

**Order No. V3069FF • Description: MOTOR ALT VLV 1/125 F-F**  
**or**  
**Order No. V3069MM • Description: MOTOR ALT VLV 1/125 M-M**

Clack Item Number	Software Minimum Rev Level	Before using V3069FF or V3069MM with EE, EI, or CI valves, press and hold NEXT and REGEN to verify that the software has the minimum rev level shown in the table.
V3408EE-01BOARD	513.7	
V3408EI-01BOARD	613.5	
V3108CI-02BOARD	316.9	

Plan the position of the motorized alternator valve and control valves (each with their own meter) carefully because of the following:

- The 8' alternator valve motor cable (V3476) must be threaded through the back plate and connected to the two pin connector labeled DRIVE on the ALT A control valve board. Approximately 1' of the cable length should be allowed for weaving through the back plate.
- The 8' interconnect cable (V3474-01) must be threaded through the back plates and connected to the three pin connector labeled INTERCONNECT CABLE on both the ALT A and ALT b control valves. Approximately 2' of the cable length (1' for each control valve) should be allowed for weaving through the back plate. NOTE: Although the interconnect cable V3474-01 has two wires, it must be connected to the three pin connector.
- The 15' AC Adapter or power cable must be thread through the back plate of both the ALT A and ALT b control valves. Approximately 1' of the cable length should be allowed for weaving through the back plate. The AC adapter should be installed to a properly grounded, not switched, outlet.

Try to allow sufficient slack in cables so cables may be zip tied to plumbing lines to prevent the cables from being accidentally pulled. Where necessary, break out the tab in the back plate to allow two cables to be woven through the same slot in the back plate. No more than two cables may be woven through one back plate slot. To help prevent damage to cables, allow solder joints to cool or solvent cement joints to cure after completing the various service, drain and regenerant plumbing connections. Thread the various cables through the appropriate back plate(s) and connect as described in the bullets above.

**Service Water Plumbing Connections**

See exploded view for fitting connections.

Connect the water service line to the water inlet of control valves programmed as ALT A and ALT b.

Connect the outlet of the control valve programmed as ALT A to the port labeled A on the alternator valve.

Connect the outlet of the control valve programmed as ALT b to the port labeled B on the alternator valve.

ALT A control valve is in service when the threaded portion of the motorized alternating valve drive gear is not visible in the clear dome of the cover.

Note: Refer to Motorized Alternating Valve and No Hard Water Bypass Valve Configurations chart for installing valve in no hard water bypass applications.

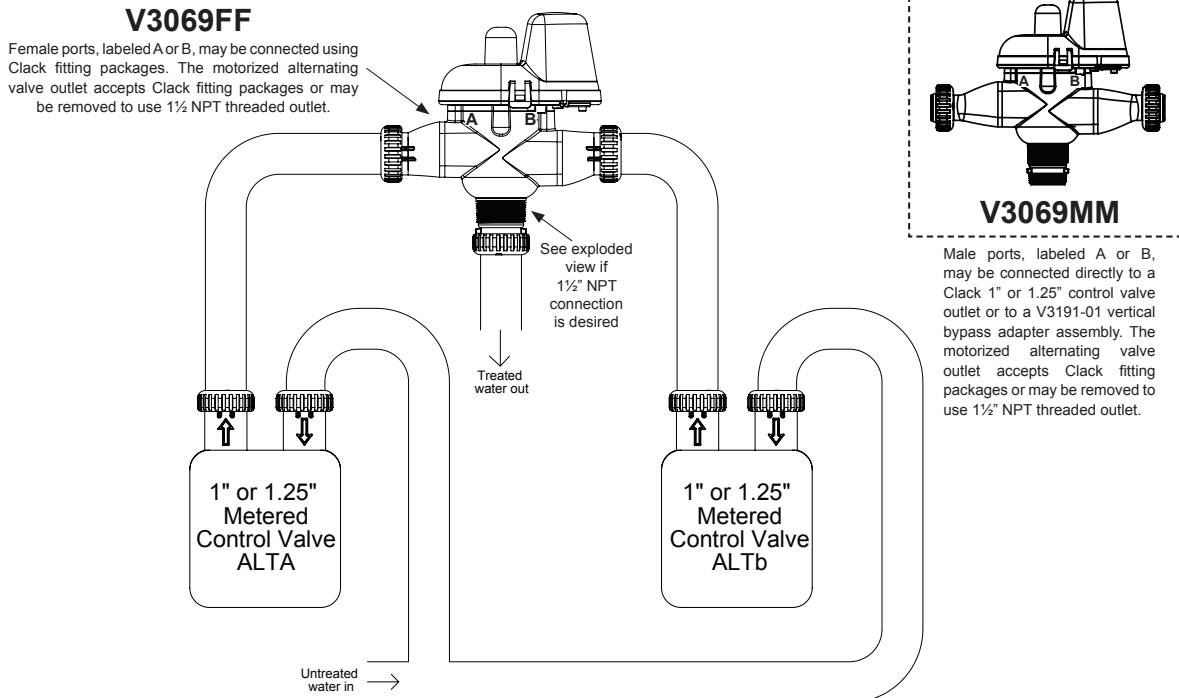
Caution: No Hard Water Bypass Valve installations prevent water from entering the downstream plumbing. If a downstream plumbing device or local plumbing codes require uninterrupted water supplies, design the installation to accommodate.

