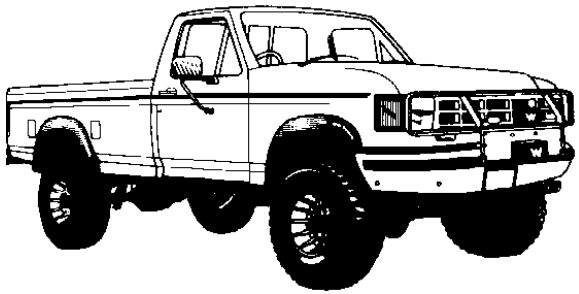
Reprogramming Kit ™

E40D-HD2-D

Also Fits: 1997-2003 4R100

Reduces Converter Burnup & Shudder

Short-Crisp high throttle shifts with "Class" Performance and Durability.



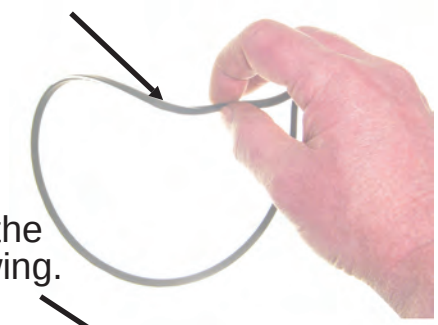
TRANSGO®

If the trans is in the truck skip this page.

If trans has modulated PWM type lockup, you can upgrade durability and firmness by installing TransGo ON/OFF lockup valve kit.
Order **TransGo 4R100 LU.**

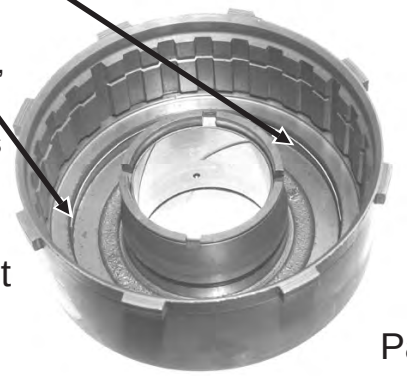
1. Install the **Direct Clutch Seal** furnished.

LISTEN UP: Roll the seal ***inside out*** as you install it.



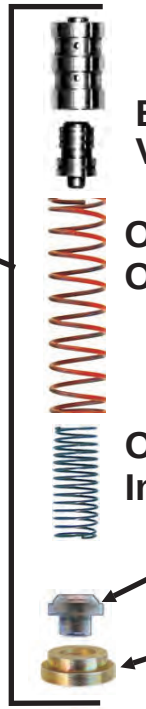
Install **seal** with the paint stripe showing.

Before installing the seal, scrape the muck out of the groove. A piece of metal sealing ring makes a good scraper



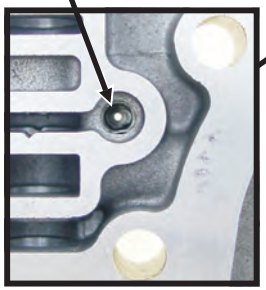
Direct drum

4. ***Remove*** and ***discard*** original Spring Seat, Springs and Boost Valve. Install new parts furnished.

