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.

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

Neutral Relay Valve
• Delayed Forward
• Increased throttle required for engagement
Replace with Sonnax Part No. 59947-35K
Requires F-59947-TL34 & VB-FIX

Solenoid Modulator Valve
• Low line pressure
• 2-3 Flare
• No 3rd, 4th or 5th
• Delayed Forward
• 5th Gear only
• No lockup
Replace with Sonnax Part No. 59947-34K
Requires F-59947-TL34 & VB-FIX

Solenoid Relay Valve
• No lockup
• Shift concerns
• Engine stall on engagement
• 2-3 Flare
• No 2-3
• Harsh shifts
• B5 Clutch distress
Replace with Sonnax Part No. 59947-05K

3rd Gear Band (B4) Release Valve
• 2-3 Flare
• 2-3 Neutral
• 3-2 Harsh
• 3-2 Neutral
Replace with Sonnax Part No. 59947-26K
Requires F-59947-TL26 & VB-FIX

Main Pressure Regulator Valve & Boost Valve Assembly
• Soft shifts
• Delayed/Harsh shifts
• Delayed engagement
• TCC apply & release concerns
Replace with Sonnax Part No. 59947-07K or 59947-12K
59947-12K Requires F-59947-TL12 & VB-FIX

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

Click on Sonnax part numbers to see more information.
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.

Rear Control Valve Body • AW55-50SN Shown

Shift Pressure Control Valve
• 2-3, 3-4, 4-5 Harsh
• No 5th
• Low Reverse pressure
• B1, B2, C2 Clutch burned
• High line pressure in Reverse
Replace with Sonnax Part No. 59947-38K

Shift Pressure Control Plunger Valve
• 2-3 Quality poor
• 3-4, 4-5 Harsh
• High line pressure
• B1, B2, C2 Clutch burned
• Low Reverse pressure
Replace with Sonnax Part No. 59947-75K

M2 Shift Valve
• No Reverse
• No Neutral control
• No 1st, 2nd, 3rd & 4th

Line Pressure Control (SLT) Accumulator Assembly
• Low line pressure
• Delayed Forward
• Harsh shifts
• 2-3 Flare
• Erratic SLT pressure
Replace with Sonnax Part No. 59947-LPC

Lockup Relay Valve
• TCC apply & release concerns
• Burnt converter
• TCC codes
Replace with Sonnax Part No. 59947-03K or 59947-29K
59947-29K Requires F-59947-TL29, F-15741-TL29PL & VB-FIX

Secondary Regulator Valve
• TCC slip/surge
• Overheated fluid, bushings & converter
• Poor shift quality
• Harsh Reverse
• Low lube oil flow
• Bushing failure
Replace with Sonnax Part No. 59947-16K
Requires F-59947-TL16 & VB-FIX

Lockup Control Valve & Sleeve/Plunger Assembly
• TCC apply & release concerns
• Burnt converter
• TCC codes
Replace with Sonnax Part No. 59947-03K or 59947-29K
59947-77K Requires F-97741-TL20 & VB-FIX

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

Middle Control Valve Body
(Cover side)

Middle Control Valve Body Descriptions

<table>
<thead>
<tr>
<th>I.D. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>Manual Valve</td>
</tr>
<tr>
<td>202</td>
<td>3rd Gear Band (B4) Release Valve</td>
</tr>
<tr>
<td>203</td>
<td>U1 Shift Valve</td>
</tr>
<tr>
<td>204</td>
<td>M1 Shift Valve</td>
</tr>
<tr>
<td>205</td>
<td>U2 Shift Valve</td>
</tr>
<tr>
<td>206</td>
<td>Primary Regulator Valve &amp; Plunger Valve Assembly</td>
</tr>
<tr>
<td>207</td>
<td>Reverse Shift Ball Check Valve</td>
</tr>
<tr>
<td>208</td>
<td>Solenoid Relay Valve &amp; Plunger Valve Assembly</td>
</tr>
</tbody>
</table>

Front Control Valve Body Descriptions

<table>
<thead>
<tr>
<th>I.D. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Forward Clutch (C1) Control Valve</td>
</tr>
<tr>
<td>102</td>
<td>Neutral Relay Valve</td>
</tr>
<tr>
<td>103</td>
<td>2nd Coast Clutch (B1) Control Valve</td>
</tr>
<tr>
<td>104</td>
<td>Solenoid Modulator Valve</td>
</tr>
</tbody>
</table>
OE Exploded View
Rear & No. 2 Rear Control Valve Body • AW55-50SN Shown

Rear Control Valve Body

<table>
<thead>
<tr>
<th>I.D. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>3rd Gear Band (B4) Control Valve</td>
</tr>
<tr>
<td>302</td>
<td>Shift Pressure Relay Valve</td>
</tr>
<tr>
<td>303</td>
<td>M2 Shift Valve</td>
</tr>
<tr>
<td>304</td>
<td>Shift Pressure Control Valve &amp; Plunger Valve Assembly</td>
</tr>
<tr>
<td>305</td>
<td>Secondary Regulator Valve</td>
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<tr>
<td>306</td>
<td>Line Pressure Control (SLT) Accumulator</td>
</tr>
<tr>
<td>307</td>
<td>1-2 Reverse Clutch (B5) Control Valve</td>
</tr>
<tr>
<td>308</td>
<td>Lockup Relay Valve &amp; Plunger Valve Assembly</td>
</tr>
</tbody>
</table>

No. 2 Rear Control Valve Body Descriptions

<table>
<thead>
<tr>
<th>I.D. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>401</td>
<td>Lockup Control Valve &amp; Plunger Valve Assembly</td>
</tr>
<tr>
<td>402</td>
<td>Reverse Shift Restrict Ball Check Valve</td>
</tr>
<tr>
<td>403</td>
<td>2nd Clutch (B2) Control Valve</td>
</tr>
</tbody>
</table>