
GROUP 13C

FUEL SUPPLY

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GENERAL INFORMATION

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- The fuel tank is located under the floor of the rear seats to provide increased protection and a more luggage space.
- A fuel tank safety valve assembly has been adopted to prevent fuel from leaking out in case of a collision.
- A fuel pump and gauge assembly including fuel pump, fuel filter, reservoir and fuel gauge unit, has been adopted to lighten weight and improve serviceability.

SEALANT

M1135005200039

Item	Specified sealant
Service hole cover and floor pan <2WD>	3M 8513 Grommets windshield sealer (Black)

ON-VEHICLE SERVICE

FUEL PUMP OPERATION CHECK

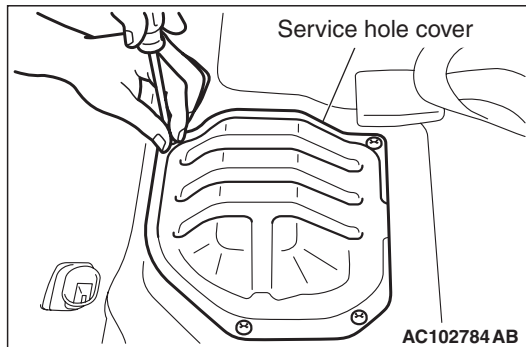
M1135001000367
<4G64>: Refer to GROUP 13A – On-vehicle Service, Fuel Pump Operation Check [P.13A-284](#).
<4G69>: Refer to GROUP 13B – On-vehicle Service, Fuel Pump Operation Check [P.13B-405](#).

FUEL GAUGE UNIT CHECK

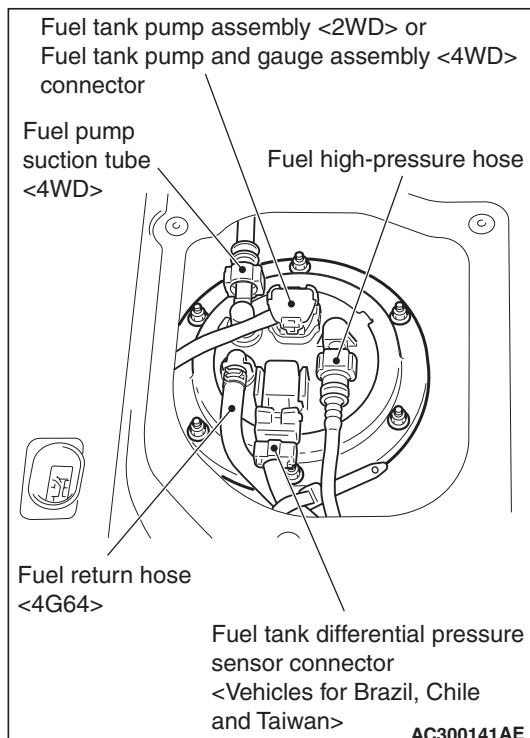
M1135003100478
Refer to GROUP 54A – Combination Meter, On-vehicle Service, Fuel Gauge Unit Check [P.54A-39](#) <2WD>, [P.54A-40](#) <4WD>.

FUEL TANK PUMP AND GAUGE ASSEMBLY REPLACEMENT

- M1135004900637
1. Remove the rear seat cushion assembly (Refer to GROUP 52A – Rear Seat Assembly [P.52A-36](#)).

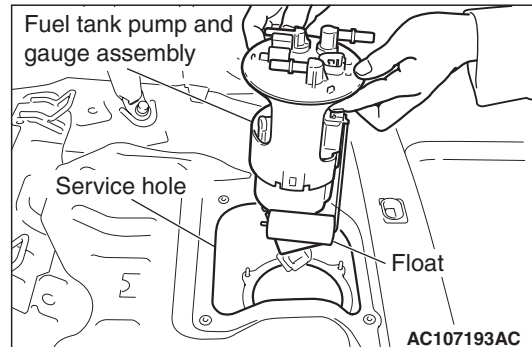


2. Remove the service hole cover mounting screws and remove the service hole cover.



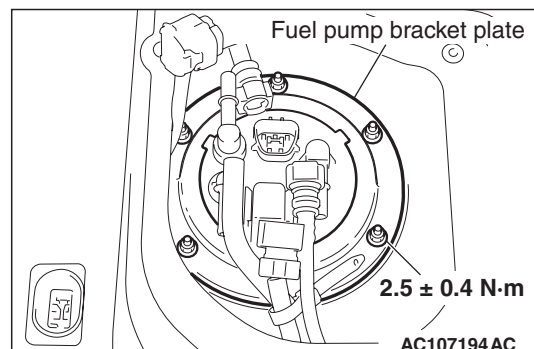
3. Disconnect the fuel tank pump assembly <2WD> or fuel tank pump and gauge assembly <4WD> connector, fuel tank differential pressure sensor connector <Vehicles for Brazil, Chile and Taiwan>, fuel return hose <4G64>, fuel high-pressure hose and fuel suction tube <4WD>.

CAUTION



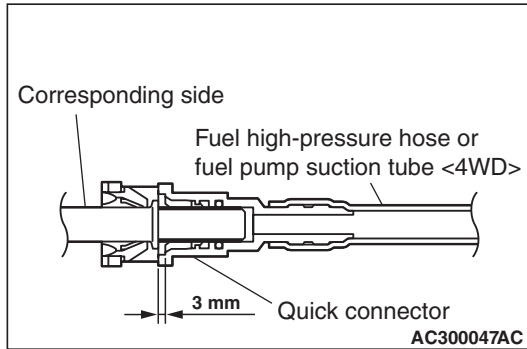
For 4WD: Pay attention not to damage the float when removing and installing fuel tank pump and gauge assembly through the service hole.

4. Remove the mounting nuts and fuel pump bracket plate, and remove the fuel tank pump assembly <2WD>, fuel tank pump and gauge assembly <4WD> from the service hole.
5. Install the fuel tank pump assembly <2WD>, fuel tank pump and gauge assembly <4WD> to the fuel tank through the service hole.

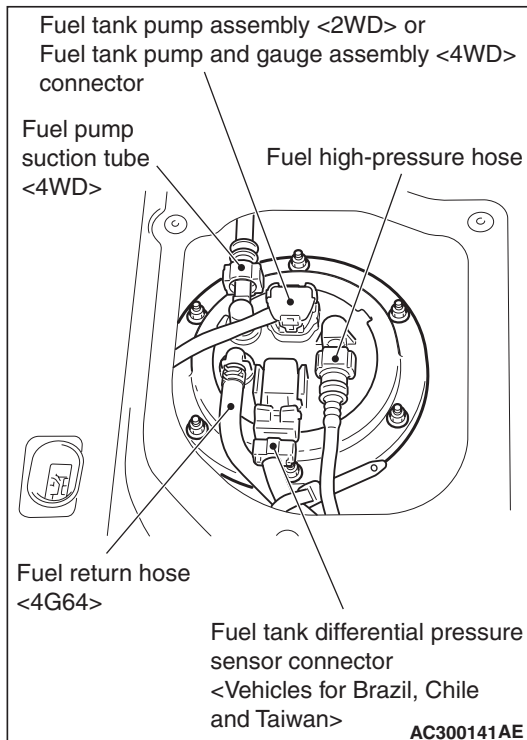


6. Install the fuel pump bracket plate to the fuel tank and tighten the mounting nuts to the specified torque.

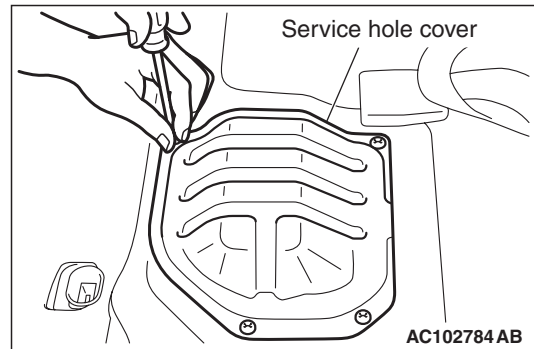
Tightening torque: 2.5 ± 0.4 N·m

CAUTION

After connecting the fuel high-pressure hose or fuel pump suction tube, slightly pull it to ensure that it is installed securely. Also confirm that there is a play approximately 3 mm.



