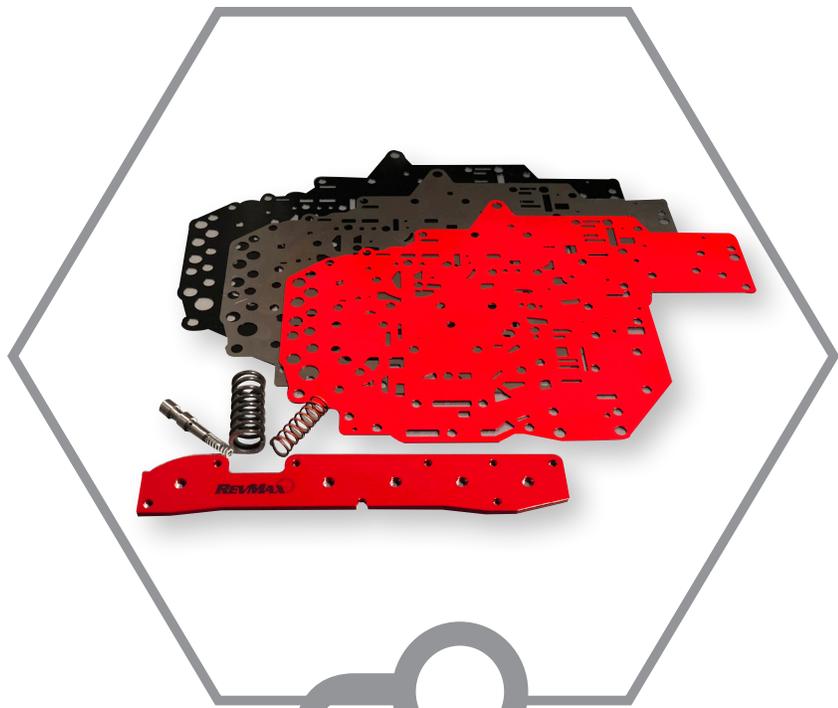


68RFE ZERO-TUNE



DESCRIPTION	Nm	Ft. Lbs.	In. Lbs.
Accumulator cover screw	7	-	60
Clevis bracket / rear support bolt	47	35	-
Crossmember bolt/nut	68	50	-
Converter housing bolt	68	50	-
Cooler line at trans fitting	17.5	-	155
Cooler return filter	9.5	-	84
Detent spring screw	4.5	-	40
Driveplate to crankshaft bolt	75	55	-
Extension housing bolt	54	40	-
Fill tube at transmission bolt	10	-	88
Fill tube at valve cover nut	10	-	88
Input speed sensor bolt	12	-	105
Inspection cover bolt	10	-	88
Line pressure sensor bolt	12	-	105
Manual selector shaft cross-bolt	16	-	140
Manual selector shaft retaining screw	28	-	250
Manual valve cam retaining screw	4.5	-	40
Oil pan bolts	12	-	105
Oil pump body to cover bolts	4.5	-	40
Oil pump bolt	28	-	250
Output speed sensor bolt	12	-	105
Plate to oil pump body screw	4.5	-	40
Pressure test port plug	5	-	45
Primary fluid filter screw	4.5	-	40
Reaction shaft support bolt	12	-	105
Solenoid module to transfer plate screw	6	-	50
Torque converter housing to engine lower four bolt	54	40	-
Torque converter housing to engine upper four bolts	41	30	-
Torque converter to driveplate bolt	88	65	780
Transmission collar bolt	68	50	-
Transfer case nuts	35	26	-
Valve body to case bolts	12	-	105
Valve body to transfer plate screw	5.5	-	50

IMPORTANT:

The RevMax 68RFE ZeroTune kit requires the transmission to be removed from the vehicle and be partially disassembled. It is recommended that a professional transmission technician installs this kit. This kit is **NOT** designed for DIY and requires a high level of knowledge in the areas of transmission operation and assembly. Incorrect installation of this kit will cause catastrophic transmission failure!

