

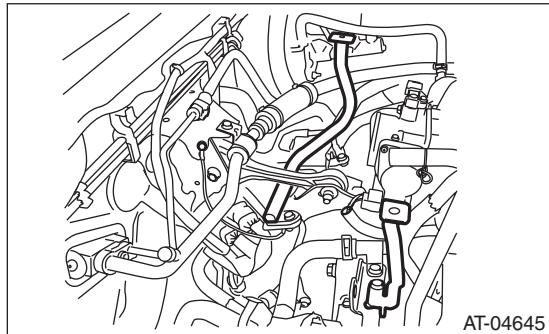
Automatic Transmission Assembly

AUTOMATIC TRANSMISSION

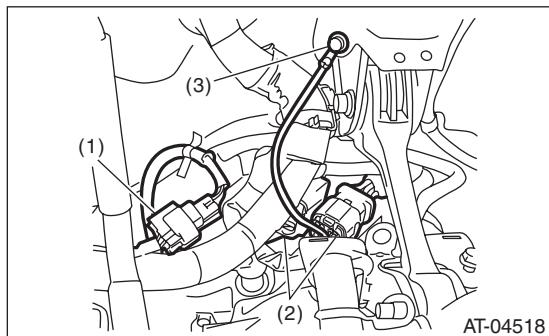
9. Automatic Transmission Assembly

A: REMOVAL

- 1) Set the vehicle on a lift.
- 2) Open the front hood.
- 3) Disconnect the ground cable from battery.
- 4) Remove the air intake chamber and intake boot.
<Ref. to IN(H4SO)-7, REMOVAL, Air Intake Chamber.>
- 5) Remove the air intake chamber stay.

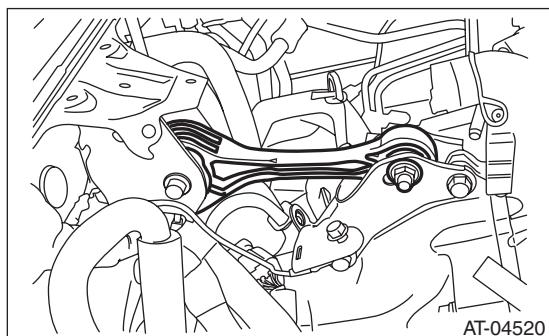


- 6) Disconnect the following connectors and terminals.



- (1) Rear oxygen sensor connector
- (2) Transmission harness connectors
- (3) Transmission radio ground cord terminal

- 7) Remove the starter. <Ref. to SC(H4SO)-7, REMOVAL, Starter.>
- 8) Remove the pitching stopper.



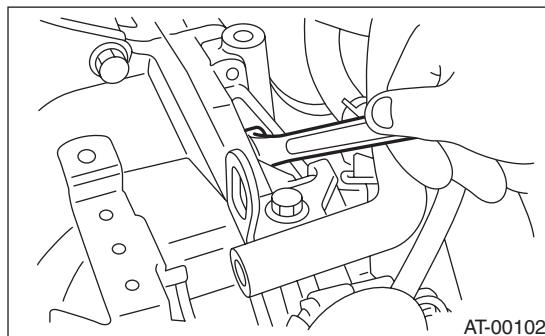
- 9) Remove the throttle body. <Ref. to FU(H4SO)-14, REMOVAL, Throttle Body.>

- 10) Separate the torque converter clutch from the drive plate.

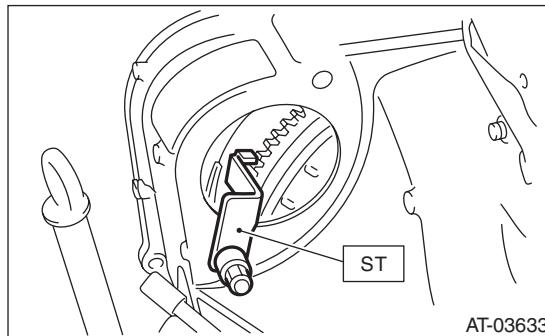
CAUTION:

- Be careful not to damage the mounting bolts.
- Be careful not to drop bolts into the converter case.

