Motorized Alternating Valve
Installation Guide for EE and EI

V3069FF • 1” and 1.25”

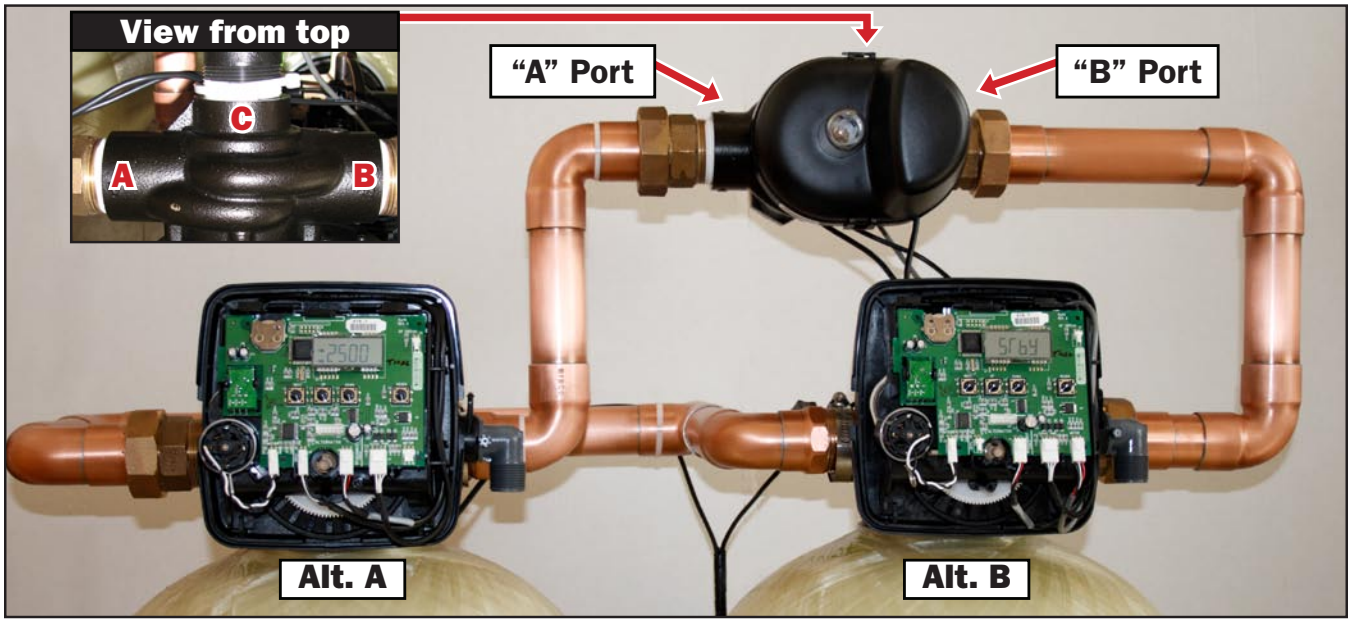
V3069MM • 1” and 1.25”

V3071 or V3071BSPT
1.5”

V3076 or V3076BSPT
2”

