

PERIODIC MAINTENANCE SERVICES

PM

	Page
1. General Description	2
2. Schedule	3
3. Engine Oil	5
4. Engine Oil Filter	8
5. Spark Plug	9
6. V-belt	25
7. Fuel Line	30
8. Fuel Filter	31
9. Air Cleaner Element	55
10. Cooling System	57
11. Engine Coolant	58
12. Clutch System	61
13. Transmission Gear Oil	66
14. Automatic Transmission Fluid	68
15. Differential Gear Oil	76
16. Brake Line	78
17. Brake Fluid	82
18. Disc Brake Pad and Disc	83
19. Parking Brake	85
20. Suspension	87
21. Wheel Bearing	91
22. Axle Boots & Joints	93
23. Tire Check and Rotation	94
24. Steering System (Power Steering)	95
25. A/C Filter	98

General Description

PERIODIC MAINTENANCE SERVICES

1. General Description

A: GENERAL DESCRIPTION

Be sure to perform periodic maintenance in order to maintain vehicle performance and find problems before they occur.

Schedule

PERIODIC MAINTENANCE SERVICES

2. Schedule

A: MAINTENANCE SCHEDULE 1

1. U.S. MODELS

		Replacement interval [Number of months or km (miles), whichever occurs first]																		Remarks
	Months	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120	132	
	× 1,000 km	4.8	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	220	
	× 1,000 miles	3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120	132	
1	Engine oil		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
2	Engine oil filter		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
3	Spark plug									R								R		
4	Drive belt(s)					I				I				I				I		
5	Fuel line					I				I				I				I		Note (1)
6	Fuel filter											R								Note (1)
7	Air cleaner element					R				R				R				R		Note (2)
8	Cooling system					I				I				I				I		
9	Engine coolant	Replace after the first 11 years or 220,000 km (137,500 miles), and every six years or 120,000 km (75,000 miles) thereafter																		
10	Clutch system			I		I		I		I		I		I		I		I		
11	Transmission gear oil	Inspect every 24 months or 48,000 km (30,000 miles)																		
12	ATF					I				R				I				R		
13	Rear differential gear oil	Inspect every 12 months or 15,000 km (24,000 miles) Replace every 48 months or 96,000 km (60,000 miles)																		
14	Brake line			I		I		I		I		I		I		I		I		
15	Brake fluid					R				R				R				R		
16	Disc brake pad and disc			I		I		I		I		I		I		I		I		
17	Parking brake			I		I		I		I		I		I		I		I		
18	Suspension			I		I		I		I		I		I		I		I		
19	Wheel bearing								(I)									(I)		
20	Axle boots and joints			I		I		I		I		I		I		I		I		
21	Tire rotation		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Note (3)
22	Steering system (Power steering)			I		I		I		I		I		I		I		I		
23	A/C filter	Replace every 15 months or 15,000 km (24,000 miles)																		Note (4)

Symbol

R: Replace

I: Inspection

P: Perform

(I): Inspections recommended for vehicle safety

NOTE:

1. This inspection is not necessary to observe exhaust gas regulations or is the responsibility of the manufacturer under the current basic EPA regulations that must be observed by law.

2. Replace the air cleaner element more frequently than the periodic replacement if the vehicle is being used in an excessively dusty environment.

3. Replace the tires if the tread-wear indicator has caused a bar-shaped cut across the tread. The indicator will appear when the remaining amount of tread is less than 1.6 mm (0.063 in).

4. Replace the A/C filter more frequently than the periodic replacement if the vehicle is being used in an excessively dusty environment.

Schedule

PERIODIC MAINTENANCE SERVICES

B: MAINTENANCE SCHEDULE 2

Item	Maintenance interval	Repeat short distance driving	Repeat driving on bumpy muddy road	Driving in extremely cold weather	Area where salt or other corrosive substance used, or coastal area	High humidity or mountain area
Engine oil	Every 3.75 months	R		R		
	6,000 km					
	3,750 miles					
Engine oil filter	Every 3.75 months	R		R		
	6,000 km					
	3,750 miles					
Fuel line	Every 7.5 months				I	
	Every 12,000 km					
	Every 7,500 miles					
Brake line	Every 7.5 months	I	I		I	
	Every 12,000 km					
	Every 7,500 miles					
Brake fluid	Every 15 months					R
	Every 24,000 km					
	Every 15,000 miles					
Disc brake pad and disc	Every 7.5 months	I	I		I	
	Every 12,000 km					
	Every 7,500 miles					
Parking brake	Every 7.5 months	I	I		I	
	Every 12,000 km					
	Every 7,500 miles					
Suspension	Every 7.5 months		I	I	I	
	Every 12,000 km					
	Every 7,500 miles					
Axle boots and joints	Every 7.5 months	I	I	I	I	
	Every 12,000 km					
	Every 7,500 miles					
Steering system (Power steering)	Every 7.5 months		I	I	I	
	Every 12,000 km					
	Every 7,500 miles					

R: Replace
I: Inspection

3. Engine Oil

A: INSPECTION

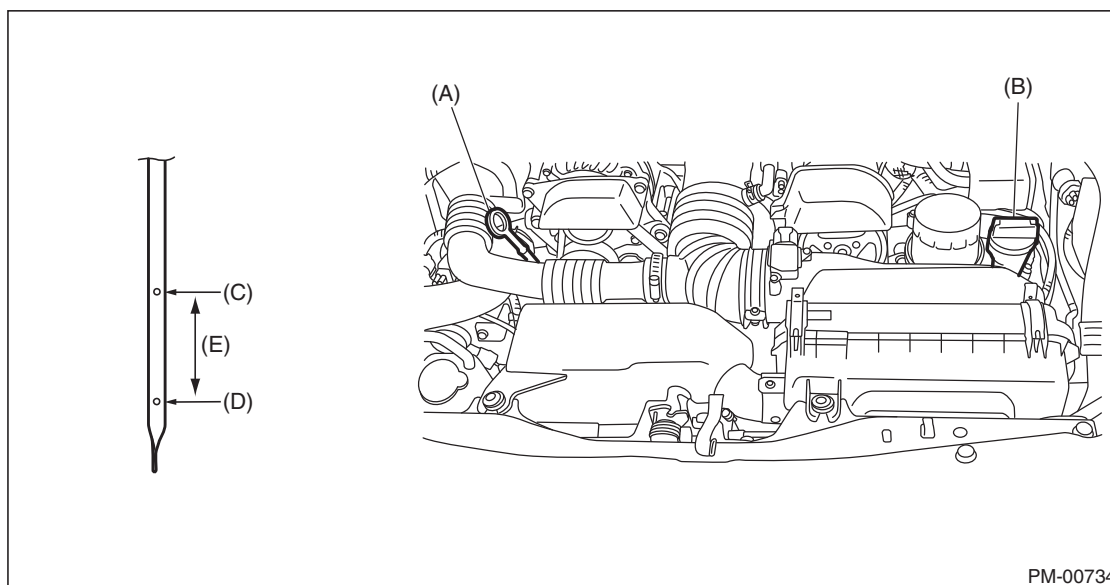
CAUTION:

If the engine oil is spilt over exhaust pipe or the under cover, wipe it off with cloth to avoid emitting smoke or causing a fire.

- 1) Park the vehicle on a level surface.
- 2) Remove the oil level gauge and wipe away the oil.
- 3) Reinsert the oil level gauge all the way. Be sure that the oil level gauge is correctly inserted and properly orientated.
- 4) Pull out the oil level gauge again, and check both sides of the oil level gauge. Use a lower side to determine the engine oil level. If the engine oil level is below "L" mark, check for oil leakage from engine and add oil to bring the level up to "F" mark.
- 5) Start the engine to circulate the oil in engine.
- 6) After turning off the engine, wait five minutes or more for the oil to return to the oil pan before checking the oil level.

NOTE:

- To prevent overfilling of engine oil, do not add oil above "F" mark when the engine is cold.
- As the oil level gauge is used for daily maintenance, "F" mark and "L" mark is set assuming that the engine is cold.



- (A) Oil level gauge
(B) Oil filler cap
(C) "F" mark
(D) "L" mark
(E) Approx. 1.0 L (1.1 US qt, 0.9 Imp qt)

Engine Oil

PERIODIC MAINTENANCE SERVICES

B: REPLACEMENT

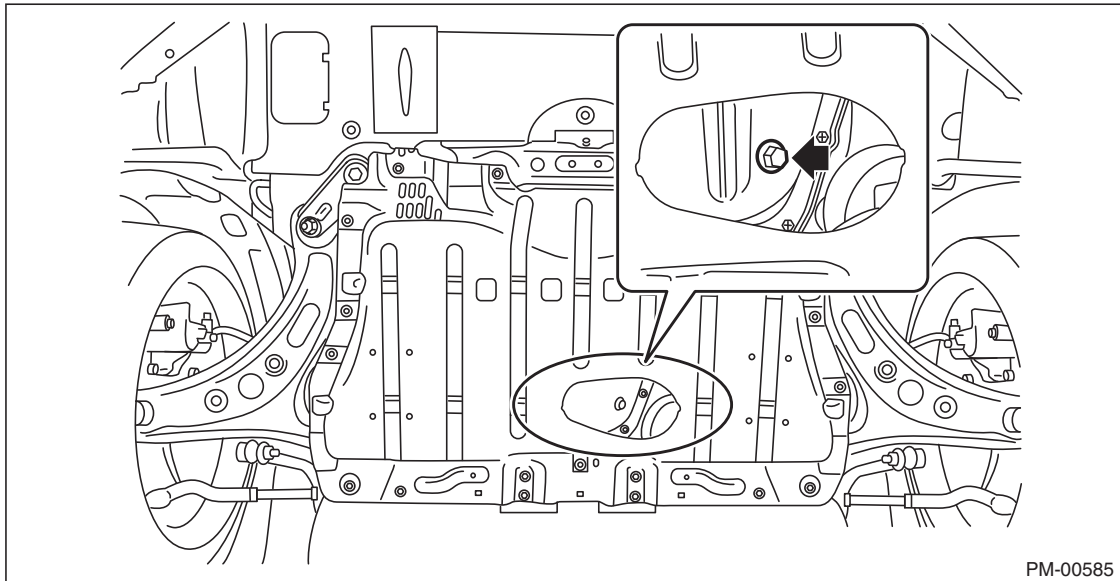
CAUTION:

If the engine oil is spilt over exhaust pipe or the under cover, wipe it off with cloth to avoid emitting smoke or causing a fire.

- 1) Open the oil filler cap for quick draining of engine oil.
- 2) Lift up the vehicle.
- 3) Drain engine oil by loosening the drain plug.

NOTE:

Prepare the container for draining of engine oil.



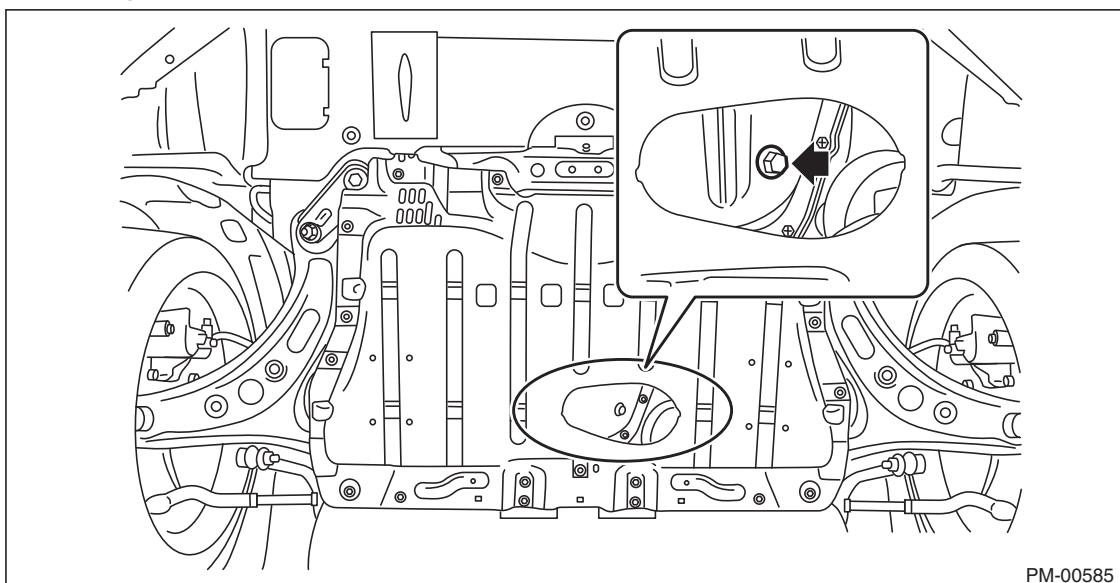
- 4) After draining the engine oil, tighten the engine oil drain plug.

NOTE:

Use a new drain plug gasket.

Tightening torque:

39.2 N-m (4.0 kgf-m, 28.9 ft-lb)



Engine Oil

PERIODIC MAINTENANCE SERVICES

5) Lower the vehicle.

6) Select engine oil of adequate quality and viscosity and fill it through the oil filler duct to the "F" mark on the oil level gauge. Make sure that the vehicle is parked on a level surface when checking oil level.

Recommended oil:

Refer to "RM" section. <Ref. to RM-2, LUBRICANTS, RECOMMENDED MATERIALS, Recommended Materials.>

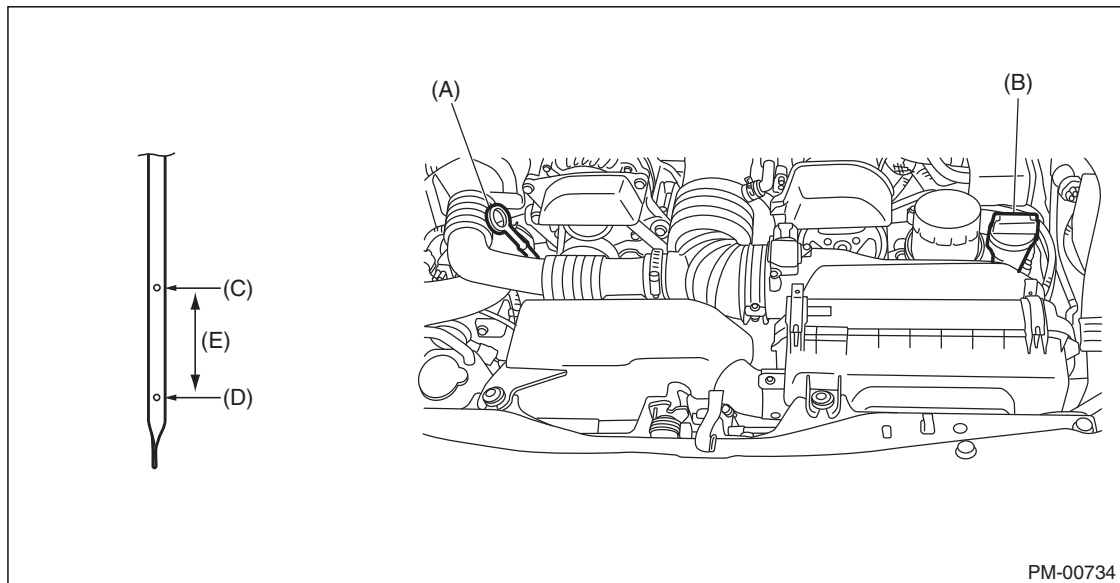
Engine oil capacity:

Refer to the "SPC" section. <Ref. to SPC-4, CAPACITY, BRZ.>

7) Close the oil filler cap.

8) Start the engine to circulate the oil in engine.

9) After stopping the engine, recheck the oil level. If necessary, add engine oil up to the "F" mark on oil level gauge.



(A) Oil level gauge

(B) Oil filler cap

(C) "F" mark

(D) "L" mark

(E) Approx. 1.0 L (1.1 US qt, 0.9 Imp qt)

Engine Oil Filter

PERIODIC MAINTENANCE SERVICES

4. Engine Oil Filter

A: REPLACEMENT

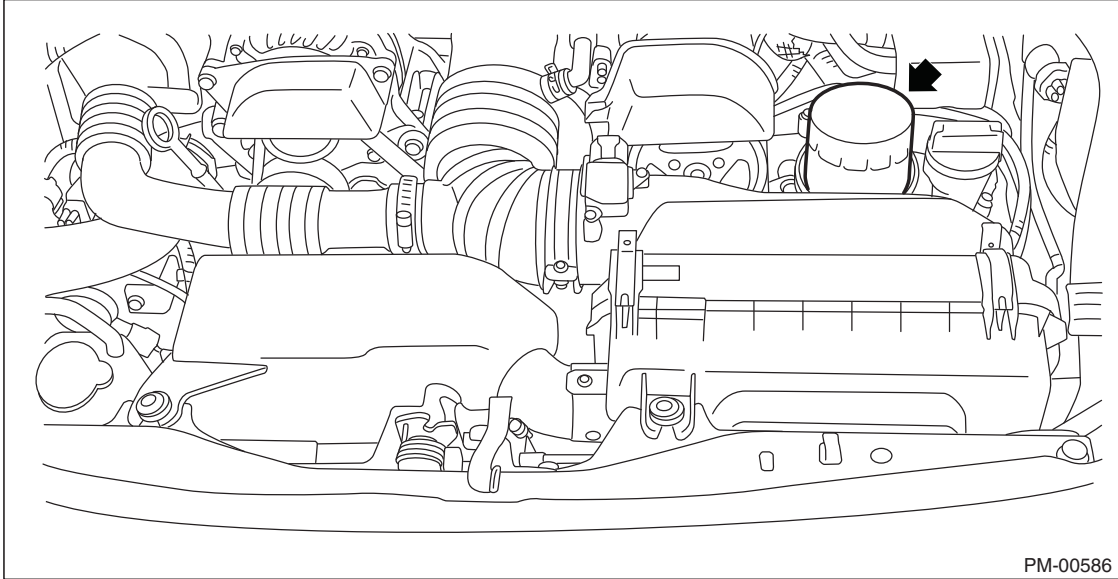
CAUTION:

If the engine oil is spilt over exhaust pipe or the under cover, wipe it off with cloth to avoid emitting smoke or causing a fire.

1) Remove the oil filter using an oil filter wrench.

NOTE:

- Clean off water or dust from the oil element mating surface using air.
- Use an oil filter wrench with a size of 80 mm (3.15 in).



2) Clean the oil filter installing surface on the chain cover.

3) Obtain a new oil filter and apply a thin coat of engine oil to the seal rubber.

4) Install the oil filter turning it by hand, being careful not to damage the seal rubber of the oil filter.

5) Tighten more (approx. 3/4 turn) after the seal rubber contacts the chain cover. When using a torque wrench, tighten to 14 N·m (1.4 kgf-m, 10.3 ft-lb).

CAUTION:

Do not tighten excessively, or oil may leak.

6) After installing, check the engine oil level and replenish it if necessary.

5. Spark Plug

A: REPLACEMENT

1. REMOVAL

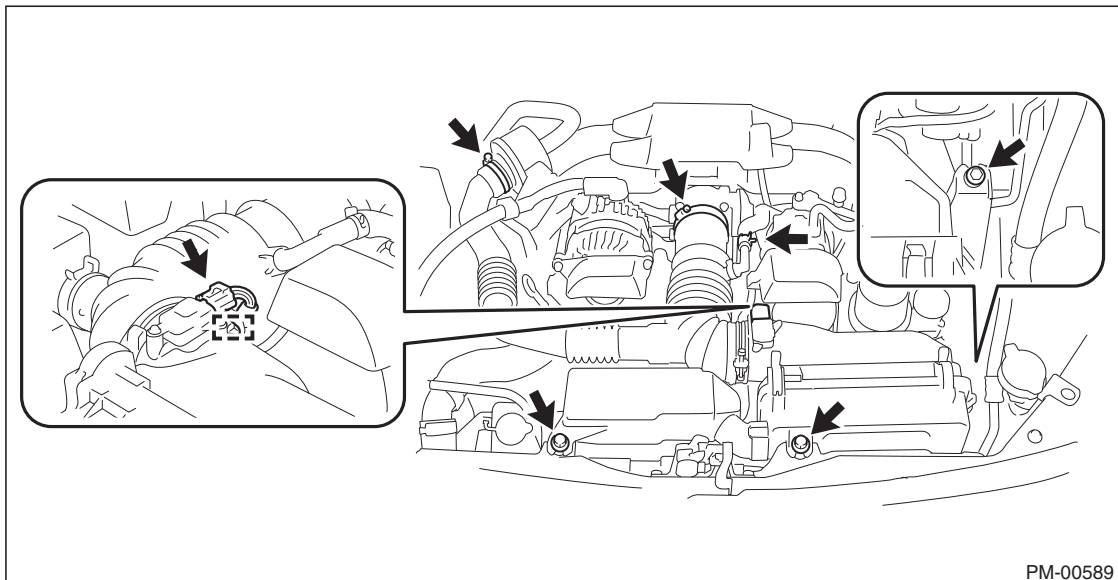
- 1) Disconnect the ground cable from battery.

CAUTION:

Disconnect the ground cable from the battery with the driver's and the passenger's doors open (with the glass lowered to a position where the door can be opened/closed with no problems). This is to prevent molding damage that occurs when opening/closing a door with the glass fully closed and the ground cable disconnected due to the power window index function that slightly opens/closes the glass in conjunction with opening/closing doors.

- 2) Remove the air cleaner assembly w/hose.

- (1) Disconnect the connector of the mass air flow and intake air temperature sensor, and remove the one clip that holds the harness.
- (2) Slide the hose clip and disconnect ventilation hose No. 1.
- (3) Loosen the two hose clamps.
- (4) Remove the three bolts to remove the air cleaner assembly w/hose.



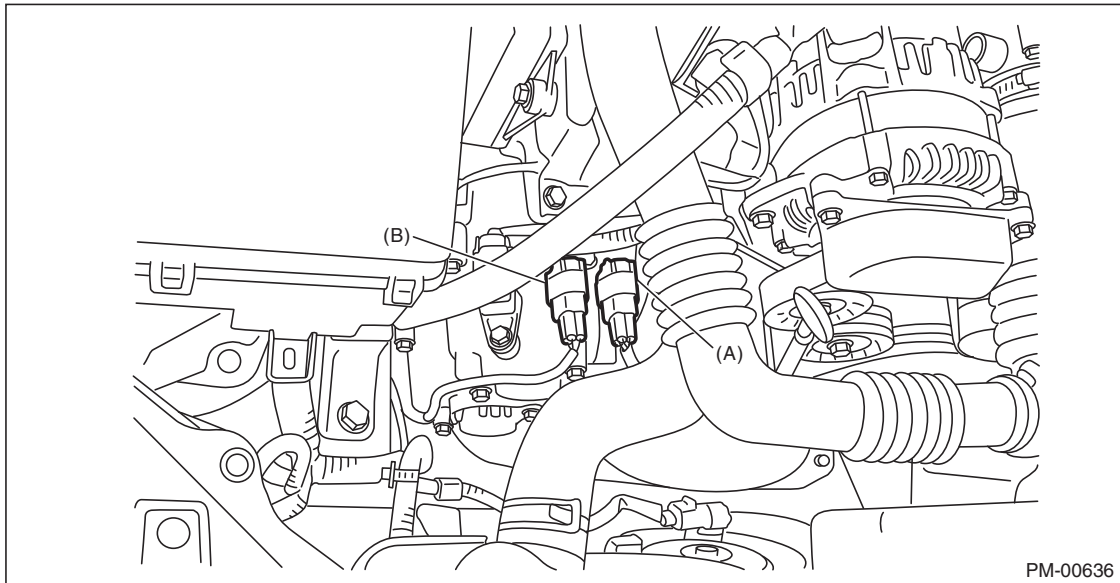
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- 3) Disconnect the hose assembly from the sound creator.
- 4) Remove the two bolts and remove the sound creator.

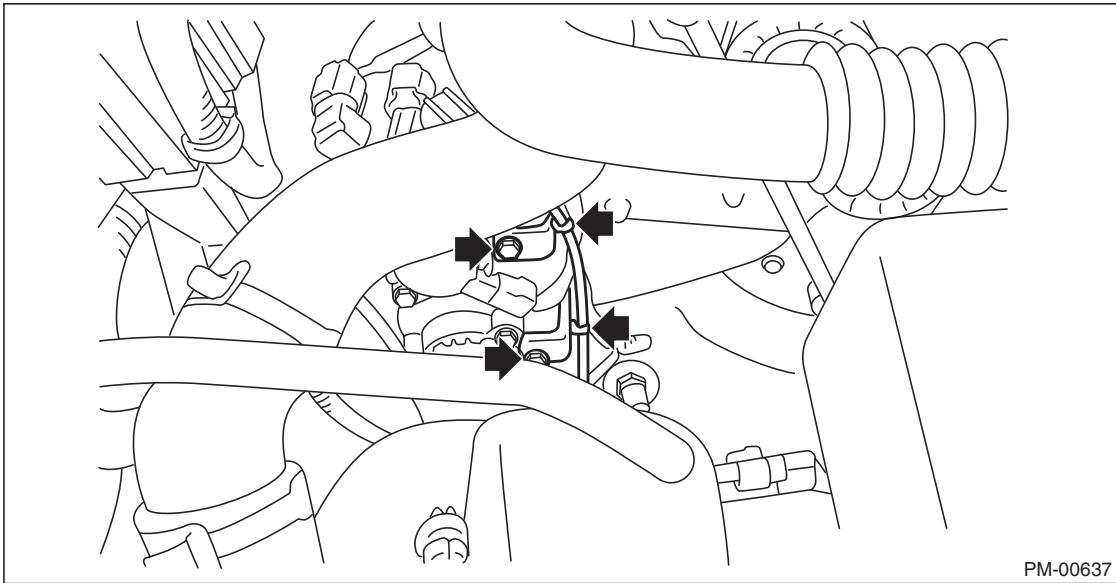
Spark Plug

PERIODIC MAINTENANCE SERVICES

- 5) Disconnect the front oxygen (A/F) sensor connector (A) and rear oxygen sensor connector (B).



- 6) Remove the two bolts securing the harness of the front oxygen (A/F) sensor, and remove the two clips from the stay.

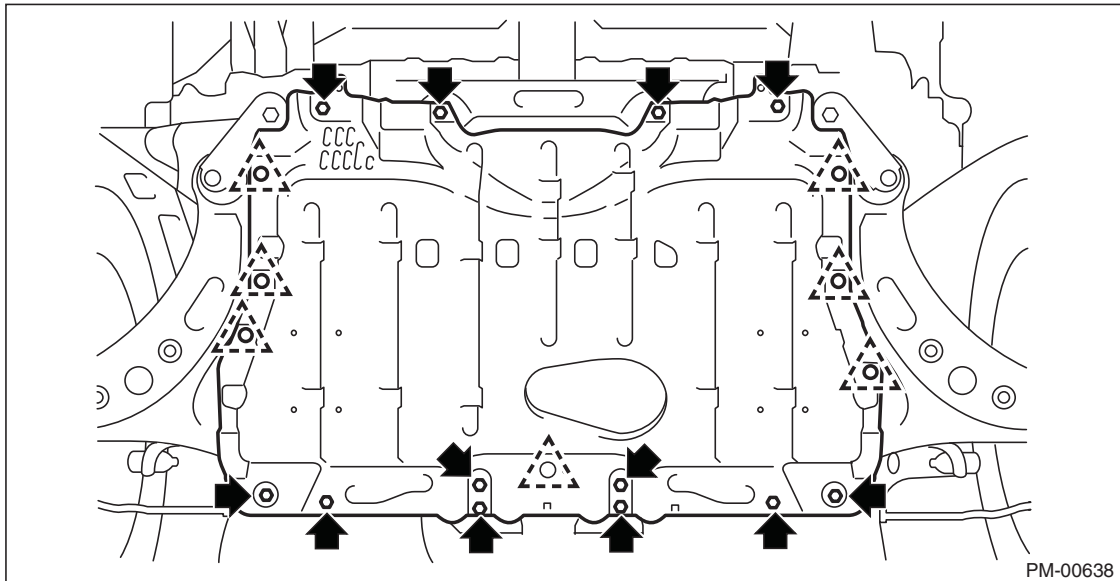


- 7) Remove the two clips securing the rear oxygen (A/F) sensor harness.
8) Lift up the vehicle.

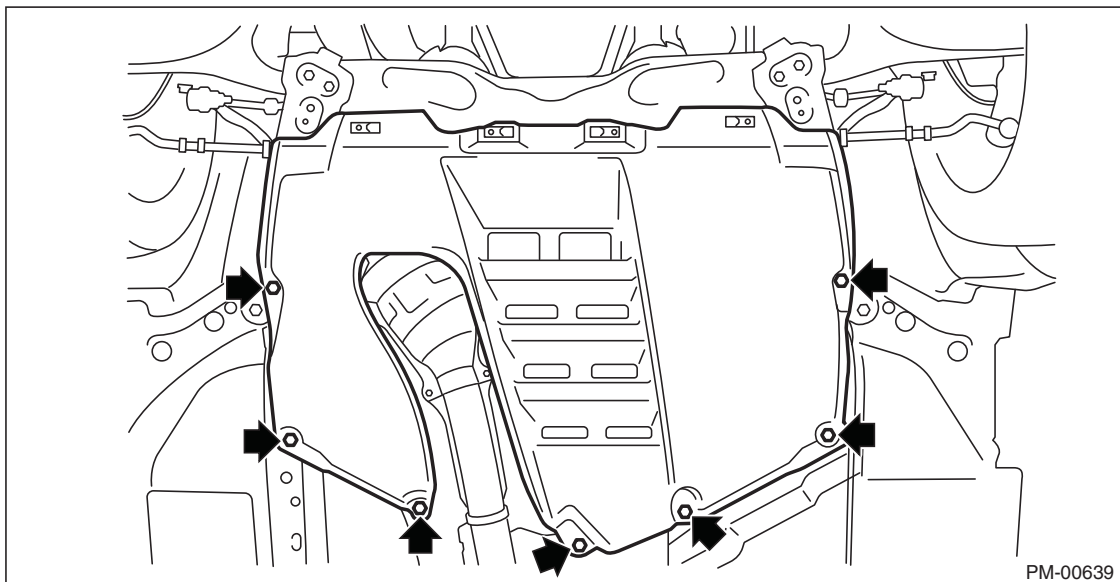
Spark Plug

PERIODIC MAINTENANCE SERVICES

- 9) Remove the 12 bolts and seven clips to remove engine under cover No. 1.



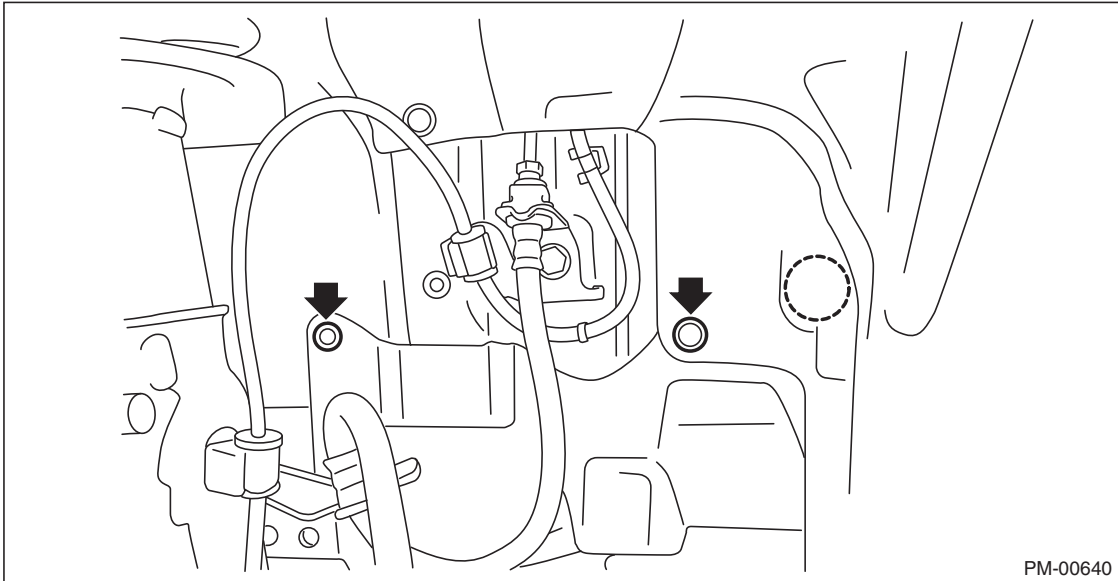
- 10) Remove the seven bolts to remove engine under cover No. 2.



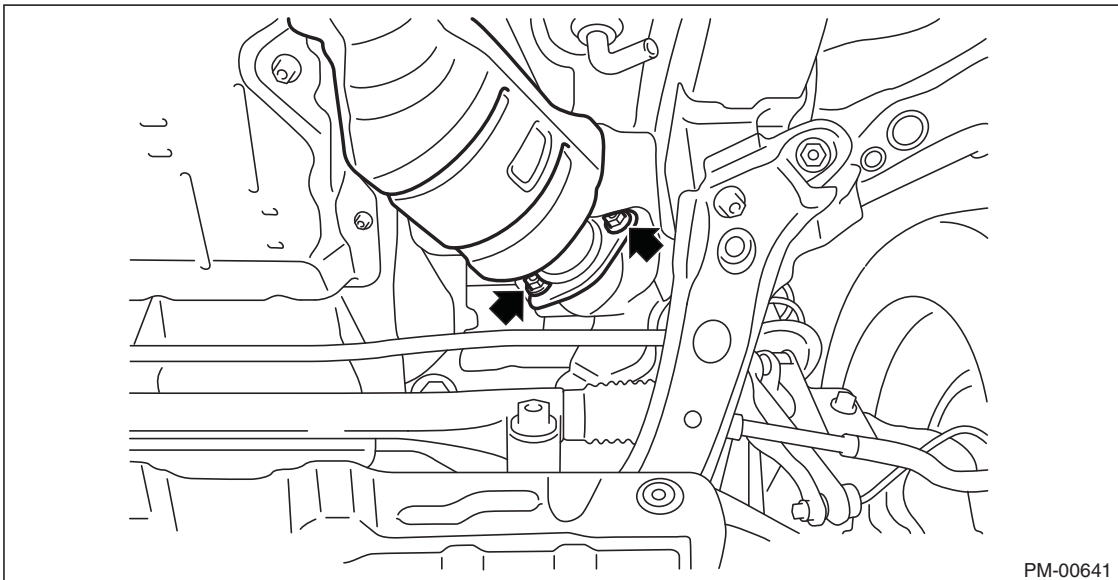
Spark Plug

PERIODIC MAINTENANCE SERVICES

- 11) Remove the three clips to remove the front mat guard under RH.



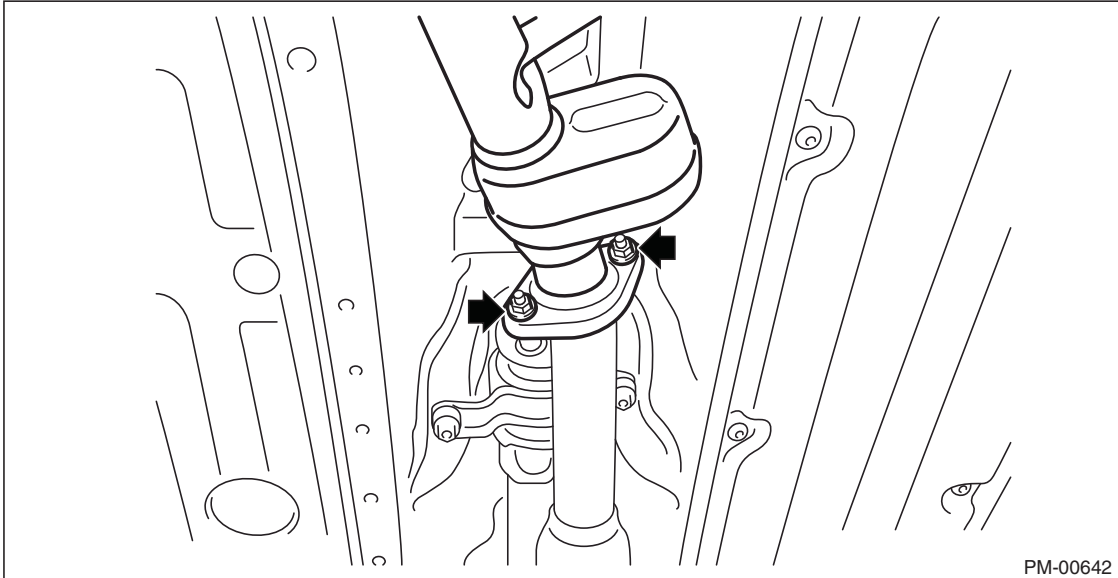
- 12) Remove the two nuts and disconnect the joint pipe.



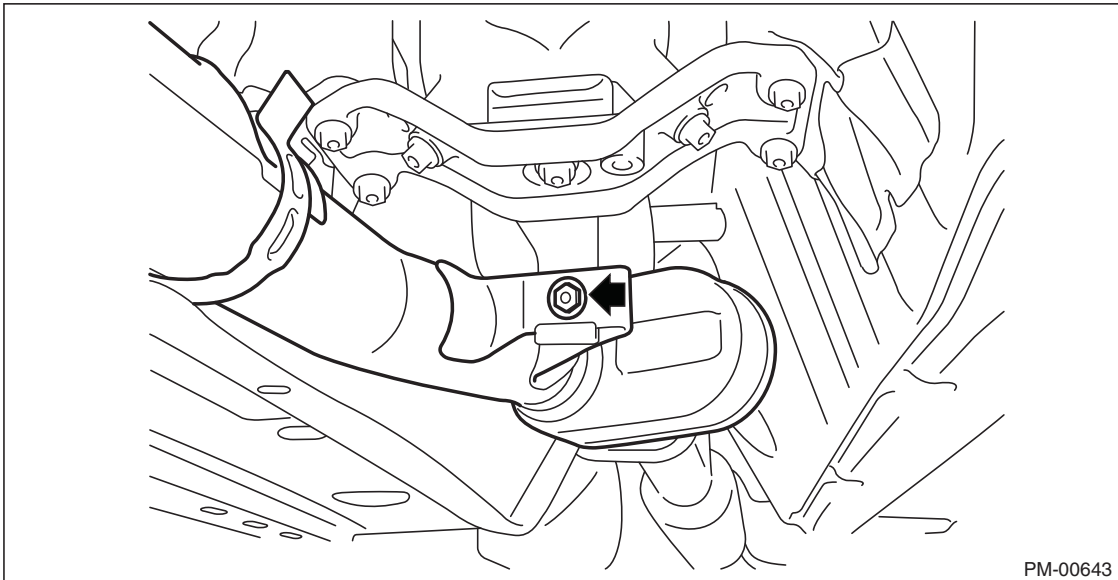
Spark Plug

PERIODIC MAINTENANCE SERVICES

13) Remove the two nuts, two bolts and two compression springs to disconnect the exhaust center pipe assembly.



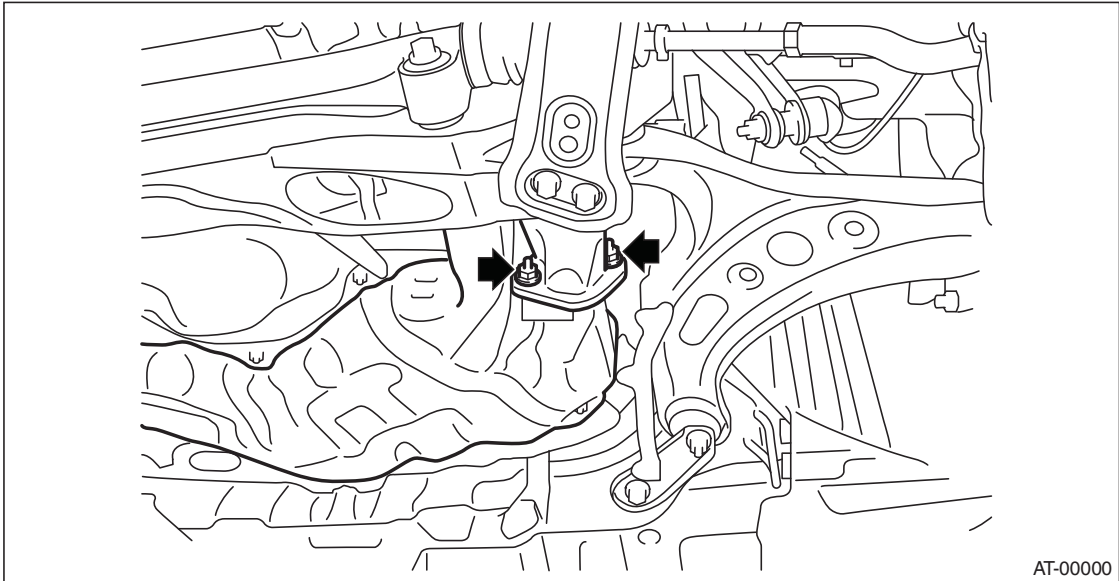
14) Remove the bolt to remove the exhaust pipe assembly FR.



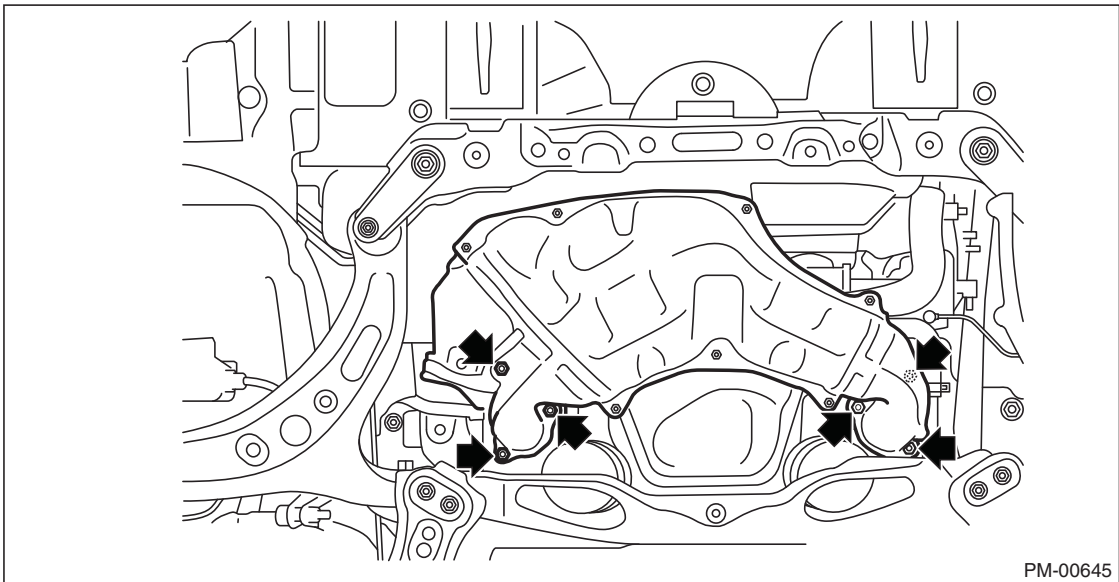
Spark Plug

PERIODIC MAINTENANCE SERVICES

- 15) Remove the two nuts and disconnect the joint pipe.



- 16) Remove the six nuts to remove the exhaust manifold sub-assembly.



