

19. Shift Solenoids, Duty Solenoids and ATF Temperature Sensor

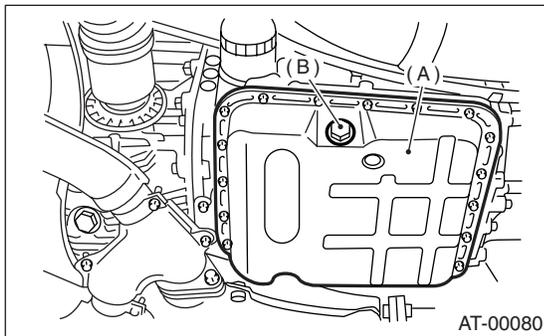
A: REMOVAL

1. SHIFT SOLENOIDS AND DUTY SOLENOIDS

- 1) Lift-up the vehicle.
- 2) Clean the transmission exterior.
- 3) Drain the ATF completely.
- 4) Replace the gasket with a new one, and tighten the drain plug (ATF).

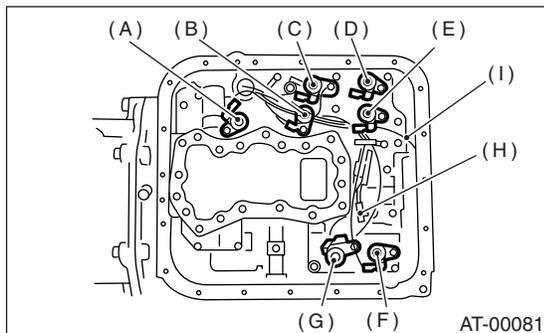
Tightening torque:

25 N·m (2.5 kgf-m, 18.1 ft-lb)



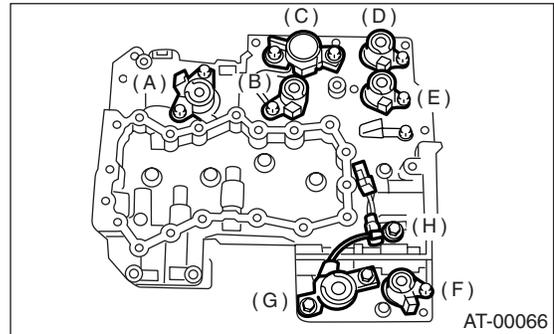
- (A) Oil pan
- (B) Drain plug (ATF)

- 5) Remove the oil pan.
- 6) Disconnect the solenoid and duty solenoid connectors.



- (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)

- 7) Remove the 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

2. ATF TEMPERATURE SENSOR

For removal of ATF temperature sensor, refer to "Front Vehicle Speed Sensor." <Ref. to 4AT-53, REMOVAL, Front Vehicle Speed Sensor.>

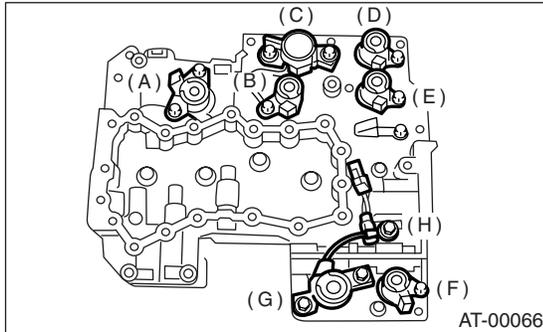
SHIFT SOLENOIDS, DUTY SOLENOIDS AND ATF TEMPERATURE SENSOR

AUTOMATIC TRANSMISSION

B: INSTALLATION

1. SHIFT SOLENOIDS AND DUTY SOLENOIDS

1) Insert solenoid and duty solenoid to specified position.

