



## **68 RFE VALVE BODY UPGRADE**

<b>Part #:</b>	<b>1030360</b>	<b>2007-11 (Early Model)</b>
<b>Part #:</b>	<b>1030361</b>	<b>2010-12 (Late Model)</b>

**PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION**

### **AFTERMARKET TUNERS OR TCMS**

There is a number of aftermarket TCMs and TCM reflashes available in the aftermarket. At BD we have tested the H&S unit and found it to be somewhat beneficial. **IF USING AN AFTERMARKET TCM PROGRAM YOU MUST DISABLE THE TRANSMISSION MAINLINE PRESSURE INCREASE.** It will directly conflict with the BD module; the BD module will provide a better sweep of pressure and will deliver better results.

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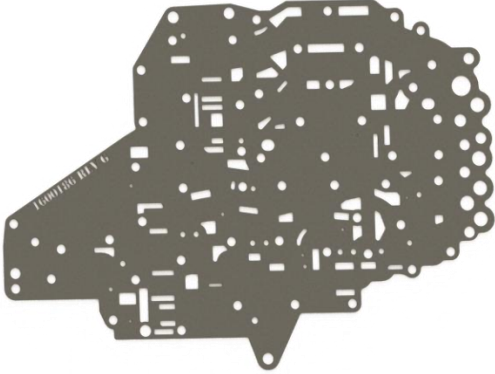
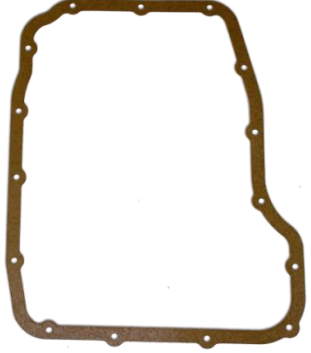
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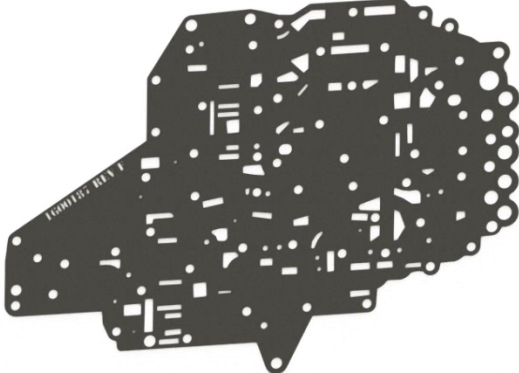
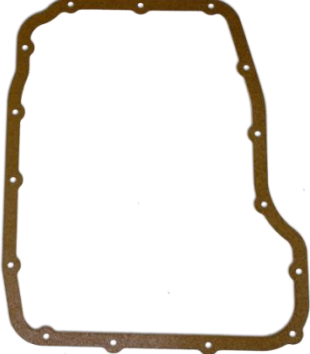
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**KIT CONTENTS :**

Please check to make sure that you have all the parts listed in this kit **before** you start the disassembly of your truck.

<b>Kit Contents for 1030360</b>			
<b>1030369</b>	<b>4799778</b>	<b>1600186</b>	<b>1601523</b>
			
<b>68 RFE Pressure Controller</b>	<b>Clutch Feed Seal</b>	<b>Valve Body Plate</b>	<b>Gasket</b>
<b>Qty : 1</b>	<b>Qty : 3</b>	<b>Qty : 1</b>	<b>Qty : 1</b>

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***Tools Required***

- Drain Pan
- Transmission Funnel
- 8mm Socket
- T25 Torx Socket
- Torque Wrench (in/lbs)
- Drill
- 1/8" Drill Bit
- Brake Clean or Parts Cleaner
- Center Punch
- Scraper

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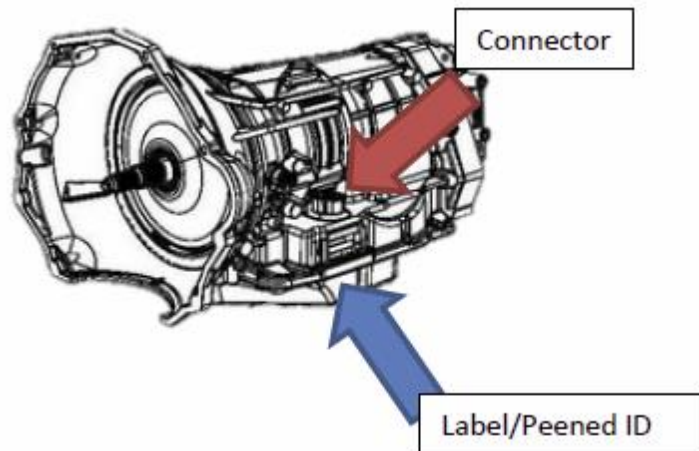
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## Upgrade Options