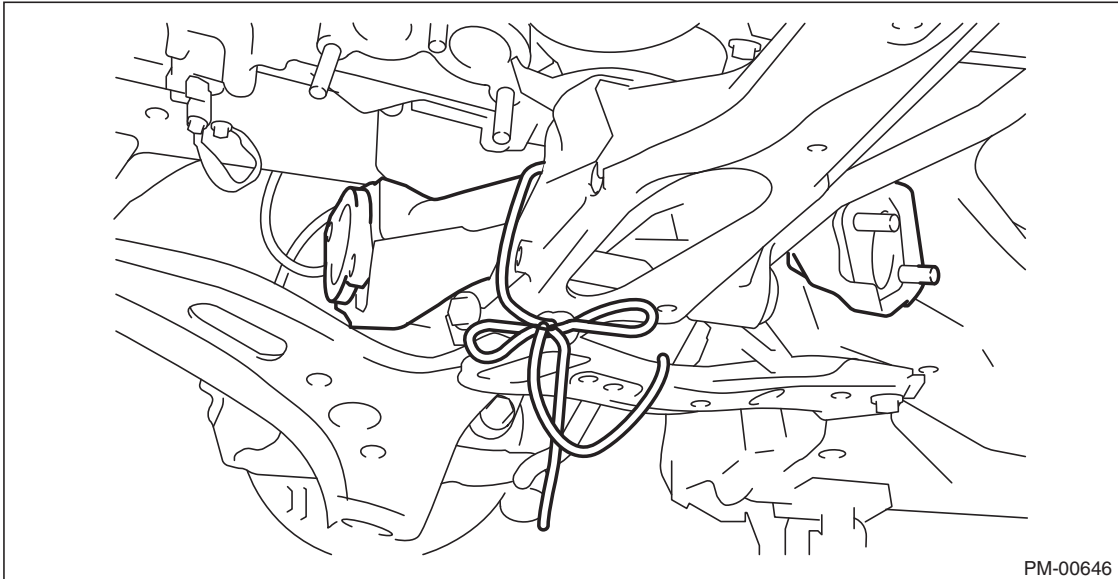
Spark Plug

PERIODIC MAINTENANCE SERVICES

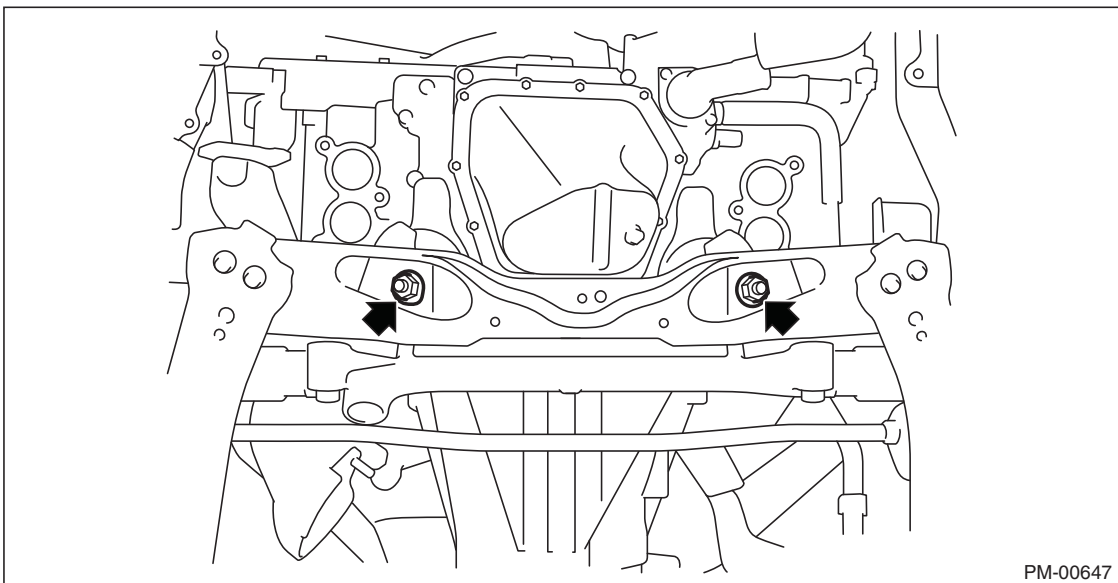
17) Tie the joint pipe to the front crossmember using string.

CAUTION:

This procedure is necessary to prevent the joint pipe from falling off.



18) Remove the nuts which secure the engine mounting to the front crossmember.

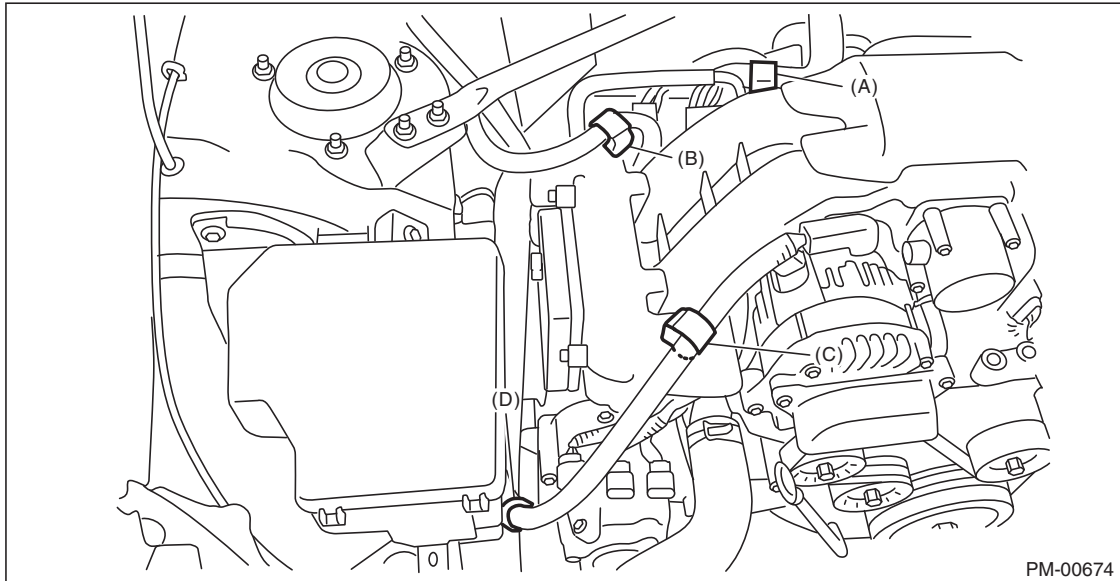


19) Lower the vehicle.

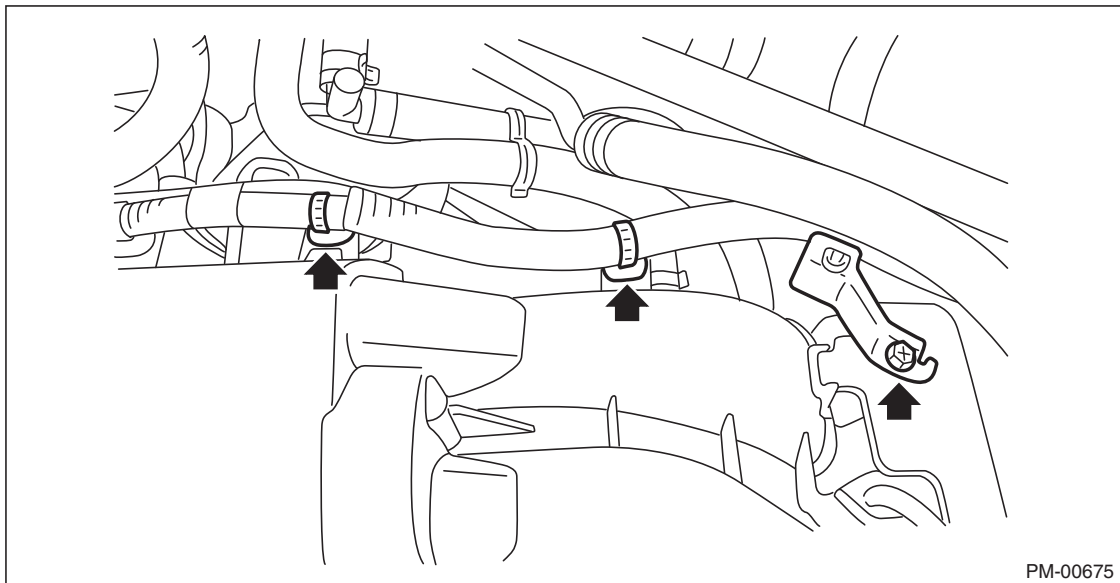
Spark Plug

PERIODIC MAINTENANCE SERVICES

20) Remove clip (A) securing the engine harness to the engine hanger, clip (B) securing the battery cable and clip (C) securing the generator cable to the intake manifold protector RH, and clip (D) securing the generator cable to the fuse box.



21) Remove the bolt securing the harness stay from the intake manifold protector LH, and the two clips securing the battery cable from the intake manifold.



Spark Plug

PERIODIC MAINTENANCE SERVICES

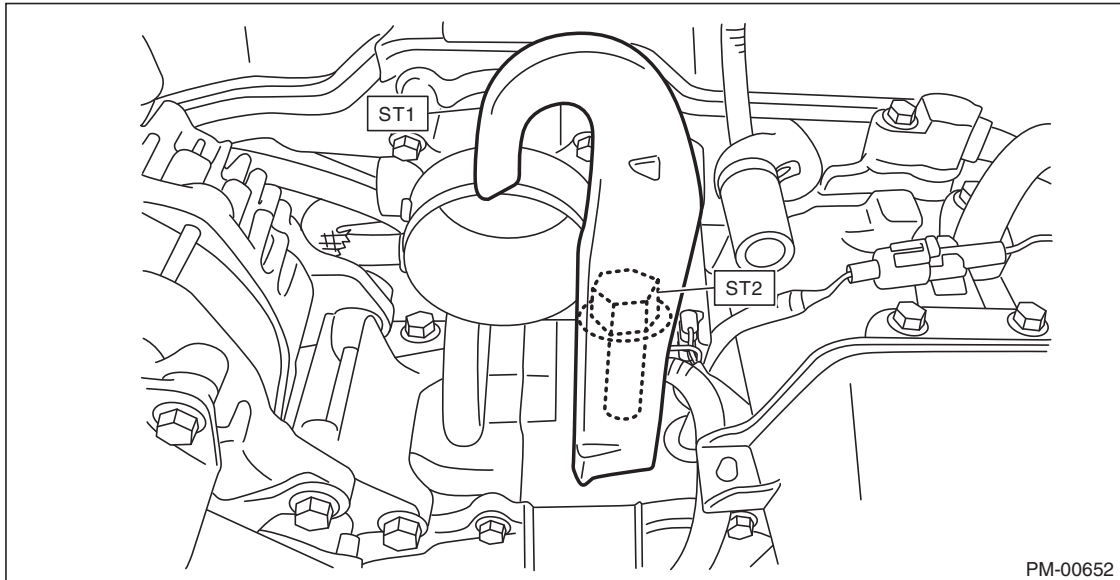
22) Install the ST1 and ST2 to the engine assembly.

Tightening torque:

43 N·m (4.4 kgf-m, 31.7 ft-lb)

ST1 12281-38150 ENGINE HANGER NO. 1

ST2 90119-14120 BOLT



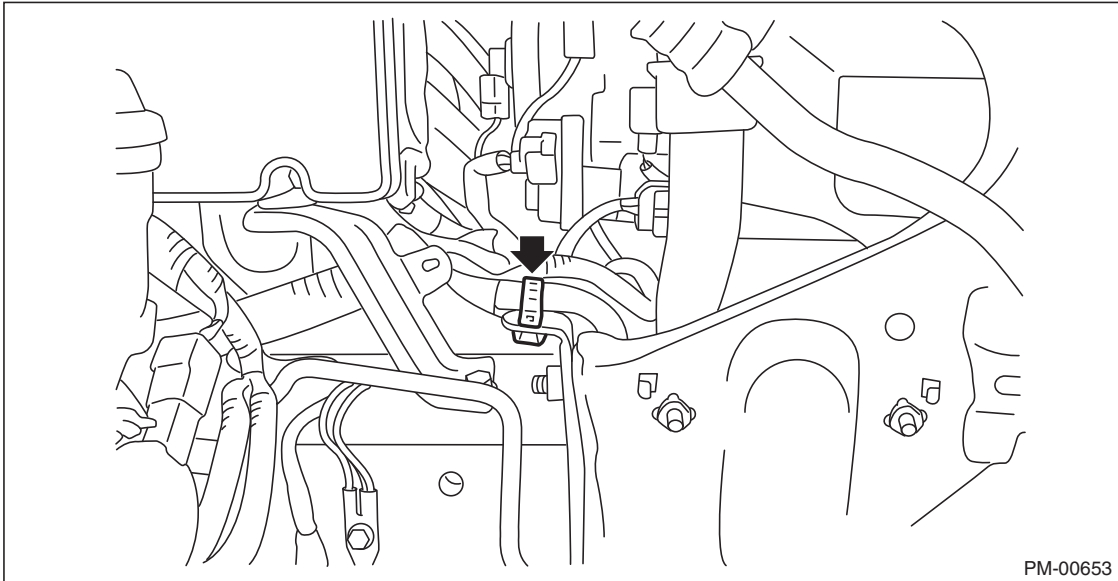
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Spark Plug

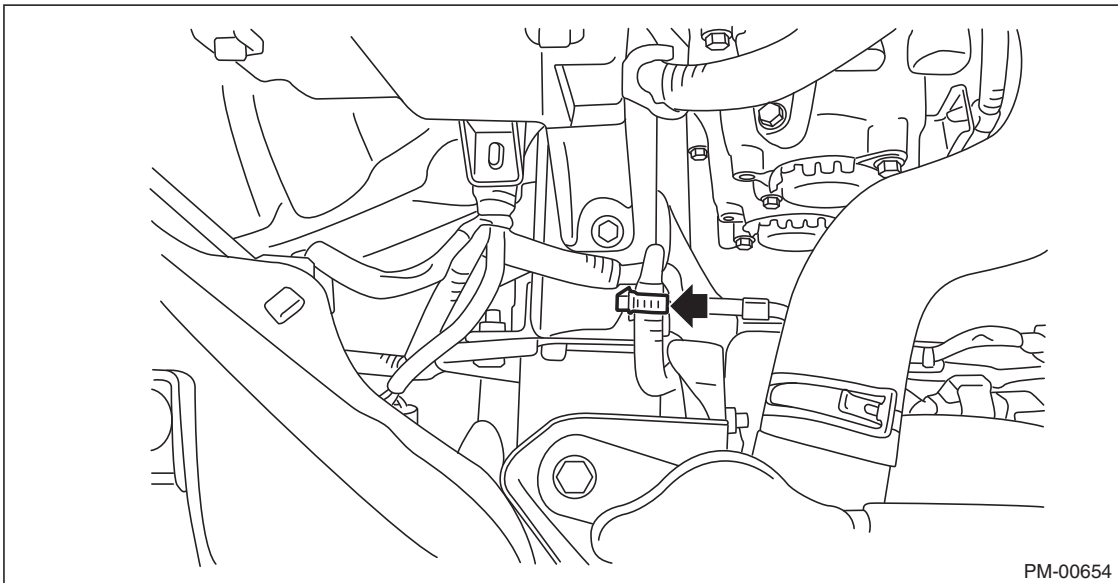
PERIODIC MAINTENANCE SERVICES

23) Remove the clip securing the bulkhead harness to the vehicle.

- Left Hand



- Right Hand



Spark Plug

PERIODIC MAINTENANCE SERVICES

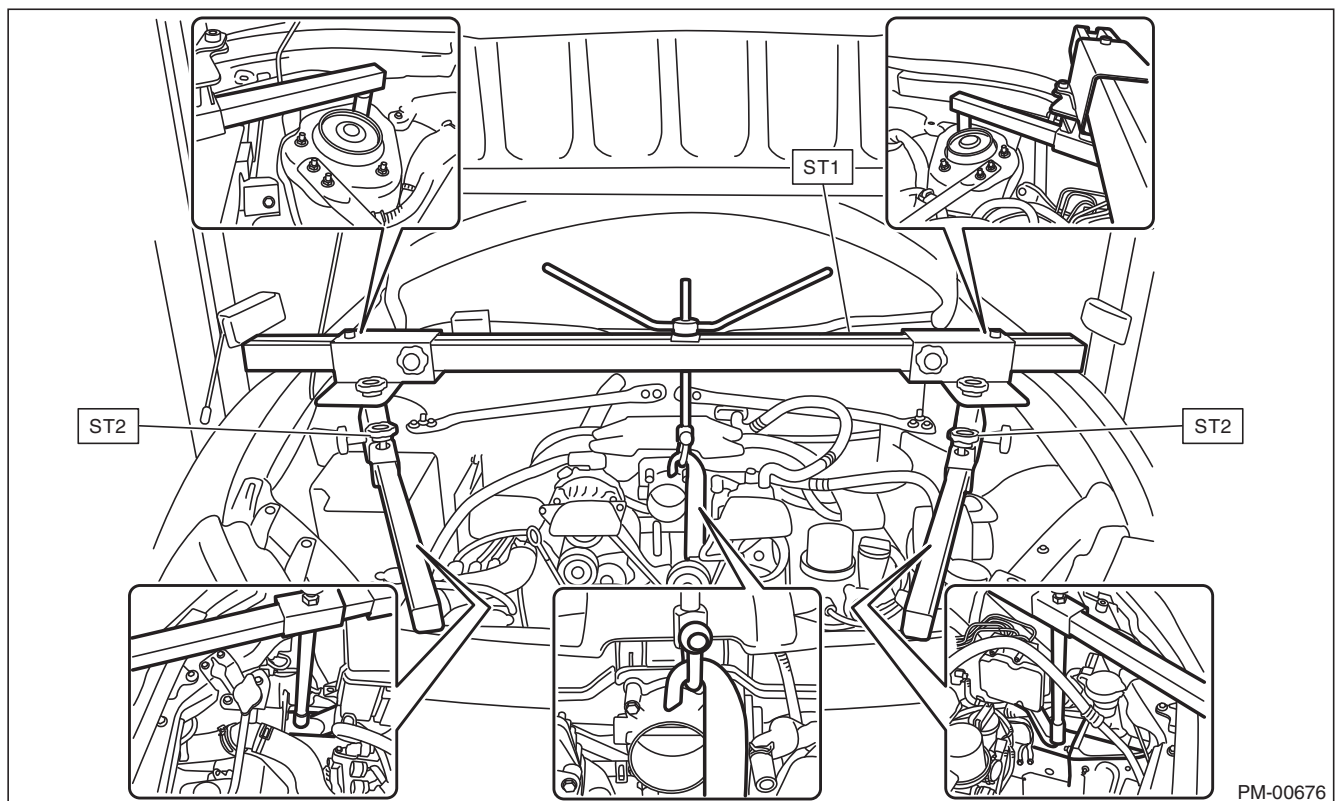
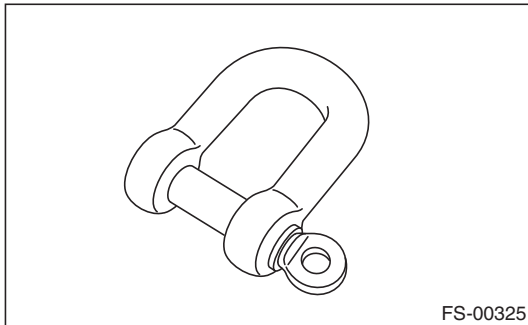
24) Set the ST1 and ST2 to vehicle in order to support the engine.

ST1 99099AJ000 ENGINE HANGER

ST2 18679AA020 ADJUSTER

CAUTION:

- Set the ST on the vehicle being careful not to pinch the harness.
- Use a shackle with the load capacity of 250 kg (551 lb) or more.



25) Turn the handle on the top of the ST clockwise, and slowly lift the engine from the crossmember engine mount hole until it reaches the position where the engine mount stud bolts can be removed.

CAUTION:

- Apply grease or other lubricant to the ST threading before turning the handle to prevent the ST threading from being damaged.
- Lift the engine slowly being careful of parts clearance so that parts are not damaged by touching each other.
- Lift the engine until the intake manifold (#4) and air conditioner suction hose are slightly contacting each other.
- Place soft cloth between the intake manifold (#4) and air conditioner suction hose to protect them from damage.

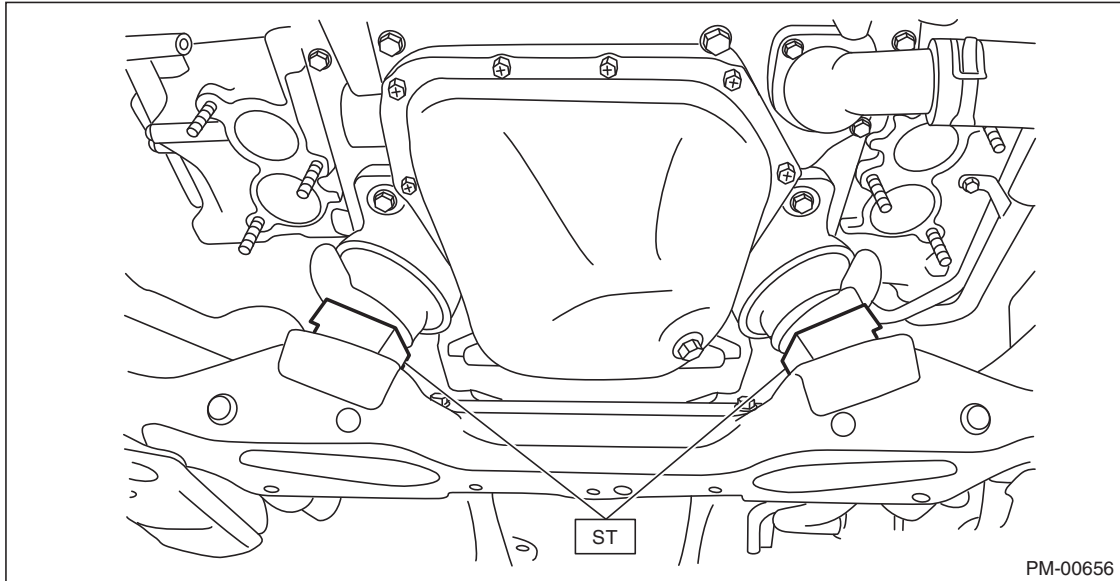
26) Lift up the vehicle.

Spark Plug

PERIODIC MAINTENANCE SERVICES

27) Install the ST between the engine mount and crossmember.

ST 18632AA020 STAND ASSY



28) Lower the vehicle.

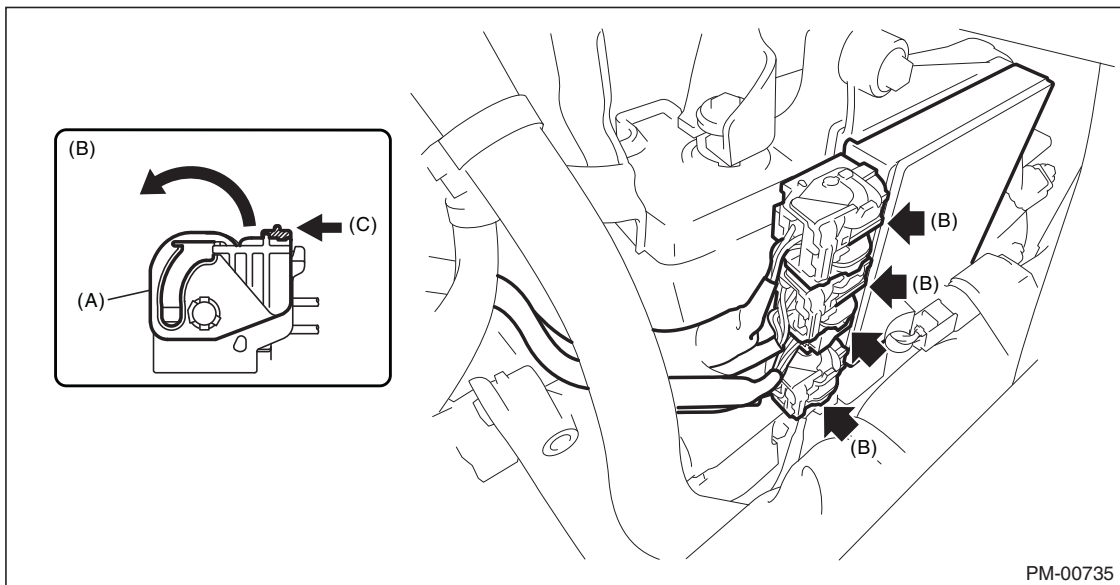
29) Rotate the handle on the top of the ST counterclockwise to slowly lower the engine.

30) Remove the ST (ENGINE HANGER) from the vehicle.

31) Remove the RH spark plugs.

(1) Move the lock lever in the direction of the arrow to release the three connector locks.

(2) Disconnect the four connectors from the fuel injector CM.

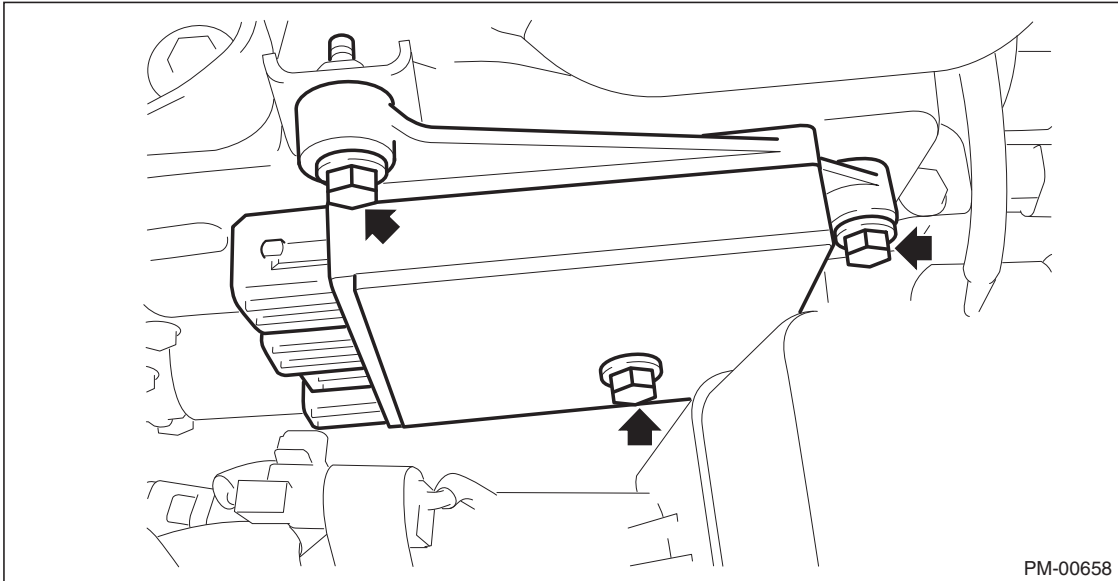


- (A) Lock lever
- (B) Connector with lock
- (C) Unlock

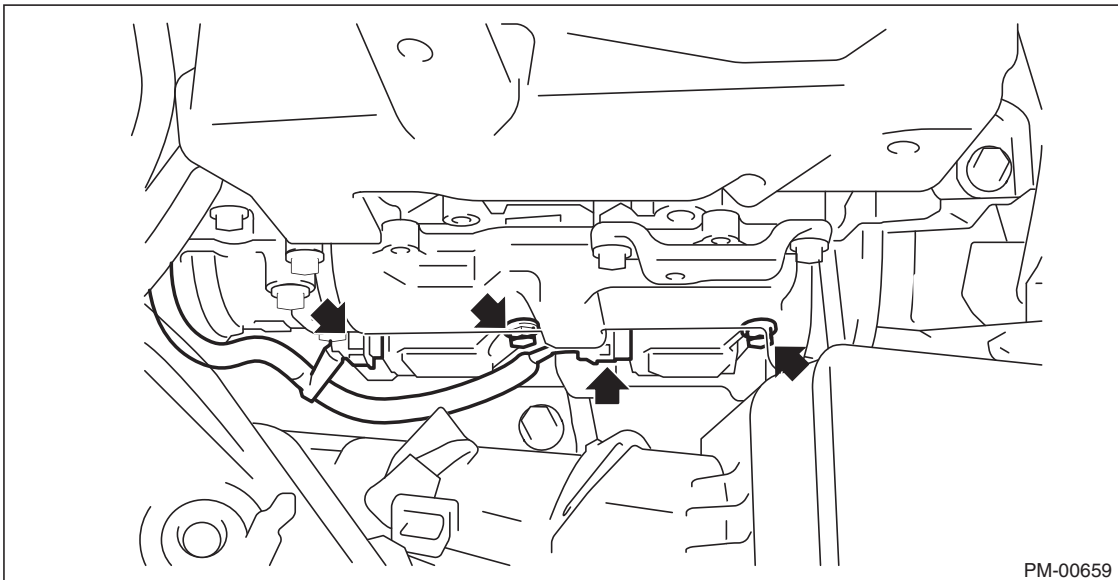
Spark Plug

PERIODIC MAINTENANCE SERVICES

- (3) Remove the three bolts and the fuel injector CM.



- (4) Disconnect the ignition coil connector and remove the ignition coil.



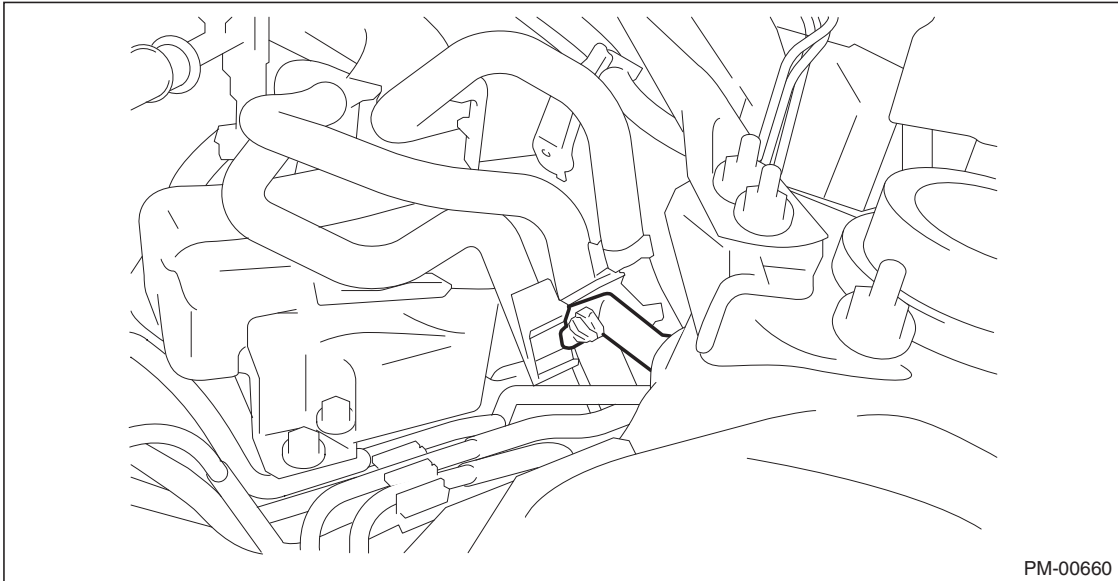
- (5) Remove the spark plug with a spark plug socket.

Spark Plug

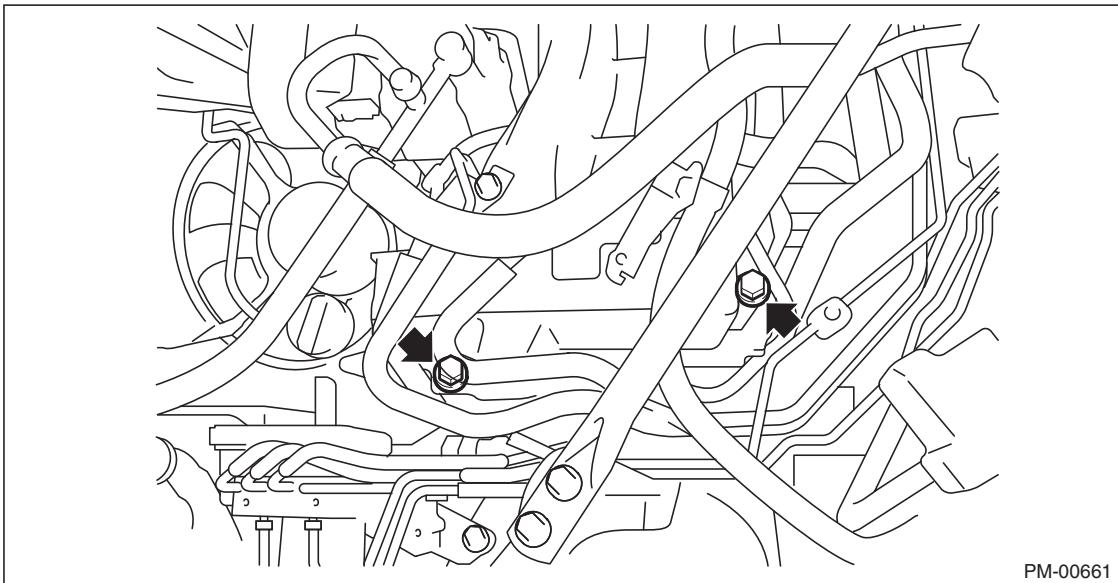
PERIODIC MAINTENANCE SERVICES

32) Remove the LH spark plugs.

(1) Remove the bracket securing the fuel hose.



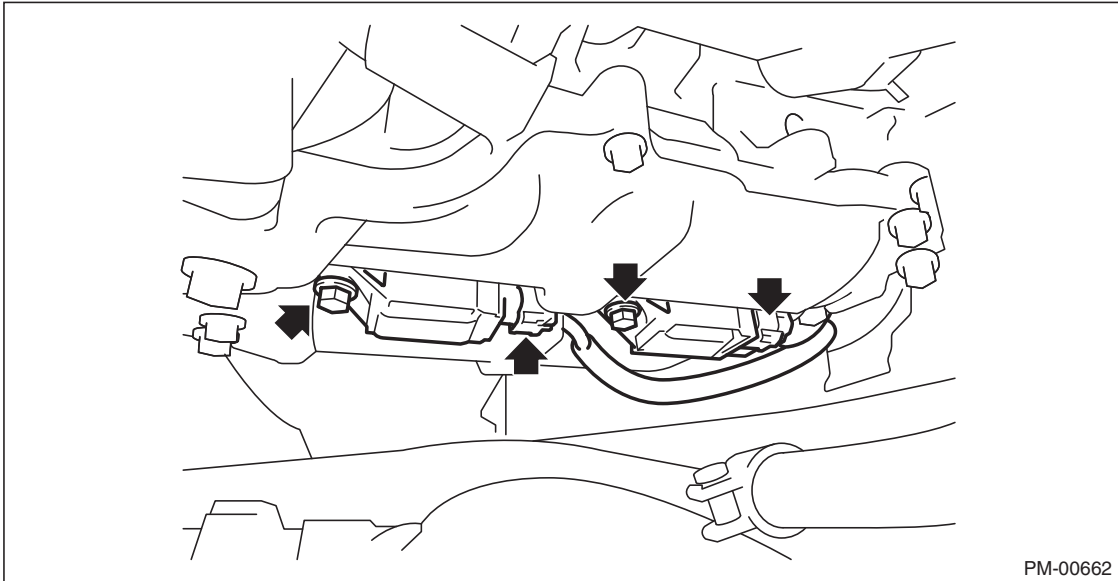
(2) Remove the two bolts and collision protector LH.



Spark Plug

PERIODIC MAINTENANCE SERVICES

- (3) Disconnect the ignition coil connector and remove the ignition coil.



- (4) Remove the spark plug with a spark plug socket.

Spark Plug

PERIODIC MAINTENANCE SERVICES

2. INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Before installation, degrease the ignition coil installation parts and mounting bolts.
- After all installation, check adjustment of the AT shift lever because all engine mounting bolts are removed in 18).

NOTE:

Use a new gasket.

Tightening torque (Spark plug):

17 N·m (1.7 kgf-m, 12.5 ft-lb)

Tightening torque (Ignition coil):

8.5 N·m (0.9 kgf-m, 6.3 ft-lb)

Tightening torque (Intake manifold protector LH):

19 N·m (1.9 kgf-m, 6.3 ft-lb)

Tightening torque (Intake manifold protector RH):

19 N·m (1.9 kgf-m, 6.3 ft-lb)

Tightening torque (Fuel injector CM):

6.4 N·m (0.7 kgf-m, 4.7 ft-lb)

Tightening torque (Engine mount):

45 N·m (4.6 kgf-m, 33.2 ft-lb)

Tightening torque (Sound creator):

6 N·m (0.6 kgf-m, 4.4 ft-lb)

Tightening torque (Sound creator clamp):

2 N·m (0.2 kgf-m, 1.5 ft-lb)

Tightening torque (Air intake boot clamp (except for air cleaner case)):

2 N·m (0.2 kgf-m, 1.5 ft-lb)

Tightening torque (Air intake boot clamp (air cleaner case)):

3 N·m (0.3 kgf-m, 2.2 ft-lb)

Tightening torque (Air cleaner case):

6 N·m (0.6 kgf-m, 4.4 ft-lb)

Tightening torque (Exhaust manifold sub-assembly):

30 N·m (3.1 kgf-m, 22.1 ft-lb)

Tightening torque (Exhaust pipe sub-assembly FR):

35 N·m (3.6 kgf-m, 25.8 ft-lb)

Tightening torque (Exhaust pipe assembly CTR):

18 N·m (1.8 kgf-m, 13.3 ft-lb)

Tightening torque (Exhaust pipe assembly FR):

42.5 N·m (4.3 kgf-m, 31.3 ft-lb)

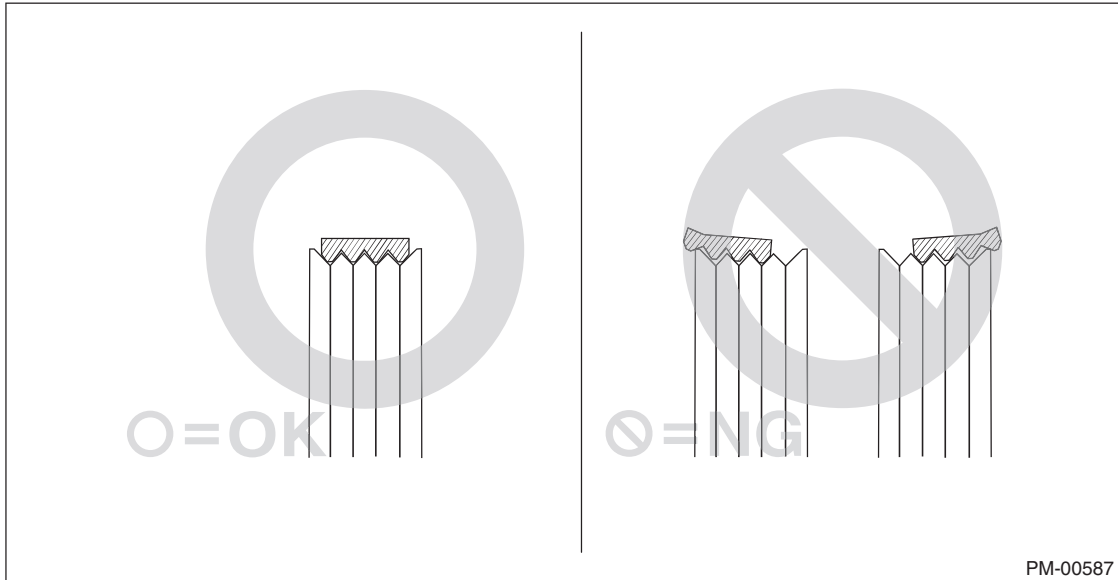
Tightening torque (Bolts securing bracket of exhaust pipe assembly FR):

50 N·m (5.1 kgf-m, 36.9 ft-lb)

6. V-belt

A: INSPECTION

- 1) Check the V-belt for cracks, tear or wear.
- 2) Check the V-belt tensioner assembly and idler pulley for deformation, cracks or other damages.
- 3) Check that the V-belt ribs are securely placed on the rib grooves for each pulleys.



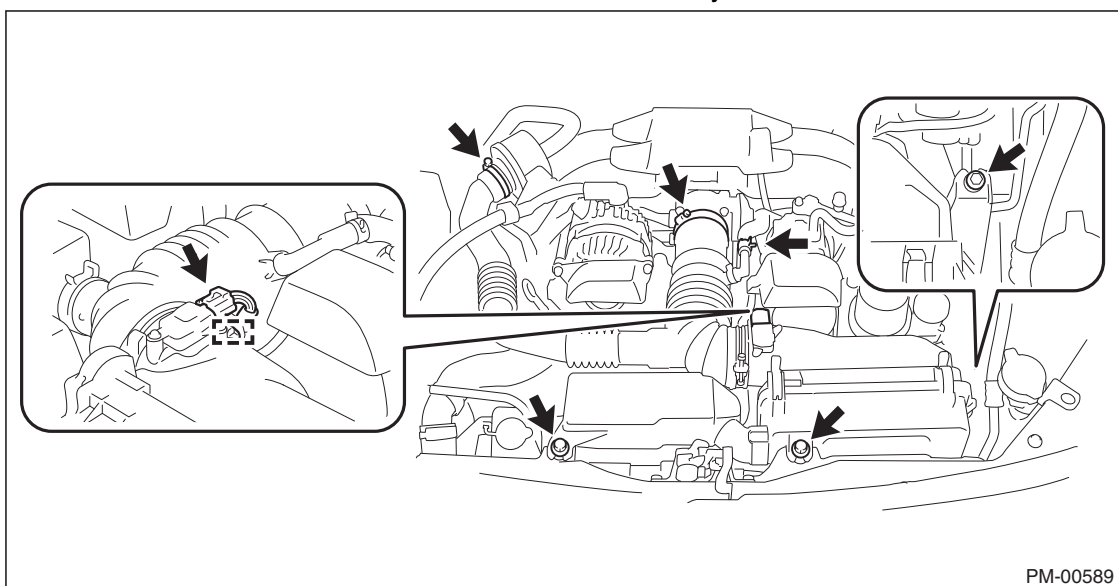
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B: REPLACEMENT

NOTE:

When replacing a single part, perform the work with the engine assembly installed to body.

- 1) Removing air cleaner assembly w/hose
 - (1) Disconnect the connector of the mass air flow and intake air temperature sensor, and remove the one clip that holds the harness.
 - (2) Slide the hose clip and disconnect ventilation hose No. 1.
 - (3) Loosen the two hose clamps.
 - (4) Remove the three bolts to remove the air cleaner assembly w/hose.



