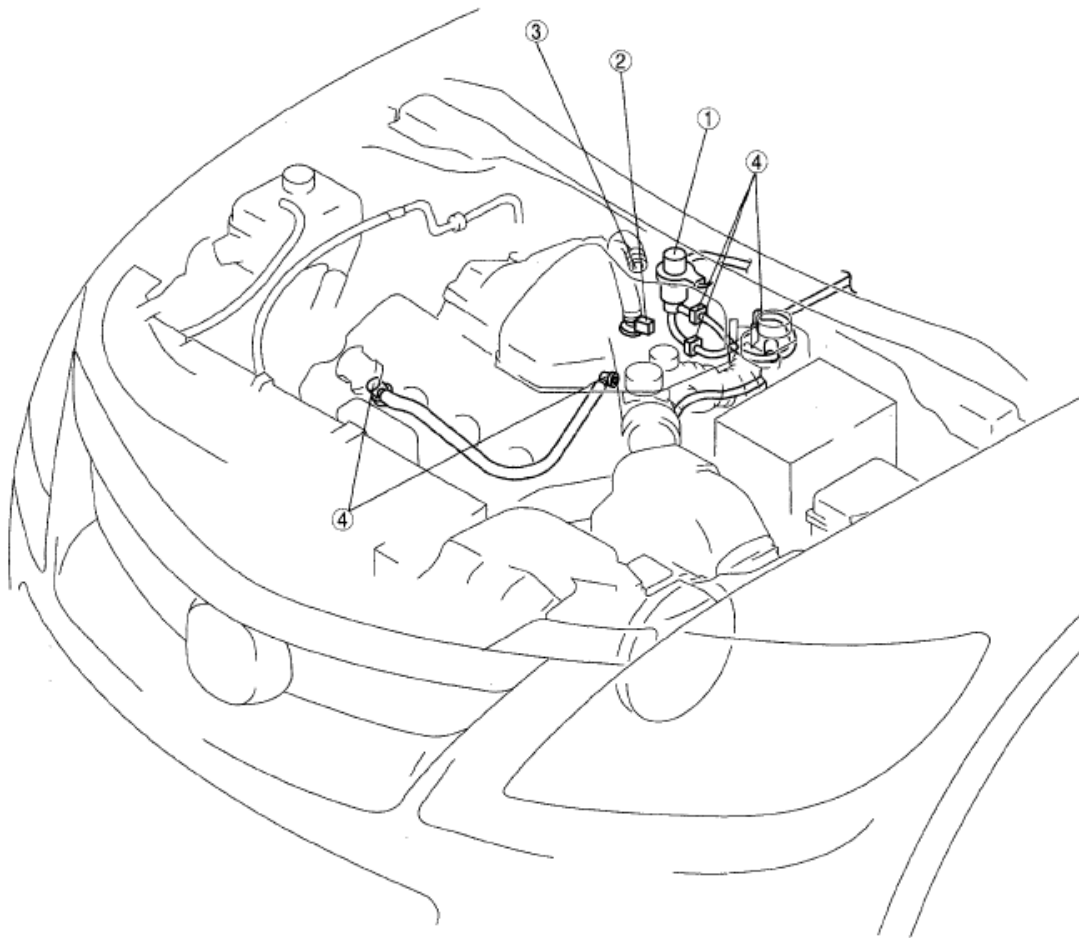


2008 ENGINE PERFORMANCE

Emission System (MZI-3.7) - Mazda CX-9

EMISSION SYSTEM LOCATION INDEX [MZI-3.7]

ENGINE COMPARTMENT SIDE



ac9uzw0000136

1	<p>Purge solenoid valve (See 01-16-9 PURGE SOLENOID VALVE REMOVAL/INSTALLATION [MZI-3.7].) (See 01-16-9 PURGE SOLENOID VALVE INSPECTION [MZI-3.7].)</p>
2	<p>PCV valve (See 01-16-13 POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/INSTALLATION [MZI-3.7].) (See 01-16-11 POSITIVE CRANKCASE VENTILATION (PCV) VALVE INSPECTION [MZI-3.7].)</p>

3	<p>PCV valve heater fitting (See 01-16-15 POSITIVE CRANKCASE VENTILATION (PCV) VALVE HEATER FITTING REMOVAL/INSTALLATION [MZI-3.7].) (See 01-16-14 POSITIVE CRANKCASE VENTILATION (PCV) VALVE HEATER FITTING INSPECTION [MZI-3.7].)</p>
4	<p>Quick release connector (See 01-16-16 QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [MZI-3.7].)</p>

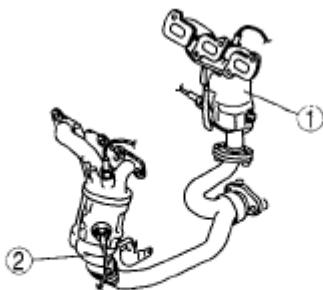
**Fig. 1: Identifying Purge Solenoid Valve, PCV Valve, PCV Valve Heater Fitting And Quick Release Connector**

Courtesy of MAZDA MOTORS CORP.

## 2008 Mazda CX-9 Grand Touring

2008 ENGINE PERFORMANCE Emission System (MZI-3.7) - Mazda CX-9

### EXHAUST SYSTEM SIDE



ac9uuw0000179

1	WU-TWC (RH)
2	WU-TWC (LH)

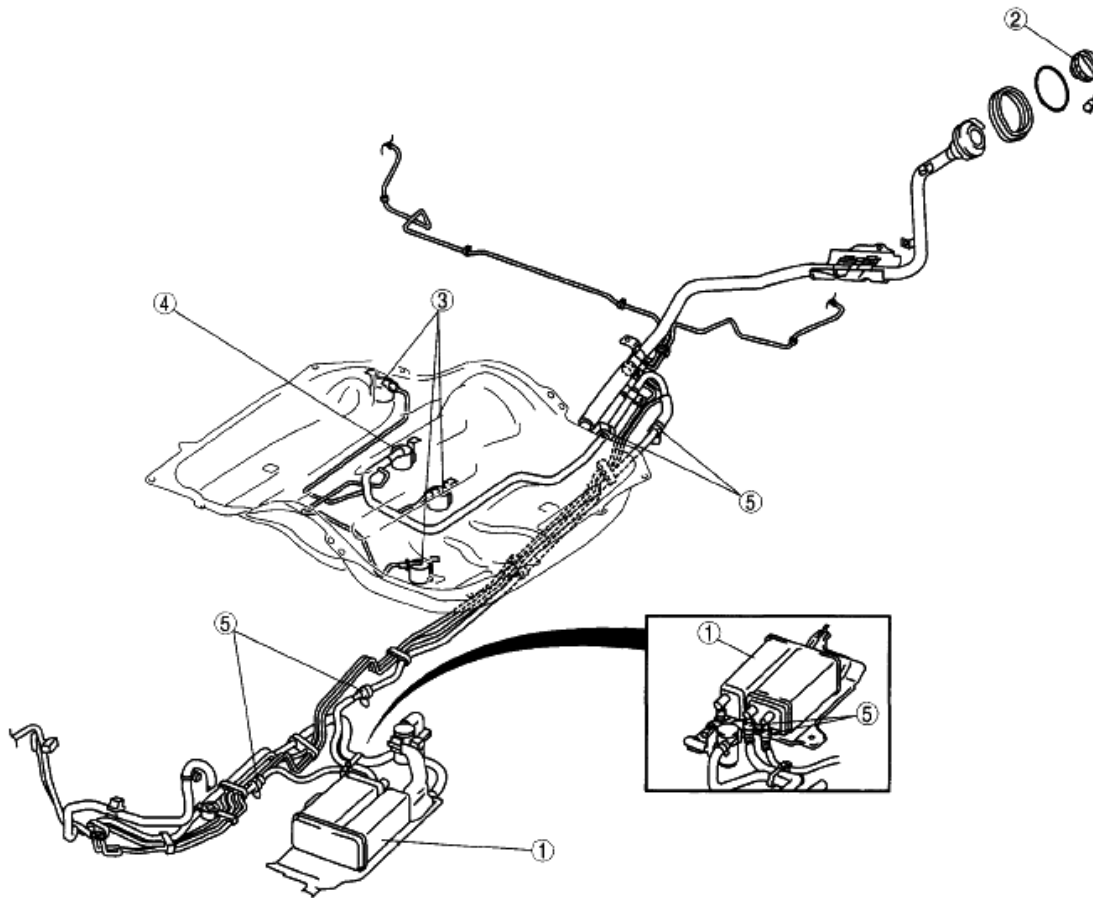
**Fig. 2: Identifying Exhaust System Side**  
Courtesy of MAZDA MOTORS CORP.

