

RE4F03B-HD2

Reprogramming Kit™

Front Drive Nissan- without TV Cable
Sentra 2000-04 G20 Infinity 2000-04
See page 12 for positive ID

Corrects/Reduces/Prevents

No 3rd after a 3-2 or 4-2 kickdown.

Direct clutch (3rd) inner seal leaks, wears or opens up, etc.
Corrects Soft 1-2. Long 2-3 at heavy throttle. Firmer 4th & Lockup.
Nissan never shifted this good, until now.

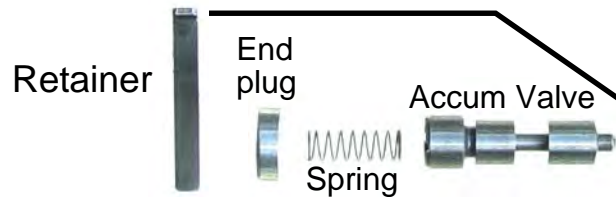


You've never felt a Nissan shift this good, Hot or COLD.

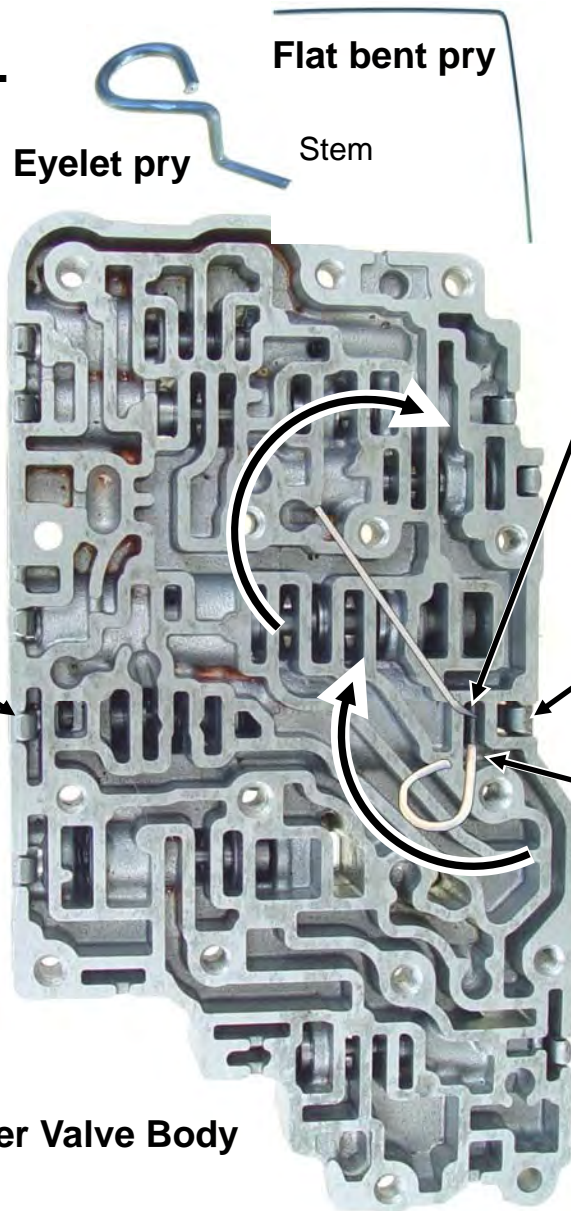
This Kit is about:

Rough 2nd cold. No 3rd after a 3-2 or 4-2 kickdown. Direct clutch (3rd) inner seal **leaks**, wears or opens up, etc. Corrects Hard and Soft 1-2. Long 2-3 heavy throttle. **Firmer 4th and Lockup.**

Use a skinny punch from other side of VB to *push* accum valve out of bore.



Mr. Shift



Upper Valve Body

LISTEN UP: If trans is out of vehicle do page 8 first.

Step 1. Remove **Retainers**. With sand paper smooth the small burr where the retainer was against bore.

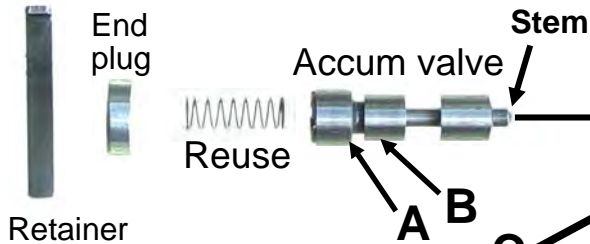
Step 2. Insert **Flat Bent Pry** between the end plug & accum piston. Push piston inward away from the end plug far enough to insert the stem end of eyelet pry.

Step 3. With **Eyelet Pry** *push* the end plug **GENTLY** in various spots to remove it. Then remove 2nd accum piston, spring & washer on **Page 2**. Then *push* accum valve and end plug from this side of VB with a thin punch.

Upper Valve Body

Step 1. Accum Valve

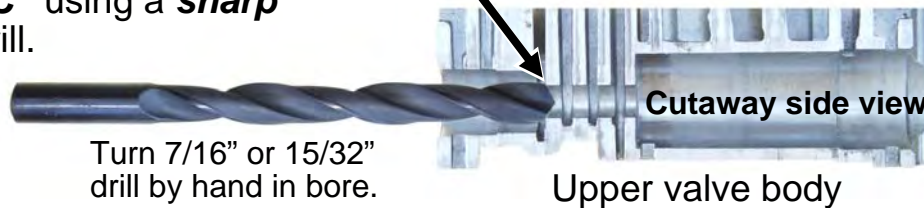
Remove the accum valve. Chamfer partition as shown at bottom of page. Clean the bore. Reinstall the valve, spring, end plug and retainer.



Here's Why: Edge **A** on the valve hits partition at **C**. This deforms the bore which sticks the valve at land **B**.

Here's how to fix it:

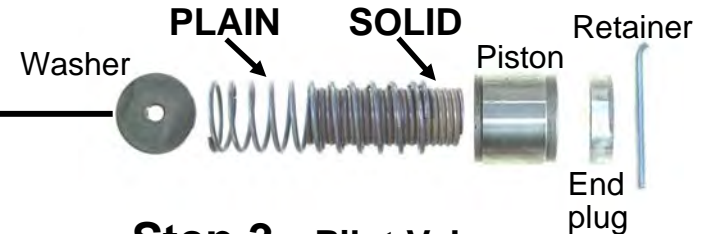
By **HAND**, make a slight chamfer in valve bore at "**C**" using a **sharp** 7/16" or 15/32" drill.



Hello Mechanic: Install accum valve first. Then, from this side, install the flat washer on the **stem** of accum valve, then install the remaining parts as shown below. **You're going to love 1-2 shifts.**

Step 2. 2nd Accum Piston

Remove & discard original spring. Install **PLAIN & SOLID** Springs.



