

# 40-2 Reprogramming Kit™

Fits All 70 and later C-4 Transmissions

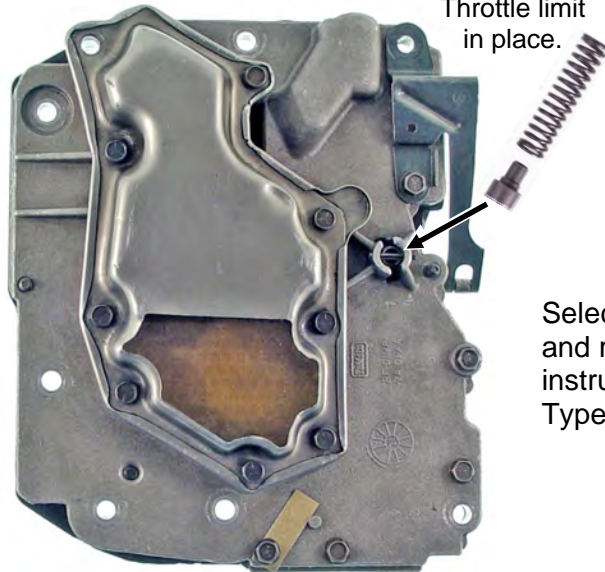
Except C-5 which uses a single bolt for filter.



## Automatic Shifts With Driver Command

The trans will shift & hold 1st and 2nd Gear to any RPM when manually shifted.

Type "A" VB

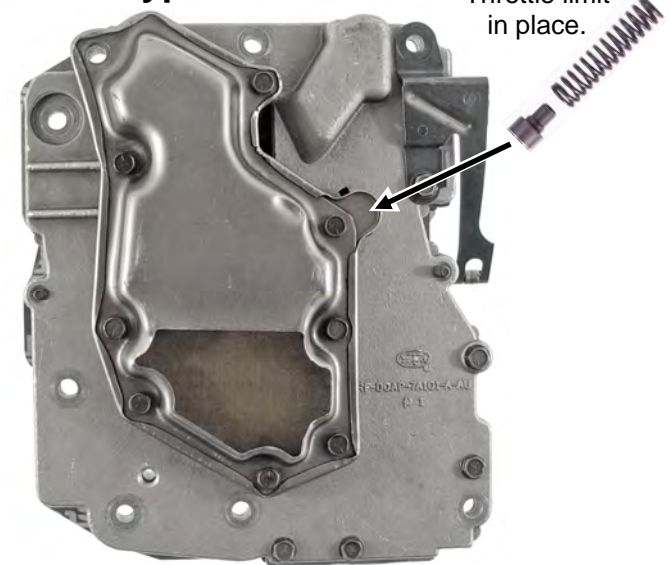


Roll pin holds Throttle limit in place.

**Hold it!  
ID Your  
Valvebody  
First!**

Select Gasket for type A or B valve body, and return other gasket to kit box. Use the instruction page that matches your VB Type for assembling the Channel Casting.

Type "B" VB



Filter holds Throttle limit in place.

**Burnouts:** In water or bleach box: Break it loose in 1st/2nd, then up-shift to 3rd.

THESE ARE THE TRANSMISSION RATIOS: "1st" 2.46 "2nd" 1.46 "3rd" 1.00

Overall ratios: Multiply axle ratio x trans ratio. [Example 3.73 x 2.46 = 9.25 1st]