- (1) Remove the V-belt covers.
- (2) Remove the service hole plug.
- (3) Remove the bolts which hold the torque converter clutch assembly to the drive plate.
- (4) Place the wrench on the crank pulley bolt, and remove all the bolts while rotating the crank pulley a little bit at a time.
- (5) Make sure the torque converter moves freely by rotating with finger through the starter installation hole.



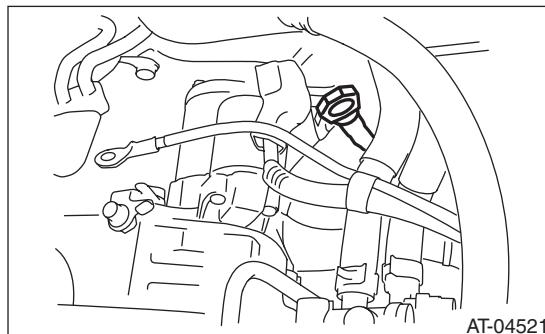
- 11) Attach the ST to the converter case.
ST 498277200 STOPPER SET



- 12) Remove the ATF level gauge.

NOTE:

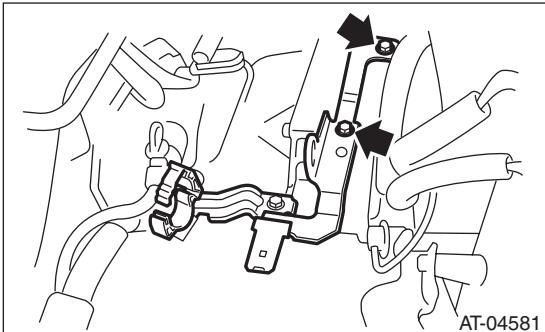
Plug the opening to prevent entry of foreign particles into the transmission fluid.



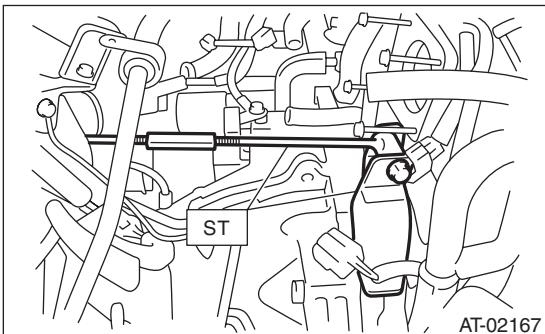
Automatic Transmission Assembly

AUTOMATIC TRANSMISSION

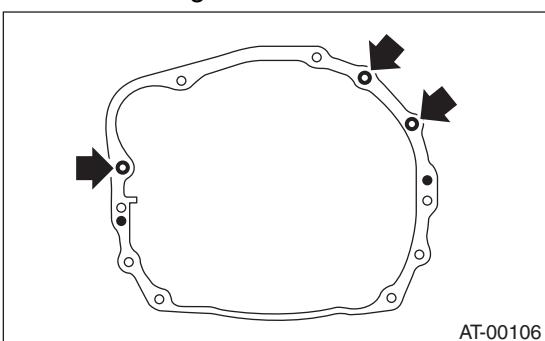
- 13) Remove the pitching stopper bracket and transmission radio ground cord.
- 14) Disconnect the engine harness, then remove the harness connector from the engine harness bracket.
- 15) Remove the engine harness bracket.