Step 3. Pilot Valve

Remove & discard original spring. Install **RED** spring.



© Checkballs:

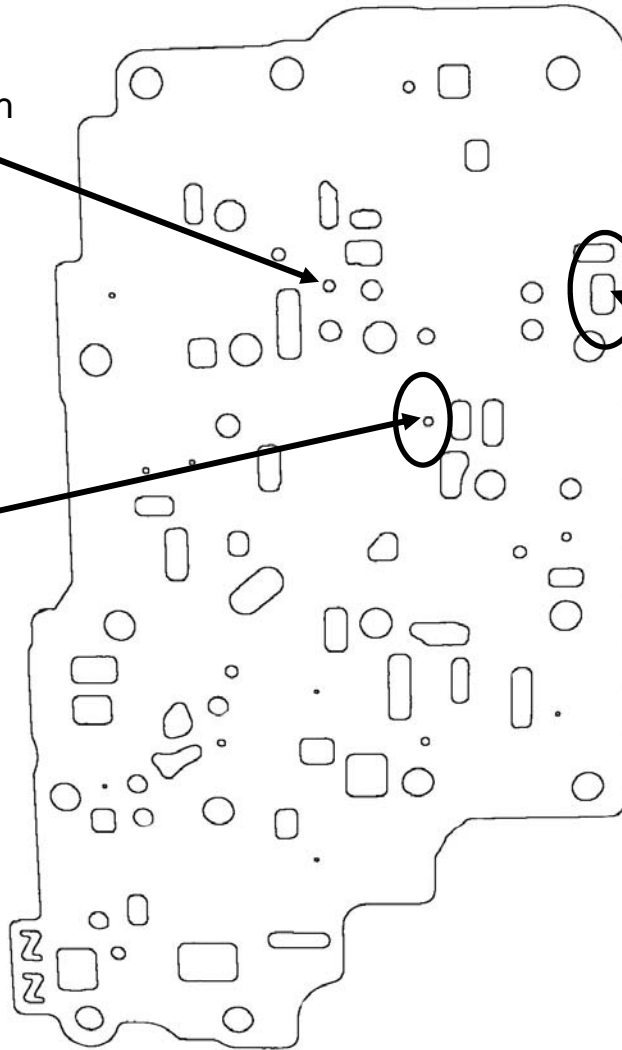
Seven Steel .214 to .218
Don't use plastic balls.

Use some **Vaseline** to keep the checkballs in place **NOT** grease.

Upper Separator Plate (Small Plate)

1. Enlarge this hole with the .125 drill furnished.

2. LOOK
If the plate **HAS** hole here, Main VB **MUST HAVE** Steel One Way Ball and Spring.
No Hole, No Ball & Spring.
See main VB **Page 6.**



3. LOOK

If Plate **Has Square** hole here, **MUST** install "R" ball in the channel casting.
If Plate **Has Round** hole here **Do NOT** install "R" ball in the channel casting.
See Channel Casting **Page 4.**

