

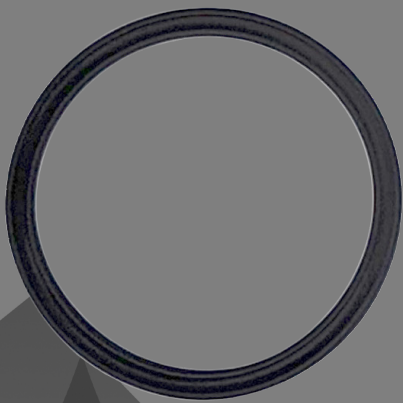


# ASSEMBLY/INSTALLATION INSTRUCTION MANUAL

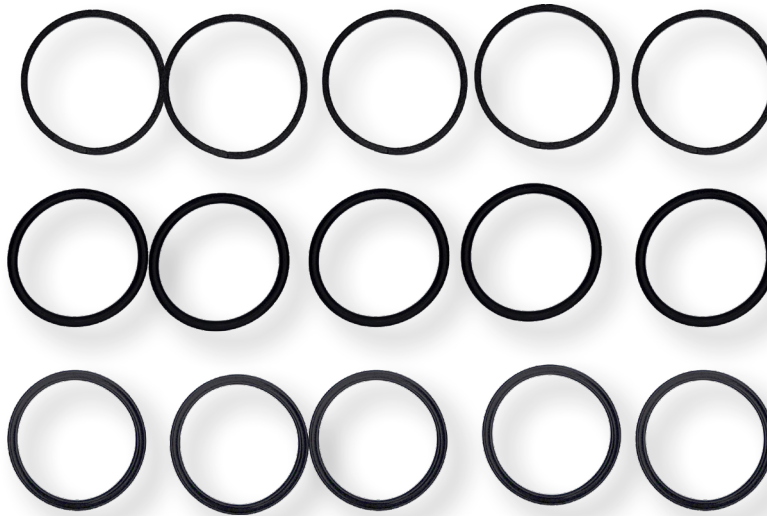


68-RFE ACCUMULATOR PISTON SEAL KIT . 303-103-2326

2007½ - 2021 RAM 6.7L CUMMINS DIESEL CR



**Installation Manual v1.0:**  
**p/n: 303-103-2326**  
**68-RFE Accumulator Piston Seal Kit**  
**2007½ - 2021 Ram 6.7L Cummins Common Rail**



**Please read all instructions before attempting installation.**

Thank you for purchasing the ATS 68RFE Accumulator Piston Seal Kit. Please check our website at <http://www.atsdiesel.com> for technical support and other performance products such as the 5-Star™ Torque Converter, ATS High Performance Valve Body and ATS High Performance Transmission along with our full line of power enhancers.

**BILL OF MATERIALS**

1. (5) Chemical Resistant Viton X-Profile Ring
2. (5) Oil Resistant Buna-N O-Ring
3. (5) Teflon Seal

**RECOMMENDED ADDITIONAL ITEMS**

1. ATS Accumulator Plate (303-030-2326)
2. ATS Cooler Return Filter Coupler (301-021-2326)
3. ATS Deep Transmission Pan (301-900-2326)
4. ATS BilletProof Billet Accumulator Piston Kit (303-021-2326)



1.



2.



3.