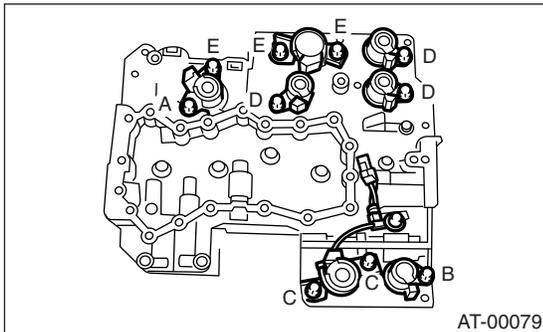


- (A) Lock-up duty solenoid (Blue)
- (B) Low clutch timing solenoid (Gray)
- (C) Line pressure duty solenoid (Red)
- (D) Shift solenoid 2 (Yellow)
- (E) Shift solenoid 1 (Green)
- (F) 2-4 brake timing solenoid (Black)
- (G) 2-4 brake duty solenoid (Red)
- (H) ATF temperature sensor

2) Tighten the bolts and nuts.

Tightening torque:

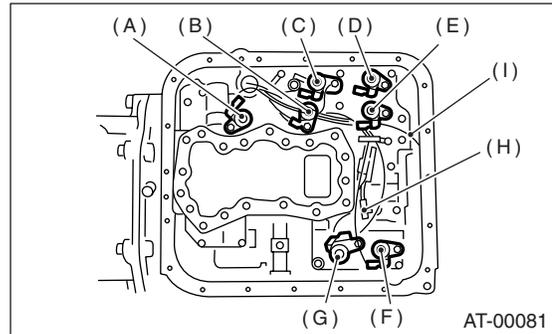
8 N·m (0.8 kgf·m, 5.8 ft·lb)



Bolt length mm (in)

- (A) 12 (0.47)
- (B) 40 (1.57)
- (C) 45 (1.77)
- (D) 62 (2.44)
- (E) 73 (2.87)

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

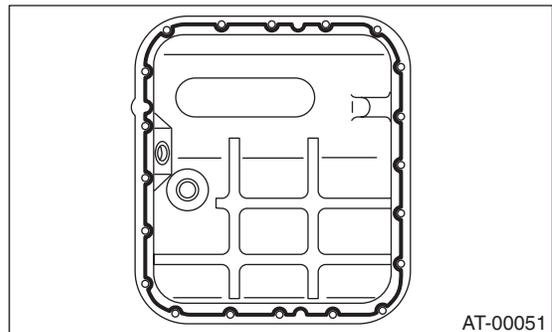


- (A) Lock-up duty solenoid (Blue)
- (B) Low clutch timing solenoid (Gray)
- (C) Line pressure duty solenoid (Red)
- (D) Shift solenoid 2 (Yellow)
- (E) Shift solenoid 1 (Green)
- (F) 2-4 brake timing solenoid (Black)
- (G) 2-4 brake duty solenoid (Red)
- (H) ATF temperature sensor
- (I) Transfer duty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

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

Liquid gasket:

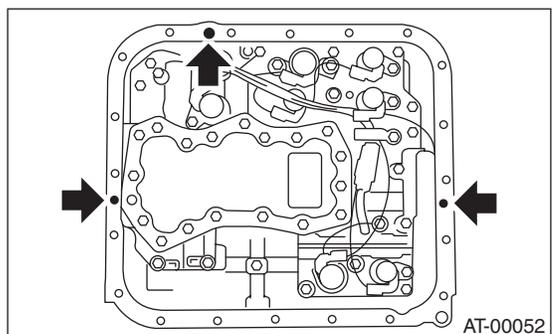
THREE BOND 1217B (Part No. K0877YA020)



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

Liquid gasket:

THREE BOND 1217B (Part No. K0877YA020)



SHIFT SOLENOIDS, DUTY SOLENOIDS AND ATF TEMPERATURE SENSOR

AUTOMATIC TRANSMISSION

6) Install the oil pan by equally tightening bolts.

Tightening torque:

5 N·m (0.5 kgf-m, 3.6 ft-lb)

7) Pour ATF into ATF charge pipe. <Ref. to 4AT-29, Automatic Transmission Fluid.>

8) Check the ATF level. <Ref. to 4AT-29, Automatic Transmission Fluid.>

2. ATF TEMPERATURE SENSOR

For installation of ATF temperature sensor, refer to “Front Vehicle Speed Sensor.” <Ref. to 4AT-55, INSTALLATION, Front Vehicle Speed Sensor.>