

SK[®] 6 Truck[™]

Cars, Trucks, Gas & Diesels 67 & Up

Reduces/Corrects/Prevents:

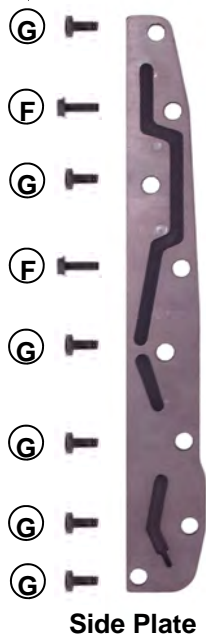
Soft Shifts, Early Shifts, Stacked Shifts,
Skips 2nd, No max 1-2, Bogs down on hill.

Higher speed manual low.

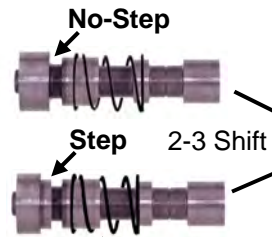


READ entire instructions before starting!
Leave ALL plate bolts loose until VB halves are tight!

See Bolt guide page 4



All Models: Install New TMV Spring.
Circle the spot that matches TMV valve size.
Gas: .300 & .318 use Brown .338 use Orange.
Diesel: .300 & .318 use Orange; .338 use Red.

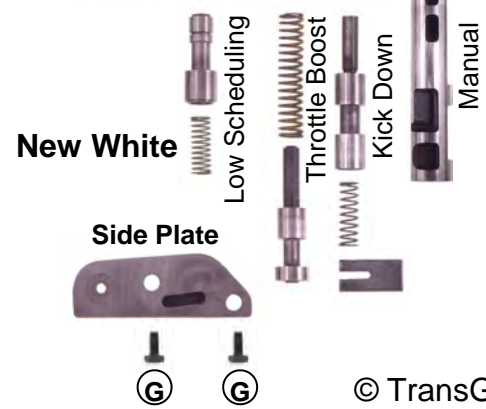
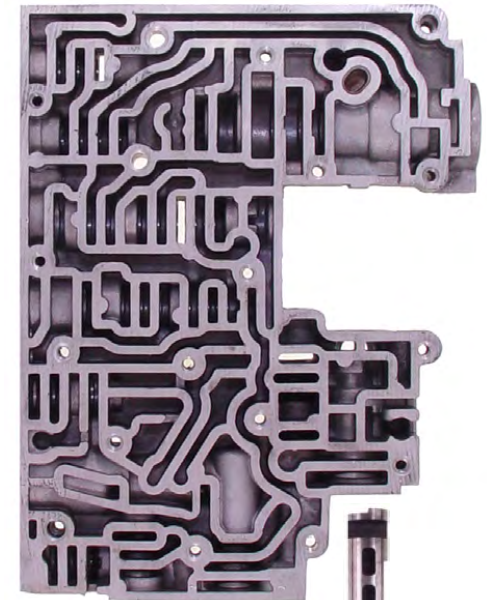
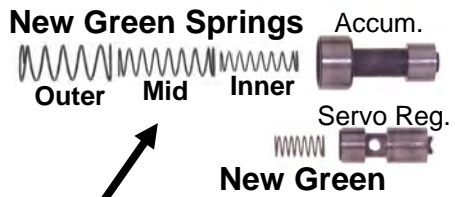


Diesel Only- 2-3 shift valve spring:
Step type valve use **Red**.
No-Step valve use **White**.
Gas vehicles- NO spring.