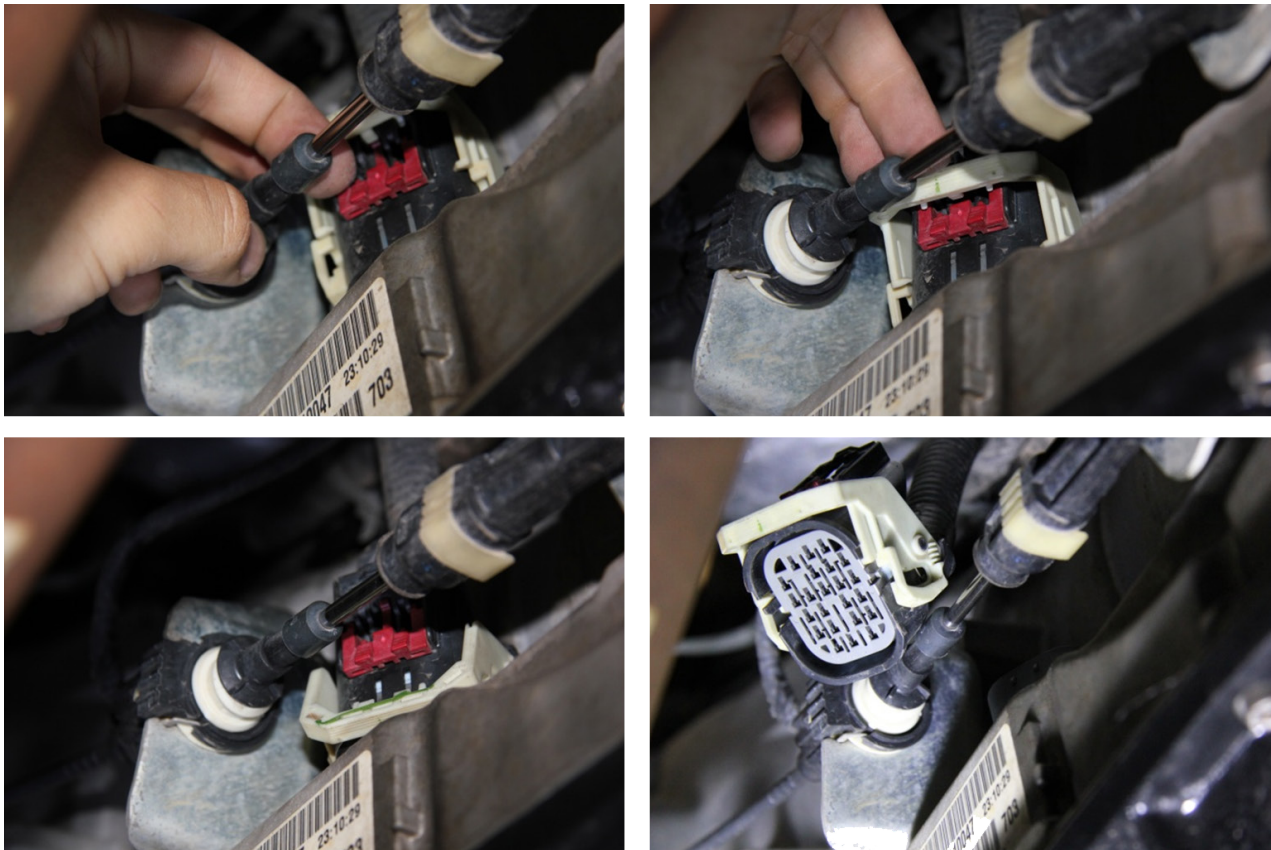
4.

**OPTIONAL ADDITIONAL ITEMS**

1. Primary Transmission Filter Chrysler OEM (5013470AD, not available from ATS Diesel Performance)
2. Primary Filter Seal Chrysler OEM (4799964AD, not available from ATS Diesel Performance)
3. Cooler Return Filter Chrysler OEM (5179267AC, not available from ATS Diesel Performance)

