

SK[®] AX4N Shift Kit[®]

Fits 1995 to 2005 AX4N & 4F50N

2004-2005 Units: Skip pages 5-6 See extra page.

Here's the complaints you can expect to fix

Goes to neutral at stop---No Forward---Planet burnup

No 4th---2nd clutch failure---Long Slide 1-2 shift

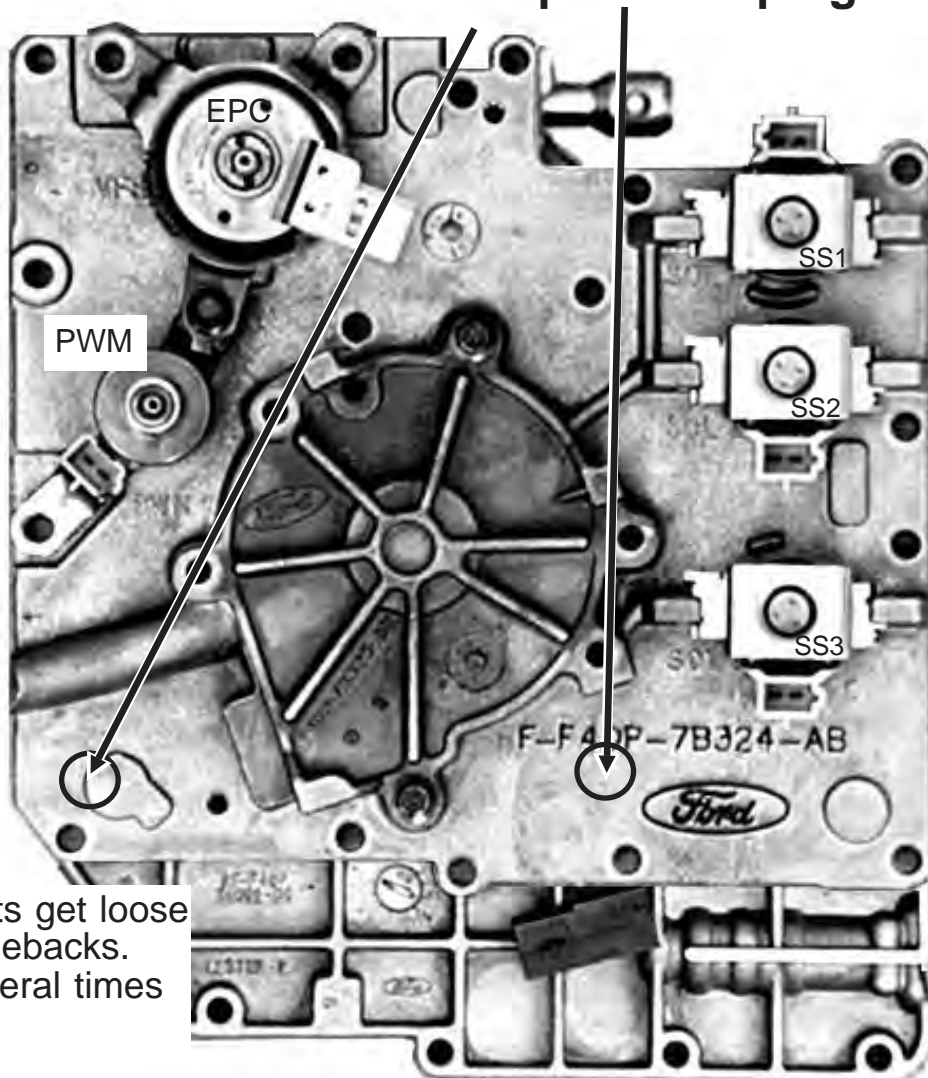
Rough shifts and piston seal blow off due to runAway pressure.



Identification:

AX4N & 4F50N has coast band servo in bottom pan.

AX4N & 4F50N no pressure plugs here.



