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2009 MAZDA 2 OEM Service and Repair Workshop Manual

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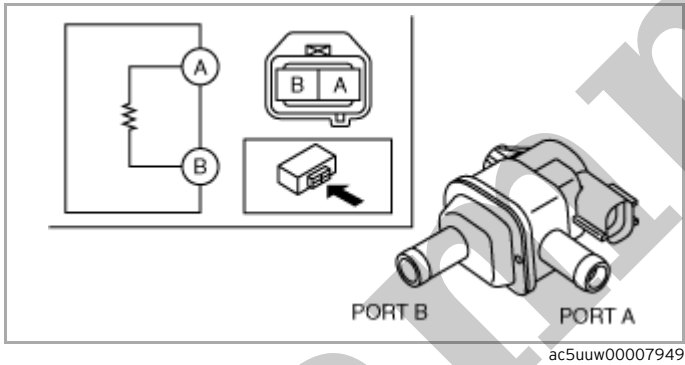
PURGE SOLENOID VALVE INSPECTION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)]

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Airflow Inspection

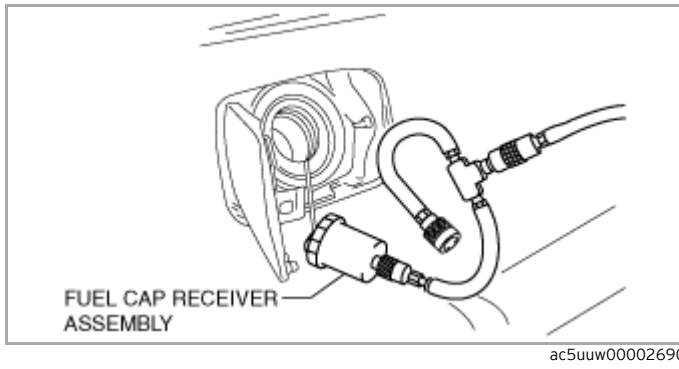
- 1.Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))
- 2.Remove the purge solenoid valve. (See [PURGE SOLENOID VALVE REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITHOUT CYLINDER DEACTIVATION\)\].](#))
- 3.Inspect airflow between the ports under the following conditions.



| Measured condition | Continuity between ports A-B |
|---|------------------------------|
| When voltage is not applied between terminals A and B | No airflow |
| When voltage is applied between terminals A and B | Airflow detected |

• If not as specified, replace the purge solenoid valve. (See [PURGE SOLENOID VALVE REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITHOUT CYLINDER DEACTIVATION\)\].](#))

- If the fuel-filler cap is not a genuine part, replace it.



4. Turn the control valve to the FILL position.

5. Wait (maximum 20 s) until the left display reads 13.9 to 14.0 in of water.

- If the reading is slightly below the specification, adjust it using the regulator knob.
- If the reading is far below, the fuel-filler cap has a leak. Replace it.

6. Turn the control valve to the TEST position and press the START switch.

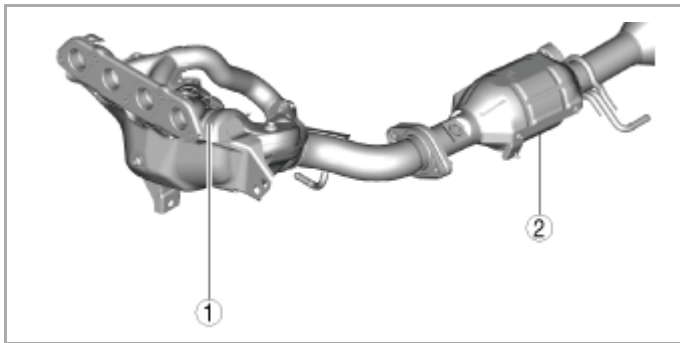
7. After the 2-min countdown (left display) is completed, check the test result (the failed/passed light on the tester).

- If the green light turns on, the fuel-filler cap is normal.
- If the red light turns on, the fuel-filler cap has a leak. Replace it.

