

Critical Wear Areas & Vacuum Test Locations



NOTE: OE valves are shown in rest position and should be tested in rest position unless otherwise indicated. Test locations are pointed to with an arrow. Springs are not shown for visual clarity. Low vacuum reading indicates wear and Sonnax parts are noted for replacement.

Front Control Valve Body



For specific vacuum test information, refer to individual part instructions included in kits and available at www.sonnax.com.

Click on Sonnax part numbers to see more information.

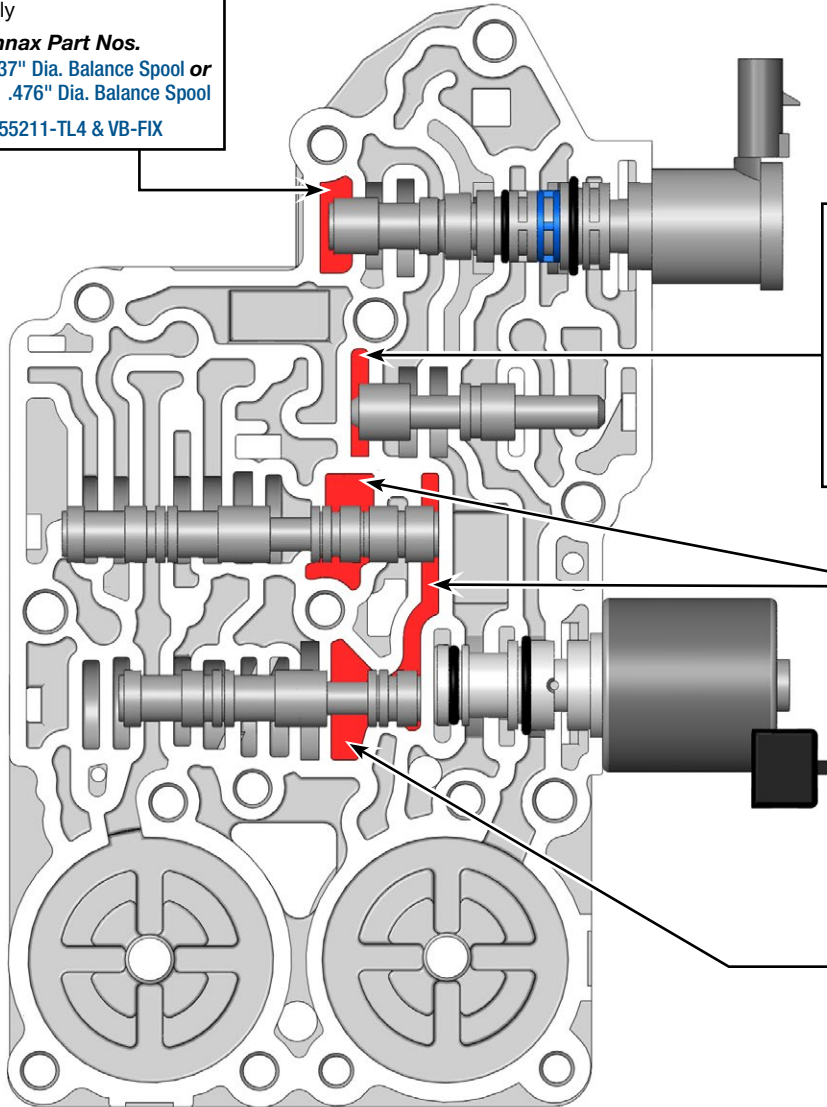
TCC Regulator Valve

- Code 894, 1870 • No lockup
- TCC slip • No Reverse
- Overheated converter
- Harsh TCC apply

Replace with Sonnax Part Nos.

55211-04K .437" Dia. Balance Spool or
55211-24K .476" Dia. Balance Spool

55211-04K Requires F-55211-TL4 & VB-FIX



AFL Valve

- 2nd Gear starts • Gear ratio codes
- Low line pressure • TCC slip
- No 4th or 5th • Forward clutch distress
- OD clutch distress • Coast clutch distress

Replace with Sonnax Part No.

55211-01K

Requires F-55211-TL & VB-FIX

3-4 Shift Control Valve

- 3-4 Flare
- Clutch distress

Replace with Sonnax Part No.

