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	17 — 18	450 — 650
Vehicle speed sensor 2	19 — 20	450 — 650
ATF temperature sensor	11 — 12	2,100 — 2,900/ 20°C (68°F) 275 — 375/ 80°C (176°F)
Torque converter turbine speed sensor	14 — 15	450 — 650
Shift solenoid 1	1 — 16	10 — 16
Shift solenoid 2	2 — 16	10 — 16
Duty solenoid A (Line pressure solenoid)	5 — 16	2.0 — 4.5
Duty solenoid B (Lock-up solenoid)	13 — 16	10 — 17
Duty solenoid D (2-4 brake solenoid)	9 — 16	2.0 — 4.5
Low clutch timing solenoid	3 — 16	10 — 16
2-4 brake timing solenoid	4 — 16	10 — 16
Duty solenoid C (Transfer clutch solenoid)	6 — 16	10 — 17

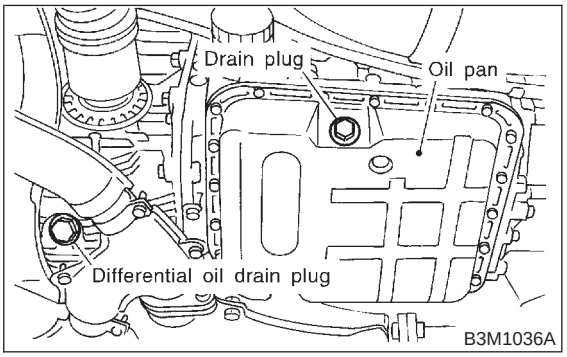
4. Shift Solenoid, Duty Solenoid and Valve

A: REMOVAL

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

NOTE:
Tighten ATF drain plug after draining ATF.

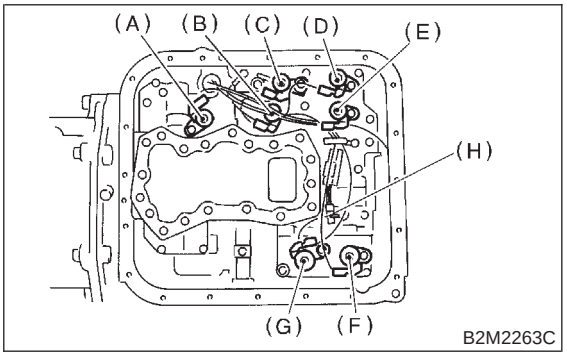
Tightening torque:
25±2 N·m (2.5±0.2 kg-m, 18.1±1.4 ft-lb)



3) Remove oil pan.

NOTE:
Drain oil into a container.

4) Disconnect solenoid and sensor connectors. Remove connectors from clip and disconnect connectors at 8 places.

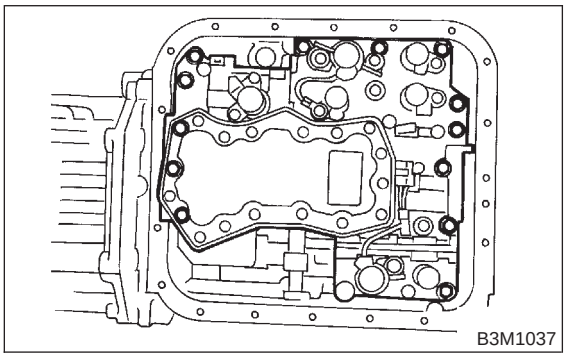


(A) Lock-up duty solenoid (Blue)
(B) Low clutch timing solenoid (Gray)
(C) Line pressure duty solenoid (Red)
(D) Shift solenoid 2 (Yellow)
(E) Shift solenoid 1 (Green)
(F) 2-4 brake timing solenoid (Black)
(G) 2-4 brake duty solenoid (Red)
(H) ATF temperature sensor

5) Remove control valve body.

