TFOD-518-500-618
Performance Shift Kit®

Gas and Diesel
11/99

Fits: 1966-96 Chrysler Torqueflite and Loadflite rear drive and 4 wheel drive transmissions three speeds and 1988-2000 4 speeds. Including inline 6 cyl, V6, V8, V10 & Diesel; models 904, 998, 999, TC6 ,TF6, TF8, 727, 32RH, 500 and 518 42-44-45-46-47RH & RE.

Short, firm shifts with performance, durability and "CLASS".
Holds 1st, 2nd and 3rd to any RPM.
SHIFT COMMAND: Backshifts to ANY gear you want.

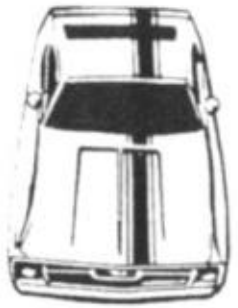
This kit is very different than the video tape. The kit has been up-graded for much easier installation and to fit later models.
ALWAYS follow the written instructions.

Small Pan Transmission Ratios:
"1st" 2.74 "2nd" 1.54 "3rd" 1.00 "4th" .69

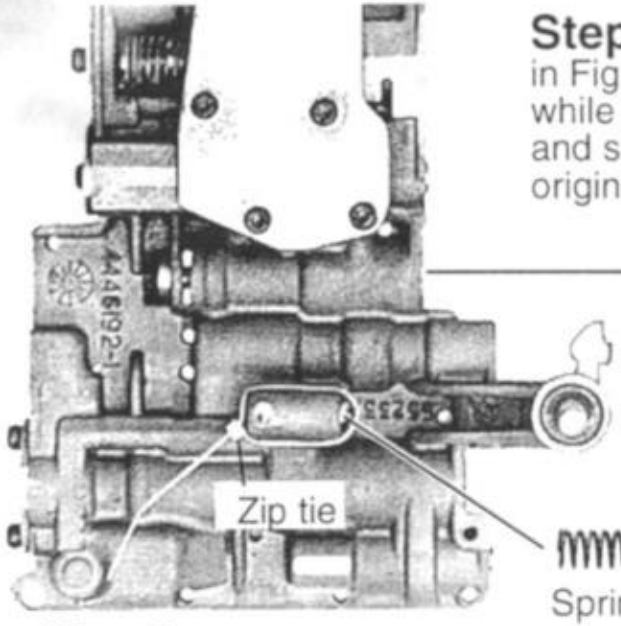
Large Pan Transmission Ratios:
"1st" 2.45 "2nd" 1.45 "3rd" 1.00 "4th" .69

To find top gear ratio, multiply the axle ratio x .69 [Example 3.73 x .69 = 2.57]
Other ratios: Multiply axle ratio x trans ratio. [Example 3.73 x 2.45 = 9.14]

TRANSGO®
PERFORMANCE SHIFT KIT®



2621 Merced Ave El Monte, CA 91733-1997
Sales: (626) 443-4953 Product Supprt: (626) 443-7451



Step 1 Remove E-clip and washer in Fig 1. Remove the rooster comb while being careful to catch the ball and spring. Remove and discard the original manual valve.

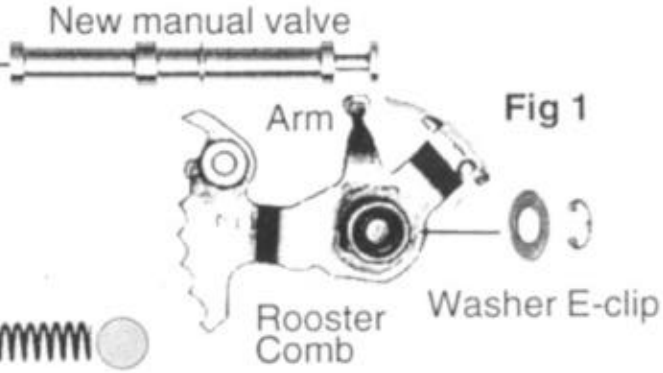


Fig 1

Step 2 Turn valve body over. With the edge of a large file make a notch about half way thru the thickness of the edge partiton about 3/8" wide. Its not fussy.