Mr. Shift

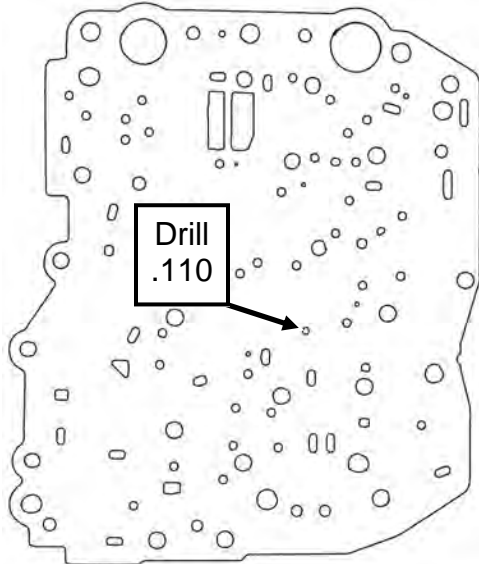
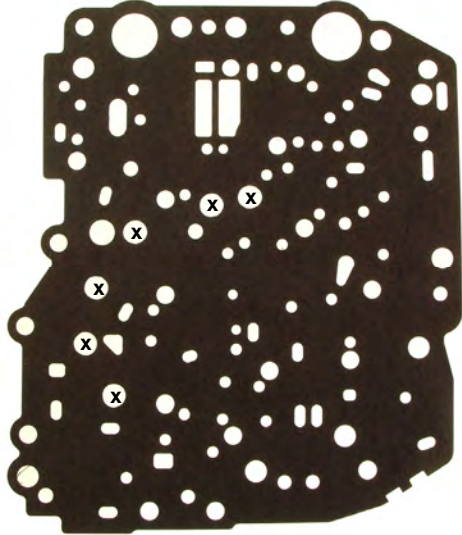
# Use this page to assemble Type "A" VB Channel Casting.

Gasket ALWAYS goes between channel casting and separator plate!

Make sure gasket does NOT block any holes in separator plate.

