

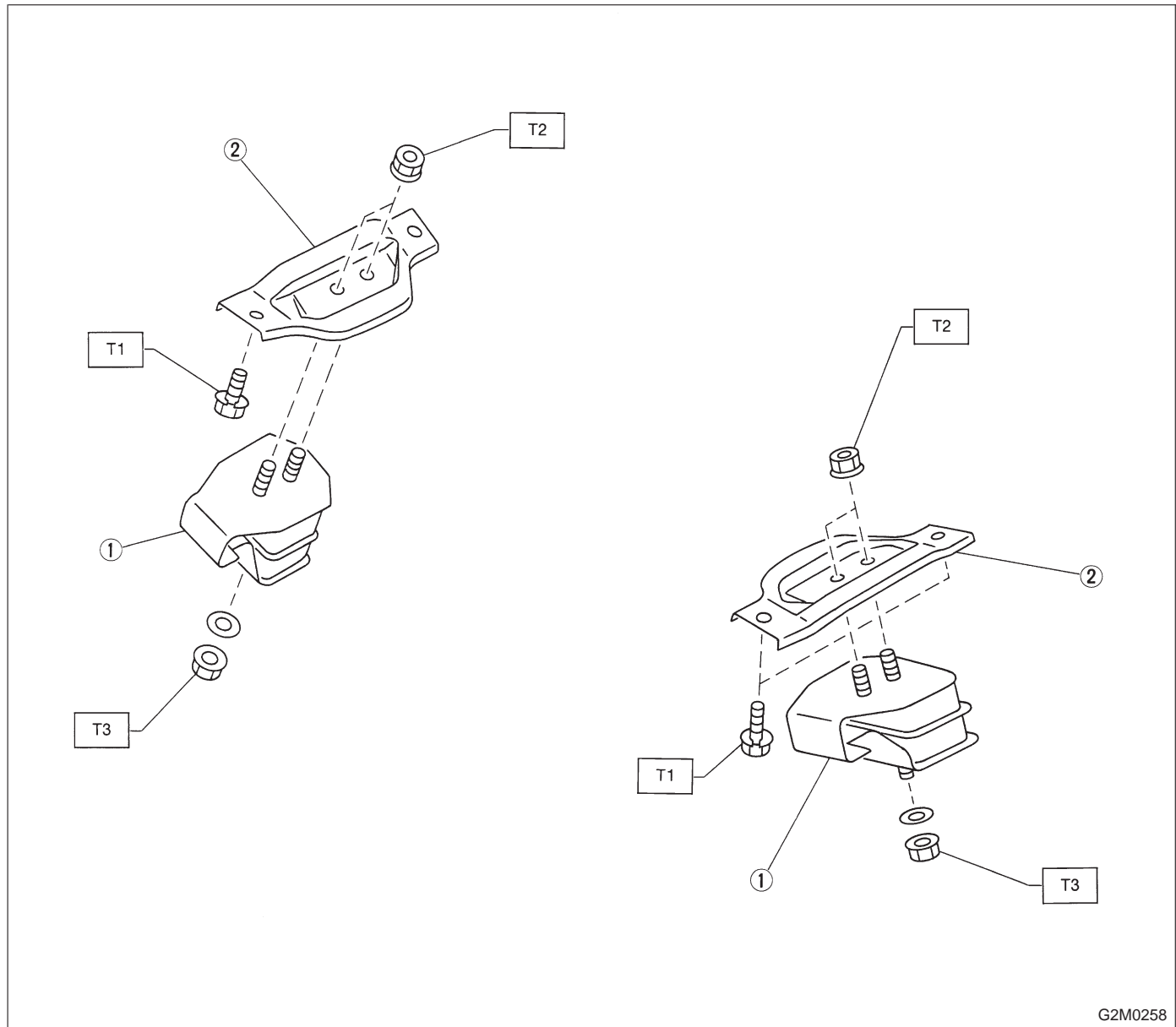
# ENGINE AND TRANSMISSION MOUNTING SYSTEM

# 2-11

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## 1. Engine Mounting



G2M0258

- ① Front cushion rubber
- ② Front engine mounting bracket

**Tightening torque: N·m (kg·m, ft·lb)**

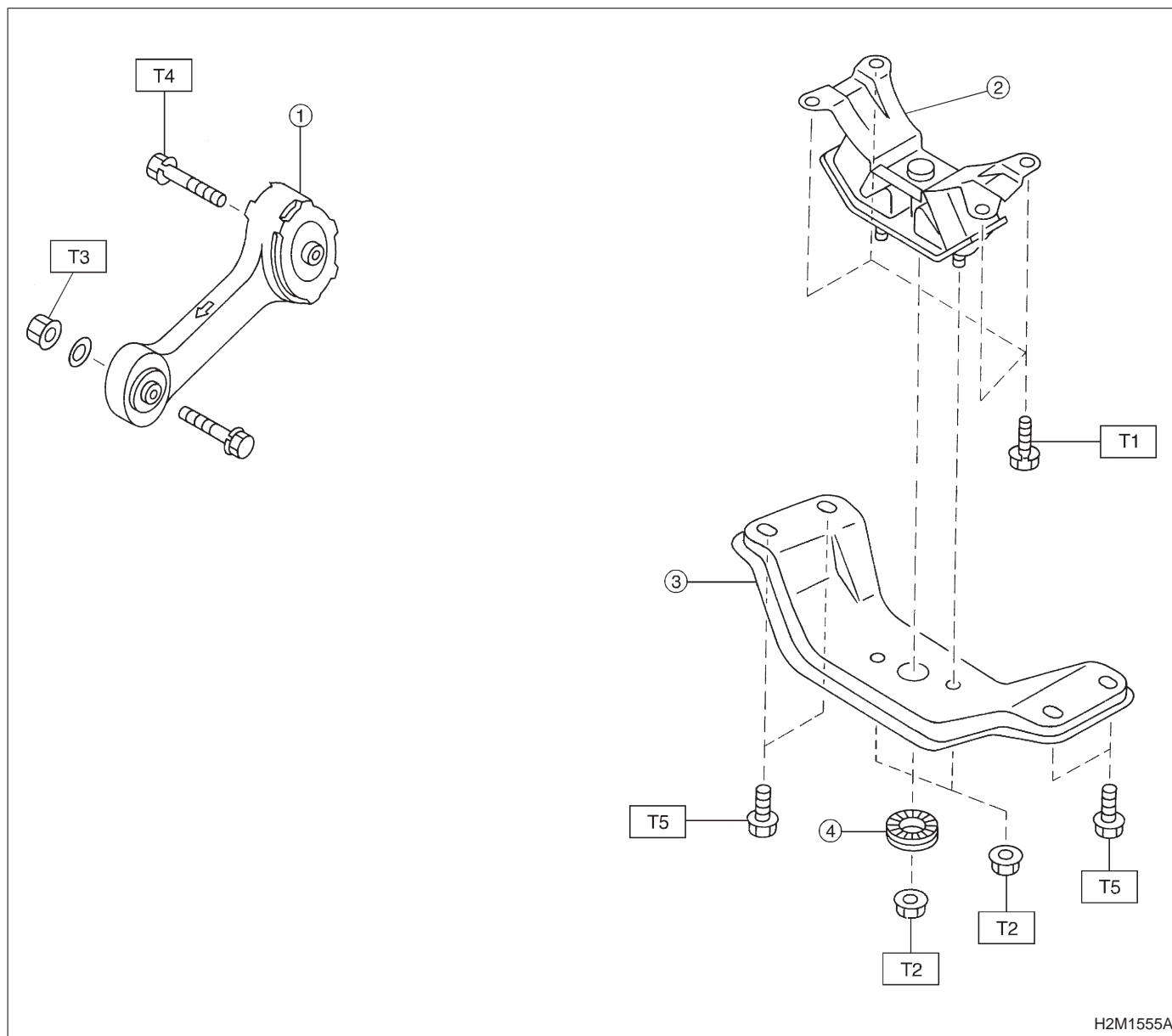
**T1: 26±7 (2.7±0.7, 19.5±5.1)**

**T2: 41±10 (4.2±1.0, 30±7)**

**T3: 69±15 (7.0±1.5, 51±11)**

## 2. Transmission Mounting

### A: MT MODEL



H2M1555A

- ① Pitching stopper
- ② Rear cushion rubber
- ③ Rear crossmember
- ④ Stopper

#### Tightening torque: N·m (kg-m, ft-lb)

T1: 33±5 (3.4±0.5, 24.6±3.6)

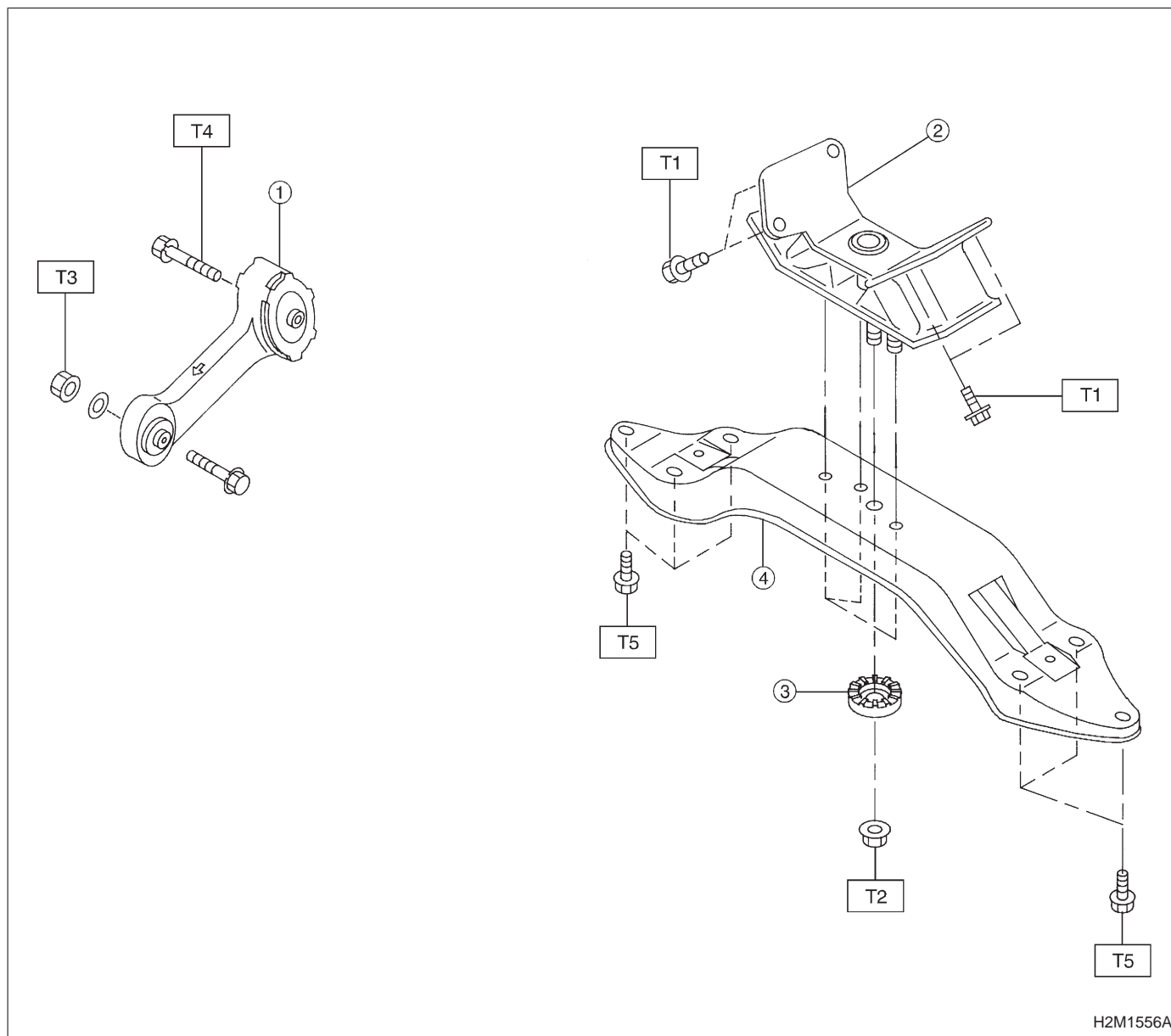
T2: 37±10 (3.8±1.0, 27±7)

T3: 49±5 (5.0±0.5, 36.2±3.6)

T4: 57±10 (5.8±1.0, 42±7)

T5: 69±15 (7.0±1.5, 51±11)

## B: AT MODEL



- ① Pitching stopper
- ② Rear cushion rubber
- ③ Stopper
- ④ Crossmember

**Tightening torque: N·m (kg-m, ft-lb)****T1: 25±7 (2.5±0.7, 18.1±5.1)****T2: 37±10 (3.8±1.0, 27±7)****T3: 49±5 (5.0±0.5, 36.2±3.6)****T4: 57±10 (5.8±1.0, 42±7)****T5: 69±15 (7.0±1.5, 51±11)**

## 1. Engine

### A: GENERAL PRECAUTION

- 1) Remove or install engine in an area where chain hoists, lifting devices, etc. are available for ready use.
- 2) Be sure not to damage coated surfaces of body panels with tools or stain seats and windows with coolant or oil. Place a cover over fenders, as required, for protection.
- 3) Prior to starting work, prepare the following:  
Service tools, clean cloth, containers to catch coolant and oil, wire ropes, chain hoist, transmission jacks, etc.
- 4) Lift-up or lower the vehicle when necessary. Make sure to support the correct positions. <Ref. to 1-3 [0700].>

**B: REMOVAL**

1. Set the vehicle on lift arms.
2. Open front hood and support with a stay.



3. Release fuel pressure.
4. Disconnect battery cable and remove battery from vehicle.
5. Drain coolant.



6. Remove cooling system.

**A/C equipped model**

7. Collect refrigerant, and remove pressure hose.



8. Remove air intake system.



9. Remove canister and bracket. (2200 cc)



10. Disconnect connectors, cables and hoses.



11. Remove power steering pump from bracket.



12. Remove front exhaust pipe and center exhaust pipe.



13. Remove nuts which hold lower side of transmission to engine.
14. Remove nuts which install front cushion rubber onto front crossmember.

**AT model**

15. Separate torque converter from drive plate.



16. Remove pitching stopper and bracket.



17. Disconnect fuel delivery hose, return hose and evaporation hose.



18. Support engine with a lifting device and wire ropes.
19. Support transmission with a garage jack.

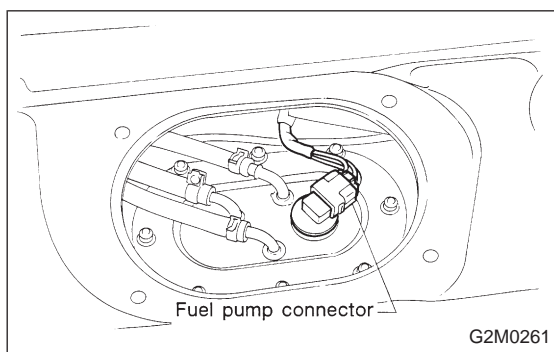


20. Remove bolts which hold upper side of transmission to engine.



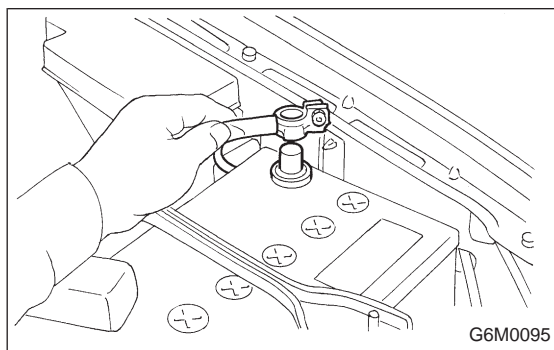
21. Remove engine from vehicle.

- 1) Set the vehicle on lift arms.
- 2) Open front hood fully and support with stay.

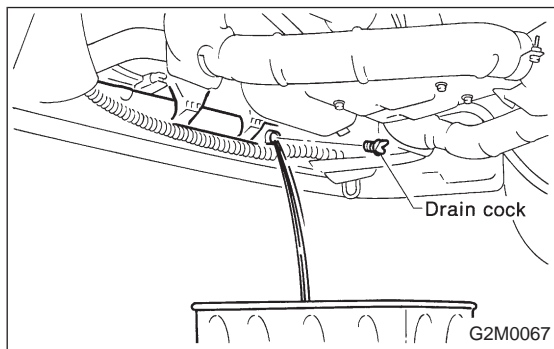


- 3) Release fuel pressure.
  - (1) Disconnect fuel pump connector.
  - (2) Start the engine, and run until it stalls.
  - (3) After the engine stalls, crank it for five seconds more.
  - (4) Turn ignition switch to "OFF".

