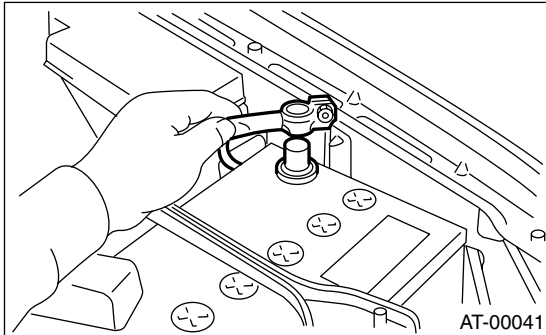


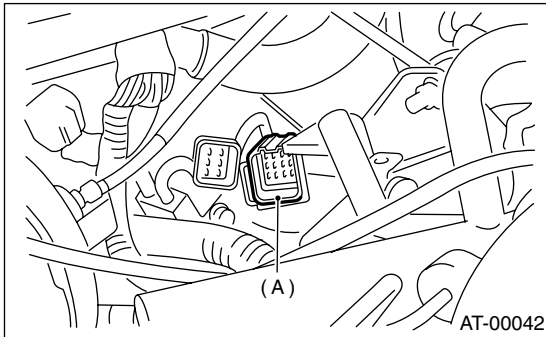
## 13. Front Vehicle Speed Sensor

### A: REMOVAL

- 1) Set up the vehicle on a lift.
- 2) Disconnect the ground cable from battery.



- 3) Remove the air cleaner case. (Non-turbo model)  
<Ref. to IN(H4SO)-5, REMOVAL, Air Cleaner Case.>
- 4) Remove the intercooler. (Turbo model)  
<Ref. to IN(H4DOTC)-10, REMOVAL, Intercooler.>
- 5) Disconnect the transmission connector.



(A) Transmission connector

- 6) Remove the pitching stopper. <Ref. to 4AT-42, REMOVAL, Transmission Mounting System.>
- 7) Remove the transmission connector from stay.
- 8) Lift-up the vehicle.
- 9) Clean the transmission exterior.

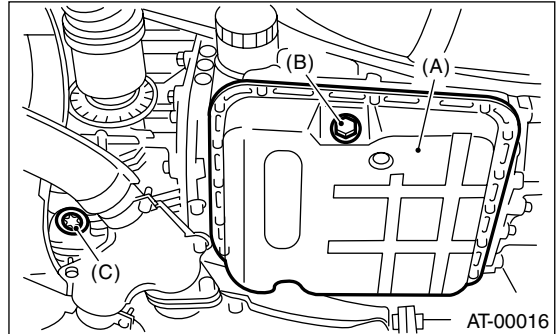
- 10) Drain the ATF completely.

**NOTE:**

Tighten the ATF drain plug after draining the ATF.

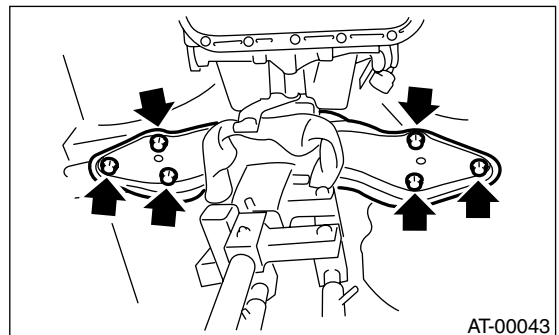
**Tightening torque:**

**25 N·m (2.5 kgf-m, 18.1 ft-lb)**



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

- 11) Remove the front, center, exhaust pipes and muffler. (Non-turbo model)  
<Ref. to EX(H4SO)-4, REMOVAL, Front Exhaust Pipe.>, <Ref. to EX(H4SO)-8, REMOVAL, Rear Exhaust Pipe.> and <Ref. to EX(H4SO)-9, REMOVAL, Muffler.>
  - 12) Remove the center, rear exhaust pipe and muffler. (Turbo model)  
<Ref. to EX(H4DOTC)-8, REMOVAL, Center Exhaust Pipe.>, <Ref. to EX(H4DOTC)-13, REMOVAL, Rear Exhaust Pipe.> and <Ref. to EX(H4DOTC)-14, REMOVAL, Muffler.>
  - 13) Remove the shield cover. (If equipped)
  - 14) Remove the propeller shaft. <Ref. to DS-14, REMOVAL, Propeller Shaft.>
  - 15) Place the transmission jack under transmission.
- NOTE:**  
Make sure that the support plates of transmission jack don't touch the crossmember.
- 16) Remove the transmission rear crossmember bolts.



# FRONT VEHICLE SPEED SENSOR

## AUTOMATIC TRANSMISSION

17) Lower the AT jack.

### NOTE:

Do not separate the AT jack and transmission.