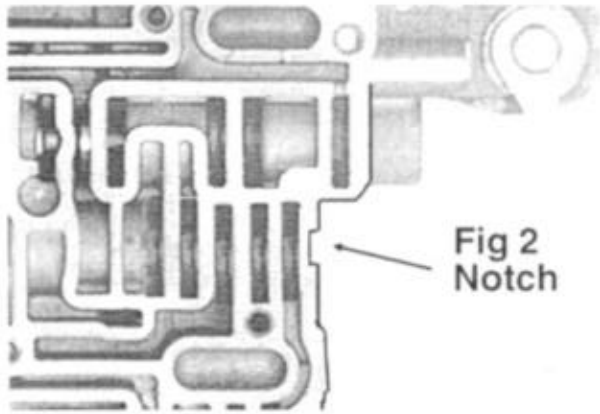
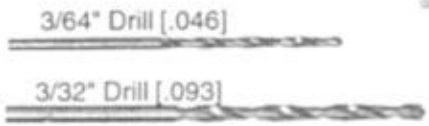


Fig 2
Notch

Step 3 Insert spring and ball into pocket. Use zip tie to hold them in. Install new manual valve and reassemble rooster comb. Remove zip tie.



New manual valve reduces drainback, leak out the vent and side seal leak.

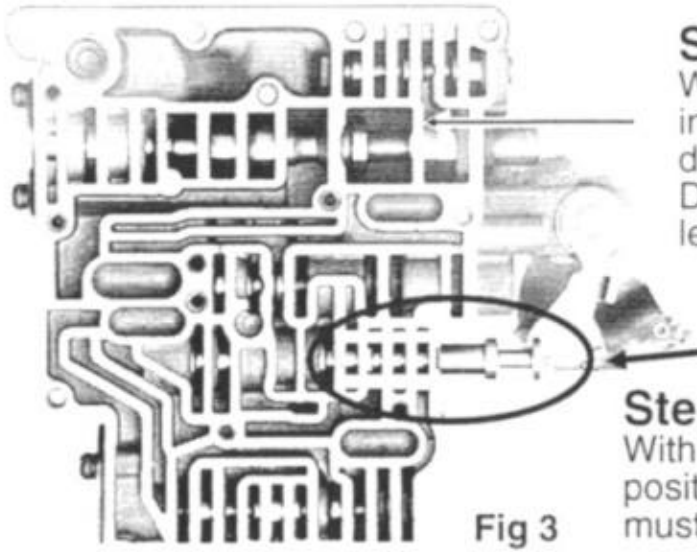


Fig 3

Step 4 Lube/Converter flow
With center punch, make a dink in line with the arrow about 1/8" down into the passage.
Drill through the partition right to left with 3/64" drill [.042 to .047].

Step 5 Manual valve position
With valve all the way inboard (Park position) *left edge* of the narrow land must just enters partition "A" fig 3A.