55211-14K

Requires F-55211-TL14 & VB-FIX

Safety Mode Valve

- 1-2 Bind-up
- Clutch distress

Replace with Sonnax Part No.

55211-14K

Requires F-55211-TL14 & VB-FIX

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Rear Control Valve Body

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Click on Sonnax part numbers to see more information.

2-3 Shift & Control Valves

- 1st or 2nd Gear only
- No 3rd, 4th or 5th

4-5 Shift Control Valve

- 4-5 Concerns
- Clutch distress

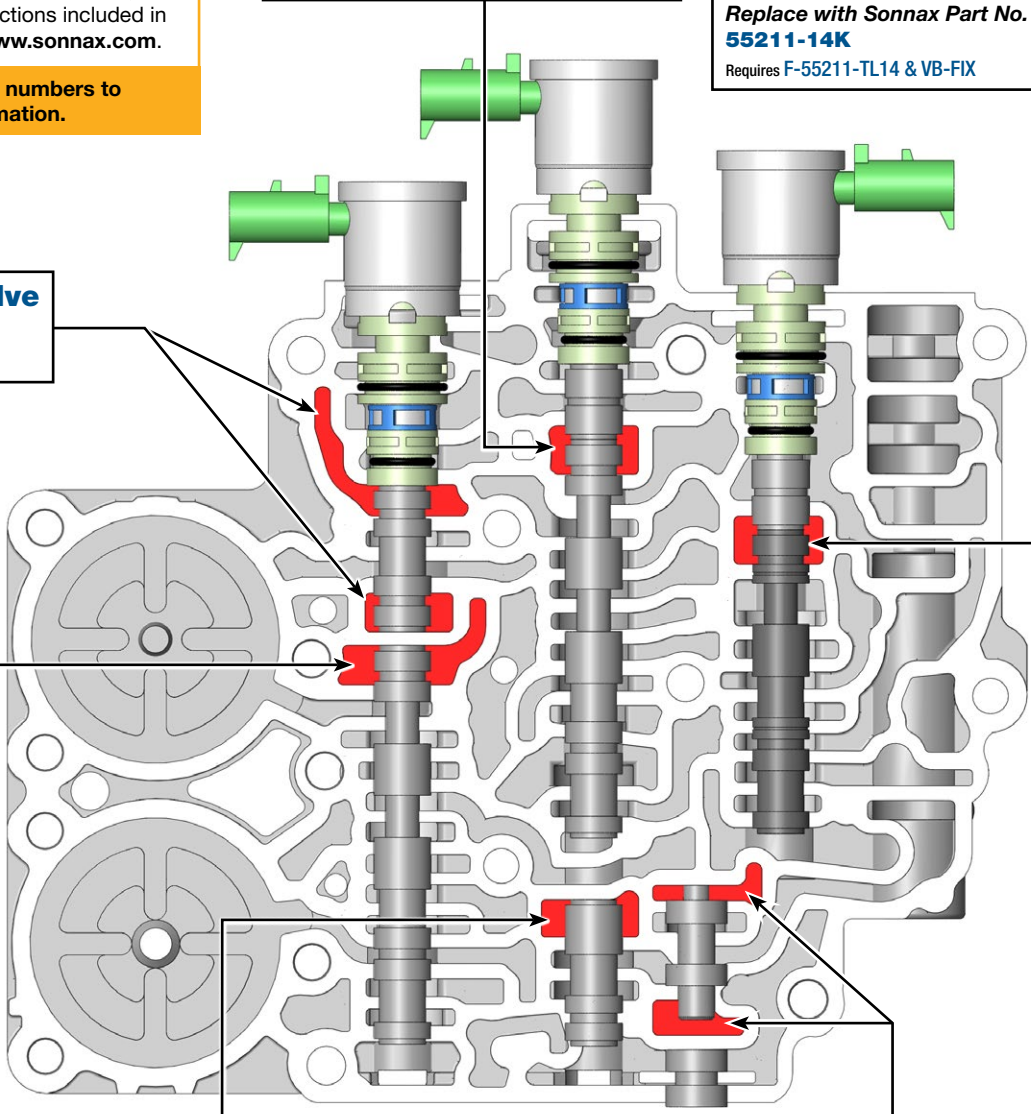
Replace with Sonnax Part No. 55211-14K
Requires F-55211-TL14 & VB-FIX