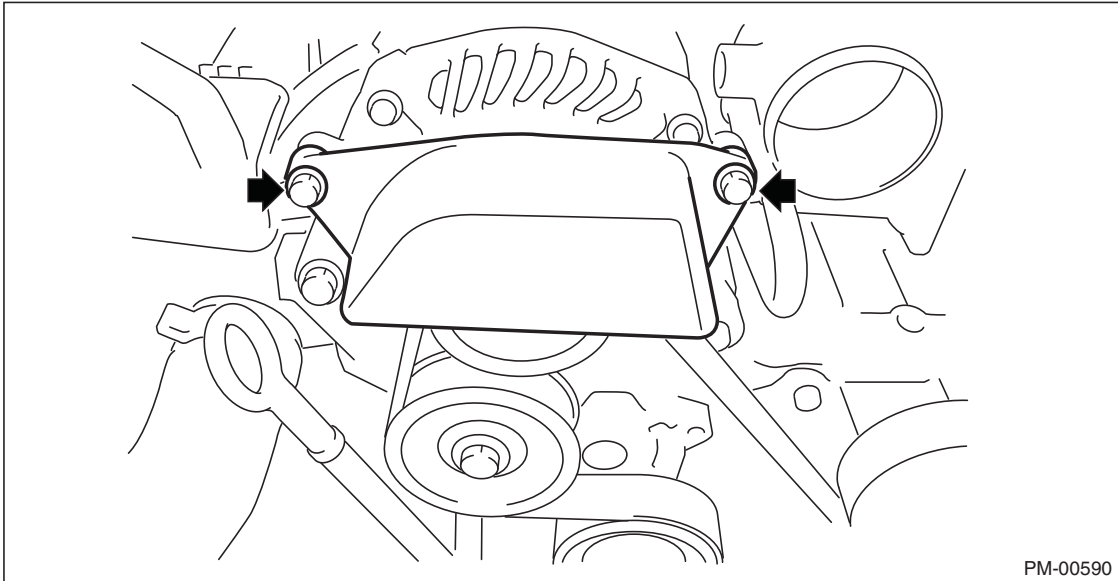
PM-00589

V-belt

PERIODIC MAINTENANCE SERVICES

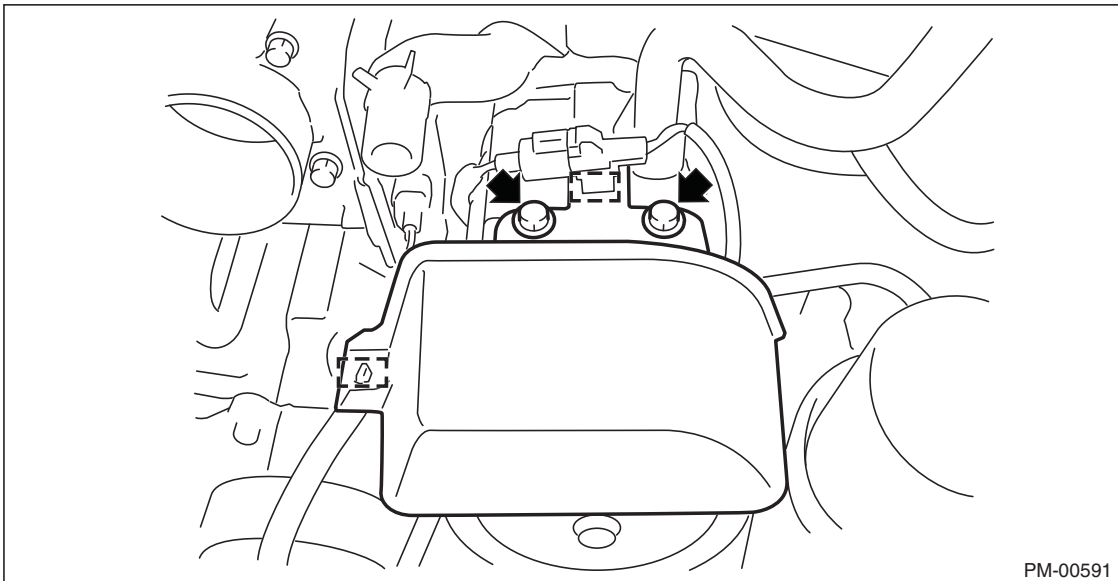
2) Removing belt cover No. 1

- (1) Remove the two bolts and the belt cover No. 1.



3) Removing belt cover No. 2

- (1) Release the clip and disconnect the wire harness.
- (2) Remove the two bolts, belt cover No. 2, clip securing the A/C compressor connector from the V-belt cover LH (models with A/C only), then remove the V-belt cover LH.



V-belt

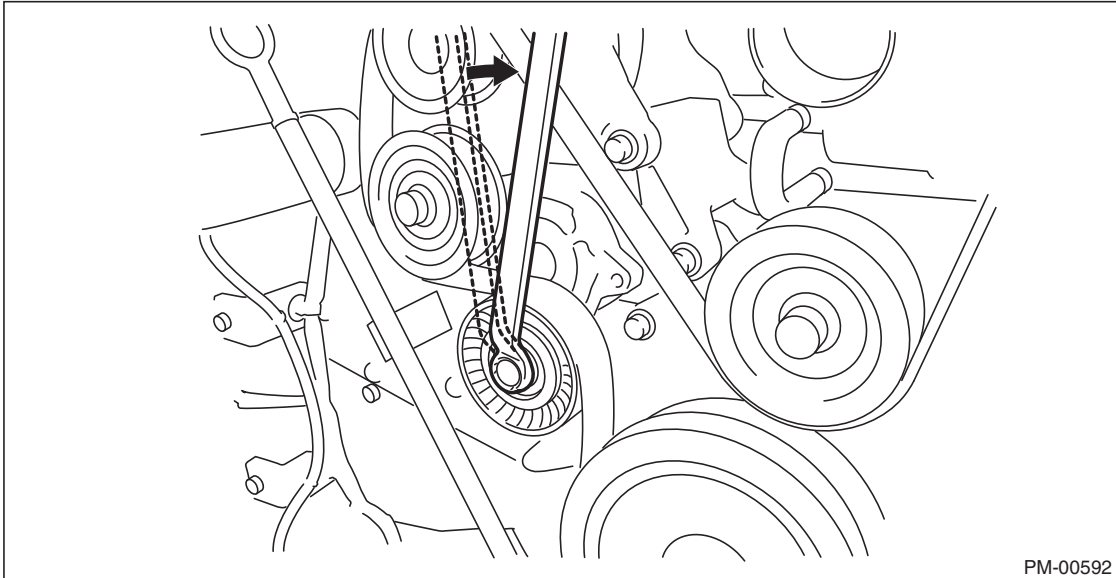
PERIODIC MAINTENANCE SERVICES

4) Removing the fan & generator V-belt

- (1) Set the tool on the pulley set bolt of the belt tensioner, rotate the belt tensioner counterclockwise to loosen the tension and remove the fan & generator V-belt.

CAUTION:

As the pulley set bolt uses a left-threaded screw, rotating clockwise loosens the pulley set bolt.



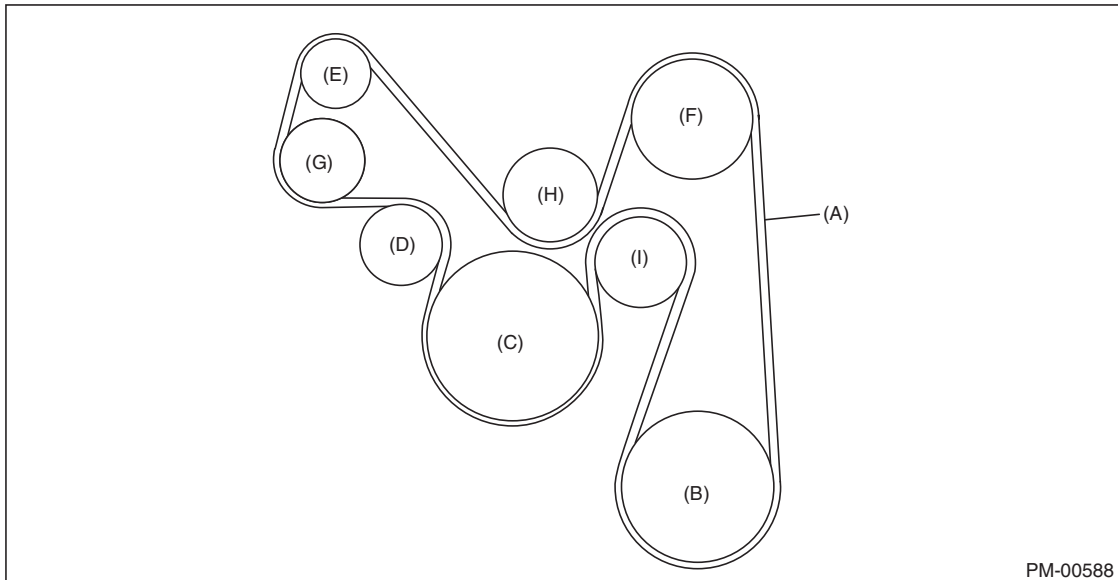
V-belt

PERIODIC MAINTENANCE SERVICES

5) Install in the reverse order of removal.

CAUTION:

- Do not use the V-belt if there is any oil, grease or coolant on the belt.
- Be careful not to rub the V-belt end surface with bare hands; exposed core may cause injury.
- Wipe off any dust, oil and water on the groove of each pulley with cloth.

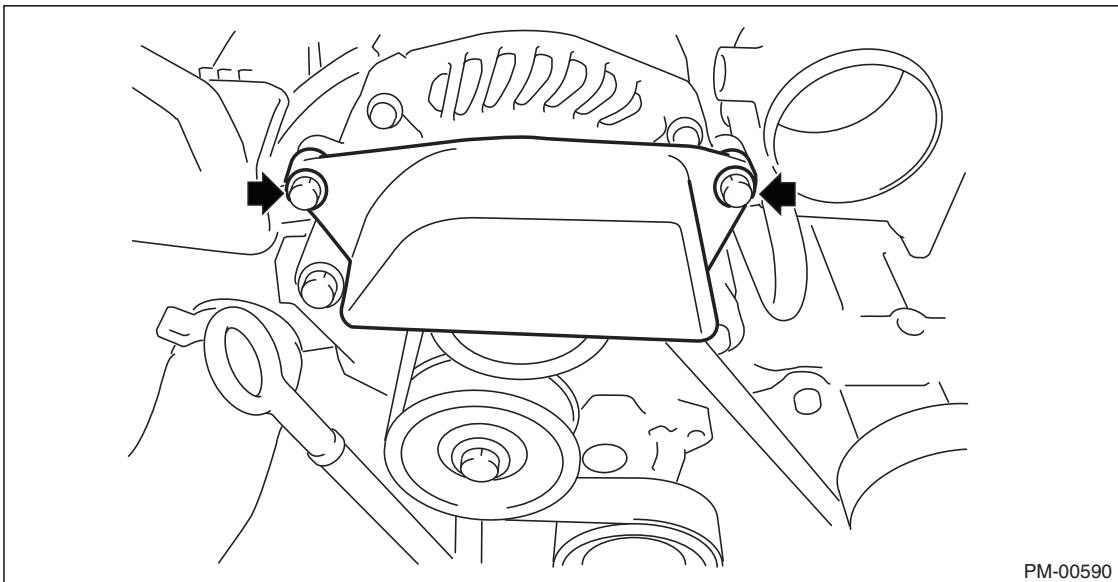
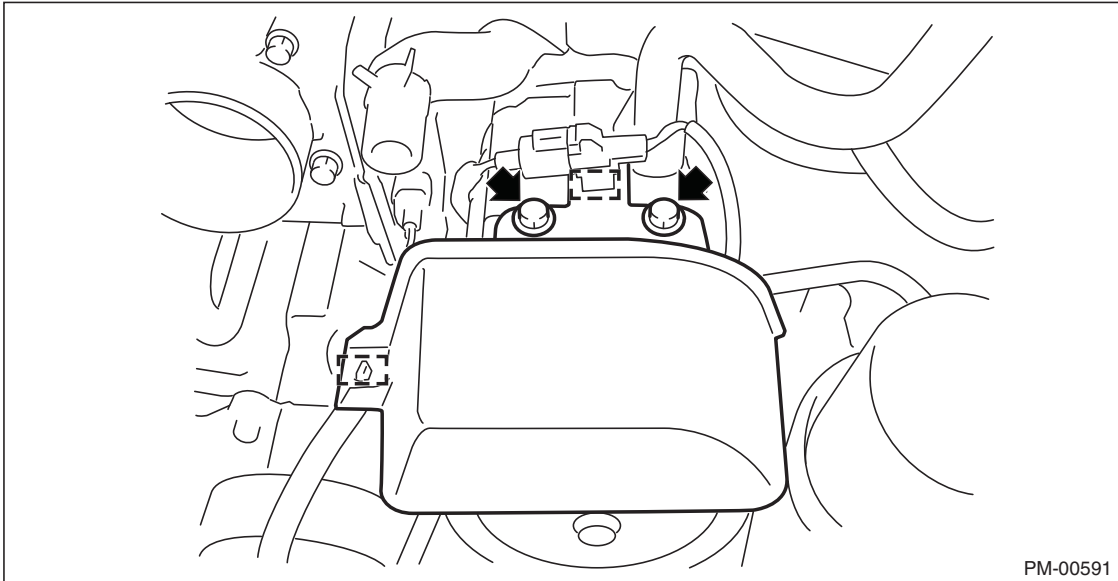


- (A) V-belt
- (B) Water pump pulley
- (C) Crank pulley
- (D) V-belt tensioner
- (E) Generator pulley
- (F) A/C compressor pulley
- (G) Idler pulley A
- (H) Idler pulley B
- (I) Idler pulley C

V-belt

PERIODIC MAINTENANCE SERVICES

Tightening torque:
6.4 N·m (0.7 kgf-m, 4.7 ft-lb)



Fuel Line

PERIODIC MAINTENANCE SERVICES

7. Fuel Line

A: INSPECTION

The fuel line is located mostly internally, so check pipes, areas near pipes, and engine compartment piping for rust, hose damage, loose bands and fuel leakage. If faulty parts are found, repair or replace them.

8. Fuel Filter

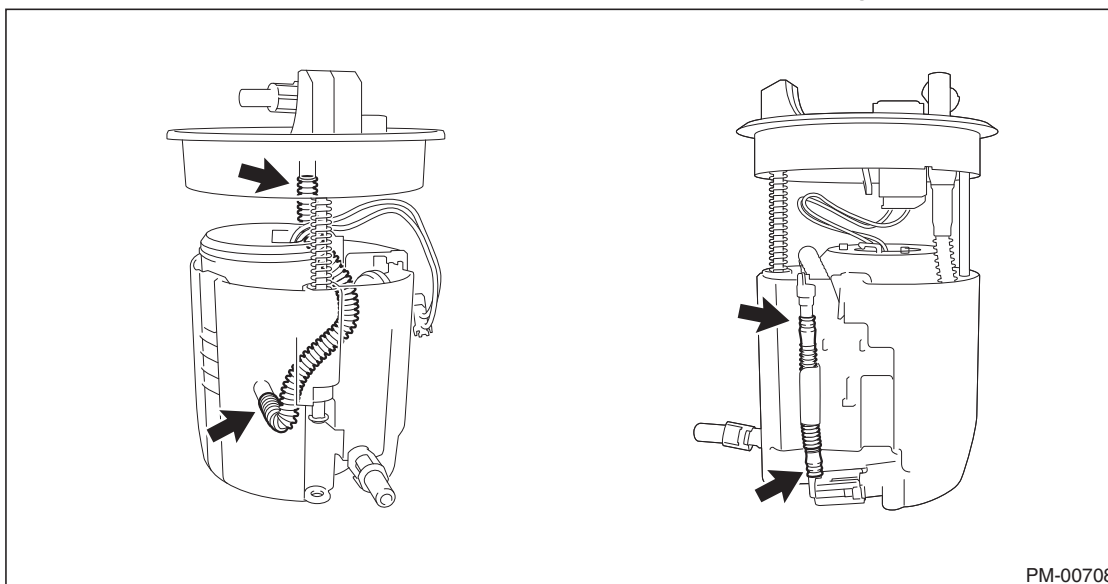
A: REPLACEMENT

WARNING:

Place “NO OPEN FLAMES” signs near the working area.

CAUTION:

- Perform the work with the engine coolant at a temperature of 60°C (140°F) or less.
- Before removing fuel system parts, be sure to take measures to prevent fuel from flowing out.
- Prevent fuel from spilling when removing the fuel line as fuel pressure remains in the fuel line even after performing measures to prevent fuel from flowing out.
- If the fuel gauge indicates that two thirds or more of the fuel is remaining, be sure to drain fuel before starting work to avoid the fuel to spill.
- Be careful not to drop or apply any impact to the fuel pump during work. This may deteriorate its performance.
- Do not disconnect the press-fit hose of the fuel suction tube assembly indicated in the figure.



NOTE:

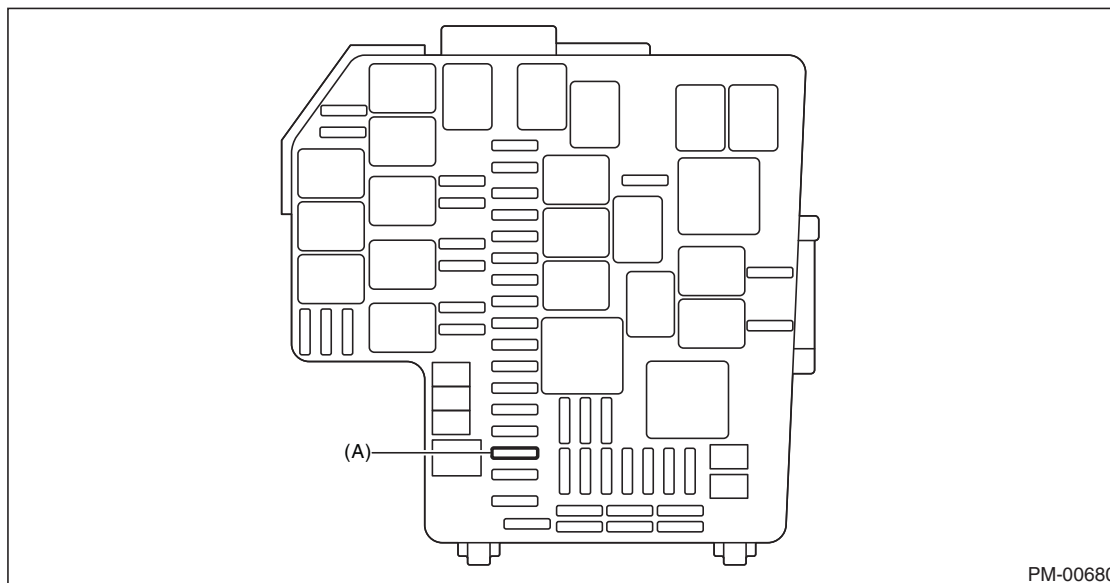
The fuel filter is built in fuel pump assembly.

1) Remove the relay block cover UPR.

Fuel Filter

PERIODIC MAINTENANCE SERVICES

- 2) Remove the fuel pump fuse from the engine room relay block.



(A) Fuel pump fuse

- 3) Start the engine.
4) After the engine stops naturally, turn the key to IG OFF.
5) Crank the engine again and check that the engine does not start.

NOTE:

Check/Delete diagnostic codes after performing procedures as some diagnostic code might have been detected.

- 6) Remove the fuel tank cap and release pressure from the fuel tank.
7) Disconnect the ground cable from battery.
8) Install the fuel pump fuse.
9) Install the relay block cover UPR.

Fuel Filter

PERIODIC MAINTENANCE SERVICES

10) If the fuel gauge indicates that two thirds or more of the fuel is remaining, drain fuel according to the following procedures. (Method with Subaru Select Monitor)

NOTE:

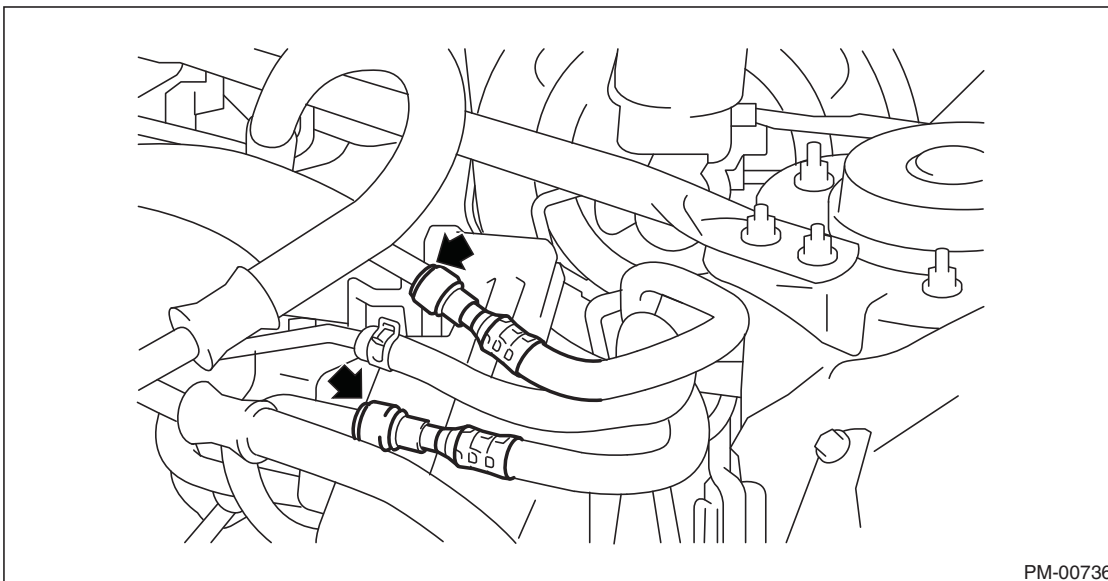
- If the fuel pump cannot be driven, refer to the procedures for draining from the fuel tank to filler pipe hose.
- Be careful not to let the battery run-out.

(1) Use the ST to disconnect the fuel hoses on the port injection side and on the cylinder internal injector side.

ST 42099AE000

CAUTION:

- Before performing the procedures, remove any foreign material such as mud adhering to the fuel hose connection parts.
- Be careful not to spill fuel.
- Catch the fuel from fuel hoses using a container.



(2) Connect the ST to the fuel hose.

ST 18471AA000

(3) Connect the gasoline-proof hose to the ST and put the end of the hose in the container.

(4) Drive the fuel pump and drain the fuel using Subaru Select Monitor.

Fuel Filter

PERIODIC MAINTENANCE SERVICES

11) If the fuel gauge indicates that two thirds or more of the fuel is remaining, drain fuel according to the following procedures. (Method for draining from fuel tank to filler pipe hose)

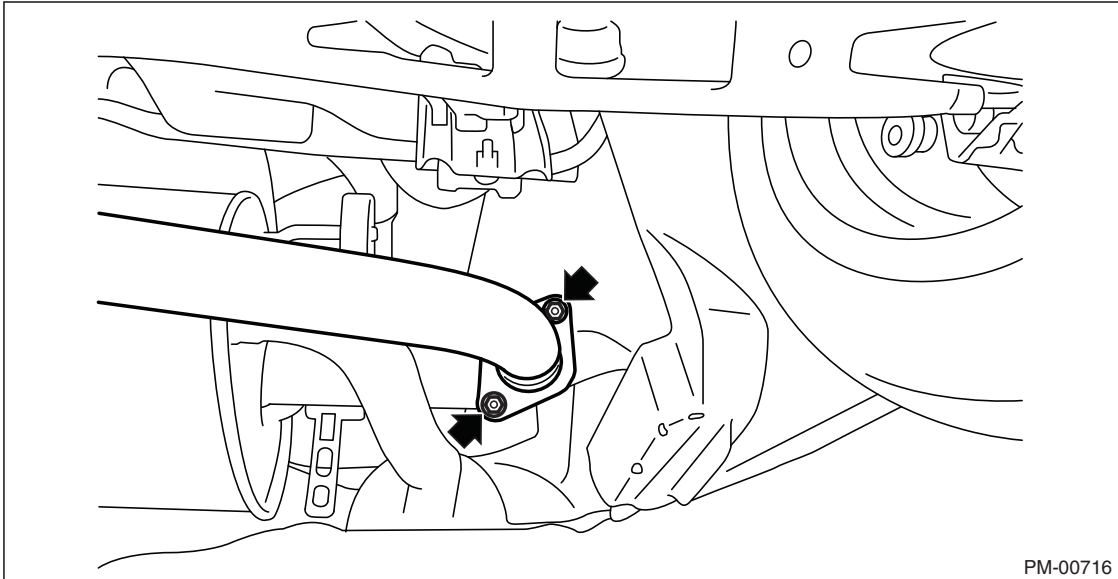
WARNING:

Vehicle components are extremely hot after driving. Be wary of receiving burns from heated parts.

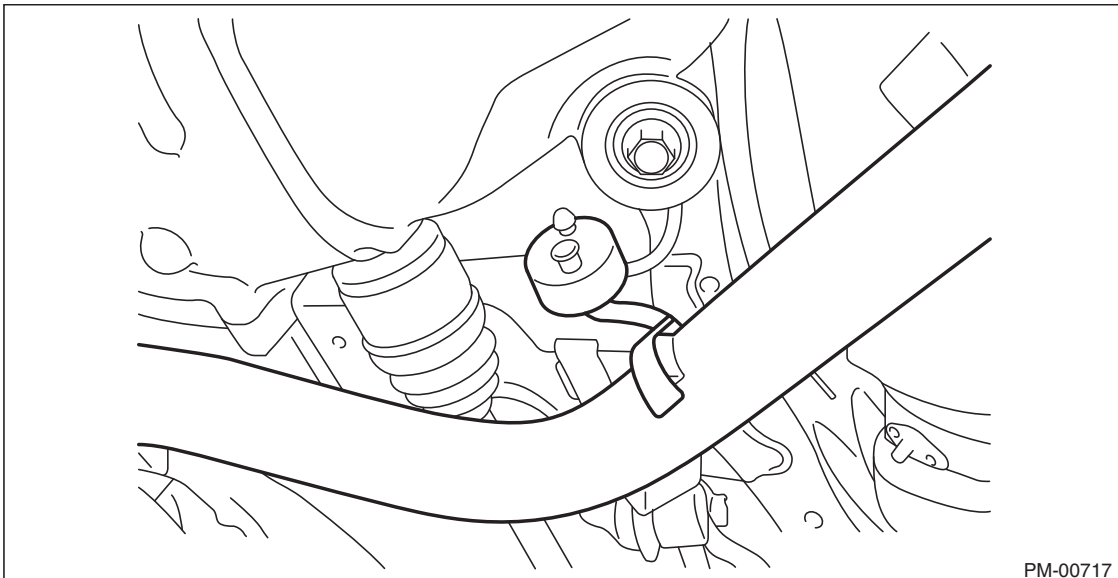
CAUTION:

- Be careful not to spill fuel.
- Fuel may remain in the fuel filler pipe. Drain the fuel from the fuel filler pipe through the fill opening using a gasoline-resistant pump and hose (10 mm (0.39 in) or less) before performing the procedures.

- (1) Remove the two nuts and two bolts, and disconnect the exhaust tail pipe assembly.



- (2) Remove the cushion rubber and the exhaust pipe assembly CTR.

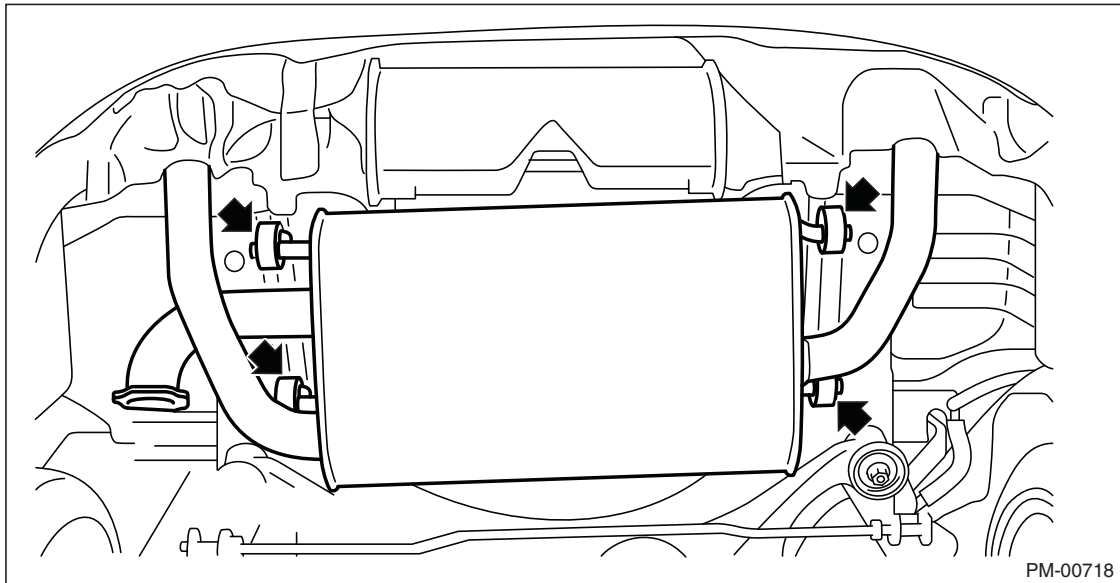


- (3) Remove the gasket.

Fuel Filter

PERIODIC MAINTENANCE SERVICES

- (4) Remove the four cushion rubbers and the exhaust tail pipe assembly.



- (5) Loosen the hose clamp, and disconnect the fuel tank to filler pipe hose.

CAUTION:

- Before performing the procedures, remove any foreign material such as mud adhering to the connecting parts of the fuel tank to filler pipe hose.
- Be careful not to spill fuel.

- (6) Set a steel container under the vehicle and use a gasoline-resistant hose (10 mm (0.39 in) or less) to drain the fuel from the opening of the fuel tank to filler pipe hose.

CAUTION:

Be careful not to spill fuel.

NOTE:

Always be sure to use a steel container and ground the container as gasoline can easily become charged with static electricity.

- (7) Install the fuel tank to filler pipe hose using hose clamps.

Tightening torque:

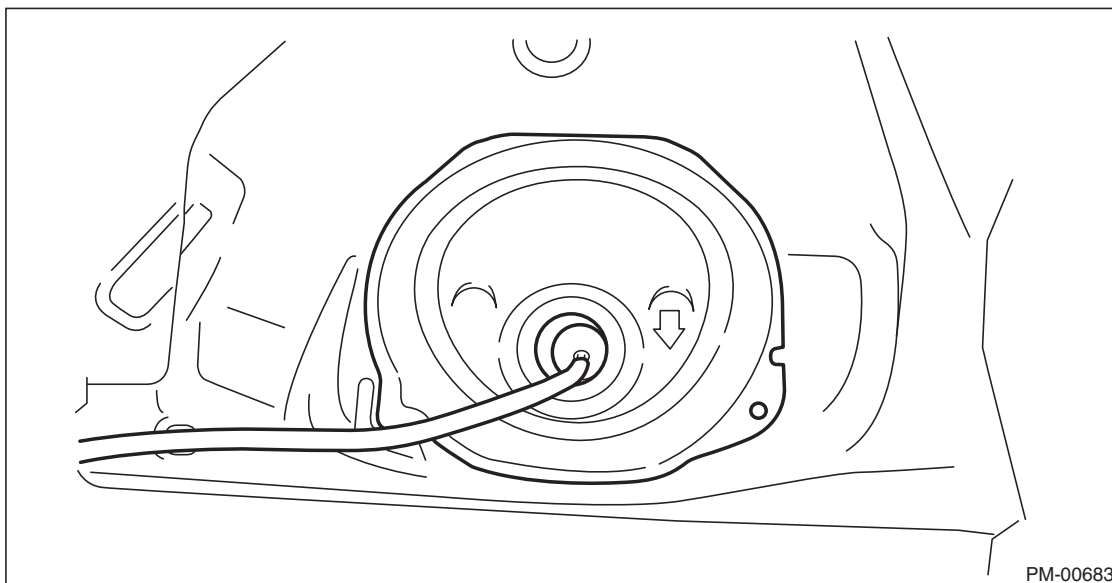
2.0 N·m (0.2 kgf-m, 1.5 ft-lb)

- 12) Disconnect the ground cable from battery.
13) Remove the separator-type rear seat cushion assembly LH.

Fuel Filter

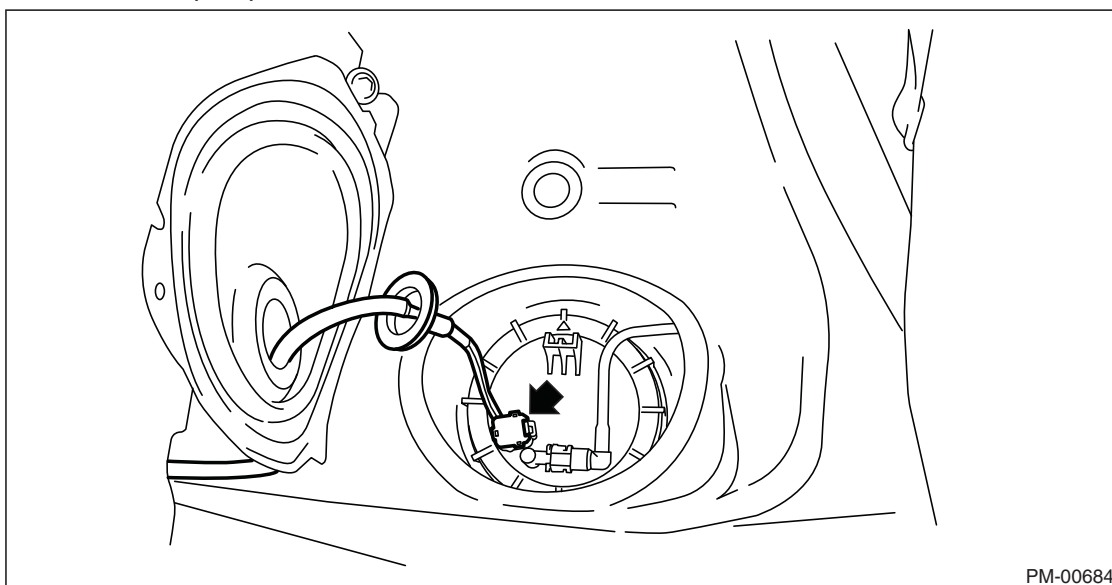
PERIODIC MAINTENANCE SERVICES

- 14) Press in the grommet and remove the grommet from rear floor service hole cover No. 2.



- 15) Peel off the butyl tape and remove rear floor service hole cover No. 2.

- 16) Disconnect the fuel pump connector.



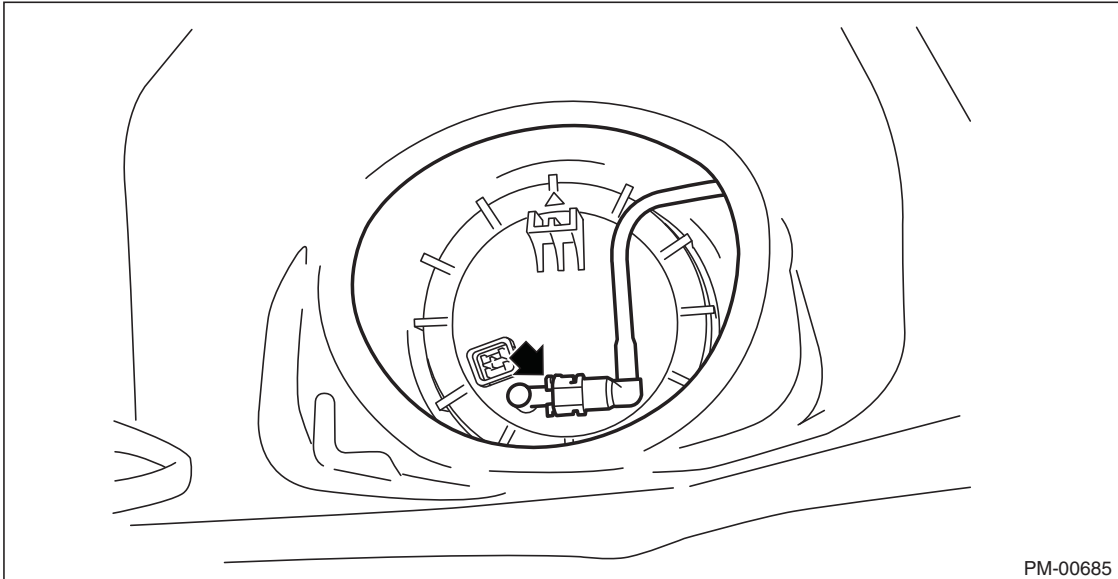
Fuel Filter

PERIODIC MAINTENANCE SERVICES

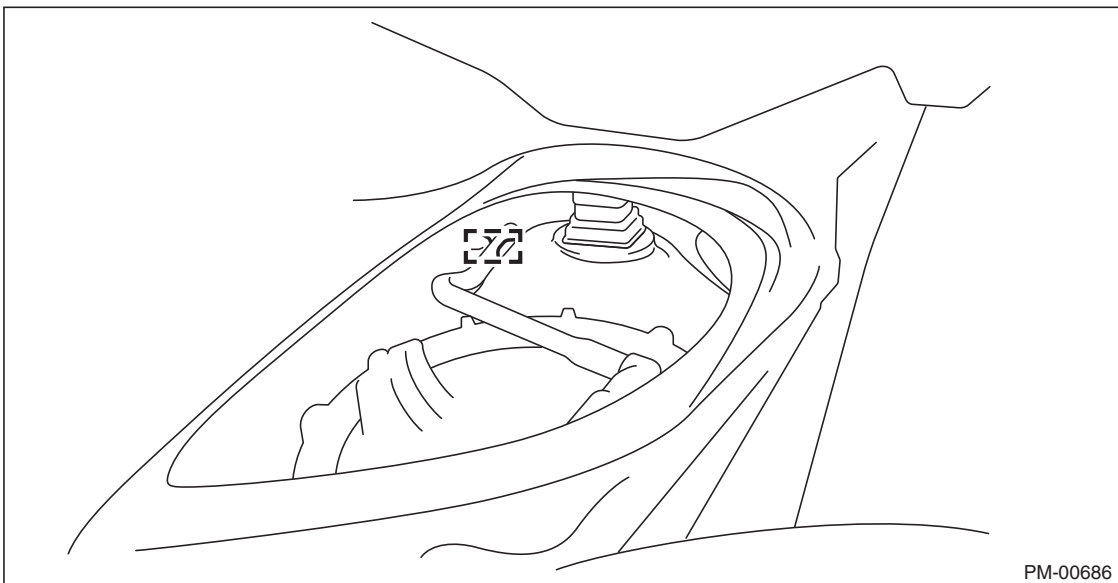
17) Disconnect the fuel pump tube connector.

CAUTION:

Be careful not to spill fuel.



18) Remove the fuel pump tube from the fuel tank.



Fuel Filter

PERIODIC MAINTENANCE SERVICES

19) Loosen the fuel pump gauge retainer using the ST.

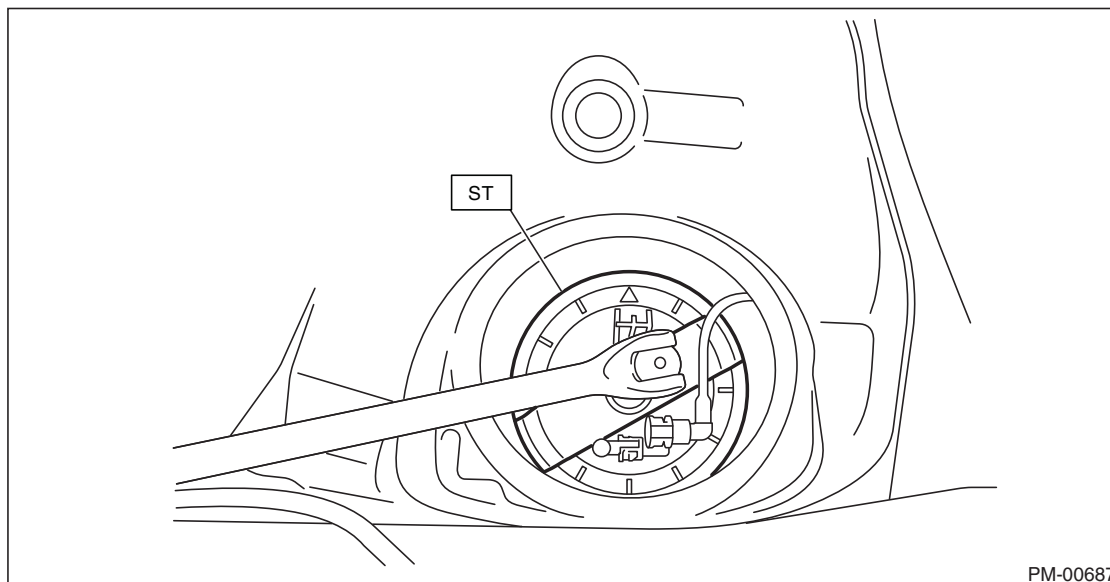
ST 42099CA000 ST FUEL PUMP

CAUTION:

- Do not use any tool other than the ST.
- Be careful not to damage the tube with the ST.
- Before setting the ST, move the tube to a position outside the ST.

NOTE:

Securely set the ST notch onto the rib part of the fuel pump gauge retainer.



20) While pressing the fuel suction tube assembly by hand, remove the fuel pump gauge retainer and seat ring.

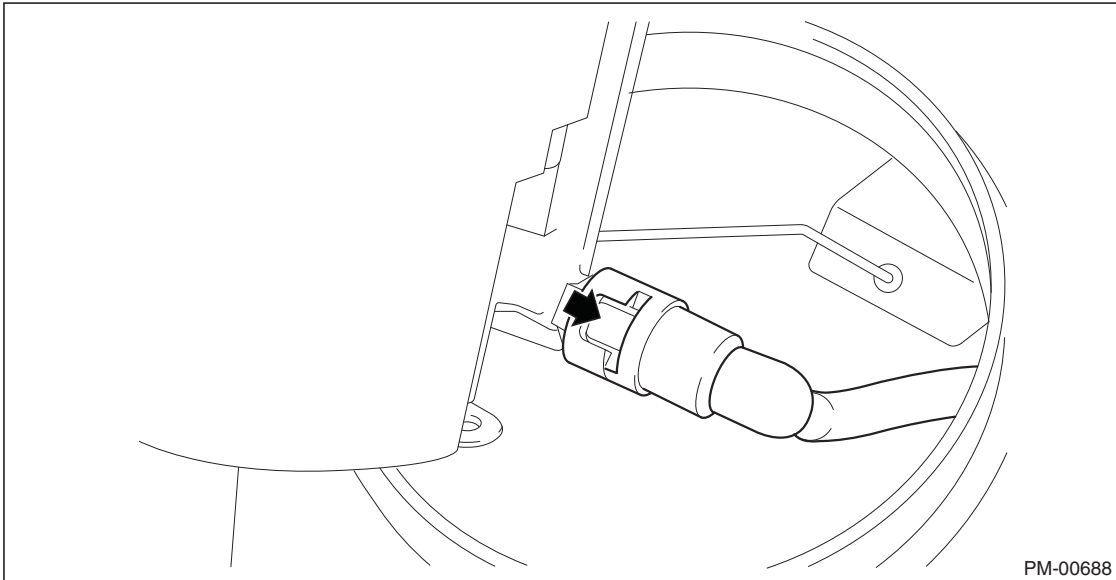
Fuel Filter

PERIODIC MAINTENANCE SERVICES

21) Disconnect the fuel tube connector, and remove the fuel suction tube assembly from the fuel tank.

