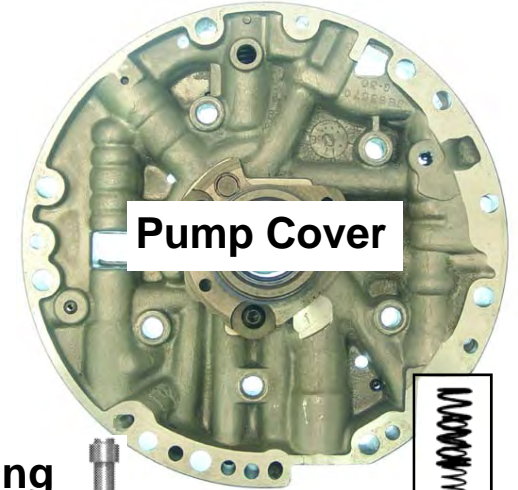




700-2&3 Reprogramming Kit™



Pump Cover

Your choice: Stick Shift or Automatic.

Full Race--Automatic: Full automatic shifts in "D". Holds any gear to any speed with shift lever. Backshifts to any gear to any speed by moving shift lever. High throttle 3-4 shift is controlled by lever.

Full Race--Stick Shift: Manual shift only. Trans will start off in what ever gear lever is in. Will shift to any gear, at any speed, by moving lever.

Installs Easily

With trans in vehicle or on the bench.

Step 1 PR Valve & Spring

Grind this land flush all the way around. Its not fussy.

Install **GREEN** spring.



PR valve

GREEN

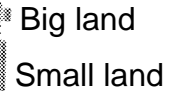
Lockup Valve:
No need to disassemble.



Step 2 Boost Valves & Bushings

Mic the small land on the Int/Rev valve. If it is smaller than .262 diameter you will need a larger size to produce a really firm manual 1-2 shift. Order **TransGo 7-300** valve.

Int/Rev Valve



Big land
Small land

Int/Rev Bushing



Apply hole

Place flat end of the boost valve on the **SPOT** that it fits.

Don't use size "A".

Need a boost valve?

Small block use: **TransGo 7-422**

Big block use: **TransGo 7-472**

Full race use: **TransGo 7-500**



.395



.422



.471 up

Circle size installed for selection of line bias spring on **Page 4, Step 3.**

TV Boost Valve



Flat end
Stem end

TV Boost Bushing



Step 1 Identify Valve Body.

Circle VB Type Here or Here.

Type 1

HAS holes A and B.

Type 2

No hole B.

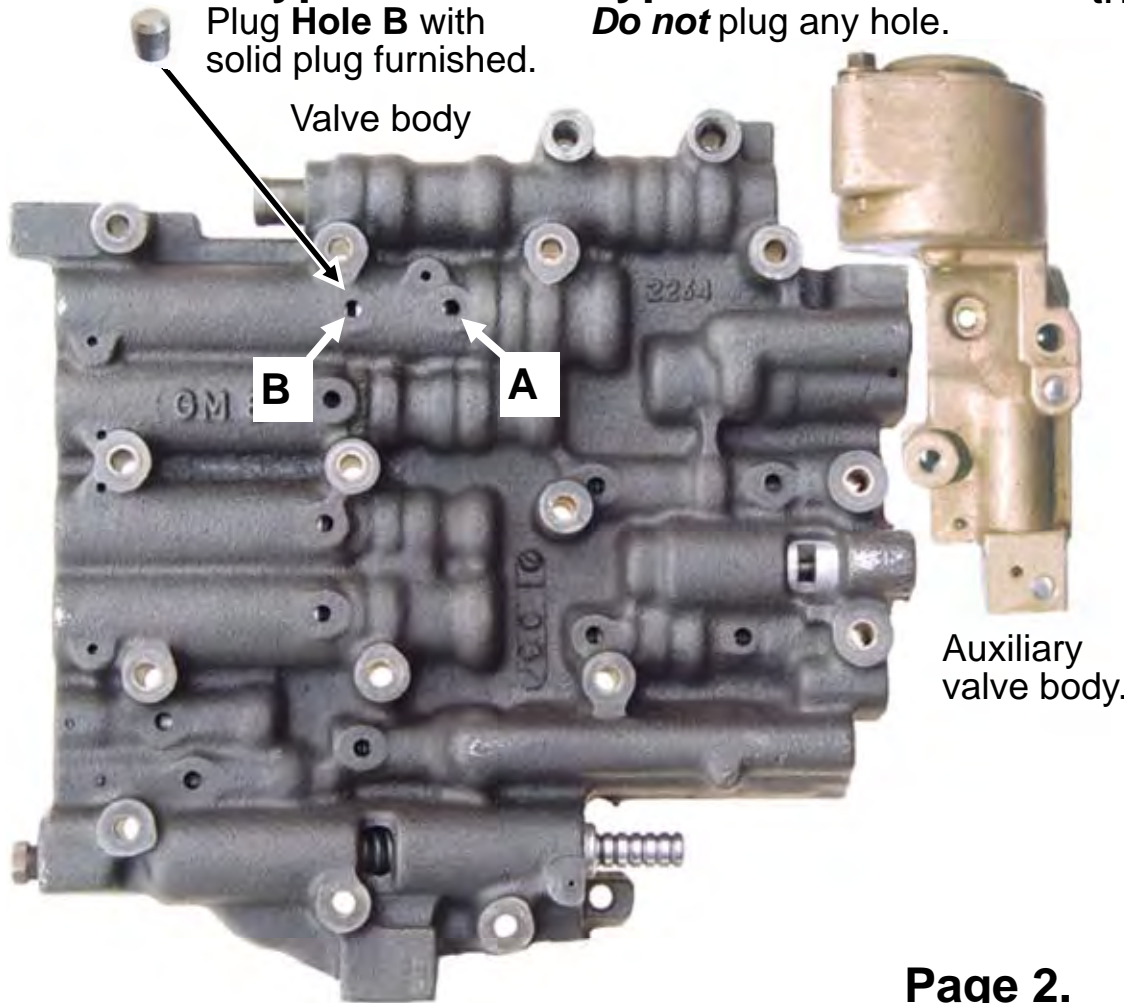
Type 1

Plug **Hole B** with solid plug furnished.