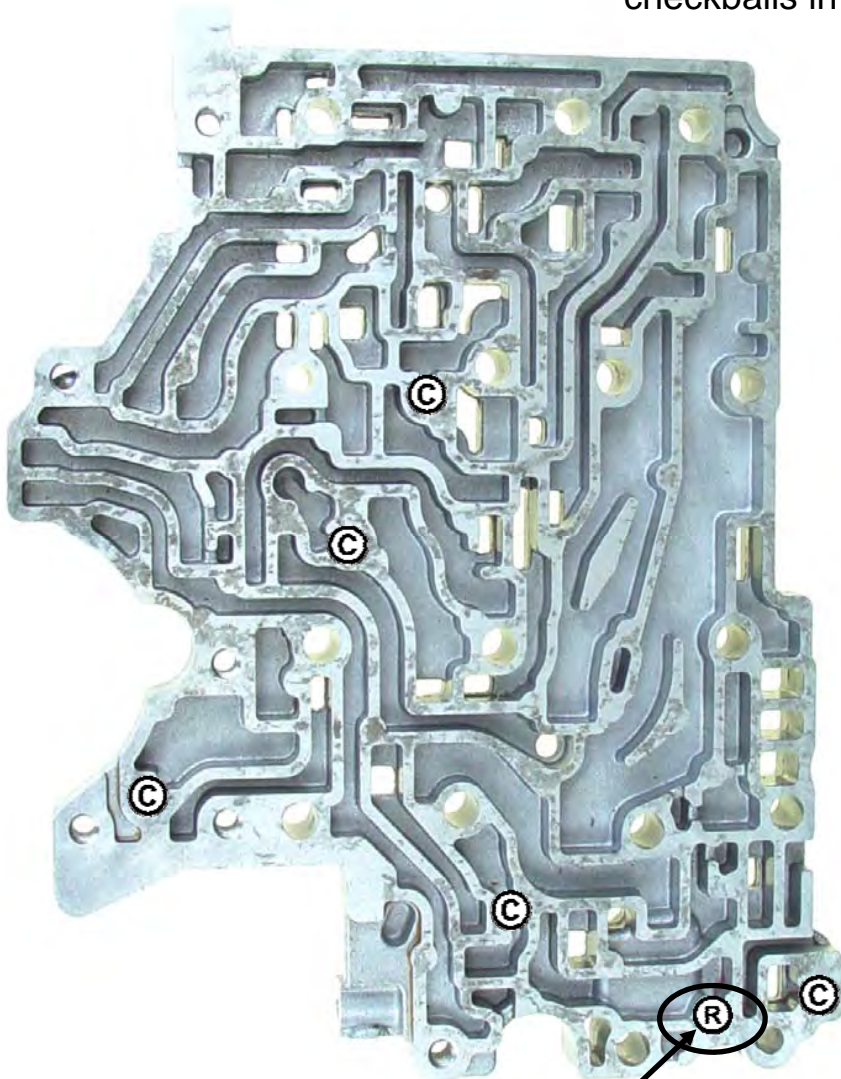


Checkballs: Steel .214 to .218
Don't use plastic balls

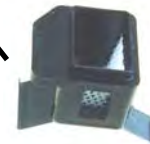
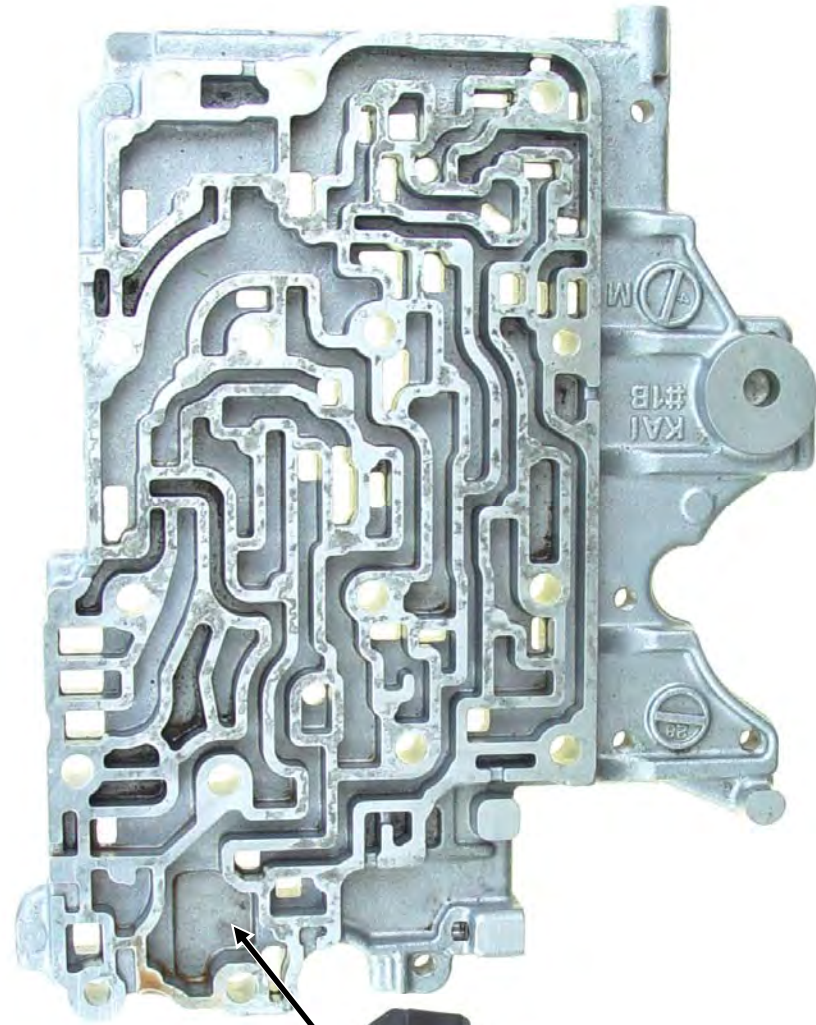
- Ⓒ Five, all models.
- Ⓓ Model Dependant see **Page 3**.

Channel Casting

Use some **Vaseline** to keep the checkballs in place **NOT** grease.

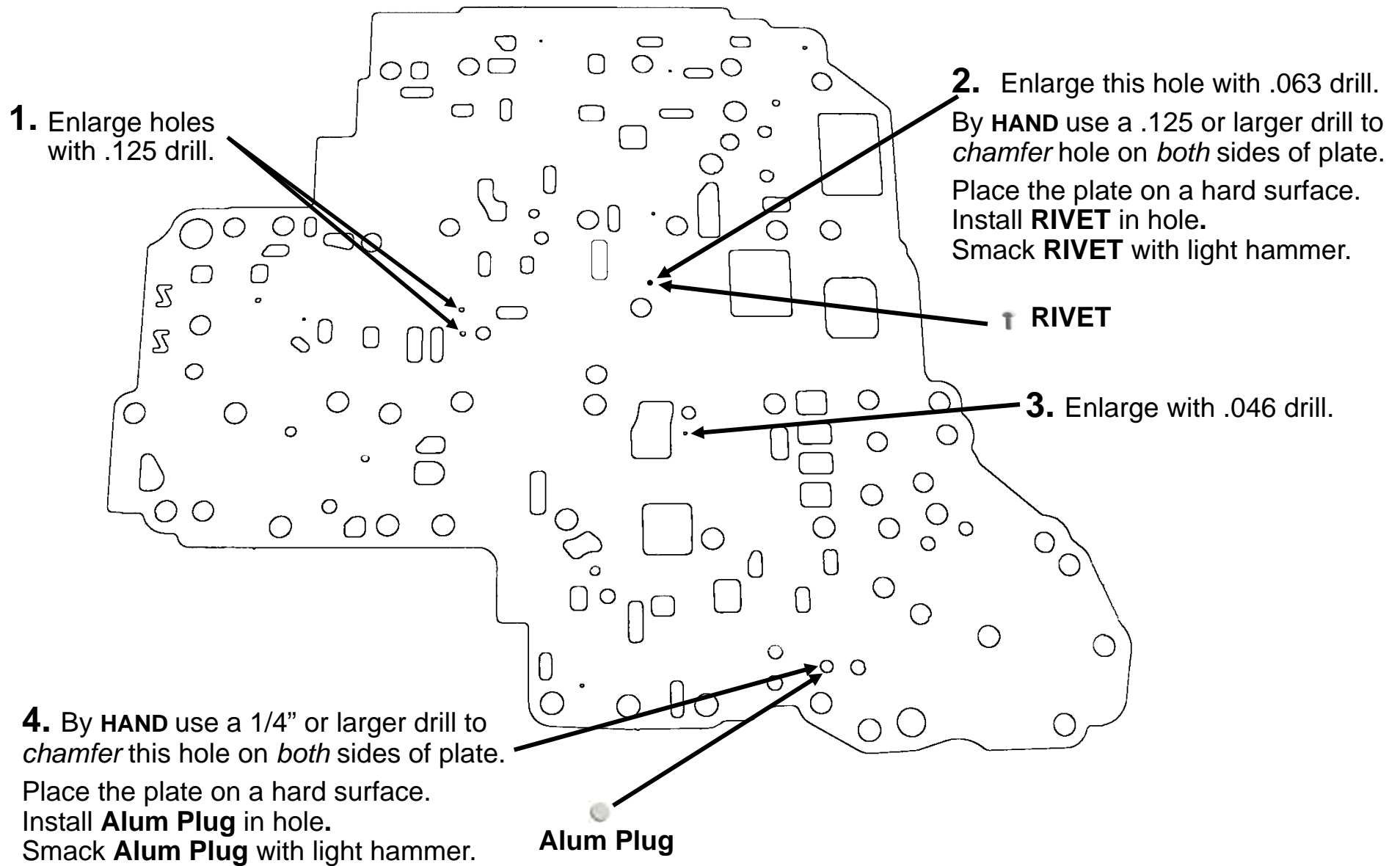


LISTEN UP:
Do **NOT** install ball "R" if Upper Plate
HAS a Round hole. See **Page 3**.



