

# Critical Wear Areas & Vacuum Test Locations

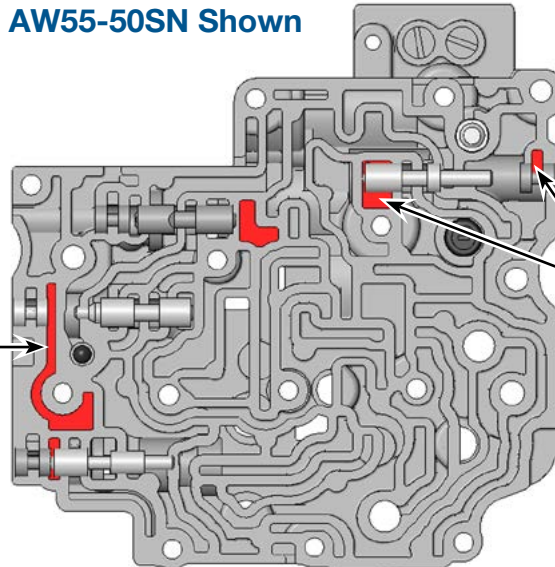


**NOTE:** OE valves are shown in rest position and should be tested in rest position unless otherwise indicated. Test locations are pointed to with an arrow. Springs are not shown for visual clarity. Low vacuum reading indicates wear and Sonnax parts noted for replacement. For specific vacuum test information, refer to individual part instructions included in kits and available at [www.sonnax.com](http://www.sonnax.com).

## Front Control Valve Body • AW55-50SN Shown (No exhaust style)

**Zip Kit®**  
**AW55-50SN-ZIP**  
Available.

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



### Neutral Relay Valve

- No neutral control
- No Drive
- Slips in Drive

Replace with **Sonnax Part No. 59947-35K**

Requires F-59947-TL34 & VB-FIX

### Solenoid Modulator Valve

- Loss of 3rd, 4th and 5th gear
- No TCC apply
- Delayed Forward
- 5th Gear only
- Low line pressure
- 2-3 Flare upshifts

Replace with **Sonnax Part No. 59947-34K**

Requires F-59947-TL34 & VB-FIX

## Middle Control Valve Body • AW55-50SN Shown

### Solenoid Relay Valve & Plunger/Sleeve Assembly

- No TCC apply
- Shift concerns
- Harsh shifts in all ranges
- Engine stall during engagements
- B5 Clutch distress
- No upshifts after 2nd or flare on 2-3 shift

Replace with **Sonnax Part No. 59947-05K**

### 3rd Gear Band (B4) Release Valve

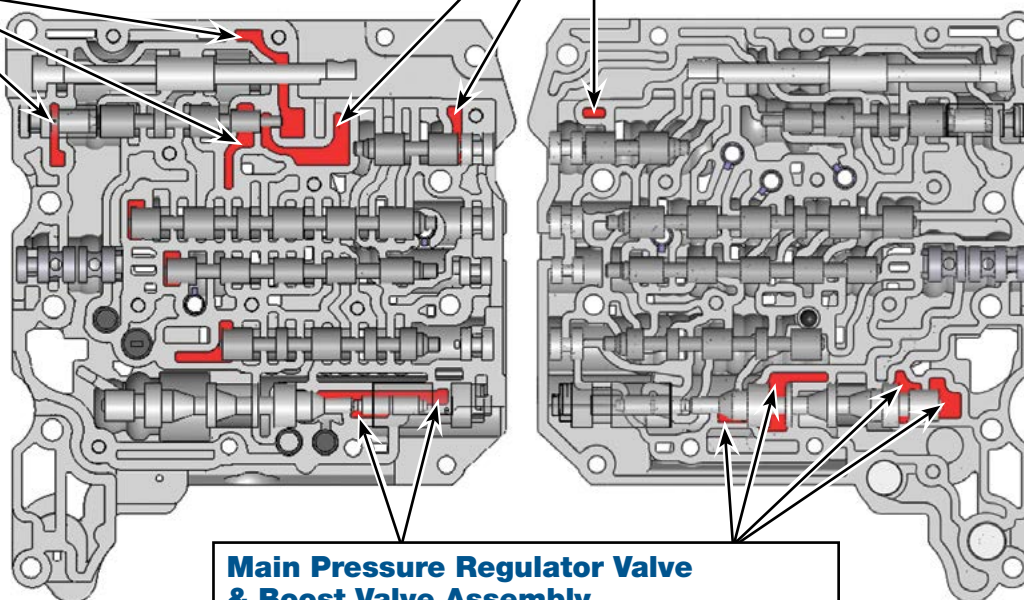
- 2-3, 3-2 Shift concern
- Harsh 3-2 coast downshift
- 2-3 Flare
- 2-3 Neutral
- 3-2 Neutral

Replace with **Sonnax Part No. 59947-26K**

Requires F-59947-TL26 & VB-FIX

Seal the port on the opposite side of casting when testing these locations.

