

# SK® 68RFE-19UP

Shift Kit®

Fits: 68RFE 2019-on

Patent No. US 12,078,243 B2



## Corrects—Prevents—Reduces

- **Stops** repeat UD clutch failure after engine tuning
- Excessive cooler pressure and drainback
- HD accumulator cover plate replacement to prevent warpage

## Listen-Up!

This kit does not increase line pressure.  
If that is your objective, order RFE-HP-19UP  
See page 8 for more information.

**The UD failure protection can be installed without removing the transmission.**

## These optional features below require transmission removal

- Converter drain back issue
- HD underdrive snap ring upgrade
- Salvage pump cover even with extremely worn TC limit bore

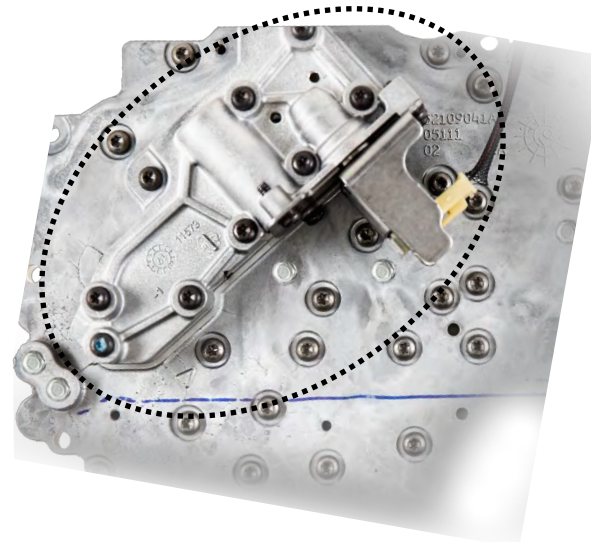
### Quick ID pan on:

**Blue** connector solenoid pack



### Quick ID pan off:

Added lock-up auxiliary valve body and solenoid

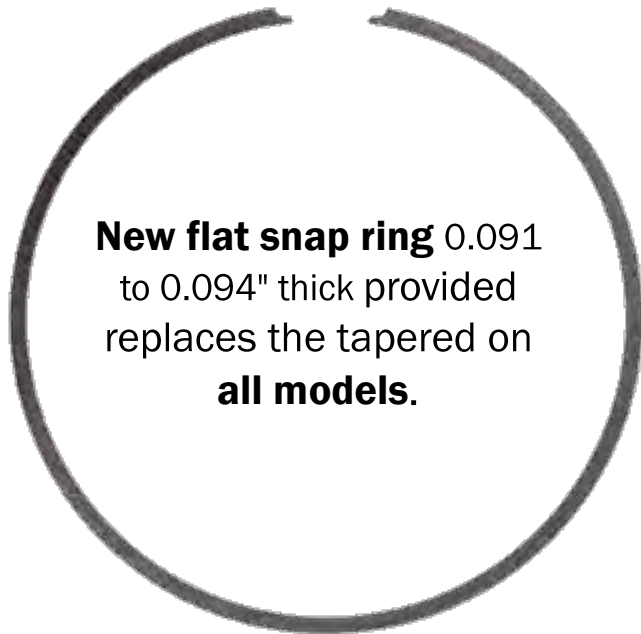


If the transmission is still in the vehicle, skip this page.