Valve body

Type 2

Do not plug any hole.



Auxiliary valve body.

Automatic Shifts

Follow instructions, but **Do Not** do the items that say “**STICK ONLY**”.

Stick Shift

Follow **All** the instructions **including** the items that say “**STICK ONLY**”.

Type 1 With Automatic Shift

With **Type 1 VB** the 3-4 shift will not be delayed above 1/2 throttle nor will it have passing gear at high speed from 4th to 3rd. The high throttle 3-4 shift is manually controlled with the shift lever. So when you do not want 4th, place the lever in “3”, and when you want 4th move the lever to “4”.

With Type 1: If you want a later high throttle 3-4 upshift or higher speed 4-3 downshift, install **TransGo 7-4-V** special 3-4 shift valve.



Mr Shift ®

“Thanks for Listening”

Drilling holes through partitions:

Aim an ice pick on the angles shown about 1/8" down from the top of the partition and smack it smartly with a hammer to make a dink. Then drill a .110 hole on the same angle. Then enlarge one hole with .157 drill where it says to. .110 and .157 drills are furnished.

STICK ONLY

Drill .110 hole thru these two partitions on the angles shown.

Step 1

Circle VB Type below. Then Drill partition for that type of valve body.

Type 1 VB: Drill .110 hole thru partition on angle shown. Then **enlarge** with .157 drill.

What type of Valve Body?
See page 2 Step 1.

Type 2 VB: Drill .110 hole thru partition into the bathtub. Then **enlarge** with .157 drill.

Step 2

Remove and discard 3-2 control valve and spring. New valve/plug/spring installs **Page 4, Step 4.**

A. Drill .110 vent hole through the bottom of this passage.



B. At the right end of this passage, drill a .110 hole into the valve bore.

Do not drill through to the bottom of the bore.

With a small file reach in bore and de-burr the hole or use old valve to remove the burr. Clean the bore.

Step 1 TV Valve Upgrade:

TV roll pin:
Shorter than others.
Reinstall *flush* with top of passage.

A. TAPERED Spring
small end on valve.

TV bushing used *some* models, *do not* remove.

B. BROWN Spring
inside TV Valve.

C. SPACER
inside Spring.

US PAT- 4711140

TV VALVE

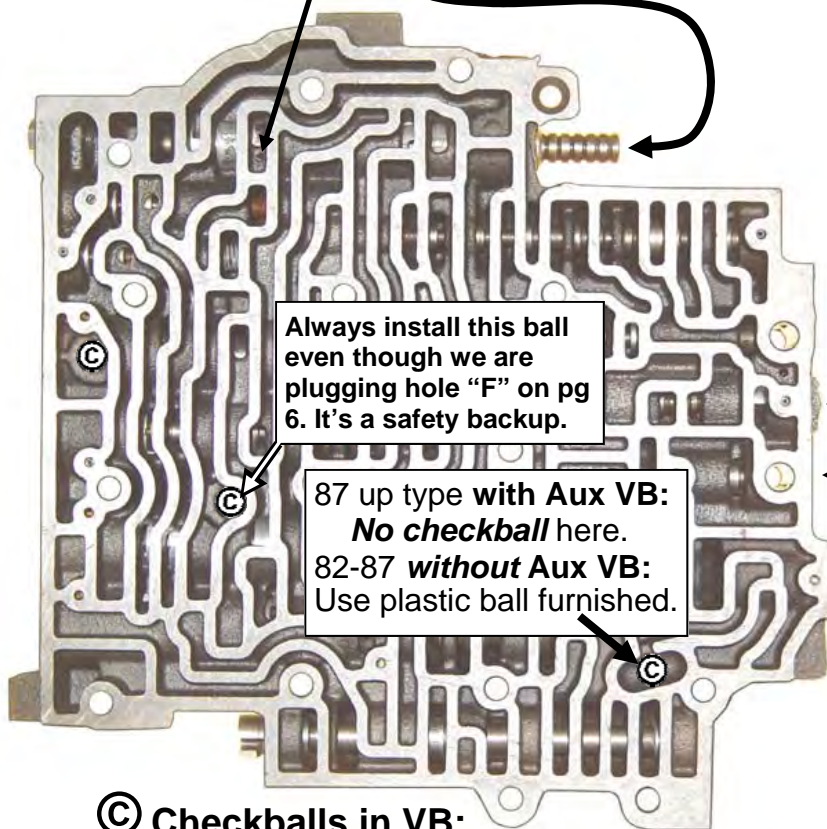
SHIM

TV plunger

D. RED Spring:
If *original* spring is *longer* than RED spring *reuse* it.

E. Install SHIM

Look Here First:
If Plunger has **no** number or **#94** install new TV valve & springs. Any other number reuse original TV valve with *tapered* spring only.



Always install this ball even though we are plugging hole "F" on pg 6. It's a safety backup.

87 up type with Aux VB:
No checkball here.
82-87 *without* Aux VB:
Use plastic ball furnished.

