

# TF-1 *REPROGRAMMING KIT*<sup>™</sup>

## Heavy Duty & High Performance

This Kit fits: **1960up Alum Torqueflite  
Rear Drive Three Speed**  
\*Note: Optional Gear Command is not available  
on 1960-65 models. See page 6 for details.

Got a Four Speed?  
Use TFOD-HD2

This is not a “do it yourself” kit. It is for the  
Experienced, Professional Trans Mechanic only.

**Short, Firm Shifts with Performance, Durability and “CLASS”  
Shift Command Feature:**

**Holds 1st and 2nd to any engine speed--Backshift to ANY gear you want**

*Assures lube flow even with heavy loads on long hills.  
Reduces drainback and leak out the vent and side seal.  
Reduces killing engine in reverse.*

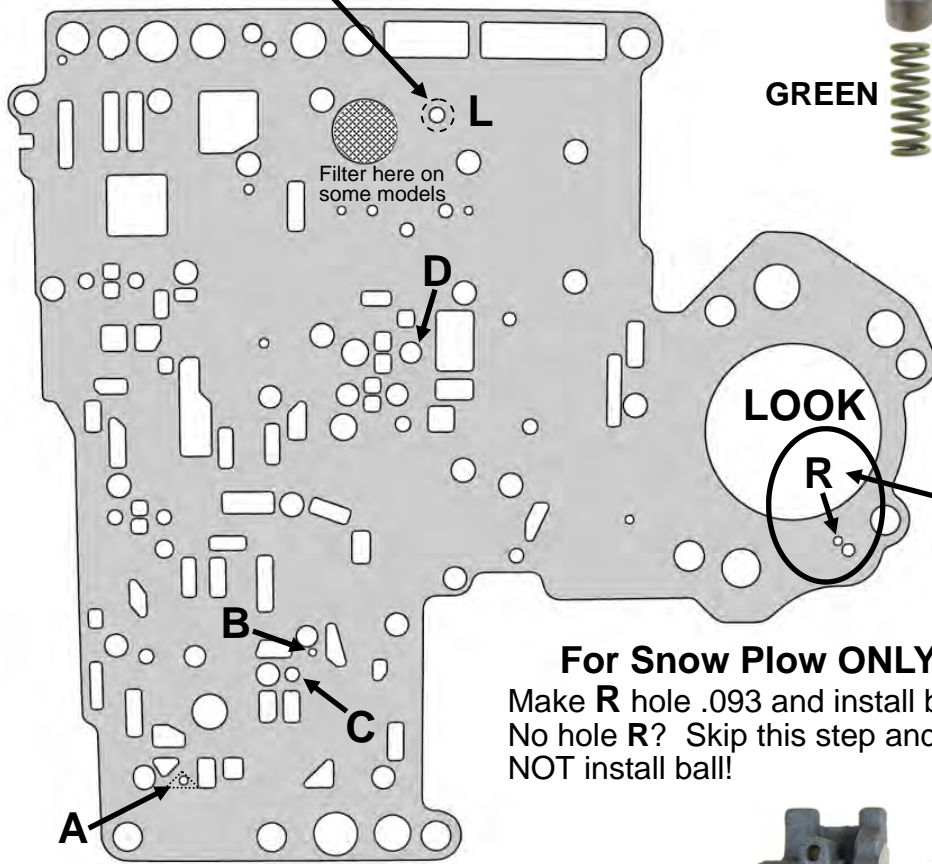


*Mr Shift*

You'll just Love it.