7. Connect the fuel tank pump assembly <2WD> fuel tank pump and gauge assembly <4WD> connector, fuel tank differential pressure sensor connector <Vehicles for Brazil, Chile and Taiwan>, fuel return hose <4G64>, fuel high-pressure hose and fuel suction tube <4WD>.

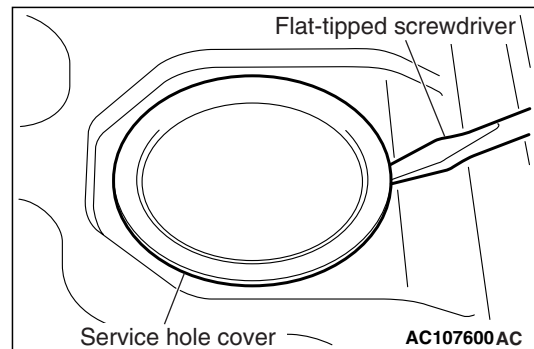


8. Tighten the service hole cover mounting screws and install the service hole cover.
9. Install the rear seat cushion assembly (Refer to GROUP 52A – Rear Seat Assembly [P.52A-36](#)).

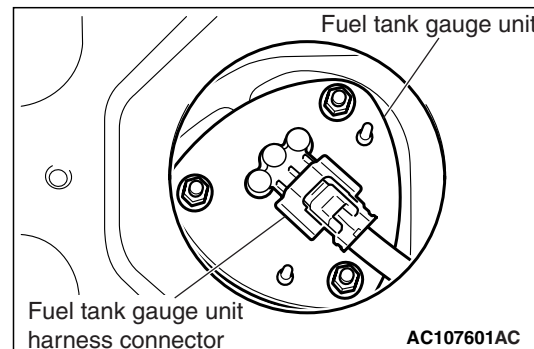
FUEL GAUGE UNIT REPLACEMENT**FUEL TANK GAUGE UNIT REPLACEMENT <2WD>**

M1135001400473

Remove the rear seat cushion assembly (Refer to GROUP 52A – Rear Seat Assembly [P.52A-36](#)).

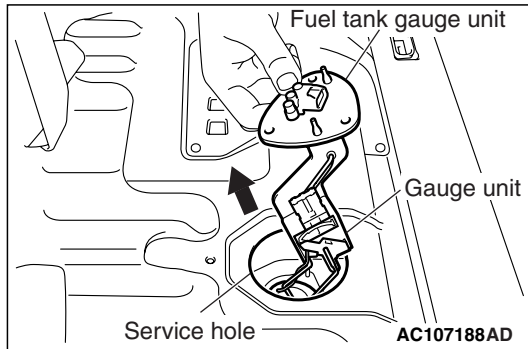


1. Pry off the service hole cover using a flat-tipped screwdriver, etc.



2. Disconnect the fuel tank gauge unit harness connector.

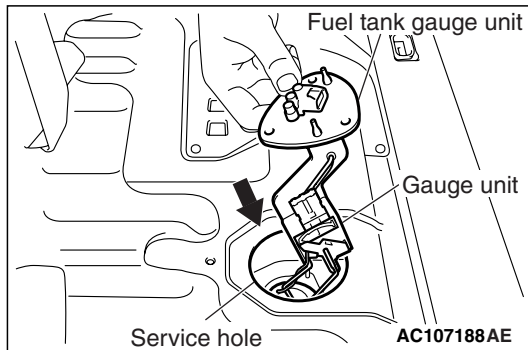
CAUTION



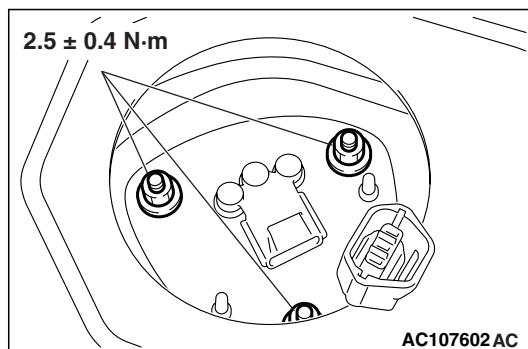
Pay attention not to damage the gauge unit and the float of the fuel tank gauge unit when withdrawing it from the service hole.

3. Remove the fuel tank gauge unit mounting bolts and remove the fuel tank gauge unit from service hole.

CAUTION

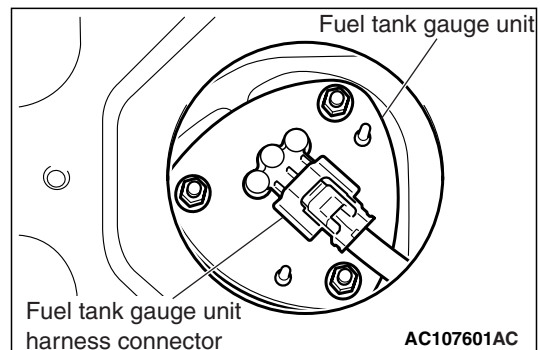


Pay attention not to damage the gauge unit and the float of the fuel tank gauge unit when inserting it from the service hole.

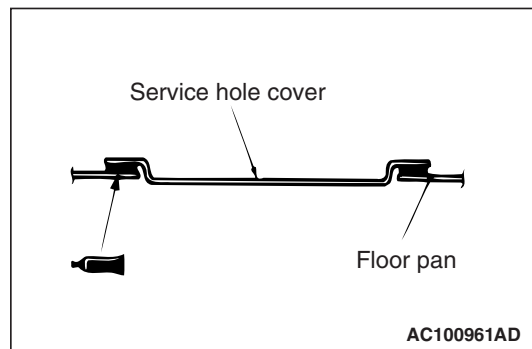


4. Install the fuel tank gauge unit to the fuel tank through the service hole, and tighten the mounting nuts to the specified torque.

Tightening torque: 2.5 ± 0.4 N·m



5. Connect the fuel tank gauge unit harness connector.



6. Apply the specified sealant to the contact surfaces of the service hole cover and the floor pan, and install the service hole cover.

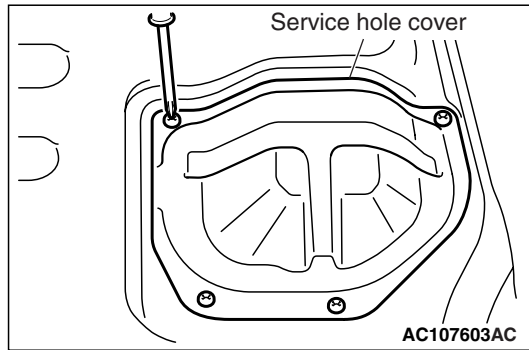
Specified sealant: 3M 8513 Grommets Wind-shield Sealer (Black)

7. Install the rear seat cushion assembly (Refer to GROUP 52A – Rear Seat Assembly [P.52A-36](#)).

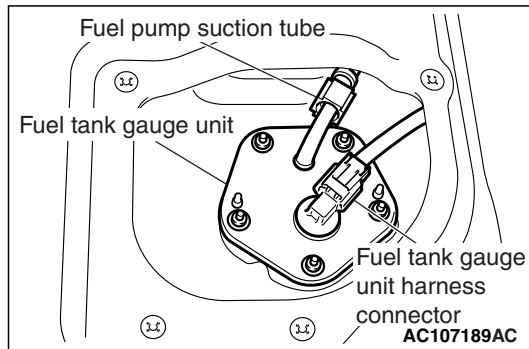
FUEL TANK GAUGE UNIT REPLACEMENT <4WD>

M1135001400484

Remove the rear seat cushion assembly (Refer to GROUP 52A – Rear Seat Assembly P.52A-36).