### FUEL TANK SIDE

2WD

**2008 Mazda CX-9 Grand Touring**

2008 ENGINE PERFORMANCE Emission System (MZI-3.7) - Mazda CX-9



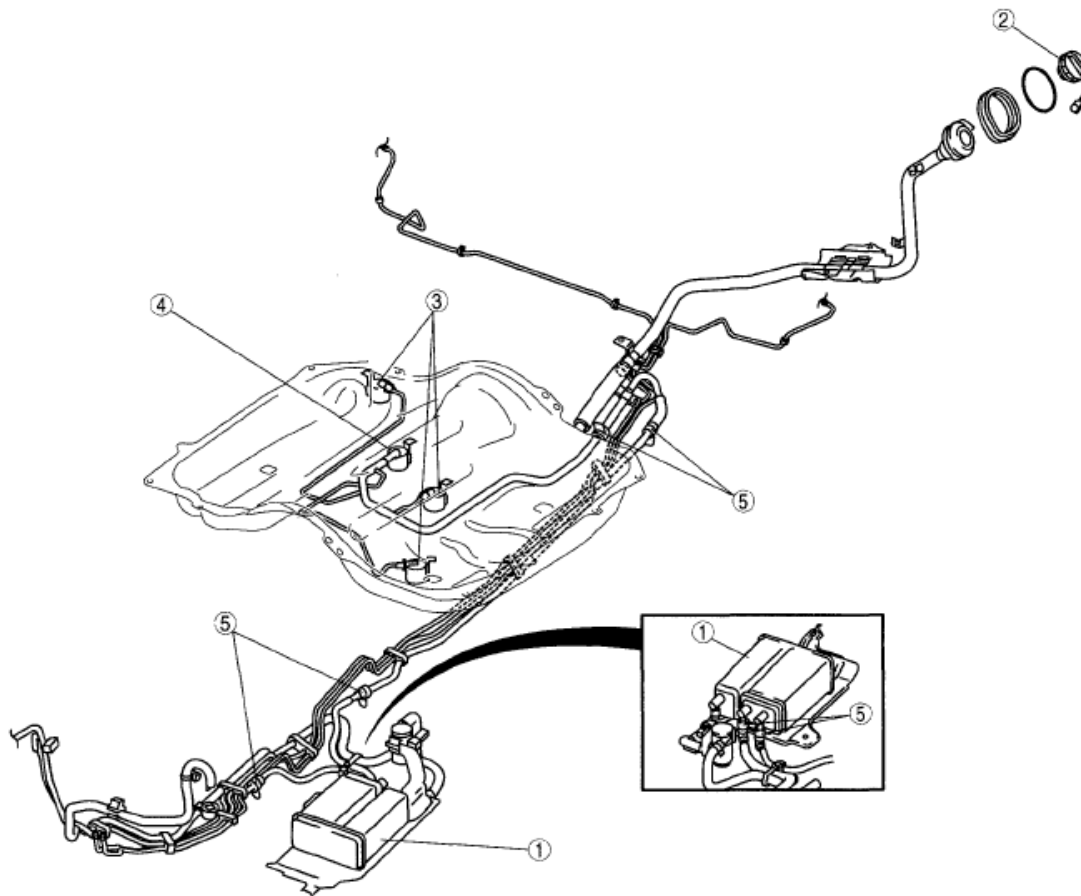
ac8uuw00000267

**Fig. 3: Identifying Fuel Tank Side - 2WD**  
Courtesy of MAZDA MOTORS CORP.

AWD

## 2008 Mazda CX-9 Grand Touring

2008 ENGINE PERFORMANCE Emission System (MZI-3.7) - Mazda CX-9



ac9tuzw0000268

1	Charcoal canister, CV solenoid valve, air filter component (See 01-16-7 CHARCOAL CANISTER, CANISTER VENT (CV) SOLENOID VALVE, AIR FILTER COMPONENT REMOVAL/INSTALLATION [MZI-3.7].) (See 01-16-7 CHARCOAL CANISTER, CANISTER VENT (CV) SOLENOID VALVE, AIR FILTER COMPONENT INSPECTION [MZI-3.7].)
2	Fuel-filler cap (See 01-16-6 FUEL-FILLER CAP INSPECTION [MZI-3.7].)

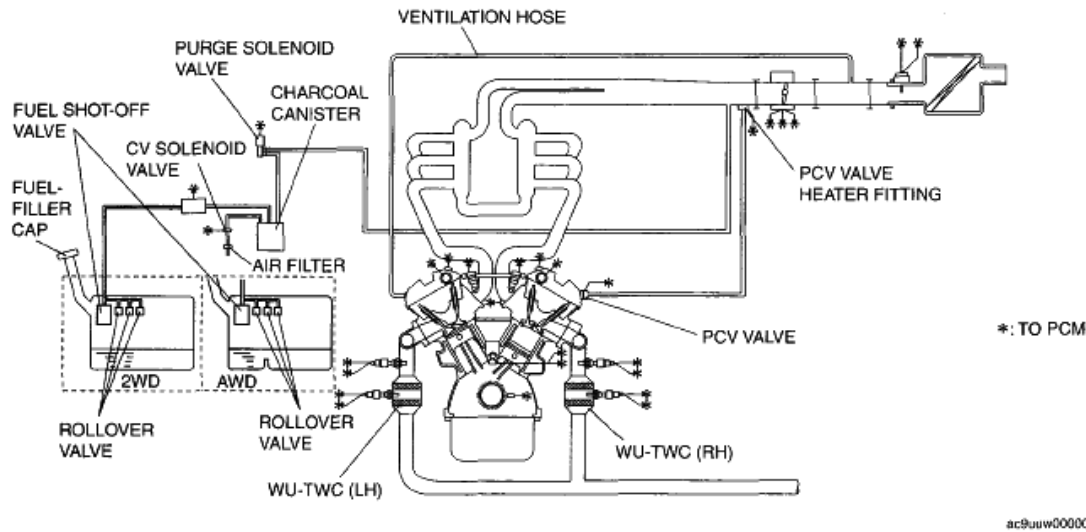
3	Rollover valve (See 01-16-16 ROLLOVER VALVE REMOVAL/INSTALLATION [MZI-3.7].) (See 01-16-16 ROLLOVER VALVE INSPECTION [MZI-3.7].)
4	Fuel shut-off valve (See 01-16-16 FUEL SHUT-OFF VALVE REMOVAL/INSTALLATION [MZI-3.7].) (See 01-16-16 FUEL SHUT-OFF VALVE INSPECTION [MZI-3.7].)
5	Quick release connector (See 01-16-16 QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [MZI-3.7].)

