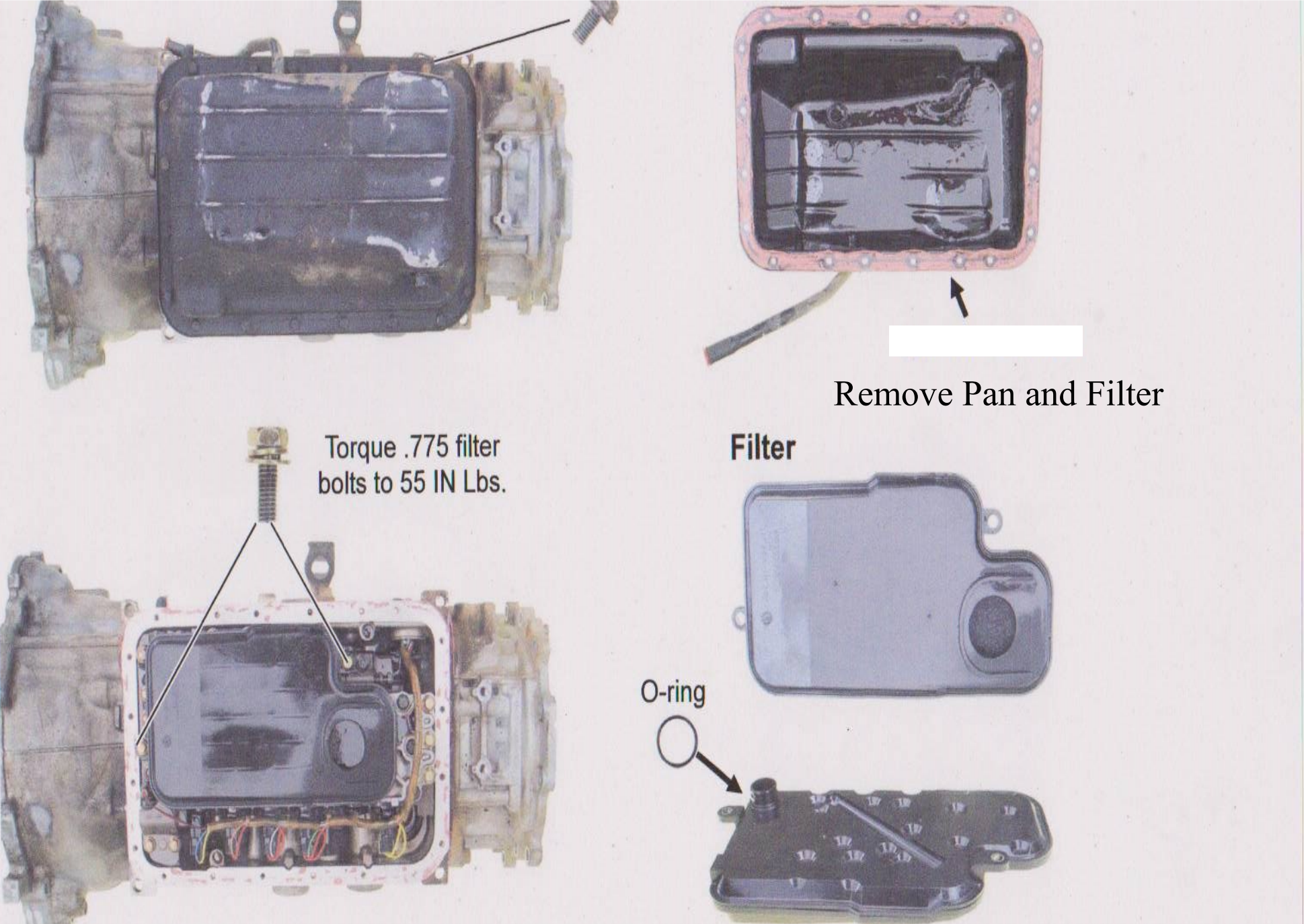


# Mitsubishi R4A51 and R5A51 Valve Body Remove and Replace <





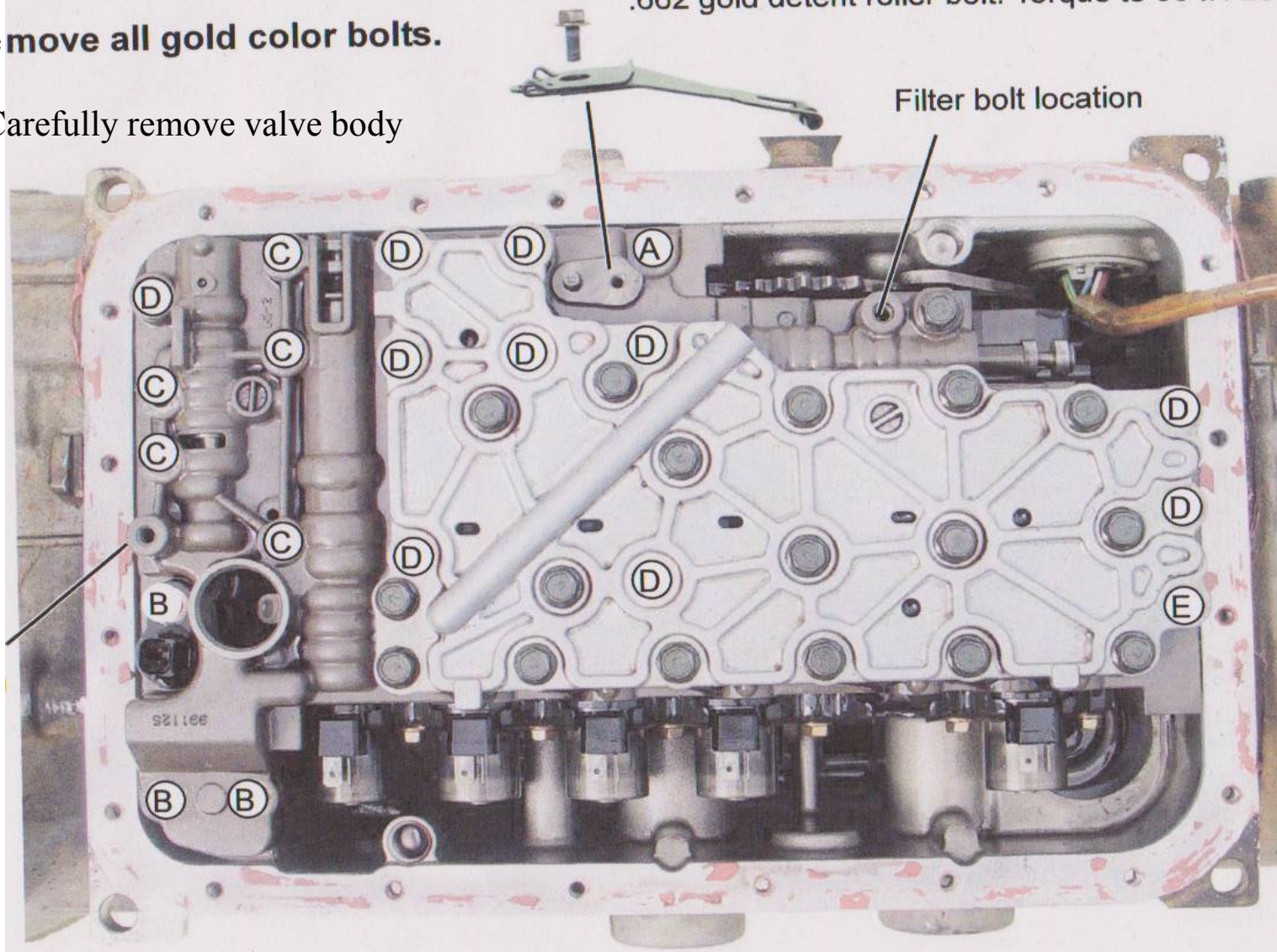
- 1 - Unplug loom from Solenoids and temp sensor

## Valve Body to Case Bolts

.662 gold detent roller bolt. Torque to 55 IN Lbs.

