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2009 MAZDA 2 / Demio - sedan OEM Service and Repair Workshop Manual

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QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)]

SM2897623

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Oil and Chemical Type

Engine oil

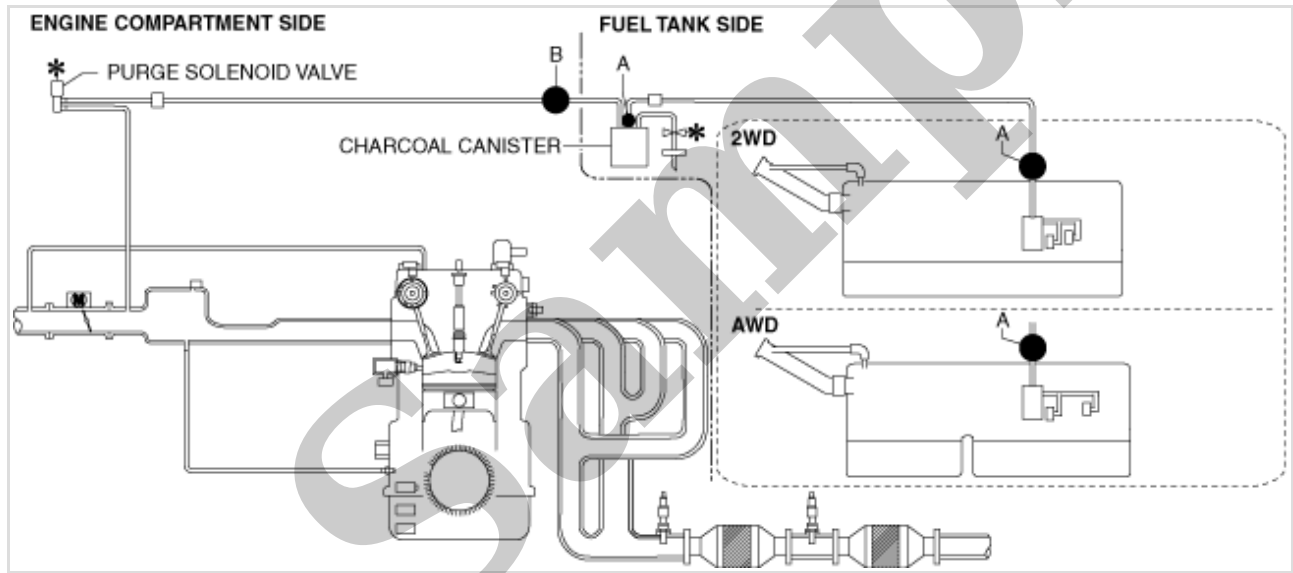
Type: Recommended oil

Quick Release Connector Type and Position

Caution

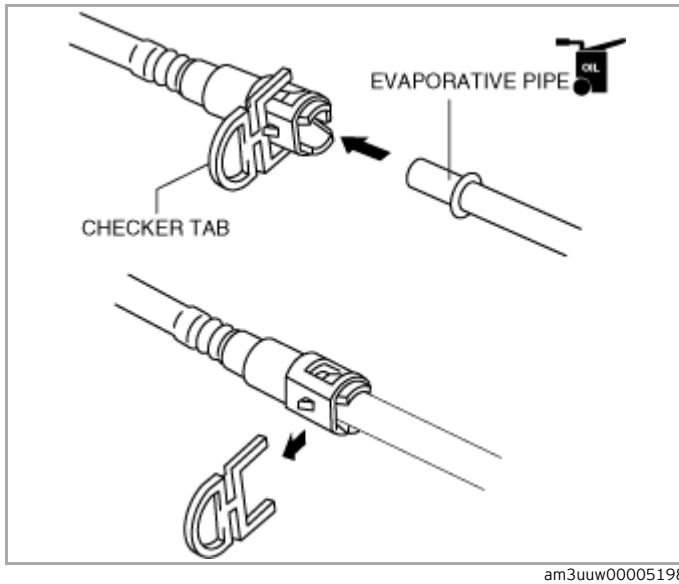
- Verify the type and location, and install/remove properly.

