

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 and solenoids are not shown for visual clarity. Low vacuum reading indicates wear.

4L60-E - Valve Body

Click on Sonnax part numbers to see more information.

3-4 Shift Valve

- 2nd Gear starts
- 3rd Clutch failure
- 3-4 Shift complaints
- Loss of AFL pressure

Replace with Sonnax Part No. **77754-42K**

Requires F-77754-TL42 & VB-FIX

3-2 Control Valve* Manual Valve*

Reverse Abuse Bore Plug

- Delayed reverse
- Burned 3-4 clutch
- 3-2 Downshift tie-up

Replace with Sonnax Part No. **77754-21**

Reverse Abuse Valve

- Delayed reverse
- Burned reverse input clutch

Replace with Sonnax Part No. **77754-35K**

Forward Abuse Valve

Replace with Sonnax Part No. **77754-35K**

NOTE: Check for visual bore wear.

Forward Abuse Bore Plug

- Delayed Reverse
- Burned low/reverse clutch

Replace with Sonnax Part No. **77754-21**

4-3 Sequence Valve

- No 4th gear
- Low 4th gear pressure
- Burned 2-4 band

Replace with Sonnax Part No. **77964-04K** Requires 77964-RM2

End Plugs

- No 4th gear
- Converter issues
- Loss of manual 3rd
- Burned overrun clutch

Replace with Sonnax Part No. **77964-08K**

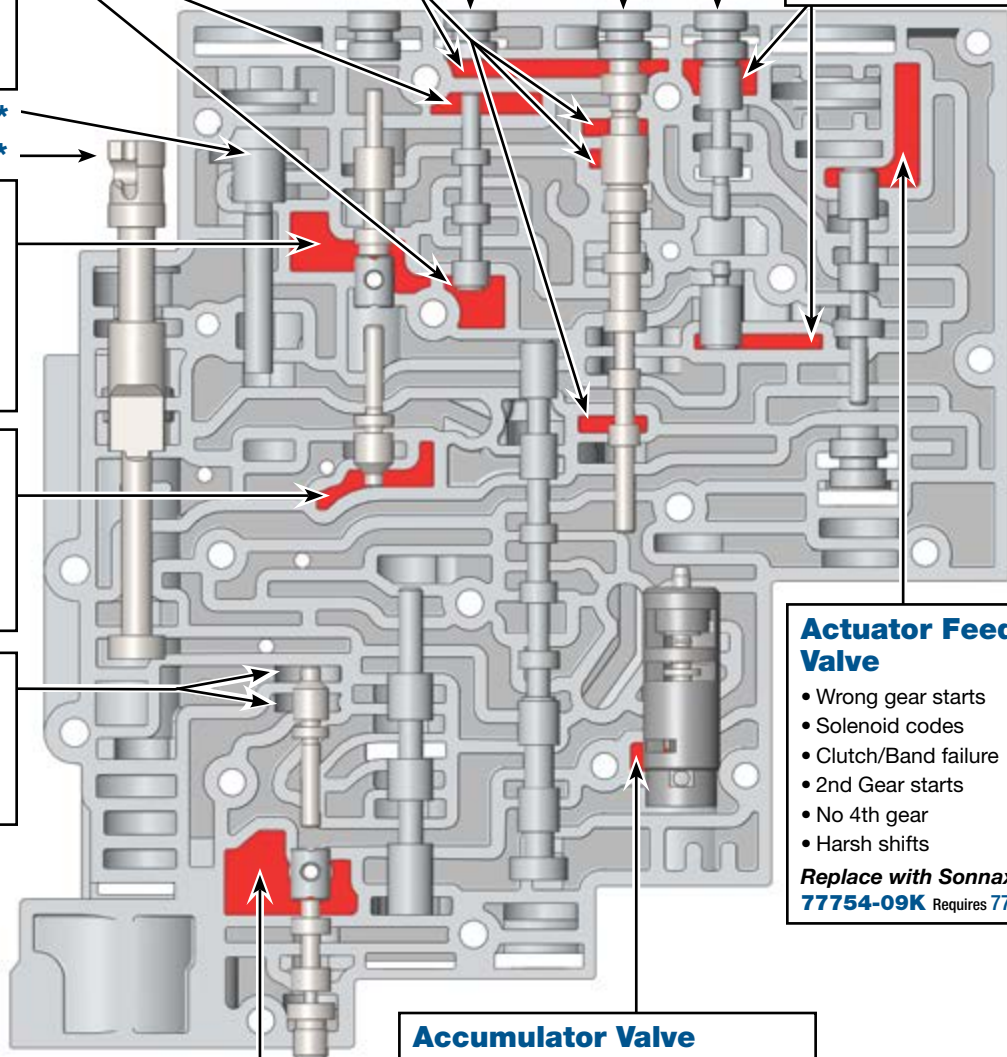
NOTE: Check for visual wear on plugs.

