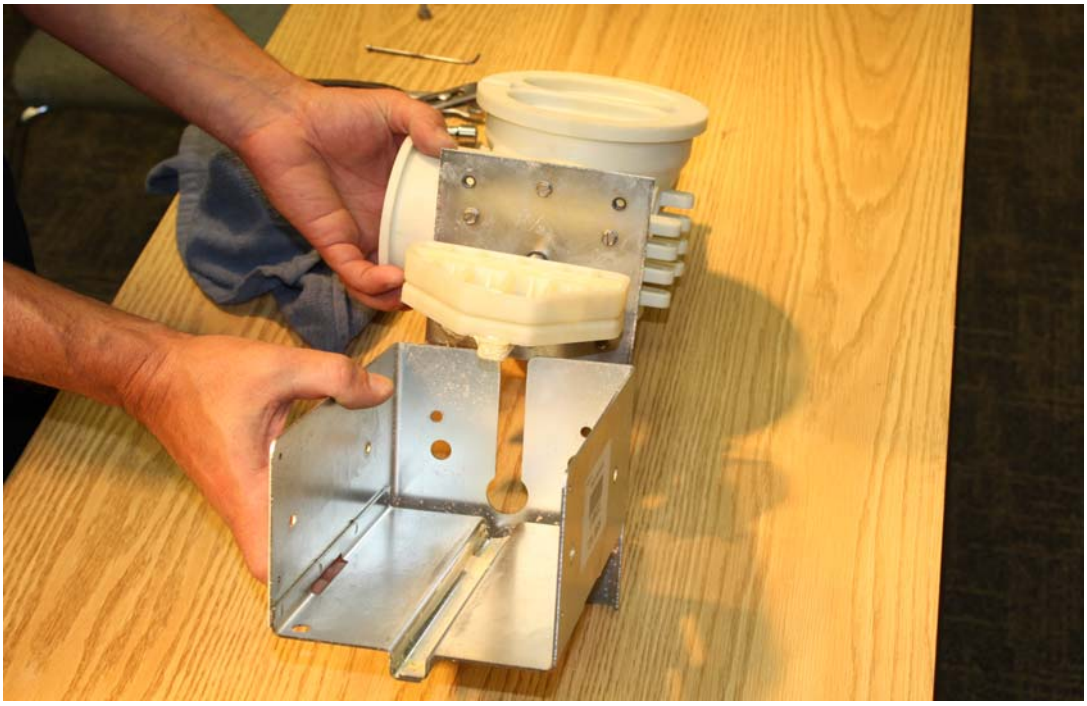
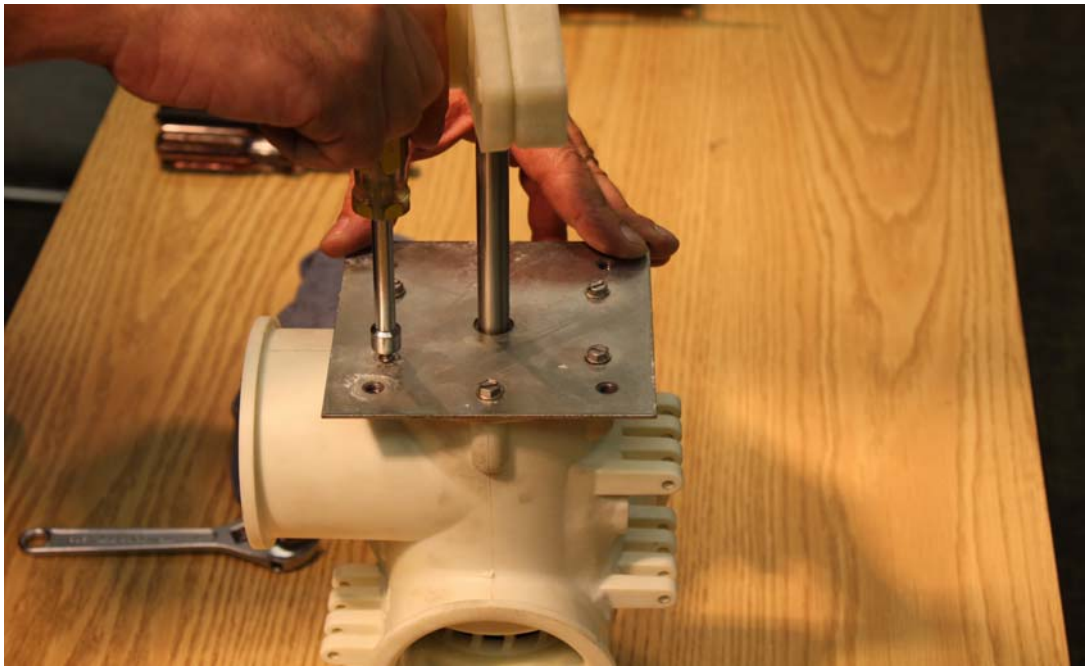
Disassembly and re-assembly of the EcoWater 2 inch piston valve

When rebuilding valve inspect the lantern rings for damage or distortion, replace if necessary

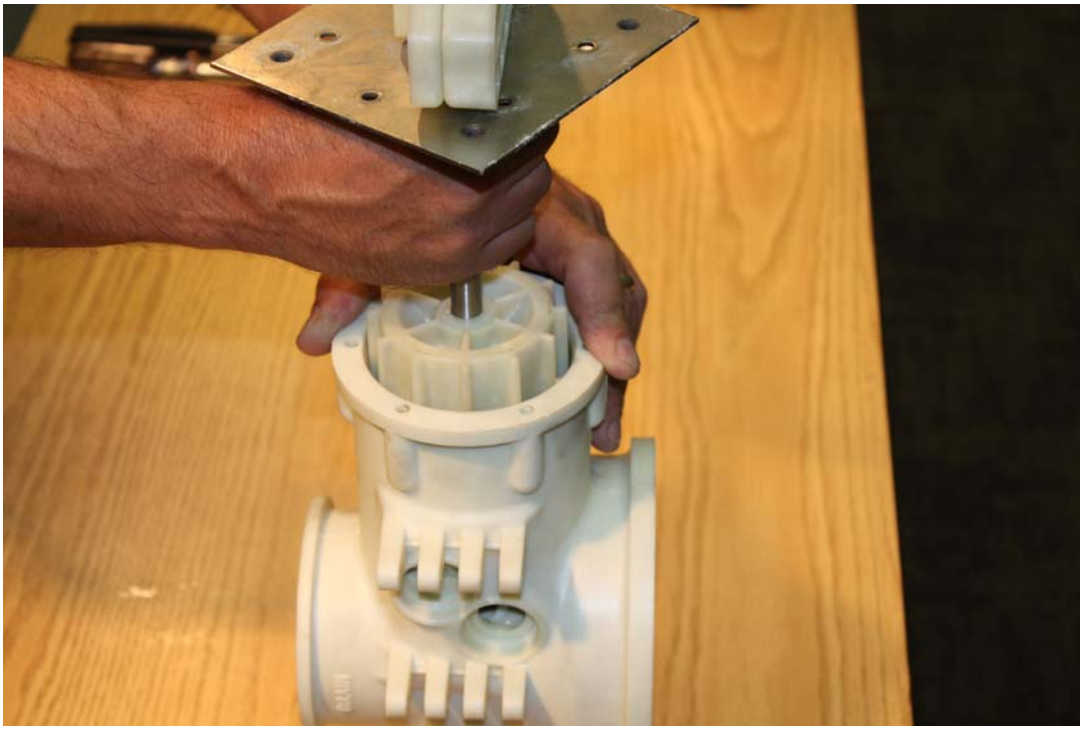
When rebuilding the valve use new 0-rings and quad rings. Lubricate using silicon based such as a Dow 111.