**Fig. 4: Identifying Charcoal Canister, Fuel-Filler Cap, Rollover Valve And Quick Release Connector**  
Courtesy of MAZDA MOTORS CORP.

### EMISSION SYSTEM DIAGRAM [MZI-3.7]

## 2008 Mazda CX-9 Grand Touring

2008 ENGINE PERFORMANCE Emission System (MZI-3.7) - Mazda CX-9



**Fig. 5: Emission System Diagram**

Courtesy of MAZDA MOTORS CORP.

## FUEL-FILLER CAP INSPECTION [MZI-3.7]

### LEAKAGE INSPECTION

1. Perform the following SST (Evaporative Emission System Tester 134-01049) self-test:

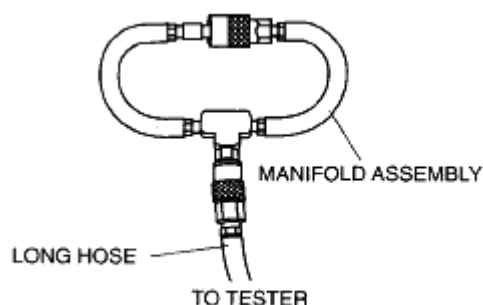
#### NOTE:

- If the tester does not work correctly during self-test, refer to the tester operators manual for more detailed procedures.

1. Verify that the gas cylinder valve is closed and the control valve located on the tester is in the TEST position. All tester displays should be off at this time.
2. Connect the long hose (part of SST ) to the tester.
3. Connect the manifold assembly (part of SST ) to the long hose as shown.
4. Open the gas cylinder valve and verify the gas cylinder regulator left gauge reads 69-82 kPa {0.71-0.83 kgf/cm<sup>2</sup> , 10-12 psi}

(preset at factory).

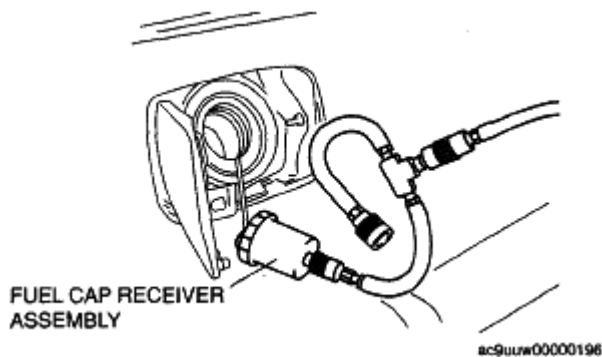
- If not, refer to the tester operators manual to contact tester manufacturer.



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**Fig. 6: Identifying Manifold Assembly And Long Hose**  
Courtesy of MAZDA MOTORS CORP.

5. Press the ON/OFF switch to turn on the **SST** and make sure the left display reads **0.0**.
6. Turn the control valve on the tester to the **FILL** position.
7. Verify the left display reading is **within 13.9 to 14.0** in of water.
  - If not, adjust the pressure using the regulator knob located on the right side of the tester.
8. Turn the control valve to **TEST** position and press the **START** switch.
9. After the **2-min** countdown (left display) is completed, the right display shows the total pressure loss for that period. **A 0.5** in of water loss is acceptable on the self-test.
  - If the loss is **more than 0.5** in of water, do one or more self-test. If the failed test repeats, check for leak using the ultrasonic leak detector (part of **SST**).
2. Press the **RESET** switch to set the left display reading to **0.0**.
3. Connect the fuel cap receiver assembly (part of **SST**) to the manifold assembly and fuel-filler cap from the vehicle.
  - 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 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 leakage. Replace it.



**Fig. 7: Identifying Fuel-Filler Cap Receiver Assembly**  
Courtesy of MAZDA MOTORS CORP.

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.

## **CHARCOAL CANISTER, CANISTER VENT (CV) SOLENOID VALVE, AIR FILTER COMPONENT REMOVAL/INSTALLATION [MZI-3.7]**

1. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [MZI-3.7]** .)

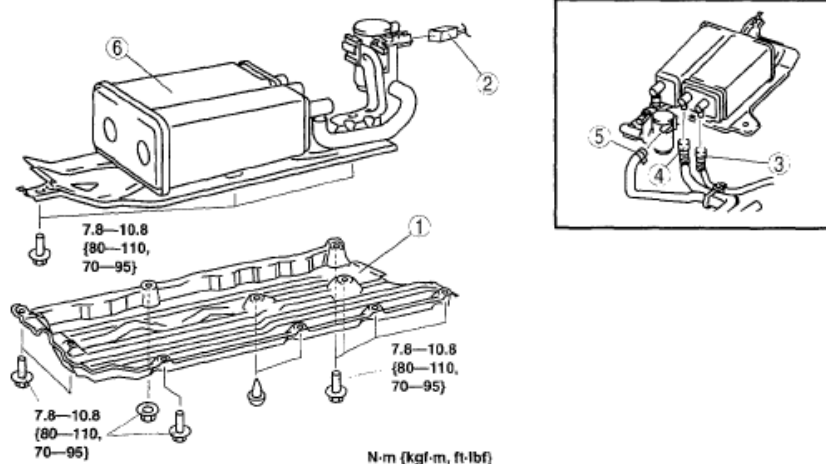
**NOTE:**

- Remove the charcoal canister, CV solenoid valve, and air filter as a single unit.

2. Remove in the order indicated in the table.
3. Install in the reverse order of removal.

## 2008 Mazda CX-9 Grand Touring

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ac9uuw00000312

1	Under guard (LH)
2	CV solenoid valve connector
3	Quick release connector (See 01-16-16 QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [MZI-3.7].)

4	Quick release connector (See 01-16-16 QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [MZI-3.7].)
5	Evaporative hose
6	Charcoal canister, CV solenoid valve, air filter component

**Fig. 8: Identifying Quick Release Connector, Evaporative Hose, Charcoal Canister & Torque Specifications**

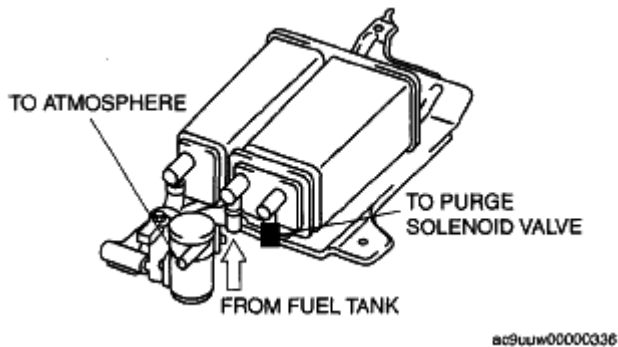
Courtesy of MAZDA MOTORS CORP.

