# 4L60E-HD2-D

## *Reprogramming Kit* ™

***Does Not Fit Hybrid Models***

## *Features:* Gear Command

Holds Manual 1st--2nd--3rd to any RPM--Backshifts to gear you select.

## *Corrects/Reduces/Prevents*

3-4 Clutch and 2nd Band Burn-up--Bang, Bump or Slide Bump 1-2 Shift
Reverse to Drive Cutloose/delay/bang--Neutral to drive Cutloose/delay/bang
Forward & Low/rev clutch burnup--Long and/or soft aggravating shifts
Reduces code P1870, converter slip/shudder
Overheat caused by slipping converter

**New Tech's & DIY's:**
Start this habit when working on cars- Always save your old parts & trash'em two weeks after the job **drives** away.
It may just save your Butt one day!

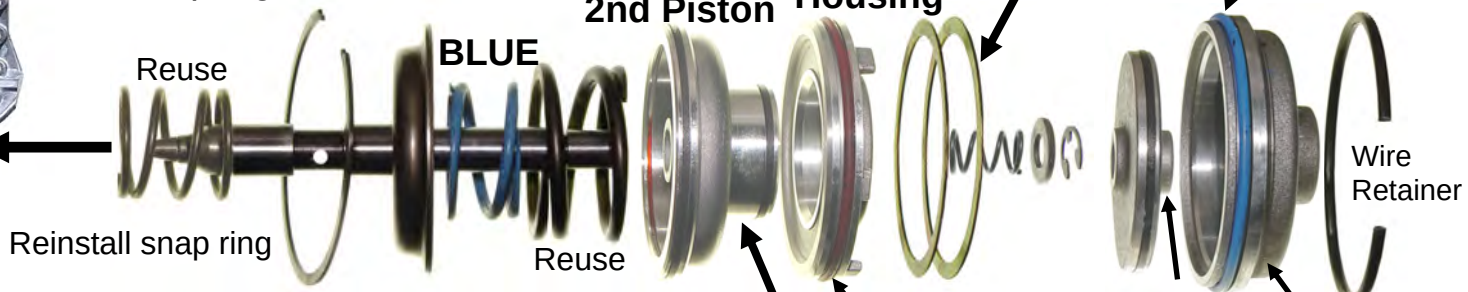
TRANSGO®

Mr. Shift

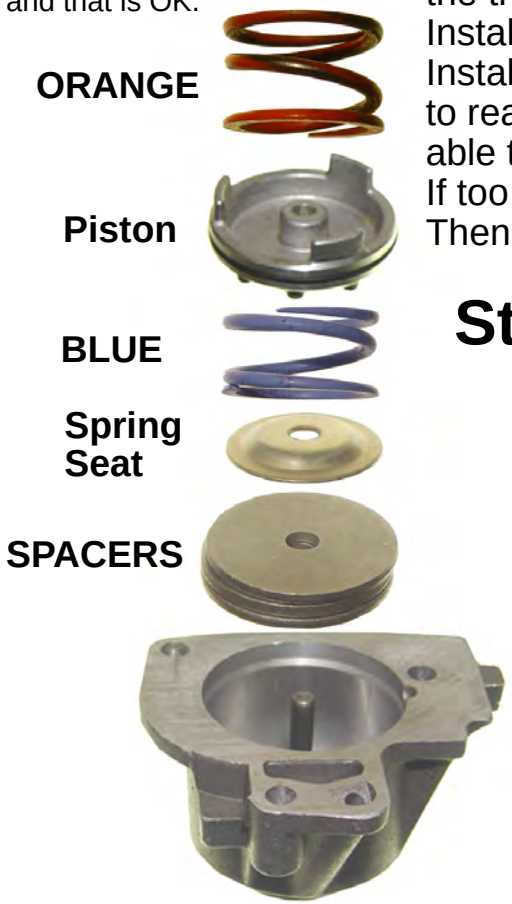
# Step 1

Install **BLUE** cushion spring inside the original cushion spring and reassemble.

Shaft must turn both ways by hand. One way turns harder than the other way and that is OK.