If the control valve manual does not include instructions for setting up ALT A and ALT b software, visit [www.clackcorp.com](http://www.clackcorp.com) to download the current copy of the instructions.

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

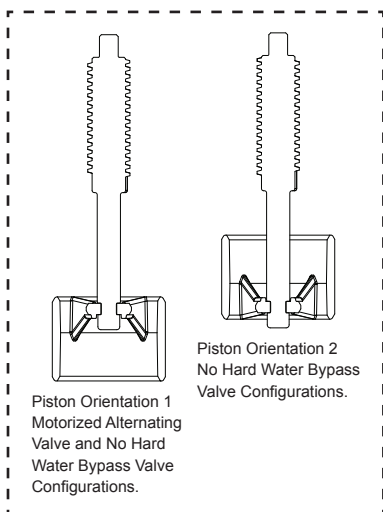
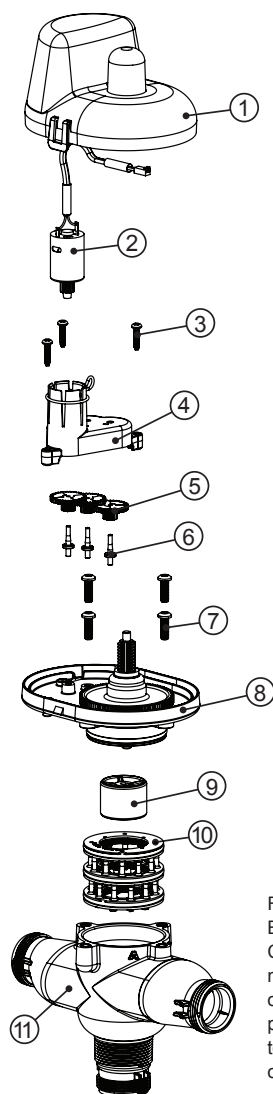
**Service or Installation of Motor**

Do not lubricate the motor or the gears. To install the motor, move the spring clip loop to the right and hold. Gently turn the motor while inserting so that the gear on the motor meshes with the gears under the drive gear cover. Release the spring clip loop and continue to rotate the motor until the wires are horizontal and the motor housing engages the small plastic bulge inside the drive bracket motor retainer. Reconnect the motor plug to the two-pronged jack on the lower left side of the PC board. If the motor will not easily engage with the drive gears when reinstalling, lift and slightly rotate the motor before reinserting.



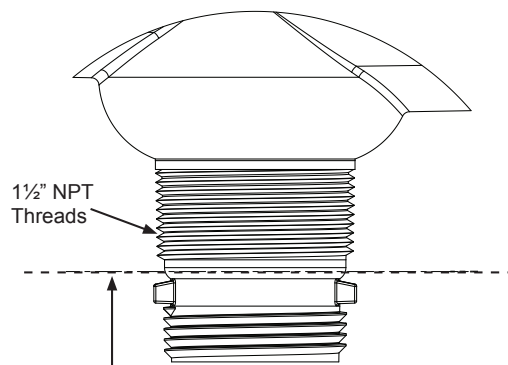
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Drawing No.	Order No.	Description	Quantity	
			V3069FF	V3069MM
1	V3073	MAV/NOHWBY COVER ASY	1	1
2	V3476	WS MOTOR ASY 8 FT	1	1
3	V3592	SCREW #8-3/4 PHPN T-25 SS	3	3
4	V3262-01	WS1.5&2ALT/2BY REDUCGEARCVRASY	1	1
5	V3110	WS1 DRIVE REDUCING GEAR 12X36	3	3
6	V3264	WS2 BYPASS REDUCTION GEAR AXLE	3	3
7	V3527	SCREW 1/4-20 X 3/4 BHSCS SS	4	4
8	V3072	MAV/NOHWBY 1/125/15 DRIVE ASY	1	1
9	V3506-01	MAV/NOHRD 1/125/15 PISTON	1	1
10	V3074	MAV/NOHWBY 1/125/15 STACK ASY	1	1
11	V3504FF	MAV BODY 1/125 ASY F-F	1	N/A
12	V3504MM	MAV BODY 1/125 ASY M-M	N/A	1
13	V3151	WS1 NUT 1 QC	N/A	2
14	V3150	WS1 SPLIT RING	N/A	2
15	V3105	O-RING 215	N/A	2
Not Shown	V3474-01	WS ALT MAV 1/125 CORD 8FT BLK	1	1