Clack®

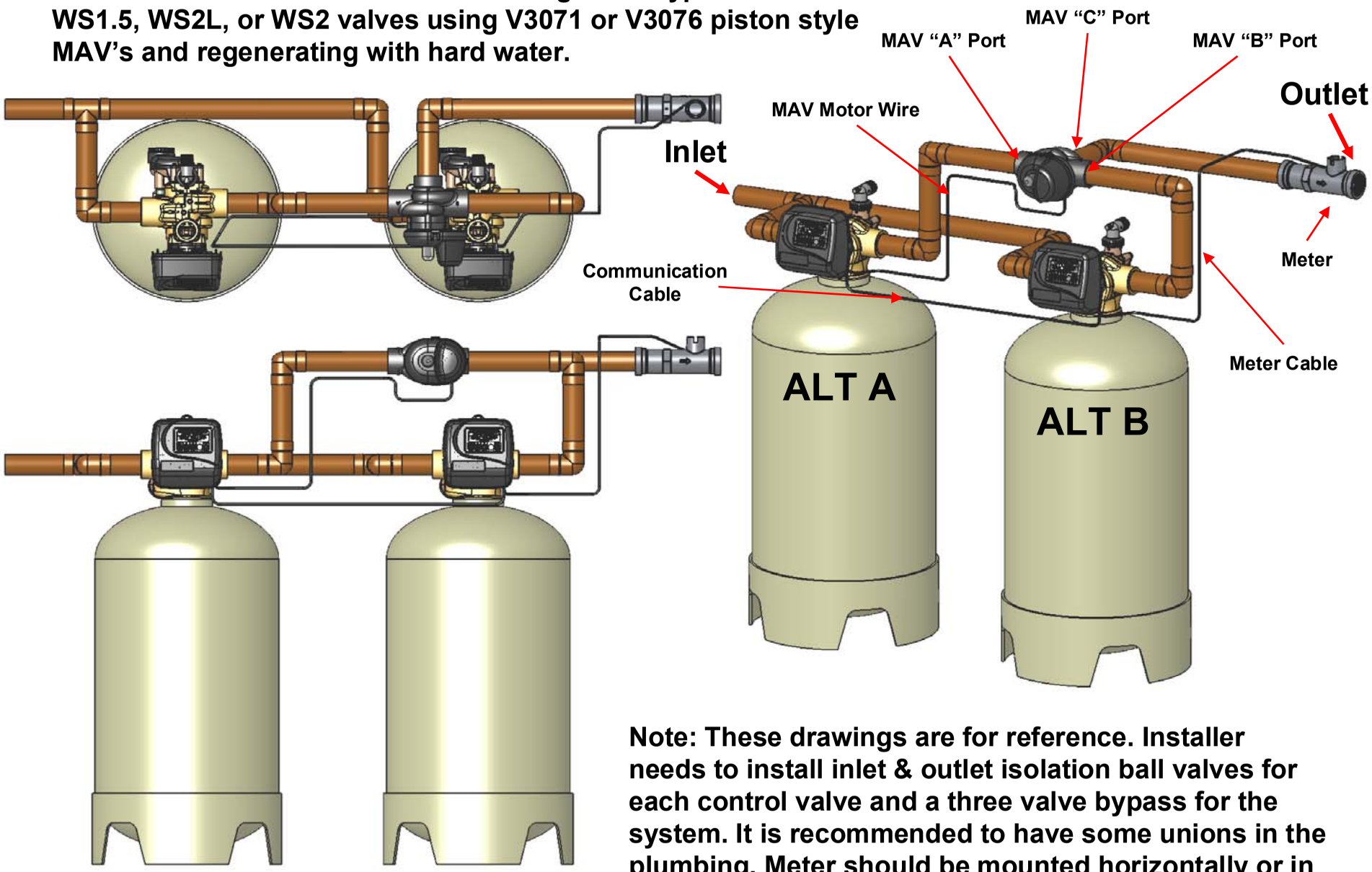
M.A.V. Installation Guide



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.

