

17. Shift Solenoids, Duty Solenoids and ATF Temperature Sensor

S502227

A: REMOVAL

S50227A18

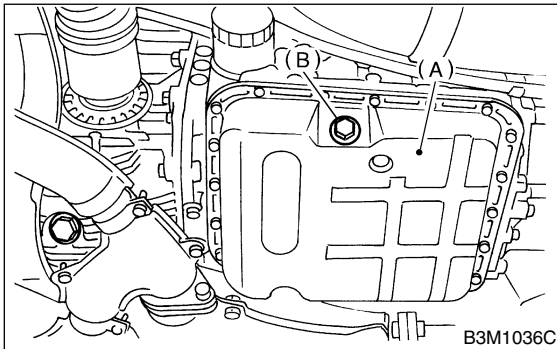
- 1) Lift-up the vehicle.
- 2) Clean transmission exterior.
- 3) Drain ATF completely.

NOTE:

Tighten ATF drain plug after draining ATF.

Tightening torque:

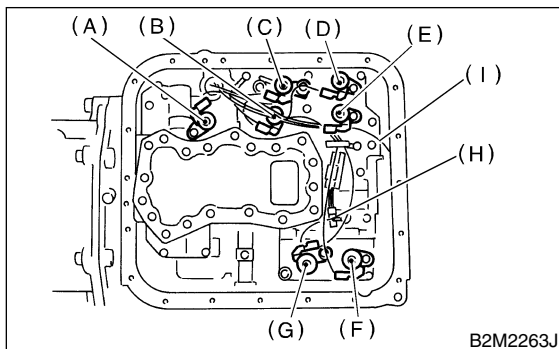
25 N·m (2.5 kgf·m, 18.1 ft·lb)



B3M1036C

- (A) Oil pan
- (B) Drain plug

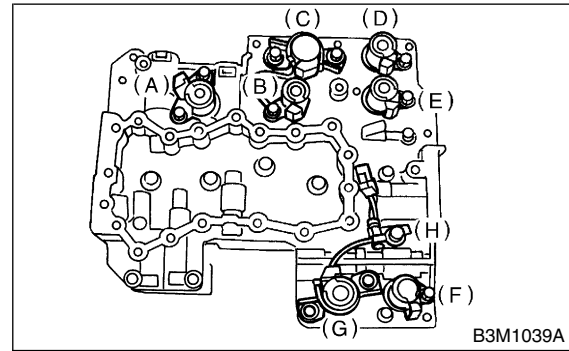
- 4) Remove oil pan.
- 5) Disconnect solenoid and sensor connectors. Remove connectors from clip and disconnect connectors.



B2M2263J

- (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
- (I) Transfer duty solenoid (Brown)

- 6) Remove solenoids, duty solenoids and ATF temperature sensor.



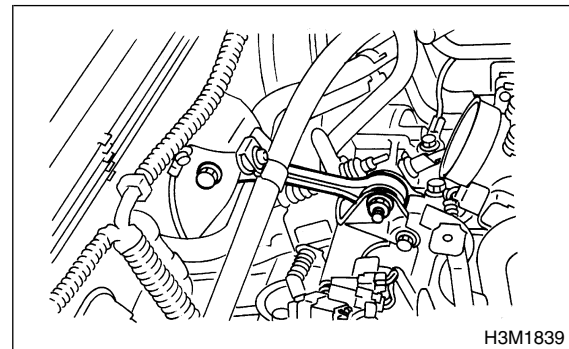
B3M1039A

- (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

1. TRANSFER DUTY SOLENOID AND TRANSFER VALVE BODY

S50227A1801

- 1) Set up the vehicle on the lift.
- 2) Disconnect battery ground terminal.
- 3) Remove air cleaner case or air intake chamber.
 - 2.5 L model
<Ref. to IN-6, REMOVAL, Air Cleaner Case.>
 - 3.0 L model
<Ref. to IN(H6)-6, REMOVAL, Air Intake Chamber.>
- 4) Remove pitching stopper.