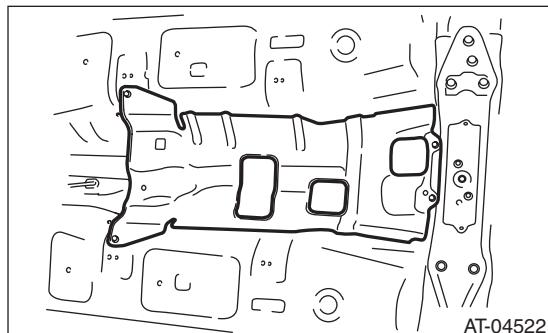
- 16) Set the ST.
ST 41099AC000 ENGINE SUPPORT ASSY



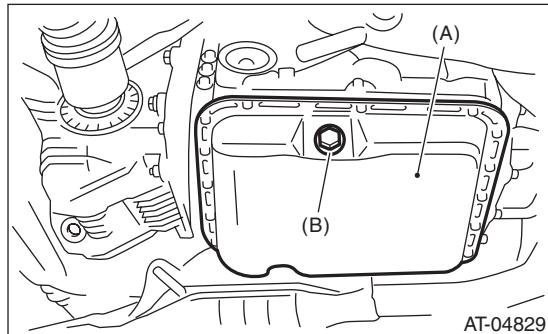
- 17) Lift up the vehicle.
- 18) Remove the under cover.
- 19) Remove the front, center and rear exhaust pipes and the muffler.
<Ref. to EX(H4SO)-6, REMOVAL, Front Exhaust Pipe.> <Ref. to EX(H4SO)-9, REMOVAL, Center Exhaust Pipe.> <Ref. to EX(H4SO)-10, REMOVAL, Rear Exhaust Pipe.> <Ref. to EX(H4SO)-12, REMOVAL, Muffler.>
- 20) Remove the bolts which hold upper side of transmission to engine.



- 21) Remove the heat shield cover.

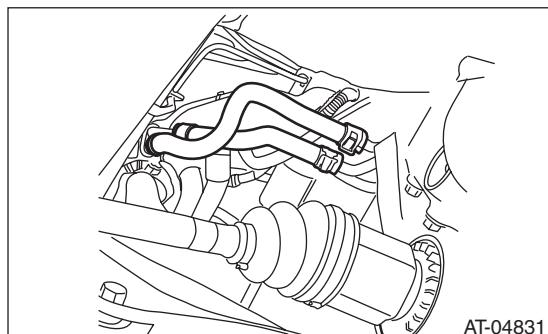


- 22) Remove the drain plug (ATF) to drain ATF.



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

- 23) Disconnect the ATF cooler hoses from the pipes of the transmission side, and remove the oil charge pipe.

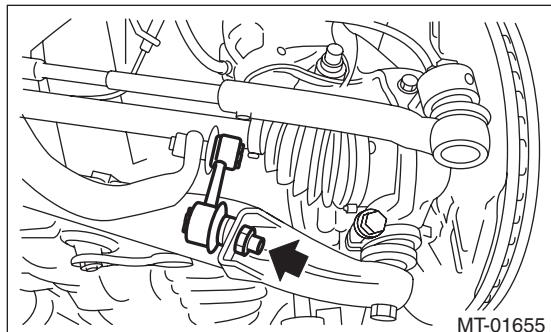


- 24) Remove the propeller shaft. <Ref. to DS-10, REMOVAL, Propeller Shaft.>
- 25) Remove the shift select cable from the inhibitor switch and the transmission. <Ref. to CS-24, REMOVAL, Select Cable.>

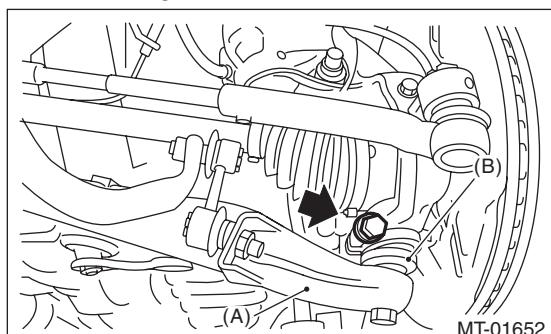
Automatic Transmission Assembly

AUTOMATIC TRANSMISSION

26) Disconnect the stabilizer link from the front arm.



27) Remove the bolts which secure the front arm ball joint to the front housing, and separate the front arm and housing.



(A) Front arm
(B) Ball joint

28) Pull out the front drive shaft from the transmission.

(1) Using a tire lever or a crow bar, etc., pull out until the front drive shaft transmission side joint slides move smoothly.