TOOL LIST:

- 5/32 Allen Socket
- T25 Torx
- T27 Torx
- 10mm socket
- 8mm socket
- M5 x .8 Tap (Optional)
- 4.20MM Drill Bi (Optional)
- Small flathead screwdriver
- Large flathead screwdriver
- Transmission Assembly Gel
- Inch Lb Torque Wrench

Read BEFORE installing the ZeroTune Kit

ZeroTune and Transmission Tuning Complications

The RevMax ZeroTune 68RFE kit is designed to be ran with 100% stock TCM tuning. Please make sure that if you have ever installed an aftermarket programmer of any sort that the transmission tuning is stock and has no modifications whatsoever to it. Even if you have only installed an engine tune, there may be an incorrect version of the TCM calibration installed in the truck. Anytime an engine tune is flashed into a 2010+ Ram truck, the TCM calibration is automatically overwritten by whatever calibration your tuner has specified as stock. This calibration could be from any year vehicle and it will flash correctly, however, there will be negative consequences if the improper calibration is used.

As of the writing of these instructions we have found their to be 5 distinct calibrations, 2007-2009 Ram Trucks, 2010-2012 Ram Trucks, 2013-2016 Ram Trucks, 2017 Ram Trucks and lastly 2018 Ram Trucks .

The proper stock calibration is crucial in order to have proper functionality. Running the incorrect calibration will result in harsh shifting, harsh converter lockup and numerous drivability complaints. Please make sure your tuner has provided you with correct model year calibration for your truck!

There are a few quick checks that can be done to verify the programming is stock and unmodified. This will require a scan tool that can monitor desired and actual transmission line pressure. Simply check DESIRED line pressures in the below ranges and make sure they are the same. If your DESIRED line pressures are different than below, you do NOT have stock tuning and you should immediately consult your tuner for the correct calibration! Even if your pressures are the same as below, this does not mean that the correct year calibration is in the truck. Only your tuner can verify that they have sent you the correct year calibration.

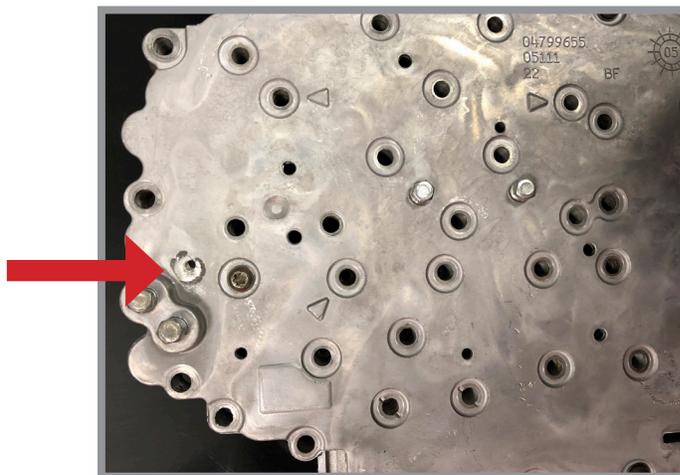
Range	Desired Line Pressure
Drive at idle with foot on brake	60PSI
Drive stopped Power-braked	160PSI
5 th or 6 th Gear 50% or greater throttle	160PSI

ZeroTune and Internal Transmission Modifications

The ZeroTune kit must be used with a STOCK pressure regulator valve. Be sure to inspect your pressure regulator valve. If your valve has these holes drilled into it, it must be replaced with a new factory valve or the holes must be securely plugged.

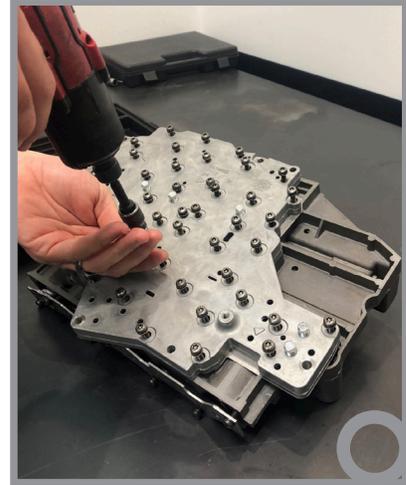


Be sure to verify that the factory valve body channel casting has not been drilled. If this has been drilled, the hole **MUST** be plugged!