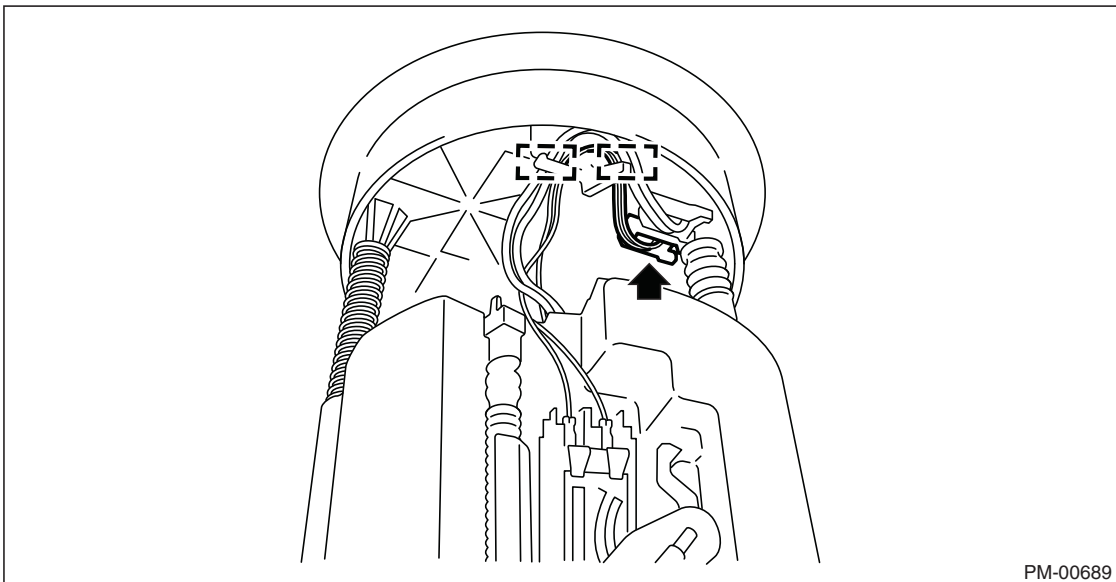
CAUTION:

- Do not pull with excessive force on the tube when disconnecting the fuel tube connector.
- Make sure not to bend the arm of the fuel sender gauge.
- Do not rotate the fuel suction tube assembly when in the fuel tank to prevent bending the arm of the fuel sender gauge.
- Be careful not to spill fuel remaining in the fuel suction tube assembly outside the fuel tank and in the vehicle.



22) Remove the gasket from the fuel tank.

23) Disconnect the fuel sender gauge connector and remove the harness from the clamp.



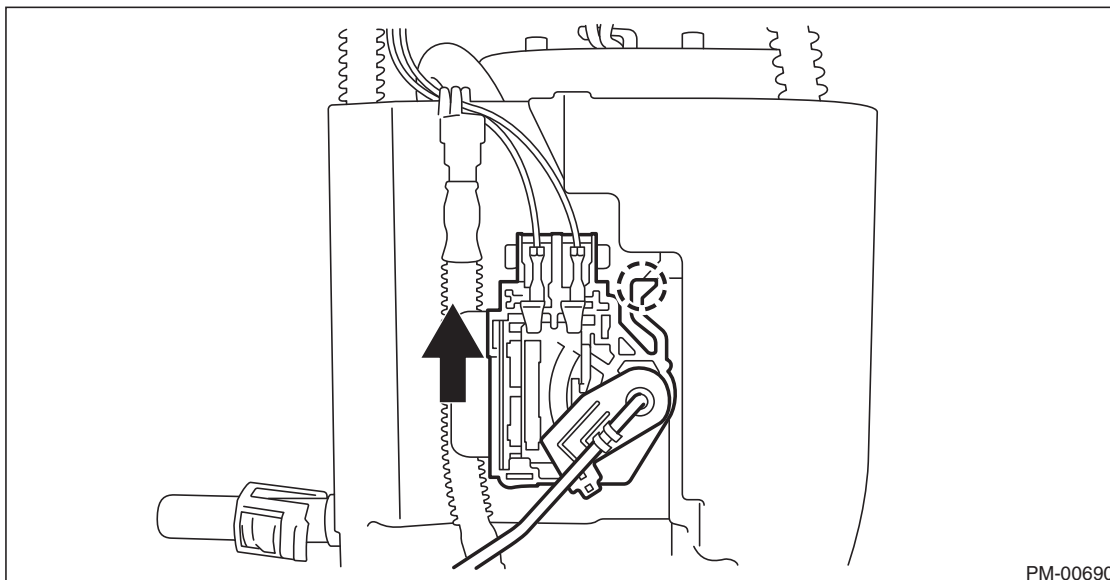
Fuel Filter

PERIODIC MAINTENANCE SERVICES

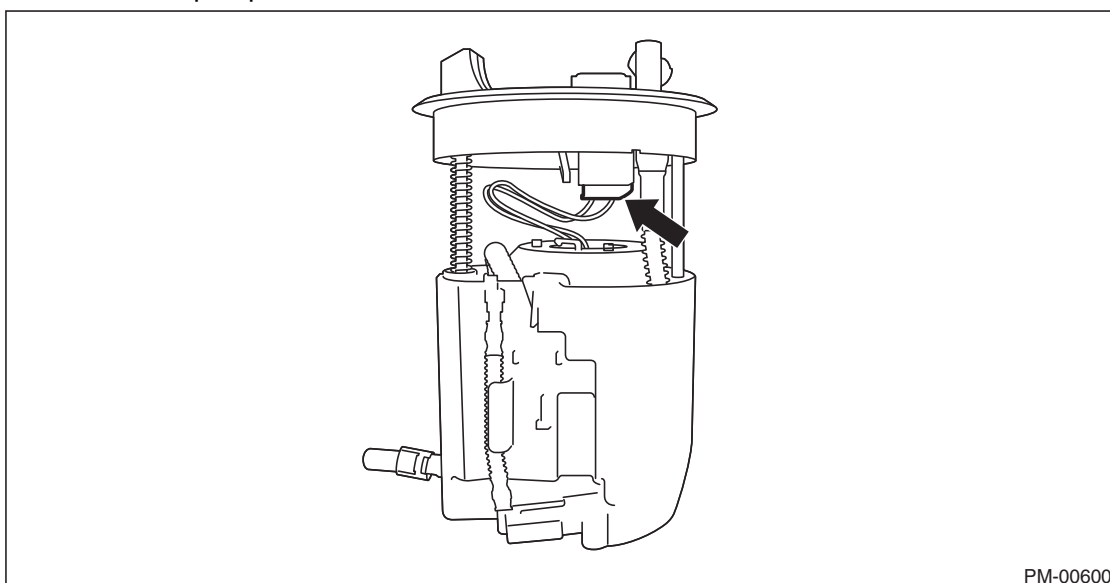
24) Remove the harness from the clamp, press and lift up the tab, and remove the fuel sender gauge assembly.

CAUTION:

Make sure not to bend the arm of the fuel sender gauge assembly.



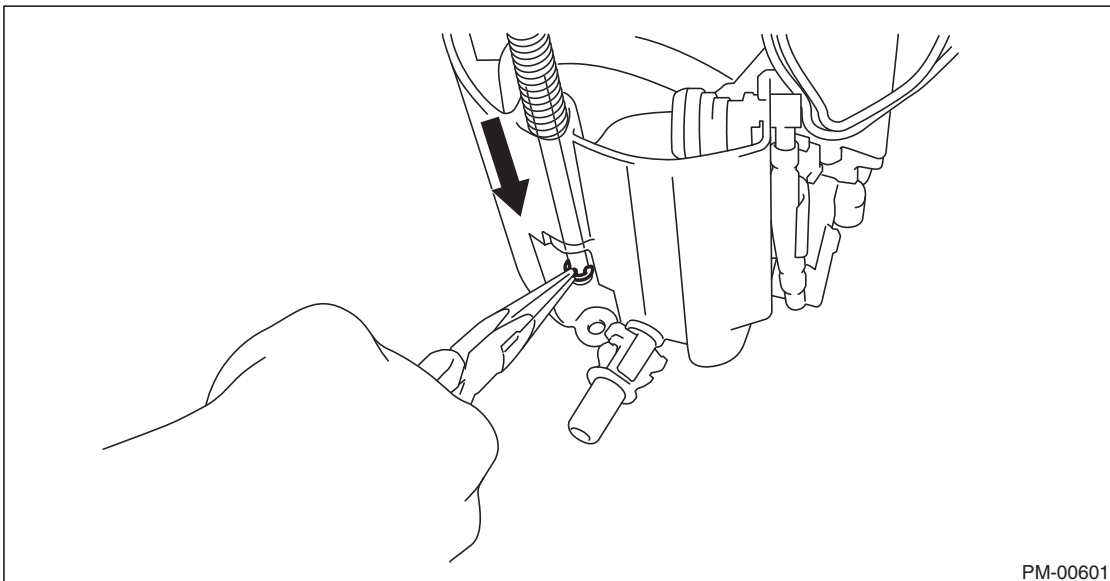
25) Disconnect the fuel pump connector.



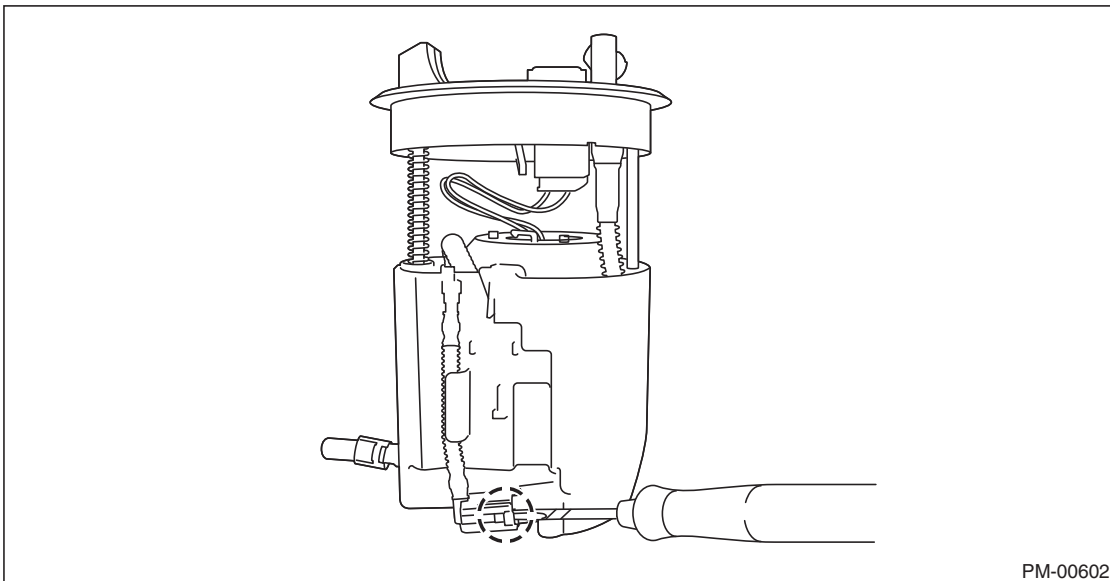
Fuel Filter

PERIODIC MAINTENANCE SERVICES

26) Press the fuel suction plate in the direction indicated in the figure, and remove the E ring using needle nose pliers.



27) Release the tab using a flat tip screwdriver wrapped by protective tape and disconnect the jet pump nozzle.



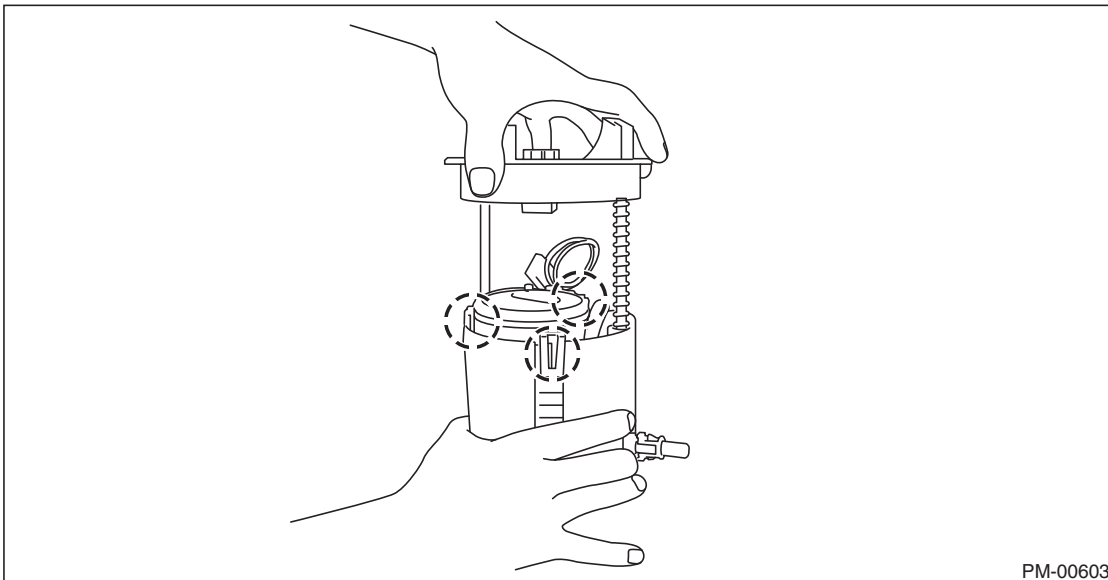
Fuel Filter

PERIODIC MAINTENANCE SERVICES

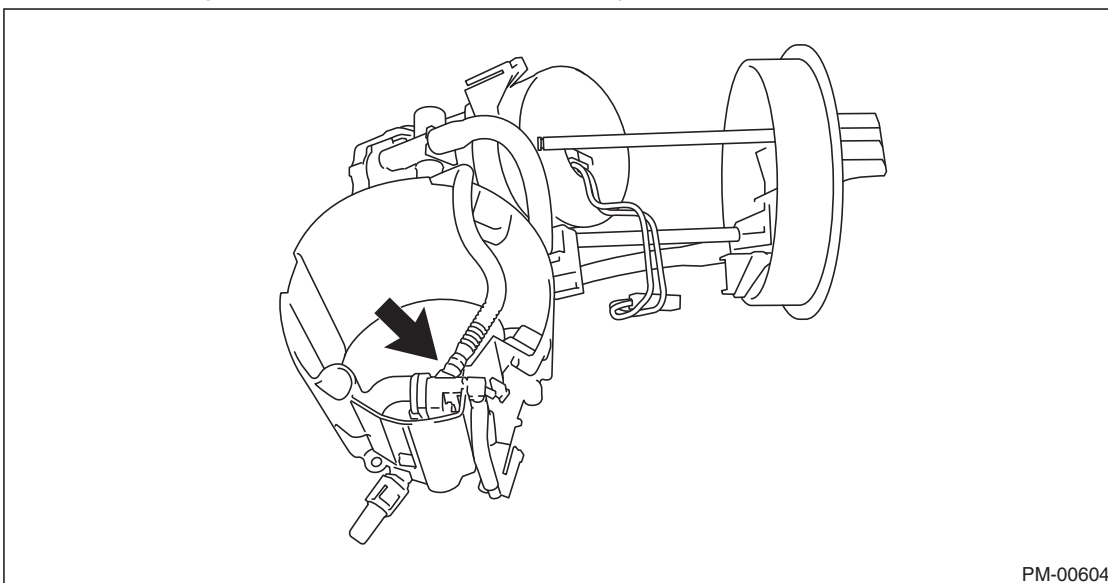
28) Release the three tabs using a flat tip screwdriver wrapped by protective tape and pull out the fuel suction plate.

CAUTION:

Do not damage the fuel sub tank or fuel filter.



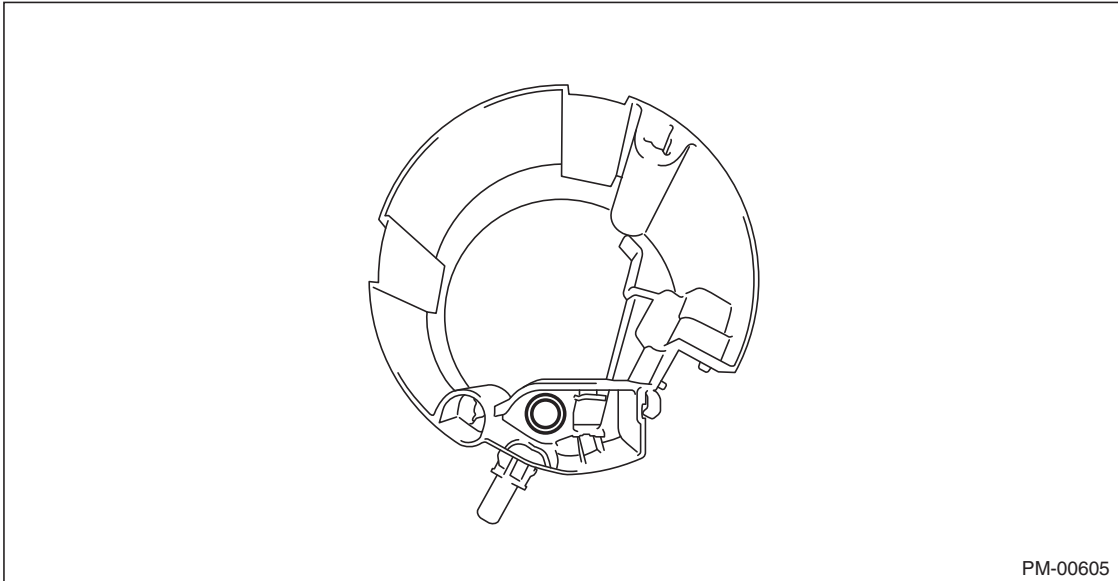
29) Release the tab using a flat tip screwdriver wrapped by protective tape and disconnect the jet pump.



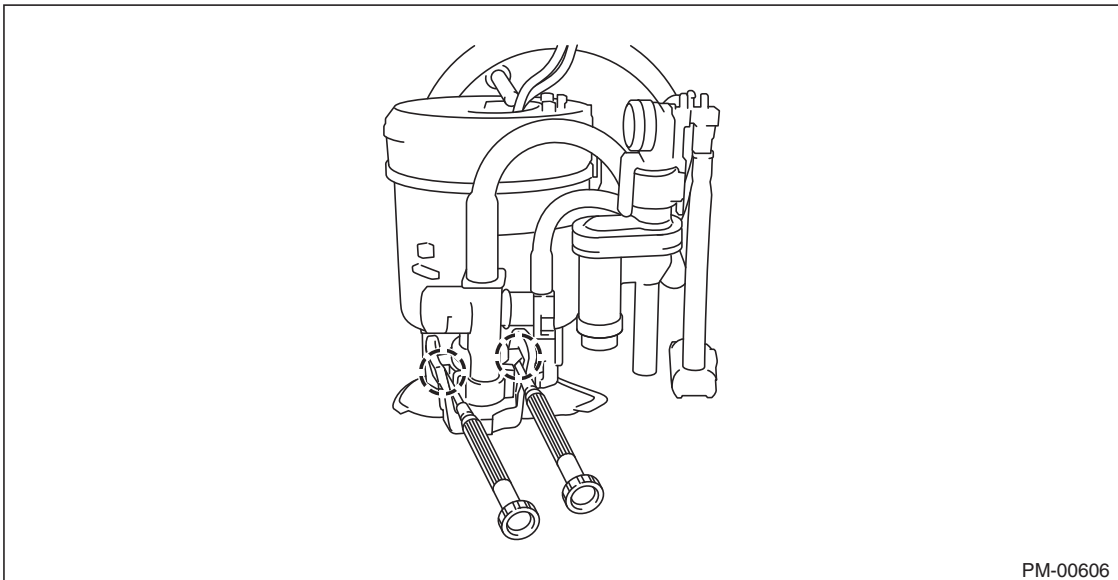
Fuel Filter

PERIODIC MAINTENANCE SERVICES

30) Remove the O-ring from the fuel sub tank.



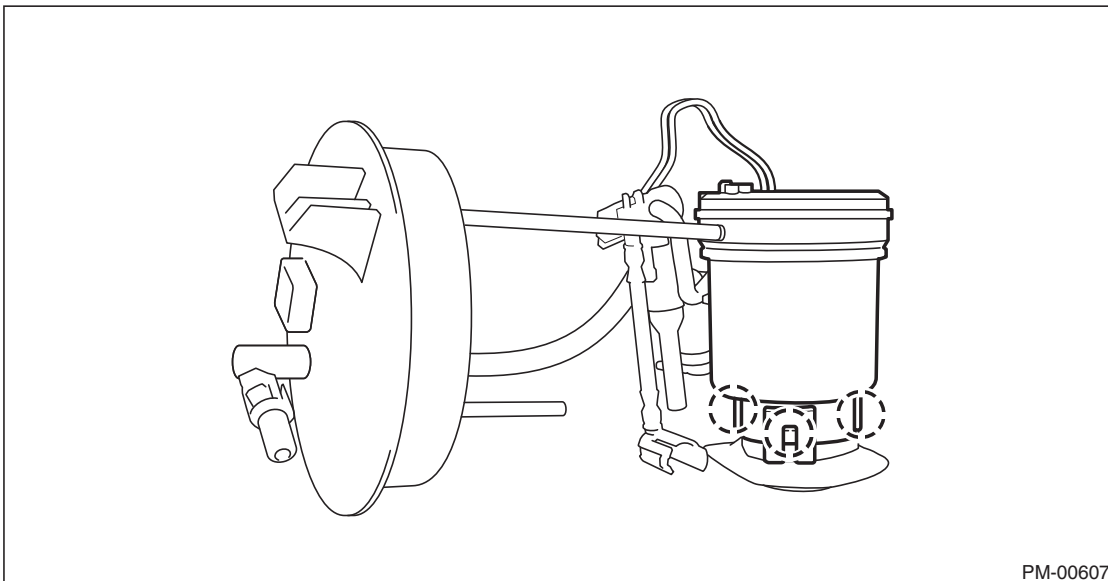
31) Release the two tabs using a flat tip screwdriver wrapped by protective tape.



Fuel Filter

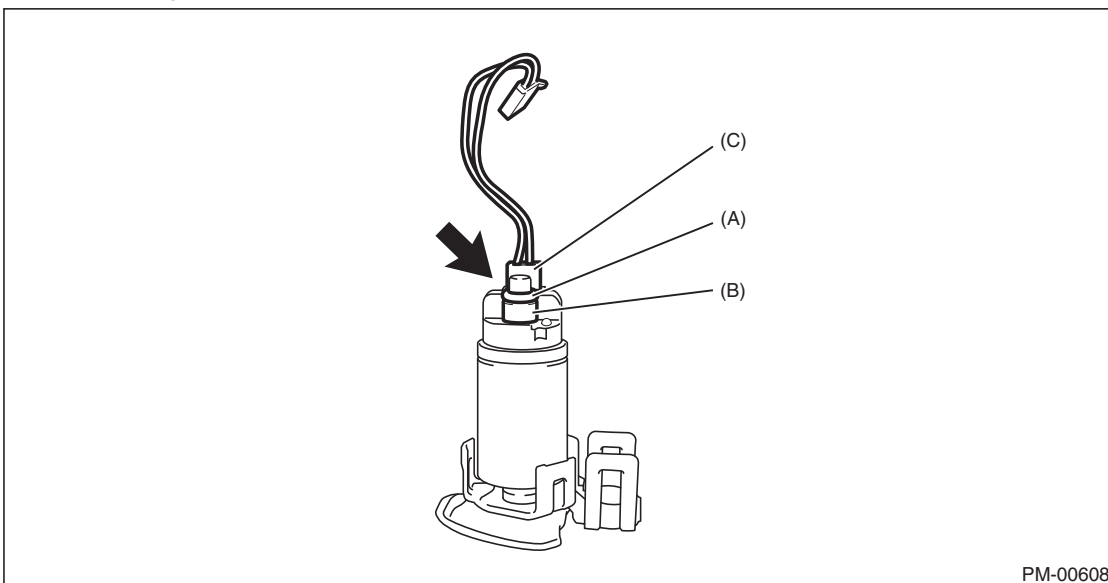
PERIODIC MAINTENANCE SERVICES

32) Release the three tabs using a flat tip screwdriver wrapped by protective tape and pull out the fuel pump keeping it completely straight.



PM-00607

33) Remove the O-ring (A), spacer (B) and connector cable (C) from the fuel pump.

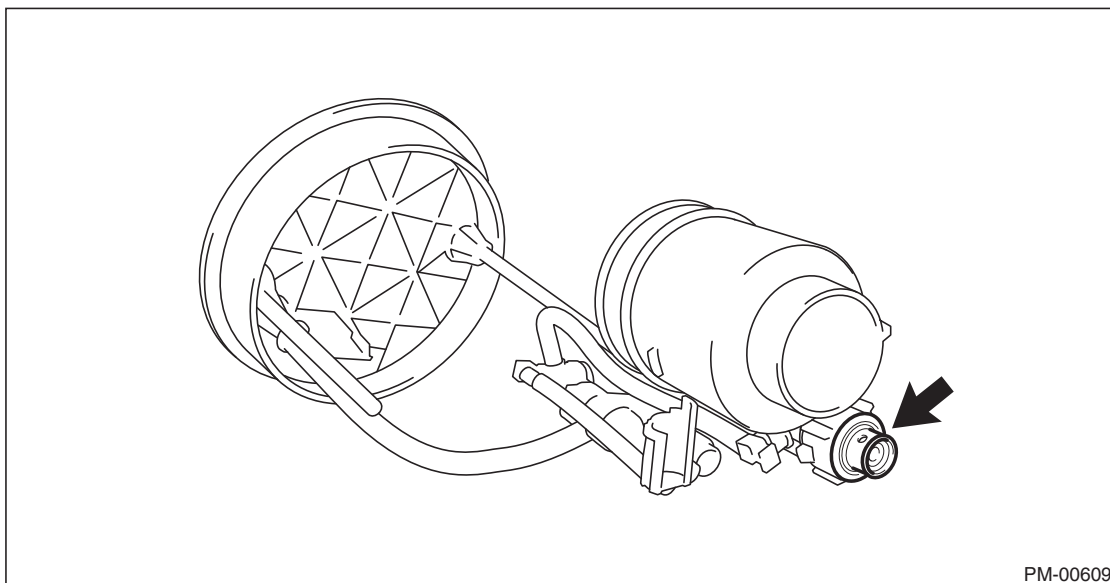


PM-00608

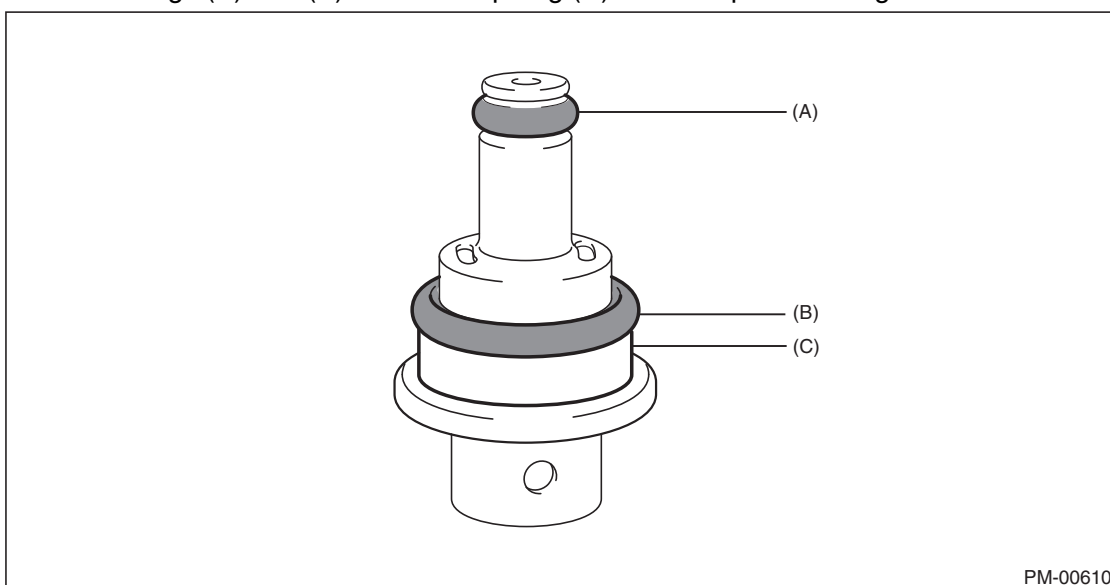
Fuel Filter

PERIODIC MAINTENANCE SERVICES

34) Remove the pressure regulator from the fuel filter assembly.



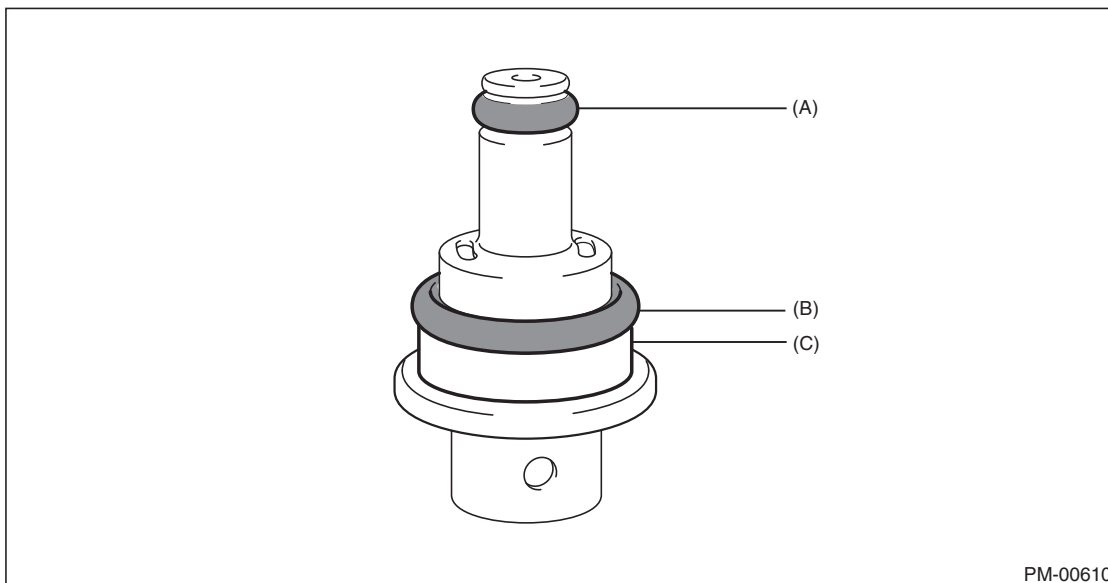
35) Remove the O-rings (A) and (B) and back-up ring (C) from the pressure regulator.



Fuel Filter

PERIODIC MAINTENANCE SERVICES

36) Install new O-rings (A) and (B), and new back-up ring (C) to the pressure regulator.



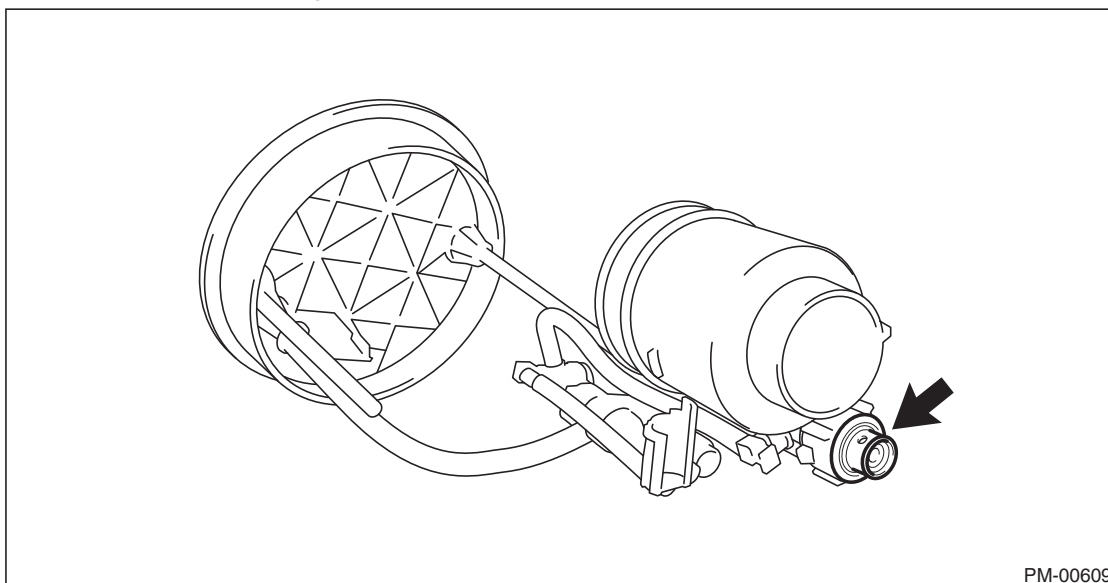
37) Install the pressure regulator to the fuel filter assembly.

CAUTION:

Make sure that the O-ring is not cut or pinched when installing.

NOTE:

Apply gasoline to the pressure regulator.



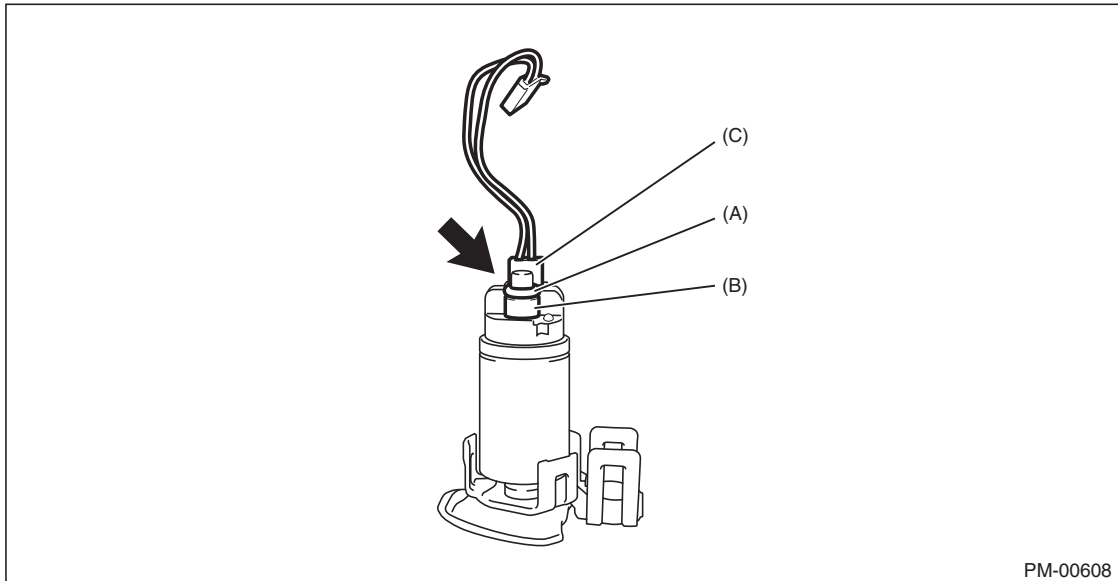
Fuel Filter

PERIODIC MAINTENANCE SERVICES

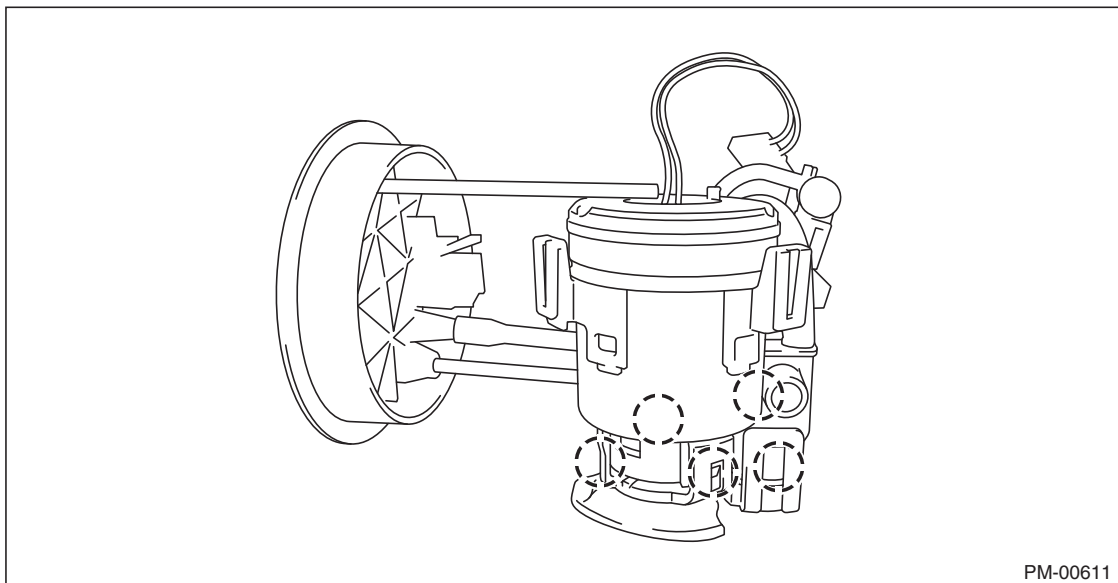
38) Install a new O-ring (A), spacer (B) and new connector cable (C) to the fuel pump.

NOTE:

Apply gasoline to the O-ring and spacer.



39) Install the fuel pump to the fuel filter assembly.



Fuel Filter

PERIODIC MAINTENANCE SERVICES

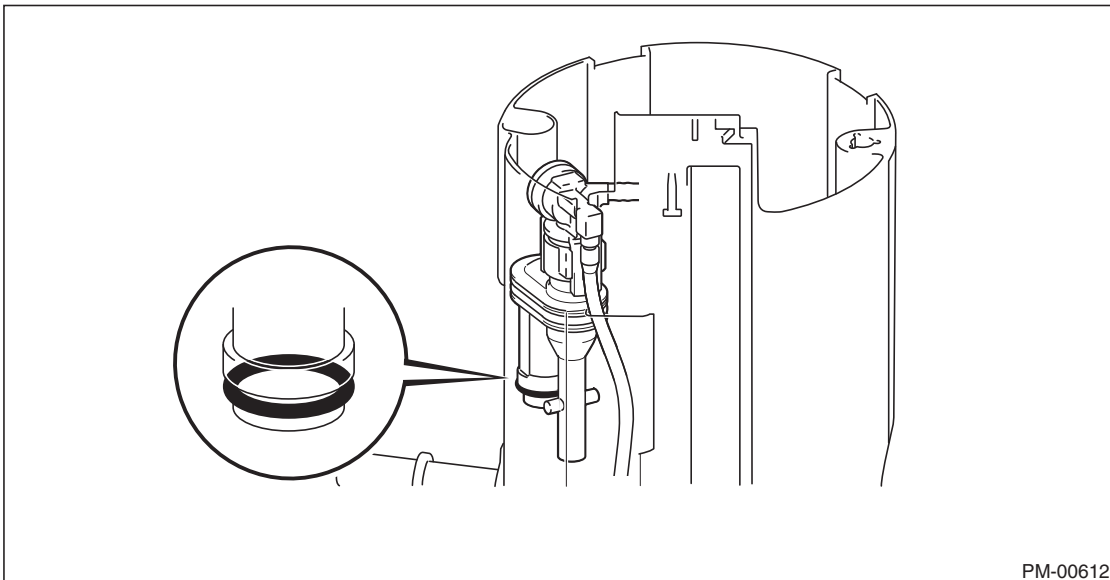
40) Install a new O-ring to the fuel filter assembly.

CAUTION:

Make sure that the O-ring is not cut or pinched when installing.

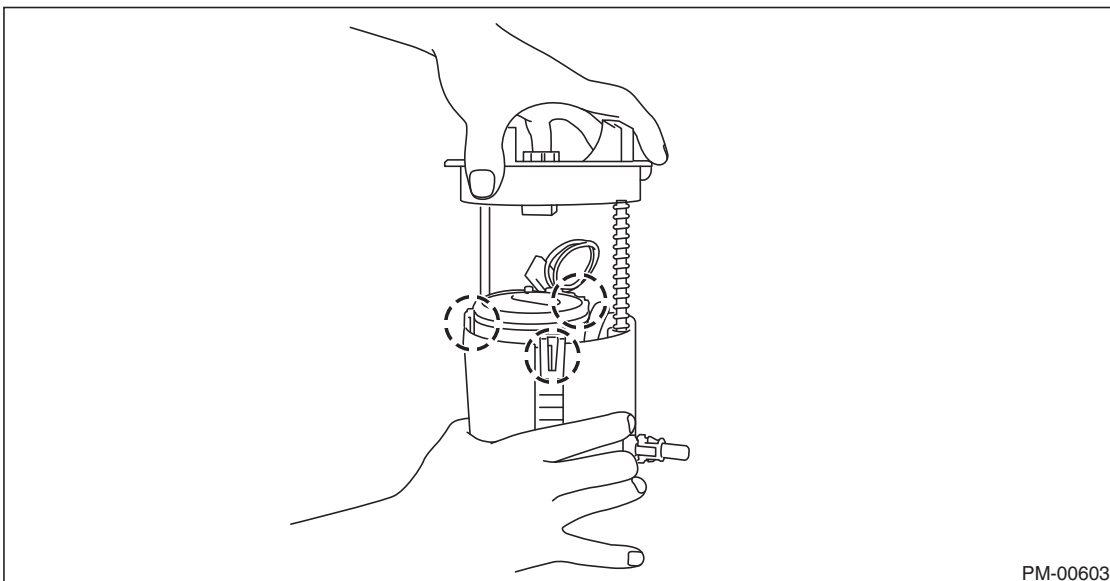
NOTE:

Apply gasoline to the O-ring.



41) Install the jet pump to the fuel sub tank.

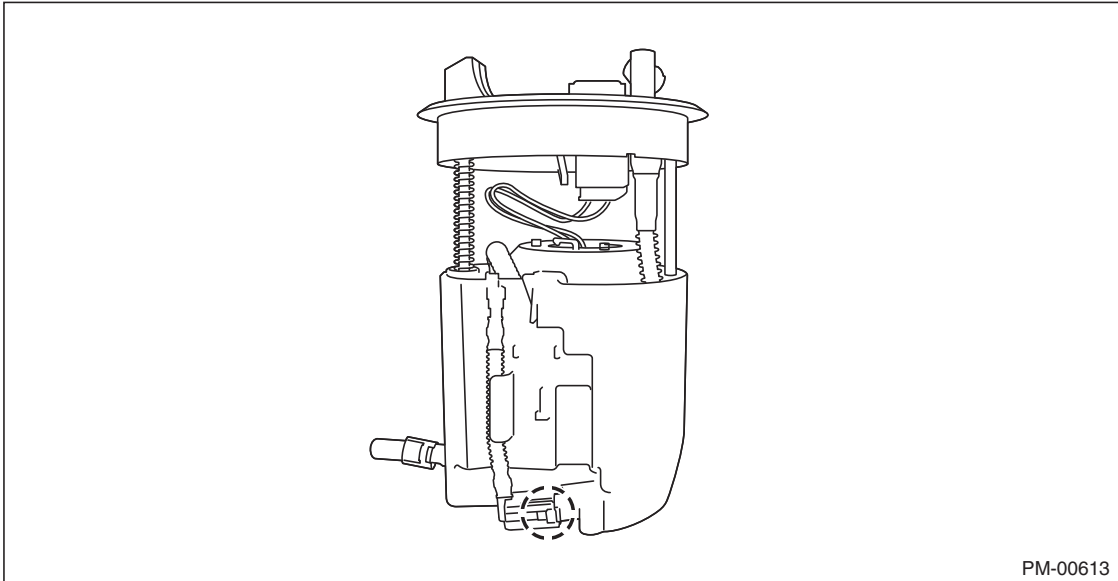
42) Engage the three tabs, and install the fuel filter to the fuel sub tank.