## INSTRUCTIONS

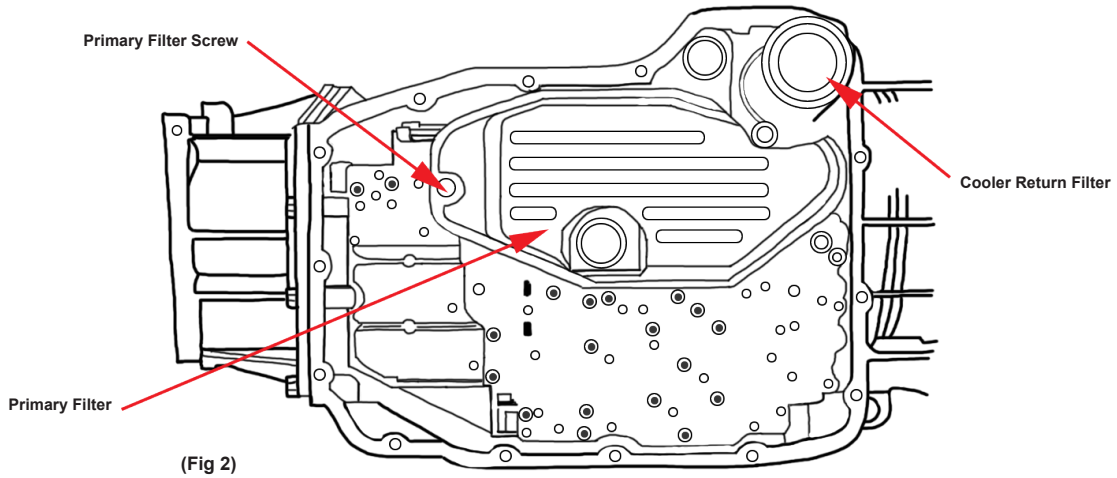
1. Park the vehicle on level ground and shift the vehicle into PARK. Allow transmission to sufficiently cool prior to continuing.
2. Place a clean drain pan beneath the transmission pan.
3. Using 10mm Socket, remove the screws holding the front and sides of the pan to the transmission.
4. Loosen but do not completely remove the remaining screws holding the rear of the pan to the transmission.
5. Slowly separate the front of the factory pan away from the transmission allowing the fluid to drain into the drain pan.
6. Hold up the transmission pan and remove the remaining screws.
7. Lower the pan and pour the remaining fluid into the drain pan.
8. Disconnect the 23 pin electrical connector on the upper driver side of the transmission. Carefully, first press the red clip down and then rotate the white latch down. Pull the connector straight up to disconnect it from the transmission. (Fig 1)



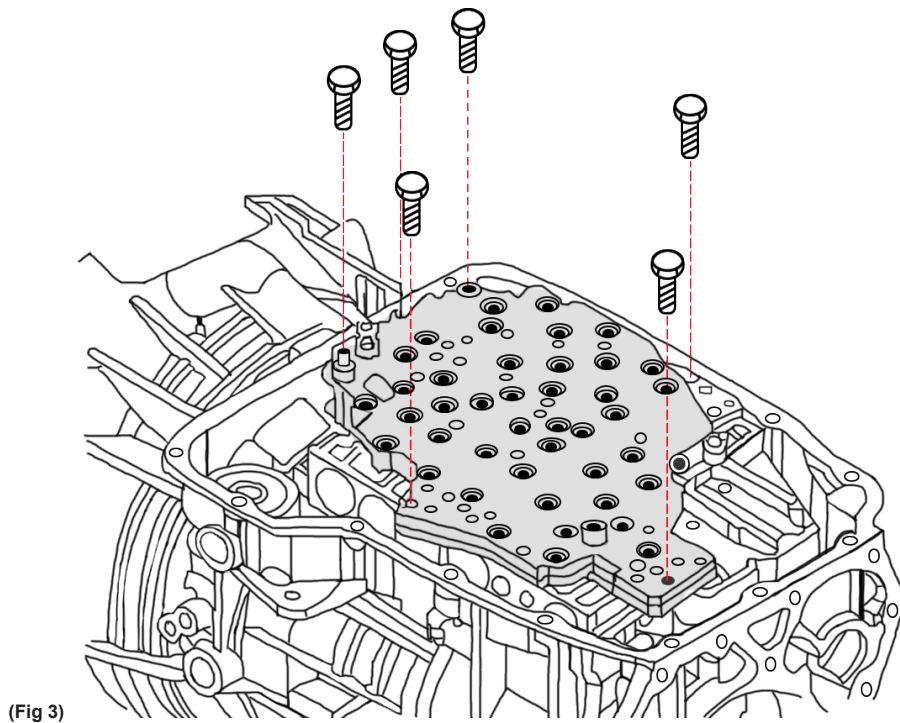
(Fig 1)