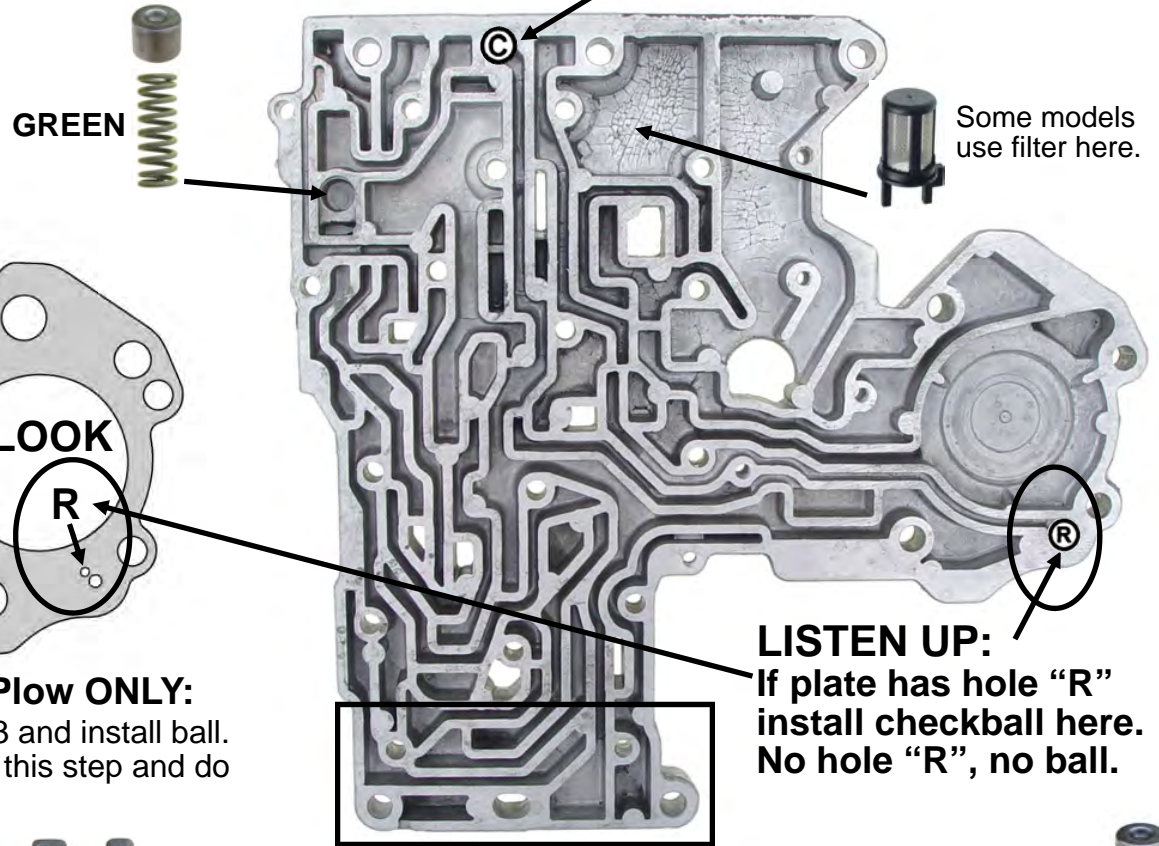
# TRANSGO<sup>®</sup>

If plate has hole "L" valve body must have either 3/8" steel ball & spring, or poppet valve and spring. See Page 5.



2. If channel casting has bypass valve install the **GREEN** spring.

If the channel casting has checkball here, reinstall it.



**For Snow Plow ONLY:**  
Make R hole .093 and install ball.  
No hole R? Skip this step and do NOT install ball!

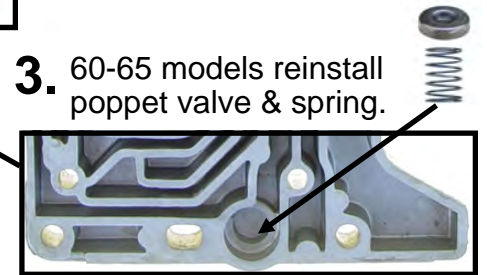
**LISTEN UP:**  
If plate has hole "R" install checkball here.  
No hole "R", no ball.

### 1. Separator Plate Hole Sizes

- A = .110 to .140 If triangle don't drill.
- B = 1-2 shift .086 to .125, Bigger is firmer.
- C = 2-3 shift .086 to .125, Bigger is firmer.
- D = .110 to .140 OK if already bigger.



3. 60-65 models reinstall poppet valve & spring.