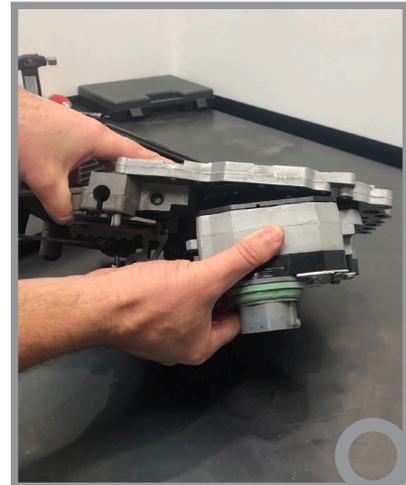
Installation:

1. With the valve body out on a bench, remove all the T25 screws.



Step 1 shown

2. Turn valve body and remove the solenoid pack.



Step 2 shown

3. Separate the valve body by removing the upper channel casting from the main valve body.



Step 3 shown

4. Remove the stock separator plate and you will discard the stock plate.



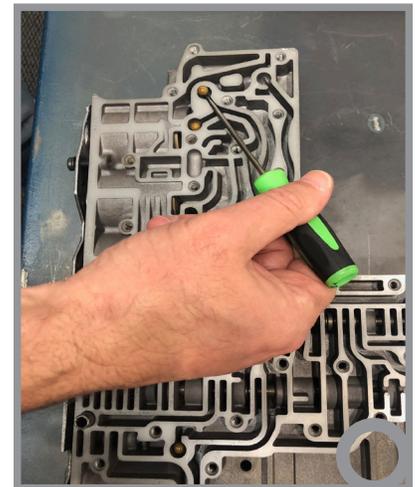
Step 4 shown

5. Mark the locations of the check balls before removing by making small scratch marks next to the locations. Remove all check balls. (As pictured is a 5 check ball valve.)

NOTE: Some valve body have 7 check balls and some have 5 check balls. The tuneless kit you purchased must match the style valve body you are working on. If you have 5 you need the late style kit or if you have a 7 you need the early style kit.

They are not interchangeable.

Mark ball
locations



Step 5 shown

6. Remove the accumulator side plate. You will remove all the T25 screws that hold the accumulator plate in place.

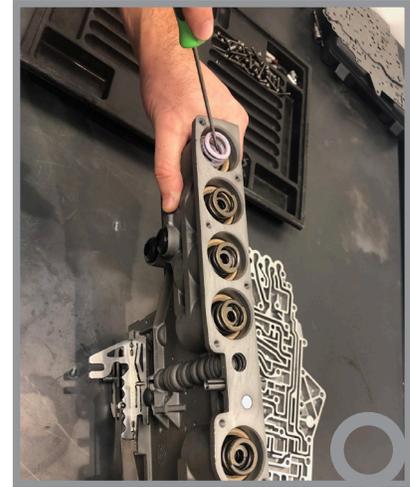
NOTE: Discard the factory accumulator side plate and factory screws. **DO NOT USE.**



Step 6 shown

7. Remove the factory purple/gray accumulator spring out of the body. In the new kit you will find a new accumulator spring. Place it in the same location replacing the factory spring.

NOTE: Discard the factory accumulator spring.



Step 7 shown

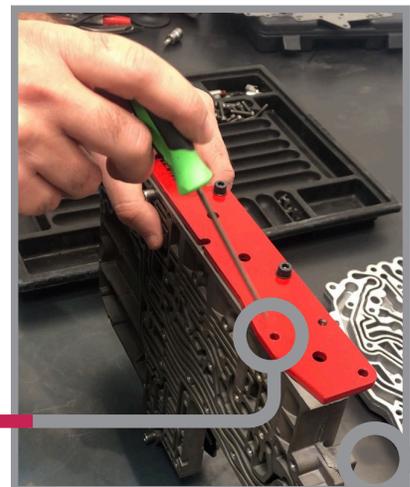
8. Install the new Revmax accumulator plate provided in the kit. Use the new kit screws. Start with a couple to align plate. The socket size you will use is a Allen 5/32.
(Do not reuse the factory screws)



Step 8 shown

9. Optional Step: Once you have the plate aligned you will tap and drill for the additional new screw and washer. Once you have completed this, will install the remainder of the screws.

Additional hole
to be tapped
and drilled



Step 9 shown

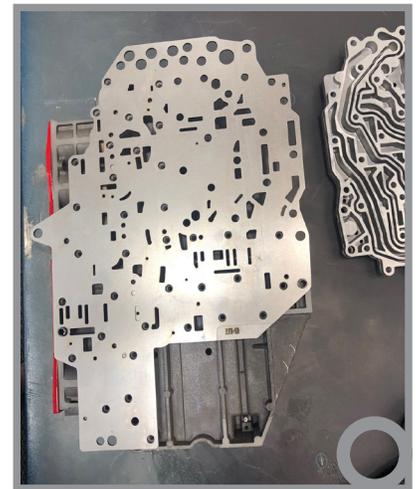
10. Replace all the check balls back in where you had marked the placement locations. Install valve body to separator plate gasket in place.