U.S.A., Canada and Israel



ac5uuw00007306

Except U.S.A., Canada and Israel



1. Inspect the evaporative hose and evaporative pipe sealing surface for damage and deformation.

- If there is any malfunction, replace it with a new one.

2. Apply a small amount of clean engine oil to the sealing surface of the evaporative pipe.

3. Install a new retainer to the quick release connector.

4. Reconnect the hose straight to the pipe until a click is heard.

5. Lightly pull and push the quick release connector a few times by hand, and then verify that it is connected securely.

Type B Installation

Note

- If the quick release connector O-ring is damaged or has slipped, replace the evaporative hose.
- A checker tab is integrated with the quick release connector for new evaporative hoses. Remove the checker tab from the quick release connector after the connector is completely engaged with the evaporative pipe.

1. Inspect the evaporative hose and evaporative pipe sealing surface for damage and deformation.

- If there is any malfunction, replace it with a new one.

2. Apply a small amount of clean engine oil to the sealing surface of the evaporative pipe.

3. Install the quick release connector.

FUEL SHUT-OFF VALVE INSPECTION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)]

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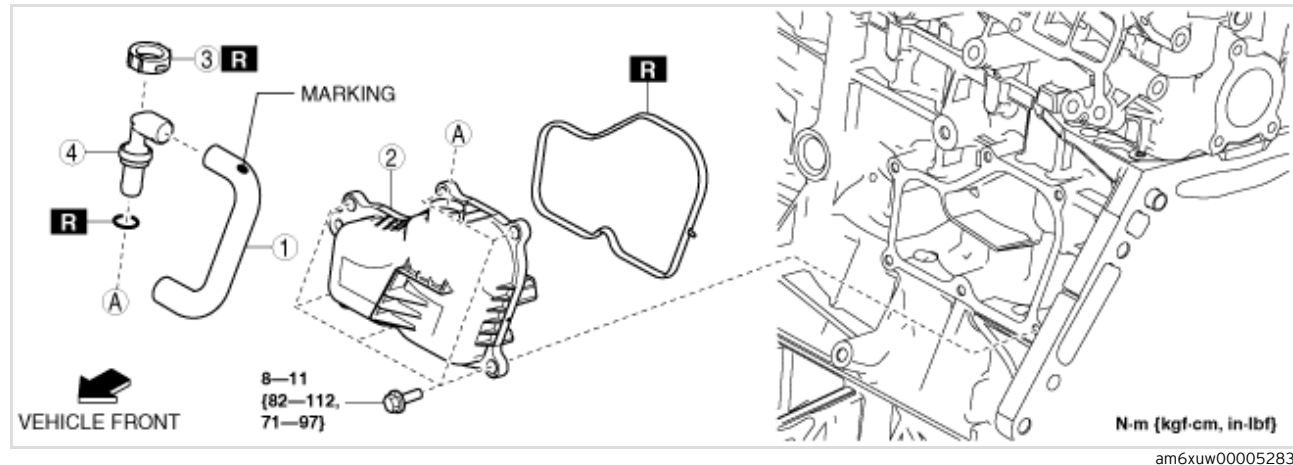
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Note

- The fuel shut-off valve cannot be removed and inspected as it is built into the fuel tank.

1. Perform the fuel tank inspection. (See [FUEL TANK INSPECTION \[SKYACTIV-G 2.5 \(WITHOUT CYLINDER DEACTIVATION\)\]](#).)

- If there is any malfunction, replace the fuel tank (See [FUEL TANK REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITHOUT CYLINDER DEACTIVATION\)\]](#).)