© Checkballs in VB:
Trans *without* auxiliary VB install 3 balls.
Trans *with* auxiliary VB install 2 balls.

Step 2 2nd Accumulator Valve:
Firm *crisp* shift, **BROWN** spring.
Firmest shift, **WHITE** spring.

Step 3 Line Bias Valve:
Page 1, Step 2 which size boost valve?
"B" .422 Install **RED** spring.
"C" .471up Install **BLUE** spring.

Step 4 New Valve and Plug:
If *large* valve/plug fits bore:
Install it with **WHITE** spring.
If *small* valve/plug fits bore:
Install it with **YELLOW** spring.

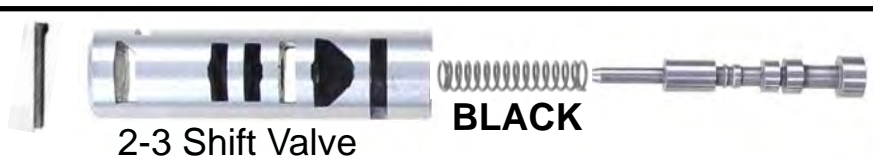
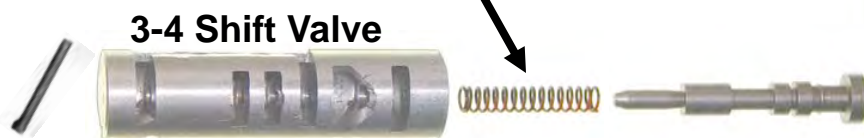
What Type Valve Body?

See page 2 step 1.

Step 1 Circle VB Type.

Type 1 If vehicle has 3.73 or deeper axle ratio, install **ORANGE** spring.

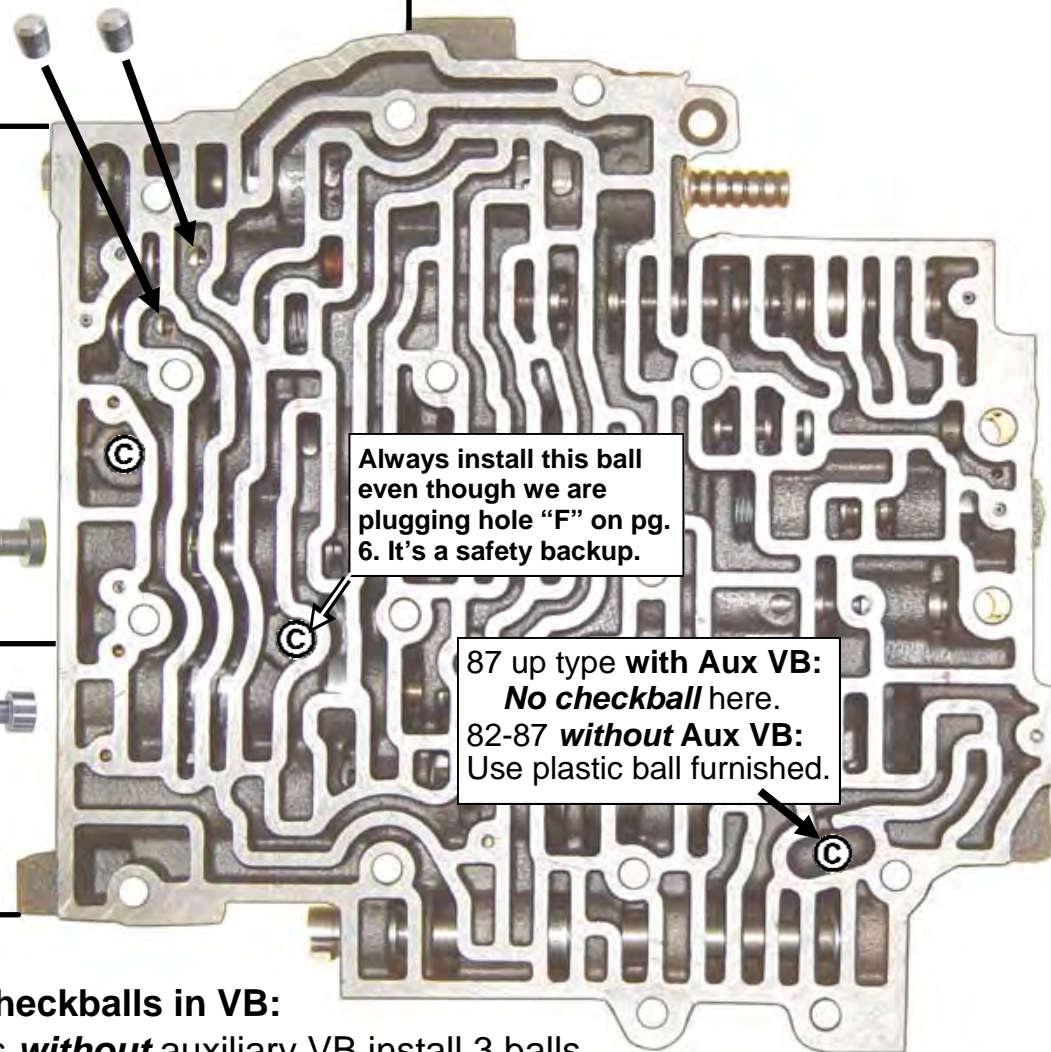
Type 2 Leave it as is.



STICK ONLY

STICK ONLY

Drive 2 solid plugs furnished into these holes.



© Checkballs in VB:

Trans **without** auxiliary VB install 3 balls.

Trans **with** auxiliary VB install 2 balls.

Separator Plate Location & size

With Type 1 VB

Plate **must** have Holes 3&4.