(Cover side)



(Rear side)

### Main Pressure Regulator Valve & Boost Valve Assembly

- Harsh or soft shifts
- Delayed engagements
- Late shifts
- Converter apply/release
- Reverse slips

Replace with **Sonnax Part No. 59947-07K or 59947-12K**  
59947-12K Requires F-59947-TL12 & VB-FIX

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## Rear Control Valve Body • AW55-50SN Shown



**Zip Kit®**  
**AW55-50SN-ZIP**  
**Available.**

### Shift Pressure Control Valve

- Harsh shifts
- B1, B2, and/or C2 Clutches burned
- No 5th gear
- High line pressure in Reverse
- Low Reverse pressure

Replace with **Sonnax Part No. 59947-38K**

### Shift Pressure Control Plunger Valve

- Harsh shifts • B1, B2 and/or C2 Clutches burned
- High line pressure • Low Reverse pressure

Replace with **Sonnax Part No. 59947-75K**

### M2 Shift Valve

- No Reverse
- No neutral control
- No 1st, 2nd, 3rd & 4th gear

### Shift Pressure Relay Valve

- Slips in Reverse
- No engine braking in 2nd, 3rd & 4th gear

### Line Pressure Control (SLT) Accumulator Assembly

- Delayed Forward engagement
- Low line pressure
- Harsh shifts
- Flare 2-3 upshift
- Erratic SLT pressure

Replace with **Sonnax Part No. 59947-LPC**

### Secondary Regulator Valve

- Overheated fluids
- Harsh Reverse
- Overheated/damaged bushings & converter
- TCC slippage/RPM surge
- Poor shift quality
- High/Low SLT pressure

Replace with **Sonnax Part No. 59947-16K**

Requires F-59947-TL16 & VB-FIX

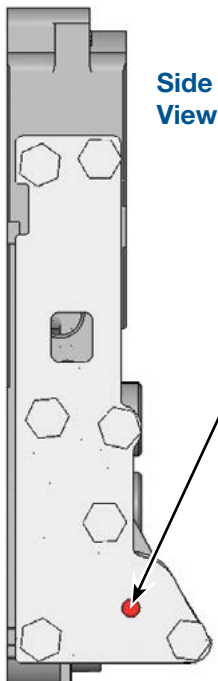
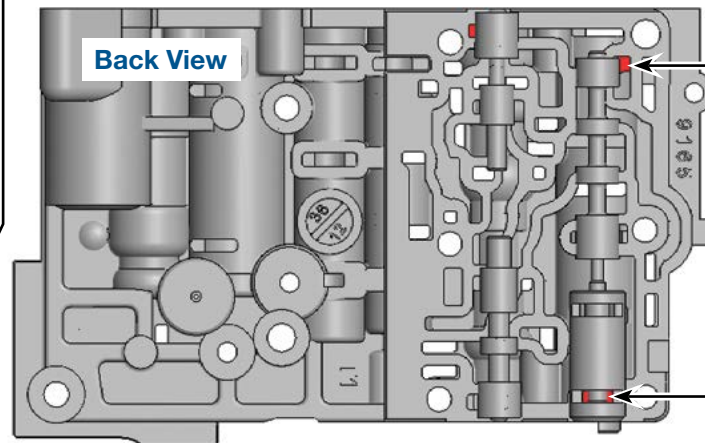
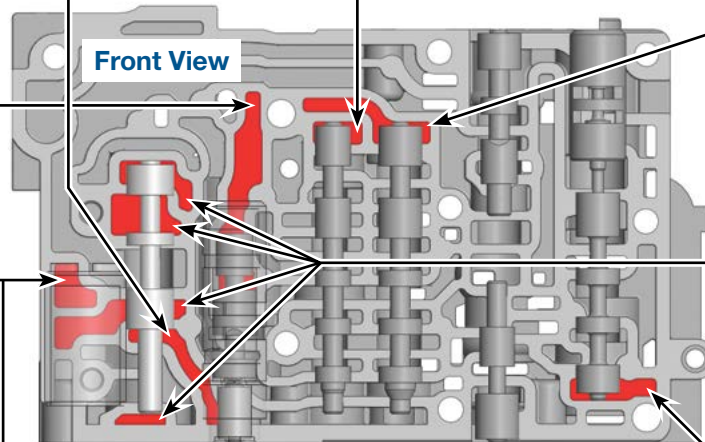
### Lockup Relay Valve

