

GF4A-EL Shift Kit®

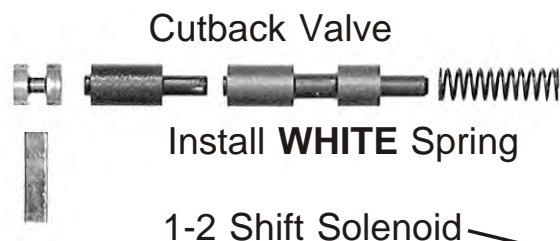
IDENTIFICATION: Trans has two pans and Valve body has seven solenoids.

Probe: All 1993. 1994-97 with 2.5L [Ford designation: 4EAT-GF]
Mazda: 1994-97 MX-6/626 with 2.5L—1995-97 Millenia with 2.5L

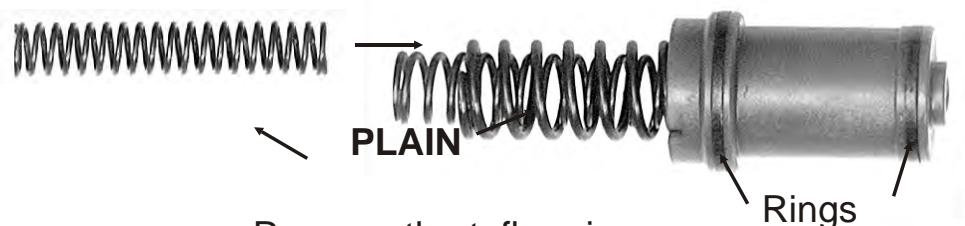
Corrects/Reduces/Prevents

Bang 1-2 shift—Rough 2-3 shift.
2-3 cutloose and burned plates.
Won't move forward or reverse.
Low line pressure—Total Burnup.
Pump Wear & Low or no cooler flow.

This kit will correct rough 1-2 shift complaint without removing trans.



2nd Accum must have 3 springs.
Install 1 or 2 spring(s) as needed.



Remove the teflon rings.
Clean the sides of the rings and the groove. Then open rings up slightly and re-use. Do NOT change the rings.

PWM Solenoid—TCC Control
FU9A-21-1G1C

Temp sensor
F62Z-7H141-AA

EPC Line Solenoid
FU9A-21-1G1C

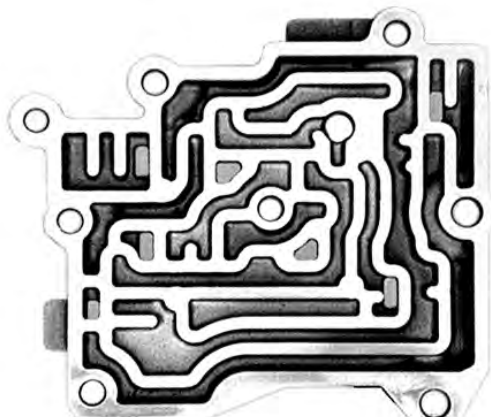
Downshift Solenoid

TCC On/off



Listen up: HOT rough 1-2 shift complaint, at 3/8 to 5/8 throttle. Feels like an electrical problem but it's not. Check it like this.

COLD: If line pressure during 3/8 throttle 1-2 shift is 80 to 120 cold; but is 140 to 180 when HOT, and the trans still has lockup, the problem is not electrical and this kit will fix it. A new \$650 VB will also fix the rough shifts, for a little while.