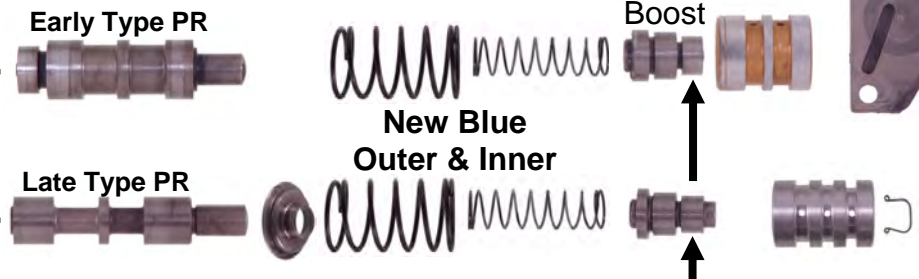
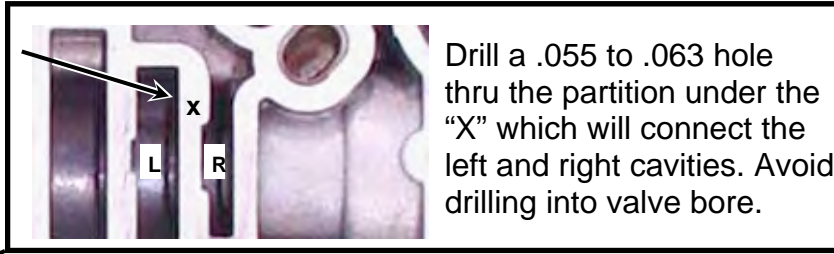
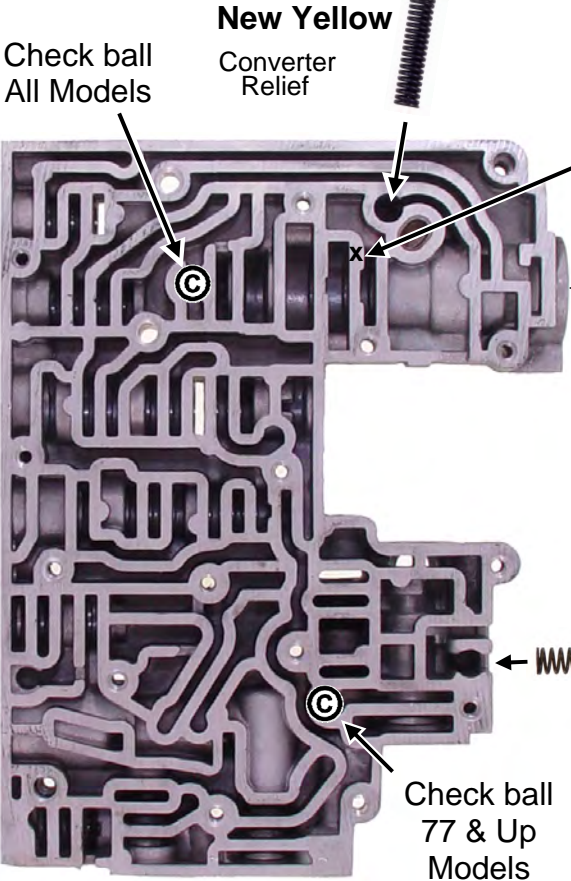


1-2 Shift Firmness Selection:
All 3 Springs = Short & Smooth
Outer & Mid = Shorter & Firmer
Outer Only = Firm
Not intended for Hot Rod Shifts!

Good News! : This kit will convert most 77up gas VB's to work OK on a diesel. A .410 or .437 boost valve **must** be used when converting a gas VB for diesel use. Many gas VB's have this size.

