

Instruction Manual v1.1

Part Numbers: 303-006-2272 / 303-007-2272

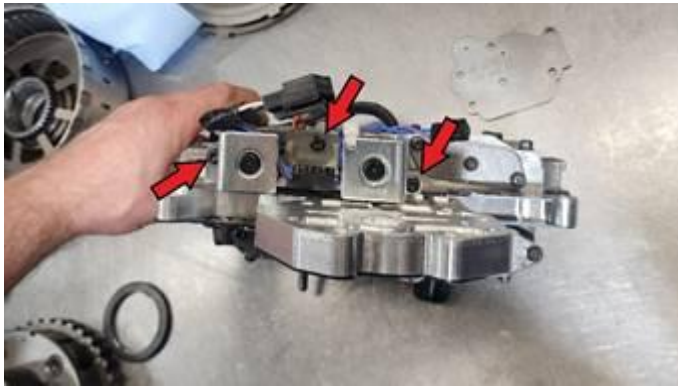
47/48RE Billet Channel Plate and Channel Plate Kit

1996-2007 Ram 2500/3500.

Warning: Some early 2003 vehicles were equipped with 47RE transmissions, this is typically determined by a production date of 2002. If your vehicle is equipped with a 47RE you must use PN-303-007-2272

*****Disclaimer: The Billet Channel Plate and Billet Channel Plate Kit are intended for use by individuals with experience in transmission and valve body disassembly and assembly. Carefully review all instructions before installation to ensure proper understanding. ATS is not responsible for any damage to the transmission or valve body resulting from improper installation or misuse of these components******

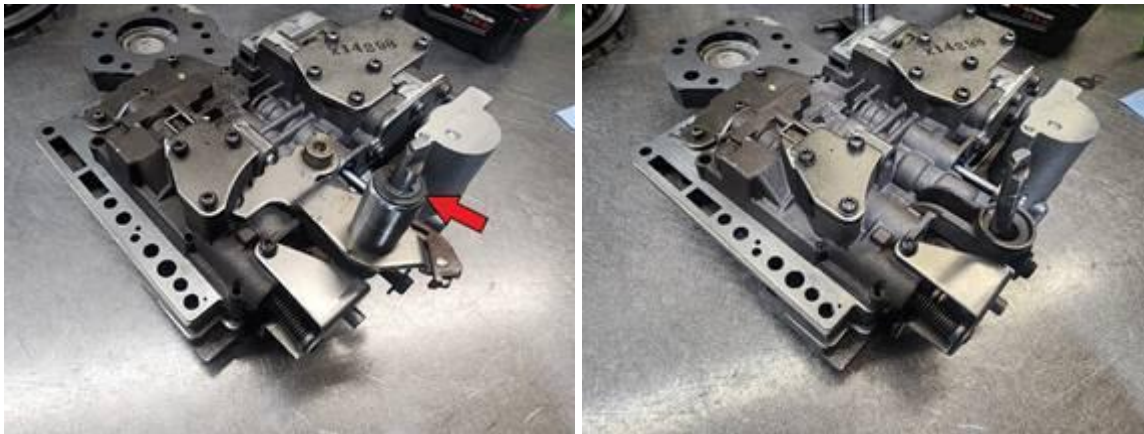
1. Remove valve body from vehicle.
2. If the vehicle is equipped with a stock Governor Pressure Solenoid and Transducer block; remove the 2 bolts securing the mounting plate to the valve body and remove the solenoid and transducer.
3. Remove the 3-4 Shift Solenoid and Torque Converter Lock-up Solenoid from the valve body by removing the (3) T25 bolts



4. Remove the T25 bolt securing the Valve Body Connector to the valve body. Then, remove the harness and solenoids from the valve body.



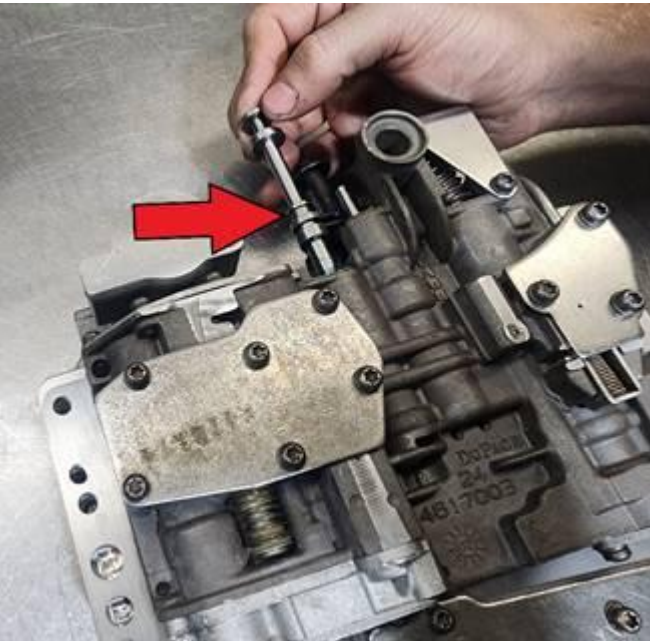
5. Remove Detent Lever "aka Rooster Comb" by removing the E-clip from the TV lever arm and pulling the detent lever up. Be careful not to lose the detent ball and spring.



6. Remove the TV Lever from the valve body.



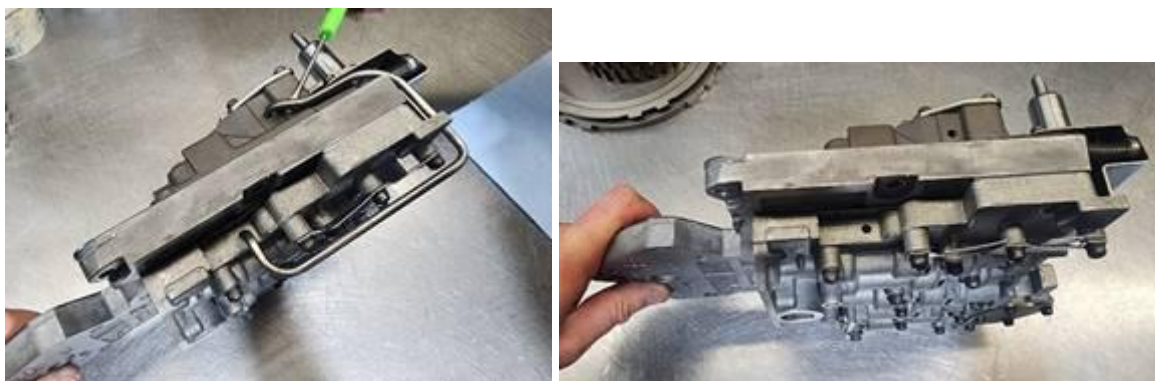
7. Remove Manual Valve from the valve body.