**Remove all gold color bolts.**

- 2 - Carefully remove valve body



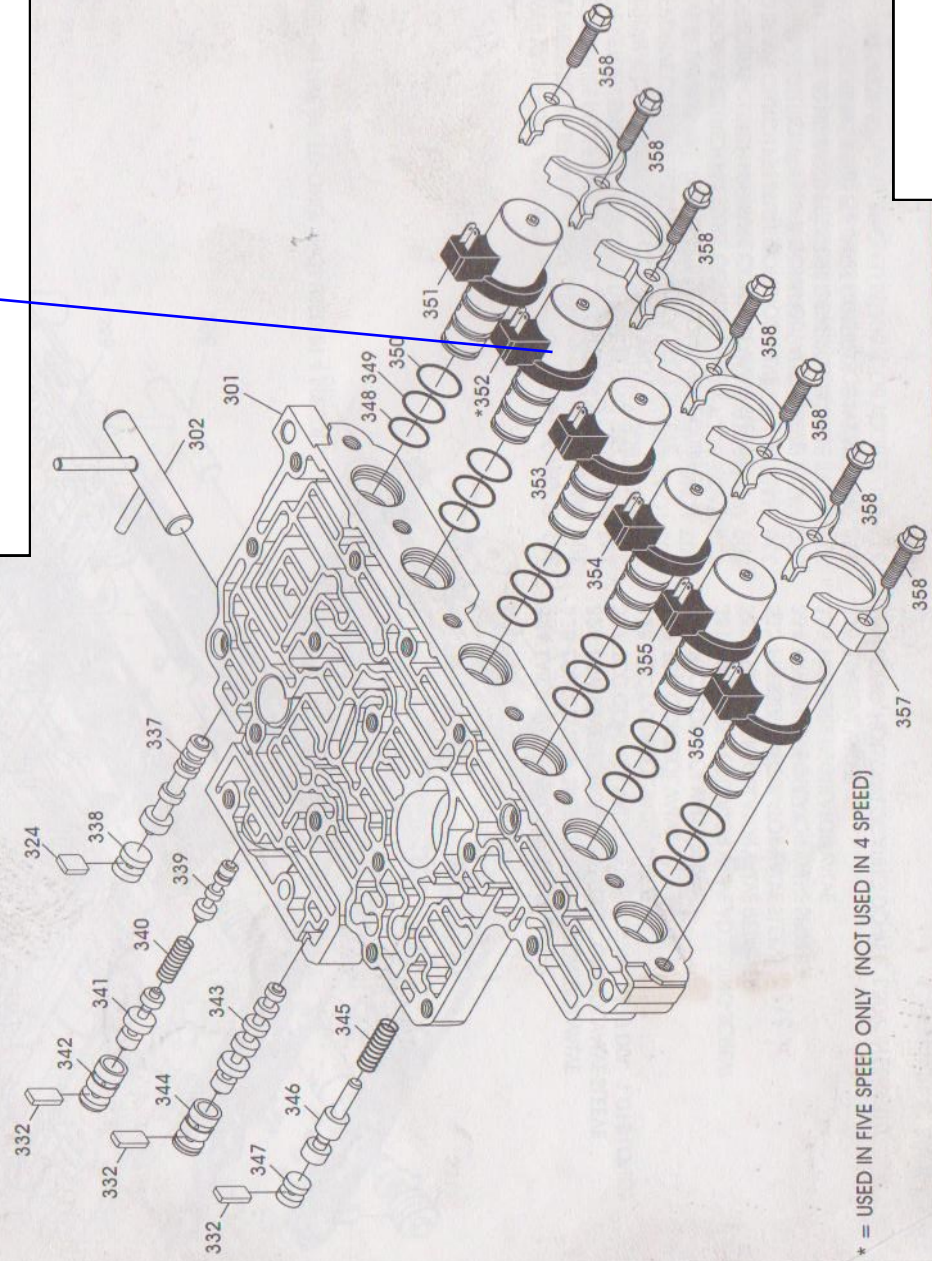


- Remove solenoid retaining bracket
- Remove solenoids
- Refit solenoids in same position on Valve body supplied
- Ensure that o'rings are lubricated and care is taken not to cut solenoid o'rings during assembly