H3M1839

- 5) Remove front exhaust pipe with center exhaust pipe.
 - 2.5 L model
<Ref. to EX-5, REMOVAL, Front Exhaust Pipe.>
 - 3.0 L model
<Ref. to EX(H6)-5, REMOVAL, Front Exhaust Pipe.>

SHIFT SOLENOIDS, DUTY SOLENOIDS AND ATF TEMPERATURE SENSOR

Automatic Transmission

6) Remove rear exhaust pipe and muffler.

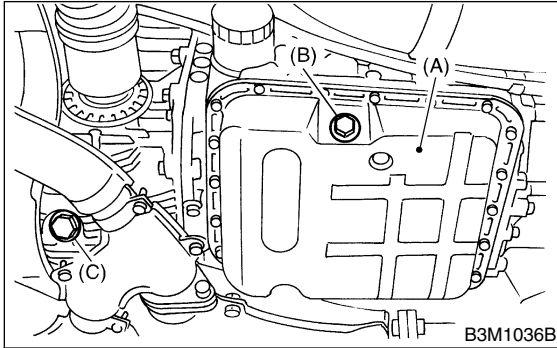
2.5 L model

<Ref. to EX-9, REMOVAL, Rear Exhaust Pipe.>
& <Ref. to EX-10, REMOVAL, Muffler.>

3.0 L model

<Ref. to EX(H6)-8, REMOVAL, Rear Exhaust Pipe.> & <Ref. to EX(H6)-9, REMOVAL, Muffler.>

7) Raise vehicle and drain ATF.



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

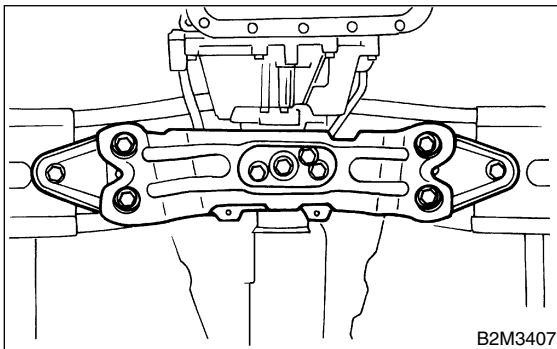
8) Remove heat shield cover.

9) Remove propeller shaft. <Ref. to DS-13, REMOVAL, Propeller Shaft.>

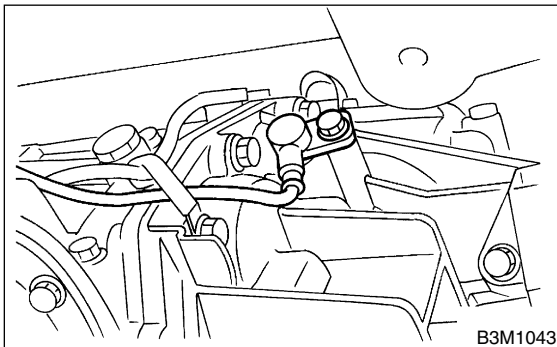
10) Remove rear crossmember.

(1) Support transmission using a transmission jack and raise slightly.

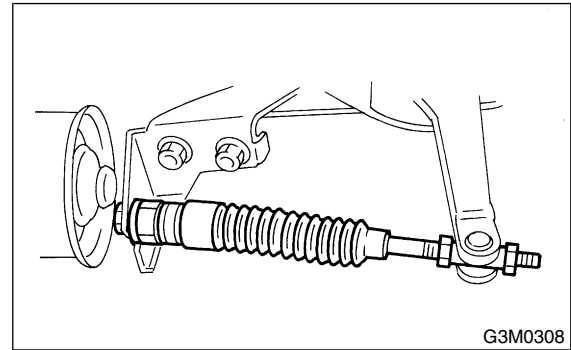
(2) Remove bolts and nuts as shown in Figure.



11) Remove rear vehicle speed sensor.



12) Remove select cable nut.