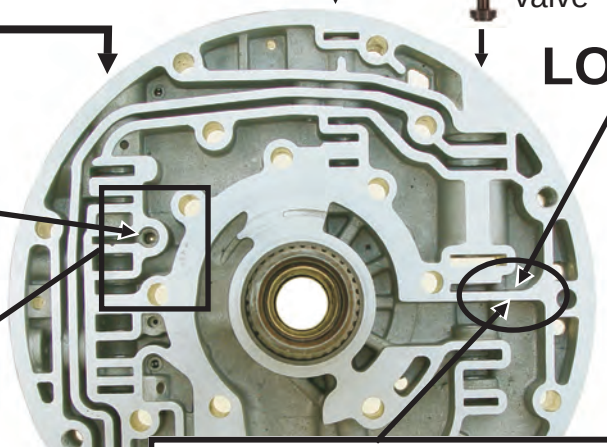


3. **YELLOW**

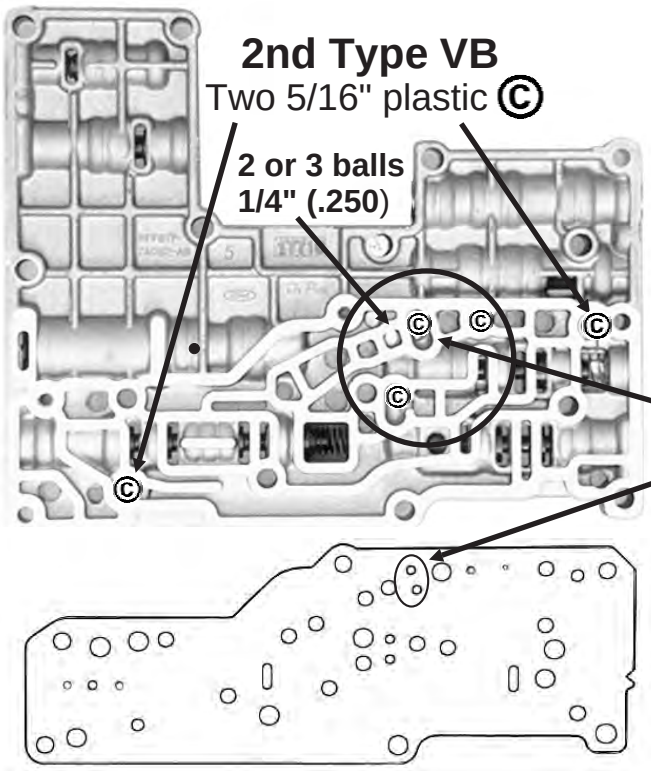
2. Lockup Firmness:
Only models with orifice cup plug here:
Normal .076, Firm .082, Firmest .093



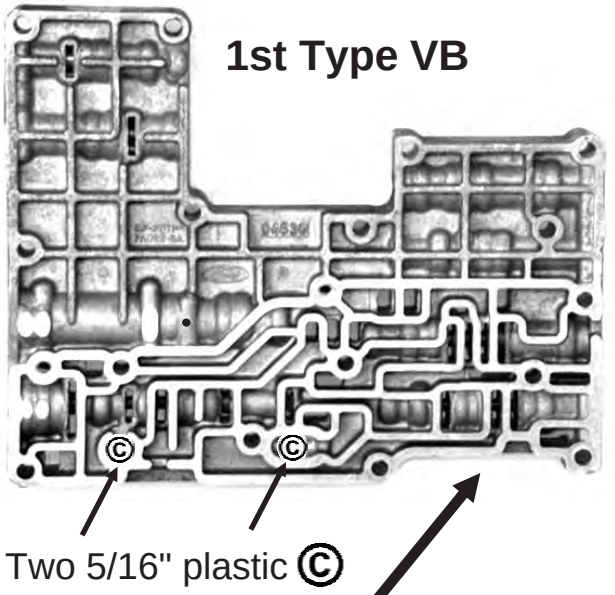
Pump cover



Do not drill a hole here. If there is a hole here, **plug it.** A piece of .063 Alum welding rod ground to fit works good.



Valve body Identification and Checkball locations



1st Type Valve Body Only.

