AODE-HD2 Reprogramming Kit™

Fits: 1992-2011 AODE, 4R70/75W's & 4R70/75E's

Provides Short, Firm Shifts with Performance, Durability and "CLASS".

For Professional Installation!

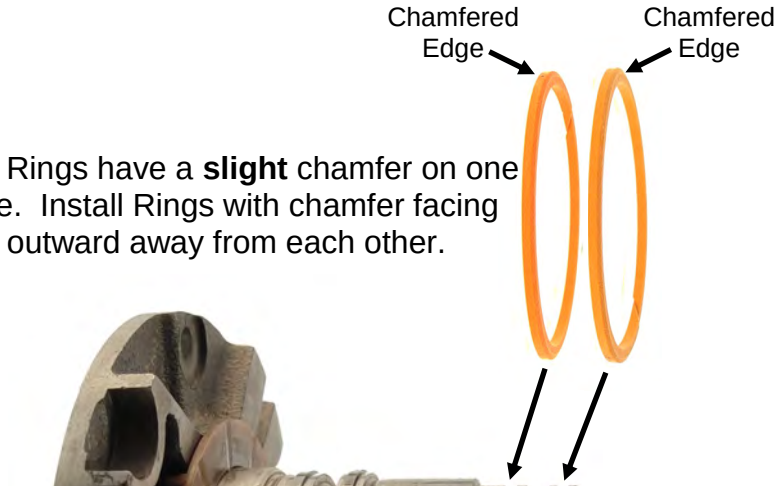
Requires medium to high degree of technical ability and additional tools to install.
Read entire instructions BEFORE starting installation.
Replacement of common worn/damaged items or updating of some parts may be required.

27 Jan 2017

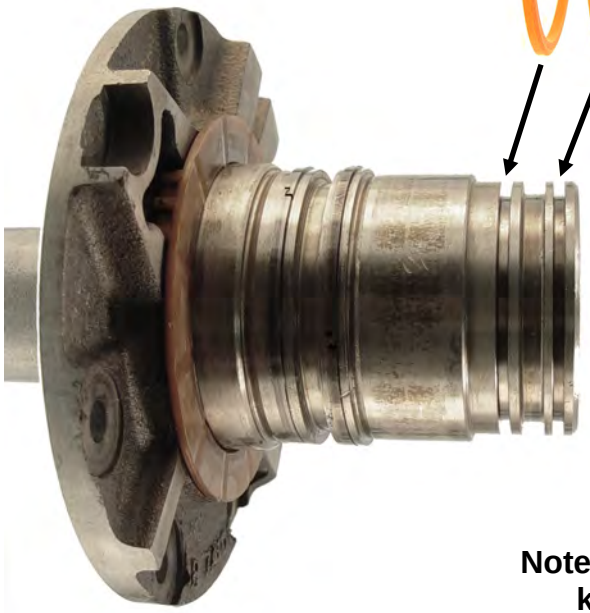
Preliminary Information:

If working on 92-03 & the Trans is out of the vehicle:
Installing the supplied special rings on 1992 to 2003 models will reduce the chance of accidental 4th band apply and burn-up.

If equipped with Factory Plastic type rings (2004 up), reuse the original rings. (Late stator has narrower ring grooves.)



New Rings have a **slight** chamfer on one side. Install Rings with chamfer facing outward away from each other.



Pump Stator

Note: When opening bagged kit parts, keep them in separate groups!
Save all old parts you remove until after the vehicle is delivered to the customer.