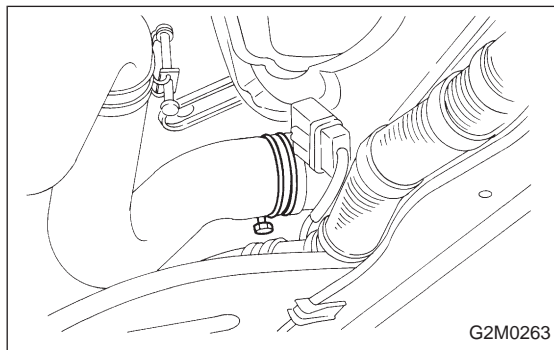
<Ref. to 2-8 [W1B0].>



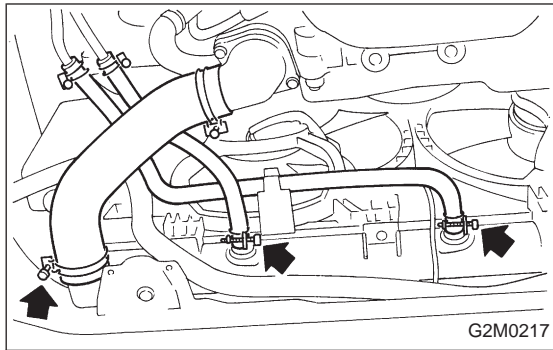
- 4) Disconnect battery cables and remove battery from vehicle.



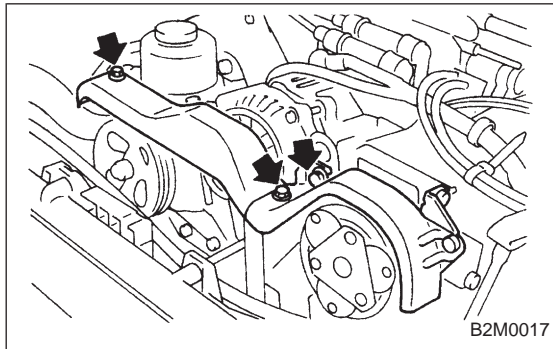
- 5) Drain coolant.  
Set container under the vehicle, and remove drain cock from radiator.



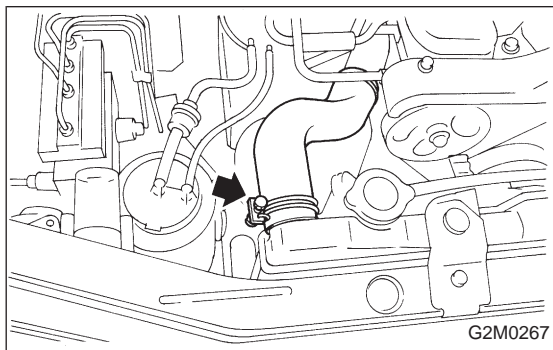
- 6) Remove cooling system.
  - (1) Disconnect radiator fan motor connector.



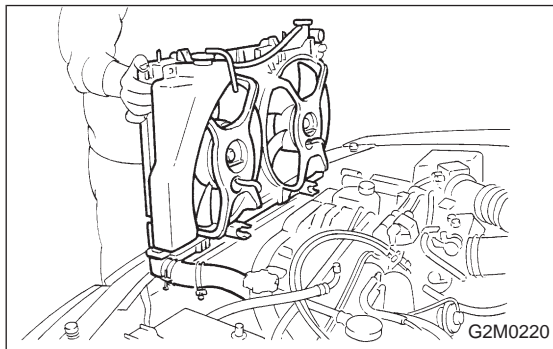
- (2) Disconnect radiator outlet hose from thermostat cover.
- (3) Disconnect ATF cooler hoses from pipes. (AT model)



- (4) Remove V-belt cover.



- (5) Disconnect radiator inlet hose from radiator.

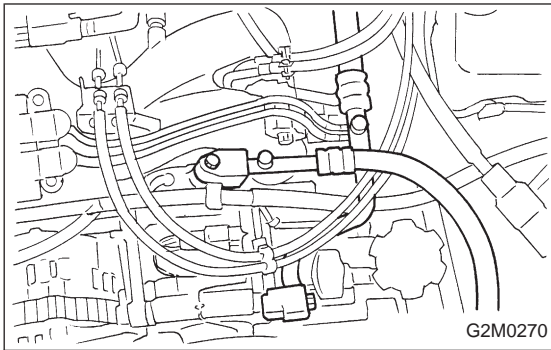


- (6) Remove radiator upper bracket, and remove radiator assembly from vehicle.

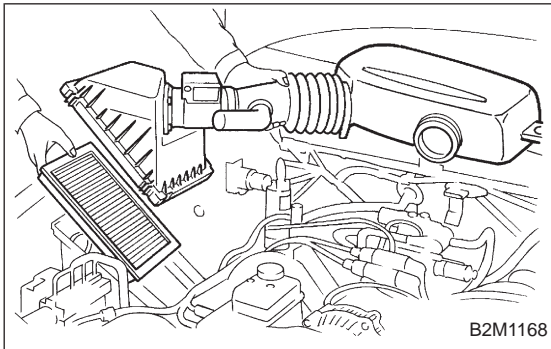
**7) Collect refrigerant, and remove pressure hoses. (With A/C)**

- (1) Place and connect the attachment hose to the refrigerant recycle system.
- (2) Collect refrigerant from A/C system.



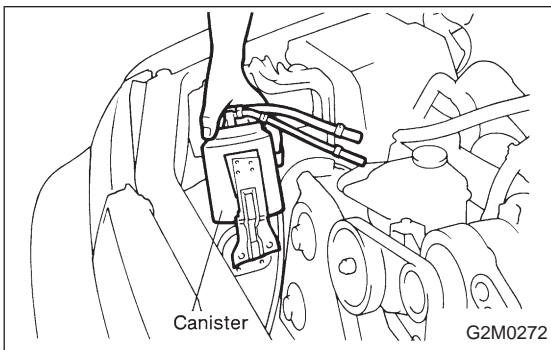


(3) Disconnect A/C pressure hoses from A/C compressor.



8) Remove air intake system.

- (1) Disconnect connector from mass air flow sensor.
- (2) Remove air intake duct with air cleaner upper cover, and remove air cleaner element.

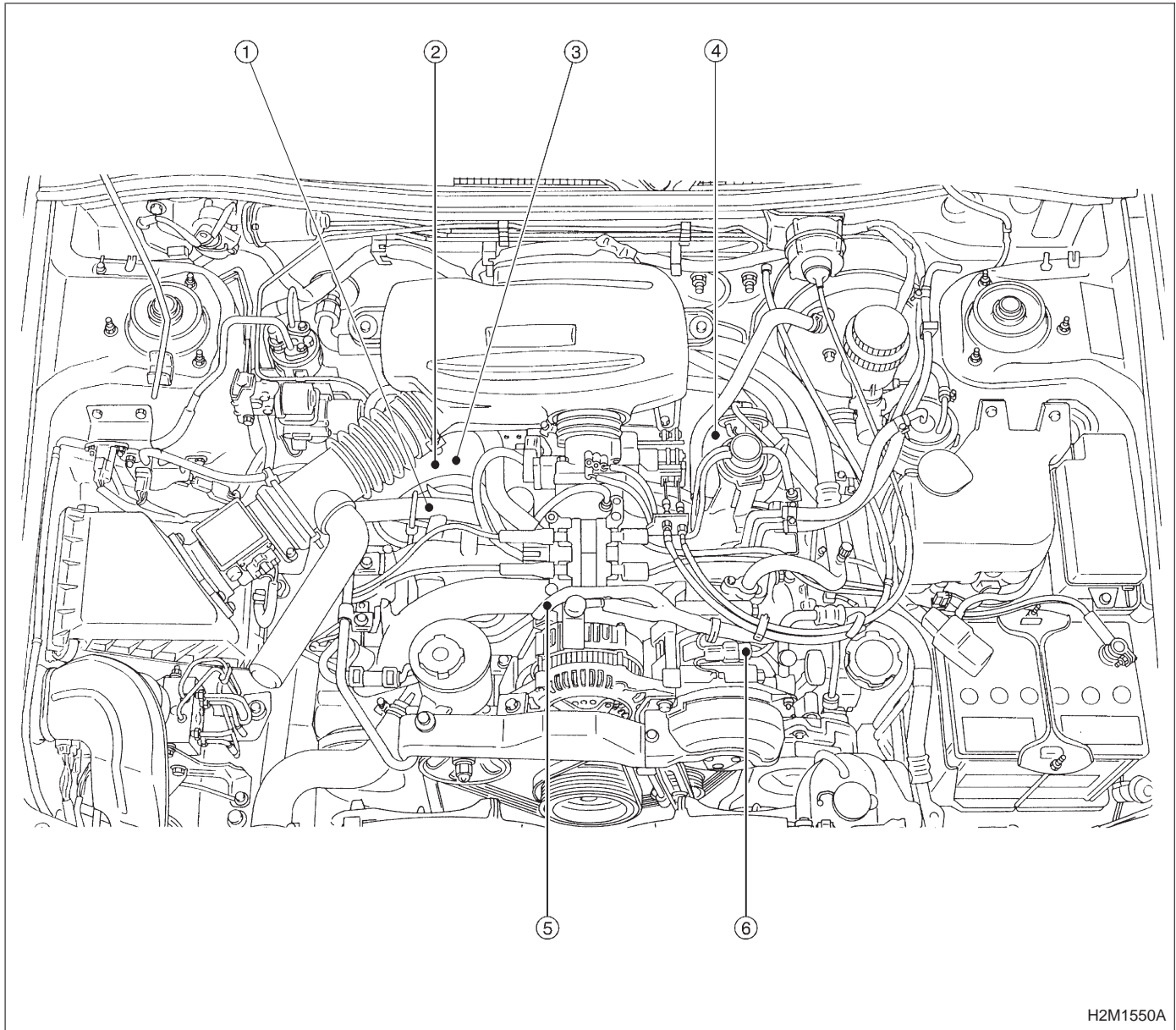


9) Remove canister and bracket. (2200 cc model)

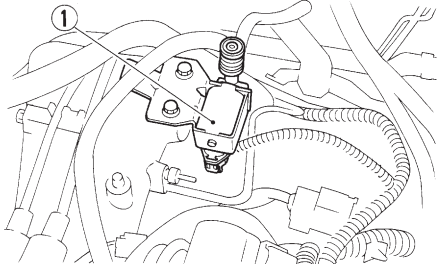
10) Disconnect connectors, cables and hoses.

(1) Disconnect the following connectors.

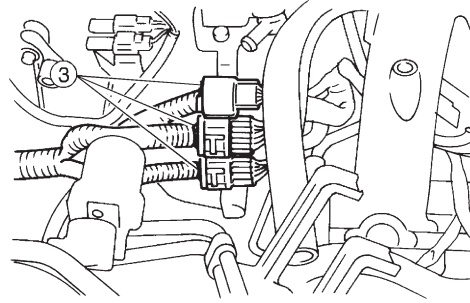
- ① FICD solenoid valve (With A/C 1800 cc)
- ② Front oxygen sensor connector
- ③ Engine harness connectors
- ④ Engine ground terminal stay
- ⑤ Alternator connector and terminal
- ⑥ A/C compressor connectors (With A/C)



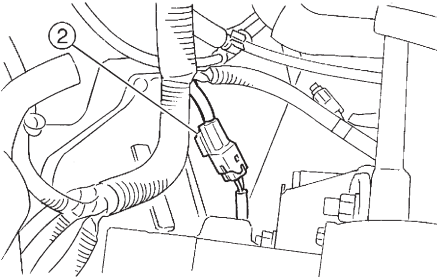
H2M1550A



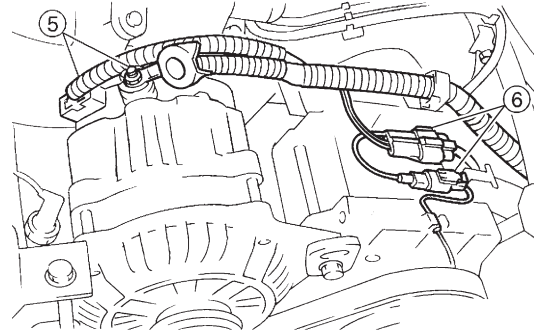
G2M0275



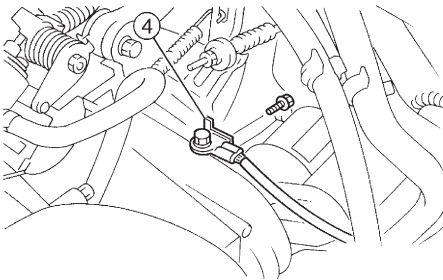
H2M1553A



H2M1551A



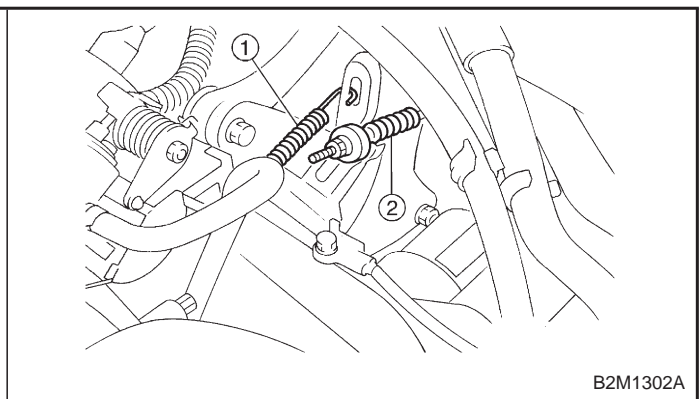
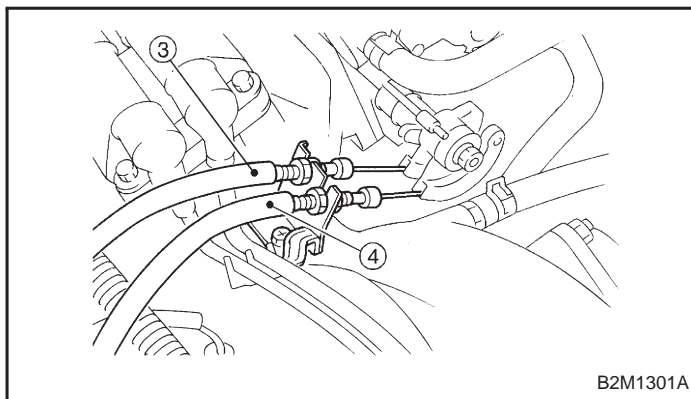
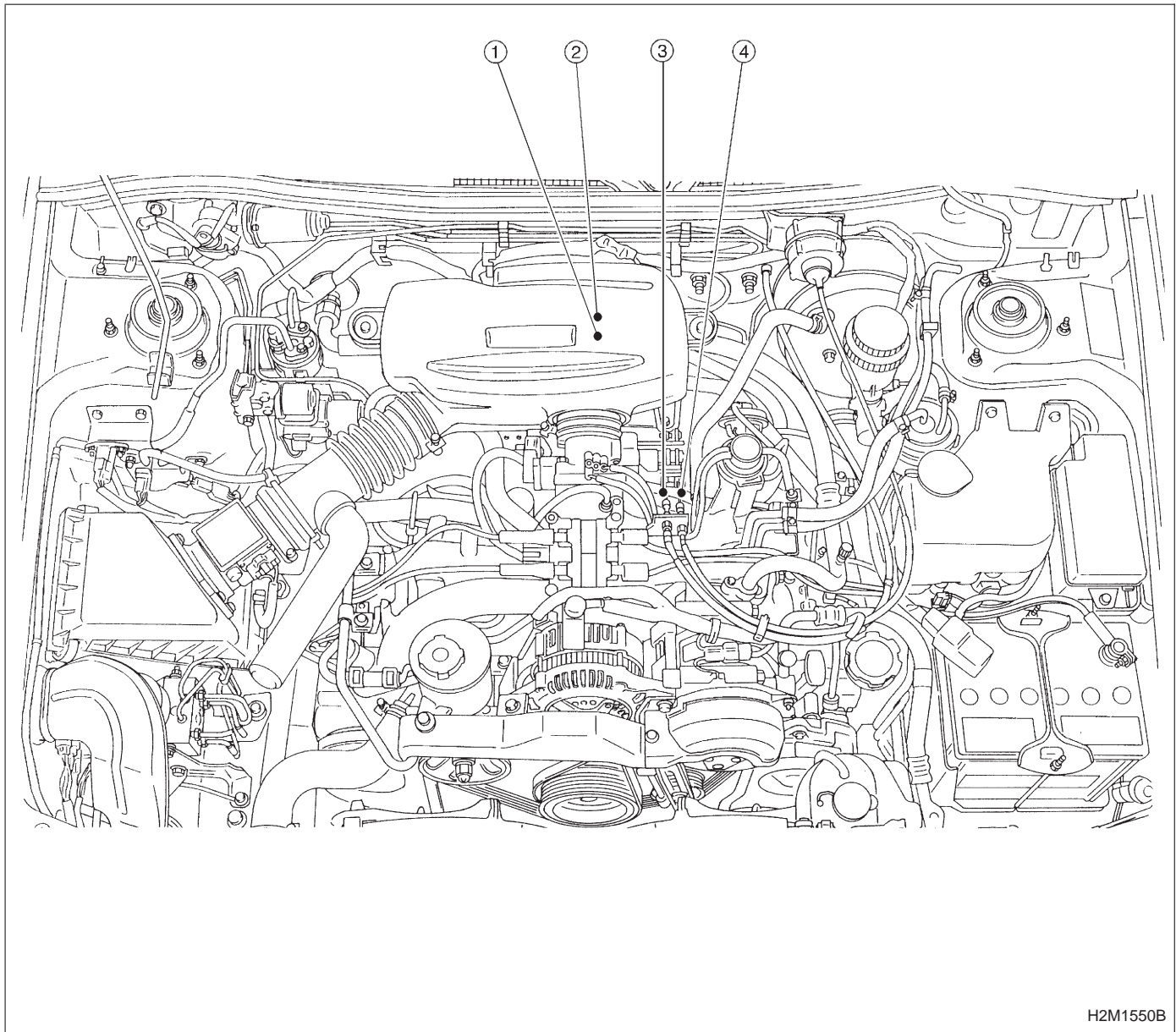
H2M1554A