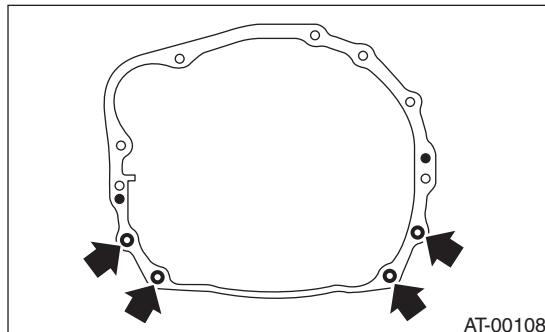
NOTE:

Place cloth between the tire lever or bar and the transmission in order to avoid damaging the transmission side retainer.

(2) Hold the transmission side joint of the front drive shaft by hand and extract the housing from the transmission while pressing the housing outward, so as not to stretch the boot.

29) Remove the bolts which hold the clutch housing cover.

30) Remove the bolts and nuts which hold lower side of transmission to engine.

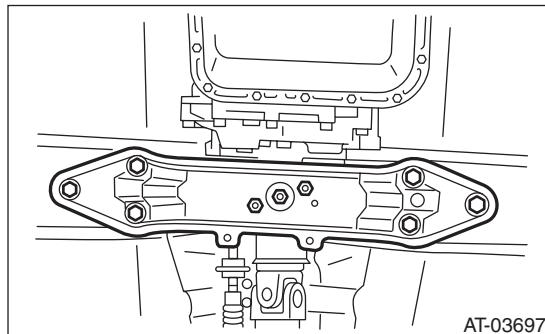


31) Place a transmission jack below the transmission.

NOTE:

Make sure that the support plates of transmission jack do not touch the oil pan.

32) Remove the transmission rear crossmember from the vehicle.

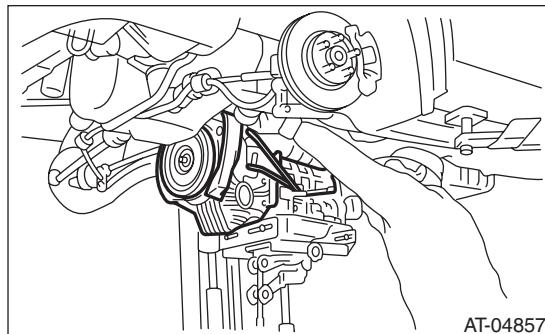


33) While lowering the transmission jack gradually, fully retract the engine support, and then tilt the engine rearward.

34) Remove the transmission.

NOTE:

Remove the transmission and torque converter as a single unit from engine.



35) Remove the rear cushion rubber from the transmission assembly.

B: INSTALLATION

1) Replace the differential side oil seal with a new part. <Ref. to 4AT-44, Differential Side Retainer Oil Seal.>

NOTE:

When a new oil seal has been installed, replacement is not required.

2) Install the rear cushion rubber to the transmission assembly.

Tightening torque:

40 N·m (4.1 kgf·m, 29.5 ft-lb)

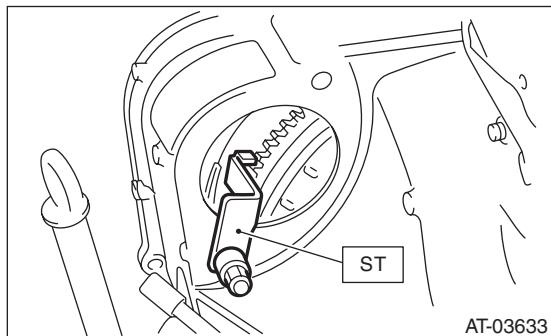
3) Strike and bend the transmission hanger of transmission rear with a rubber hammer etc. so that it gets in contact with the transmission case.

CAUTION:

Do not apply extra overload or impact to the transmission case.