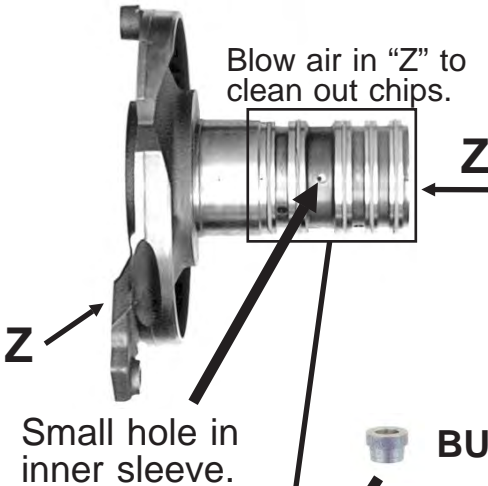
Valve body bolts get loose and cause comebacks.

Re-tighten several times to 110 inch lbs.

More POSITIVE lube to front planet gears.

Page 2 and 3 is the lube section.

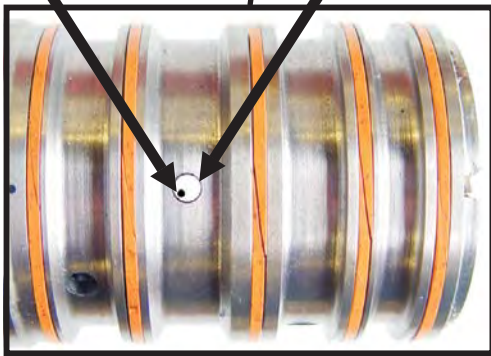
On a hard pull these upgrades furnish ten times more lube to front planet.



Sprocket Support

A Re-drill the small hole in the *inner sleeve*, use .187 to .196 drill. De-burr hole inside the support with a file.

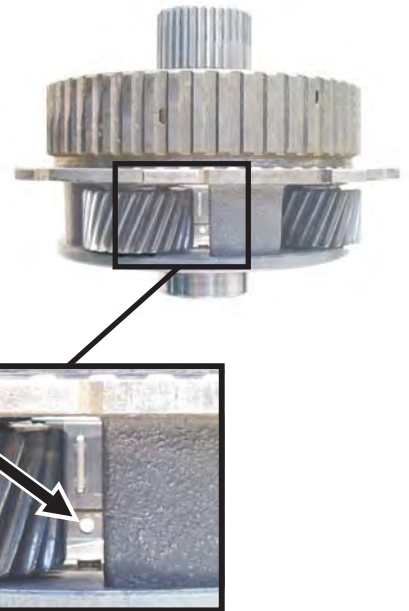
B With a punch install bushing furnished into lube hole and *re-drill* hole in **BUSHING** .073 to .086.



Front Planetary

C Enlarge the two holes just below the needle bearing with the .110 drill furnished. Insert drill from the side between the pinion gear and housing.

If you can't line up with the holes to drill them, it's **OK** to drill two new .110 holes.