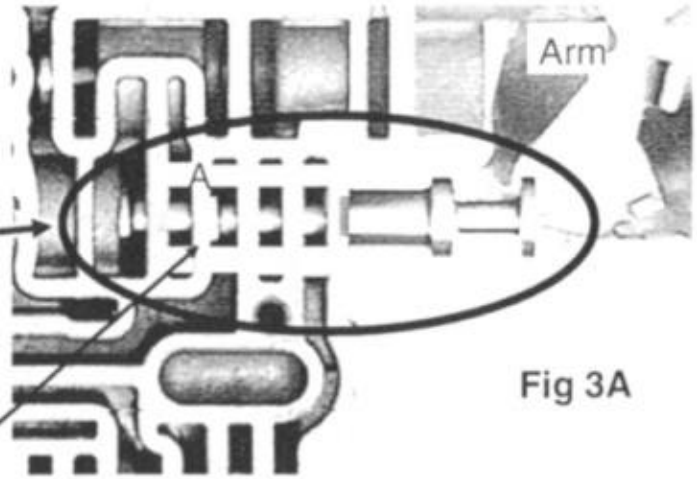


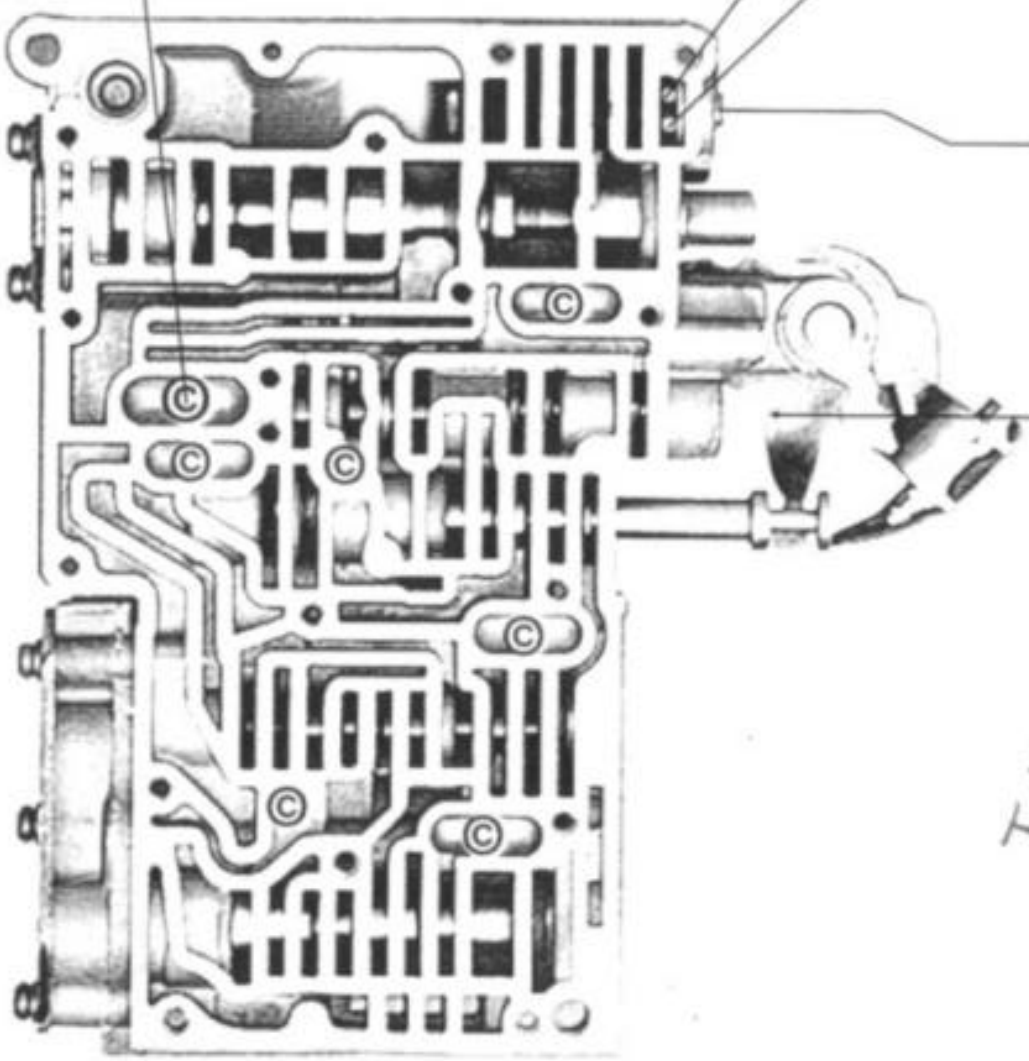
Fig 3A

If left edge of narrow land does not enter partition "A", bend the arm with big pliers until edge just enters partition "A".

L\tfod-P\vb-mv

© Seven Checkballs
Six 1/4" [.250]
One 11/32" [.344]

One 11/32" ball [.344]



1. Drill two 3/32" holes thru bottom of passage.
Don't drill: Jeep or Dakota

Attention: At step 4 check the end of alum plunger for wear. If worn replace it with steel plunger from earlier model Torqueflite valve body.

2. If switch valve has 4 lands as shown

On land 2: Grind one nitch on slight angle to the middle of the land.

Not very Fussy: Looks about like this.

Don't grind three land type valve.

