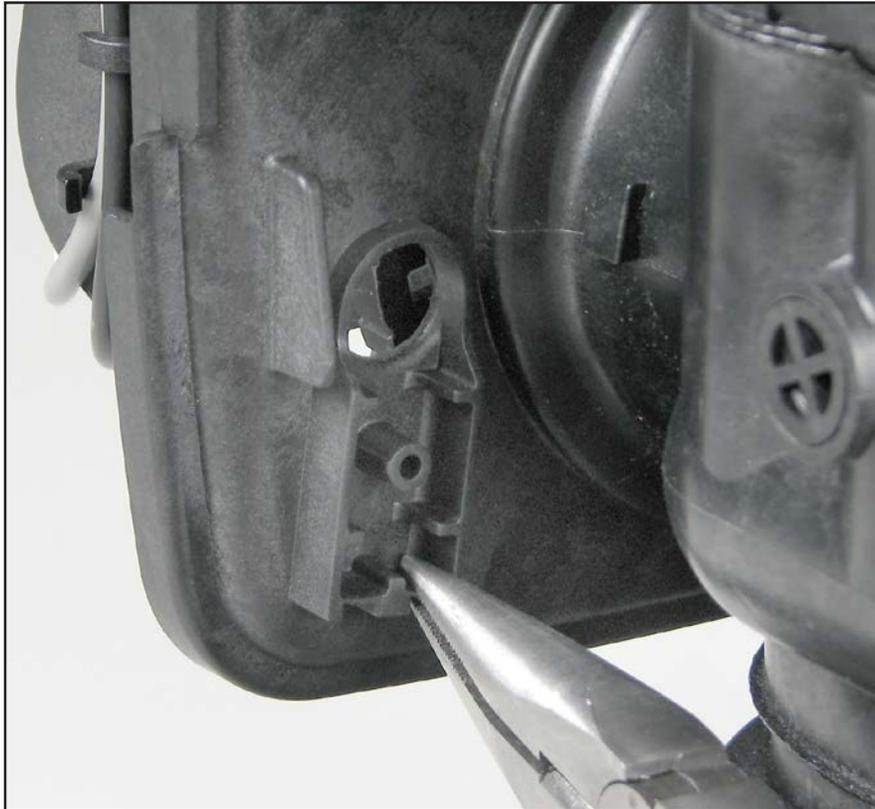
4. Re-install drive bracket assemblies and re-connect any disconnected wires back to the proper location on each PC Board.

# M.A.V. Installation Guide

## Alt. A



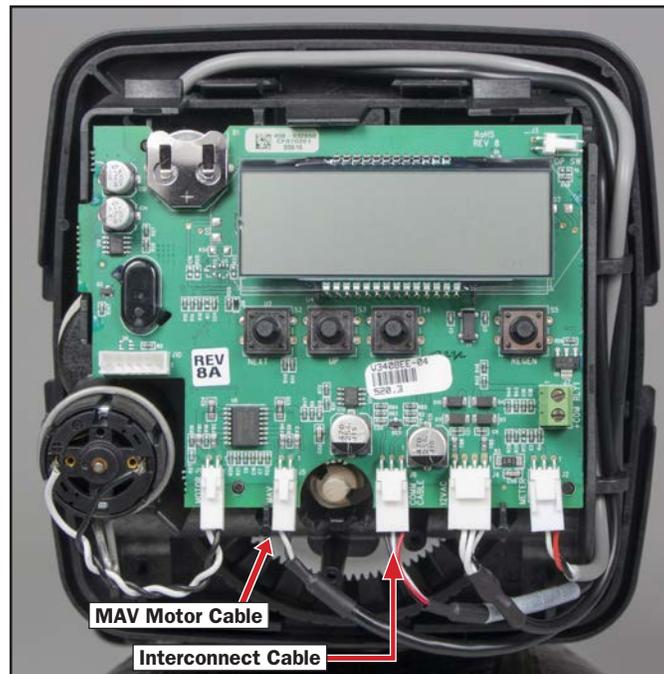
5. On the backside of “ALT A’s” backplate, located on the lower left hand side, are the strain relief and knockout hole. These allow you to bring through the MAV valves motor cable and one end of the interconnect cable.



**NOTE:** Since two extra cables need to come to control valve “ALT A” you will need to take pliers and break out the tabs at the bottom of the strain relief on the backside of the backplate.

# M.A.V. Installation Guide

## Alt. A



6. Connect the MAV motor cable to the two pin connector labeled “DRIVE” on the PC Board and connect the interconnect cable to the three pin connector labeled “INTERCONNECT CABLE” on the PC Board on control valve “ALT A”.



- 6a. After connecting the cables you will need to weave the wires through the strain relief on the backside of the backplate. Then you take the strain relief cover and screw and fasten the cover over the top of the strain relief. The cover and screw (V3805) which two are supplied with V3069FF-01, V3069MM-01, V3071, V3071BSPT, V3076 and V3076BSPT MAV valves.

# M.A.V. Installation Guide

## Alt. B



7. For control valve "ALT b" the other end of the interconnect cable needs to be routed through the knockout hole on the backside of the backplate. Connect the end of the interconnect cable to the three pin connection labeled "INTERCONNECT CABLE" on the PC Board.



8. On the backside of "ALT b" you will need to breakout only one tab at the bottom of the strain relief for 1" and 1.25" control valves. This will allow to weave the interconnect cable down through the strain relief so you can install and fasten the strain relief cover over the top of the strain relief. See step 9 (pg. 9) for 1.5" and 2" control valves.

