

SK® 42RLE-VLP

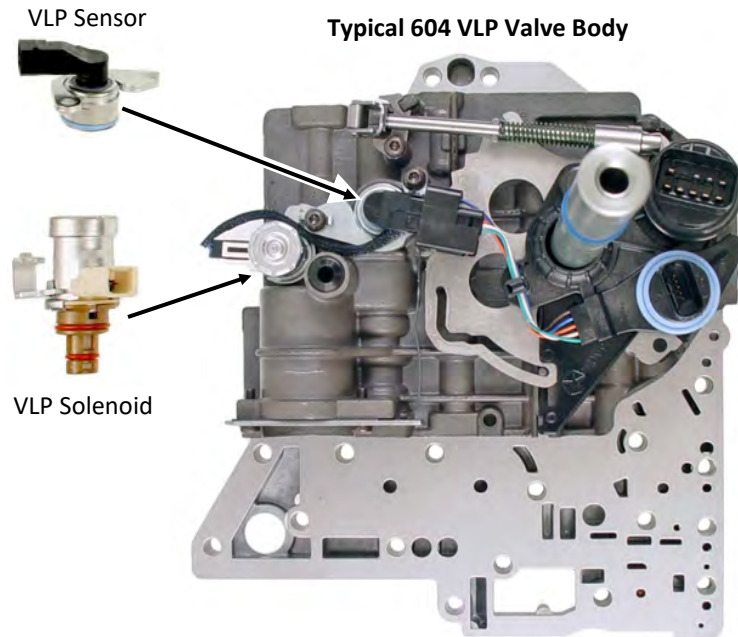
Fits 42RLE's & 604's with VLP Solenoid & Sensor

2006-2017 42RLE-VLP (RWD)

2006 up 604-VLP, 40-TES, 41-TES (FWD)

Corrects / Prevents / Reduces

TCC Slip/Shudder, Overheating,
Delay or No Forward or Reverse,
4-3 and 2-1 Coast Clunk



**Models Without VLP Sensor
& Solenoid Order P/N SK® 604**



Gasket

If trans is in vehicle skip Step 1.



Housing

Step 1.

Discard OE Housing Gasket. Install new *Non Shrinking Gasket* under Piston Housing. Gasket works with all piston housings.