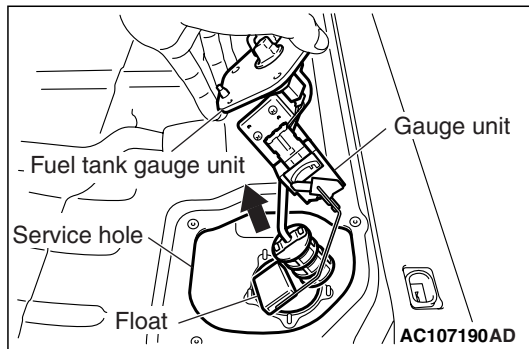


1. Remove the service hole cover mounting screws and remove the service hole cover.



2. Disconnect the fuel tank gauge unit harness connector and fuel pump suction tube.

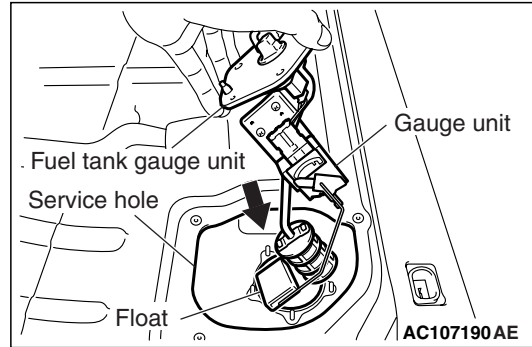
CAUTION



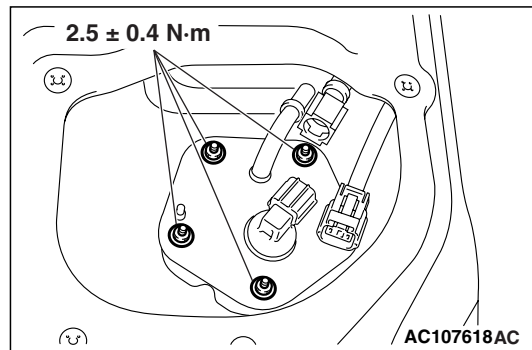
Pay attention not to damage the gauge unit and the float of the fuel tank gauge unit when withdrawing it from the service hole.

3. Remove the fuel tank gauge unit mounting nuts and remove the fuel tank gauge unit from service hole.

CAUTION



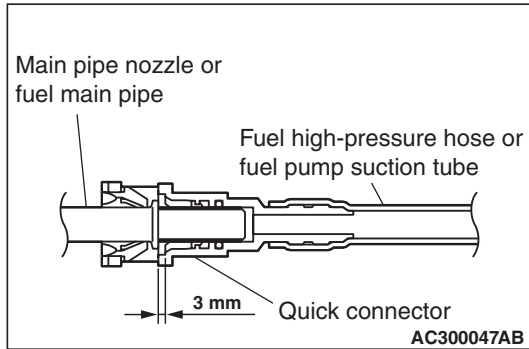
Pay attention not to damage the gauge unit and the float of the fuel tank gauge unit when inserting it from the service hole.



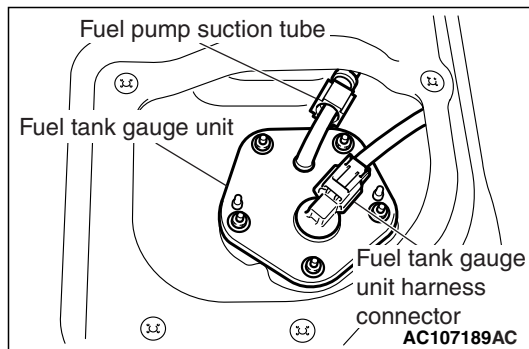
4. Install the fuel tank gauge unit to the fuel tank through the service hole, and tighten the mounting nuts to the specified torque.

Tightening torque: $2.5 \pm 0.4 \text{ N}\cdot\text{m}$

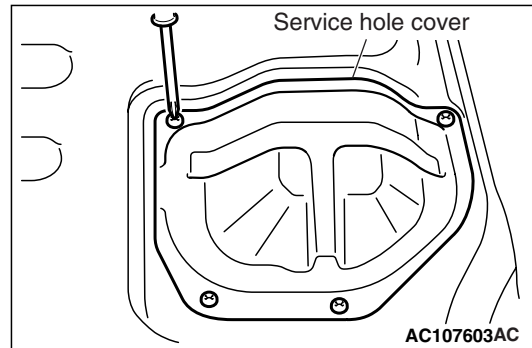
CAUTION



After connecting the fuel high-pressure hose, slightly pull it to ensure that it is installed securely. Also confirm that there is a play approximately 3 mm.



5. Connect the fuel tank pump gauge unit harness connector and fuel suction tube.



6. Tighten the service hole cover mounting screws and install the service hole cover.
7. Install the rear seat cushion assembly (Refer to GROUP 52A – Rear Seat Assembly [P.52A-36](#)).