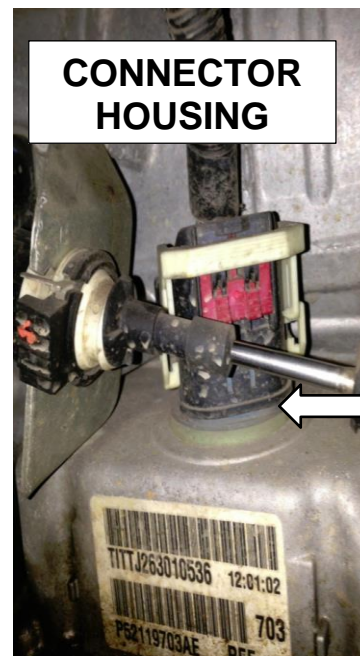
1030240	Torque Converter
1061525	6.7L HD Transmission Pan
1041220	6.7L Cummins Flex Plate
1061529	Adapter Tool – 68 RFE

## Valve Body Plate Verification

Before proceeding, you will need to visually inspect your transmission to verify the correct plate has been ordered.



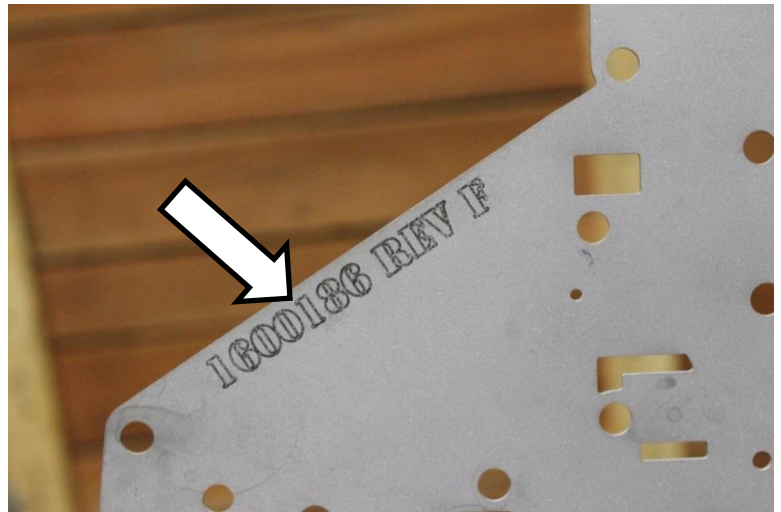
The transmission main electrical connector is located on the driver's side of the transmission. The color of the connector protruding from the transmission will be white or grey and will determine the application.



White Connector = Early Model  
(Plate 1600186)

Grey Connector = Late Model  
(Plate 1600187)

The part number is etched into the plate supplied in the kit.



Another method to check the model year is by the label or peened number on the side of the case. These numbers can also be found on the driver's side of the transmission right below the main connector.

The two letters will indicate an early or late model.

AA	Early Model
AB	Early Model
AC	Early Model
AD	Early Model
AE	Late Model
AF	Late Model



**BD Transmission Part Numbers:**

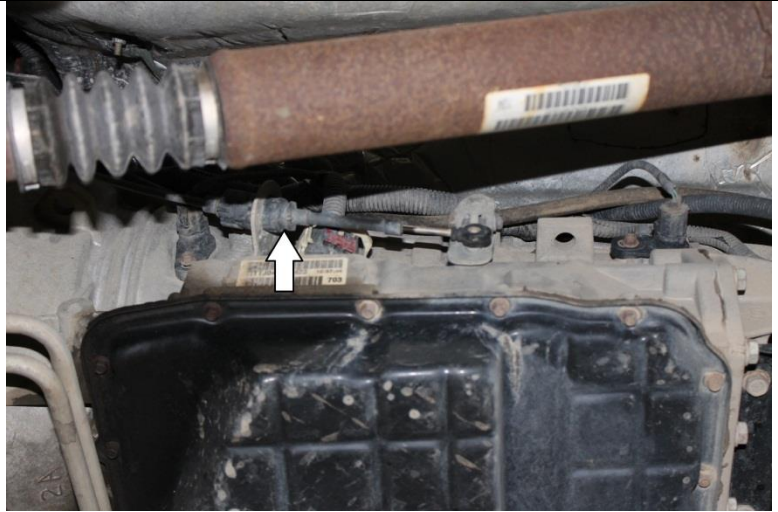
Early Model Year	Late Model Year	Application Notes
1064242	1064252	2WD 68rfe Transmission
1064244	1064254	4WD 68rfe Transmission
1030360	1030361	68rfe Valve Body/Module Upgrade