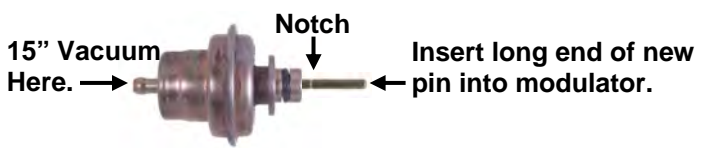
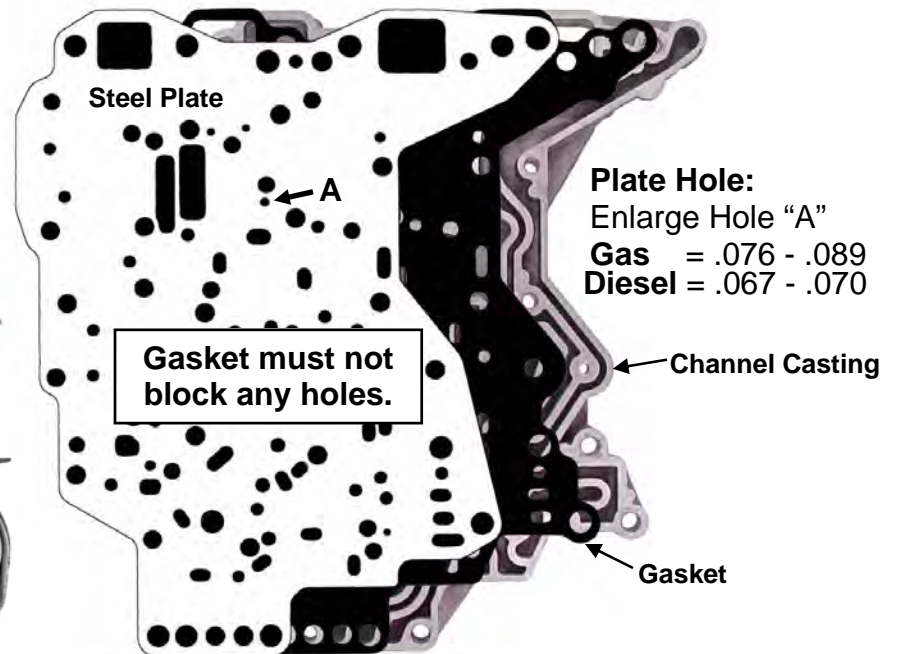


Pressure & Lube Upgrades



If Boost land is bigger than .410 on a Diesel application use **New Green** throttle relief spring. If land is .410 or smaller on Diesel use **New Pink** spring. **All Gas Models** use **New Pink** Spring.

.410
Measure Boost Land Size



Diesel Modulator Adjustment is fussy:
Diesels Use Green Stripe Adjustable Modulator Only!
Vacuum Pump Method: Pump 15" vacuum into modulator, adjust screw until notch on **NEW PIN** is flush with end of modulator.
Scale Method: Adjust until pin notch is flush with end of modulator when scale indicates 12 1/2 pounds.
Goal is to make pin stick out .675" at correct Modulator load.