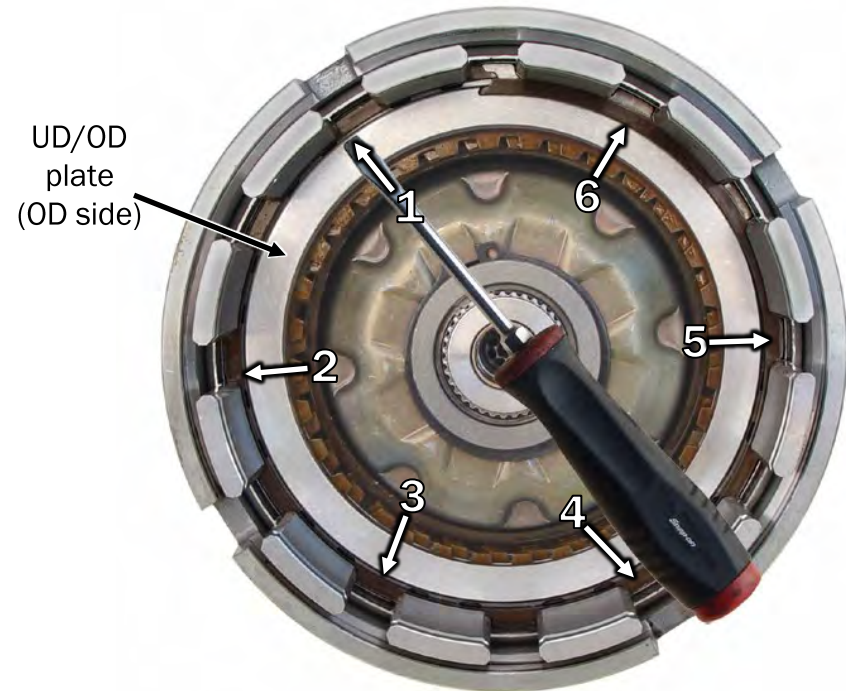
**Step 1.** Replace the OE tapered snap ring with the **new heavy duty underdrive flat snap ring**.

### Heavy duty underdrive snap ring

Replaces tapered ring that breaks and pops out.



**Tip:** Tap **new snap ring** into place as shown. It should be tight!



If the transmission is still in the vehicle, skip this page.

**Step 2.** Discard original TC limit valve, spring and retainer.

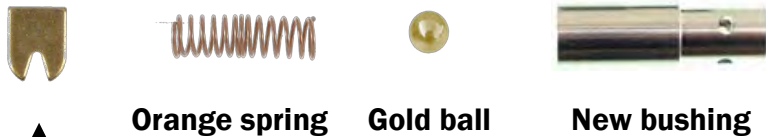


**Worn lock-up valve regulator bore?**

Get the new oversized valve TransGo® part number:  
**RFE-TCCREG-OS19 and RFE-TCCREG-TK19**

**Install new bushing, gold ball, orange spring and V-notch retainer.**

It is correctly installed when the bushing is inserted far enough to install the retainer. Now regardless of the amount of bore wear this system works perfectly!

