



# ATS *UPGrades*

## ASSEMBLY/INSTALLATION INSTRUCTION MANUAL



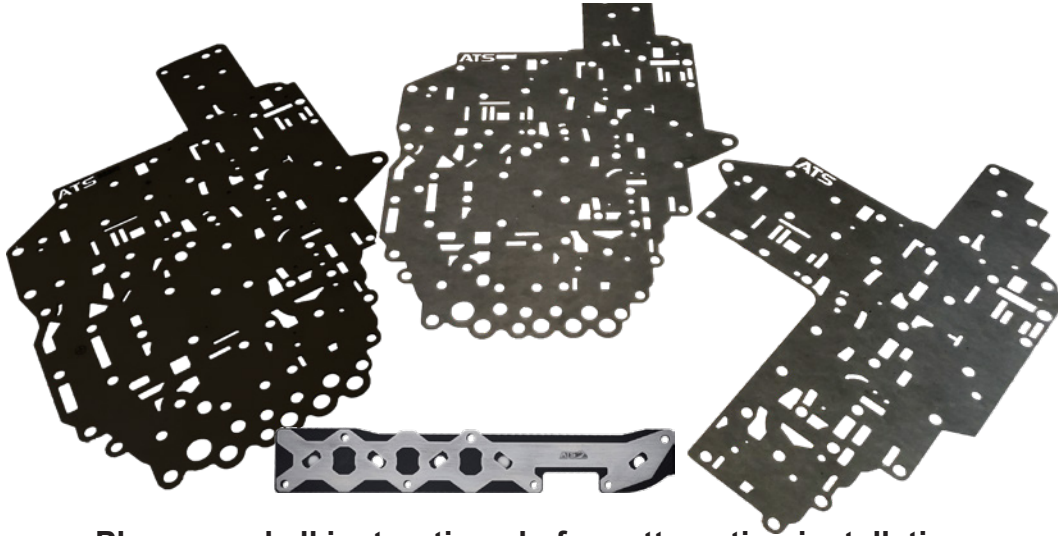
68-RFE VALVE BODY FULL PRESSURE ENABLE KIT . PN:303-031-2326

2007½ - 2011 RAM 6.7L CUMMINS DIESEL C.R.





Installation Manual v1.7:  
p/n: 303-031-2326  
68-RFE Valve Body Full Pressure Enable Kit  
2007½ - 2011 Ram 6.7L Cummins Common Rail



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

Thank you for purchasing the ATS 68RFE Valve Body Full Pressure Enable Kit. This kit enables the transmission to mechanically and hydraulically produce a higher line pressure than the factory transmission setup is capable of. The factory transmission is only capable of a maximum line pressure of 160 PSI in all forward gears. This kit will allow the transmission to produce up to 295 PSI when commanded by the ATS Co-Pilot transmission control module once both parts are installed.

Please check our website at [www.atsdiesel.com](http://www.atsdiesel.com) for technical support and other performance products such as the Five-Star™ Torque Converter, ATS High Performance Valve Body and ATS High Performance Transmission along with our full line of power enhancers.



**NOTE:** If this kit is installed and only controlled by the factory transmission control module (TCM), there will be little to no pressure increase, the factory hydraulic calibration limits pressure to approximately 160 PSI. If this kit is installed and used with the factory TCM calibration it will still work as stock. While it is not necessary to install this kit to get the benefits of the ATS Co-Pilot™, it will increase the performance of the Co-Pilot to its fullest potential and allow the transmission to safely handle power levels over stock.



RECOMMENDED ATS Co-Pilot™  
p/n: 601-900-2326

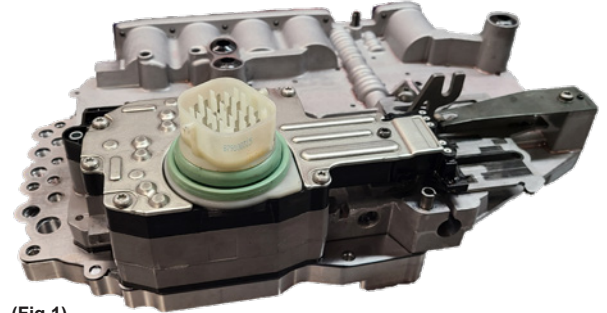
## BILL OF MATERIALS

1. (1) Separator Plate (303-032-2326)
2. (2) Check Balls (303-20)
3. (1) Accumulator Plate (303-030-2326)
4. (7) Accumulator Bolts (001-61)
5. (1) ATS Front Separator Plate Gasket (303-005-2326)
6. (1) ATS Back Separator Plate Gasket (303-005-2326)