8. Using a flat blade screwdriver or similar tool, bend the retention tabs securing the Boost Valve Tube.



9. Using a screwdriver or small pry bar remove Boost Valve Tube from upper and lower valve body sections.

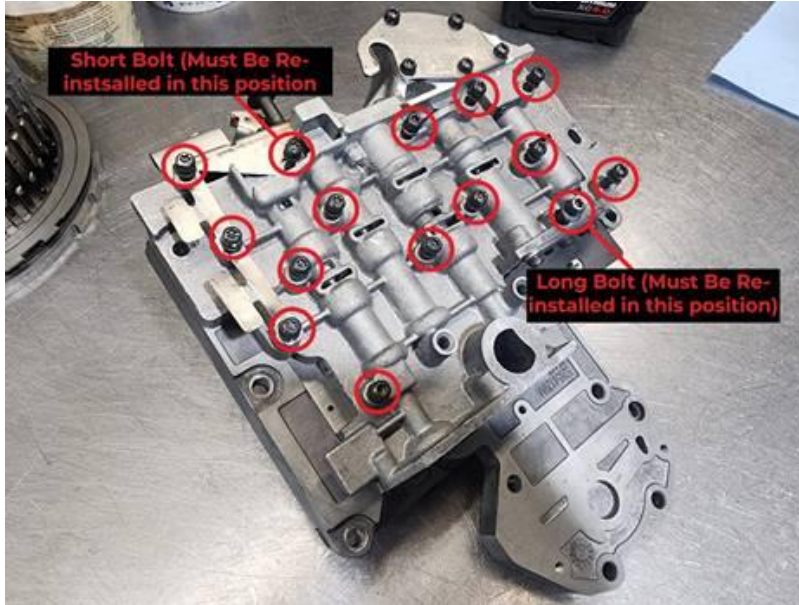


10. Before disassembling the valve body sections determine if you will need to use the supplied drill guide and drill bit. These valve bodies are typically found in mid '03-'07 vehicles:

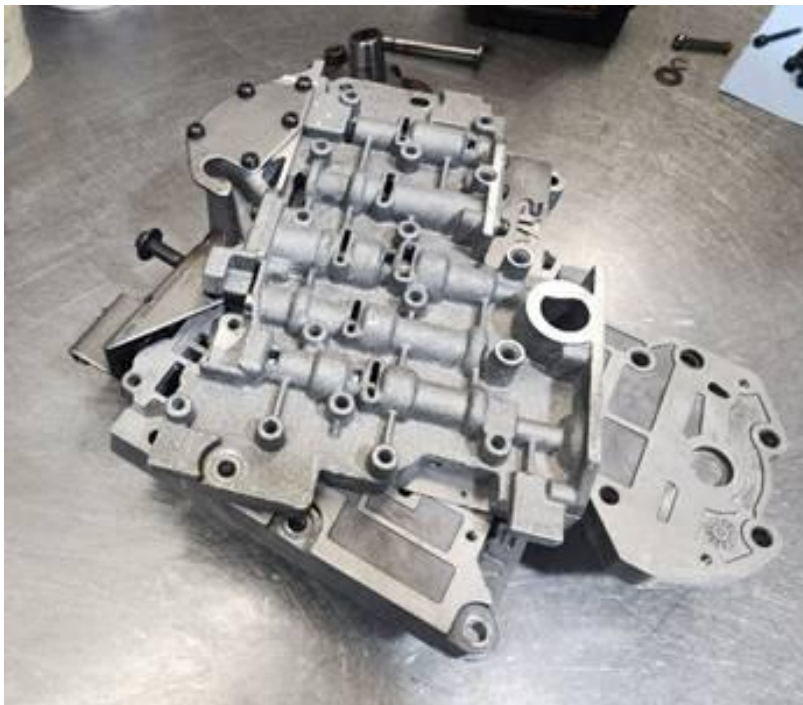
- a. If your upper valve body has a hole in this location, you will NOT need to use the drill guide.



11. Remove (15) lower valve body bolts using a T25 Torx bit. There is one short bolt and one long bolt that will need to be re-installed back into their correct positions during re-assembly.*
NOTE: If valve body does not have a short bolt in the location shown, a medium length bolt can be installed here without causing any issues*

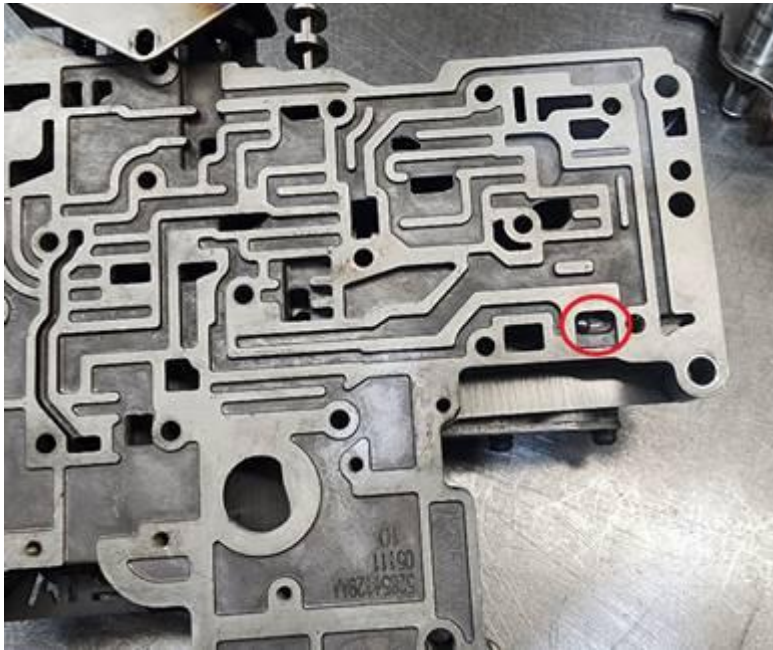


12. Remove lower valve body and small separator plate by turning body to clear the Line Pressure Adjusting Screw Bracket.