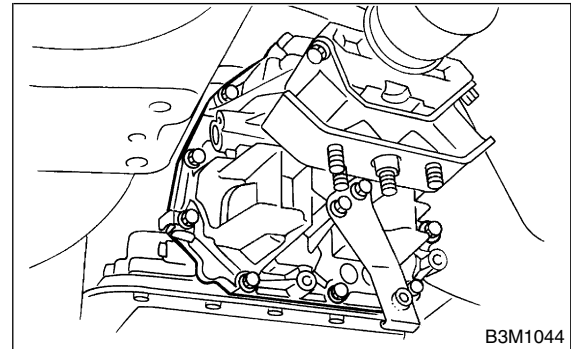
13) Move gear select cable so that extension bolts can be removed.

14) Remove bolts.

15) Remove extension case.

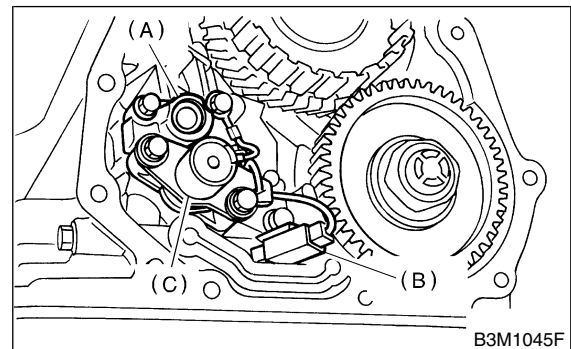
NOTE:

Use a container to catch oil flowing from extension.



16) Disconnect transfer duty solenoid connector.

17) Remove transfer duty solenoid and transfer valve body.



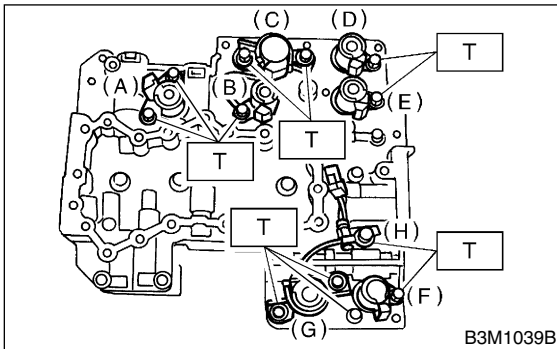
- (A) Transfer valve body
- (B) Transfer duty solenoid connector
- (C) Transfer duty solenoid

B: INSTALLATION S50227A11

1) Install solenoids and ATF temperature sensor.

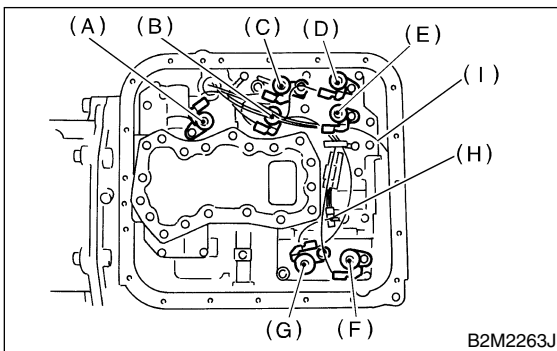
Tightening torque:

T: 8 N·m (0.8 kgf·m, 5.8 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) Connect harness connectors.
Connect connectors of same color, and secure connectors to valve body using clips.

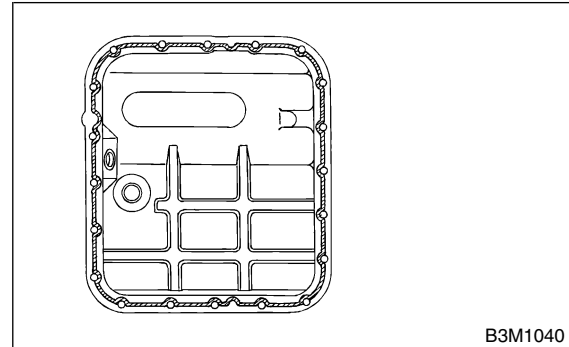


- (A) Lock-up duty solenoid (Blue)
- (B) Low clutch timing solenoid (Gray)
- (C) Line pressure duty solenoid (Red)
- (D) Shift solenoid 2 (Yellow)
- (E) Shift solenoid 1 (Green)
- (F) 2-4 brake timing solenoid (Black)
- (G) 2-4 brake duty solenoid (Red)
- (H) ATF temperature sensor
- (I) Transfer duty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

3) Apply proper amount of liquid gasket to the entire oil pan mating surface.