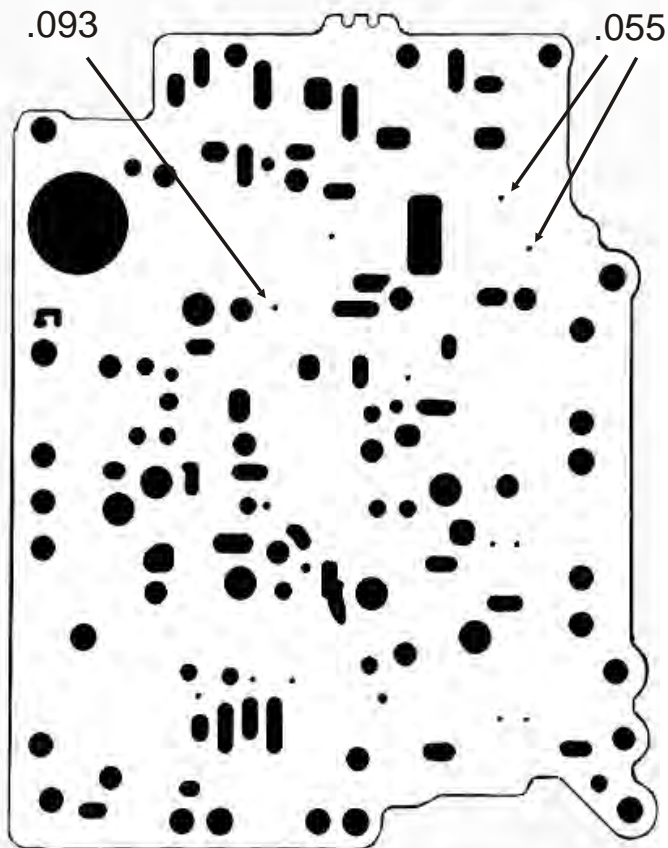


Flat sand this cover

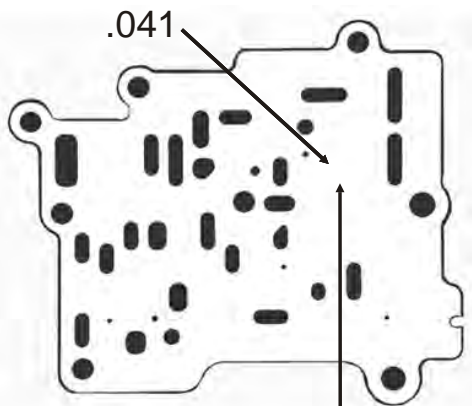
Do not flat sand the valve bodies.

While the trans is apart read pages 4 to 6. It'll help you build a winner.

The PWM and EPC solenoids are the same. Available from Ford. F32Z-7G136AA \$47. If 3/4 clutch was burned out replace the EPC Solenoid.

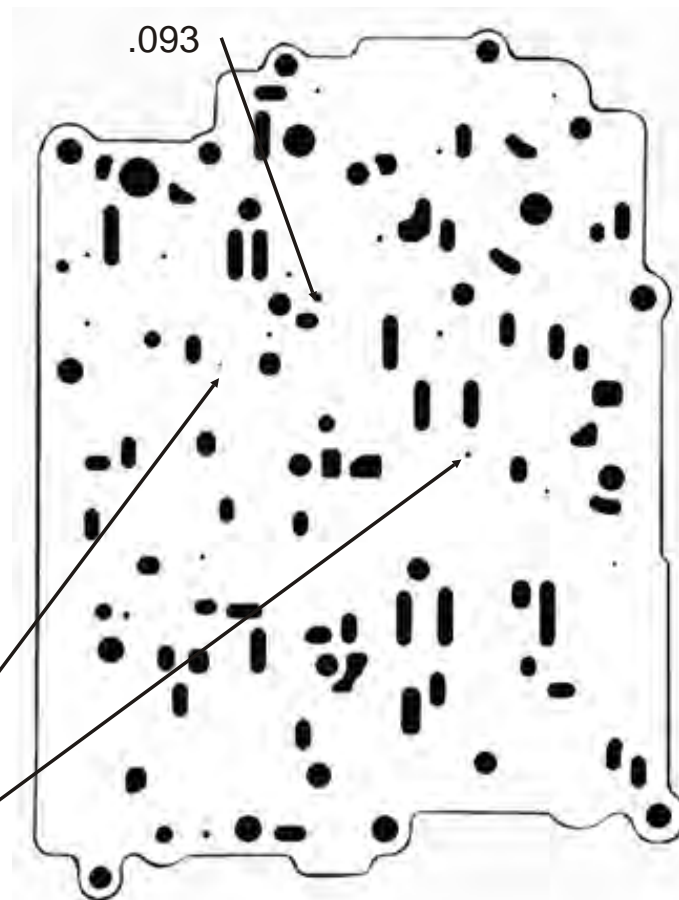


Make plate holes exact size shown.