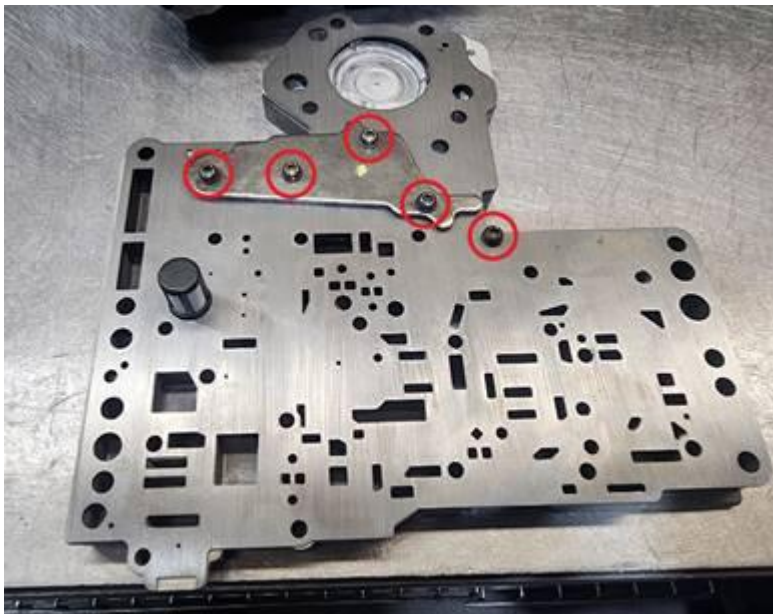


13. Keeping the valve body assembly flat, remove the channel plate and large separator plate from the upper valve body. Then set the upper valve body aside.

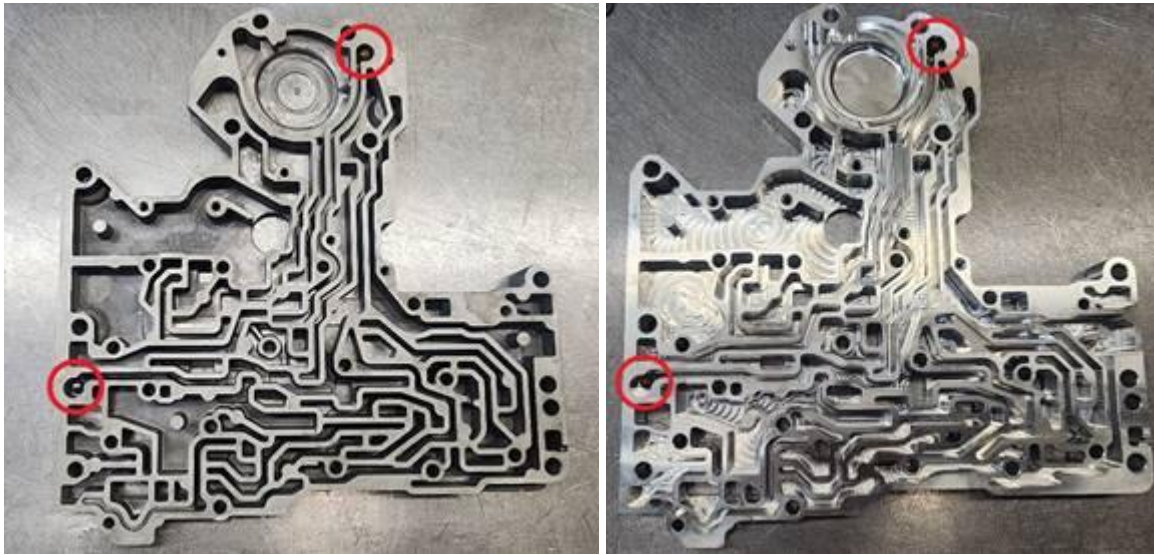
14. Remove the small separator plate and locate the check ball shown. This check ball will be reused in the ATS Billet Channel Plate.



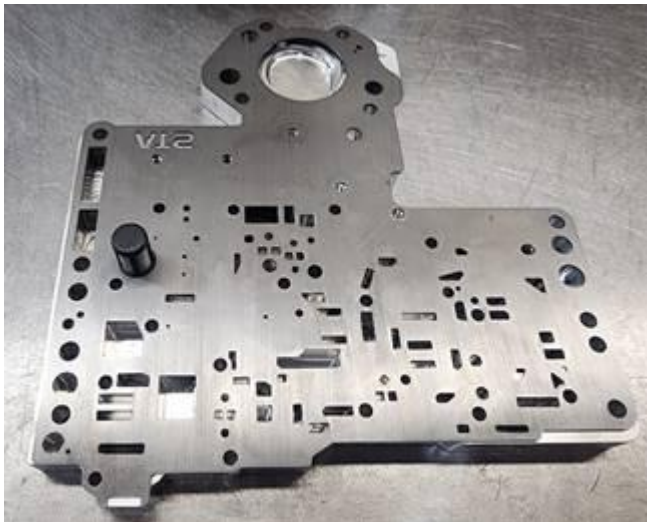
15. Turn the channel plate and large separator plate assembly over. Remove the (5) T25 Torx bolts and then remove the support plate and the large separator plate.



16. Remove check balls from locations shown in channel plate and transfer them to the ATS Billet Channel Plate



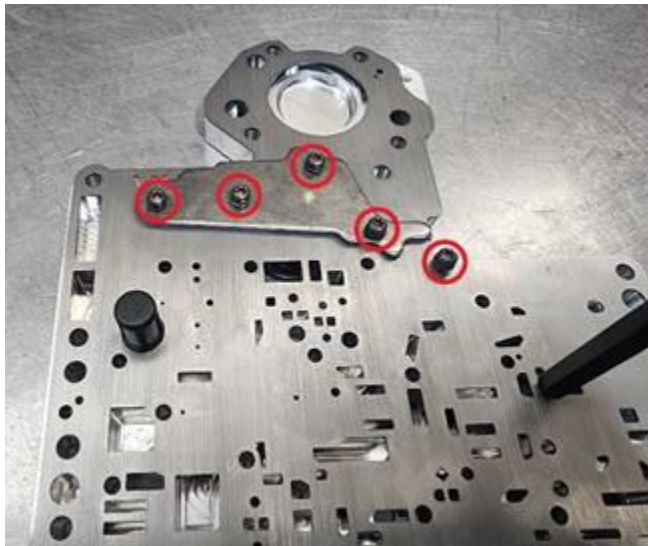
17. Transfer the oil screen from the stock separator plate into the ATS Separator Plate and install the plate onto the Billet Channel Plate. *****If only replacing the channel plate re-use stock separator plate*****



18. To aid in alignment of the separator plate to the channel plate use a couple punches or screwdrivers in the locations shown.