Step 10 shown

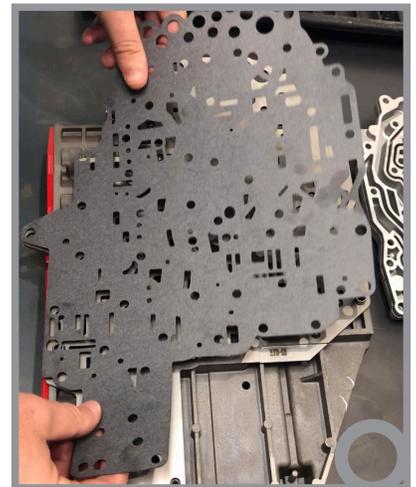
11. Next install the new separator plate. Make sure the plate is orientated correctly.

NOTE: The valve body separator plate must face towards the valve body and the channel separator plate towards the channel casting side.



Step 11 shown

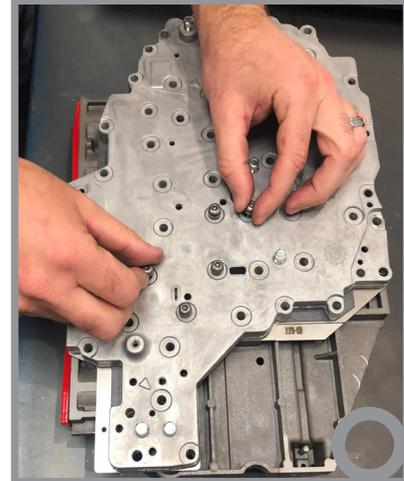
12. Place the channel plate gasket over the separator plate.



Step 12 shown

13. Reinstall the channel casting back on top of the valve body. Install all T25 screws except for the ones that hold the solenoid pack. You will place those last.

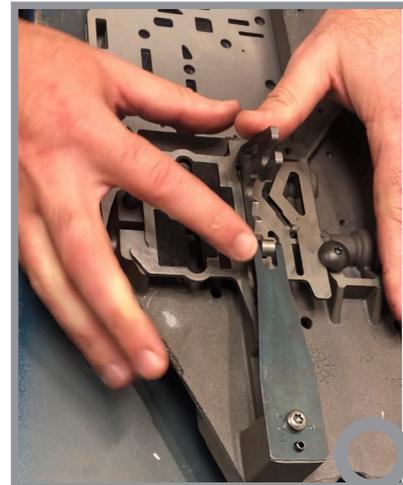
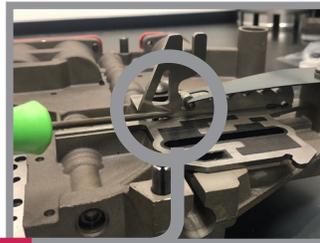
Channel
screw
locations



Step 13 shown

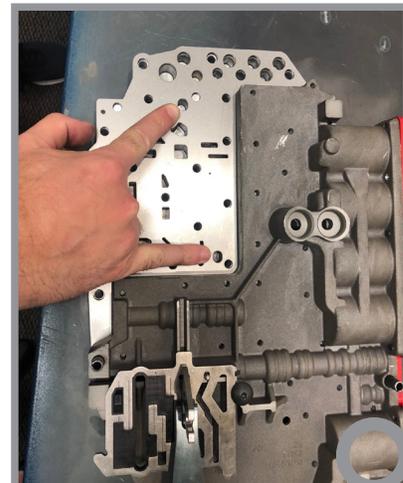
14. Flip the valve body over to install the solenoid pack. You need make sure the shift selector is in the deep groove detent all the way back in the farthest position.

