5. Shift Solenoid, Duty Solenoid and Valve

1. EVALUATION

NOTE:

If part is faulty, its resistance value will be different from the standard value indicated above.

Part name	Terminal	Resistance (Ω)
Vehicle speed sensor 1	9 — 16	450 — 720
ATF temperature sensor	5 — 12	[2,100 — 2,900/20°C (68°F) 275 — 375/ 80°C (176°F)]
Duty solenoid A (Line pressure sole- noid)	7 — 4, 8	1.5 — 4.5
Duty solenoid B (Lock-up solenoid)	6 — 4, 8	9 — 17
Shift solenoid 1	3 — 4, 8	20 — 32
Shift solenoid 2	2 — 4, 8	20 — 32
Shift solenoid 3	1 — 4, 8	20 — 32
Duty solenoid C (AWD only) (Transfer clutch sole- noid)	11 — 4, 8	9 — 17

5. Shift Solenoid, Duty Solenoid and Valve

A: REMOVAL

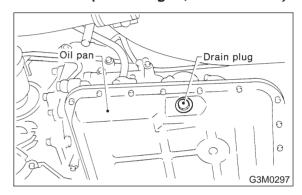
- 1) Clean transmission exterior.
- 2) Drain ATF completely.

NOTE:

Tighten ATF drain plug after draining ATF.

Tightening torque:

25±2 N·m (2.5±0.2 kg-m, 18.1±1.4 ft-lb)

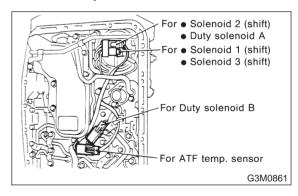


3) Remove oil pan and gasket.

NOTE:

Drain oil into a container.

4) Disconnect solenoid valve connectors. Remove connectors from clips and disconnect connectors at 4 places.

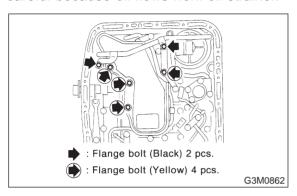


5) Remove oil strainer.

Disconnect oil pipe by removing the two bolts, and remove four bolts and oil strainer.

NOTE:

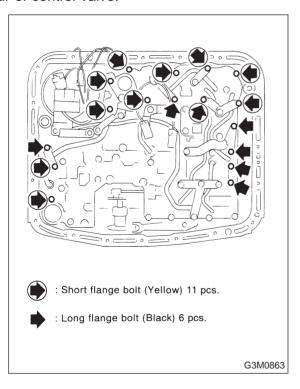
Be careful because oil flows from oil strainer.



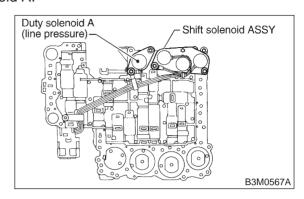
6) Remove control valve body and two brackets. Remove 6 long bolts (Black) and 11 short bolts (Yellow).

NOTE:

- Be careful because oil flows from valve body.
- Be careful not to damage accumulator spring at rear of control valve.



7) Remove shift solenoid assembly, and duty solenoid A.



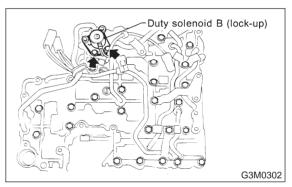
8) Remove duty solenoid B.

B: INSTALLATION

1) Install duty solenoid B (lock-up).

Tightening torque:

11.3±1.5 N·m (1.15±0.15 kg-m, 8.3±1.1 ft-lb)



2) Install solenoid valves.

Shift solenoid assembly, and duty solenoid A (line pressure).

a length:

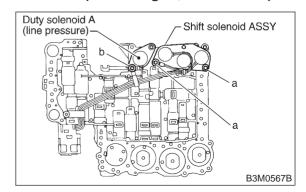
16 mm (0.63 in)

b length:

27 mm (1.06 in)

Tightening torque:

8±1 N·m (0.8±0.1 kg-m, 5.8±0.7 ft-lb)



3-2 [W5B0]

SERVICE PROCEDURE

5. Shift Solenoid, Duty Solenoid and Valve

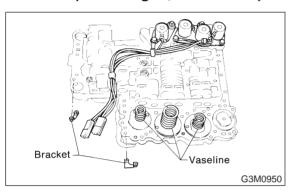
3) Install valve body and two brackets.

NOTE:

- Secure accumulator springs using vaseline.
- Align manual valve connections.

Tightening torque:

8±1 N·m (0.8±0.1 kg-m, 5.8±0.7 ft-lb)

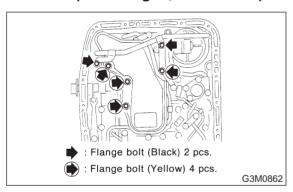


4) Install oil strainer.

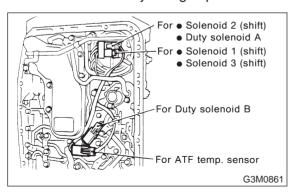
Also install oil pipe and harness connector bracket.

Tightening torque:

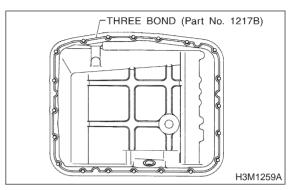
8±1 N·m (0.8±0.1 kg-m, 5.8±0.7 ft-lb)



5) Connect harness connectors at 4 places. Connect connectors of same color, and secure connectors to valve body using clips.



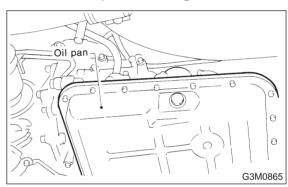
6) Apply proper amount of liquid gasket (THREE BOND Part No. 1217B) to the entire oil pan mating surface.



7) Install oil pan.

Tightening torque:

4.9±0.5 N·m (0.50±0.05 kg-m, 3.6±0.4 ft-lb)



8) Add ATF and check level.