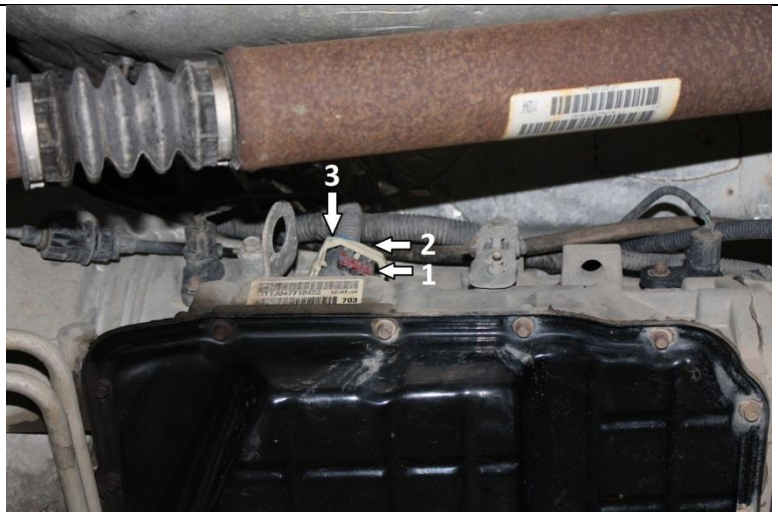
## Valve Body Installation

1. Disconnect vehicle batteries and secure cables away from batteries.
2. Lift transmission dip stick approx. 6 inches to avoid interference later on.
3. Raise vehicle on vehicle lift. If using a jack, use safety stands and chock wheels.

4. Remove shifter cable from transmission for better access to the main electrical connector.



5. To remove connector, push red tab (1) downwards. Then, press the black tab (2) which will allow the white handle (3) to be rotated downwards, releasing the connector from the transmission.



6. Position drain pan below the transmission.

7. Remove 14 of the 15 transmission pan bolts (8mm). Loosen the remaining bolt but leave in place to keep the pan from falling. The transmission cooler lines may need to be moved to access some of the bolts, gently pry them out of the way.



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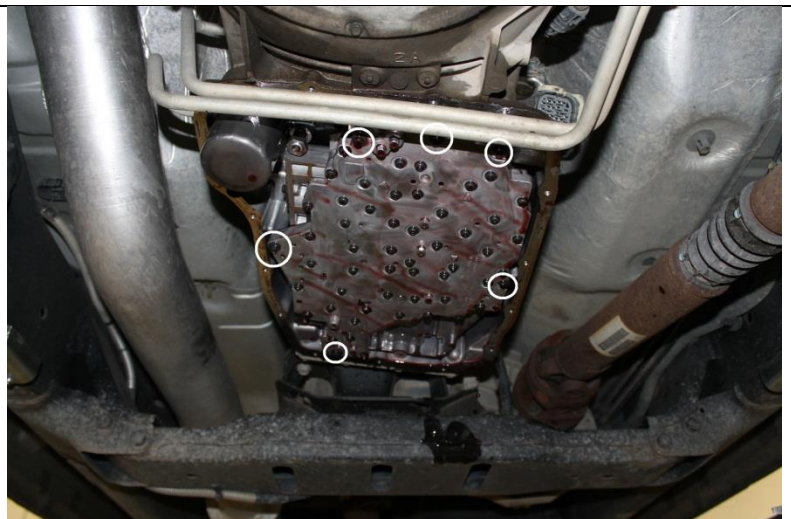
8. Tap pan with a mallet to break the silicone gasket seal. Allow fluid to drain. Remove last screw and drain remainder of fluid.



9. Remove transmission filter by removing the one T25 Torx screw.

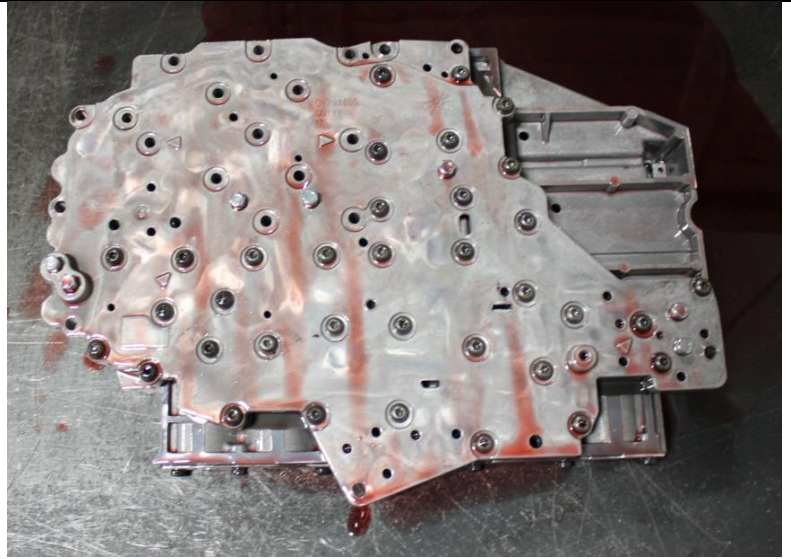


10. Remove the six 8mm bolts securing the valve body to the transmission. Drain valve body of fluid. To remove valve body from transmission, wiggle it while pulling downwards to work the electrical connector through the case.