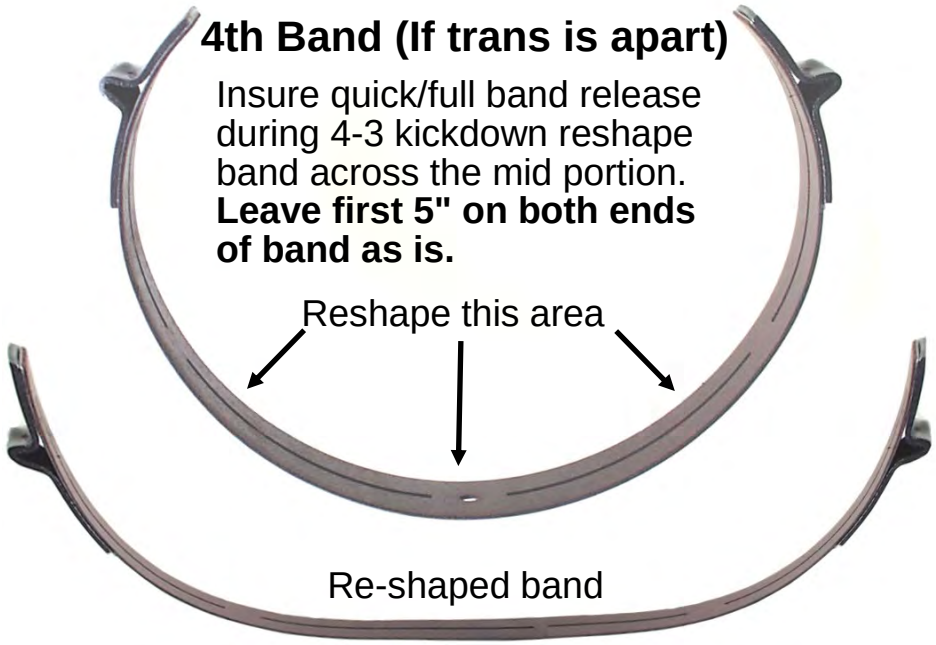
Preliminary Information:

Check fluid level like this

1. Pull dip stick and wipe it clean.
2. Run engine in “P” at twice idle speed [12-1500 RPM] while you count to ten.
3. Turn off engine and quickly stab stick. Fluid level should be at top of full mark when cold and no more than 1/4" above cross hatch hot.

4th Band (If trans is apart)

Insure quick/full band release during 4-3 kickdown reshape band across the mid portion. **Leave first 5" on both ends of band as is.**



If the old band is severely burned or worn check OD band pin bore for wear. See warning on Page 3.

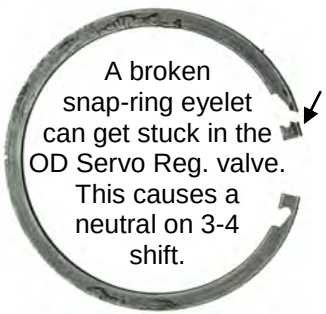
Small OD Servo Uses a Sleeve

Large OD Servo Uses NO Sleeve

LOOK!

Removing Servo while trans is in the vehicle should only be done by an experienced Trans Tech. No 4th gear can be the result if the band is not kept from moving out of place *before* servo is removed.

Always replace OD servo piston with same size. Installing larger servo where small was used can cause clunk/clank 4-3 or 3-4.



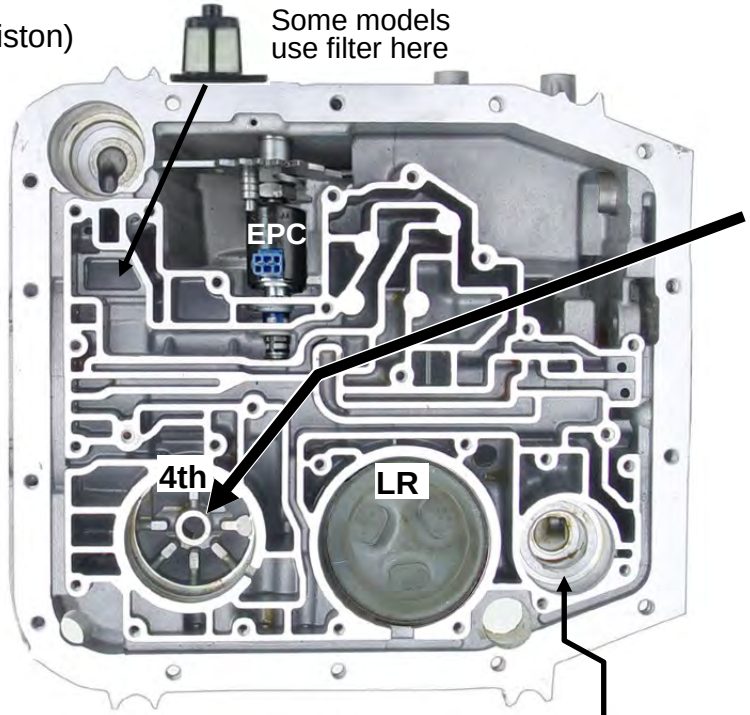
Disassemble Servo and use pin to check piston and case bore for wear!