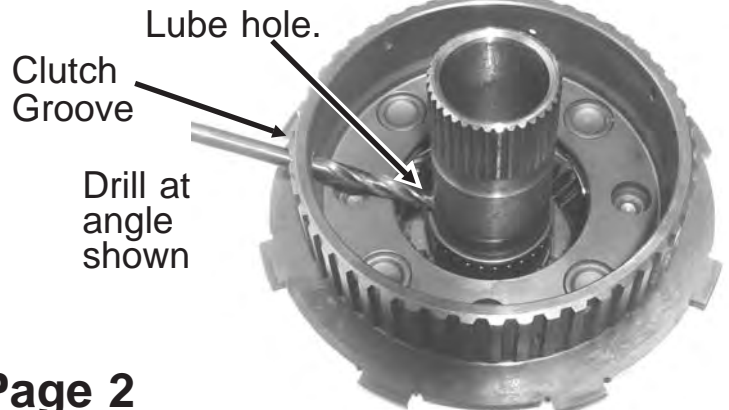


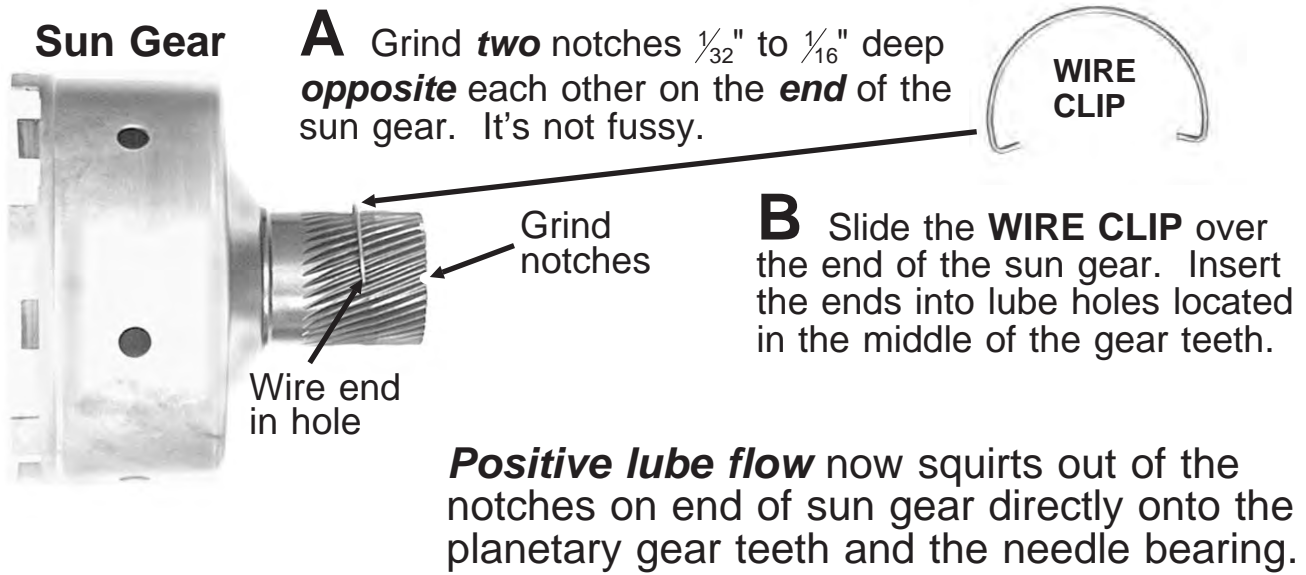
D Find the lube hole. Drill a 1/4" hole through a clutch groove in line with the lube hole. Then enlarge the lube hole to 1/4".

Sprocket Shaft



E Drill *both* sides 1/4" to 3/8". Deburr inside with file.





You can be assured: TransGo RESEARCH has done many hard months [even years of testing] for the planet gear failure in this trans.

Here's what is found:

1. This trans will burnup planets because of low water level, or because the radiator and factory air cooler is not working as good as new. With the radiator half full the engine doesn't seem to mind and the planet gears burnup. **Always check the radiator coolant level.**
2. When everything is brand new the original cooling is barely adequate. When everything is not brand new this trans is going to get very hot, in hot weather, especially on a long slight grade in 4th.
3. This trans LOVES an add-on 14,000 to 18,000 GVW cooler in addition to the radiator. An add-on cooler is 5 times cheaper and faster than a new radiator [and cleaning it won't fix the radiator] and 20 times less than another o'haul and planetary gears.

LISTEN: Add-on cooler **must have** low temp or viscosity **bypass.**

4. More Durability: Use Mercon V synthetic blend ATF.

5. FLUID LEVEL: Fill 5/8" above full mark when HOT.

REMEMBER: Check the radiator for low coolant level.

6. Call your customer and let him choose between a new radiator and a nice big add-on cooler.

We wish you a happy and long lasting repair.