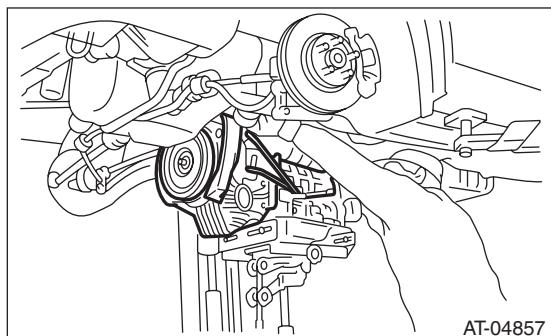
4) Attach the ST to the converter case.

ST 498277200 STOPPER SET



5) Install the transmission onto the engine.

(1) Lift up the transmission gradually using transmission jack.



(2) Insert the engine side stud bolt into the transmission bolt hole.

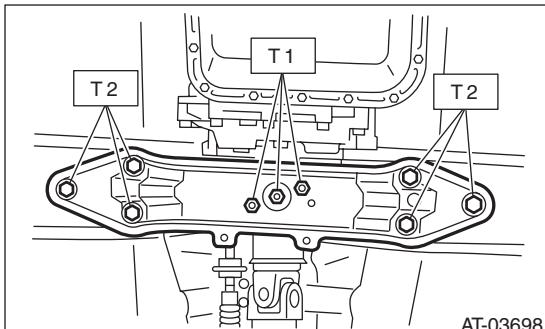
(3) While raising the transmission jack gradually, turn the screw of engine support, then tilt the engine forward and connect.

6) Install the transmission rear crossmember.

Tightening torque:

T1: 35 N·m (3.6 kgf·m, 25.8 ft-lb)

T2: 70 N·m (7.1 kgf·m, 51.6 ft-lb)

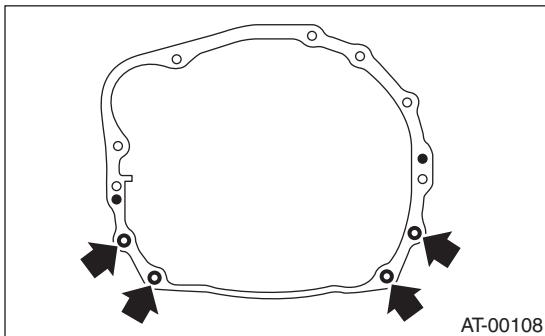


7) Remove the transmission jack.

8) Tighten the bolts and nuts which hold the lower side of transmission to the engine.

Tightening torque:

50 N·m (5.1 kgf·m, 36.9 ft-lb)



9) Install the clutch housing cover bolts.

10) Lower the vehicle.

11) Connect the engine and transmission.

(1) Remove the ST from converter case.

NOTE:

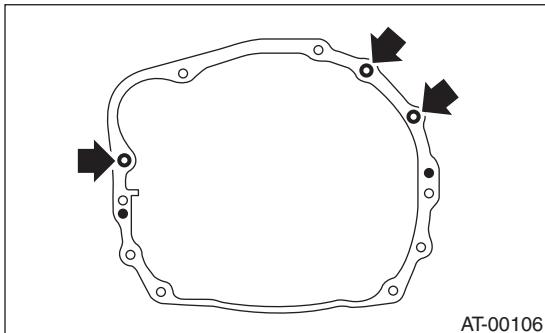
When removing the ST, be careful not to drop it into converter case.

(2) Install the starter. <Ref. to SC(H4SO)-7, INSTALLATION, Starter.>

(3) Tighten the bolts which hold the upper side of the transmission to the engine.

Tightening torque:

50 N·m (5.1 kgf·m, 36.9 ft-lb)



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12) Install the torque converter clutch assembly to the drive plate.

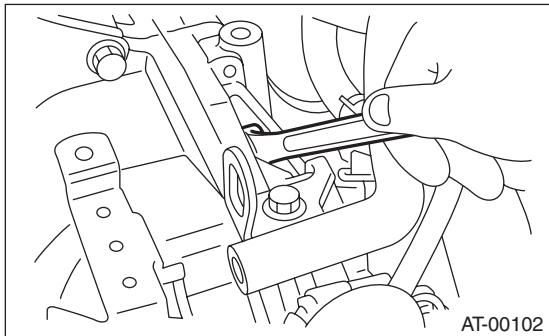
CAUTION:

- Be careful not to damage the mounting bolts.
- Be careful not to drop bolts into the converter case.