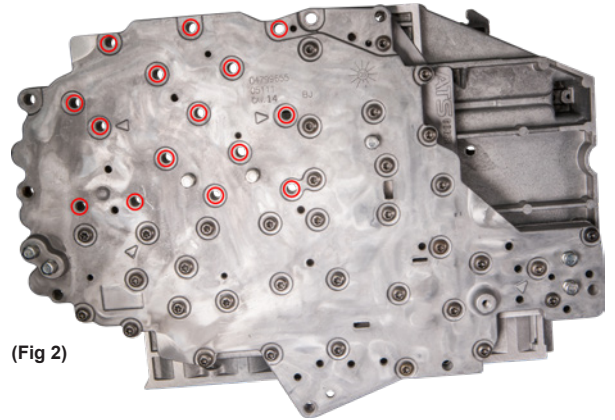
## INSTRUCTIONS

1. Remove the transmission pan, then unbolt the valve body assembly and remove it from the vehicle. (Fig 1)



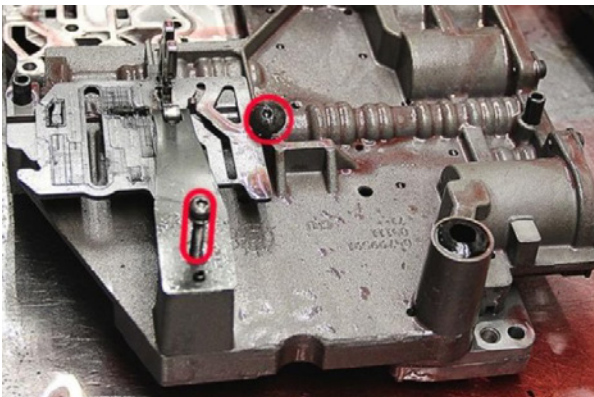
(Fig 1)

2. Remove the highlighted bolts to release the solenoid pack from the valve body. Carefully remove the solenoid pack from the valve body and set aside. (Fig 2)

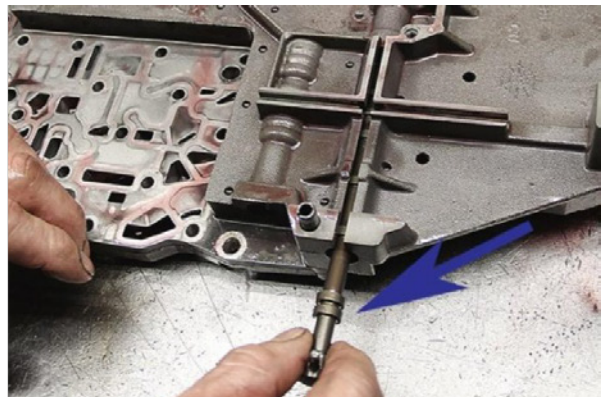


(Fig 2)

3. Remove the two highlighted bolts (Fig 3a) and then remove the shift selection assembly. Carefully remove the pin. (Fig 3b)

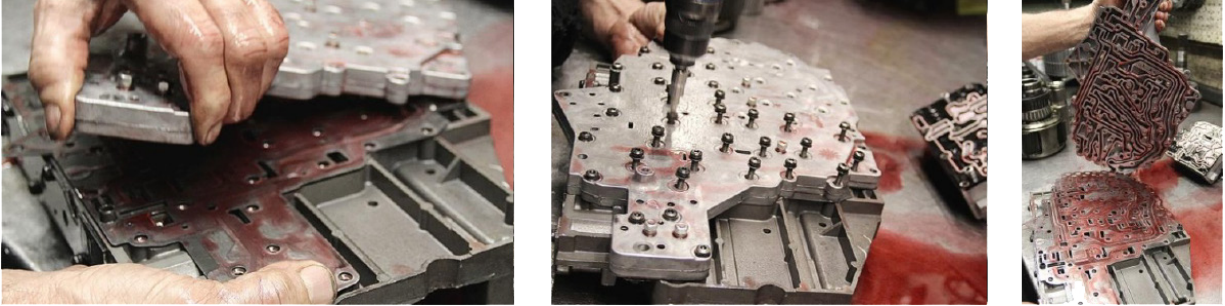


(Fig 3a)



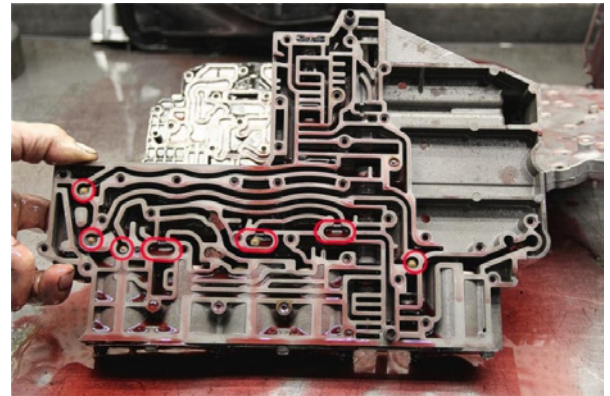
(Fig 3b)