Plug Holes 5, F & H

A* = .157 [3rd]

B** = .073 to .086 [2nd]

C, D & E = .157

G = .110

With Type 2 VB

If plate has hole 4, plug it.

Plug Holes 5, D & F

A* = .157 [3rd]

B** = .073 to .086 [2nd]

C & E = .157

G = .110

With Auxiliary VB

Plate **must** have Hole 1.

Without Auxiliary VB

Plate **must** have Hole 2

* **Listen up** Install Plate on case with bolts through holes "Z". Look through hole "A". If hole overhangs case partition, file the partition until the hole is not blocked.

** **2nd Gear shift feel options.**

Firmer 1-2 shift: Hole B .093 to .096

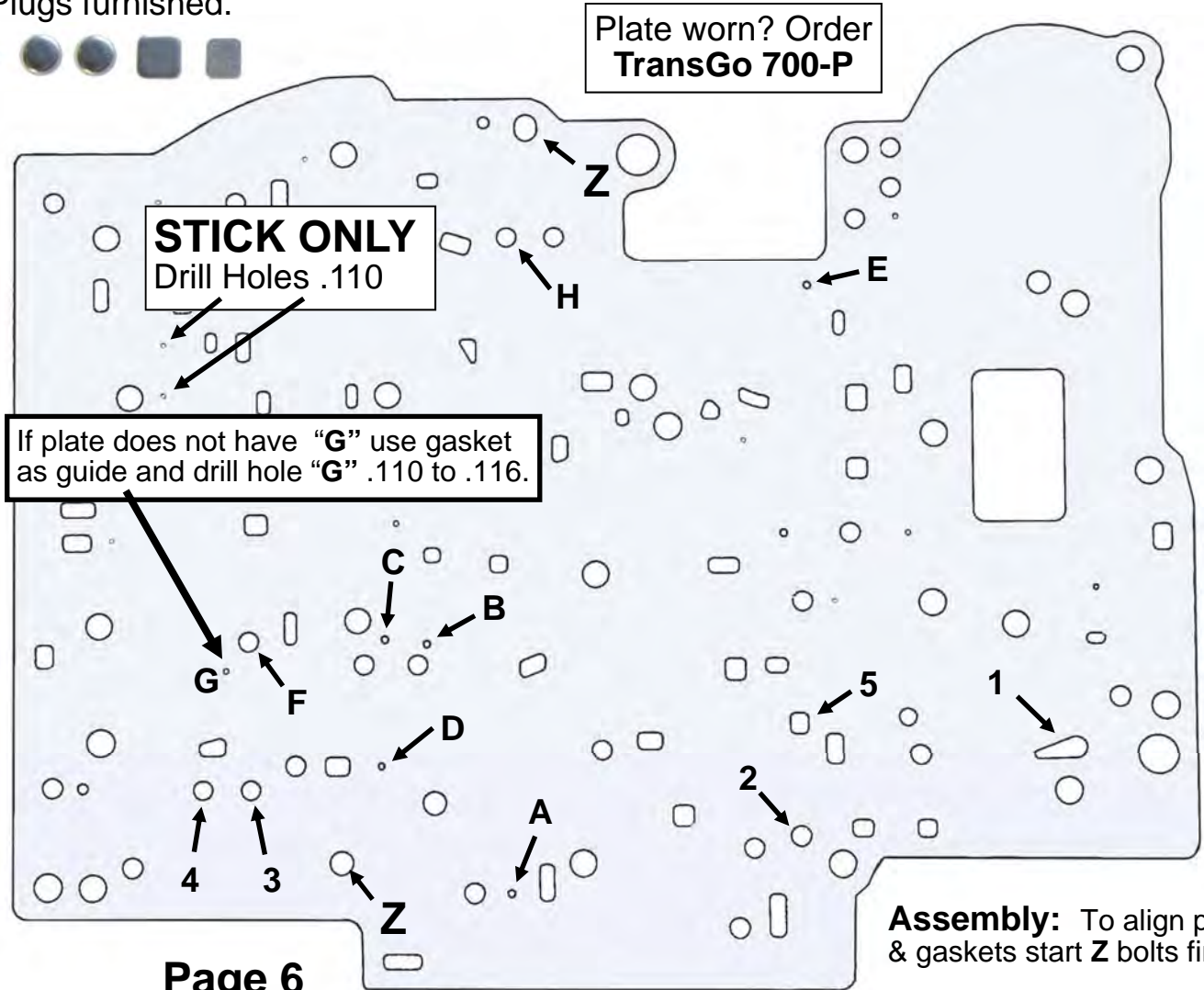
Firmer 1-2 shift: Hole B .101 to .110

Plugging Holes in Separator Plate: Turn a 3/8 or larger drill bit **by hand** on both sides of plate to make a slight chamfer on the flat sides of square holes and round holes that will be plugged. Place plate on cement floor or steel bench and insert plug that fits hole. Hold plate down, close to hole, and smack the plug 3 or 4 times with 6 to 8oz hammer. File plug flush with the plate on both sides. Use a new sharp file.

Plugs furnished.



