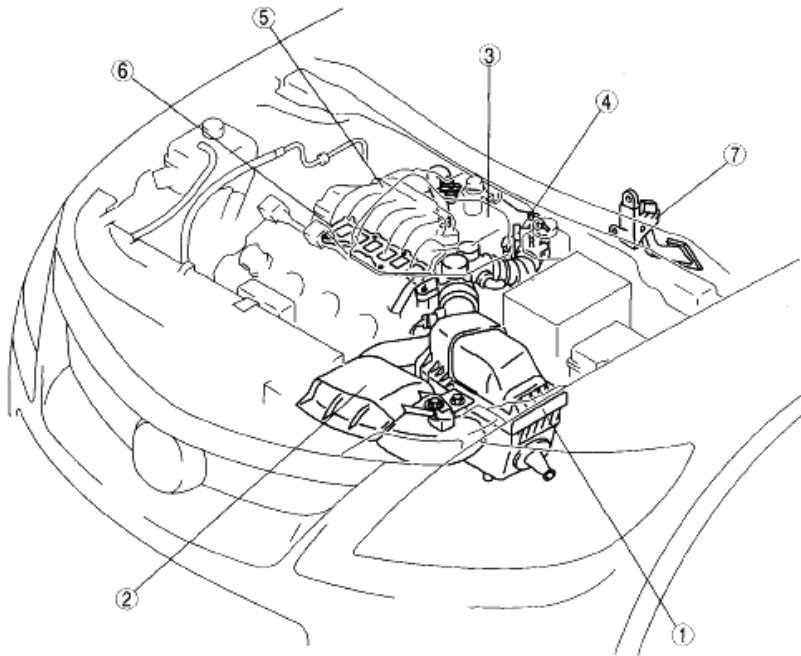


2007 ENGINE PERFORMANCE

Intake-Air System (MZI-3.5) - CX-9

INTAKE-AIR SYSTEM LOCATION INDEX [MZI-3.5]



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1	Air cleaner (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZI-3.5].) (See AIR CLEANER ELEMENT INSPECTION [MZI-3.5].)
2	Fresh-air duct (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZI-3.5].)
3	Resonance chamber (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZI-3.5].)

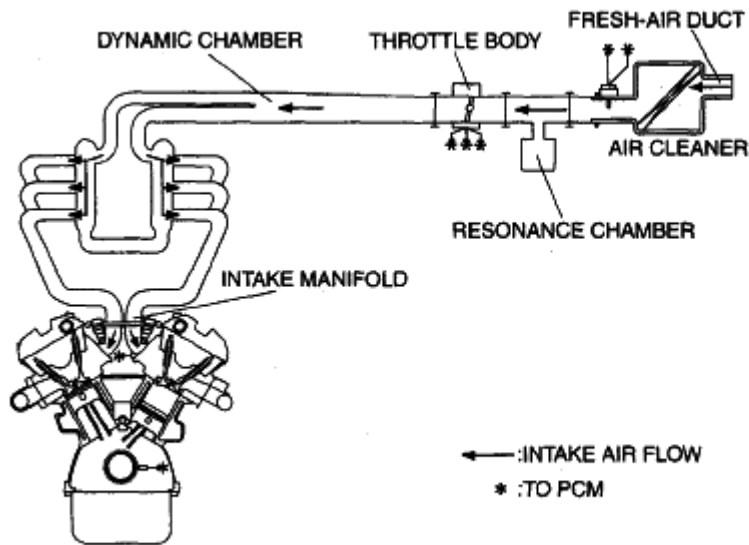
4	Throttle body (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZI-3.5].) (See THROTTLE BODY INSPECTION [MZI-3.5].)
5	Dynamic chamber (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZI-3.5].)
6	Intake manifold (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZI-3.5].)
7	Accelerator pedal (See ACCELERATOR PEDAL REMOVAL/ INSTALLATION [MZI-3.5].)