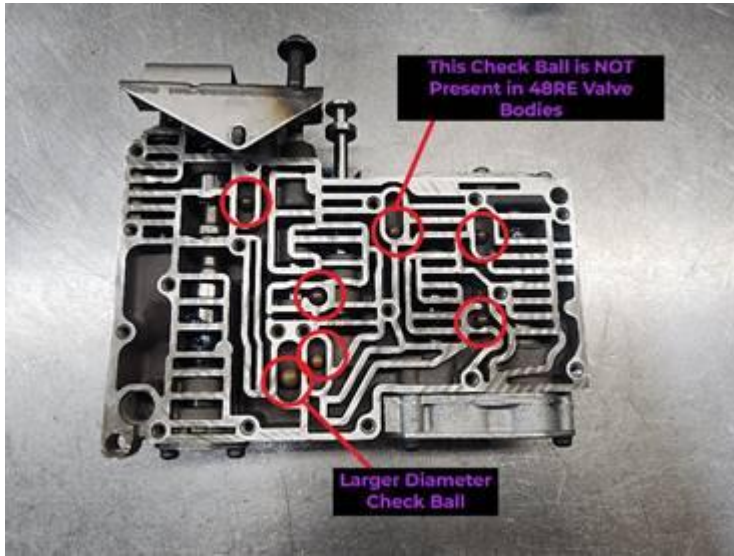
19. Install support plate and (5) T25 Torx bolts to secure the separator plate to the channel plate. Torque bolts to 35 in. lb. Then set the channel plate aside.



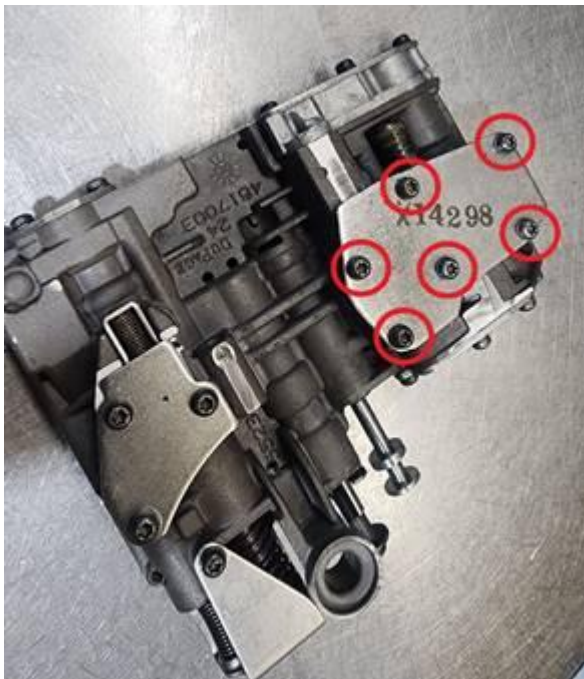
****If you purchased a billet channel plate by itself, or your upper valve body already has holes previously shown in step 10 skip to step 45****

20. Make note of check ball locations in the upper valve body, then remove the check balls. One channel has a larger diameter check ball than the others and must be reinstalled in this

location.



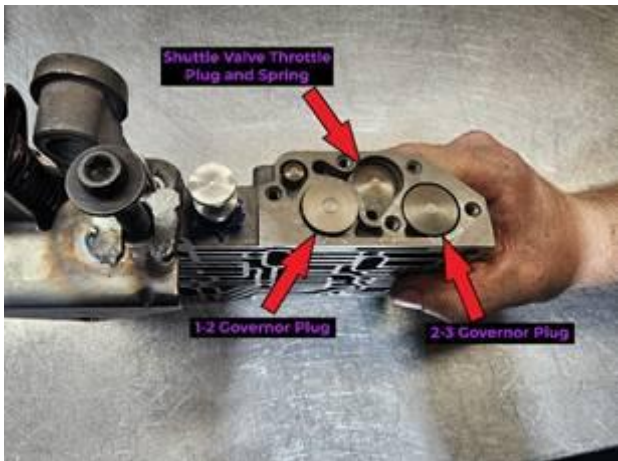
21. Remove the (6) screws and the Shuttle Valve Cover Plate



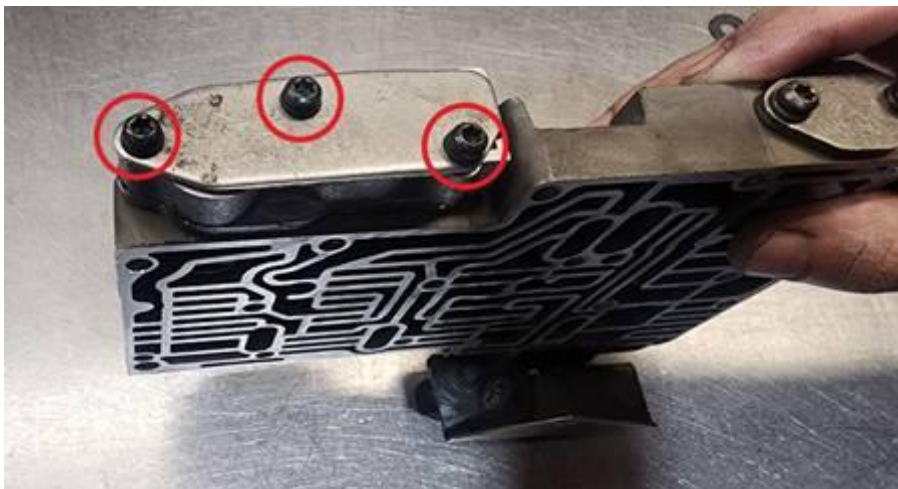
22. Remove (5) bolts and the Governor Plug Cover Plate