9. Remove the Primary Filter screw using a T25 Torx bit. Pull filter straight down to remove. Set screw aside as it will be reused for reinstallation. (Fig 2)



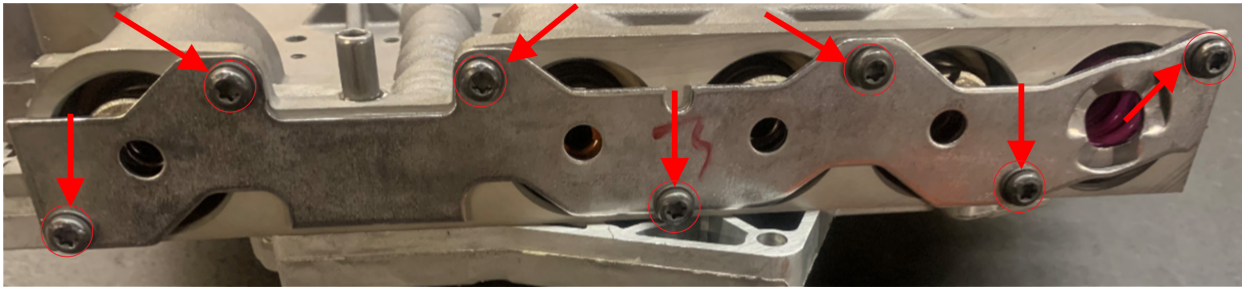
10. It is recommended to replace the primary filter, cooler return filter and the filter seal during this installation. While replacing the cooler return filter, ATS recommends replacing the factory filter coupler with an ATS billet filter coupler (p/n: 3010212326) for proper tightening of the filter. If you choose to replace cooler return filter, remove and let fluid drain into drain pan.
11. Remove 6 screws holding valve body to transmission using 8mm socket. (Fig 3)





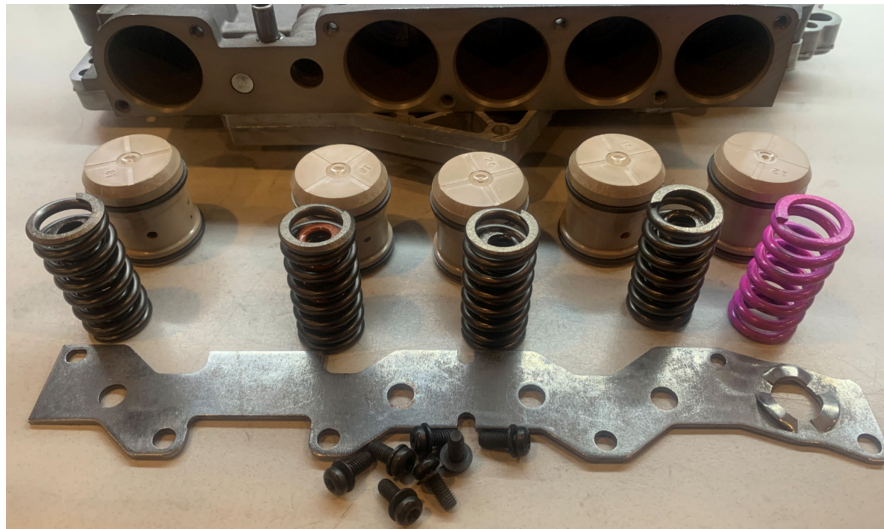
12. Lower the valve body and work the electrical connector out of the transmission case.
13. Clean excess ATF off of the valve body and place on clean worktable.
14. Remove the 7 factory accumulator plate bolts using T25 Torx bit. *(Fig 4)*