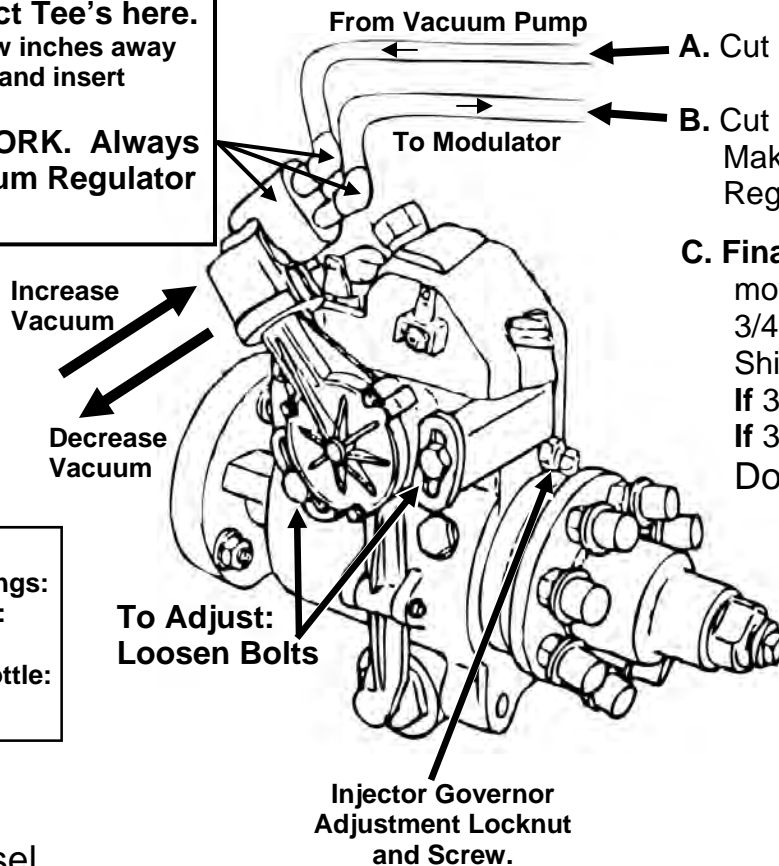
Diesel Information

Items not supplied but needed for testing:

Two 1/4" Barbed tee's, Two 1/4 Barbed couplings and a Vacuum gauge.

Function: Vacuum drops as throttle increases and only rises if throttle is lifted.

Don't connect Tee's here.
Cut hoses a few inches away from regulator and insert Tee's!
Avoid RE-WORK. Always Check Vacuum Regulator Assembly.

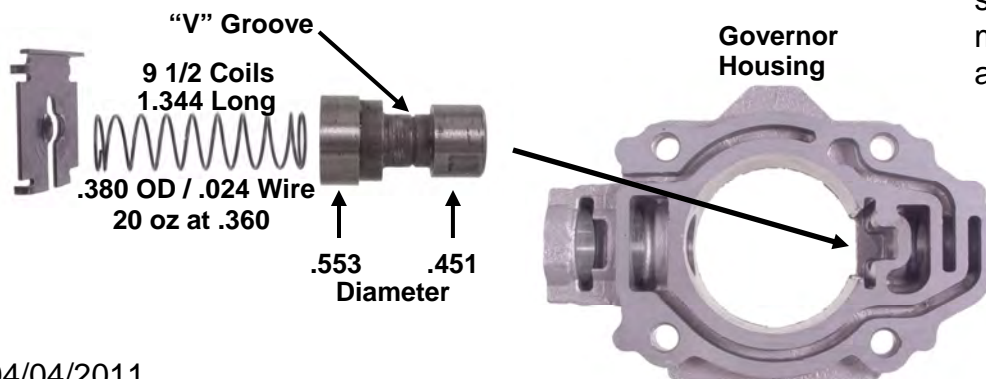


- A.** Cut hose and insert "T" here. Must have 20-25 in. of steady vacuum.
- B.** Cut hose and insert "T" here. Adjust until vacuum gauge reads 17 in. Make sure Truck is at operating temp before adjusting. Heat affects Regulator function. (May function ok cold but malfunction hot).
- C. Final adjustment during road test:** If adjustment is needed, don't move regulator more than the width of a pencil line at a time. 3/8 to 3/4 throttle shifts should occur **before** engine runs out of power. Shifts should not be hangy.
If 3/8 to 3/4 throttle shifts are hangy: Increase Vacuum.
If 3/8 to 3/4 throttle shifts are too soon: Decrease Vacuum.
Don't make shifts late! Better to be a little early than late!

Normal Diesel Vacuum Readings:
Closed throttle: 14-17 in.
Wide open throttle: Less than 5 in.

Complaint: Diesel - No wide open throttle 1-2 up shift.
Causes: Modulator or line pressure too high, improper injection pump governor adjustment or wrong (Gas) governor installed in transmission.
How to check it: Max throttle in "D" at 28 mph must not make line pressure over 138 psi. If pressure is over 138 psi, install a washer under the modulator and check it again. If pressure is 128 to 137 and there is still no max 1-2, the engine is under revving (injector governor) or the wrong transmission governor has been installed.
Adjusting Injector Pump Governor: Loosen lock nut. Turn screw "IN" 1/2 turn at a time until max rpm is 3400. If there is no max 1-2 by 3400, the trans may have a gas governor instead of a diesel. **See below for Diesel governor ID.**

Diesel Governor ID



Your care and attention to the Vacuum System on Diesels will quickly pay off in reduced re-work and complaints. You have the information to make it work RIGHT! Go for it!
 Thanks for listening!