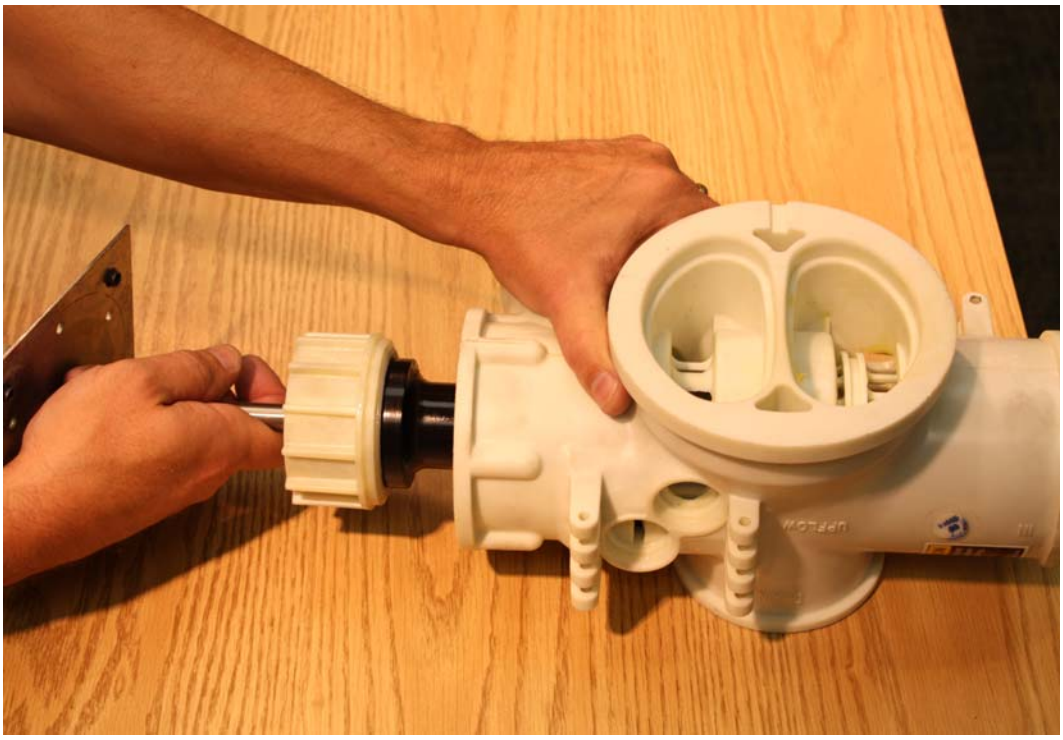
Remove outer bracket



Remove mounting bracket bolts



Remove piston assembly

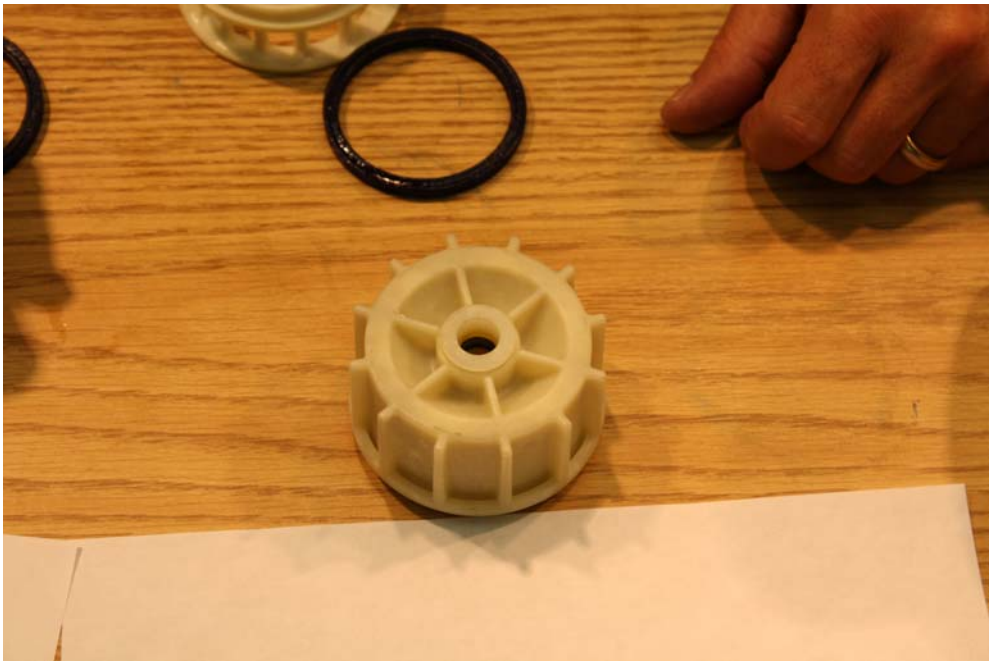


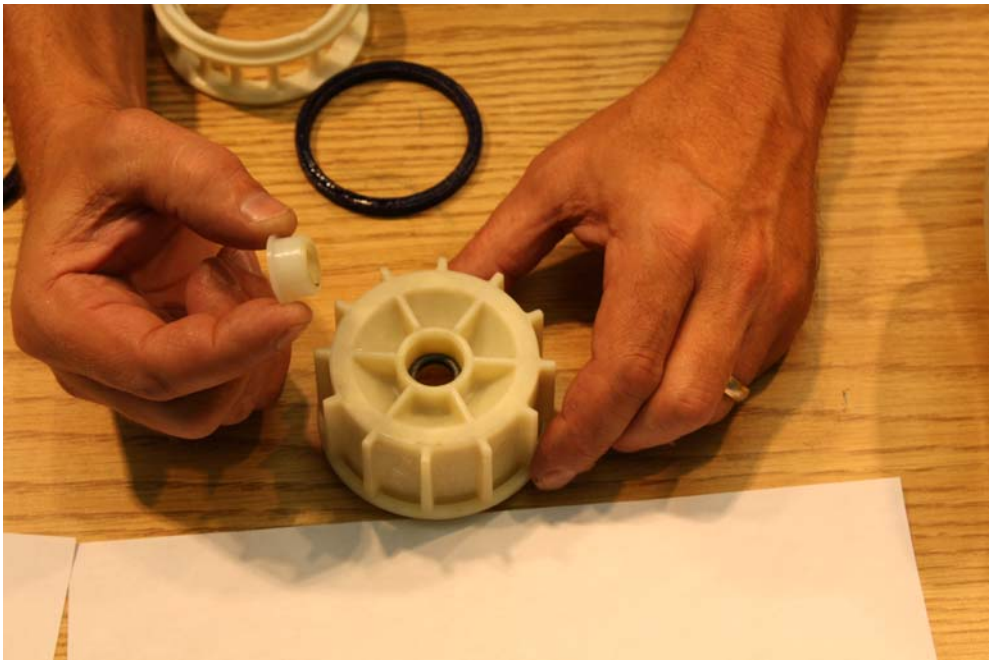
When removing piston, several o-rings, quad rings and lantern rings will come out.

Remove piston from shaft

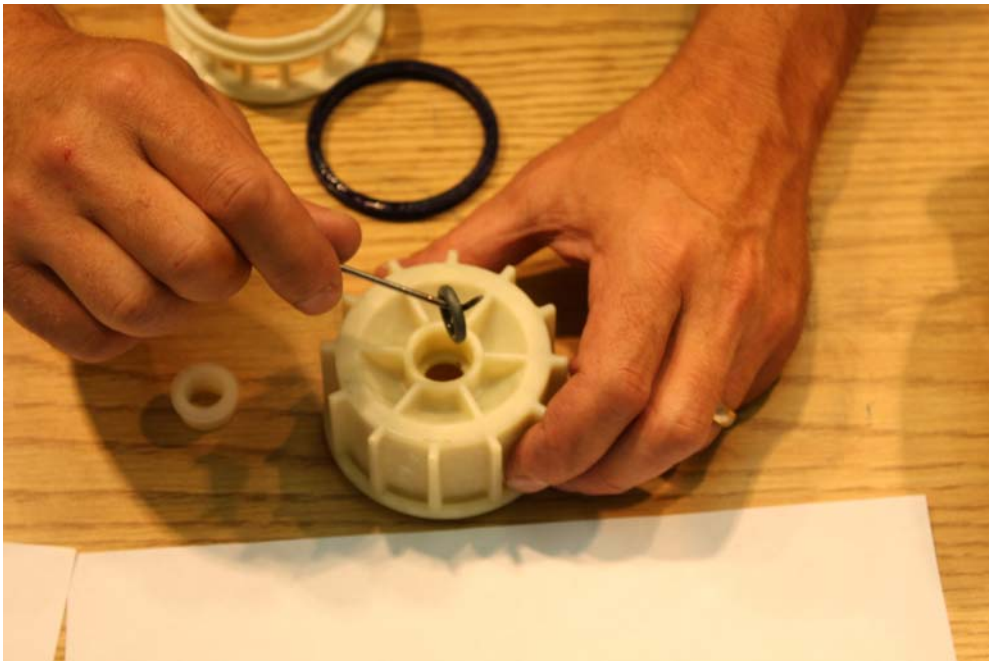
Remove end plug from shaft

Remove mounting bracket plate

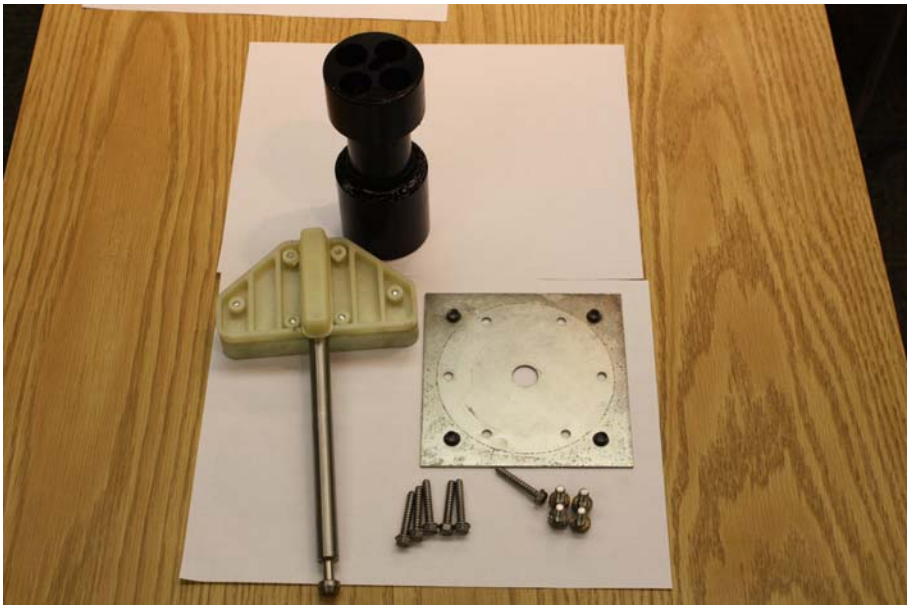




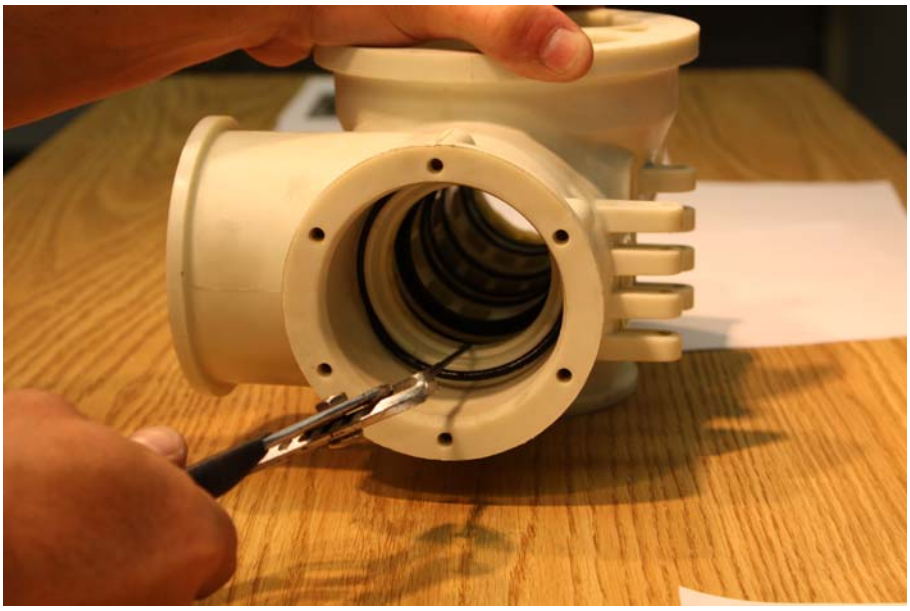
Note location of flange bushing and o-ring in end plug



Inspect o-ring for damage. When removing, be careful to not scratch surfaces

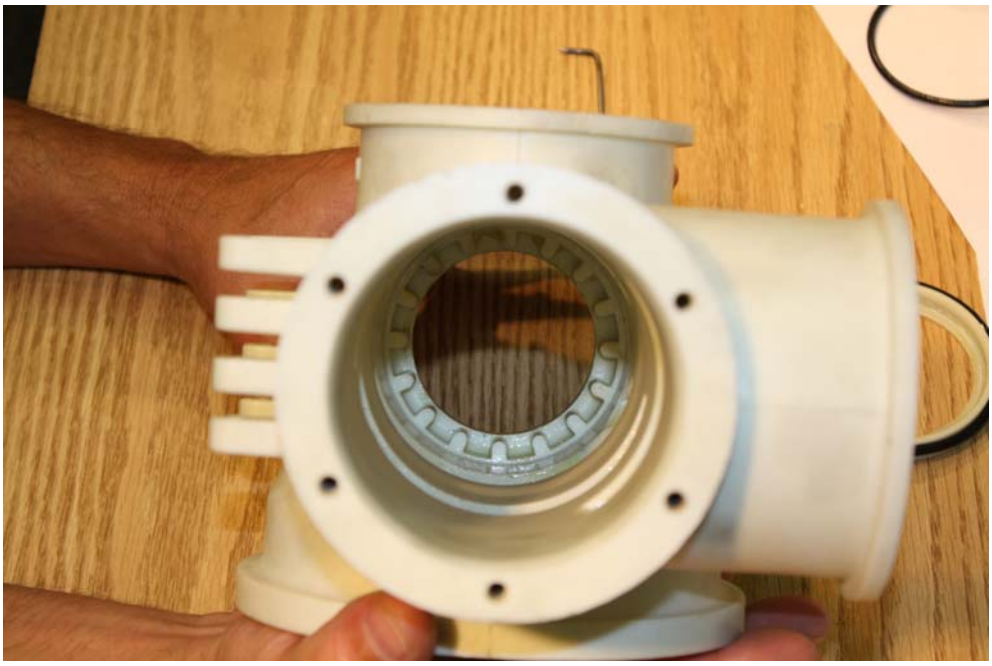


Parts layout for reassembly, if replacing a metal piston, you will need a new Piston rod.