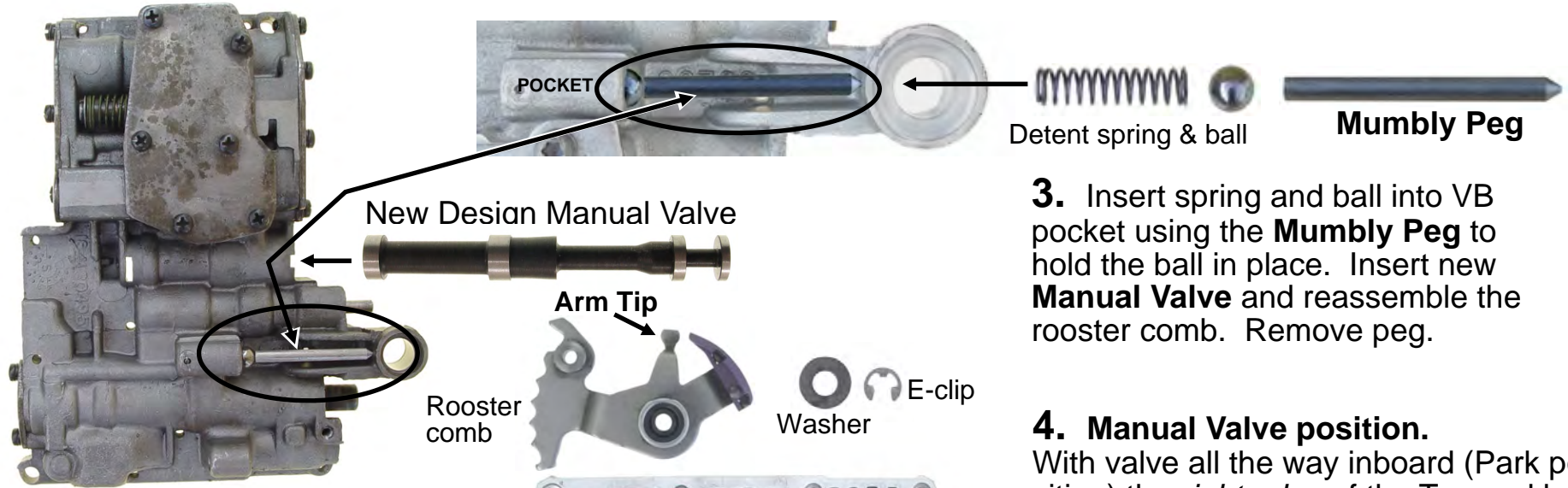
Drills furnished



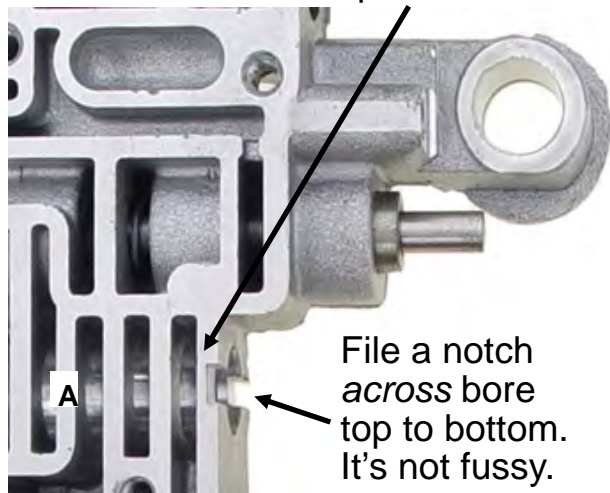
# 1960-65 models with Rear Pump Skip this page!

**1.** Remove E-clip & washer. Remove rooster comb, being careful to catch ball & spring. Discard original manual valve.

**Fluid level checking:** While the new manual valve provides oil to the converter in park, **DO** check fluid level in **Neutral** for accuracy as the converter is charged **MORE** in neutral.



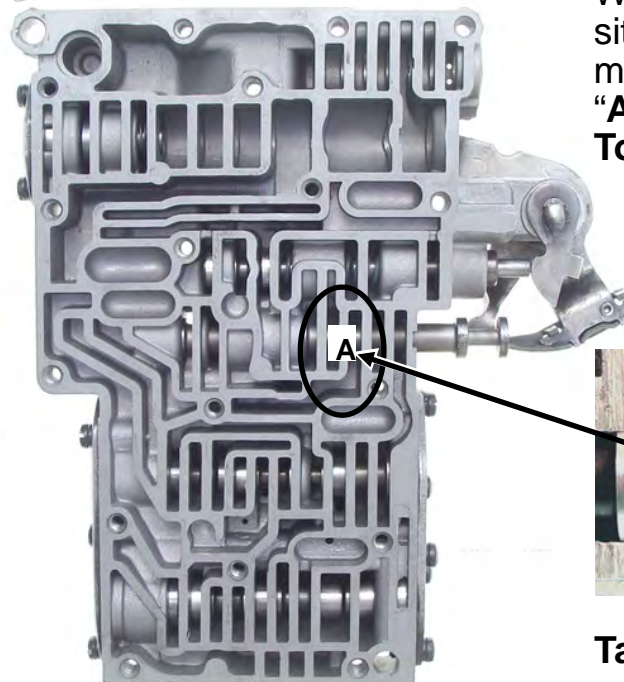
**2.** Turn the valve body over. Using the edge of a large file, file a notch about *halfway* thru the thickness of this partition.



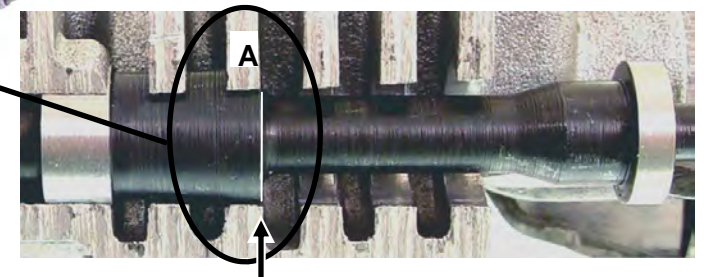
File a notch across bore top to bottom. It's not fussy.

**3.** Insert spring and ball into VB pocket using the **Mumbly Peg** to hold the ball in place. Insert new **Manual Valve** and reassemble the rooster comb. Remove peg.

**4. Manual Valve position.** With valve all the way inboard (Park position) the *right edge* of the Tapered land must be flush with *right edge* of partition "A". (.030" from flush either way is ok.)  
**To Adjust:** Bend **Arm tip** with pliers.



**Cutaway View Partition "A"**



**Tapered Land flush with right edge of Partition "A"**

# 1. 77up V-8 Trans With Lockup

If the trans has a lockup converter, drill **two** .086 to .096 [3/32"] holes down *thru* bottom of the most **outboard** passage.