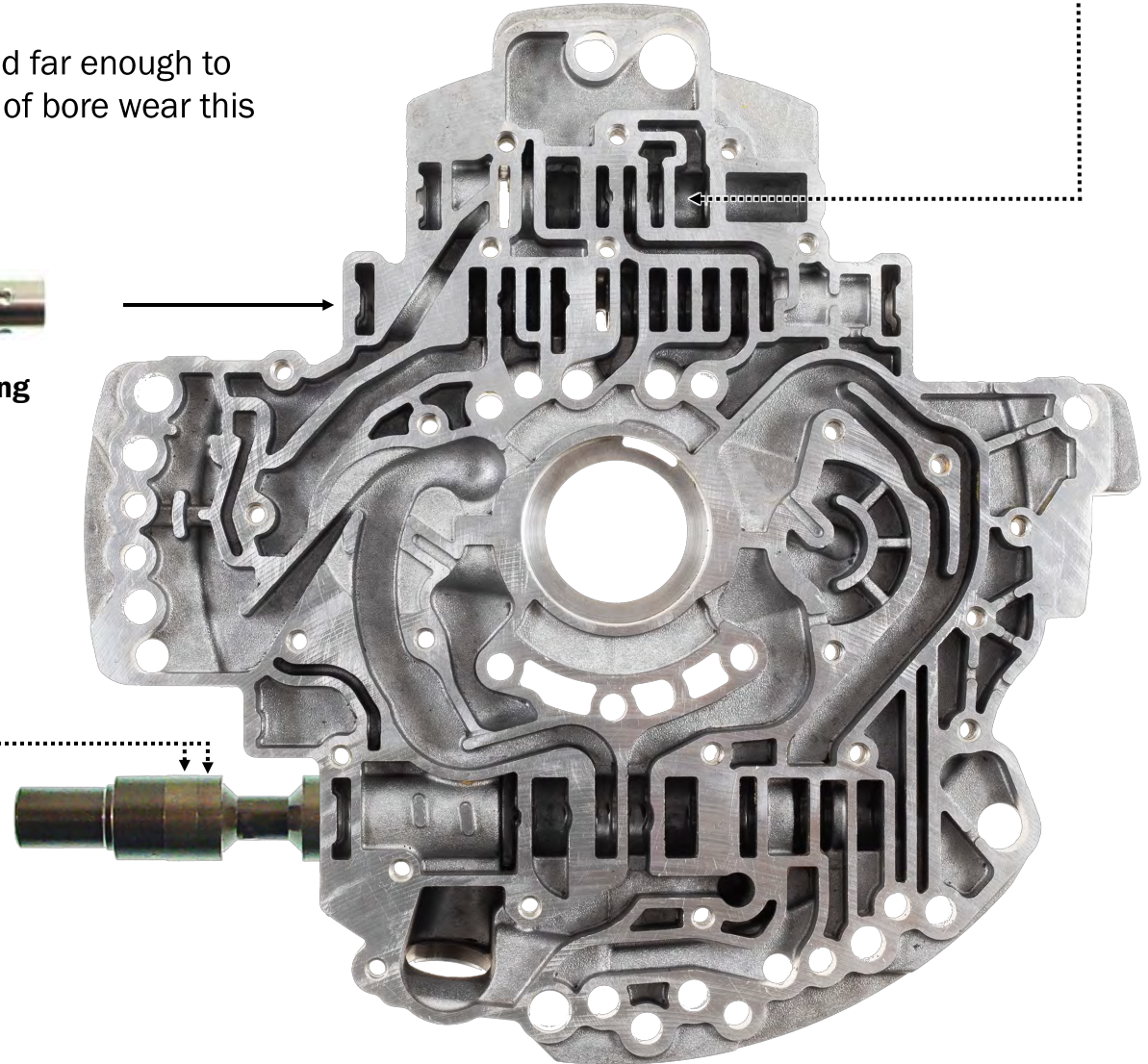


**V-notch retainer** must sit below flush in the pump. Grind the top of retainer if needed.

**Information only, no need to remove the valve!**

The OE PR valve has a slight difference in diameters here providing all time line to converter charge. The diameter difference is the equivalent of drilling a 0.073" hole into the pump. This is plenty with our kit and a stock tune, so there's no need to add a hole to the pump.

However, if someone has already drilled the pump casting in the past, it is ok to leave it as is.



**Pump cover**



New HD accumulator cover

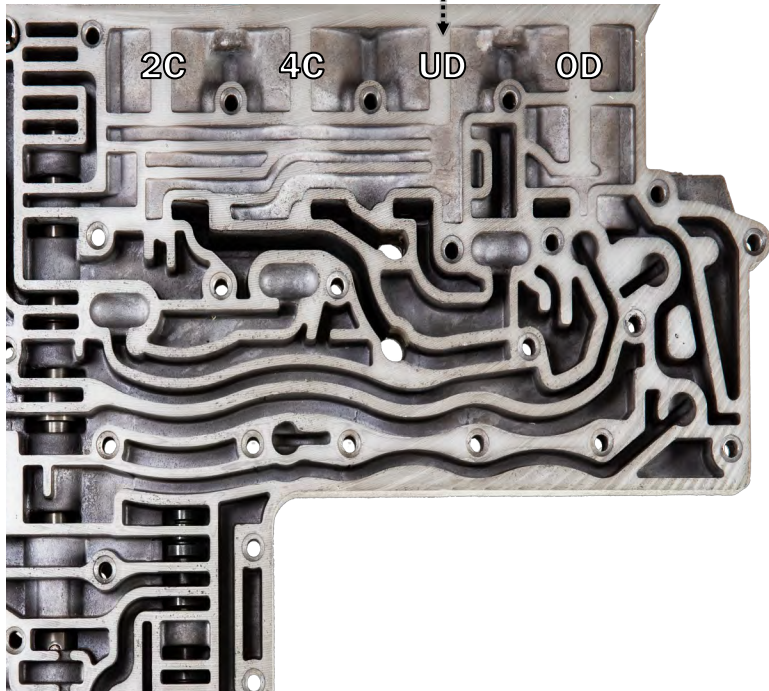
Shims  
0.010", 0.020", 0.035"