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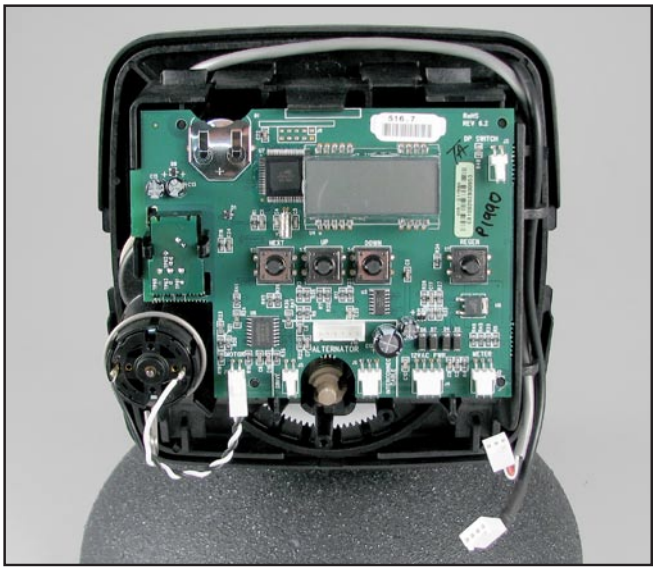
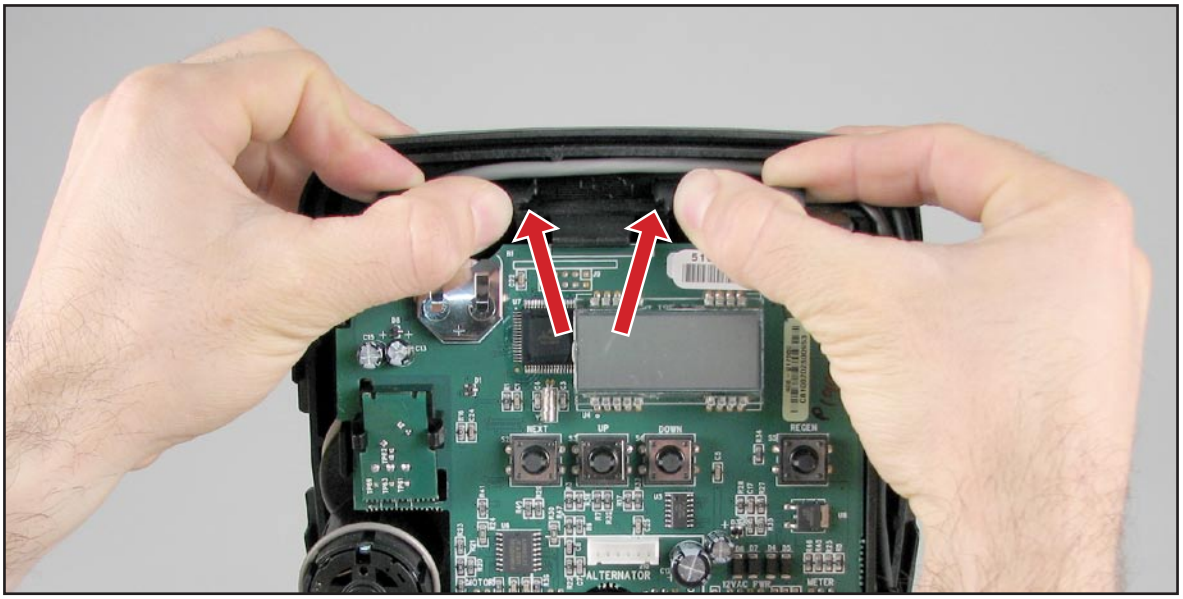
2. Before connecting the meter, motorized alternating valve (MAV), and interconnect cables, it is necessary to remove the front cover and drive bracket assemblies for each control valve.

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.