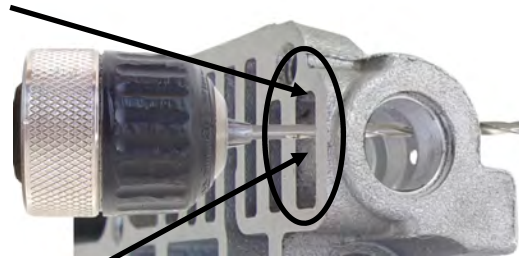
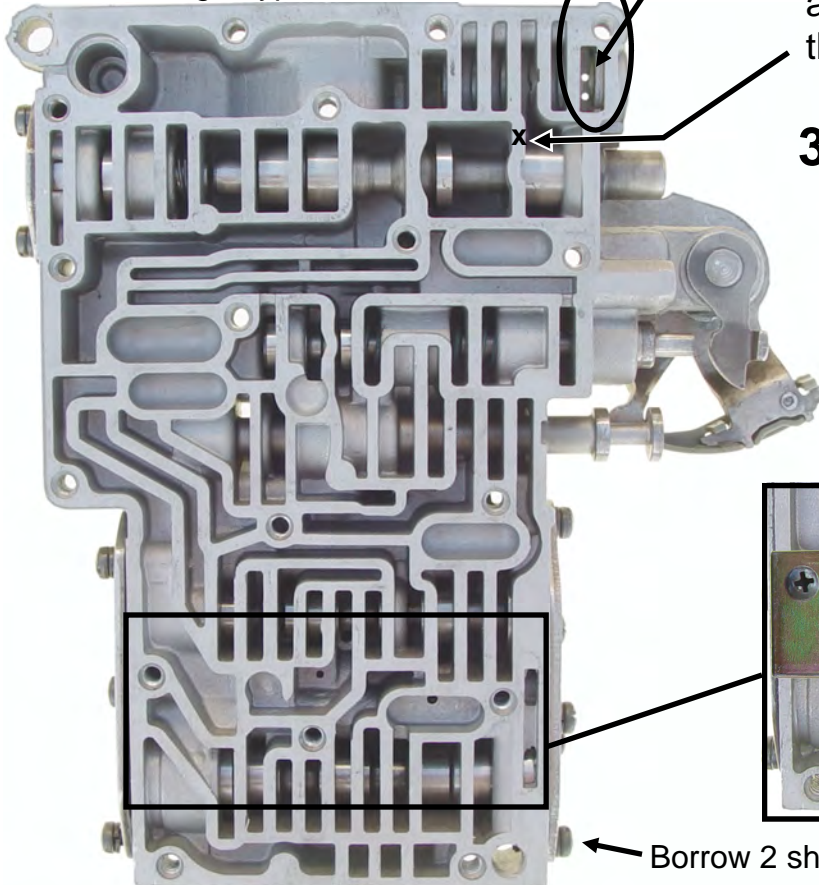
## 1977up Type VB

Has Six or Seven Passages

Seven Passage Type 1 2 3 4 5 6 7



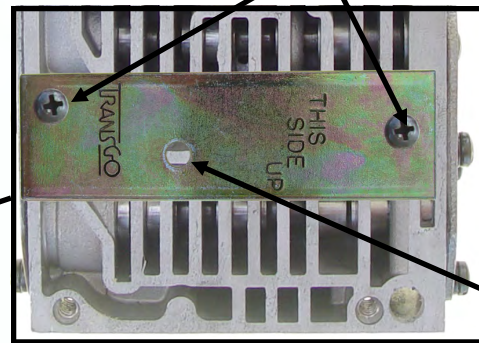
Six Passage Type 1 2 3 4 5 6



2. If your valve body has a hole drilled through this partition, plug it.

3. If VB has barrier here, in direction of the arrow drill thru it with .125 (1/8") drill.

4. Install **Drill Plate** on VB *this side up*. Use two short endplate screws to hold drill plate.

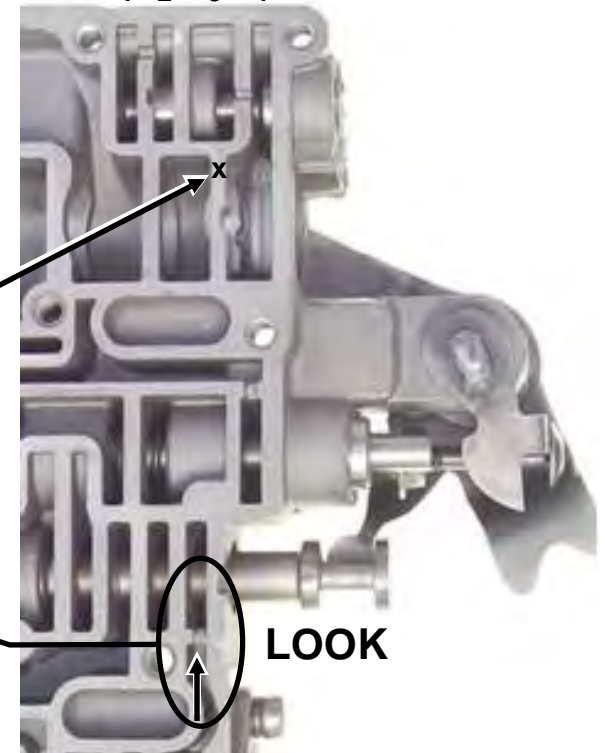


Borrow 2 short endplate screws.