FUEL TANK

REMOVAL AND INSTALLATION <EXCEPT
FOR BRAZIL, CHILE AND TAIWAN>

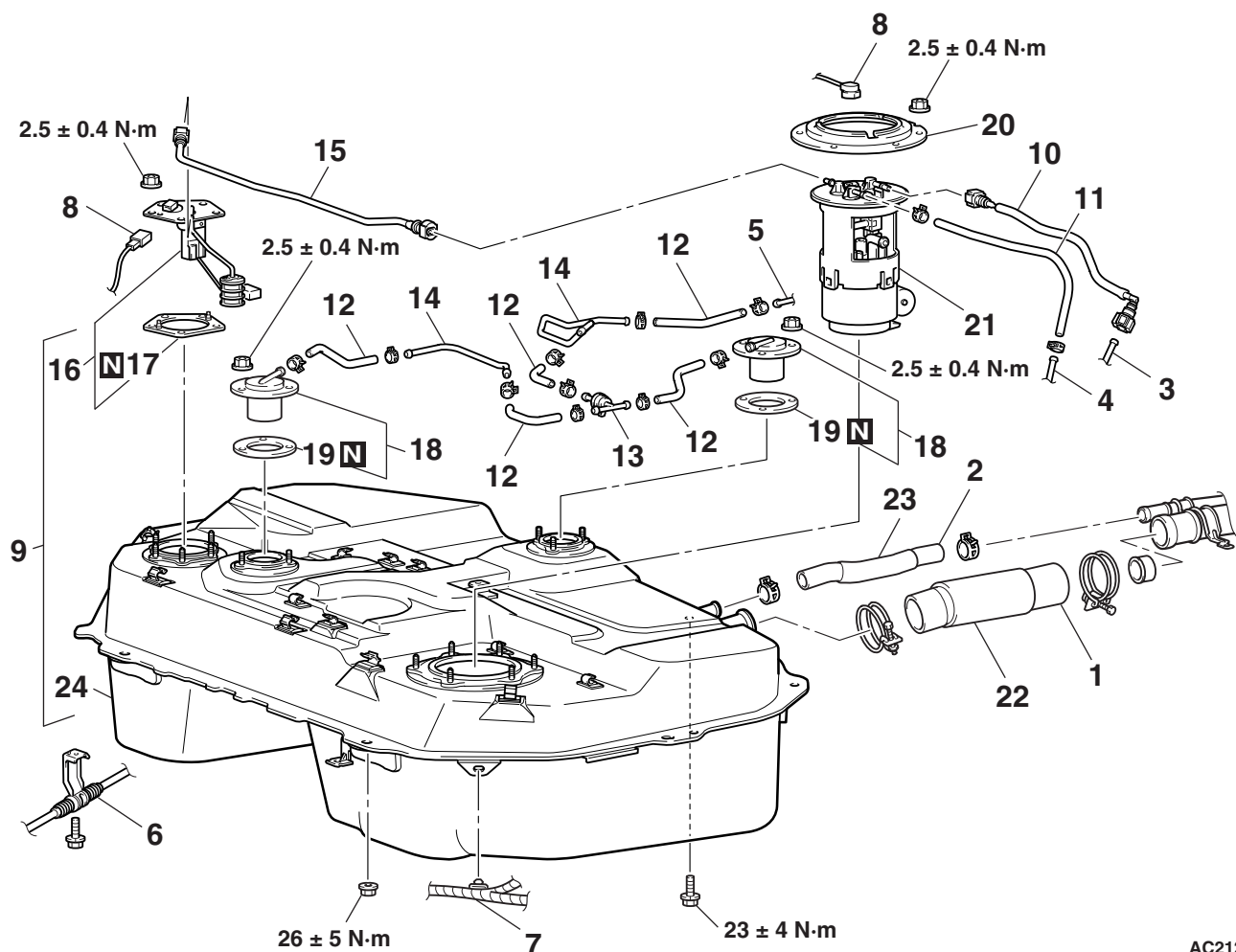
M1135001901039

Pre-removal Operation

- Draining Fuel
- Fuel Pump Connector Disconnection (How to Reduce Fuel Pressure) (Refer to GROUP 13A – On-vehicle Service P.13A-283).
- Centre Exhaust Pipe Removal (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-13).
- Propeller Shaft Removal (Refer to GROUP 25, Propeller Shaft P.25-3).

Post-installation Operation

- Propeller Shaft Installation (Refer to GROUP 25, Propeller Shaft P.25-3).
- Centre Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-13).
- Refilling Fuel
- Checking for Fuel Leaks



AC212516AC

Fuel tank assembly removal
steps

1. Fuel filler hose connection (Fuel filler neck side)
2. Fuel filler neck breather hose connection (Fuel filler neck side)
3. Main pipe connection
4. Return pipe <4G64>
5. Fuel vapour pipe
6. Parking brake cable clamp connection (RH side)
7. Wiring harness clamp connection

<<A>>

<<A>>

>>A<<

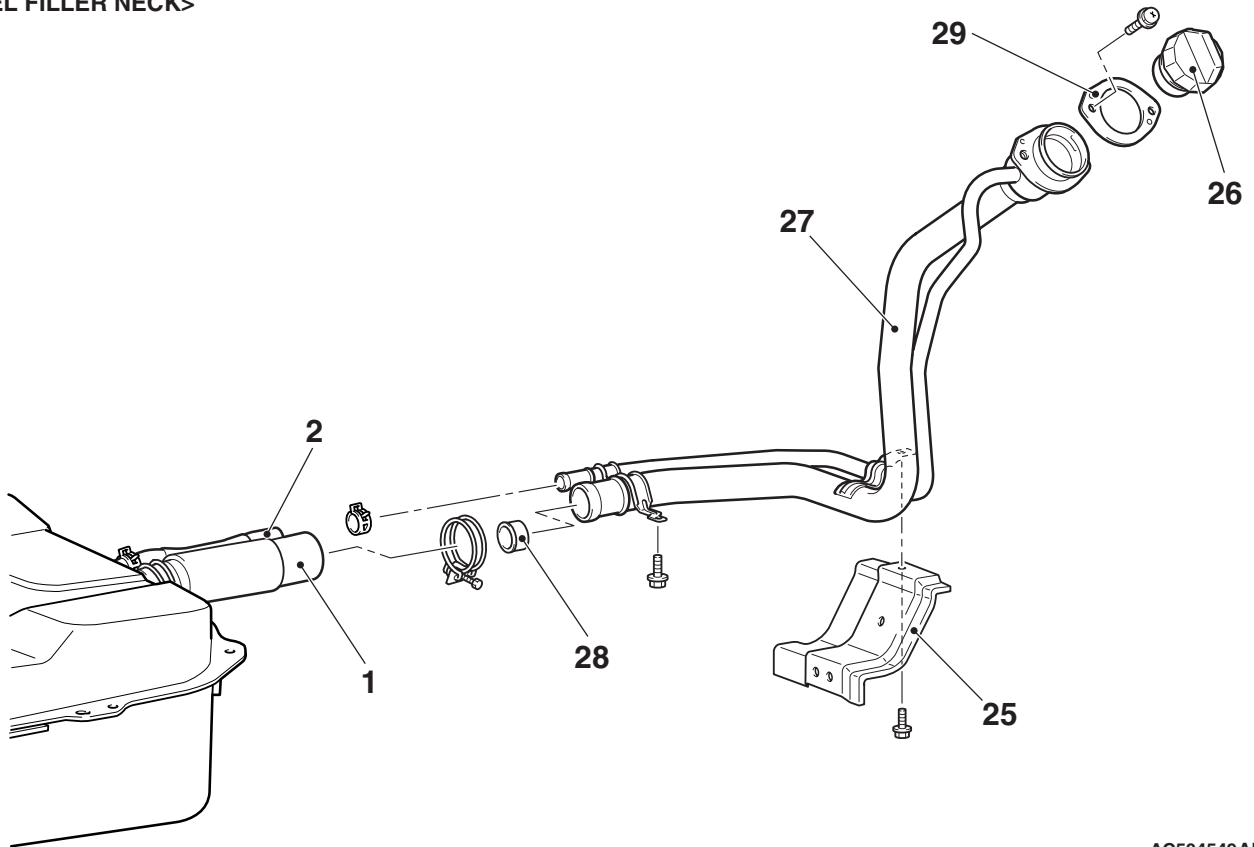
Fuel tank assembly removal
steps (Continued)

8. Fuel tank gauge unit assembly, fuel tank pump and gauge assembly connector connection
 - Rear differential support member installation nuts and bolts (Refer to GROUP 27B – Rear Differential Carrier Assembly P.27B-17).
9. Fuel tank assembly
10. Fuel high-pressure hose
11. Fuel return hose <4G64>

**Fuel tank assembly removal
steps (Continued)**

- 12. Fuel tank hose
- 13. Fuel tank vapour hose 2way valve
- 14. Fuel vapour pipe
- <> >>A<< 15. Fuel pump suction tube
- 16. Fuel tank gauge unit
- 17. Gasket
- 18. Fuel tank safety valve
- 19. Gasket
- 20. Fuel pump bracket plate
- <> 21. Fuel tank pump and gauge
assembly
- 22. Fuel filler hose
- 23. Fuel filler neck breather hose
- 24. Fuel tank

<FUEL FILLER NECK>



AC504549AB

Fuel filler neck removal steps

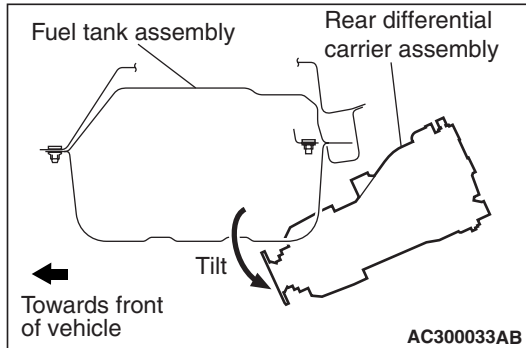
1. Fuel filler hose connection (Fuel filler neck side)
2. Fuel filler neck breather hose connection (Fuel filler neck side)
25. Fuel filler neck protector <4G64>
26. Fuel tank cap