TCC Regulator Valve*

- 1870 Slip code
- Low TCC apply pressure
- Overheated converter
- Harsh 1-2 shifts
- Burned 3-4 clutch

Replace with Sonnax Part No. **77754-03K** Non EC3 '97-Earlier
77754-04K EC3 '98-Later
77754-ISO

Requires varying combinations of tools*



Actuator Feed Limit Valve

- Wrong gear starts
- Solenoid codes
- Clutch/Band failure
- 2nd Gear starts
- No 4th gear
- Harsh shifts

Replace with Sonnax Part No. **77754-09K** Requires 77754-TL

Accumulator Valve

- 1-2 Bang shift
- Shortened 2-4 band life

Replace with Sonnax Part No. **77777L-K**
77777M-K

NOTE: Check for visual wear in sleeve.

*Tool Combinations Required for TCC Regulator Valve: F-77754-TL4, F-77754-SERV, 77754-R2, 77754-SERV, & VB-FIX depending on particular valve body; SEE INSTRUCTIONS TO DETERMINE

*NOTE: 1995 4L60-E valve bodies have a different manual valve, 3-2 control valve and TCC regulator valve. 2006-Later valve bodies have a different TCC regulator valve. However, all port locations for vacuum testing are the same.

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. Worm tracks will vary slightly on non-PWM pump covers, but locations for vacuum testing are identical.

4L60-E - PWM Pump Cover

Click on Sonnax part numbers to see more information.

Pump Cover (Front)

Pressure Regulator Valve

- 3-4 Clutch failure
- Excessive pump noise
- Low line pressure during boost
- Reverse chatter

Replace with Sonnax Part No. 77917-07
Requires 77917-TL or 77917-TLC

Seal valve orifice with pencil eraser.

Test this location with valve stroked outboard, as shown.
Must seal orifice on back when testing here.

Test this port with valve blocked inboard.
Seal bore opening with thumb.

TCC Apply Valve

- No lockup
- Code 1870
- Falls out of lockup hot
- Lockup immediately after 2nd gear

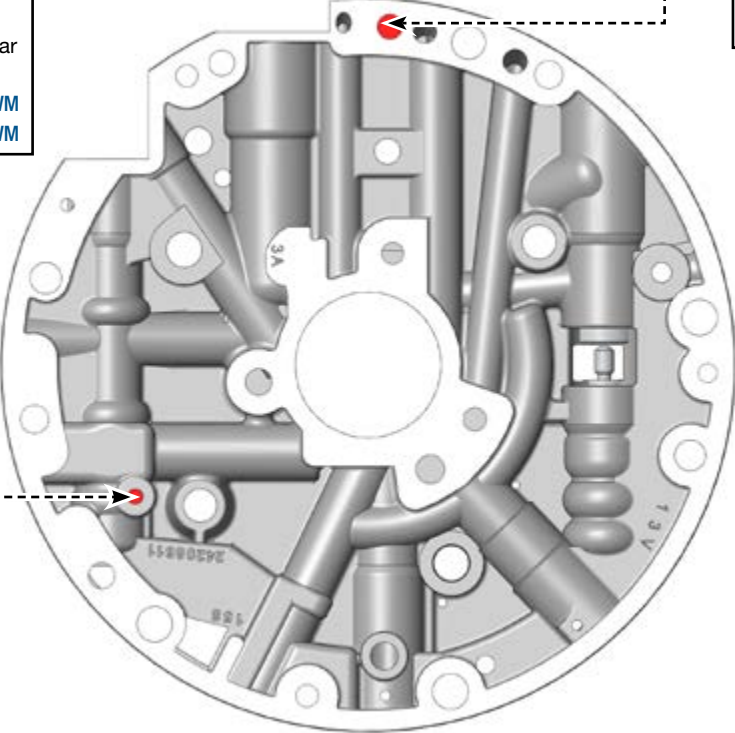
Replace with Sonnax Part No.
77805-K Non PWM
77805E-K PWM

Boost Valve Assembly

- Insufficient line rise
- 3-4 Clutch failure
- Poor shift quality

Replace with Sonnax Part No.
77898E-K O/S Ratio, O-Rings
77898E-4K OE Ratio, O-Rings
77898E-3K O/S Ratio, Factory Style
77898E-6K OE Ratio, Factory Style

Must seal orifice on back when testing here.