4. Turn over the valve body and continue to remove all remaining bolts. Carefully separate the valve body exposing the separator plate. (Fig 4)



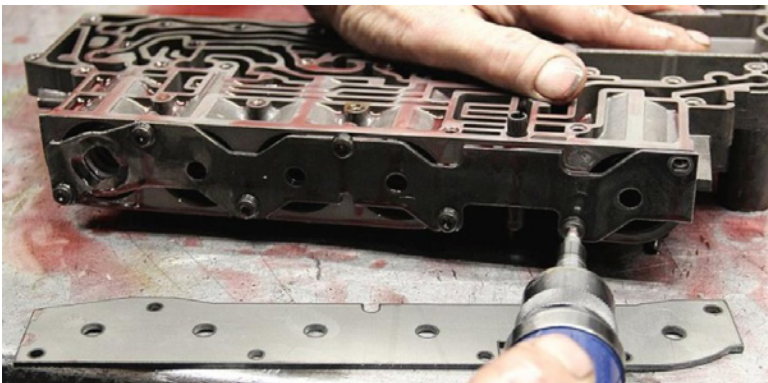
(Fig 4)

5. Inspect the valve body to determine if it has five or seven check balls. If only five are in the valve body, place the two check balls provided with this kit in the empty spaces. (Fig 5)



(Fig 5)

6. Keeping the opened valve body on its side, remove the bolts from the stock plate, and then replace with the reinforced plate that is provided in the kit. Be sure to use the provided screws as the stock screws are not long enough to ensure a secure fitment. (Fig 6)

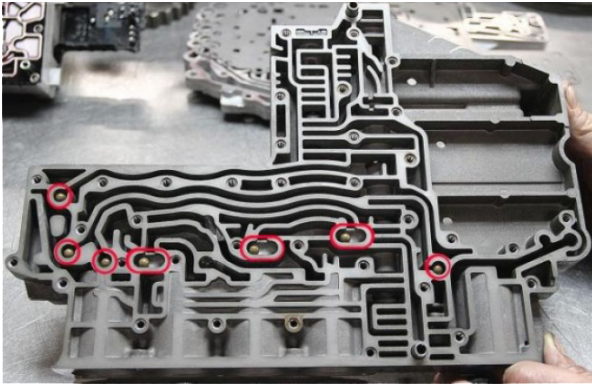


(Fig 6)

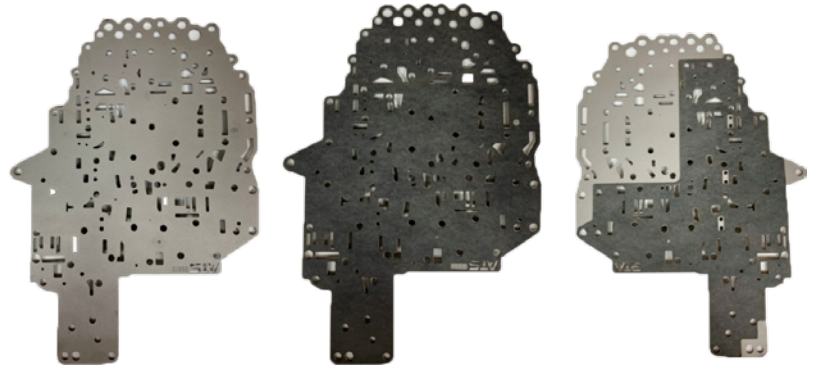




7. Ensure that all seven (7) check balls (*Fig 7a*) are in place and then install the ATS 68RFE separator plate with front and back gaskets. Line up the ATS logo on the gaskets with the logo on the separator plate. (*Fig 7b*)

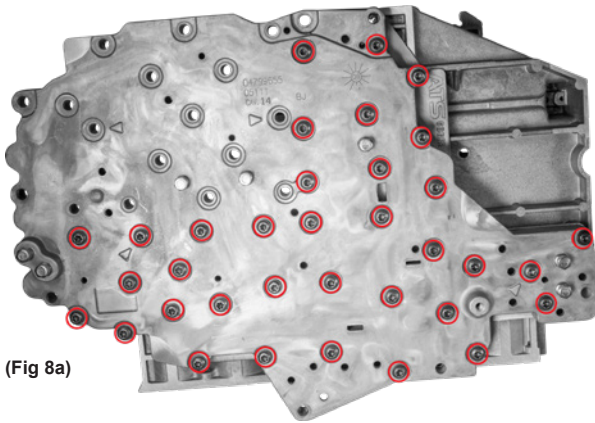


(Fig 7a)



