

**1. EVALUATION**

**NOTE:**

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

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
Line pressure duty solenoid	5 — 16	2.0 — 4.5
Lock-up duty solenoid	13 — 16	10 — 17
2-4 brake duty solenoid	9 — 16	2.0 — 4.5
Low clutch timing solenoid	3 — 16	10 — 16
2-4 brake timing solenoid	4 — 16	10 — 16
Transfer duty solenoid	6 — 16	10 — 17

**4. Shift Solenoid, Duty Solenoid and Valve**

**A: REMOVAL**

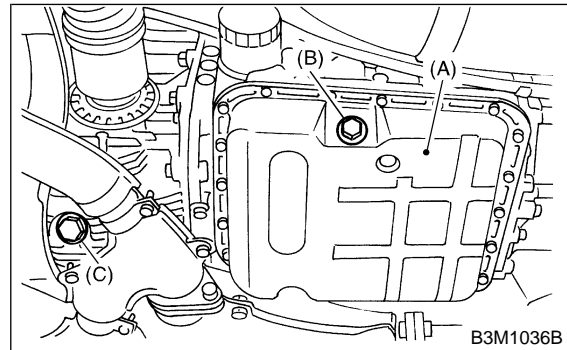
- 1) Clean transmission exterior.
- 2) Drain ATF completely.

**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)**



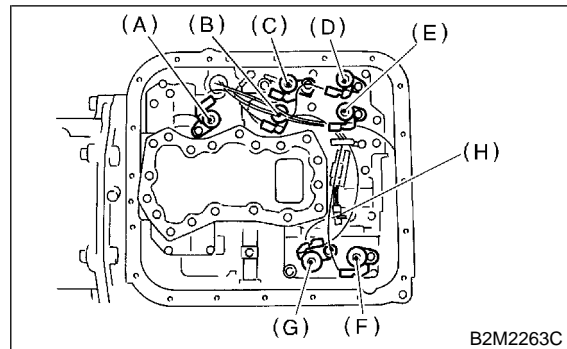
- (A) Oil pan
- (B) Drain plug
- (C) Differential oil drain plug

- 3) Remove oil pan.

**NOTE:**

Drain oil into a container.

- 4) Disconnect solenoid and sensor connectors. Remove connectors from clip and disconnect connectors at eight 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

4. Shift Solenoid, Duty Solenoid and Valve

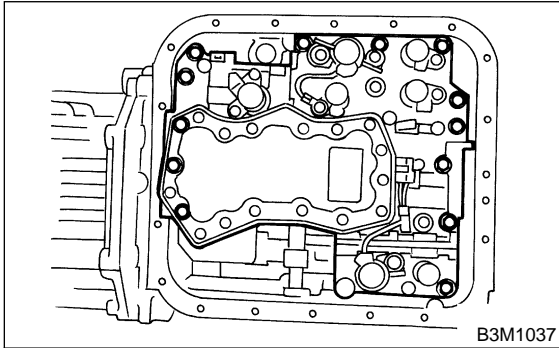
5) Remove control valve body.

**CAUTION:**

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

**NOTE:**

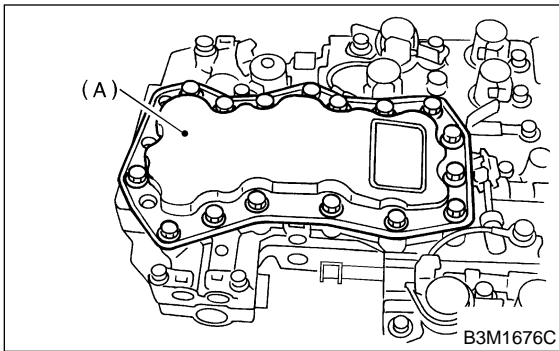
Be careful because oil flows from valve body.



6) Remove oil strainer.

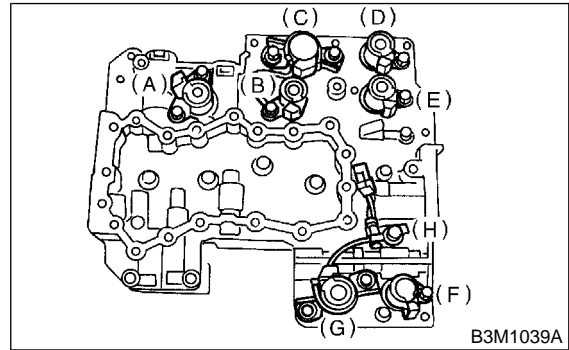
**NOTE:**

Be careful because oil flows from oil strainer.



(A) Oil strainer

7) Remove solenoids and duty solenoids.



