

# 40-3 Reprogramming Kit™

Fits All 70 and later C-4 Transmissions

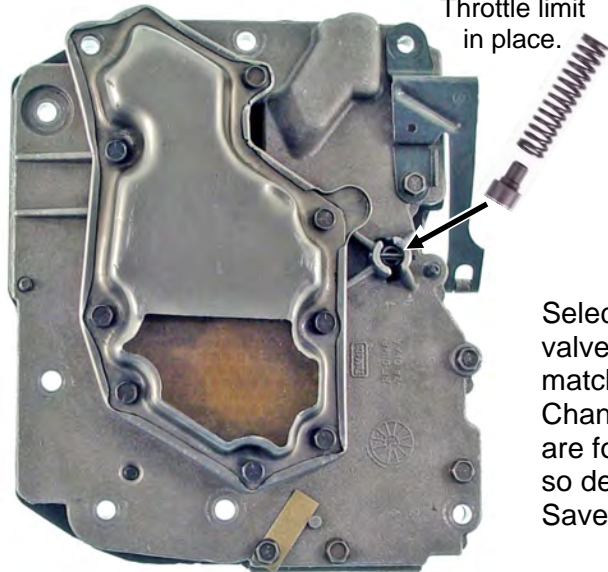
Except C-5 which uses a single bolt for filter.



## Manual Control Only-No Automatic Shifts\*

The trans will be in the gear you select and changes to any gear you choose when you move the selector. DRIVER is in full COMMAND!

Type "A" VB

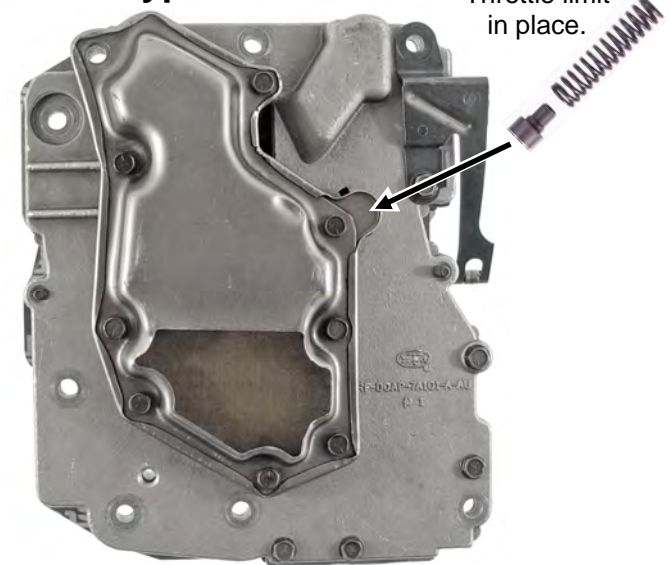


Roll pin holds Throttle limit in place.

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

Select Manual Gasket for type A or B valve body. Use the instruction page that matches your VB Type for assembling the Channel Casting. Extra gaskets included are for converting back to automatic if you so desire to in the future. Save these instructions and extra parts!

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

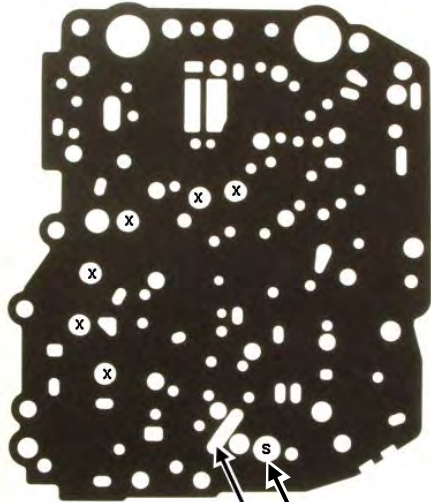
Overall ratios: Multiply axle ratio x trans ratio. [Example 3.73 x 2.46 = 9.25 1st]