Fluid packing:

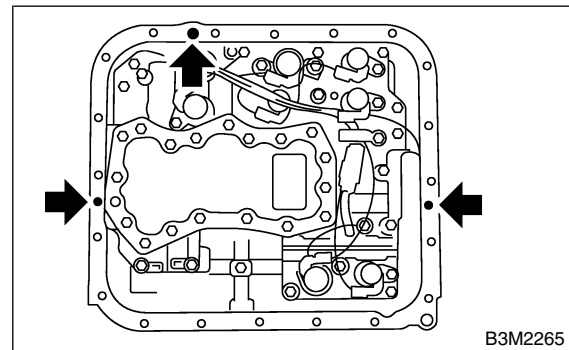
THREE BOND 1217B



4) Apply liquid gasket fully to 3 holes other than screw holes on the transmission case.

Fluid packing:

THREE BOND 1217B



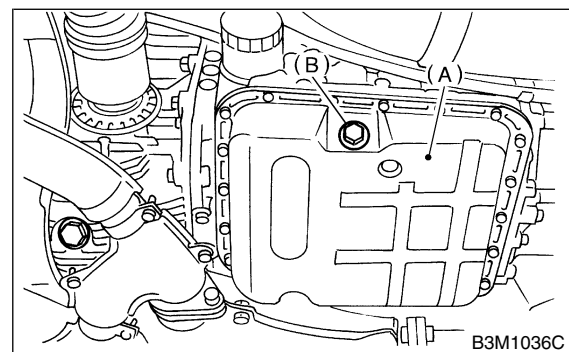
5) Install oil pan.

NOTE:

Uniformly tighten the bolts in several passes.

Tightening torque:

5 N·m (0.5 kgf·m, 3.6 ft·lb)



- (A) Oil pan
- (B) Drain plug

6) Fill ATF up to the middle of the "COLD" side on level gauge by using the gauge hole. <Ref. to AT-9, Automatic Transmission Fluid.>

SHIFT SOLENOIDS, DUTY SOLENOIDS AND ATF TEMPERATURE SENSOR

Automatic Transmission

7) Check the ATF level. <Ref. to AT-9, Automatic Transmission Fluid.>

1. TRANSFER DUTY SOLENOID AND TRANSFER VALVE BODY

S502227A1101

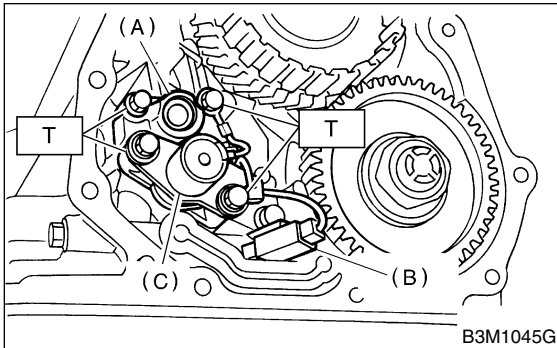
1) Install transfer duty solenoid and transfer valve body.

(1) Install transfer duty solenoid and transfer valve body.

Tightening torque:

T: 8 N·m (0.8 kgf-m, 5.8 ft-lb)

(2) Connect transfer duty solenoid connector.



- (A) Transfer valve body
- (B) Transfer duty solenoid connector
- (C) Transfer duty solenoid

2) Install extension case to transmission case.

(1) Tighten 11 bolts.

Tightening torque:

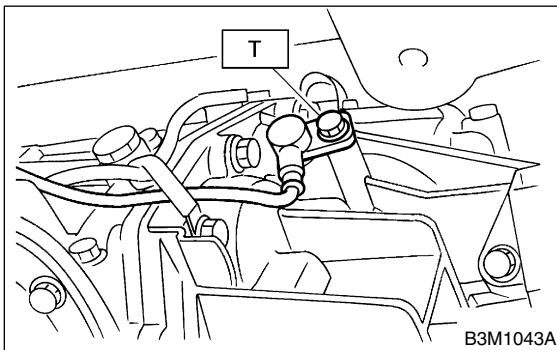
25 N·m (2.5 kgf-m, 18.1 ft-lb)

(2) Adjust the select cable. <Ref. to CS-27, ADJUSTMENT, Select Cable.>

3) Install rear vehicle speed sensor.