1-2 Shift Control Valve

- 1st Gear only
- No 1st

1-2 Shift Valve

- 1-2 Concerns
- 1st Gear only
- No 1st
- Second clutch distress



Reverse Lockout Valve

- No Reverse
- TCC lining overheat
- Burnt Low/Reverse clutch
- Burnt Reverse clutch

Replace with Sonnax Part No. 55211-11K
Requires F-55211-TL & VB-FIX

Low Pressure Control Valve

- 3-2-1 Bump
- Engine braking concerns
- Clutch failure

Replace with Sonnax Part No. 55211-17K
Requires F-55211-TL17 & VB-FIX

WARNING: Required tool kit F-55211-TL17 is no longer in production. Check with your distributor for availability.

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Fluid Pump Cover Body Single TCC Valve Pump

Pressure Regulator Valve

- Low pressure
- Pump damaged
- Pump slide wear
- Gear ratio codes
- No 4-5

Replace with **Sonnax Part No. 55211-08K**
Requires 55211-TL8

Test: Block orifice in valve with pencil eraser while testing.

TCC Control Valve

- TCC apply & release concerns
- No lockup
- Falls out of lockup when hot
- Inadequate lubrication

Boost Valve Kit

- High line pressure in Reverse
- Low line rise • TCC slip
- Gear ratio codes • Flare shifts

Replace with **Sonnax Part Nos. 55209-01K** Increased Performance or **55209-04K** OE Ratio

TCC Control & Enable Valve Kit

- TCC apply & release concerns
- Falls out of lockup when hot
- No lockup
- Inadequate lubrication

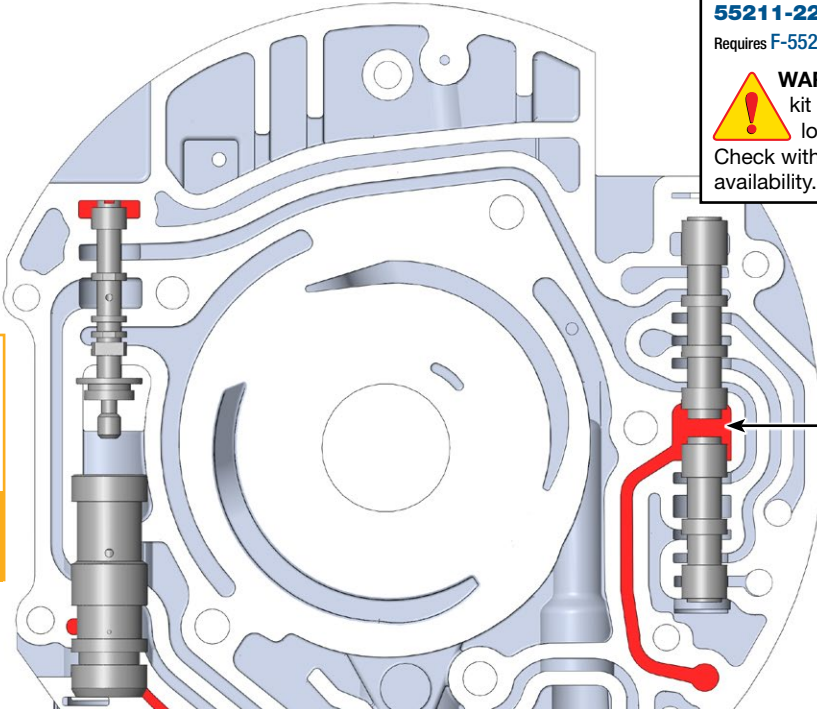
Replace with **Sonnax Part Nos. 55211-22K** Dual Valve Pumps Only
Requires F-55211-TL22, VB-FIX & VB-06

WARNING: Required tool kit F-55211-TL22 is no longer in production. Check with your distributor for availability.

Fluid Pump Cover Body Dual TCC Valve Pump

For specific vacuum test information, refer to individual part instructions included in kits and available at www.sonnax.com.

Click on **Sonnax part numbers** to see more information.