8. Close the gas cylinder valve.

9. Turn the control valve to the FILL position.

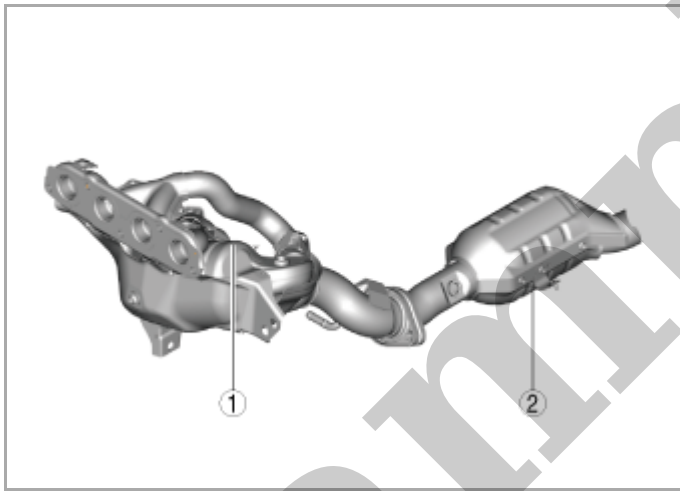
10. Press the ON/OFF switch to turn off the tester.



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| | |
|---|--|
| 1 | WU-TWC (See EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) (See WARM-UP THREE-WAY CATALYTIC CONVERTER (WU-TWC) INSPECTION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) |
| 2 | TWC (See EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) |

AWD



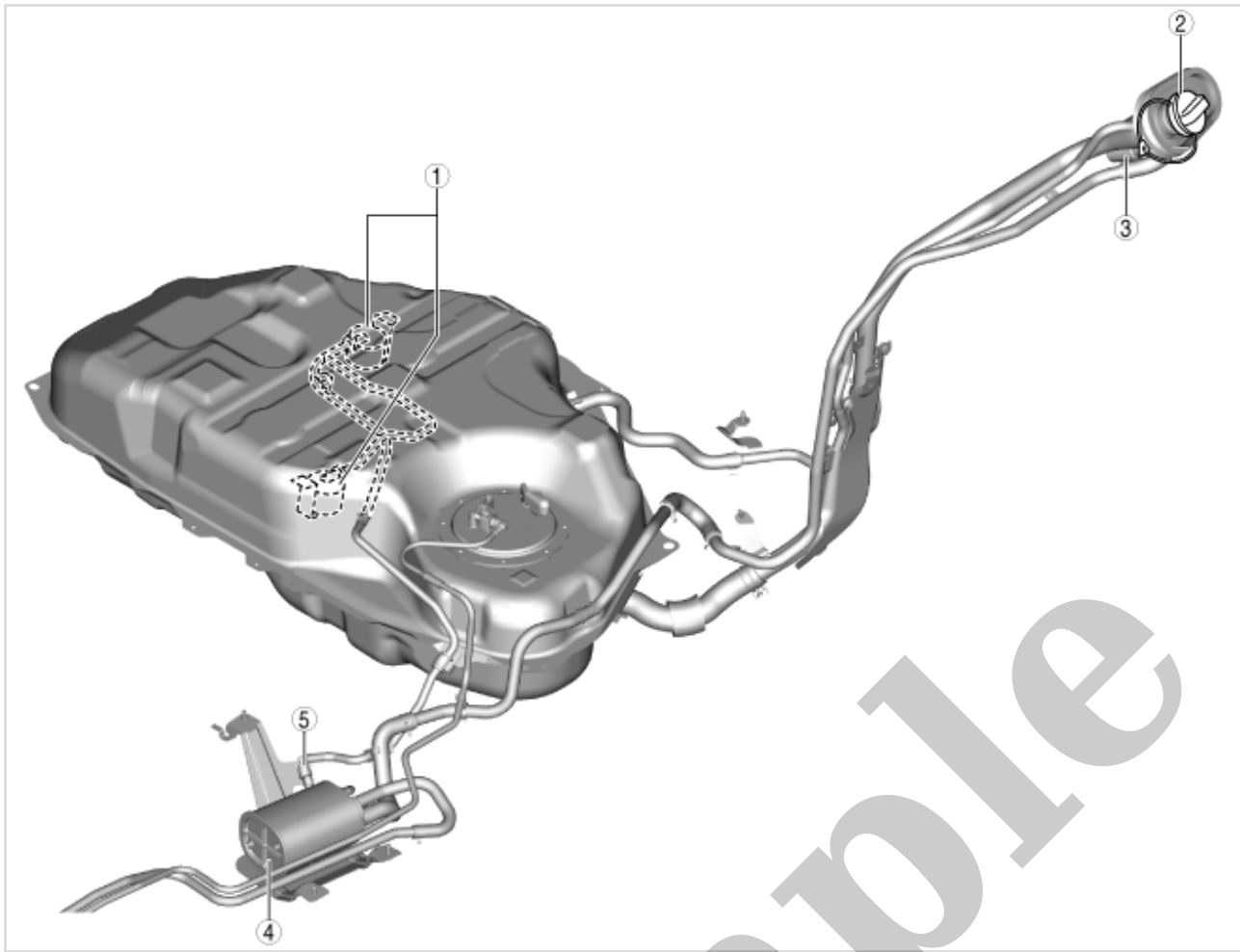
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| | |
|---|--|
| 1 | WU-TWC (See EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) (See WARM-UP THREE-WAY CATALYTIC CONVERTER (WU-TWC) INSPECTION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) |
| 2 | TWC (See EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) |