Detent Grove
Location



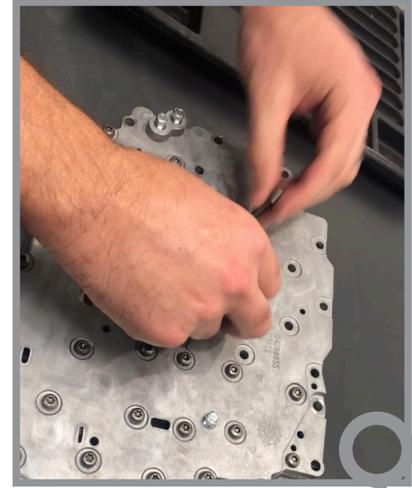
Step 14 shown

15. Reinstall the solenoid pack by aligning dowel pins into the 2 oblong shaped holes.



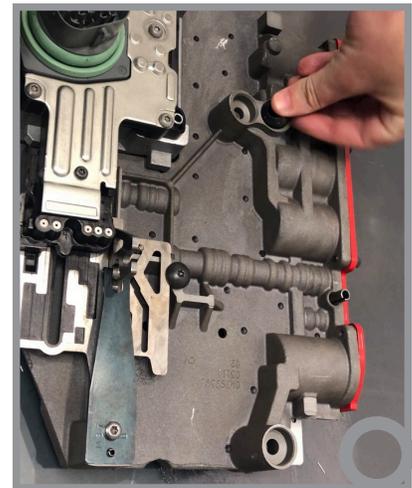
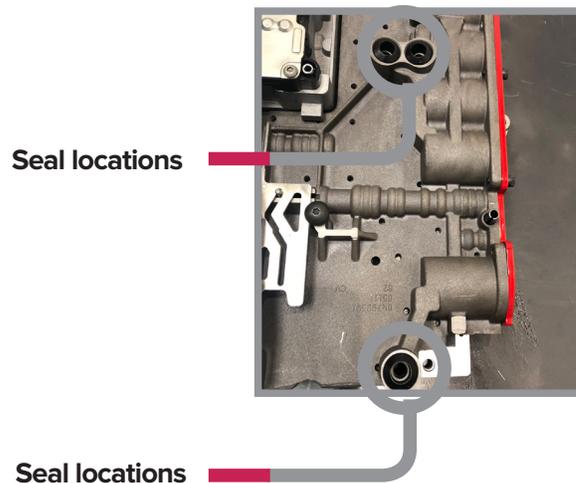
Step 15 shown

16. Once lined up gently press into place and flip valve body back over and reinstall the remaining T25 screws to secure into place.



Step 16 shown

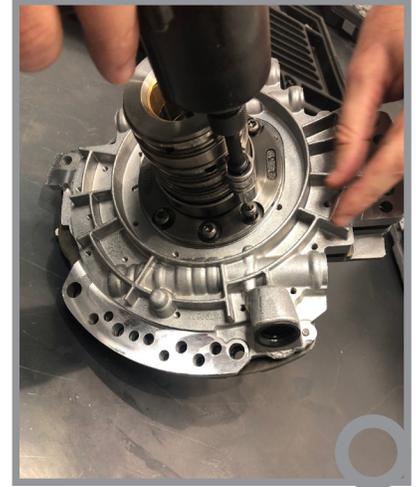
17. Replace the 3 tower seals provided in the kit onto the valve body. They will push into place.



Step 17 shown

PUMP INSTRUCTIONS

18. Remove the T27 screws that hold the stator to the pump body.
Save the screws.



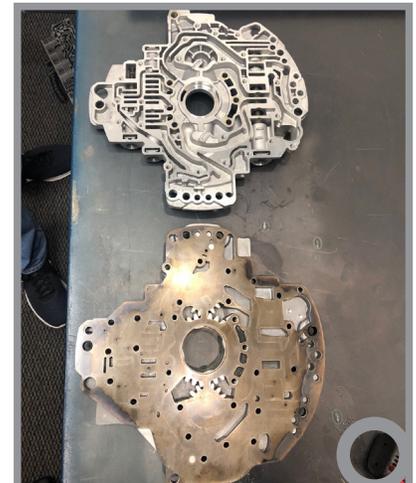
Step 18 shown

19. Gently tap the stator shaft to dislodge from the pump body and set aside. Flip the pump body over and remove the T25 screws.



Step 19 shown

20. Flip pump body back over and using a small screwdriver separate the 2 pump halves.



Step 20 shown

21. Remove factory separate plate and discard. Replace with the provided new separator plate.

NOTE: There is a flapper valve that must go back in before installing the new separator plate.



Flapper Valve



Step 21 shown

22. Move to the pressure regulator valve. Remove the factory regulator spring. Using a flat head screw driver you will push in and up on the retainer slot to allow spring to come out. Discard factory spring and replace with new orange spring. Reinstall retainer.