Fuel filler neck removal steps

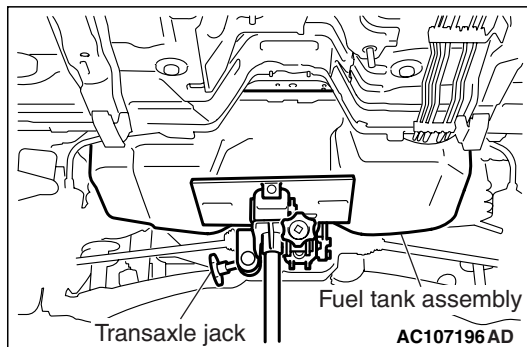
27. Fuel filler neck
28. Fuel filler neck valve
29. Gasket

REMOVAL SERVICE POINTS

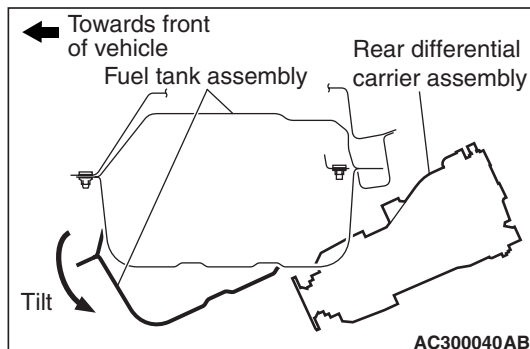
<<A>> REAR DIFFERENTIAL SUPPORT MEMBER INSTALLATION NUTS AND BOLTS/FUEL TANK ASSEMBLY REMOVAL



1. Remove the rear differential support member installation nuts and bolts, and then tilt the rear differential carrier assembly (Refer to GROUP 27B – Rear Differential Carrier Assembly P.27B-17).



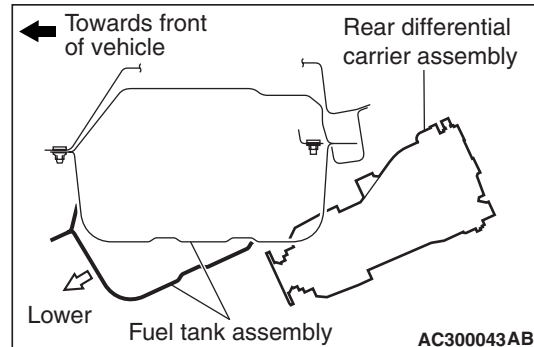
2. Raise and support the fuel tank assembly with a transmission jack, and remove the mounting nuts and bolts.



⚠ CAUTION

Support the fuel tank assembly securely so that it does not fall off from the transmission jack.

3. Tilt the fuel tank assembly to disconnect the connectors.



4. Remove the fuel tank assembly to the direction shown, being careful not to strike it against the rear differential carrier assembly.

<> FUEL TANK GAUGE UNIT/FUEL TANK PUMP AND GAUGE ASSEMBLY REMOVAL

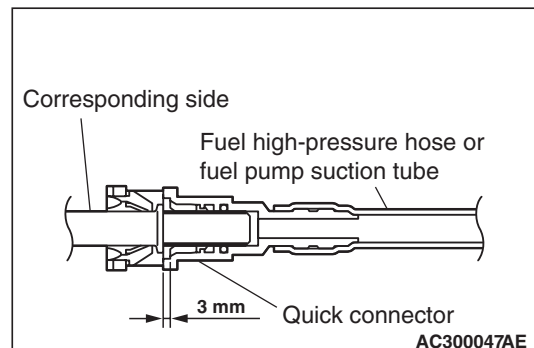
⚠ CAUTION

When withdrawing the fuel tank gauge unit, fuel pump and gauge assembly from the fuel tank, be careful not damage the module unit and the float.

INSTALLATION SERVICE POINT

>>A<< FUEL PUMP SUCTION TUBE/FUEL HIGH-PRESSURE HOSE INSTALLATION

⚠ CAUTION



After connecting the fuel high-pressure hose or fuel pump suction tube, slightly pull it to ensure that it is installed securely. Also confirm that there is a play approximately 3 mm.

REMOVAL AND INSTALLATION <
VEHICLES FOR BRAZIL, CHILE AND
TAIWAN>

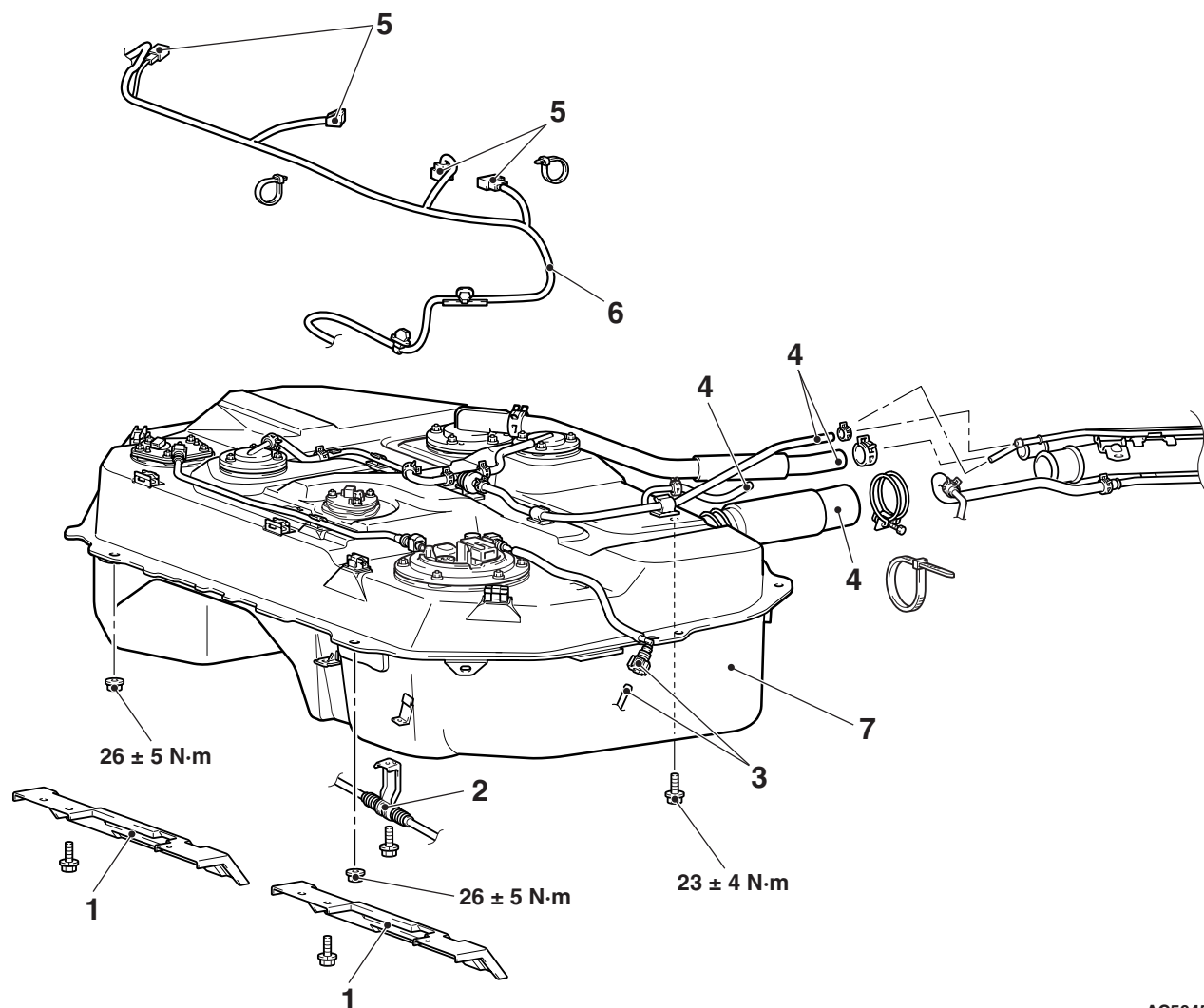
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Pre-removal Operation

- Draining Fuel
- Fuel Pump Connector Disconnection (How to Reduce Fuel Pressure) (Refer to GROUP 13A, On-vehicle Service [P.13B-404](#)).
- Centre Exhaust Pipe Removal (Refer to GROUP 15, Exhaust Pipe and Main Muffler [P.15-13](#)).
- Propeller Shaft Removal <4WD> (Refer to GROUP 25, Propeller Shaft [P.25-3](#)).