Fuel Tank Side

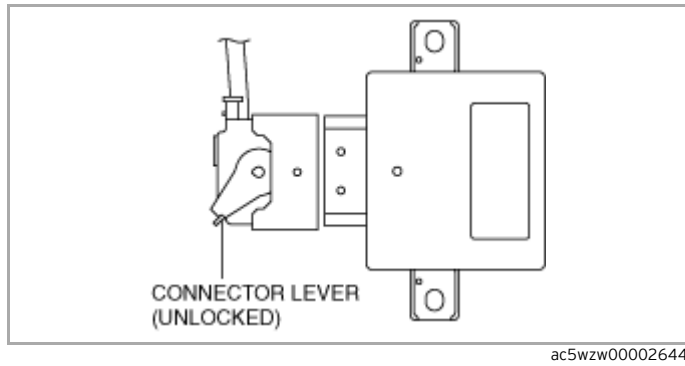
U.S.A., Canada and Israel

2WD



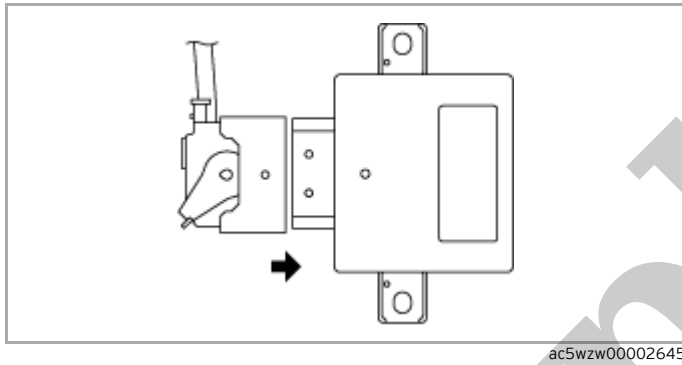
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| | |
|---|---|
| 1 | Rollover valve (See ROLLOVER VALVE REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) (See ROLLOVER VALVE INSPECTION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) |
| 2 | Fuel-filler cap (See FUEL-FILLER PIPE REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) |
| 3 | Plug (See FUEL-FILLER PIPE REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) |
| 4 | Charcoal canister (See CHARCOAL CANISTER REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) (See CHARCOAL CANISTER INSPECTION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) |
| 5 | Check valve (See CHECK VALVE REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) (See CHECK VALVE INSPECTION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)] .) |

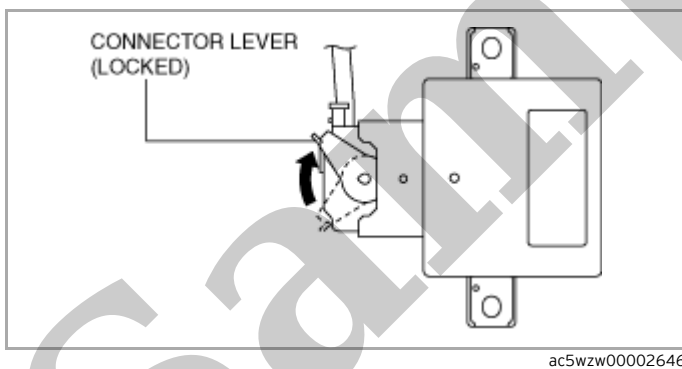


2.Connect the DC-DC converter connector using the following procedure:

(1)Insert the DC-DC converter connector straight until it stops.