Filter screen

Main Separator Plate (Large Plate)



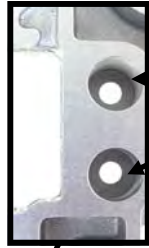
Retainer

Main Valve Body



5. Remove and discard the original modifier valve and spring. Install new valve, balls and springs as shown.

- WHITE
- 1/4" Steel Ball
- WHITE
- 3/16" Steel Ball
- Modifier Valve
- ORANGE

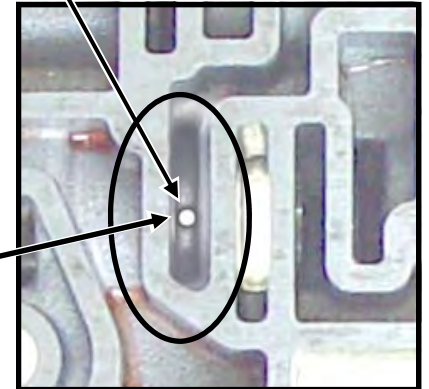


1. Enlarge the limit drain holes with a 1/4" drill.

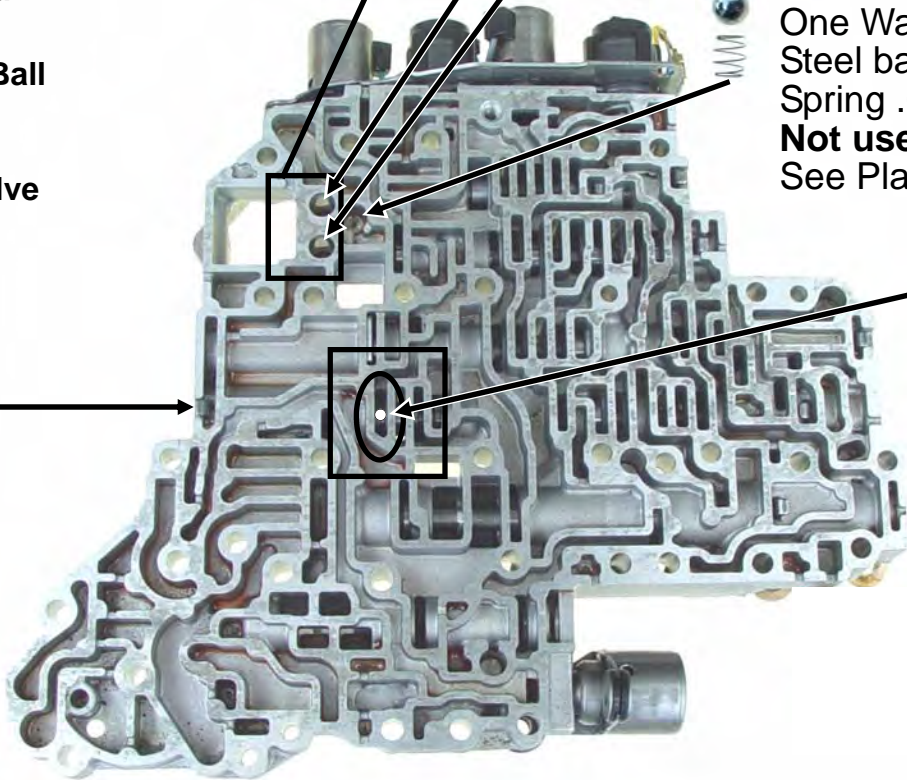
- Steel balls .265 diam
- ORANGE

2. Install springs & steel balls furnished.

3. Drill .063 hole **straight down** into this passage thru bottom of the valve body.



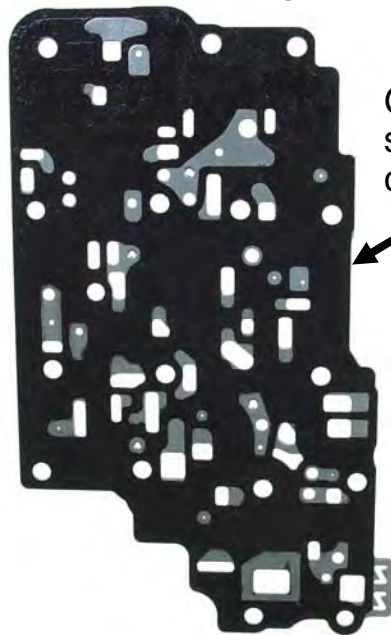
One Way Ball & Spring
Steel ball 5/16" (.312)
Spring .012 x .285 x .330
Not used all models.
See Plate on **Page 3.**



- PR valve
- Washer
- Retainer
- Boost valve & bushing
- Green

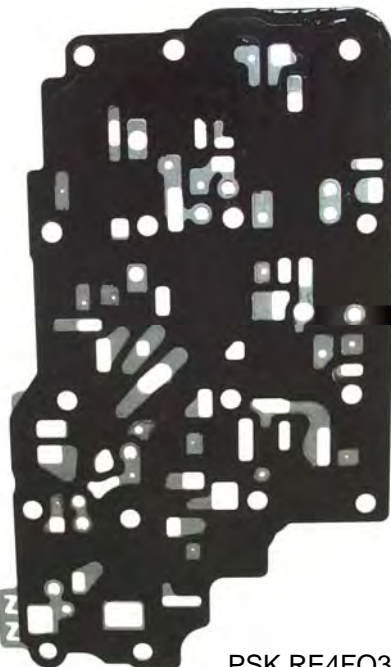
4. Install **GREEN** Pressure regulator spring furnished.

Valve Body Gasket ID



Gasket between small plate and channel casting.