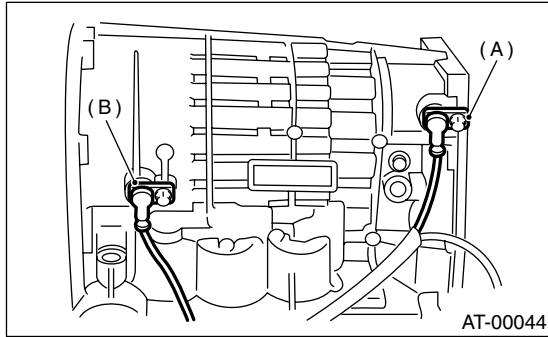
18) Remove the oil cooler inlet and outlet pipe.

### NOTE:

When removing the outlet pipe, be careful not to lose balls and springs used with retaining screws.

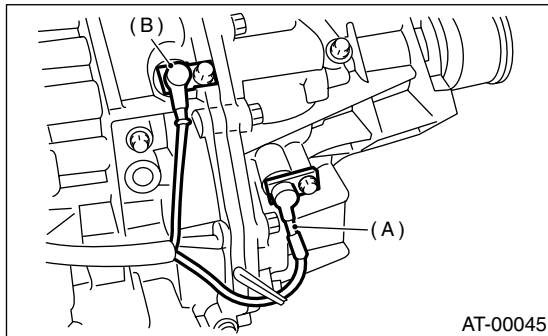
19) Remove the front and rear vehicle speed sensor and torque converter turbine speed sensor.

### • Front vehicle speed sensor and torque converter turbine speed sensor



- (A) Front vehicle speed sensor
- (B) Torque converter turbine speed sensor

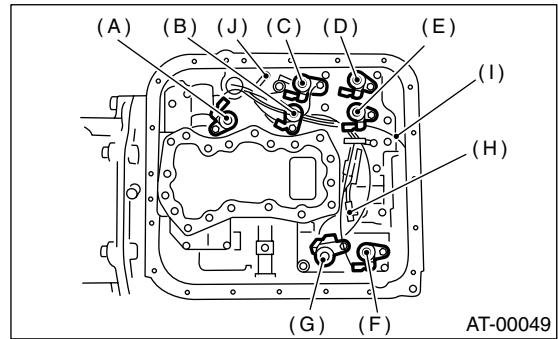
### • Rear vehicle speed sensor



- (A) Rear vehicle speed sensor
- (B) Front vehicle speed sensor

20) Remove the oil pan.

21) Disconnect the duty solenoid connectors, and then disconnect the ATF temperature sensor from control valve body.

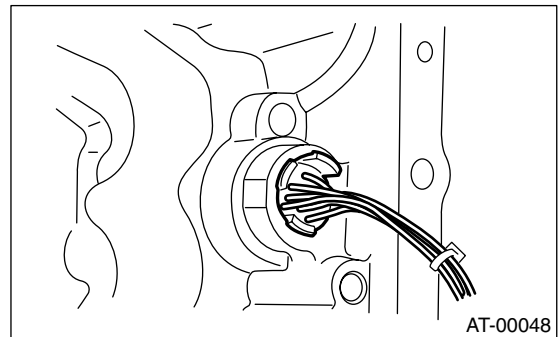


- (A) Lock-up duty solenoid (Blue)
- (B) Low clutch timing solenoid (Gray)
- (C) Line pressure duty solenoid (Red)
- (D) Shift solenoid 2 (Yellow)
- (E) Shift solenoid 1 (Green)
- (F) 2-4 brake timing solenoid (Black)
- (G) 2-4 brake duty solenoid (Red)
- (H) ATF temperature sensor
- (I) Transfer duty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

22) Remove the harness assembly.

## B: INSTALLATION

1) Pass the harness assembly through the hole in the transmission case.



# FRONT VEHICLE SPEED SENSOR

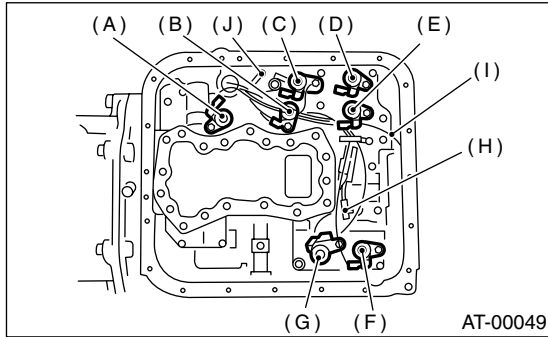
AUTOMATIC TRANSMISSION

2) Connect the harness connectors and ATF temperature sensor.

Connect the connectors of same color, and secure the harness to valve body using clips.