Post-installation Operation

- Propeller Shaft Installation <4WD> (Refer to GROUP 25, Propeller Shaft [P.25-3](#)).
- Centre Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main Muffler [P.15-13](#)).
- Refilling Fuel
- Checking for Fuel Leaks



AC504550AB

Fuel tank assembly removal steps

- >>A<<
1. Protector
 2. Parking brake cable clamp connection (LH side)
 3. Fuel high-pressure hose connection (Main pipe side)
 4. Fuel filler hose, fuel filler neck breather hose, fuel tank hose connection (fuel filler neck side)

<<A>>

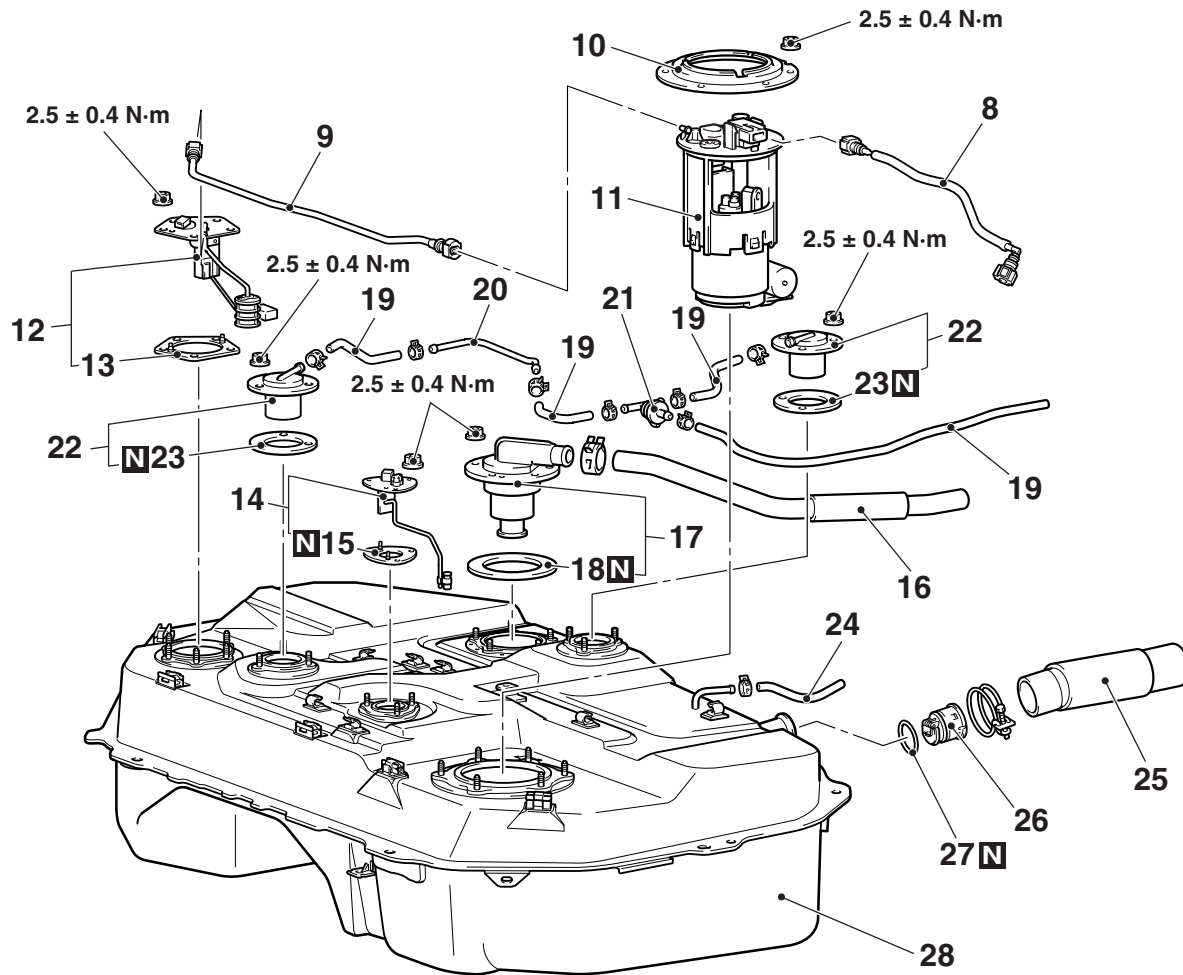
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Fuel tank assembly removal steps (Continued)

- Rear differential support member installation nuts and bolts <4WD> (Refer to GROUP 27B – Rear Differential Carrier Assembly [P.27B-17](#)).
- 5. Harness connector connection
- 6. Fuel wiring harness connection
- 7. Fuel tank assembly



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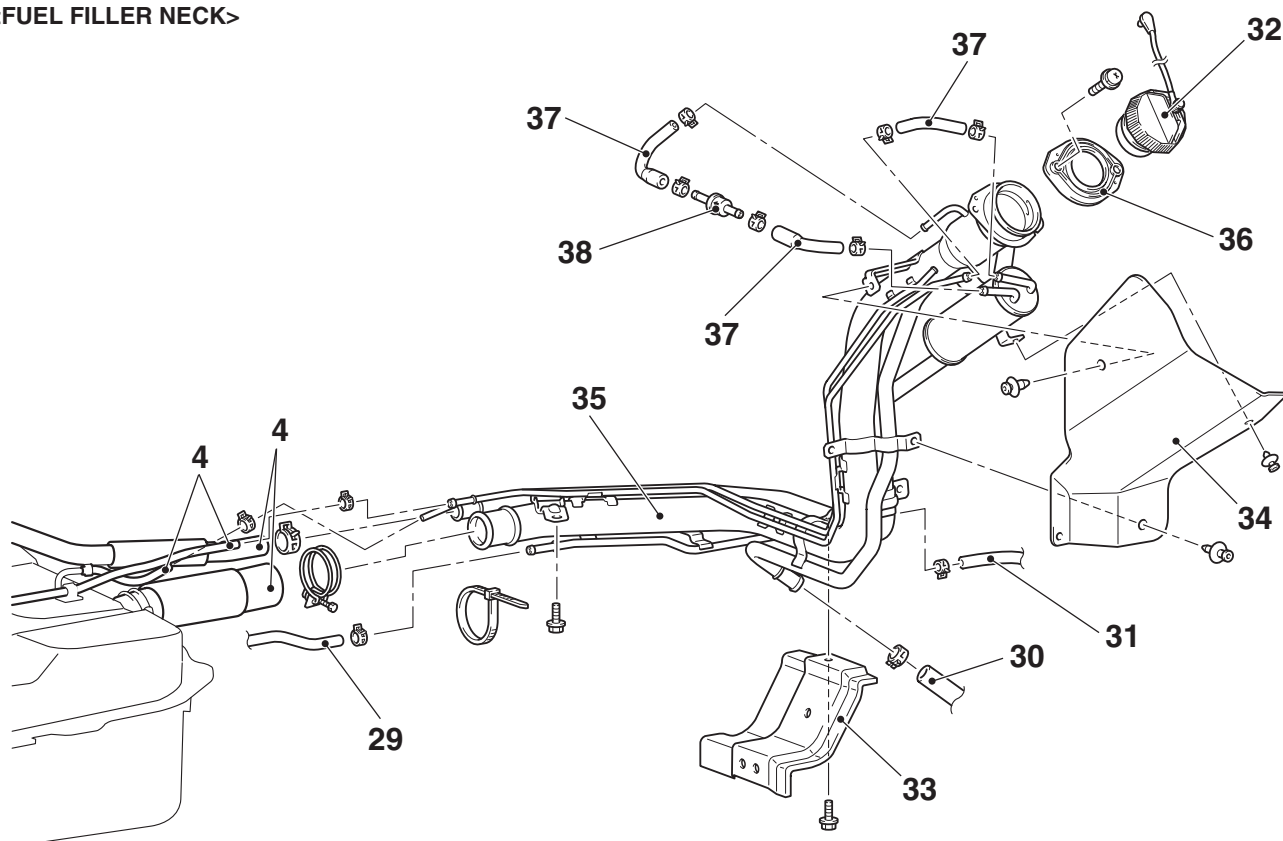
**Fuel tank assembly removal
steps**