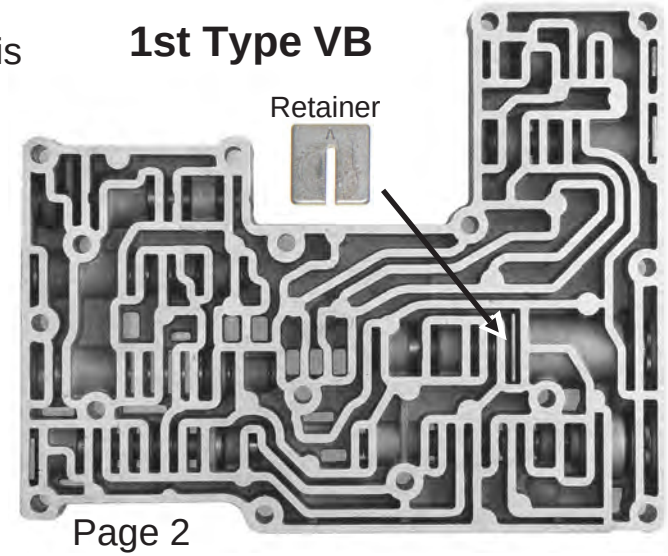
Optional Gear Command Feature.

This allows trans to hold 1st gear to any speed and can be shifted back to 1st gear at any speed. This is for Hot Rods and off road, **NOT recommended** for heavy duty or tow/haul applications.

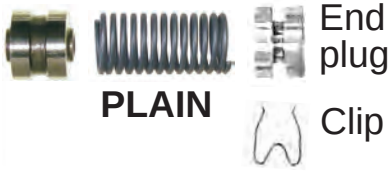
LISTEN UP: If the original 2-3 valve is ***longer*** than valve furnished, **skip Step 1 and Step 2 .**

Step 1. Insert 3/16" **Ball** and **Rod** into the inboard end of the new **Valve**. Then install valve with the original spring.

New **2-3 Valve**



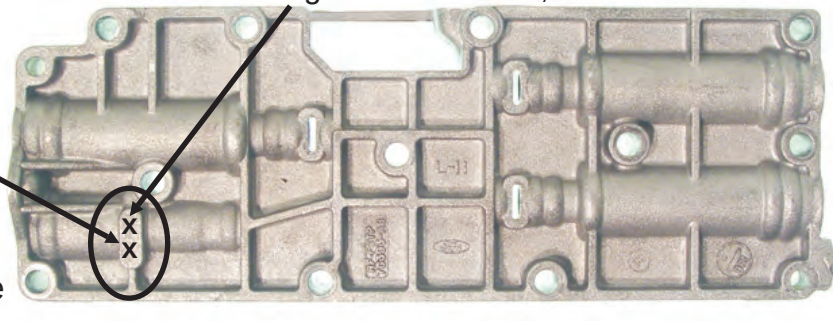
Step 2. Install the **Plain tight-wound** spring. If this spring won't fit don't use it.



1. Accumulator Valve Body.

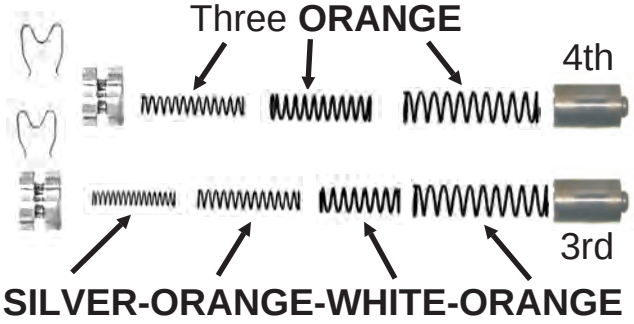
Remove Line mod valve and accum valve. **Drill** two .076 to .093 holes thru casting at the **"X's"** it's not fussy. If it has a slot here, no need to drill holes.

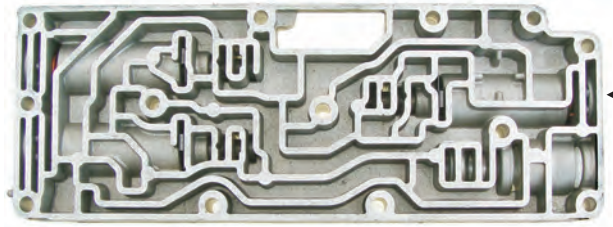
LOOK: If casting has a slot here, no need to drill.