H2M1552A

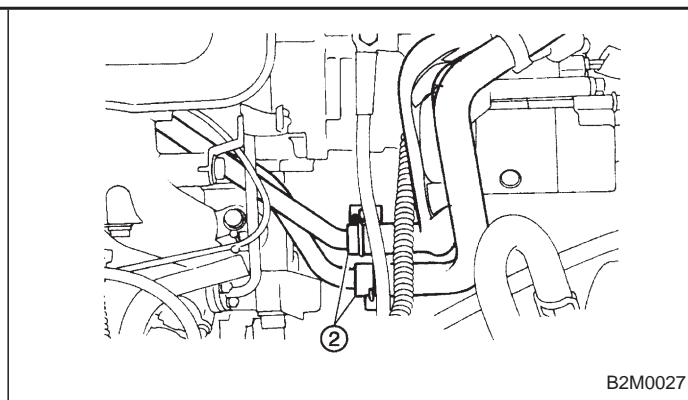
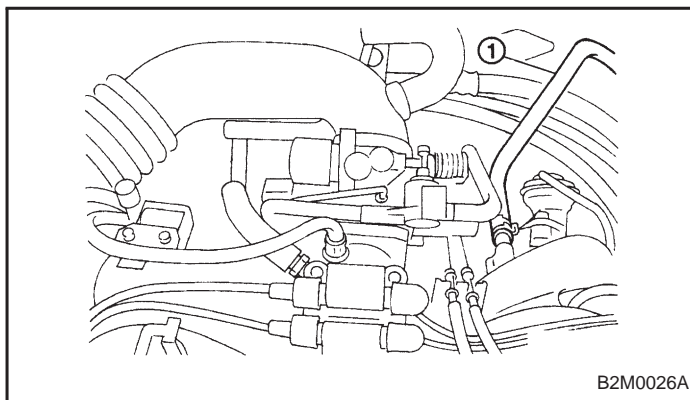
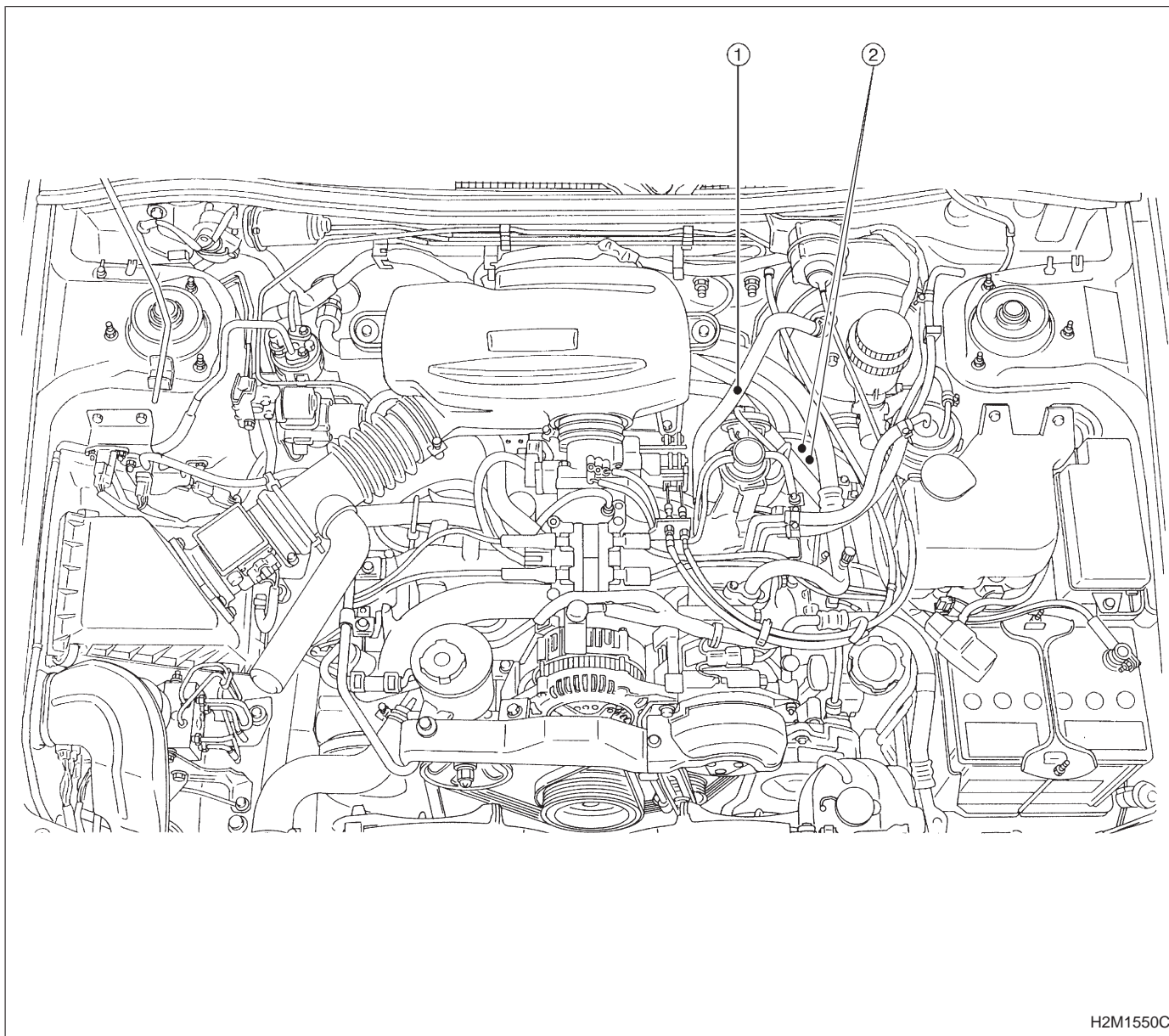
**SUBARU.**

- (2) Disconnect the following cables.
- ① Clutch release spring (MT model)
  - ② Clutch cable (MT model)
  - ③ Accelerator cable
  - ④ Cruise control cable (With cruise control)

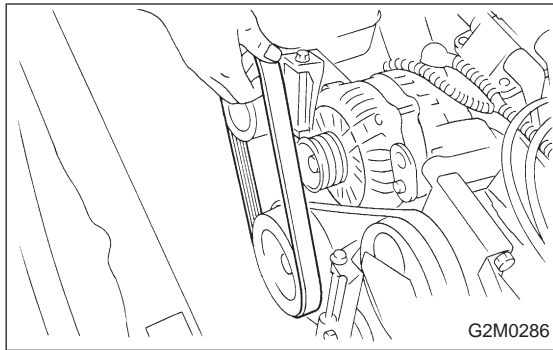


(3) Disconnect the following hoses.

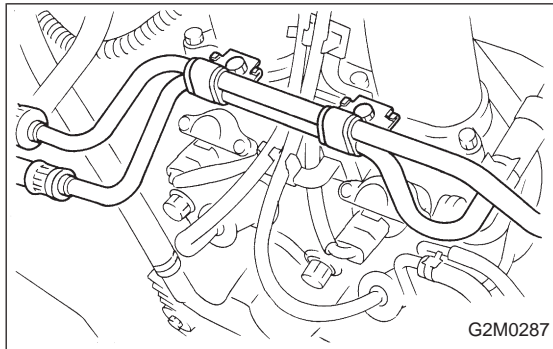
- ① Brake booster vacuum hose
- ② Heater inlet and outlet hoses



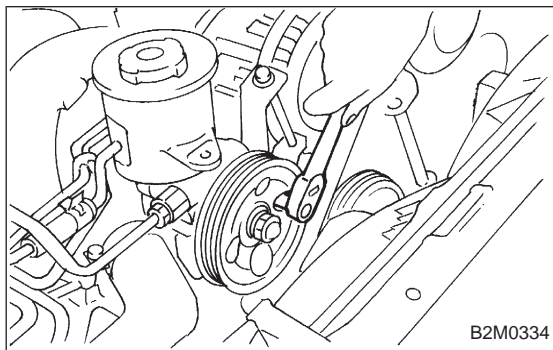




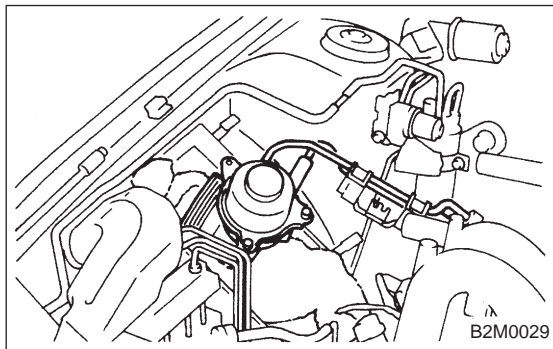
- 11) Remove power steering pump from bracket.  
(1) Loosen lock bolt and slider bolt, and remove front side V-belt.



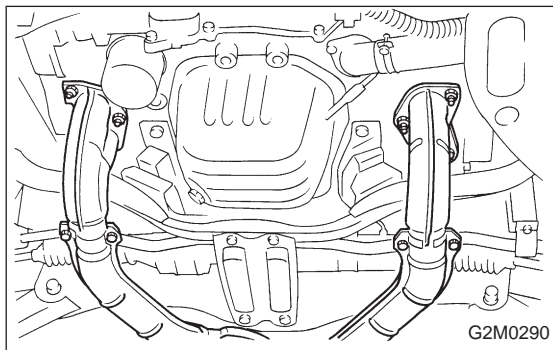
- (2) Remove pipe with bracket from intake manifold.



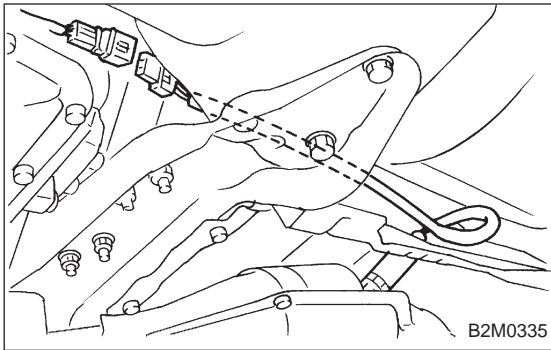
- (3) Remove bolts which install power steering pump from bracket.



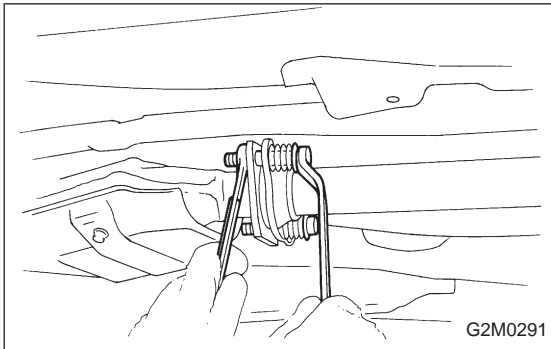
- (4) Place power steering pump on the right side wheel apron.



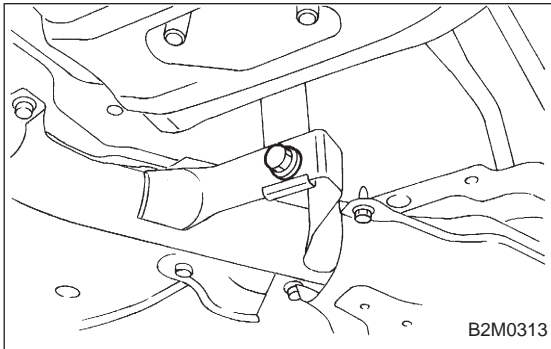
- 12) Remove front exhaust pipe and center exhaust pipe.  
(1) Lift-up the vehicle.  
(2) Remove nuts which install front exhaust pipe onto engine.



(3) Disconnect connector from rear oxygen sensor.



(4) Separate center exhaust pipe from rear exhaust pipe.

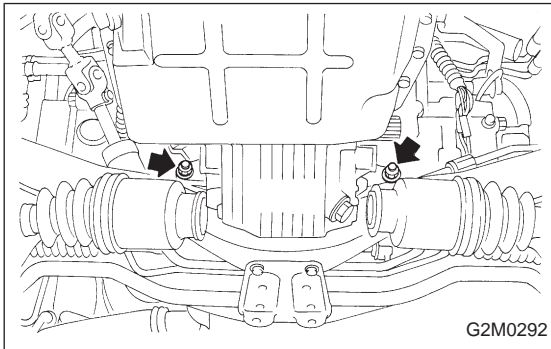


(5) Remove bolt which installs center exhaust pipe on hanger bracket.

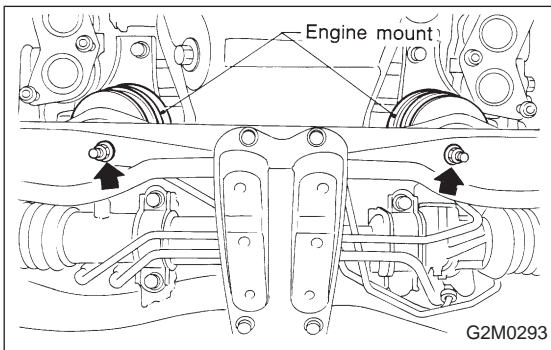
(6) Take off front and center exhaust pipes.

### CAUTION:

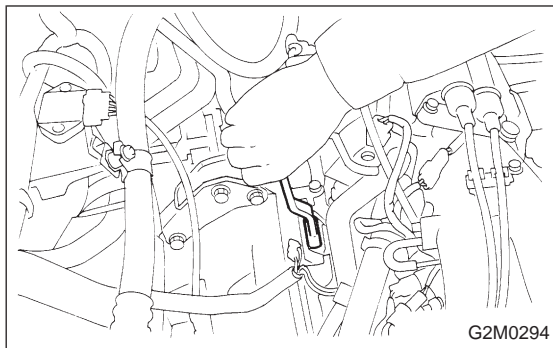
**Exhaust pipe will drop when all bolts are removed. So, hold it when removing the last bolt.**



13) Remove nuts which hold lower side of transmission to engine.

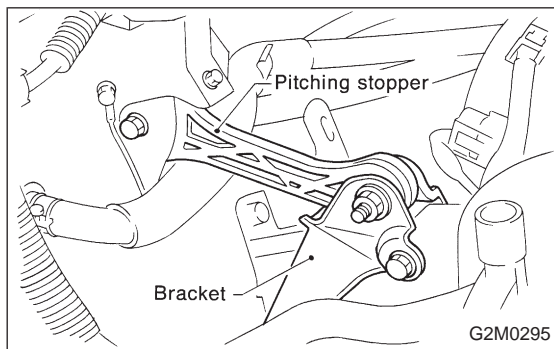


14) Remove nuts which install front cushion rubber onto front crossmember.

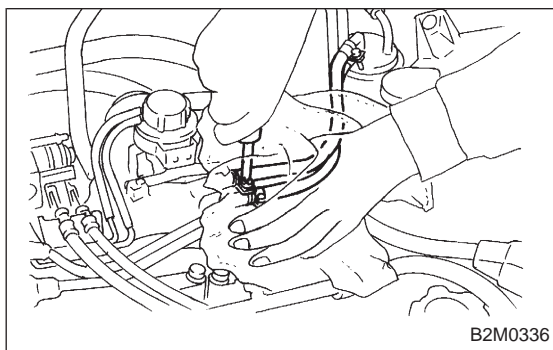


- 15) Separate torque converter from drive plate. (AT model)
- (1) Lower the vehicle.
  - (2) Remove service hole plug.
  - (3) Remove bolts which hold torque converter to drive plate.
  - (4) Remove other bolts while rotating the engine using ST.

ST 499977000 CRANK PULLEY WRENCH



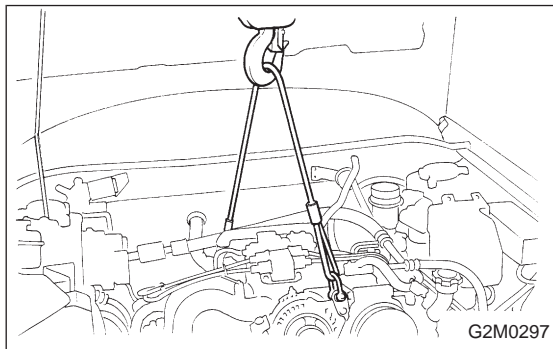
- 16) Remove pitching stopper.