New plain middle  
spring

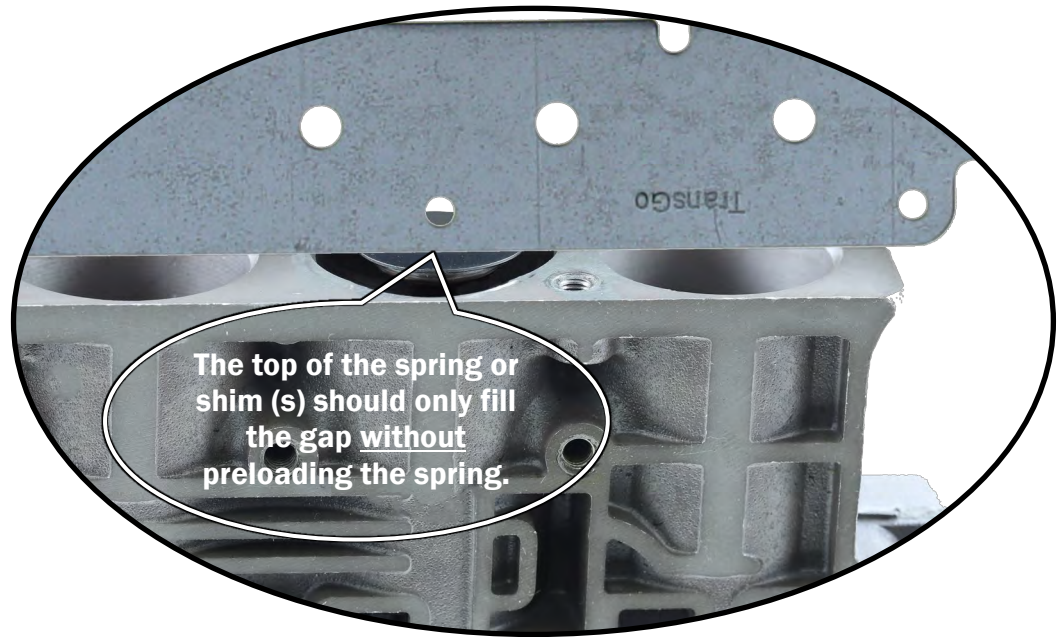


New black UD piston



**Step 3.** Valve body castings vary. Follow these steps to set the correct UD spring height:

- Insert the **new black UD piston** and the **new plain middle spring** into the UD accumulator bore.
- Lay the **new HD accumulator cover** across the valve body surface on top of the spring, using it as a straight edge.
- Use the provided **shims** (0.010", 0.020", 0.035"). Select one or a combination to fill the gap **without preloading the spring**: 0.010", 0.020", 0.030" (0.010" + 0.020"), or 0.035". Most cases require the 0.035" shim.



The illustration above is **to set clearance stack-up only**.

If you had to use **shim(s)** to achieve the correct clearance in the previous step, now move the **shim(s)** down **into the accumulator piston**. Then, add the **three new plain springs** on top of the **shim(s)**.

**See the final stack-up order on the right.** .....>



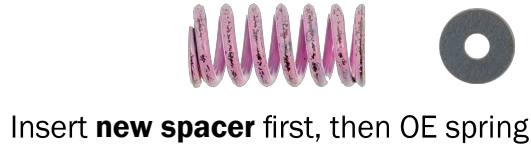
Final stack-up order

## Step 4.

Add **new spacer** into the OD accumulator piston first, then the OE spring. Install **3 new rings** on **new black UD piston**. Next insert **3 new plain springs and shim** selection (if any) per step 3 on the previous page.