## CHARCOAL CANISTER, CANISTER VENT (CV) SOLENOID VALVE, AIR FILTER COMPONENT INSPECTION [MZI-3.7]

### AIRFLOW INSPECTION

1. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [MZI-3.7]** .)
2. Remove the charcoal canister, CV solenoid valve, air filter component. (See **CHARCOAL CANISTER, CANISTER VENT (CV) SOLENOID VALVE, AIR FILTER COMPONENT REMOVAL/INSTALLATION [MZI-3.7]**.)
3. Plug the purge solenoid valve side of the charcoal canister.
4. Pressurizing from the fuel tank side of the charcoal canister, verify that there is no leak from the charcoal canister and that the CV solenoid valve is closed.
  - If malfunction, replace the charcoal canister, CV solenoid valve, air filter component. (See **CHARCOAL CANISTER, CANISTER VENT (CV) SOLENOID VALVE, AIR FILTER COMPONENT REMOVAL/INSTALLATION [MZI-3.7]**.)





**Fig. 9: Identifying Purge Solenoid Valve And Fuel Tank**  
Courtesy of MAZDA MOTORS CORP.

5. Connect the battery positive voltage to CV solenoid valve terminal A.
6. Pressurizing from the fuel tank side of the charcoal canister, verify that the CV solenoid valve is open and that there is airflow through the air filter.
  - If malfunction, replace the charcoal canister, CV solenoid valve, air filter component. (See **CHARCOAL CANISTER, CANISTER VENT (CV) SOLENOID VALVE, AIR FILTER COMPONENT REMOVAL/INSTALLATION** [MZI-3.7].)



**Fig. 10: Identifying CV Solenoid Valve Wiring Harness-Side Connector**  
Courtesy of MAZDA MOTORS CORP.

7. Pressurizing from the air filter side, verify that the CV solenoid valve is open and that there is airflow through the air filter.
  - If malfunction, replace the charcoal canister, CV solenoid valve, air filter component. (See **CHARCOAL CANISTER, CANISTER VENT (CV) SOLENOID VALVE, AIR FILTER COMPONENT REMOVAL/INSTALLATION** [MZI-3.7].)

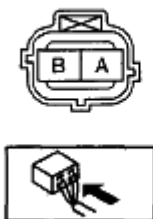
### CV SOLENOID VALVE CIRCUIT OPEN/SHORT INSPECTION

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

## 2008 Mazda CX-9 Grand Touring

2008 ENGINE PERFORMANCE Emission System (MZI-3.7) - Mazda CX-9

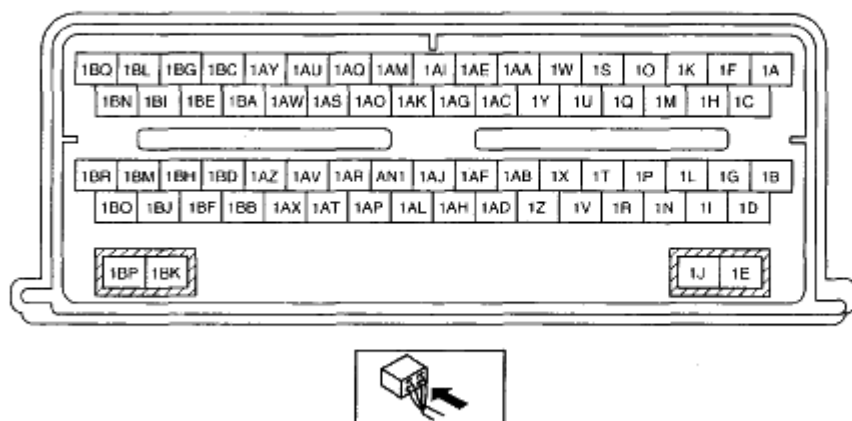
CV SOLENOID VALVE  
WIRING HARNESS-SIDE CONNECTOR



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**Fig. 11: Identifying CV Solenoid Valve Wiring Harness-Side Connector**  
Courtesy of MAZDA MOTORS CORP.

PCM  
WIRING HARNESS-SIDE CONNECTOR



ac9uuw00001007

**Fig. 12: Identifying PCM Wiring Harness-Side Connector**  
Courtesy of MAZDA MOTORS CORP.

### Open circuit

- If there is no continuity, there is an open circuit. Repair or replace the wiring harness.
  - CV solenoid valve terminal B and PCM terminal 1Z
  - CV solenoid valve terminal A and battery

### Short circuit

- If there is continuity, there is a short circuit. Repair or replace the wiring harness
  - CV solenoid valve terminal B and power supply
  - CV solenoid valve terminal B and body ground

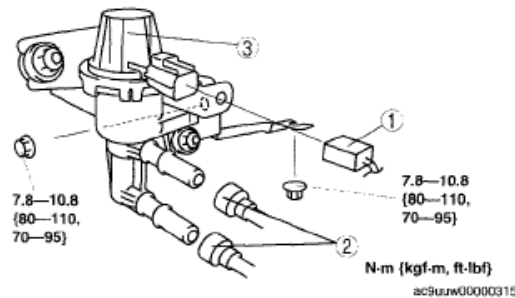
## PURGE SOLENOID VALVE REMOVAL/INSTALLATION [MZI-3.7]

## 2008 Mazda CX-9 Grand Touring

2008 ENGINE PERFORMANCE Emission System (MZI-3.7) - Mazda CX-9

1. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [MZI-3.7]** .)
2. Remove in the order indicated in the table.

1	Purge solenoid valve connector
2	Quick release connector (See 01-16-16 QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [MZI-3.7].)
3	Purge solenoid valve



**Fig. 13: Identifying Purge Solenoid Valve & Torque Specifications**  
Courtesy of MAZDA MOTORS CORP.

3. Install in the reverse order of removal.

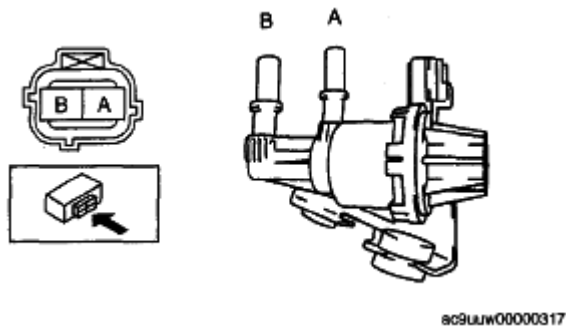
## PURGE SOLENOID VALVE INSPECTION [MZI-3.7]

### AIRFLOW INSPECTION

1. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [MZI-3.7]** .)
2. Disconnect the quick release connector from the purge solenoid valve. (See **QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [MZI-3.7]**.)
3. Remove the purge solenoid valve. (See **PURGE SOLENOID VALVE REMOVAL/INSTALLATION [MZI-3.7]**.)
4. Verify that the airflow is as indicated in the table.
  - If as specified in the table, perform the "Circuit Open/Short Inspection".
  - If not as specified in the table, inspect the purge solenoid valve.

### CONTINUITY CHART

Measured condition	Continuity between 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

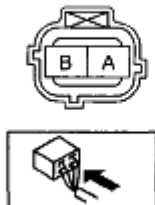


**Fig. 14: Identifying Purge Solenoid Valve Connector**  
Courtesy of MAZDA MOTORS CORP.

### CIRCUIT OPEN/SHORT INSPECTION

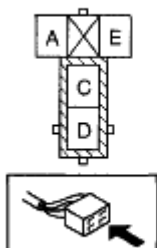
1. Disconnect the PCM connector.
2. Inspect the following wiring harness for an open or short circuit (continuity check).