Tightening torque:

T: 7 N·m (0.7 kgf-m, 5.1 ft-lb)



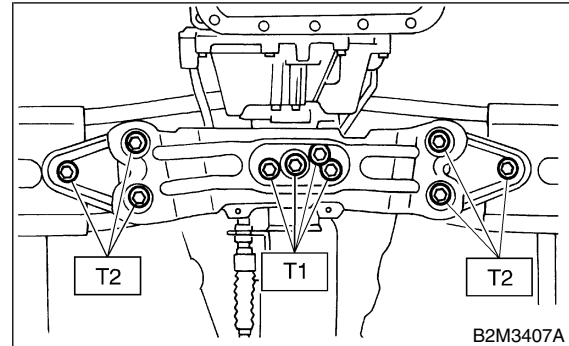
4) Install rear crossmember.

(1) Tighten bolts.

Tightening torque:

T1: 35 N·m (3.6 kgf-m, 26 ft-lb)

T2: 75 N·m (7.6 kgf-m, 55 ft-lb)



(2) Lower and remove transmission jack.

5) Install propeller shaft. <Ref. to DS-14, INSTALLATION, Propeller Shaft.>

6) Install front center, rear exhaust pipe and muffler.

2.5 L model

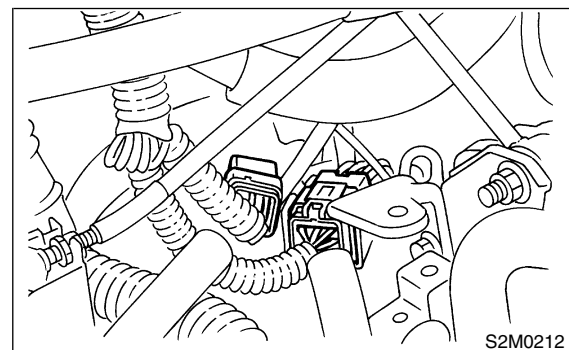
<Ref. to EX-6, INSTALLATION, Front Exhaust Pipe.>, <Ref. to EX-9, INSTALLATION, Rear Exhaust Pipe.> and <Ref. to EX-10, INSTALLATION, Muffler.>

3.0 L model

<Ref. to EX(H6)-6, INSTALLATION, Front Exhaust Pipe.>, <Ref. to EX(H6)-8, INSTALLATION, Rear Exhaust Pipe.> and <Ref. to EX(H6)-9, INSTALLATION, Muffler.>

7) Lower and remove jack.

8) Connect transmission harness connector.

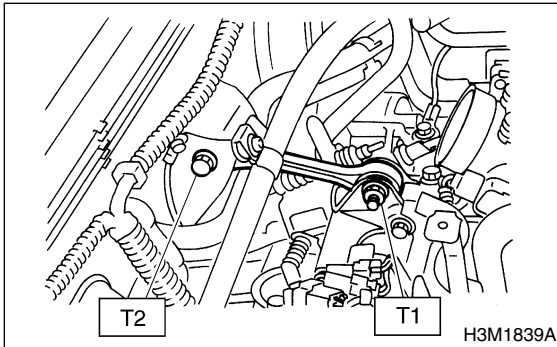


9) Install pitching stopper.

Tightening torque:

T1: 50 N·m (5.1 kgf-m, 37 ft-lb)

T2: 58 N·m (5.9 kgf-m, 43 ft-lb)



10) Install air cleaner case or air intake chamber.

2.5 L model

<Ref. to IN-6, INSTALLATION, Air Cleaner Case.>

3.0 L model

<Ref. to IN(H6)-6, INSTALLATION, Air Intake Chamber.>

11) Fill ATF up to the middle of the "COLD" side on level gauge by using the gauge hole. <Ref. to AT-9, Automatic Transmission Fluid.>

12) Check the ATF level. <Ref. to AT-9, Automatic Transmission Fluid.>