Pump Cover (Back)

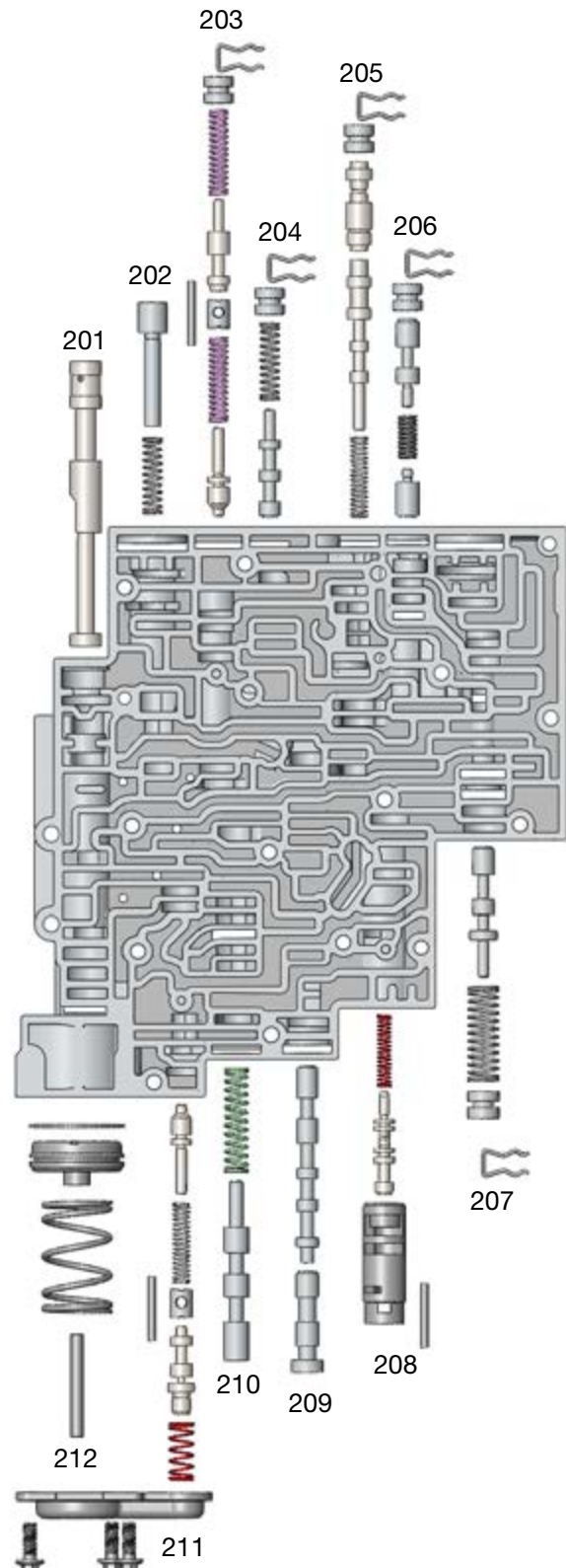
OE Exploded View

NOTE: Solenoids not shown.

4L60-E • Valve Body Shown Here

Valve Body Descriptions

I.D. No.	Description
201	Manual Valve
202	3-2 Control Valve
203	Reverse Abuse Valve (Inboard) 3-2 Downshift Valve (Outboard)
204	3-4 Shift Valve
205	4-3 Sequence Valve (Inboard) 3-4 Relay Valve (Outboard)
206	TCC Regulator Valve
207	Actuator Feed Limit Valve
208	Accumulator Valve & Sleeve
209	2-3 Shift Valve (Inboard) 2-3 Shuttle Valve (Outboard)
210	1-2 Shift Valve
211	Forward Abuse Valve (Inboard) Low Overrun Valve (Outboard)
212	Forward Accumulator Piston



OE Exploded View

NOTE: Worm tracks will vary on non-PWM pump covers.

4L60-E • PWM Pump Cover Shown Here

PWM Pump Cover Descriptions

I.D. No.	Description
101	Pressure Regulator Valve & Boost Valve Assembly
102	TCC Apply Valve
103	Pressure Relief Ball & Spring