(Fig 4)



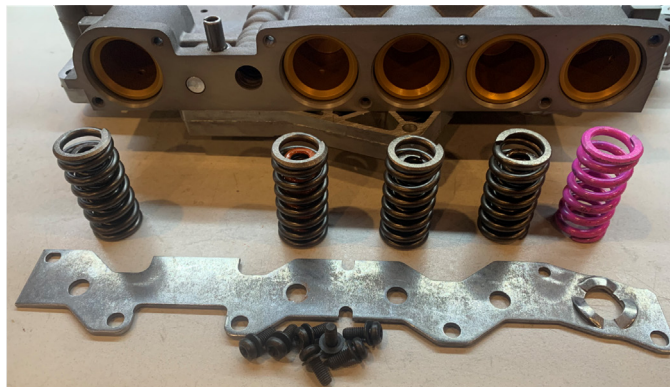
15. Carefully remove accumulator springs and pistons. Keep track of which bore each spring comes out of as the springs are different and they will need to be reinstalled in the same location. *(Fig 5)*

(Fig 5)

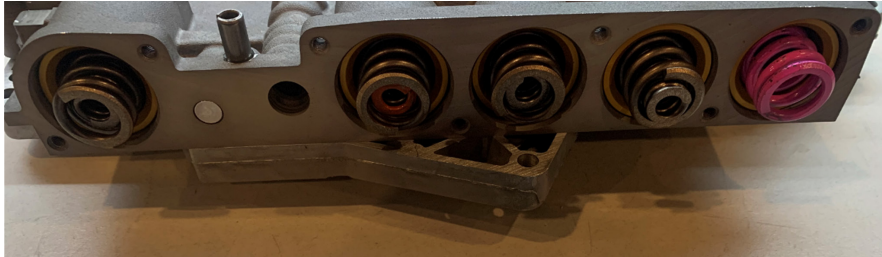


16. Lubricate the accumulator pistons with ATF, petroleum jelly or STP and slide into each bore. The pistons will be tight in bore to ensure proper sealing. Push pistons into bores until they bottom out. *(Fig 6a)*

(Fig 6a)

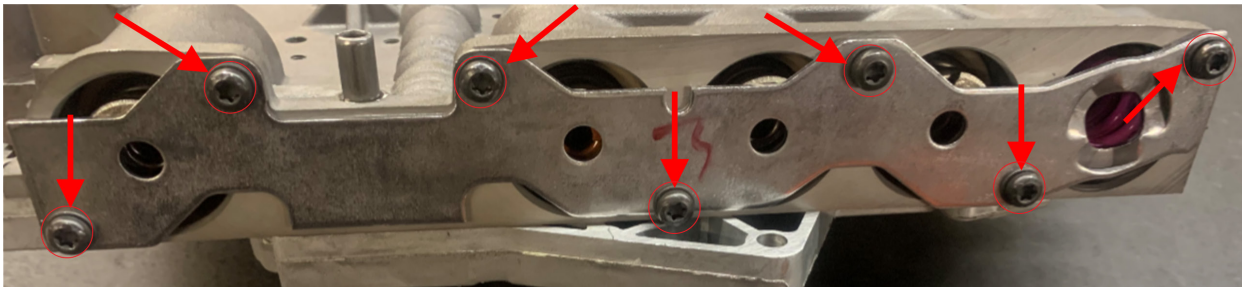


17. Install springs behind pistons. Ensure the springs are reinstalled in the location in which they were removed. (Fig 7)



(Fig 7)

18. Reinstall factory accumulator plate with the factory 7 screws using a T25 Torx bit. Torque the screws to 60 in-lbs. Tighten the screws from the center to the outside. ATS recommends installing an **ATS Accumulator Cover Plate** (p/n: 303-030-2326) during installation instead of the factory accumulator plate to withstand higher transmission pressures. (Fig 8)