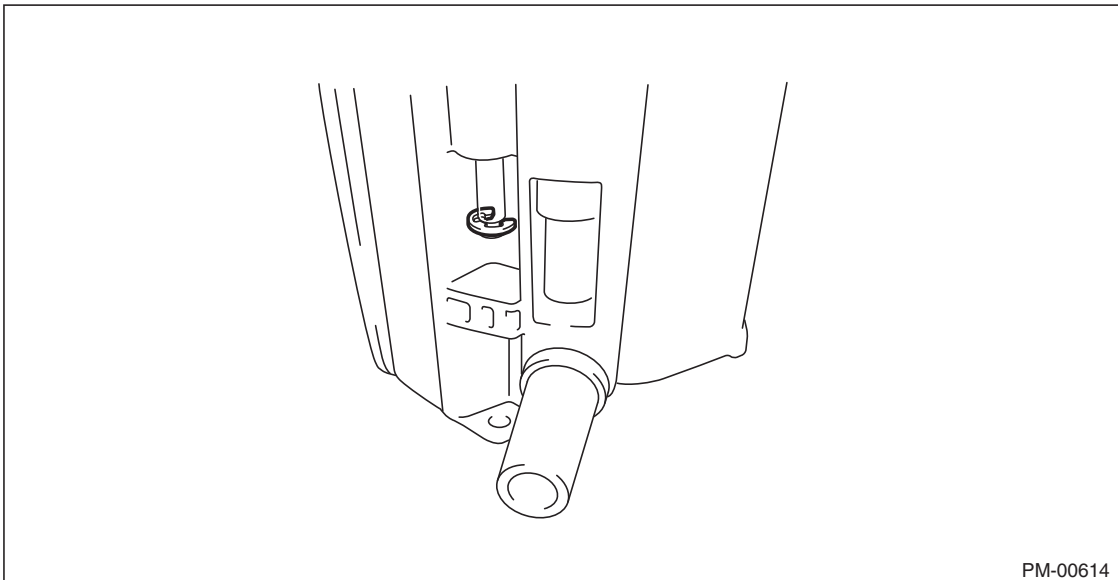
Fuel Filter

PERIODIC MAINTENANCE SERVICES

43) Engage the tab, and install the jet pump nozzle to sub tank No. 1.



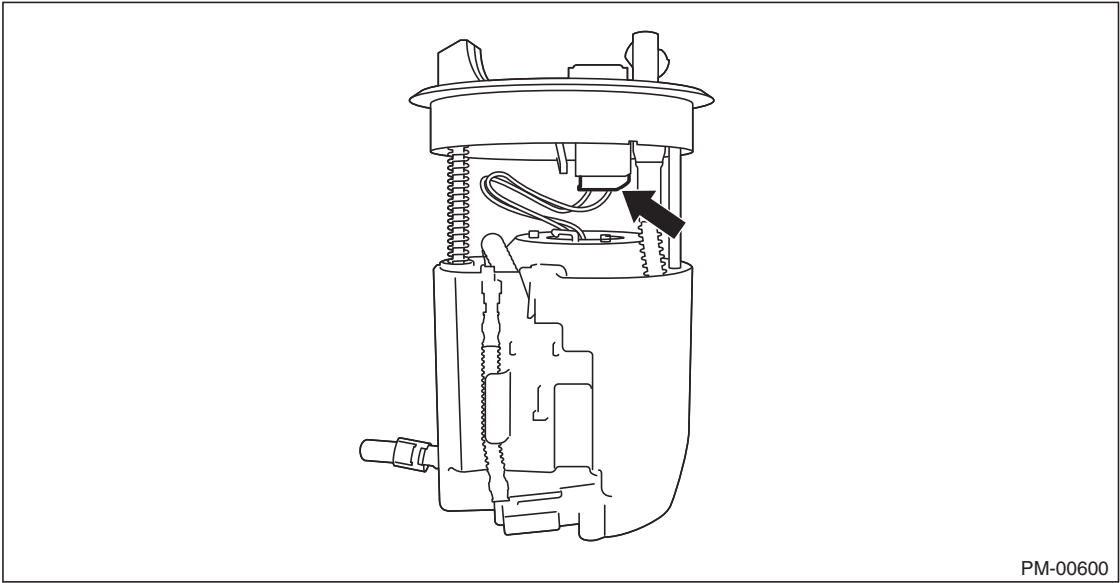
44) Install the E-ring.



Fuel Filter

PERIODIC MAINTENANCE SERVICES

45) Connect the fuel pump harness connector and secure with the clip.



PM-00600

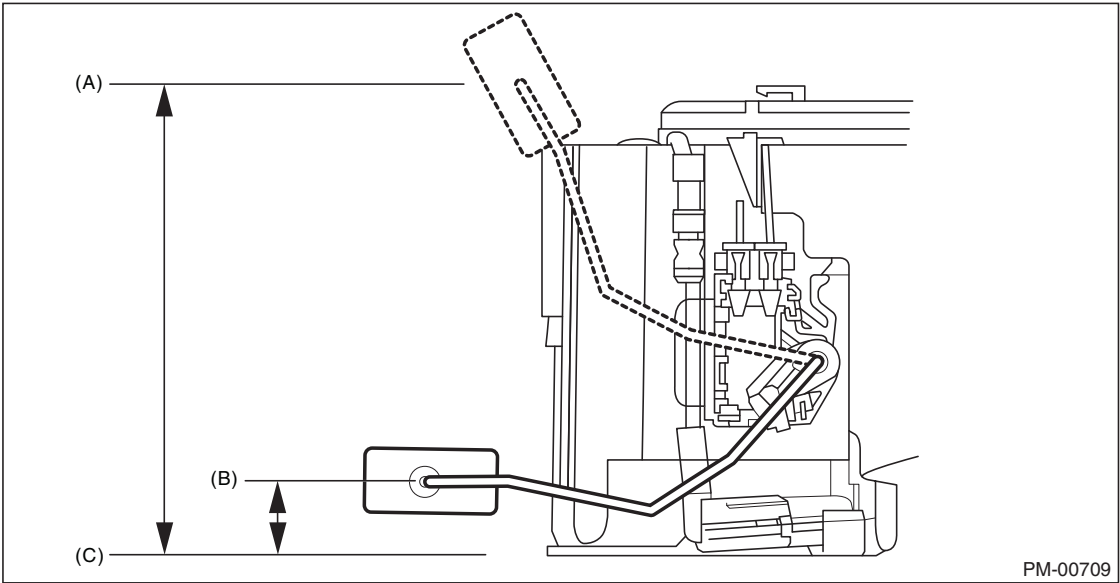
46) Engage the tab, and install the fuel sender gauge assembly No. 2 to the fuel delivery tube.

47) Connect the fuel sender gauge assembly No. 2 connector, and install the harness to the clamp.

48) Inspect the fuel level sensor.

- (1) Check that the fuel sender gauge assembly is free of damage.
- (2) Check the dimensions from the float positions of floats F (upper limit) and E (lower limit) to the fuel tank seating surface.

	mm (in)
Float position F (upper limit) to fuel tank seating surface	121 — 129 (4.76 — 5.08)
Float position E (lower limit) to fuel tank seating surface	14.7 — 22.7 (0.58 — 0.89)



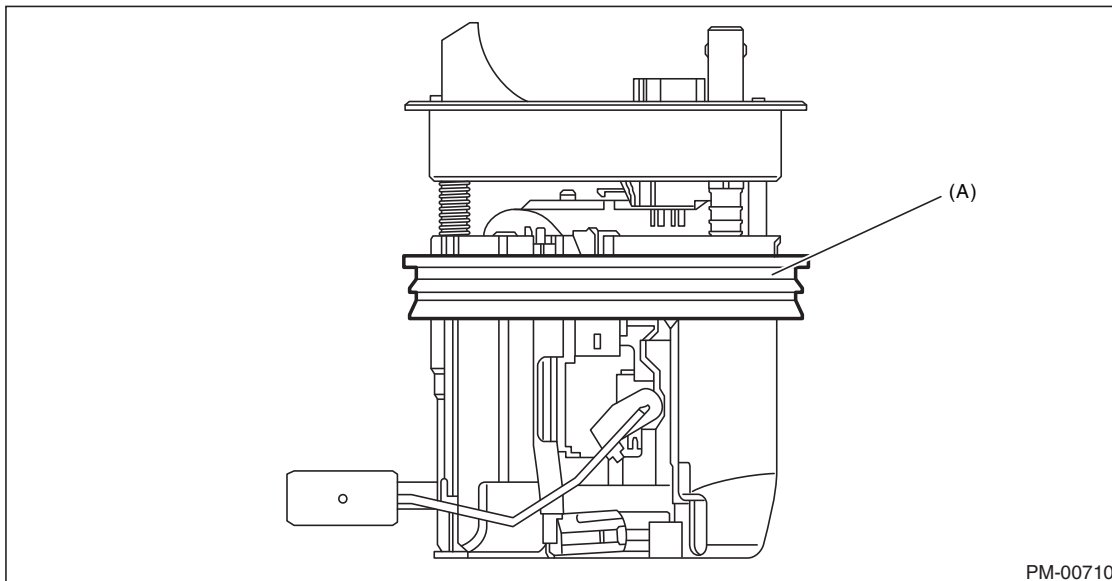
PM-00709

- (A) Float position F (upper limit)
- (B) Float position E (lower limit)
- (C) Fuel tank seating surface

Fuel Filter

PERIODIC MAINTENANCE SERVICES

49) Install a new gasket to the fuel suction tube assembly (with pump & gauge).



(A) Gasket

PM-00710

Fuel Filter

PERIODIC MAINTENANCE SERVICES

50) Connect the fuel tube connector.

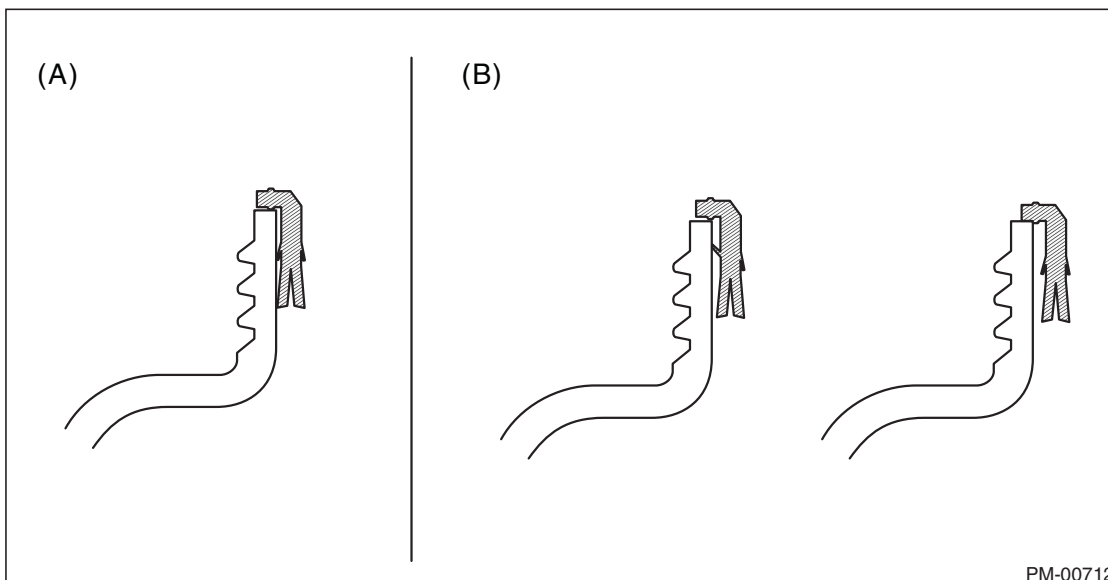
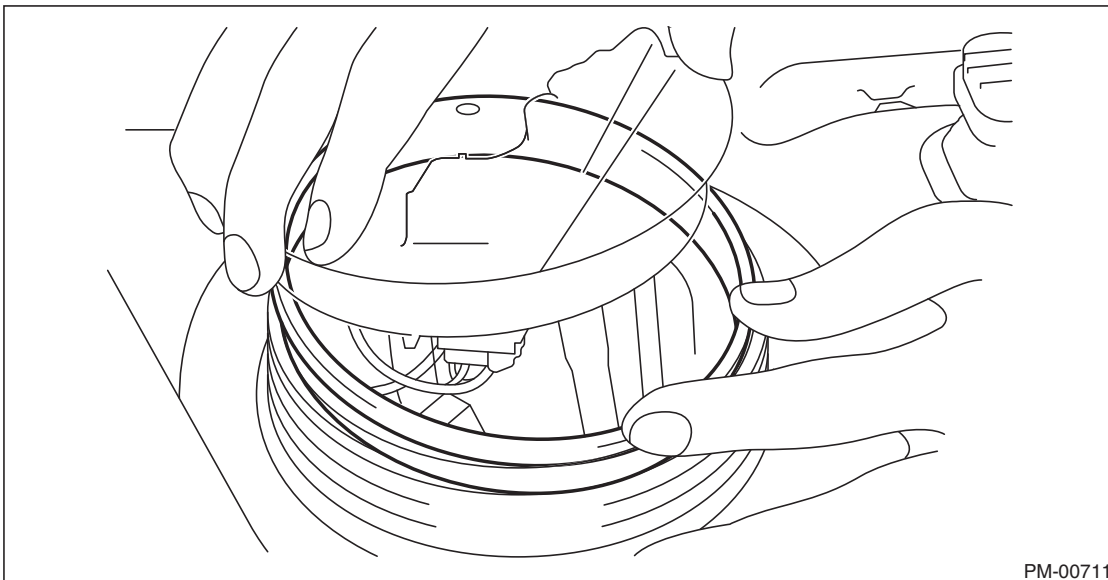
CAUTION:

- Do not pull with excessive force on the tube when connecting the fuel tube connector.
- Make sure not to bend the arm of the fuel sender gauge.

51) Insert the fuel suction tube assembly (with pump & gauge) into the fuel tank, and install the fuel suction tube assembly to which a new gasket was installed to the fuel tank.

CAUTION:

Check the entire circumference of the gasket and make sure that it is not curled or displaced when installing the gasket to the fuel tank. Such installation defects will result in fuel leakage.



- (A) OK
(B) NG

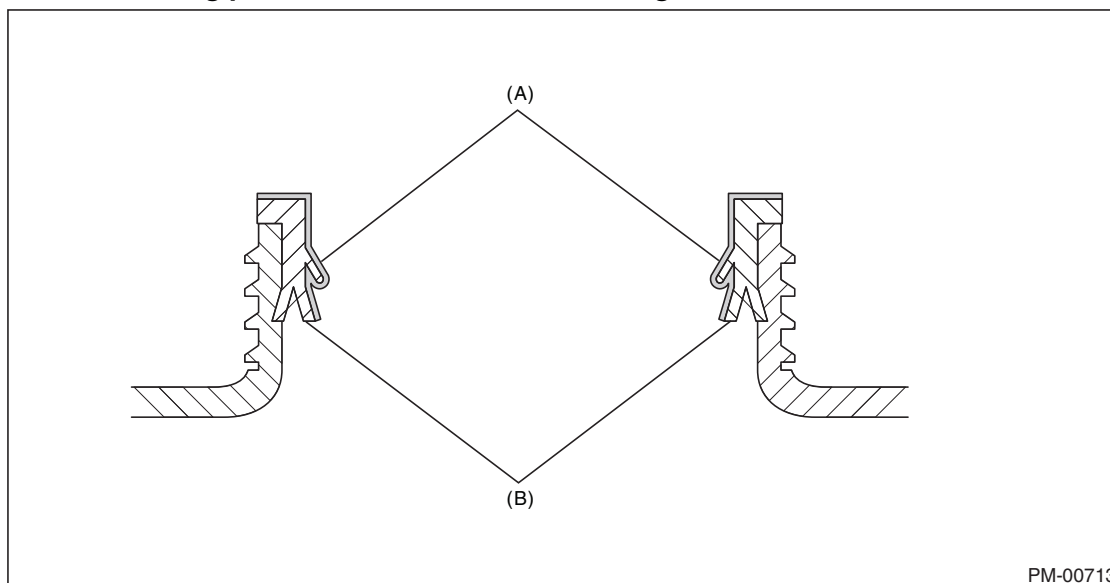
Fuel Filter

PERIODIC MAINTENANCE SERVICES

52) Apply gasoline to the gasket.

CAUTION:

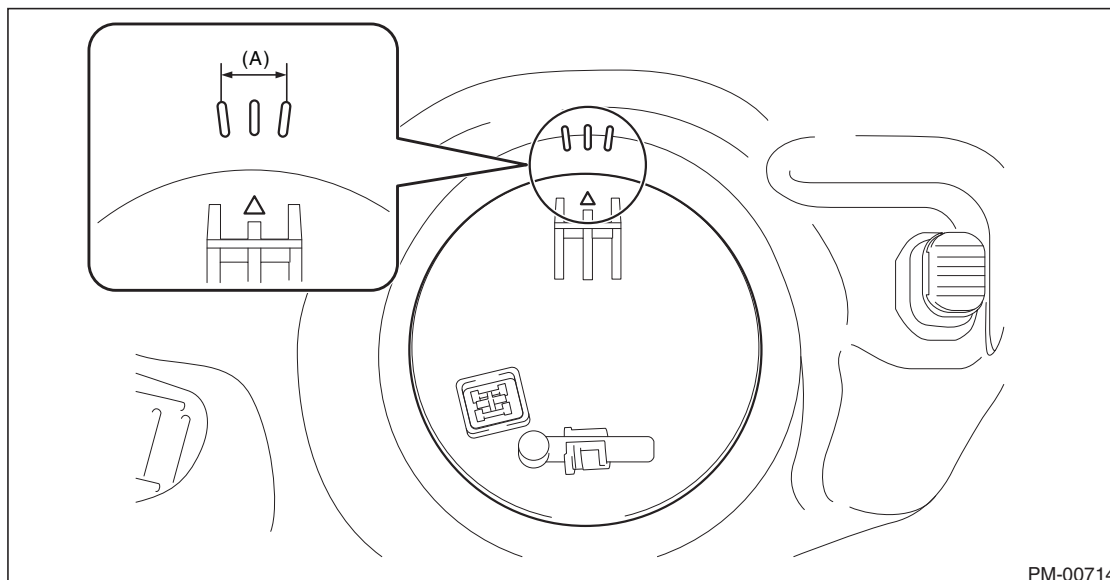
- When applying gasoline to the gasket, apply it to the area as shown in the figure.
- Be careful not to spill gasoline on the screw section of the fuel tank.
- Make sure the sealing portion is free from fuel or foreign matter.



(A) Areas of gasoline application

(B) Gasket

53) Set the fuel pump within the installation position range marks on the fuel tank.



(A) Installation position range mark

54) Install a new sheet ring and fuel pump gauge retainer, and temporarily tighten the fuel pump gauge retainer.

Fuel Filter

PERIODIC MAINTENANCE SERVICES

55) Tighten the fuel pump gauge retainer using the ST.

CAUTION:

- Do not use any tool other than the ST.
- Be careful not to damage the tube with the ST.
- Before setting the ST, move the tube to a position outside the ST.
- Make sure that the position mark on the fuel pump is located within the installation position range mark on the fuel tank as shown in the figure.
- After tightening to the specified torque, check the torque by retightening to the specified torque.

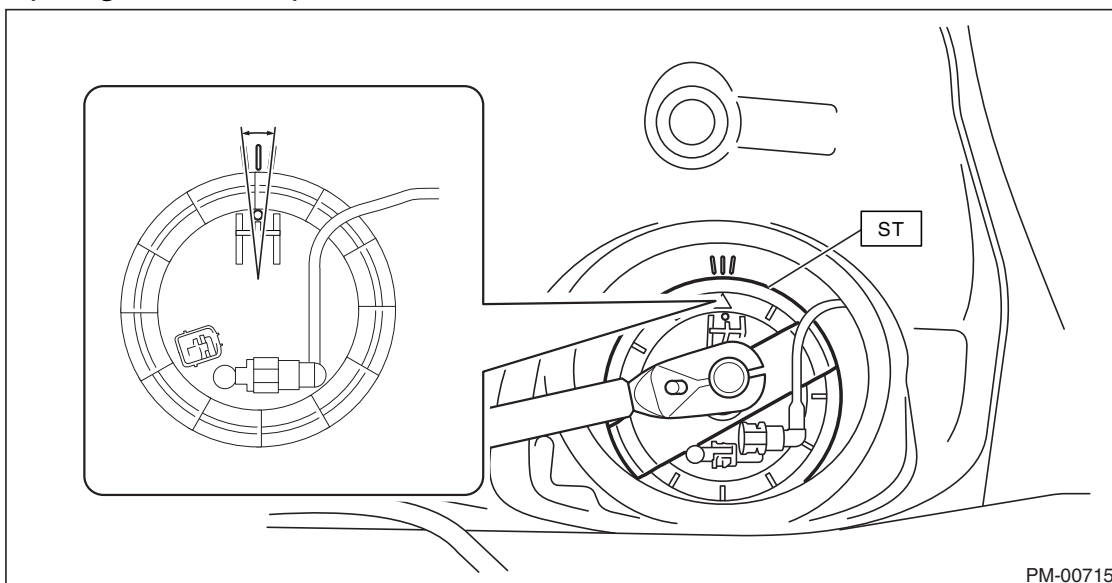
NOTE:

Securely set the ST notch onto the rib part of the fuel pump gauge retainer.

ST 42099CA000 ST FUEL PUMP

Tightening torque:

85 N·m (8.7 kgf-m, 62.7 ft-lb)



56) Connect the fuel pump tube connector.

57) Install the fuel pump tube to the fuel tank.

58) Connect the fuel pump connector.

59) Connect the ground cable to battery.

60) Apply fuel pressure and check that there are no leaks in the fuel system using the Subaru Select Monitor.

61) Install rear floor service hole cover No. 2 using new butyl tape.

62) Install the separator-type rear seat cushion assembly LH.

B: INSPECTION

If the filter is clogged, or if the replacement interval has been reached, replace it.

9. Air Cleaner Element

A: INSPECTION

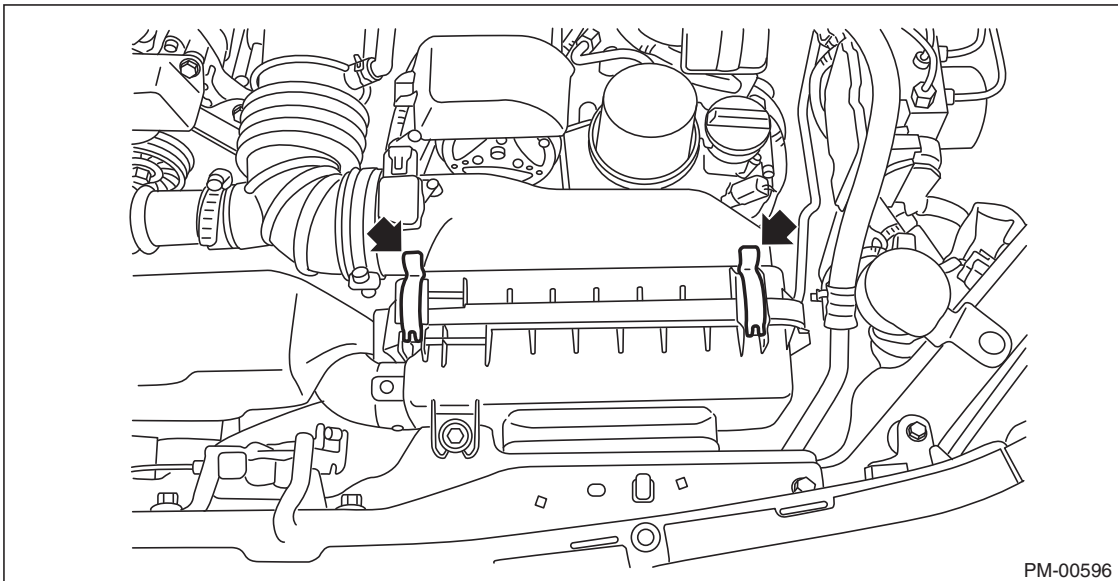
- 1) Check that the air cleaner element has no deformation, cracks or other damages.
- 2) Check the air cleaner element for excessive dirt.

B: REPLACEMENT

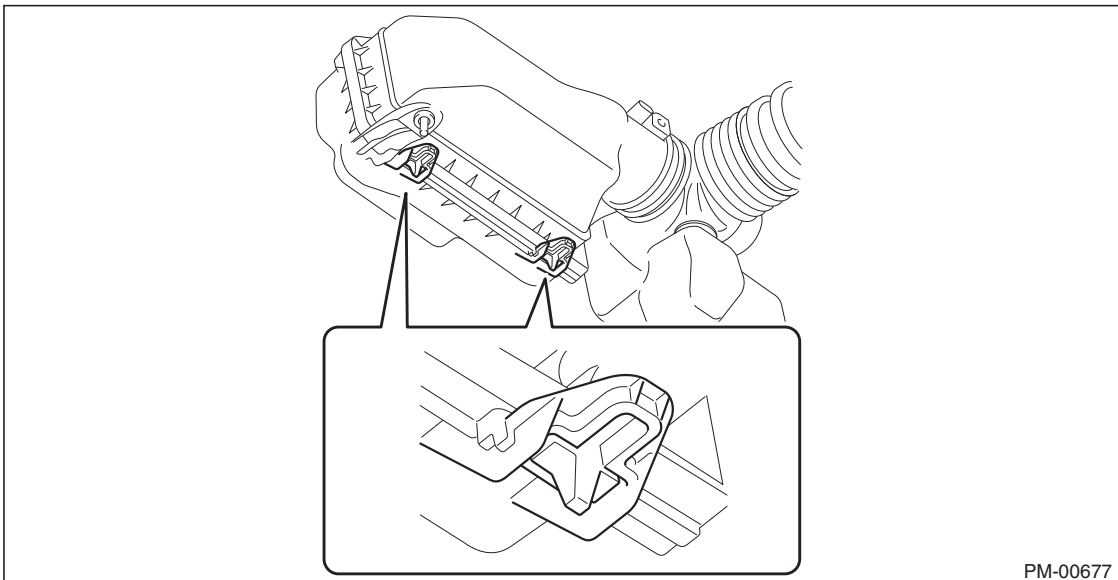
CAUTION:

Do not place an excessive load on the air cleaner case with grasping with your hands in order to prevent damaging the plastic bracket.

- 1) Remove the two clips from the air cleaner case (front).



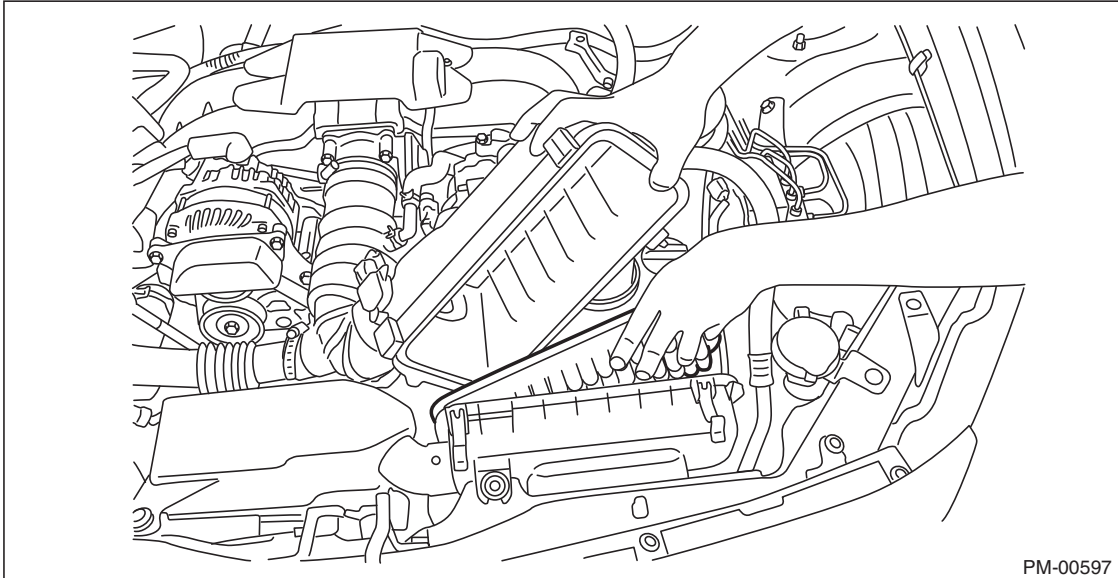
- 2) Lift up the air cleaner case (rear), and release the two tabs fit into the air cleaner case (front).



Air Cleaner Element

PERIODIC MAINTENANCE SERVICES

3) Raise the air cleaner case (rear) at an angle as shown in the figure, and remove the air cleaner filter element.



PM-00597

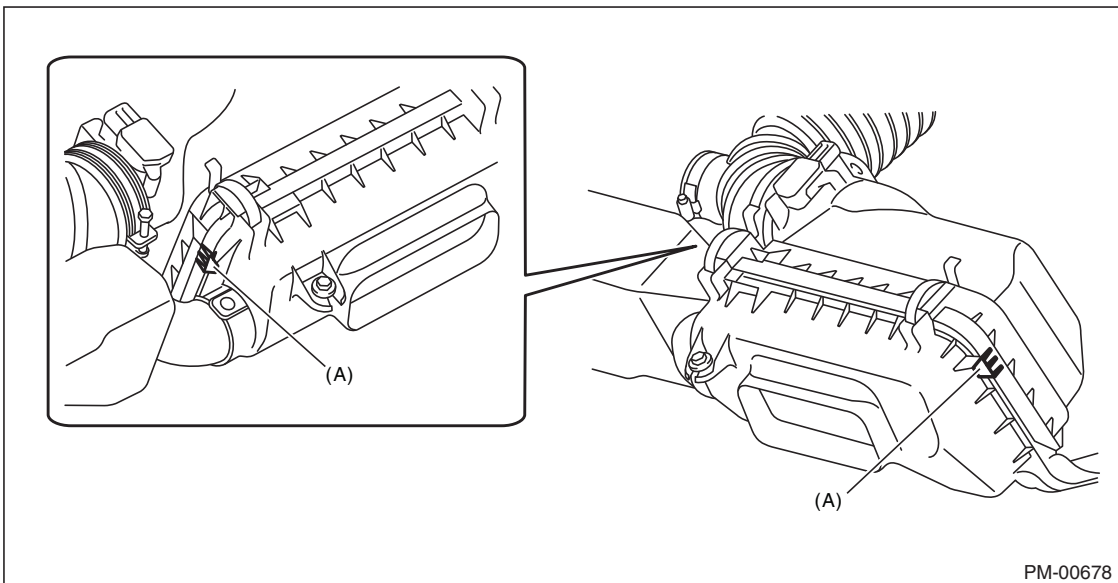
4) Raise the air cleaner case (rear) at an angle, and install the air cleaner filter element.

5) Connect the two tabs of the air cleaner case (rear) to the air cleaner case (front).

6) Install the two clips.

CAUTION:

- Check that protrusions for left/right alignment on the air cleaner cases are not riding up.
- Make sure that the two tabs on the bottom of the air cleaner case are securely connected.



PM-00678

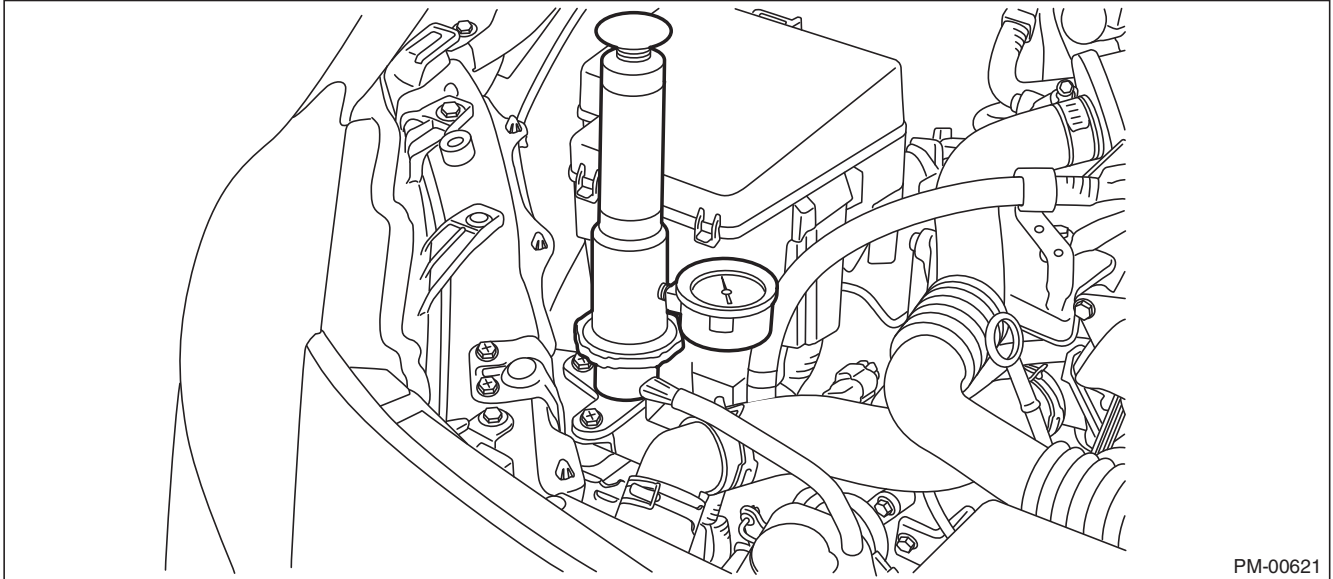
(A) Protrusions for alignment

10. Cooling System

A: INSPECTION

1. RADIATOR

- 1) Check that the radiator does not have deformation, cracks or damage.
- 2) Check that the hose has no cracks, damage or loose part.
- 3) Check that there is no engine coolant leakage from the hose connection parts.
- 4) Remove the radiator cap, fill the radiator with engine coolant, and then install the radiator cap tester to the filler neck of radiator.



- 5) Apply a pressure of 157 kPa (1.6 kgf/cm², 23 psi) to the radiator, and check the following items.
 - Leakage from the radiator or its vicinity
 - Leakage from the hose or its connections

CAUTION:

- **Engine should be turned off.**
- **Wipe engine coolant from check points in advance.**
- **Be careful of engine coolant from spurting out when removing the radiator cap tester.**
- **Be careful not to deform the filler neck of radiator when installing and removing the radiator cap tester.**

Engine Coolant

PERIODIC MAINTENANCE SERVICES

11.Engine Coolant

A: INSPECTION

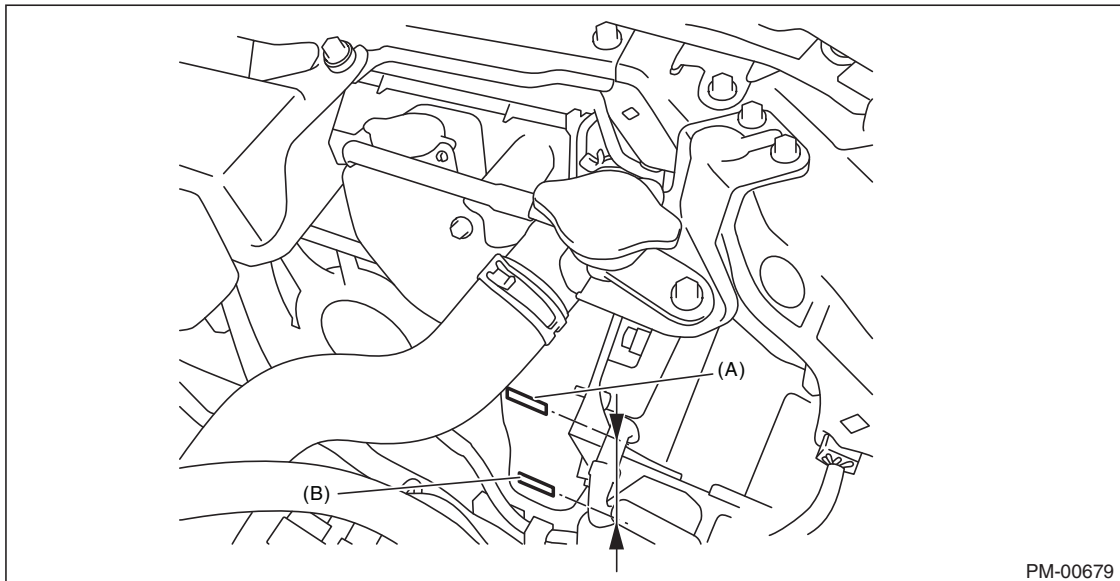
- 1) Park the vehicle on a level surface.
- 2) Check that the reservoir tank fluid level is between the FULL and LOW lines when the engine is cool.

CAUTION:

- Do not substitute water for the coolant fluid.
- Refer to the “RM” section for the coolant to be used.

NOTE:

If the coolant level is low, check for leakage and add coolant until it reaches the FULL line.



- (A) FULL
(B) LOW

- 3) Remove the radiator cap and check that the coolant is filled up to the radiator filler neck.

B: REPLACEMENT

CAUTION:

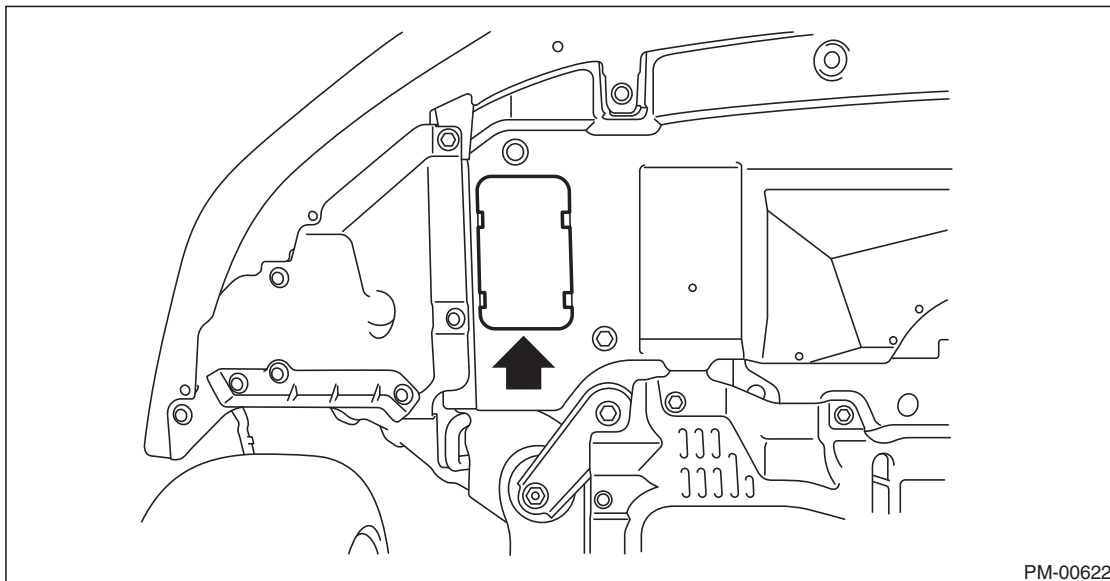
Do not remove the radiator cap sub-assembly while the engine and radiator are hot in order to prevent possible burns. There is a possibility of fluid or steam surging out due to pressurization.

- 1) Lift up the vehicle.

Engine Coolant

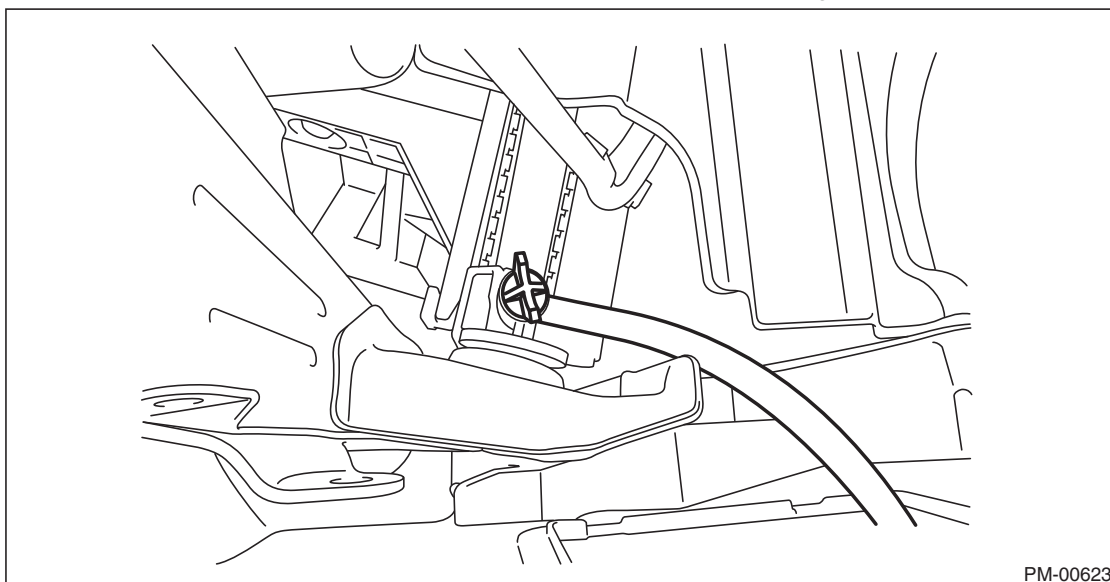
PERIODIC MAINTENANCE SERVICES

- 2) Remove the service hole cover of the front bumper under cover.



PM-00622

- 3) Install a hose with an inner diameter of $\phi 8$ mm (0.31 in) to the drain plug.



PM-00623

- 4) Loosen the radiator drain cock plug and drain the engine coolant into a container.
5) Remove the radiator cap.
6) After draining, tighten the drain plug, and install the service hole cover.
7) Lower the vehicle.
8) Pour engine coolant into the radiator up to the filler neck position.