3. Grind stem end of the TV valve to match 3 speed or 4 speed.

Here

WHITE--RED--YELLOW--ORANGE

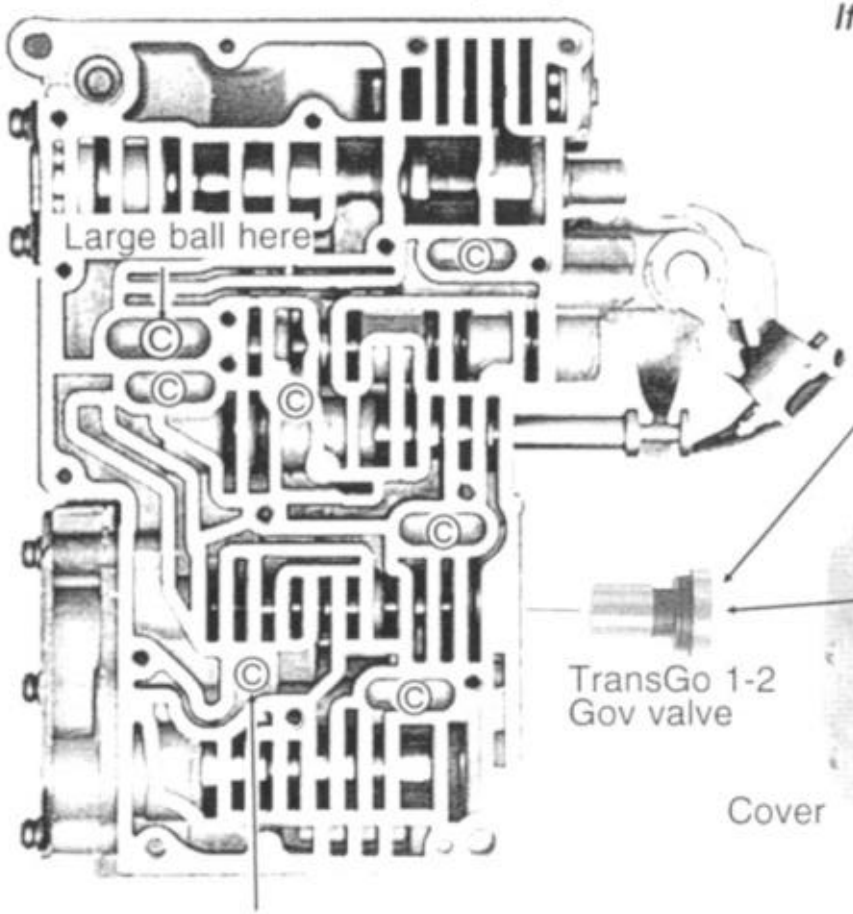
Here

4. 12 Valve Diesel use **WHITE**
24 Valve Diesel use **RED**
Gas engines use **ORANGE**

After road test: If max throttle shifts are too late or too early, you can adjust them. See additional Information.

Product Support: (626) 443-7451

Seven checkballs
© Six 1/4" [.250]
One 11/32" [.344]



SHIFT COMMAND: ***This feature allows a manual downshift to 1st gear at any speed. It is for racing and sport use. It's not recommended for working trucks. If you don't want this feature skip steps 1,2 & 3.***

Step 1 **4 Speed and later model 3 speeds.**
Install the TransGo 1-2 gov valve into valve body, don't force it. Install the cover and **skip steps 2 & 3.**

3 Speed only: If TransGo valve does not fit easily into valve body, don't use it. Instead, do Step 2 & 3.

Step 2 Grind the part of valve between the lines shown, until it is nearly the same size as left land. It's OK to grind a third of the way into right land.

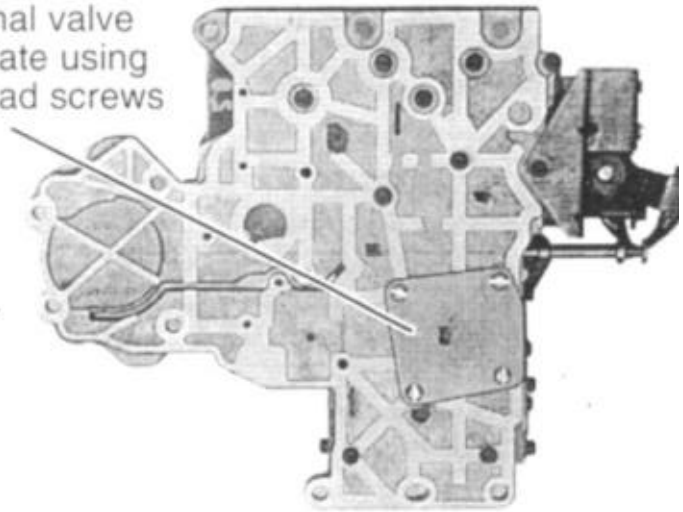
It's OK to grind into the left side of the right land. But, the right half of the right land must be left full size. ***Don't grind it all the way across.***

TransGo 1-2
Gov valve

Cover

Step 3 3 speed only:
If you have ground and re-used the original valve install the gold plate using the longer flat head screws furnished.

