Please read all instructions before installation.

Installation Manual v1.2:
P/N 303-031-2326
68-RFE Valve Body Full Pressure Kit
2007.5-2015 Dodge 68RFE

Thank you for purchasing the ATS CO-Pilot 68-RFE 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 160psi in all forward gears. This kit will allow the transmission to produce up to 295psi when commanded by the ATS Co-Pilot transmission control module once both parts are installed. **NOTE:** If this kit is installed and only controlled by the factory Transmission Control Module there will be little to no pressure increase, the factory hydraulic calibration limits pressure to approximately 160psi, It will function 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.

**SPECIAL NOTE!!** If your transmission valve body/solenoid pack electrical connector is a solid gray color, you will need to follow special instructions to modify your separator plate. These special instructions will be pointed out throughout these instructions. If your electrical connector is white/cream, follow the normal procedure list. The gray colored solenoid pack is normally found on the 2010-2012 68RFE transmissions. Chrysler lowered manufacturing costs by removing one solenoid, and adding the solenoids function to a different solenoid that already had another function. This doubled the work that one solenoid had to do, and the valve body was modified slightly to accommodate this change. It is HIGHLY recommended that you buy the regular solenoid pack and replace it for much better functionality. ATS Diesel Performance has these solenoid packs in stock if you want to purchase one, one can also be obtained online or through your local dealership. Chrysler later discovered that removing the one solenoid and having another do double duty was creating some issues, and switched back to the regular solenoid (white/cream) pack in 2013.
1. Remove the transmission pan, then unbolt the valve body assembly and remove it from the vehicle.

![Stock 68RFE Valve Body](image1)

**Figure 2.1**

2. Remove the highlighted bolts in figure 2.2 to release the solenoid pack from the valve body. Carefully remove the solenoid pack from the valve body and set aside.

![Remove Highlighted Bolts](image2)

**Figure 2.2**
3. Remove the highlighted bolts figure 3.1 and then remove the shift selection assembly. Then carefully remove the pin as shown in figure 3.2.

4. Now turn over the valve body and continue to remove all remaining bolts. Carefully separate the valve body exposing the separator plate
5. Now 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 highlighted in figure 4.1.

![Figure 4.1](image1.jpg)

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.**

![Figure 4.2](image2.jpg)
*Gray Solenoid Pack Special Steps*

7. Two holes need to be drilled in the valve body separator plate prior to installation of the separator plate to the valve body. **If you plan on purchasing the more reliable white/cream colored solenoid pack and installing it, these holes must remain undrilled.** You can either wait until you purchase the white/cream solenoid pack to install the ATS Diesel modified separator plate, or drill the required holes for the gray solenoid pack and purchase another separator plate from us when you install the white/cream solenoid pack.

![Figure 5.1](image1.png)

Each of the two holes that need to be drilled out for the gray solenoid pack are marked with a circle with a cross inside of it to show you the center where you will be drilling. The larger of the two holes, figure 5.2, will require a **0.125 inch** drill bit, and the smaller of two holes, figure 5.3, will require a **0.125 inch** drill bit. Set the separator plate on a hard, very flat surface and use a fine tipped punch to indent the center of the hole to help the drill bit stay centered when drilling. Be very careful not to use very much force when using the center punch or drilling, the separator plate will have a cross leak if it becomes bent or deformed. When finished, clean out any metal burs to ensure no metal pieces will come lose inside the transmission.

![Figure 5.2](image2.png)  ![Figure 5.3](image3.png)
8. Ensure that all seven (7) check balls, figure 6.1, are in place and then install the ATS 68RFE separator plate, figure 6.2.

![Figure 6.1](image1)

![Figure 6.2](image2)

9. Now put the plate back in place 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 in figure 6.3. Remember to tighten down the plate working from the inside out using a hand wrench, then torque the bolts in the same sequence- to 50 inch LBS

![Figure 6.3](image3)
10. Now 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 as shown in figure 7.1. Then place the selector spring in place and fasten down both items back in place.

![Figure 7.1](image)

11. Put the solenoid pack, figure 7.2, back on the valve body and tighten each of the fasteners, figure 7.3, to 50-inch LBS, starting with the inside and working your way out.

![Figure 7.2](image)  ![Figure 7.3](image)
12. Install the valve body back in the transmission. To prevent leaks from the transmission pan, torque the bolts to 105-inch pounds. Take the truck for a quick drive after filling it with ONLY ATF +4. After letting the transmission warm up, re-torque the pan bolts to the same 105-inch pounds spec. It is common for the pan bolts to become loose fitting right after they are reinstalled and the metal has warmed up.

**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.

**Have Any Questions?**

Thank you for purchasing the Line Pressure Kit. Please check out our website at [http://www.atsdiesel.com](http://www.atsdiesel.com) for technical support and other products such as the 5 Star™ torque converter and ATS High Performance Transmission. Please call or email our Technical Service Department, 8:00am to 5:30pm Mountain Standard Time, Monday through Friday.

**Contact Information**

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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 website 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

**Bill of Materials**

1. Separator Plate
2. 2 Check Balls
3. Instructions
4. Accumulator Plate
5. 7 Accumulator Bolts