Kick down Adjustment:

- A. Adjust linkage or cable until there is no (3-1 KD at 30 mph for Gas) or for (Diesel no 3-2 KD at 20 mph). It may be necessary to bend the rod shorter on some models.
- B. Then adjust until you are just able to get a (3-1 KD at 30 for Gas) or (3-2 KD at 20 for Diesel).

Band Adjustment

Snug adjustment screw with a short wrench. Notice that the output shaft or driveshaft will not turn backwards by hand with the screw tightened. (Wheels off the ground, trans in neutral and engine off). Loosen screw slowly until you can just turn the output shaft or driveshaft backwards by hand. Then loosen 1/4 turn more and tighten locknut.

Shorter 2-3 Shift

Install smooth Direct clutches made for E4OD Transmission.

Vacuum Check - Gas Models

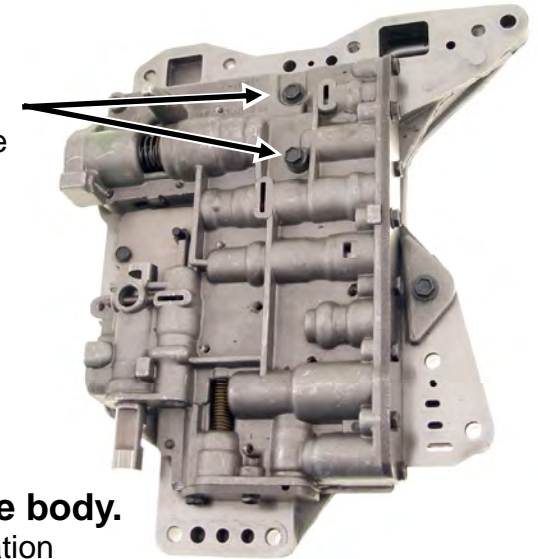
- A. With engine idling, pull hose off at the modulator. The engine must speed up or idle rough. If the engine does not speed up or idle rough, hose is connected to the wrong outlet or a fitting or hose/line is plugged/pinched with debris or carbon.
- B. Lift the vehicle so you can easily reach both the ignition key and the modulator. Start the engine in Park and turn the ignition key off. When the engine is completely stopped and the room is quiet, count to five and then pull the vacuum hose off the modulator to listen for the sound of trapped vacuum escaping. If there was trapped vacuum:
 1. Main vacuum hose is sucked shut or carboned.
 2. Brake reservoir check valve is no good.
 3. Vacuum reserve canister connected to same fire-wall tree.

FIX: Connect line directly to manifold. Drill/clean carbon out of hoses and fittings.

Additional Information

Disassembly Tip:

Remove these 2 bolts first. Then flip VB over and remove the rest.



Bolt ID:

Avoid possible damage to valve body.

Match bolt length to letter code for location and usage on following pages.

Qty Code

1 A



1 B



9 C



8 D



1 E



2 F



11 G



40-50 Inch lbs.