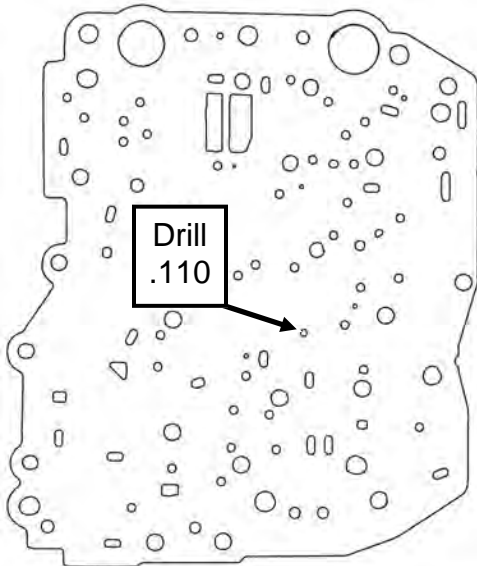
Mr. Shift

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

**Manual Gasket**



Manual Gasket Has Slot & Hole at "s".



**Separator Plate**

01/14/22

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

Two Gaskets are provided. Use the **Manual** gasket and return the **Automatic** gasket to kit box. **Gasket ALWAYS** goes between channel casting and separator plate!  
Gasket must not block any holes in separator plate.

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



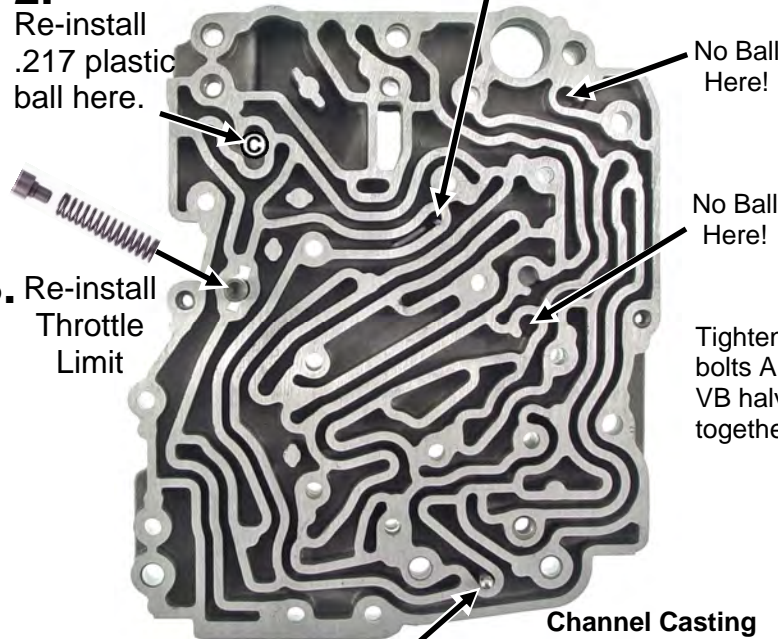
**2.** Re-install .217 plastic ball here.

**3.** Re-install Throttle Limit

**4.** Install **New Light Brown** spring and **New 3/16"** (.187) **Ball.**

**5.** 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.

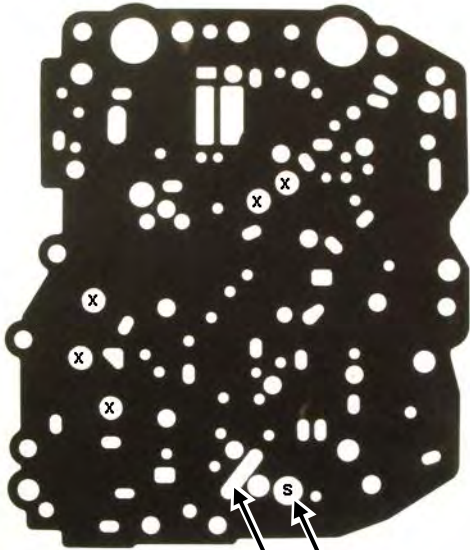
Tighten plate bolts **AFTER** VB halves are together!

New 3/16" Ball seated against plate when done.