PURGE SOLENOID VALVE  
WIRING HARNESS-SIDE CONNECTOR



**Fig. 15: Identifying Purge Solenoid Valve Wiring Harness-Side Connector**  
Courtesy of MAZDA MOTORS CORP.

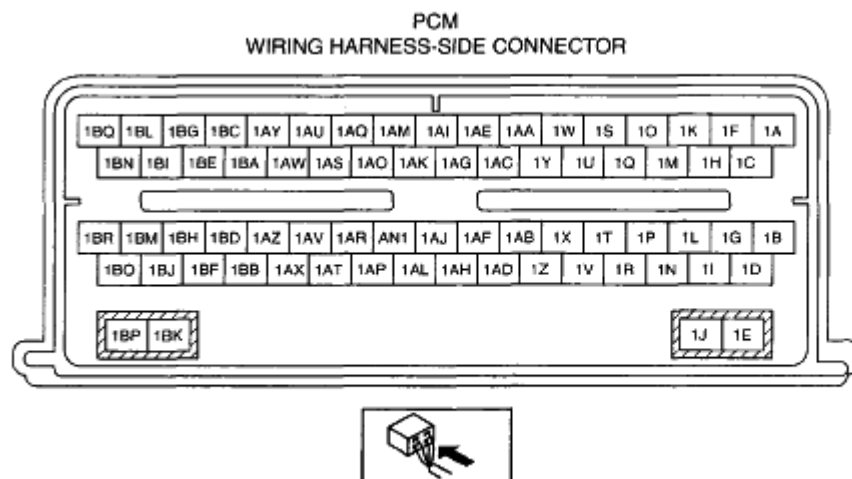
FUSE BOX  
(MAIN RELAY NO.1)



**Fig. 16: Identifying PCM Wiring Harness-Side Connector**  
Courtesy of MAZDA MOTORS CORP.

## 2008 Mazda CX-9 Grand Touring

2008 ENGINE PERFORMANCE Emission System (MZI-3.7) - Mazda CX-9



**Fig. 17: Identifying PCV Valve Heater Control**  
Courtesy of MAZDA MOTORS CORP.

### Open circuit

- If there is no continuity, the circuit is open. Repair or replace the harness.
  - Purge solenoid valve terminal A and main relay No.1 terminal D
  - Purge solenoid valve terminal B and PCM terminal 1 BC

### Short circuit

- If there is continuity, the circuit is short. Repair or replace the harness.
  - Purge solenoid valve terminal A and power supply
  - Purge solenoid valve terminal A and body ground
  - Purge solenoid valve terminal B and power supply
  - Purge solenoid valve terminal B and body ground

## POSITIVE CRANKCASE VENTILATION (PCV) VALVE INSPECTION [MZI-3.7]

### NOTE:

- The PCV valve cannot be reassembled once it is removed because the tabs will have been broken. Inspect the PCV valve without removing it from the vehicle.

### AIRFLOW INSPECTION

1. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [MZI-3.7]** .)
2. Disconnect the PCV valve hose from the PCV valve. (See **POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/INSTALLATION [MZI-3.7]**.)
3. Verify that there is no airflow when pressure is applied to the PCV valve using a vacuum pump.

- If there is airflow, replace the PCV valve. (See **POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/INSTALLATION [MZI-3.7].**)
4. Verify that there is airflow when vacuum is applied to the PCV valve.
- If there is no airflow, replace the PCV valve. (See **POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/INSTALLATION [MZI-3.7].**)

## RESISTANCE INSPECTION

1. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [MZI-3.7] .**)
2. Remove the engine cover. (See **ENGINE COVER REMOVAL/INSTALLATION [MZI-3.7] .**)
3. Disconnect the PCV valve heater control connector.
4. Measure the resistance between the PCV valve heater control terminals.
  - If within the specification, perform out the "Circuit Open/Short Inspection".
  - If not within the specification, replace the PCV valve. (See **POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/INSTALLATION [MZI-3.7].**)

PCV valve heater control resistance 10-35 ohm



ac9uuw00000584

**Fig. 18: Identifying PCV Valve Heater Control Connector Terminals**  
Courtesy of MAZDA MOTORS CORP.

## CIRCUIT OPEN/SHORT INSPECTION

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

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2008 ENGINE PERFORMANCE Emission System (MZI-3.7) - Mazda CX-9

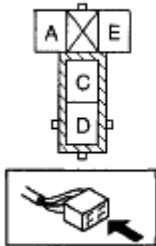
PCV VALVE HEATER CONTROL  
WIRING HARNESS-SIDE CONNECTOR



ac9uuw00001010

**Fig. 19: Identifying PCV Valve Heater Control Wiring Harness Side Connector**  
Courtesy of MAZDA MOTORS CORP.

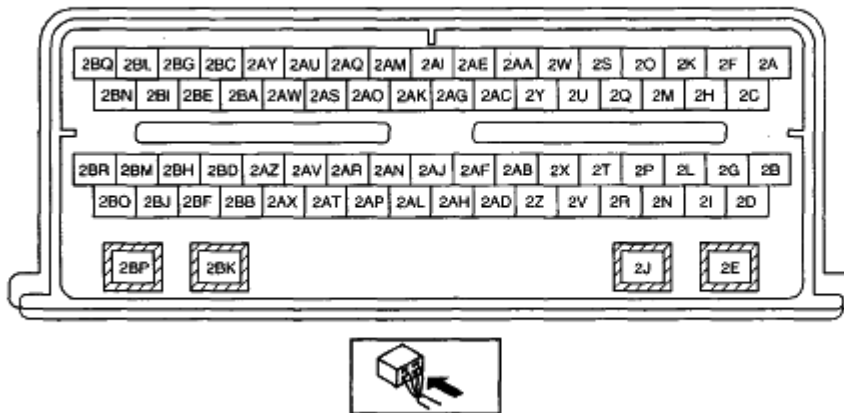
FUSE BOX  
(MAIN RELAY NO.1)



ac9uuw00001020

**Fig. 20: Identifying Fuse Box (Main Relay No.1)**  
Courtesy of MAZDA MOTORS CORP.

PCM  
WIRING HARNESS-SIDE CONNECTOR



ac9uuw00000585

**Fig. 21: Identifying PCM Wiring Harness Side Connector**  
Courtesy of MAZDA MOTORS CORP.

Open circuit

- If there is no continuity, there is an open circuit. Repair or replace the wiring harness.
  - PCV valve heater control terminal A and main relay No.1 terminal D
  - PCV valve heater control terminal B and PCM terminal 2BL

#### **Short circuit**

- If there is continuity, there is a short circuit. Repair or replace the wiring harness.
  - PCV valve heater control terminal A and power supply
  - PCV valve heater control terminal A and body ground
  - PCV valve heater control terminal B and power supply
  - PCV valve heater control terminal B and body ground