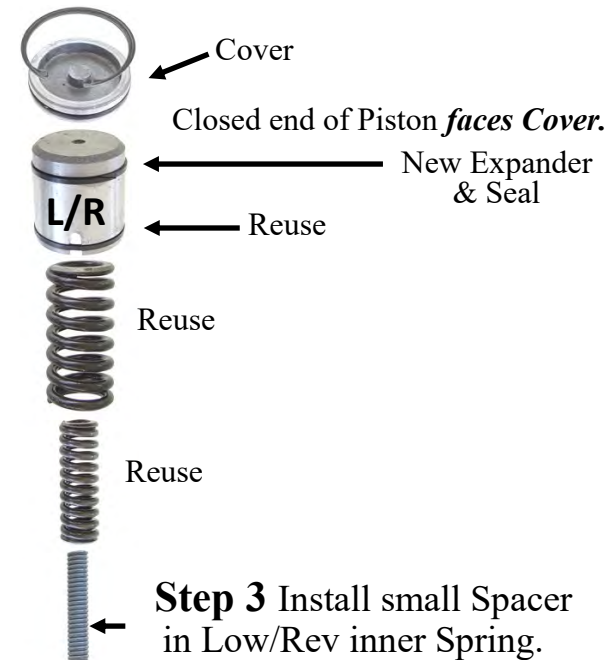
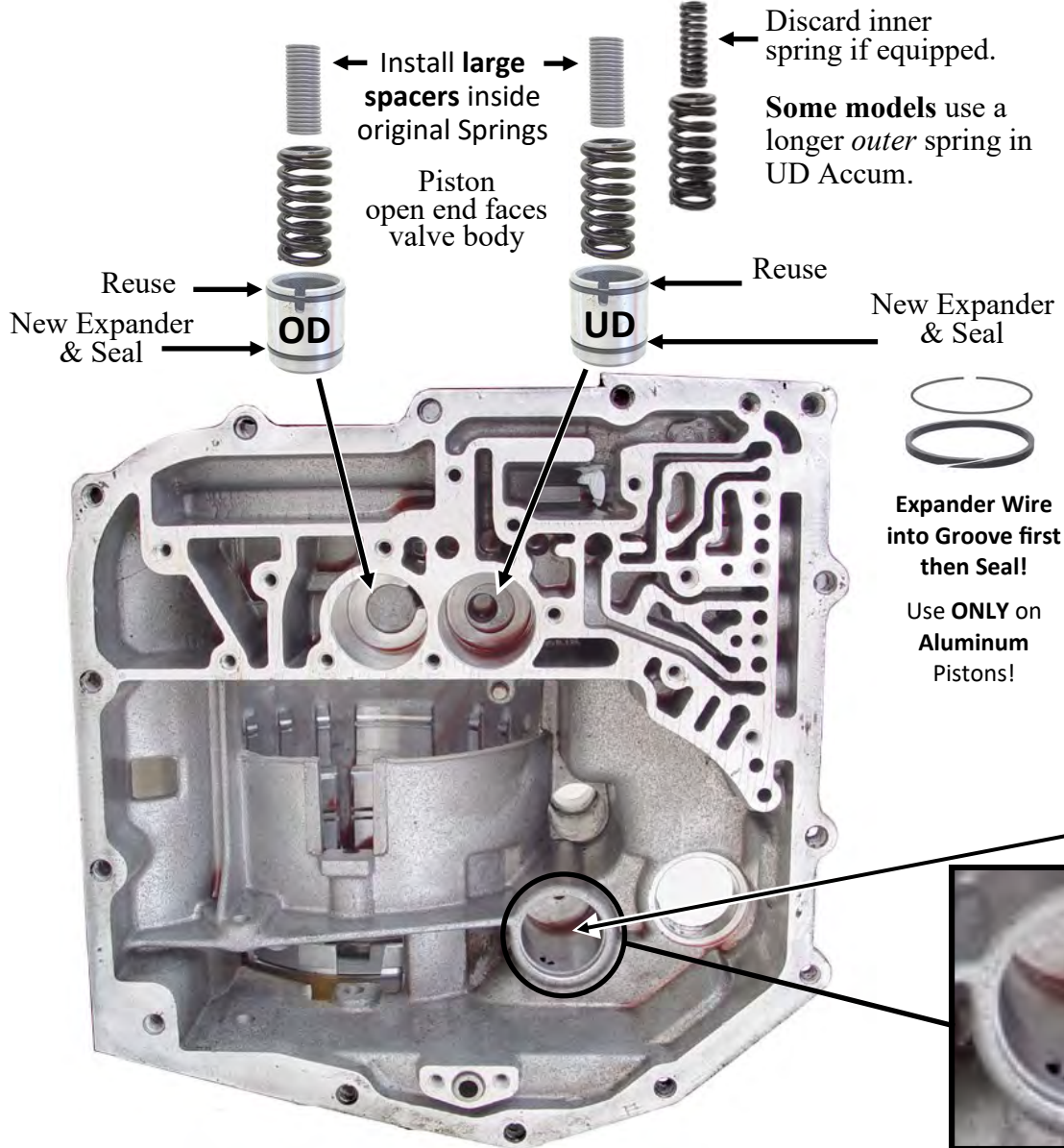
All Models with Aluminum Pistons do Steps 1, 2 & 3

Plastic Accumulator Pistons- Skip this page & reassemble all accumulators with *Original* Rings, Springs & No spacers

Step 1. Install new Expanders & Seals on the CLOSED end of Accumulator Pistons.

Step 2. Install Large Spacers into OD & UD Springs.

Tech: Installing Spacers causes shifts to be shorter and cleaner. It does this by allowing the releasing Clutch to exhaust faster.



LOOK: Don't damage seal. When installing the L/R Accum hold a .002 to .005 feeler blade across feed hole so the sharp edge of hole won't cut the seal.