Fig. 1: Identifying Intake-Air System Components

INTAKE-AIR SYSTEM DIAGRAM [MZI-3.5]

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Fig. 2: Intake-Air System Diagram

INTAKE-AIR SYSTEM VACUUM HOSE ROUTING DIAGRAM [MZI-3.5]

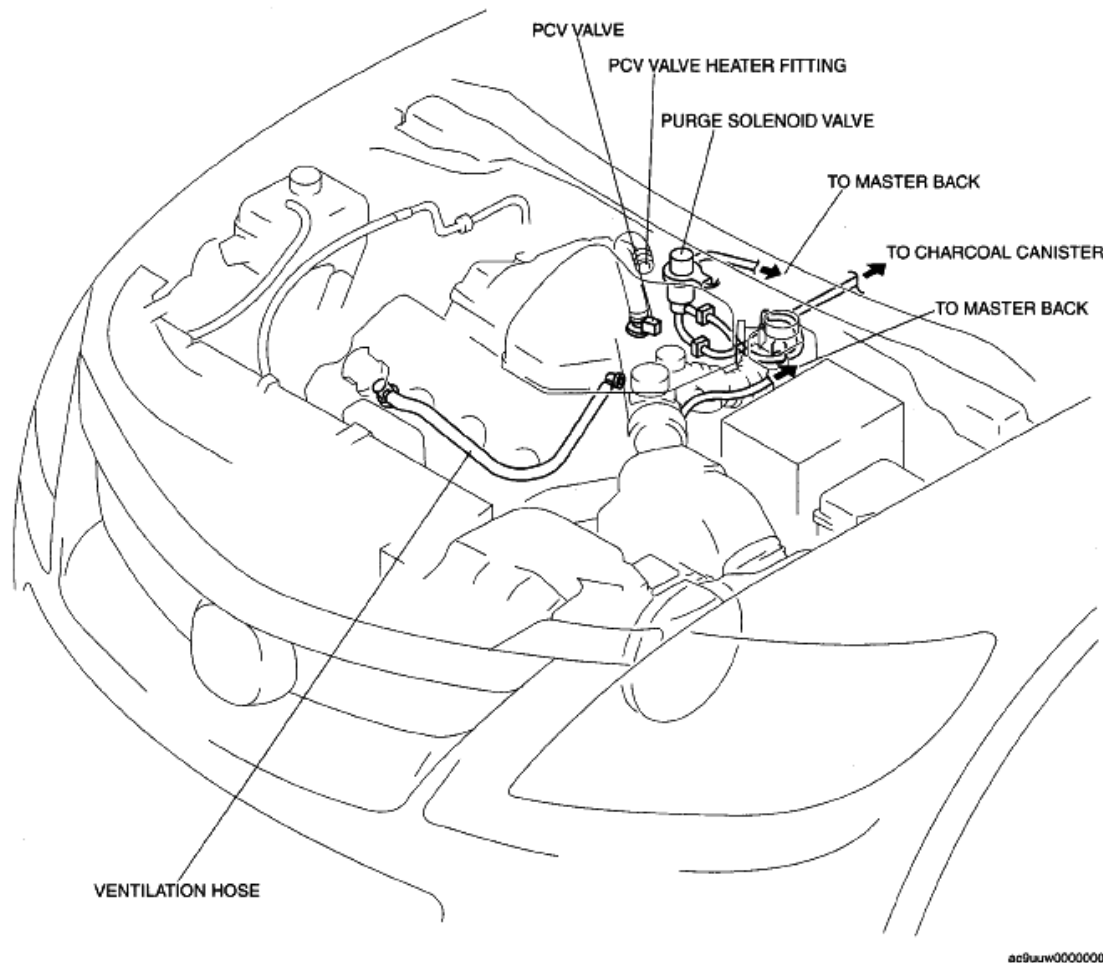


Fig. 3: Intake-Air System Vacuum Hose Routing Diagram

INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [MZI-3.5]

WARNING:

- When the engine and intake-air system are hot, they can badly burn. Turn off the engine and wait until they are cool before removing the intake-air system.
- Fuel vapor is hazardous. It can easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.
- Fuel line spills and leakage are dangerous. Fuel can ignite and cause serious injuries or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure".