Recommended engine coolant:

Refer to "RM" section. <Ref. to RM-2, LUBRICANTS, RECOMMENDED MATERIALS, Recommended Materials.>

Engine coolant level:

Refer to the "SPC" section. <Ref. to SPC-4, CAPACITY, BRZ.>

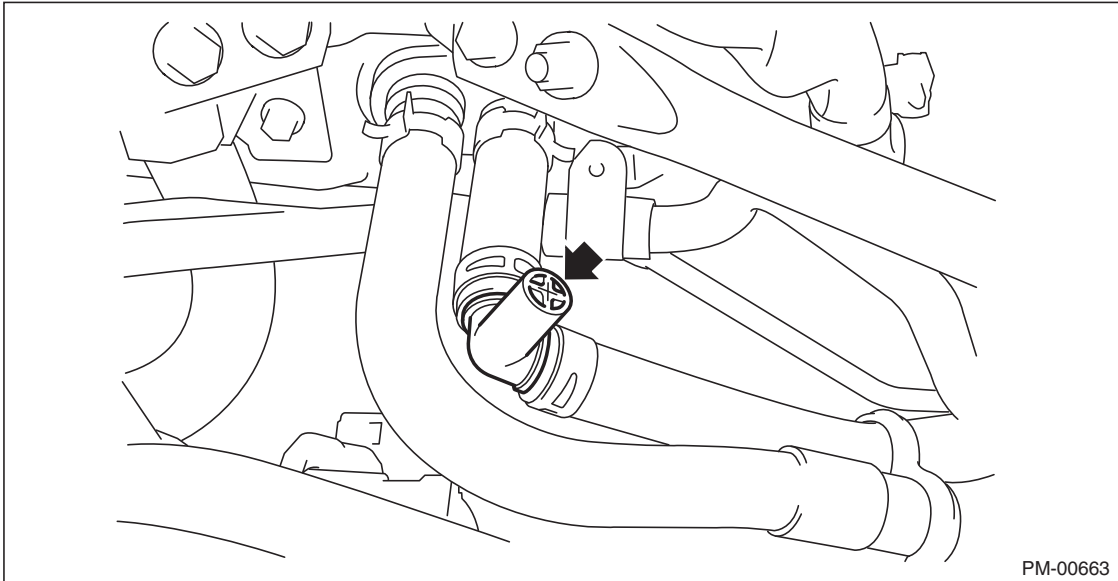
CAUTION:

The SUBARU Super Coolant contains anti-freeze and anti-rust agents, and is especially made for Subaru engines with an aluminum cylinder block. Be sure to use SUBARU Super Coolant, since other coolant may cause corrosion.

Engine Coolant

PERIODIC MAINTENANCE SERVICES

9) Open the air bleeding plug on the heater hose side.



10) If the engine coolant level drops, add engine coolant into radiator up to the filler neck position.

11) Close the air bleeder valve when engine coolant comes out of the air bleeder plug on the heater hose side.

12) Fill engine coolant into the reservoir tank up to "FULL" level.

13) Close the radiator cap and start the engine. Race 5 to 6 times at 3,000 rpm or less, then stop the engine. (Complete this operation within 40 seconds.)

14) Wait for one minute after the engine stops, and open the radiator cap. If the engine coolant level drops, open the air bleeding plug on the heater hose side, add engine coolant into the radiator up to the filler neck position, and close the air bleeding plug.

15) Perform the procedures 13) and 14) again.

16) Attach the radiator cap and reservoir tank cap properly.

17) Start the engine and operate the heater at maximum hot position and the blower speed setting to "LO".

18) Run the engine at 2,000 rpm or less until radiator fan starts and stops.

CAUTION:

Be careful with the engine coolant temperature to prevent overheating.

19) Stop the engine and wait until the engine coolant temperature lowers to 30°C (86°F) or less.

20) Open the radiator cap. If the engine coolant level drops, add engine coolant into the radiator up to the filler neck position and the reservoir tank to "FULL" level.

21) Attach the radiator cap correctly.

22) Set the heater setting to maximum hot position and the blower speed setting to "LO" and start the engine. Perform racing at 3,000 rpm or less. If the flowing sound is heard from the heater core, repeat the procedures from step 18).

12.Clutch System

A: INSPECTION AND ADJUSTMENT

1. INSPECTION

Move the clutch pedal in the lateral direction with a force of approximately 10 N (1 kgf, 2 lbf) to check that the clutch pedal deflection is within the service limit.

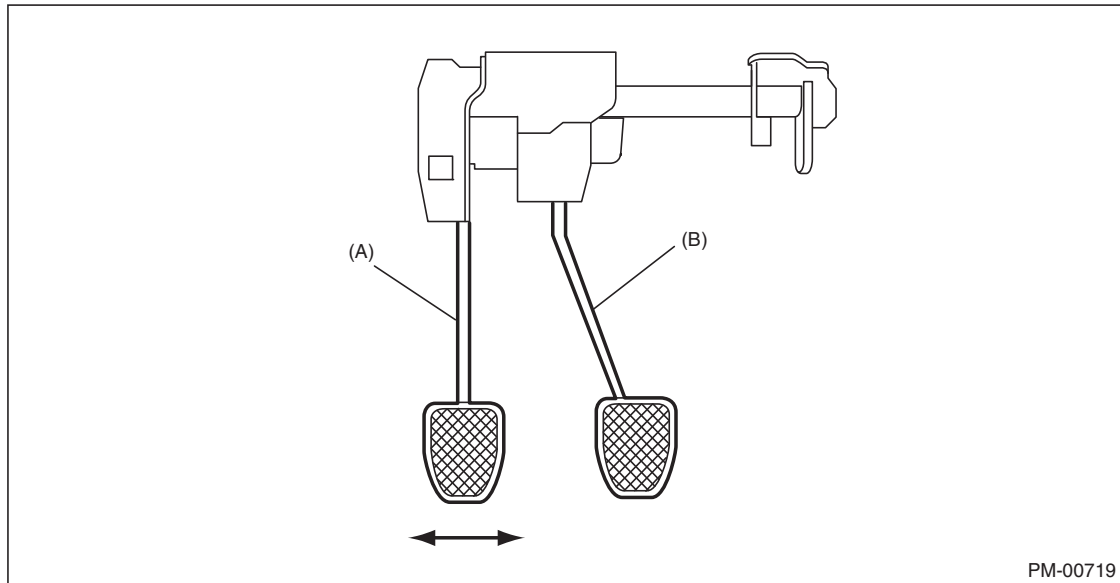
CAUTION:

If it exceeds the service limit, replace the clutch pedal assembly with a new part.

Deflection of the clutch pedal:

Service limit

4.0 mm (0.157 in) or less



(A) Clutch pedal

(B) Brake pedal

Clutch System

PERIODIC MAINTENANCE SERVICES

2. ADJUSTMENT

1) If the full stroke of the clutch pedal is not within the specified value, loosen the lock nuts of the clutch switch and adjust the full stroke of the clutch pedal with the clutch switch.

CAUTION:

When adjusting the full stroke of clutch pedal, do not turn the clutch switch.

NOTE:

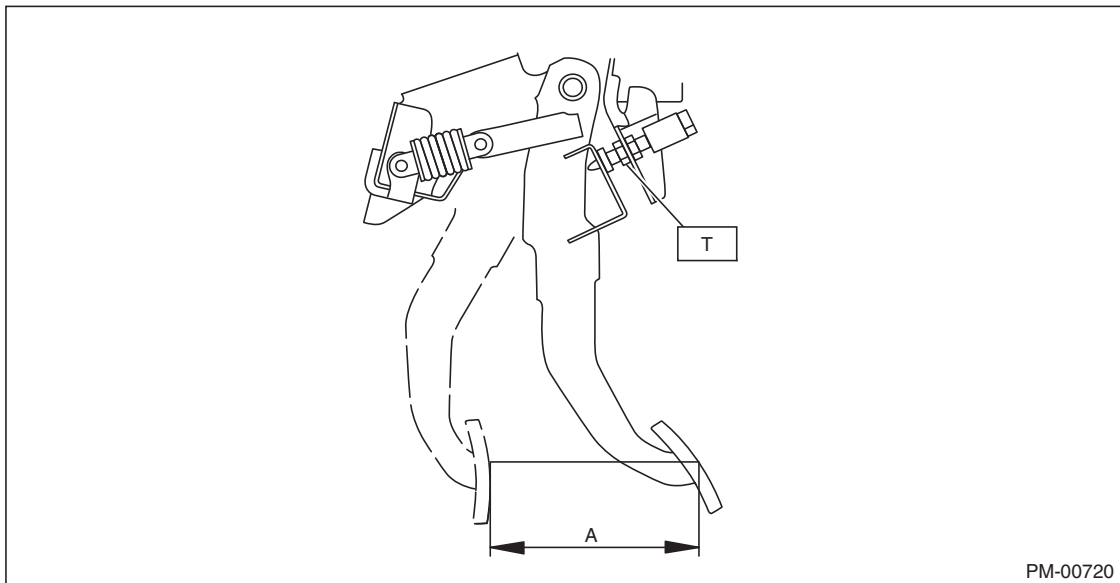
If the clutch switch cannot adjust the full stroke of clutch pedal to the specified value, adjust it by turning the master cylinder push rod.

Clutch pedal full stroke A:

110 — 115 mm (4.33 — 4.53 in)

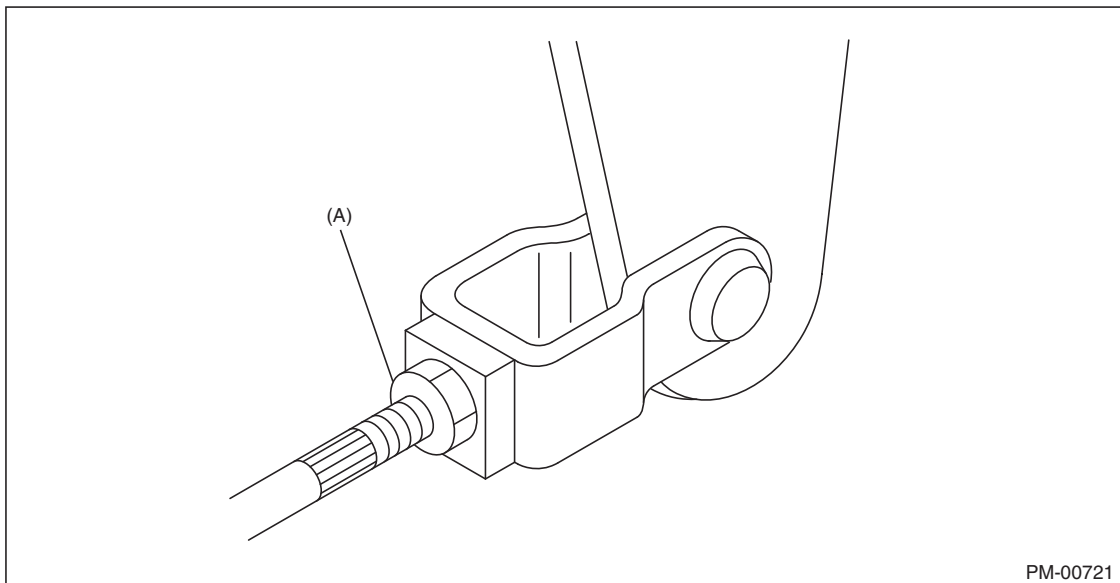
Tightening torque:

T: 8 N·m (0.8 kgf-m, 5.9 ft-lb)



PM-00720

2) Loosen the push rod lock nuts of the master cylinder.



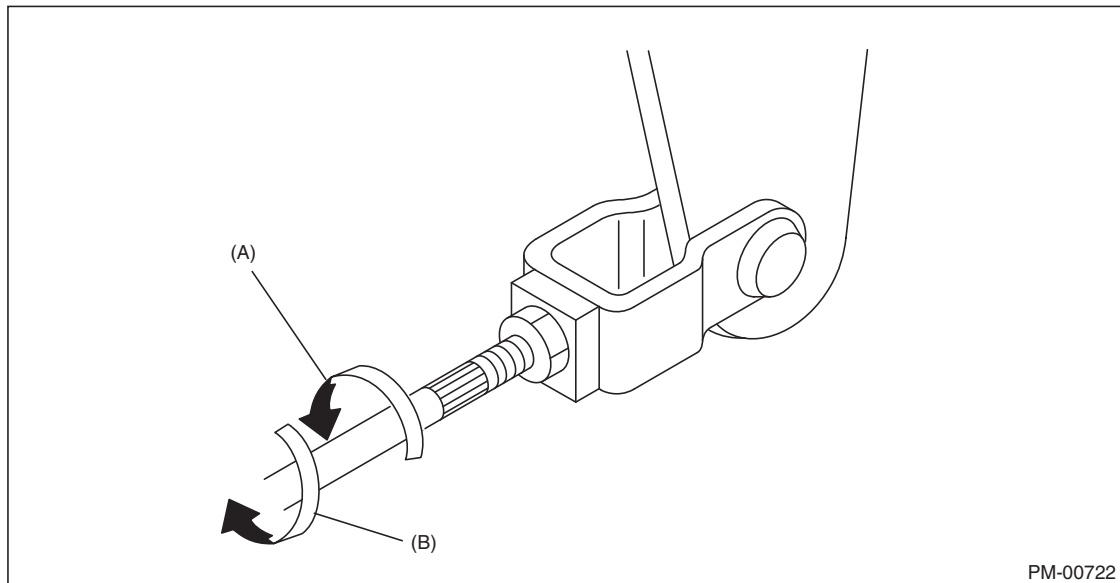
PM-00721

(A) Push rod lock nut

Clutch System

PERIODIC MAINTENANCE SERVICES

3) Rotate the push rod to adjust.



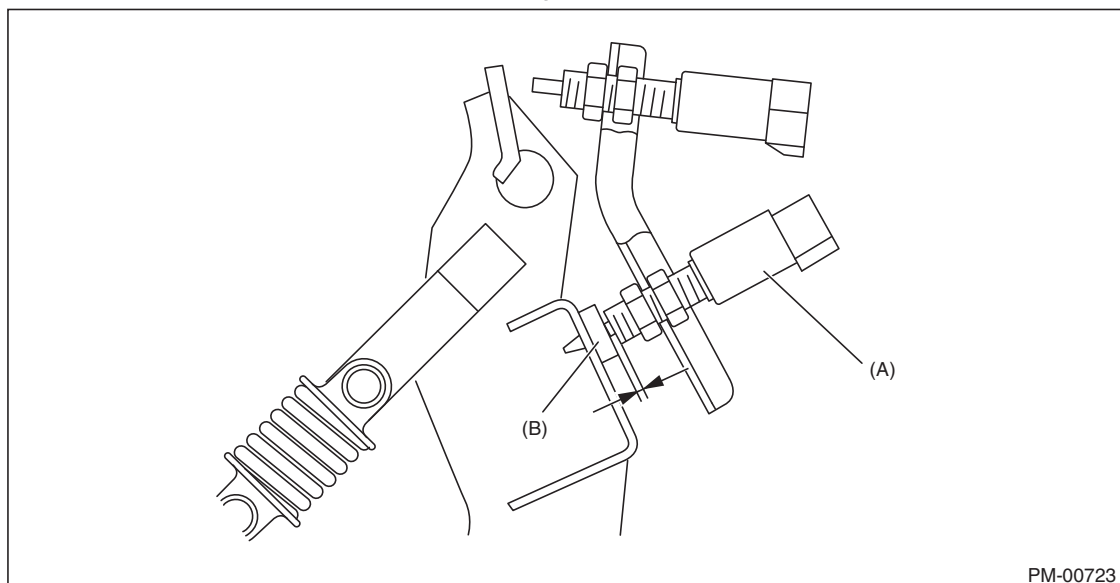
(A) In the longer direction

(B) In the shorter direction

4) Make sure that the clutch pedal contacts the clutch pedal bracket stopper when the clutch pedal is at the maximum stroke position.

5) Make sure that the clutch pedal contacts the clutch switch side when the pedal is released.

6) Turn the push rod to shorten until a clearance is gained on the clutch switch side.



(A) Clutch switch

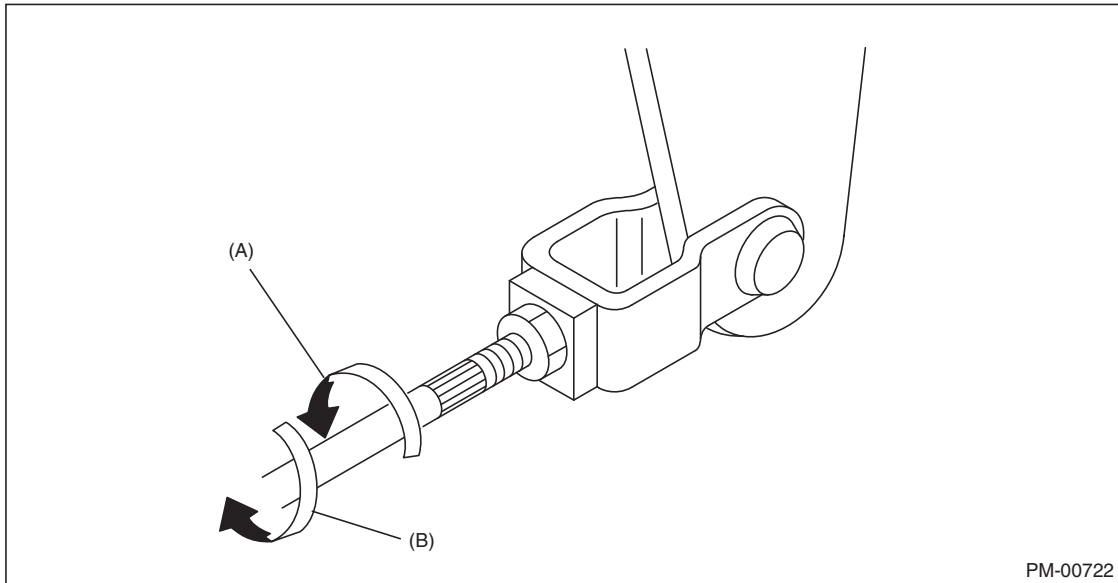
(B) Stopper

7) Turn the push rod to lengthen until clutch pedal contacts the clutch switch.

Clutch System

PERIODIC MAINTENANCE SERVICES

8) Turn further in the direction that will shorten the push rod by 270°.



(A) In the longer direction

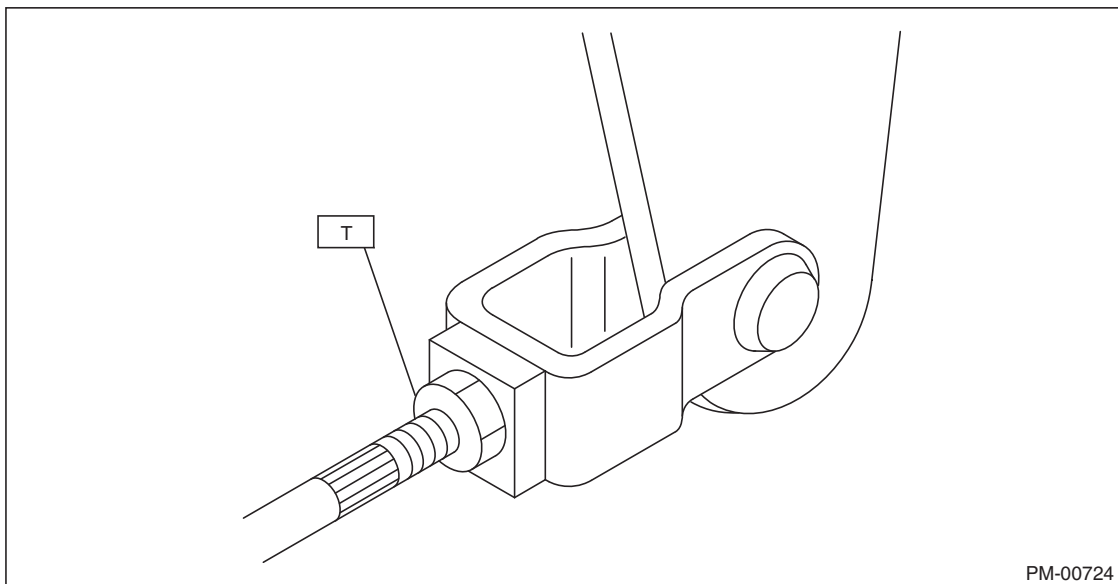
(B) In the shorter direction

9) Check that the clevis pin moves smoothly by moving it in the left and right directions.

10) Tighten the push rod lock nut of the master cylinder.

Tightening torque:

T: 10 N·m (1.0 kgf·m, 7.4 ft·lb)



11) Depress and release the clutch pedal two or three times to ensure that the clutch pedal and release lever operate smoothly. If the clutch pedal and release lever do not operate smoothly, bleed air from the clutch hydraulic system.

12) Measure the clutch pedal full stroke length again to ensure that it is within specifications. If it is not within specifications, repeat adjustment procedures again from the beginning.

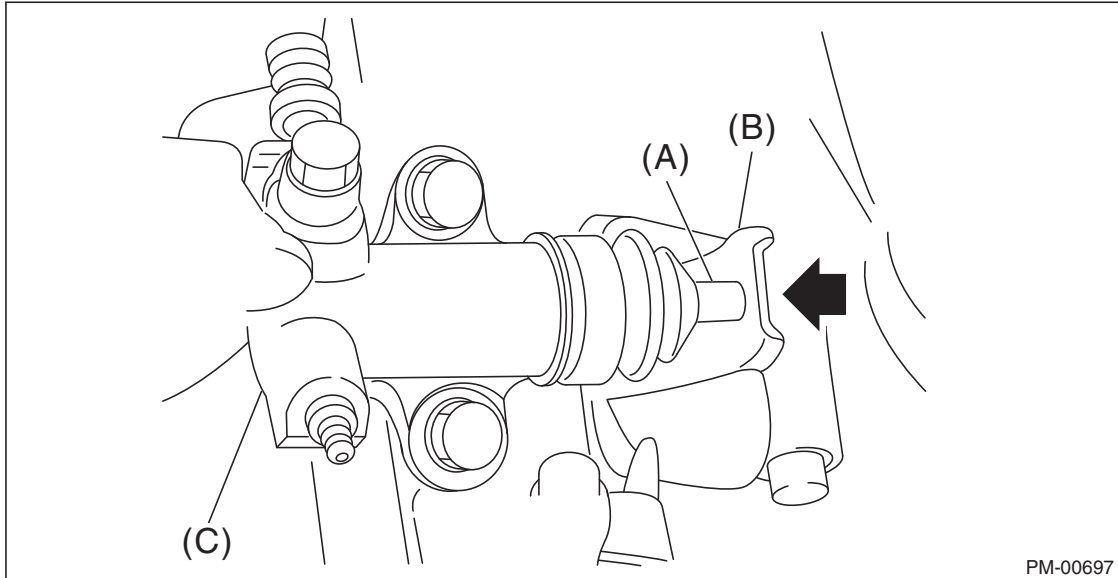
Clutch pedal full stroke:

110 — 115 mm (4.33 — 4.53 in)

Clutch System

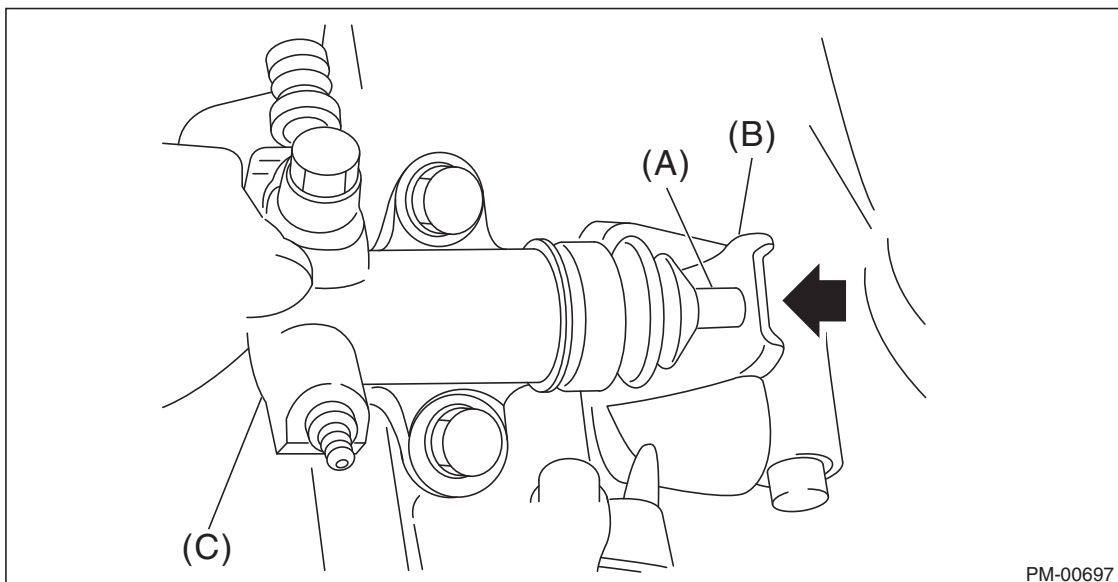
PERIODIC MAINTENANCE SERVICES

13) Push the release lever until the operating cylinder push rod retracts. Make sure that the clutch fluid level in the reservoir tank increases. If the clutch fluid level increases, the hydraulic clutch is properly adjusted. If the clutch fluid level does not increase or the push rod does not retract, replace the master cylinder with a new part.



- (A) Push rod
- (B) Release lever
- (C) Operating cylinder

14) Push the release lever until the operating cylinder push rod retracts. Check that the clutch fluid level in the reservoir tank increases.



- (A) Push rod
- (B) Release lever
- (C) Operating cylinder

15) If the clutch fluid level increases, hydraulic clutch play is correct.

16) If the clutch fluid level does not increase or push rod does not retract, readjust the clutch pedal.

17) Check the clutch fluid level in the reservoir tank.

Transmission Gear Oil

PERIODIC MAINTENANCE SERVICES

13. Transmission Gear Oil

A: INSPECTION

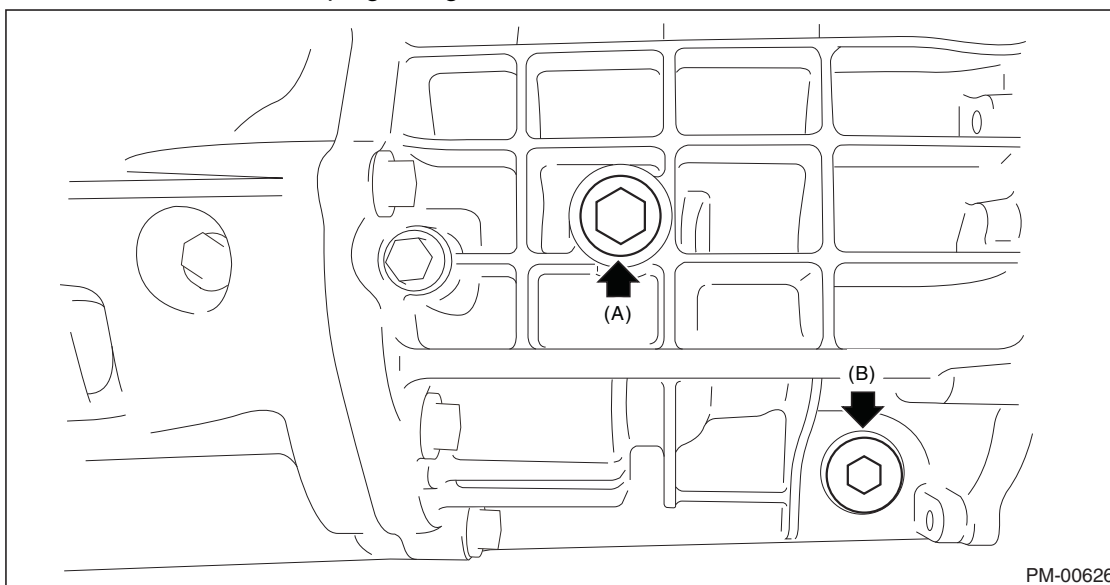
Check for leakage of gear oil from the transmission.

B: REPLACEMENT

CAUTION:

- Immediately after running the vehicle or after idling for a long time, the transmission gear oil will be hot. Be careful not to receive burns.
- Be careful not to spill the transmission gear oil on exhaust pipe to prevent it from emitting smoke or causing fires. If transmission gear oil is spilled on the exhaust pipe, wipe it off completely.

- 1) Lift up the vehicle.
- 2) Remove engine under cover No. 1.
- 3) Remove engine under cover No. 2.
- 4) Remove the transmission filler plug and gasket.
- 5) Remove the transmission drain plug and gasket, and drain the oil.



- (A) Filler plug
(B) Drain plug

- 6) Install the transmission drain plug using a new gasket.

Tightening torque:

37 N·m (3.8 kgf-m, 27.3 ft-lb)

- 7) Pour transmission gear oil to the bottom end of filler plug.

NOTE:

Carefully refill transmission gear oil while checking the level. Excessive or insufficient oil must be avoided.

Recommended gear oil

Refer to "RM" section. <Ref. to RM-2, LUBRICANTS, RECOMMENDED MATERIALS, Recommended Materials.>

Transmission gear oil capacity

Refer to the "SPC" section. <Ref. to SPC-4, CAPACITY, BRZ.>

- 8) Tighten the filler plug using a new gasket.

Tightening torque:

37 N·m (3.8 kgf-m, 27.3 ft-lb)

- 9) Check that there is no oil leakage.

Transmission Gear Oil

PERIODIC MAINTENANCE SERVICES

- 10) Install engine under cover No. 2.
- 11) Install engine under cover No. 1.

Automatic Transmission Fluid

PERIODIC MAINTENANCE SERVICES

14. Automatic Transmission Fluid

A: INSPECTION

Check for leakage of ATF from transmission.

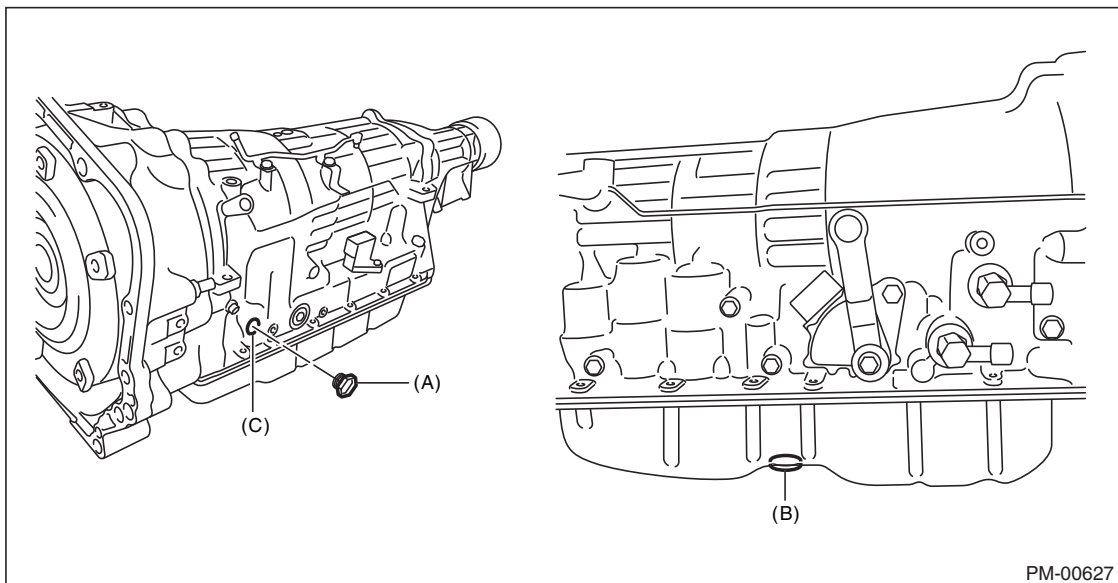
B: REPLACEMENT

- 1) Lift up the vehicle and maintain in a horizontal position.[*1]
- 2) Remove engine under cover No. 1.
- 3) Remove engine under cover No. 2.
- 4) Remove the drain plug and gasket, and drain the fluid.[*2]
- 5) Temporarily tighten the drain plug using a new gasket.[*3]

NOTE:

Replace the gasket and perform final tightening according procedures [*16].

- 6) Remove the refill plug (A) and O-ring.[*4]
- 7) Remove the overflow plug (B) using a socket hexagon wrench.[*5]



- (A) Refill plug
- (B) Overflow plug
- (C) Refill hole

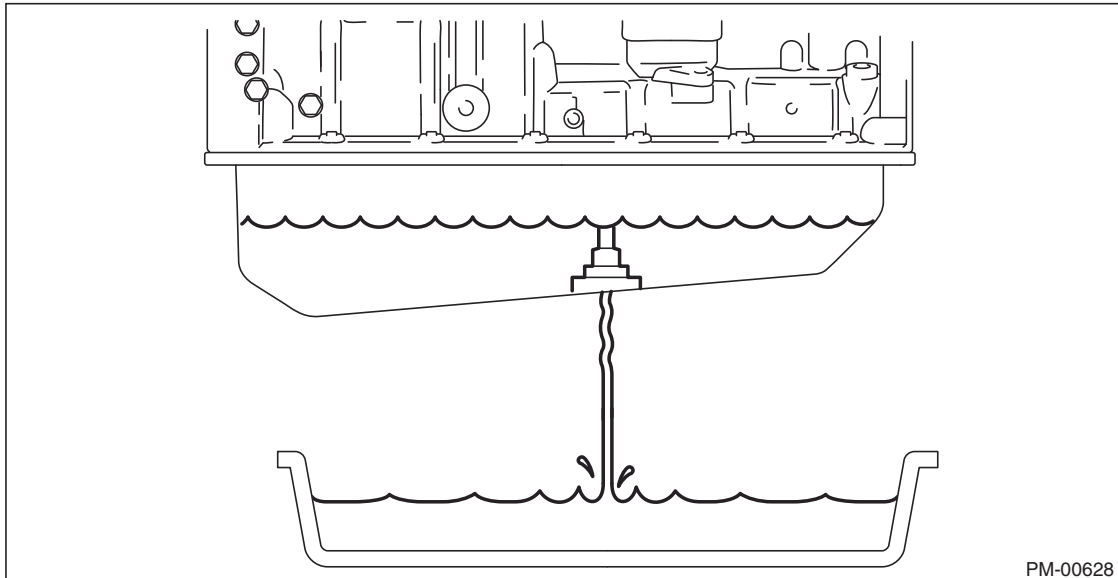
Automatic Transmission Fluid

PERIODIC MAINTENANCE SERVICES

8) Add fluid through the refill hole until the fluid flows out of the overflow tube.[*6]

CAUTION:

- Use auto-fluid WS.
- Slowly add the fluid. Adding the fluid rapidly can cause the fluid to hit internal parts and splash around resulting in fluid flowing out of the refill hole.



9) Wait until the fluid stops flowing and is only dripping.[*7]

10) Temporarily tighten the overflow plug using a 5-mm (0.2 in) socket hexagon wrench and a new gasket.[*8]

11) Add fluid through the refill hole until reaching the specified amount when removing/installing the oil pan.[*9]

NOTE:

If fluid flows out from the refill hole and you cannot fill the specified amount when adding fluid through the refill hole, perform procedures [*10] to [*15] below in order to circulate fluid until it reaches the oil passages in the transmission and inside the torque converter, then add the specified amount of fluid through the refill hole.

Filling amount (reference):

2.0 L (2.1 US qt, 1.8 Imp qt)

12) Temporarily tighten the refill plug using an O-ring.[*10]

13) Lower the vehicle.[*11]

14) Start the engine.[*12]

NOTE:

Start the engine with the air conditioning turned off.

15) Slowly move the shift lever from the P to M position, and shift again to the P position.[*13]

16) Idle the engine for 30 seconds to warm up the engine.[*14]

17) Turn the key to IG OFF.[*15]

18) Repeat procedures from [*1] to [*15].

19) Repeat procedures from [*1] to [*2].

20) Perform final tightening of the drain plug using a new gasket.

Tightening torque:

20 N·m (2.1 kgf-m, 7.4 ft-lb)

21) Repeat procedures from [*4] to [*11].

22) Adjust the fluid amount. <Ref. to PM-72, AUTOMATIC TRANSMISSION FLUID AMOUNT ADJUSTMENT, ADJUSTMENT, Automatic Transmission Fluid.>

23) Install engine under cover No. 2.

24) Install engine under cover No. 1.

25) Lower the vehicle.

26) Procedures finished.

Automatic Transmission Fluid

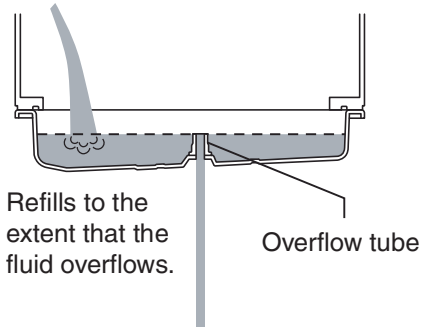
PERIODIC MAINTENANCE SERVICES

C: ADJUSTMENT

Fluid refill and adjustment image:

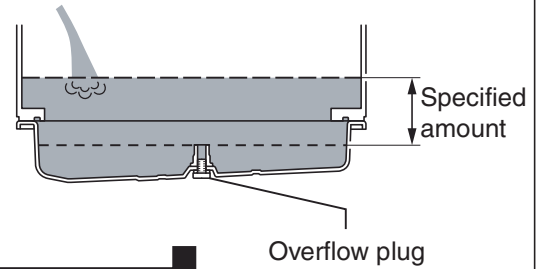
Initial refill

Refill the oil pan with fluid to a certain amount.



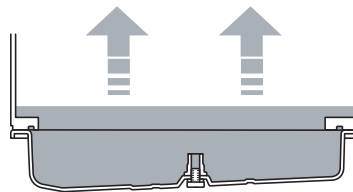
Specified amount refill

Refill with the specified amount according to the operation.



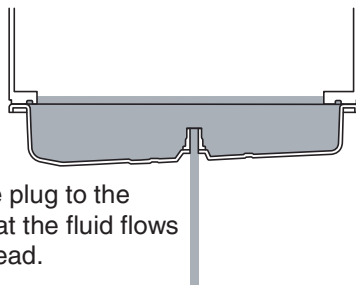
Fluid temperature adjustment

While circulating the fluid with the engine start, shift to "oil temperature detection mode" to obtain the proper temperature for fluid amount adjustment.

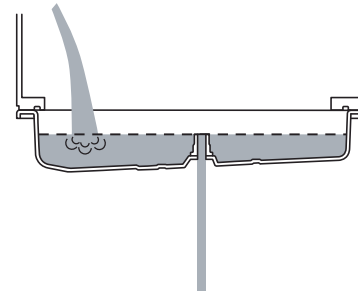


Fluid amount adjustment

Overflow the fluid at the proper temperature for fluid amount adjustment.



When the fluid does not overflow, refill with an amount that forces the fluid to overflow.



PM-00629

NOTE:

- Use auto-fluid WS for the filling fluid.
- Be sure to always park the vehicle on a level surface when adjusting the fluid amount.
- If it is necessary to replace the automatic transmission assembly, remove/install the oil pan and drain plug, and fill with a large amount of fluid for replacement, perform the procedures from "Automatic transmission fluid filling" to "Automatic transmission fluid amount adjustment".
- If a small amount of fluid filling is necessary for repairs such as replacing the extension housing rear oil seal or oil bleeding, perform only the procedure "Automatic transmission fluid amount adjustment".

Automatic Transmission Fluid

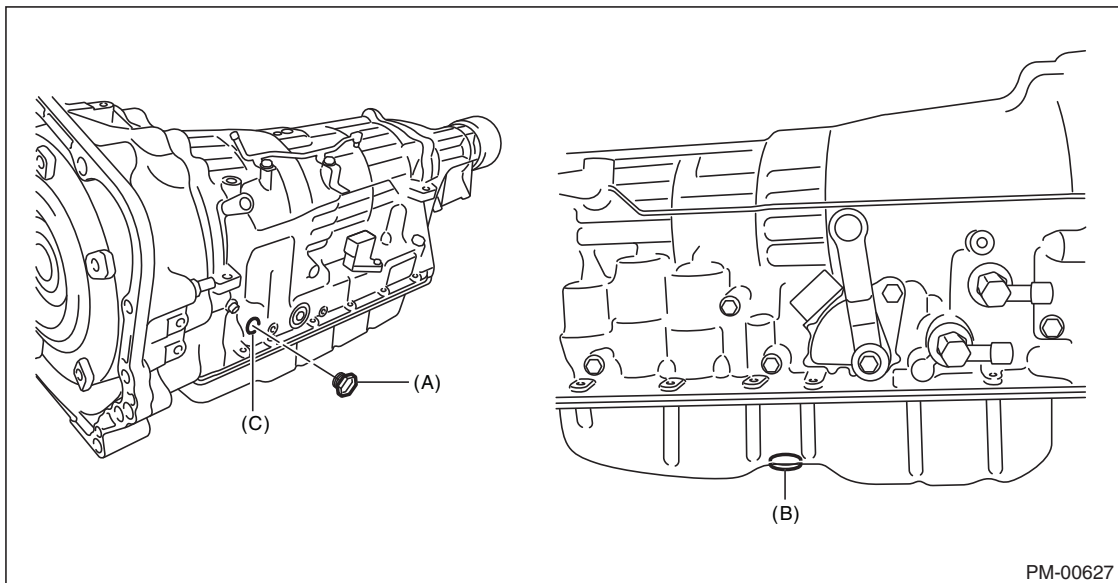
PERIODIC MAINTENANCE SERVICES

1. AUTOMATIC TRANSMISSION FLUID FILLING

CAUTION:

- Perform procedures when the automatic transmission fluid is sufficiently cool.
- Always be sure to switch to oil amount adjustment mode when filling automatic transmission fluid.
- Slowly add the fluid. Adding the fluid rapidly can cause the fluid to hit internal parts and splash around resulting in fluid flowing out of the refill hole.

- 1) Lift up the vehicle and maintain in a horizontal position.
- 2) Remove engine under cover No. 1.
- 3) Remove engine under cover No. 2.
- 4) Remove the refill plug and O-ring.
- 5) Remove the overflow plug using a socket hexagon wrench.



- (A) Refill plug
(B) Overflow plug
(C) Refill hole

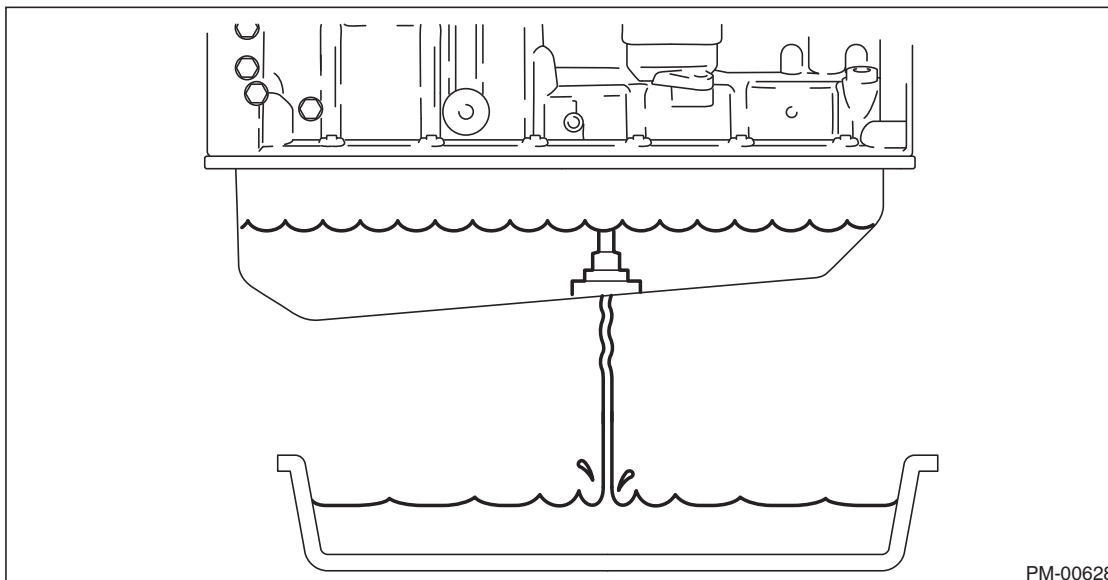
Automatic Transmission Fluid

PERIODIC MAINTENANCE SERVICES

6) Add fluid through the refill hole until the fluid flows out of the overflow tube.