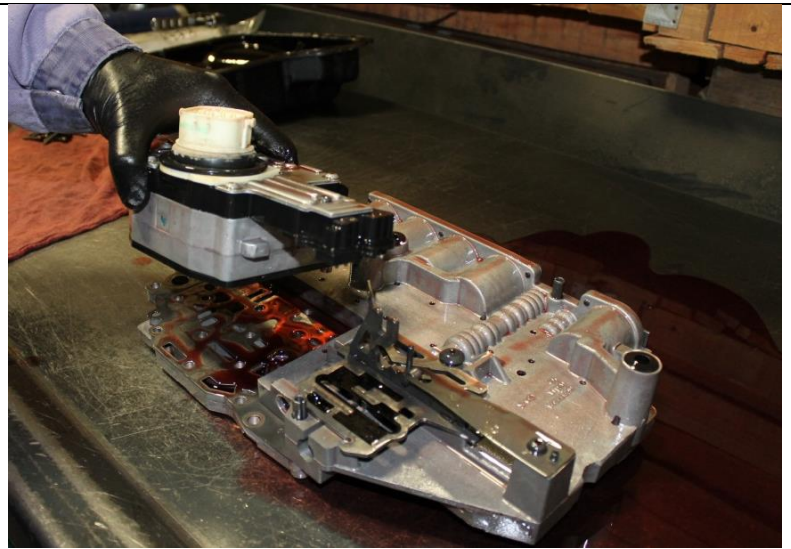


11. Place the valve body on a clean work surface.



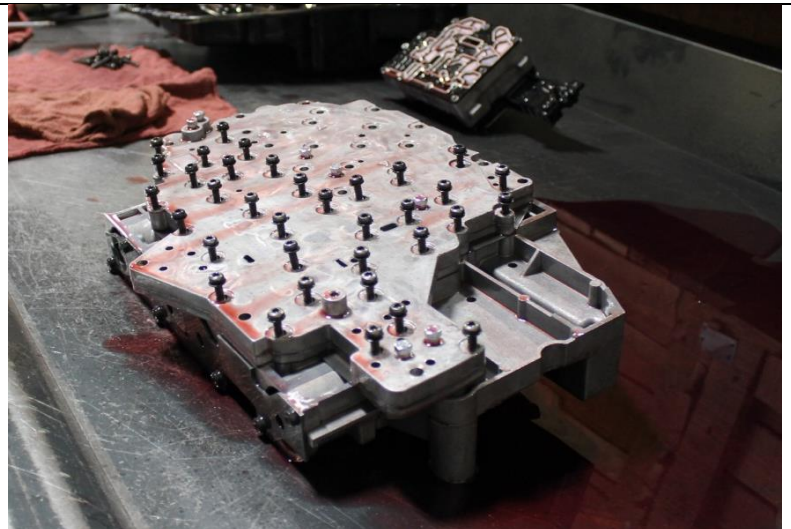
12. Remove fifteen T25 Torx screws securing the solenoid pack to the valve body, remove solenoid pack and place it to the side.

Note: All bolts are the same length.

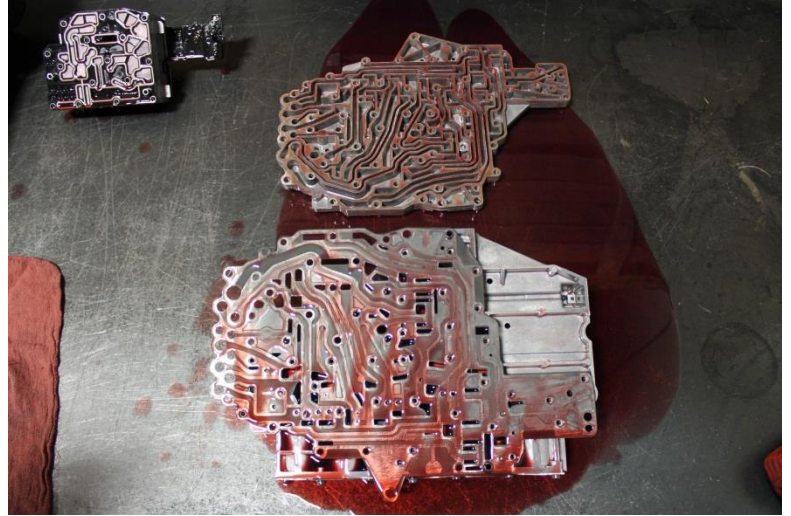


13. Remove remaining thirty five T25 Torx screws securing the valve body halves.

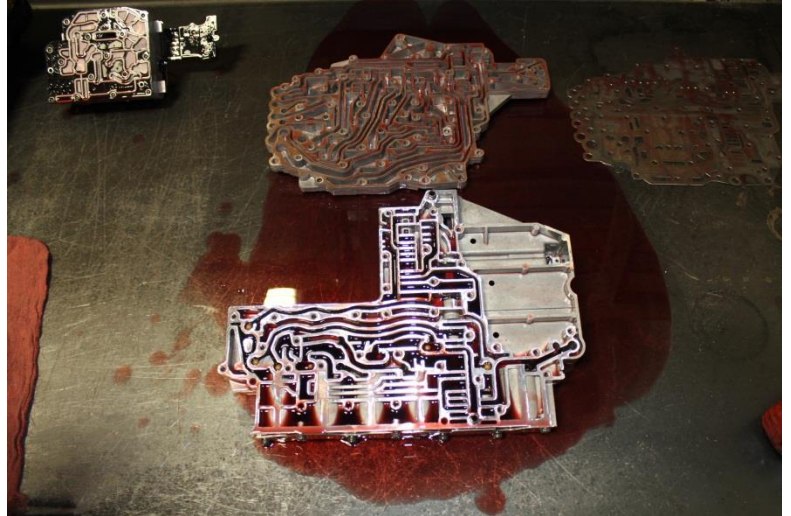
Note: All bolts are the same length.