Small Plate Gaskets



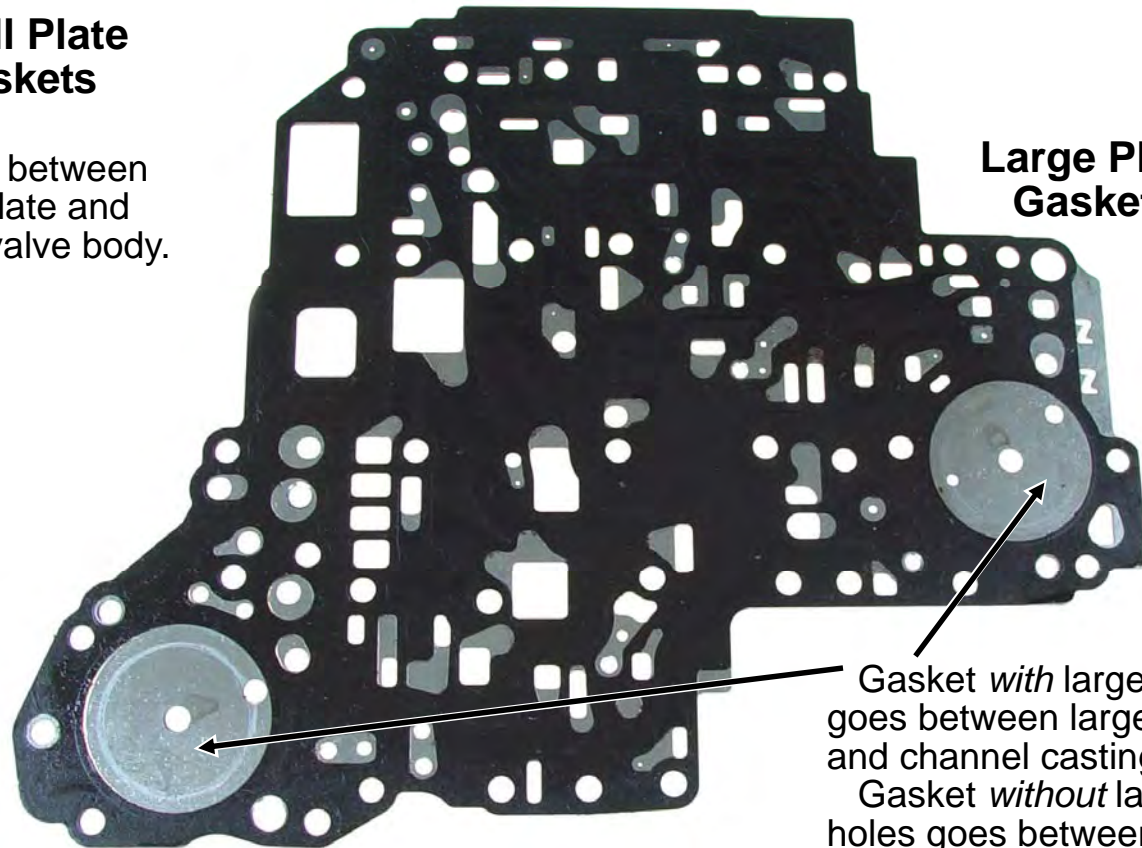
Gasket between small plate and upper valve body.

Plates with bonded gaskets can be reused. If gaskets are damaged, scrape off old gaskets and install new gaskets. Identify correct gasket for each location. Use oil to keep gaskets in place during assembly

Replacement plates with bonded gaskets are available.
Nissan # 31719-85X10 Large plate
Nissan # 31715-85X11 Small Plate

LISTEN UP: If **SMALL** plate is replaced, Match check-ball and steel ball & spring usage to the **NEW** plate being installed. **Follow Steps 2 and 3 on Page 3.**

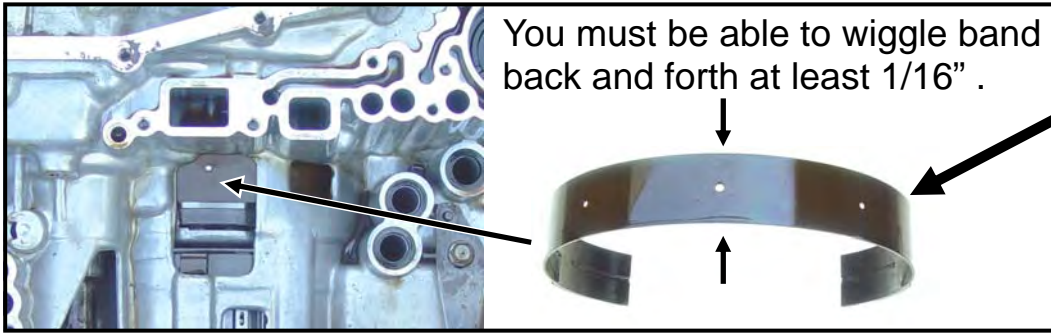
It's OK if replacement plate is different than original.



Large Plate Gaskets

Gasket *with* large holes goes between large plate and channel casting.

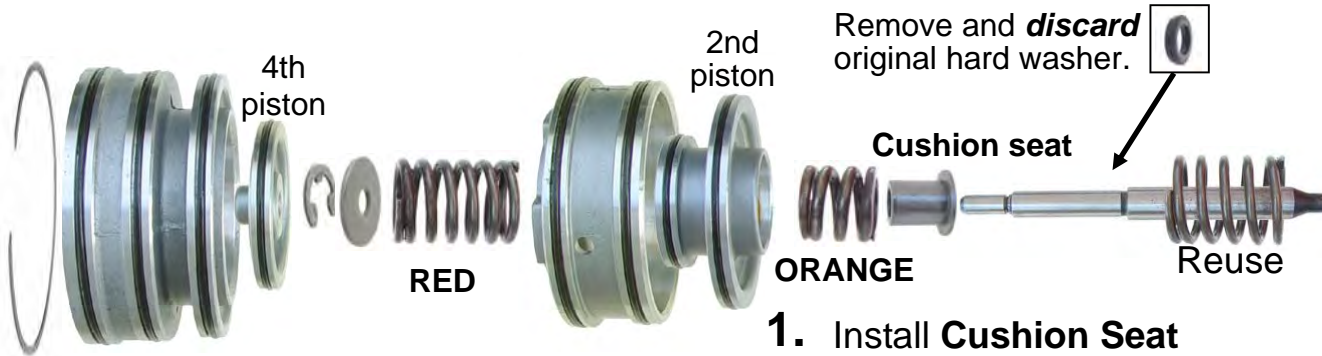
Gasket *without* large holes goes between large plate and main valve body.



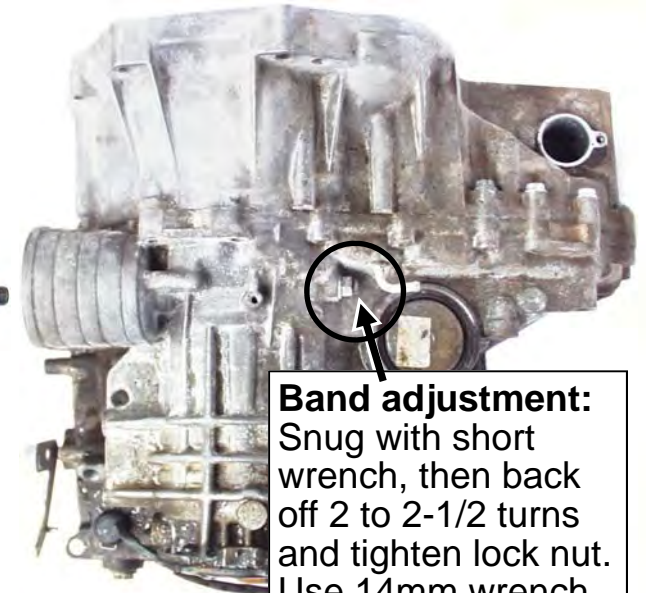
Check Band Adjustment:

Install 2nd piston with new cushion seat and spring. If band will wiggle on drum 1/16" by hand, you can skip the band adjustment shown below.