- (1) Tighten the bolts which hold the torque converter clutch to the drive plate.
- (2) Place the wrench on the crank pulley bolt, and remove all the bolts while rotating the crank pulley a little bit at a time.

Tightening torque:

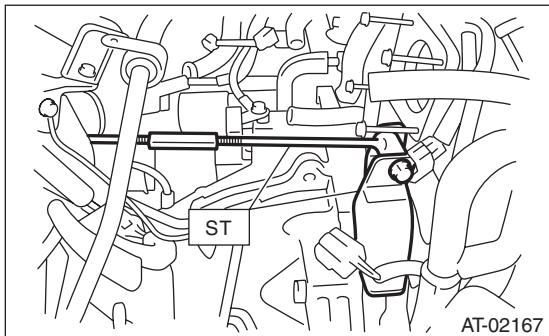
25 N·m (2.5 kgf-m, 18.4 ft-lb)



(3) Fit the plug to service hole.

(4) Install the V-belt cover.

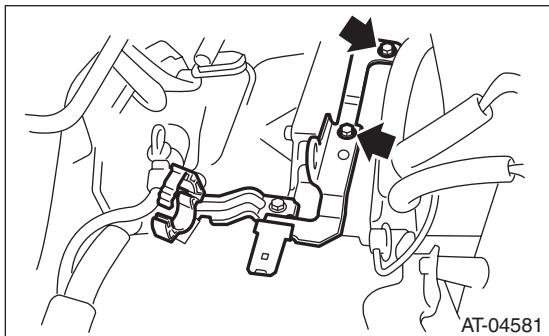
13) Remove the ST.



14) Install the engine harness bracket.

Tightening torque:

T: 16 N·m (1.6 kgf-m, 11.8 ft-lb)

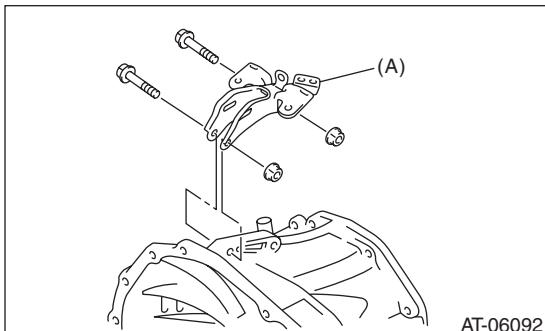


15) Install the harness connector to engine harness bracket, then connect the harness.

16) Install the pitching stopper bracket (A) and transmission radio ground cord.

Tightening torque:

41 N·m (4.2 kgf-m, 30.2 ft-lb)



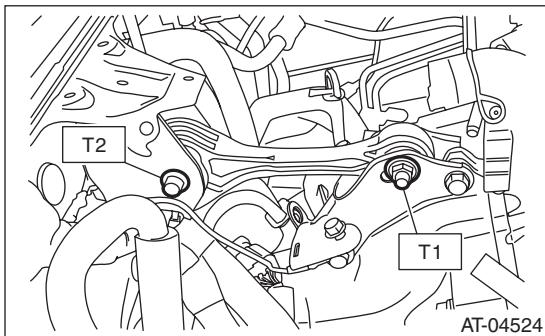
17) Install the throttle body. <Ref. to FU(H4SO)-14, INSTALLATION, Throttle Body.>

18) Install the pitching stopper.