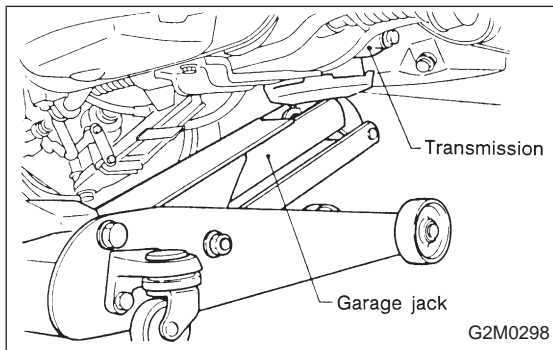
- 17) Disconnect fuel delivery hose, return hose and evaporation hose.

**CAUTION:**

- Disconnect hose with its end wrapped with cloth to prevent fuel from splashing.
- Catch fuel from hose into container.



- 18) Support engine with a lifting device and wire ropes.

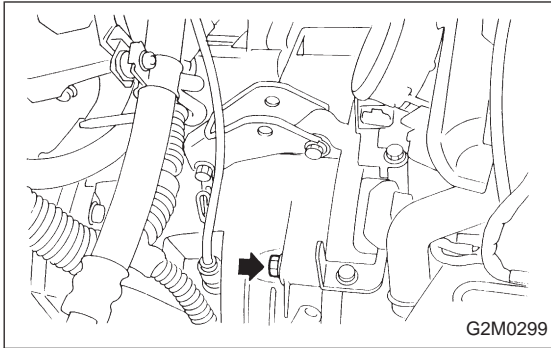


- 19) Support transmission with a garage jack.

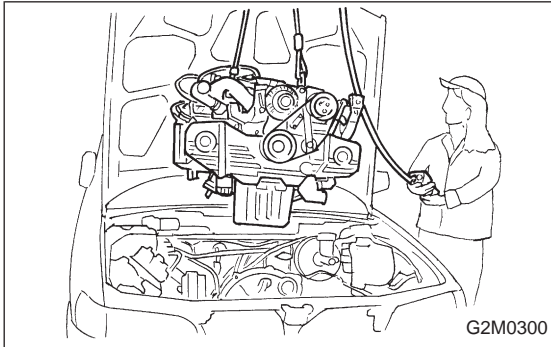
**CAUTION:**

**Before moving engine away from transmission, check to be sure no work has been overlooked. Doing this is very important in order to facilitate re-installation and because transmission lowers under its own weight.**





20) Remove bolts which holds upper side of transmission to engine.

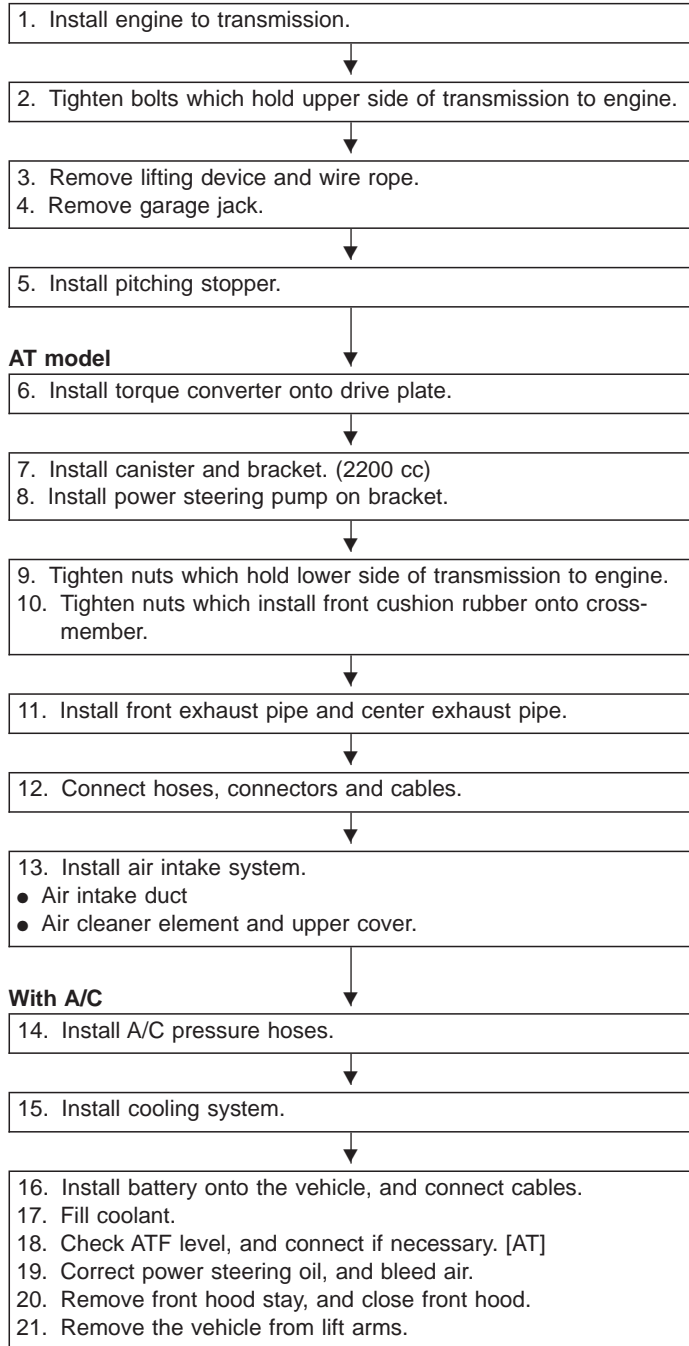


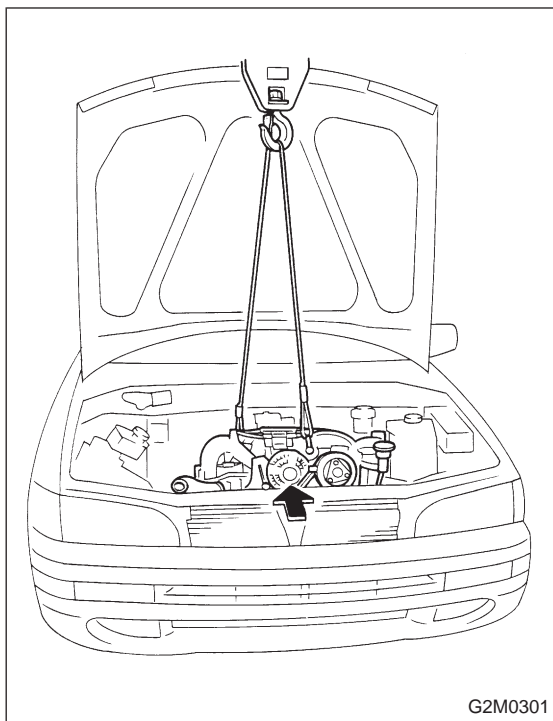
21) Remove engine from vehicle.

- (1) Slightly raise engine.
- (2) Raise transmission with garage jack.
- (3) Move engine horizontally until mainshaft is withdrawn from clutch cover.
- (4) Slowly move engine away from engine compartment.

### CAUTION:

Be careful not to damage adjacent parts or body panels with crank pulley, oil pressure gauge, etc.

**C: INSTALLATION**



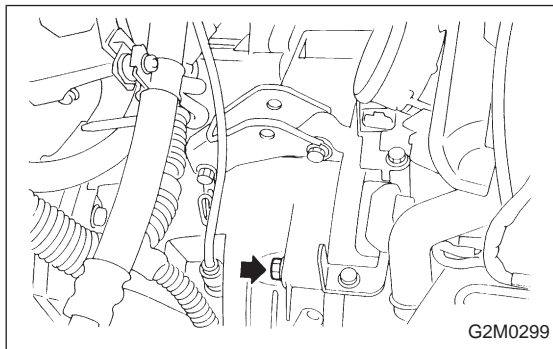
1) Install engine onto transmission.

(1) Position engine in engine compartment and align it with transmission.

**CAUTION:**

**Be careful not to damage adjacent parts or body panels with crank pulley, oil pressure gauge, etc.**

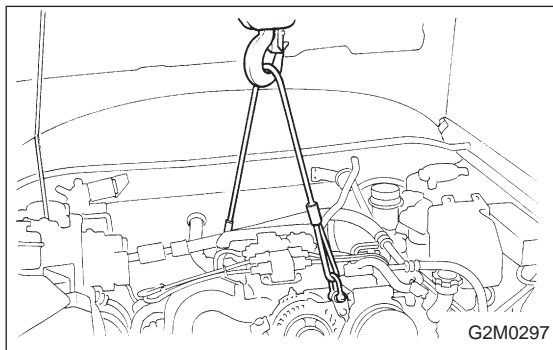
(2) Apply a small amount of grease to splines of mainshaft.



2) Tighten bolts which hold upper side of transmission to engine.

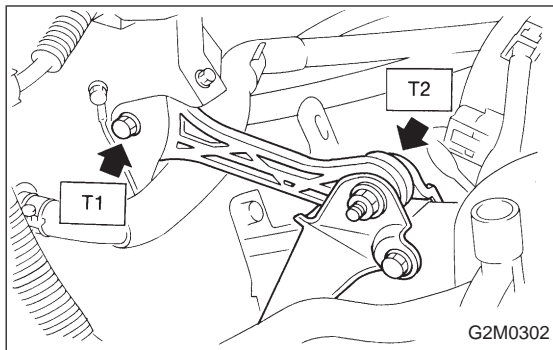
**Tightening torque:**

**$50 \pm 4$  N·m ( $5.1 \pm 0.4$  kg·m,  $36.9 \pm 2.9$  ft·lb)**



3) Remove lifting device and wire ropes.

4) Remove garage jack.

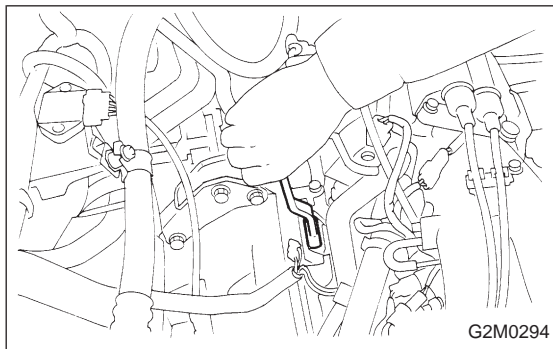


5) Install pitching stopper.

**Tightening torque:**

**T1:  $49\pm5$  N·m ( $5.0\pm0.5$  kg-m,  $36.2\pm3.6$  ft-lb)**

**T2:  $57\pm10$  N·m ( $5.8\pm1.0$  kg-m,  $42\pm7$  ft-lb)**



6) Install torque converter onto drive plate. (AT model)

(1) Tighten bolts which hold torque converter to drive plate.

(2) Tighten other bolts while rotating the engine by using ST.

ST 499977000 CRANK PULLEY WRENCH

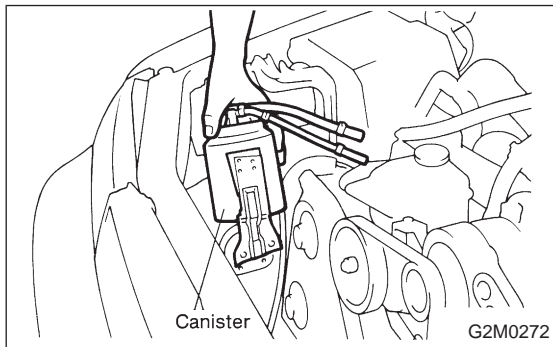
**CAUTION:**

**Be careful not to drop bolts into torque converter housing.**

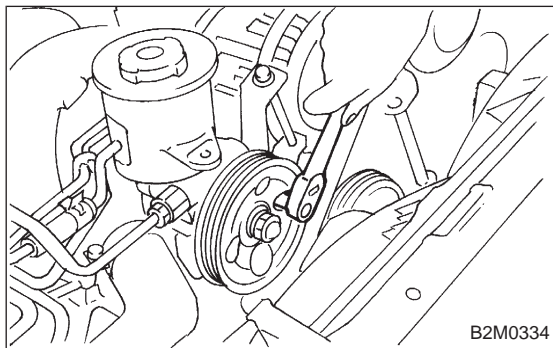
**Tightening torque:**

**$25\pm2$  N·m ( $2.5\pm0.2$  kg-m,  $18.1\pm1.4$  ft-lb)**

(3) Clog plug onto service hole.



7) Install canister and bracket. (2200 cc model)

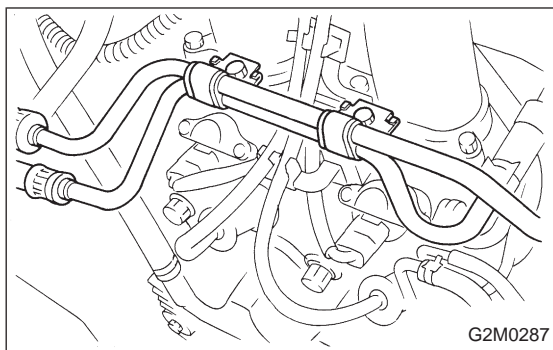


8) Install power steering pump on bracket.

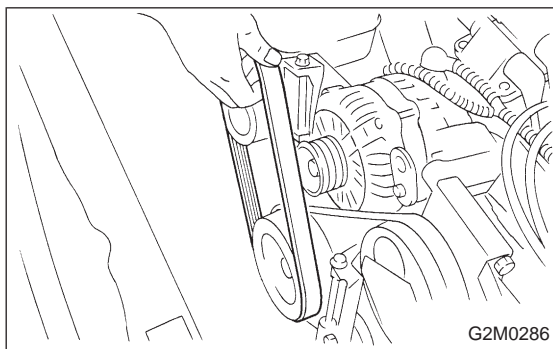
(1) Install power steering pump on bracket, and tighten bolts.

**Tightening torque:**

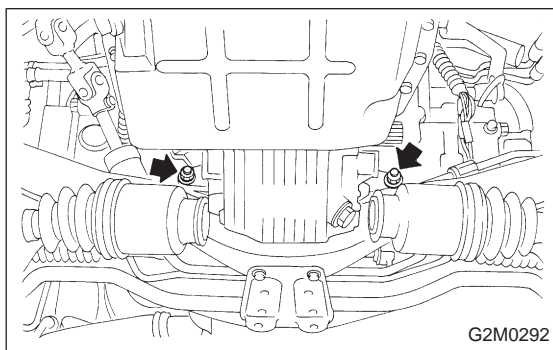
**$39\pm10$  N·m ( $4.0\pm1.0$  kg-m,  $29\pm7$  ft-lb)**



(2) Install power steering pipe bracket on right side intake manifold, and install spark plug codes.



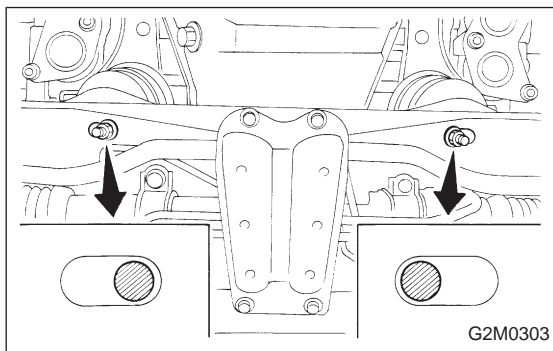
(3) Install front side V-belt, and adjust it.  
<Ref. to 1-5 [0200].>



9) Tighten nuts which hold lower side of transmission to engine.

**Tightening torque:**

**$50 \pm 4 \text{ N} \cdot \text{m}$  ( $5.1 \pm 0.4 \text{ kg} \cdot \text{m}$ ,  $36.9 \pm 2.9 \text{ ft} \cdot \text{lb}$ )**



10) Tighten nuts which install front cushion rubber onto crossmember.

**Tightening torque:**

**$69 \pm 15 \text{ N} \cdot \text{m}$  ( $7.0 \pm 1.5 \text{ kg} \cdot \text{m}$ ,  $51 \pm 11 \text{ ft} \cdot \text{lb}$ )**

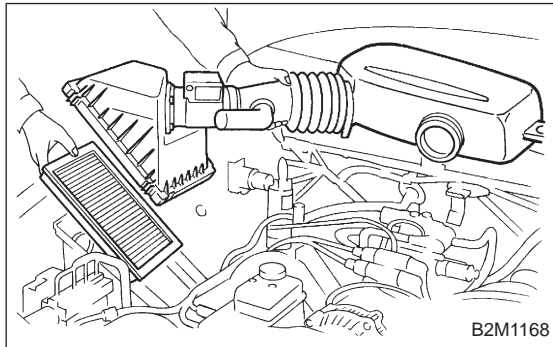
**CAUTION:**

**Be sure to tighten front cushion rubber mounting bolts in the innermost elliptical hole in the front crossmember.**

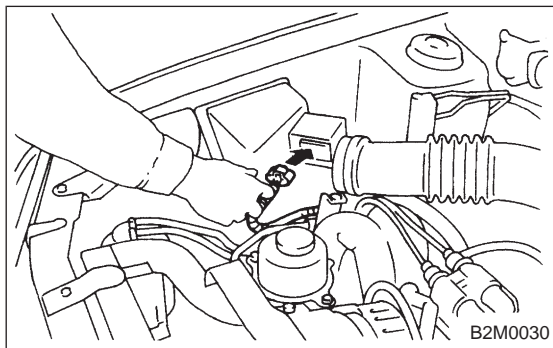
- 11) Install front exhaust pipe and center exhaust pipe.
- 12) Connect hoses, connectors and cables.
  - (1) Connect the following hoses.
    - Fuel delivery hose, return hose and evaporation hose
    - Heater inlet and outlet hoses
    - Brake booster vacuum hose
    - Canister hoses (2200 cc)
  - (2) Connect the following connectors.
    - Engine ground terminal
    - Engine harness connectors
    - Front and rear oxygen sensor connector
    - Cam angle sensor connector
    - Crank angle sensor connector
    - Alternator connector and terminal
    - A/C compressor connectors (With A/C)
  - (3) Connect the following cables.
    - Accelerator cable
    - Cruise control cables (With cruise control)
    - Clutch cable
    - Clutch release spring

**CAUTION:**

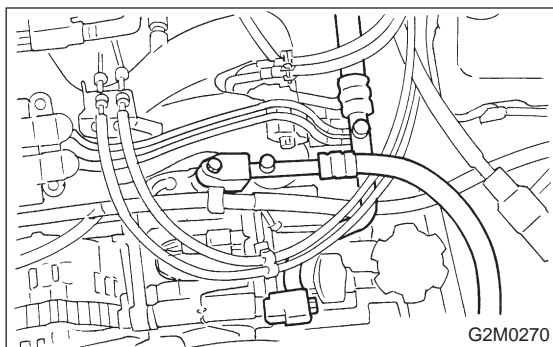
**After connecting each cable, adjust them.**



- 13) Install air intake system.
  - (1) Install air cleaner element.
  - (2) Install air intake duct with air cleaner upper cover.