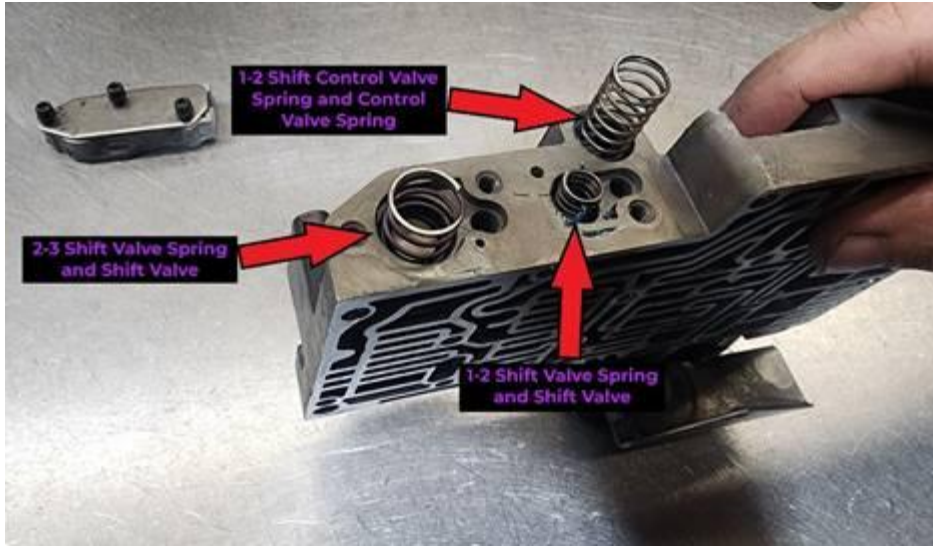
23. Remove the 1-2 Governor Plug, the 2-3 Governor Plug, and the Shuttle Valve Throttle Plug and Spring.



24. Remove the (3) bolts and the Limit Valve Cover Plate and the Limit Valve Housing.



25. Remove the 2-3 Shift Valve Spring and Shift Valve, 1-2 Shift Valve and Shift Valve, and 1-2 Shift Control Valve Spring and Control Valve.



26. If valves do not slide out of the upper valve body a small screwdriver can be used to remove the valves. Take care not to damage any of the valve surfaces.



27. Remove the E-Clip securing the Shuttle Valve and Shuttle Valve Spring.



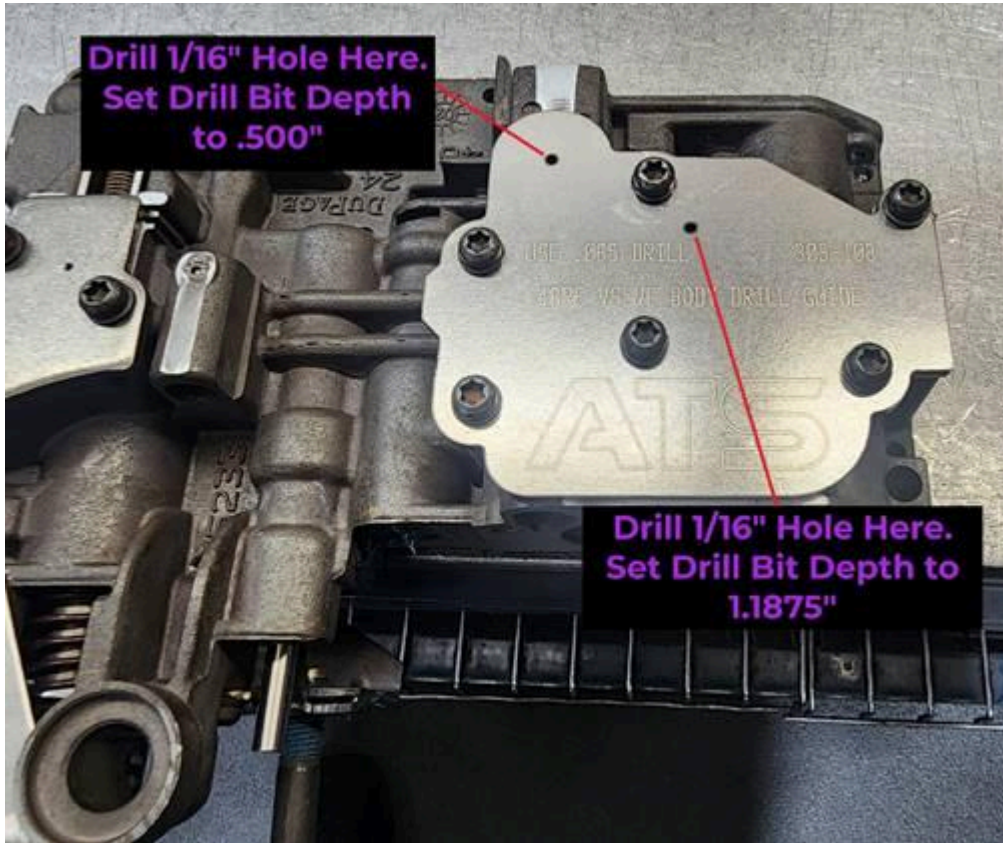
28. Install the supplied Drill Guide onto the upper valve body using the Shuttle Valve Cover Plate screws. Snug bolts down to hold the Drill Guide in place.



29. Using the supplied drill bit drill a 1/16" hole in the locations shown. Set drill depth to correct depth indicated in image!

****If the drill bit is set too deep it may contact the opposite side of the 1-2 Shift Control Valve bore causing the valve to not function properly. ATS Diesel will NOT be liable for any***

damage caused to valve body during drilling*



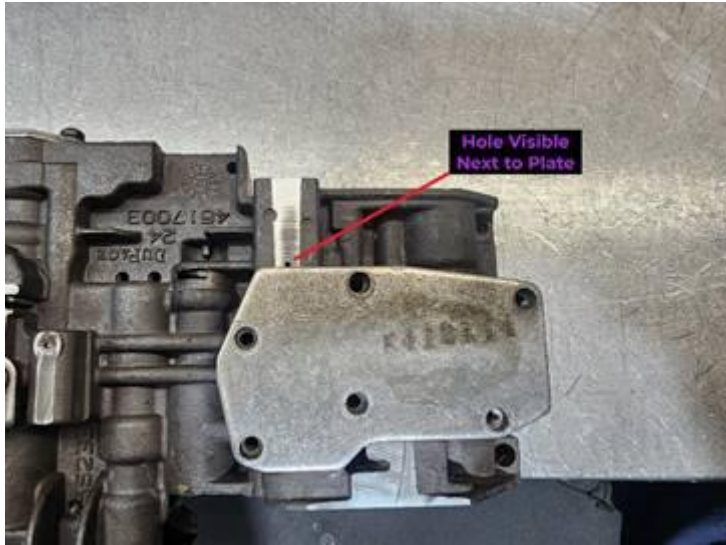
30. Remove the drill guide after drilling both holes. Be sure to clean all metal shavings out of all passages to ensure valves can move freely when assembled.