- TCC apply/release problems
- Inadequate lubrication
- Converter codes

Replace with **Sonnax Part No. 59947-01K or 59947-77K**

59947-77K Requires F-97741-TL20 & VB-FIX

Seal the port on the opposite side of casting when testing these locations.

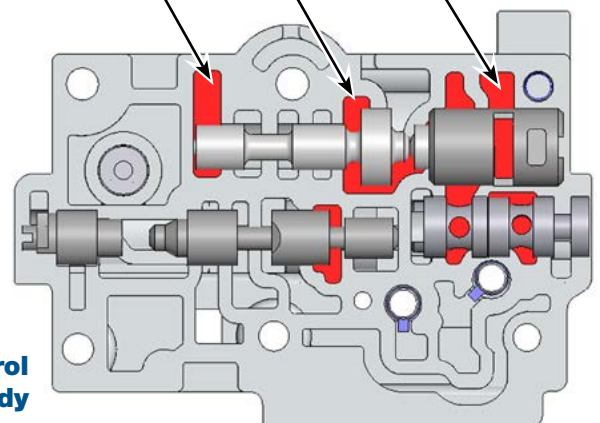


### Lockup Control Valve & Sleeve/Plunger Assembly

- TCC apply/release problems
- Converter codes
- Burnt converter

Replace with **Sonnax Part No. 59947-03K or 59947-29K**

59947-29K Requires F-59947-TL29, F-15741-TL29PL & VB-FIX



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

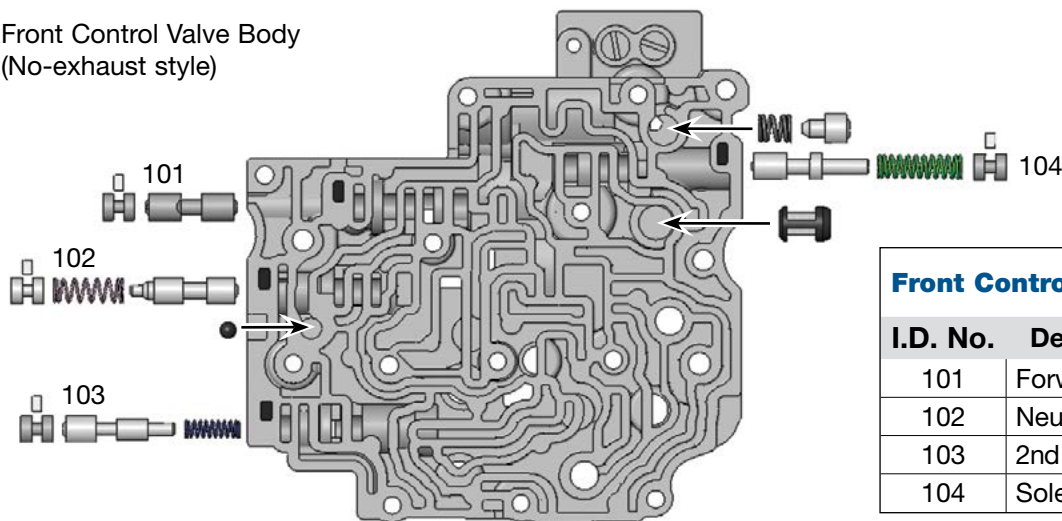
## No. 2 Rear Control Valve Body

# OE Exploded View

## Front & Middle Control Valve Body • AW55-50SN Shown

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