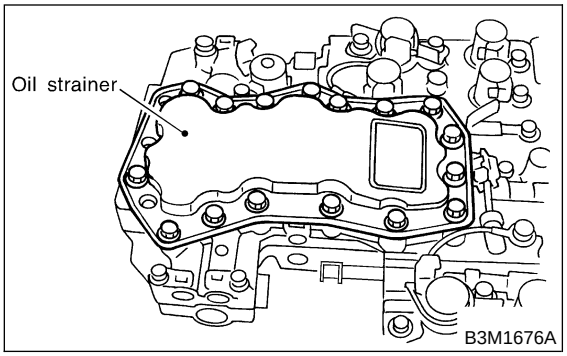
CAUTION:
When removing control valve body, be careful not to interfere with transfer duty solenoid C wiring.

NOTE:
Be careful because oil flows from valve body.

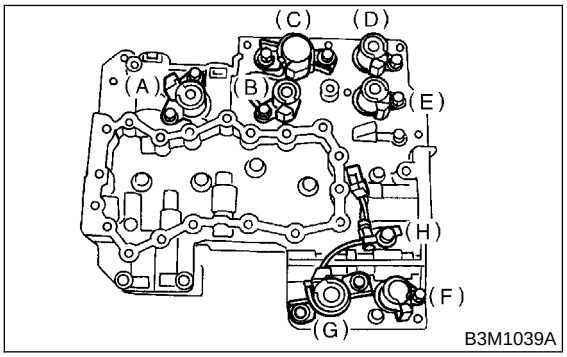


6) Remove oil strainer.

NOTE:
Be careful because oil flows from oil strainer.



7) Remove solenoids and duty solenoids.

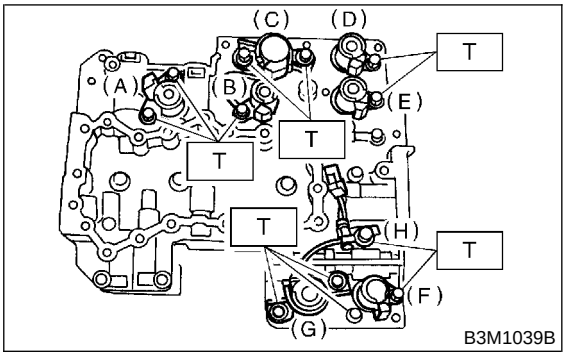


(A) Lock-up duty solenoid (Blue)
(B) Low clutch timing solenoid (Gray)
(C) Line pressure duty solenoid (Red)
(D) Shift solenoid 2 (Yellow)
(E) Shift solenoid 1 (Green)
(F) 2-4 brake timing solenoid (Black)
(G) 2-4 brake duty solenoid (Red)
(H) ATF temperature sensor

B: INSTALLATION

1) Install 7 solenoids and ATF temperature sensor.

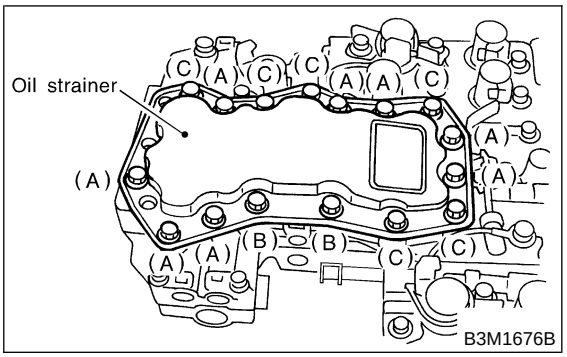
Tightening torque:
T: 8±1 N·m (0.8±0.1 kg-m, 5.8±0.7 ft-lb)



(A) Lock-up duty solenoid (Blue)
(B) Low clutch timing solenoid (Gray)
(C) Line pressure duty solenoid (Red)
(D) Shift solenoid 2 (Yellow)
(E) Shift solenoid 1 (Green)
(F) 2-4 brake timing solenoid (Black)
(G) 2-4 brake duty solenoid (Red)
(H) ATF temperature sensor

2) Install oil strainer.

