



# 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 noted for replacement. For specific vacuum test information, refer to individual part instructions included in kits and available at [www.sonnax.com](http://www.sonnax.com).

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

**Boost Valve Assembly**

- Soft shifts
- Delayed reverse
- Low line pressure
- Poor modulator control

**Replace with Sonnax Part No.**  
**37947-01K** OE Ratio  
**37947-03K** Increased Ratio

**EPC Boost Valve, Forward Modulator Valve & Reverse Modulator Valve**

- Poor shift quality
- Delayed forward/no reverse
- 2nd Gear starts

**Replace with Sonnax Part No.**  
**37947-11K** Requires 37947-TL11

**TCC Regulator Valve**

- Converter apply issues
- High TCC slip RPM
- Codes 628 and 1741
- TCC surge/cycle
- High fluid/converter temperatures

**Replace with Sonnax Part No.**  
**37947-09K**  
**37947-38** Requires 37947-TL9

**Coast Clutch Valve**

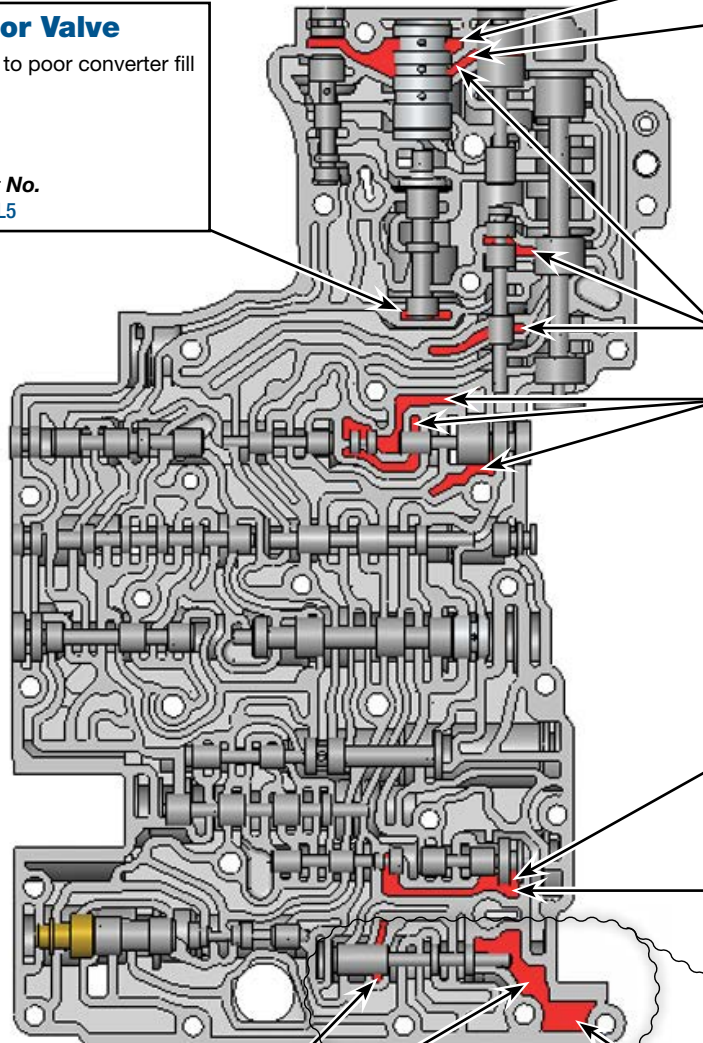
- No 4th gear (4R)
- No 2nd or 5th gear (5R)
- No engine braking in D3 to low
- No coast clutch apply

**Replace with Sonnax Part No.**  
**37947-33K** Requires 37947-TL33

**Pressure Regulator Valve**

- Delayed engagement due to poor converter fill
- High/Low line pressure
- Low cooler flow at idle
- Overheated converters

**Replace with Sonnax Part No.**  
**37947-05K** Requires 37947-TL5

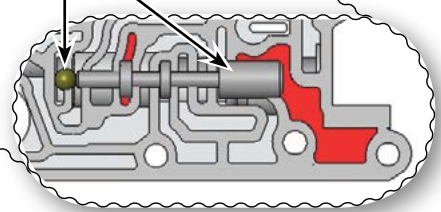


**TCC Modulator Valve**

- No TCC apply
- Code 1741
- Low cooler flow
- Poor converter fill & delayed engagements
- Engine stall on forward engagement

**Replace with Sonnax Part No.**  
**37947-07K** Requires 37947-TL5

To vacuum test this port: invert valve and prop outboard with a Torlon checkball.





# OE Valve Body Exploded View

## Valve Body Descriptions

I.D. No.	Description
101	Forward Engagement Control Valve
102	Boost Valve Assembly & Pressure Regulator Valve
103	EPC Boost Valve & Forward Modulator Valve
104	Manual Valve
105	Reverse Modulation Valves
106	2-3 or 3-4 Shift Valve
107	1-2 or 2-3 Shift Valve
108	Solenoid Regulator Valve
109	Coast Clutch Valve & Converter Regulator Valve
110	Converter Clutch Modulator Valve
111	Cooler Limit Valve, Bypass Valve & Thermostat Bypass Valve
112	3-4 or 1-2 & 4-5 Shift Valve
113	Throttle Downshift Control Valve
114	Manual Low Valve
115	Kick Downshift Control Valve