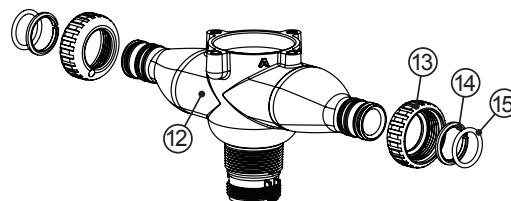


**•Operating Pressures:  
20 PSI Minimum / 125 PSI Maximum**

**•Operating Temperatures:  
40°F Minimum / 110°F Maximum**



Quick Connect Nut Threads can be cut off to allow access to 1 1/2" NPT Threads. Deburr and clean edge after cutting.  
**NOTE:** Teflon tape is required when using the 1 1/2" NPT Threads.



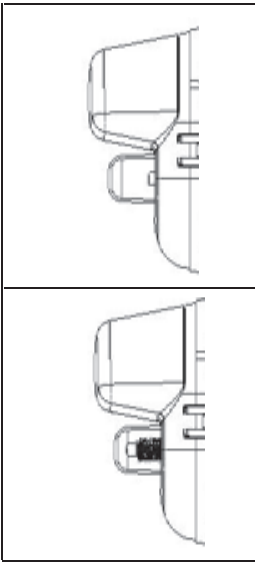
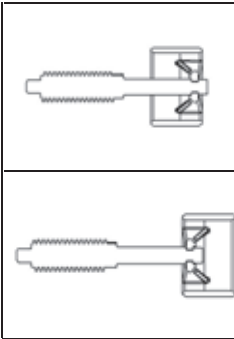
Male ports, labeled A or B, may be connected directly to a Clack 1" or 1.25" control valve outlet or to a V3191-01 vertical bypass adapter assembly. The motorized alternating valve outlet accepts Clack fitting packages or may be removed to use 1 1/2" NPT threaded outlet.

Female ports, labeled A or B, may be connected using Clack fitting packages. The motorized alternating valve outlet accepts Clack fitting packages or may be removed to use 1 1/2" NPT threaded outlet.

**Motorized Alternating Valve & No Hard Water Bypass Valve Configurations**

8/14/07 RJM

Operation	Plumbing Connections			Piston Orientation		Software Selection		Piston/Valve Position Flow	
	Port A	Port B	Port C	1	2	Control Valve 1	Control Valve 2	Up	Down
	MAV Operation	From Control Valve 1	From Control Valve 2	To Outlet	Use	Not Applicable	ALTA	ALTb	Flows from <b>Port B</b> to <b>Port C</b>
No Hard Water Bypass Operation	From Control Valve 2	From Control Valve 1	To Outlet	Use	Not Applicable	ALTb	ALTA	Flows from <b>Port B</b> to <b>Port C</b>	Flows from <b>Port A</b> to <b>Port C</b>
	From Control Valve	To Outlet	Plugged	Not Applicable	Use	nHbP		Open: Flows from <b>Port A</b> to <b>Port B</b>	Closed
	Plugged	From Control Valve	To Outlet	Use	Not Applicable	nHbP		Open: Flows from <b>Port B</b> to <b>Port C</b>	Closed
	To Outlet	Plugged	From Control Valve	Not Applicable	Use	nHbP		Open: Flows from <b>Port A</b> to <b>Port C</b>	Closed
	Plugged	To Outlet	From Control Valve	Use	Not Applicable	nHbP		Open: Flows from <b>Port C</b> to <b>Port B</b>	Closed



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