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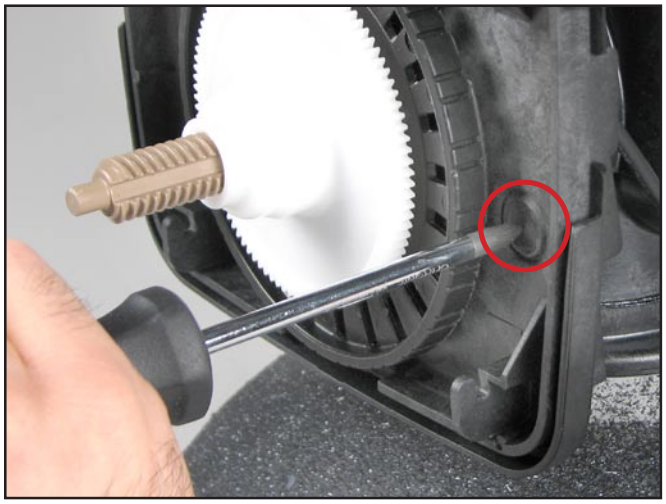
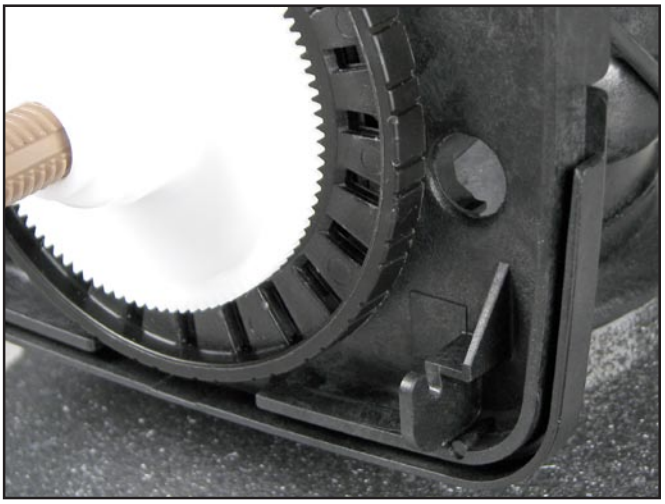
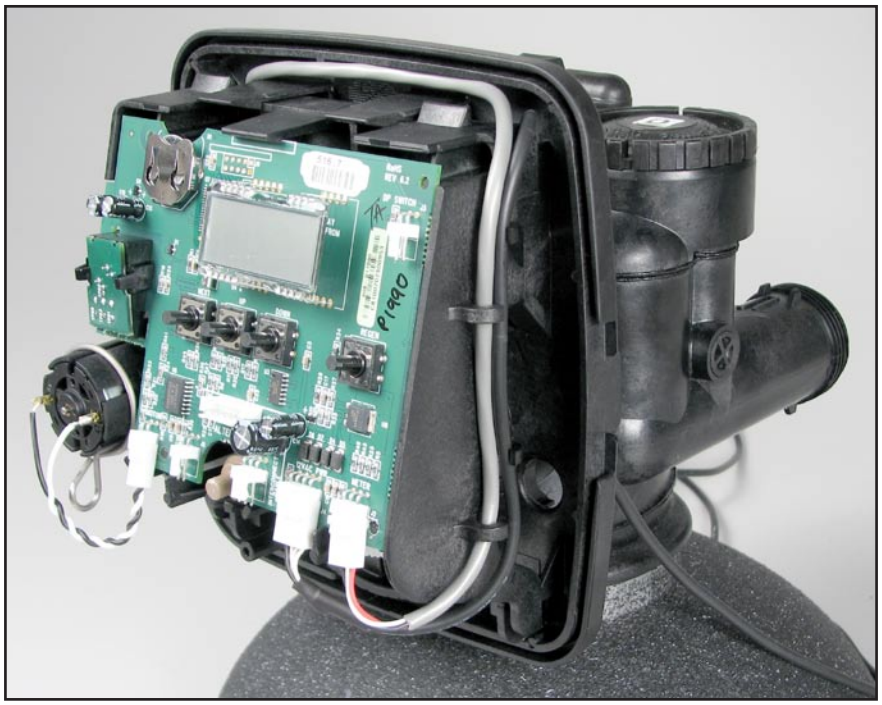




3. Once drive bracket is removed, locate knockout on backplate. You can use a punch or a Phillips screw driver and place it in the center of the knockout circle and tap it with a mild to medium force with a hammer to punch out circle knockout piece.