# M.A.V. Installation Guide

**Alt. A**



**Alt. B**



Boards	2-Wire Alternator Cable	3-Wire Alternator Cable	
		Meter on each valve (typically seen on 1" and 1.25" valves)	One Meter serves both valves (typically seen on 1.5" and 2" valves)
<b>EE</b>	518.3 or lower	518.3 or lower	519.0 or higher
<b>EI</b>	616.6 or lower	616.6 or lower	618.3 or higher

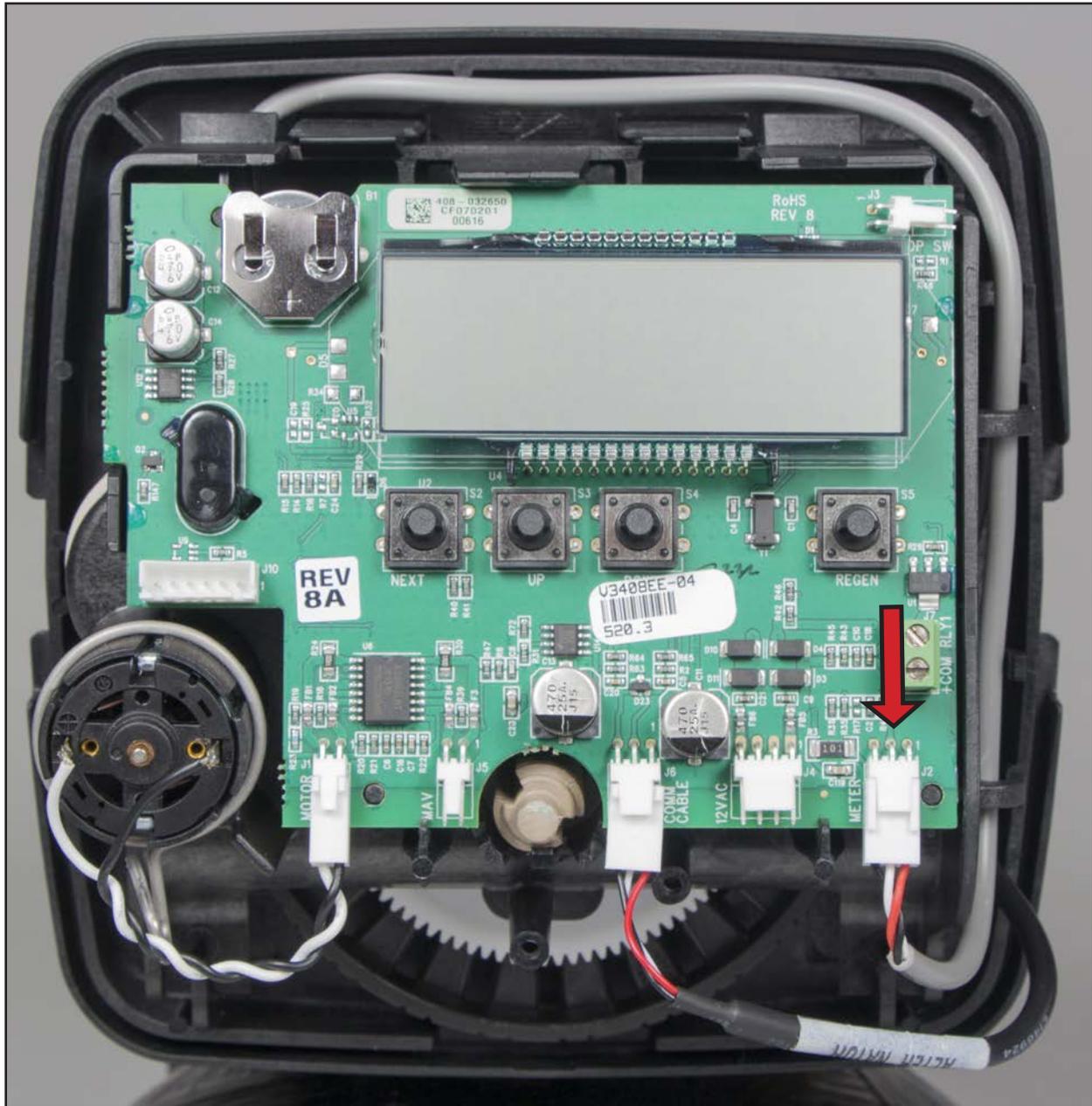
**Note:** For customers that have a 3-wire cable, but need a 2-wire cable, cut the Black wire back on each end to make a 2-wire cable.

For customers that need a 3-wire cable any of the following cables could be used:

- V3474      WS ALT CONNECT CORD 8FT BLK
- V3475-12    WS2H/3 SYSCONNECTCORD 12FT RED
- V3475-24    WS2H/3 SYSCONNECTCORD 24FT BLUE
- V3475-36    WS2H/3 SYSCONNECTCORD 36FT YELLOW

# M.A.V. Installation Guide

## Alt. B



9. **SINGLE METER APPLICATIONS:** Bring meter cable through knockout hole with interconnect cable and connect the 15' water meter cable to the three pin connection labeled "METER" on the "ALT b" control valve to make wiring easier. However, the meter can be connected to either "ALT A" or "ALT b". Connect the interconnect cable to the three pin connection labeled "INTERCONNECT CABLE".

# M.A.V. Installation Guide



9a. Breakout second tab of "ALT b" strain relief on the backside of the backplate to allow the water meter cable to be weaved through.



9b. Then fasten the strain relief cover over the top of the strain relief.

# M.A.V. Installation Guide

Alt. A



Alt. B



10. Make sure all wires are connected to proper PC Board connections before programming.