

ON/OFF VALVE REPAIR KIT, 60K MINI (302001-3)

This service procedure is for the installation of the ON/OFF Valve Repair Kit for a 60K Mini-Valve (301007-12)

Disassembly:

1. Shut down the system.



Place the main electrical disconnect in the OFF position and bleed down all high-pressure lines. Place an "Out of Service" tag on the main electrical disconnect and lock it out. Failure to do so may result in damage to equipment or injury to personnel.

2. Remove the orifice assembly from the Nozzle Body.
3. Remove the entire ON/OFF Valve/Nozzle Body Assembly from the system.
4. Remove the Nozzle Body from the Valve Body (100048-4).
5. Remove the On/Off Valve Actuator from the Valve Body.
6. Remove the O-Ring (400043-014) from the outlet end of the Valve Body using a small straightened paperclip or similar tool.

See Figure 1.

- a. NOTE – this o-ring is not a sealing o-ring. It is only used to prevent the poppet seat from falling out during removal of the nozzle body.

7. Remove the Poppet Landing (100059-2) from the Valve Body. If tapping the body does not cause the seat to fall out, insert a straightened paperclip in the hole in the seat and gently loosen. Discard the Landing and O-Ring. **See Figure 2**

8. Place the Seal Ejection Tool (100104-2) against the Poppet tip and push out the Poppet and Seal assembly. Discard the Poppet and Seal assembly.

See Figure 3.



Figure 1



Figure 2

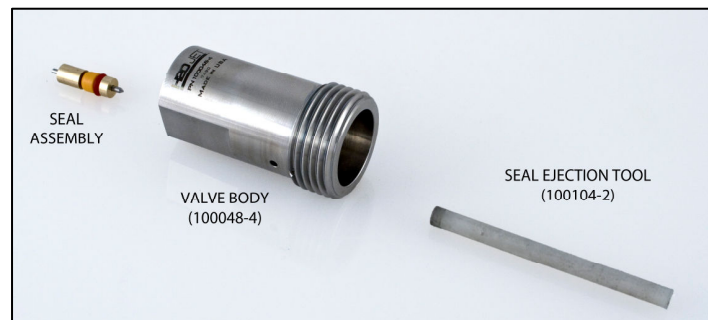


Figure 3

9. Thoroughly clean any foreign material from the inside and outside of the Valve Body (190048-4). Inspect Valve Body inside diameter for scratches or pitting and replace if necessary.

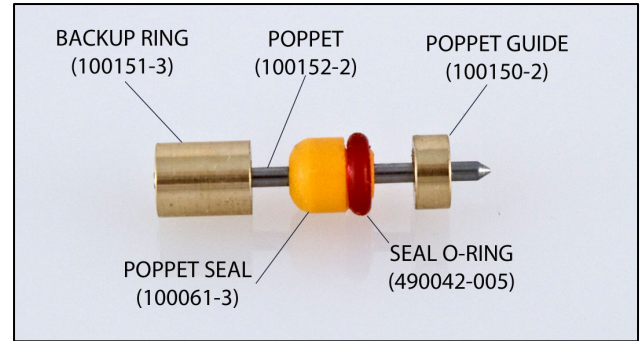


Figure 4

Assembly:

10. Apply a light coat of Food Grade Lube (400034-2) to the red Seal O-Ring (490042-005) and slide over the Poppet Seal (100061-3) groove. **See Figure 4**
11. Apply a light coat of Food Grade Lube to the shaft of the Poppet (100152-2). **See Figure 4**
12. Slide Poppet Seal (with O-Ring installed) half way down the shaft of the Poppet with the Seal O-Ring facing tip of Poppet. **See Figure 4**

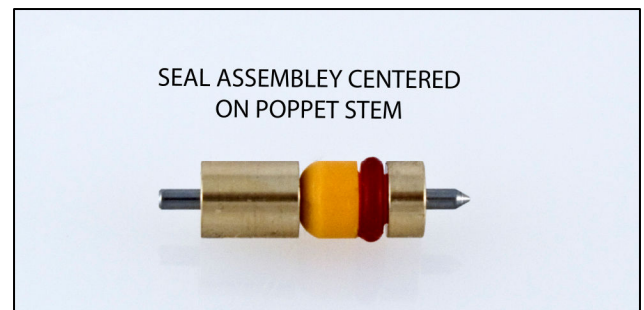


Figure 5

13. Slide the Backup Ring (100151-3) on the poppet shaft so the recessed end mates up with the seal. The seal assembly and buttress should be centered as much as possible on the stem. **See Figure 5**
14. Thread the guide portion of the Seal Installation Tool (392501-1) into the actuator end of the Valve Body.