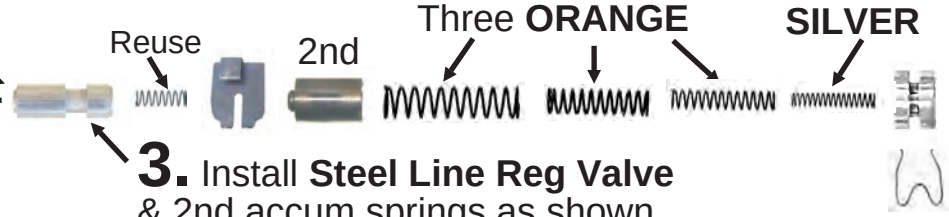
Steel valve furnished fits all locations. Now available separately **E4-VL-LR3** pack of 3.

2. Install new springs into the 4th & 3rd accumulator pistons as shown.

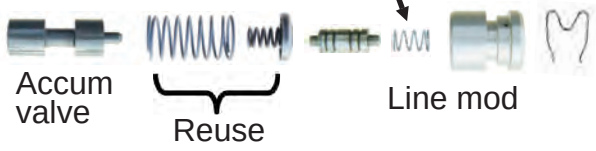




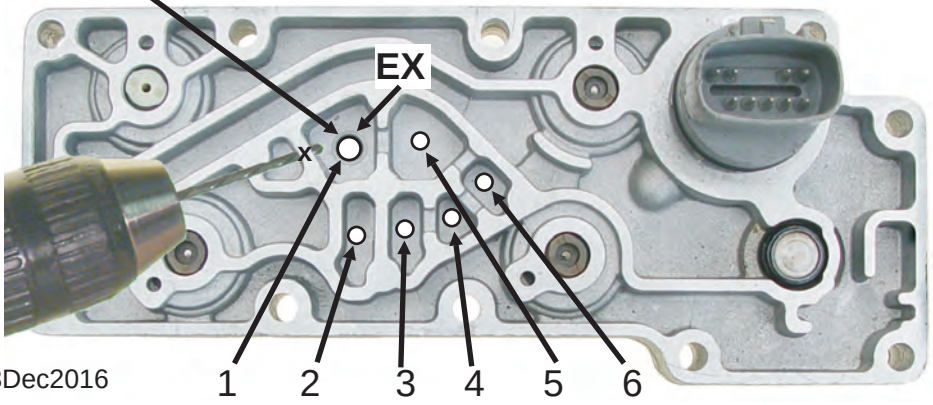
3. Install Steel Line Reg Valve & 2nd accum springs as shown.



4. Install short BLUE spring.



LOOK: If casting has hole **EX,** no drilling needed.