Only Use Gaskets Provided In This Kit! Added Holes at X's

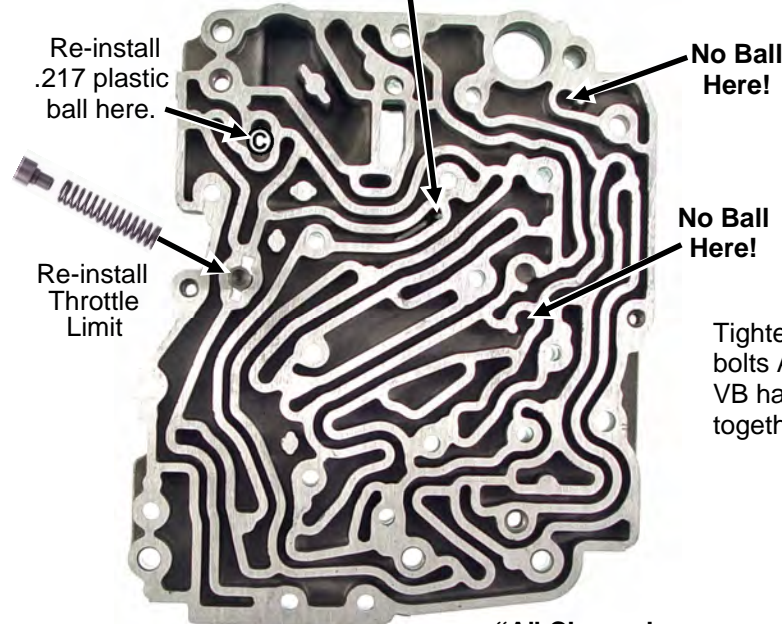
## Type A Gasket



Separator Plate

10/22/2012

1. Install Orifice Control Plug. Use Assy. gel to hold it in.



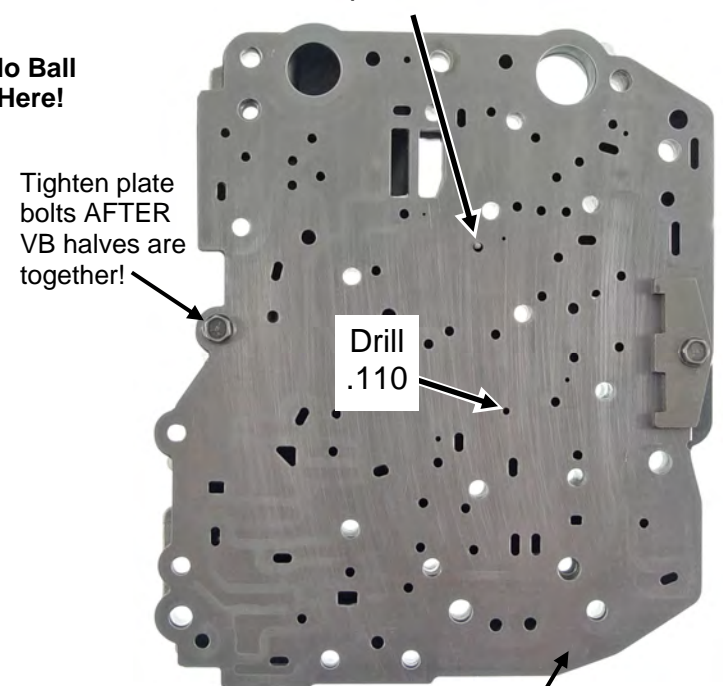
"A" Channel Casting

2. Re-install (1) .217 plastic ball
3. Re-install throttle limit valve & spring. (Valve contacts plate)
4. Enlarge separator plate hole with .110 drill provided before final assembly of channel casting.

Ⓢ = Qty (1) .217 plastic ball (not provided)

## Channel Casting Completed

Control plug sticks up thru plate when done.



"A" Separator Plate

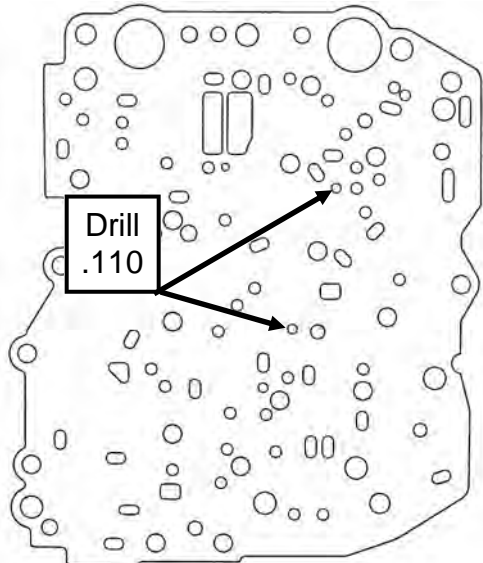
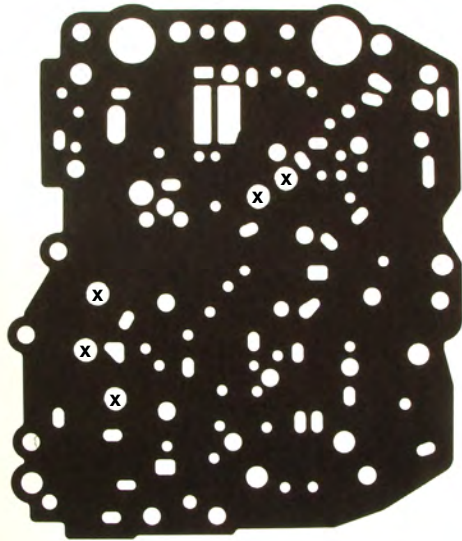
# Use this page to assemble Type "B" VB Channel Casting.

Gasket ALWAYS goes between channel casting and separator plate!

Make sure gasket does NOT block any holes in separator plate.

Only Use Gaskets Provided In

## Type B Gasket

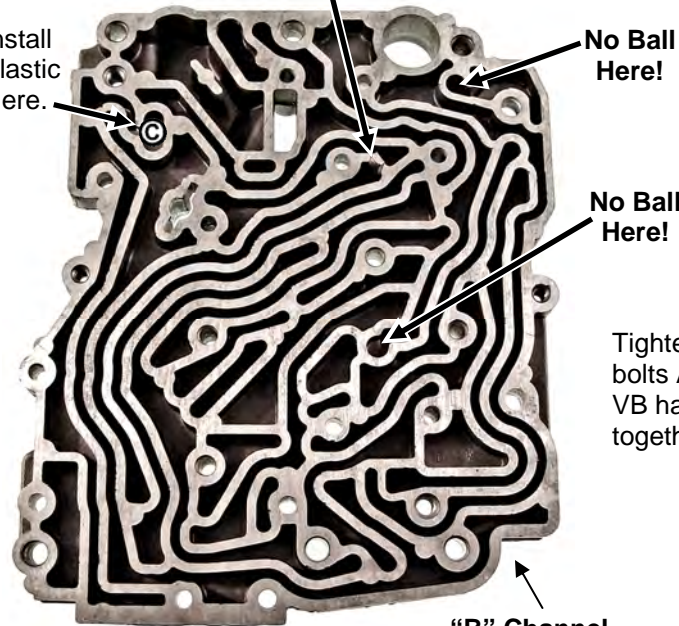


Separator Plate

1. Install Orifice Control Plug. Use Assy. gel to hold it in.



Re-install .217 plastic ball here.