- >>A<< 8. Fuel high-pressure hose
- >>A<< 9. Fuel pump suction tube <4WD>
- <> 10. Fuel pump bracket plate
- <> 11. Fuel tank pump assembly <2WD>
or fuel tank pump and gauge
assembly <4WD>
- <> 12. Fuel tank gauge unit
- 13. Gasket
- 14. Fuel tank temperature sensor unit
<4WD>
- 15. Gasket <4WD>
- 16. Fuel filler neck breather hose

**Fuel tank assembly removal
steps (Continued)**

- 17. Levelling valve assembly
- 18. Gasket
- 19. Fuel tank hose
- 20. Fuel vapour pipe
- 21. Fuel tank vapour hose 2way valve
- 22. Fuel tank safety valve
- 23. Gasket
- 24. Fuel tank hose
- 25. Fuel filler hose
- 26. Fuel filler neck valve
- 27. O-ring
- 28. Fuel tank

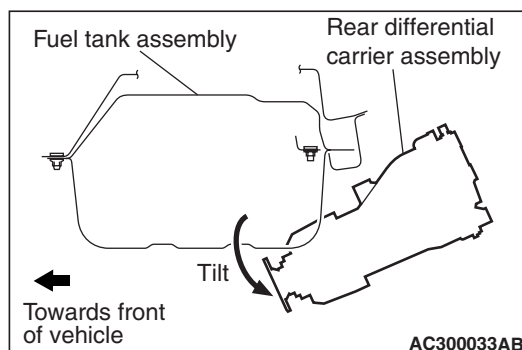
<FUEL FILLER NECK>



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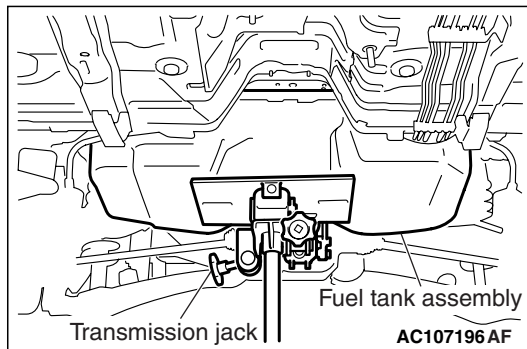
Fuel filler neck removal steps

4. Fuel filler hose, fuel filler neck breather hose, fuel tank hose connection (fuel filler neck side)
29. Fuel vapour purge hose
30. Fuel vapour purge hose
31. Fuel vapour control purge hose
32. Fuel tank cap
33. Fuel filler neck protector
34. Fuel filler neck protector
35. Fuel filler neck
36. Gasket
37. Fuel filler neck hose
38. Fuel filler neck valve

REMOVAL SERVICE POINTS
<<A>> REAR DIFFERENTIAL SUPPORT MEMBER INSTALLATION NUTS AND BOLTS <4WD>/HARNESS CONNECTOR CONNECTION/FUEL WIRING HARNESS CINNECTION/FUEL TANK ASSEMBLY REMOVAL


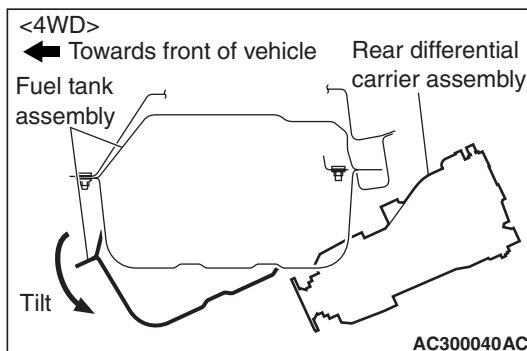
AC300033AB

1. Remove the rear differential support member installation nuts and bolts, and then tilt the rear differential carrier assembly <4WD> (Refer to GROUP 27B – Rear Differential Carrier Assembly P.27B-17).



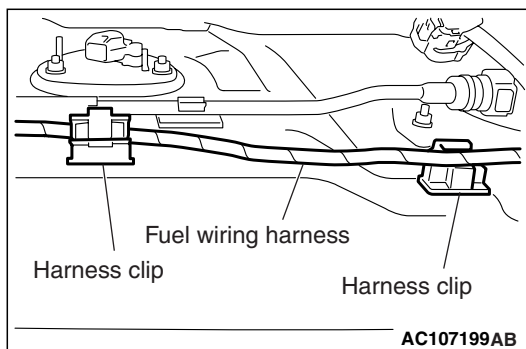
2. Raise and support the fuel tank assembly with a transmission jack, and remove the mounting nuts and bolts.

CAUTION

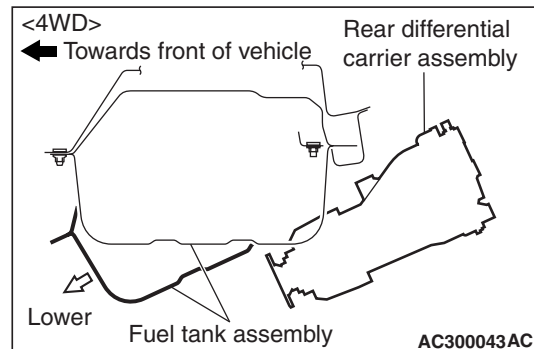


Support the fuel tank assembly securely so that it does not fall off from the transmission jack.

3. Tilt the fuel tank assembly to disconnect the connectors.



4. Open the five harness clips and remove the fuel wiring harness from the fuel tank.
5. Remove the fuel tank assembly <2WD>.



6. Remove the fuel tank assembly to the direction shown, being careful not to strike it against the rear differential carrier assembly <4WD>

**<> FUEL TANK PUMP ASSEMBLY
<2WD> OR FUEL TANK PUMP AND
GAUGE ASSEMBLY <4WD>/FUEL TANK
GAUGE UNIT REMOVAL**

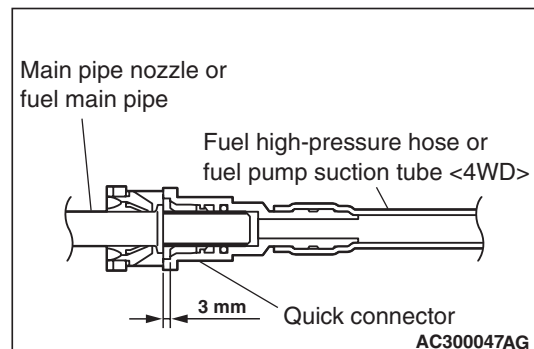
CAUTION

When withdrawing the fuel tank gauge unit, fuel pump and gauge assembly <4WD> from the fuel tank, be careful not damage the module unit and the float.