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

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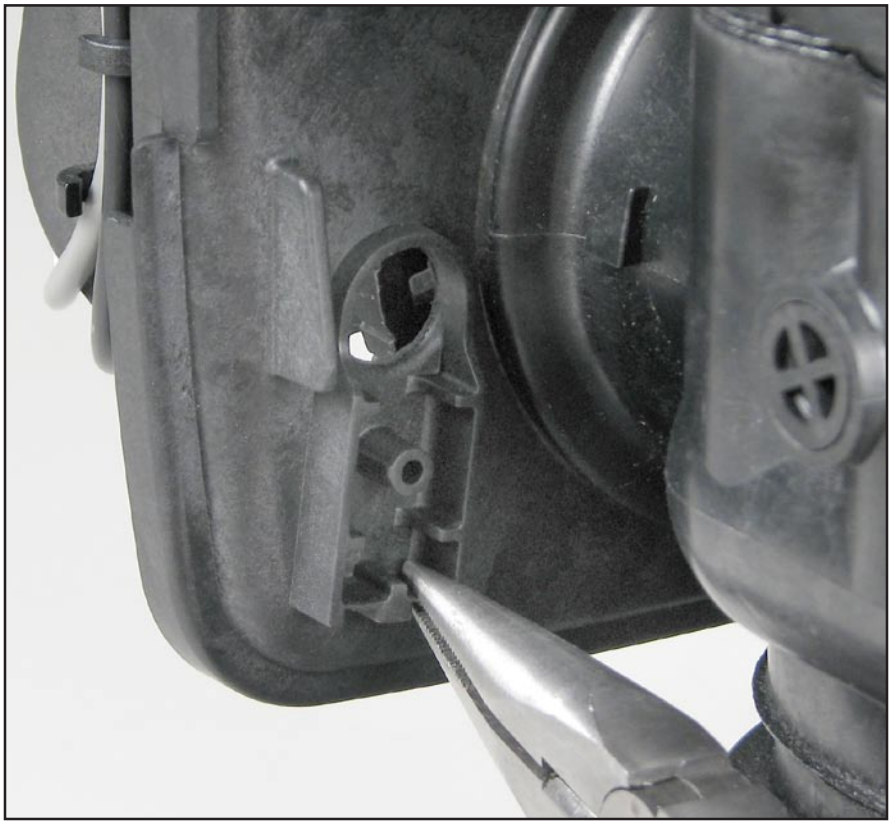
Alt. A

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.

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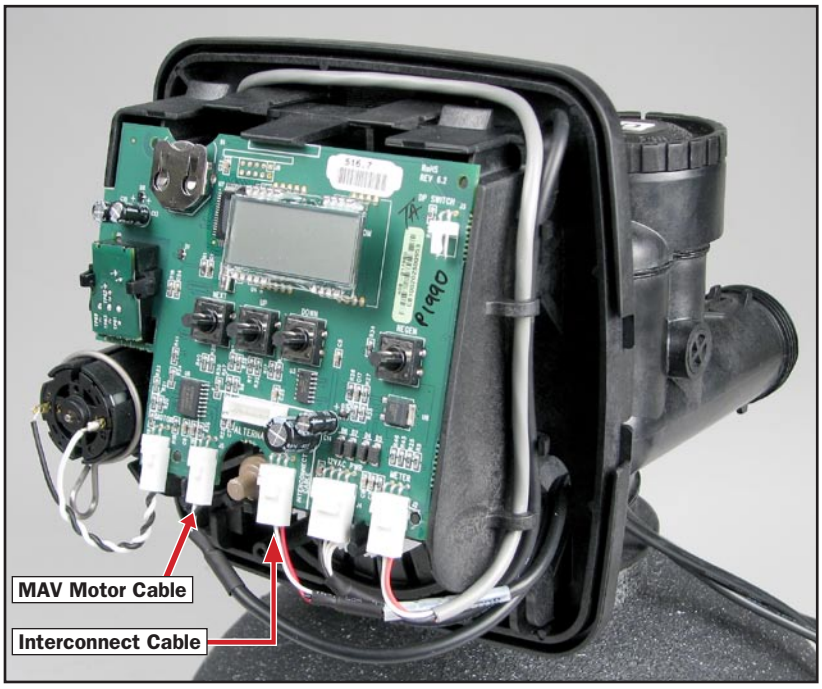
Alt. A



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, V3069MM, V3071, V3071BSPT, V3076 and V3076BSPT MAV valves.