"B" Channel Casting

2. Re-install (1) .217 plastic ball

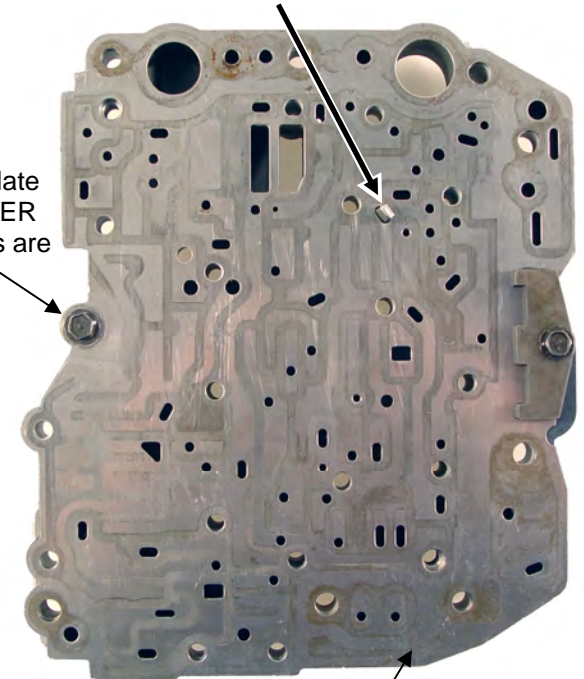
3. Enlarge 2 separator plate holes with .110 drill provided before final assembly of channel casting.

Ⓢ = Qty (1) .217 plastic ball (not provided)

## Channel Casting Completed

Control plug sticks up thru plate when done.

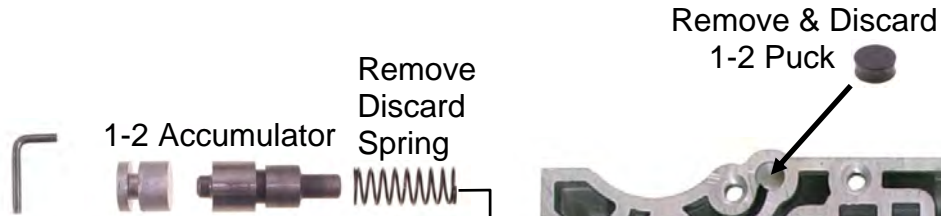
Tighten plate bolts AFTER VB halves are together!