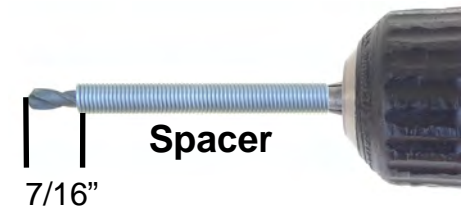
## 1960 to 76 Type VB

Has Four Passages

1 2 3 4



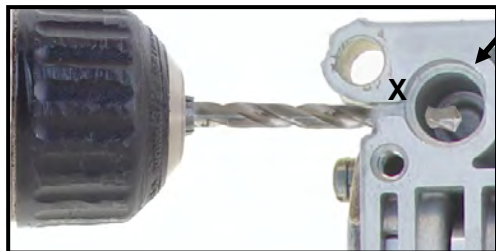
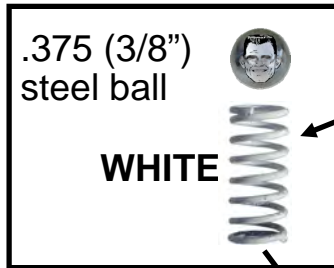
5. Use the **Spacer** furnished to adjust the 3/16" drill to 7/16".



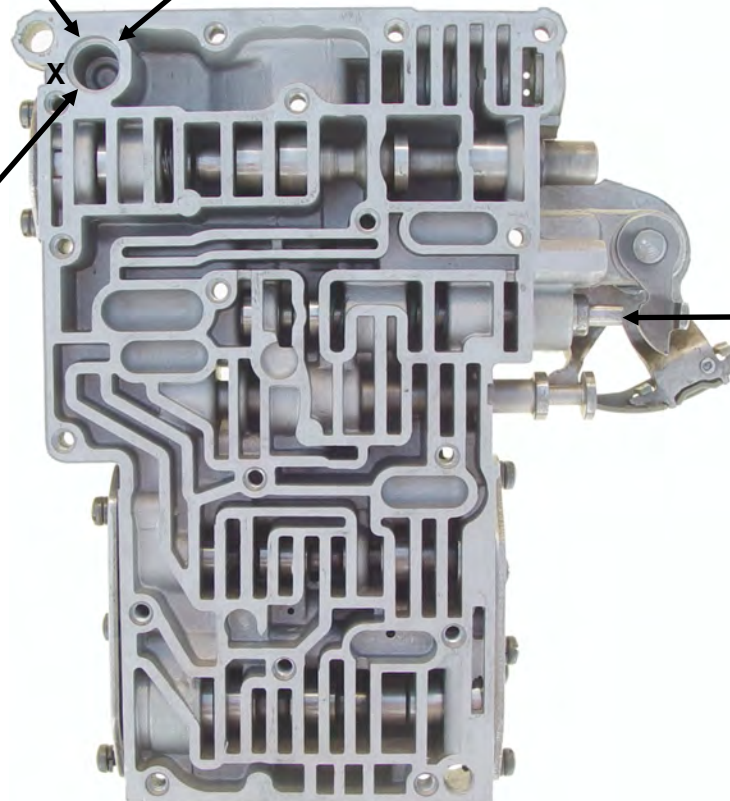
6. Using **Spacer** as a stop, drill straight down into this hole with the 3/16" drill.

**1.** If VB **HAS** line bypass ball & spring, drill 3/16" hole into spring pocket thru VB casting under "X". De-burr hole inside. Install **WHITE** spring & 3/8" ball.

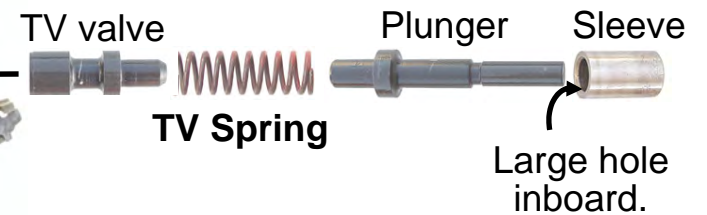
**LISTEN UP -- Bypass location RULE:**  
 NO **Hole L** in Plate, nothing goes here (Plate **Page 1**)  
 60-65 Don't drill, has poppet valve & spring, reinstall.  
 66-68 Don't drill & nothing goes here.  
**68-76 Has line bypass ball & spring DO STEP 1.**  
 77up Don't drill & nothing goes here.