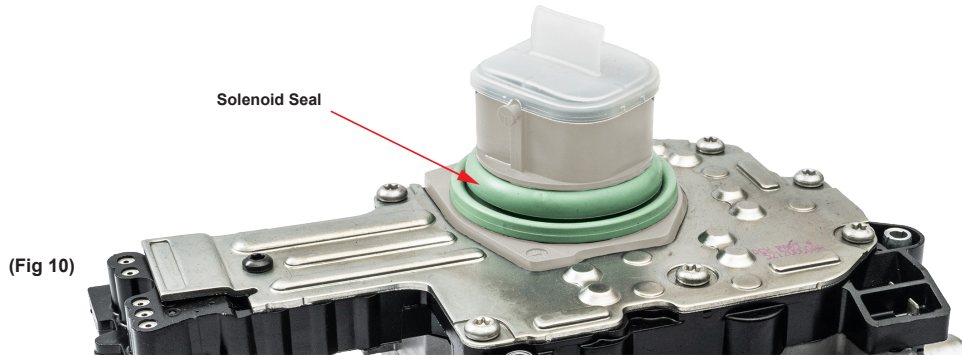
(Fig 8)

19. Ensure the selector plate is in the PARK position. (Fig 9)

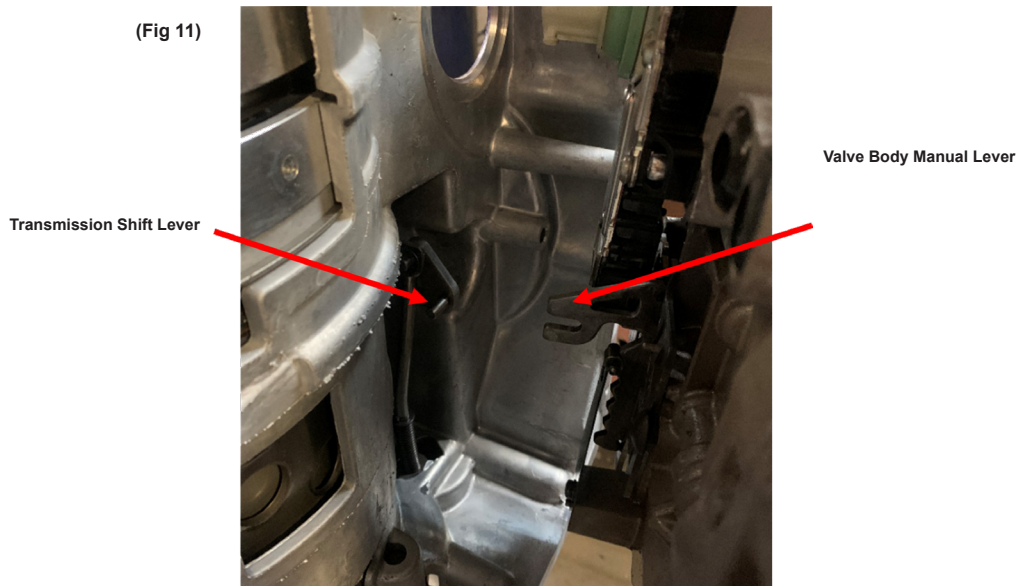


(Fig 9)