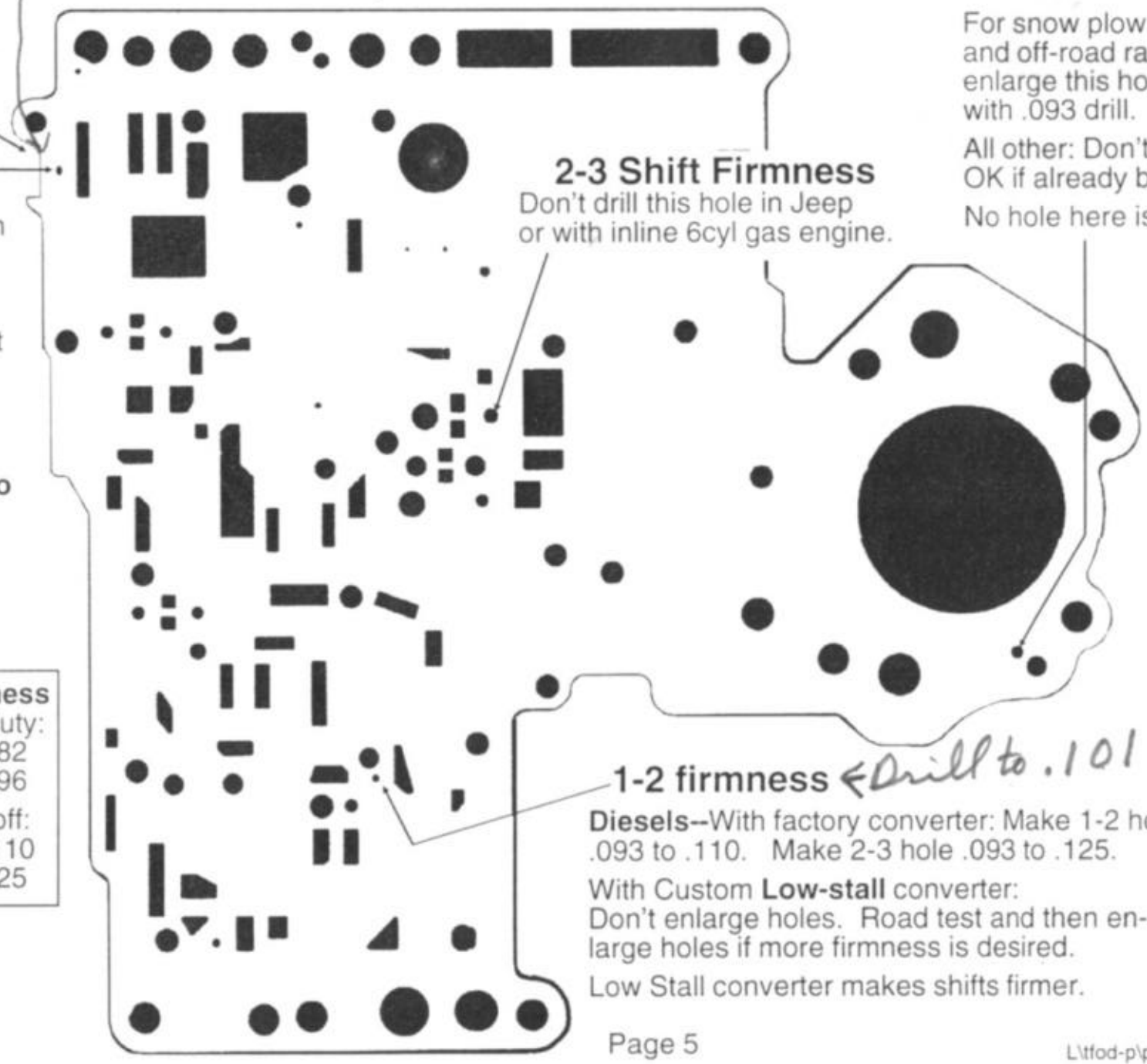
If you did not grind the original valve don't install this plate.
If new valve was installed don't use plate.



Listen up: Please don't remove this checkball for heavy duty, street, or off-road use.

For the firmest 1-2 shift possible, remove the checkball. With the ball removed the rear servo parts, shown on page 8, must be installed to obtain a fast and clean manual 1-2 shift.

Separator Plate



if plate has this hole, do step 1.

Step 1

If 3/64" cotter pin furnished will go in this hole, install it up thru hole. Cut it off short. BE SURE to line it up so it doesn't overhang the VB passage.

If cotter pin is too big for the hole, don't install it.

2-3 Shift Firmness

Don't drill this hole in Jeep or with inline 6cyl gas engine.

For snow plow use and off-road racing, enlarge this hole with .093 drill.

All other: Don't drill. OK if already bigger.

No hole here is OK.

Gas Engine Firmness
Average & heavy duty:
1-2 hole: .073 to .082
2-3 hole: .086 to .096

Racing and Show-off:
1-2 hole: .096 to .110
2-3 hole: .110 to .125

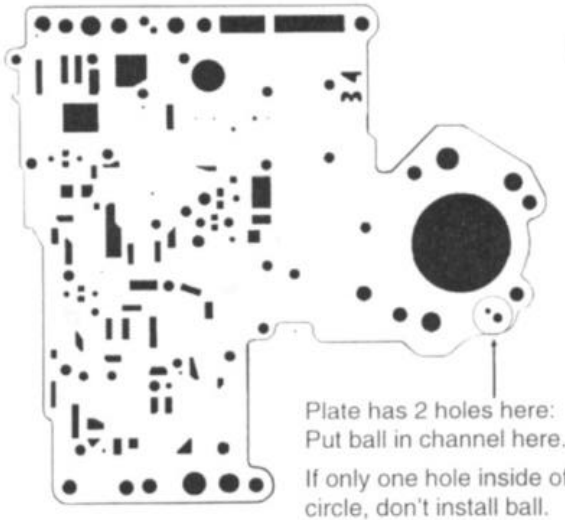
1-2 firmness ← Drill to .101

Diesels--With factory converter: Make 1-2 hole .093 to .110. Make 2-3 hole .093 to .125.