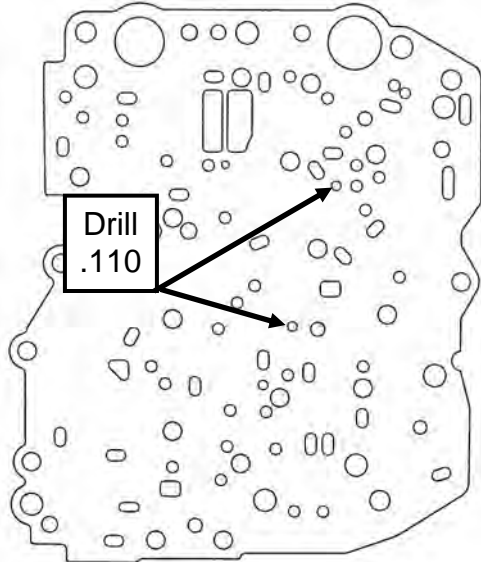




Only Use Gaskets Provided In This Kit! Added Holes at X's  
**Manual Gasket Type B**



Manual Gasket Has Slot & Hole at "s".



Separator Plate

01/14/22

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

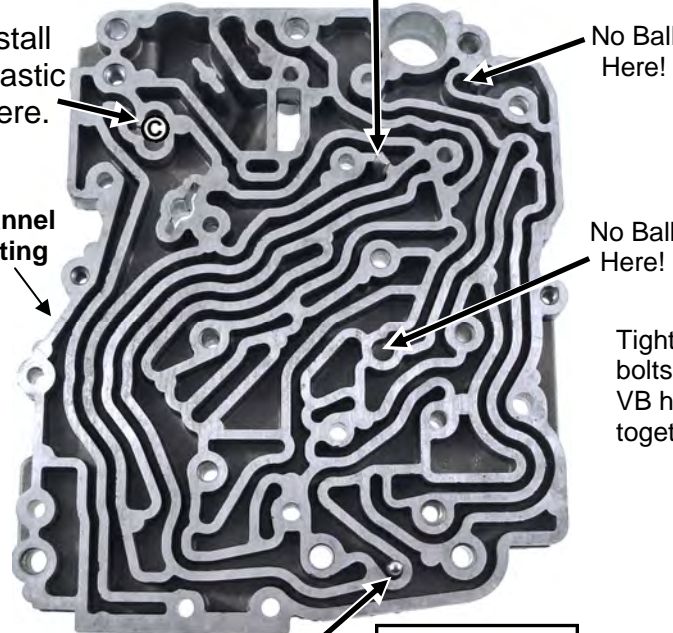
Two Gaskets are provided. Use the **Manual** gasket and return the **Automatic** gasket to kit box. **Gasket ALWAYS** goes between channel casting and separator plate!  
 Gasket must not block any holes in separator plate.

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



**2.** Re-install .217 plastic ball here.

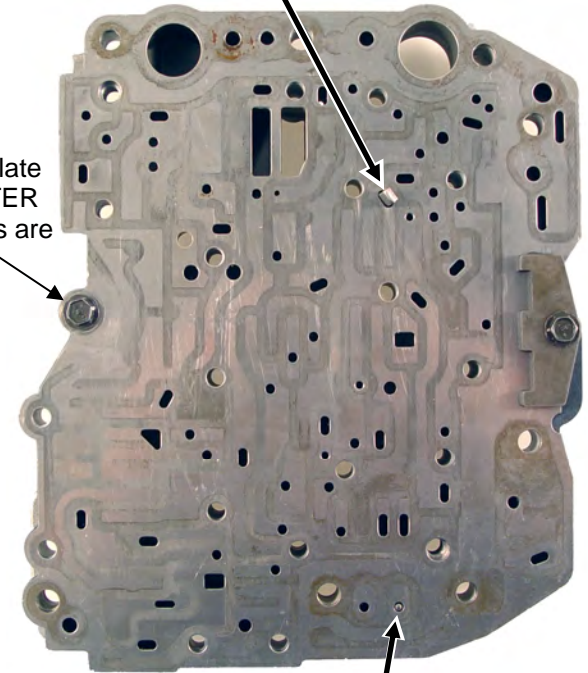
Channel Casting



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

### Channel Casting Completed

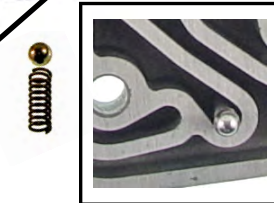
Control plug sticks up thru plate when done.