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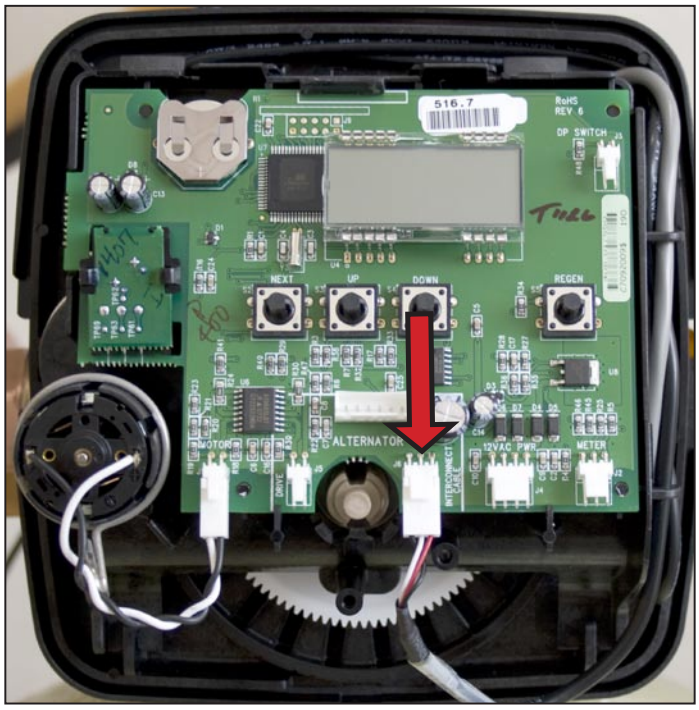
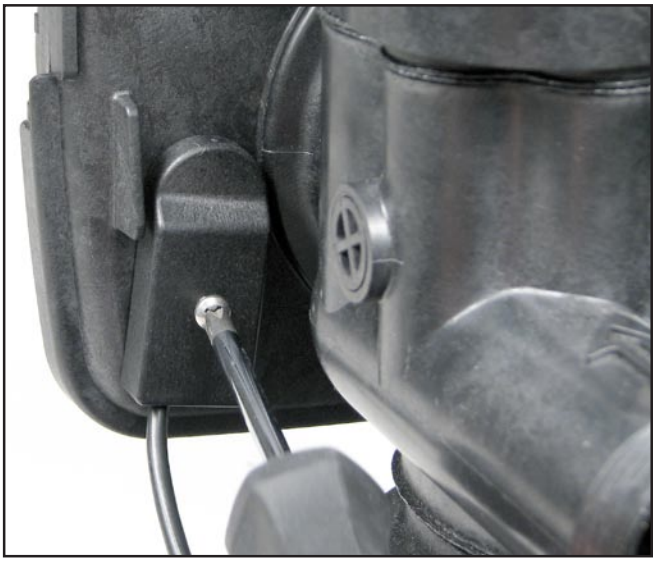
Alt. B



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.

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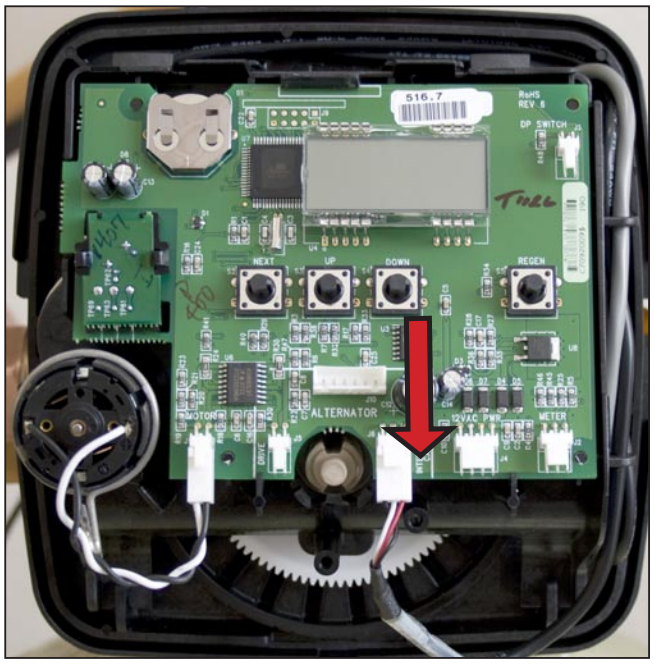
Alt. A

Alt. B



NOTE:

SINGLE METER APPLICATIONS: When using a single meter (typically 1.5” and 2”) with the motorized alternating valve it is necessary to use a three wire interconnect cable P/N V3474 between the control valves. The black wire (the one closest to the cut out on the circuit board) is used to send the meter signal to the other control valve.