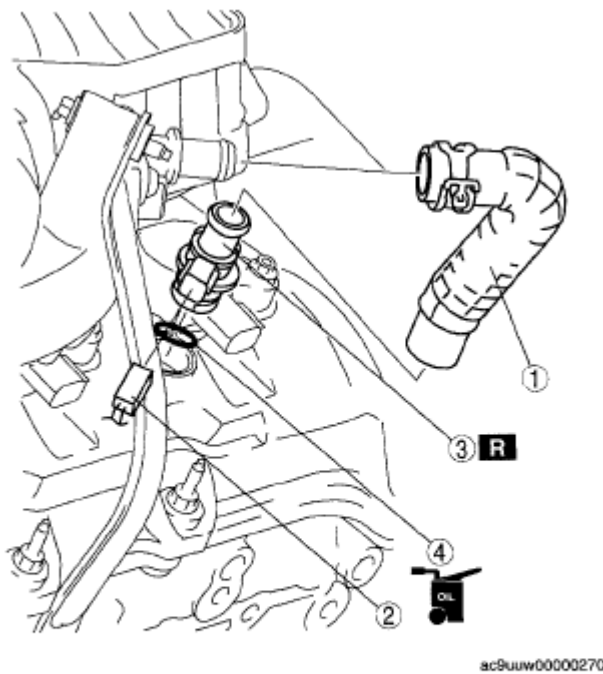
### **POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/INSTALLATION [MZI-3.7]**

#### **CAUTION:**

- A new PCV valve must be installed if removed from the cylinder head cover.
- Upon removal, damage will occur to the locking mechanism on the PCV valve.

1. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [MZI-3.7]** .)
2. Remove in the order indicated in the table.





1	PCV valve hose
2	PCV valve heater control connector
3	PCV valve
4	O-ring

**Fig. 22: Identifying PCV Valve Hose, PCV Valve Heater Control Connector, PCV Valve And O-Ring**  
 Courtesy of MAZDA MOTORS CORP.

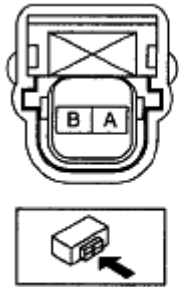
3. Install in the reverse order of removal.

## POSITIVE CRANKCASE VENTILATION (PCV) VALVE HEATER FITTING INSPECTION [MZI-3.7]

### RESISTANCE INSPECTION

1. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [MZI-3.7]** .)
2. Disconnect the PCV valve heater fitting connector.
3. Measure the resistance between the PCV valve terminals.
  - If within the specification, perform out the "Circuit Open/Short Inspection".
  - If not within the specification, replace the PCV valve heater fitting. (See **POSITIVE CRANKCASE VENTILATION (PCV) VALVE HEATER FITTING REMOVAL/INSTALLATION [MZI-3.7]**.)

**PCV valve heater fitting resistance 10-35 ohms**



ac9uuw00001011

**Fig. 23: Identifying PCV Valve Heater Connector Terminal**  
Courtesy of MAZDA MOTORS CORP.

### CIRCUIT OPEN/SHORT INSPECTION

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

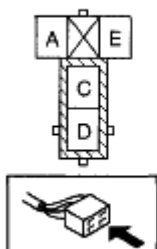
PCV VALVE HEATER FITTING  
WIRING HARNESS-SIDE CONNECTOR



ac9uuw00000586

**Fig. 24: Identifying PCV Valve Heater Control Wiring Harness Side Connector**  
Courtesy of MAZDA MOTORS CORP.

FUSE BOX  
(MAIN RELAY NO.1)

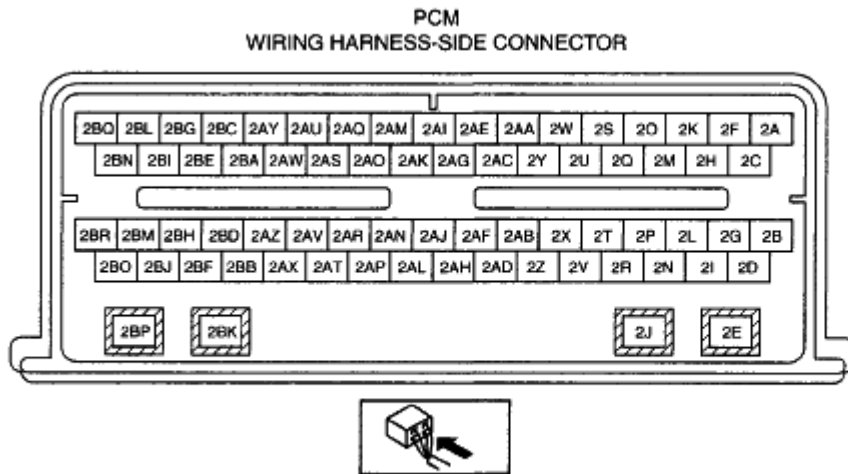


ac9uuw00001020

**Fig. 25: Identifying Fuse Box (Main Relay No.1)**  
Courtesy of MAZDA MOTORS CORP.

## 2008 Mazda CX-9 Grand Touring

2008 ENGINE PERFORMANCE Emission System (MZI-3.7) - Mazda CX-9



ac9uuw0000587

**Fig. 26: Identifying PCM Wiring Harness Side Connector**  
Courtesy of MAZDA MOTORS CORP.

### Open circuit

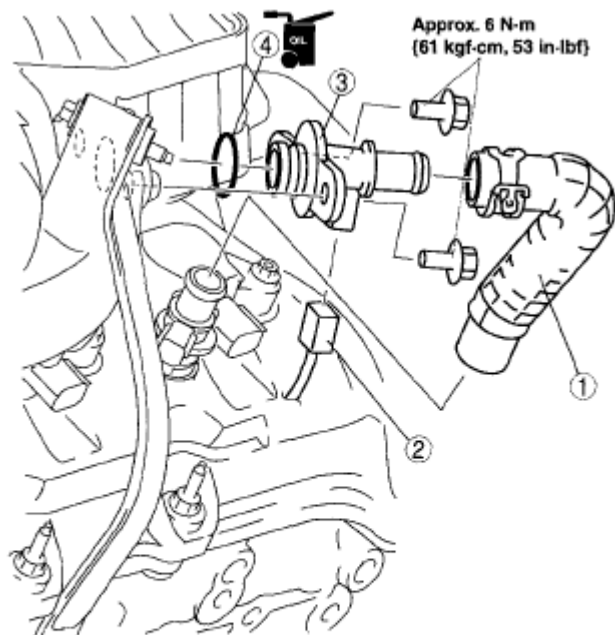
- If there is no continuity, there is an open circuit. Repair or replace the wiring harness.
  - PCV valve heater fitting terminal A and main relay No.1 terminal D
  - PCV valve heater fitting terminal B and PCM terminal 2AU

### Short circuit

- If there is continuity, there is a short circuit. Repair or replace the wiring harness.
  - PCV valve heater fitting terminal A and power supply
  - PCV valve heater fitting terminal A and body ground
  - PCV valve heater fitting terminal B and power supply
  - PCV valve heater fitting terminal B and body ground

## POSITIVE CRANKCASE VENTILATION (PCV) VALVE HEATER FITTING REMOVAL/INSTALLATION [MZI-3.7]

1. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [MZI-3.7]** .)
2. Remove in the order indicated in the table.



ac9uuw0000573

1	PCV valve hose
2	PCV valve heater fitting connector
3	PCV valve heater fitting
4	O-ring

**Fig. 27: Identifying PCV Valve Hose, PCV Valve Heater Control Connector, PCV Valve, O-Ring & Torque Specifications**

Courtesy of MAZDA MOTORS CORP.

3. Install in the reverse order of removal.

## ROLLOVER VALVE REMOVAL/INSTALLATION [MZI-3.7]

- NOTE:**
- The rollover valve cannot be removed as it is built into the fuel tank.