## Valve Body

5 plastic 1/4" checkballs ©  
in locations shown below



Insert **new spacer** first, then OE spring



**3 new plain springs, shim(s) and new black UD piston**



Reuse OE springs

2C inner spring has larger wire

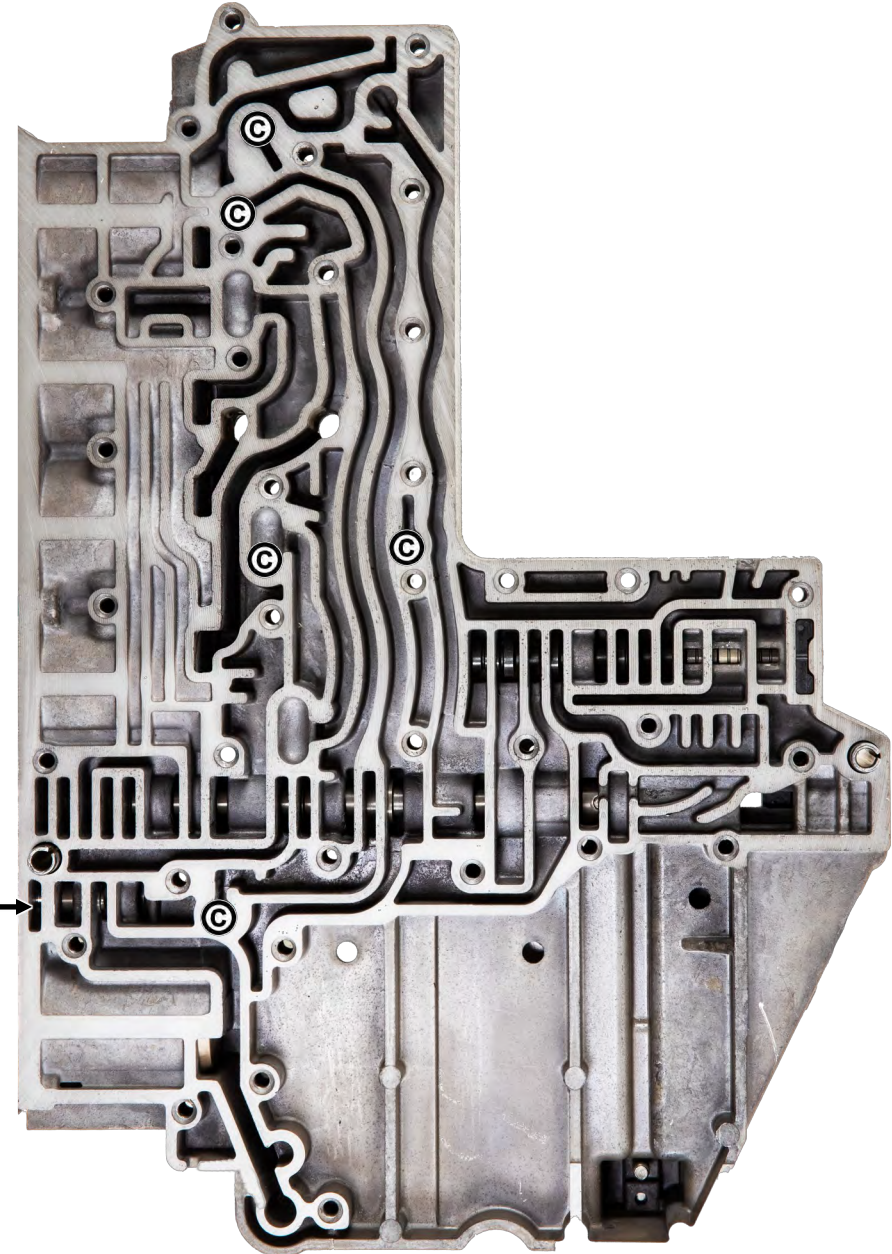
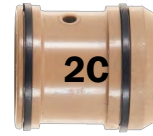
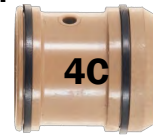