(Fig 7b)

8. Put the channel plate back in place of the original and be sure the three parts fit together without a binding or rocking action before installing the bolts, next tighten down all the bolts shown. (*Fig 8a*) Remember to tighten down the plate working from the inside out using a hand wrench, then torque the bolts in the same sequence to 70-80 inch/lbs. (*Fig 8b*)

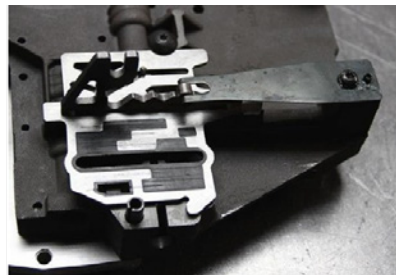
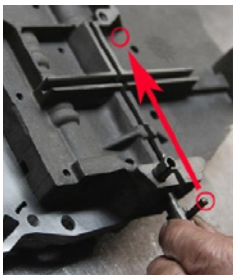


(Fig 8a)



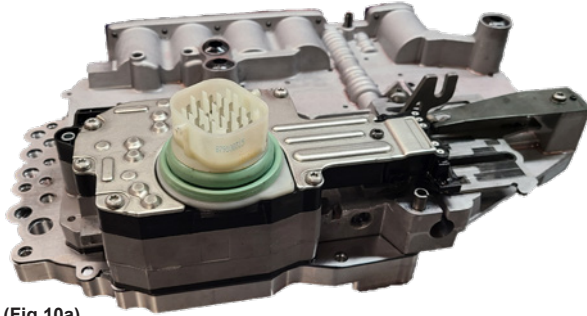
(Fig 8b)

9. Reinstall the shift selection assembly. Reinstall the pin and push it all the way up to the designated position. Place the plate on the valve body. (*Fig 9*)  
Place the selector spring in place and fasten down both items back in place.

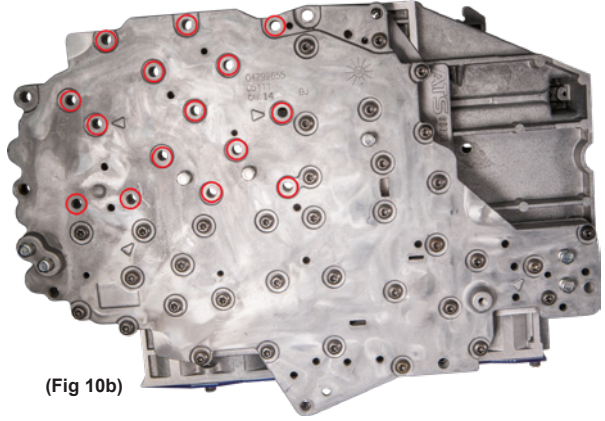


(Fig 9)

- 10. Put the solenoid pack back on the valve body (Fig 10a) and tighten each of the fasteners to 70-80 inch/lbs, starting with the inside and working your way out. (Fig 10b)



(Fig 10a)



(Fig 10b)

- 11. Install the valve body back in the transmission. To prevent leaks from the transmission pan, torque the bolts to 65-inch LBS, and take the truck for a quick drive after filling it ONLY with ATF+4. After letting the transmission warm up, retorque the pan bolts to the same 65 in./lbs. spec. It is common for the pan bolts to become loose fitting right after they are reinstalled, and the metal has been warmed up.



**IMPORTANT!** Cross leaks in your valve body will cause pressure switch rationality codes! Take your time, make sure any and all sealing surfaces are flush and clean of debris, and torque the fasteners using the proper methods and torque specs. Some valve bodies develop warping issues as they age, causing cross leaks and pressure switch rationality codes. If you are having constant pressure switch rationality codes a new valve body may be needed if the metal has been warped.

## NOTES

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### 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 advance 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)



### CONTACT US

**ATS Diesel Performance, Inc.**  
5293 Ward Rd.  
Arvada, CO 80002

Toll Free: (800) 949-6002  
Local: (303) 431-7973  
Fax: (303) 431-0135  
Website: [www.atsdiesel.com](http://www.atsdiesel.com)  
Email: [info@atsdiesel.com](mailto:info@atsdiesel.com)



### TROUBLESHOOTING:

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Thank you for purchasing the ATS Valve Body Full Pressure Enable 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.



# PATENTED INNOVATION MEANS MORE POWER TO THE GROUND.

ATS WARRANTY  
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