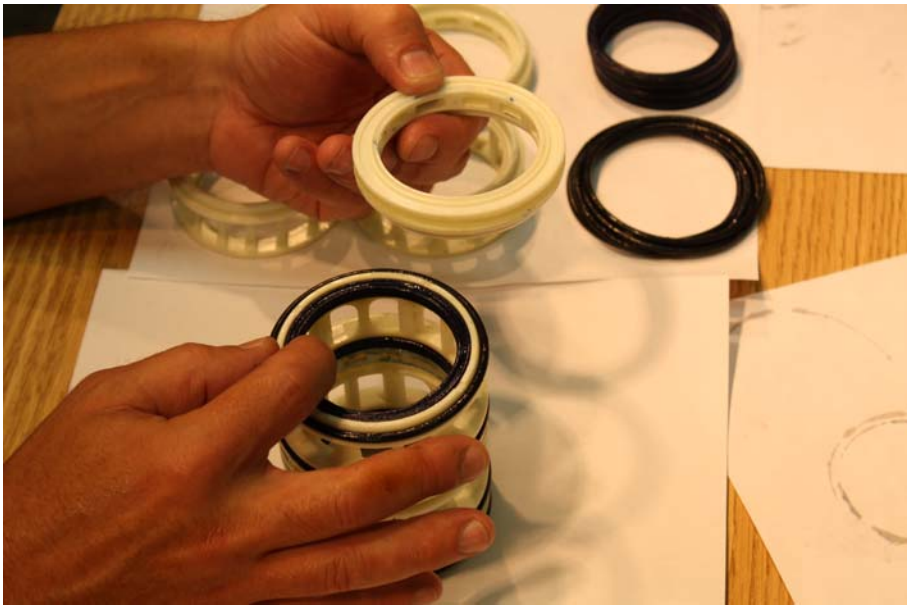


Using a hooked tool, pull out lantern rings, o-rings and quad rings. Be careful not to scratch the valve body

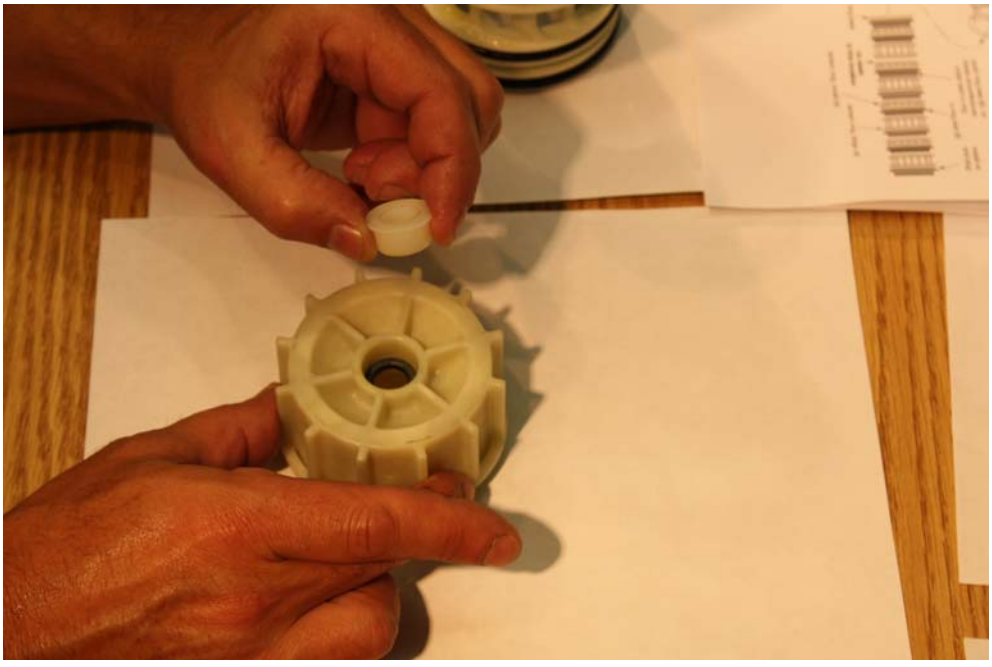
To remove the last spacer, push from the valve inlet port



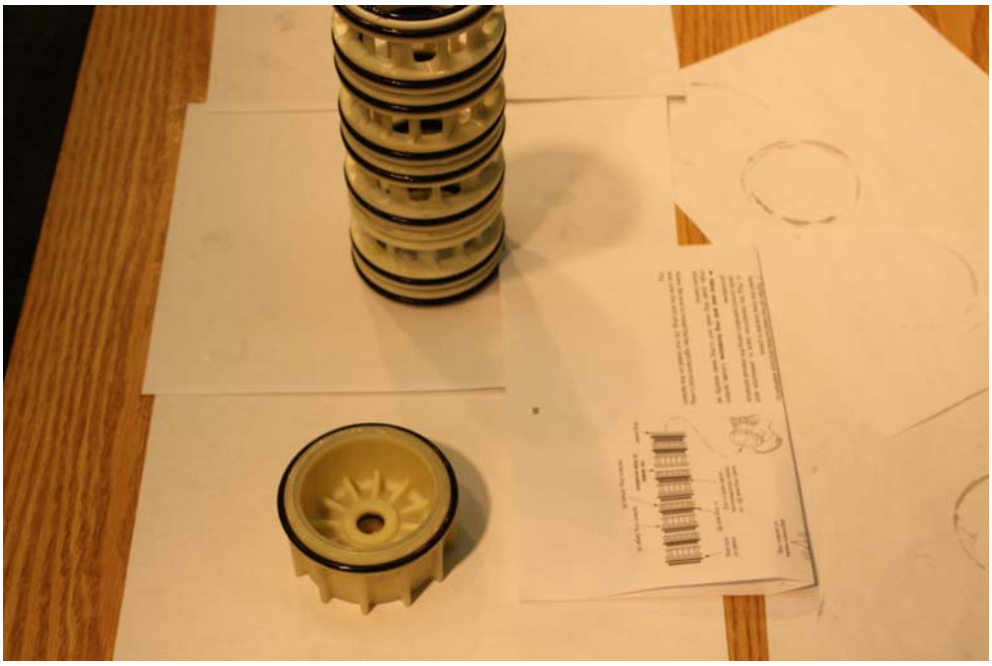
All components removed from valve body



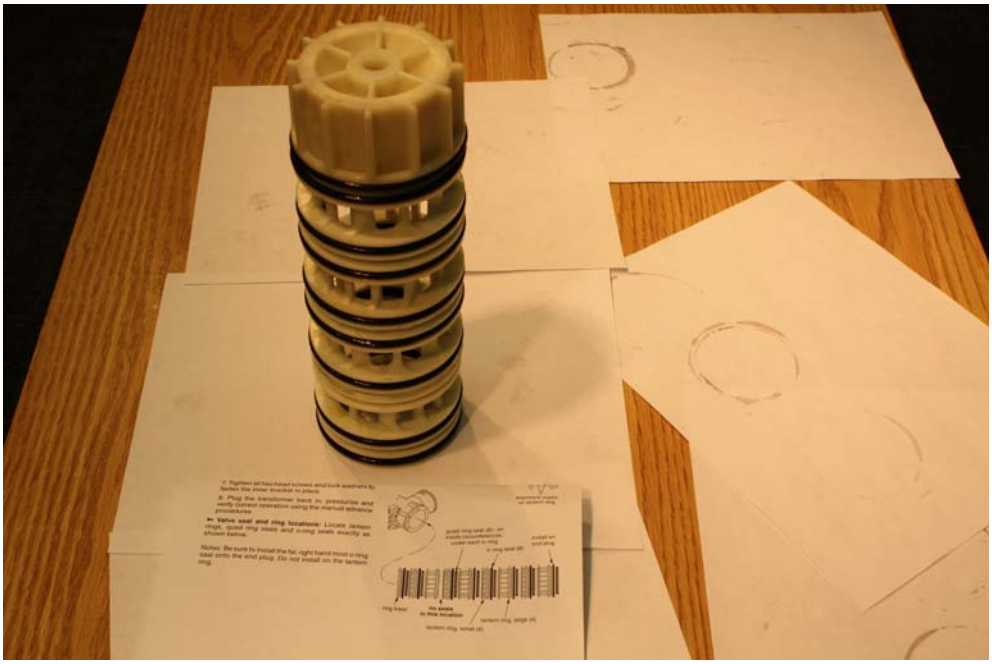
Reassemble quad rings, o-rings and lantern rings in a stack. Use illustration from owners manual



