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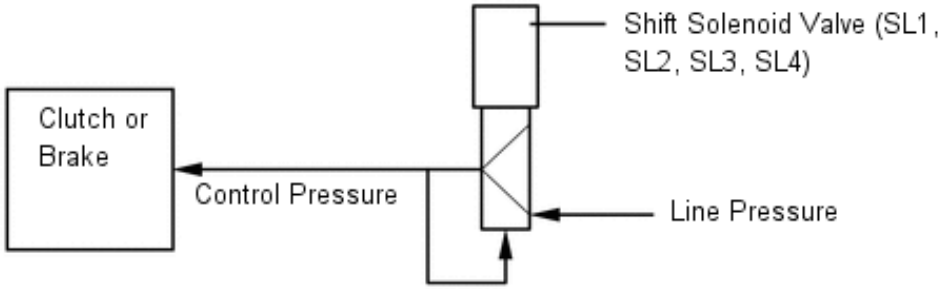
|---|---|---|
| **Last Modified:** 03-12-2013 | 6.4 F | **Doc ID:** NM1000000005Q6V |
| **Model Year:** 2013 | **Model:** RAV4 | **Prod Date Range:** [12/2012 - ] |
| **Title:** U760F AUTOMATIC TRANSMISSION / TRANSAXLE: AUTOMATIC TRANSAXLE SYSTEM: SHIFT SOLENOID VALVE; 2013 MY RAV4 [12/2012 - ] | | |

# SHIFT SOLENOID VALVE

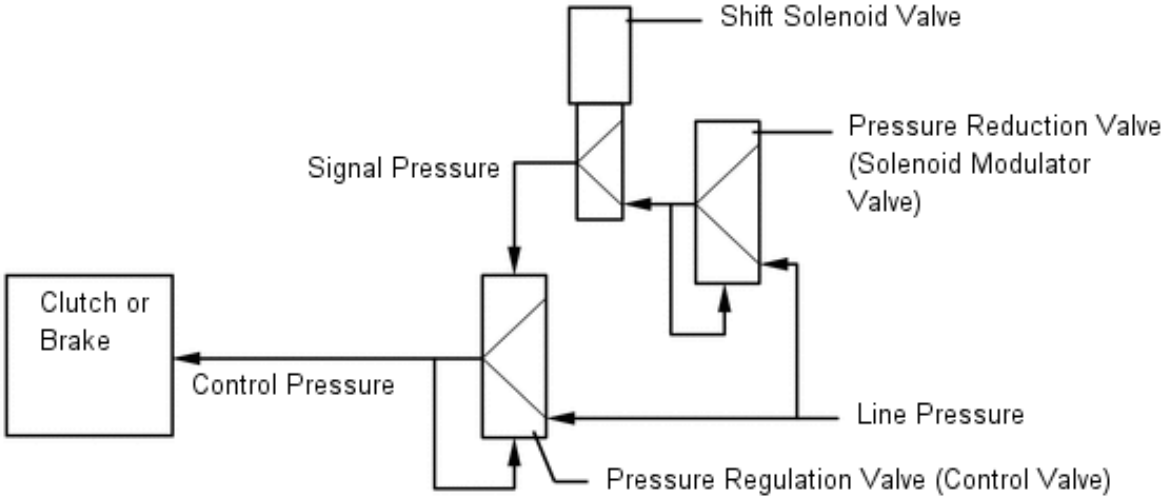
## 1. CONSTRUCTION

(a) In order to provide a hydraulic pressure that is proportional to the current that flows to the solenoid coil, shift solenoid valves SL1, SL2, SL3, SL4, SLU and SLT linearly control the line pressure and clutch and brake engagement pressure based on the signals from the ECM.

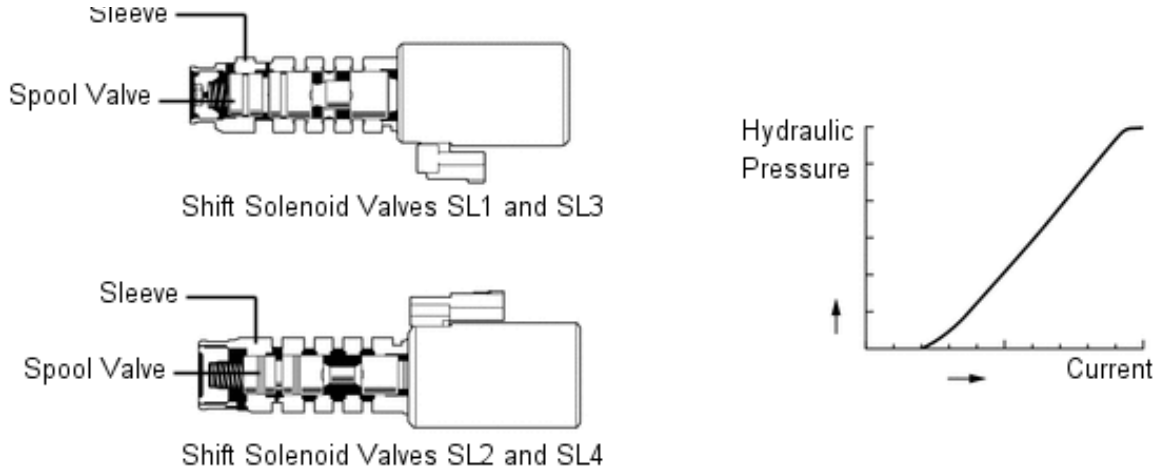
(b) Shift solenoid valves SL1, SL2, SL3 and SL4 are high flow linear solenoid valves that can supply more pressure than conventional ones. These shift solenoid valves control engagement elements by directly regulating the line pressure without using a pressure regulation valve (control valve) or a pressure reduction valve (solenoid modulator valve). Thus, the number of valves and the length of the valve body fluid passage have been reduced, the shifting response has been increased and shift shock has been minimized.