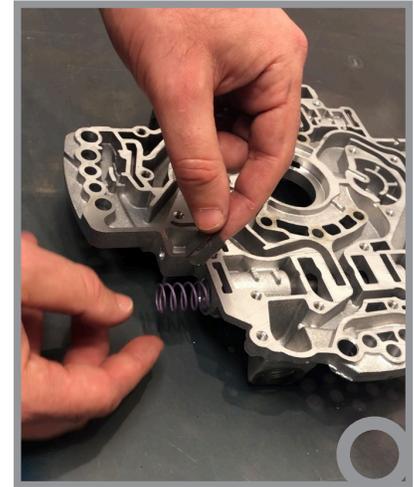
NOTE: This is under pressure and may shoot out so use caution.



Factory Spring



Revmax Spring



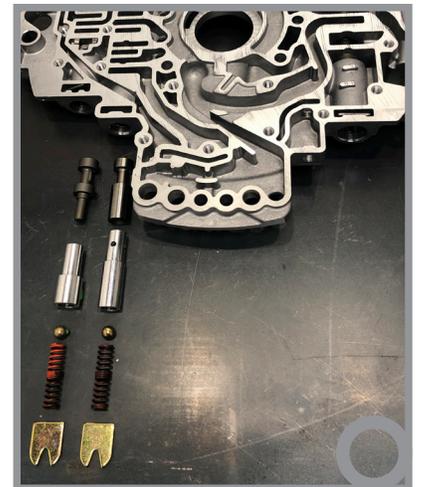
Step 22 shown

23. Next you will to replace the factory torque converter limit valve. You will remove the spring and valve and discard.

NOTE: There are two different styles of torque converter limit valves. One valve is made of aluminum and the other is steel.

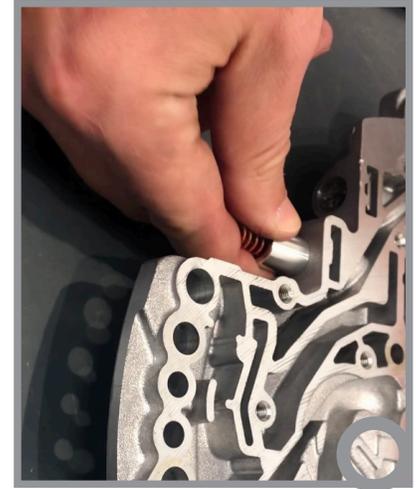
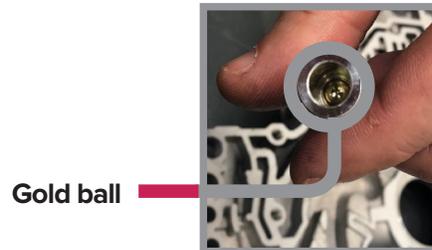
Aluminum Valve = Use .530" Diameter Sleeve Assy.

Steel Valve = Use .451" Diameter Sleeve Assy.



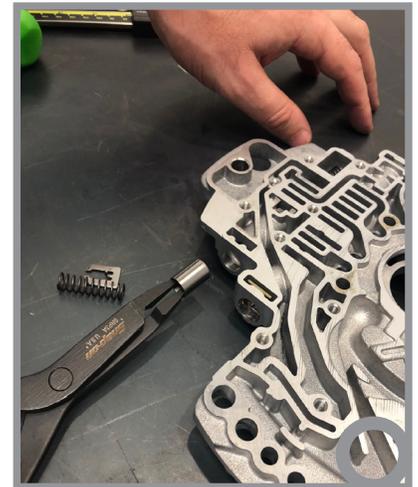
Step 23 shown

24. Install the new torque converter valve by starting with placing the gold ball into the insert sleeve. Then place the new orange spring. Insert the entire assembly into the bore. You will push with a flat head screw driver to push the tension of the spring into the bore while placing the retainer.



Step 24 shown

25. Remove the torque converter retainer and spring. Remove torque accumulator piston. You may need snap ring pliers or a magnet to remove it. Save the retainer, spring and piston.

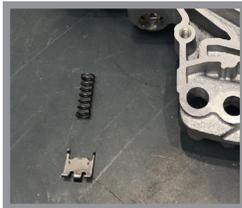


Step 25 shown

26. Remove converter regulator valve retainer and keep as we will reinstall this later. Discard the factory converter regulator valve but keep the factory spring. Next decide which converter apply pressure limit setup you would like to use.