Lubricate and reinstall o-ring and flange bushing

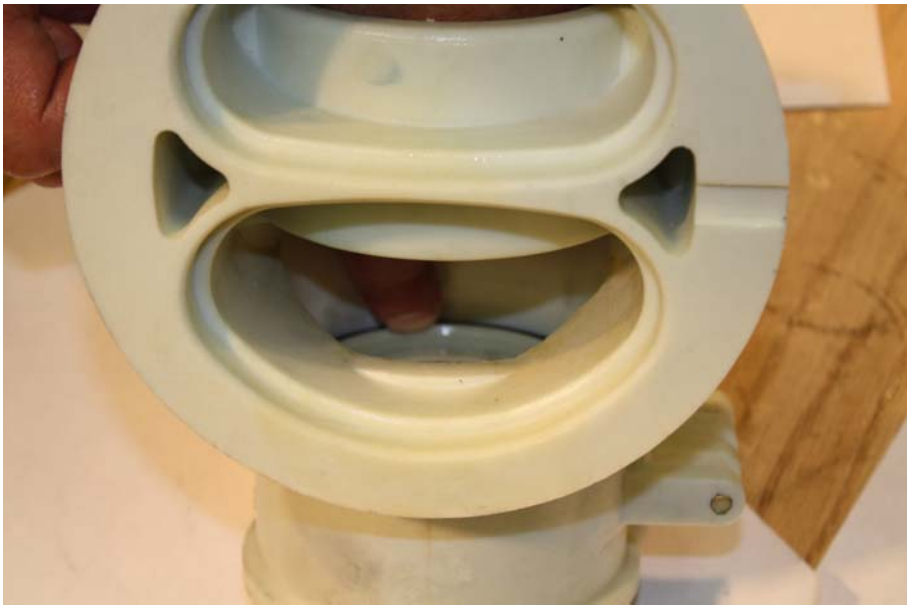


Follow instructions from owner’s manual for parts sequence

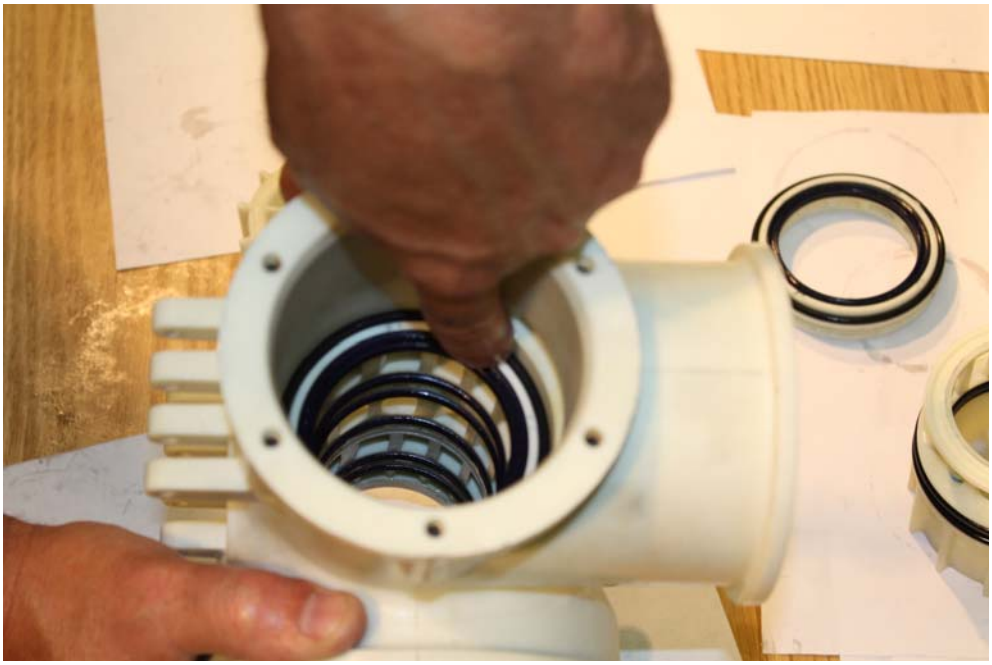


Stack assembled as it would be inserted into valve

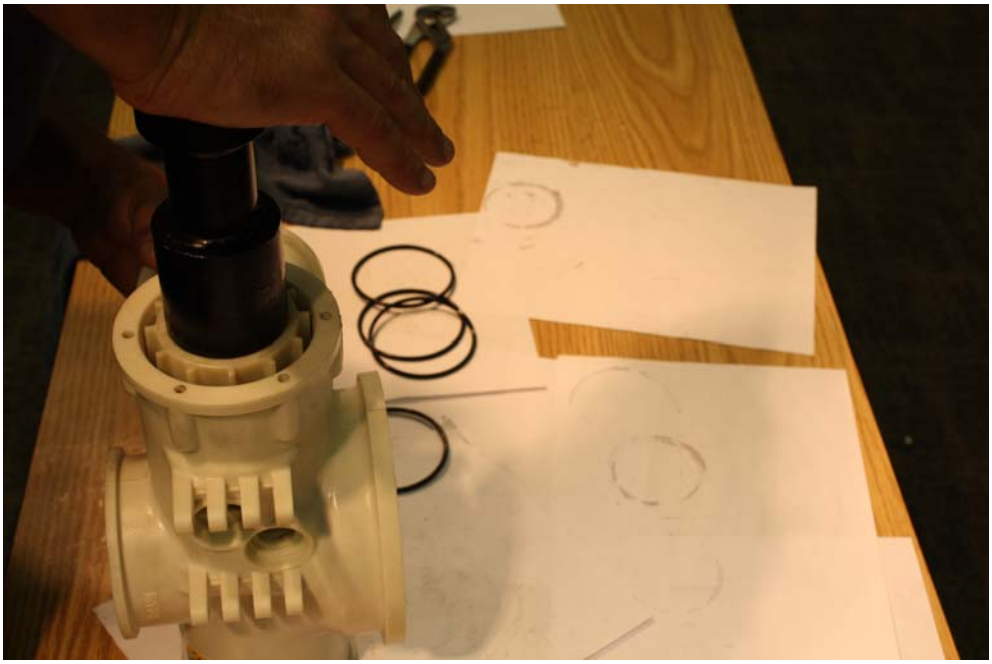
Stack assembly order reversed for assembly, top goes into valve first



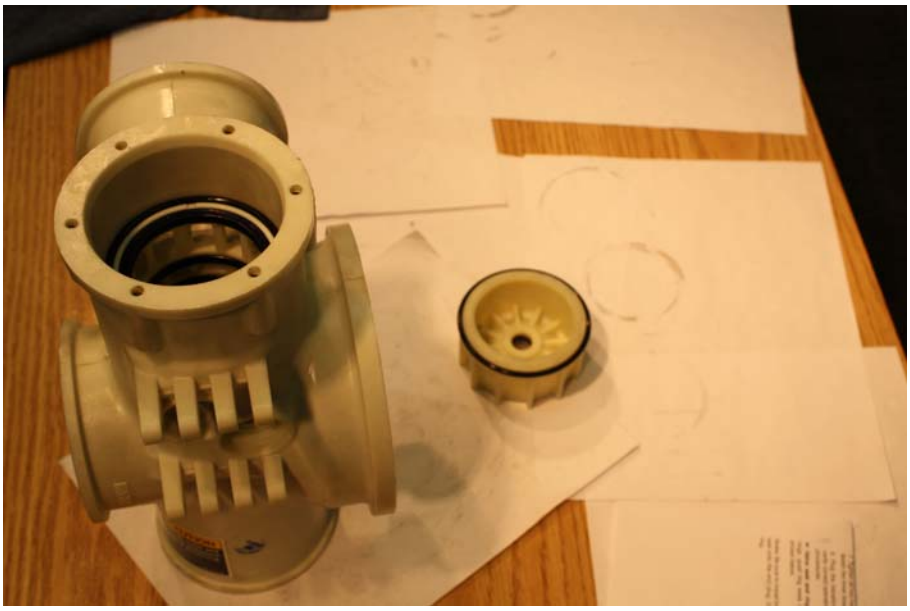
Reassemble using a silicon lubricant. Be sure to push each o-ring into place



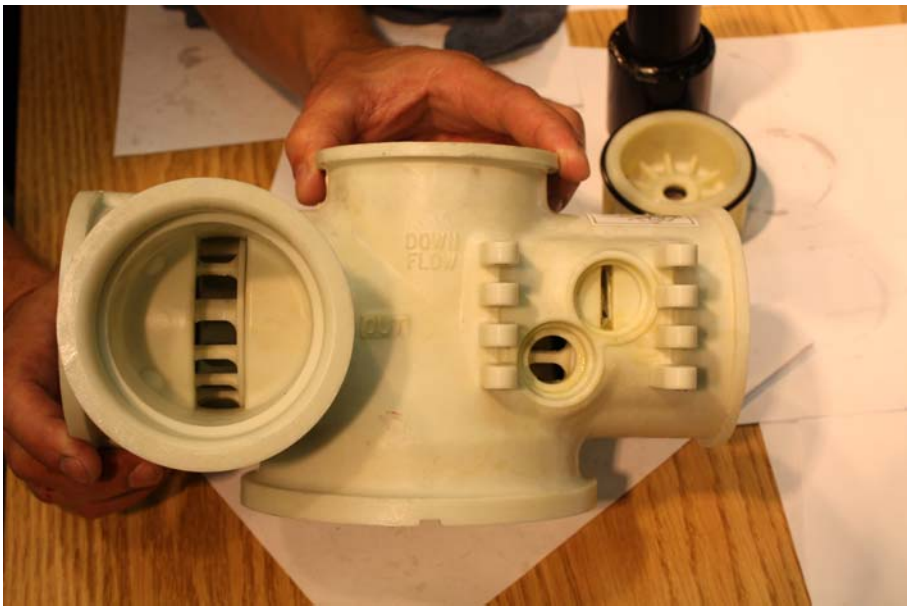
From parts stack install in order, push in o-rings in a circular movement



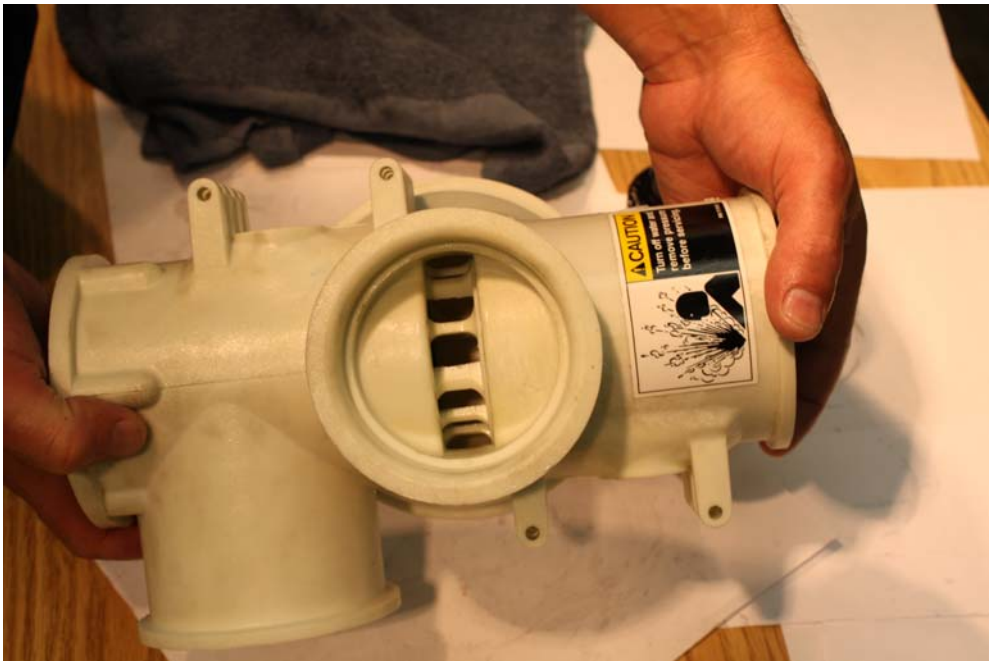
Use end plug and piston to push lantern and o-rings into place