Reuse OE springs

**Step 5.** Discard original valve and plug. Install **new self cleaning switch valve** and **new end plug** furnished.



Reuse OE springs



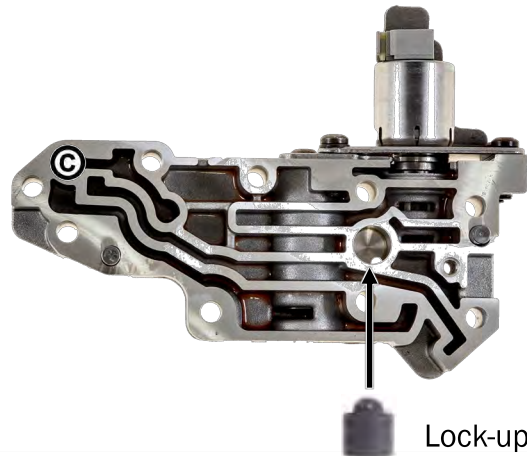
**Step 6.** Install the **new HD cover** using blue Loctite™ on the screws and torque them to 60 lb-in

## Step 7.

- Replace damper rubber insert with the **new** one provided
- Install the assembled damper in the lock-up valve body
- Install one plastic 1/4" checkball ©
- Install separator plate
- Bolt it together using the short bolt



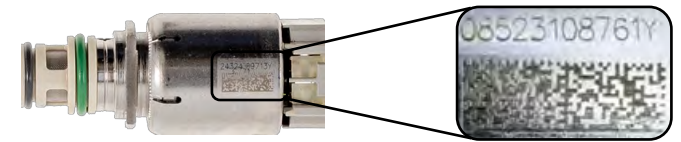
**Tip!** If you replace the lock-up solenoid, the manufacturer recommends entering the “PI Curve” of the new solenoid into the computer using a capable scanner. Scan the 2D barcode on the solenoid with your smart phone to read the code that needs to be entered.