Plate worn? Order
TransGo 700-P



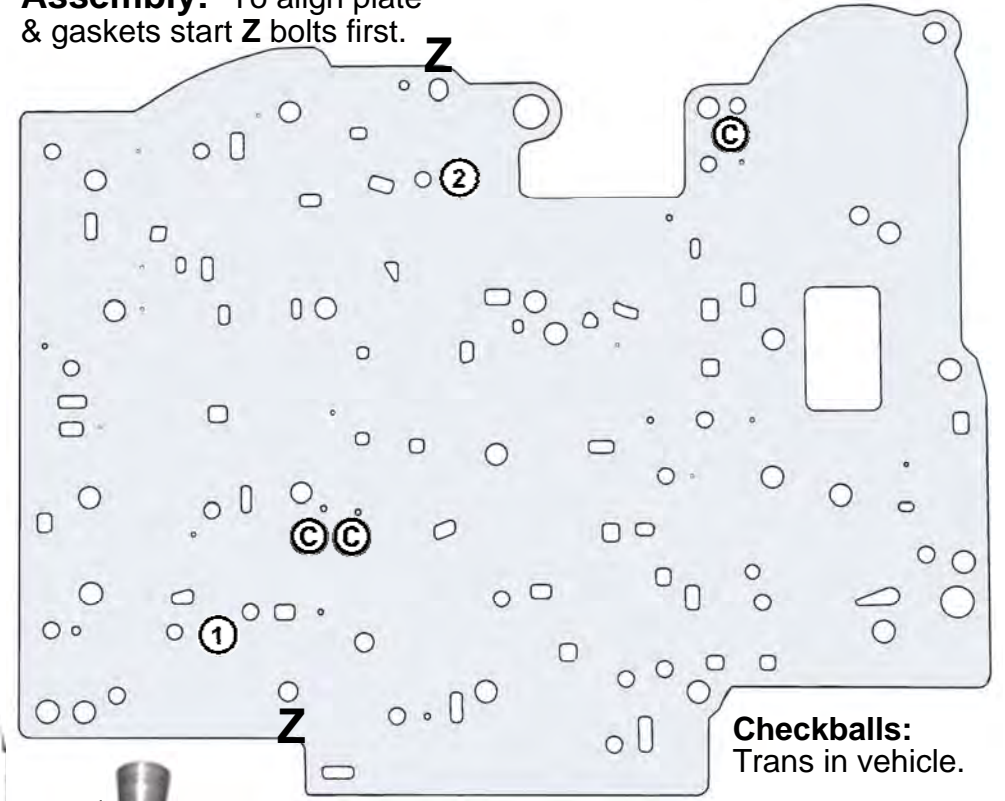
Checkballs © Steel .250 diameter

Circle VB TYPE

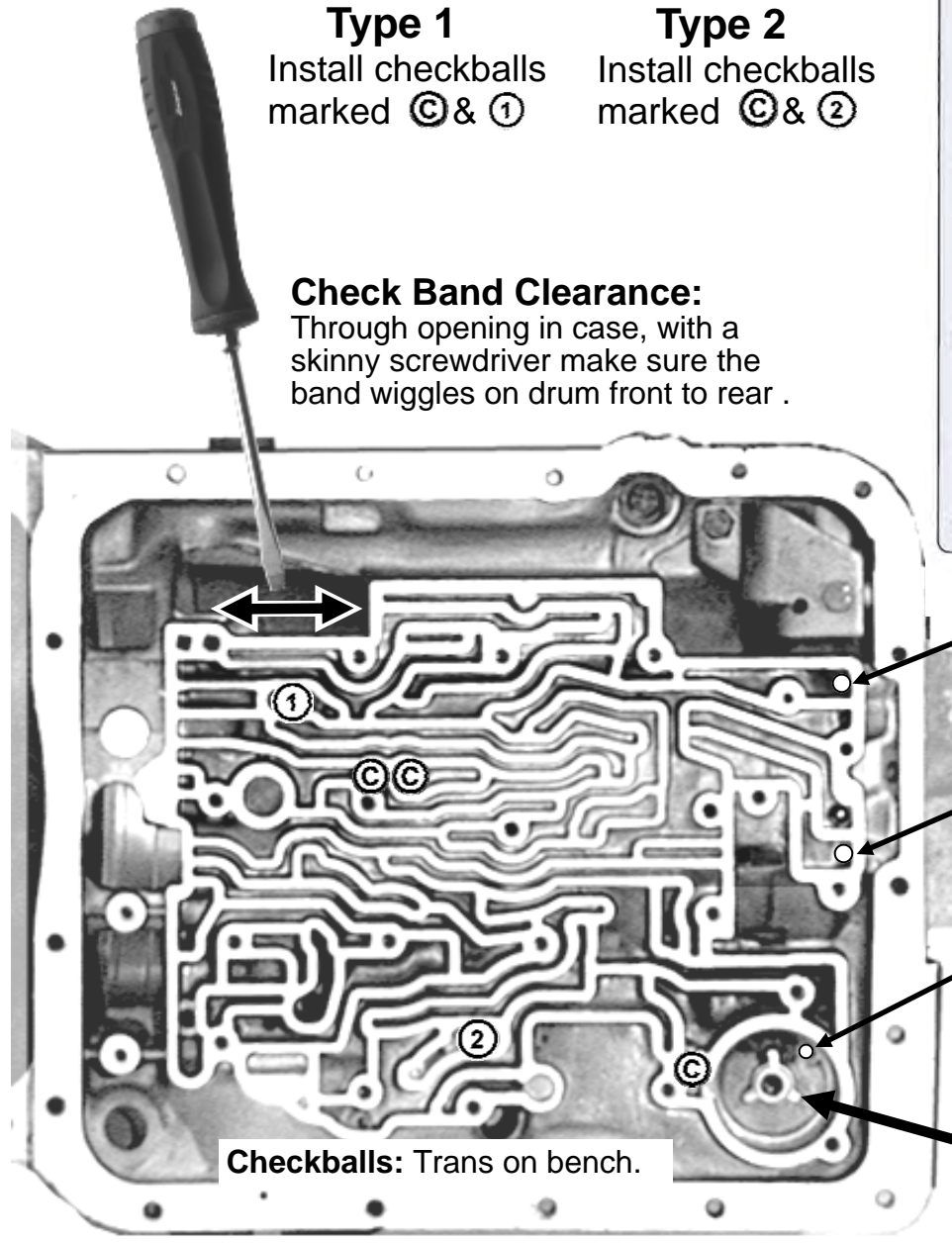
- | | |
|------------------------------------|------------------------------------|
| Type 1 | Type 2 |
| Install checkballs
marked © & ① | Install checkballs
marked © & ② |

Check Band Clearance:
Through opening in case, with a skinny screwdriver make sure the band wiggles on drum front to rear .