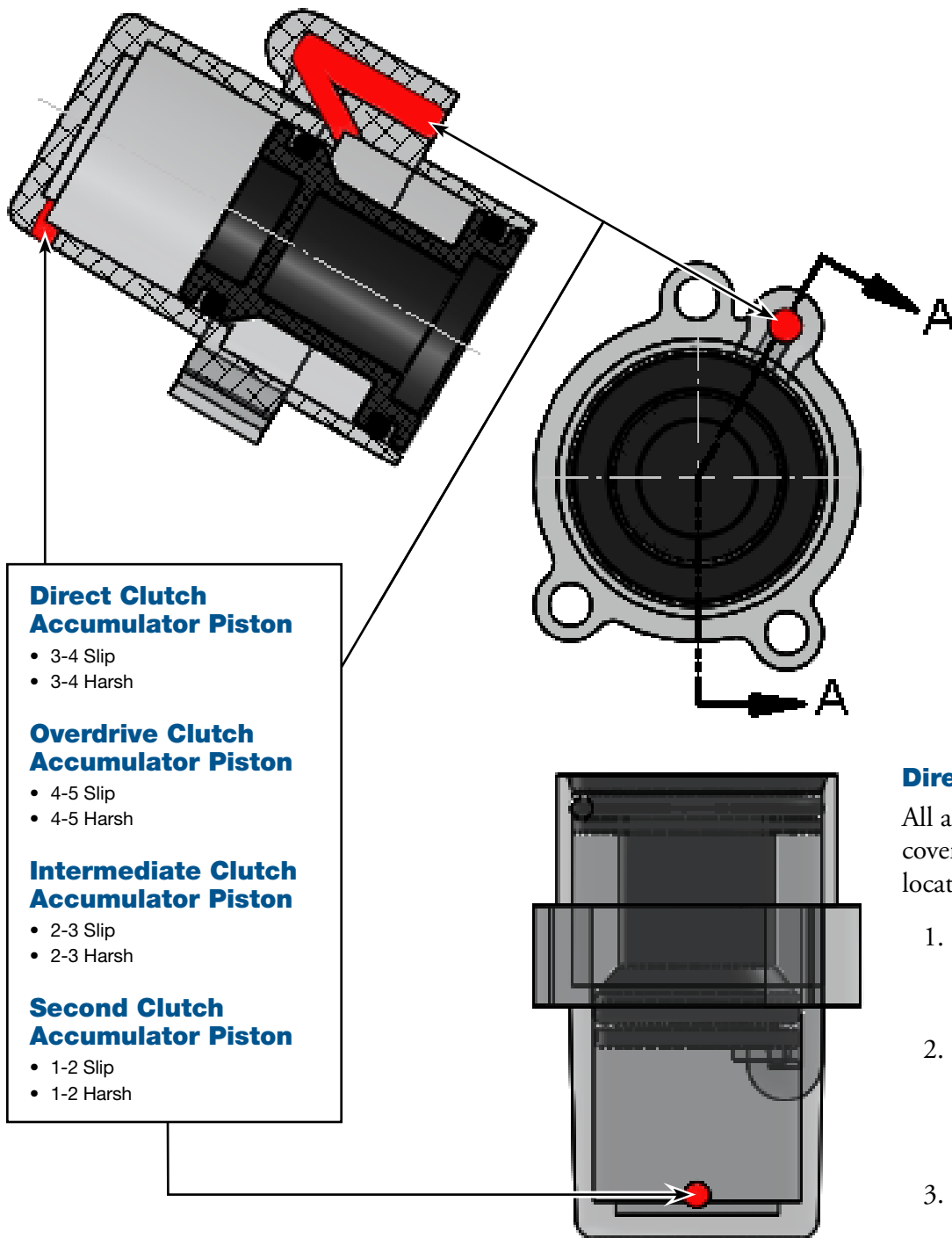
Critical Wear Areas & Vacuum Test Locations



Drop-In Zip Valve™
Parts Available

NOTE: OE valves are shown in rest position and should be tested in rest position unless otherwise indicated. Test locations are pointed to with an arrow. Springs are not shown for visual clarity. Low vacuum reading indicates wear and Sonnax parts are noted for replacement.