## ROLLOVER VALVE INSPECTION [MZI-3.7]

- NOTE:**
- The rollover valve cannot be disassembled and inspected as it is built into the fuel tank.

1. Perform the fuel tank inspection. (See [FUEL TANK INSPECTION \[MZI-3.7\]](#) .)

## FUEL SHUT-OFF VALVE REMOVAL/INSTALLATION [MZI-3.7]

- NOTE:**
- The fuel shut-off valve cannot be removed as it is built into the fuel tank.

## FUEL SHUT-OFF VALVE INSPECTION [MZI-3.7]

### 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 \[MZI-3.7\]](#) .)

## QUICK RELEASE CONNECTOR (EMISSION SYSTEM) REMOVAL/INSTALLATION [MZI-3.7]

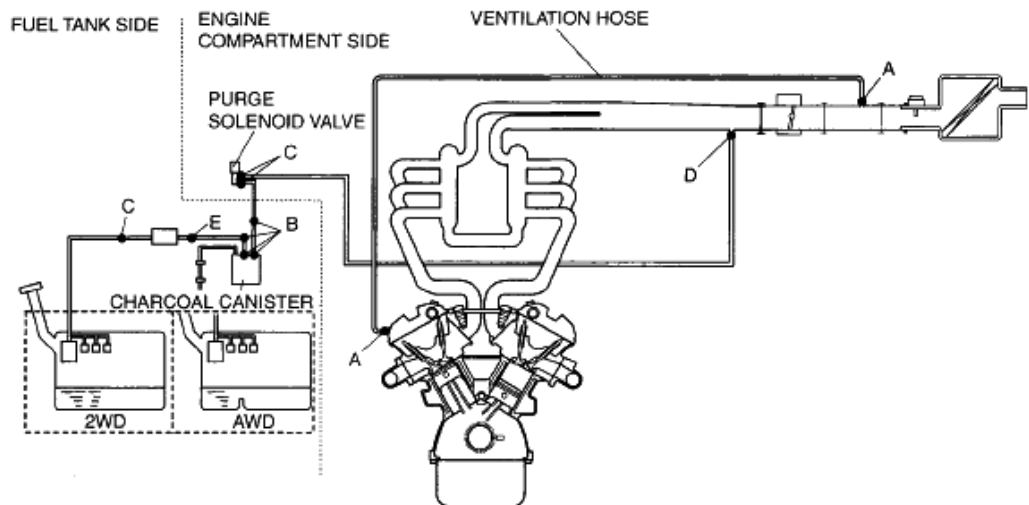
### WARNING:

- Fuel is very flammable liquid. If fuel spills or leaks from the pressurized fuel system, it will cause serious injury or death and facility breakage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure", while referring to the "BEFORE SERVICE PRECAUTION".

### QUICK RELEASE CONNECTOR TYPE

### CAUTION:

- There are five types of quick release connectors. Verify the type and location, and install/remove properly.



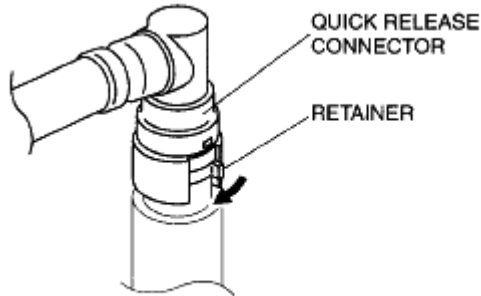
ac9uuw00

**Fig. 28: Identifying Engine Compartment Side And Ventilation Hose**  
Courtesy of MAZDA MOTORS CORP.

### TYPE A REMOVAL

1. Release the retainer shown in the figure.
2. Disconnect the quick release connector.

3. Cover the disconnected quick release connector and fuel pipe with vinyl sheeting or a similar material to prevent it from scratches or dirt.



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**Fig. 29: Identifying Quick Release Connector And Retainer**  
Courtesy of MAZDA MOTORS CORP.

#### TYPE B REMOVAL NOTE

**NOTE:**

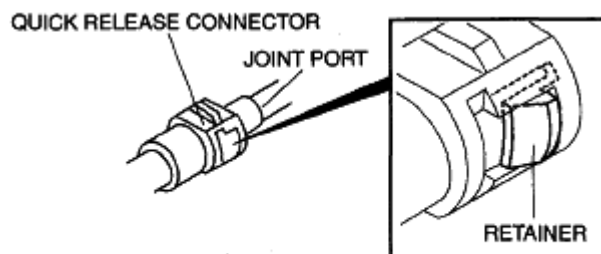
- If the quick release connector is removed, replace the retainer with a new one.

1. Push the retainer.

**NOTE:**

- The quick release connector can be removed by pushing the center of the retainer tabs.
- The retainer is attached to the pipe even after the connector is disconnected.

2. Pull the connector side and disconnect the quick release connector.
3. Cover the disconnected quick release connector and fuel pipe with vinyl sheeting or a similar material to prevent it from scratches or dirt.

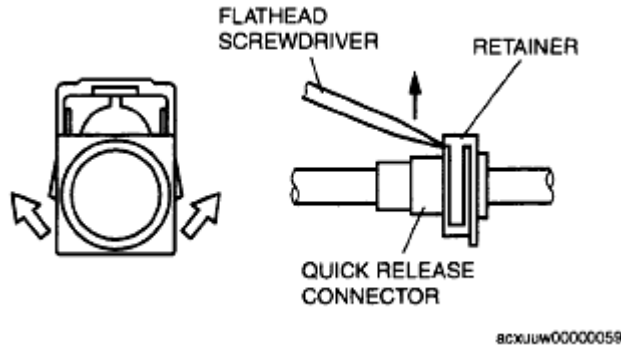


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**Fig. 30: Identifying Quick Release Connector And Retainer**  
Courtesy of MAZDA MOTORS CORP.

### TYPE C REMOVAL

1. Move the retainer upward using a small flathead screwdriver or a similar tool.
2. Pull out the fuel hose straight from the fuel pipe and disconnect it.
3. Cover the disconnected quick release connector and fuel pipe with vinyl sheeting or a similar material to prevent it from scratches or dirt.



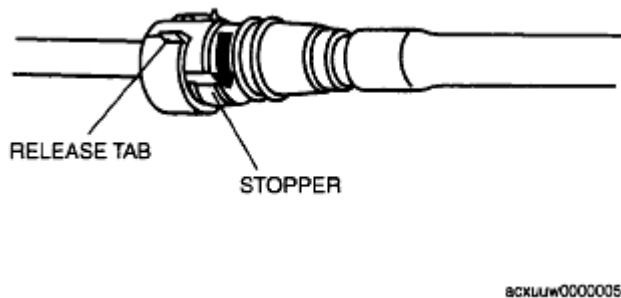
**Fig. 31: Pulling Fuel Hose Straight**  
 Courtesy of MAZDA MOTORS CORP.

### TYPE D REMOVAL

- CAUTION:**
- The quick release connector may be damaged if the release tab is bent excessively. Do not expand the release tab over the stopper.

- NOTE:**
- The fuel hose can be removed by pushing it to the pipe side to release the lock.