Step 1: 2nd Accumulator (Requires Steel Piston)

Remove all old parts. If your 2nd accum piston is steel and the rubber is soft & undamaged use it over including the cover. Do not use pistons with hard or damaged seals. Same goes for the cover!

Install inner & outer orange springs into small end of piston. Use ATF to lube the case bore. Insert piston and orange springs into case. Piston will hold itself into bore. Place Purple inner & outer springs, plus the solid spacer onto the cover before inserting them into case. Maintain pressure on cover until snap-ring is re-installed.

Aluminum 2nd Accumulator: Not Recommended due to high **failure** rate on seals! **Replace** with **STEEL PISTON**



Warning:
4th Band Pin Bore
Inspect bore for wear. If bore is worn, BIG forward clutch leak.

Repair kit is available
www.servobore.com
Or call 715-458-2617
FAX 715-458-2611

Alum Type: Better to upgrade to **Steel type** Ford #F7AZ-7H292-AB Save Alum for AOD's!

Step 2

If point of 3rd retainer **directly** touches VB **separator plate**, install **New Spacer.**
Use assembly gel to "stick" it to the retainer.

Step 1 Plate Hole Sizes

Drill Hole 2 (2nd) For:

Mild Street Rod, Police,
Taxi, Towing = .076 (5/64)

Street Rod w/Stock
Converter = .086 (#44 drill)
Need it Firmer? = .110 (7/64)

Hot Rod w/High
Stall Converter = .125 (1/8)

1&1A: .055 Ok if already bigger.

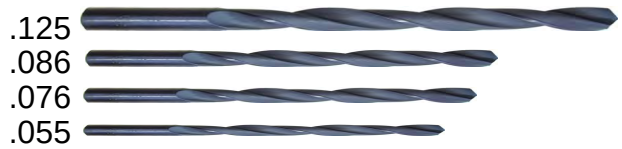
3&3A:
[Ok if already bigger or 1 hole is missing.]

Mild Street Rod, Taxi,
Towing, Police = .086-.094

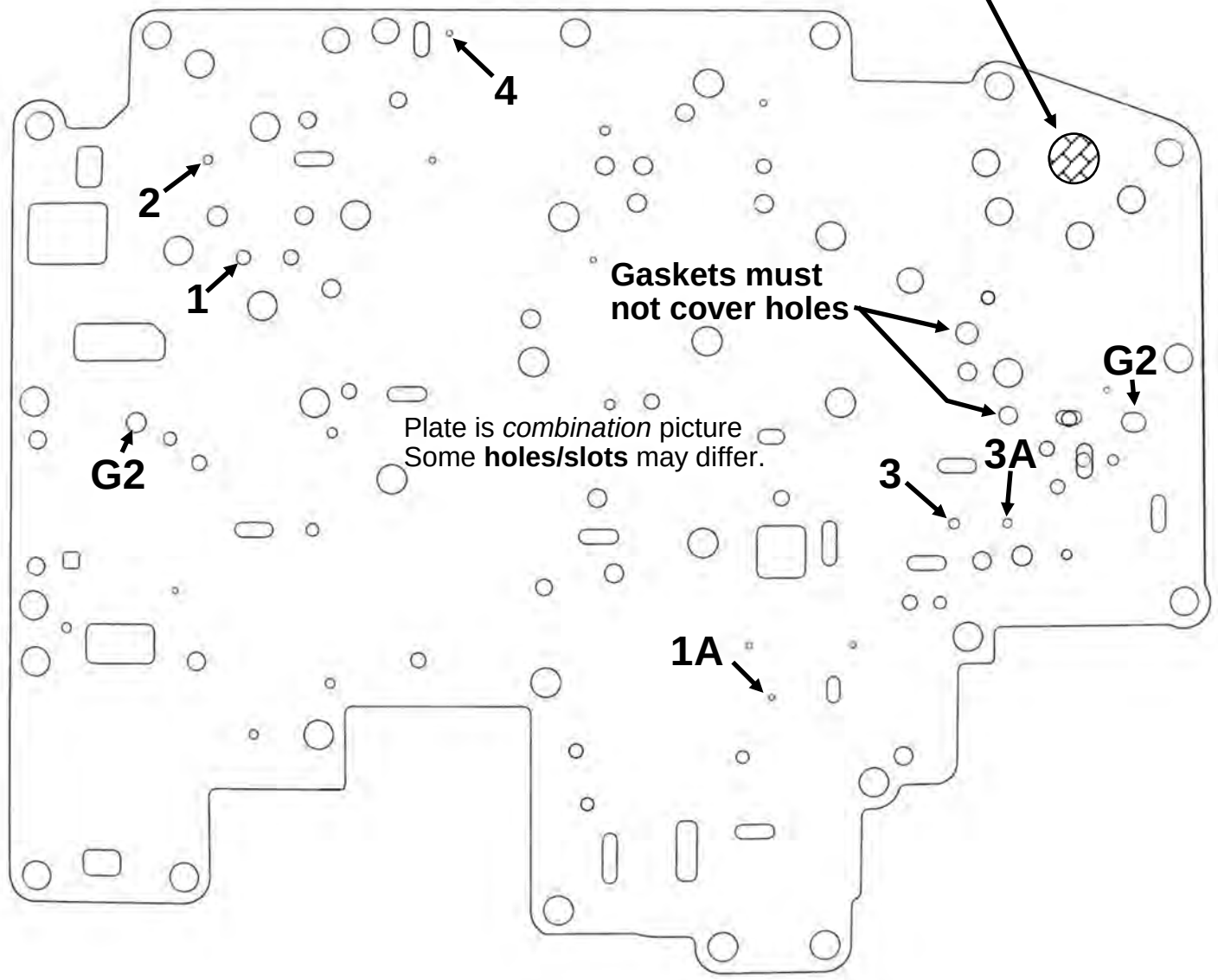
Hot Rods w/High or Normal
Stall Converter = Don't Drill