Accumulator Pistons



Direct Clutch Accumulator Piston

- 3-4 Slip
- 3-4 Harsh

Overdrive Clutch Accumulator Piston

- 4-5 Slip
- 4-5 Harsh

Intermediate Clutch Accumulator Piston

- 2-3 Slip
- 2-3 Harsh

Second Clutch Accumulator Piston

- 1-2 Slip
- 1-2 Harsh

Directions:

All accumulator pistons and covers can be checked at either location indicated.

1. Pull accumulator piston down until flush with cover opening as illustrated.
2. Attach appropriately sized testing tip to vacuum test line and apply vacuum to either port.
3. Leave port not being tested unblocked while testing the other port.

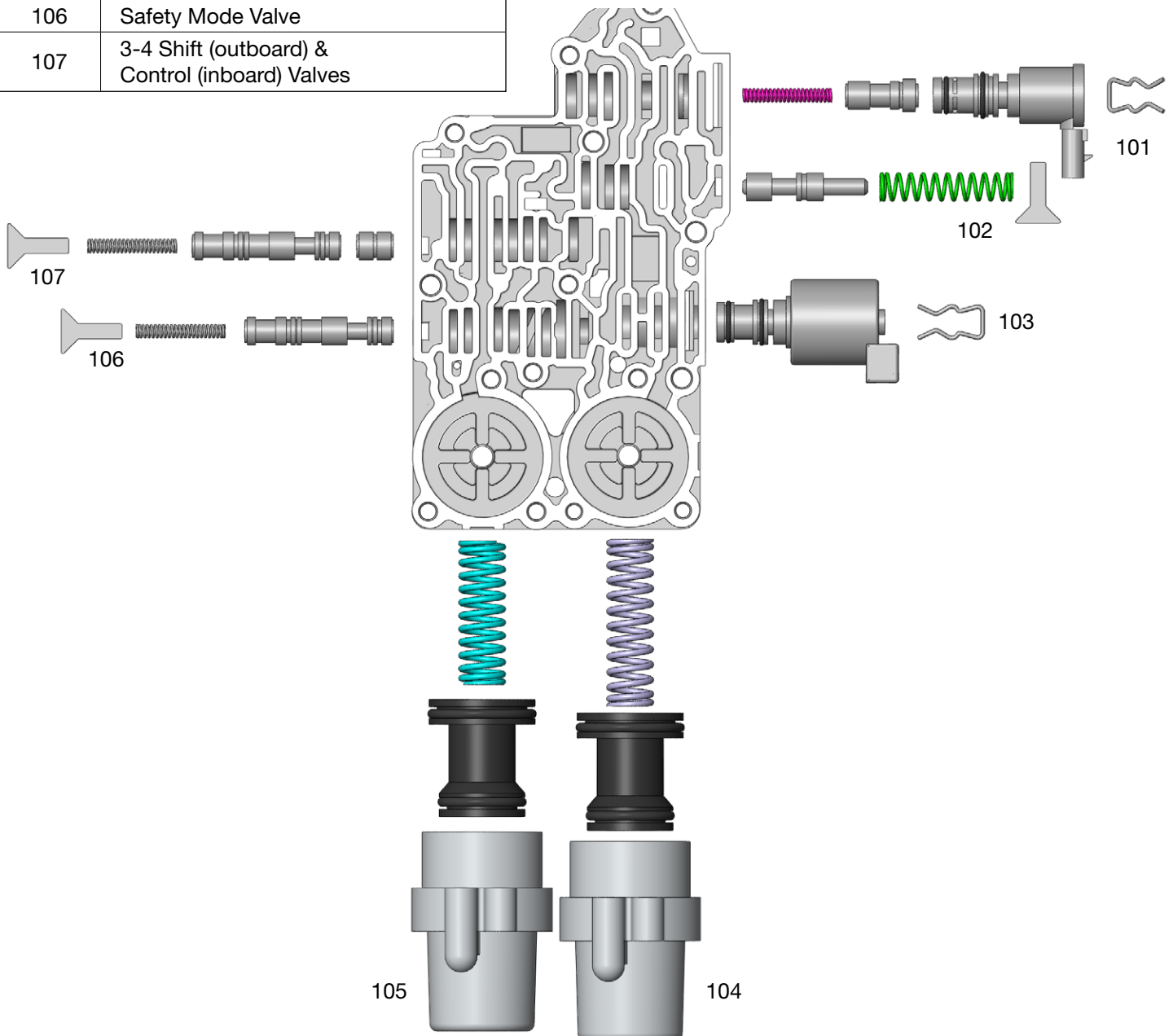
OE Exploded View

Front Control Valve Body

NOTE: Depending upon vehicle application, the OE springs shown may not be present.