"B" Separator Plate

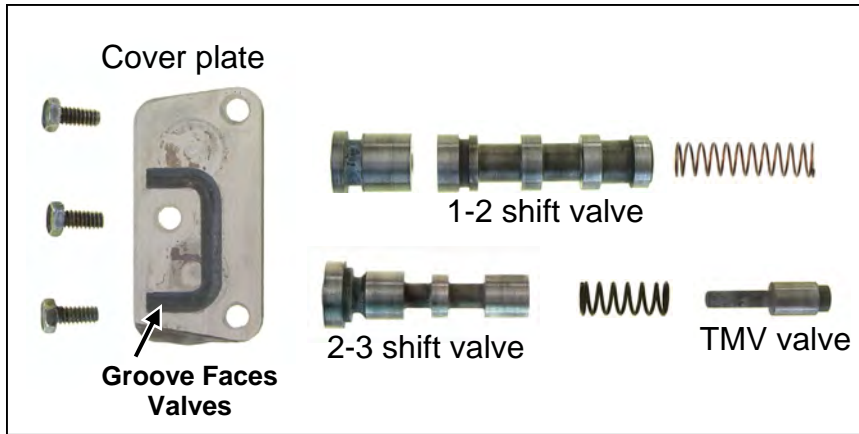
**Do pages 4 & 5 for ALL VB Types.**

**1.** Remove and Discard 1-2 Puck and 1-2 accumulator Spring (If Equipped)

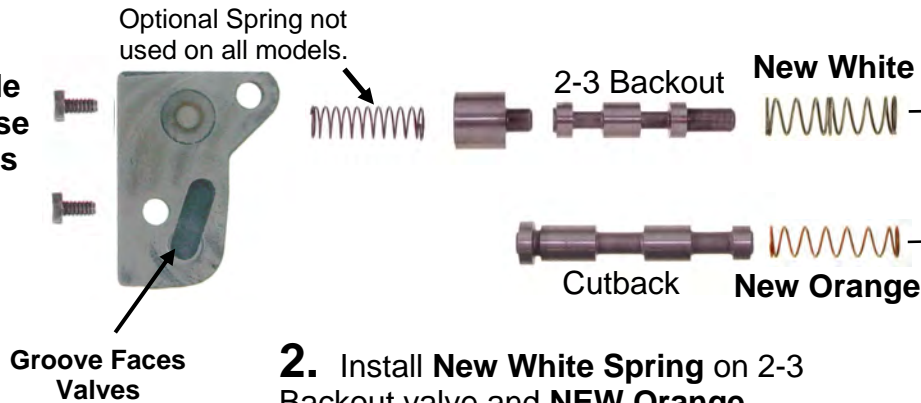


Type "A" & "B" VB's are different in this area.

No changes here, just clean and reassemble.



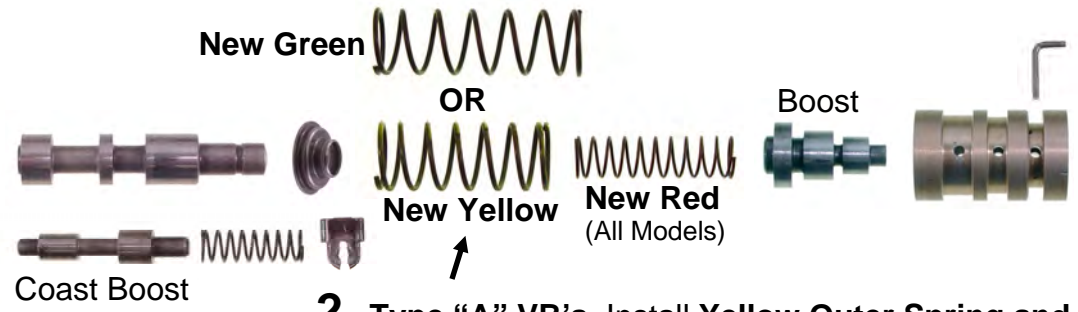
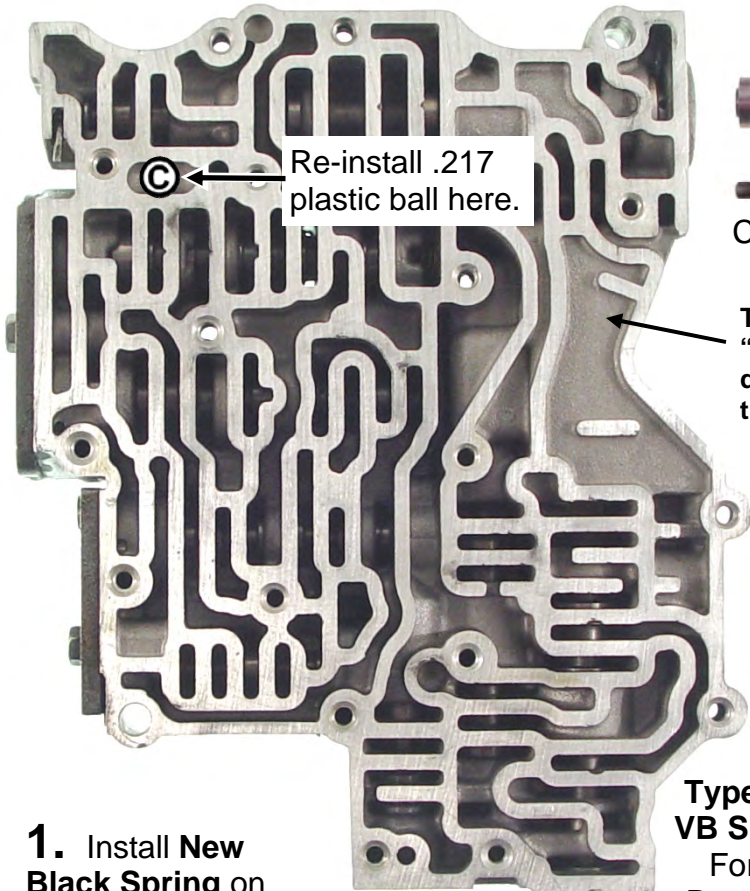
Leave ALL side plate bolts loose until VB halves are bolted together!