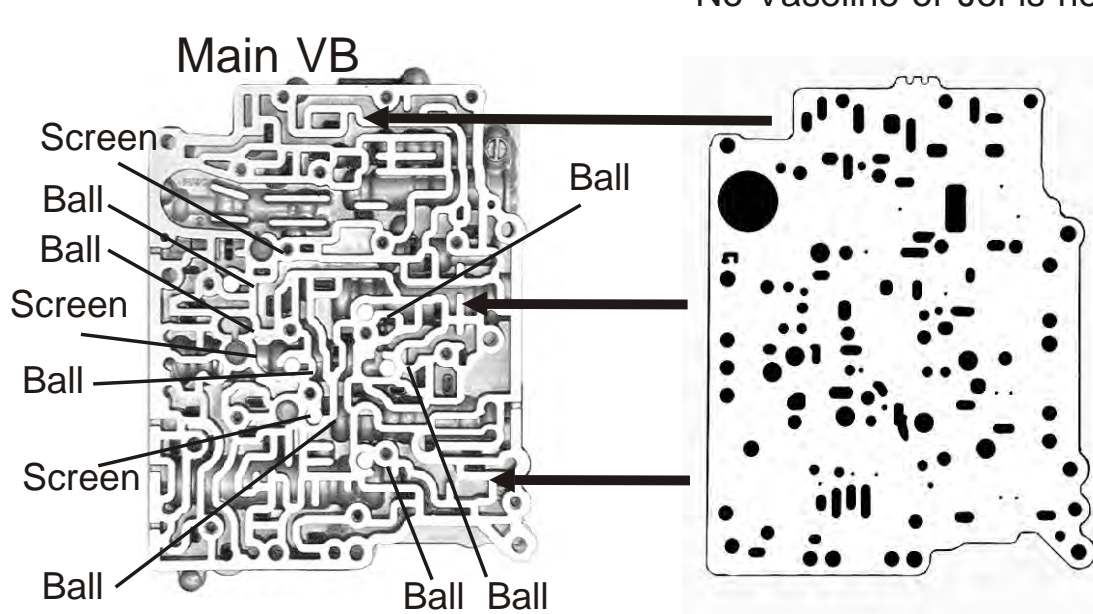


If no hole here, gas-ket must have slot.

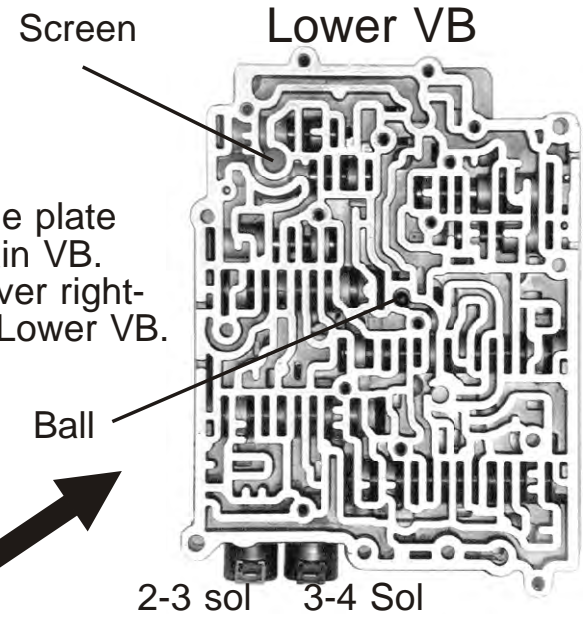
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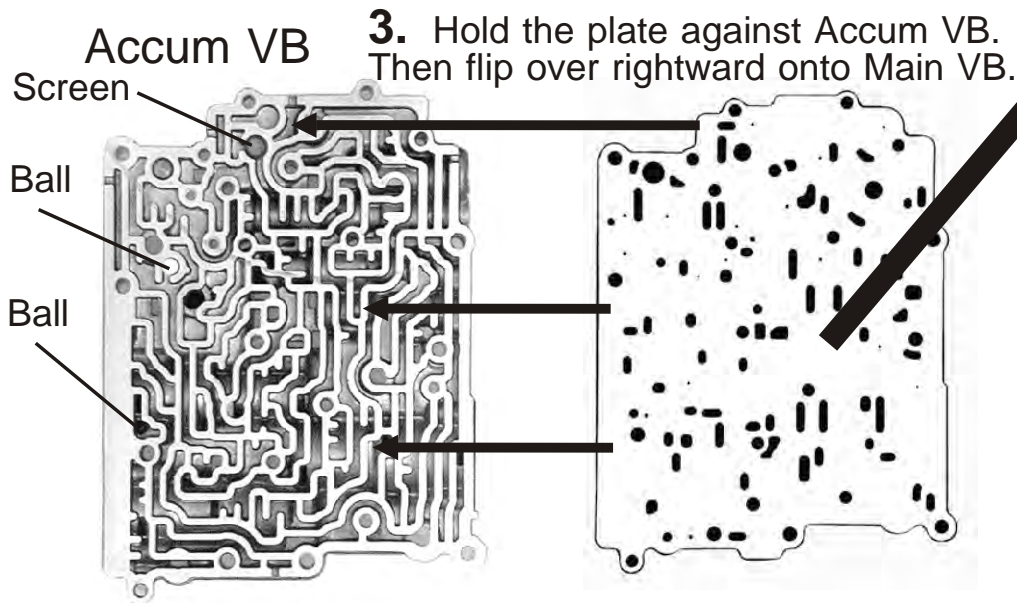
VB Assembly 1. Install the balls and screens as shown.
No Vaseline or Jel is needed.



