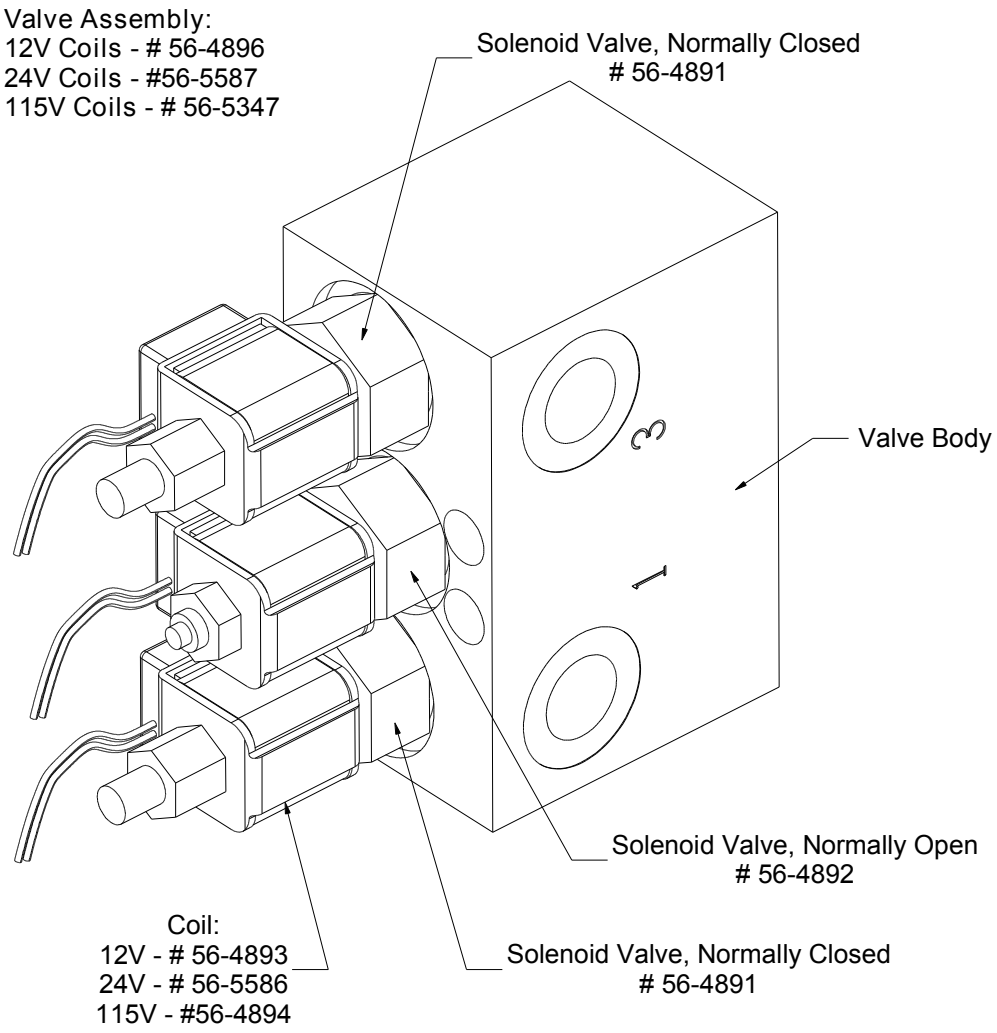
# HALLCO™ INDUSTRIES, INC.