1. Complete the "BEFORE REPAIR PROCEDURE". (see **BEFORE REPAIR PROCEDURE [MZI-3.5]** .)
2. Remove the battery. (see **BATTERY REMOVAL/INSTALLATION [MZI-3.5]** .)

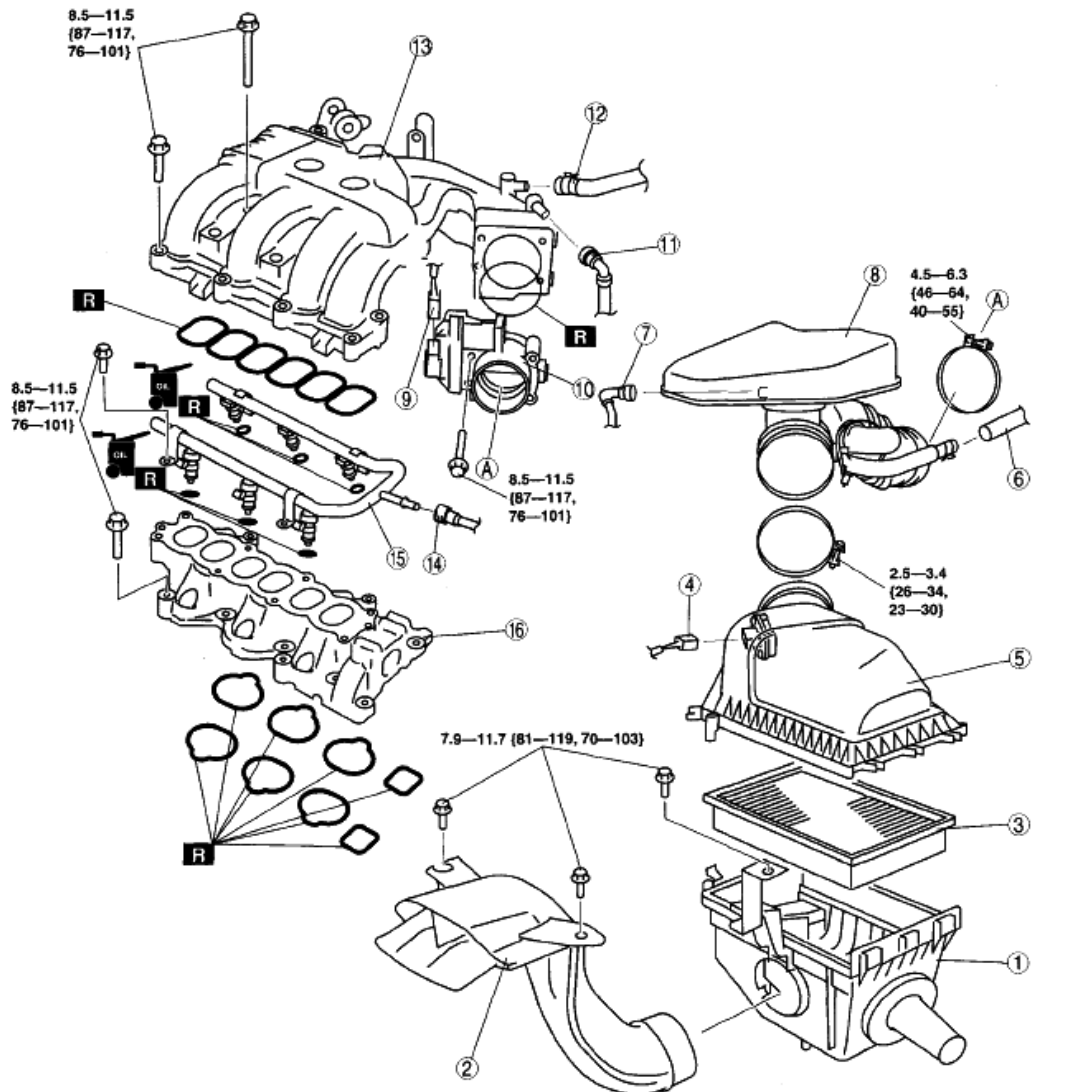
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3. Remove the engine cover. (see **ENGINE COVER REMOVAL/INSTALLATION [MZI-3.5]** .)
4. Remove in the order indicated in the table.
5. Install in the reverse order of removal.
6. Complete the "AFTER REPAIR PROCEDURE". (see **AFTER REPAIR PROCEDURE [MZI-3.5]** .)