Assembly: To align plate & gaskets start Z bolts first.



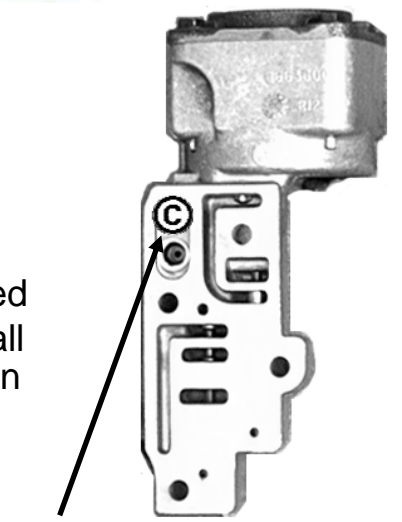
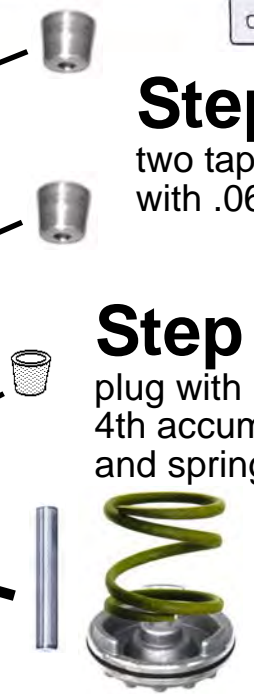
Checkballs:
Trans in vehicle.



Checkballs: Trans on bench.

Step 1 Install two tapered orifices with .063 holes here.

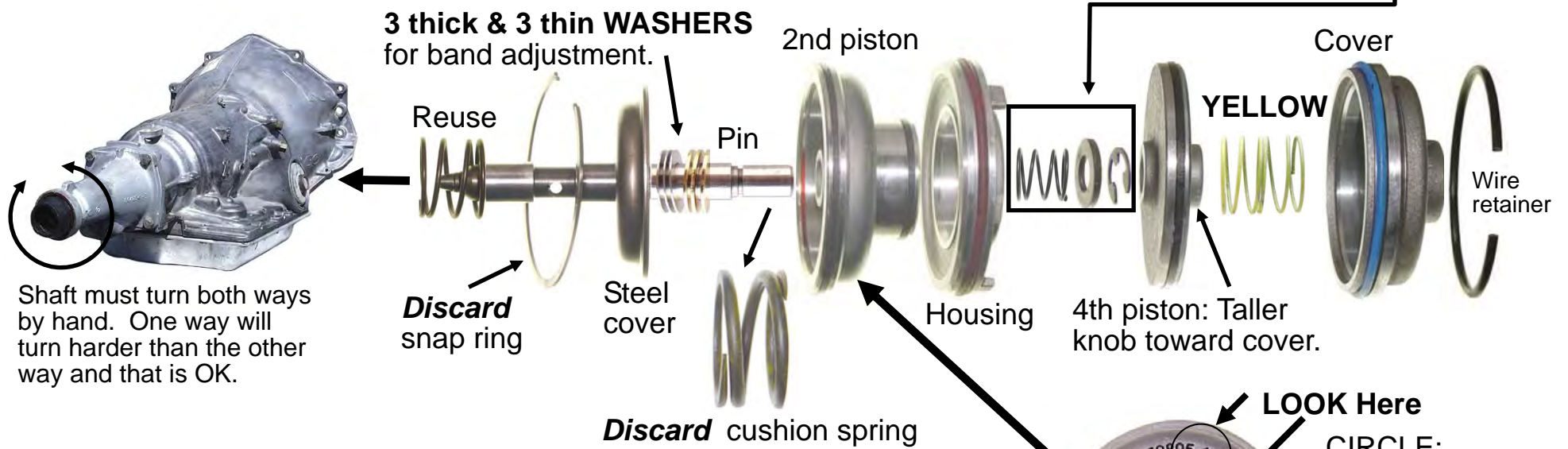
Step 2 Install tapered plug with *no* hole. Reinstall 4th accum piston, guide pin and spring.



Auxiliary valve body
One .250 checkball

Step 1

Band Adjust: Install 3 thick and 3 thin washers on the pin and assemble all parts as shown except *temporarily* leave out, “E” clip, washer and spring as shown in box. Remove one shim at a time until band will just wiggle on drum front to rear (see page 7) or you are able to turn the drive/output shaft both ways by hand. Then remove **one thin shim** and reassemble entire unit **including** “E” clip, washer and spring.



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

STICK ONLY

Governor Spring

- A. Install loop in side.
- B. Hook over weight.
- C. Push end down inside the small weight.

LOOK Here

CIRCLE:
093
95-1
553

093 & 95-1 are same as unmarked “Corvette” type servo like TransGo 7-2P.

2nd Piston
Firmest shift: Use 093/ 95-1
Small Engine: OK to use 553.
Don't use 554.
Need a 2nd piston?
Order **TransGo 7-2P.**

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".