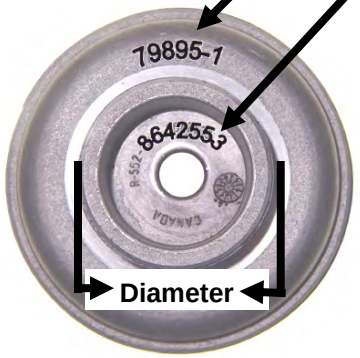

**Band Adjust:** Install 2nd Piston and housing into the trans. Install 2 **GOLD** shims against housing. Install 4th Piston and cover ***without Blue O'ring***. Install wire retainer. Check band by wiggling it front to rear 1/8" or more, see **Page 5,** or you must be able to turn the drive shaft both ways by hand. If too tight remove one shim, and test again. Then remove and install cover ***with* BLUE *O'ring.***




2nd Accumulator

# Step 2

Circle the number that matches the last three numbers on the 2nd piston. Circle again on **Page 2**, **Step 4**.
Don't use 554 piston.




**CIRCLE** for Page 2 Step 4:

**093**
**95-1**
**159**
**553**

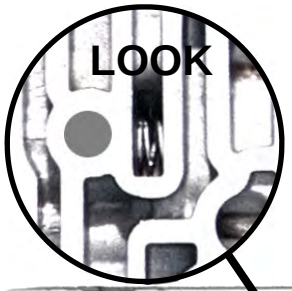
# Step 3 2nd Accumulator

Remove & save the original springs. Install piston as shown even if it wasn't that way originally. It's OK.

**SPACERS** adjust 1-2 shift *firmness:*
***Crisp*** to firm use **1**.
**Very *Firm*** street and strip use **2**.
**Full Race** and High Stall converter use **3**.

## 2nd Piston I.D. by Diameter.

| Vette Types | | V6&8 Trucks | Light Duty |
|---|---|---|---|
| **093** or | **95-1** | **159** | **553** | ~~**554**~~ |
| **1-3/4"** | **1-3/4"** | **2-1/16"** | **2-1/4"** | **2-1/2"** **Don't Use!** |



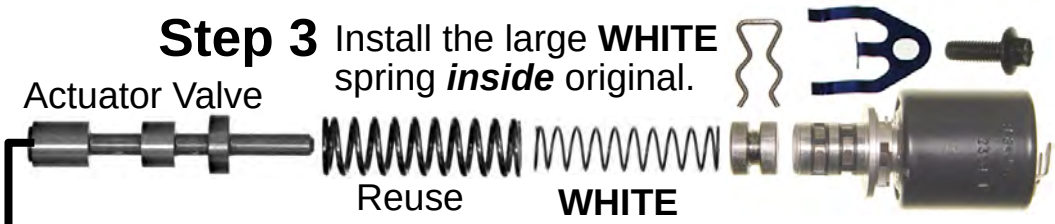

Make sure Accumulator spring is not ***crooked***.

**© Check Balls:**

**7 In Valve Body**
**One in the Case**

## Step 3

Install the large **WHITE** spring ***inside*** original.