Tighten plate bolts AFTER VB halves are together!

New 3/16" Ball seated against plate when done.

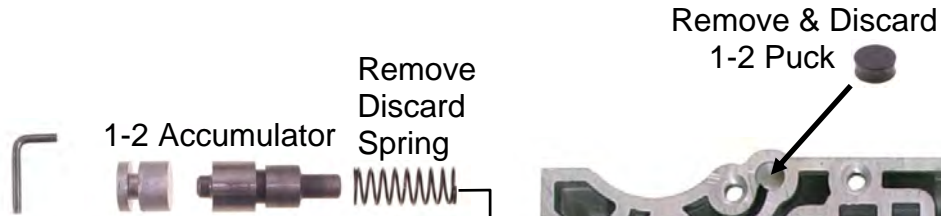
**3.** Install **New Light Brown** spring and **New 3/16" (.187) Ball.**



**4.** Enlarge separator plate hole with .110 drill provided before final assembly of channel casting.

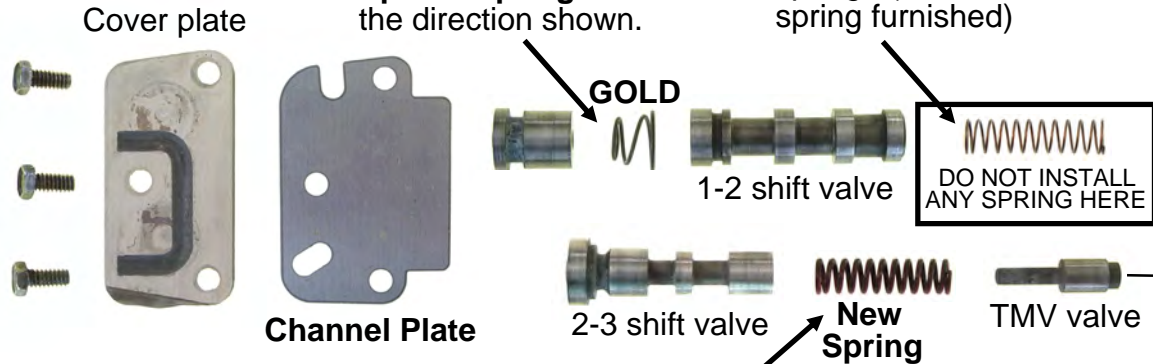
**Do pages 4 & 5 for ALL VB Types.**

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



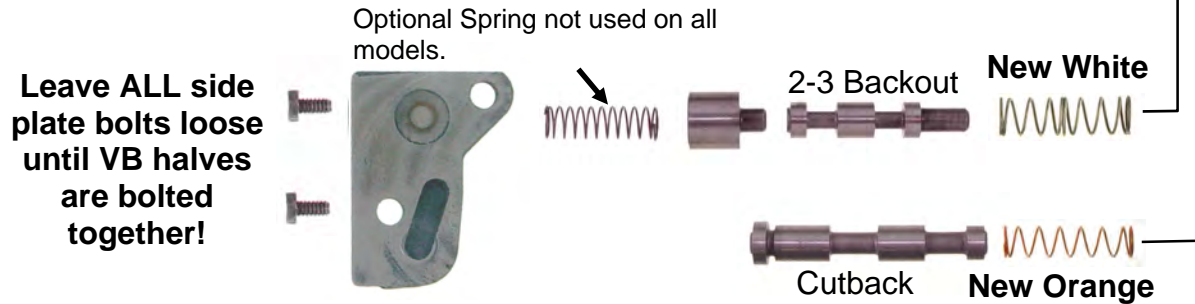
**2.** Install the **GOLD Splitter spring** in the direction shown.