This Page: 604-VLP, 40TES & 41TES

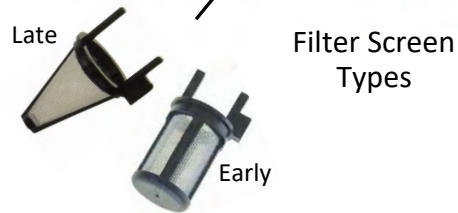
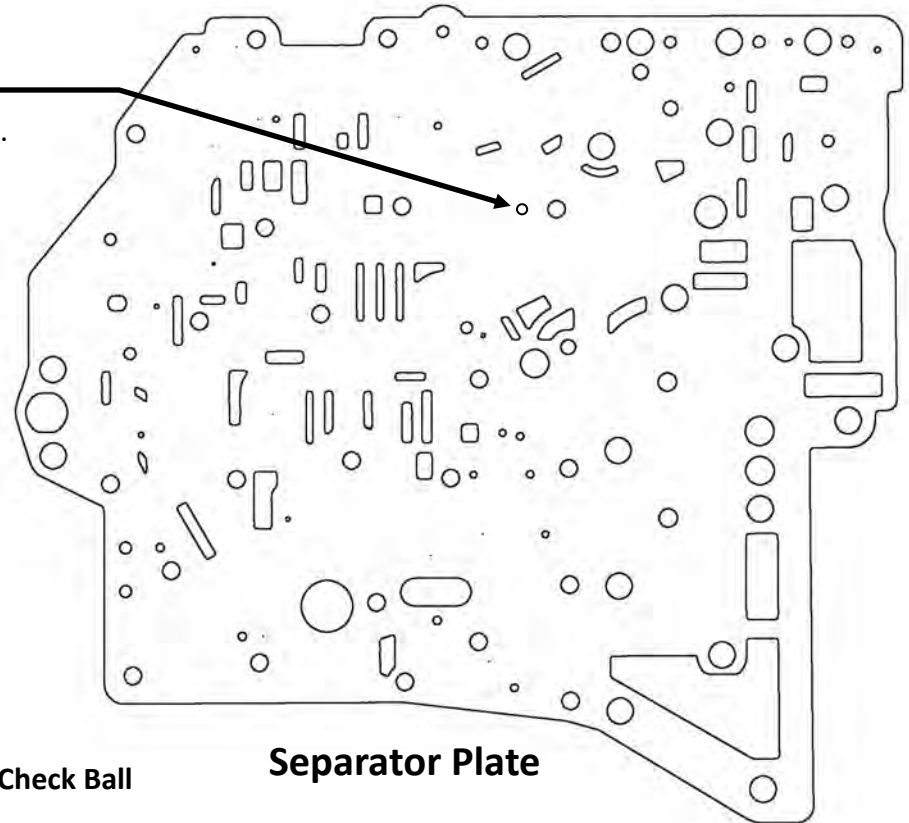
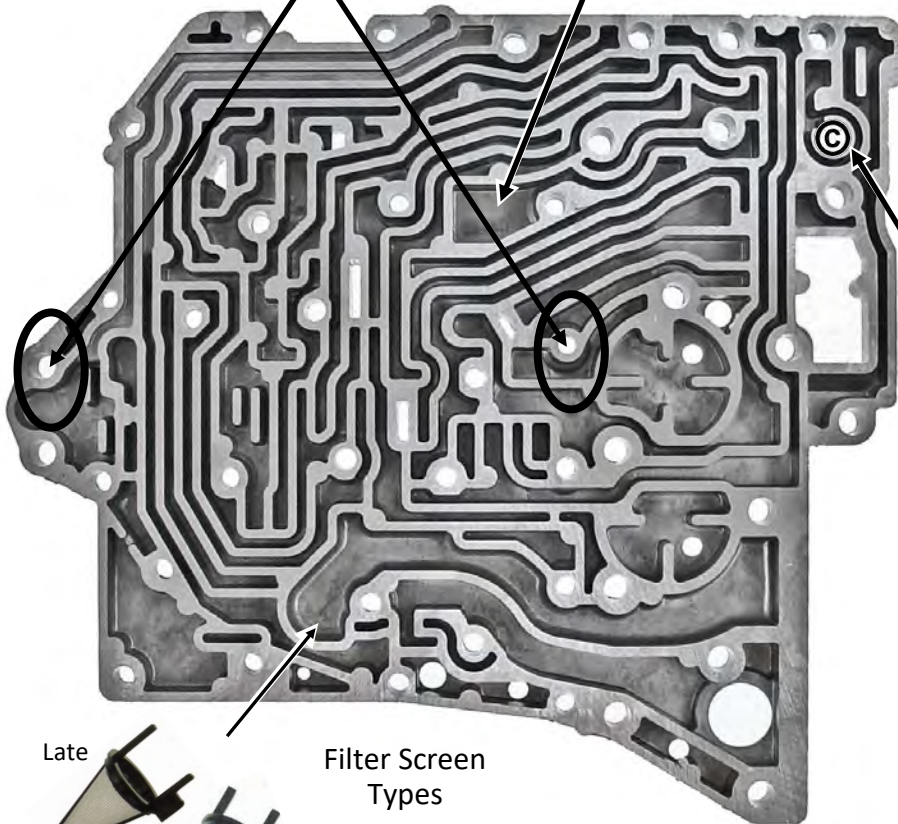
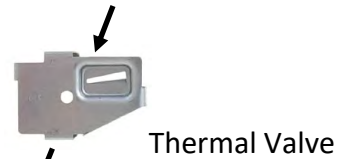
Does your Plate have this hole?