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

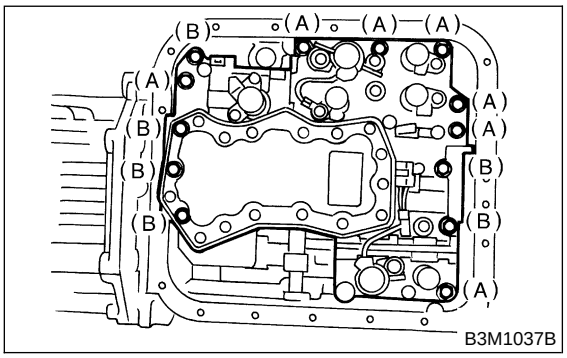


(A) Short bolt
(B) Middle bolt
(C) Long bolt

3) Install valve body to transmission case.
(1) Temporarily tighten the valve body on the transmission case.

CAUTION:
When installing control valve body, be careful not to interfere with transfer duty solenoid wiring (brown).

NOTE:
Align manual valve connections.

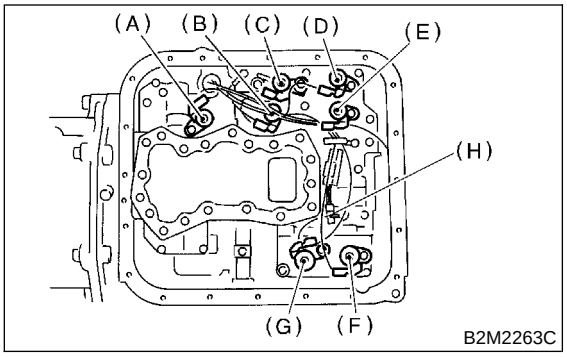


(A) Short bolts
(B) Long bolts

(2) Tighten the valve body to the specified torque.

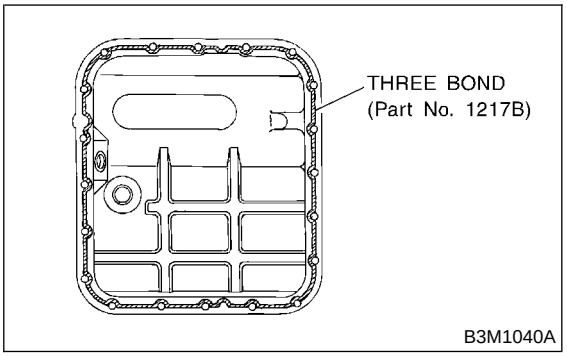
Tightening torque:
8±1 N·m (0.8±0.1 kg-m, 5.8±0.7 ft-lb)

4) Connect harness connectors at 8 places.
Connect connectors of same color, and secure connectors to valve body using clips.



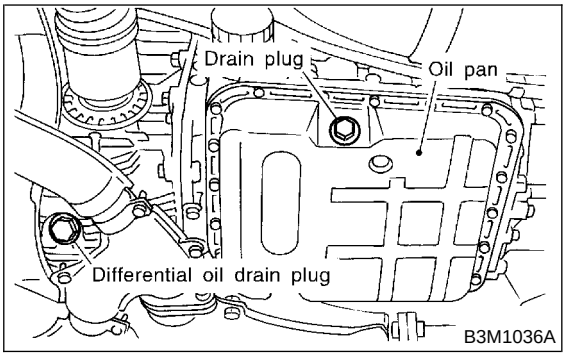
(A) Lock-up duty solenoid (Blue)
(B) Low clutch timing solenoid (Gray)
(C) Line pressure duty solenoid (Red)
(D) Shift solenoid 2 (Yellow)
(E) Shift solenoid 1 (Green)
(F) 2-4 brake timing solenoid (Black)
(G) 2-4 brake duty solenoid (Red)
(H) ATF temperature sensor

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



6) Install oil pan.

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



7) Fill ATF up to the middle of the “COLD” side on level gauge by using the gauge hole.

Recommended fluid:
Dexron IIE or Dexron III type automatic transmission fluid

Fluid capacity:
9.3 — 9.6 ℓ (9.8 — 10.1 US qt, 8.2 — 8.4 Imp qt)

8) Run the vehicle until the ATF temperature rises from 60 to 80°C (140 to 176°F) and check the ATF level of the “HOT” side on level gauge.