DUAL METER APPLICATIONS: When using two meters one on each control valve it is necessary to use a two wire interconnect cable P/N V3474-01 between the control valves. The black wire (the one closest to the cut out on the circuit board) is removed being each control receives its own meter signal. Using a three wire interconnect cable with dual meters will cause the controls to go into an ERROR. A three wire interconnect cable could be used on a dual meter application by removing or cutting the black wire (the one closest to the cut out on the circuit board) from the three wire pin connector.

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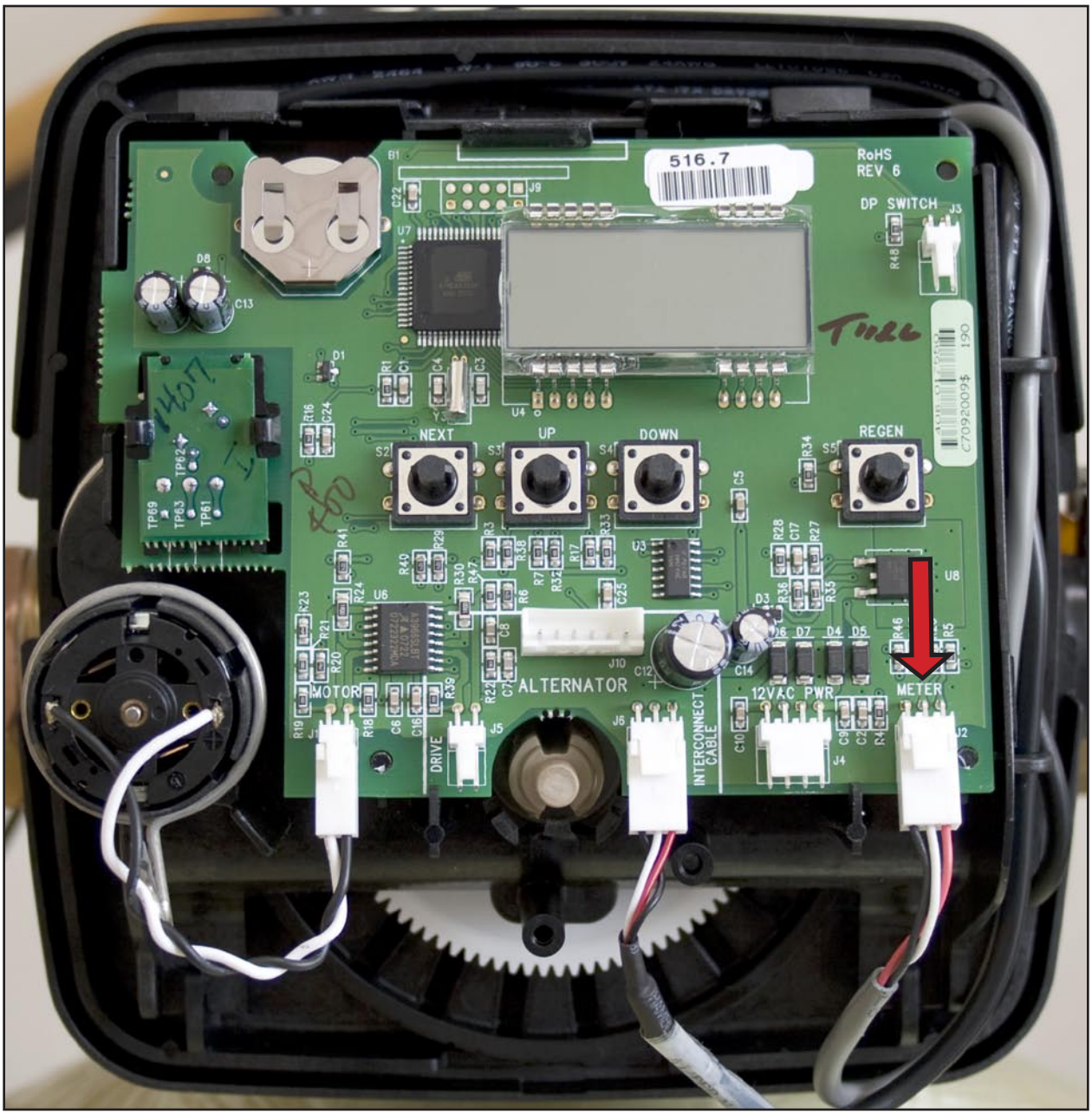
Alt. B