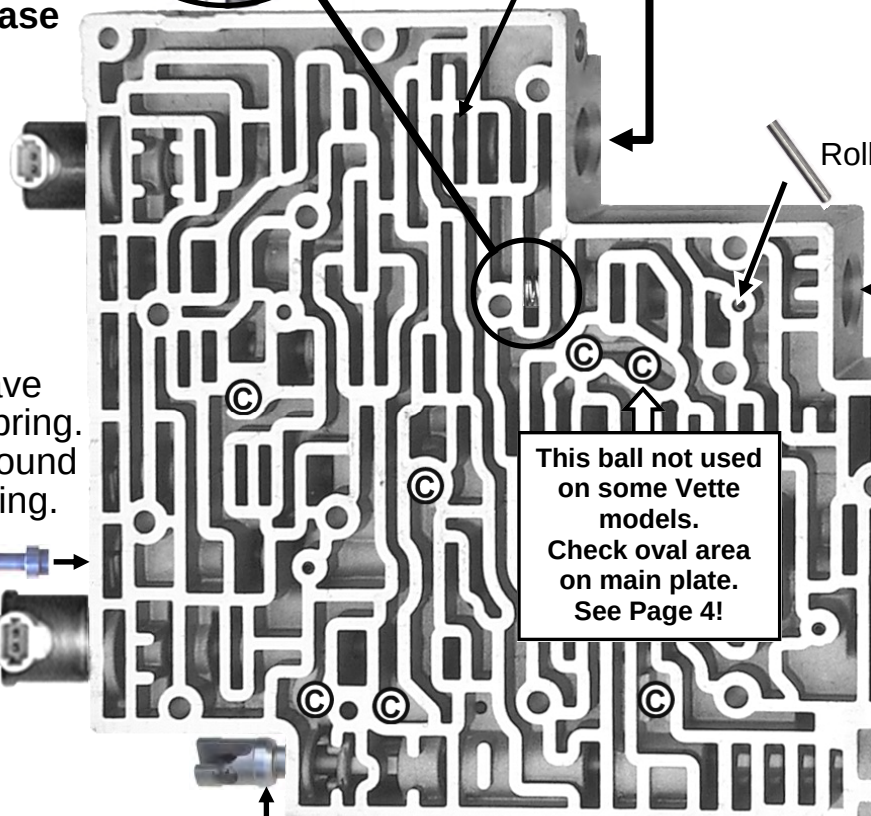

## Step 4

**Select Accum Spring**

**Circled 2nd Piston Number:**

553 **RED** spring

093, 95-1, 159 **WHITE** spring

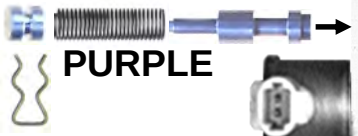




Accum Bushing & Valve

## Step 1

Remove & save the original spring. Install tight wound **PURPLE** Spring.




## Optional Step 5

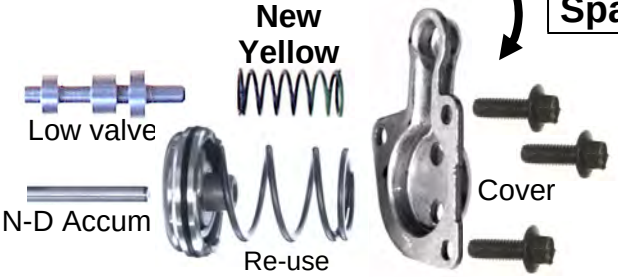

**Work Trucks Skip This Step!**

Do this step ***only*** if you wish to add holds first gear to any speed in M1 and be able to go back to M1 at **ANY** speed!
Remove and **save** the original 1-2 shift valve. Re-use original spring, insert NEW **1-2 Shift Valve**, then **Spacer**, then Solenoid & Retainer.

## Step 2

Grind the Manual Valve for faster reverse release.

Grind 1/16" to 3/32" (.063 to.096) Chamfer Here.



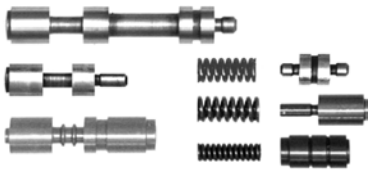

## Step 6

Remove Cover & Replace original spring with **NEW YELLOW**.