Thanks for listening,

TransGo Tech Team

Accumulator Springs and Pistons

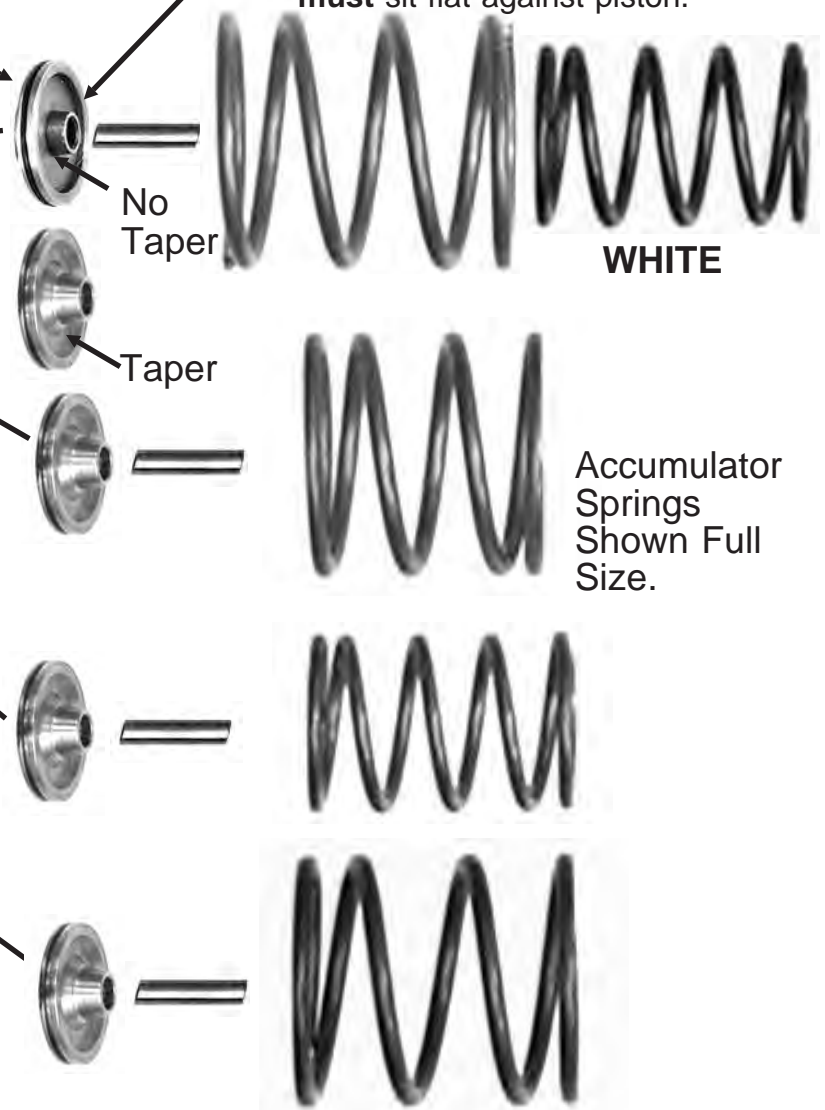