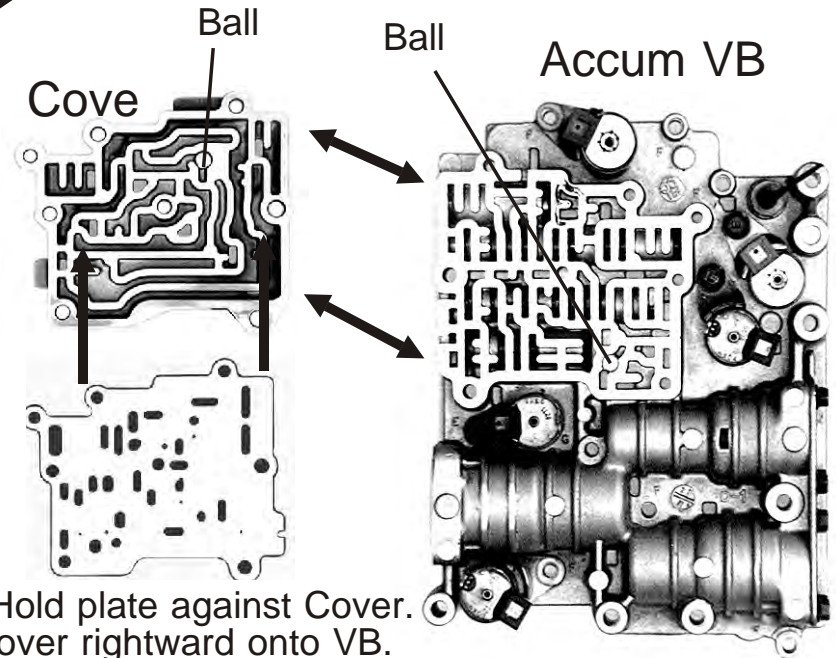
2. Hold the plate against Main VB. Then flip over rightward onto Lower VB.



Start all bolts before tightening any.



3. Hold the plate against Accum VB. Then flip over rightward onto Main VB.



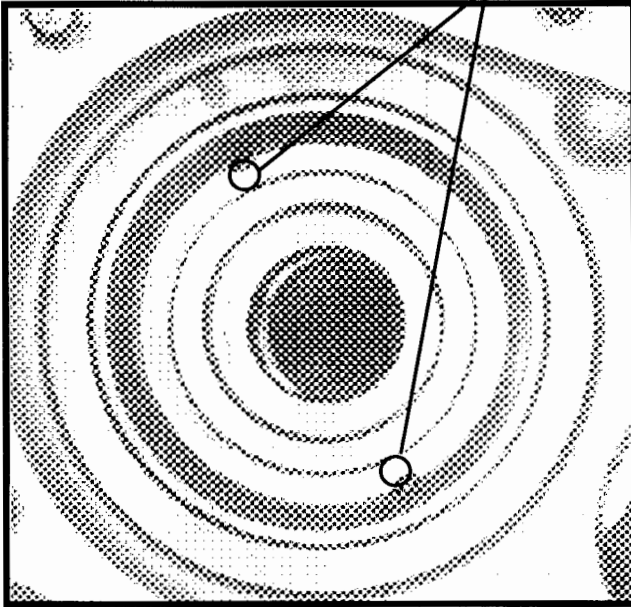
4. Hold plate against Cover. Flip over rightward onto VB.