**1.** **Remove and save** the converter reg valve, spring and isolator valve. Re-use the end plug and clip.

Reuse

**Remove and save.**




**New ISO-CONV** valve replaces all of the earlier type Isolator and Converter valves.

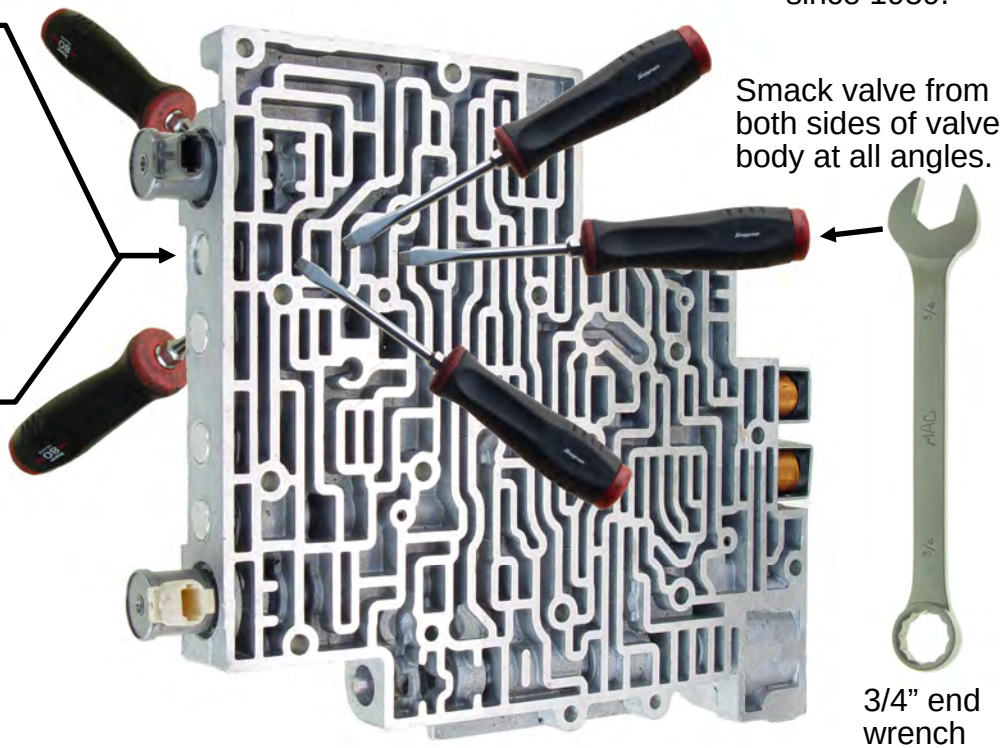
Longer: **ISO-CONV Valve** **BLUE**

Hex bolt

**Hello Mechanic:** Upgraded **Isolator & Converter Regulator Valve** works great even in a very worn valve body.

This upgrade will let you use a torque converter with any style lockup plate.

Having fun fixing trans since 1959.



Smack valve from both sides of valve body at all angles.

3/4" end wrench

**2.** Insert **ISO-CONV Valve** into bore. Using hex bolt as a handle, push valve in and out at least 20 times with slight side pressure. The valve must fall in and out of bore. Clean the bore. Remove the bolt. Install **BLUE** spring & **ISO-CONV Valve**.

Valve feels ***sticky?*** Do step **3**.

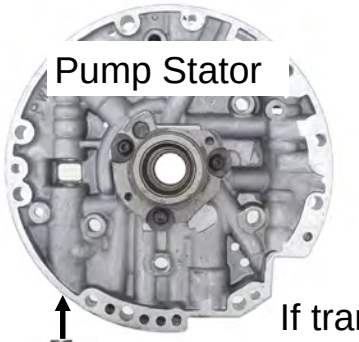
**3.** Insert new valve into bore. Place screw driver with tip against valve between the lands. Whack screw driver ***smartly*** with 3/4" end wrench from all angles and from back side. Then repeat step 2.

"You just FIXED this valve body." Gil

**GM & SRTA: *OVERSIZE* valves.**


**SRTA & GM** rebuilds have **OVERSIZE** valves, but still wears VB.
For upgraded valve order **TransGo 4L6-ISO-3.**
Kit fixes 3 SRTA/GM rebuilt VB's. Call: (626) 443-0991