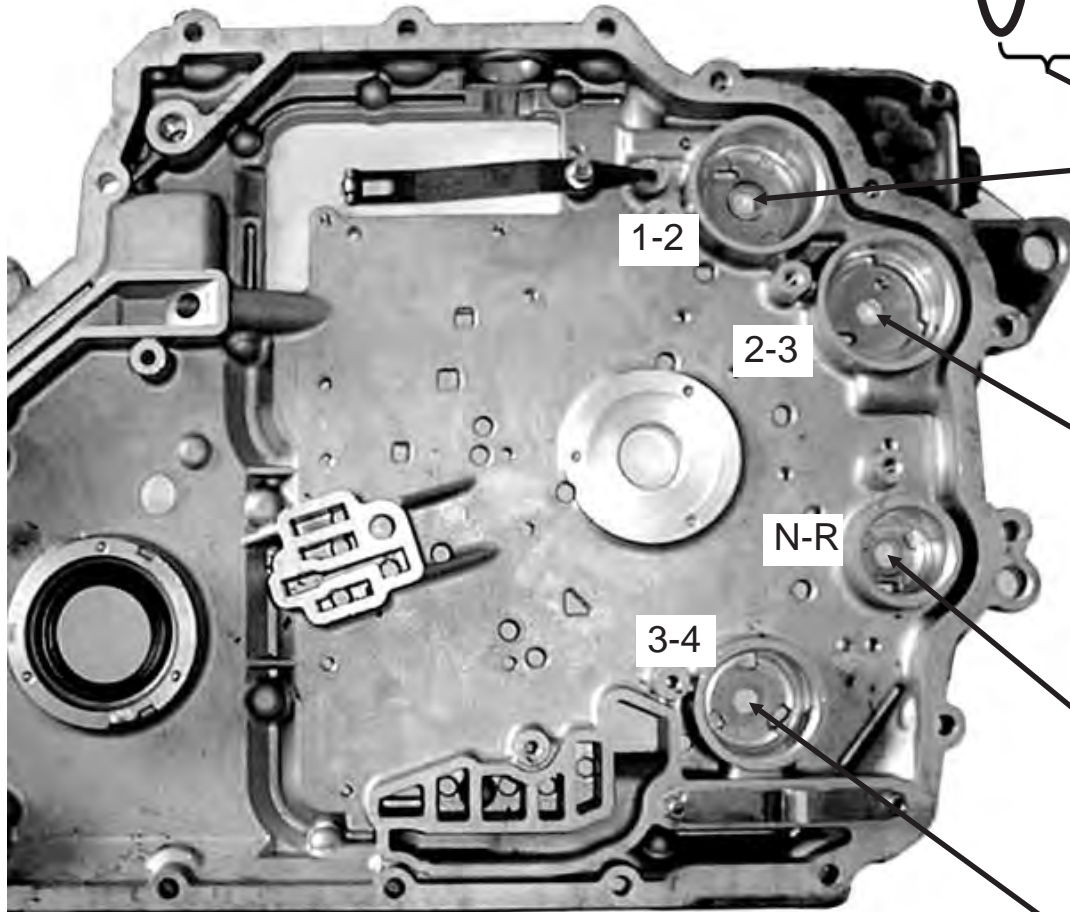
1-2 Accum: SHO Type
Reuse original springs and piston with bumper spring.