- NOTE - 4 speed unit does not have solenoid 352

### V5A51 SOLENOID BODY

- 301 SOLENOID BODY ASSEMBLY
- 302 MANUAL VALVE SLIDER ASSEMBLY
- 324 SWITCHING VALVE BORE PLUG RETAINER
- 332 VALVE RETAINER (3 REQUIRED)
- 337 SWITCHING VALVE
- 338 SWITCHING VALVE BORE PLUG
- 339 FAIL-SAFE VALVE "A"
- 340 FAIL-SAFE VALVE "A" SPRING
- 341 FAIL-SAFE VALVE "A2"
- 342 FAIL-SAFE VALVE "A" SLEEVE
- 343 FAIL-SAFE VALVE "B"
- 344 FAIL-SAFE VALVE "B" SLEEVE
- 345 TCC PRESSURE CONTROL VALVE SPRING
- 346 TCC PRESSURE CONTROL VALVE
- 347 TCC PRESSURE CONTROL VALVE BORE PLUG
- 348 SMALL SOLENOID "O" RING (1 REQUIRED ON EACH SOL.)
- 349 MEDIUM SOLENOID "O" RING (1 REQUIRED ON EACH SOL.)
- 350 LARGE SOLENOID "O" RING (1 REQUIRED ON EACH SOL.)
- 351 LOW REVERSE BRAKE/DIRECT CLUTCH SOLENOID
- 352 REDUCTION BRAKE SOLENOID (5 SPEED ONLY)
- 353 2ND BRAKE SOLENOID
- 354 UNDERDRIVE CLUTCH SOLENOID
- 355 OVERDRIVE CLUTCH SOLENOID
- 356 TORQUE CONVERTER CLUTCH SOLENOID
- 357 SOLENOID RETAINING BRACKET
- 358 SOLENOID RETAINING BRACKET BOLTS (7 REQUIRED)
- 359 UNDERDRIVE CLUTCH CHECKBALL
- 360 OVERDRIVE CLUTCH CHECKBALL
- 361 REVERSE CLUTCH CHECKBALL
- 362 CHECKBALL SPRINGS (3 REQUIRED)
- 363 LOW REVERSE SHUTTLE BALL, (.250" RUBBER)



\* = USED IN FIVE SPEED ONLY (NOT USED IN 4 SPEED)

All valve body to case bolts are gold plated.  
Bolts are actual size when printed.