31. Check inside the 1-2 Shift Control Valve bore; if there is a metal burr from the drill bit breaking through into the bore it needs to be removed before reassembly. A small wire bore brush can be used to remove any burrs in the bore.

32. Re-install the Shuttle Valve Cover Plate using original screws. Torque screws to 35 in. lbs. If included: install the ATS Shuttle Valve Cover Plate.

*****There are 2 different style cover plates. Check if your plate covers the drilled hole in the 1-2 Shift Control Valve bore. If your plate covers the hole, the plate will need to be ground so that the plate no longer covers the hole*****



33. Lubricate the valve and spring with Transgel or clean Transmission fluid then install the 1-2 Shift Valve and Spring.



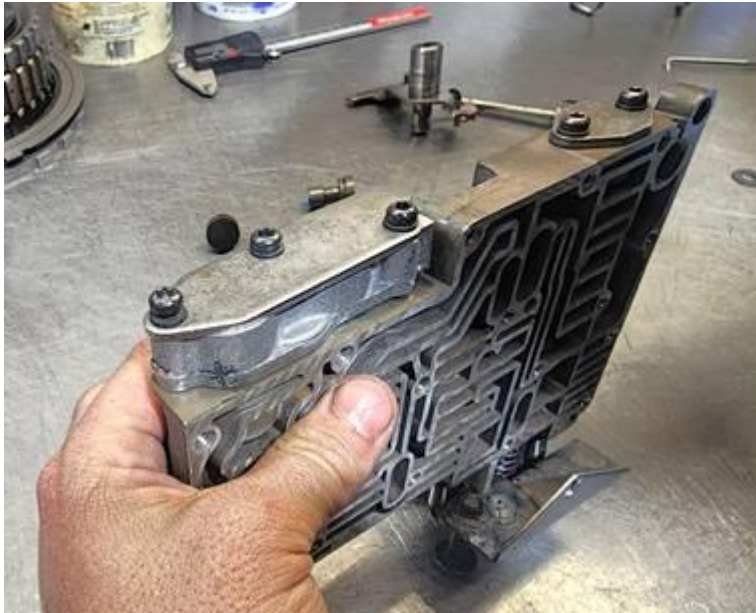
34. Lubricate the valve and spring with Transgel or clean Transmission fluid then install the 2-3 Shift Valve and Spring.



35. Lubricate the valve and spring with Transgel or clean Transmission fluid then install the 1-2 Shift Control Valve and Spring.



36. Install the Limit Valve Housing and the Limit Valve Cover Plate and torque bolts to 35 in. lbs.



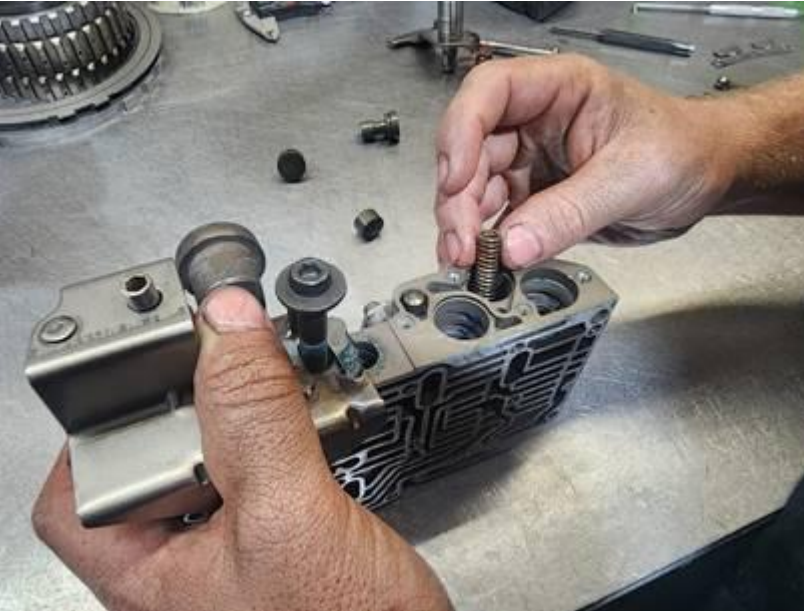
37. Lubricate and then install the Shuttle Valve until the end of the valve is just outside of the valve body.



38. Install the Shuttle Valve Spring over the valve and then fully insert the valve into the valve body. Compress the spring and install the E-Clip into the groove on the end of the valve.



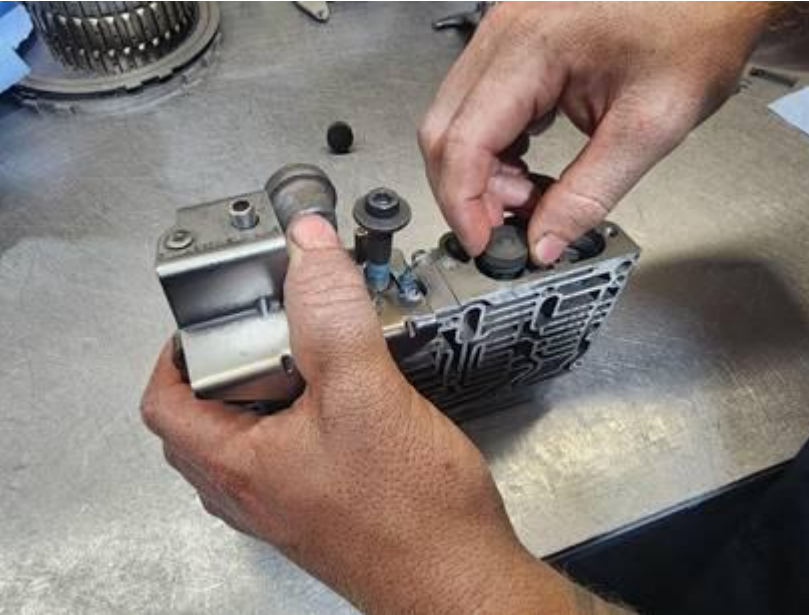
39. Install the Shuttle Valve Primary Spring into the Shuttle Valve.