- (3) Connect connector to mass air flow sensor.



14) Install A/C flexible hoses. (With A/C)

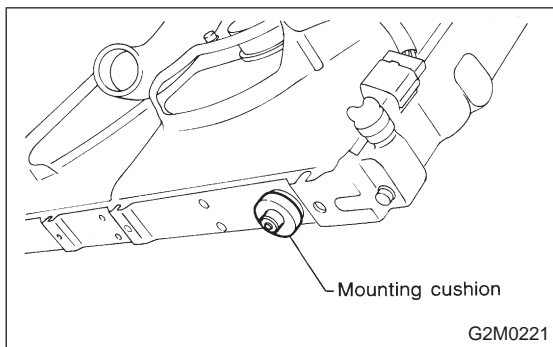
<Ref. to 4-7 [W16A0].>

**CAUTION:**

**Use new O-rings.**

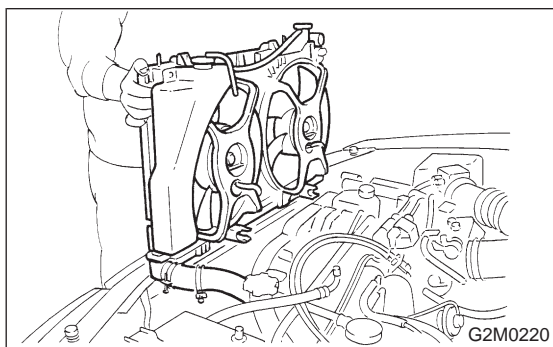
**Tightening torque:**

**$25 \pm 7 \text{ N}\cdot\text{m}$  ( $2.5 \pm 0.7 \text{ kg}\cdot\text{m}$ ,  $18.1 \pm 5.1 \text{ ft}\cdot\text{lb}$ )**

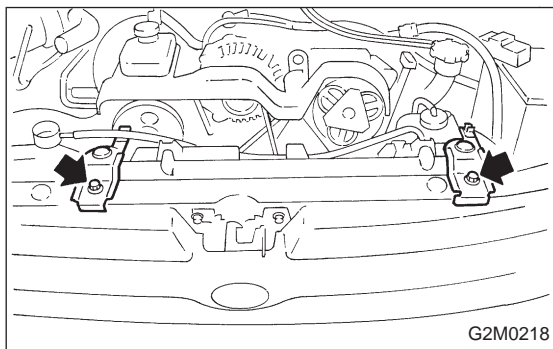


15) Install cooling system.

(1) Attach radiator mounting cushions to pins on lower side of radiator.



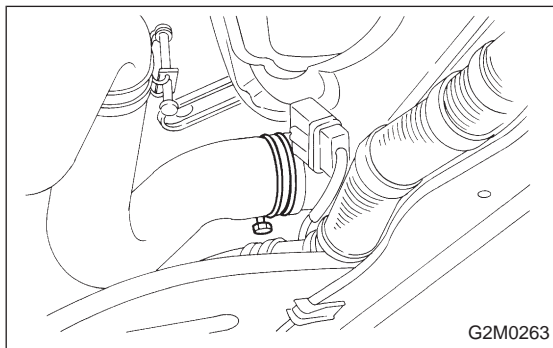
(2) Fit cushions on lower side of radiator, into holes on body side and install radiator.



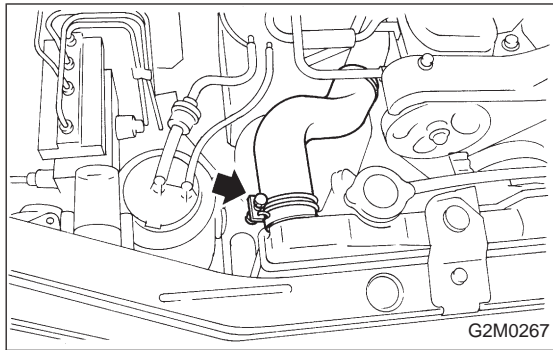
(3) Install radiator brackets and tighten bolts.

**Tightening torque:**

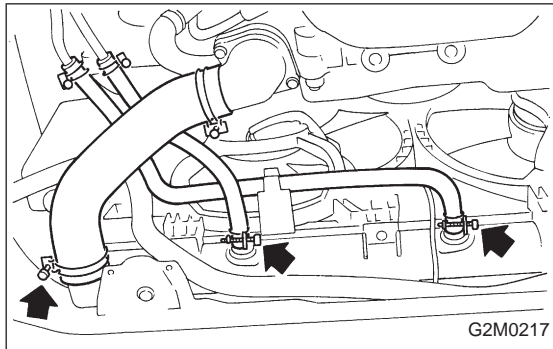
**$13.7 \pm 1.5 \text{ N}\cdot\text{m}$  ( $1.4 \pm 0.15 \text{ kg}\cdot\text{m}$ ,  $10.1 \pm 1.1 \text{ ft}\cdot\text{lb}$ )**



(4) Connect radiator fan motor connector.

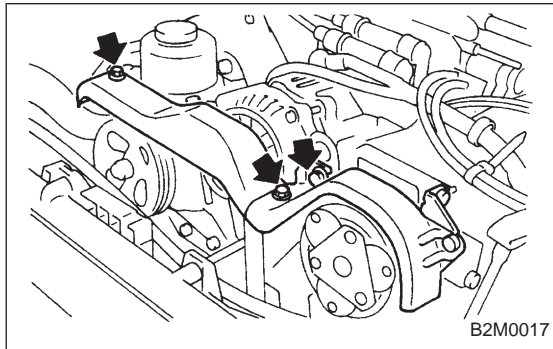


(5) Connect radiator inlet hose.



(6) Connect radiator outlet hose.

(7) Connect ATF cooler hoses. (AT model)



(8) Install V-belt cover.

16) Install battery in the vehicle, and connect cables.

17) Fill coolant.

<Ref. to 1-5 [0600].>

18) Check ATF level and correct if necessary. (AT model)

<Ref. to 3-2 [W1B1].>

19) Charge A/C system with refrigerant.

<Ref. to 4-7 [W700].>

20) Remove front hood stay, and close front hood.

21) Remove the vehicle from lift arms.



## 2. Transmission

### A: GENERAL PRECAUTION

- 1) Remove or install transmission in an area where chain hoists, lifting devices, etc. are available for ready use.
- 2) Be sure not to damage coated surfaces of body panels with tools or stain seats and windows with coolant or oil. Place a cover over fenders, as required, for protection.
- 3) Prior to starting work, prepare the following:  
Service tools, clean cloth, containers to catch coolant and oil, wire ropes, chain hoist, transmission jacks, etc.
- 4) Lift-up or lower the vehicle when necessary. Make sure to support the correct positions. <Ref. to 1-3 [0700].>

**B: REMOVAL**

1. Open front hood fully, and support it with stay.
2. Disconnect battery ground terminal.



3. Remove air intake duct and chamber.



4. Disconnect connectors and cables.



5. Remove starter.



6. Remove pitching stopper and bracket.

**AT model**

7. Separate torque converter from drive plate.
8. Remove ATF level gauge.



9. Remove transmission connector bracket.



10. Set special tools.



11. Remove bolt which holds right upper side of transmission to engine.



12. Remove exhaust system.

- Front exhaust pipe
- Center exhaust pipe
- Rear exhaust pipe
- Heat shield cover

**AT model**

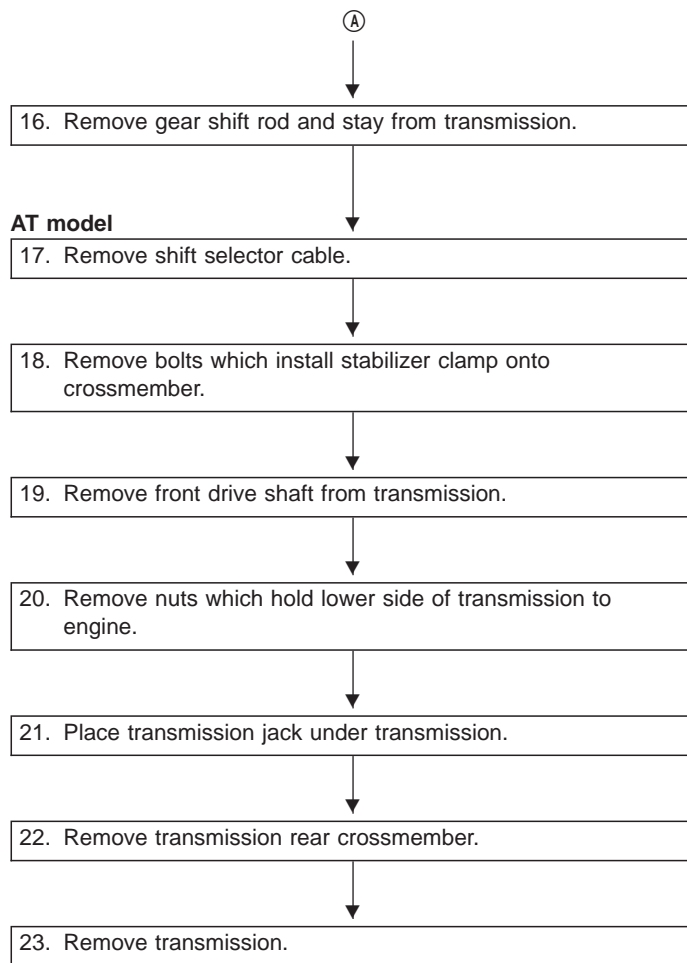
13. Drain ATF to remove drain plug.
14. Disconnect ATF cooler hose from pipe on transmission side, and remove ATF supply pipe.



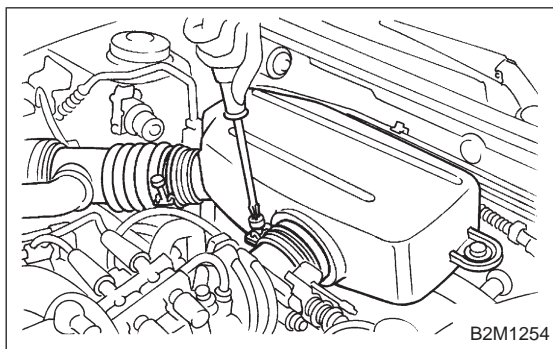
15. Remove propeller shaft.



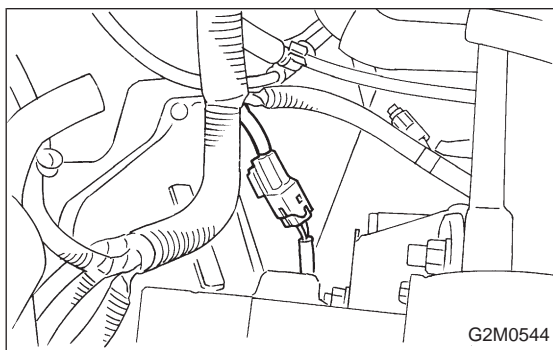
Ⓐ



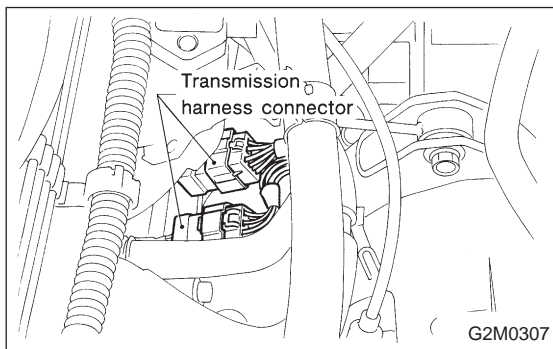
- 1) Open front hood fully, and support with stay.
- 2) Disconnect battery ground terminal.



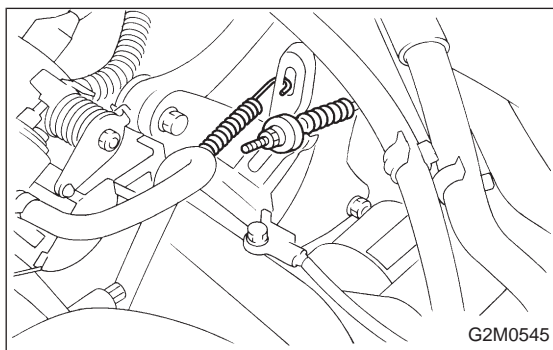
- 3) Remove air intake duct and chamber.



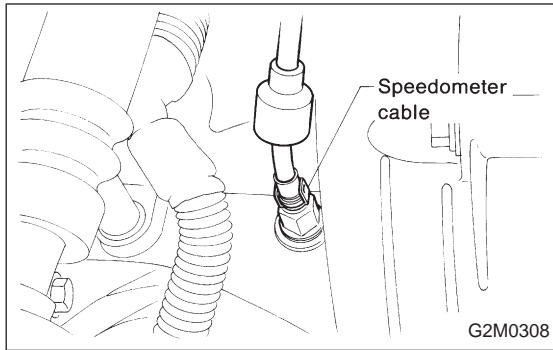
- 4) Disconnect connectors and cables.
  - (1) Disconnect the following connectors.
    - Front oxygen sensor connector



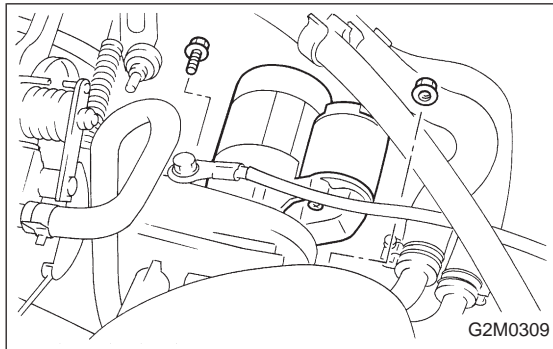
- Transmission harness connector
- Transmission ground terminal



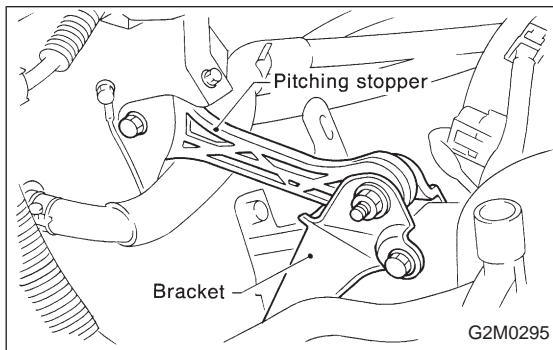
- (2) Disconnect the following cables.
  - Clutch release spring
  - Clutch cable
  - Hill holder cable



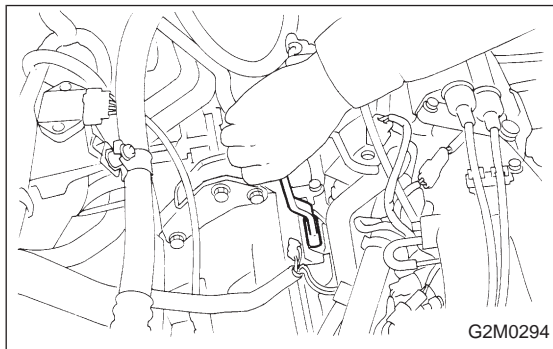
- Speedometer cable



- 5) Remove starter.
  - (1) Disconnect connectors and terminal from starter.
  - (2) Remove bolt which installs upper side of starter.
  - (3) Remove nut which installs lower side of starter, and remove starter from transmission.



- 6) Remove pitching stopper.