**3.** Discard original inner spring. (Save **Blue** spring furnished)

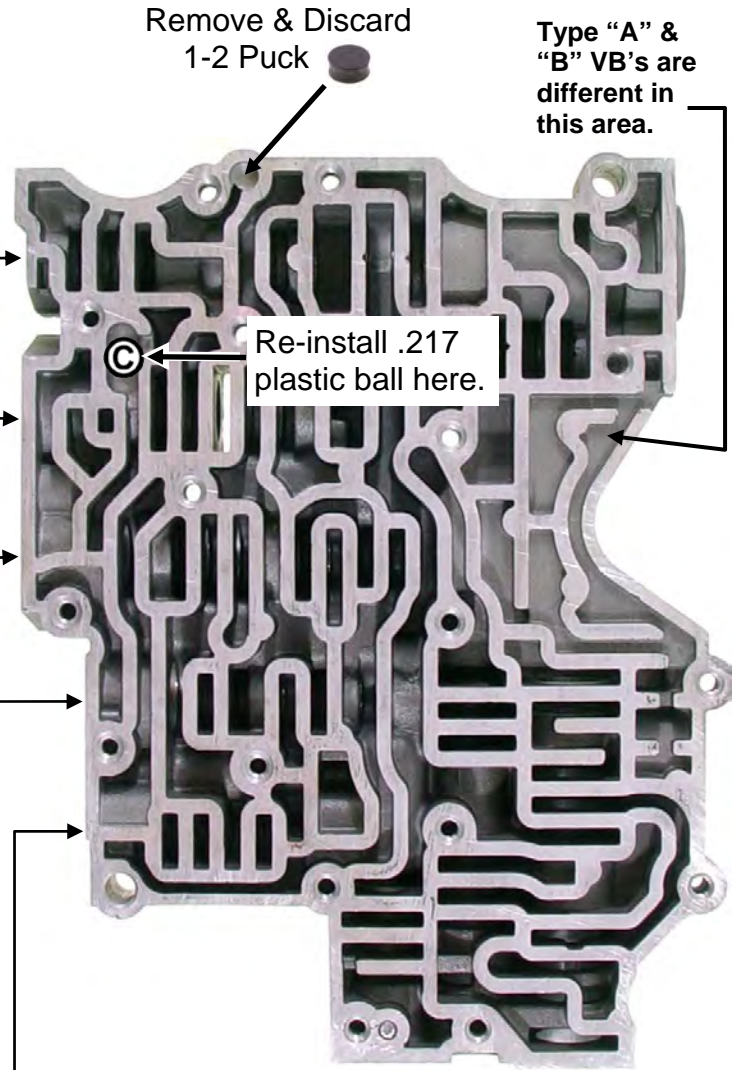


**5.** Install **Channel Plate** between cover plate and the valve body.

**4.** Remove and **save** original 2-3 spring. If **New Green Spring won't fit** or fits tight **inside** the end of your 2-3 shift valve, install **New Pink** spring instead.