40. Lubricate and then install the Shuttle Valve Throttle Plug.



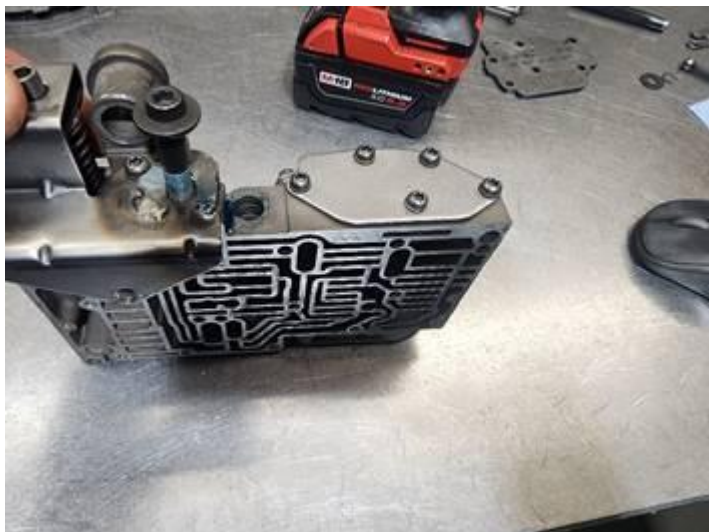
41. Lubricate and then install the 1-2 Governor Plug. This plug is the taller of the 2 plugs.



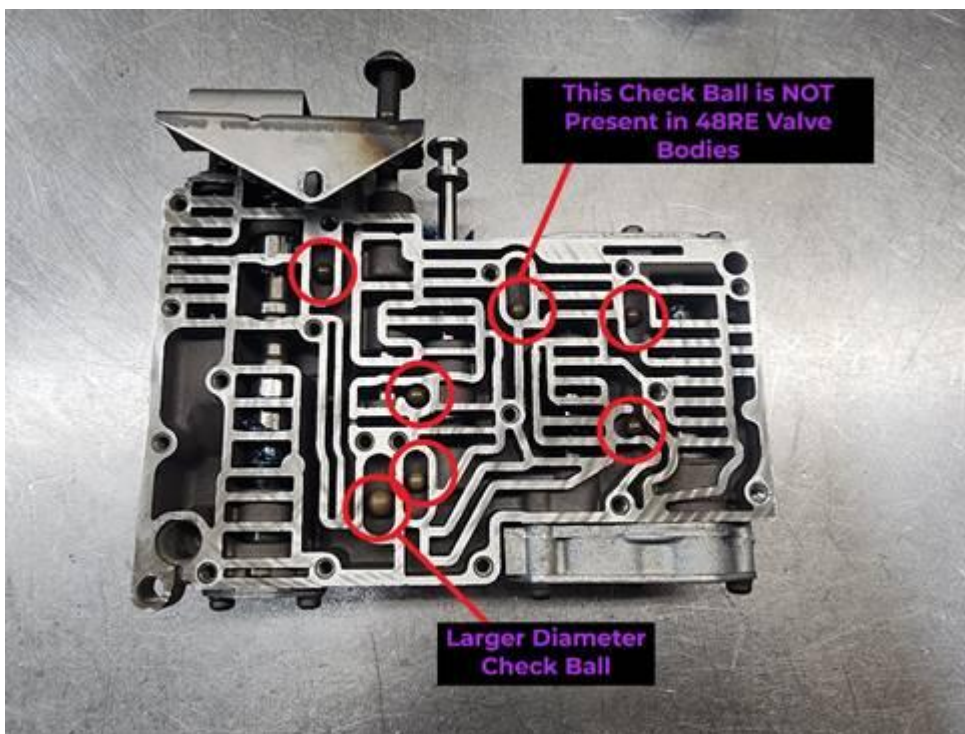
42. Lubricate and then install the 2-3 Governor Plug. This plug is the shorter of the 2 plugs.



43. Install the Governor Plug Cover Plate and torque the bolts to 35 in. lbs.



44. Install all check balls back into the upper valve body. Be sure the larger diameter check ball is in the correct location.



45. Set the ATS Billet Channel Plate and Large Separator Plate onto the upper valve body. Be careful not to damage the oil screen in the large separator plate when installing the channel

plate.



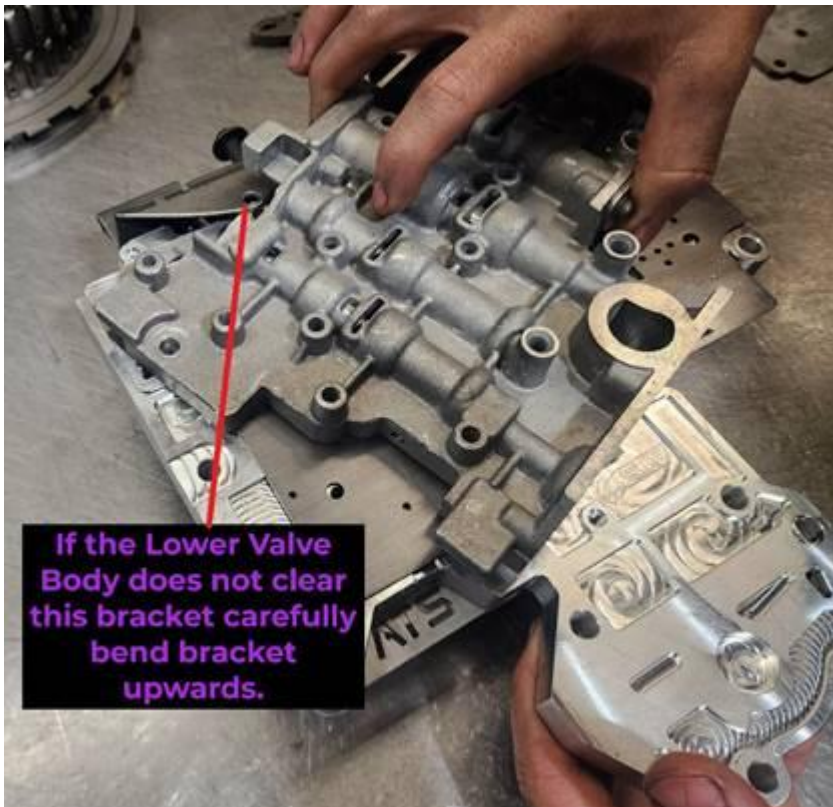
46. Install the check ball into the Billet Channel Plate that was previously removed from the stock plate in the location shown.