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N-m (kgf-cm, in-lbf)

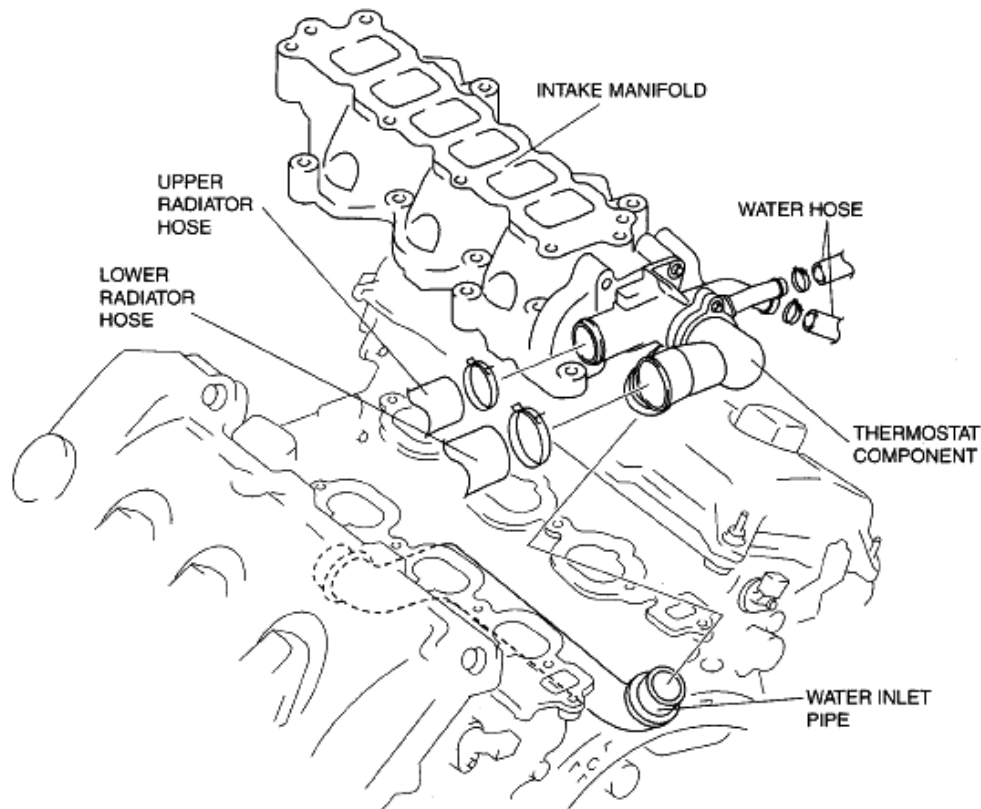
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1	Air cleaner case
2	Fresh-air duct
3	Air cleaner element
4	MAF/IAT sensor connector
5	Air cleaner cover
6	Vacuum hose (to master back)
7	Ventilation hose (See QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [MZI-3.5].)
8	Resonance chamber
9	TP sensor connector
10	Throttle body
11	Vacuum hose (to purge solenoid valve) (See QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [MZI-3.5].)

12	Vacuum hose (to master back)
13	Dynamic chamber (See Dynamic Chamber Installation Note.)
14	Fuel hose (See QUICK RELEASE CONNECTOR (FUEL SYSTEM) REMOVAL/INSTALLATION [MZI-3.5].)
15	Fuel distributor (See FUEL INJECTOR REMOVAL/INSTALLATION [MZI-3.5].)
16	Intake manifold (See Intake Manifold Removal Note.) (See Intake Manifold Installation Note.)