With Custom **Low-stall** converter: Don't enlarge holes. Road test and then enlarge holes if more firmness is desired.

Low Stall converter makes shifts firmer.

Channel Checkballs



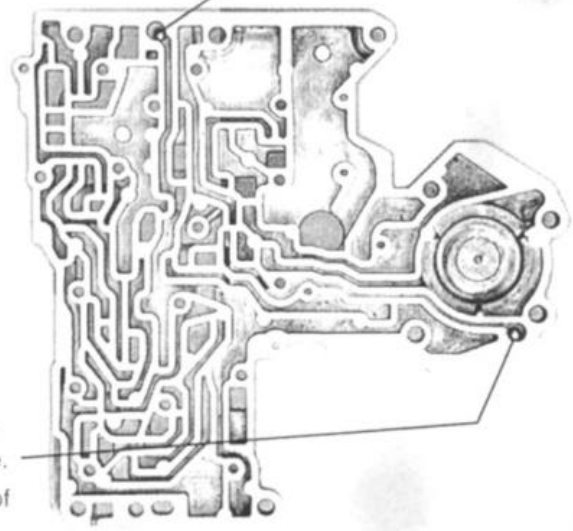
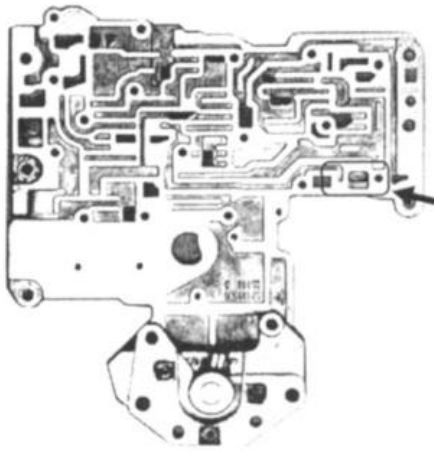
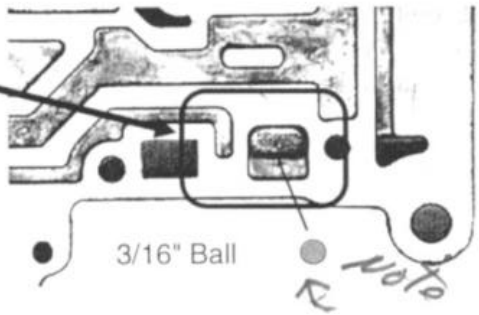


Plate has 2 holes here:
Put ball in channel here.

If only one hole inside of circle, don't install ball.



If channel casting is like picture shown, a 3/16" checkball must be installed in rectangular pocket.

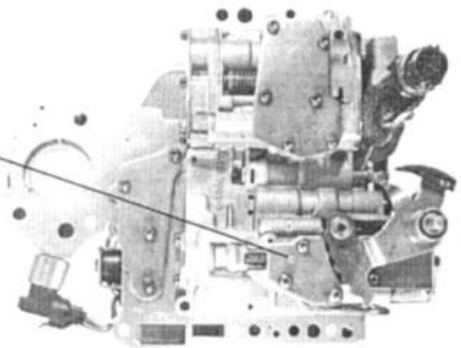


LOCKUP HOP UP?