Tightening torque:

T1: 50 N·m (5.1 kgf-m, 36.9 ft-lb)

T2: 58 N·m (5.9 kgf-m, 42.8 ft-lb)



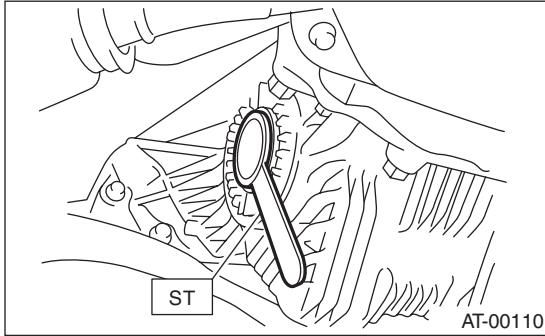
19) Lift up the vehicle.

20) Replace the circlip of the front drive shaft with a new part.

21) Apply grease to the oil seal lip.

22) Attach the ST to side retainer.

ST 28399SA010 OIL SEAL PROTECTOR



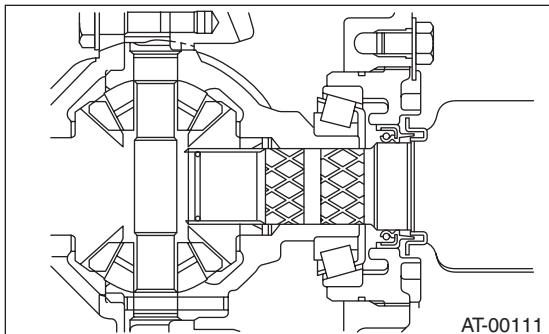
23) Align and insert the spline of the front drive shaft to the splines of the differential bevel gear, and remove the ST.

ST 28399SA010 OIL SEAL PROTECTOR

Automatic Transmission Assembly

AUTOMATIC TRANSMISSION

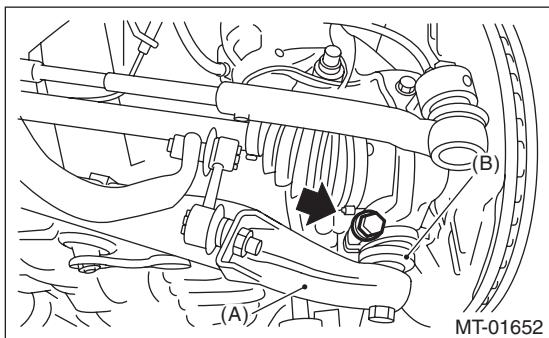
24) Insert the front drive shaft into the transmission securely by pressing the front housing from the outside.



25) Install the ball joint into the front housing.
26) Tighten the attachment bolts.

Tightening torque:

50 N·m (5.1 kgf·m, 36.9 ft-lb)

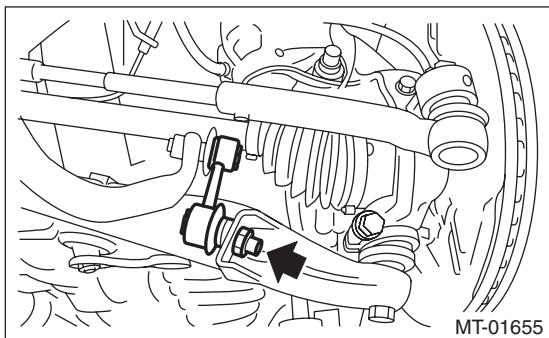


(A) Front arm
(B) Ball joint

27) Attach the stabilizer link to the front arm.

Tightening torque:

45 N·m (4.6 kgf·m, 33.2 ft-lb)

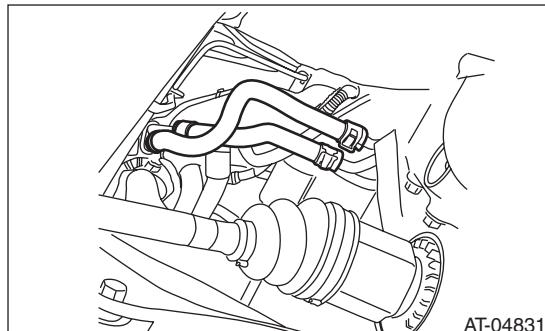


28) Install the shift select cable onto the select lever. <Ref. to CS-25, INSTALLATION, Select Cable.>

29) Install the oil charge pipe, and connect the ATF cooler hoses to the pipe.