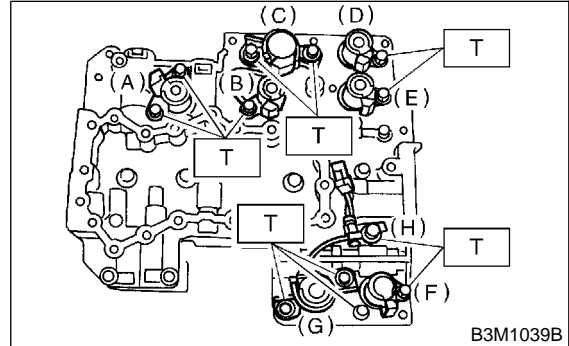
- (A) Lock-up duty solenoid (Blue)
- (B) Low clutch timing solenoid (Gray)
- (C) Line pressure duty solenoid (Red)
- (D) Shift solenoid 2 (Yellow)
- (E) Shift solenoid 1 (Green)
- (F) 2-4 brake timing solenoid (Black)
- (G) 2-4 brake duty solenoid (Red)
- (H) ATF temperature sensor

**B: INSTALLATION**

1) Install the seven solenoids and the ATF temperature sensor.

**Tightening torque:**

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

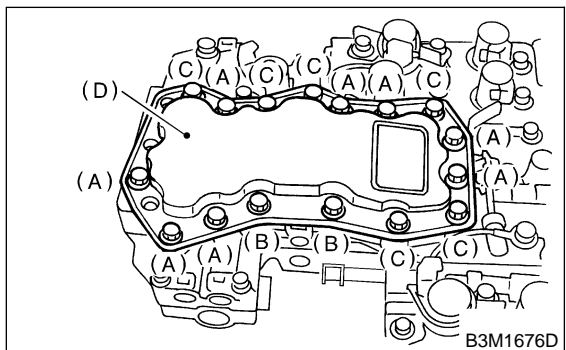


- (A) Lock-up duty solenoid (Blue)
- (B) Low clutch timing solenoid (Gray)
- (C) Line pressure duty solenoid (Red)
- (D) Shift solenoid 2 (Yellow)
- (E) Shift solenoid 1 (Green)
- (F) 2-4 brake timing solenoid (Black)
- (G) 2-4 brake duty solenoid (Red)
- (H) ATF temperature sensor

2) Install oil strainer.

**Tightening torque:**

**$8 \pm 1 \text{ N}\cdot\text{m}$  ( $0.8 \pm 0.1 \text{ kg}\cdot\text{m}$ ,  $5.8 \pm 0.7 \text{ ft}\cdot\text{lb}$ )**



- (A) Short bolt
- (B) Middle bolt
- (C) Long bolt
- (D) Oil strainer

3) Install valve body to transmission case.

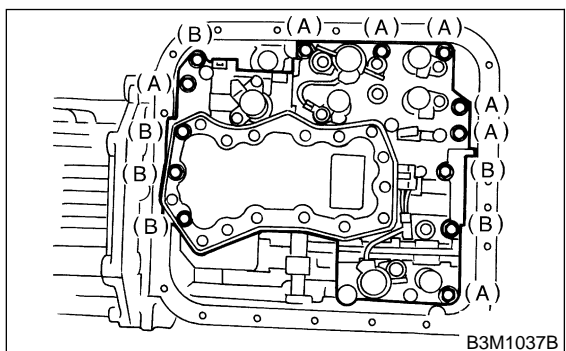
(1) Temporarily tighten the valve body on the transmission case.

**CAUTION:**

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

**NOTE:**

Align manual valve connections.



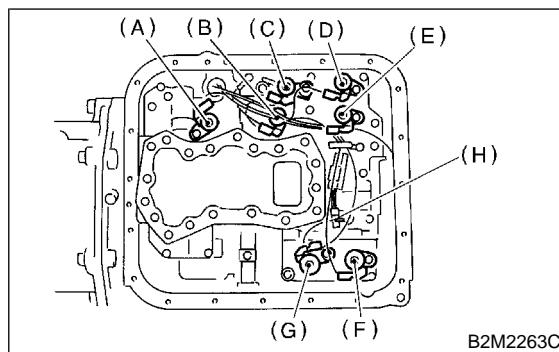
- (A) Short bolts
- (B) Long bolts

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

**Tightening torque:**

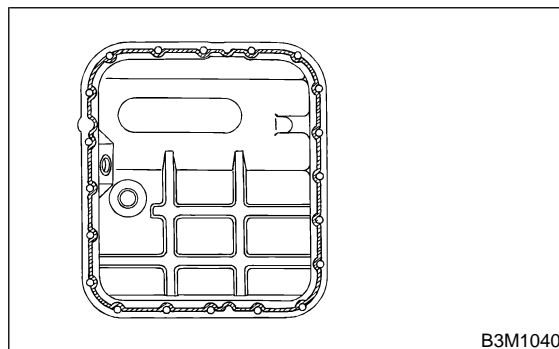
**$8 \pm 1 \text{ N}\cdot\text{m}$  ( $0.8 \pm 0.1 \text{ kg}\cdot\text{m}$ ,  $5.8 \pm 0.7 \text{ ft}\cdot\text{lb}$ )**