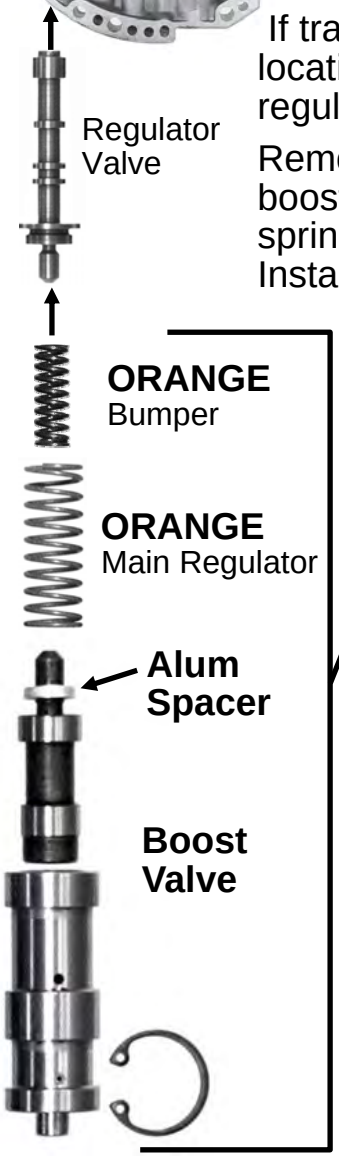
# Separator Plate

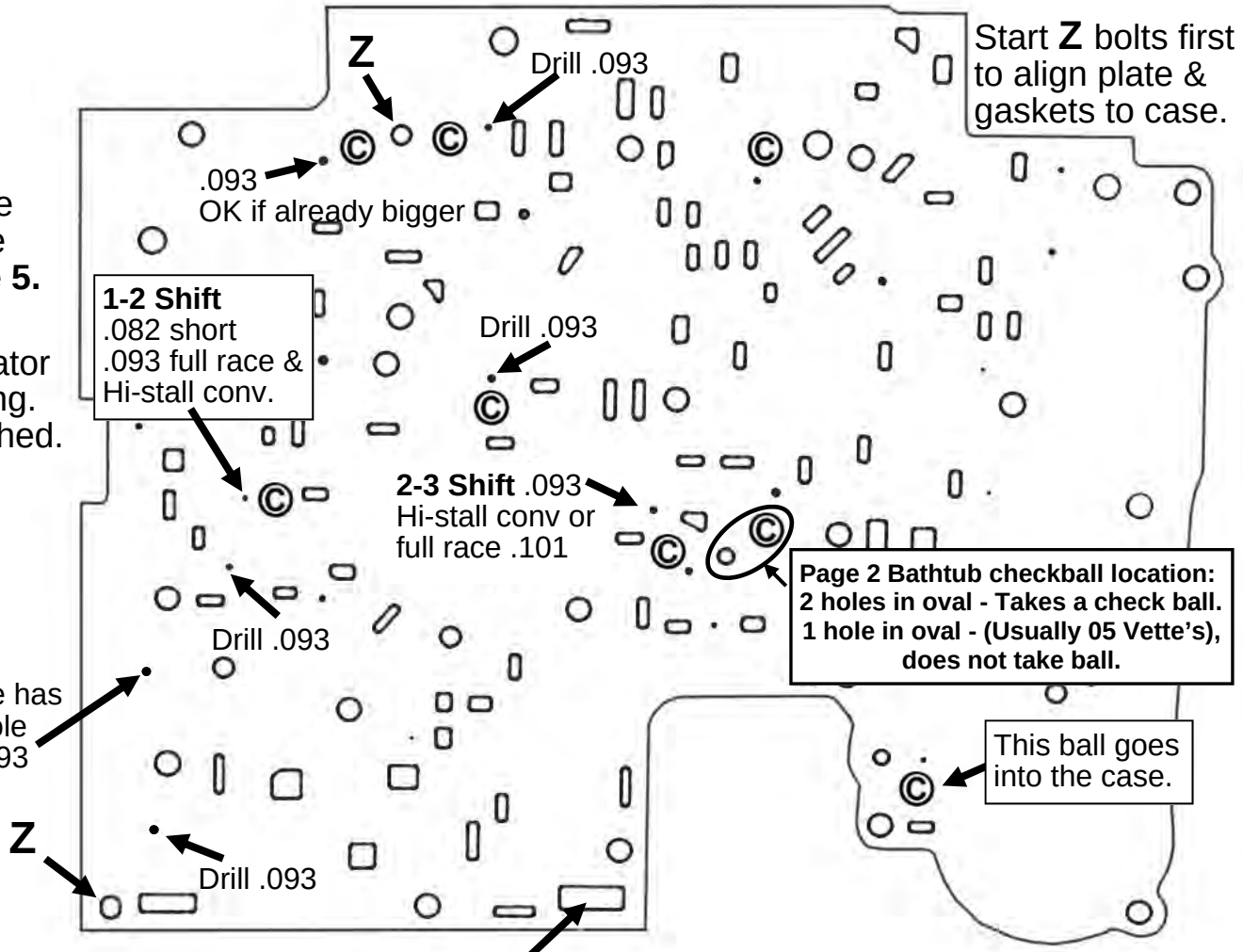




## Step 1

If trans is in vehicle, see location and note for the regulator valve on **Page 5.**

Remove & save original boost valve, main regulator spring and bumper spring. Install **NEW** parts furnished.