Important: Install wire and long life seal on 1-2 piston. If other seals are not hard and still snug, re-use them.

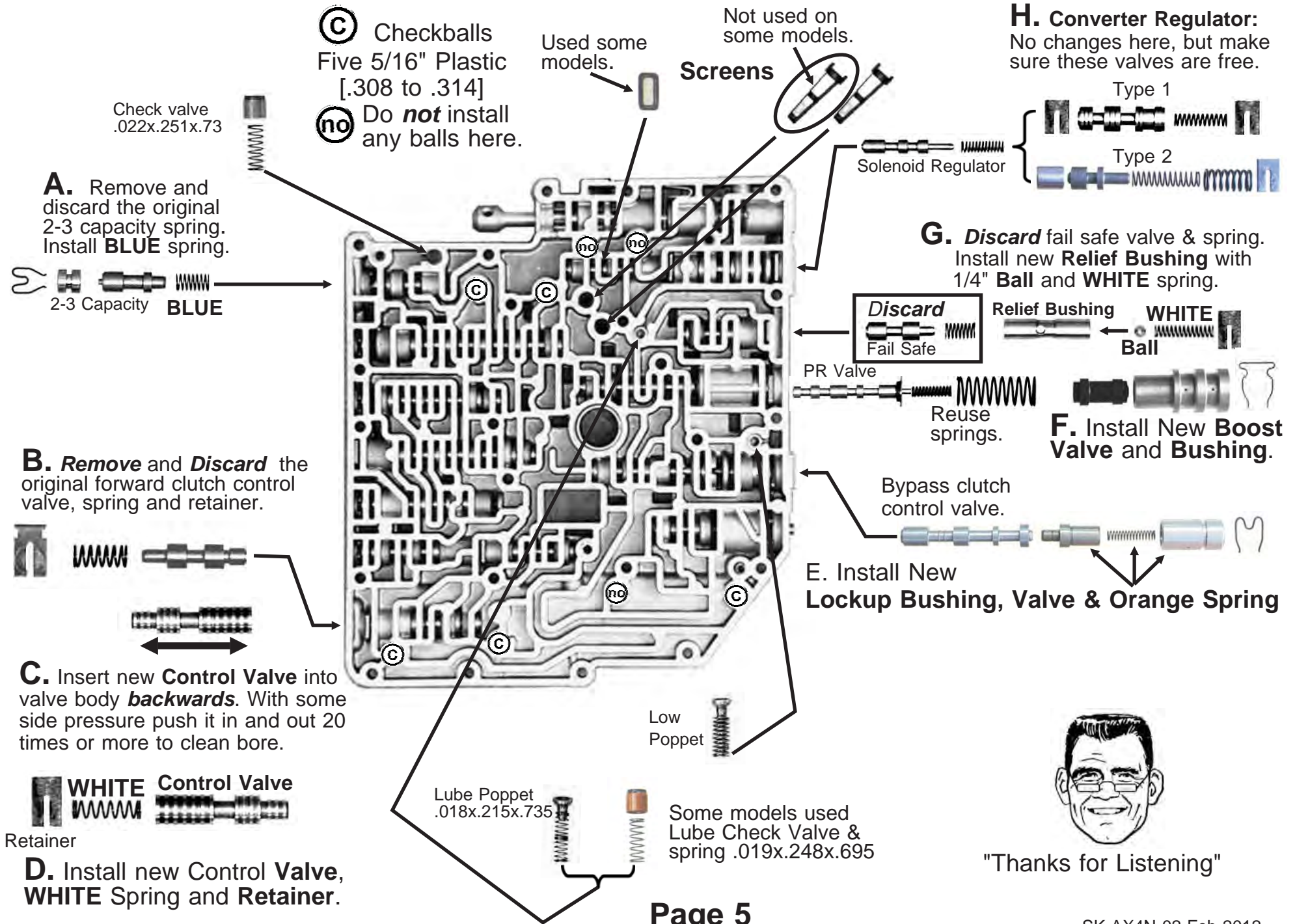


Install **WHITE** spring inside original spring **ONLY** if piston does **not** have a taper. New **White Spring must sit flat** against piston.



VERY IMPORTANT: Do not put this casting in a washing machine. The grit and metal particles will degrade the finish of the accumulator bores and cause the rubber seals to wear.

2004-2005 Units: Skip this page. See extra page.



"Thanks for Listening"

2004-2005 Units: Skip This page. See extra page

Pump Casting

© One 5/16" Plastic ball
[.308 to .314]