**2.** Install **New White Spring** on 2-3 Backout valve and **NEW Orange Spring** on Cutback valve.

Type "B" VB Shown for ID Purposes. Type "A" VB Shown on next page. Always do pages 4 & 5 for ALL VB Types.

Do pages 4 & 5 for ALL VB Types.

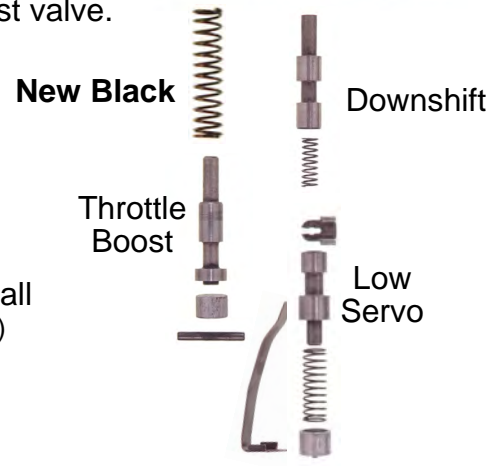


**2. Type "A" VB's** Install **Yellow Outer Spring and Red Inner Spring** on Pressure regulator.

**Type "B" VB's: Street use, trucks, vans cars under 5500 lbs. use Yellow outer and Red inner PR Spring. For Full Race ONLY and/or Vehicles over 5500LBS use Green outer and Red inner PR Spring-- Type "B" only.**

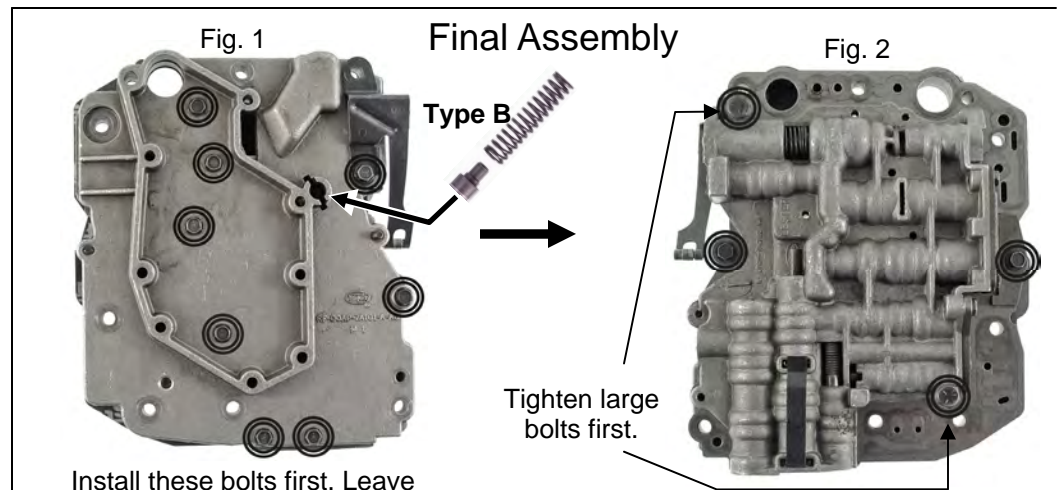
Type "A" & "B" VB's are different in this area.