Yes = Install thermal valve **and** check ball #2, See page 6 .

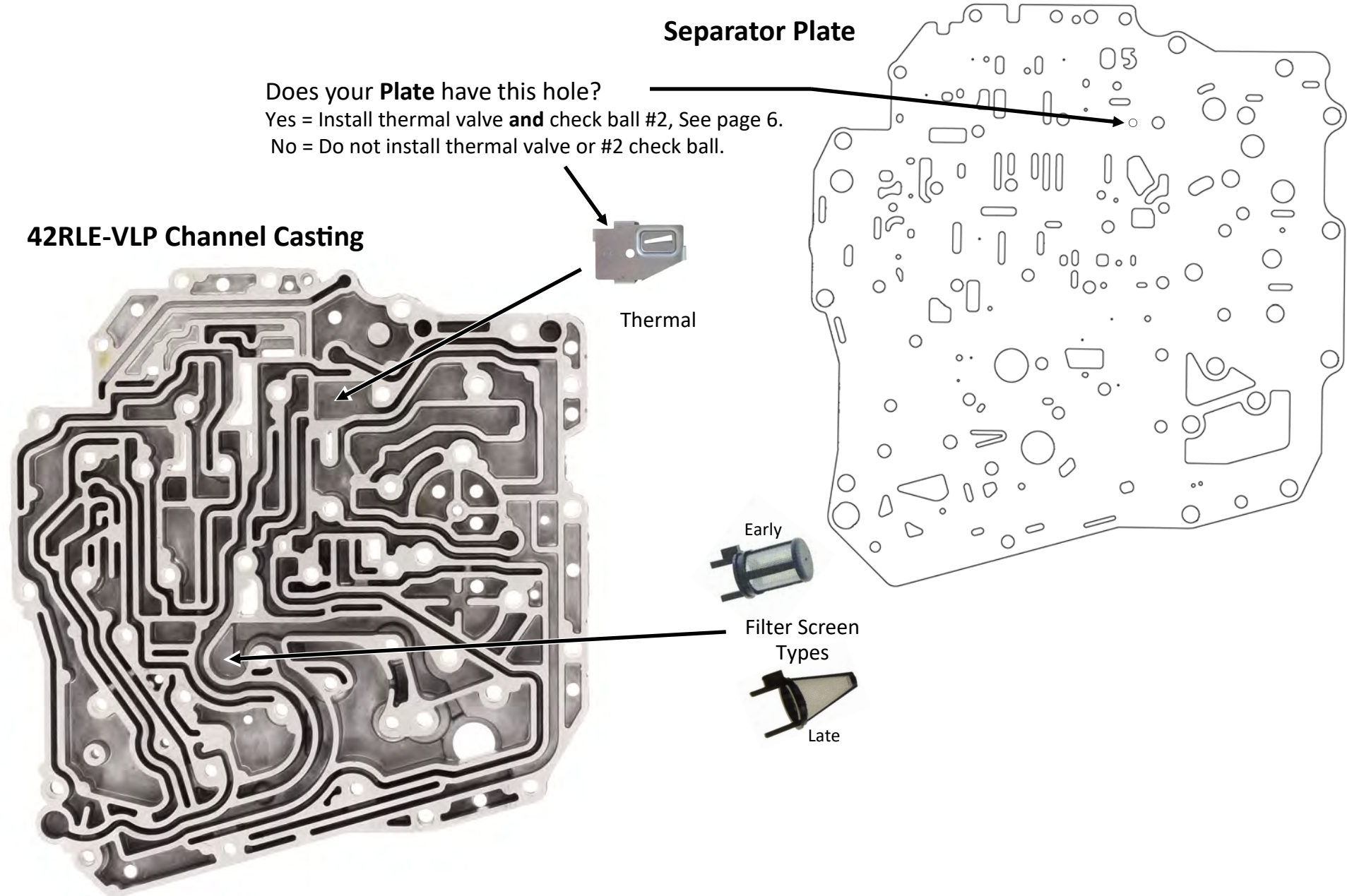
No = Do not install thermal valve or #2 check ball.