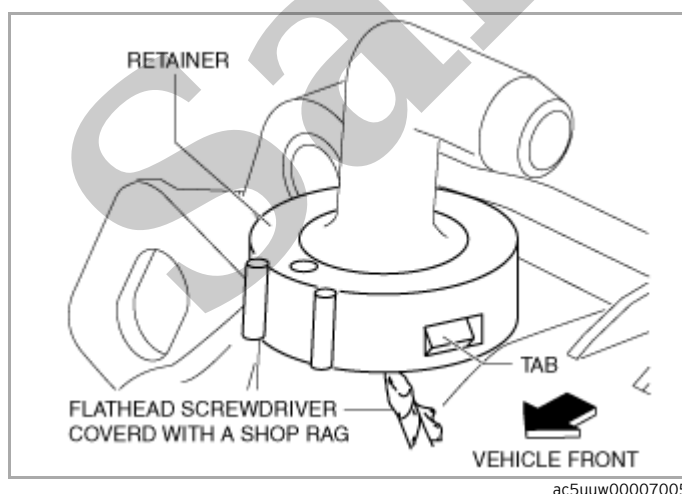
1	PCV hose (See PCV Hose Installation Note.)
2	Oil separator
3	Retainer (See Retainer Removal Note.) (See Retainer Installation Note.)
4	PCV valve

Retainer Removal Note

Caution

- Be sure to follow the removal procedures below to prevent the leakage of blow-by gas caused by the damage to the tab of the oil separator or the oil separator itself.

1. Insert a flathead screwdriver with its tip wrapped in a shop rag into the gap between the retainer and the oil separator as shown in the figure.



2. Spread the side surface of the retainer outward to dismount it with attention to the tab.

Retainer Installation Note

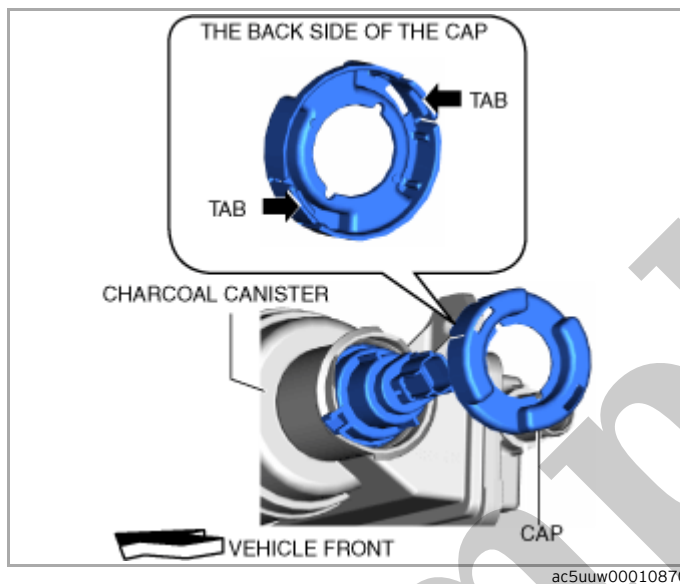
Caution

3	CV solenoid valve (See CV solenoid valve removal note.) (See CV solenoid valve installation note.)
4	O-ring

Cap removal note

Note

- The cap has two tabs that clip onto the canister.



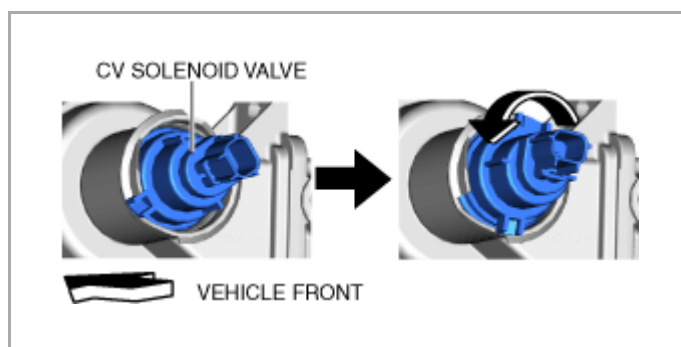
1. Unclip tabs then pull out the cap.