# Operational & Service Manual: Electric Solenoid Control Valve





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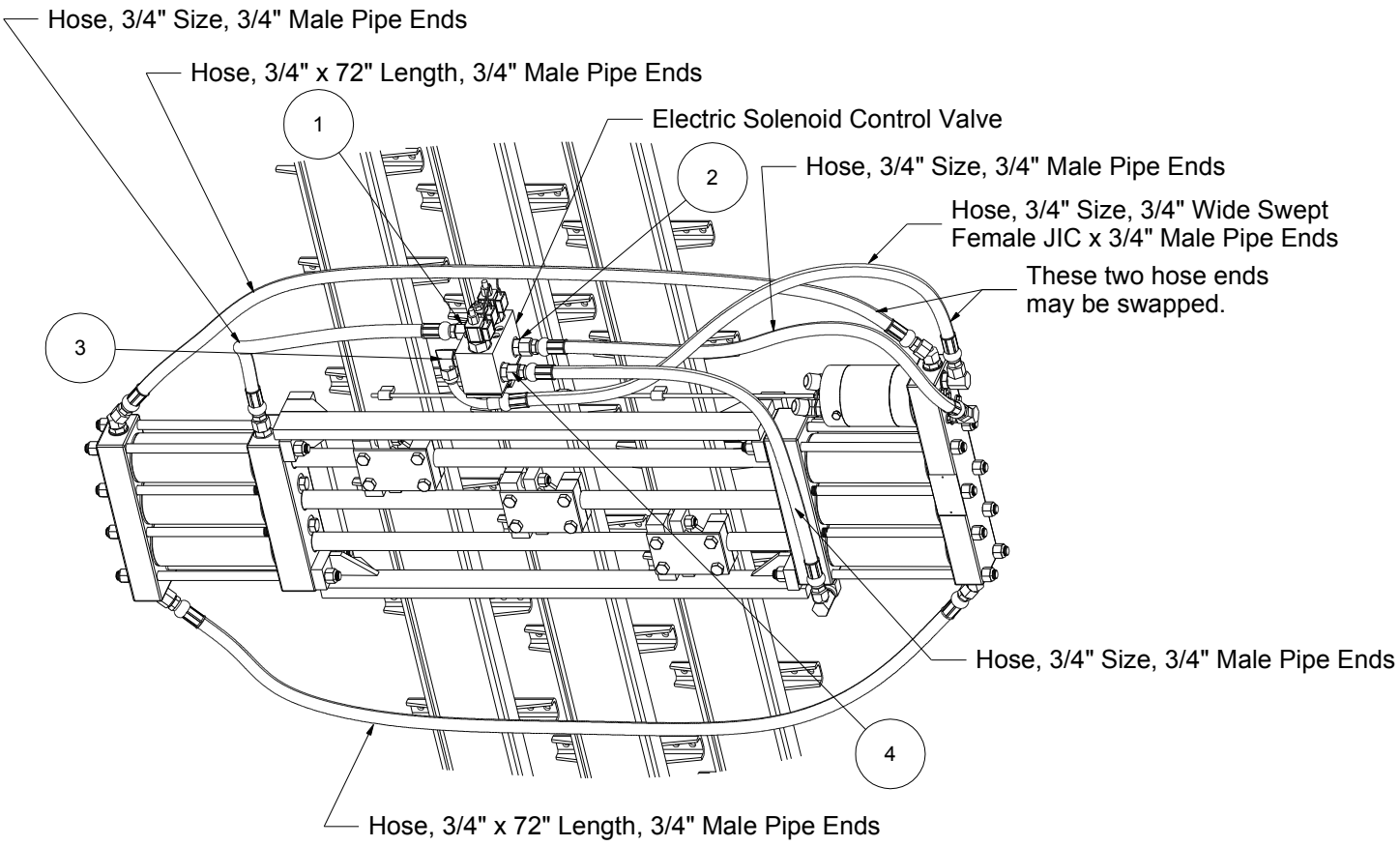
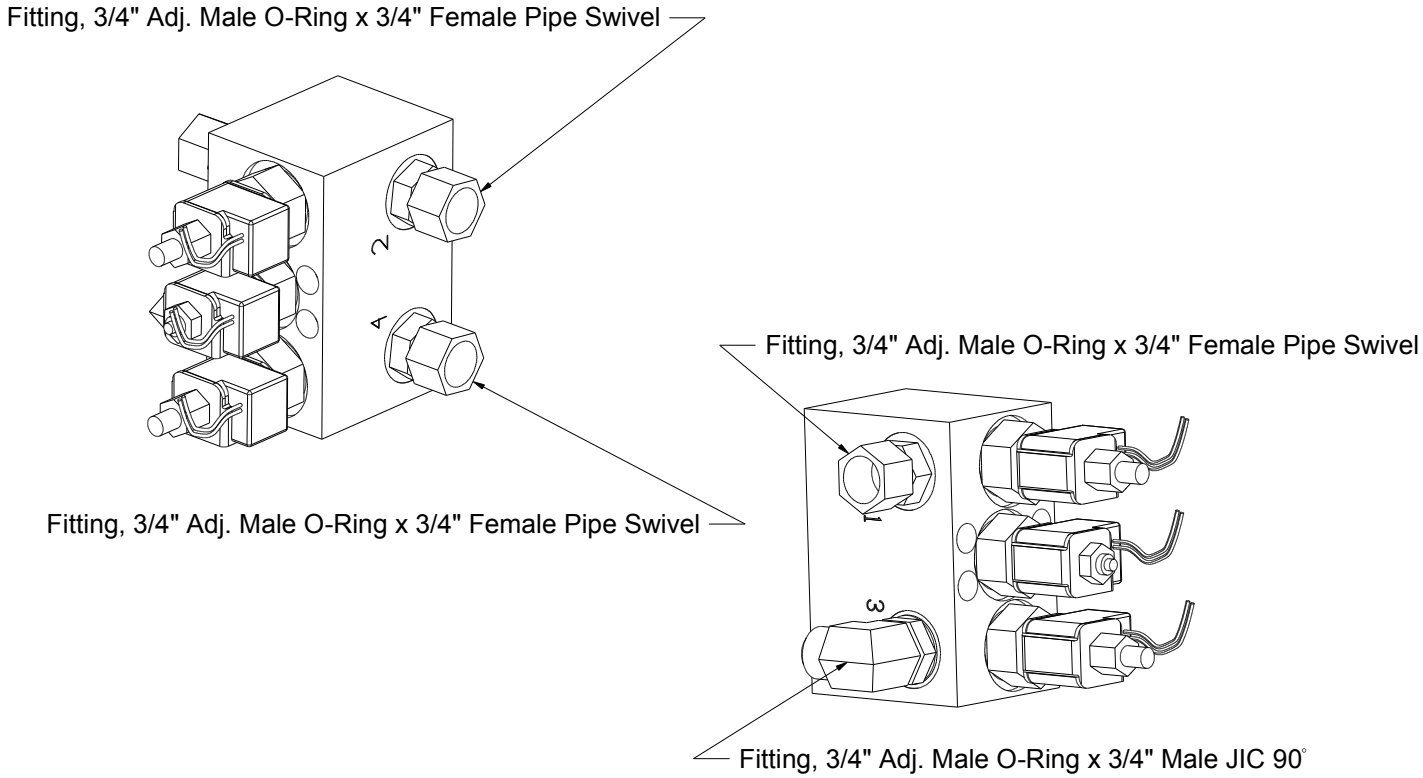
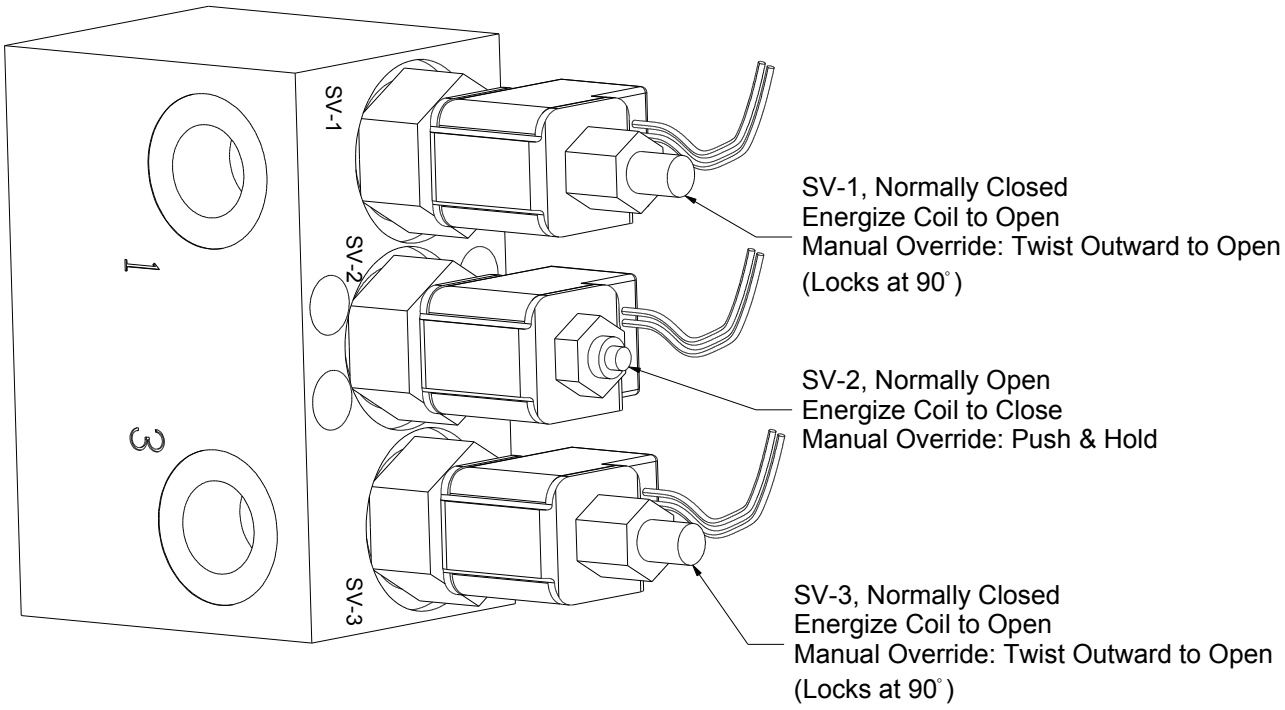



**Typical Electric Solenoid Control Valve Plumbing**




| | Valve | Unload | Neutral | Load |
|---|---|---|---|---|
| Electric Control | SV-1 | Energized | Not Energized | Not Energized |
| | SV-2 | Energized | Not Energized | Energized |
| | SV-3 | Not Energized | Not Energized | Energized |
| Manual Control | SV-1 | Pull/Twist | No Override | No Override |
| | SV-2 | Push | No Override | Push |
| | SV-3 | No Override | No Override | Pull/Twist |

**Valve Operational Modes**

## 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.

○ Valve Open

● Valve Closed

| SV-1 | SV-2 | SV-3 | Floor Behavior |
|---|---|---|---|
| ● | ○ | ● | Neutral |
| ● | ● | ○ | Load |
| ○ | ● | ● | Unload |
| ● | ● | ● | Sequences 1-2-3 Both Ways |
| ○ | ○ | ● | No Movement - Neutral |
| ○ | ● | ○ | All Slats Move Together Both Ways |

**Valve Configurations & Floor Behavior**