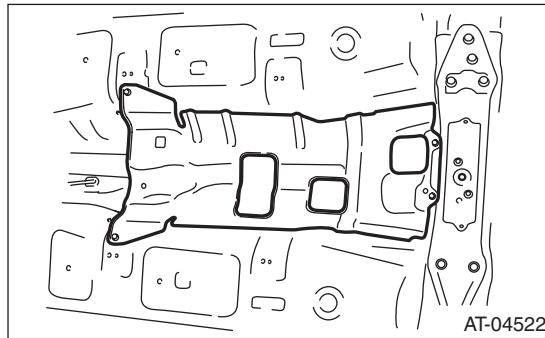
NOTE:

Use a new ATF cooler hose.



30) Install the propeller shaft. <Ref. to DS-11, INSTALLATION, Propeller Shaft.>

31) Install the heat shield cover.



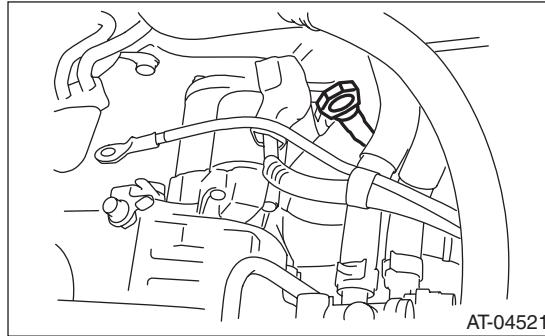
32) Install the rear exhaust pipe and muffler assembly. <Ref. to EX(H4SO)-10, INSTALLATION, Rear Exhaust Pipe.> <Ref. to EX(H4SO)-12, INSTALLATION, Muffler.>

33) Install the front and center exhaust pipe. <Ref. to EX(H4SO)-7, INSTALLATION, Front Exhaust Pipe.> <Ref. to EX(H4SO)-9, INSTALLATION, Center Exhaust Pipe.>

34) Install the under cover.

35) Lower the vehicle.

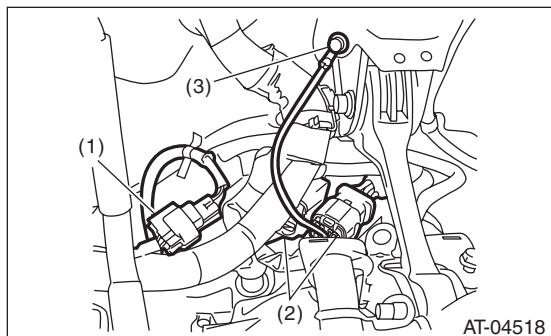
36) Install the ATF level gauge.



Automatic Transmission Assembly

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37) Connect the following connectors and terminals.



- (1) Rear oxygen sensor connector
- (2) Transmission harness connectors
- (3) Transmission radio ground cord terminal

38) Install the air intake chamber stay.

Tightening torque:

16 N·m (1.6 kgf·m, 11.8 ft-lb)

39) Install the air intake chamber and intake boot.

<Ref. to IN(H4SO)-7, INSTALLATION, Air Intake Chamber.>

40) Connect the battery ground terminal.

41) Fill transmission with ATF through the oil charge pipe until the fluid level is between the upper and lower level on the "COLD" side of the level gauge. <Ref. to 4AT-26, Automatic Transmission Fluid.>

42) Lower the vehicle from lift.

43) Check the differential gear oil level. <Ref. to 4AT-28, INSPECTION, Differential Gear Oil.>

44) Check the select lever operation. <Ref. to 4AT-45, INSPECTION, Inhibitor Switch.>

45) Bleed the air of control valve. <Ref. to 4AT-57, PROCEDURE, Air Bleeding of Control Valve.>

46) Check the ATF level. <Ref. to 4AT-26, INSPECTION, Automatic Transmission Fluid.>

47) Perform learning control promotion. <Ref. to 4AT(diag)-20, Learning Control.>

48) Perform the road test. <Ref. to 4AT-29, Road Test.>