CV solenoid valve removal note

Caution

- Seal will be tight. Be careful not to damage the CV solenoid valve when removing the CV solenoid valve.

1. Turn the CV solenoid valve counter-clockwise.



2. Pull the CV solenoid valve straight out to remove.

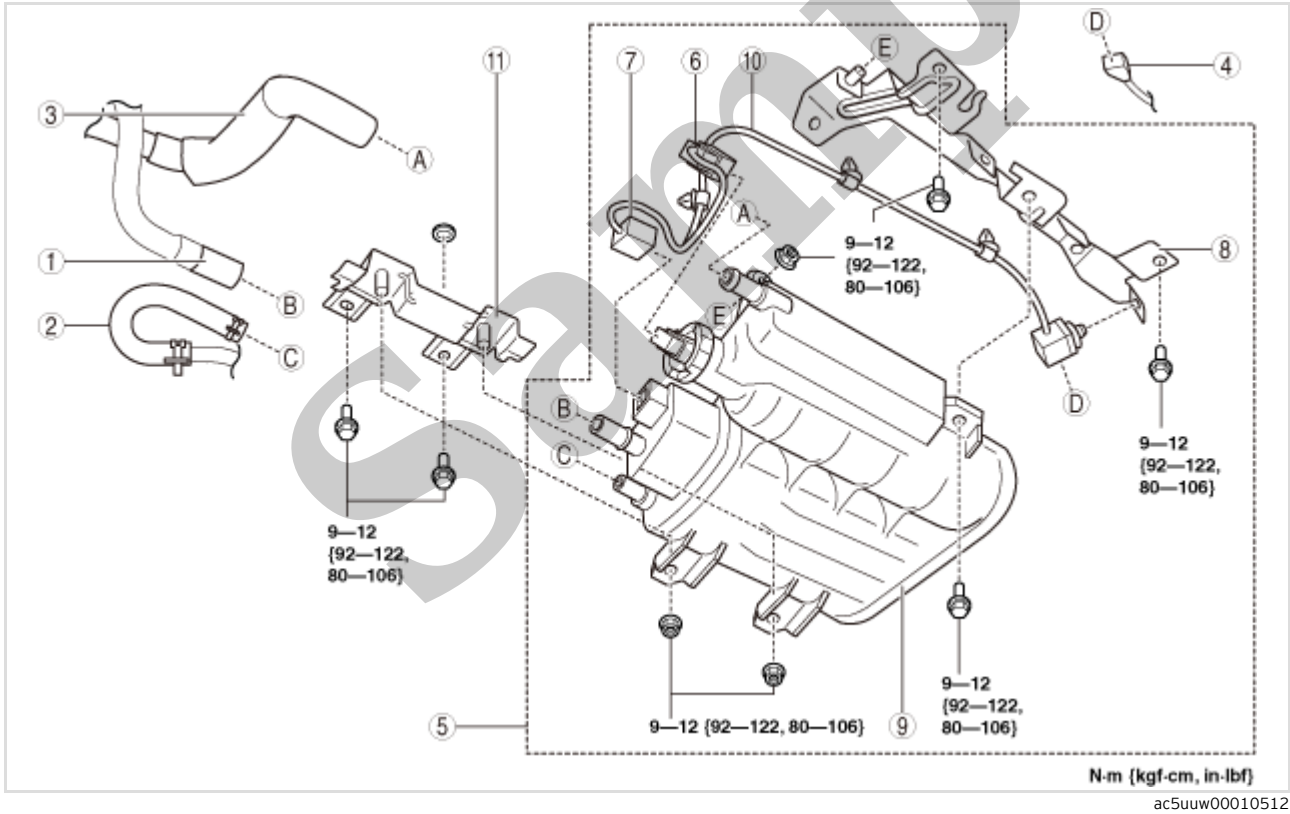
CHARCOAL CANISTER REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)]

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- 1.Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))
- 2.Remove the floor under cover No.2 (LH). (See [FLOOR UNDER COVER REMOVAL/INSTALLATION.](#))
- 3.Remove in the order indicated in the table.
- 4.Install in the reverse order of removal.