20. Lubricate the solenoid seal and pressure switch assembly connector with petroleum jelly. (Fig 10)

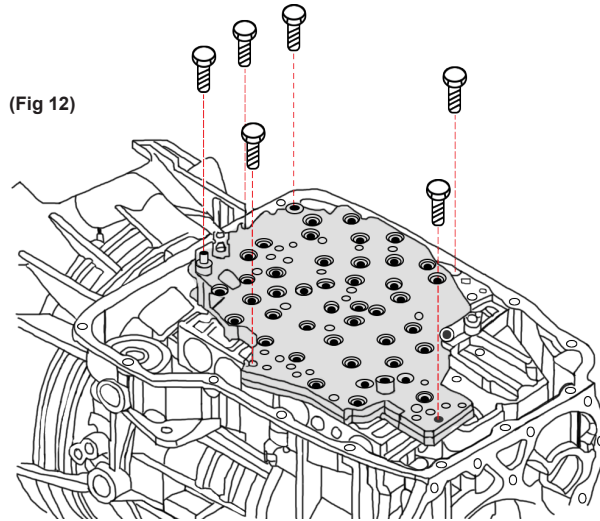


21. Position the valve body in the transmission and align the manual lever on the valve body to the pin on the transmission shift lever. (Fig 11)

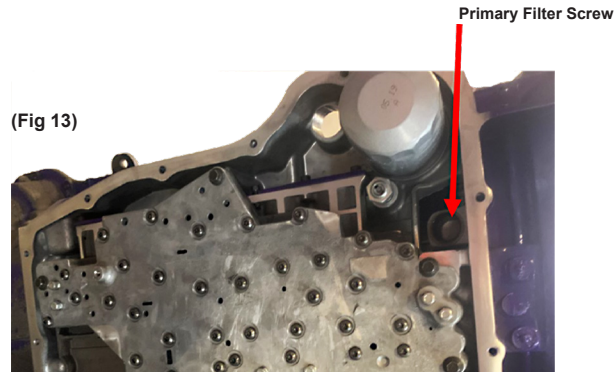




22. Install the valve body into the transmission with the 6 factory screws using a 8mm socket. Alternate tightening the screws to ensure the valve body seats to transmission housing properly. Torque the screws to 105 in-lbs. (Fig 12)



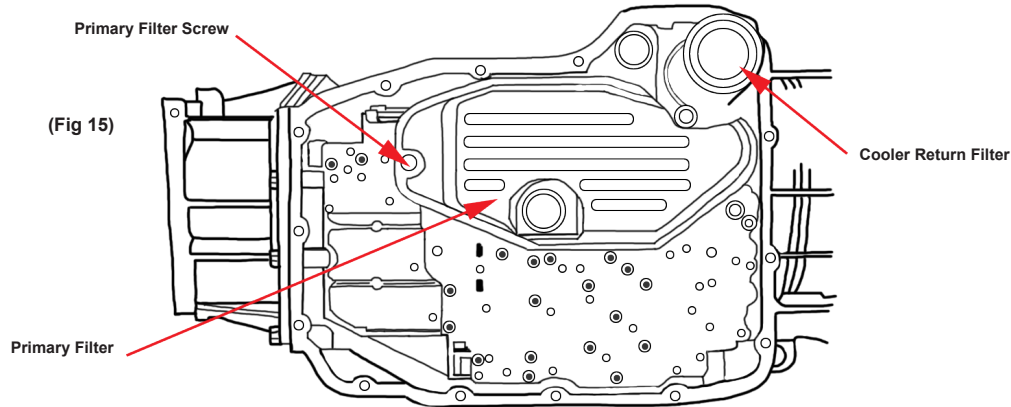
23. Replace Primary Filter Seal if necessary. Seat the seal into the bore using the butt end of a hammer. (Fig 13)



24. Place Primary Oil Filter in position on valve body and press snout into Filter Seal. (Fig 14)



25. Install the factory screw with a T25 Torx bit to hold the Primary Filter to valve body. Torque screw to 40 in-lbs. (Fig 15)