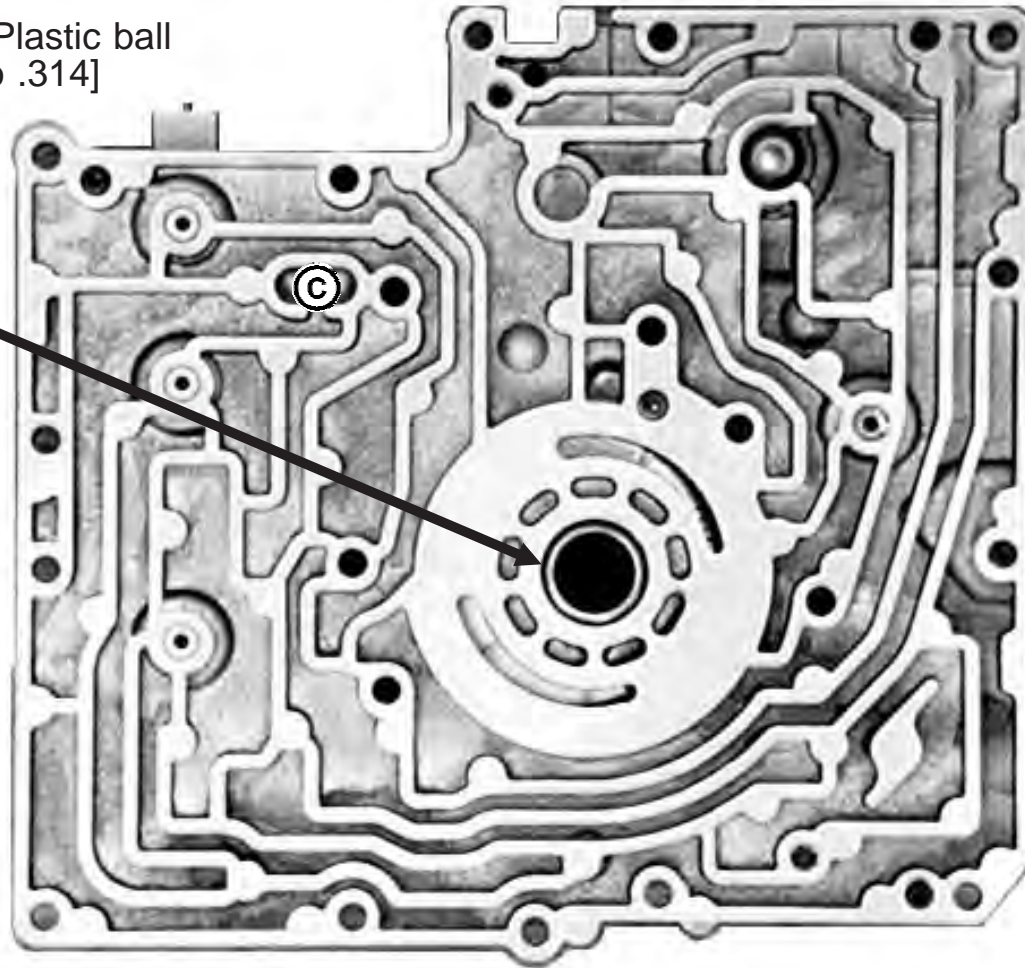
Listen up:

Often you may find this caged needle bearing tore up, and think that it was from misalignment.

Mostly it just needs a better bearing, so be sure to replace it.

Use an AXOD bearing. It is higher capacity.

Torrington #B-128



4F50N 04-05 Type

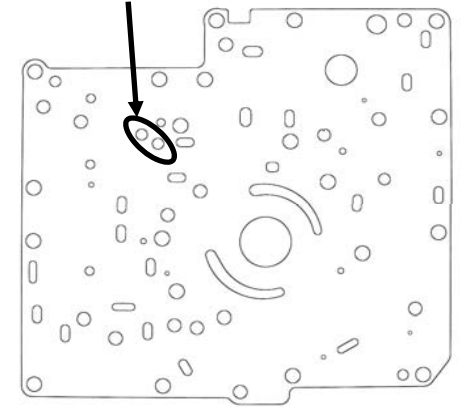
Pump Casting Code RF-4F

SK® AX4N Kit Fits 2004-2005 Type Units.
Skip pages 5 & 6 of the main instructions.
Follow steps A through E on this page.

© VB = Four .312 Plastic Balls
Pump = One .312 Plastic Ball



04-05 Pump plate has two holes at angle that match angled bath-tube in pump.