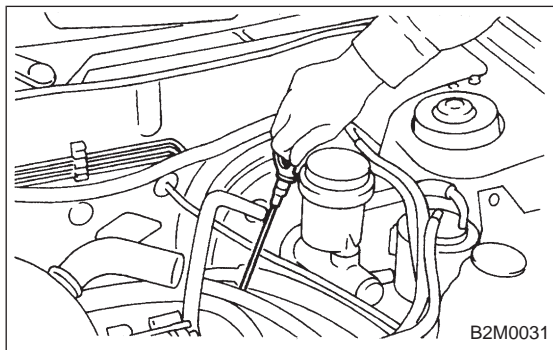


- 7) Separate torque converter from drive plate. (AT model)
  - (1) Remove service hole plug.
  - (2) Remove bolts which hold torque converter to drive plate.
  - (3) While rotating the engine, remove other bolts using ST.

ST 499977000 CRANK PULLEY WRENCH

### CAUTION:

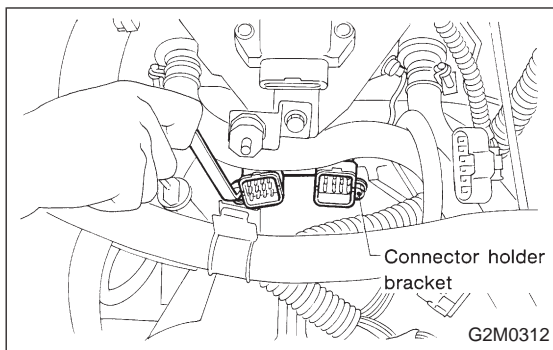
Be careful not to drop bolts into torque converter housing.



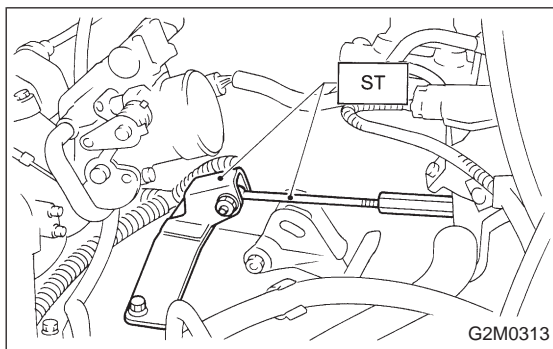
- 8) Remove ATF level gauge. (AT model)

### CAUTION:

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



9) Remove transmission connector holder bracket.

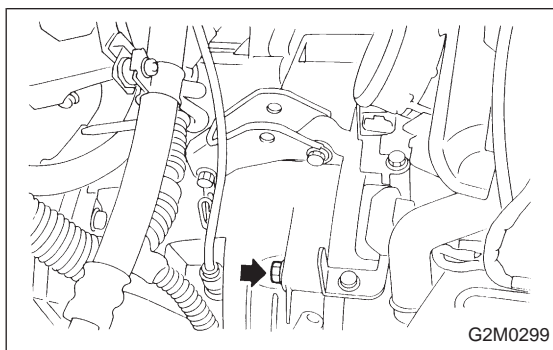


10) Set special tool.

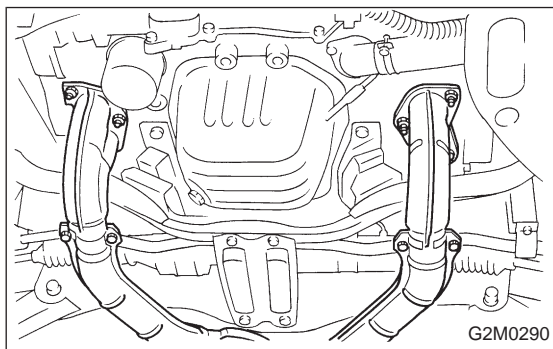
ST 41099AA000 ENGINE SUPPORT ASSY

NOTE:

Also available is Part No. 927670000.



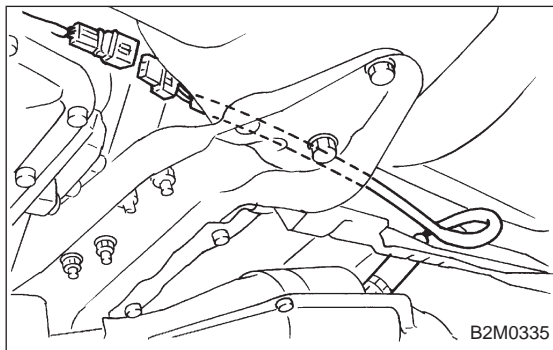
11) Remove bolt which holds right upper side of transmission to engine.



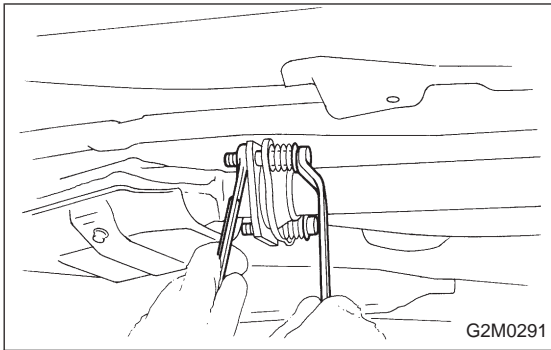
12) Remove exhaust system.

(1) Lift-up the vehicle.

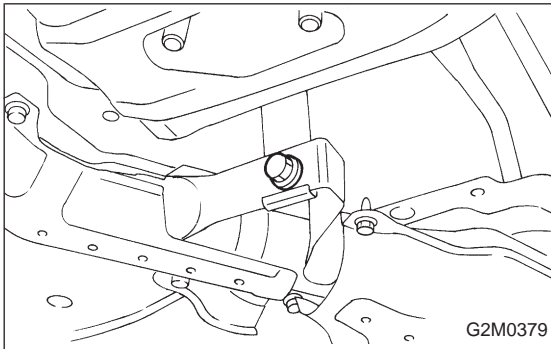
(2) Remove nuts which install front exhaust pipe onto engine.



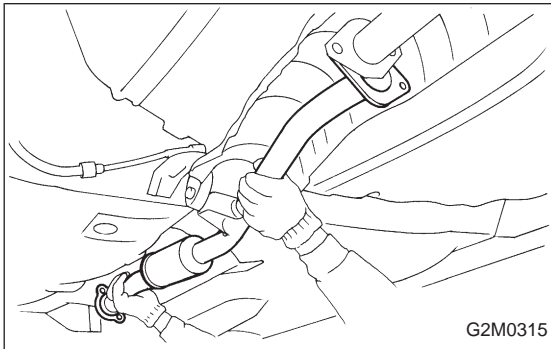
(3) Disconnect connector from rear oxygen sensor.



(4) Separate center exhaust pipe from rear exhaust pipe.



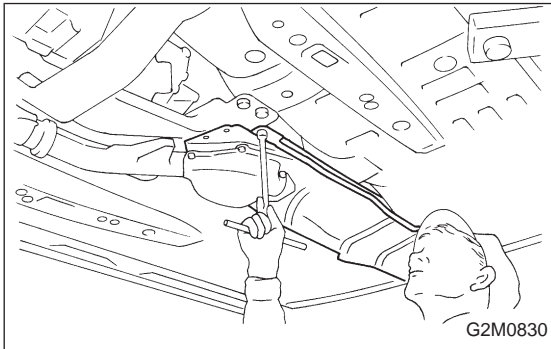
(5) Remove bolt which installs center exhaust pipe to hanger bracket then take off front and center exhaust pipes.



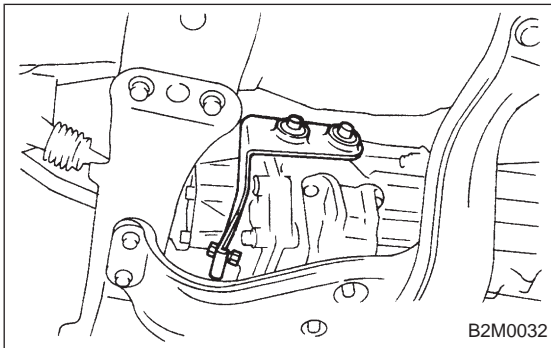
(6) Remove rear exhaust pipe.

**CAUTION:**

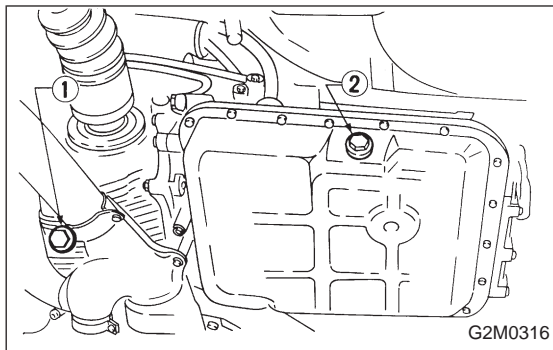
**When removing exhaust pipes, be careful each exhaust pipe does not drop out.**



(7) Remove heat shield cover of rear exhaust pipe.



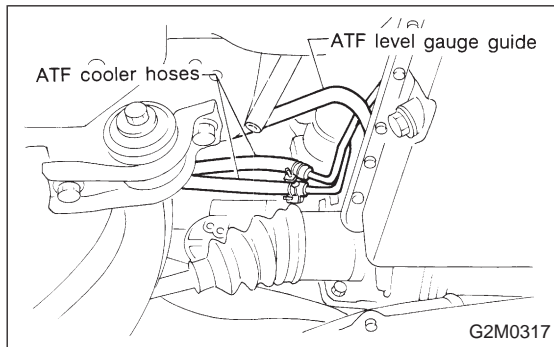
(8) Remove hanger bracket from right side of transmission.



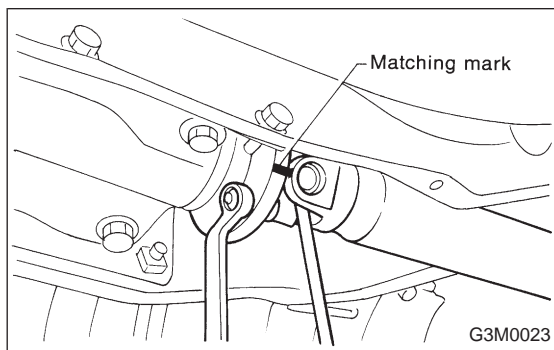
13) Drain ATF to remove drain plug. (AT model)

① Front differential oil drain plug

② ATF drain plug



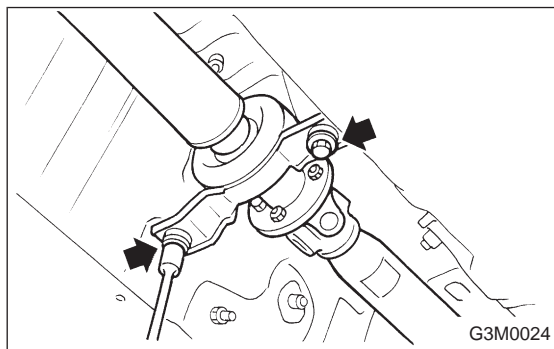
14) Disconnect ATF cooler hoses from pipes of transmission side and remove ATF level gauge guide. (AT model)



15) Remove propeller shaft.

(1) Remove front cover of rear differential mount.

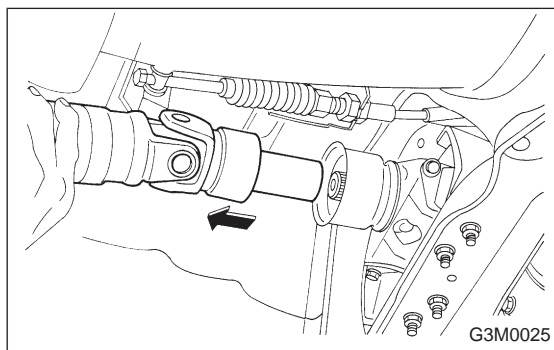
(2) Separate propeller shaft from rear differential.



(3) Remove bolts which hold center bearing onto body.

**CAUTION:**

Be careful not to drop propeller shaft.



(4) Remove propeller shaft from transmission.

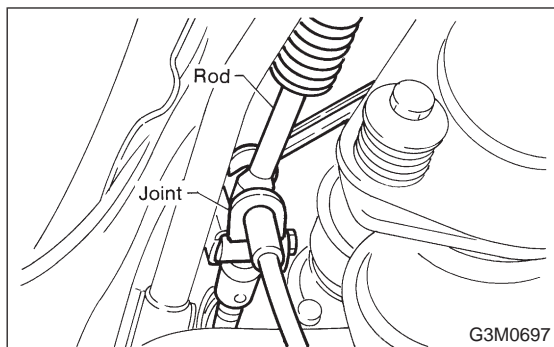
**CAUTION:**

- Be sure to use an empty container to catch oil flowing out when removing propeller shaft.

- Be sure not to damage oil seals and the frictional surface of sleeve yoke.

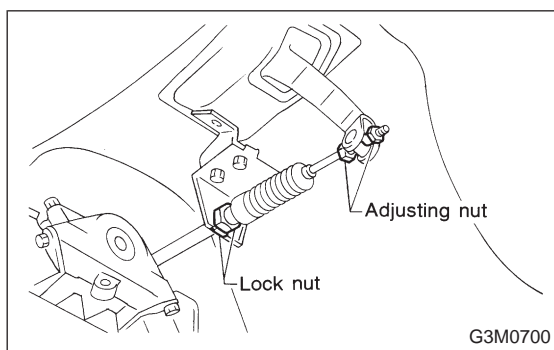
- Be sure to plug the opening in transmission after removal of propeller shaft.





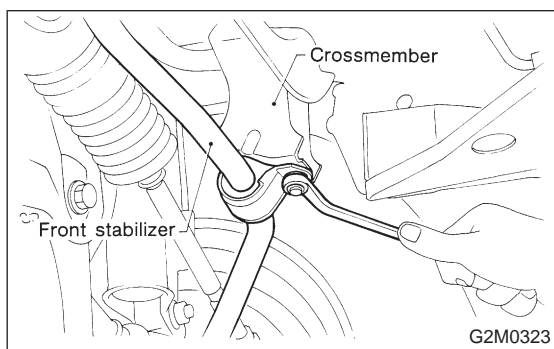
16) Remove gear shift rod and stay from transmission. (MT model)

- (1) Remove spring.
- (2) Disconnect stay from transmission.
- (3) Disconnect rod from transmission.

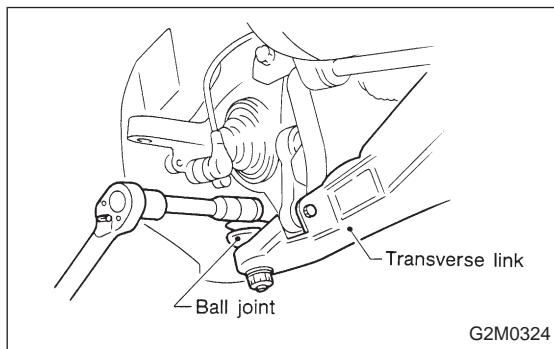


17) Remove shift selector cable. (AT model)

- (1) Disconnect shift selector cable from selector lever.
- (2) Remove cable bracket from selector lever assembly.

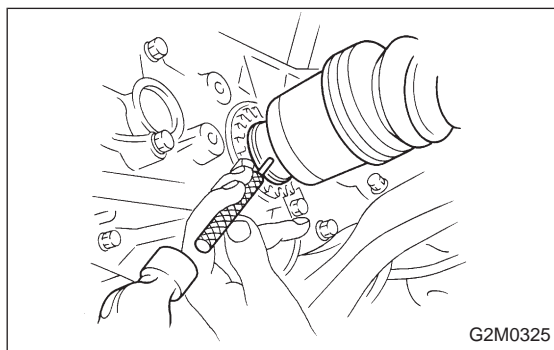


18) Remove bolts which install stabilizer clamp onto crossmember.



19) Remove front drive shaft from transmission.

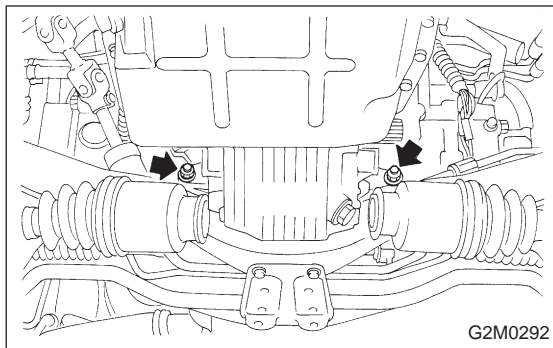
- (1) Remove transverse link from housing.
- (2) Lower transverse link.



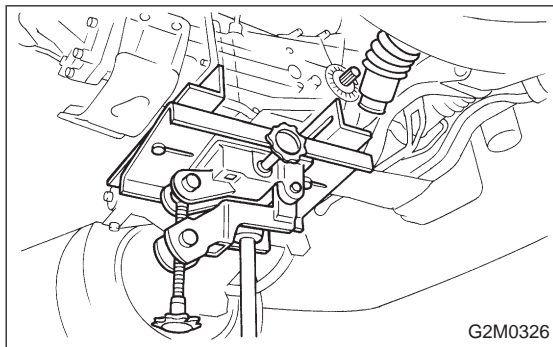
(3) Remove spring pin and separate front drive shaft from each side of the transmission.

### CAUTION:

Discard removing spring pin. Replace with a new one.