Front Control Valve Body Descriptions

I.D No.	Description
101	TCC Regulator Apply Valve
102	Actuator Feed Limit Valve
103	Pressure Control Solenoid Assembly
104	Direct Clutch Accumulator Piston
105	Overdrive Clutch Accumulator Piston
106	Safety Mode Valve
107	3-4 Shift (outboard) & Control (inboard) Valves

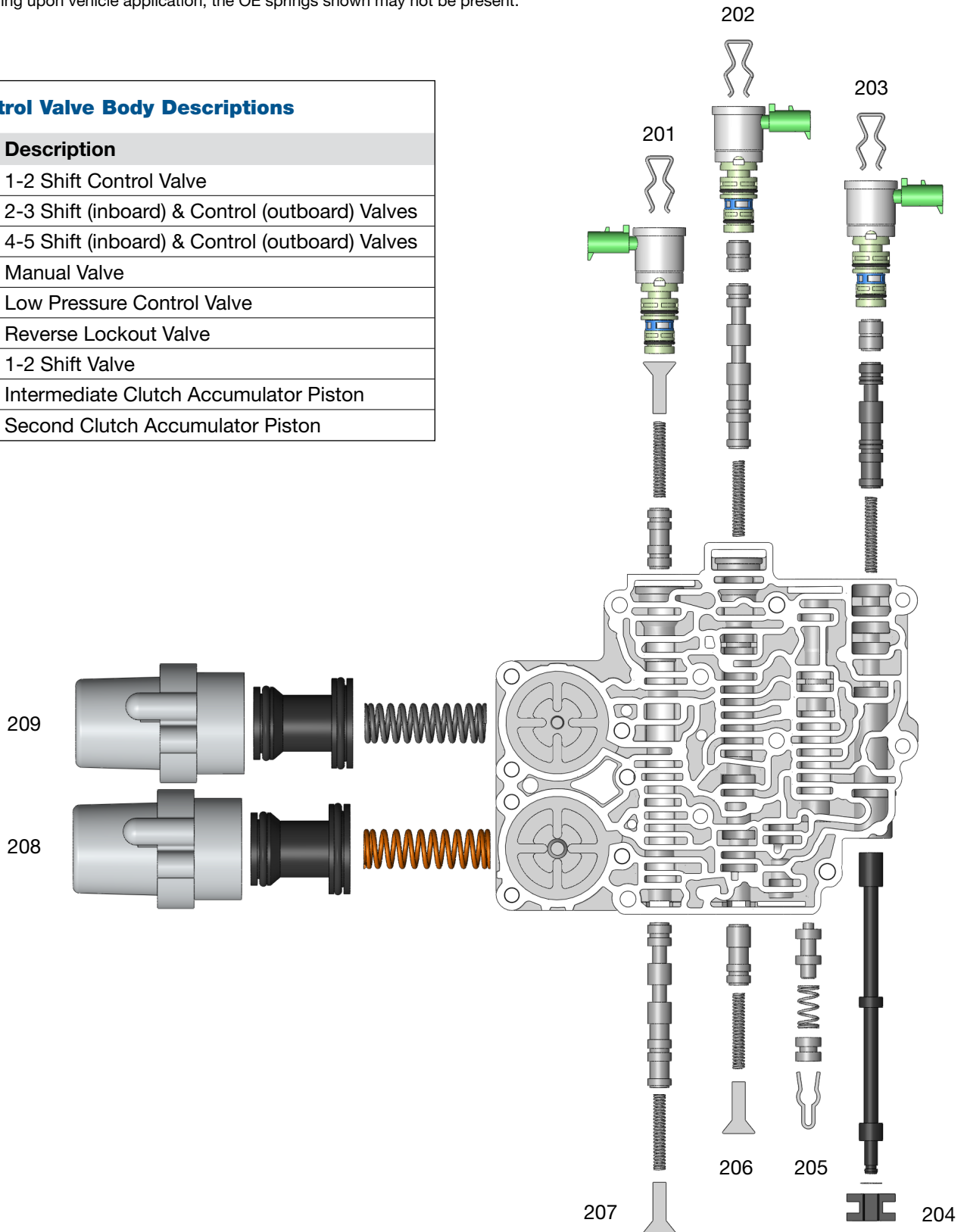


OE Exploded View

Rear Control Valve Body

NOTE: Depending upon vehicle application, the OE springs shown may not be present.