See Figure 6



Figure 6

15. Insert the back of the Poppet stem (with the Seal Assembly) into the pin component of the Seal Installation Tool. In one smooth motion, press the pin fully into the guide until it bottoms out.

See Figure 7.

- a. NOTE – Do not force the Poppet and Seal Assembly into the Valve Body. O-Ring damage will occur and cause premature valve failure.

16. Remove guide portion of Seal Installation Tool.

17. Apply a thin coat of Blue Goop (400001-1) to both sides of the Poppet Landing and insert in the outlet end of the Valve Body. Push the O-Ring (400043-014) into the groove to hold the Poppet Landing in place. **See Figure 8.**

18. Apply Blue Goop to the threads of the Nozzle Body and screw into Valve Body outlet. Torque to 35-40 ft-lbs (47-54 N-m).

19. Slide Collar Block (100040-3) onto Valve Body(100048-4) so that the Valve Body HP inlet port aligns with threaded port on Collar Block

20. Apply 60psi (mill air) to Air Actuator Assembly (Normally Closed Actuator Only) to retract the Poppet. Thread the air actuator onto the Valve Body. Hand-tighten only and then release air pressure.

- a. NOTE – Failure to apply air pressure while tightening will result in premature failure of the Poppet.

21. Insert Valve Assembly into the mounting collar on system.

22. Thread HP Tubing into Valve Body. Tighten.

23. Apply Blue Goop to the outlet threads of the Nozzle Body and to the cone seat on the end of the nozzle body.

24. Re-install the orifice assembly.

25. Attach the pneumatic control line (air line) to the Air Actuator.

26. Turn on the high-pressure source and slowly raise the pressure, checking for leaks. Make sure the valve is operating properly.

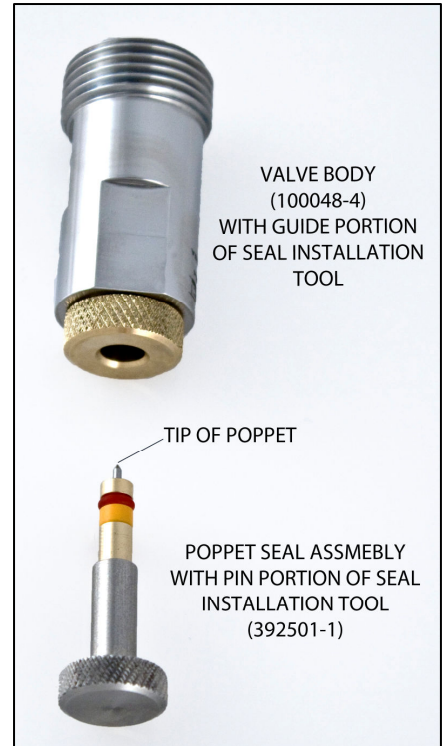


Figure 7

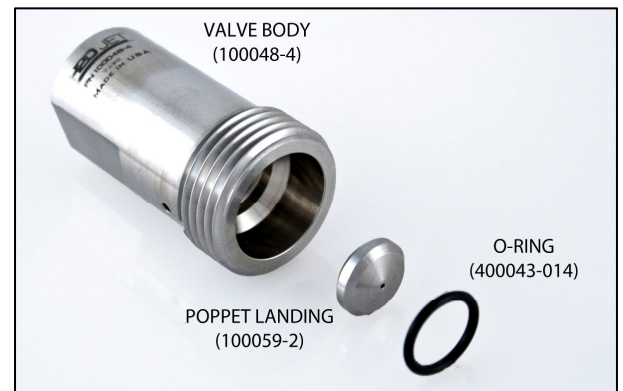


Figure 8