**A** 1.200 1 piece



**B** 1.412 3 pieces



**C** 1.800 5 pieces



**D** 1.987 10 pieces



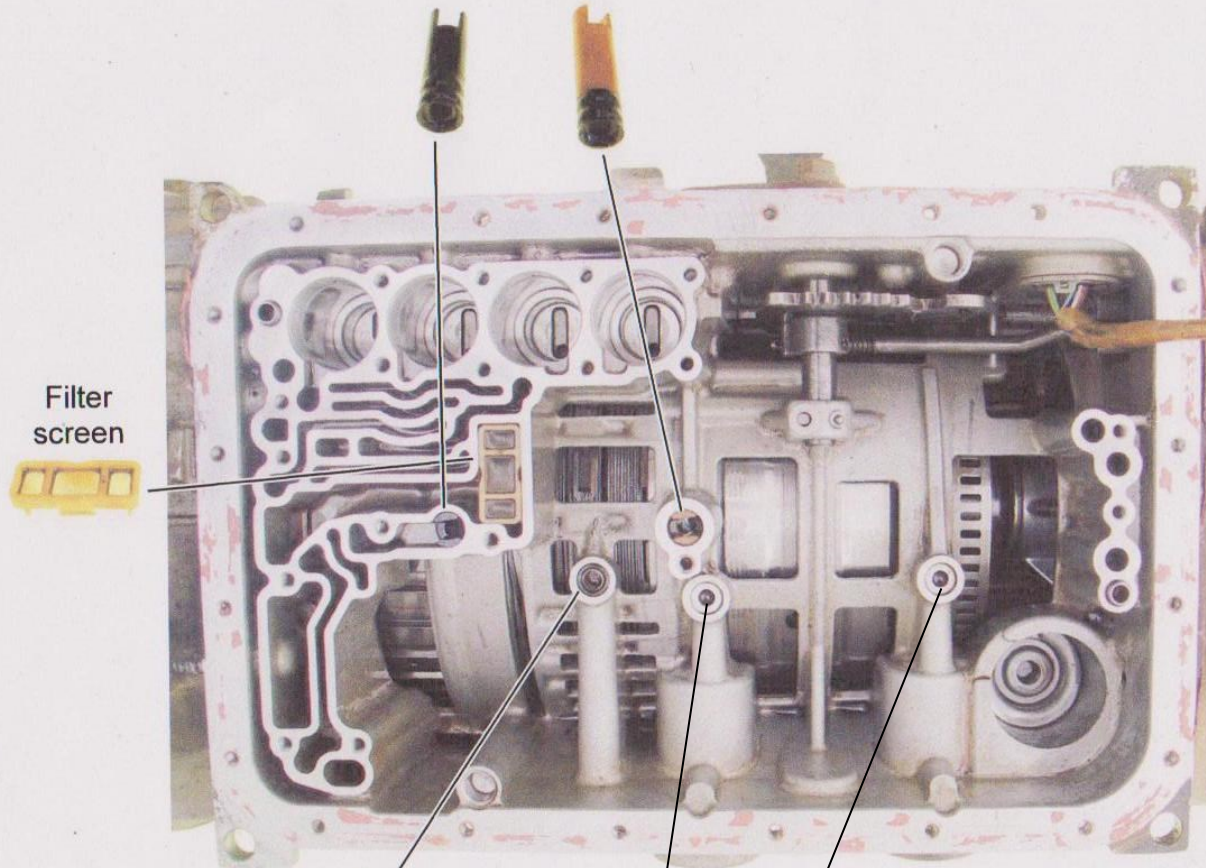
**E** 2.387 1 piece

**Torque valve body to case  
bolts to 95-100 IN. lbs.**



# Case Parts and Accumulators

24



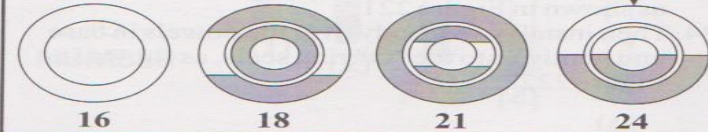
Filter  
screen

Lube O-ring seal

O'ring's  
5 Speed only

**ACCUMULATOR SPRING IDENTIFICATION**

*NOTE: The shaded areas are the identification "Bluing".*



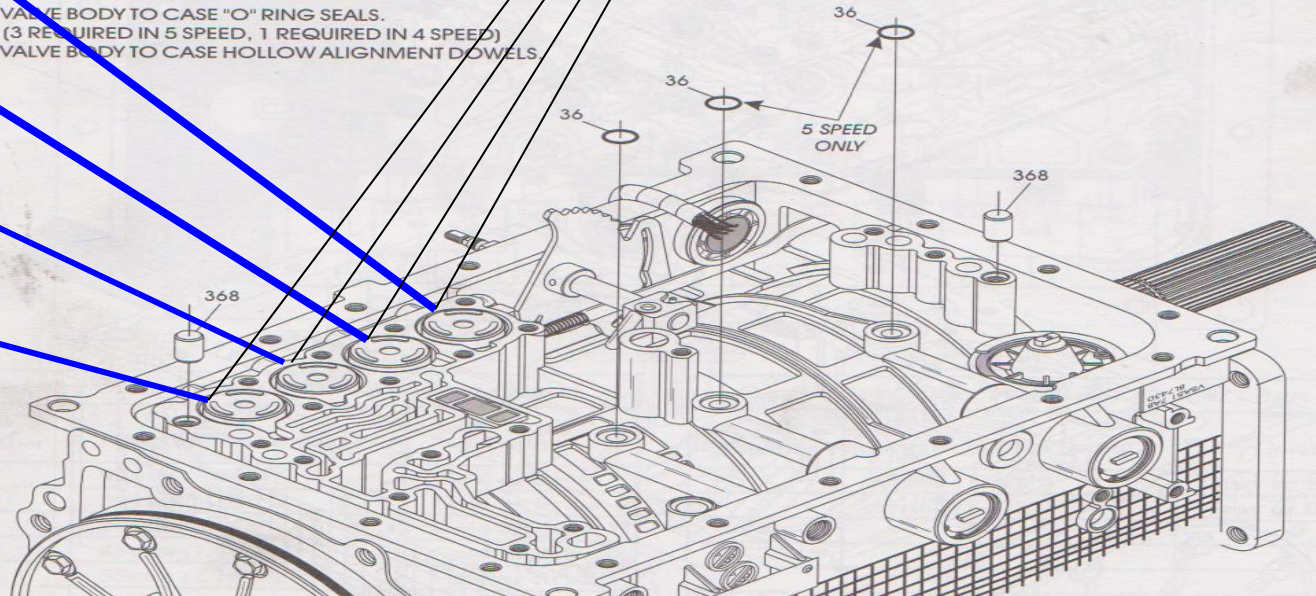
NO.	ACCUMULATOR	I.D. "Bluing" Outer	I.D. "Bluing" Inner
16	Overdrive Clutch	None	Not Used
18	2nd Brake Clutch	2/3rds	Full Surface
21	Low/Reverse Clutch	Full Surface	2/3rds
24	Underdrive Clutch	Half or 2/3rds	Half or 2/3rds
31	Direct Clutch	None	Not Used
35	Reduction Band	None	Not Used

Figure 219

81. Install the valve body to case "O" ring seals in case cavities, as shown in Figure 220, retain with small amount of Trans-Jel®.  
*Note: Only one used in 4 speed units.*