4) Connect harness connectors at eight 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

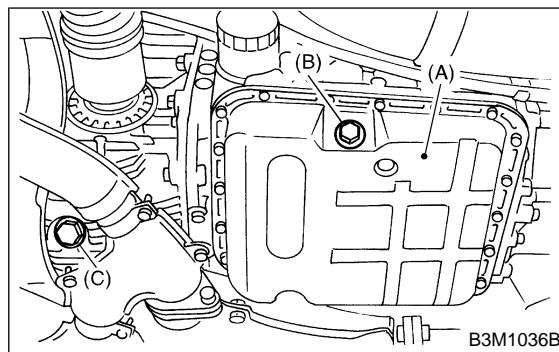
5) Apply proper amount of liquid gasket (THREE BOND Part No. 1217B) to the entire oil pan mating surface.



6) Install oil pan.

**Tightening torque:**

**$4.9 \pm 0.5 \text{ N}\cdot\text{m}$  ( $0.50 \pm 0.05 \text{ kg}\cdot\text{m}$ ,  $3.6 \pm 0.4 \text{ ft}\cdot\text{lb}$ )**



- (A) Oil pan
- (B) Drain plug
- (C) Differential oil drain plug

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

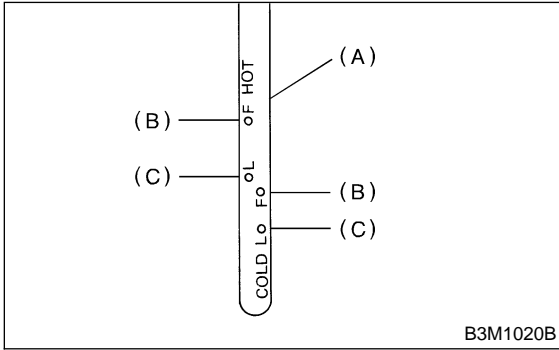
**Recommended fluid:**

*Dexron II E 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.



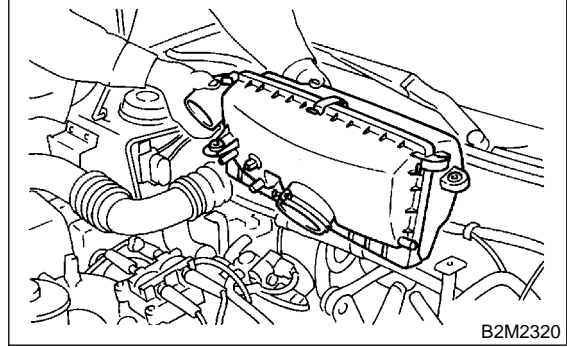
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- (A) ATF level gauge
- (B) Upper level
- (C) Lower level

## 5. Transfer Duty Solenoid and Transfer Valve Body

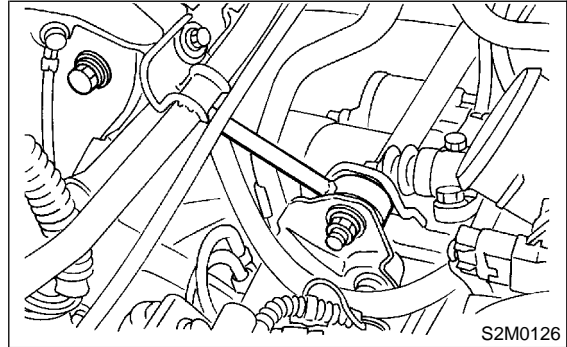
### A: REMOVAL

1) Remove air cleaner case and chamber.  
<Ref. to 2-7 [W1A0].>



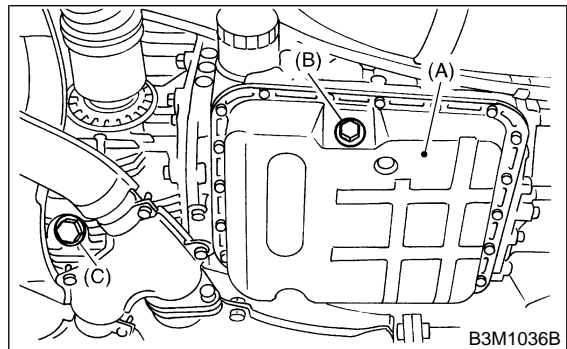
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2) Remove pitching stopper.



S2M0126

3) Raise vehicle and drain ATF.



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- (A) Oil pan
- (B) Drain plug
- (C) Differential oil drain plug