READ FIRST: GF4A-EL Success Information

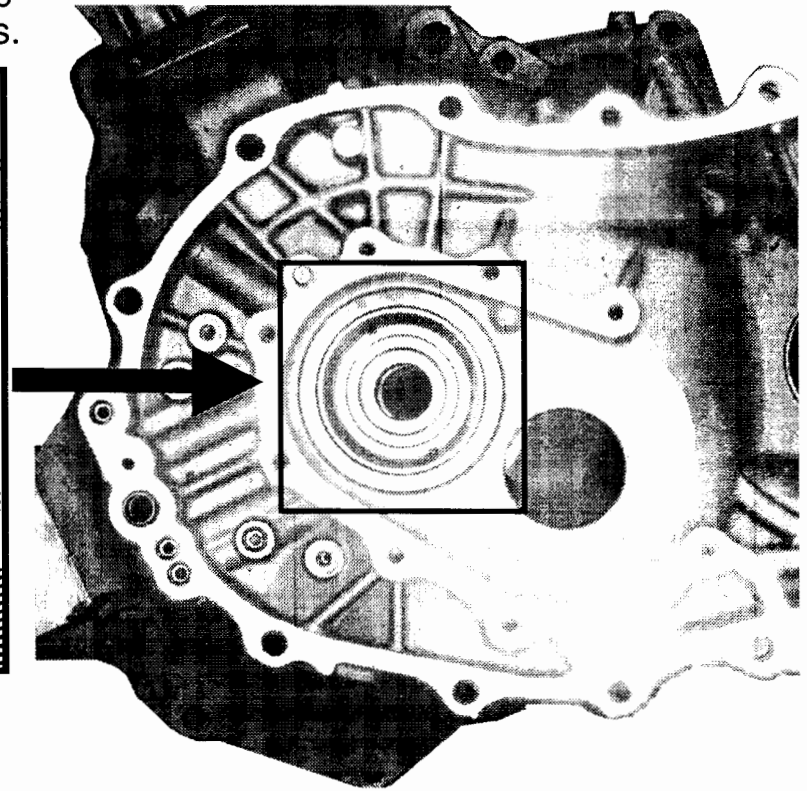
Prevent front seal blowout.

The bearing race covers 2/3 of the front seal drainback holes.

1. Use 1/4" drill. Drill about 1/4" deep just inboard of the moon shaped holes.



Bell housing



2. Then re-aim drill outboard and drill into the drainback holes.

3. Do not use goop on front seal. Install front seal clean and dry.

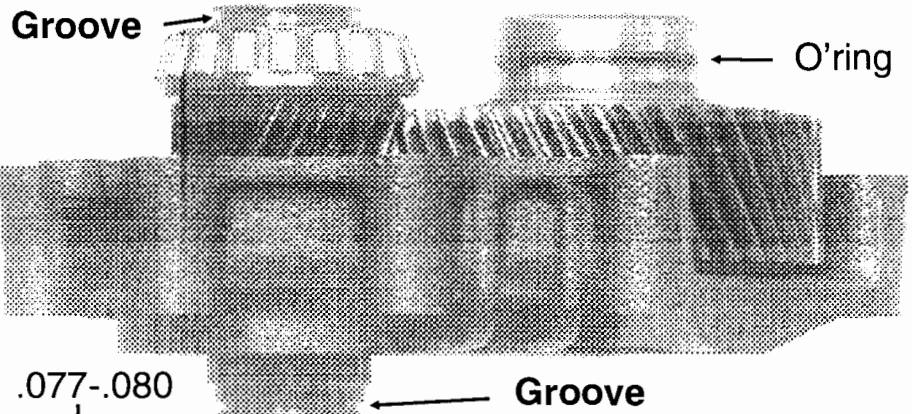
Transfer Gear Rings

Complaints: 3-4 clutch burn-up; Runaway instead of 2-3 shift; Long and soft 2-3 upshift.

Two things effect these rings.