See Page 9 for more information.



1. Install Cushion Seat and ORANGE & RED springs furnished.

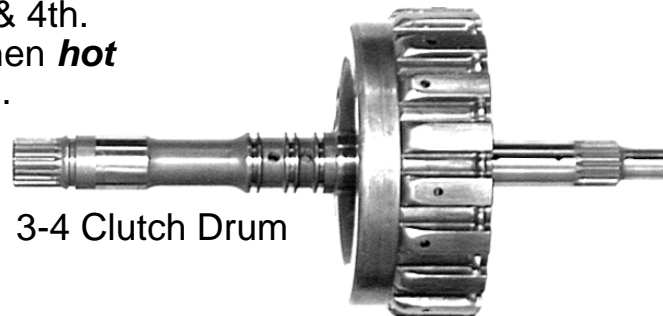


Band adjustment: Snug with short wrench, then back off 2 to 2-1/2 turns and tighten lock nut. Use 14mm wrench and T30 TORX bit.

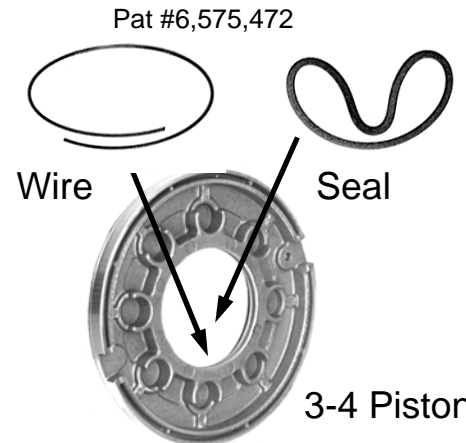
Do step 2 if trans is out of vehicle.

Poor design 3-4 clutch inner piston seal causes trans to lose 3rd & 4th. Usually worse when *hot* or after Kickdown.

2. Insert overlap part of the wire into groove at 6 O'clock. Then shape seal as shown and install into the groove.



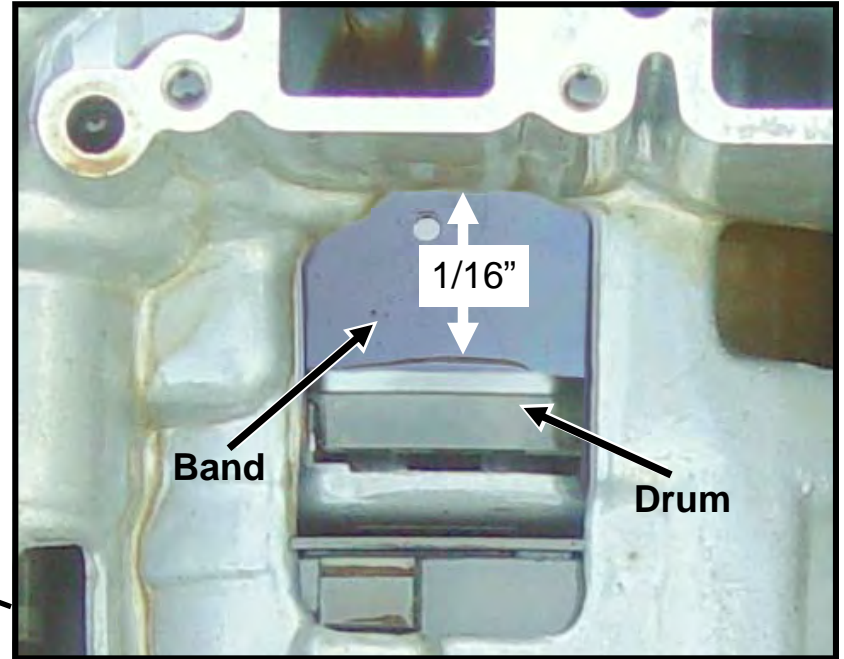
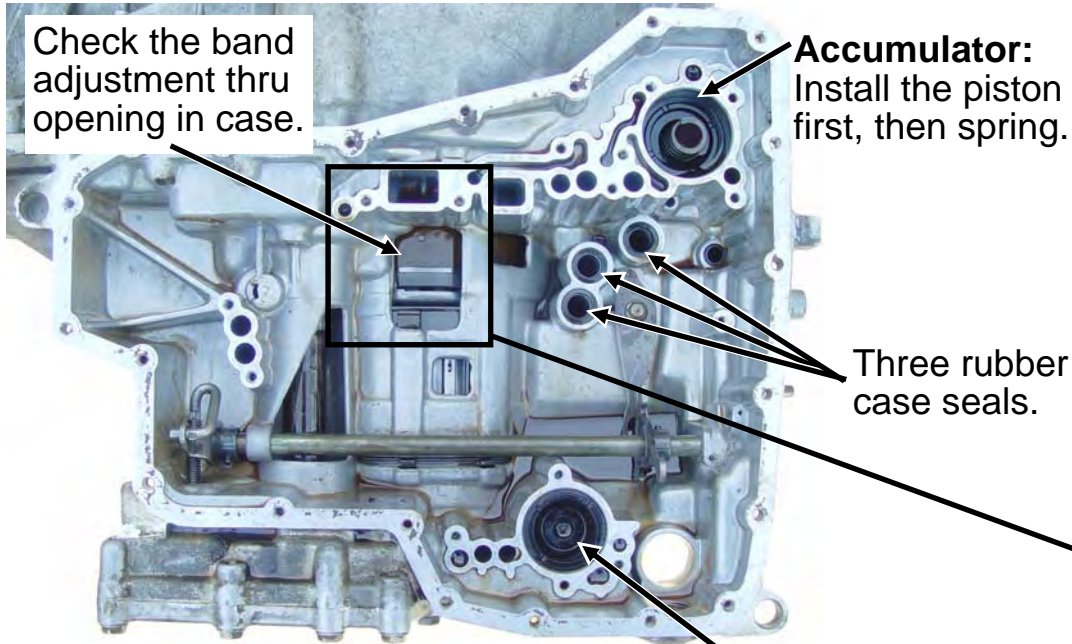
3-4 Clutch Drum



3-4 Piston

Before installing Valve Body

1. Check position of parts in case.



2. After installing the 2nd piston check band adjustment. With finger tip, band should wiggle back and forth on the drum at least 1/16".