Fig. 4: Identifying Intake-Air System Components With Torque Specifications

1. Drain the engine coolant. (see **ENGINE COOLANT REPLACEMENT [MZI-3.5]** .)
2. Disconnect the upper radiator hose.



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Fig. 5: Identifying Intake Manifold Components

3. Disconnect the lower radiator hose.
4. Disconnect the two water hose from the thermostat component.
5. Disconnect the thermostat component side of the water inlet pipe which is under the intake manifold.
6. Remove the intake manifold and thermostat component as a single unit.
7. Remove the thermostat component from the intake manifold.

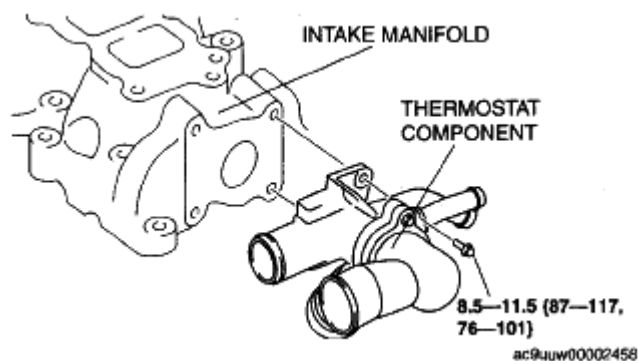


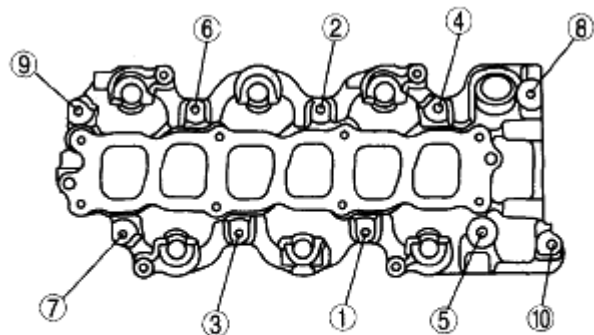
Fig. 6: Identifying Thermostat Components With Torque Specifications

INTAKE MANIFOLD INSTALLATION NOTE

1. Tighten the intake manifold installation bolts in the order shown.

Intake manifold installation bolt tightening torque

8.5-11.5 N.m {87-117 kgf.cm, 76-101 in.lbf}



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Fig. 7: Identifying Intake Manifold Bolt Tightening Sequence

DYNAMIC CHAMBER INSTALLATION NOTE

1. Tighten the dynamic chamber installation bolts in the order shown.

Dynamic chamber installation bolt tightening torque

8.5-11.5 N.m {87-117 kgf.cm, 76-101 in.lbf}

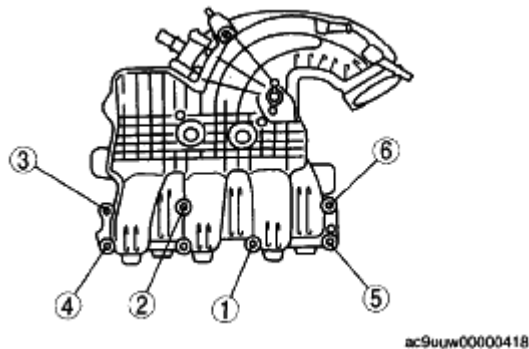


Fig. 8: Identifying Dynamic Chamber Bolt Tightening Sequence

AIR CLEANER ELEMENT INSPECTION [MZI-3.5]

1. Remove the air cleaner element. (See **INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [MZI-3.5].**)
2. Verify that the air cleaner element surface is free of dirt.
 - If there is dirt, use an air gun or similar tool to clean the element.
 - If the replacement time limit has passed, replace the element.