Fix the rings: Grind a 45° chamfer about 1/3 of the way across the OD. Skip the portion close to the scarf cut. Run your finger nail around the edges to scrape off any fringe or grinding burrs. Then pull the ring out flat once to open it up. Install it in groove with Vaseline. *Some replacement rings are too narrow or wide. All Teflon rings in this trans should be .077 to .080 wide.*

Chamfered ring: Install chamfer toward gears



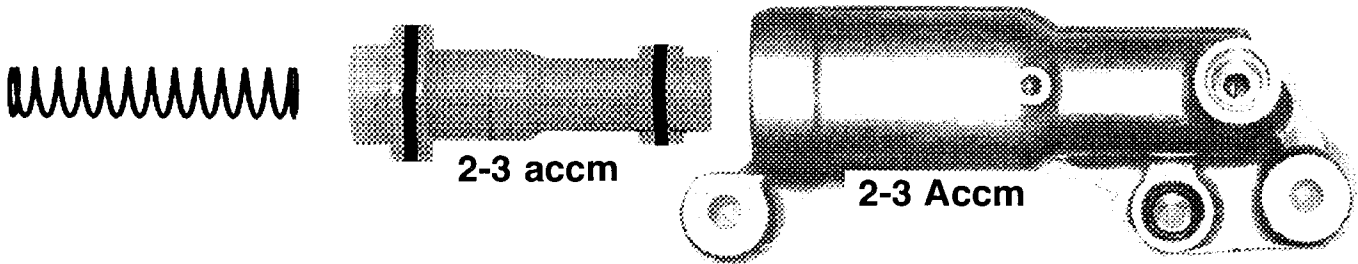
.077-.080

Groove



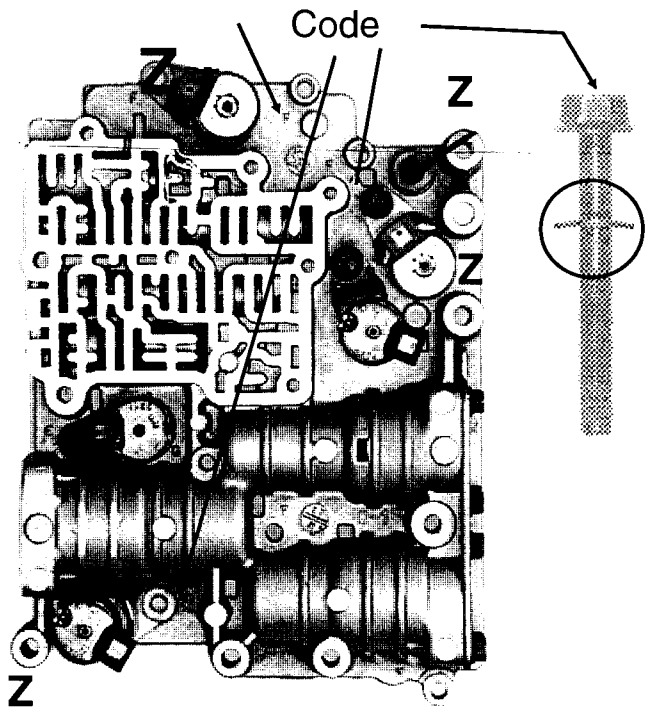
Chamfered ring: Install chamfer toward gears

2-3 accumulator: Is not a common cause of leak. It's deep in trans next to transfer gears. Air check it from the case [hole shown below]. If its tight, you can skip working on it. If it seems to leak a lot clean the side of the rings, open them up slightly and **re-use** them. **Don't change the rings.**