Problems & Solutions:

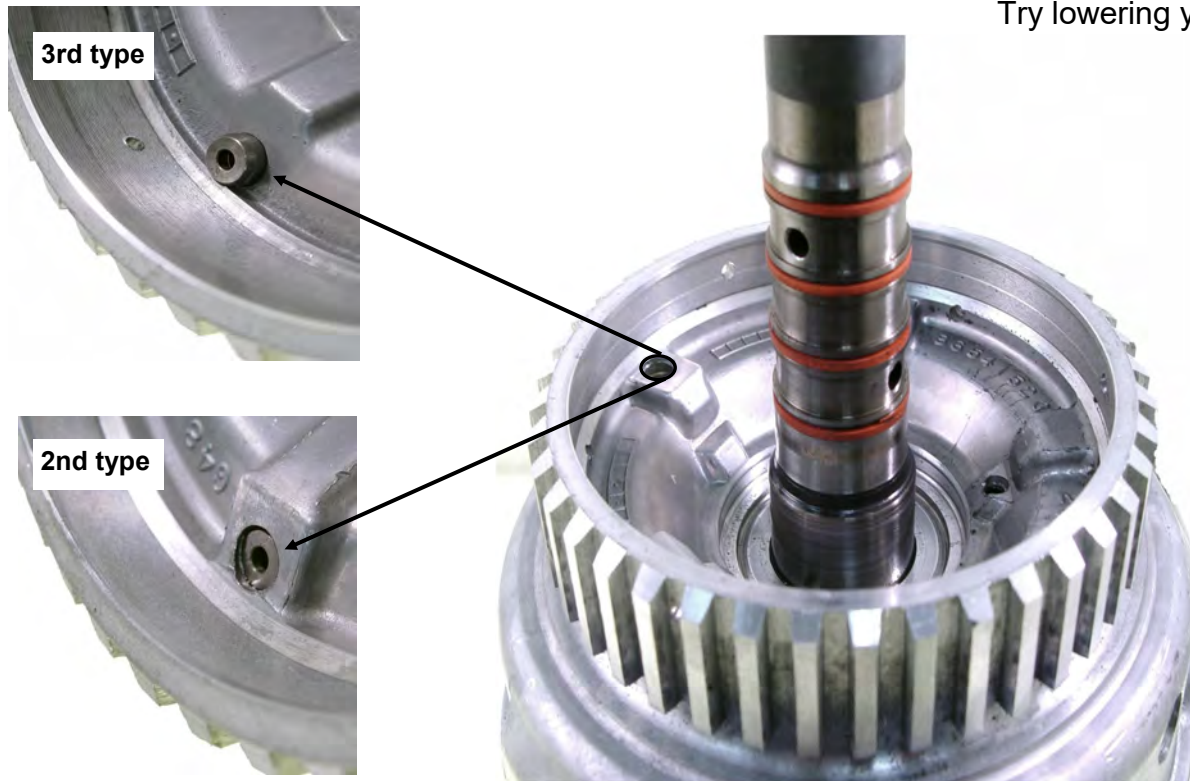
Problem 1: Above approx 5500 rpm, the check ball in the air bleed capsule of the input drum may not seat due to outward centrifugal force. When that occurs, you now have a **BIG** leak in 3rd gear oil. (The orifice provided fixes that.)

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



Mr. Shift

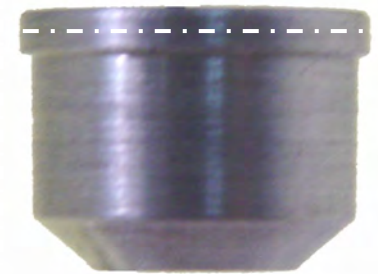
(Skip this page for Under 5500 RPM use.)

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.

Grind here



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.

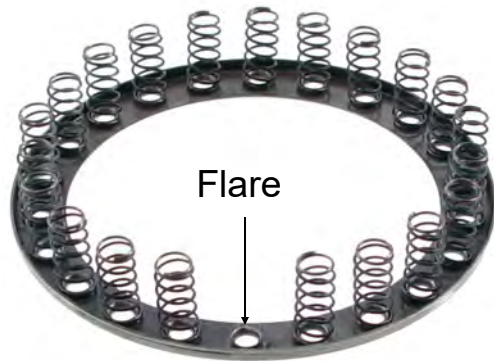
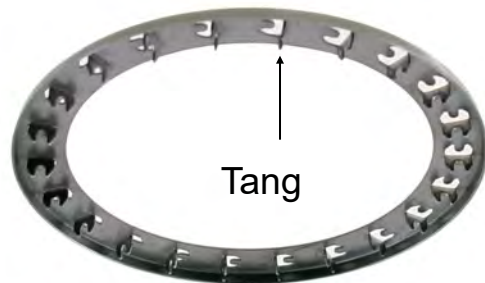


700/4L60E Clutch Spring Installation:

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

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 too big use small **Plain** tapered springs with the large end over the flares.



1st Type 3/4 retainer No Hooks

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.

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.

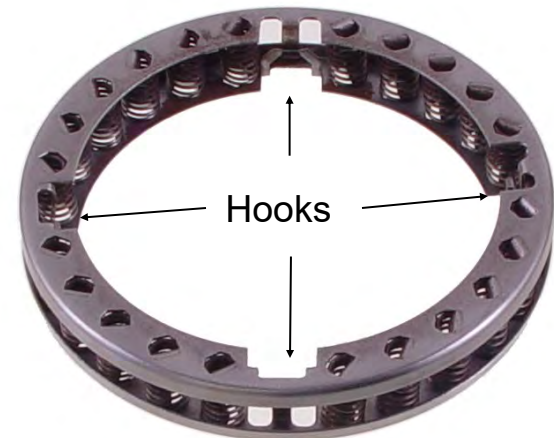
For over 5500 RPM use only: Install All 22 Springs

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

Installation Washer



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



Aluminum Piston

Fwd / Coast Spring Retainer Types

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.