14. Carefully separate the two halves of the valve body. Separate as shown in pictures – *do not invert the larger (top) portion as it contains plastic check balls*. The two halves will have to be wiggled apart as the alignment dowels will be holding them together.

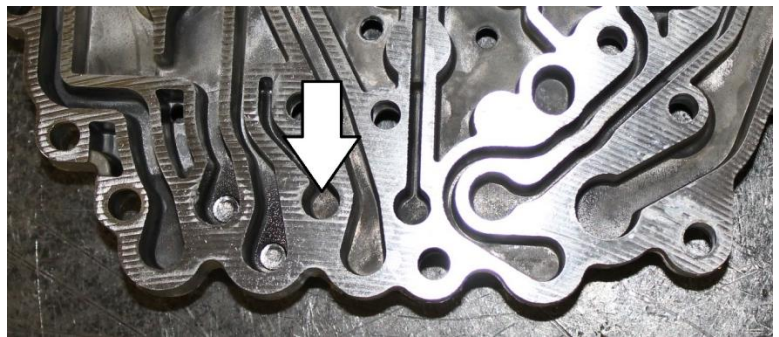
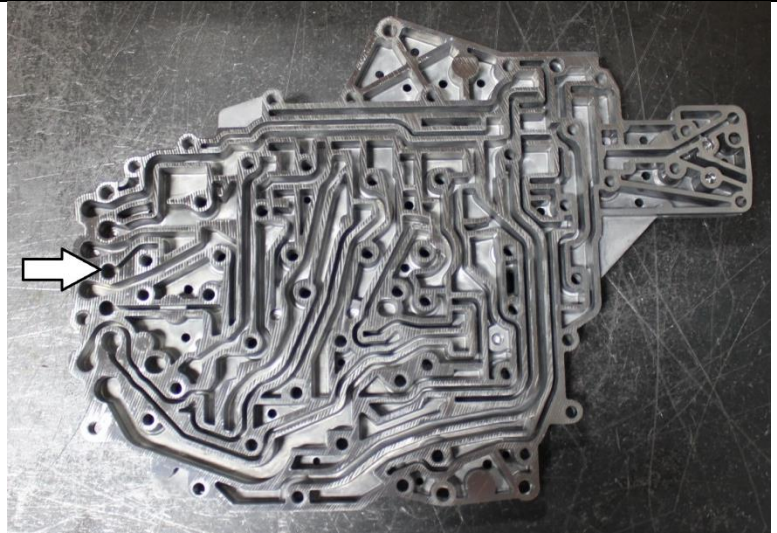