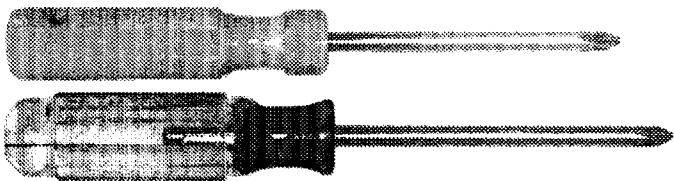
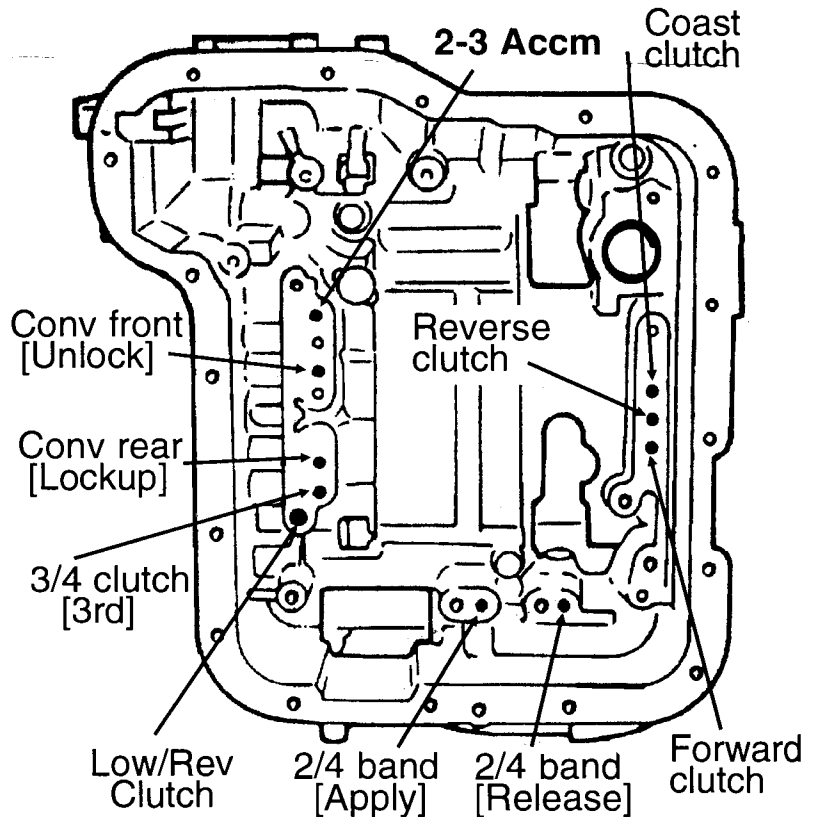
Valve Body

Bolts have special angled washers. The high side goes towards bolt head. Bolts have an alphabet **code** on head and matching **code** next to each hole in the VB. That's where they install.



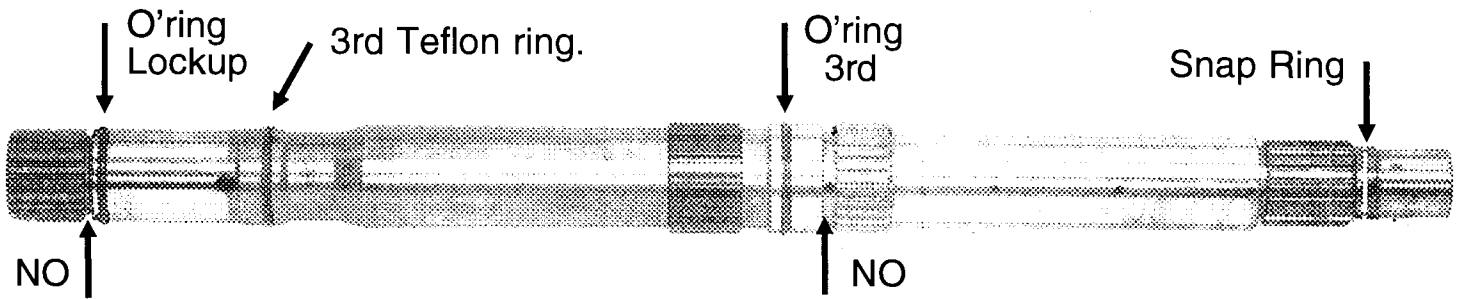
Air checking

With pump oil can, pump 20 squirts into circuit. Apply with air. The 3/4 clutch may take 40 squirts to apply. Don't expect it to be air tight, but 30 lbs of air should apply the clutch.



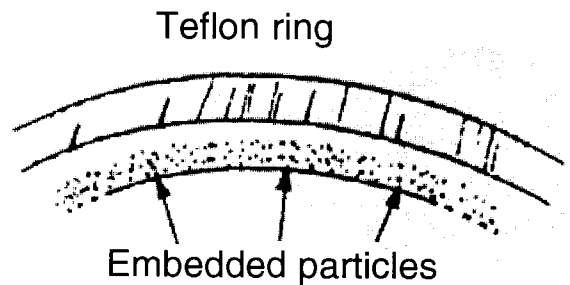
VB assembly: Use two or more #2 phillips to line up holes "Z".

Input Shaft: Care here will reduce lockup and 2-3 shift complaints. Look carefully to install the o'rings in the right grooves. Carefully remove the 3rd teflon ring. Clean it and open it up very slightly and **RE-USE** it.