Channel Casting

To prevent distortion/damage,
tighten *circled* bolts FIRST.



This Page: 42RLE-VLP



ALL models use this page.

Some **2006-2008** vehicles may experience **TCC Shudder** complaints due to a combination of applying Lockup at very low speeds and controlling the slip speed during converter apply. The factory later introduced changes to the converter lining, computer strategy and other areas to try and reduce shudder complaints. Using a better calibration for the type of converter lining used will be a step forward in the right direction.

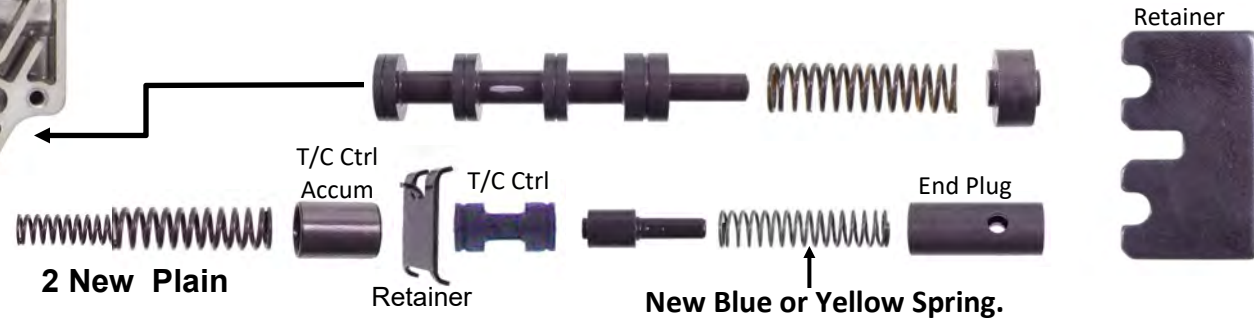
Tech Tip: When working on VLP units & before road testing, reset line pressure counter, clear codes & do a quick learn.

42-RLE's with VLP build before April 28 2008 Should have the PCM flashed with the latest software. Low speed partial apply TCC operation is greatly improved with software update.

Step 1. Converter Lining vs. Calibration

2008 & earlier models have non-grooved lining.
Use **New Blue** spring.

2009 & later models use grooved lining.
Use **New Yellow** spring.



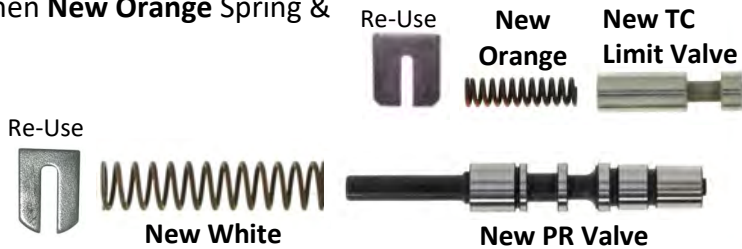
Step 2.