CAUTION:

Slowly add the fluid. Adding the fluid rapidly can cause the fluid to hit internal parts and splash around resulting in fluid flowing out of the refill hole.



7) Temporarily tighten the overflow plug.

8) Add the specified amount of fluid through the refill hole and temporarily tighten the refill plug.

Filling amount (reference):

2.0 L (2.1 US qt, 1.8 Imp qt)

NOTE:

If fluid flows out from the refill hole and you cannot fill with the specified amount when adding fluid through the refill hole, perform the following procedures to circulate fluid until it reaches the oil passages in the transmission and inside the torque converter.

- (1) Temporarily tighten the refill plug.
- (2) Start the engine.
- (3) Slowly move the shift lever from the P to M position, and shift again to the P position.
- (4) Idle the engine for approximately 30 sec.
- (5) Turn the key to IG OFF.

2. AUTOMATIC TRANSMISSION FLUID AMOUNT ADJUSTMENT

CAUTION:

- Perform procedures when the automatic transmission fluid is sufficiently cool.
- Always be sure to adjust the automatic transmission fluid amount when at the proper temperature for oil amount inspection.

1) When using Subaru Select Monitor

- (1) Connect the Subaru Select Monitor to data link connector.
- (2) Turn the ignition to ON. (engine OFF)
- (3) Turn off all parts effecting an electrical load such as air conditioner, audio and lights.
- (4) Select {Work Support} on the «Transmission Diagnosis» screen of the Subaru Select Monitor. Select {ATF level adjustment mode} on the «Work Support» screen of the Subaru Select Monitor.

NOTE:

If the temperature is 42°C (107.6°F) or more, leave the vehicle in a cool location and restart procedures after the ATF temperature has decreased.

- (5) Increase the oil temperature by idling the engine while checking the ATF temperature from the Subaru Select Monitor screen.

Automatic Transmission Fluid

PERIODIC MAINTENANCE SERVICES

(6) Adjust the oil amount as soon as reaching the starting temperature for oil adjustment procedures (42°C (109.4°F)).

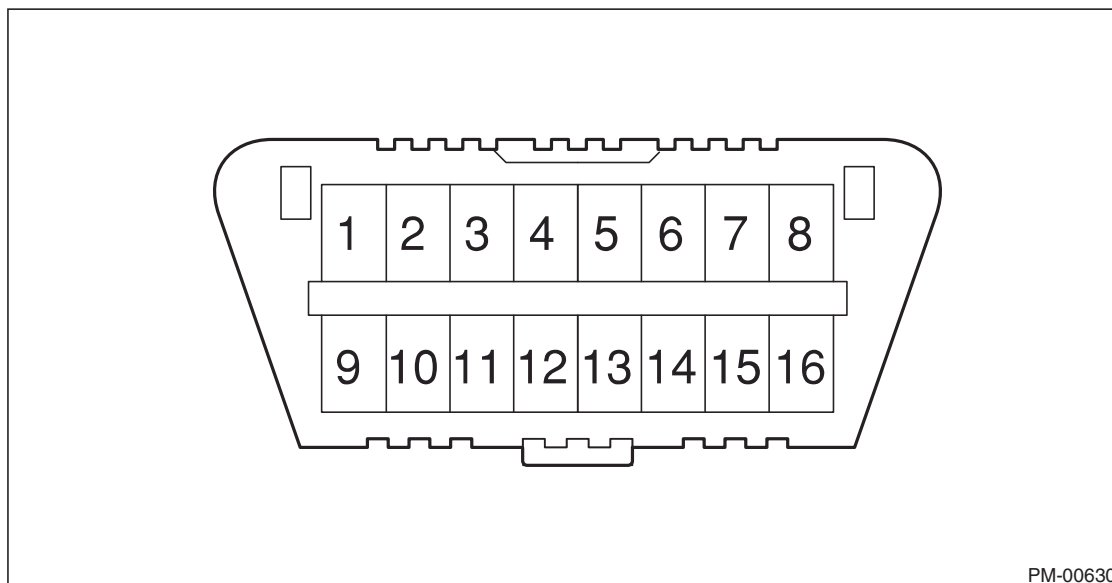
CAUTION:

Always be sure to adjust the ATF (overflow plug tightening) when at the proper temperature.

Lower than proper temperature	Proper temperature	Higher than proper temperature
Less than 43°C (109.4°F)	43°C — 47°C (109.4°F — 116.6°F)	48°C (118.4°F) or more

2) When shorting TC terminal circuit

(1) Short the data link connectors No. 13 and No. 4.

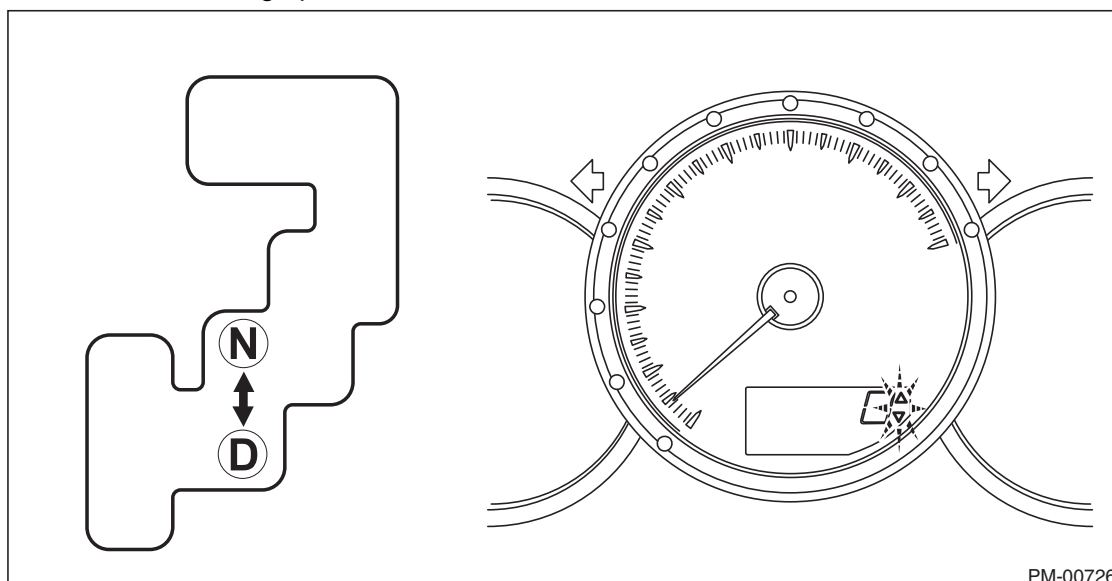


(2) Start the engine.

(3) Turn off all parts effecting an electrical load such as air conditioner, audio and lights.

(4) Operate the select lever in P → R → N → D → M → D → N → R → P to circulate ATF in the transmission.

(5) Operate between N ↔ D within 1.5 sec. for a continuous 6 sec. or more to switch to the oil amount adjustment mode. When the vehicle enters into oil amount adjustment mode, the upshift/downshift permitted indicator lamps [▲]/[▼] in the combination meter light up simultaneously for 2 sec. and turn off with no relation to the range position.



Automatic Transmission Fluid

PERIODIC MAINTENANCE SERVICES

- (6) After changing to oil pressure adjustment mode, switch to the "P" range.
- (7) Remove the short of data link connectors No. 13 and No. 4.
- (8) Check the status of the upshift/downshift permitted indicator lamps [▲]/[▼].

CAUTION:

If only the [▲] indicator lamp is illuminated or both [▲] and [▼] are illuminated simultaneously, stop performing procedures and leave the vehicle in a cool location. Start over and repeat procedures from Step (1) after the ATF temperature decreases to a point where only the downshift permitted indicator lamp [▼] when shifting to oil amount adjustment mode.

- (9) Adjust the oil as soon as the proper temperature for oil amount adjustment is reached.

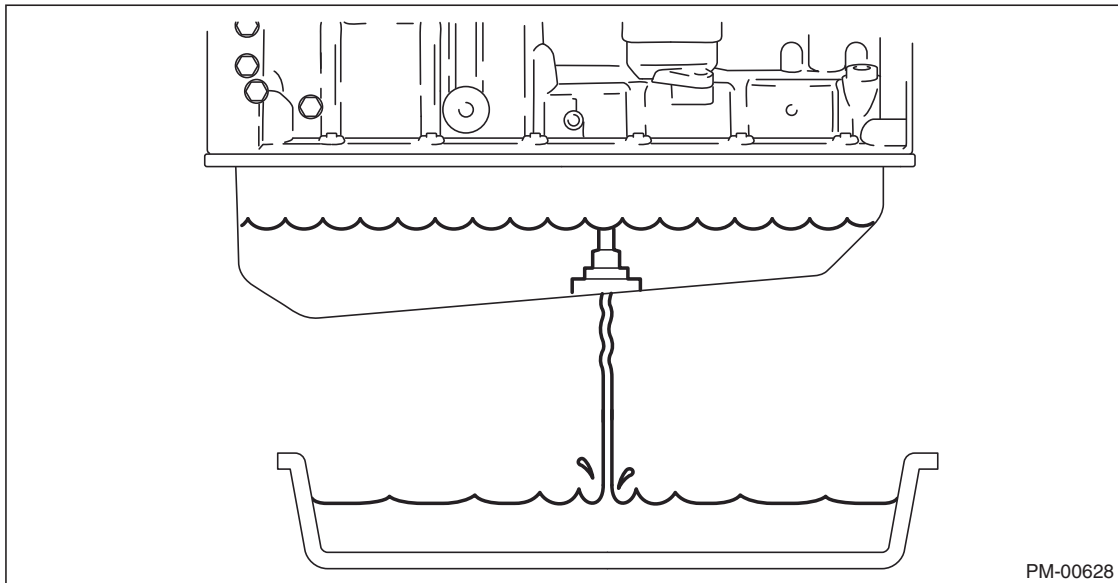
CAUTION:

Always be sure to adjust the ATF when at the proper temperature.

Lower than proper temperature	Proper temperature	Higher than proper temperature
Only the [▼] indicator lamp is illuminated	[▲] and [▼] indicator lamps are illuminated simultaneously	Only the [▲] indicator lamp is illuminated

- 3) Remove the overflow plug and check the oil amount when at the proper temperature for oil amount inspection.

- The oil amount is proper when fluid flows out of the overflow tube and then the flow of the fluid is thin.
- If fluid does not flow out of the overflow tube, fill through the refill hole until fluid flows out of the overflow tube. The oil amount is proper when the flow of the fluid is thin.



- 4) Install the overflow plug using a new gasket.

CAUTION:

Tighten the overflow plug with the ATF temperature at (43°C — 47°C (109.4°F — 116.6°F) (indicator lamps [▲] and [▼] are illuminated simultaneously).

Tightening torque:

20 N·m (2.1 kgf-m, 27.3 ft-lb)

- 5) Perform final tightening of the refill plug using a new O-ring.

Tightening torque:

39 N·m (4.0 kgf-m, 27.3 ft-lb)

- 6) Install engine under cover No. 2.

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

Automatic Transmission Fluid

PERIODIC MAINTENANCE SERVICES

7) Install engine under cover No. 1.

Tightening torque:

M10: 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

M12: 30 N·m (3.1 kgf-m, 22.1 ft-lb)

8) Lower the vehicle.

9) Turn the ignition to OFF.

Differential Gear Oil

PERIODIC MAINTENANCE SERVICES

15. Differential Gear Oil

A: INSPECTION

1. REAR DIFFERENTIAL

Check for leakage of gear oil from the rear differential.

B: REPLACEMENT

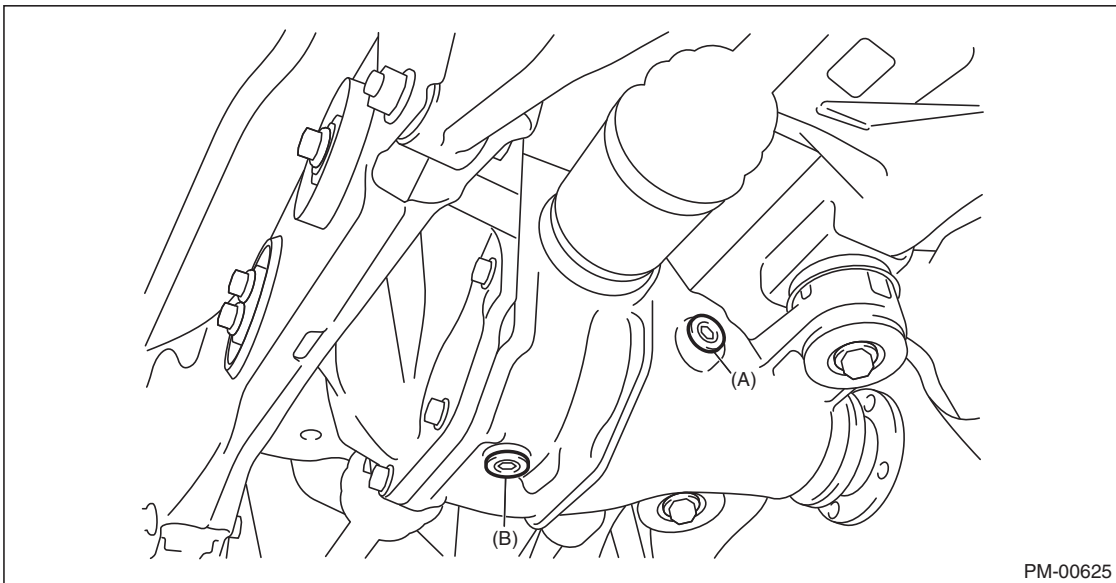
1. REAR DIFFERENTIAL

CAUTION:

- Gear oil is extremely hot just after driving. Be wary of receiving burns.
- Be careful not to spill the differential gear oil on exhaust pipe. If gear oil is spilled, wipe it off completely.

1) Lift up the vehicle.

2) Remove the filler plug and gasket using a 10-mm (0.39 in) socket hexagon wrench.



(A) Filler plug

(B) Drain plug

3) Remove the drain plug and gasket using a 10-mm (0.39 in) socket hexagon wrench.

4) Tighten the drain plug.

NOTE:

Use a new gasket.

Tightening torque:

49 N·m (5.0 kgf-m, 36.1 ft-lb)

5) Fill the differential carrier with gear oil to the bottom of filler plug.

NOTE:

Carefully refill gear oil while watching the level. Excessive or insufficient oil must be avoided.

Recommended gear oil:

Refer to "RM" section. <Ref. to RM-2, LUBRICANTS, RECOMMENDED MATERIALS, Recommended Materials.>

Oil capacity:

Refer to the "SPC" section. <Ref. to SPC-4, CAPACITY, BRZ.>

Differential Gear Oil

PERIODIC MAINTENANCE SERVICES

6) Install the filler plug.

NOTE:

Use a new gasket.

Tightening torque:

49 N·m (5.0 kgf-m, 36.1 ft-lb)

Brake Line

PERIODIC MAINTENANCE SERVICES

16.Brake Line

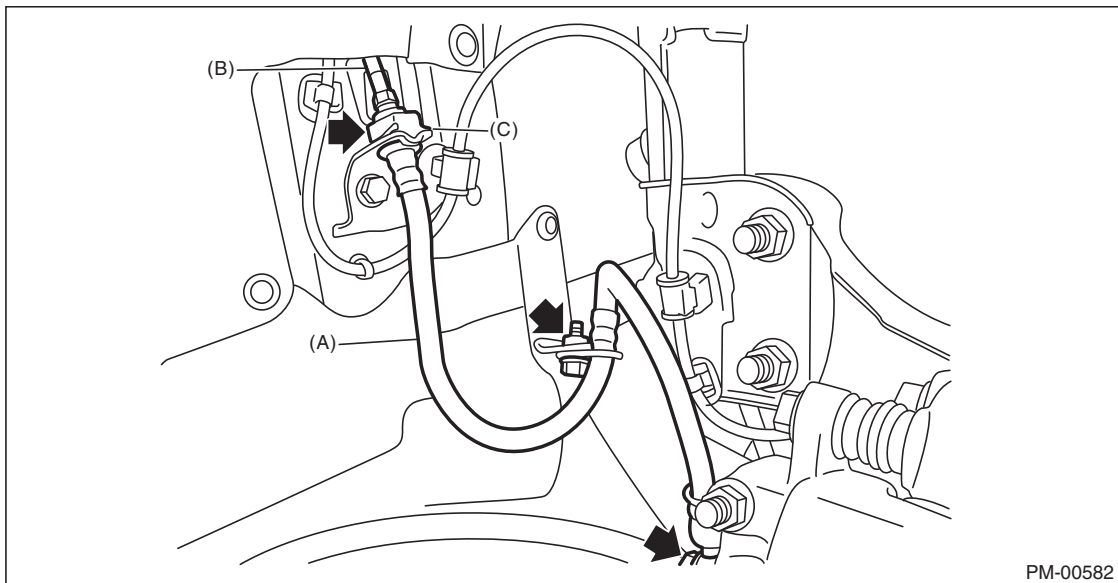
A: INSPECTION

1. BRAKE LINE

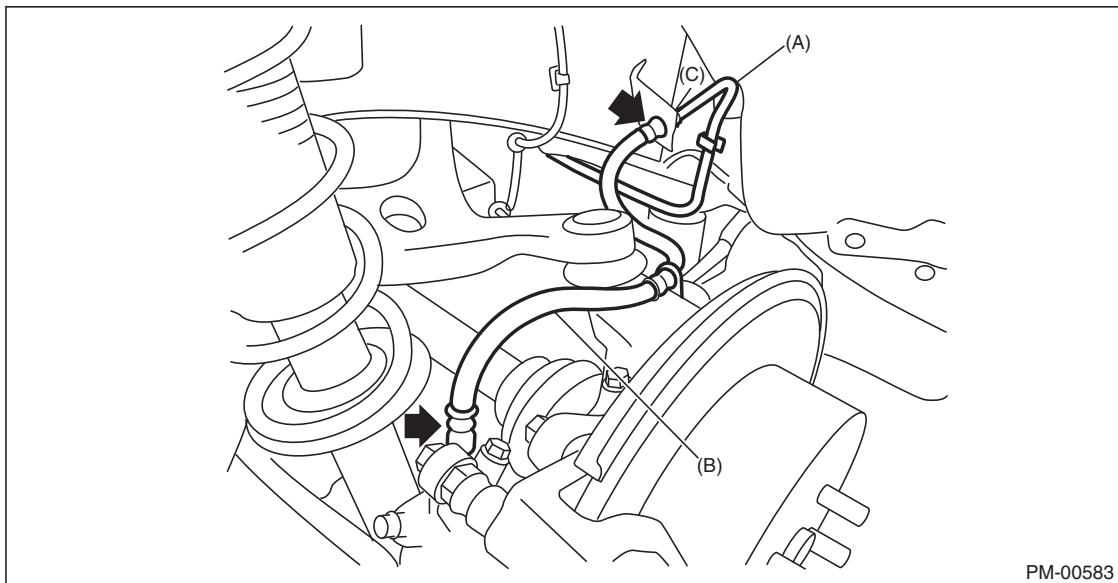
- 1) Check for scratches, swelling, corrosion, traces of fluid leakage on the brake hoses or pipe joints.
- 2) Make sure that brake pipes/hoses do not interfere with adjacent parts and there is no loose connector/ clamp during driving.
- 3) Check any trace of fluid leakage, scratches, etc. on master cylinder, wheel cylinder and hydraulic unit.

NOTE:

- When the brake fluid level in the reservoir tank is lower than specified limit, the brake warning light on the combination meter will illuminate.
- Visually check the brake hose for damage. (Use a mirror where it is difficult to see.)



- (A) Front brake hose
(B) Front brake pipe
(C) Clamp



- (A) Brake pipe
- (B) Rear brake hose
- (C) Clamp

2. SERVICE BRAKE

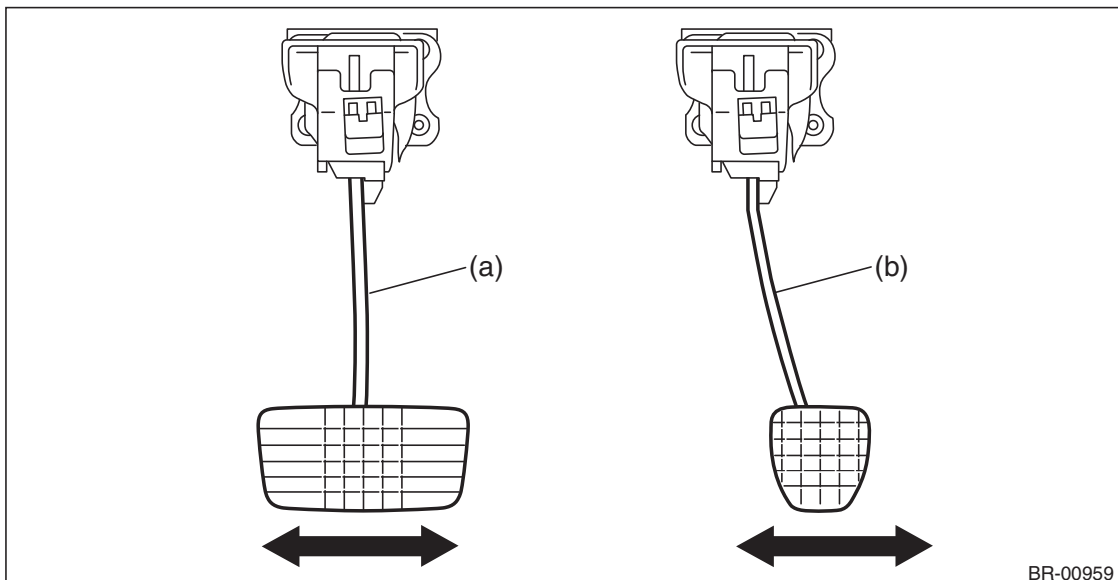
1) Move the brake pedal pads in a horizontal direction with a force of approx. 10 N (1 kgf, 2 lbf), and check that the pedal deflection is in the range of specifications.

CAUTION:

If excessive deflection is noted, replace with a new bushing.

Deflection of brake pedal:

Wear limit: 5.0 mm (0.197 in) or less



- (a) Brake pedal (AT model)
- (b) Brake pedal (MT model)

Brake Line

PERIODIC MAINTENANCE SERVICES

2) Check the position of the pedal pad.

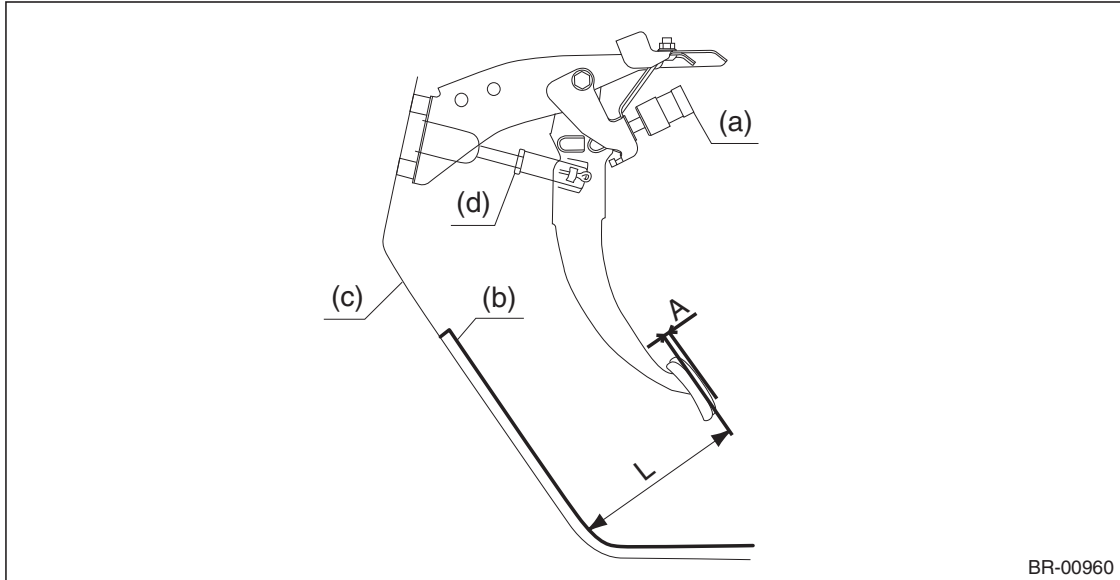
Pedal height L:

AT: 150 mm (5.90 in)

MT: 145 mm (5.71 in)

Brake pedal free play A:

0.5 — 2 mm (0.020 — 0.079 in) [When pulling the brake pedal upward with a force of less than 10 N (1 kgf, 2 lbf).]



(a) Switch - stop light

(b) Mat

(c) Toe board

(d) Brake booster operating rod

3) If it is not within the specification, loosen the lock nuts of vacuum booster operating rod, and rotate the rod to adjust the pedal height L within the specification.

4) Tighten the operating lock nut.

Tightening torque:

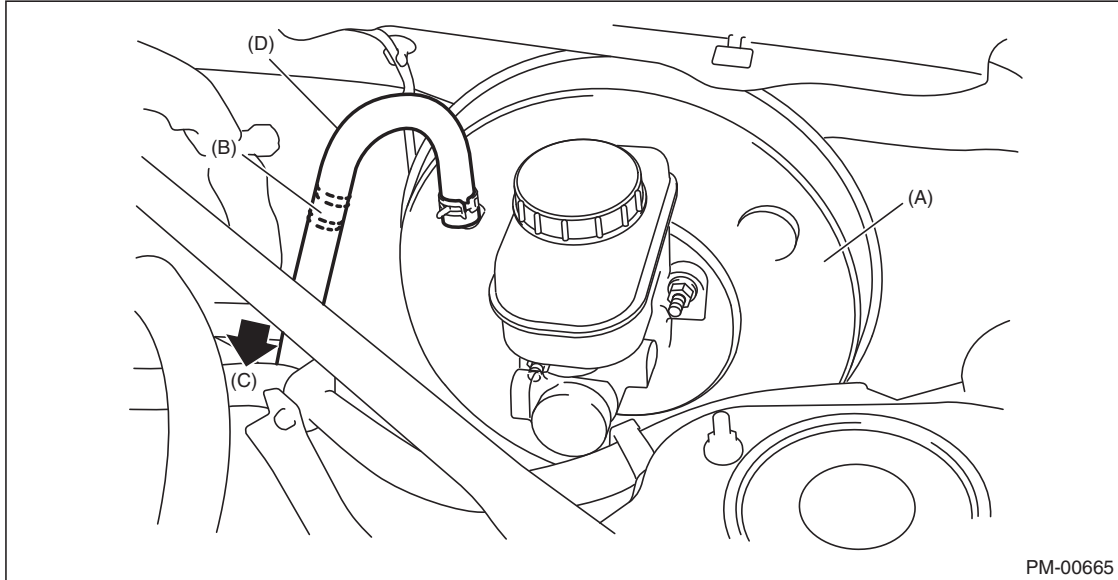
22 N·m (2.24 kgf-m, 16.2 ft-lb)

NOTE:

Check the brake pedal height. When adjusting, also adjust the switch - stop light.

3. BRAKE SERVO SYSTEM

- 1) With the engine off, depress the brake pedal several times applying the same pedal force. Check that the travel distance should not change.
- 2) With the brake pedal depressed, start the engine. Check that the pedal moves slightly toward the floor.
- 3) With the brake pedal depressed, stop the engine and keep the pedal depressed for 30 seconds. Check that the pedal height does not change.
- 4) A check valve is built into the vacuum hose. Remove the vacuum hose to inspect function of check valve.



- (A) Brake booster
- (B) Check valve
- (C) Engine side
- (D) Vacuum hose

- 5) Check the vacuum hose for cracks or other damage.

CAUTION:

When installing the vacuum hose on the engine and brake booster, do not use soapy water or lubricating oil on their connections.

- 6) Check that the vacuum hose is securely tightened.

Brake Fluid

PERIODIC MAINTENANCE SERVICES

17.Brake Fluid

A: INSPECTION

1) Check that the amount of brake fluid is between the lines of “MIN” and “MAX” from a straight view or within 90° to the right and left forward.

If out of the specified range, refill with brake fluid or drain the fluid.

If the brake fluid level is close to “MIN”, check the brake pad for wear and refill with brake fluid.

2) Check the fluid for discoloration. If the fluid is extremely discolored, replace with the new fluid.

B: REPLACEMENT

CAUTION:

- Do not let brake fluid come into contact with the painted surface of the vehicle body. Wash away with water immediately and wipe off if it is spilled by accident.
- Avoid mixing brake fluid of different brands to prevent fluid performance from degrading.
- Be careful not to allow dirt or dust to enter the reservoir tank.

NOTE:

- During the operation, keep the reservoir tank filled with brake fluid to prevent entry of air.
 - Operate the brake pedal slowly.
 - For convenience and safety, perform the work with 2 people.
- 1) Lift up the vehicle and set rigid racks at the specified locations, or keep the vehicle lifted.
 - 2) Remove both the front and rear wheels.
 - 3) Drain brake fluid from the reservoir tank.
 - 4) Refill the reservoir tank with recommended brake fluid.

Recommended brake fluid:

SUBARU genuine brake fluid

Perform the same procedure as for bleeding the brake line, until new brake fluid comes out from vinyl tube.

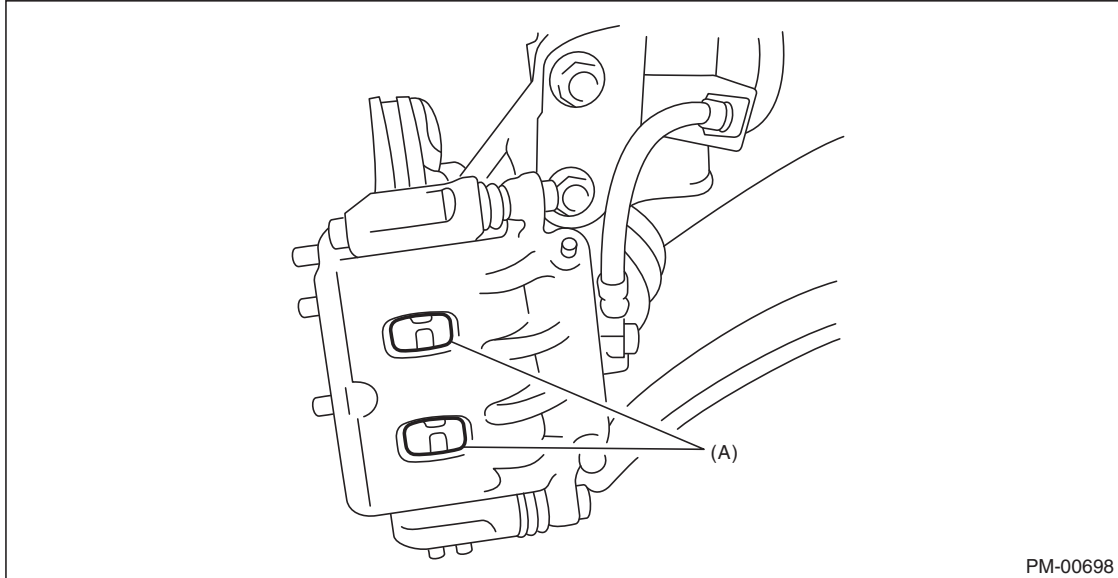
18. Disc Brake Pad and Disc

A: INSPECTION

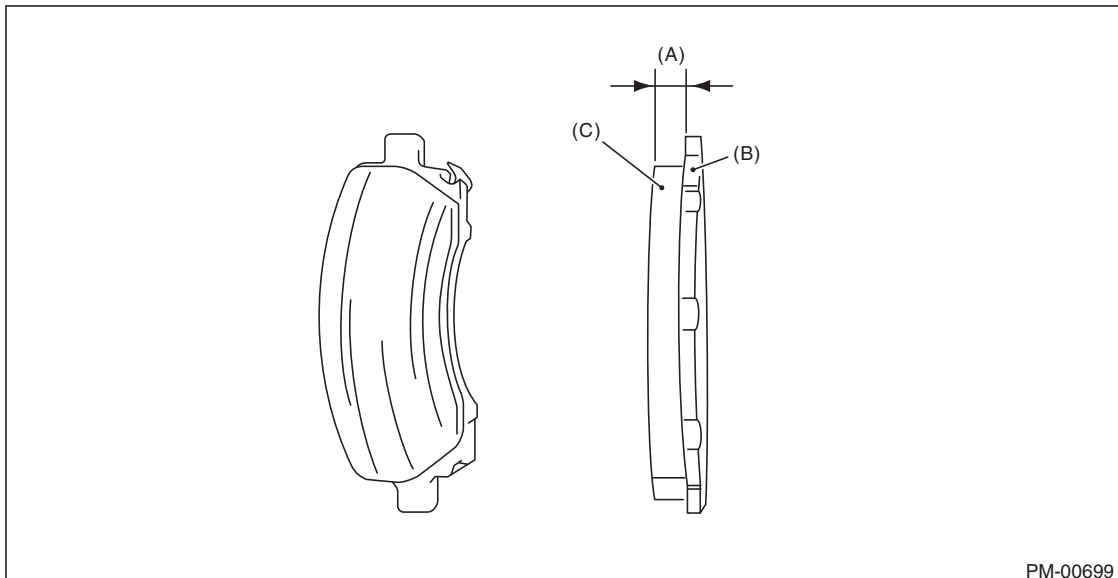
- 1) Lift up the vehicle, and remove the wheels.
- 2) Visually check the pad thickness through inspection hole of disc brake assembly. Replace the pad if necessary.

CAUTION:

When replacing a pad, always replace the pads for both the left and right wheels at the same time. Also replace the pad clips if they are twisted or worn.



(A) Inspection hole



- (A) Pad thickness
- (B) Back metal
- (C) Lining

Disc Brake Pad and Disc

PERIODIC MAINTENANCE SERVICES

- Front

Pad thickness		mm (in)
Standard		11 (0.43)
Wear limit		1.5 (0.059)

- Rear

Pad thickness		mm (in)
Standard	Ventilated	11 (0.43)
	Solid	9 (0.35)
Wear limit	Ventilated	1.5 (0.059)
	Solid	1.5 (0.059)

3) Check the disc rotor, and correct or replace if it is damaged or worn.

- Front

Disc rotor thickness		mm (in)
Standard		24 (0.94)
Wear limit		22 (0.87)

- Rear

Disc rotor thickness		mm (in)
Standard	Ventilated	18 (0.71)
	Solid	10 (0.39)
Wear limit	Ventilated	16 (0.63)
	Solid	8.5 (0.34)

4) Remove the caliper body.

5) Tighten the wheel nuts to secure disc rotor.

6) Set a dial gauge at a point of 10 mm (0.39 in) or less from outer periphery of the rotor, and then measure the disc rotor runout.

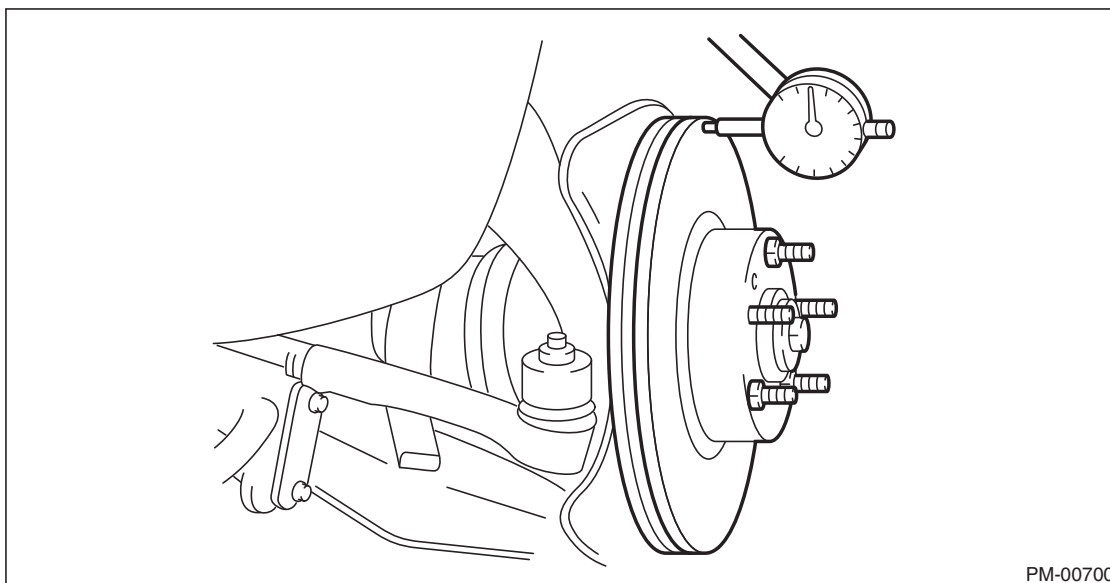
Disc rotor runout limit:

Front:

0.050 mm (0.0020 in)

Rear:

0.050 mm (0.0020 in)



PM-00700

19. Parking Brake

A: INSPECTION

1) Measure the inner diameter of the rear disc rotor. If scoring or worn is found on the disc, replace the rear disc rotor.

Disc rotor inner diameter:

Specification: 190 mm (7.48 in)

Service limit: 191 mm (7.52 in)

2) Measure the lining thickness. If it exceeds the limit, replace the parking brake shoe.

Lining thickness:

Specification: 3.5 mm (0.14 in)

Service limit: 1.5 mm (0.059 in)

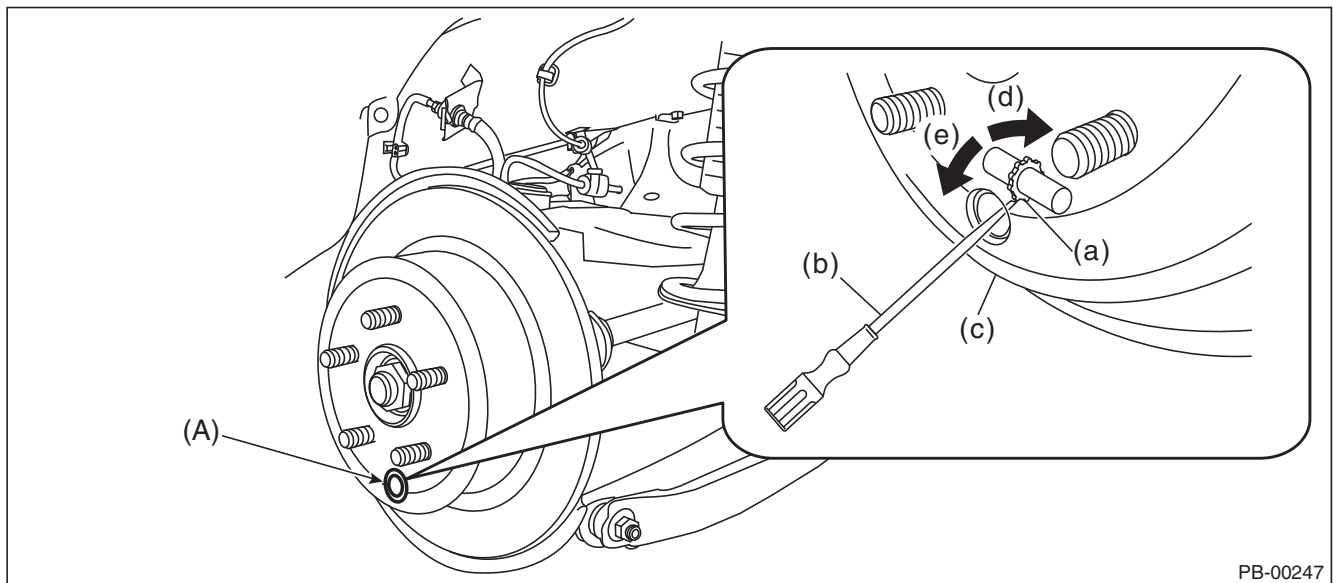
NOTE:

Replace the right and left parking brake shoe as a set.

B: ADJUSTMENT

1. SHOE CLEARANCE

- 1) Return the lever assembly - hand brake completely.
- 2) Loosen the adjusting nut, and make the cable free.
- 3) Remove the adjusting hole cover (A) from the rear disc rotor.
- 4) Turn the adjuster assembly - rear brake using a flat tip screwdriver until the parking brake shoe is in close contact with the rear disc rotor.



PB-00247

- | | | |
|--------------------------------|---|--|
| (a) Adjuster ASSY - rear brake | (c) Rear disc rotor | (e) Shorten the adjuster ASSY - rear brake |
| (b) Flat tip screwdriver | (d) Extend the adjuster ASSY - rear brake | |

5) Loosen the adjuster assembly - rear brake by 10 notches.

CAUTION:

- Check there is no brake drag.
- Make sure that the adjuster assembly - rear brake is loosened by 10 notches. If it is not loosened sufficiently, dragging may occur.

6) Install the adjusting hole cover to the rear disc rotor.

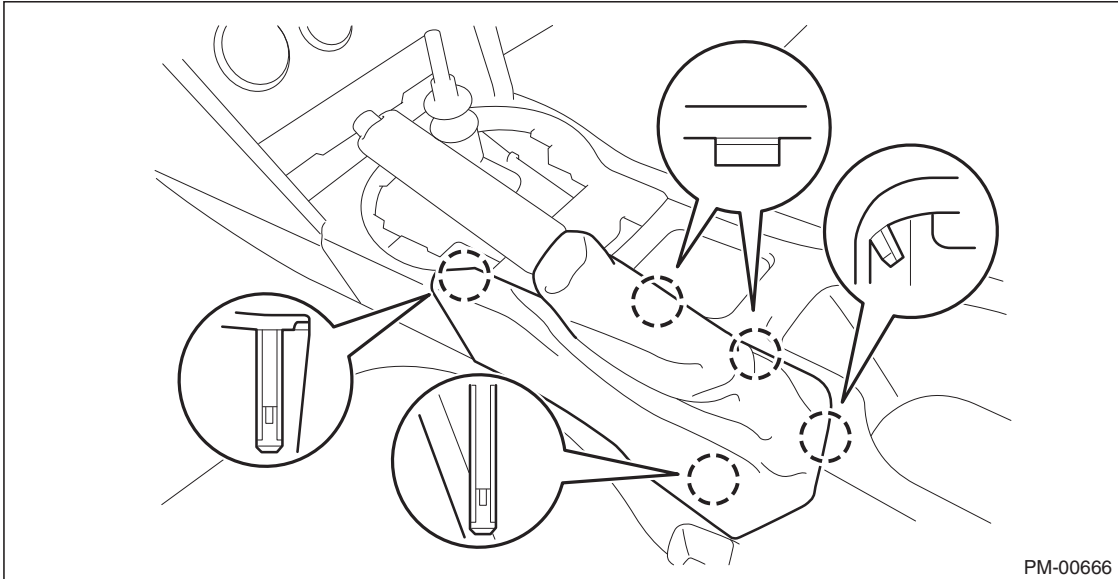
7) Adjust the parking lever stroke.