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



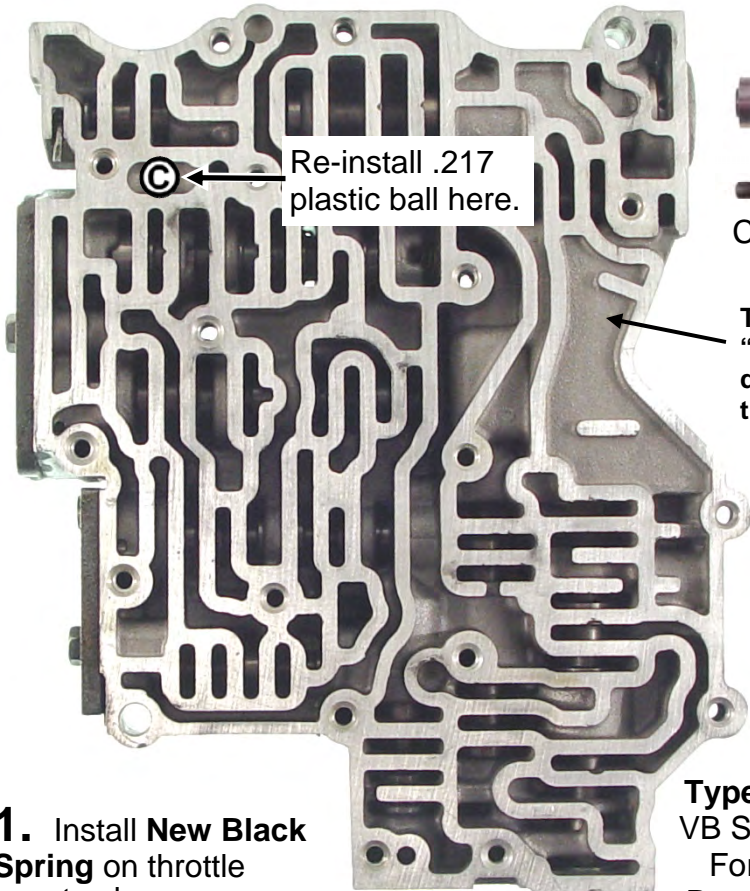
**Type "B" VB Shown** for ID Purposes. Type "A" VB Shown on next page. Always do pages 4 & 5 for **ALL** VB Types.

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

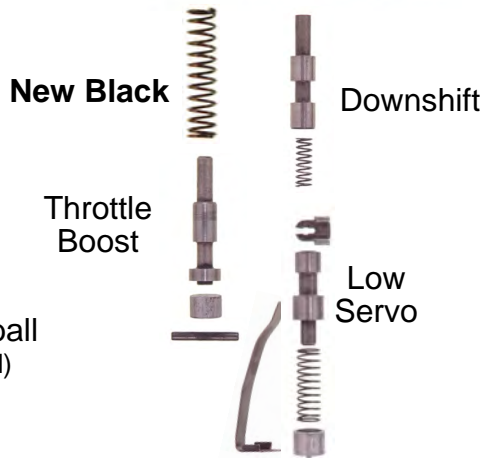
**Tip: Save unused kit springs in box with instructions for future use.**



Do pages 4 & 5 for ALL VB Types.