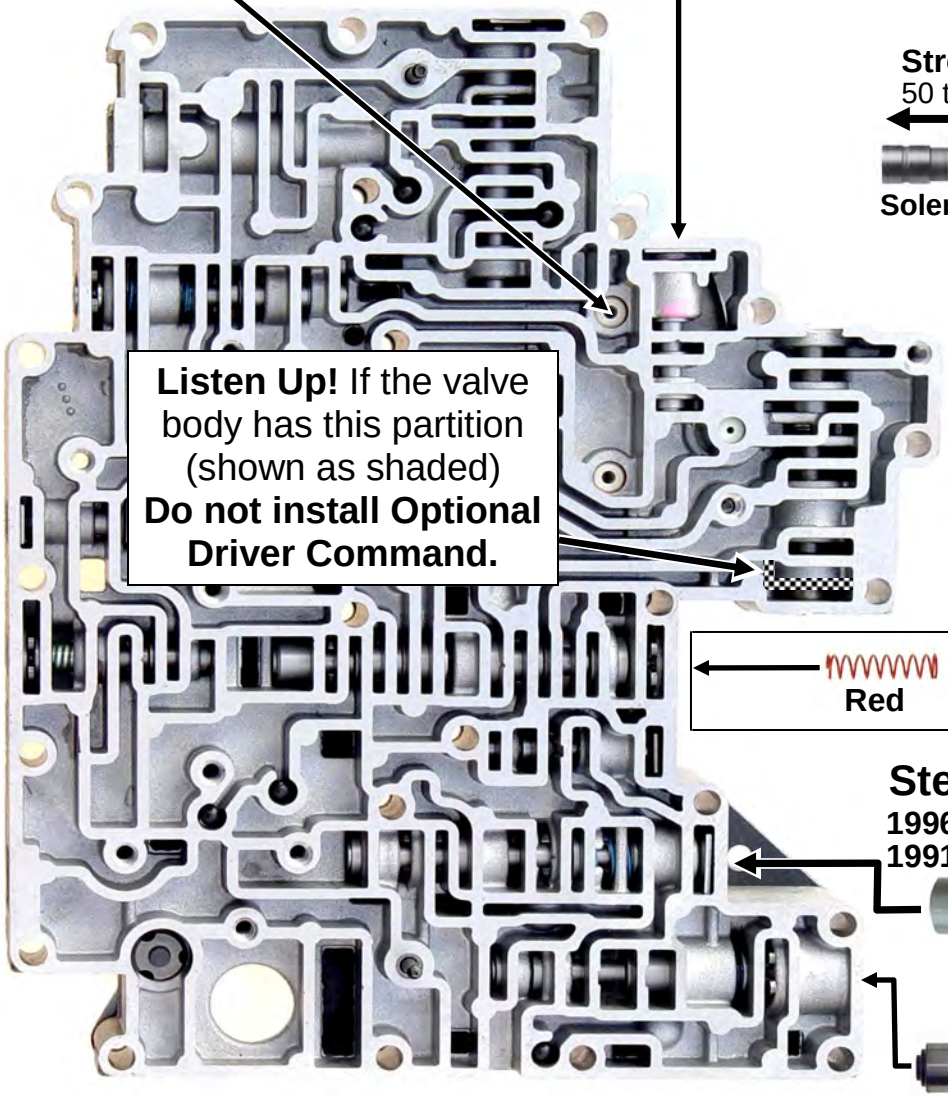
Hole 4: =.055 If plate has it.