INSTALLATION SERVICE POINT

**>>A<< FUEL PUMP SUCTION TUBE
<4WD>/FUEL HIGH-PRESSURE HOSE
INSTALLATION**

CAUTION

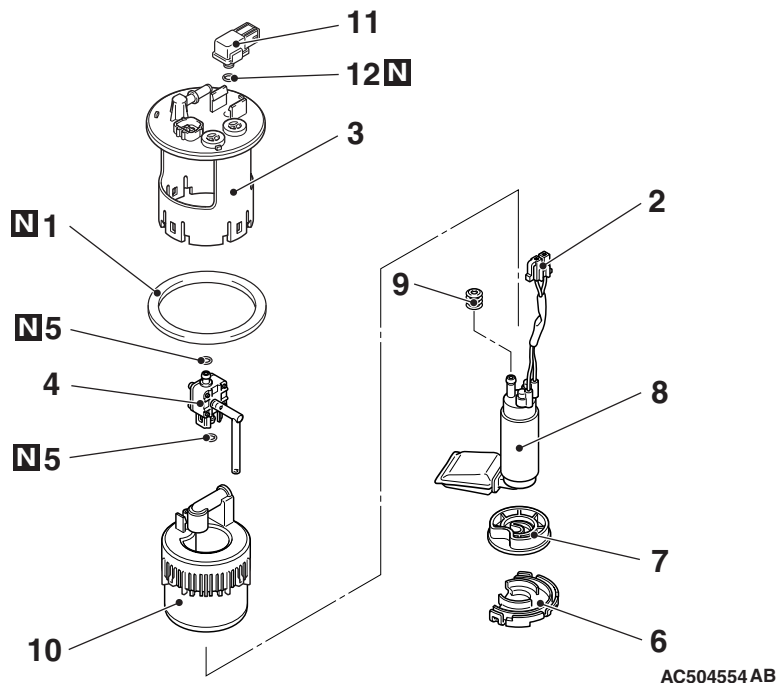


After connecting the fuel high-pressure hose or fuel pump suction tube <4WD>, slightly pull it to ensure that it is installed securely. Also confirm that there is a play approximately 3 mm.

FUEL TANK PUMP ASSEMBLY
DISASSEMBLY AND REASSEMBLY

<2WD>

M1135004600658

**Disassembly steps**

- >>A<<
1. Gasket
 2. Fuel tank pump connector connection
 3. Fuel pump bracket
 4. Fuel pump pressure regulator
 5. O-ring
 6. Fuel pump bracket
 7. Fuel tank pump cushion
 8. Fuel tank pump
 9. Fuel tank grommet
 10. Fuel tank filter assembly

Disassembly steps (Continued)

- >>A<<
11. Fuel tank differential pressure sensor
 12. O-ring

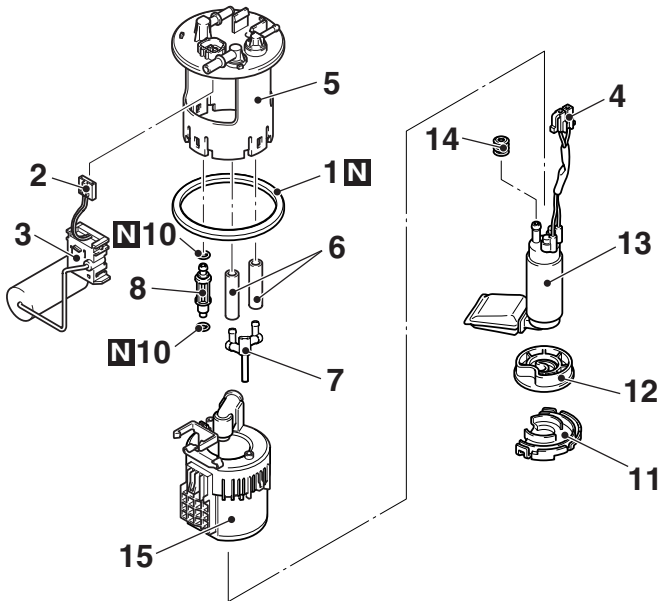
REASSEMBLY SERVICE POINT**>>A<< O-RING/FUEL TANK GROMMET
INSTALLATION**

Apply gasoline on the grommet and the O-ring before mounting them to prevent damage or twisting.

FUEL TANK PUMP AND GAUGE ASSEMBLY DISASSEMBLY AND REASSEMBLY <4WD>

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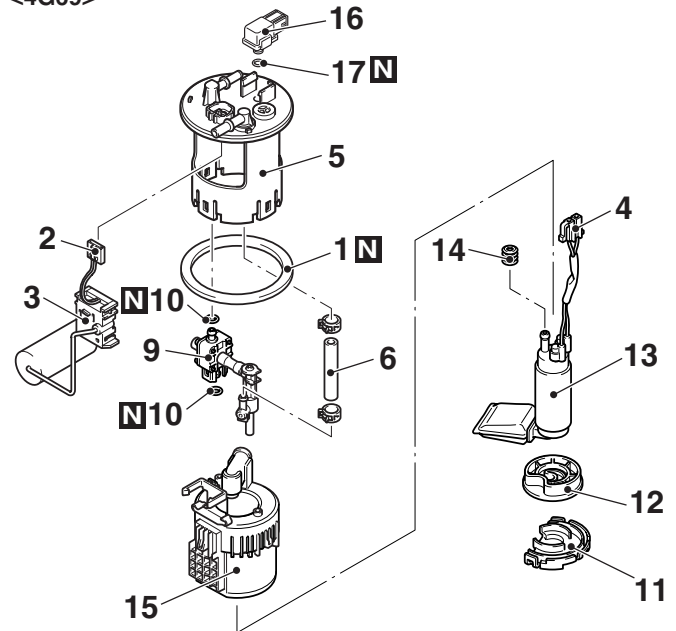
<4G64>



Disassembly steps

1. Gasket
2. Fuel tank gauge unit connector
3. Fuel tank gauge unit
4. Fuel tank pump connector connection
5. Fuel pump bracket
6. Fuel pump hose
7. Fuel tank assist pump <4G64>
8. Fuel pump tube <4G64>
9. Fuel pump pressure regulator <4G69>
- >>A<< 10. O-ring
11. Fuel pump bracket
12. Fuel tank pump cushion
13. Fuel tank pump

<4G69>



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Disassembly steps (Continued)

- >>A<< 14. Fuel tank grommet
15. Fuel tank filter assembly
16. Fuel pump differential pressure regulator <Vehicles for Brazil, Chile and Taiwan>
- >>A<< 17. O-ring <Vehicles for Brazil, Chile and Taiwan>

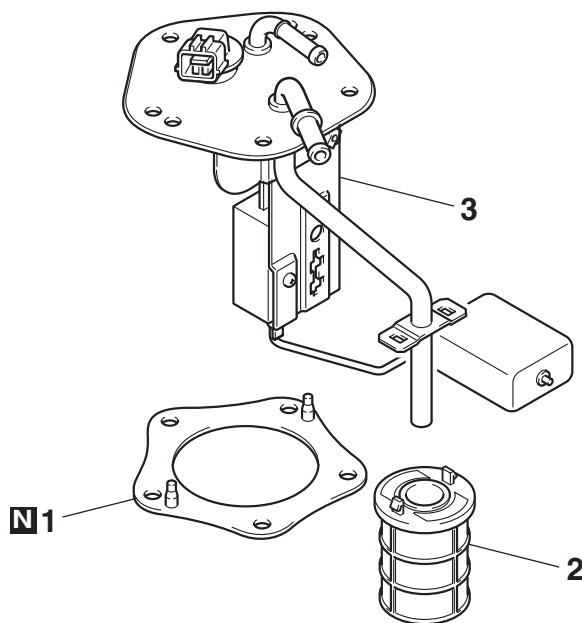
REASSEMBLY SERVICE POINT

>>A<< O-RING/FUEL TANK GROMMET INSTALLATION

Apply gasoline on the grommet and the O-ring before mounting them to prevent damage or twisting.

**FUEL TANK GAUGE UNIT DISASSEMBLY
AND REASSEMBLY <4WD>**

M1135051100121

**Disassembly steps**

1. Gasket

AC309472AB

Disassembly steps (Continued)

2. Fuel in tank filter
3. Fuel tank gauge unit