5. Solenoid Pack.

If casting ***has*** hole **EX**, install solenoid pack ***as it is.***

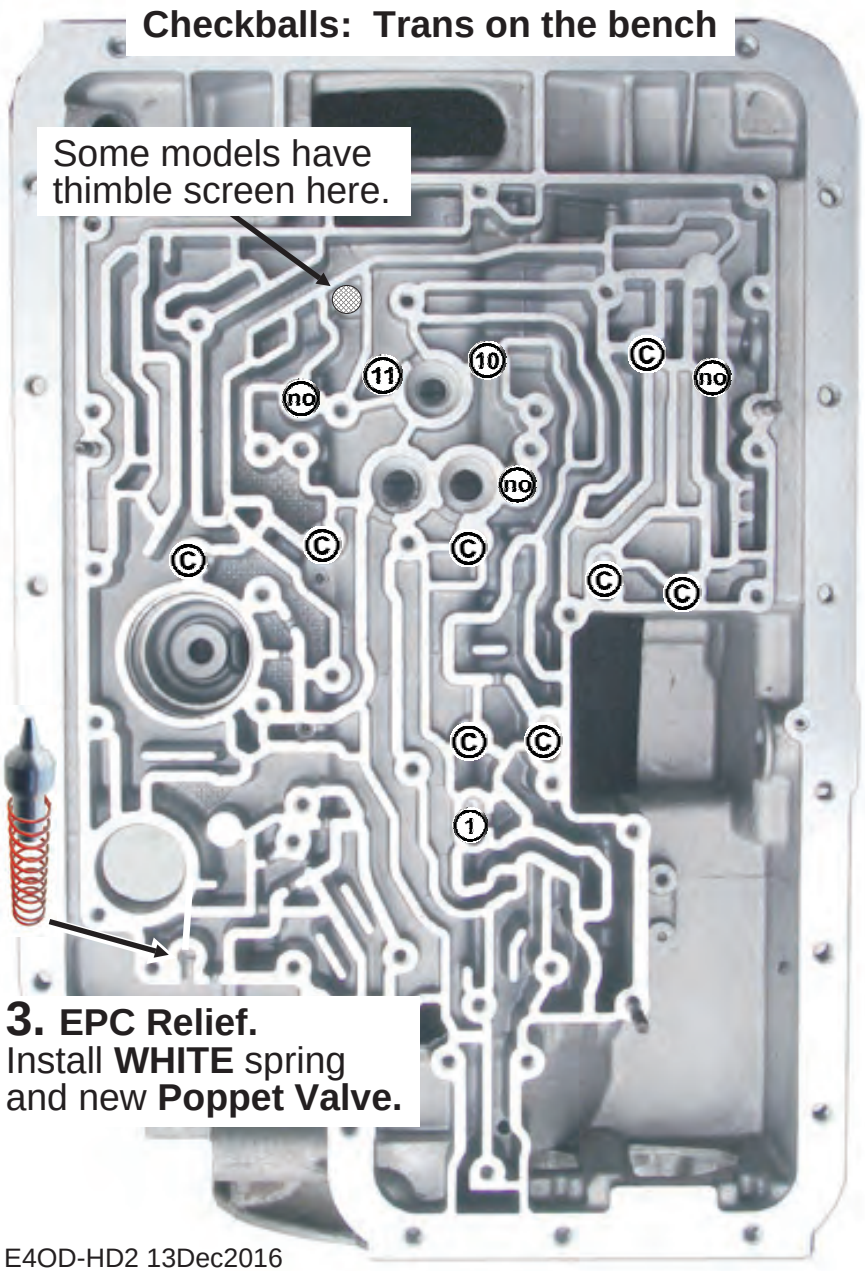
If there is **no hole EX, drill** six 1/8" **holes** as shown. Then drill one more hole **thru partition** under **"X".**

Note: Packs **without** "EX" hole were discontinued back in the late 90's.

Consider buying a new Pack for long term durability.

Ball locations © All models.
Ball 1: 89 to 95 only Balls 10 & 11: 1989 0nly
Ball 10 is 5/16 steel when used, all others 5/16" plastic