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”.

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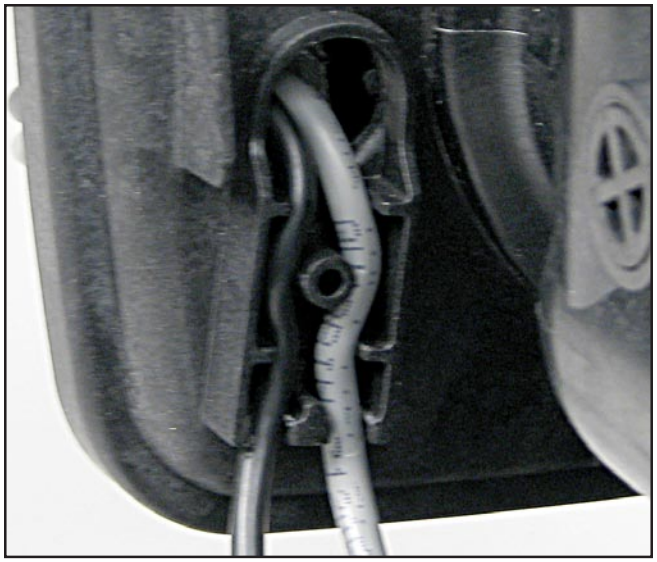

9a. Breakout second tab of “ALT b” strain relief on the backside of the backplate to allow the water meter cable to be weaved through.

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

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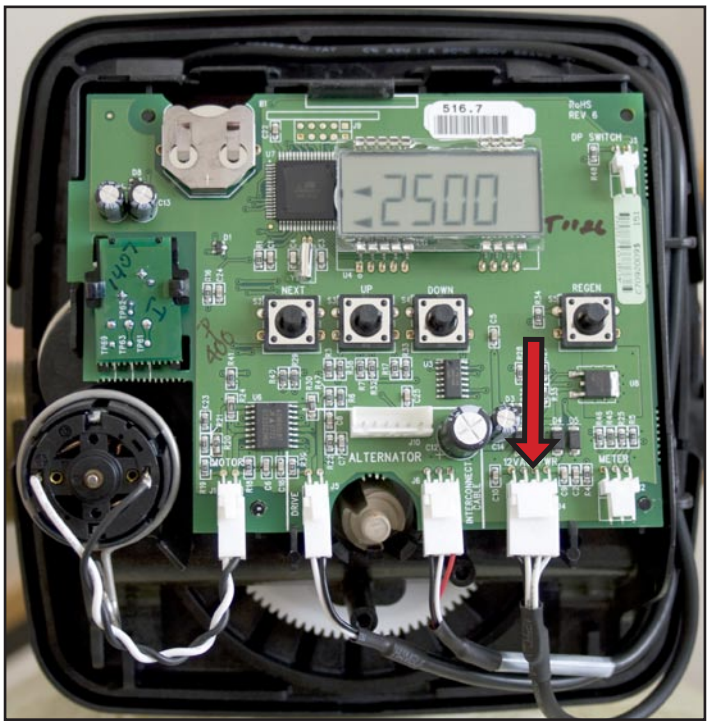
Alt. A



Alt. B

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