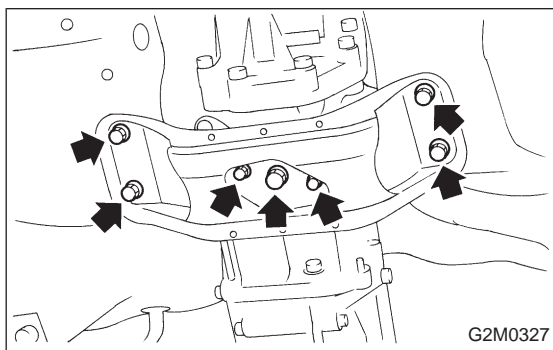
20) Remove nuts which hold lower side of transmission to engine.



21) Place transmission jack under transmission.

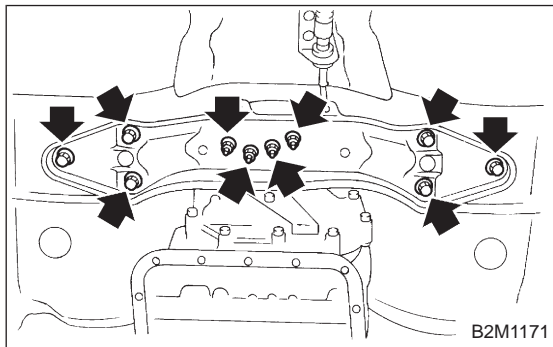
**CAUTION:**

- Always support transmission case with a transmission jack.
- On AT model, make sure that the support plates of transmission jack do not touch the oil pan.

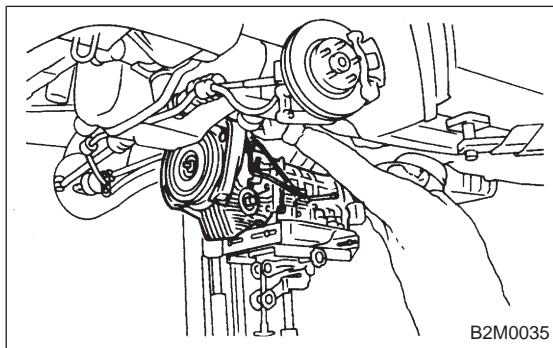


22) Remove transmission rear crossmember.

- MT model



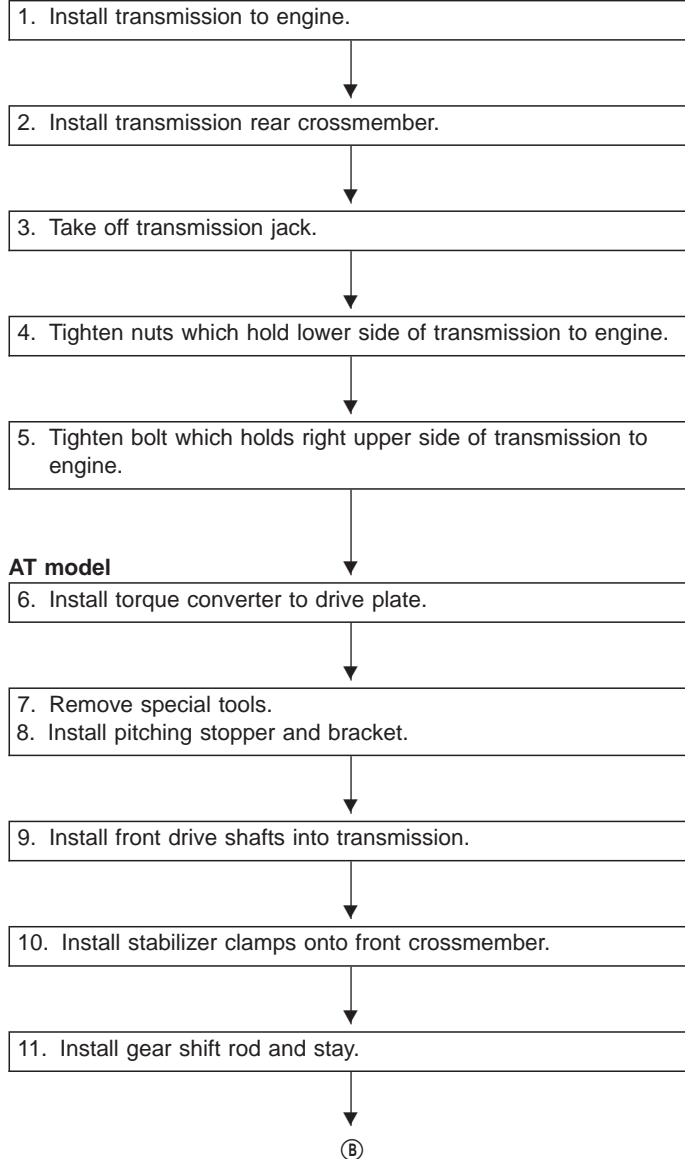
- AT model

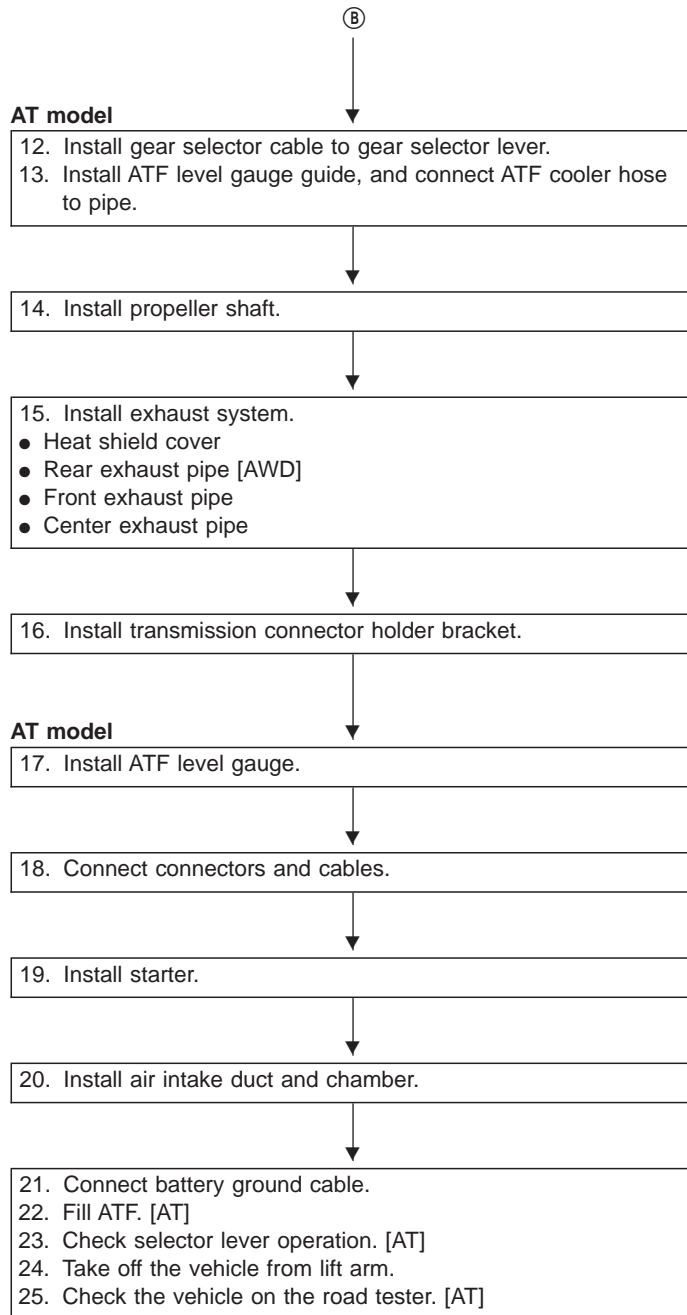


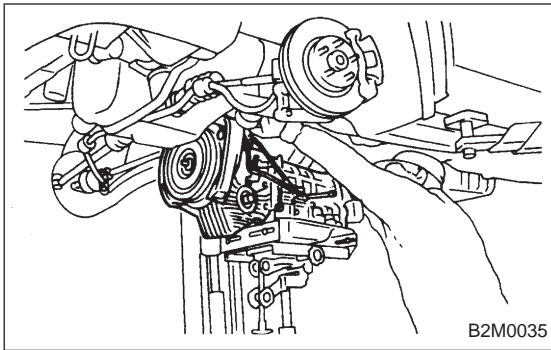
23) Remove transmission.

**CAUTION:**

- Move transmission jack toward rear until mainshaft is withdrawn from clutch cover. (MT model)
- Move transmission and torque converter as a unit away from engine. (AT model)

**C: INSTALLATION**

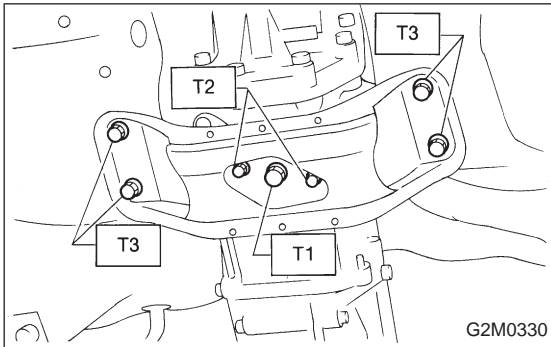




- 1) Install transmission onto engine.
  - (1) Gradually raise transmission with transmission jack.
  - (2) Engage them at splines.

**CAUTION:**

Be careful not to strike mainshaft against clutch cover.  
(MT model)



- 2) Install transmission rear crossmember.

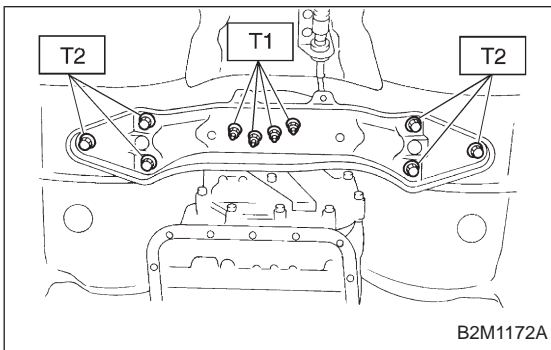
● MT model

**Tightening torque:**

**T1:**  $24.5 \pm 1.5 \text{ N} \cdot \text{m}$  ( $2.50 \pm 0.153 \text{ kg} \cdot \text{m}$ ,  $18.07 \pm 1.11 \text{ ft} \cdot \text{lb}$ )

**T2:**  $37 \pm 10 \text{ N} \cdot \text{m}$  ( $3.8 \pm 1.0 \text{ kg} \cdot \text{m}$ ,  $27 \pm 7 \text{ ft} \cdot \text{lb}$ )

**T3:**  $69 \pm 15 \text{ N} \cdot \text{m}$  ( $7.0 \pm 1.5 \text{ kg} \cdot \text{m}$ ,  $51 \pm 11 \text{ ft} \cdot \text{lb}$ )

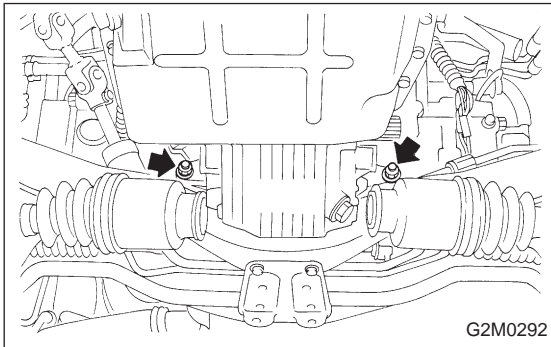


● AT model

**Tightening torque:**

**T1:**  $37 \pm 10 \text{ N} \cdot \text{m}$  ( $3.8 \pm 1.0 \text{ kg} \cdot \text{m}$ ,  $27 \pm 7 \text{ ft} \cdot \text{lb}$ )

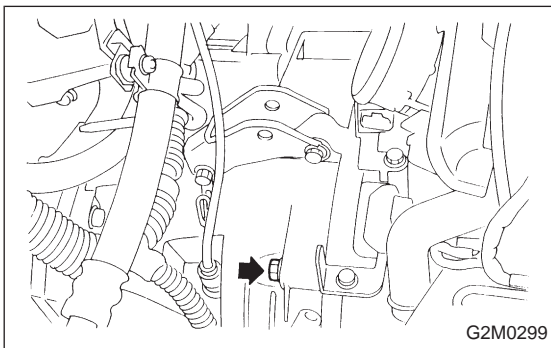
**T2:**  $69 \pm 15 \text{ N} \cdot \text{m}$  ( $7.0 \pm 1.5 \text{ kg} \cdot \text{m}$ ,  $51 \pm 11 \text{ ft} \cdot \text{lb}$ )



- 3) Take off transmission jack.
- 4) Tighten nuts which hold lower side of transmission to engine.

**Tightening torque:**

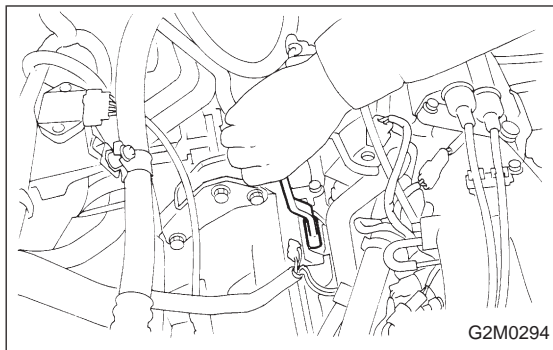
$50 \pm 4 \text{ N} \cdot \text{m}$  ( $5.1 \pm 0.4 \text{ kg} \cdot \text{m}$ ,  $36.9 \pm 2.9 \text{ ft} \cdot \text{lb}$ )



- 5) Tighten bolt which holds right upper side of transmission to engine.

**Tightening torque:**

$50 \pm 4 \text{ N} \cdot \text{m}$  ( $5.1 \pm 0.4 \text{ kg} \cdot \text{m}$ ,  $36.9 \pm 2.9 \text{ ft} \cdot \text{lb}$ )



- 6) Install torque converter to drive plate. (AT model)
- (1) Tighten bolts which hold torque converter to drive plate.
  - (2) Tighten other bolts while rotating the engine by using ST.

ST 499977000 CRANK PULLEY WRENCH

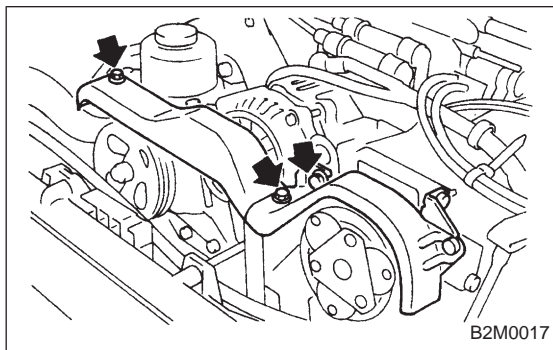
**CAUTION:**

Be careful not to drop bolts into torque converter housing.

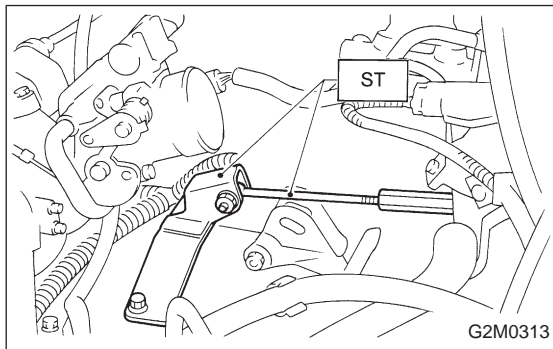
**Tightening torque:**

**$25 \pm 2 \text{ N} \cdot \text{m}$  ( $2.5 \pm 0.2 \text{ kg} \cdot \text{m}$ ,  $18.1 \pm 1.4 \text{ ft} \cdot \text{lb}$ )**

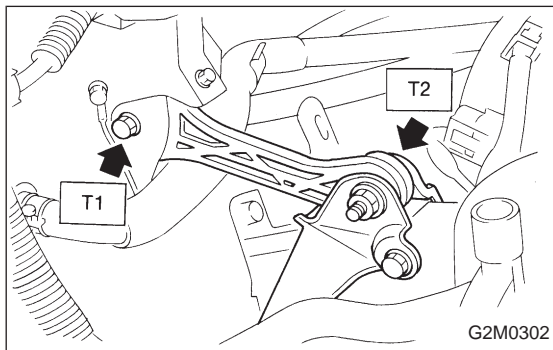
- (3) Clog plug onto service hole.



- (4) Install V-belt cover.



- 7) Remove special tool.

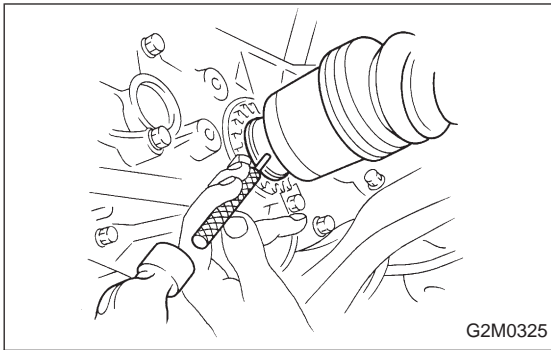


- 8) Install pitching stopper.