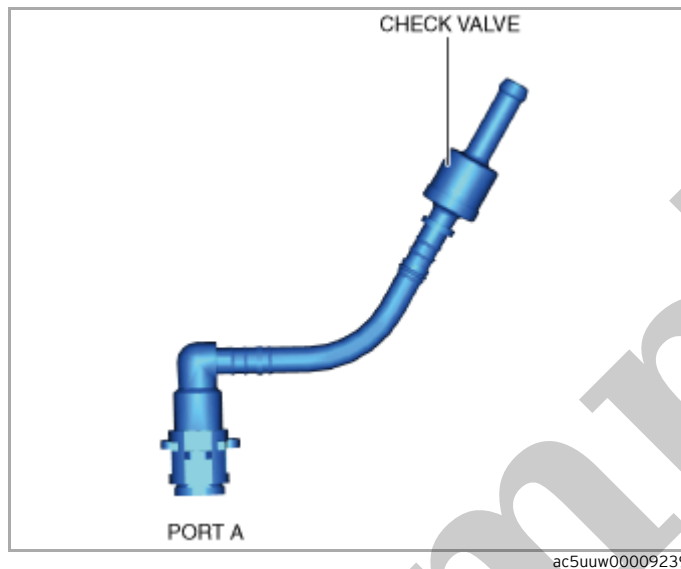
1	Quick release connector (See QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)].)
2	Evaporative hose No.1 (See Evaporative hose No.1 installation note.)
3	Evaporative hose No.2 (See Evaporative hose No.2 installation note.)
4	Middle harness connector

CHECK VALVE INSPECTION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)]

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- 1.Remove the breather pipe. (See [FUEL TANK REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITHOUT CYLINDER DEACTIVATION\)\]](#).)
- 2.Verify that there is airflow when positive pressure is applied to port A.



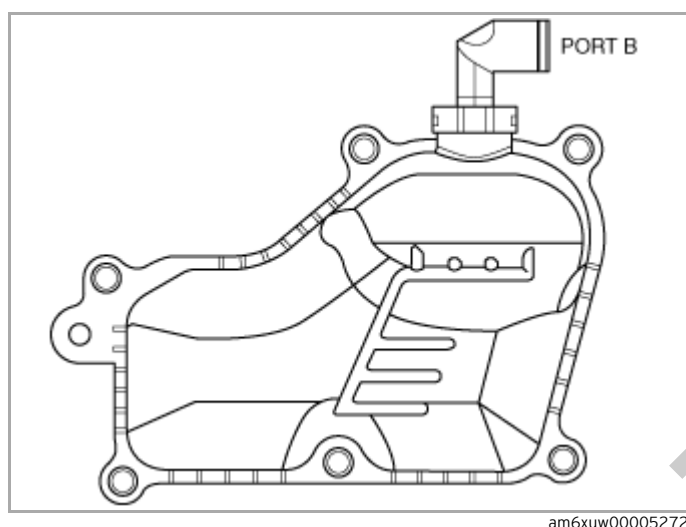
- If there is no airflow, replace the breather pipe. (See [FUEL TANK REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITHOUT CYLINDER DEACTIVATION\)\]](#).)

- 3.Verify that there is airflow when negative pressure is applied to port A.

- If there is no airflow, replace the breather pipe. (See [FUEL TANK REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITHOUT CYLINDER DEACTIVATION\)\]](#).)

5.Remove the PCV valve and the oil separator as a single unit. (See **POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)]**.)

6.Verify that there is no airflow when pressure is applied to port B.



- If there is airflow, replace the PCV valve and the oil separator as a single unit. (See **POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)]**.)

7.Verify that there is airflow when vacuum is applied to port B.

- If there is no airflow, replace the PCV valve and the oil separator as a single unit. (See **POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)]**.)