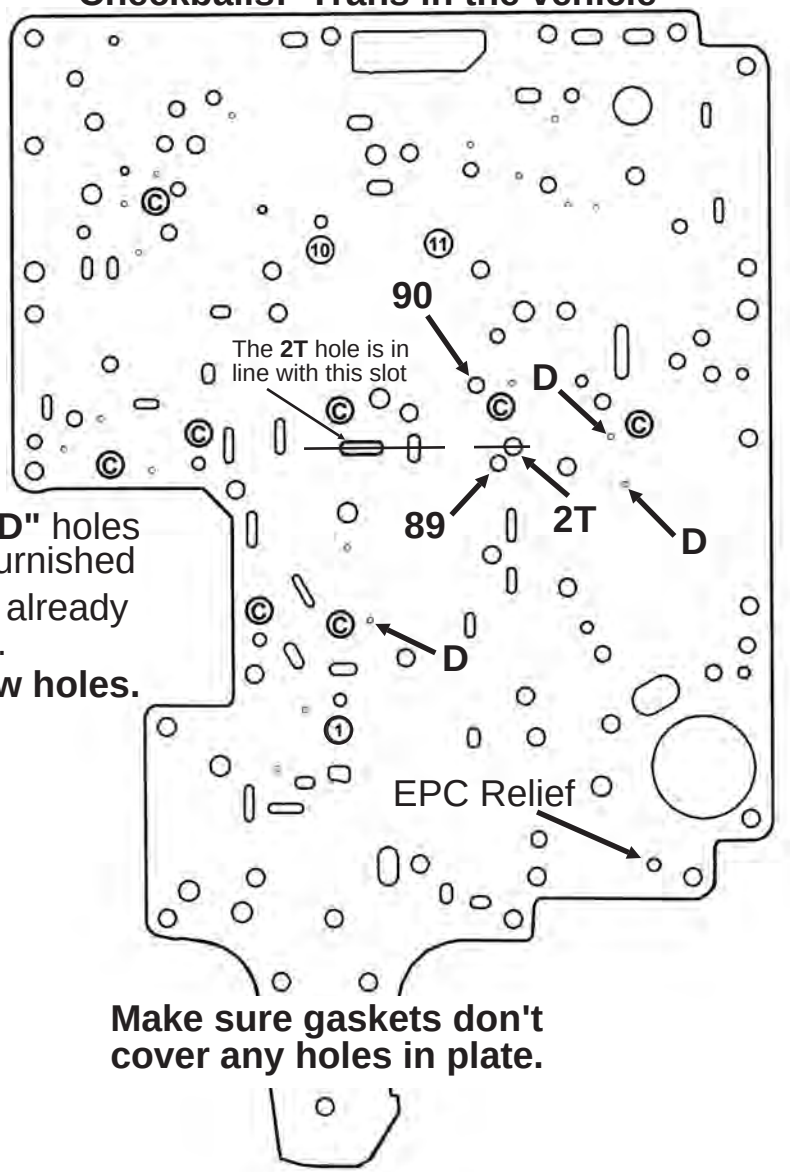
Checkballs: Trans on the bench



3. **EPC Relief.**
Install **WHITE** spring and new **Poppet Valve.**

If plate *has* hole 89, install all 11 balls.
If plate *has* hole 90, don't use ball 10 & 11.
If plate *has* hole 2T, don't use ball 1, 10 & 11.
When used: Ball 10 must be 5/16" steel, all others 5/16" plastic.

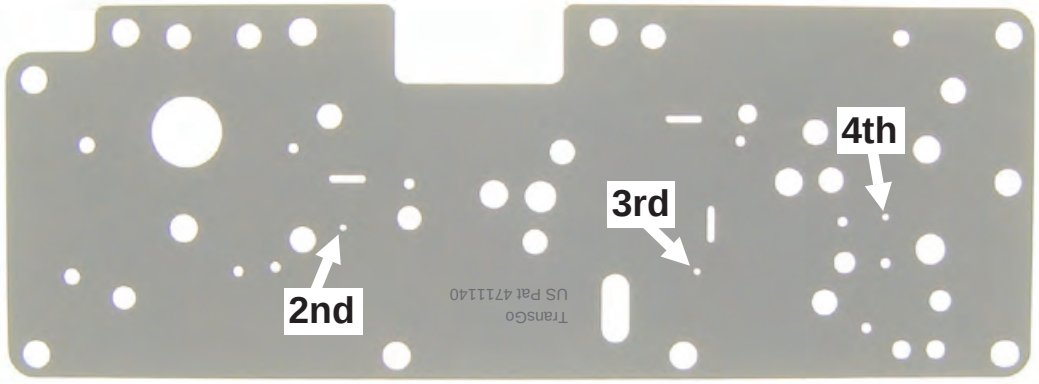
Checkballs: Trans in the vehicle



1. Enlarge three **"D"** holes with the .081 drill furnished

It's OK if holes are already bigger or not there.
Don't drill any new holes.