5oz@600 700x248x021

4oz@600 680x246x020

1-2 Cap

2-3 Cap

1-2 Shift

2-3 Shift

3-4 Shift

Manual Downshift

3-2 Shift Timing

Solenoid Reg

Converter Reg

Secondary Line Mod

Main Regulator

3-8@513 611x260x040

Cooler Bypass

Lockup Bushing & Valve

Bypass Clutch

Primary Line Mod

D. Install New Boost Valve & Bushing

E. Install New Lockup Bushing, Valve & Orange Spring

A. Discard original control Valve Spring & Retainer

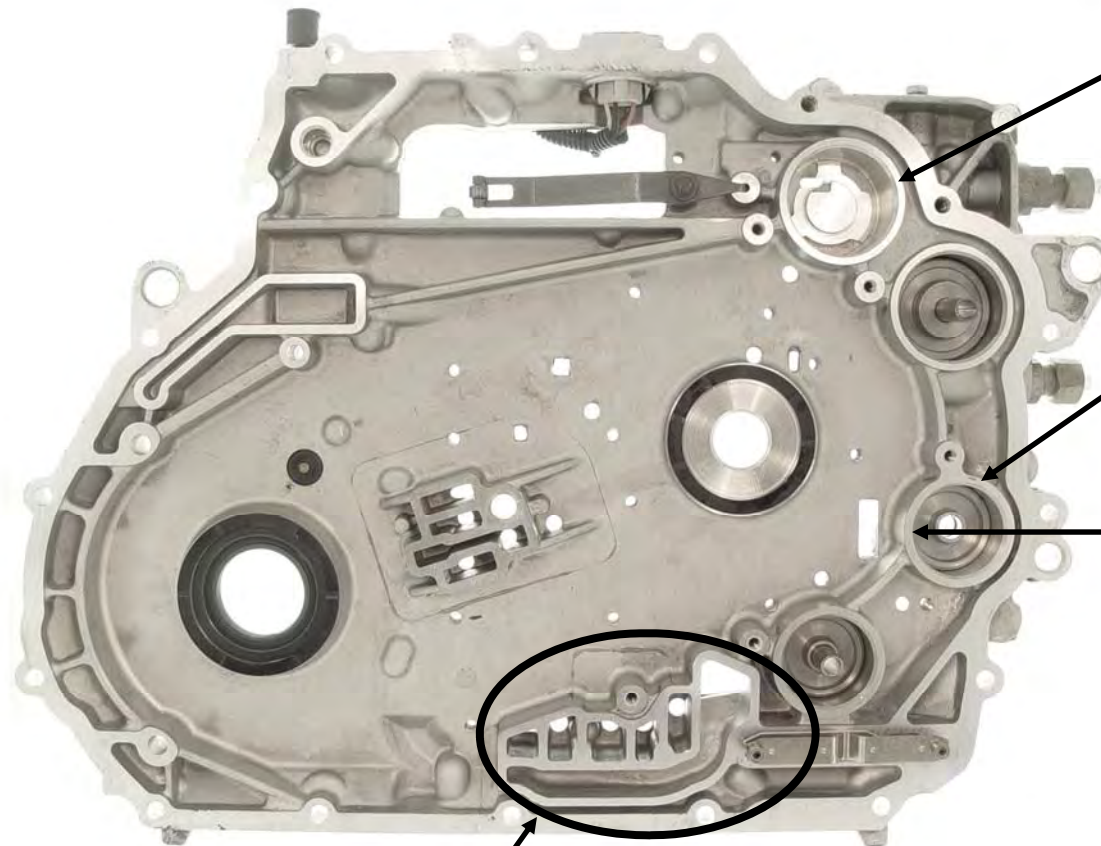
B. Insert new Control Valve into valve body **backwards**. With some side pressure push it in and out 20 times or more to clean bore.

C. Install New Control Valve, **WHITE** Spring and Retainer.

VB & Chain Cover Casting = RF-4F
04-05 Parts don't swap with earlier parts!

Case, Cover & Gasket changes. 1-2 Accumulator Piston changes.

Do not install white Spring with this type 1-2 Accumulator Piston.



There are 2 LATE STYLE Channel Casting gaskets! The size of the REVERSE Accumulator was changed! Check gasket at this location and at the bottom area inside the oval shown! Wrong Gasket causes LOW LINE!

Case Cover Gasket blows out here.

Use contact type sealer on Gasket & CASE surface. *Gasgacinch* Sealer is a good one.

Look carefully for changes in this area. Make sure Gasket match's with Case & Case Cover passages.