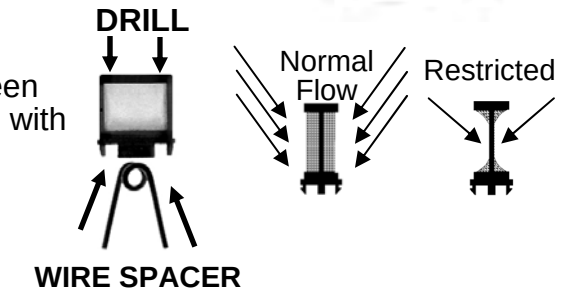



**© Checkballs**
7 on plate, 1 in case.
(Check within Oval First!)

**EPC Screen Fix**
Large screen in VB plate. Sides of screen suck together causing low line pressure with high throttle. Burns clutches and band.
**Wire Spacer** will keep screens apart.

**Additional safety:** Drill four .040 to .047 or two 1/16" holes thru top of screen.

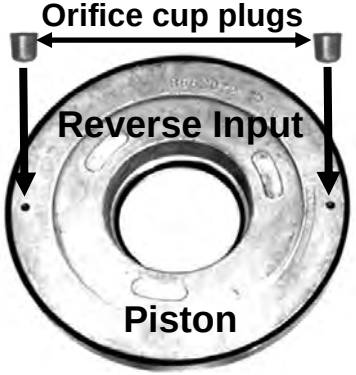


**Check Band Clearance:** *From page 1,*
Through the opening in Case, with a Screwdriver make sure the Band wiggles on drum front to rear.

**Final Check:** With engine off, wheels off the ground and trans in neutral, driveshaft MUST turn in both directions. If it won't, band is too tight or VB bolt(s) in wrong hole location. Do not drive until corrected!

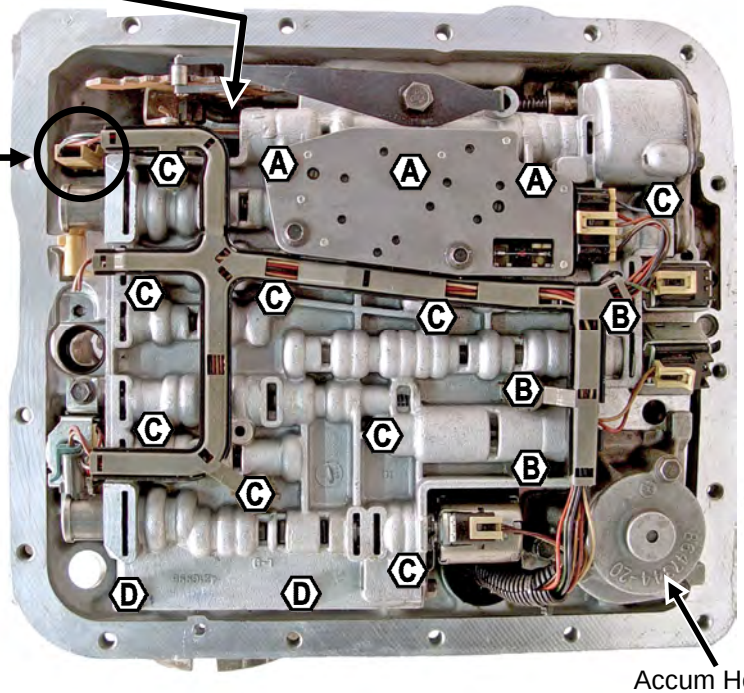
### If Trans is Apart

With .055 to .120 drill, drill thru the existing bleed holes in the Reverse Input Piston. Install **orifice cup plugs** furnished into holes.




### Regulator Valve Location

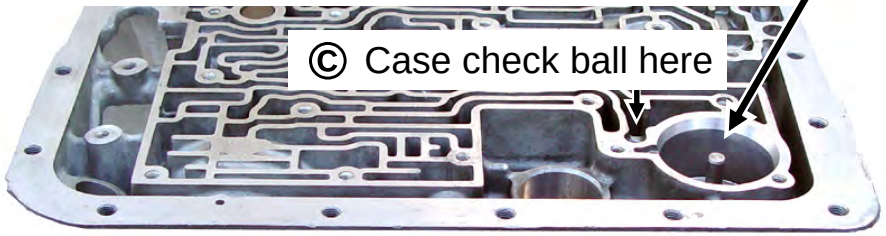
Turbine Sensor harness here?
**Skip Step 1** on Page 4.
If Trans is on Bench, remove Pump and install Step 1 PR parts.