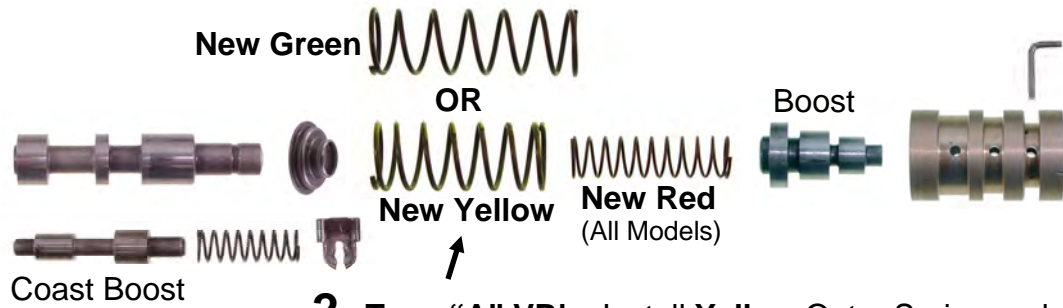


1. Install **New Black Spring** on throttle boost valve.



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

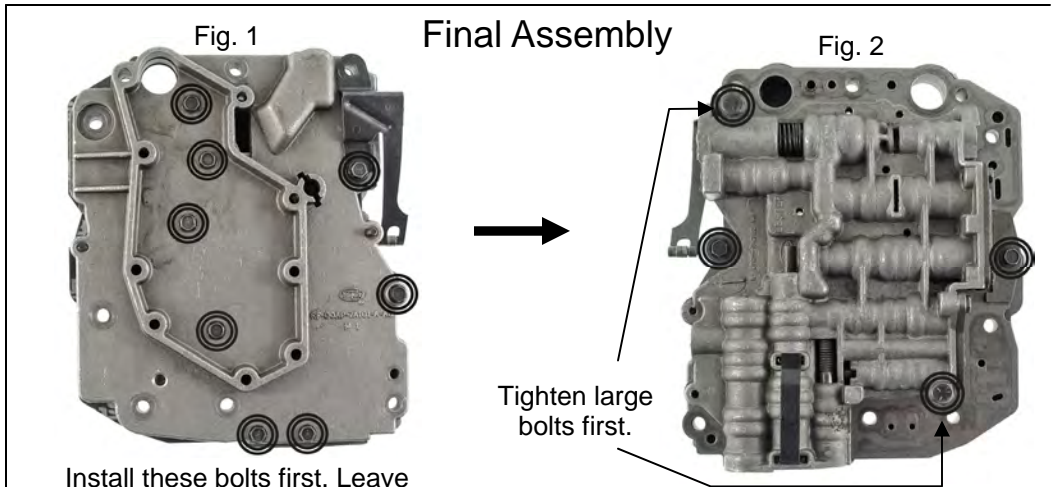
Type "A"  
VB Shown  
For ID  
Purposes



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

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.



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

Lay completed Channel onto Completed VB and Install 8 short 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) and 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.

Always connect manifold vacuum to the modulator. This prevents full time high line pressure that kills pump and rings. Even Low vacuum is better than none!

## Disconnect kickdown linkage for Manual Setup.

**Modulator Adjustment for Automatic use:** Adjustable modulators have a screw visible when you remove the vacuum hose. For earlier shifts turn screw counterclockwise 1 turn at a time. For later shifts turn clockwise 1 turn at a time. 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. Adjustment not required for full **manual** setup.

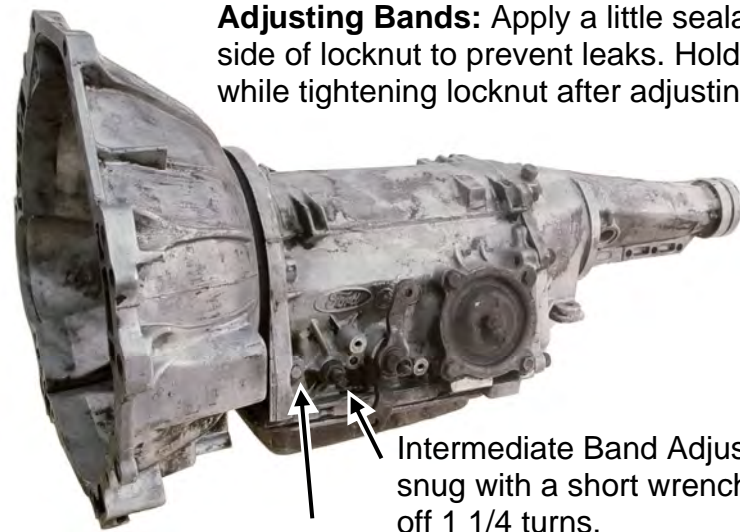
**Modulator Pin & Gasket:** You can also adjust shift timing (Automatic use) by using gasket shim on push-in modulators to make shifts earlier or by using one of the two modulator pins provided. Shorter pin or by adding gasket = earlier shifts, longer pin = later shifts. Don't use gasket on screw-in type modulators. For manual setup use gold pin. (Longer of 2 provided)

## If trans has a brief bind-up on 1-2 shift:

Back off the rear band adjustment one additional turn.

### To Convert Back To Automatic Shifts

- Remove Light Brown spring & 3/16" Ball from channel casting and replace "**Manual**" gasket with "**Automatic**" Gasket for your **type** VB, use channel casting page that match your VB.
- Remove Gold Splitter spring on 1-2 shift valve and install BLUE 1-2 inner spring furnished, see pg 4.
- Remove Pink or Green 2-3 shift spring and reinstall the original 2-3 shift valve spring, Remove Channel Plate, see pg 4.



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

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

Line Tap

Line Pressure Spec's

Drive - Idle 55-65 WOT 150-185

Reverse - Idle 60-110 WOT 240-270



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