15. Remove old separator plate.

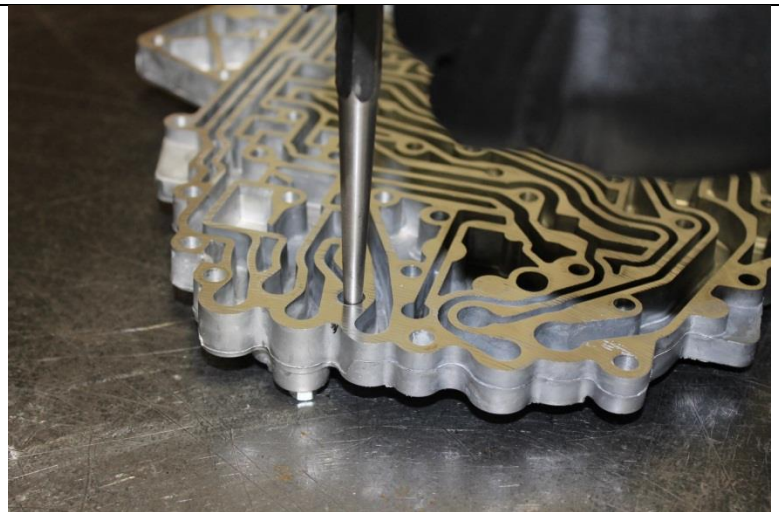




16. Thoroughly clean the bottom (smaller) half of the valve body. Locate the passage to be drilled.

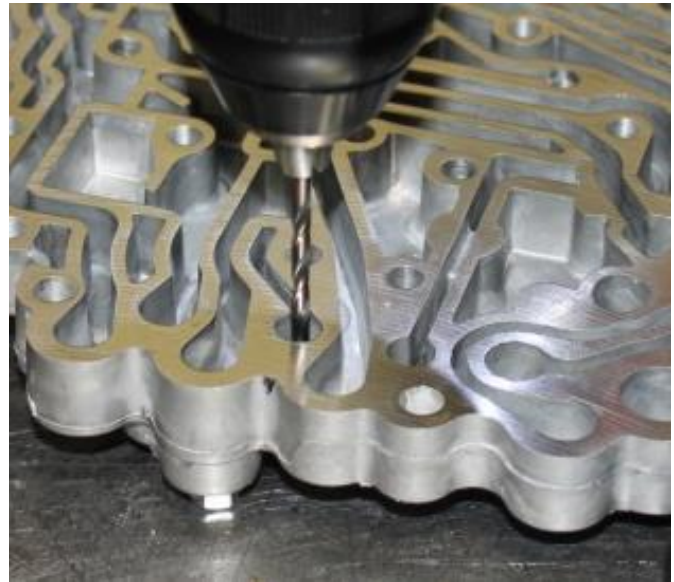


17. Punch center of hole using a center punch.





18. Drill hole with 1/8" drill bit.



19. Thoroughly remove any burrs and clean all shavings from the valve body. It is imperative that no contaminants are left as they may cause transmission damage.



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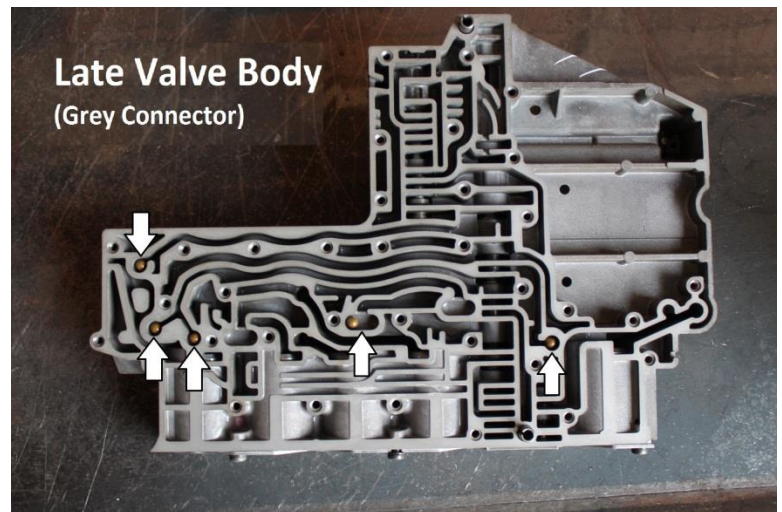
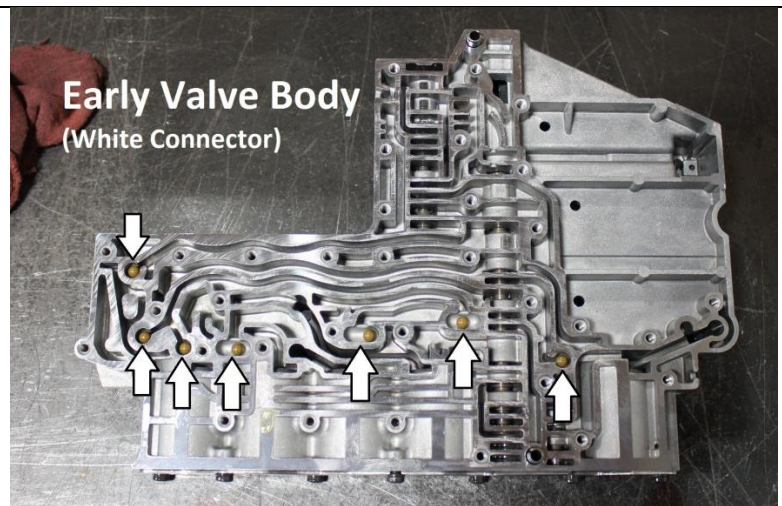
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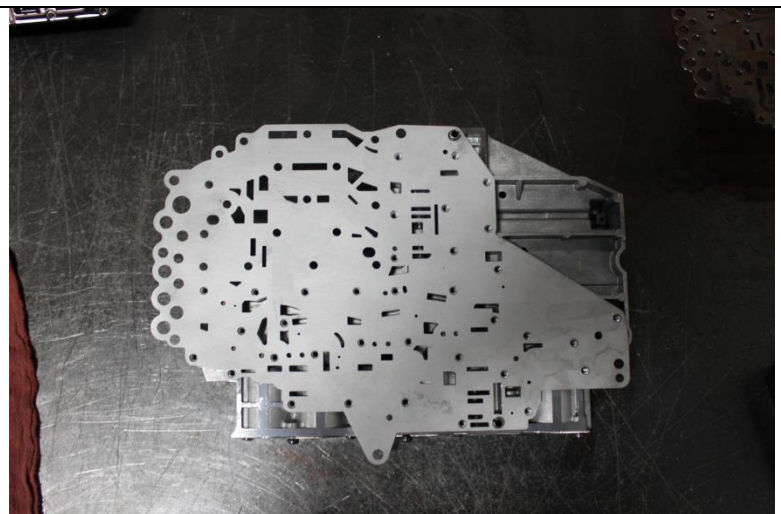


20. Ensure that all the check balls are still in the correct locations in the upper half of the valve body. Early model valve bodies (identified by white electrical connector on solenoid pack) have seven balls. Late models (gray connector) only have five.