Spring pocket drilling



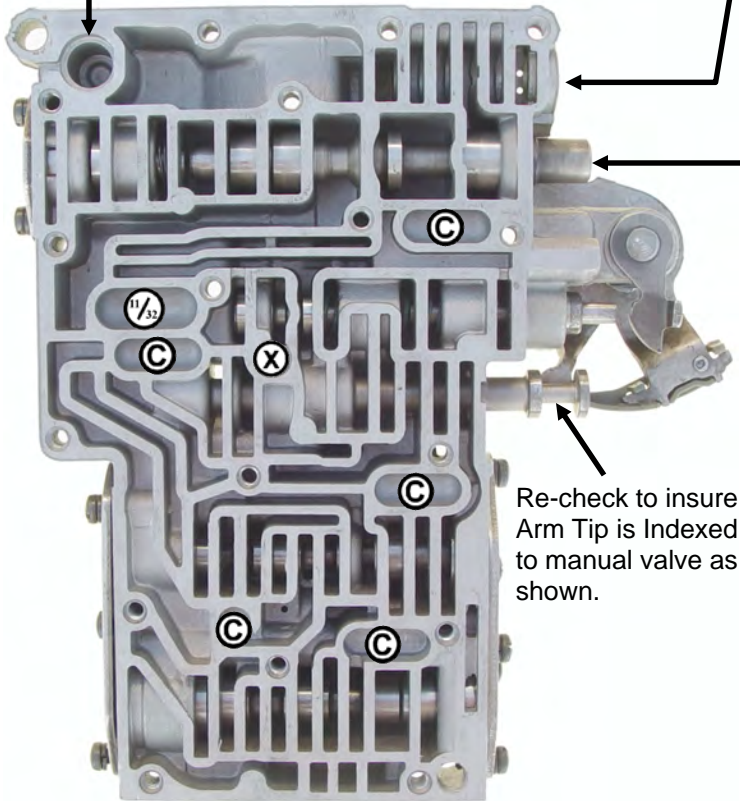
**2.** Install **YELLOW** or **PINK** TV spring that's same diameter as original TV spring.



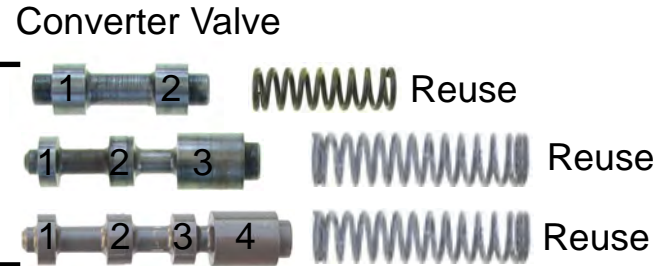
#### 4. Checkball Usage

- Ⓒ 1/4" (.250)
- Ⓒ 11/32" (.343)
- ⓧ 1/4" (.250) 77up models

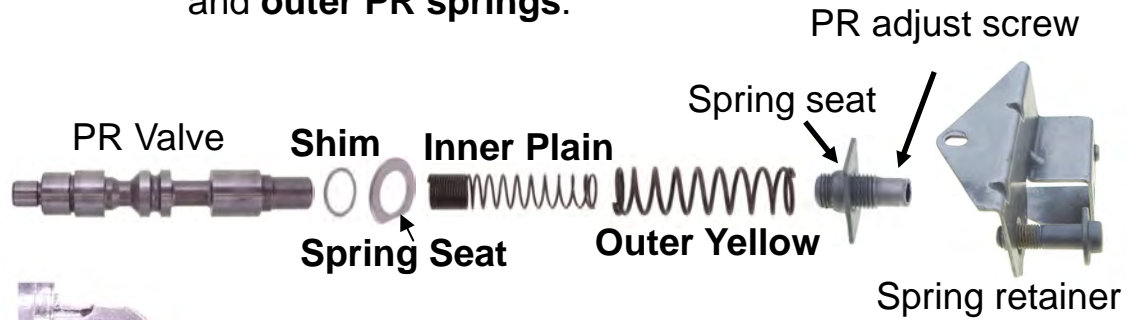
See previous page for info on part usage for this location.



1. Reinstall converter valve with original spring.



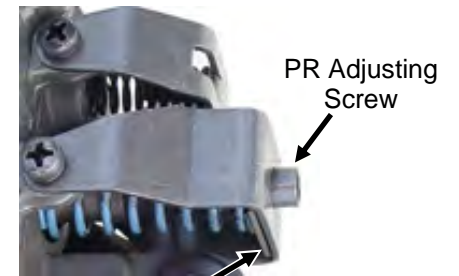
2. Install **New shim** and **spring seat** on PR valve before installing **new inner and outer PR springs**.



Install Spring Seat as shown. Make sure flat on spring seat has some clearance from casting. File casting if necessary to give it a little room to rotate slightly. Do not allow it to bind between PR valve and casting!

Re-check to insure Arm Tip is Indexed to manual valve as shown.

3. **PR Adjustment:** With 3/16" allen wrench, turn **PR adjust screw clockwise** until spring seat is just **flush** against the inside edge of spring retainer.