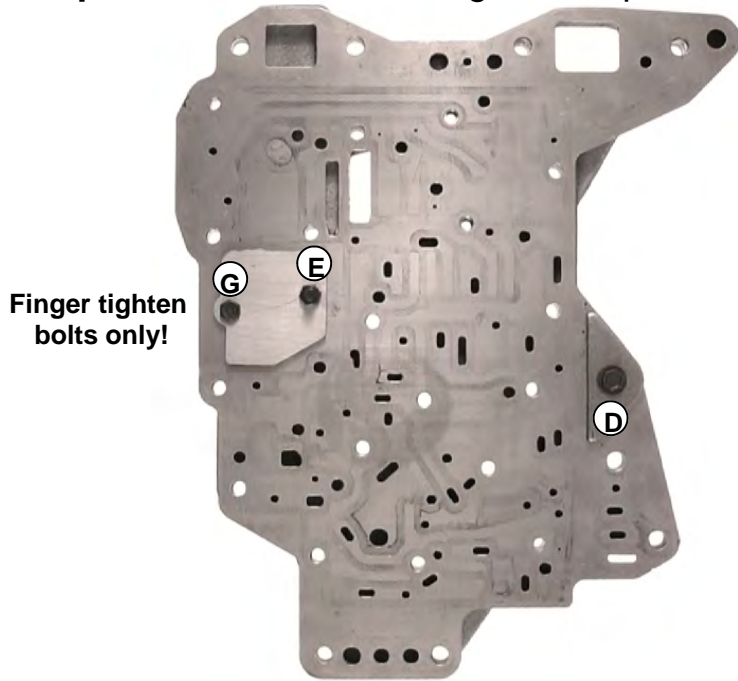
Notes:

"G" bolt OK in "F" location but "F" bolt NG in "G" location. Some VB's don't use "F" bolts. 71up use 9 "G" Bolts due to Press Reg. has no end plate.

25-35 Inch lbs.

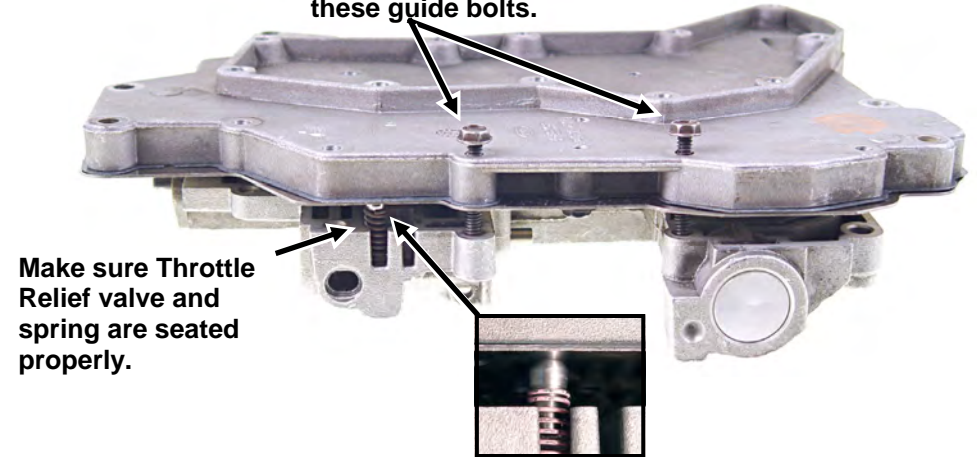
Bolt location and assembly procedure.

Step 1 Assemble channel, gasket & plates.



Step 2 Assemble channel to valve body.

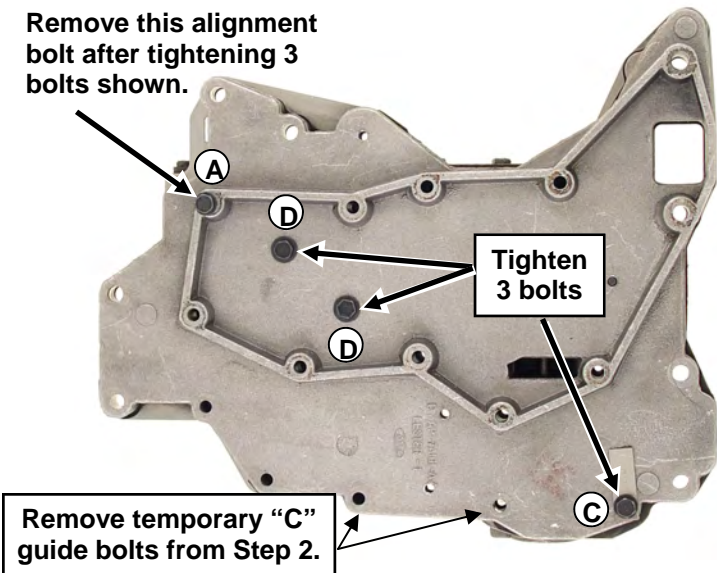
Temporarily use 2 "C" bolts to guide VB halves together. After Step 3 remove these guide bolts.