Make sure gaskets don't cover any holes in plate.



Size	2nd	3rd	4th
6 Cyl	.076	.063-.067	.076-.086
V8 & V10	.094	.073-.082	.094
Diesel	.110-116	.073-.082	.086-.096

A ***bigger*** hole makes the shift ***firmer***.

After road test:

Slightly firmer shift make hole .010 larger.
A ***lot firmer*** make hole .030 larger.

Step 1. Calibration Plate

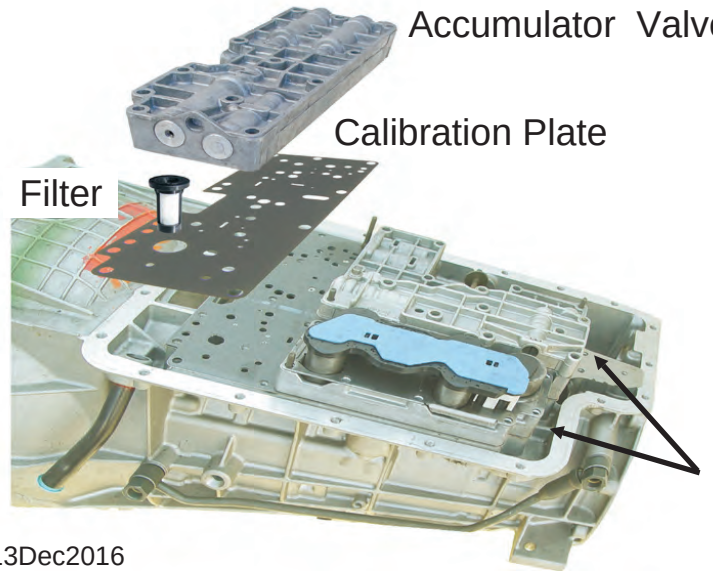
Shift firmness is affected by engine power, axle ratio, weight, computer strategy, and clutch quality. There's no way to get it perfect on first try.

This plate lets you choose an average firmness, then make changes if needed. The 2nd, 3rd & 4th holes are .053 in the plate furnished.

Select a start firmness and drill holes to that size. After road test you may change sizes to adjust firmness.

For sure read this:

When using a custom LOW STALL converter, ***especially with Diesel*** make hole sizes same as 6 cyl, then road test. Then enlarge holes for any shift you want firmer.



Step 2. First install the Separator Plate, Gaskets, Main Valve Body & the Solenoid Pack. Then install Calibration plate. Insert filter thru both plates and rotate it 1/4 turn to lock it in place. Last install the Accumulator Valve Body. It's OK without a gasket.