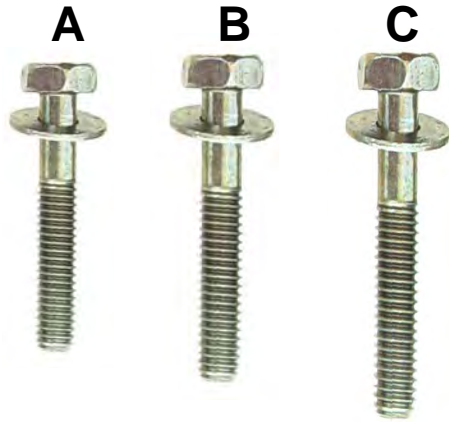
3. When reinstalling the Valve Body on the case, install the manual valve in the direction shown.



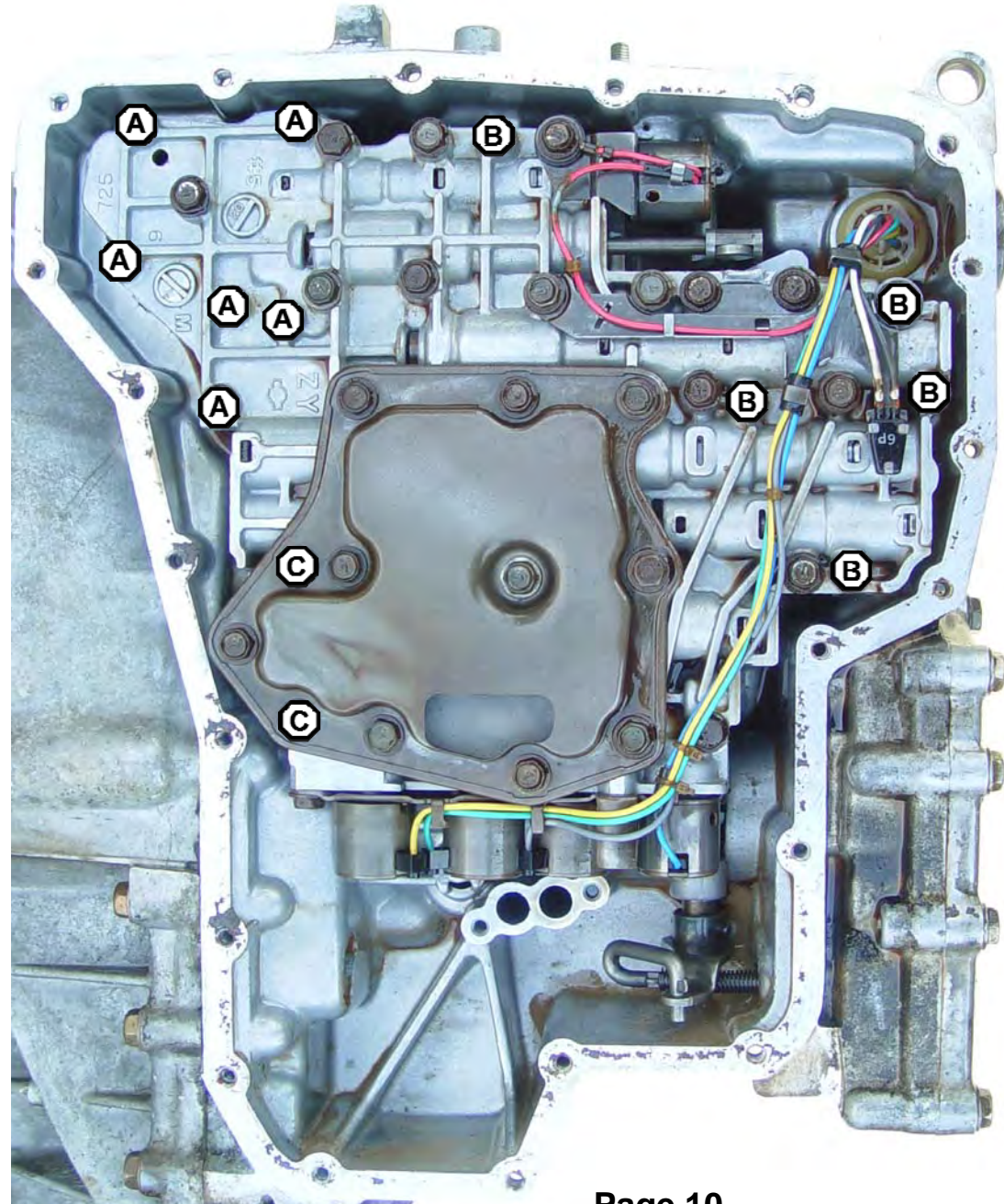
Tighten drain plug to 25 foot lbs.
Tighten pan bolts to 65-80 inch lbs.

VB to Case Bolts

- "A" Six bolts 1.455"
- "B" Five bolts 1.725"
- "C" Two bolts 1.885"