26. Install ATS Billet Coupler on new cooler return filter if chosen to replace.
27. Install new cooler return filter into transmission if chosen to replace.
28. Connect solenoid and pressure switch 23 pin electrical assembly connector. Push connector together and lift up on the white lever and push the red clip upward.
29. Clean transmission sealing surface to ensure leak free seal with new gasket.
30. Install transmission oil pan with new gasket. If installing factory transmission pan, torque factory screws to 105 in-lbs using a 10mm Socket. If installing ATS Deep Transmission Pan install ATS filter extension onto primary oil filter provided with the pan and torque the pan screws to 85 in-lbs using 5mm Hex Bit.
31. Fill the transmission with ATF through the fill tube using a funnel. If the transmission fluid appears to be clean and in good condition, it is ok to reuse the transmission oil that was drained previously. If necessary, fill the transmission with Mopar ATF+4. If using the same pan as was previously on the vehicle, fill the same amount that was drained, which should be around 5 quarts. If adding an ATS Deep Transmission Pan, add an additional 3-4 quarts.
32. Start the engine and with the transmission in PARK, let idle for several minutes.
33. With the brake pedal depressed, cycle the gear shifter through PARK, REVERSE, NEUTRAL, DRIVE and back to PARK allowing each gear to engage but **DO NOT allow the vehicle to move**. Repeat several times.
34. With the engine running and the vehicle in PARK, check the fluid level and add as necessary until it shows near the full mark on the dipstick.
35. Check transmission for leaks and drive vehicle. Allow transmission to get up to operating temperature and shift through gears to ensure proper shifting.





### LIMITED WARRANTY STATEMENT:

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ATS Diesel Performance warrants the original purchaser that any parts purchased shall be free from defects in material and workmanship. ATS Diesel Performance is the warrantor of this product, in the event this product is purchased from a distributor or retailer other than ATS Diesel Performance the customer must contact ATS Diesel Performance for any warranty concerns, not the purchasing dealer. A defect is defined as a condition that would render the product inoperable. This warranty does not cover deteriorating of plating, paint or any other coating. ATS liability is limited to the repair or replacement, at ATS's option, of any warrantable product returned prepaid with a complete service history and proof of purchase to the factory. A valid proof of purchase is a dated bill of sale. Repaired or replaced, product will be returned to the customer, freight collect on a like-for-like part number basis. Accepted warranty units, which have been replaced, become the sole property of ATS.

A Return Product Authorization number obtained in advanced from an ATS customer service representative must accompany products returned for warranty determination. ATS will be the final authority on all warranty decisions.

This warranty shall not apply to any unit which has been improperly stored or installed, subjected to misapplication, improper operating conditions, accidents, or neglect; or which has been improperly repaired, altered or otherwise mistreated by the owner or his agent.

This warranty shall terminate at the end of 12 months in service with the original user. Labor cost incurred by the removal and replacement of an ATS product, while performing warranty work, will be the responsibility of the vehicle owner; in no case does the obligation of ATS Diesel Performance exceed the original purchase price of the product as indicated on the original bill of sale.

Except as set forth in this warranty, ATS disclaims any implied warranty, including implied warranties of merchantability and fitness for a particular purpose. ATS also disclaims any liability for incidental or consequential damages including, but not limited to, repair labor, rental vehicles, hotel costs or any other inconvenience costs. This warranty is in lieu of all warranties or guarantees, either expressed or implied, and shall not extend to any customer or to any person other than the original purchaser residing within the boundaries of the continental US or Canada.



**NOTE:** We strive to make our instructions as clear and complete as possible. To achieve this, our instructions are under constant construction. We encourage you to visit our Technical Support Website (<http://www.atsdiesel.com/ATSWebsite/Technical.asp>) to check for the most up-to-date manuals and diagrams as well as other information. If you have any suggestions as to how we can improve this installation manual, let us know at: [suggestions@atsdiesel.com](mailto:suggestions@atsdiesel.com)



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### TROUBLESHOOTING:

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Thank you for purchasing the ATS Accumulator Piston Seal Kit for the 68RFE transmission. This manual is to assist you with your installation and operation of the unit. Please use the contact information to the left for assistance with any questions regarding this installation. If you are installing the unit for a customer, please pass this manual on to your customer for future reference.



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