THROTTLE BODY INSPECTION [MZI-3.5]

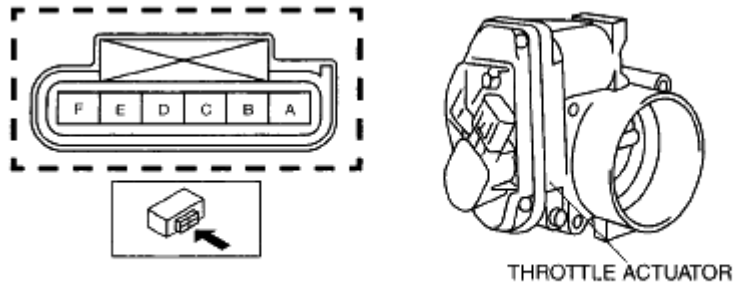
NOTE: • Perform the following inspection only when directed.

RESISTANCE INSPECTION

1. Disconnect the negative battery cable. (see **BATTERY REMOVAL/INSTALLATION [MZI-3.5].** .)
2. Remove the engine cover. (see **ENGINE COVER REMOVAL/INSTALLATION [MZI-3.5].** .)
3. Disconnect the throttle body connector.
4. Measure the resistance between throttle body terminals A and B.
 - If not as specified, replace the throttle body. (See **INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [MZI-3.5].**)
 - If as specified, carry out the "Circuit Open/Short Inspection".

Throttle body resistance

1-900 ohms



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Fig. 9: Identifying Throttle Body Connector Terminals

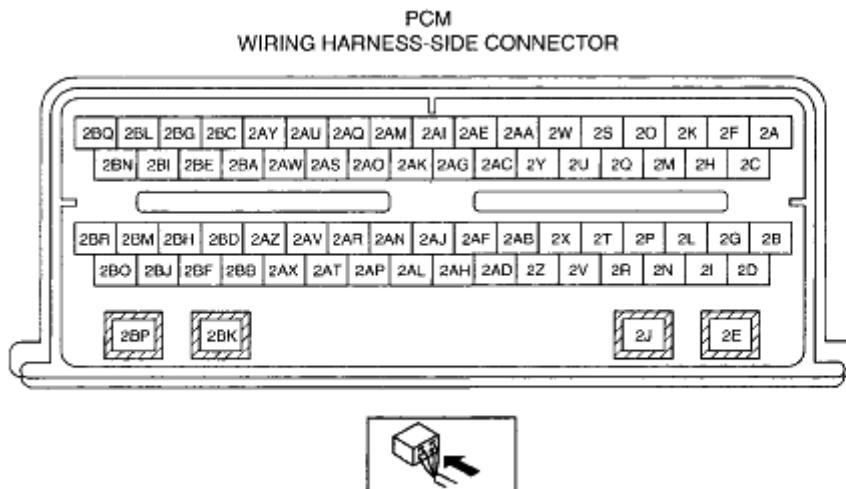
CIRCUIT OPEN/SHORT INSPECTION

1. Disconnect the PCM connector.
2. Inspect the following wiring harnesses for open or short (continuity check).



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Fig. 10: Identifying Throttle Body Connector Terminals



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Fig. 11: Identifying PCM Connector Terminals

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Open circuit

- If there is no continuity, the circuit is open. Repair or replace the wiring harness.
 - Throttle body terminal A and PCM terminal 2BO
 - Throttle body terminal B and PCM terminal 2BR

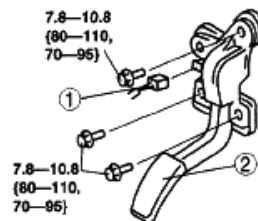
Short circuit

- If there is continuity, the circuit is shorted. Repair or replace the wiring harness.
 - Throttle body terminal A and power supply
 - Throttle body terminal A and ground
 - Throttle body terminal B and power supply
 - Throttle body terminal B and ground

ACCELERATOR PEDAL REMOVAL/INSTALLATION [MZI-3.5]

1. Disconnect the negative battery cable. (see **BATTERY REMOVAL/INSTALLATION [MZI-3.5]** .)
2. Remove the dashboard under cover (Driver side). (see **DASHBOARD UNDER COVER REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.
4. Install in the reverse order of removal.

1	Connector
2	Accelerator pedal



N·m (kgf·cm, in·lbf)

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Fig. 12: Identifying Accelerator Pedal And Electrical Connector With Torque Specifications