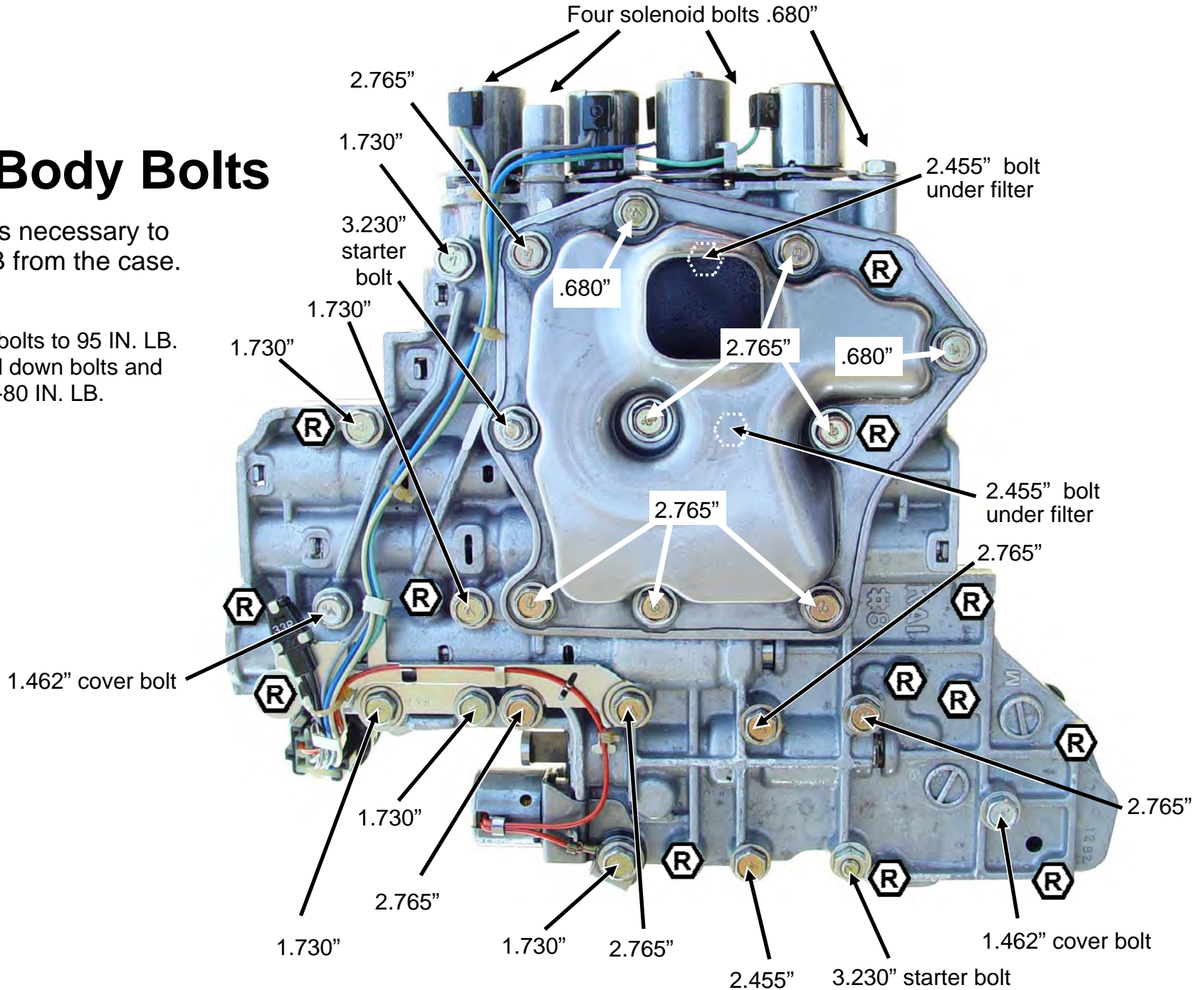
Tighten VB bolts to 95 IN. LB.
Pan bolts to 65-80 IN. LB.
Drain plug to 25 FT. LB.



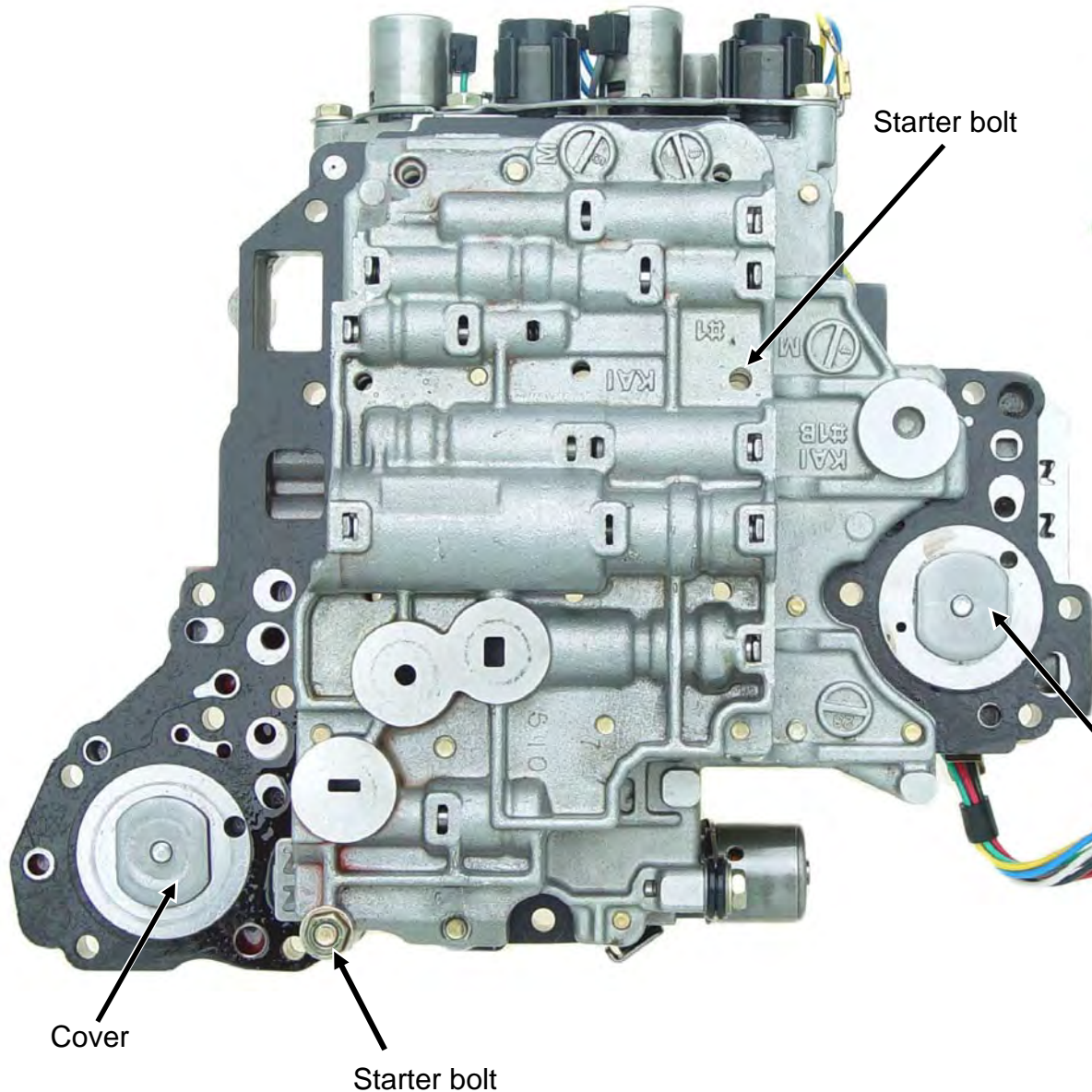
Valve Body Bolts

R 13 bolts necessary to remove VB from the case.

Tighten VB bolts to 95 IN. LB.
Tighten hold down bolts and plates to 70-80 IN. LB.



Tighten VB bolts to 95 IN. LB.
Tighten hold down bolts and plates to 70-80 IN. LB.



1.462" length cover bolts

.685" 6 pieces

.870" 1 piece

1.730" 6 pieces

2.455" 3 pieces

2.765" 11 pieces

3.230" 2 pieces

Starter bolt

Cover

Trans ID

RE4FO3B has a black case connector and has wires 7" long from VB as shown.
RE4FO3A has a tan plastic case connector and has wires that are 21" long from VB.
This Kit fits **RE4FO3B** trans.