Spring seat just **flush**

# Optional Shift Command Feature

Allows Driver to manually select Manual Low Gear at any speed.

**Skip this page for all 1960-65 models OR any Work Trucks, Diesels or Motor Homes.**

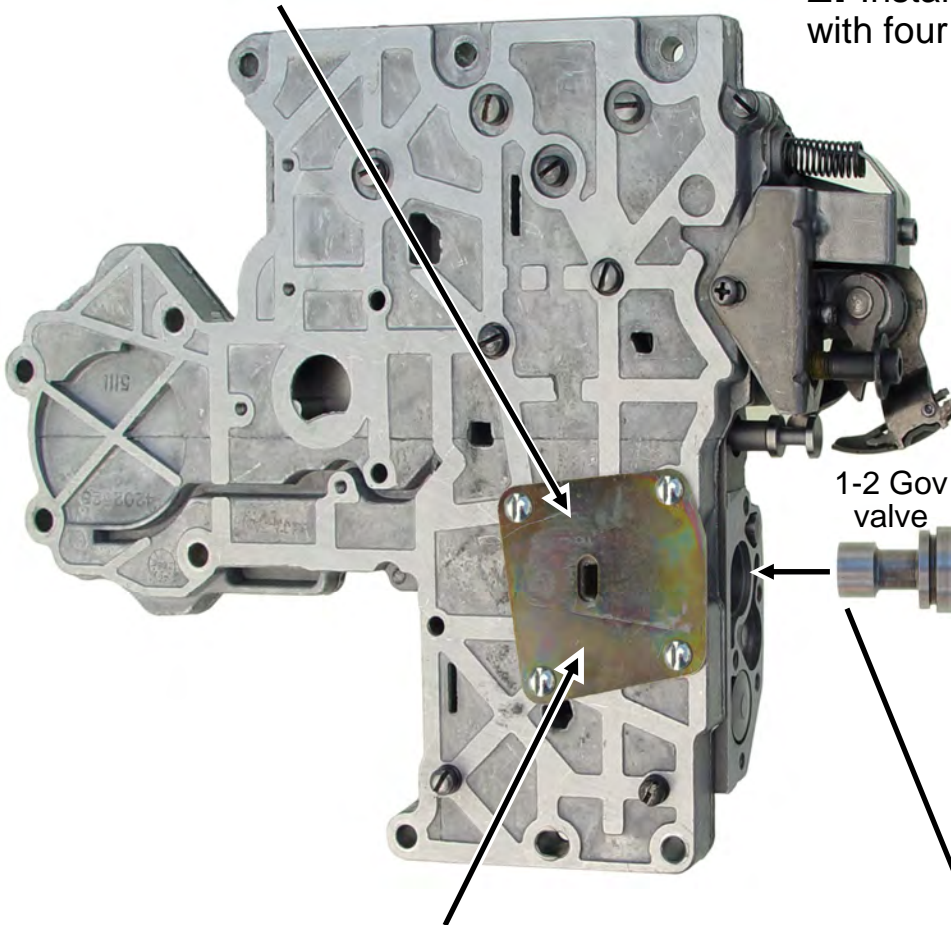
**(Or if Shift Command feature is not desired.)**

## Shift Command Plate



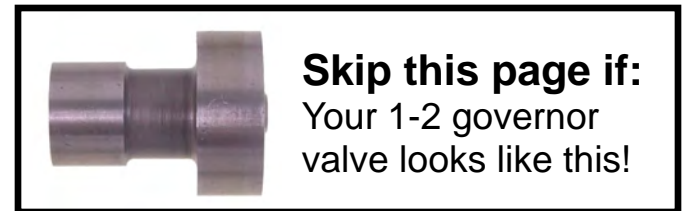
4 Long  
Screws

**2. Install Shift Command Plate**  
with four **Long Screws** furnished.



1-2 Gov  
valve

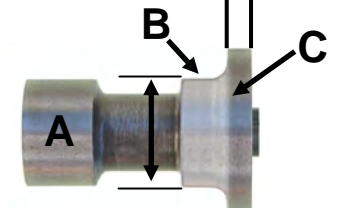
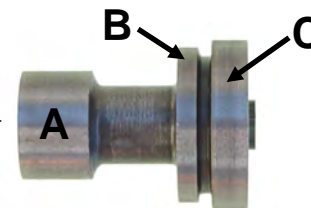
Cover



**1. Grind original 1-2 Governor Valve**  
as shown. It gets **hot** so have a dish  
of water handy.

1-2 Gov valve

3/32" to 1/8"  
(.096 to .125)



**LISTEN UP:** If you didn't grind 1-2  
Gov valve, **DON'T** install this plate!

Grind land "B" to prox diameter of land "A".  
Grind land "C" 3/32" to 1/8" wide.