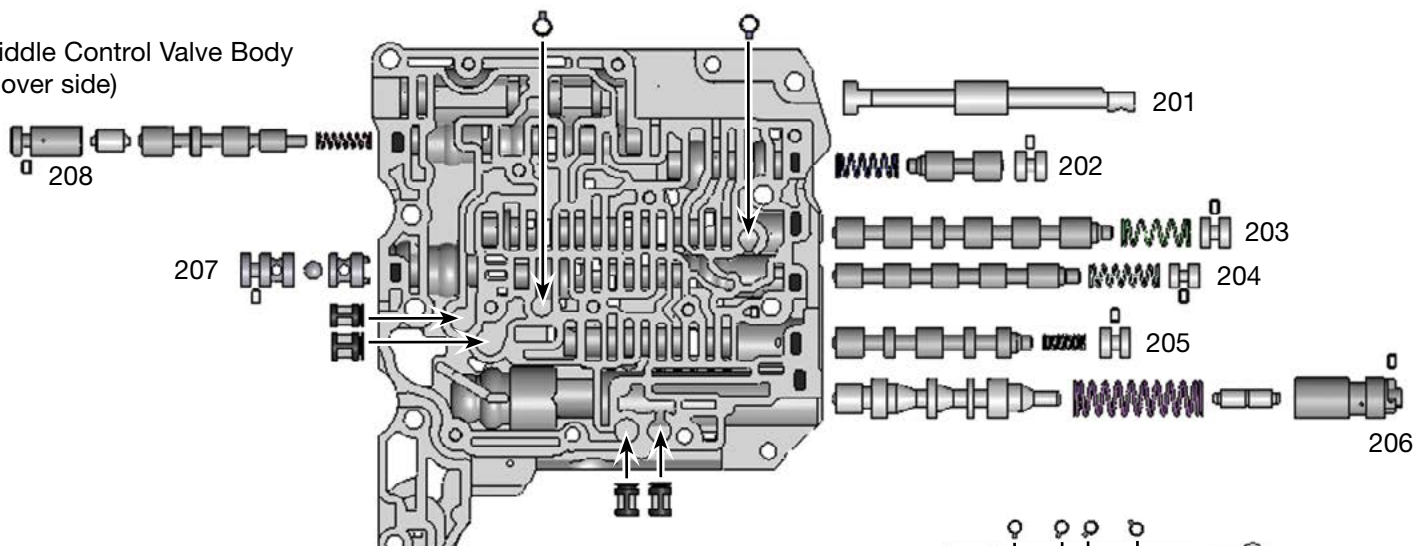
Front Control Valve Body  
(No-exhaust style)



### Front Control Valve Body Descriptions

I.D. No.	Description
101	Forward Clutch (C1) Control Valve
102	Neutral Relay Valve
103	2nd Coast Clutch (B1) Control Valve
104	Solenoid Modulator Valve

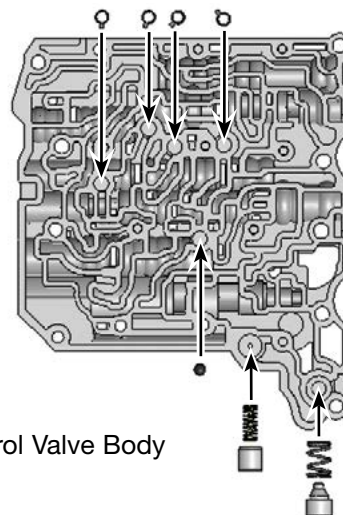
Middle Control Valve Body  
(Cover side)



### Middle Control Valve Body Descriptions

I.D. No.	Description
201	Manual Valve
202	3rd Gear Band (B4) Release Valve
203	U1 Shift Valve
204	M1 Shift Valve
205	U2 Shift Valve
206	Primary Regulator Valve & Plunger Valve Assembly
207	Reverse Shift Ball Check Valve
208	Solenoid Relay Valve & Plunger Valve Assembly