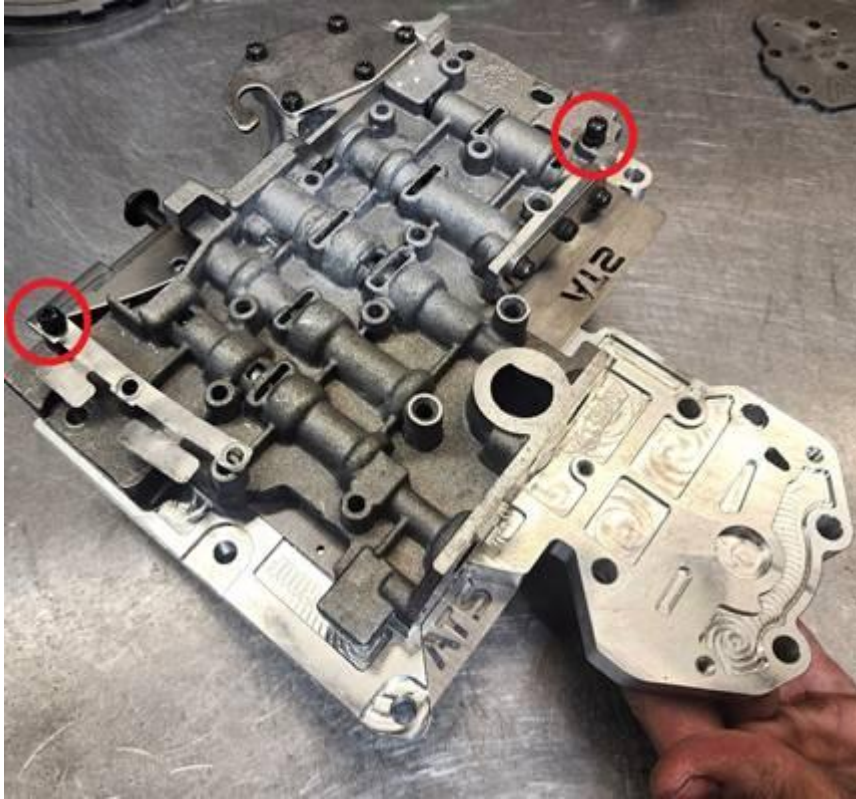
47. Install the Small Separator Plate onto the channel plate and align the bolt holes. ****If only replacing the channel plate re-use the stock small separator plate****



48. Install the lower valve body assembly onto the small separator plate by setting the assembly flat and then turning it into position underneath the Line Pressure Adjusting Screw Bracket. *****Due to ATS Separator Plate thicknesses it may be necessary to bend the mounting tab of the Line Pressure Adjusting Screw Bracket upwards slightly to clear the lower valve body assembly*****

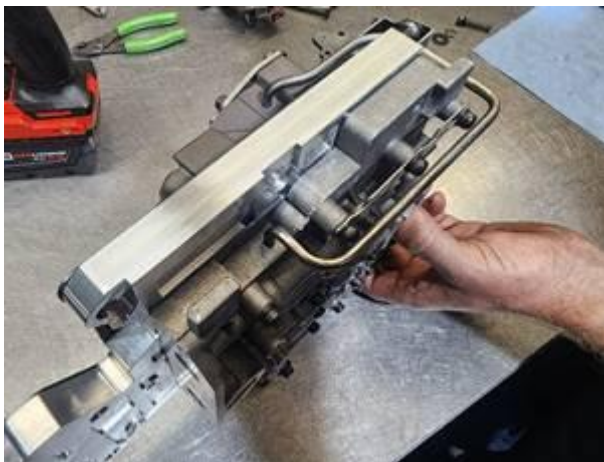


49. Align the lower valve body and the small separator plate by installing the 2 bolts shown finger tight. Be sure to install the Boost Tube Retaining Bracket.



50. Install remaining (13) lower valve body bolts being sure to install the shorter bolt and longer bolt in their respective locations. Torque bolts to 35 in. lbs.

51. Install the Boost Valve tube into the holes in the lower and upper valve body. Ensure the tube fully seats into each section of the valve body. Tapping the tube with the end of a screwdriver can aid in fully seating tube.



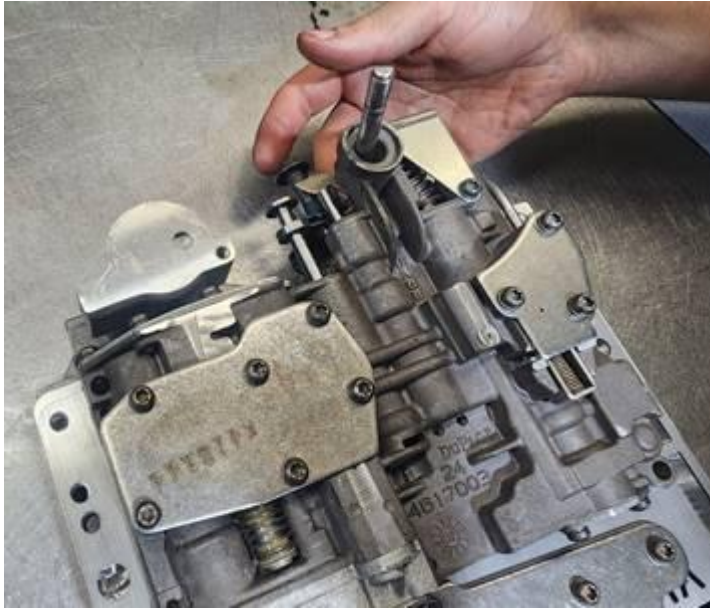
52. Using a screwdriver, bend the tabs to secure the Boost Valve Tube in position.



53. Lubricate and install the manual valve into the upper valve body.



54. Install the TV Lever into the upper valve body.



55. Install the detent ball and spring into the passage in the upper valve body. Depress and hold the ball with a screwdriver.



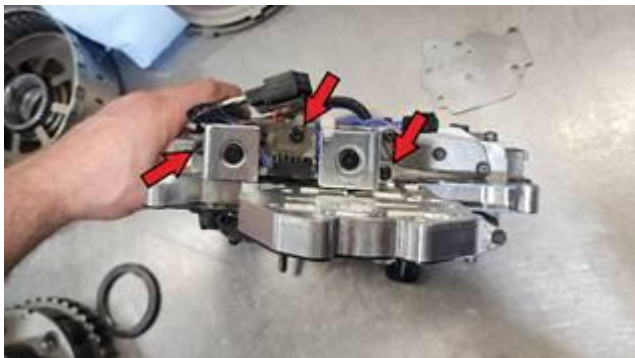
56. While holding the detent ball, align the Rooster Comb tab above the manual valve and then slide the rooster comb down into the manual valve and allow the detent ball to lock into the detents.



57. Install the TV lever seal, washer, and E-Clip.



58. Reinstall valve body electronics and torque retaining bolts to 35 in. lbs.



59. Reinstall valve body into vehicle.