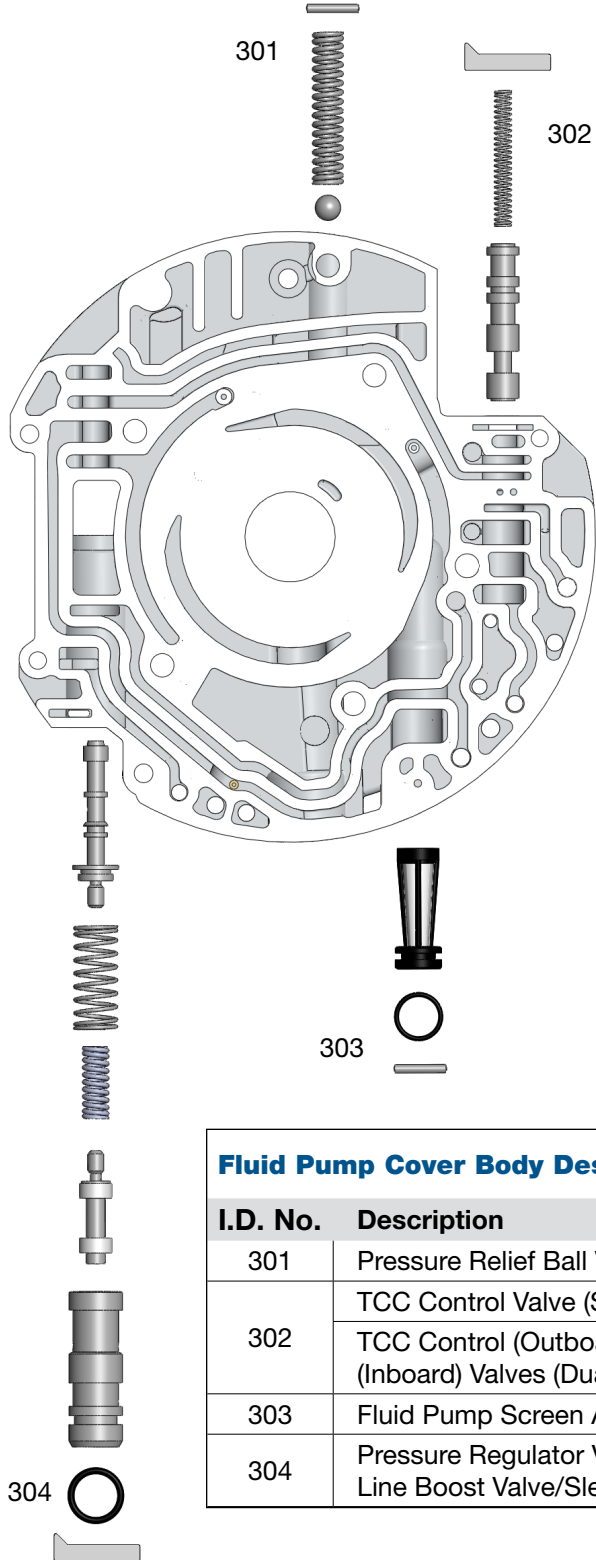
Rear Control Valve Body Descriptions	
I.D. No.	Description
201	1-2 Shift Control Valve
202	2-3 Shift (inboard) & Control (outboard) Valves
203	4-5 Shift (inboard) & Control (outboard) Valves
204	Manual Valve
205	Low Pressure Control Valve
206	Reverse Lockout Valve
207	1-2 Shift Valve
208	Intermediate Clutch Accumulator Piston
209	Second Clutch Accumulator Piston