Lock-up solenoid pulse damper

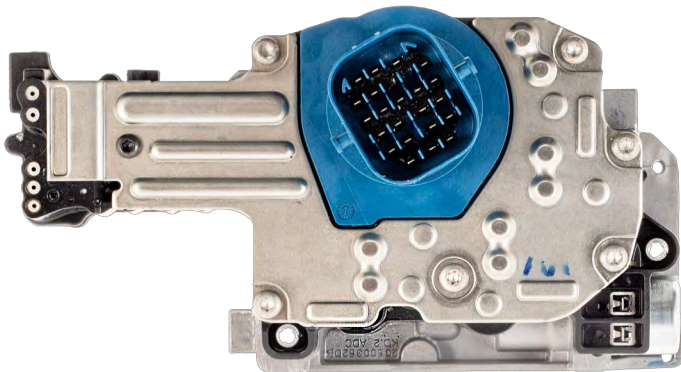


Separator plate bolt torque to 50 lb-in

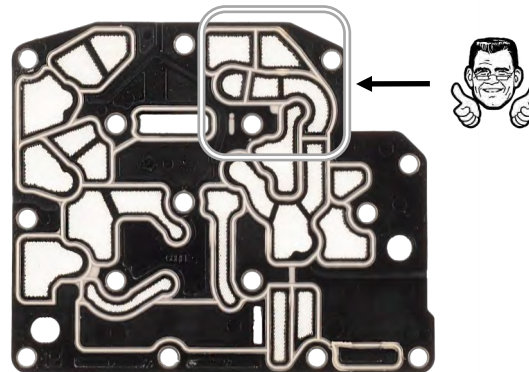


Lock-up Solenoid

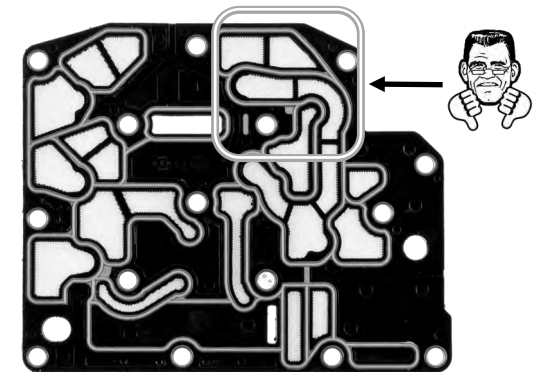
2D Barcode



2019-on solenoid pack can be identified by its **blue** plastic connector



2019-on

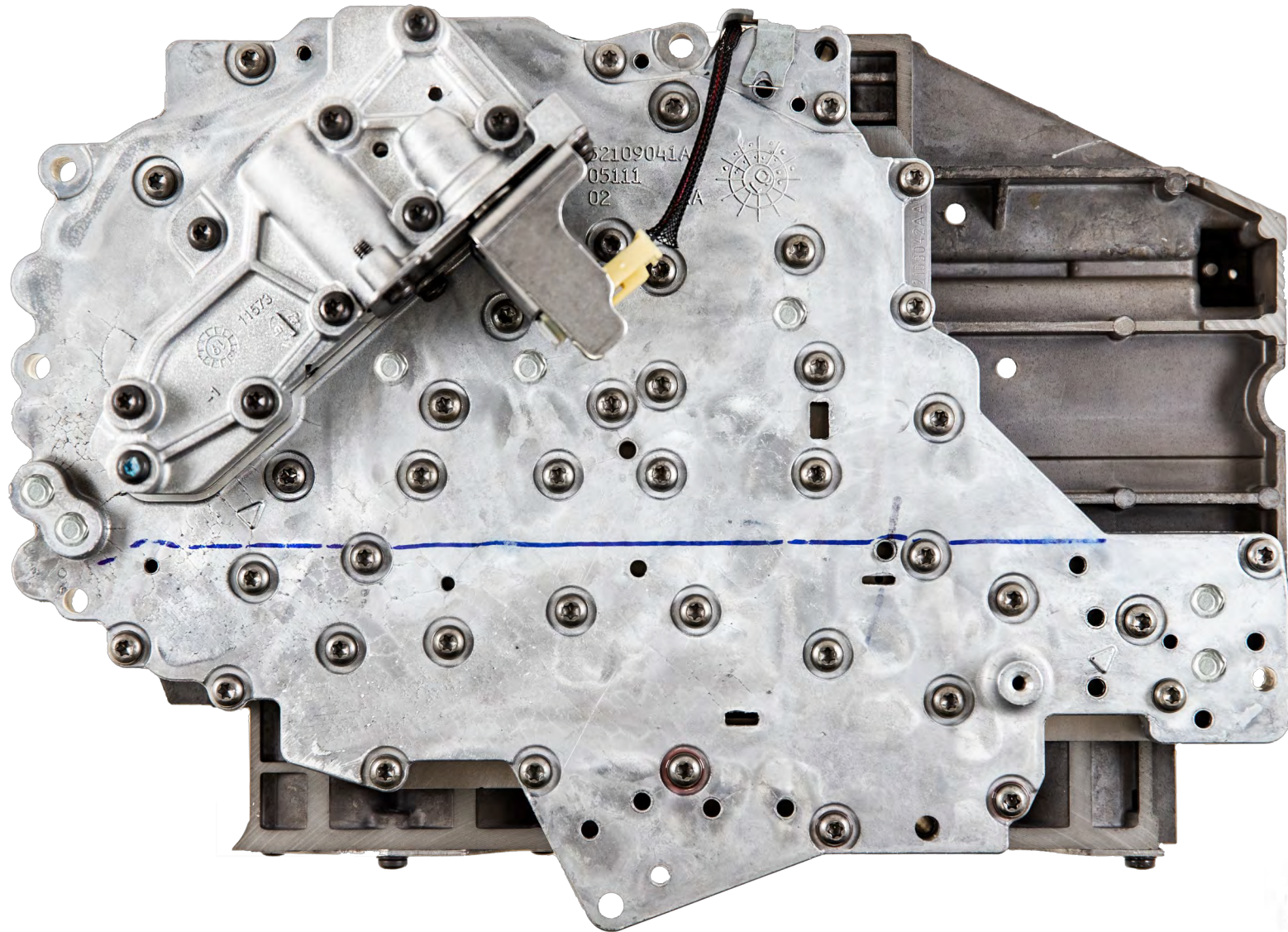


2007-2018

### **Listen up!**

The solenoid pack gasket and filter plate is different in the area shown above for 2019-on applications and the solenoid pack has a blue plastic connector. Techs in the field report that many rebuilding kits come with the previous design gasket. If the early style gasket is used on a 2019-on application the unit will bind in forward and reverse. Check this area carefully to make sure it is the correct one.

**Step 8.** Torque all the bolts to 60 lb-in



# More solutions for 19-up 68RFE



## #RFE-HP-19UP

### Tuneless™ High-Pressure Performance Valve Body Reprogramming Kit™

Patent No. US 11,105,415 B2

Fits 68RFE 2019-on

**This kit is a must-have for stock, fleet, hard-working, or enhanced powered 2019-on Ram trucks with a 68RFE.**

- Stops repeat underdrive clutch failure after tuning
- Adds 36% more line pressure at all throttle openings without the need of computer software
- Transmission removal not required
- Reduces OD clutch failure with added power
- No transmission tuning required
- Short, clean shifts that really hold the power

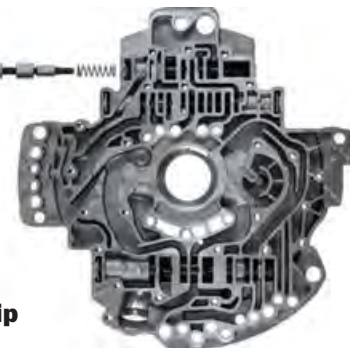
## #RFE-TCCREG-OS19

### Oversize Converter Regulator Valve

Fits 68RFE 2019-on

#### An essential fix for 2019-up 68RFE TCC slip

- Prevents TCC slip codes