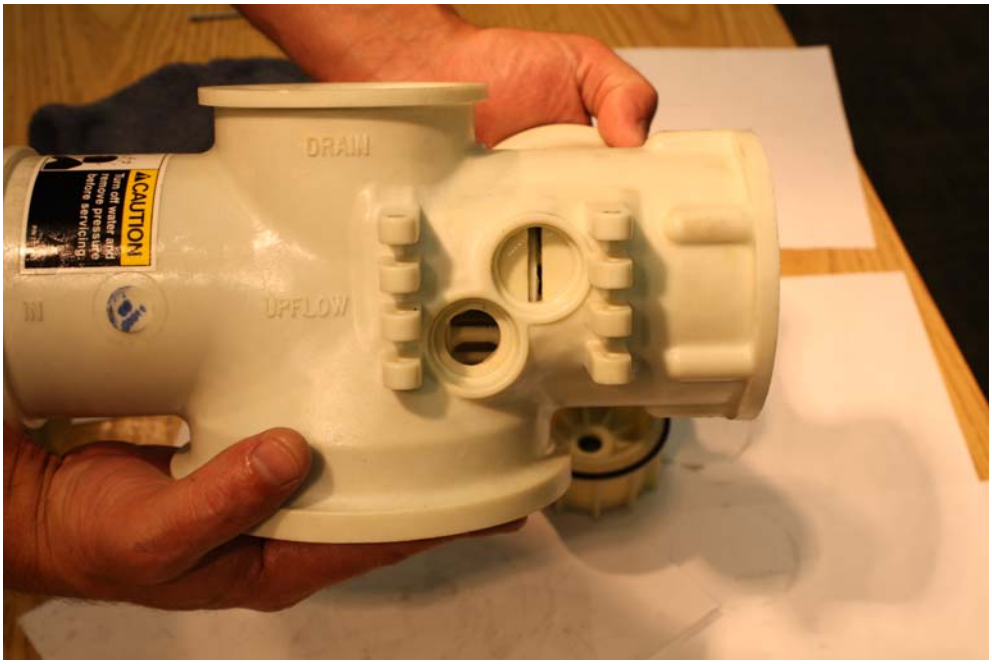
Valve shown assembled, ready for end plug



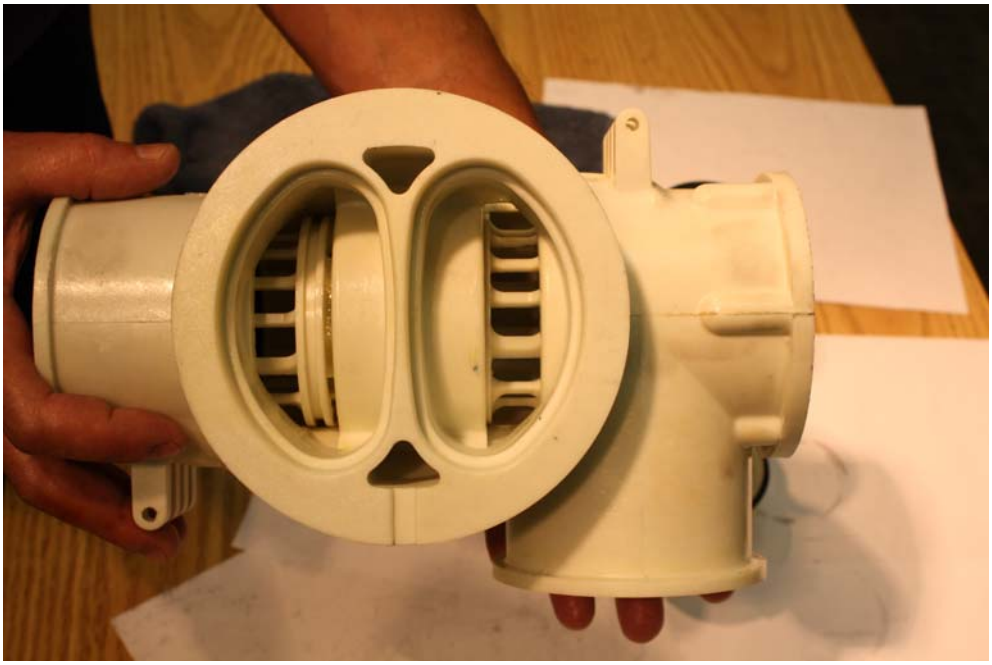
When valve has been assembled, inspect outlet and down flow brine ports for o-rings that may be showing.



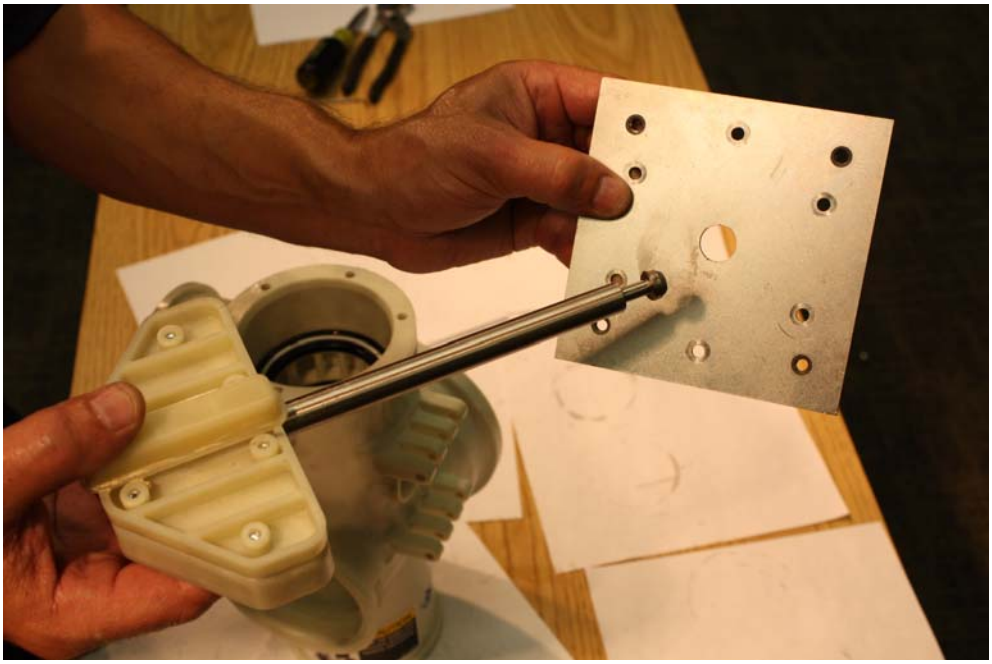
Inspect drain port for exposed o-rings

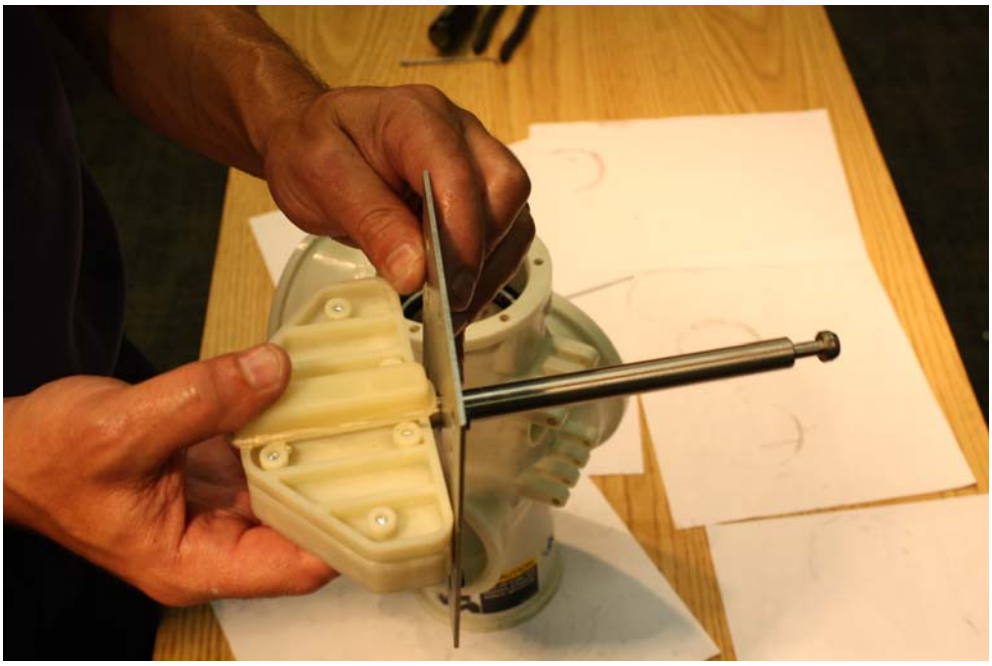


Inspect upflow brine port for exposed o-rings

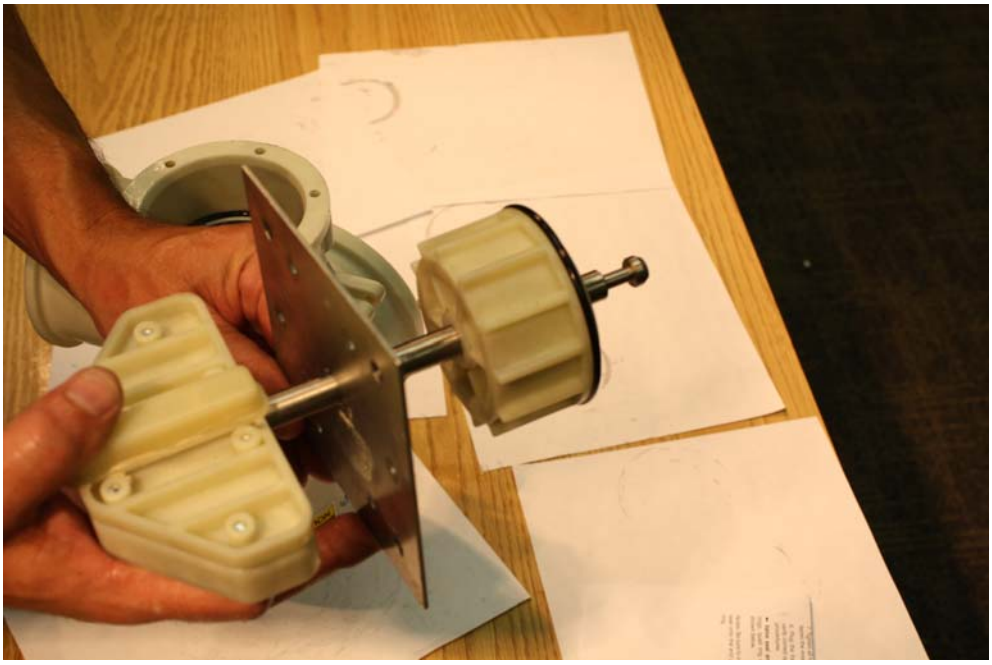


Inspect valve inlet outlet connection (valve to tank adaptor connection) for exposed o-rings
If an o-ring is exposed reassemble and reseat o-rings