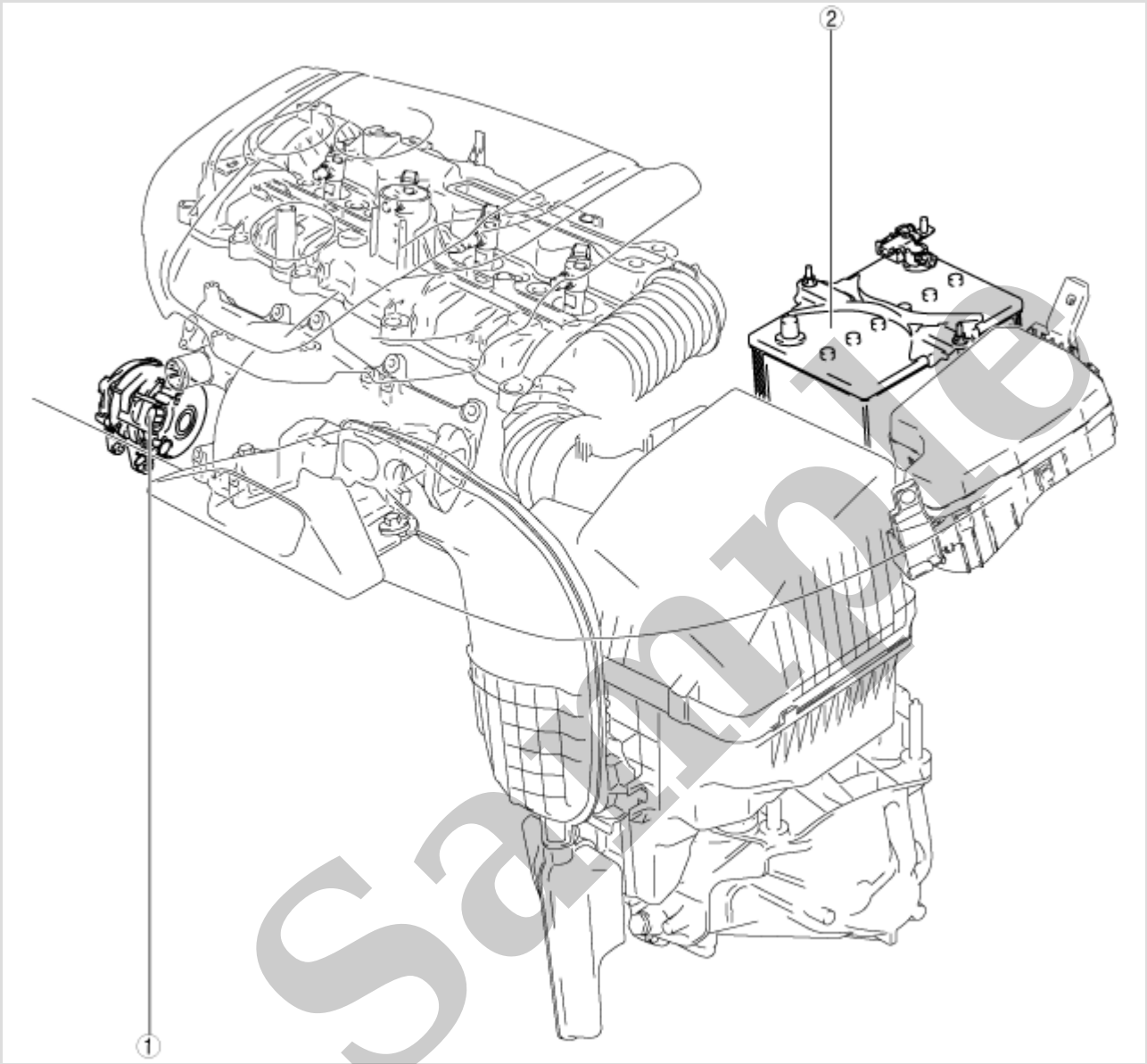
(2)Move the connector lever until a click sound is heard.



CHARGING SYSTEM LOCATION INDEX [SKYACTIV-D 2.2]