Parking Brake

PERIODIC MAINTENANCE SERVICES

2. LEVER STROKE

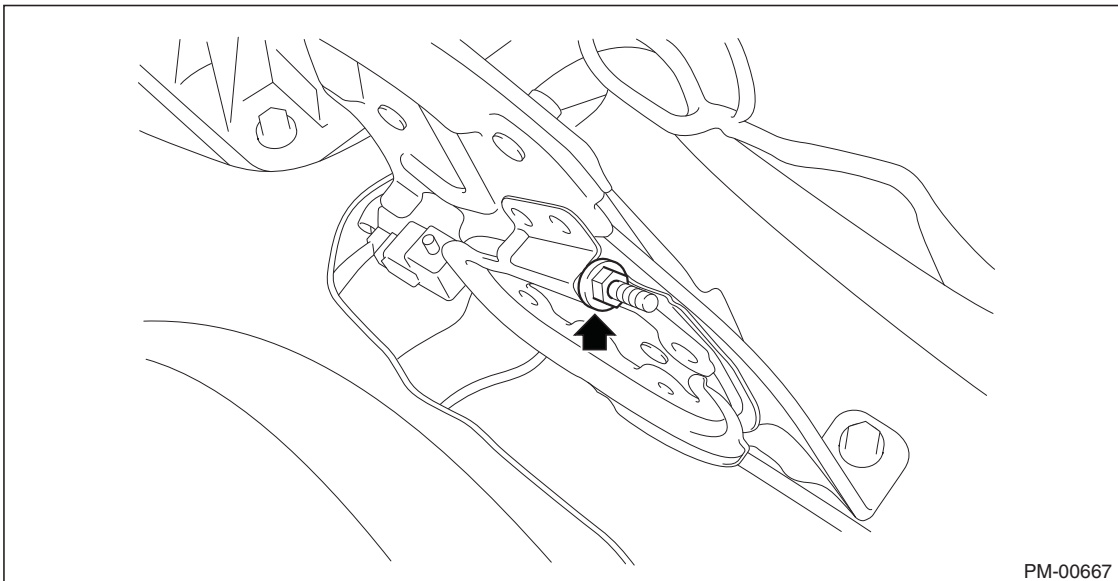
- 1) Adjust the parking shoe clearance before adjusting lever stroke.
- 2) Release the claws, and then remove the boot - parking brake.



- 3) Pull the lever assembly - hand brake hard 3 to 5 times.
- 4) Turn the adjusting nut until the lever stroke is at the specified value.

Lever stroke:

7 to 8 notches when pulled with a force of 200 N (20.4 kgf, 45 lbf)



- 5) Check there is no brake drag.
- 6) Check that the brake warning light illuminates when the lever assembly - hand brake is operated.

NOTE:

The light must illuminate when the first notch is reached after pulling the lever.

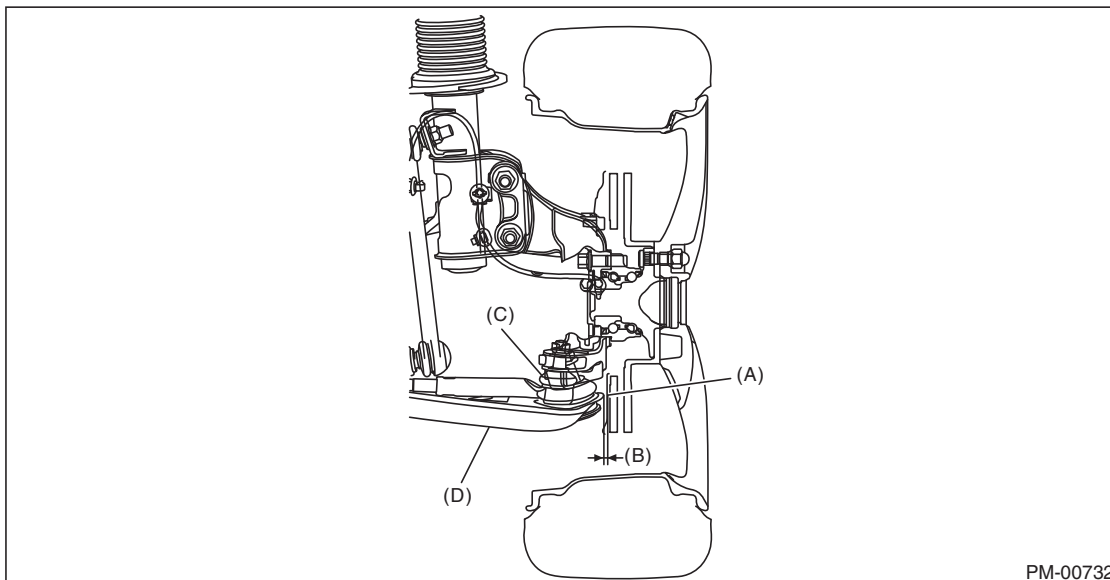
- 7) Install the boot - parking brake.

20. Suspension

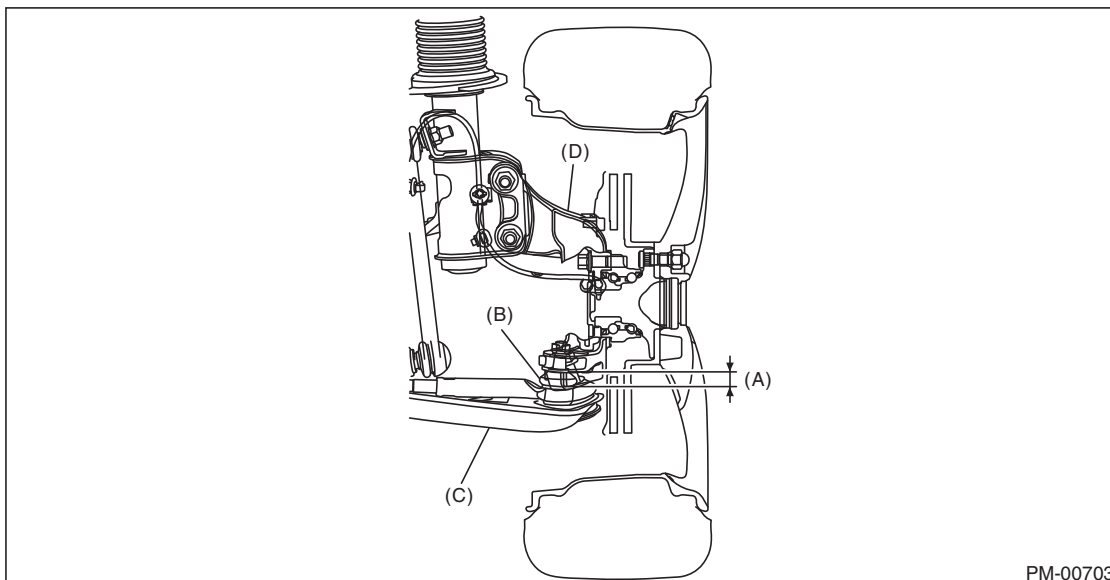
A: INSPECTION

1. FRONT SUSPENSION BALL JOINT

- 1) Lift up the vehicle until front wheels are off ground.
- 2) Grasp the bottom of tire and move it in and out in axial direction. If movement (B) is observed between the brake disc cover (A) and end of front arm (D), ball joint (C) may be excessively worn.



- 3) Next, grasp the end of front arm (C) and move it up and down. If movement (A) between the housing (D) and front arm (C) boss is observed, ball joint (B) may be excessively worn.



- 4) If the relative movement is observed in the preceding two steps, remove and inspect the front arm assembly. If the free play exceeds standard value, replace the front arm assembly.

Suspension

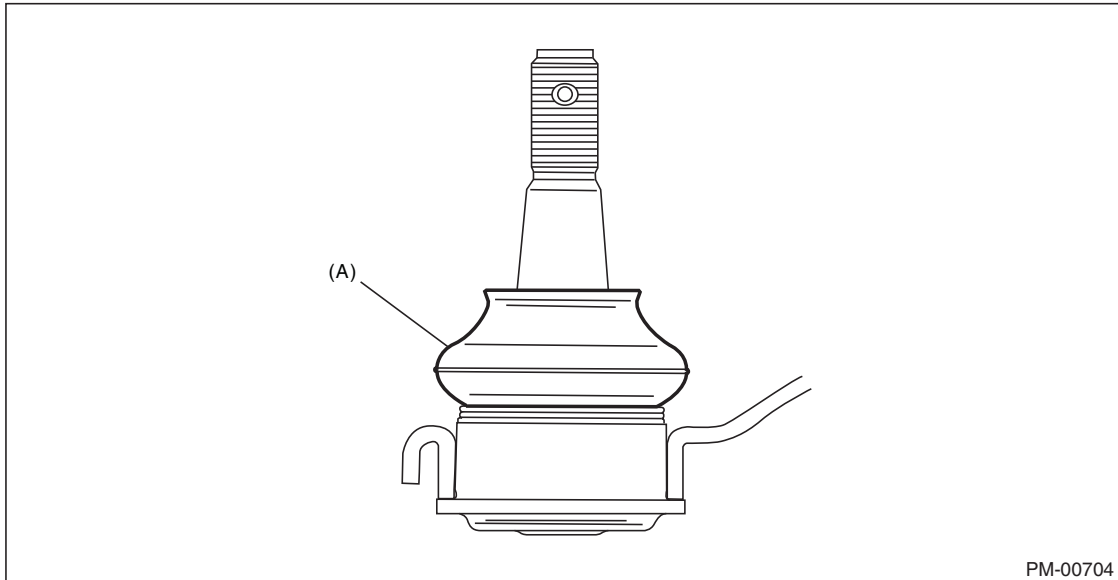
PERIODIC MAINTENANCE SERVICES

5) Damage of dust boots

Visually inspect the ball joint dust boots. Replace if the front arm assembly is damaged.

NOTE:

When the front arm assembly is removed or replaced, check the toe-in of the front wheel. If it is not within the specified value, adjust the toe-in.

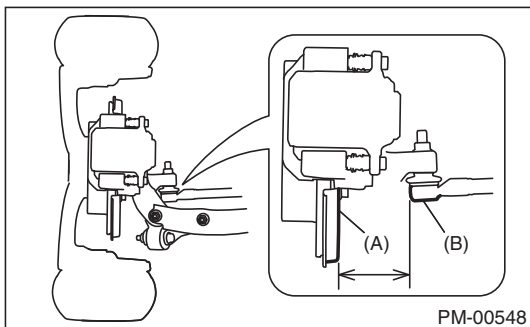


PM-00704

(A) Dust boots

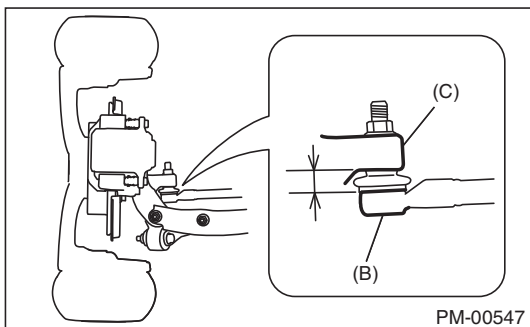
2. REAR SUSPENSION BALL JOINT

- 1) Lift up the vehicle until rear wheels are off ground.
- 2) Grasp the bottom of tire and move it in and out in axial direction.
- 3) If movement is observed between the brake disc cover (A) and end of front lateral link (B), ball joint may be excessively worn.



PM-00548

- 4) Grasp the end of front lateral link (B) and move it up and down. If movement is observed between the housing (C) and front lateral link (B) boss, ball joint may be excessively worn.



PM-00547

- 5) If the movement related to the previous two steps is observed, replace the front lateral link.

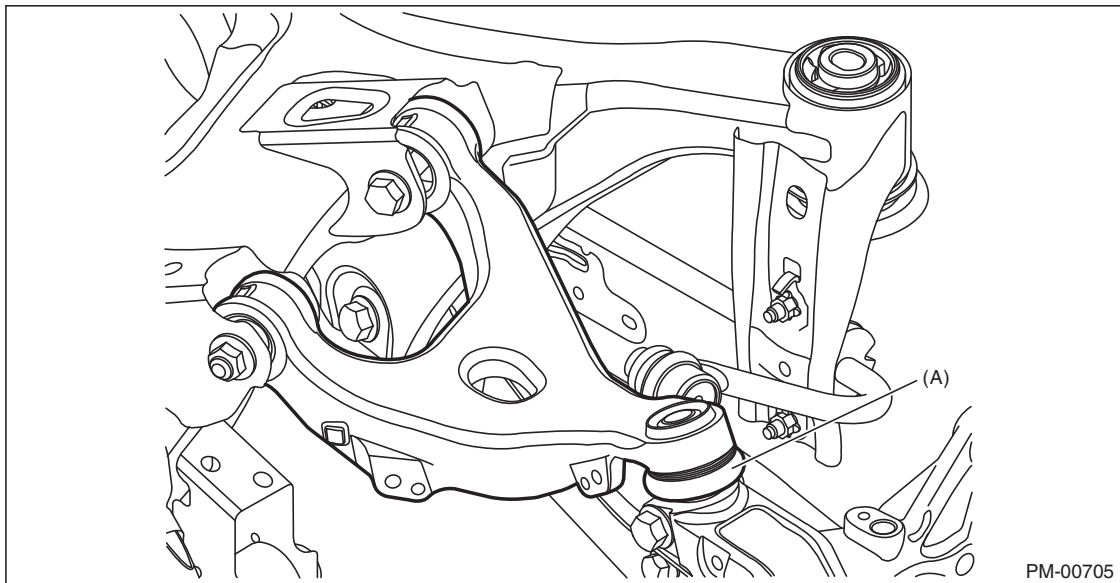
Suspension

PERIODIC MAINTENANCE SERVICES

6) Damage of dust boots

Visually inspect the ball joint dust boots. Replace if front lateral link is damaged.

7) Check the upper arm ball joint and the pillow ball bushing of housing in the same manner.

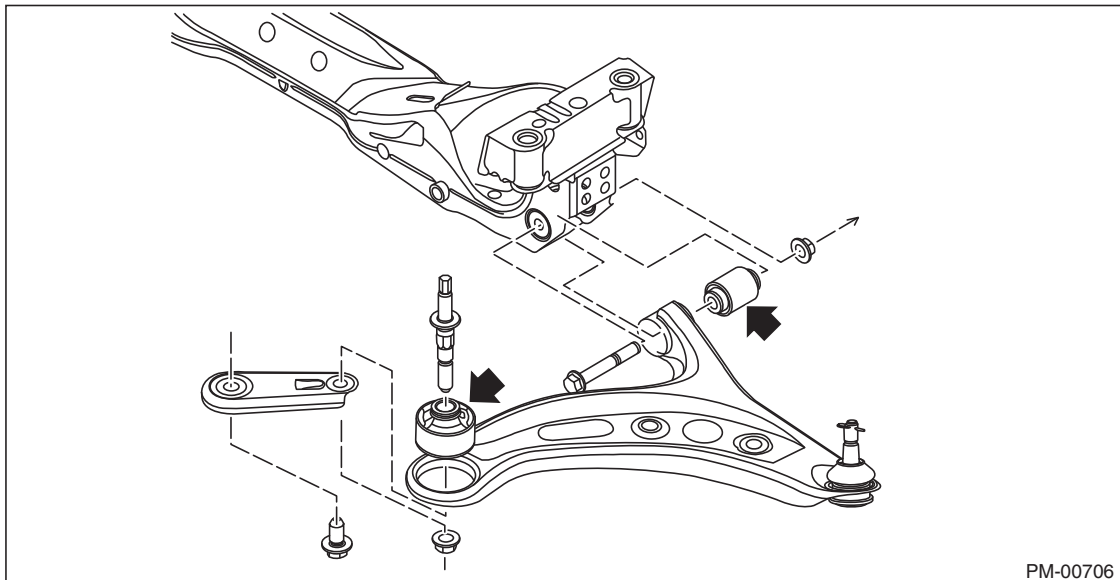


(A) Upper arm ball joint

3. FRONT, REAR SUSPENSION BUSHING

Apply pressure with a tire lever or similar tool, and inspect the bushing for excessive wear or damage. If defective, replace the bushing.

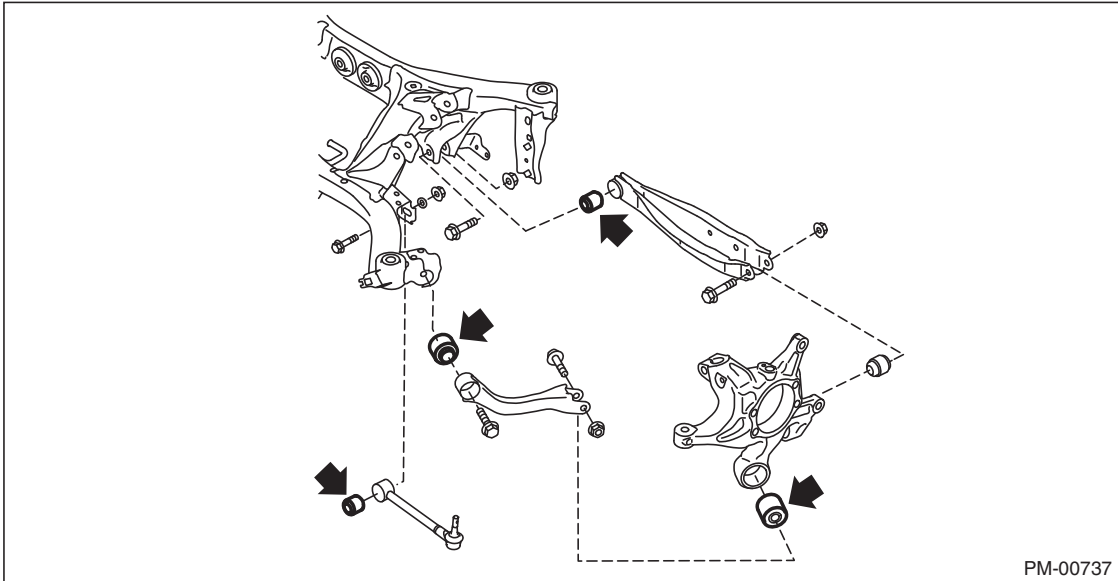
• Front suspension bushing



Suspension

PERIODIC MAINTENANCE SERVICES

- Rear suspension bushing



4. WHEEL ARCH HEIGHT

Check the wheel arch height.

5. WHEEL ALIGNMENT

Measure and adjust the front and rear wheel alignment at a time.

6. OIL LEAKAGE OF STRUT AND SHOCK ABSORBER

Visually inspect the front strut and rear shock absorber for oil leakage. Replace the front strut and rear shock absorber if oil leaks excessively.

7. TIGHTNESS OF BOLTS AND NUTS

Check the bolts and nuts for looseness. Retighten the bolts and nuts to specified torque. If the self-locking nuts and bolts are removed, replace them with new parts.

8. DAMAGE TO SUSPENSION PARTS

Check the following parts and the fastening portion of the vehicle body for deformation or excessive rusting which impairs the suspension. Thoroughly remove the deposits of the lower spring seat of strut where dust or mud are likely piled up. If necessary, replace the damaged parts with new parts. If minor rust formation, pitting, etc. are noted, remove the rust and take rust prevention measure.

- Front suspension
 - Front arm
 - Crossmember
 - Strut
- Rear suspension
 - Sub frame
 - Front lateral link
 - Rear lateral link
 - Upper arm
 - Trailing link
 - Shock absorber
- In the area where salt is sprayed to melt snow on a road in winter, check suspension parts for damage caused by rust every 12 months after lapse of 60 months. Take rust prevention measures as required.

21. Wheel Bearing

A: INSPECTION

1. FRONT WHEEL BEARING

NOTE:

Inspect the condition of front wheel bearing grease.

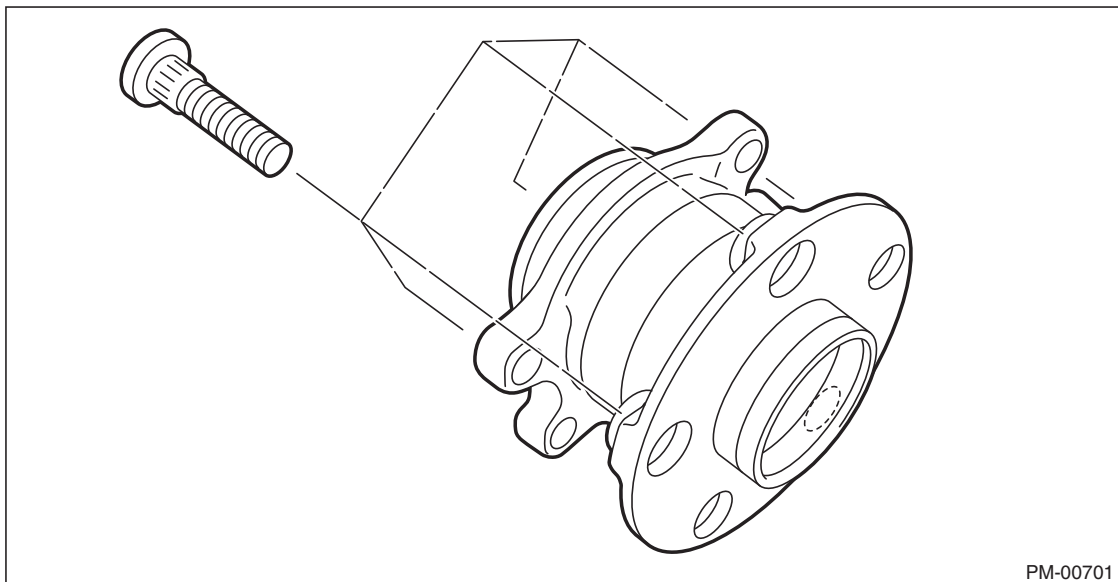
- 1) Jack-up the front side of vehicle.
- 2) While holding the front wheel by hand, swing it in and out to check bearing free play.
- 3) Loosen the wheel nuts, and remove the front wheel.
- 4) If the bearing free play exists in step 2) above, attach a dial gauge to the hub and measure axial play in axial direction.

Service limit:

Straight-ahead position within 0.05 mm (0.0020 in)

- 5) Remove the bolts and self-locking nuts, and extract the front arm from front crossmember.
- 6) Rotate the hub by hand and check for abnormal noise and binding.

If the hub is noisy or binds, replace the front axle.



PM-00701

2. REAR WHEEL BEARING

- 1) Jack-up the rear side of vehicle.
- 2) While holding the rear wheel by hand, swing it in and out to check bearing free play.
- 3) Loosen the wheel nuts, and remove the rear wheel.
- 4) If the bearing free play exists in step 2) above, attach a dial gauge to the hub and measure axial play in axial direction.

Service limit:

Straight-ahead position within 0.05 mm (0.0020 in)

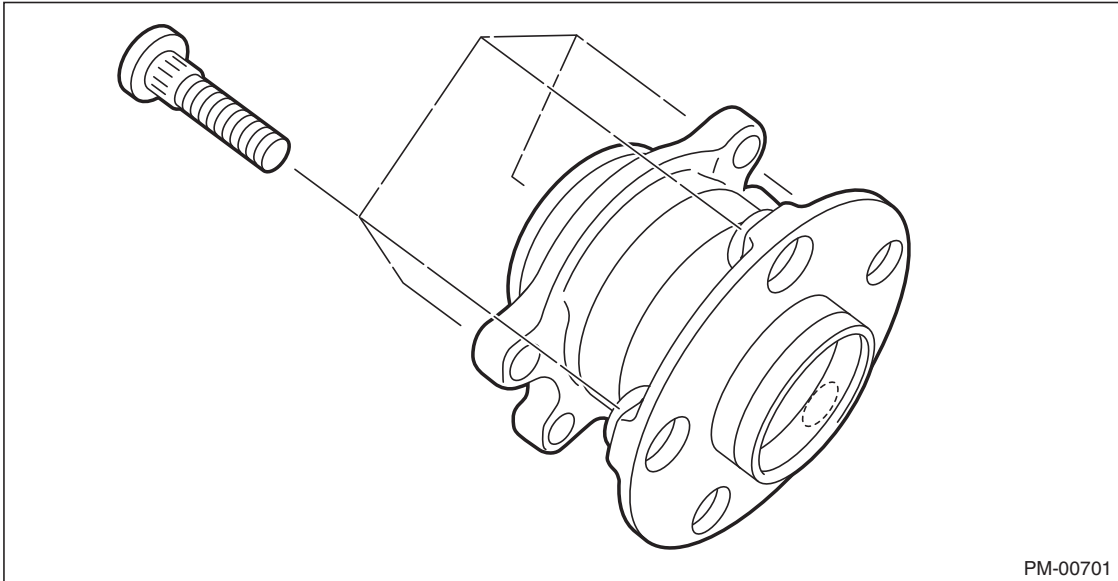
- 5) Remove the DOJ of rear drive shaft from rear differential.

Wheel Bearing

PERIODIC MAINTENANCE SERVICES

6) While supporting rear drive shaft horizontally with one hand, turn the hub with the other hand to check for noise or binding.

If the hub is noisy or binds, replace the rear axle.



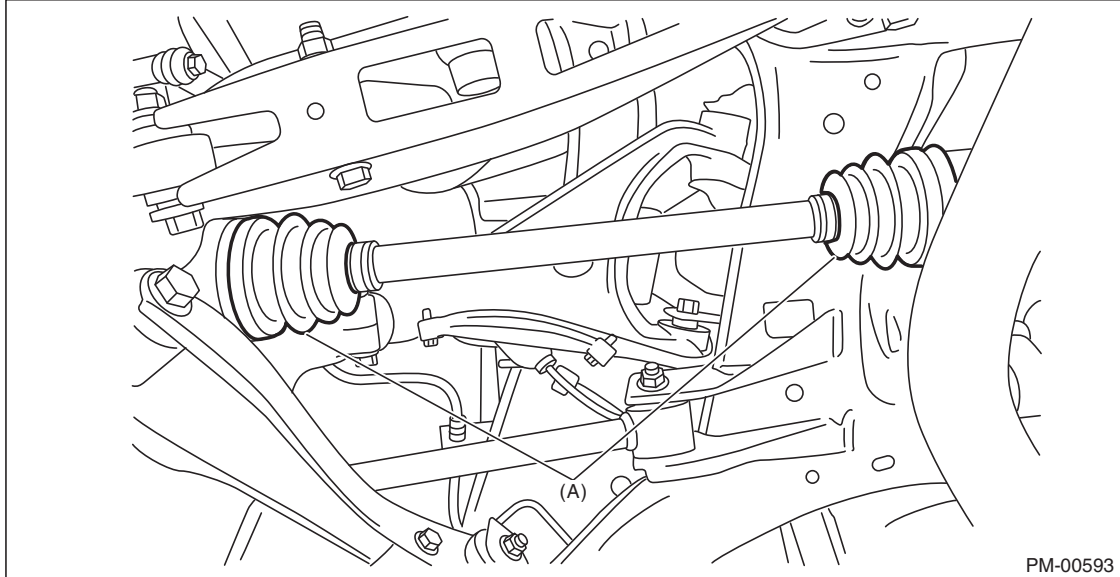
PM-00701

22. Axle Boots & Joints

A: INSPECTION

1. REAR AXLE BOOTS

Inspect the rear axle boots (A) for deformation, damage or failure. If faulty, replace with new part.



2. PROPELLER SHAFT

Inspect the propeller shaft for damage or failure. If faulty, replace with new part.

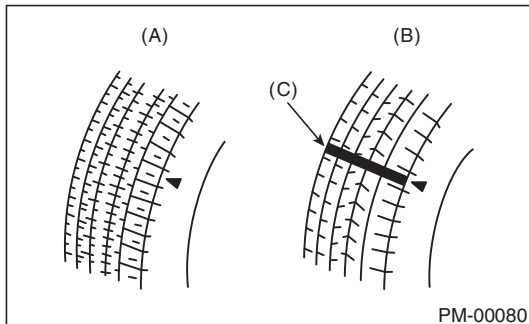
Tire Check and Rotation

PERIODIC MAINTENANCE SERVICES

23. Tire Check and Rotation

A: INSPECTION

1) When the tread has worn to less than 1.6 mm (0.063 in) or the tread wear indicator appears across the tread, replace the tire. (Replace the right and left tire as a set.)

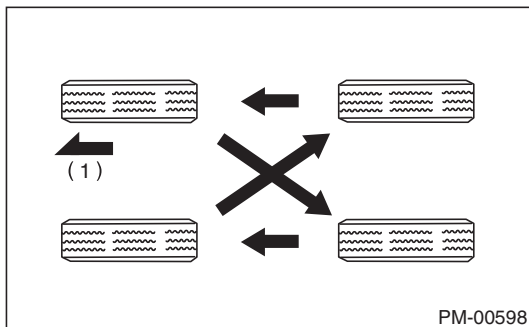


- (A) New tread
- (B) Damaged tread
- (C) Tread wear indicator

2) If the tire appears to be worn unevenly, adjust the wheel alignment.

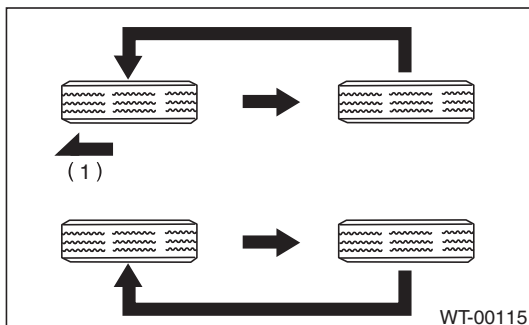
3) Next, make a tire rotation between front and rear as shown in the figure, make sure tires are worn evenly.

- When the direction of tire rotation is not specified



- (1) Front

- When the direction of tire rotation is specified



- (1) Front

24. Steering System (Power Steering)

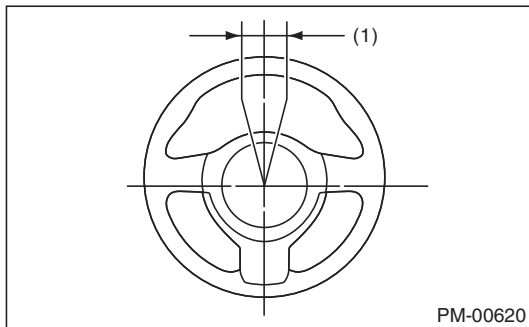
A: INSPECTION

1. STEERING WHEEL

- 1) Set the steering wheel in a straight-ahead position, and check the wheel spokes to make sure they are correctly set in their specified positions.
- 2) Lightly turn the steering wheel to the left and right to determine the point where front wheels start to move. Measure the distance of the movement of steering wheel (periphery).

Steering wheel free play:

0 — 30 mm (0 — 1.8 in)



(1) Steering wheel free play:

Move the steering wheel vertically toward the shaft to check if there is play in the direction.

Play limit:

0.5 mm (0.020 in)

- 3) Drive the vehicle and check the following items.

(1) Steering force:

The effort required for steering should be smooth and even at all points, and should not vary.

(2) Pulled to one side:

Steering wheel should not be pulled to one side while driving on a level surface.

(3) Wheel runout:

Steering wheel should not show any sign of runout.

(4) Return status:

Steering wheel should return to its original position after it has been turned and then released.

2. STEERING SHAFT JOINT

If steering wheel play is excessive, disconnect the universal joint of steering shaft and then check the play where the joints cross and yawing torque. Also, check the seal for damage or serrations for wear. If the joint is loose, retighten the mounting bolts to the specified torque.

Tightening torque:

35 N·m (3.6 kgf-m, 25.8 ft-lb)

Steering System (Power Steering)

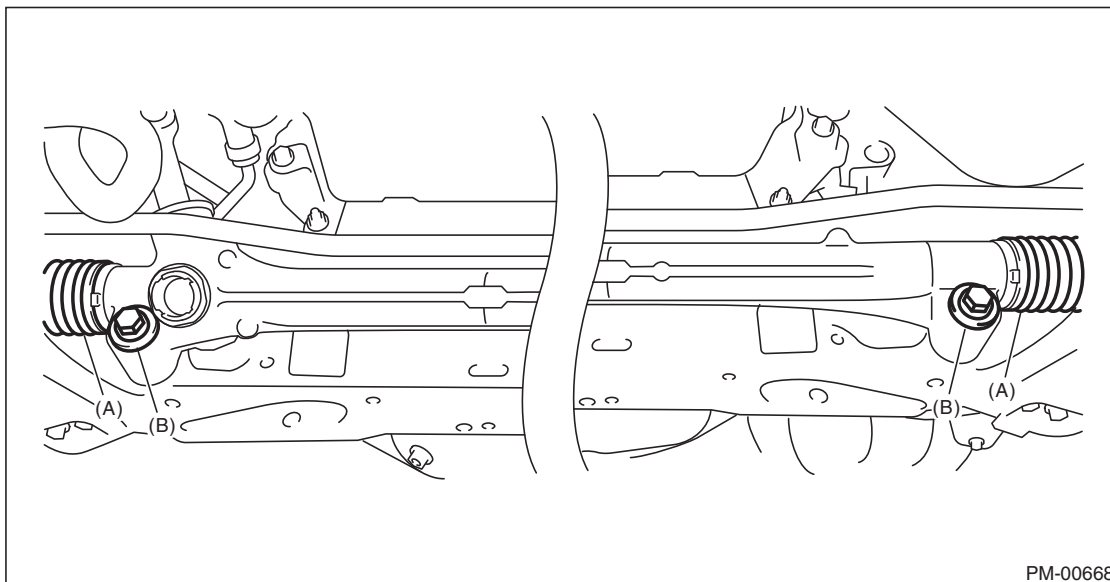
PERIODIC MAINTENANCE SERVICES

3. GEARBOX

1) Set the steering wheel in the straight position, then rotate it 90° in both the left and right directions. While steering wheel is being rotated, check the looseness of the gearbox.

Tightening torque:

60 N·m (6.1 kgf-m, 44.3 ft-lb)



(A) Boot

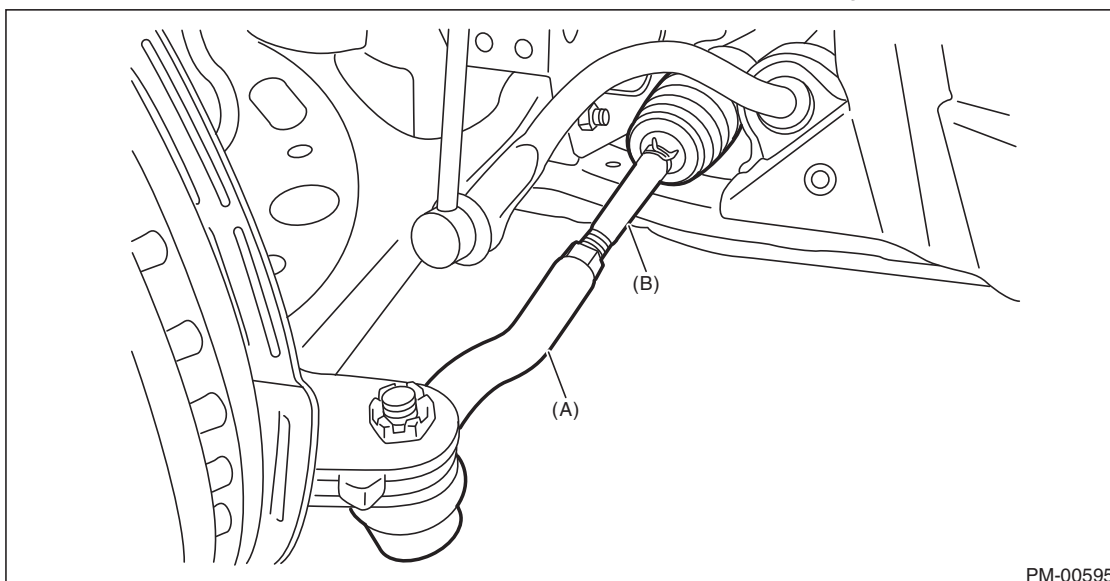
(B) Gearbox mounting bolt

2) Check the boot for damage, cracks or deterioration.

3) With the vehicle stopped on a level surface, quickly turn the steering wheel to the left and right. While steering wheel is being rotated, check the gear backlash. If any noise is noticed, adjust the gear backlash.

4. TIE-ROD

1) Check the tie-rod and tie-rod end for deformation, cracks and other damage.



(A) Tie-rod end

(B) Tie-rod

Steering System (Power Steering)

PERIODIC MAINTENANCE SERVICES

2) Confirm that the connections of knuckle ball joints for play, and then check for damage on dust boots and free play of ball studs. If castle nut is loose, retighten it to the specified torque, then tighten further up to a maximum of 60° until the cotter pin hole is aligned.

Tightening torque:

27 N·m (2.75 kgf-m, 19.9 ft-lb)

3) Check the tightening of tie-rod end lock nut. If it is loose, tighten it to the specified torque.

Tightening torque:

85 N·m (8.7 kgf-m, 62.7 ft-lb)

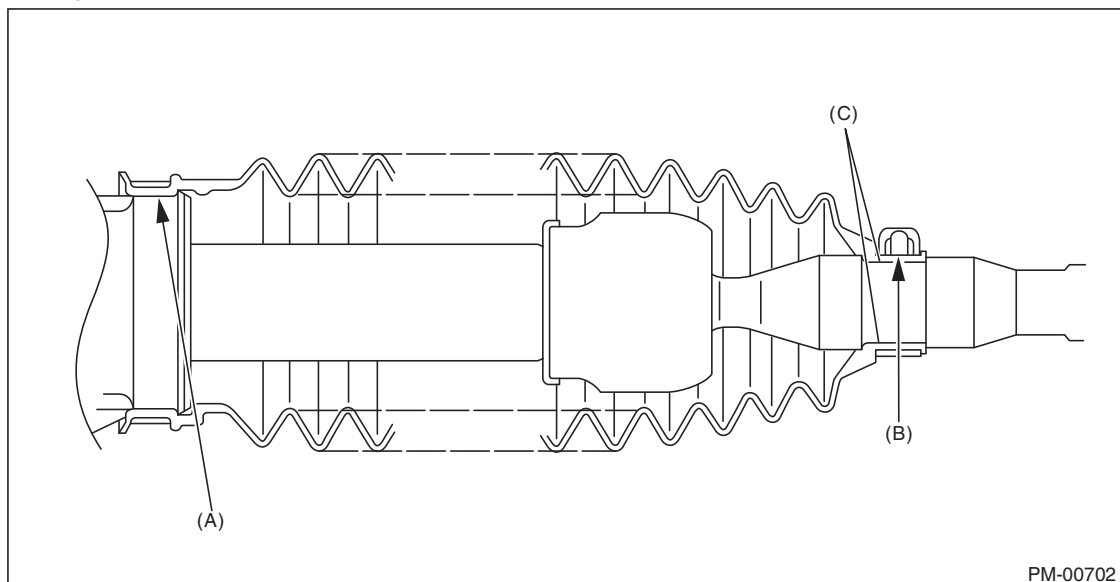
5. GEARBOX BOOTS

Inspect both sides of the gearbox boot as follows, and correct the defects if necessary.

- 1) The (A) and (B) positions of the gearbox boot are fitted in (A) and (C) grooves of gearbox and the rod.
- 2) Clips are fitted outside of positions (A) and (B) of boot.
- 3) Make sure that there is no cracks or holes in the boot.

NOTE:

Rotate (B) position of gearbox boot against the torsion produced by the adjustment of toe-in etc. Apply grease to the groove (C).



PM-00702

6. MOUNTING BOLT & NUT

Inspect the fitting bolts and nuts for looseness, and retighten if necessary.

7. CHECK HARNESS

Check the harness of the electric power steering for cracks or damages.

Replace the electric steering column with a new part if necessary.

8. CHECK POWER STEERING CONTROL MODULE

Check for the electric power steering diagnostic trouble codes. If the diagnostic trouble code is detected, perform the diagnosis.

Replace the control module and steering column with new parts if necessary.

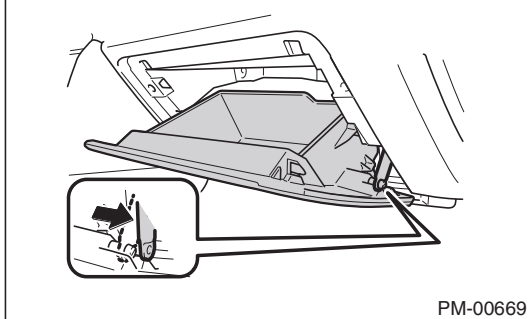
A/C Filter

PERIODIC MAINTENANCE SERVICES

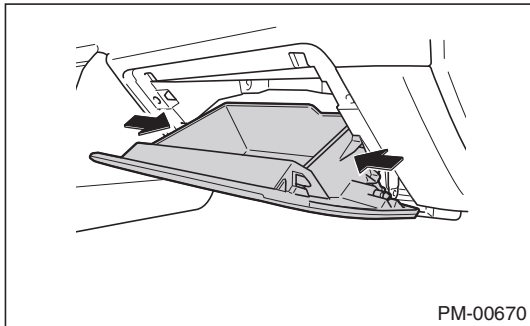
25.A/C Filter

A: REPLACEMENT

- 1) Open the glove box and remove the damper stay pin.



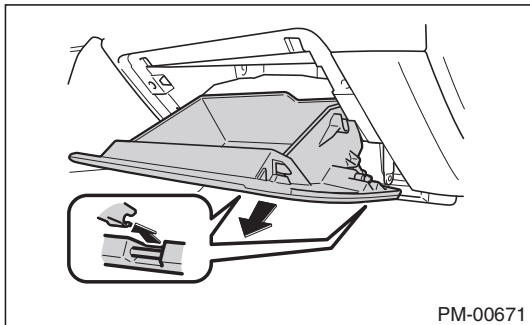
- 2) Press the glove box sidewall inwards and remove the upper grommet.



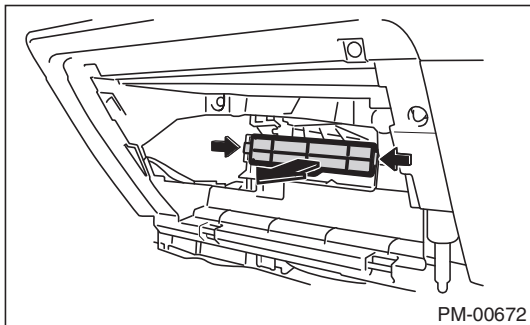
- 3) Remove the tab of the lower part of the glove box.

CAUTION:

- Always be sure to pull out the glove box horizontally. Pulling the glove box out upwardly can deform the hinges, resulting in looseness.



- 4) Remove the filter cover.



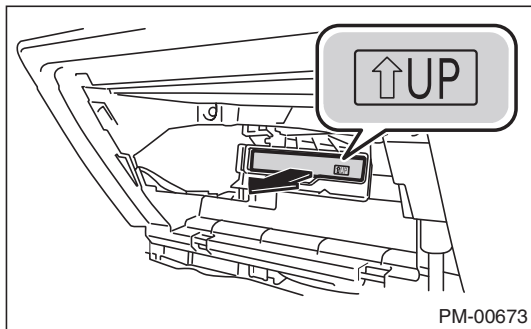
A/C Filter

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5) Remove the filter and install a new filter.

NOTE:

Install with “UP” mark facing upwards.



6) Install in the reverse order of removal.

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