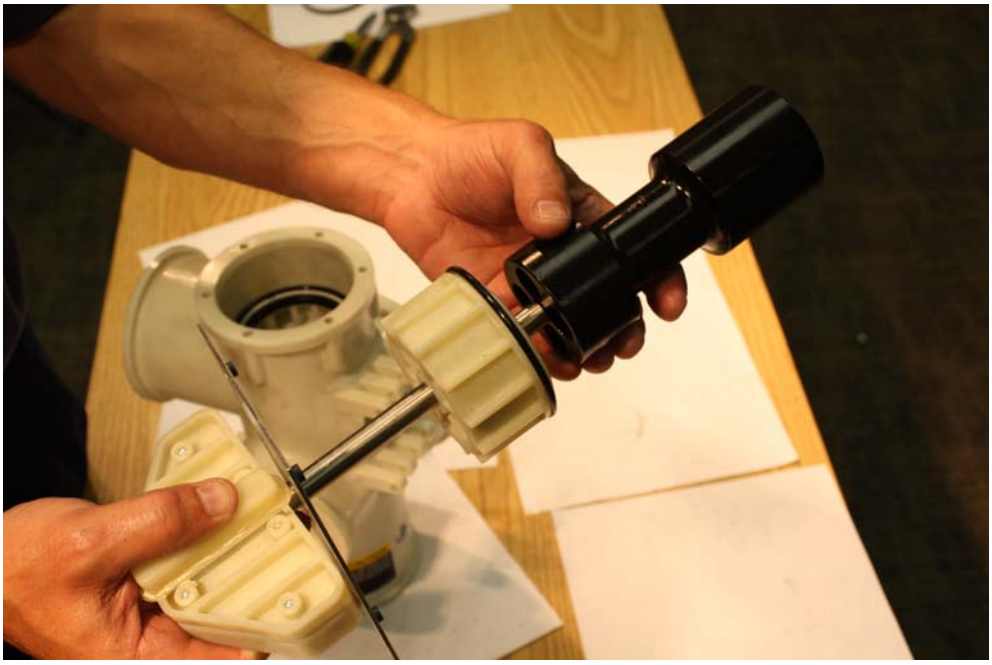


Reassemble mounting bracket, note direction of plate

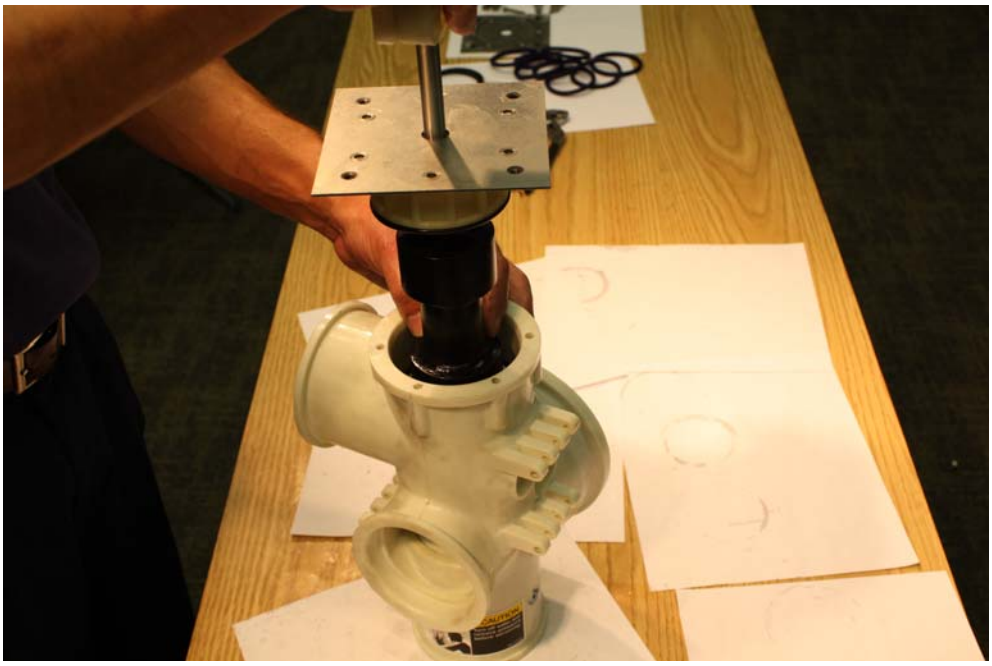


Lubricate piston rod and install end plug

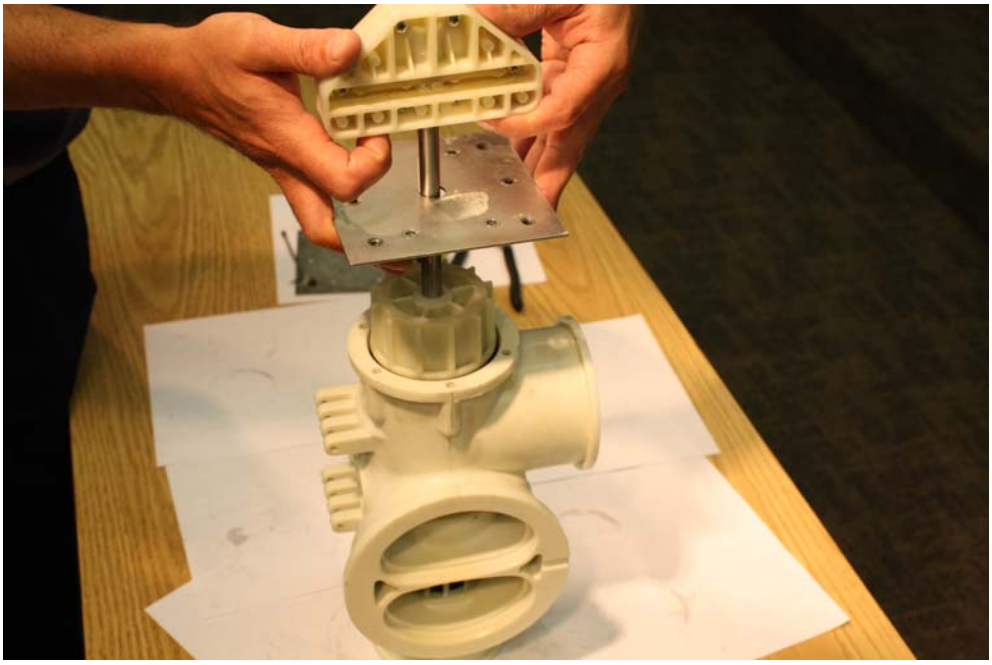
Lubricate piston and install on piston rod



Yoke, piston, piston rod and end cap assembled

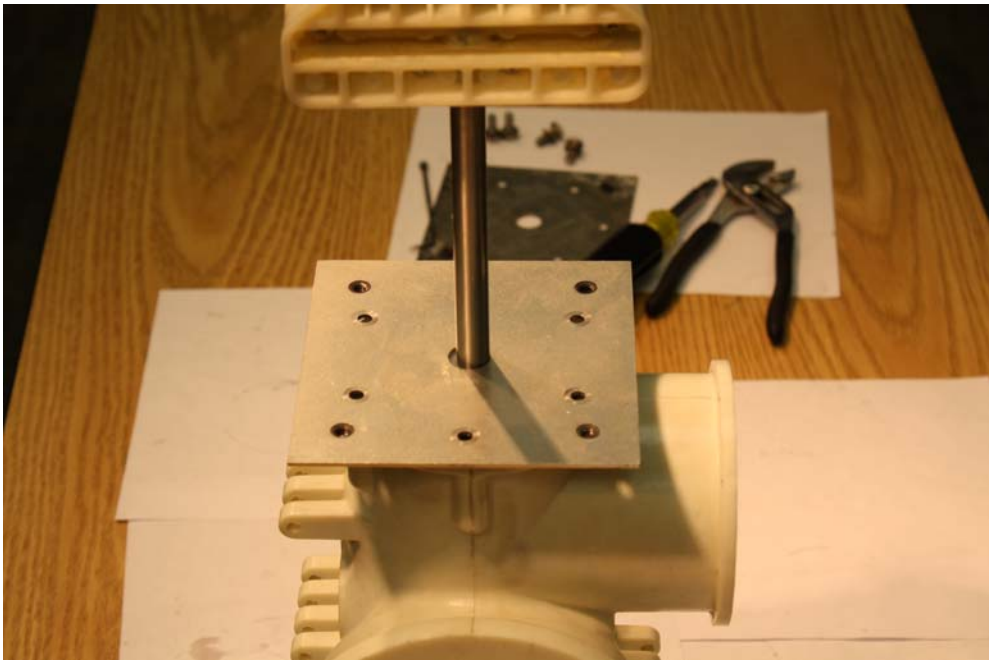


Insert assembly into valve



Use even vertical downward force and push assembly into valve

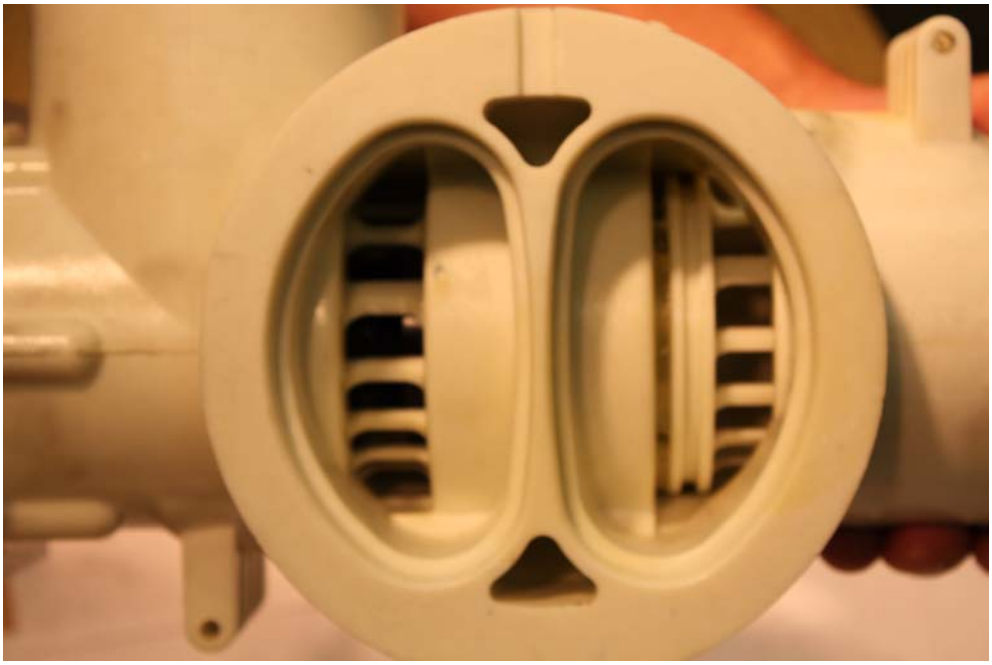
Use mounting bracket plate to push end plug into place