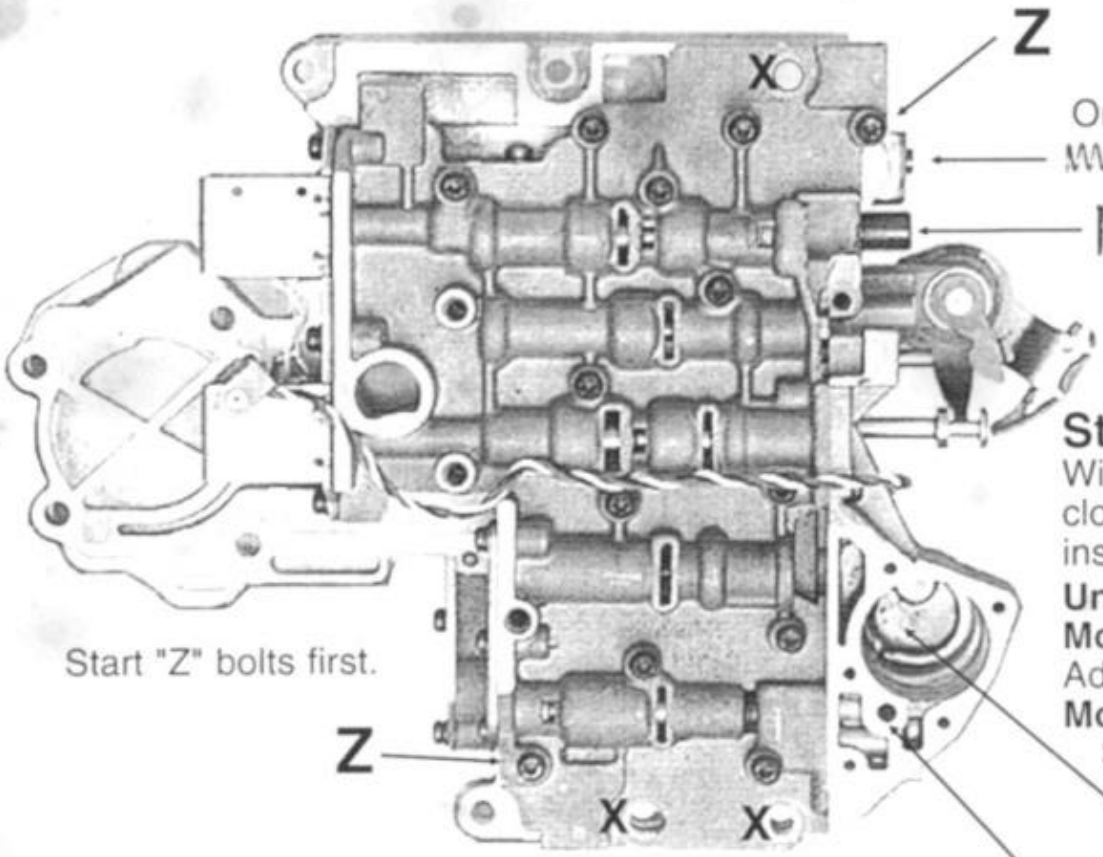
If the engine has been modified and the plastic rings in the kit have been installed it is OK to boost lockup pressure by enlarging this hole.

Remove the three bolt plate.
Enlarge hole .100 to .125 and re-install plate.

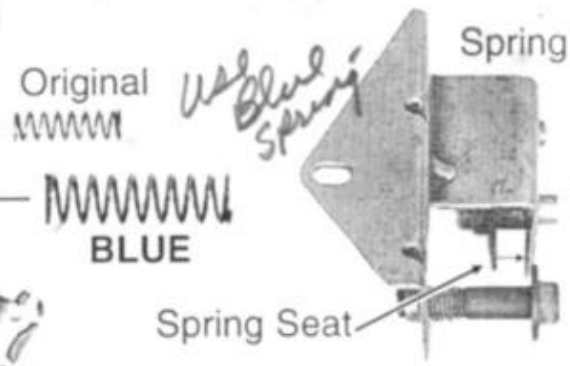
NOTE: Enlarging hole makes lockup FIRMER and increases lockup holding power.
So expect some lockup firmness.



Valve Body Assembly



Step 1 With 3/16" allen wrench, turn PR adjust screw clockwise until spring seat is just flush against the inside edge of retainer.



Step 2 Install Blue spring and the retainer. With 3/16" allen wrench, turn PR adjust screw clockwise until spring seat is just flush against the inside edge of retainer.

Unmodified Engine: Leave flush.
Modified Engine With mechanical governor: Adjust screw counter clockwise no more than 5 turns.
Modified Engine With Electrical governor: See package that contains resistor.

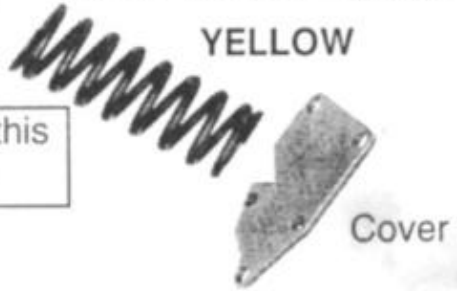
Step 3 Install tapered bushing into hole. Use long valve body bolt to drive the bushing down into the hole about 1". Its not fussy. If hole is too small for bushing, dont' install it.

Assembly: The three filter screws are longer and have washers.
Valve body to case bolts: There are three long bolts and seven short bolts. The three long bolts install at "X".