Heads Up!
2 sets of gaskets are furnished.
Use the gaskets that match the size of the guide pins G1 & G2.
Ensure the gaskets chosen do not block any holes in the plate.



Listen up! Models **without** a bolt-down plate here sometimes have a small crack in the separator plate shown in shaded area below. Our **new spacer** fits the pointed end of the 3rd accum retainer & makes it ok to re-use the plate.





Optional Driver Command Orifice & Tapered Spring location. Only install if installing Optional Driver Command!

Listen Up! If the valve body has this partition (shown as shaded) **Do not install Optional Driver Command.**

ORANGE

Install **Solenoid Reg Valve** with the **ORANGE** spring.

Step 1

Solenoid Reg Valve:

Twist ***unpainted spring*** into open end of new **Solenoid Reg Valve**.

Use spring as **handle** *stroke* valve in and out of bore **about 50 times** with slight *side* pressure.

Valve must fall in and out of bore.

Discard the ***unpainted spring***, then install **Valve** with **ORANGE** spring.

Stroke 50 times

Use **unpainted spring** as **handle**

Use side pressure

Solenoid Reg Valve

OPTIONAL: Driver Command Feature *allows you to downshift to Manual 1st at higher speeds! Do not install this feature unless it's necessary for your use. (Off-road 4x4 or Track Racing)*

Twist the tapered Spring onto the big end of the orifice. Insert small end of orifice into rear most solenoid snout. (Spring contacts Separator Plate)

Remove & Save original 1-2 Valve

Insert 1/4" ball, then spring into New 1-2 valve.

New 1-2 Valve | Re-use | Re-use 2-3 Shift | Re-use | Re-use

Red | 1/4"

Step 2

1996up reuse original spring.
1991-95 install **ORANGE.**

Lockup Valve | **ORANGE**

Step 3

All Models. Install the new **Lockup Bushing.**

Reuse valve | Re-Use

PR Valve

Step 4 PR Valve:

If your PR Valve has a step here, Install New PR Valve provided. All others Re-use original Valve.