Continued on Page 116

36 VALVE BODY TO CASE "O" RING SEALS.  
 (3 REQUIRED IN 5 SPEED, 1 REQUIRED IN 4 SPEED)  
 368 VALVE BODY TO CASE HOLLOW ALIGNMENT DOWELS



No 24  
Underdrive Clutch

No 21  
Low/Reverse  
Clutch

No 18  
2nd Brake Clutch

No 16  
Overdrive clutch



### TRANSMISSION ASSEMBLY

#### "5 SPEED" INTERNAL COMPONENTS (CONT'D)

82. Lay the internal wire harness over the case pan rail, as shown in Figure 222.
83. Install completed valve body, while inserting manual valve slider into the inside detent lever, as shown in Figure 221.
84. Then install valve body over the dowels in case and gently onto the "O" ring seals, as shown in Figure 222.

Continued on Page 117

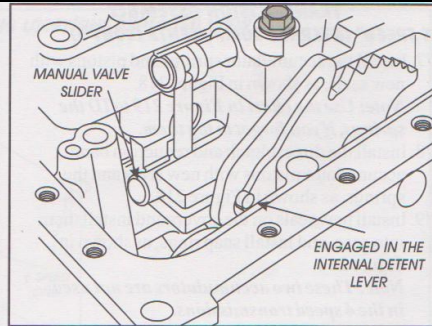
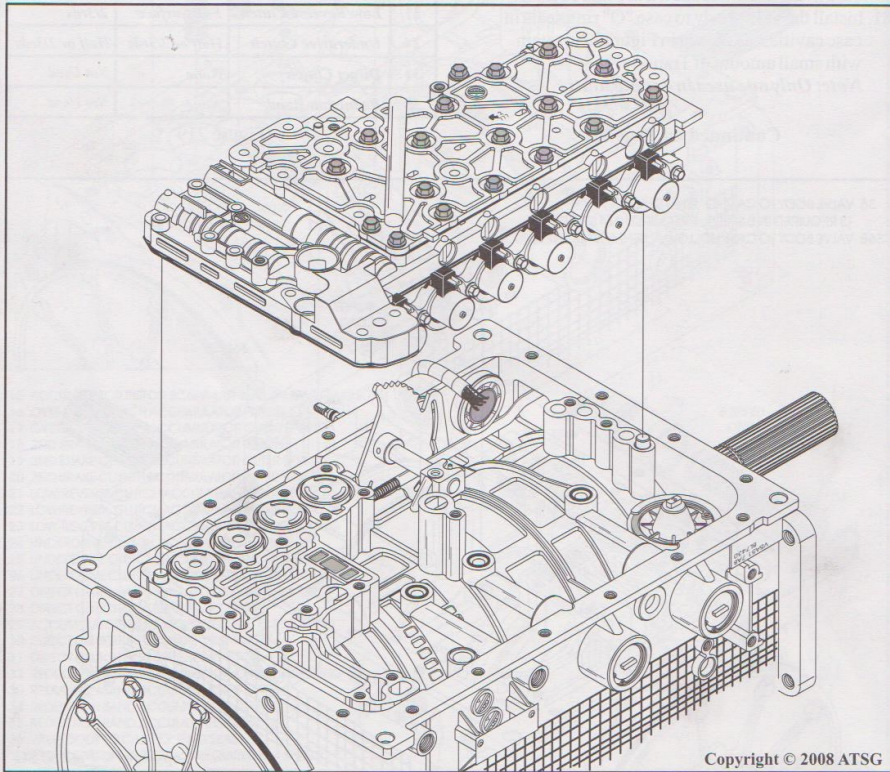


Figure 221



Refit Valve body bolts and tighten  
Refit new filter with o'ring and bolts  
Refit pan and gasket  
Refill with Approved Trans Fluid - Full Synthetic  
Recommended.

### Note - Read this it's IMPORTANT !

This transmission has adaptive learning software  
And will exhibit harsh shift characteristics when  
First road tested.

Care MUST be taken on initial road test , drive  
vehicle at LIGHT THROTTLE only and allow  
Gear shifts into all gears. The more times you  
stop and allow upshifts the TCU will alter the  
shift characteristics accordingly.

When the light throttle upshifts are softer then  
proceed to heavier throttle upshifts and down-  
shifts.

This process may take up to 20 km's and will  
continue to fine tune indefinitely.