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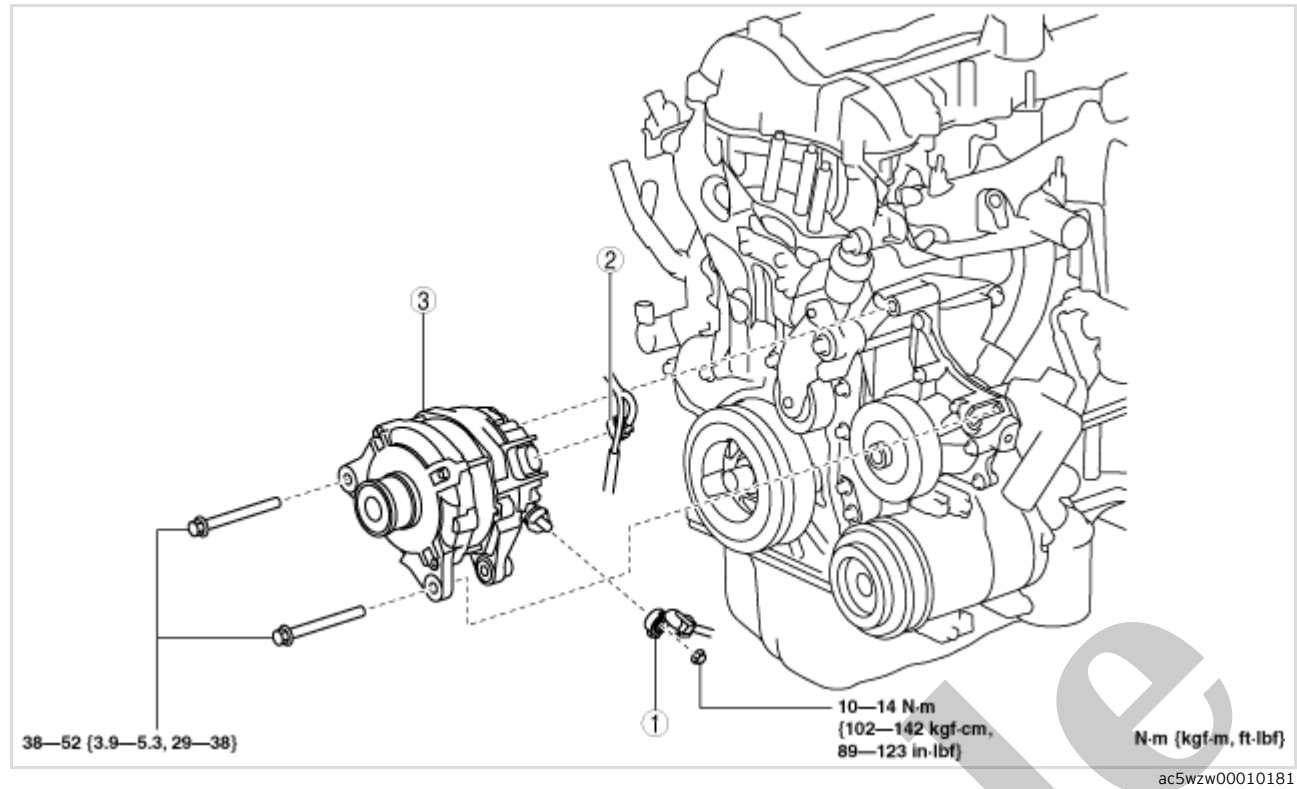
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| | |
|---|--|
| 1 | Generator (See GENERATOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) (See GENERATOR INSPECTION [SKYACTIV-D 2.2].) (See GENERATOR DISASSEMBLY/ASSEMBLY [SKYACTIV-D 2.2].) |
| 2 | Battery (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) (See BATTERY REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) (See BATTERY INSPECTION.) (See BATTERY RECHARGING.) |

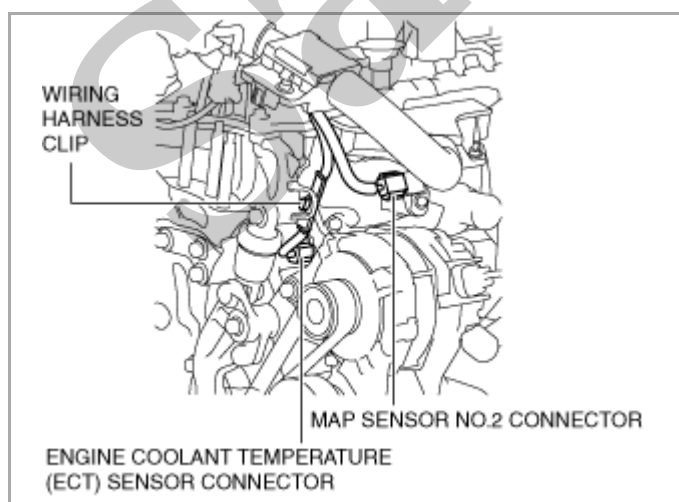
Sample



| | |
|---|--|
| 1 | Terminal B cable |
| 2 | Generator connector |
| 3 | Generator (See Generator Removal Note.) (See Generator Installation Note.) |

Generator Removal Note

1.Disconnect the connectors and wiring harness clip shown in the figure.



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2.Remove the adapter shown in the figure.

Sample