Step 5

WHITE PR Spring

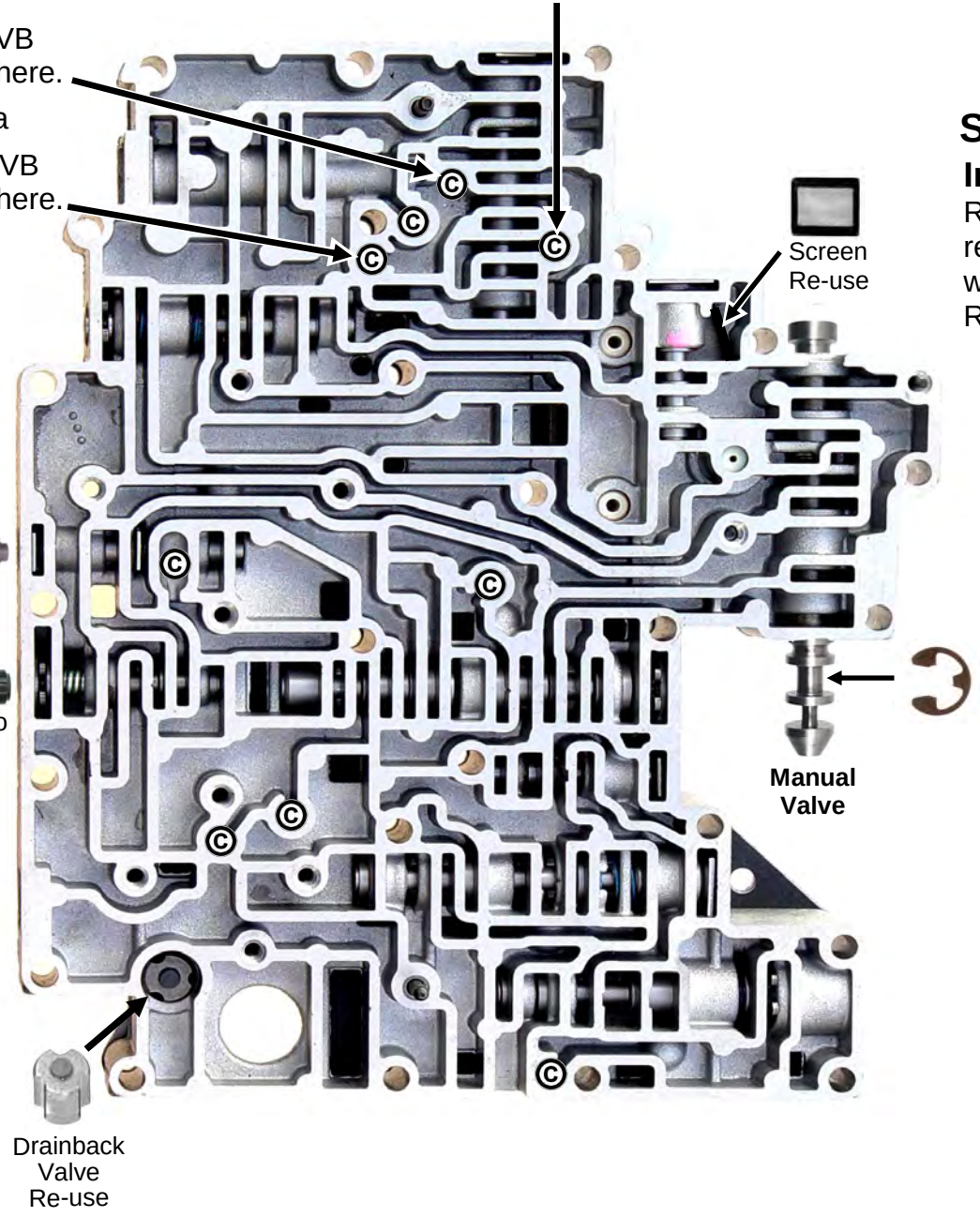
Re-Use | Re-Use | Re-Use | Re-Use Spring (If it had one.)

Hot Rods with High or Normal Stall Converter **OR** for the **firmest** 2-3 shift, do not install a ball in this location. All others re-install this ball.

1st Type VB
a ball goes here.

OR on a

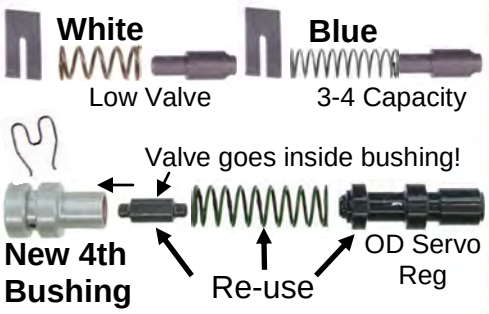
2nd Type VB
a ball goes here.



Step 1

Install New Springs:

Blue on 3-4 capacity
White on low valve.
(Springs must be inboard of each retainer.)



Step 2

New 4th Bushing:
If your separator plate has hole 4, (see page 4) then your OD servo reg **should** look like the one shown. Replace the worn 4th bushing with the **NEW** 4th Bushing provided. Re-use the inner valve!
Any other type,
SKIP this step.

Step 3

Install New Manual Valve

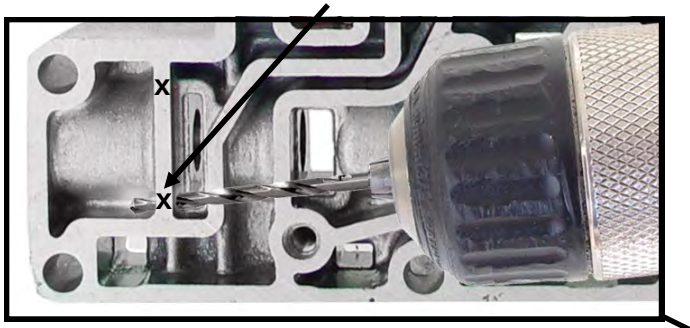
Remove and save E-Clip, replace original Manual valve with **New Manual** valve. Re-install E-Clip.