Step 4 Flip VB over. Install and tighten 2 bolts with driver.

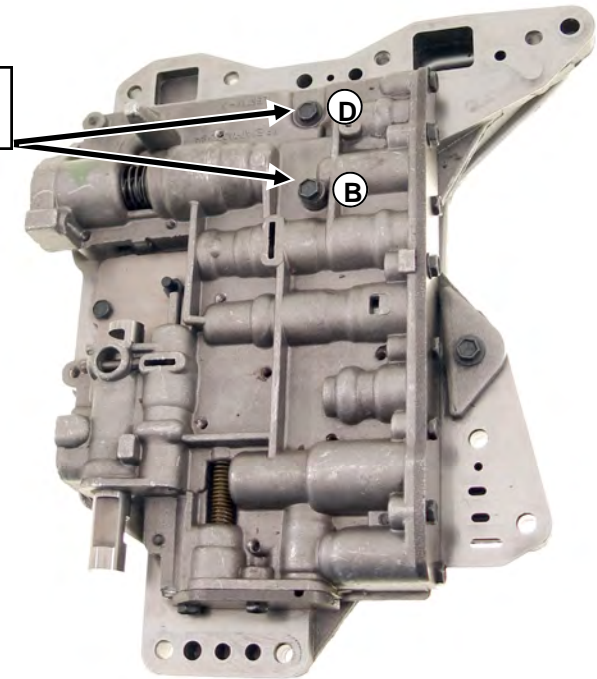
Step 3 Install 4 bolts shown and tighten 3 with driver.

Remove this alignment bolt after tightening 3 bolts shown.