Discard the original T/C Accum Spring
Install the New Inner & Outer Springs

ALL models use this page.

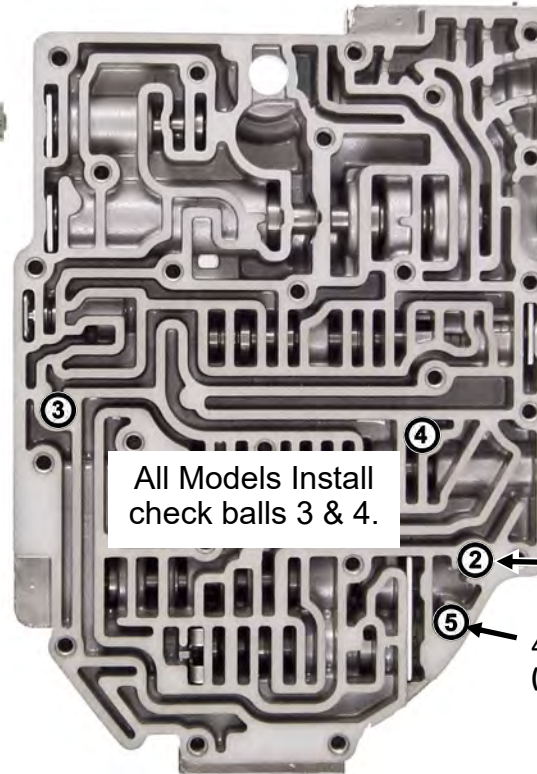
Step 1.

Install **New TC** limit Valve checking that travels freely then **New Orange** Spring & reuse retainer.



Step 2.

Install **New PR Valve** checking that travels freely then **New White** PR Spring. Re-use Retainer.

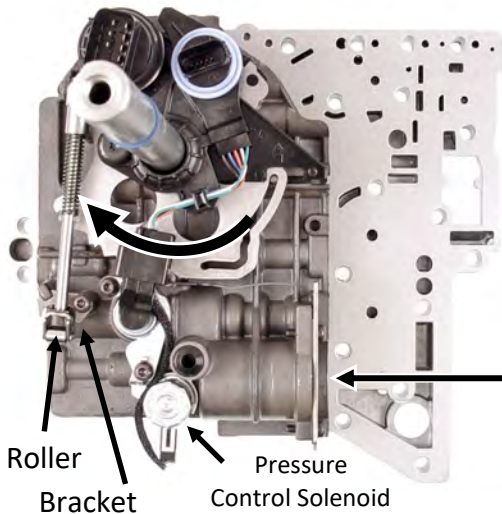


Note: Valve land length on the TCC Reg and the PR valves have been extended to renew the hydraulic integrity of the circuit.

All Models Install check balls 3 & 4.

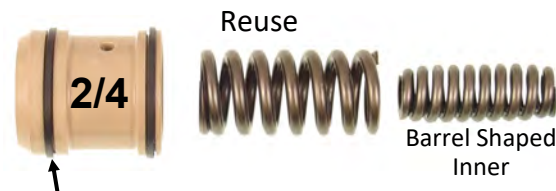
All units WITH thermo element in channel casting Install #2 Ball.

42RLE Install #5 Ball.
(All others = No ball here)



Plastic Accum Piston? Skip Step 3

Reassemble 2/4 accumulator with original Rings & Springs.



Step 3. 2/4 Accum Piston: Install the Wire Expander & the new Seal on closed end of the Aluminum Piston.

Models with plastic pistons and barrel shaped inner springs, look for piston damage where springs contact piston. OK to swap with aluminum pistons. Just use our seals and expander wires if you do change to aluminum pistons.

Park lever installation: While rotating detent plate in direction of arrow hook roller assemble into bracket.