Teflon rings on pump tower & shaft

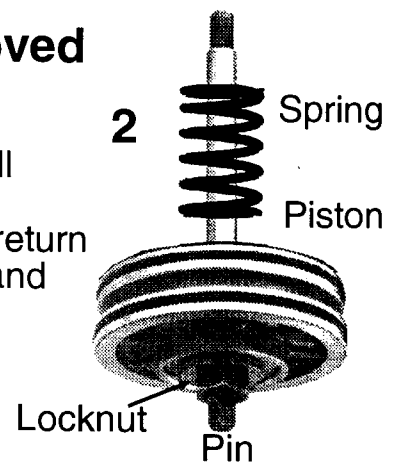
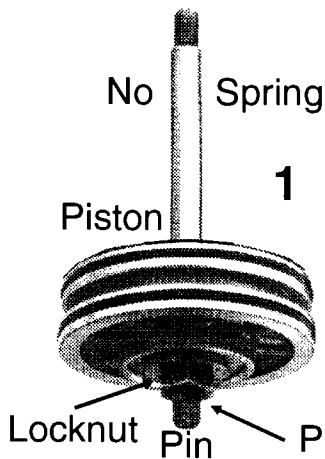
If you are in the trans for any reason or if you are reusing the old rings check the sides of the rings for particles. 1. Flat sand the side of ring or scrap it with razor blade to clean off particles. 2. Open the ring up 1/2" or more. 3. Vaseline or Jel it into the groove.



Do this trans a big favor: Crosshatch sand the drum where the 2-4 band rides with 80 to 180 grit emery.

Band Adjust: Valve body removed

- A. Remove return spring and seals.
- B. Install piston, pin, cover, and snap ring.
- C. Adjust pin until it will no longer push/pull wigggle in and out. Finger-tighten locknut.
- D. Remove entire assm, install seals and return spring. Reinstall into case while holding band up to engage the pin.
- E. Adjust pin 1 turn counter-clockwise and tighten the locknut.



Band adjust: With VB installed

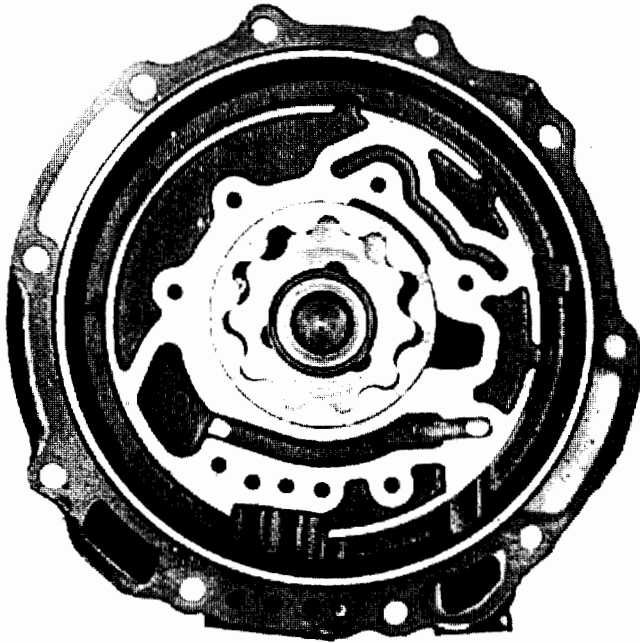
- A. Loosen locknut. B. Turn pin clockwise until snug with short wrench.
- C. Turn counter-clockwise 1-1/2 turns and tighten locknut.

Fluid level: After hot road test. Check in park at 2000 to 3000 RPM. Fluid level should be @ 5/8" ABOVE full mark--About even with start of twist.



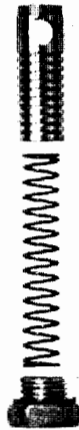
F4A-Valve Kit 3100

Ford: F4EAT and 4EAT-GF
Mazda F4A-EL and GF4A-EL



Complaints
Original valve **sticks** causing very *low* line **pressures**:
Slips, burns clutches, won't drive forward or backwards.
Self cleaning valve and high rate spring **reduces sticking**.

New Valve:
Self cleaning.



GREEN

"Thanks for listening"
Gil younger



SAVE MONEY: More fix for your \$.
This self cleaning Valve Kit is included in F4A & GF4A Shift Kits®.

FF4A\Pump

OVER

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