**Tightening torque:**

**$T1: 49 \pm 5 \text{ N} \cdot \text{m}$  ( $5.0 \pm 0.5 \text{ kg} \cdot \text{m}$ ,  $36.2 \pm 3.6 \text{ ft} \cdot \text{lb}$ )**

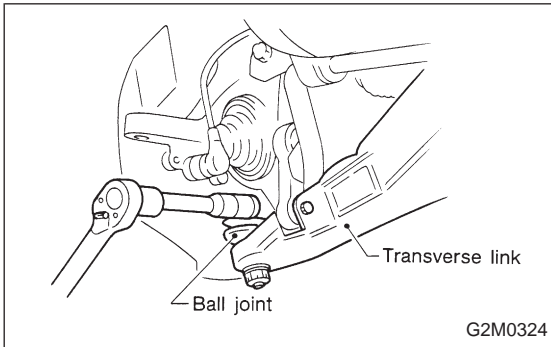
**$T2: 57 \pm 10 \text{ N} \cdot \text{m}$  ( $5.8 \pm 1.0 \text{ kg} \cdot \text{m}$ ,  $42 \pm 7 \text{ ft} \cdot \text{lb}$ )**



- 9) Install front drive shafts into transmission.
  - (1) Lift-up the vehicle.
  - (2) Install front drive shaft into transmission.
  - (3) Drive spring pin into chamfered hole of drive shaft.

**CAUTION:**

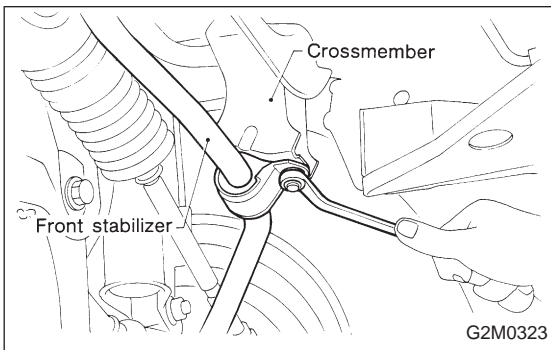
**Always use a new spring pin.**



- (4) Install ball joints of lower arm into knuckle arm of housing, and tighten installing bolt.

**Tightening torque:**

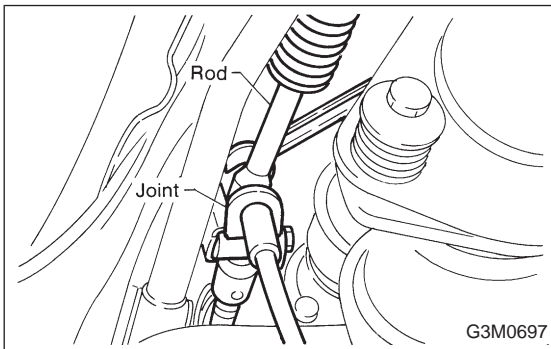
**$49 \pm 10 \text{ N}\cdot\text{m}$  ( $5.0 \pm 1.0 \text{ kg}\cdot\text{m}$ ,  $36 \pm 7 \text{ ft}\cdot\text{lb}$ )**



- 10) Install stabilizer clamp onto front crossmember.

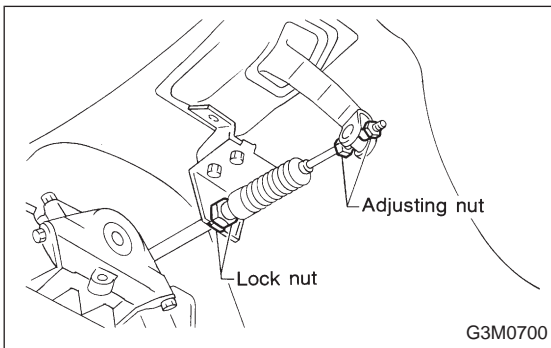
**Tightening torque:**

**$25 \pm 4 \text{ N}\cdot\text{m}$  ( $2.5 \pm 0.4 \text{ kg}\cdot\text{m}$ ,  $18.1 \pm 2.9 \text{ ft}\cdot\text{lb}$ )**



- 11) Install gear shift rod and stay. (MT model)

- (1) Install gear shift rod onto transmission.
- (2) Install stay onto transmission.
- (3) Install spring.



- 12) Install shift selector cable onto selector cable. (AT model)

- (1) Install selector cable into selector lever.
- (2) Install cable bracket onto body.

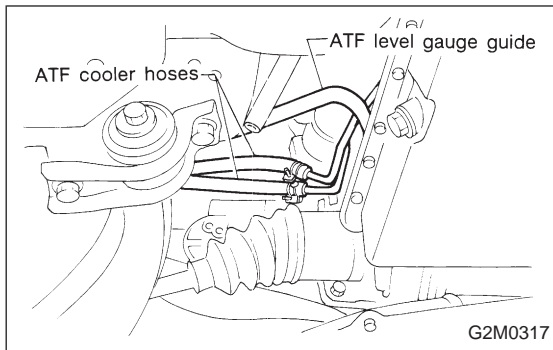
**Tightening torque:**

**$18 \pm 5 \text{ N}\cdot\text{m}$  ( $1.84 \pm 0.51 \text{ kg}\cdot\text{m}$ ,  $13.3 \pm 3.7 \text{ ft}\cdot\text{lb}$ )**

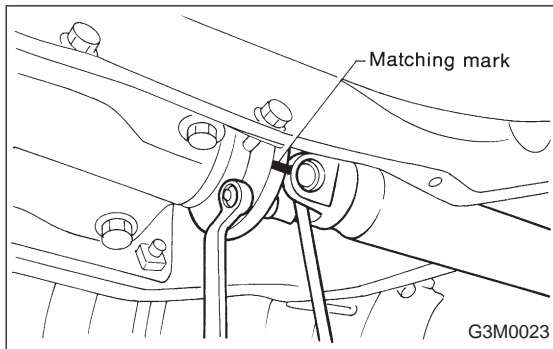
**NOTE:**

Tighten selector cable adjusting and lock nut after checking selector lever operation. <Ref. to 3-3 [W2E0].>





13) Install ATF level gauge guide, and ATF cooler hoses onto pipe. (AT model)

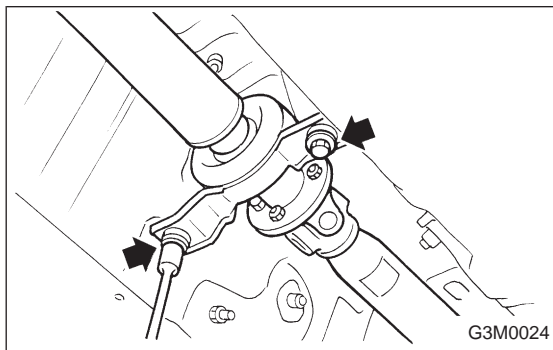


14) Install propeller shaft.

- (1) Install propeller shaft into transmission.
- (2) Tighten bolts which install propeller shaft onto companion flange of rear differential.

**Tightening torque:**

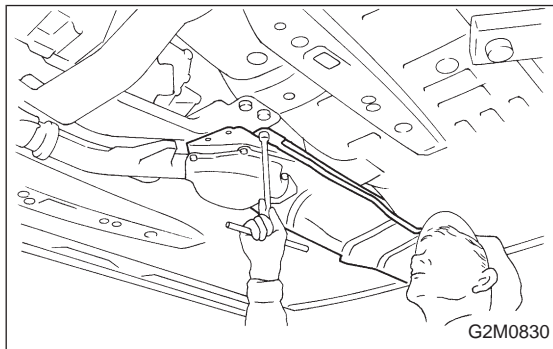
**$31 \pm 8 \text{ N}\cdot\text{m}$  ( $3.2 \pm 0.8 \text{ kg}\cdot\text{m}$ ,  $23.1 \pm 5.8 \text{ ft}\cdot\text{lb}$ )**



(3) Install center bearing bracket on body.

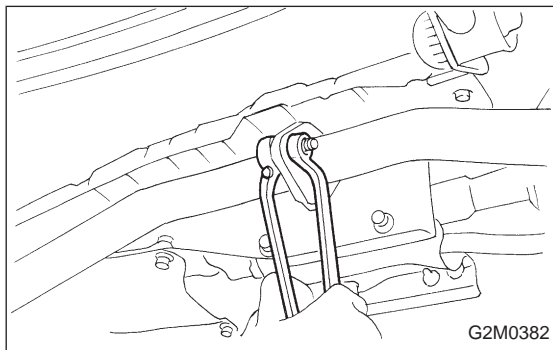
**Tightening torque:**

**$52 \pm 5 \text{ N}\cdot\text{m}$  ( $5.3 \pm 0.5 \text{ kg}\cdot\text{m}$ ,  $38.3 \pm 3.6 \text{ ft}\cdot\text{lb}$ )**



15) Install exhaust system.

- (1) Install heat shield cover.

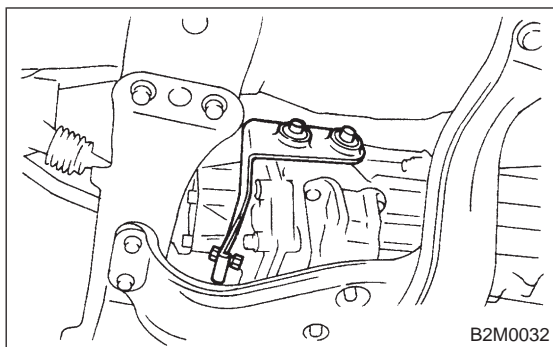


(2) Install rear exhaust pipe to muffler.

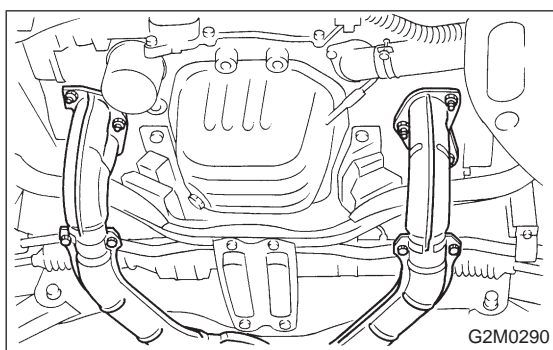
**Tightening torque:**

**$48 \pm 9 \text{ N}\cdot\text{m}$  ( $4.9 \pm 0.9 \text{ kg}\cdot\text{m}$ ,  $35.4 \pm 6.5 \text{ ft}\cdot\text{lb}$ )**





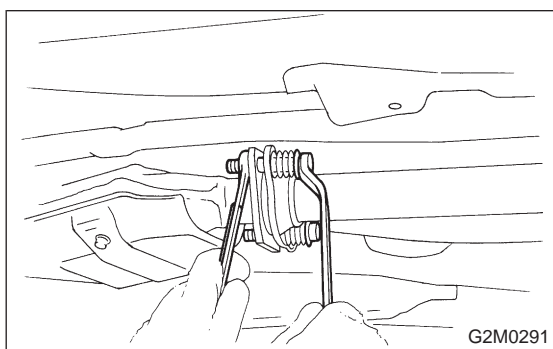
(3) Install hanger bracket on right side of transmission.



(4) Install front exhaust pipe onto engine.

**Tightening torque:**

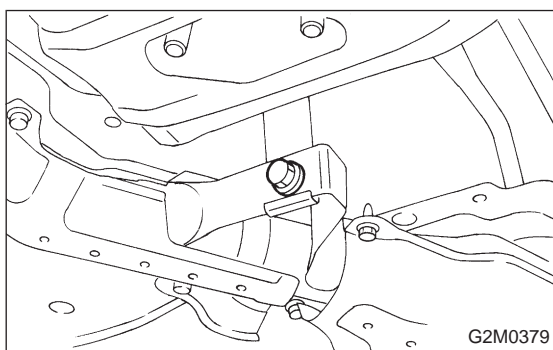
**$30 \pm 5 \text{ N}\cdot\text{m}$  ( $3.1 \pm 0.5 \text{ kg}\cdot\text{m}$ ,  $22.4 \pm 3.6 \text{ ft}\cdot\text{lb}$ )**



(5) Install center exhaust pipe to rear exhaust pipe.

**Tightening torque:**

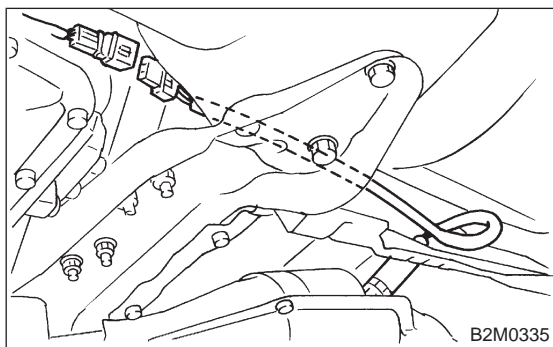
**$18 \pm 5 \text{ N}\cdot\text{m}$  ( $1.8 \pm 0.5 \text{ kg}\cdot\text{m}$ ,  $13.0 \pm 3.6 \text{ ft}\cdot\text{lb}$ )**



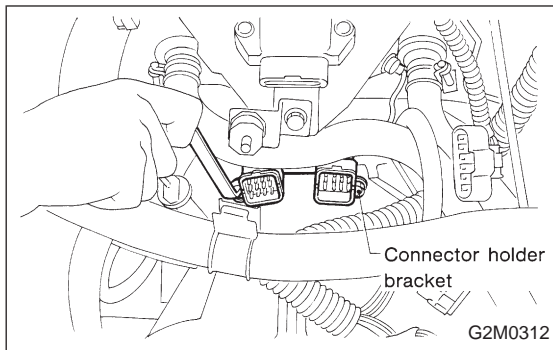
(6) Tighten bolt which installs center exhaust pipe to hanger bracket.

**Tightening torque:**

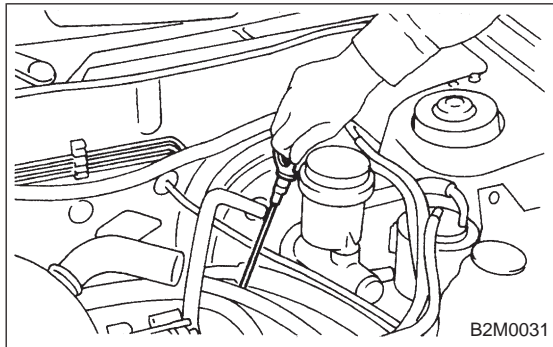
**$30 \pm 5 \text{ N}\cdot\text{m}$  ( $3.1 \pm 0.5 \text{ kg}\cdot\text{m}$ ,  $22.4 \pm 3.6 \text{ ft}\cdot\text{lb}$ )**



(7) Connect connector to rear oxygen sensor.



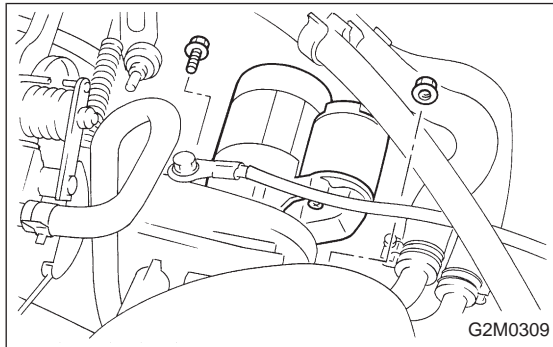
16) Install transmission connector holder bracket.



17) Install ATF level gauge. (AT model)

18) Connect connectors and cables.

- (1) Connect the following connectors.
  - Transmission harness connectors
  - Transmission ground terminal
  - Front oxygen sensor connector
- (2) Connect the following cables.
  - Cruise control cable  
(With cruise control model)
  - Clutch cable
  - Speedometer cable

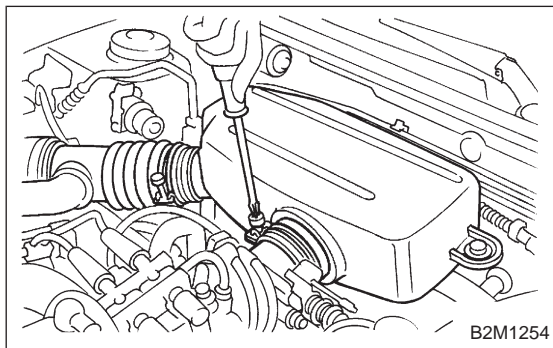


19) Install starter.

- (1) Install starter onto transmission case, and connect connectors and terminals.
- (2) Tighten bolt and nut which install starter onto transmission.

**Tightening torque:**

**$40 \pm 4 \text{ N} \cdot \text{m}$  ( $4.1 \pm 0.4 \text{ kg} \cdot \text{m}$ ,  $29.7 \pm 2.9 \text{ ft} \cdot \text{lb}$ )**



20) Install air intake duct and chamber then connect connector to mass air flow sensor.

- 21) Connect battery ground cable.
- 22) Fill ATF. (AT model)  
<Ref. to 3-2 [W1B1].>
- 23) Check selector lever operation. (AT model)  
<Ref. to 3-3 [W2E0].>
- 24) Take off vehicle from lift arms.
- 25) Check the vehicle on road tester. (AT model)  
<Ref. to 3-2 [W7A0].>