**1. Install New Black Spring** on throttle boost valve.



**3. Install** © Qty = 1 .217 plastic ball (not provided)

Type "A" VB Shown For ID Purposes



Install these bolts first. Leave bolts loose, then flip VB over.

Lay completed Channel onto Completed VB. Install 8 small bolts but do not tighten. Flip VB over and install 2 large bolts as shown in fig. 2. Tighten large bolts first and then both small channel plate bolts. Flip VB back over and tighten 8 bolts as shown in fig 1. Re-install throttle relief valve and spring for **Type B** VB. (see front page) Then Install filter and tighten filter bolts and side plate bolts last. Torque small bolts 40-60 inch lbs. Large bolts 80-120 inch lbs. Short side plate screws 30-35 inch lbs. VB to Case 80-120 inch lbs.

# Important Information:

**Trans MUST have vacuum modulator hooked up.** Always connect **manifold** vacuum to the modulator.

**Kick-down** linkage is adjusted so you can get a 3-2 down

**Modulator Adjustment:** Adjustable modulators have a screw visible when you remove the vacuum hose. No more than 3 turns either direction from the factory starting point. Better to be a little early than late! Saves gas, longer trans life and better performance overall. Make 1 change and roadtest.

**For earlier shifts:** Turn screw counterclockwise 1 turn at a time or you can also use a shorter modulator pin or gasket shim on push-in style modulators. Do not use gasket shim on screw-in style modulators.

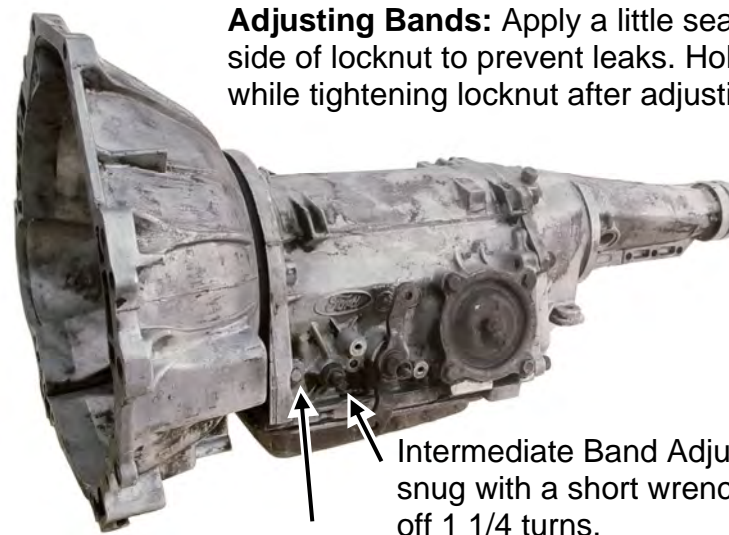
**For later shifts:** Turn clockwise 1 turn at a time, or you can use a longer modulator pin.

Modulator Pin Length		
Minimum Length	Average Length	Maximum Length
1 5/8	1 11/16	1 3/4

**If trans has a brief bind-up on manual 1-2 shift:** Back off the rear band adjustment one additional turn.

**Trans Operation:** Fully automatic in the drive position. In the "2" position, Trans will take off in 2nd and hold 2nd gear to any rpm. In the manual low or "1" position, trans will take off in 1st and hold 1st gear to any speed. Care must be used when manually downshifting as the trans will follow **YOUR** command. Moving the selector to the 2 or low position will result in that gear being selected **AT ANY SPEED!** So **BE CAREFUL** and use good judgment.

**Tip:** Run Trans in Manual low, bring engine rpm up to approx 3000 RPM. Look at speedometer. Consider this the **MAX** safe MPH to go back to "1" on **dry pavement** for engine braking.



**Adjusting Bands:** Apply a little sealant to back side of locknut to prevent leaks. Hold adjuster while tightening locknut after adjusting Bands.

Line Tap

Line Pressure Spec's  
 Drive - Idle 55-65 WOT 150-185  
 Reverse - Idle 60-110 WOT 240-270

Intermediate Band Adjust– Tighten snug with a short wrench and back off 1 1/4 turns.



Reverse Band Adjust– Tighten snug with a short wrench and back off 3 turns.