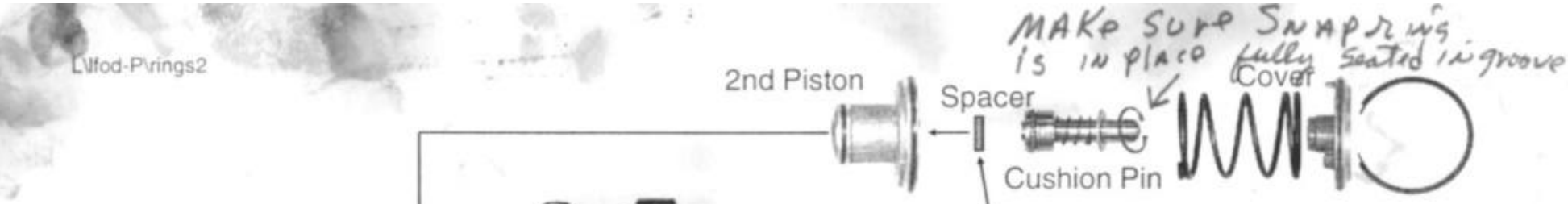
Tapered Bushing

4th Accumulator Piston

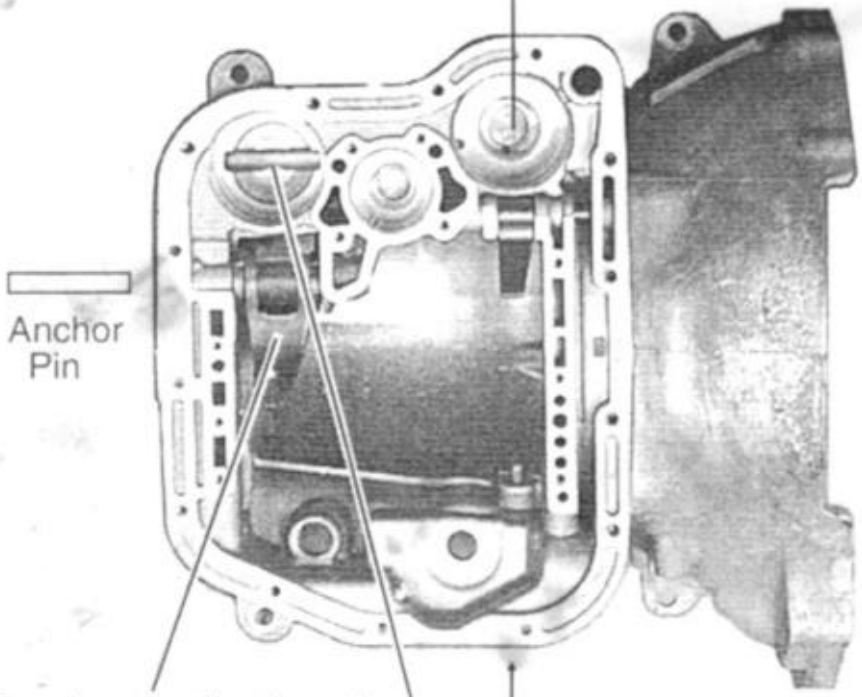
Step 4 Install YELLOW spring.



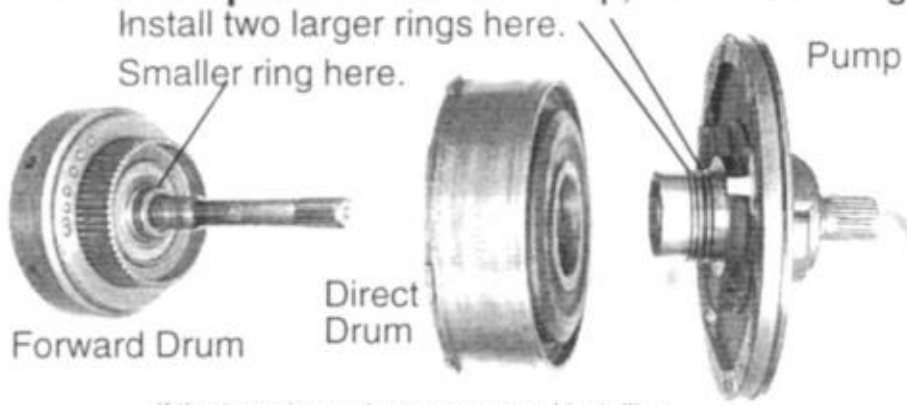
Only 4 speeds have this accumulator system.



Step 1 Install solid spacer furnished into the bottom of the 2nd piston.



If trans is apart: Install Hi-Temp, Low-Wear Rings



If the trans is apart we recommend installing new direct clutch piston seals. If the trans is not apart you may skip the ring installation.

Rear band adjustment
Tighten just snug, THEN:
Single wrap band:
Back off 2-1/2 turns.
Double wrap band:
Back off 3-1/2 turns
[Double wrap band looks like it's in three pieces.]

Front band adjustment
Tighten just snug with a short wrench. Then back off 1-3/4 turns and tighten the locknut.

To install rear servo parts without total trans removal: Unbolt overdrive housing and slide it back far enough to remove anchor pin & rear servo arm.

Step 2 Rear Servo

Install new spacer and reassemble piston. Two return springs are furnished. If neither one fits because of different retainer or piston, reuse the original return spring.

"Thanks for listening.
Let us hear from you."
TransGo Tech Team

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