**Operational & Service Manual: Electric Solenoid Control Valve**

Valve Assembly:
- 12V Coils - # 56-4896
- 24V Coils - #56-5587
- 115V Coils - # 56-5347

Coil:
- 12V - # 56-4893
- 24V - #56-5586
- 115V - #56-4894

Solenoid Valve, Normally Closed
- # 56-4891

Solenoid Valve, Normally Open
- # 56-4892
Fitting, 3/4" Adj. Male O-Ring x 3/4" Female Pipe Swivel

Hose, 3/4" x 72" Length, 3/4" Male Pipe Ends

Electric Solenoid Control Valve

Hose, 3/4" Size, 3/4" Male Pipe Ends

Hose, 3/4" Size, 3/4" Wide Swept Female JIC x 3/4" Male Pipe Ends

These two hose ends may be swapped.

Hose, 3/4" Size, 3/4" Male Pipe Ends

Fitting, 3/4" Adj. Male O-Ring x 3/4" Female Pipe Swivel

Fitting, 3/4" Adj. Male O-Ring x 3/4" Male JIC 90°
<table>
<thead>
<tr>
<th>Valve</th>
<th>Unload</th>
<th>Neutral</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>SV-1</td>
<td>Energized</td>
<td>Not Energized</td>
<td>Not Energized</td>
</tr>
<tr>
<td>SV-2</td>
<td>Energized</td>
<td>Not Energized</td>
<td>Energized</td>
</tr>
<tr>
<td>SV-3</td>
<td>Not Energized</td>
<td>Not Energized</td>
<td>Energized</td>
</tr>
</tbody>
</table>

**Manual Control**
- SV-1: Pull/Twist
- SV-2: Push
- SV-3: No Override

**Electric Control**
- SV-1: Energized
- SV-2: Energized
- SV-3: Not Energized

*SV-1, Normally Closed*  
Energize Coil to Open  
Manual Override: Twist Outward to Open  
(Locks at 90°)

*SV-2, Normally Open*  
Energize Coil to Close  
Manual Override: Push & Hold

*SV-3, Normally Closed*  
Energize Coil to Open  
Manual Override: Twist Outward to Open  
(Locks at 90°)
Troubleshooting:

Operation of the Hallco LIVE FLOOR™ depends on a functional and adequate hydraulic supply system, a working hydraulic module, intact and correct external plumbing, and a correctly operating control valve. This document covers the potential failure modes of the electric solenoid control valve only. Refer to the floor owner’s manual for additional troubleshooting information. Contact Hallco if the troubleshooting techniques do not resolve the floor malfunction.

The table below shows all the possible control valve combinations, and the expected floor movement associated. Three of the combinations produce standard operational floor movement and three produce incorrect movement. Compare the configuration of the desired floor movement with the configuration of the actual floor movement to identify a suspect solenoid valve.

Each cartridge valve has a manual override option. For normal mode make sure that the manual overrides of SV-1 and SV-3 are not locked in the override position (out). Operate the floor with the manual controls to check whether the problem is electrical or hydraulic.

If the floor operates correctly when the valve is controlled manually, then the problem is not in the solenoid valves. A valve coil may be malfunctioning or not energized correctly. Coils may be swapped between valves to verify which one is malfunctioning.

If the floor does not operate correctly when it is manually controlled, the problem is likely not electrical. SV-1 and SV-3 valves may be swapped to verify which one is malfunctioning.

<table>
<thead>
<tr>
<th>Valve Configurations &amp; Floor Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>SV-1</td>
</tr>
<tr>
<td>●</td>
</tr>
<tr>
<td>●</td>
</tr>
<tr>
<td>○</td>
</tr>
<tr>
<td>●</td>
</tr>
<tr>
<td>○</td>
</tr>
<tr>
<td>○</td>
</tr>
</tbody>
</table>

○ Valve Open
● Valve Closed