Valve assembled ready for bracket plate screw, install 1 or 2 plate screws and inspect valve for o-ring extrusion

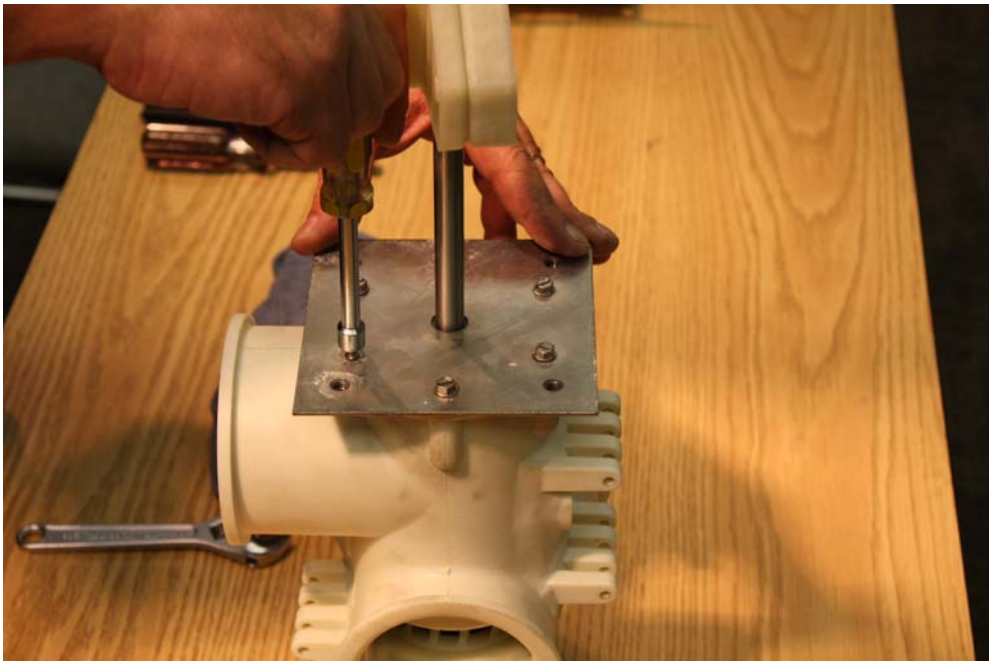
Inspect drain port for extruded o-rings

Inspect outlet and down flow ports for o-ring extrusion

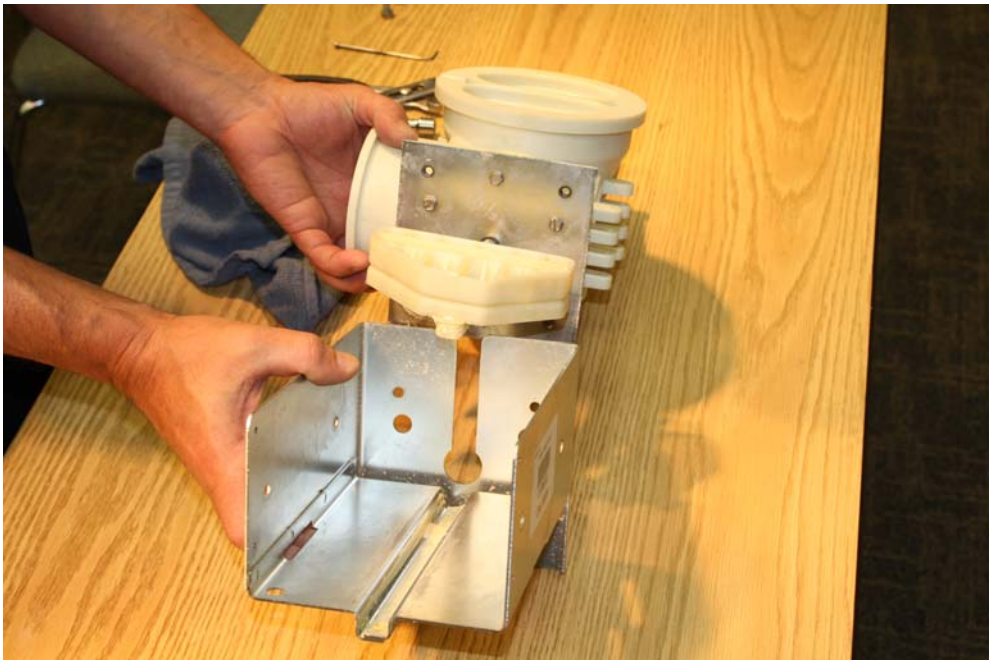


Inspect inlet/outlet ports, (Valve to tank adaptor connection) for extruded o-rings

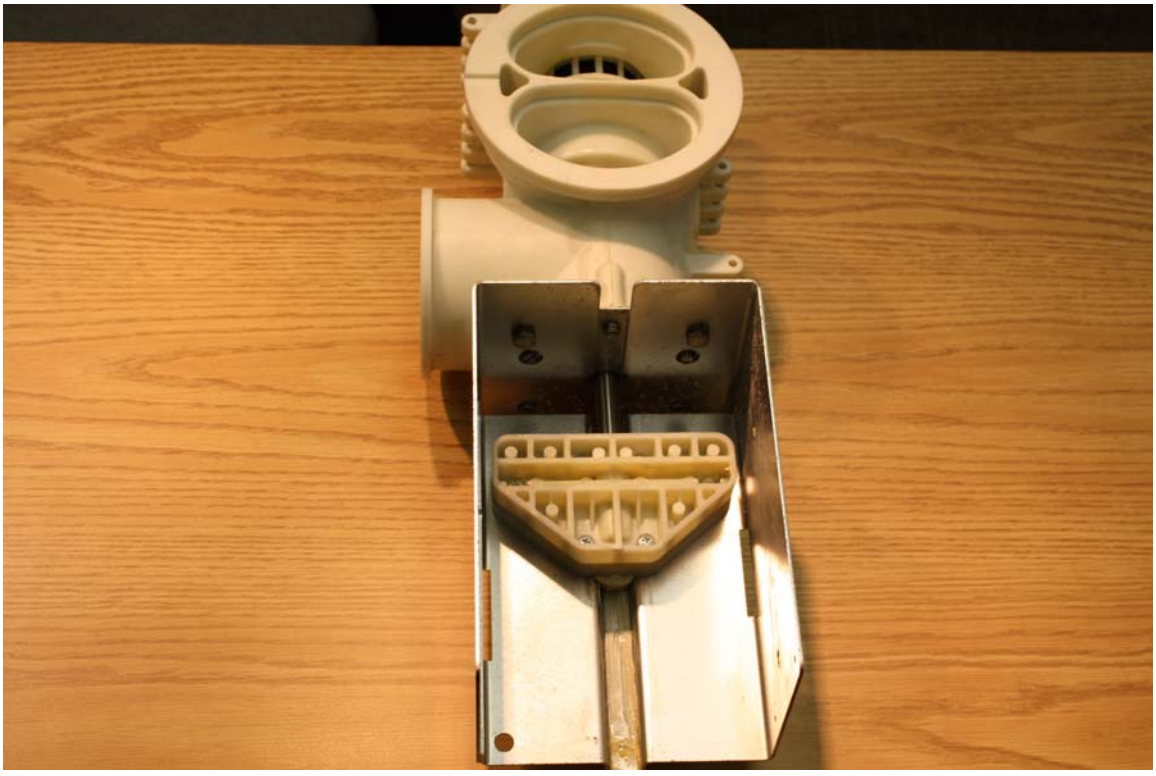
Inspect upflow port for o-ring extrusion



Reinstall mounting bracket screws, alternate tightening screws to ensure bracket is flush