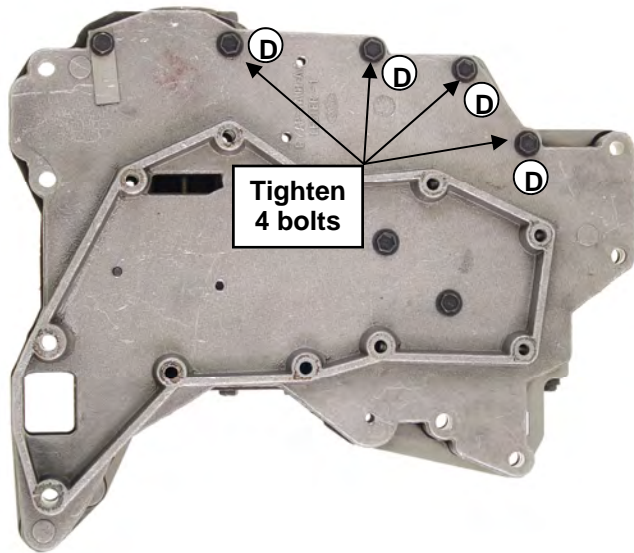


Tighten 2 bolts

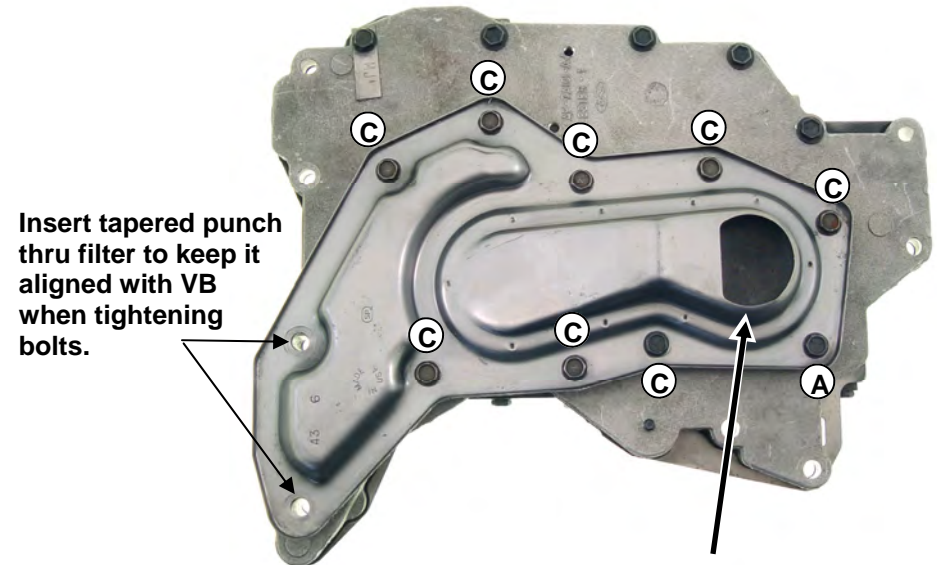
Preferred Tool
5/16" nut driver.
or
Grab an inch lbs.
torque wrench and
use torque specs
on previous page if
you're a big gorilla.



Step 5 Flip VB over and install & tighten 4 bolts with nut driver.

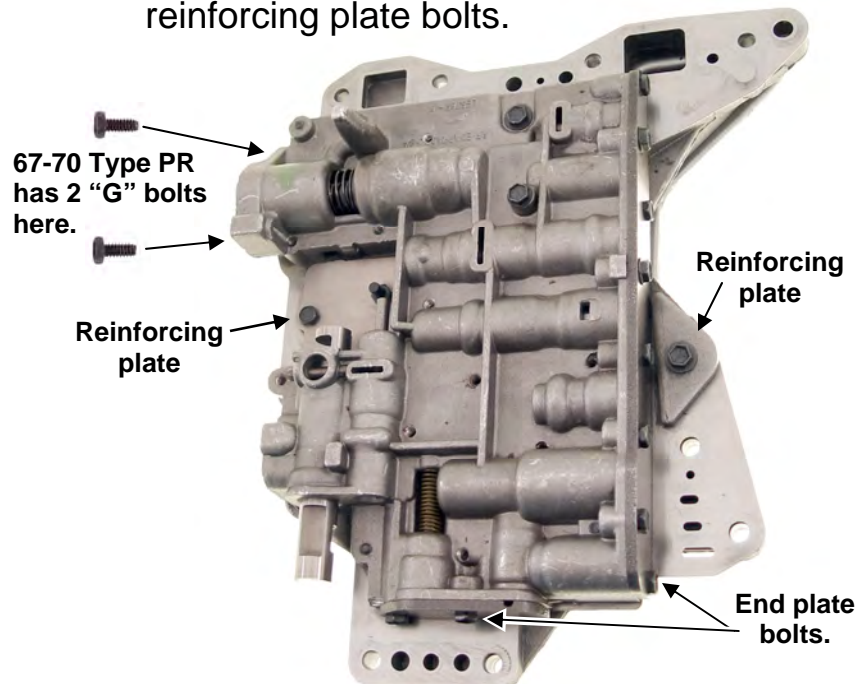


Step 6 Place filter on VB, install and tighten filter bolts with nut driver.



Watch out for this: Make sure pan does not press against filter opening. A pan bottom bent upward can restrict fluid flow thru filter and damage transmission. Use a mallet to flatten pan bottom.

Step 7 Tighten all end plate bolts and reinforcing plate bolts.



Mr. Shift

Thanks for listening!