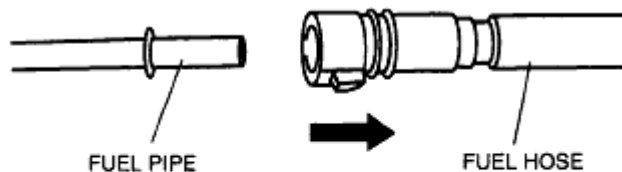
1. Rotate the release tab on the quick release connector to the stopper position.



**Fig. 32: Identifying Release Tab And Stopper**  
 Courtesy of MAZDA MOTORS CORP.

2. Pull out the fuel hose straight from the fuel pipe and disconnect it.
3. Cover the disconnected quick release connector and fuel pipe with vinyl sheeting or a similar material to

prevent it from scratches or dirt.



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**Fig. 33: Identifying Fuel Pipe And Fuel Hose**  
 Courtesy of MAZDA MOTORS CORP.

### TYPE E REMOVAL

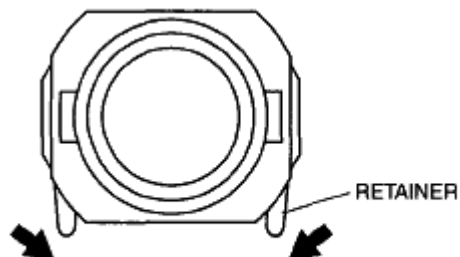
**CAUTION:**

- The quick release connector may be damaged if the release tab is bent excessively. Do not expand the release tab over the stopper.

**NOTE:**

- The fuel hose can be removed by pushing it to the pipe side to release the lock.

1. Release the retainer shown in the figure.
2. Disconnect the quick release connector.
3. Cover the disconnected quick release connector and fuel pipe with vinyl sheeting or a similar material to prevent it from scratches or dirt.



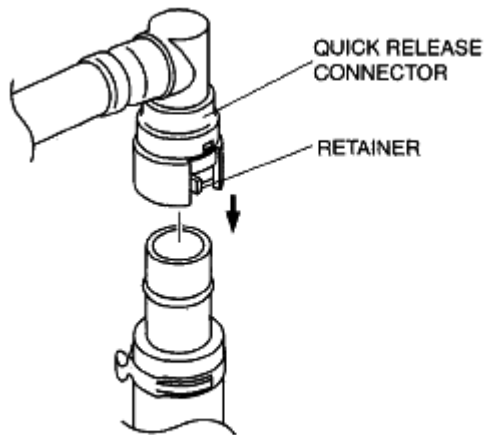
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**Fig. 34: Releasing Retainer**  
 Courtesy of MAZDA MOTORS CORP.

### TYPE A INSTALLATION

1. Inspect the fuel hose and fuel pipe sealing surface for damage and deformation.
  - If there is any malfunction, replace it with a new one.
2. Connect the quick release connector.





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**Fig. 35: Connecting Quick Release Connector**  
Courtesy of MAZDA MOTORS CORP.

#### TYPE B INSTALLATION

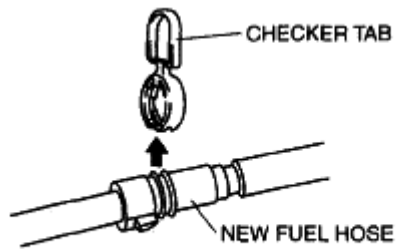
**CAUTION:**

- Be sure to replace the retainer with a new one to prevent gas leakage.
- To prevent evaporative gas leakage, be sure not to damage the connecting part between the charcoal canister and pipe, and the locks between the quick release connector and retainer. If any of them are damaged, replace the charcoal canister or hose with a new one.

**NOTE:**

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

1. Remove the retainer remaining on the charcoal canister pipe.
2. Install a new retainer to the quick release connector.
3. Reconnect the hose straight to the pipe until a click is heard.
4. Lightly pull and push the quick release connector a few times by hand, and then verify that it is connected securely.



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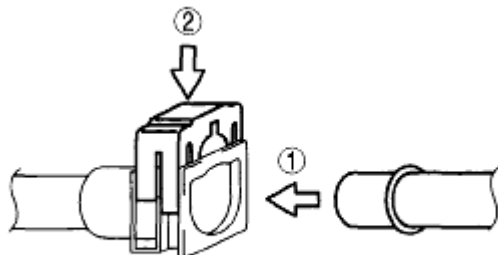
**Fig. 36: Identifying Checker Tab And Fuel Hose**  
Courtesy of MAZDA MOTORS CORP.

### TYPE C INSTALLATION

**NOTE:**

- If the quick release connector O-ring is damaged or has slipped, replace the fuel hose.

1. Inspect the fuel hose and fuel pipe sealing surface for damage and deformation.
  - If there is any malfunction, replace it with a new one.
2. Install the quick release connector.
  - Insert the fuel pipe straight to the end of the quick release connector.
  - Push down the retainer using a finger.
    - If the retainer cannot be pushed down, push the fuel pipe further to the quick release connector.
3. Lightly pull and push the quick release connector a few times by hand, and then verify that it is connected securely.



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**Fig. 37: Installing Quick Release Connector**  
Courtesy of MAZDA MOTORS CORP.

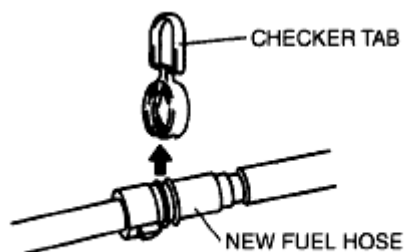
### TYPE D INSTALLATION

**NOTE:**

- If the quick release connector O-ring is damaged or has slipped, replace the fuel hose

- A checker tab is integrated with the quick release connector for new fuel hoses and evaporative hoses. Remove the checker tab from the quick release connector after the connector is completely engaged with the fuel pipe.

1. Inspect the fuel hose and fuel pipe sealing surface for damage and deformation.
  - If there is any malfunction, replace it with a new one.



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**Fig. 38: Identifying Quick Release Connector And Retainer**  
 Courtesy of MAZDA MOTORS CORP.

2. Apply a small amount of clean engine oil to the sealing surface of the fuel pipe.
3. Reconnect the fuel hose straight to the fuel pipe until a click is heard.

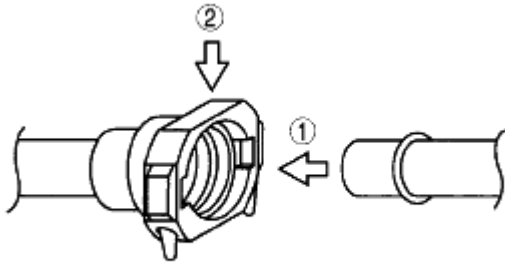
**NOTE:**

- If the quick release connector does not move at all, disconnect it, verify that the O-ring is not damaged or has not slipped, and then reconnect the quick release connector.

4. Lightly pull and push the quick release connector a few times by hand, and then verify that it can move **2.0-3.0 mm {0.08-0.12 in}** and is connected securely.

**TYPE E INSTALLATION**

1. Inspect the fuel hose and fuel pipe sealing surface for damage and deformation.
  - If there is any malfunction, replace it with a new one.
2. Install the quick release connector.
  - Insert the fuel pipe straight to the end of the quick release connector.
  - Push down the retainer using a finger.
    - If the retainer cannot be pushed down, push the fuel pipe further to the quick release connector.
3. Lightly pull and push the quick release connector a few times by hand, and then verify that it is connected securely.



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**Fig. 39: Pushing Quick Release Connector**  
Courtesy of MAZDA MOTORS CORP.