4R1- SR- 4th

4R100-E4OD 4th Clutch Spiral Lock Snap Ring

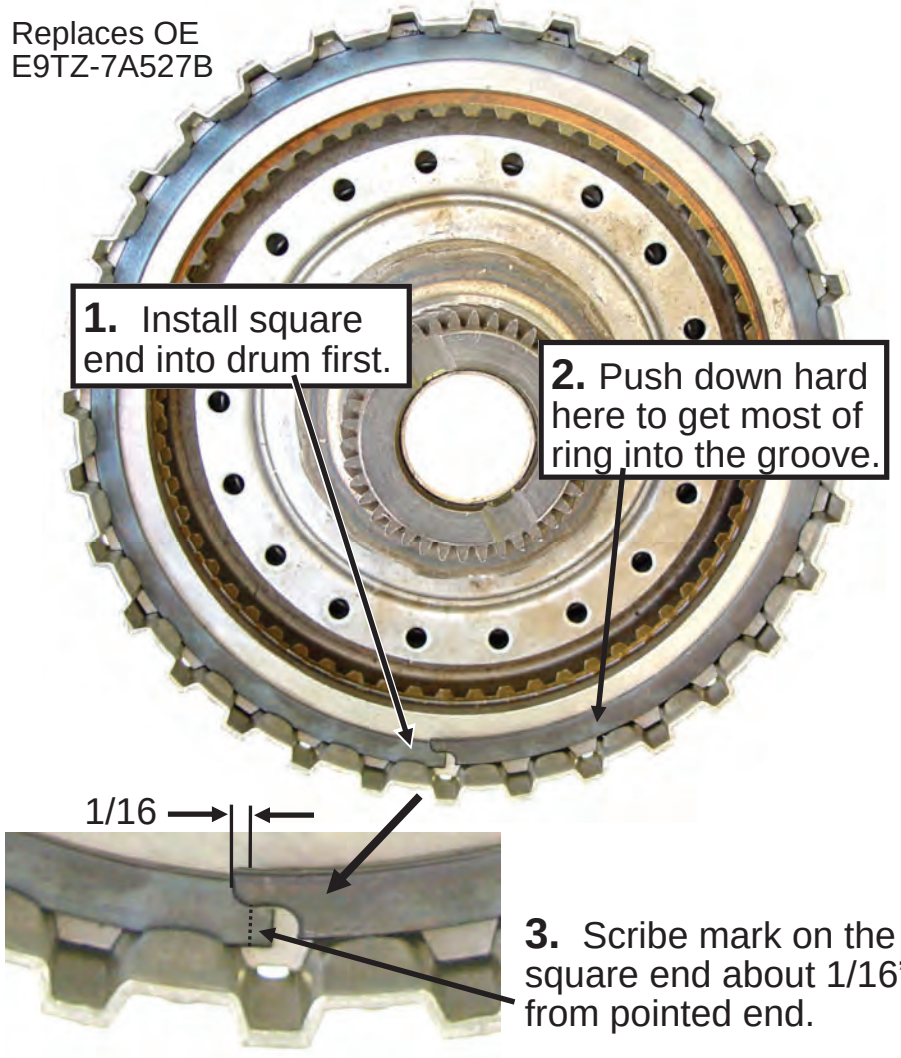
4th piston snap ring Pop-Off:
This has been going on for years – When ring popped off on early models (with cast iron type drum) – no real damage or complaint occurred.

BUT...when 4th piston snap ring pops off on a late model trans (stamped type drum) **MAJOR** damage occurs. Drum catches snap ring & return springs, spins them around, and eventually destroys the housing.

4R1- SR- CST

Butt Lock Snap Ring
4R100 & E4OD Coast Clutch
Stops jump apart and broken pressure plate.

Replaces OE
E9TZ-7A527B

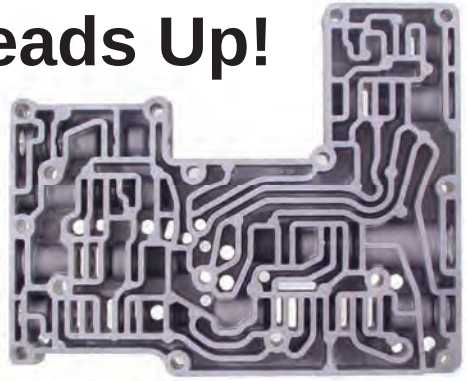


3. Scribe mark on the square end about 1/16" from pointed end.

4. Then grind the square end to the mark and reinstall ring.

15 Oct 04

Heads Up!



It’s not every call but it’s common enough to take a moment to check the 1-2 Shift valve spring on all **RFF6** and **RFF8** casted bodies. It bends and breaks but may LOOK ok unless you take it apart & check it. The new **Blue** spring provided is a replacement. Only use it on bodies that require 4 or 5 check balls under the lower body. **(RFF6 & RFF8 Only!)**

Blue

1-2/D2 Shift