**Tightening torque (Transmission ground cable  
ATF temperature sensor)**

**8 N·m (0.8 kgf·m, 5.8 ft·lb)**

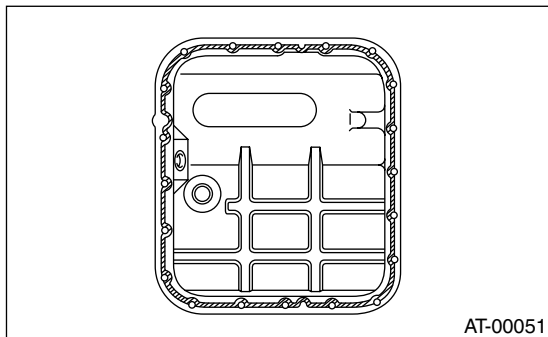


- (A) Lock-up duty solenoid (Blue)
- (B) Low clutch timing solenoid (Gray)
- (C) Line pressure duty solenoid (Red)
- (D) Shift solenoid 2 (Yellow)
- (E) Shift solenoid 1 (Green)
- (F) 2-4 brake timing solenoid (Black)
- (G) 2-4 brake duty solenoid (Red)
- (H) ATF temperature sensor
- (I) Transfer duty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

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

**Fluid packing:**

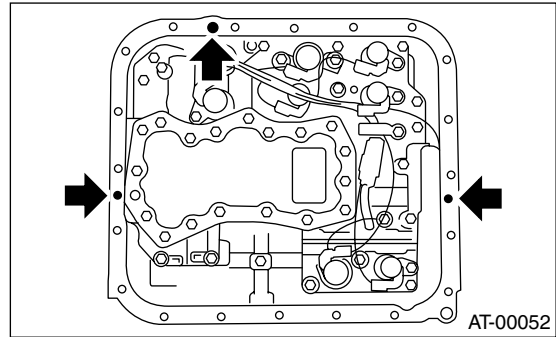
**THREE BOND 1217B (Part No. K0877YA020)**



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

**Fluid packing:**

**THREE BOND 1217B (Part No. K0877YA020)**



5) Install the oil pan.

**Tightening torque:**

**5 N·m (0.5 kgf·m, 3.6 ft·lb)**

6) Install the front and rear vehicle speed sensor, and also the torque converter turbine speed sensor, and then fasten the harness.

**Tightening torque:**

**7 N·m (0.7 kgf·m, 5.1 ft·lb)**

7) Install the oil cooler pipes.

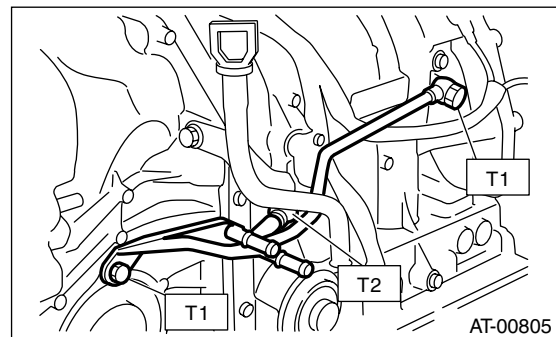
**NOTE:**

Be sure to use a new copper washer.

**Tightening torque:**

**T1: 25 N·m (2.5 kgf·m, 18.1 ft·lb)**

**T2: 44 N·m (4.5 kgf·m, 32.5 ft·lb)**



8) Install the transmission rear crossmember bolts.

**Tightening torque:**

**70 N·m (7.1 kgf·m, 51 ft·lb)**

9) Install the propeller shaft. <Ref. to DS-15, INSTALLATION, Propeller Shaft.>

10) Install the shield cover. (If equipped)

## FRONT VEHICLE SPEED SENSOR

### AUTOMATIC TRANSMISSION

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11) Install the front, center, rear exhaust pipes and muffler. (Non-turbo model)

<Ref. to EX(H4SO)-5, INSTALLATION, Front Exhaust Pipe.>, <Ref. to EX(H4SO)-8, INSTALLATION, Rear Exhaust Pipe.> and <Ref. to EX(H4SO)-9, INSTALLATION, Muffler.>

12) Install the center, rear exhaust pipes and muffler. (Turbo model)

<Ref. to EX(H4DOTC)-9, INSTALLATION, Center Exhaust Pipe.>, <Ref. to EX(H4DOTC)-13, INSTALLATION, Rear Exhaust Pipe.> and <Ref. to EX(H4DOTC)-14, INSTALLATION, Muffler.>

13) Lower the vehicle.

14) Install the transmission connector to the stay.

15) Install the pitching stopper. <Ref. to 4AT-42, INSTALLATION, Transmission Mounting System.>

16) Install the air cleaner case. (Non-turbo model)  
<Ref. to IN(H4SO)-5, INSTALLATION, Air Cleaner Case.>

17) Install the intercooler. (Turbo model)

<Ref. to IN(H4DOTC)-10, INSTALLATION, Intercooler.>