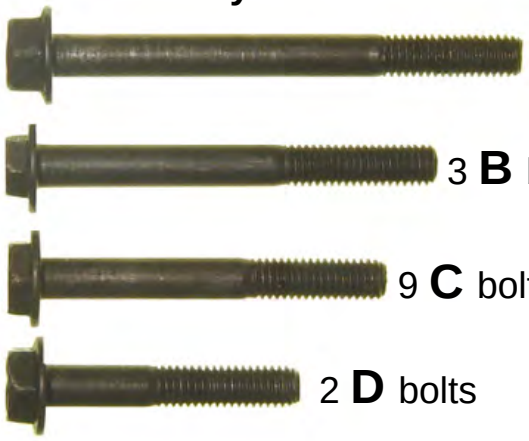
## Step 1 4th Accumulator

1. Remove and save original Spring.
2. Install original guide Pin into Case first.
3. Install Yellow Spring THEN Piston.
   This may differ than OE set up, It's okay.




***WARNING*: Wrong Bolts locks Gear Train.**

**Valve Body Bolt Guide.**



# 7-CS 700R4 & 4L60E Clutch Spring Kit

For High Performance Applications that rev **OVER 5500 RPM**.
Designed for use with either the 4l60-HD2 or 700 2-3 Reprogramming Kit®
Under 5500 rpm operation? This product is not needed, however you may install it if you follow instructions for “Under 5500 RPM”.

2621 Merced Ave. El Monte, CA 91733
Product Support (626) 443-7451

## Problems & Solutions:

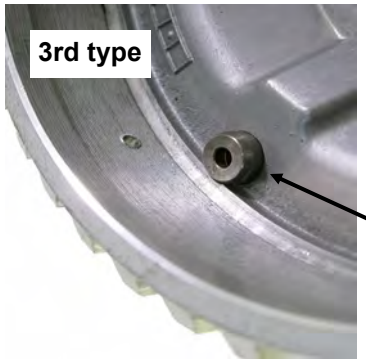
**Problem 1:** Above approx 5500 rpm, the check ball in the air bleed capsule of the input drum may not seat due to outward centrifugal force. When that occurs, you now have a **BIG** leak in 3rd gear oil. (The orifice provided fixes that.)

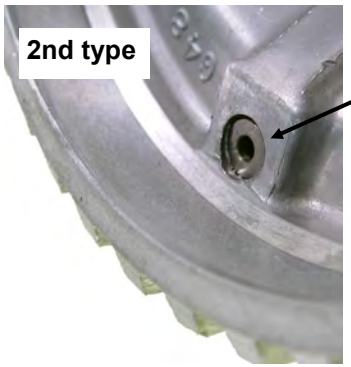
**Problem 2:** This same centrifugal force causes the residual fluid under the 3-4 piston to stack up at the outer edge and lift the piston up dragging the 3-4 clutches around in 1st and 2nd above 5500 RPM. (The springs provided fixes that.)

**Problem 3:** At even higher RPM’s, centrifugal force acts on the inner seal of the 3rd clutch piston causing it to pull away from the forward clutch steel housing. This usually starts above 6200 rpm’s (varies) and creates a leak in 3rd that gets worse and worse with more RPM.

This softens the 2-3 shift feel and worsens progressively as shift point RPM goes up. Finally it flairs or won’t even complete the 2-3 shift. This burns the 3-4 clutch and hazes the band.

Try lowering your 2-3 shift point below 6000 and retest.




**(Skip this step for Under 5500 RPM use.)**

## Step 1: Identify your drum.

**3rd type:** Protruding type capsule
**2nd type:** Recessed type capsule.
**See additional data on page 2.**

**1st type:** No capsule (not shown) ball in drum. Don’t use for High rev applications. Use later drum, converter & pump.

“Thanks for Listening”
Gil

**(Skip this page for Under 5500 RPM use.)**

**Step 2:** Remove pistons. Drive the capsule out with punch from this side of drum**.**

**After orifice is installed 3-4 piston should not rock when placed in drum.**


***2nd type capsule only***: Grind the head of the new capsule to the dashed line. **Clean grinding flash from orifice hole.**

**Step 3:** If you have 2nd type capsule be sure to grind the new 3-4 orifice as described above.
3rd type capsule, No grinding required.
Place new 3-4 orifice in housing and gently tap in with 1/4" flat nose punch.