604/42RLE 4th Type** Stack-up

UD clutch: Has four .073 thick frictions. High Energy/Brown Paper

OD clutch: Has four .073 thick frictions Should be High Energy.

Reverse clutch: Has two .073 frictions High Energy/Brown Paper

UD stack- Start with .068 steel plate, alternate .073 clutch plates, the stack will end with a friction. Install .061" flat snap-ring, 4th design UD/OD Pressure plate then tapered .090 snap-ring.

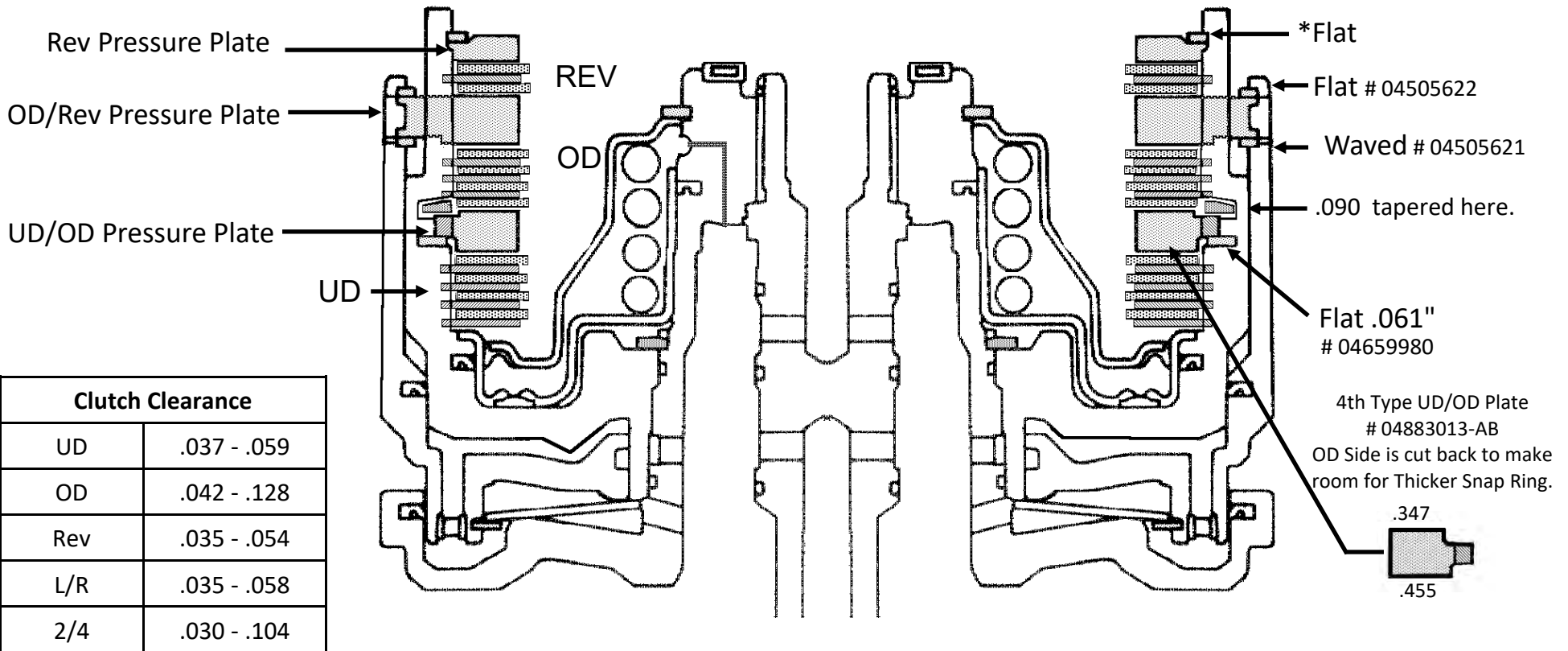
OD stack- Start with .073 friction plate, alternate with .068 steel plate. The stack will end with a friction plate. Install waved snap-ring, OD/Rev Pressure Plate then install flat snap-ring.