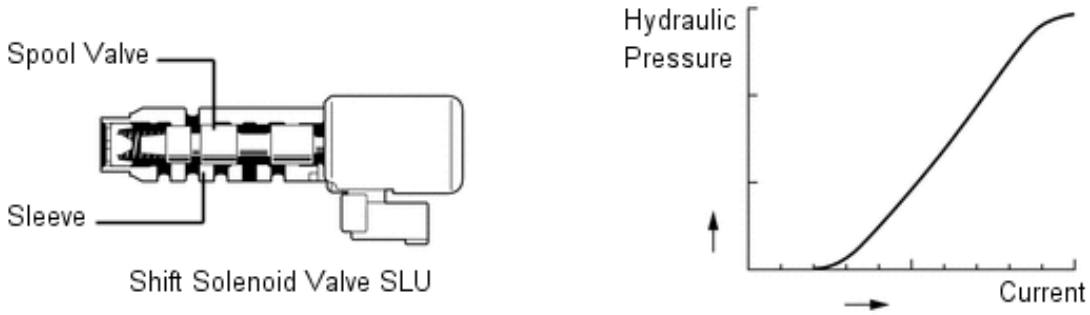


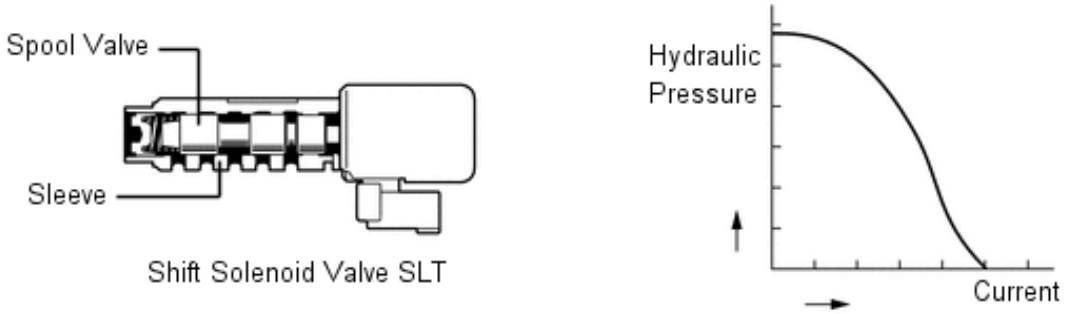

U760F Automatic Transaxle




Conventional Automatic Transaxle

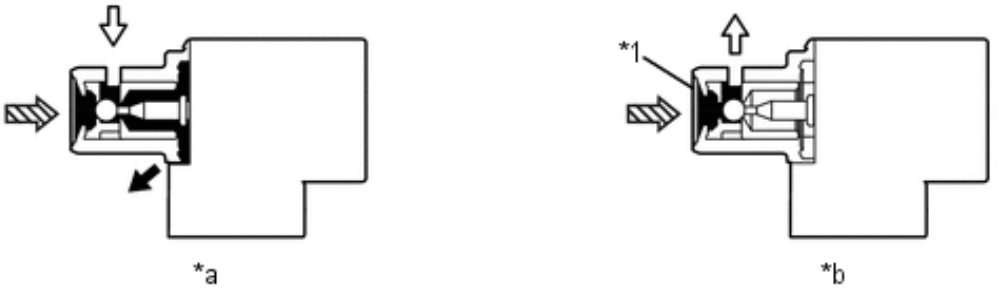



(c) Shift solenoid valve SL is a 3-way solenoid valve.

(d) A filter is provided at the tip of the solenoid valve to further improve operational reliability.

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| | | | |
|---|---|---|---|
| *1 | Filter | - | - |
| *a | Off Condition | *b | On Condition |

| | | | |
|---|---|---|---|
| | Drain | | Control Pressure |
| | Modulated Pressure | - | - |

**Function of Shift Solenoid Valves**

| SHIFT SOLENOID VALVE | FUNCTION |
|---|---|
| SL1 | No. 1 clutch (C1) pressure control |
| SL2 | No. 2 clutch (C2) pressure control |
| SL3 | No. 1 brake (B1) pressure control |
| SL4 | No. 3 brake (B3) pressure control |
| SLU | • Lock-up clutch pressure control<br>• No. 2 brake (B2) pressure control |
| SLT | Line pressure control |
| SL | • Switches the lock-up relay valve.<br>• Switches the B2 apply control valve and the reverse sequence valve. |