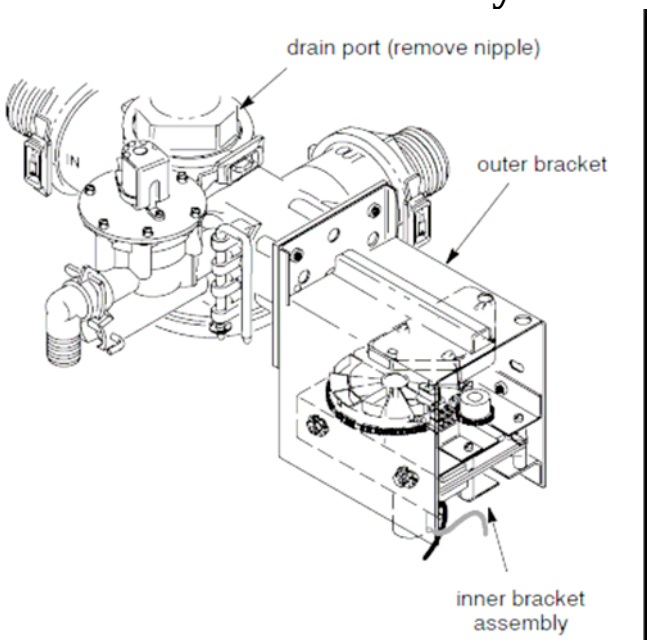


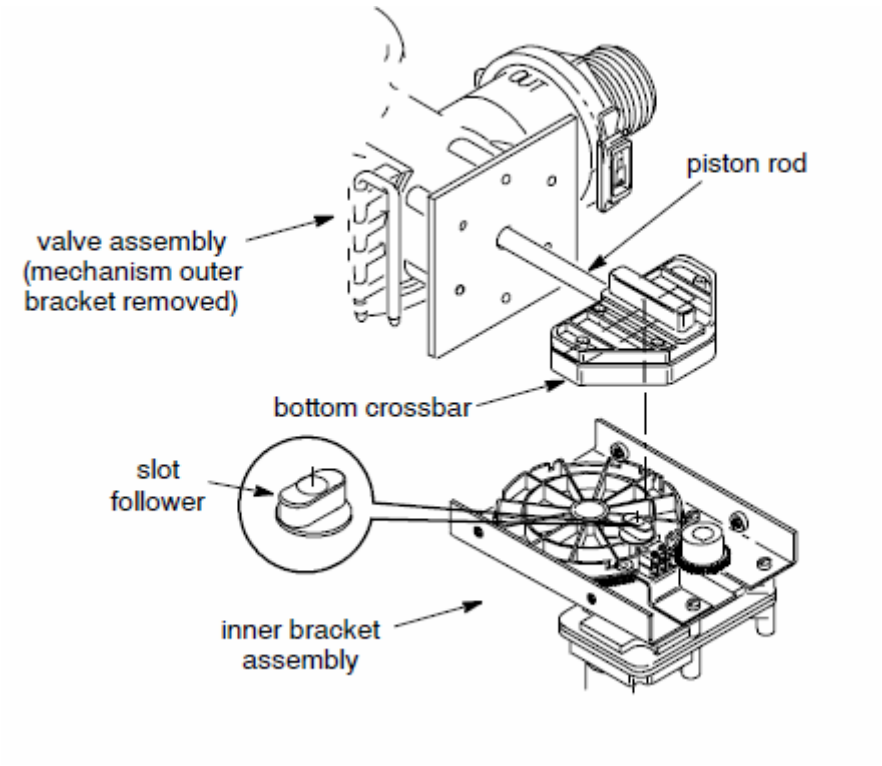
Reinstall outer bracket



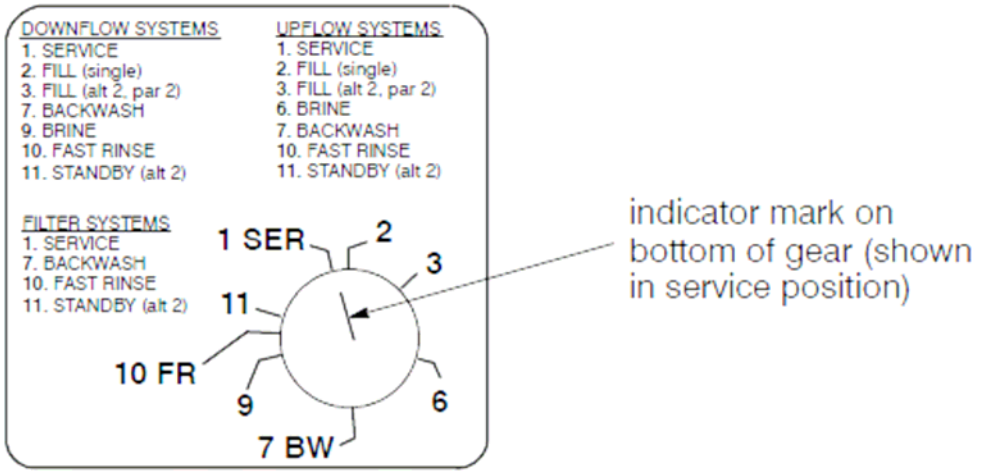
Completed assembly

At this time the yoke/piston assembly can be pushed in or pulled out to match the position of the inner bracket drive train assembly

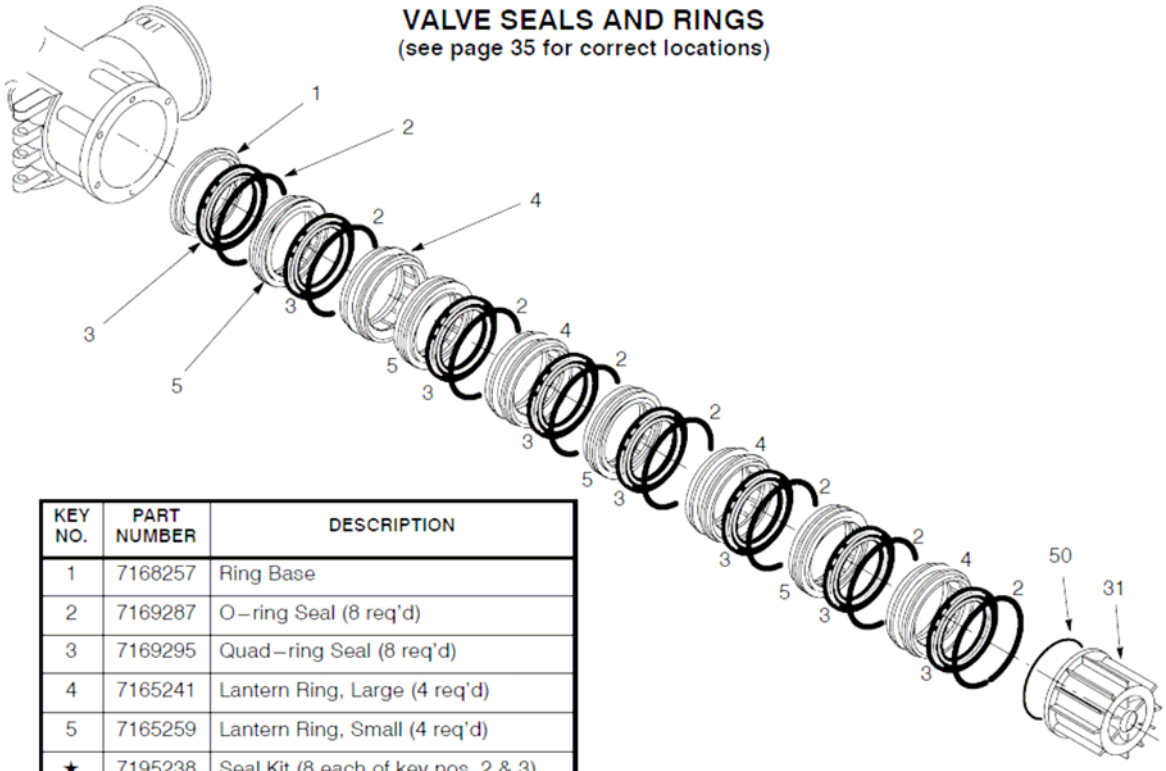




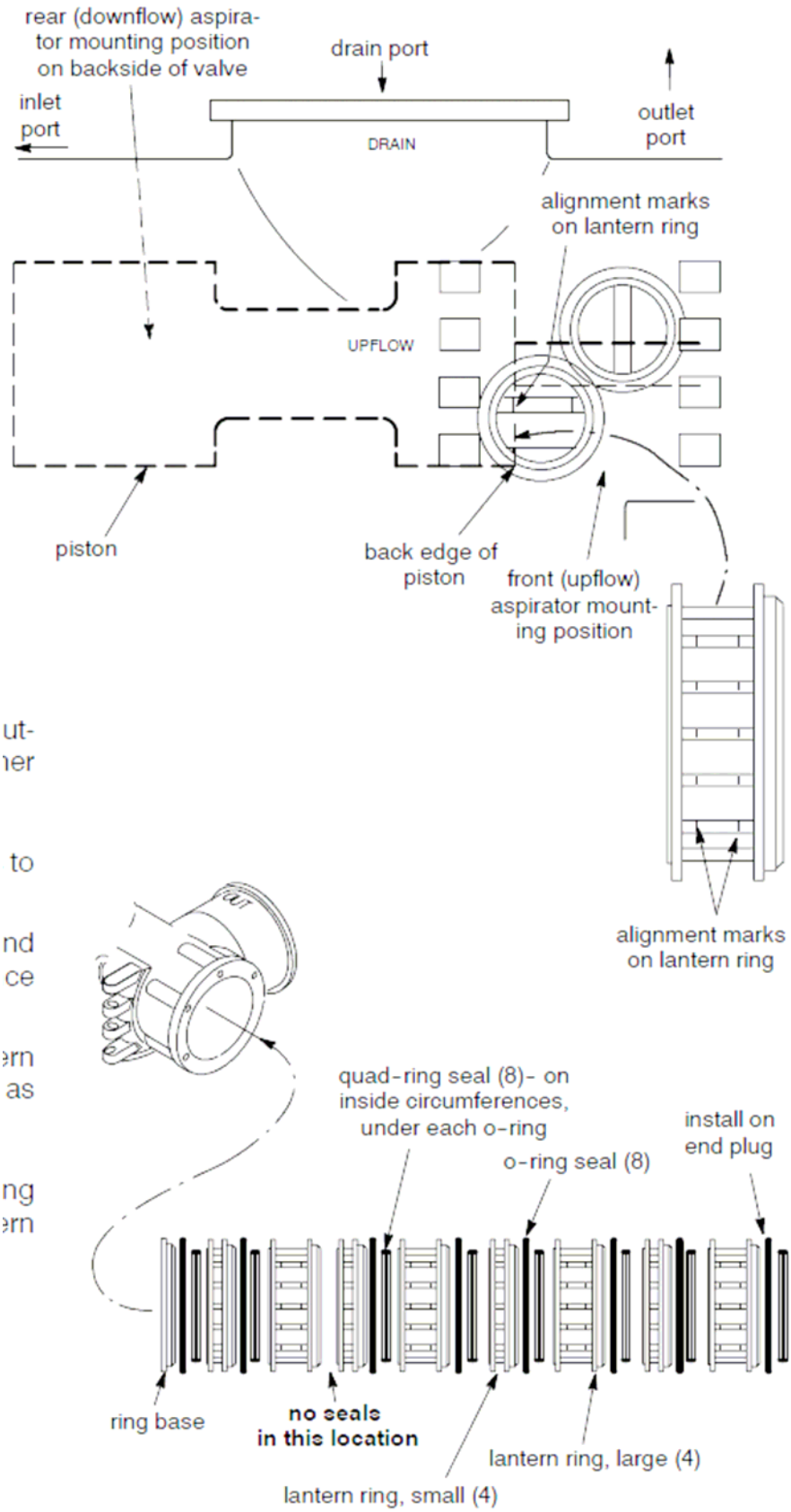
VALVE POSITION DECAL
(located on bottom of controller drive mechanism)



VALVE SEALS AND RINGS
(see page 35 for correct locations)



KEY NO.	PART NUMBER	DESCRIPTION
1	7168257	Ring Base
2	7169287	O–ring Seal (8 req'd)
3	7169295	Quad–ring Seal (8 req'd)
4	7165241	Lantern Ring, Large (4 req'd)
5	7165259	Lantern Ring, Small (4 req'd)
★	7195238	Seal Kit (8 each of key nos. 2 & 3)


rear (downflow) aspirator mounting position on backside of valve
drain port
inlet port
DRAIN
outlet port
alignment marks on lantern ring
UPFLOW
piston
back edge of piston
front (upflow) aspirator mounting position
alignment marks on lantern ring
quad-ring seal (8)- on inside circumferences, under each o-ring
o-ring seal (8)
install on end plug
ring base
no seals in this location
lantern ring, large (4)
lantern ring, small (4)