- Fixes what feels like a flare during shifts
- Requires Tool Kit# RFE-TCCREG-TK19



## #RFE-TCCREG-TK19

### Tool Kit for Oversize Converter Regulator Valve

- Reusable high quality USA-made steel reamer
- No holding fixture required



## #RFE-ACMPST-KIT

### Billet Accumulator Piston Kit

Fits A604, A606, 40TE, 41TE, 42LE, 62TE, 42RLE, 45RFE, 545RFE, 65RFE, 66RFE, 68RFE

Two sealing rings double the capacity of OE designs, while an innovative center ring restores sealing in worn bores, extending the life of valve bodies and cases. A third ring and refined groove profile guide the piston to prevent side-load damage. Machined from billet aluminum, it resists cracking for lasting reliability.



## #RFE-PP-ODHP

### Hot-Forged 1045 Steel Fully CNC'D Overdrive Pressure Plate

Allows the addition of extra capacity to the OD stack. Get an additional \*25% increase in overdrive clutch capacity when combined with the Tuneless™ Reprogramming kit.

*\*Depending on transmission*

For single sided friction setup the stack up yields a 15% increase in surface area and for double sided friction setup like in the 545RFE, the end result is a 25% increase in surface area.

## Burnt OD frictions or code P0871?

Here is a quick and easy one-step solution to eliminate trouble codes and frequent complaints.



### Solenoid Switch Valve Kit

#RFE-SV453-WT w/tools

#RFE-SV453-NT w/o tools



### Corrects, Prevents, Reduces

- O/D clutch failure
- No lock-up
- Limp-in mode
- Codes P1775, P1776, P0841, P0846, P0871, P0876 and P0988
- TCC slip and/or TCC control stuck off or on
- L/R pressure switch rational or circuit error
- Kills engine at a stop