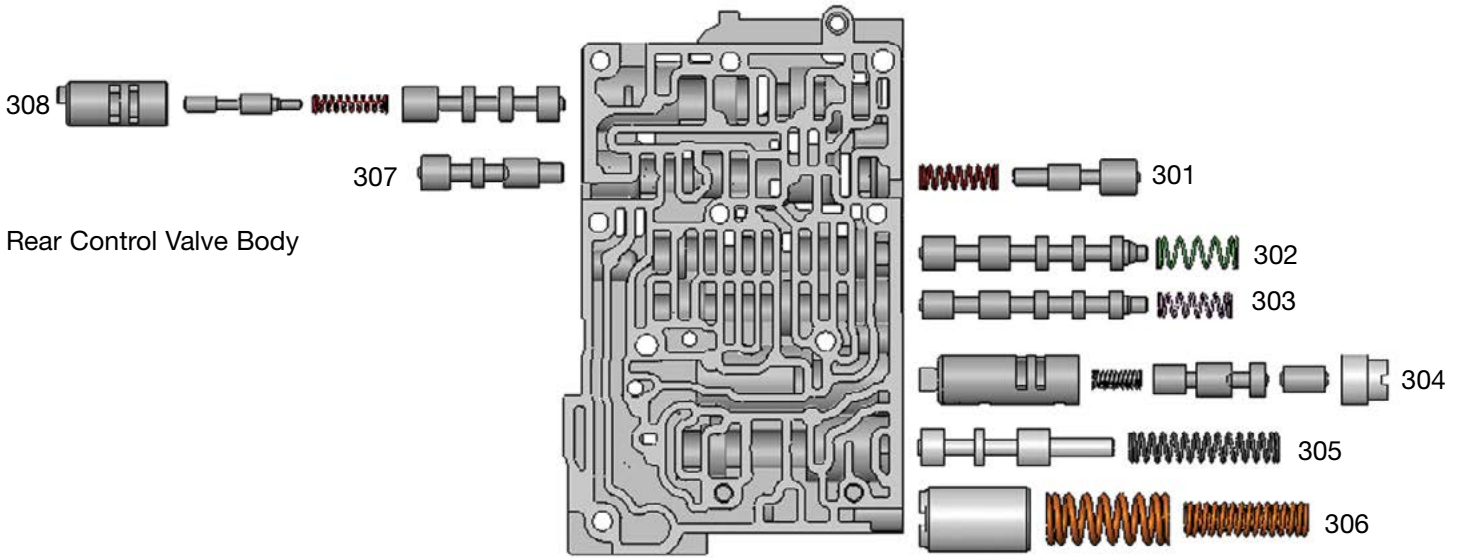
Middle Control Valve Body  
(Rear side)





# OE Exploded View

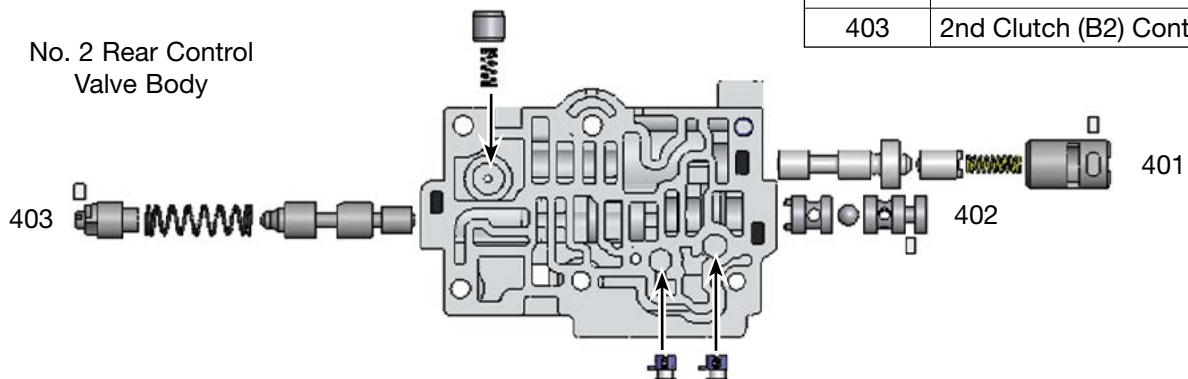
## Rear & No. 2 Rear Control Valve Body • AW55-50SN Shown



Rear Control Valve Body

↑ Rear Control Valve Body Descriptions	
I.D. No.	Description
301	3rd Gear Band (B4) Control Valve
302	Shift Pressure Relay Valve
303	M2 Shift Valve
304	Shift Pressure Control Valve & Plunger Valve Assembly
305	Secondary Regulator Valve
306	Line Pressure Control (SLT) Accumulator
307	1-2 Reverse Clutch (B5) Control Valve
308	Lockup Relay Valve & Plunger Valve Assembly

↓ No. 2 Rear Control Valve Body Descriptions	
I.D. No.	Description
401	Lockup Control Valve & Plunger Valve Assembly
402	Reverse Shift Restrict Ball Check Valve
403	2nd Clutch (B2) Control Valve



No. 2 Rear Control Valve Body