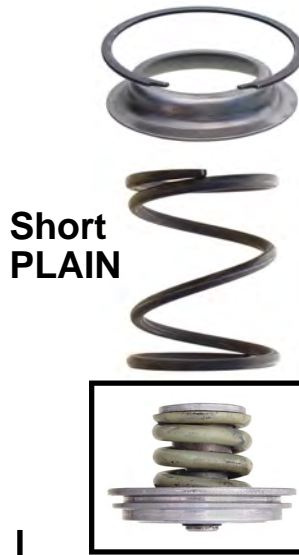
## Step 1. L/R Piston: 904 & 727

**904 Trans:** Don't take apart the piston. Install **Short PLAIN** spring. If spring won't fit retainer or piston reuse *original* spring.

**727 Type 1:** Remove cushion spring. Reassemble piston. Install **Short PLAIN** spring. If spring won't fit retainer or piston reuse *original* spring.

**727 Type 2:** Install **Spacer**, assemble piston. Install **Long PLAIN** spring.

### 904 All Types



Snap ring  
Retainer

Short  
PLAIN



Don't take apart

### 727 Type 1



Snap ring  
Retainer

Short  
PLAIN

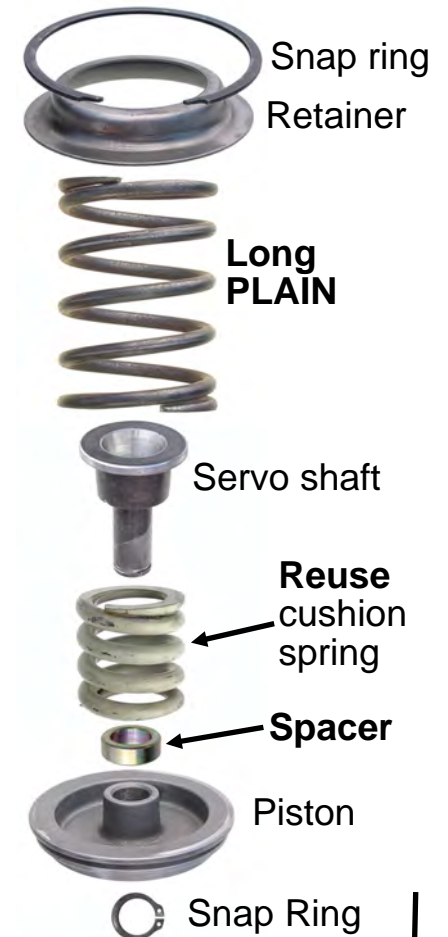
Wire ring

Inner piston

Remove  
cushion  
spring

Piston

### 727 Type 2



Snap ring  
Retainer

Long  
PLAIN

Servo shaft

Reuse  
cushion  
spring

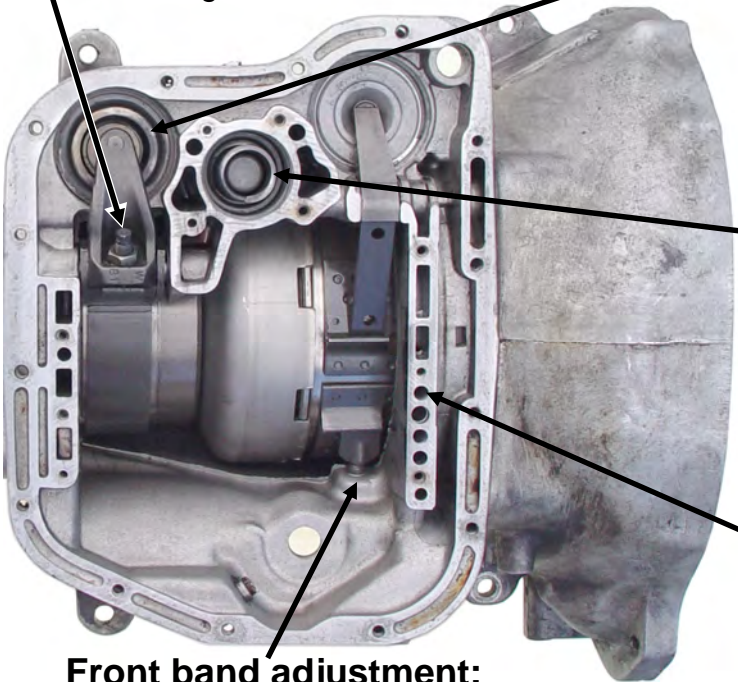
Spacer

Piston

○ Snap Ring

### Adjust rear band

Tighten snug with short wrench.  
Single wrap band: Back off 2 1/2 turns.  
Double wrap band: Back off 3 1/2 turns  
[Double wrap band has three sections across]  
Tighten the locknut.



### Front band adjustment:

Tighten snug with short wrench.  
Back off 2 turns and tighten nut.



### Accum Piston & Spring(s)

Accum piston spring(s) might be on the top, bottom, both or none at all. Reinstall as it came apart.

### Orifice Plug



### Step 2. 727 models only!

With 5/16" punch or bolt, install the Orifice Plug into this hole in case.



Now get ready to have some fun!