New Manual Valve

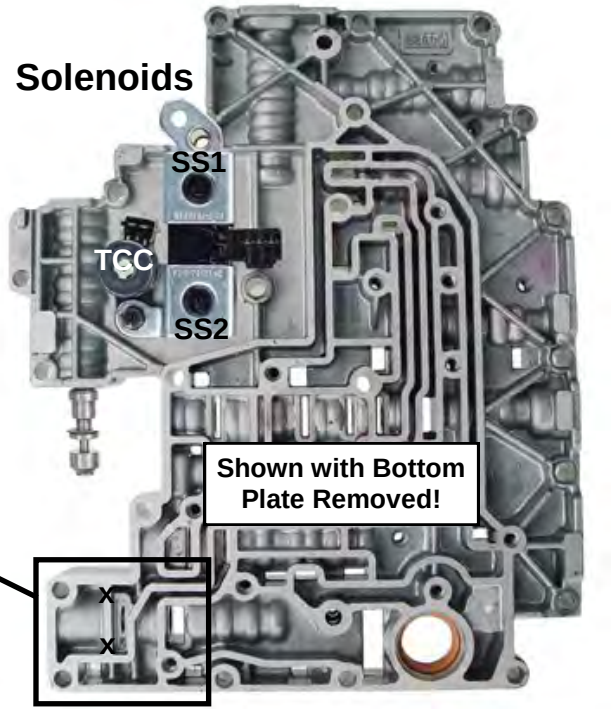
© = Checkballs

8 plastic 1/4" [.250] for normal use.
7 for Hot Rods or Firmest 2-3 shift.

Step 1 Remove **Thick Bottom Plate**. Drill two .125" [1/8"] holes thru this partition from right to left under "**X**'s". Do not allow the side of the drill to contact any partitions!



Pan side of VB, Bottom Plate Removed!



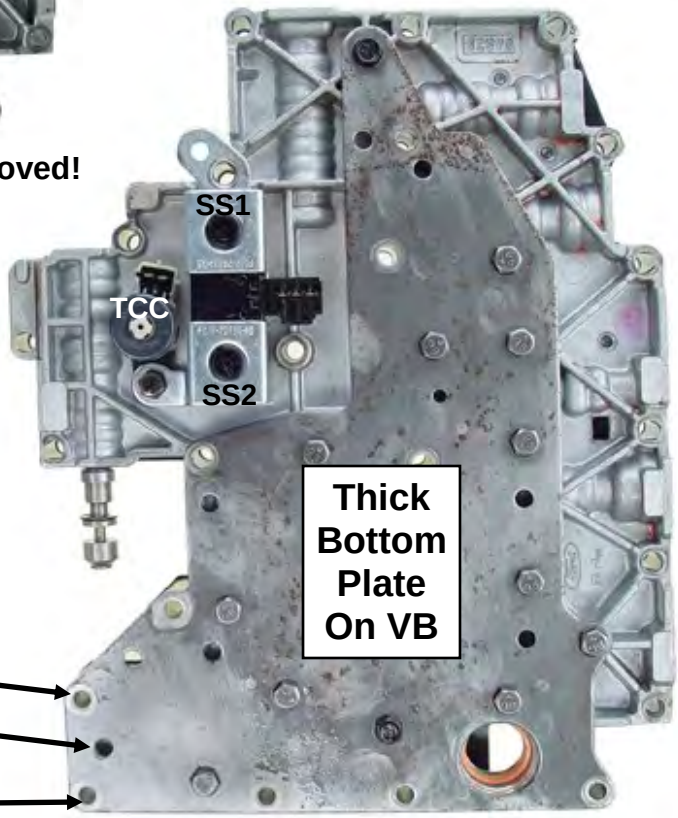
Pan side of VB, Bottom Plate removed!

EPC Relief Valve

Corrects uncontrolled line pressure due to electrical malfunction, stuck EPC valve, or cross leaks. Reduces the accidental neutral condition [Run-Away] and brutal 2nd clutch re-apply that breaks 2nd one-way or mid shaft.

Step 2

Install **PURPLE** spring on valve. Push stem end of **Valve** thru hole in **Bracket**. Install paper clip in the stem hole. Install onto valve body. ***REMOVE PAPER CLIP.***



EPC Relief Valve Assembly