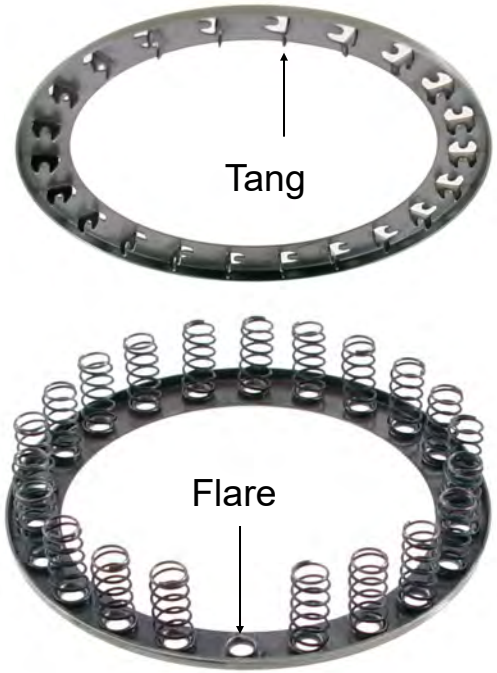
# 700/4L60E Clutch Spring Installation:

**Reduces 3-4 Clutch Burnup**
**Caused by Cross-leaks, Centrifugal Apply and Slow KD Release**

This keeps the 3-4 clutches from accidentally applying because of minor cross leaks at the rings, support, case or valve body. It also reduces clutch drag during 3-2 kick-down and prevents residual oil clutch apply at revs above 5500.
This spring kit works with the standard 3-4 clutch pack or when installing additional plates.

## 3-4 Spring Retainer Types

**1st type retainer: No Hooks** If the **White** springs will snap over the flares on retainer use them. If flares are to big use small **Plain** tapered springs with the large end over the flares.




**1st Type** 3/4 retainer No Hooks

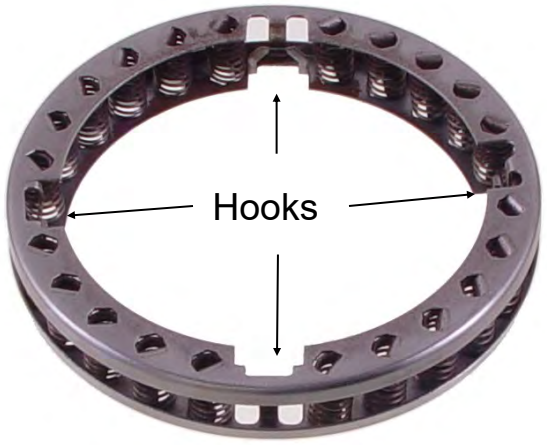
**Step 1** For **Under 5500 RPM** use: All V6, V8,s & Diesel's Install 14 New Springs that fit your retainer. Install two springs then skip one, install two, skip one, all the way around retainer.

**For over 5500 RPM use only: Install All 22 Springs**

**2nd type retainer Has Hooks :** Use **Yellow** springs Install small end of springs on tang side of retainer. Bend hooks inward so they won't hook.

Remove these return springs if you are using this kit.

If you **are not** using this kit always put them back in.




**2nd Type** 3/4 retainer Has Hooks

# Fwd / Coast Spring Retainer Types

Installation Washer

1st Type Retainer No bottom
Install **Plain Springs**

**Step 1** For **Under 5500 RPM** use: V6, V8,s and Diesel install 10 New large plain springs leaving blanks at 3, 6, 9 and 12 O'clock
Large plain springs are tapered. Install the end that fits your retainer.

**Over 5500 RPM use only: Install All 14 Springs**

Installation washer only used for assembly. Place on top of retainer while compressing springs.

Installation Washer

2nd Type Retainer Has bottom
Install **Plain Springs**

Aluminum Piston

**Note:** If you change the 3-4 springs you MUST change the Fwd / Coast springs as well.

They work together as a team.
Do not attempt to use them alone.

Steel Piston