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.

Installation Washer



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



Steel Piston

TRANSGO® Goodies

700 Performance Parts



Vette 2nd Piston & Housing
093 Corvette 2nd piston & housing for firmer 2nd and 3rd shifts. Work trucks, competition, pro street and full race vehicles.

Order 7-2P



.300" Int/Rev Valve & Bushing
Controls pressure during manual 1-2 shift. Small end diameter .300" to produce firm manual 1-2 shift. A must for full race--hot rod and extreme use vehicles.

Order 7-300



.500" TV Boost Valve & Bushing
Oversize .500" diameter for full race--hot rod and extreme use vehicles.

Order 7-500

700 Non Lockup Converter Valve

Conversion valve to allow the use of custom non lockup converter. This valve kit furnishes correct converter fill and lube flow. Does not require any machining, cross drilling or other modifications to pump or support.

Must be used with converter that does not have lockup clutch plate in it.

Order 7-CCV



Special 4th Valve

Allows max throttle automatic 3-4 shift with 1981-87 [Type 1] valve body. Stays in 4th to higher speeds.

Order 7-4-V

Over

Additional Information

3-4 Clutch Durability High Rev Engines

TransGo HI-REV Spring Pack is available (*included in 700-2&3 Reprogramming Kit*) for the 3-4 and Forward clutch. This spring pack will allow the installation of a standard, commercial or HP clutch pack without having accidental centrifugal clutch apply up to 7800 RPM.

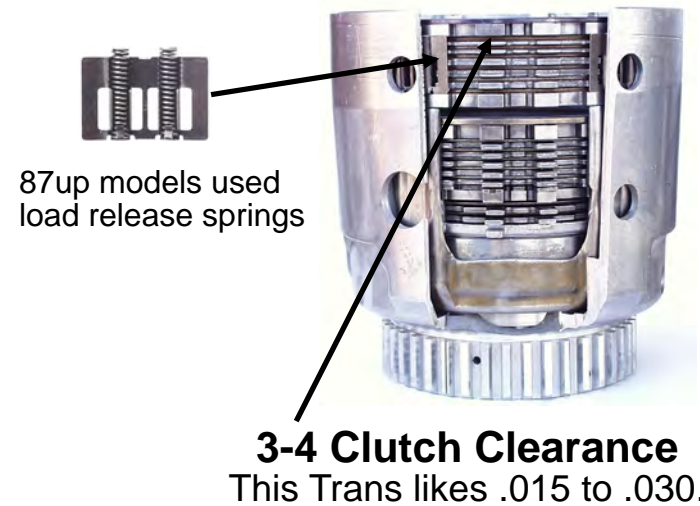
It also reduces clutch failure due to cross leaks into 3-4 clutch circuit. Kit contains 14 forward and 22 third/fourth piston return springs along with calibration upgrade for an improved 2-3 shift quality.

What does the spring pack do? The 87up models had extra helper springs outside of the clutch plates to allow higher revs [5500] without burning clutches due to centrifugal apply. On earlier models without the helper springs the clutch pack would get in trouble around 5000 RPM. When adding extra friction plates the helper springs will not work because the clutch plate stack height is different.

These springs prevent clutch drag during high throttle in 1st, 2nd and during 3-2 kick down by opposing centrifugal residual oil apply force at higher revs. At lighter throttle these springs reduce overlap during the 2-3 upshift and make a cleaner 3-2 downshift. These springs prevent accidental clutch apply because of minor cross leaks at input rings, pump or valve body.

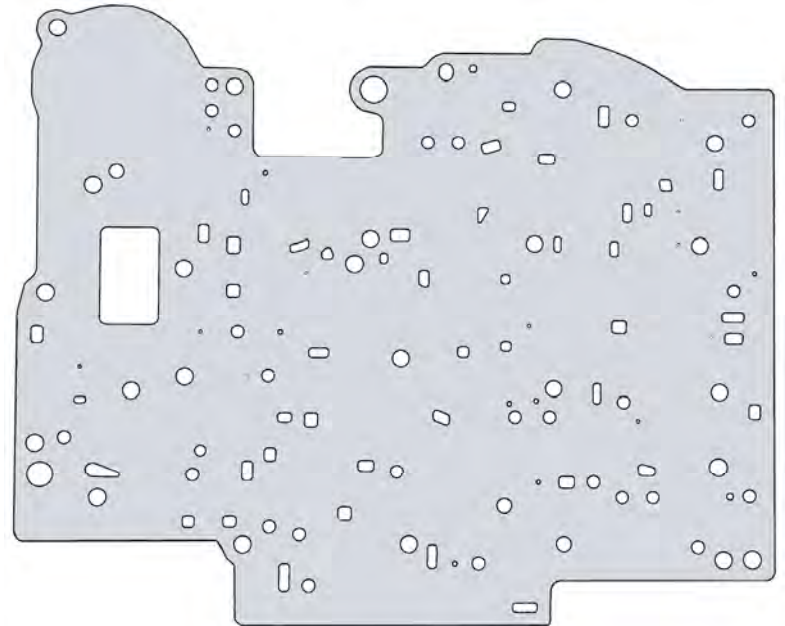
Order 7-CS

Over



Worn Separator Plate?

**Order TransGo 700-P
Fits all Models.**



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