*If this part has been contaminated in any way, it must be thoroughly cleaned before reassembly.*

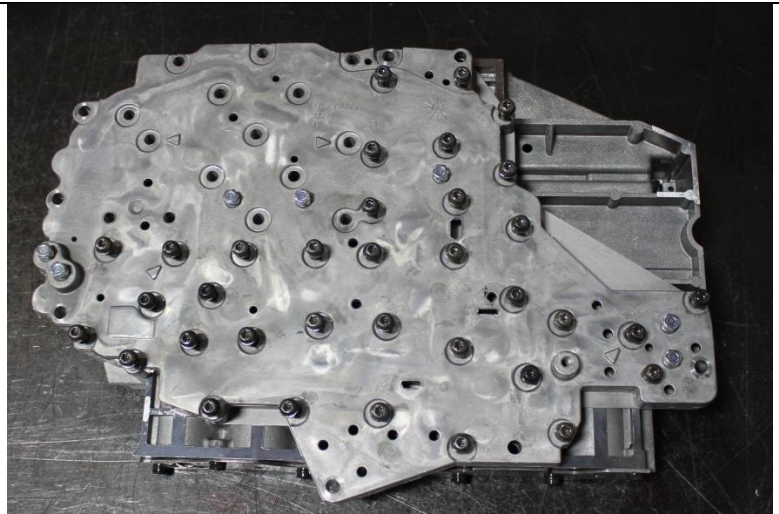


21. Install BD separator plate. Ensure it fits flat on the valve body.

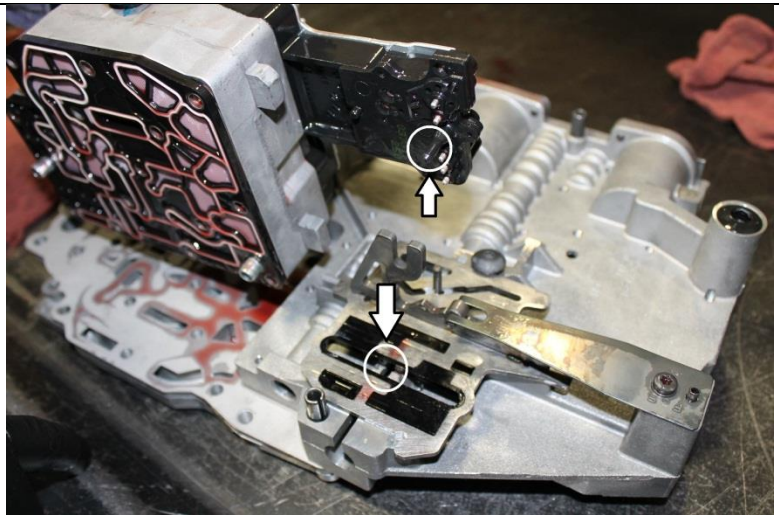




22. Re-install bottom (smaller) half of valve body. Ensure it fits flat on the separator plate. It may need to be worked downwards while rocking to be installed over the dowels. Install attaching screws so they are fully seated but do not tighten until the solenoid pack has been installed.

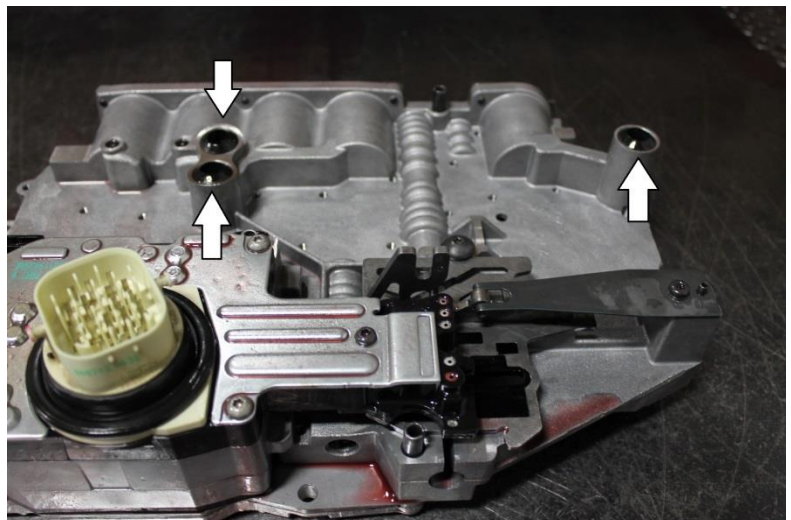


23. Re-install solenoid pack onto valve body. Be sure to properly align the pin on the solenoid pack with the slot on the valve body. Due to the alignment dowels, the valve body may need to be wiggled down into position. Install solenoid pack attaching screws. Install remaining Torx screws to fasten the solenoid pack to the valve body.