- **Red Spring** : Stock trucks and modified up to 450HP with stock torque converter, or aftermarket billet dual disc converter
- **Plain Spring**: Trucks 450-800HP with aftermarket billet triple disc converter
- **White Spring**: Drag and high HP trucks WITH a triple disc billet converter making more than 850HP.

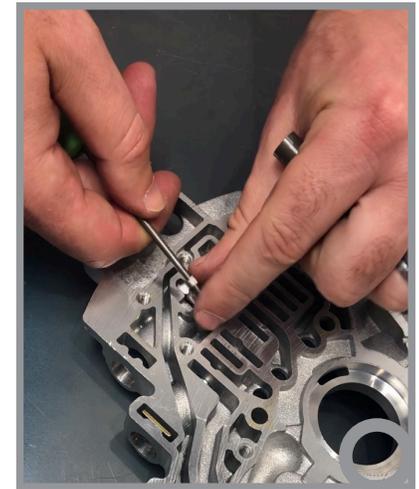
Install chosen spring into the open end of the valve followed by the small ball and then screw on allen head end plug using 1 drop of Loctite on the end of a toothpick. Be sure to remove all excess Loctite! Reinstall factory spring, valve and then the retainer.



Pieces to keep

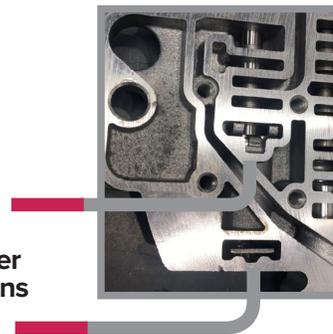


Placing new valve

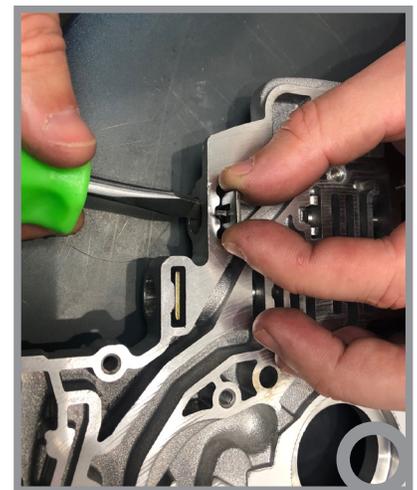


Step 26 shown

27. Now you will reinstall the torque converter accumulator piston, spring and retainer assembly.



Retainer
locations



Step 27 shown

28. Remove the factory converter switch valve retainer, spring and valve. With either valve you will reuse the factory spring. You will need to decide which switch valve style to use.

Factory Aluminum Valve: Use with stock and aftermarket DUAL disc converters. DO NOT use with a aftermarket TRIPLE disc converter or harsh lockup apply will occur and possible broken input shaft!

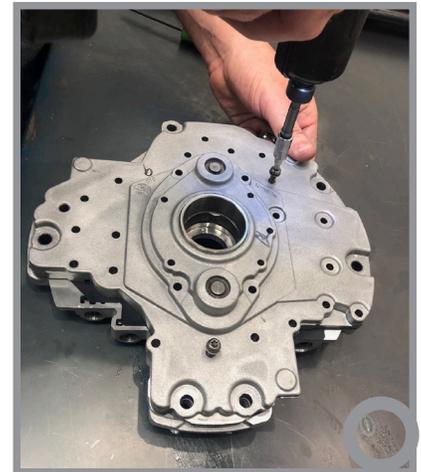
Steel Valve: Only use with aftermarket TRIPLE disc converters. If used with a factory or dual disc converter a slip or slide apply will occur resulting in converter clutch failure.

29. Next you will put the pump back together. You will snap on the other half of the pump housing onto the other half. You will reinstall all the T25 screws.

30. Final step is to align the pump stator and slide into place by aligning the flat spot on the stator to the flat slot on the pump body and gently pop into place. While holding you will start by putting in one T27 screw in by hand so it will be held into place. Then install the remaining T27 screws.



Step 28 shown



Step 29 shown



Step 30 shown

INSTALLATION INSTRUCTIONS



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Charlotte, NC 28273

www.revmaxconverters.com