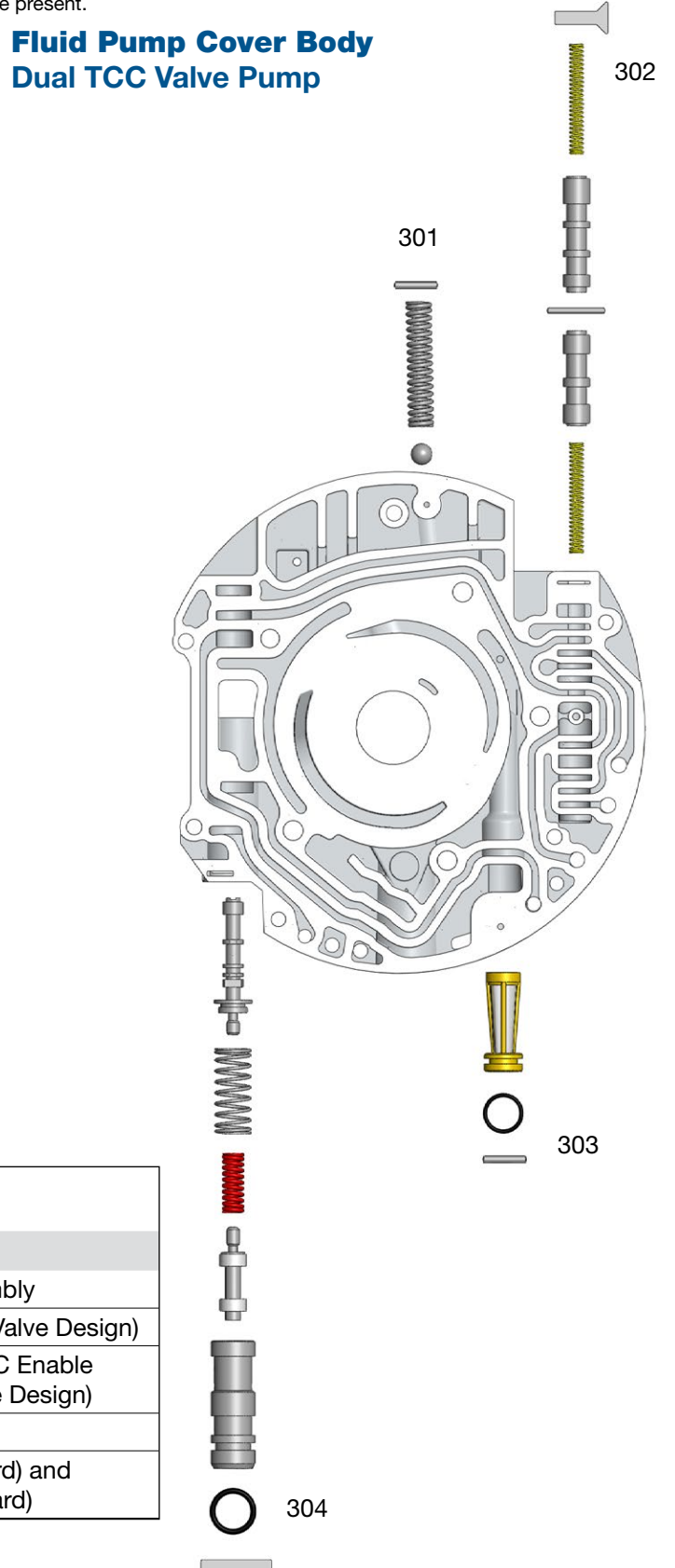
OE Exploded View

NOTE: Depending upon vehicle application, the OE springs shown may not be present.

Fluid Pump Cover Body Single TCC Valve Pump



Fluid Pump Cover Body Dual TCC Valve Pump



Fluid Pump Cover Body Descriptions	
I.D. No.	Description
301	Pressure Relief Ball Valve Assembly
302	TCC Control (Single TCC Valve Design) TCC Control (Outboard) and TCC Enable (Inboard) Valves (Dual TCC Valve Design)
303	Fluid Pump Screen Assembly
304	Pressure Regulator Valve (Inboard) and Line Boost Valve/Sleeve (Outboard)