***Rev stack-** Start with .073friction, .068 steel, .073 friction, Pressure Plate and flat selective snap-ring.

Selective Rev Snap Rings: 1.53-1.58mm- # 04377195, 1.77-1.83mm- # 04412871, 2.02-2.07mm- # 04412872, 2.27-2.32mm- # 04412873.

**Earlier stack-up- Types 1 through 3 can be found in the SK 604 kit Additional Information Lesson 3A

Note: Some small engine models can come equipped with only 3 OD clutches & 1 Reverse clutch. This stack-up is not covered here. Use your specific vehicle data when ordering replacement parts.



New Products!

Available Now!



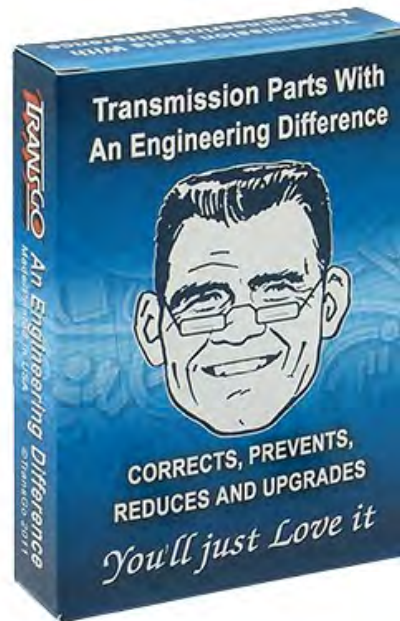
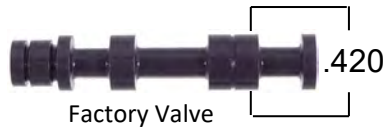
RFE-SV420-WT (With Tools)

Solenoid Switch Valve Repair Kit.

Corrects/Prevents/Reduces

Multiple codes on various models such as P1776 Solenoid Switch Valve latched in L/R, P1775 Solenoid Switch Valve latched in TCC, L/R pressure switch rational or circuit error, OD clutch failure, Kills engine at a stop, TCC Slip

This product fits 604, 606, 42RLE, 45, 545 & 68 RFE's equipped with a **.420 diameter** switch valve.



RFE-SV453-WT (With Tools)

Solenoid Switch Valve Repair Kit.

Corrects/Prevents/Reduces

Multiple codes on various models such as P1776 Solenoid Switch Valve latched in L/R, P1775 Solenoid Switch Valve latched in TCC, L/R pressure switch rational or circuit error, OD clutch failure, Kills engine at a stop, TCC Slip

This product fits 604, 606, 42RLE, 45, 545 & 68 RFE's equipped with a **.453 diameter** switch valve.



"No Tool" Refill Kits Available

RFE-SV420-NT fits .420 Valve

RFE-SV453-NT fits .453 Valve

Includes 1 Valve, 3 slugs & 1 Spring.



Underdrive Ring

Fits: 62TE/604/606/42RLE (Including VLP models)

Corrects / Prevents / Reduces

Delay or No Forward, Rough Coast Down 4-3, Limp coming to a stop.

Read this first:

Close inspection of Underdrive piston bore will often show wear and a ridge where the piston has rubbed against the seal groove in the input hub. This ridge nibbles the seal and the wear causes a cold leak.

With a worn piston or a cut seal there will be a delay or no forward cold and sometimes limp-in on cold startup into drive until the seal warms and becomes more pliable.

Also, during a long run in 4th the seal relaxes and can fail to re-seal quickly on a 4-3 coast downshift between 28 and 19mph. The computer sees the delayed apply by watching the speed sensors and places trans in limp.

A temporary solution is a new piston. A better fix is to install this quality self expanding seal that is pliable enough to seal into worn area and tough enough that the ridge won't cut it. Install it with confidence.

Inspect piston here for wear and ridge.



PLEASE: Don't hone, sand, scrape, polish or try to fix the piston in anyway. Leave it as-is. If it's really bad, replace it and use the new expander & seal for a long term fix.

Note: Seal does not air check very well, but works great in the trans, even with a badly worn piston.



UD-Ring Installation

Tough Self-Expanding Seal:

- A. Install wire expander into groove.
- B. Then install the seal.