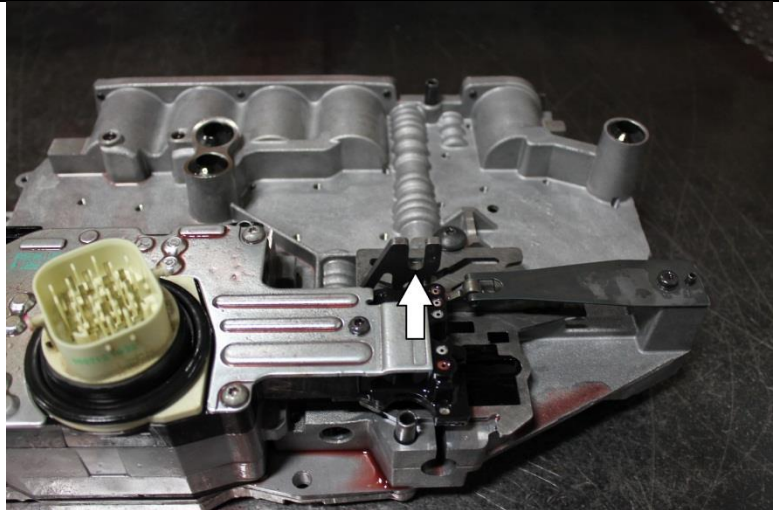


24. Torque all valve body Torx screws to 55 in-lbs, working from the center outwards. Carefully check that no screws were missed.

25. Inspect the three rubber seals on the top of the valve body, replace with supplied seals if they are nicked or otherwise damaged. Ensure the seal mating surface on the transmission is clean.



26. Wipe clean the bore on the transmission case around the electrical connector. Scrape all old silicone gasket material (if any) from the oil pan mating surfaces.



27. Check that the shift lever on the valve body lines up with the shift lever on the transmission and lift the valve body back into the transmission. Start the 8mm screws by hand, do not tighten yet. Work the shift lever on the outside of the transmission case by hand to ensure that the lever is making contact with the valve body correctly.



28. Torque the valve body attaching bolts to 105 in/lbs.





29. If desired, install new filter(s). Otherwise, reinstall the filter/pickup assembly. Torque to 55 in/lbs.



30. Place the supplied gasket on the transmission pan. Hold pan below transmission and install attaching screws. Torque the pan screws to 84 in/lbs.



31. Apply dielectric grease (supplied in pressure enhancer kit) to main electrical connector and reattach connector. Reattach shifter cable to shift lever.

32. Lower vehicle.

33. Reconnect vehicle batteries.

34. Fill transmission fluid until COLD line is met. Start and run vehicle. Move shifter through different gears twice to fill valve body. Check for leaks. Check fluid level again. Top up as required.

35. Road test. Run through upshifts several times at light throttle to ensure transmission is shifting correctly. Shifts will feel firmer with increased throttle.

36. Recheck fluid level.

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ADAPTER KIT BD# 1061529

37. Note. If you would like to verify the increases in line pressure, use adapter kit (BD 1061529) in conjunction with a 300psi gauge. Readings will be between 50-250psi depending on throttle and driving conditions.



Use this kit with a 300 psi gauge.

38. To complete this installation you will need to install the 1030369 68 RFE Pressure Control module please reference the installation manual included in the kit. **NOTE: The orange key will need to be inserted into the module.**

**TECH Bulletin – Protect68 Kit, P0871 DTC 2007.5-2009 68rfe**

The protect68 kit is not designed to correct an already damaged transmission. Its purpose is to increase the reliability through increasing torque holding capacity of the transmission. This is done by dynamically increasing the main line pressure of the transmission; this directly effects the apply pressure to the clutches.

By increasing main line pressure, a number of existing problems are amplified. Namely wear in the valve body, specifically the SSV bore. On high mileage vehicle >80,000 miles (>140,000km) 2007.5-2009 trucks were highly susceptible to this damage. Model years after and including 2010 have an updated valve body that includes a hard anodized body the cures this problem. To identify the updated valve body you will notice the main housing will be a deeper grey in color.

The symptom would be a P0871 DTC (OD Pressure Switch Rationality fault). This DTC would normally be set in 4,5,6 gears at full throttle. If this is the case in which your vehicle has set this code before or after installing the protect68 your valve body has worn. The cheapest solution for this is to repair your valve body, or you can buy a new updated valve body from Dodge.

If you would like to repair your valve body, please be aware that it is a difficult repair. Please take the valve body to a machine shop or a very experienced transmission repair facility that has the proper equipment.

It is also suggested to inspect the transmission clutches for wear as it maybe time to freshen things up.

You can purchase the repair kit from Sonnax.

<http://www.sonnax.com/product-lines/transmission/parts/4151>

92835-18K

F-92835-TL18

<http://www.sonnax.com/product-lines/transmission/parts/1311>

VB-FIX is an optional piece, although recommended.